MINFILE NUMBER:	<u>093L 001</u>		NATIONAL MINERAL INVENTORY: 0	93L1 Ag1
NAME(S):	EQUITY SILVER, SAM GOOSLY, S MAIN, WATERLINE, SOUTHERN TA EQUITY, NORTHERN	S.G., NL,		
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L01W	Open Pit	MINING DIVISION: ( UTM ZONE: (	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 11 22 N 126 15 48 W 1300 Metres Within 500M Main ore zone, 4 kilometres east of divide between Foxy Creek on the	f Goosly Lake on the drainage north and Buck Creek on the s	NORTHING: 6 EASTING: 6 south.	6008059 678550
COMMODITIES:	Silver Copper	Gold	Antimony	Arsenic
MINERALS SIGNIFICANT:	Tetrahedrite Chalcopyrite Pyrargyrite Arsenopyrite I Pyrrhotite Specularite	Argentite Sphalerite Magnetite Hematite	Galena Pyrite	
ASSOCIATED. ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Clay Chlorite Spec Andalusite Tourmaline S Also corundum, pyrite and quartz. Argillic Tourmal Unknown	cularite Sericite Pyr Scorzalite linz'n	olusite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Dissemi Replacement Hydroth L01 Subvolcanic Cu-Ag-Au (As Tabular	inated Stockwork nermal Epigenetic s-Sb)	Porphyry	
HOST ROCK DOMINANT HOSTROCK	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	RPHIC/OTHER
Eocene ISOTOPIC AGE: DATING METHOD	57.2 Ma Potassium/Argon	Undenned Formation	Goosly Intrusions	
MATERIAL DATED:	Whole Rock			
LITHOLOGY:	Volcanic Breccia Porphyritic Gabbro Syeno Monzonite Tuff Conglomerate			
HOSTROCK COMMENTS:	A small quartz monzonite stock v Ma. A gabbro-monzonite stock w	west of the deposit was dated vas dated at 48 Ma.	at 57.2	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako F	Plateau
CAPSULE GEOLOGY				
	Silver, copper and deposit. In addition an concentrate and recovere metallurgical difficulti The mineral deposit uplifted Cretaceous age near the midpoint of the strike 015 degrees with correlative with the Low stratigraphic units have is composed of basal con argillite. A middle pyr sequence of tuff, brecci division hosts the main sedimentary-volcanic div conglomerate. The inlie Eocene andesitic to basa	gold are produced from ntimony and arsenic we ed as byproducts; howe ies this process was of the state of the state and the state of the state and the state of the state wer-Upper Skeena(?) Green the proclastic division con- ia and reworked pyroci- mineral deposits. Any vision consists of tur- er is flanked by flat- altic flows and flow flat- and Buck Creek format	om the Equity Silver bere leached from the ever, due to liscontinued. an erosional window of stic and volcanic rocks Strata within the inlier and are in part roup. Three major lower clastic division ole conglomerate and nsists of a heterogeneous lastic debris. This upper ff, sandstone and lying to shallow dipping preccias of the Francois ions)	

Intruding the inlier is a small granitic intrusive (57.2 Ma) on

### CAPSULE GEOLOGY

the west side, and Eocene Goosly Intrusions gabbro-monzonite (48  ${\rm Ma})$  on the east side.

The chief sulphides at the Equity Silver mine are pyrite, chalcopyrite, pyrrhotite and tetrahedrite with minor amounts of galena, sphalerite, argentite, minor pyrargyrite and other silver sulphosalts. These are accompanied by advanced argillic alteration clay minerals, chlorite, specularite and locally sericite, pyrophyllite, andalusite, tourmaline and minor amounts of scorzalite, corundum and dumortierite. The three known zones of significant mineralization are referred to as the Main zone, the Southern Tail zone and the more recently discovered Waterline zone. The ore mineralization is generally restricted to tabular fracture zones roughly paralleling stratigraphy and occurs predominantly as veins and disseminations with massive, coarse-grained sulphide replacement bodies present as local patches in the Main zone. Main zone ores are fine-grained and generally occur as disseminations with a lesser abundance of veins. Southern Tail ores are coarse-grained and occur predominantly as veins with only local disseminated sulphides. The Main zone has a thickness of 60 to 120 metres while the Southern Tail zone is approximately 30 metres thick. An advanced argillic alteration suite includes andalusite, corundum, pyrite, quartz, zone of copper-molybdenum mineralization in a quartz stockwork in and adjacent to the quartz monzonite stock and a large zone of tourmaline-pyrite breccia located to the west and northwest of the Main zone.

Alteration assemblages in the Goosly sequence are characterized by minerals rich in alumina, boron and phosphorous, and show a systematic spatial relationship to areas of mineral deposits. Aluminous alteration is characterized by a suite of aluminous minerals including andalusite, corundum, pyrophyllite and scorzalite. Boron-bearing minerals consisting of tourmaline and dumortierite occur within the ore zones in the hanging wall section of the Goosly sequence. Phosphorous-bearing minerals including scorzalite, apatite, augelite and svanbergite occur in the hanging wall zone, immediately above and intimately associated with sulphide minerals in the Main and Waterline zones. Argillic alteration is characterized by weak to pervasive sericite-quartz replacement. It appears to envelope zones of intense fracturing, with or without chalcopyrite/tetrahedrite mineralization.

The copper-silver-gold mineralization is epigenetic in origin. Intrusive activity resulted in the introduction of hydrothermal metal-rich solutions into the pyroclastic division of the Goosly sequence. Sulphides introduced into the permeable tuffs of the Main and Waterline zones formed stringers and disseminations which grade randomly into zones of massive sulphide. In the Southern Tail zone, sulphides formed as veins, fracture-fillings and breccia zones in brittle, less permeable tuff. Emplacement of post-mineral dikes into the sulphide-rich pyroclastic rocks has resulted in remobilization and concentration of sulphides adjacent to the intrusive contacts. Remobilization, concentration and contact metamorphism of sulphides occurs in the Main and Waterline zones at the contact with the postmineral gabbro-monzonite complex.

The Equity Silver mine was British Columbia's largest producing silver mine.

The Southern Tail deposit has been mined out to the economic limit of an open pit. With its operation winding down, Equity Silver Mines does not expect to continue as an operating mine after current reserves are depleted. Formerly an open pit, Equity is mined from underground at a scaled-down rate of 1180 tonnes-per-day. Proven and probable ore reserves at the end of 1992 were about 286,643 tonnes grading 147.7 grams per tonne silver, 4.2 grams per tonne gold and 0.46 per cent copper, based on a 300 grams per tonne silver-equivalent grade. Equity has also identified a small open-pit resource at the bottom of the Waterline pit which, when combined with underground reserves, should provide mill feed through the first two months of 1994 (Northern Miner - May 10, 1993)

the first two months of 1994 (Northern Miner - May 10, 1993). Equity Silver Mines Ltd. ceased milling in January 1994, after thirteen years of open pit and underground production. Production totalled 2,219,480 kilograms of silver, 15,802 kilograms of gold and 84,086 kilograms of copper, from over 33.8 Million tonnes mined at an average grade of 0.4 per cent copper, 64.9 grams per tonne silver and 0.46 gram per tonne gold.

#### BIBLIOGRAPHY

EMPR AR 1968-137
EMPR ASS RPT 1683, 5346, 6456, 6985, 7166, 7343, 10727, 10869,
13264, 13425, \*14942, \*15374, \*15379, 15710, \*16298, 16770, 18500,
21123

EMPR BC METAL MM00009
EMPR BULL \*64, p. 150
EMPR ENG INSP Annual Report 1989, 1990
EMPR EXPL 1975-138; 1977-189; 1978-215; 1979-224; 1984-321;
1985-310; 1986-349-350; 1987-C300,C301; 1988-C167
EMPR FIELDWORK 1974, p. 79; 1976, p. 55; \*1978, pp. 132-137;
\*1979, pp. 123-125; 1980, pp. 25-31; 1981-229-233; \*1984,
pp. 174-187; 1991, p. 232; 1992, pp. 475-481; \*1997, pp. 23-122-10 23 - 10EMPR GEM 1969-142-148; \*1970-119-128; 1971-168; 1973-335; 1974-255 EMPR GEOL 1976-105; 1977-1981-113-120 EMPR INF CIRC 1993-13, p. 6; 1994-1, pp. 6-7; 1994-19, p. 6; 1995-1, p. 6 EMPR MAP 11; 65 (1989); 69-1 EMPR MIN STATS 1990, pp. 27, 30, 33, 68, 69, 70; 1980-1992, pp. 7, 11; 1980-1993, pp. 16, 21; 1980-1994, pp. 8, 20, 25 EMPR MINING Vol.1 1975-1980; 1981-1985; 1986-1987; 1988 EMPR OF 1992-1; 1992-3; 1994-1; 1995-20, pp. 79-82; 1998-8-E, pp. 1-25 EMPR P \*1990-2 EMPR PF (\*Equity Silver Mines Annual Report 1985; Equity Mining Capital Annual Report 1975; Sam Goosly Project Information Summary, Oct 1975; Preliminary Environmental Impact Study on the Proposed Sam Goosly Project, Feb 1976; Beak Consultants Ltd., An Environmental Baseline Survey for the Sam Goosly Project, March 1974; Beak Consultants Ltd., Sam Goosly Project Stage II Detailed Assessment, Sept 1976; Property description excerpt; Geological notes and field notes; Equity Silver Mines Ltd. site plan, 1982; Wetherell, D.G and Sinclair, A.J. (1979): Preliminary Report on Stratigraphy and Genesis of the Sam Goosly Copper-Silver-Antimony Deposit; Report on Equity Silver Mines Limited, Canadian Research Report, Jan.13, 1982; Titanium in Tailings of Porphyry Deposits in British Columbia, by Y.T.J. Kwong; Monthly report, June 1981, Smithers Office) EMR Canadian Mineral Industry Monthly Report, January 1990 EMR MP CORPFILE (Equity Mining Capital Limited; S.G. Mining Inc.; Granby Mining Corporation; Equity Silver Mines Limited; Placer GSC BULL 270, 73 pp. GSC EC GEOL \*1984, Vol.79, No.5, pp. 947-968 GSC GB Field Excursion 2, pp. 1-13 GSC OF 351 GSC P 72-1A, pp. 39-41 CIM BULL Vol. 83, No. 934, pp. 69-76 (Church, B.N. and Pettipas, A.R. (1990): Interpretation of the Second Derivative of Aeromagnetic Maps at the Silver Queen and Equity Silver Mines, Houston, B.C.) CIM Reporter Oct.30, 1981; Mar. 1982; Sept. 1983; Dec. 1985 p. 84-93 CMJ April 1992 LL #13,#20, 1976; #11, 1977; #232, 1978; #46,#146,#152,#169,#229, 1979; #36,#40,#56,#145,#152,#208, 1980; #34,#38,#80,#146,#206, #212, 1981; #28,#82,#83,#85,#148,#209,#210, 1982; #23,#82,#143, #144, 1983; #12,#31,#39,#81,#146,#240, 1984; #28,#81,#115,#120, #208, 1985; #131,#143,#213, 1986; #38,#55,#222,\*#154, 1988; GCNL #13,#20, 1976; #11, #87(May 6), 1993 #8/(May 6), 1993 MIN REV Nov/Dec, 1981; Mar/Apr, 1982; July/Aug 1982 N MINER Sept 1, 1977; April 27, 1978; March 8, 1979; July 2, Jan 15, Nov 5, 1981; Jan 14, Feb 11, May 6, May 13, Dec 16, 1982; Feb 3, July 28, Oct 20, 1983; Jan 19, Feb 9, March 15, April 5, April 12, May 17, Aug 19, Nov 29, 1984; Feb 14, March 28, April 11, May 2, June 20, July 18, Aug 29, Sept 23, Oct 28, 1985; Jan 6, May 5, Nov 10, 1986; Feb 23, April 6, May 4, Vol.#18, 1987; Feb.15, \*March 28, May 2, Sept.19, 1988; May 15, Aug.21, 1989; Feb.19, Mar.12, Jul.16, Nov.12, 1990; Apr.8, May 13, Aug.19. Feb.15, \*March 28, May 2, Sept.19, 1988; May 15, Aug.21, 1989;
Feb.19, Mar.12, Jul.16, Nov.12, 1990; Apr.8, May 13, Aug.19,
Sept.23, 1991; May 10, 1993
V STOCKWATCH Jul.6, Aug.12, 25, 1988; Apr.4, 10, 1989
W MINER June 1979, p. 47; July 1980, p. 19-22; Dec 1980, p. 10,
June 1981, p. 22; April 1982, p.53-65; June 1982; March 1983;
Aug 1983; Feb 1984, p.65; April 1984
CIM BULL Vol. 69, pp. 88-95 (Church, B.N., Barakso, J.J. and Bowman,
A.F. (1979): Endogenous Distribution of Minor Elements in the
Goosly-Owen Lake Area of Central British Columbia) Goosly-Owen Lake Area of Central British Columbia) CIM BULL Vol.65, pp. 53-64 (Ney, C., Anderson, J.M. and Panteleyev, A. (1972): Discovery, Geologic Setting and Style of Mineralization, Sam Goosly Deposit) ECON GEOL Vol.79, pp. 969-990 (\*Wojdak, P.J. and Sinclair, A.J. (1984): Equity Silver Ag-Cu-Au Deposit; Alteration and Fluid Inclusion Studies) ECON GEOL Vol. 79, pp. 947-968 (\*Cyr, J.B., Pease, R.B. and Schroeter, T.G. (1984): Geology and Mineralization at Equity

Silver Mine)
W MINER, Vol.57, No.4, pp. 50-54 (Kowalchuk, J.M., Church, B.N.,
Bradshaw, P.M.D. and Barakso, J.J. (1984): Lithogeochemistry at the
Equity Silver Mine; August 1981)
WWW http://www.infomine.com/index/properties/EQUITY\_SILVER-MINE.html
Church, B.N. (1993): The North Zone, Equity Silver Mine, EMPR
Unpublished report.
Metals Week Feb 27, 1984
Placer Dome File
Wetherell, D.G. (1979): Geology and Ore Genesis of the Sam Goosly
Copper-Silver-Antimony Deposit, British Columbia, M.Sc. Thesis,
University of British Columbia
Wojdak, P.J. (1974): Alteration of the Sam Goosly Copper-Silver
Deposit, British Columbia, M.Sc. Thesis, University of British
Columbia
EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1988/12/30 CODED BY: GSB REVISED BY: LLD

NAME(S): SILVER QUEEN, SILVER QUEEN, MINE, NADINA, OWNEN LIARE MACKAY, WRINCH, PORTAL MINE HILL, CHARCHAY, WRINCH, COLE, CAMP, EARL, NO. 3, NG STATUS: Past Producer NIS MAP 093L02E LONGTIDE: 126 42 58 W LONGTIDE: 126	MINFILE NUMBER:	<u>093L 002</u>			NATIONAL M	INERAL INVENTOR	Y: 093L2 Ag1
STATUS       Past Producer REGIONS       Duderground       MINING DIVISION:       Omineca         NTS MAP BC MAP	NAME(S):	SILVER QUEEN, SILVER Q OWEN LAKE, MACKAY, W PORTAL, MINE HILL, CHISI COLE, CAMP, EARL, NO. 3, NG	QUEEN MINE, NADIN VRINCH, HOLM,	IA,			
LATTUDE: 54 05 00 N LONGITUDE: 126 42 58 W ELEVATION: 808 Metres LOCATION ACCURACY: Within 500M COMMENT: Portal of the Earl adit, located on the east side of Owen Lake, 32 kilometres south of Houston. COMMODITIES: Zinc Silver Germanium Indium Gallium Bismuth MINERALS SIGNIFICANT: Sphalerite Chalcopyrite Galena Tetrahedrite Tennantite Pyrite Cadmoure Comments Siderite Barite Pyrobitumen COMMENTS: Rare pyrobitumen ALTERATION XCI y Carbonate Chlorite Epidote Pyrite Limonite Jarosite MINERALIZATION AGE: Tertiary DEPOSIT CLASSIFICATIC: Vein CLASSIFICATIC: Vein CLASSIFICATIC: Dispenetic Hydrothermal NORTHING: 5995205 EASTING: 649396 Lead Copper Bismuth Bismuth Bismuth Dispenetic Chalcopyrite Galena Tetrahedrite Tennantite Pyrite Barite Pyrobitumen COMMENTS: Rare pyrobitumen COMMENTS: Rare pyrobitumen CLASSIFICATIC: Vein CLASSIFICATIC: Vein CLASSIFICATIC: Pyrite Dispenetic Hydrothermal NORTHING: Substance State	STATUS: REGIONS: NTS MAP: BC MAP	Past Producer British Columbia 093L02E		Undergrou	und	MINING DIVISION UTM ZONE	N: Omineca E: 09 (NAD 83)
COMMODITIES:Zinc CadmiumSilver GermaniumGold IndiumLead GalliumCopper BismuthMINERALS SIGNIFICANT:Sphalerite ChalcopyriteChalcopyrite GalenaGalena TetrahedriteTetrahedrite Pyrobitumen BariteTennantite Pyrobitumen Pyrobitumen ALTERATION TYPE:Sphalerite ChalcopyriteChalcopyrite ChalcopyriteGalena BariteTetrahedrite Pyrobitumen Pyrobitumen EpidoteTennantite Pyrobitumen Pyrobitumen EpidoteTennantite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen PyrobitumenTetrahedrite Pyrobitumen </td <td>LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:</td> <td>54 05 00 N 126 42 58 W 808 Metres Within 500M Portal of the Earl adit, loca kilometres south of Housto</td> <td>ated on the east sic</td> <td>le of Owen Lake,</td> <td>32</td> <td>NORTHINC EASTINC</td> <td>3: 5995205 3: 649396</td>	LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 05 00 N 126 42 58 W 808 Metres Within 500M Portal of the Earl adit, loca kilometres south of Housto	ated on the east sic	le of Owen Lake,	32	NORTHINC EASTINC	3: 5995205 3: 649396
MINERALS       Significant:       Sphalerite       Chalcopyrite       Galena       Tetrahedrite       Tennantite         ASSOCIATED:       Quartz       Rhodochrosite       Siderite       Barite       Pyrobitumen         ALTERATION:       Carbonate       Chlorite       Epidote       Pyrite         ALTERATION TYPE:       Argillic       Pyrite       Carbonate         MINERALIZATION AGE:       Tertiary       Carbonate       Chlorite         DEPOSIT       CLASSIFICATION:       Vein       Hydrothermal       Industrial Min.         TYPE:       Dolymetallic veins Ag-Pb-Zn±Au       Industrial Min.       Industrial Min.	COMMODITIES:	Zinc Cadmium	Silver Germanium	Gold Indium		Lead Gallium	Copper Bismuth
COMMENTS:       Rare pyrobitumen         ALTERATION:       Clay       Carbonate       Chlorite       Epidote       Pyrite         ALTERATION TYPE:       Argillic       Pyrite       Carbonate         ALTERATION AGE:       Tertiary       Carbonate       Carbonate         DEPOSIT       CHARACTER:       Vein       Industrial Min.         CLASSIFICATION:       Epigenetic       Hydrothermal       Industrial Min.         TYPE:       IO5       Polymetallic veins Ag-Pb-Zn±Au       Industrial Min.	MINERALS SIGNIFICANT: ASSOCIATED:	Sphalerite Chalcopyr Pyrite Quartz Rhodochro	rite Galena osite Siderite	Tetrahedrite Barite	Tennantite Pyrobitumen		
DEPOSIT CHARACTER: Vein CLASSIFICATION: Epigenetic Hydrothermal TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au HOST ROCK DOMINANT HOSTROCK: Volcanic	COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Rare pyrobitumen Clay Carbonate Limonite Jarosite Argillic Tertiary	Chlorite Pyrite	Epidote Carbona	Pyrite te		
CHARACTER: Vein CLASSIFICATION: Epigenetic Hydrothermal Industrial Min. TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au HOST ROCK DOMINANT HOSTROCK: Volcanic							
HOST ROCK DOMINANT HOSTROCK: Volcanic	CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallic veins	Hydrothermal Ag-Pb-Zn±Au	Industrial	Min.		
	HOST ROCK DOMINANT HOSTROCK	: Volcanic					
STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER	STRATIGRAPHIC AGE	GROUP	FOI	RMATION		IGNEOUS/METAI	MORPHIC/OTHER
Cretaceous-Tertiary Endako Tip Top Hill Cretaceous Bulkley Intrusions	Cretaceous-Tertiary Cretaceous	Endako	Тір	Top Hill		Bulkley Intrusion	S
ISOTOPIC AGE: 74.0 +/- 1.0 Ma DATING METHOD: Potassium/Argon MATERIAL DATED: Biotite	ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	74.0 +/- 1.0 Ma Potassium/Argon Biotite				2	
LITHOLOGY: Dacitic Andesite Dacite Dacitic Tuff Dacitic Tuff Breccia Microdiorite Basaltic Dike Porphyritic Felsite Dike	LITHOLOGY:	Dacitic Andesite Dacite Dacitic Tuff Dacitic Tuff Breccia Microdiorite Basaltic Dike Porphyritic Felsite Dike					
HOSTROCK COMMENTS: Mine Hill microdiorite dated by N. Church, 1973 (Map 11).	HOSTROCK COMMENTS:	Mine Hill microdiorite date	ed by N. Church, 19	973 (Map 11).			
GEOLOGICAL SETTING       TECTONIC BELT: Intermontane       PHYSIOGRAPHIC AREA: Nechako Plateau         TERRANE:       Stikine       Plutonic Rocks	GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic	Rocks	PHYSIOGRA	PHIC AREA: Nechal	ko Plateau
INVENTORY	INVENTORY						
ORE ZONE: NO. 3 REPORT ON: Y	ORE ZONE:	NO. 3		REPORT	ON: Y		
CATEGORY: Measured YEAR: 1995 QUANTITY: 644041 Tonnes <u>COMMODITY</u> <u>GRADE</u> Silver 163.8000 Grams per tonne		CATEGORY: Measure QUANTITY: 6440 <u>COMMODITY</u> Silver	d 41 Tonnes <u>G</u> 1	YE <u>RADE</u> 63.8000 Gran	AR: 1995		
Gold 2.9400 Grams per tonne Zinc 5.4300 Per cent COMMENTS: Defined reserves of the central/porth end of the No. 3 vein		Gold Zinc Defined reserves of the ca	entral/north end of	2.9400 Gran 5.4300 Per of the No. 3 vein	ns per tonne cent		

REFERENCE: George Cross News Letter No.61 (March 26), 1996.

#### INVENTORY

ORE ZONE:	NO. 3 VEIN		REI	PORT ON: Y
	CATEGORY: QUANTITY:	Measured 399124 Tonnes		YEAR: 1995
COMMENTS: REFERENCE:	Silver Gold Zinc Defined reserve George Cross N	s of the south end of the lews Letter No.61 (Marcl	401.0000 8.2900 7.6000 9 No. 3 vein. h 26), 1996.	Grams per tonne Grams per tonne Per cent
ORE ZONE:	CAMP		RE	PORT ON: Y

	CATEGORY: QUANTITY:	Inferred 204097 Tonnes	6		YEAR: 1995
	COMMODITY			GRADE	
	Silver			829.5000	Grams per tonne
	Gold			0.9900	Grams per tonne
	Zinc			4.0000	Per cent
TS:	Inferred reserve	s of the Camp vein.			

REFERENCE: George Cross News Letter No.61 (March 26), 1996.

#### CAPSULE GEOLOGY

COMMEN

The Silver Queen mine area is primarily underlain by a series of volcanic rocks and intrusions. The volcanic rocks consist mainly of dacites and dacitic andesites which are likely part of the Upper Cretaceous-Eocene Endako Group (Tip Top Hill Formation). A sill-like body of microdiorite intrudes these volcanic rocks and is referred to as the Mine Hill microdiorite which is part of the Middle-Late Bulkley Intrusions. This intrusive sill is dated as 74.0 Ma +/- 1.0 Ma (Map 11). The volcanics and microdiorite have been intruded by dikes and sills of porphyritic felsite and by basalt dikes. Approximately 20 mineralized veins have been discovered. The four main quartz vein systems are the Wringh Destal Objection of the second state of the se

Approximately 20 mineralized veins have been discovered. The four main quartz vein systems are the Wrinch, Portal, Chisholm and Cole systems. The average width of the veins is 0.9 to 1.2 metres with local increases up to about 4.6 metres. In general the veins occupy northwest striking fractures that cut the volcanics, the microdiorite and the felsite porphyry and the basalt dikes. Chalcopyrite-sphalerite and sphalerite-galena are the two general types of sulphide mineralization occurring in the veins but there are gradations between the two types. Good gold and silver values are generally associated with the chalcopyrite-sphalerite veins. Other sulphide minerals include tetrahedrite, tennantite and pyrite. The gangue is mainly cherty quartz, carbonate minerals such as rhodochrosite and siderite, some barite and rarely pyrobitumen. Local intense alteration of wallrock along veins and fissures has resulted in a mixture of clay and carbonate minerals, some chlorite, minor epidote and disseminated pyrite.

The age of mineralization is thought to be Early Tertiary and probably Eocene. A 1986 report indicates that concentrations of gallium, germanium and indium are also present. Assay results gave values of 20 to 188 grams per tonne (0.0188 per cent) gallium, 20 to 128 grams per tonne germanium (0.0128 per cent), and 17.1 to 25.7 grams per tonne (0.0026 per cent) indium (Property File - Houston Metals Corporation, Press Release, 1986).

The Wrinch vein system is the most important and has been the focus of most of the mining and development work. The overall strike of the veins is about 130 degrees and are traceable over a length of more than 1300 metres. These veins are generally banded with sphalerite as the predominant sulphide with pyrite, chalcopyrite and galena. The gangue minerals consist mainly of cherty quartz, carbonate minerals (rhodochrosite) and barite.

The Portal vein system contains some of the most spectacular metal grades found on the property. The ore reserve in this system appears small due to the position of the veins which are generally less than 30 vertical metres from surface. A quartz-chalcopyrite sample from Vein No. 5 assayed 9.6 grams per tonne gold, 829.7 grams per tonne silver, 7.2 per cent copper, 0.17 per cent lead, 0.17 per cent zinc, 0.11 per cent bismuth, and 0.01 per cent barium.

The Chisholm vein system (093L 216) consists of three subparallel veins located about 1200 metres south of Mine Hill. The veins strike about 125 degrees and dip northeast. The minerals are mainly argentiferous sphalerite, galena, pyrite and minor chalcopyrite. The host rocks consist of highly altered dacitic tuffs and tuff breccias. The veins are mainly the result of fissure-filling as indicated by their vuggy structure and the colloform banding of the ore minerals and gangue. The gangue

PAGE REPORT: RGEN0100

### CAPSULE GEOLOGY

constituents are mainly cherty quartz, carbonate minerals such as The Cole system lies to the northeast of the Diamond Belle occurrence (093L 162). These veins uniformly carry low-temperature assemblages of sphalerite-pyrite-galena.

Widespread alteration on the property is present. The alteration is manifested in the development of numerous limonite and jarosite gossans and appears to be the result of pervasive kaolinization-pyritization. It is thought that the alteration is greater than would normally be if associated with the emplacement of known vein systems. A deep and broad source of mineralizing solutions is suspected and a replacement-type sulphide body is suspected.

An extensive drill program was carried out in 1987 to delineate the Camp vein system, 500 metres southwest of the No. 3 vein, which consists of about 5 veins striking northwest immediately west of the camp buildings. Inferred reserves for the Camp vein are 204,100 tonnes grading 4.0 per cent zinc, 754.2 grams per tonne silver and 0.89 gram per tonne gold (Open File 1992-1).

Inferred reserves for the No. 3 vein are 632,300 tonnes grading 6.52 per cent zinc, 235.9 grams per tonne silver and 3.49 grams per tonne gold. Inferred reserves for the Footwall vein are 163,200 tonnes grading 6.1 per cent zinc, 310.28 grams per tonne silver and 2.05 grams per tonne gold (Open File 1992-1).

Proven/probable/possible reserves at the Silver Queen property are 1,726,211 tonnes grading 6.19 per cent zinc, 327.71 grams per tonne silver and 2.74 grams per tonne gold (Houston Metals Corp. Annual Report 1988).

The south end of the No. 3 vein has defined reserves of 399,124 tonnes grading 8.29 grams per tonne gold, 401 grams per tonne silver and 7.6 per cent zinc. The central/north end of the No. 3 vein has defined reserves of 644,041 tonnes grading 2.94 grams per tonne gold, 163.8 grams per tonne silver and 5.43 per cent zinc. The Camp vein has inferred reserves of 204,097 tonnes grading 0.99 grams per tonne gold, 829.5 grams per tonne silver and 4 per cent zinc (George Cross News Letter No.61 (March 26), 1996).

The George Lake Lineament, located parallel and 600 metres northeast of No. 3 vein, has a strike length of 1.5 kilometres. A 1.4-metre intersection graded 11.6 grams per tonne gold (Kettle River Resources Ltd. website).

As part of an effort to assess the feasibility that the Silver Queen veins may represent the top or distal portion of a larger system which may have bulk tonnage potential, New Nadina Explorations Ltd. with support from the Explore B.C. Program launched on a project of compilation and digitizing of previous work, including all plans and sections of mine workings. This work together with modelling of the deposit and analysis of satellite imagery defined targets with bulk tonnage potential which warrant testing (Assessment Report 25370). Kettle River Resources Ltd. owns 15.8 per cent of New Nadina.

#### BIBLIOGRAPHY

EMPR AR 1916-159,160; 1923-114-116,386; 1924-99,100; 1928-170, 171; \*1929-171-175; 1930-141; \*1965-81-84; 1966-104; 1967-

108; 1968-139 EMPR ASS RPT 294, 421, 1133, 1184, 2272, 5304, 6456, 7343, 7612, 16715 21741 24568, 24899, \*2537  $11659,\ 12009,\ 12876,\ 15742,\ 16715,\ 21741,\ 24568,\ 24899,\ *25370$ EMPR BULL 64

EMPR Explore B.C. Program 95/96 - M41 EMPR EXPL 1977-190; 1979-224; 1980-339; 1983-436; \*1986-B54-B58, Fig. B24, 1988-C168

EMPR FIELDWORK 1991, pp. 281-285,287-293 EMPR GEM \*1969-122-139; \*1970-134-138; 1971-171; 1972-370; 1973-338; 1974-256

- EMPR MAP \*11; \*69-1; 65, 1989 EMPR OF 1992-1; 1992-9; 1998-8-I, pp. 1-20
- EMPR P \*1990-2

EMPR PF (\*Batten, H.L. (1928): Summary Report on the Owen Lake Properties; \*Turnbull, J.M. (1928): Owen Lake Property; \*Nesbitt, B.I. (1941): Report on Owen Lake Mining Properties; \*Batten, H.L. (1949): Report on Owen Lake Properties; \*Ball, C.W. (1955): Crown Granted Mineral Claims, Owen Lake, Morice River Area, B.C.; \*White, W.H. (1965): Mining Prospects of Nadina Explorations Ltd. at Owen Lake, B.C.; \*Scott, A. and Cochrane, D.R. (1971): Geophysical Report on an Induced Polarization Survey on a Portion of the Silver Queen Property; \*Houston Metals Corporation, Press Release, 1986; Houston Metals Corporation Annual Report 1987; Cordilleran Round-up 1989 Snapshot Review Form; \*The Owen Lake Epithermal Vein Project, A.J. Sinclair, M. Thomson, C. Leitch, T. Hood and X. Cheng; Houston Metals Corporation Information folder, 1988; Kettle River

Resources Ltd. Website (Nov.1999): Silver Queen, 2 p.; Statement of Material Facts, Houston Metals Corporation, Oct.29, 1986) EMR MIN BULL MR 223 B.C. 226 EMR MP CORPFILE (Federal Mining and Smelting Co.; Owen Lake Mining and Development Co. Limited; Nadina Explorations Limited; Northgate Exploration Limited; Bralorne Resources Limited; New Frontier Exploration Inc.) GSC BULL 270 GSC EC GEOL \*1932 Vol.12, p. 119 GSC MAP 278A; 971A GSC OF 351 GSC 0 40-18, p. 18 GSC SUM RPT \*1929 Part A pp. 77-88 CANMET IR 73, p. 52 CIM BULL Vol. 83, pp. 69-76 (Church, B.N. and Pettipas, A.R. (1990): Interpretation of the Second Derivitive of Aeromagnetic Maps at Interpretation of the Second Derivite of Aeromagnetic Maps at the Silver Queen and Equity Silver Mines, Houston, B.C.) GCNL #115,#208, 1977; #20, 1980; #86,#203, 1981; #64, 1985; Oct.27, 1986; #109, 1987; #20,#27,#56,#66, 1988; #18(Jan.26),#91,#106(June 2),#126(June 30),#133(Jul.12), 1989; \*#61(Mar.26), 1996; #67(Apr.8), 1997; #190(Oct.2), 1998; #21(Feb.1), 1999 NAGMIN June 7, 1985 N MINER Vol.79, No.42, Dec.28, 1987 U GEOGRAMMED Dec.17, 1087 V STOCKWATCH Dec.17, 1987 WWW http://www.kettleriver.com; http://www.infomine.com/ Cummings, W.W. (1986): Report on Owen Lake Property - in Houston Metals Corp., Statement of Material Facts, Oct. 29, 1986 EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1997/05/07

CODED BY: GSB REVISED BY: VAP

MINFILE NUMBER:	<u>093L 003</u>					NATIONA	L MINERAL INVENT	ORY: 093L2 Ag3
NAME(S):	<b>GRUBSTAKE</b> , FA TSALIT 1	NR, MO,						
STATUS:	Prospect						MINING DIVI	SION: Omineca
REGIONS: NTS MAP: BC MAP:	British Columbia 093L02W						UTM Z	ONE: 09 (NAD 83)
LATITUDE:	54 08 48 N 126 52 28 W						NORT FAS	HING: 6001928 TING: 638829
ELEVATION: LOCATION ACCURACY: COMMENTS:	1265 Metres Within 500M Located on Tsalit	Mountain, 32	2 kilometres s	outhwest of	Houston.			
COMMODITIES:	Silver Nickel	Cop Mol	oper ybdenum	Go	old		Zinc	Iron
MINERALS			<b>.</b>	<b>O</b>				
SIGNIFICANT:	Molybdenite	Sphalerite Pyrrhotite	Galena Pyrite	Stibnit	ie C	halcocite		
ASSOCIATED: ALTERATION:	Quartz Malachite A	Azurite	Limonite					
COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	"Manganese oxid Sericitic Unknown	les". Oxi	dation					
DEPOSIT								
CHARACTER:	Vein Epigenetic	Diss	seminated	In	ductrial Mir	<b>`</b>		
TYPE:	L01 Subvolca	inic Cu-Ag-A	u (As-Sb)	IIK		105	Polymetallic veins	Ag-Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic							
STRATIGRAPHIC AGE	GROUP		<u>FC</u>	DRMATION	en e ti e in		IGNEOUS/M	ETAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous Eocene	<u>GROUP</u> Skeena		— FC Ur	ORMATION Indefined For	mation		<u>IGNEOUS/M</u> Nanika Intru	ETAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY:	<u>GROUP</u> Skeena Rhyolite		— FC Ur	DRMATION Idefined Fori	mation		<u>IGNEOUS/M</u> Nanika Intru	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY:	<u>GROUP</u> Skeena Rhyolite Volcanic Breccia Tuff		— FC Ur	ORMATION Indefined Fori	mation		<u>IGNEOUS/M</u> Nanika Intru	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo	e onite		ORMATION Indefined For	mation		<u>IGNEOUS/M</u> Nanika Intru	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo	e onite	FC Ur	ORMATION Indefined For	mation		<u>IGNEOUS/M</u> Nanika Intru	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine	e onite	FC Ur Plutonic	ORMATION Indefined Form	mation	PHYSIOG	IGNEOUSM Nanika Intru RAPHIC AREA: Ne	ETAMORPHIC/OTHER sions echako Plateau
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine	e onite	— FC Ur Plutonic	DRMATION Indefined Form	mation	PHYSIOG	<u>IGNEOUSM</u> Nanika Intru RAPHIC AREA: Ne	ETAMORPHIC/OTHER sions echako Plateau
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine	onite	FC Ur Plutonic	DRMATION Indefined Form	mation PORT ON:	PHYSIOG	<u>IGNEOUSM</u> Nanika Intru RAPHIC AREA: Ne	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine SAMPLE CATEGORY: SAMPLE TYPE: COMMODITY	e onite Assay/analys Grab	FC Ur Plutonic	DRMATION Indefined Form	mation PORT ON: YEAR:	PHYSIOG N 1970	<u>IGNEOUSM</u> Nanika Intru RAPHIC AREA: Ne	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine SAMPLE CATEGORY: SAMPLE TYPE: COMMODITY Silver Copper	e onite Assay/analys Grab	FC Ur Plutonic	Rocks Rocks RE 13.7000 0.2600	PORT ON: YEAR: Grams p Per cent	PHYSIOG N 1970 er tonne	<u>IGNEOUSM</u> Nanika Intru RAPHIC AREA: Ne	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine SAMPLE CATEGORY: SAMPLE CATEGORY: SAMPLE COMPODITY Silver Copper Iron Nickel	e onite Assay/analys Grab	FC Ur Plutonic	Rocks Rocks RE <u>SRADE</u> 13.7000 0.2600 10.7200 0.0160	PORT ON: YEAR: Grams p Per cent Per cent Per cent	PHYSIOG N 1970 er tonne	<u>IGNEOUSM</u> Nanika Intru SRAPHIC AREA: Ne	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE INVENTORY ORE ZONE:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine SAMPLE CATEGORY: SAMPLE TYPE: COMMODITY Silver Copper Iron Nickel Zinc	e onite Assay/analys Grab	FC Ur Plutonic sis C	ERADE 3.2000 0.2600 0.1200 0.1200 0.1200	PORT ON: YEAR: Grams p Per cent Per cent Per cent Per cent Per cent Per cent	PHYSIOG N 1970 er tonne	<u>IGNEOUSM</u> Nanika Intru	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine SAMPLE CATEGORY: SAMPLE TYPE: COMMODITY Silver Copper Iron Nickel Zinc Sample of pyrrhoo	e onite Assay/analys Grab tite-rich miner Annual Repo	Plutonic	DRMATION Indefined Form Recks Recks RE <u>GRADE</u> 13.7000 0.2600 10.7200 0.0160 0.1200 0.1200	PORT ON: YEAR: Grams p Per cent Per cent Per cent Per cent Per cent	PHYSIOG N 1970 er tonne	<u>Igneousm</u> Nanika Intru	ETAMORPHIC/OTHER sions
STRATIGRAPHIC AGE Cretaceous Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	GROUP Skeena Rhyolite Volcanic Breccia Tuff Quartz Monzonite Porphyritic Monzo Intermontane Stikine SAMPLE CATEGORY: SAMPLE TYPE: COMMODITY Silver Copper Iron Nickel Zinc Sample of pyrrhor Minister of Mines	Assay/analys Grab tite-rich mine Annual Repo	Plutonic sis <u>c</u>	Rocks Rocks RE <u>5RADE</u> 13.7000 0.2600 10.7200 0.0160 0.1200 147.	PORT ON: YEAR: Grams p Per cent Per cent Per cent Per cent	PHYSIOG N 1970 er tonne	<u>IGNEOUSM</u> Nanika Intru	ETAMORPHIC/OTHER sions

Skeena Group rocks consisting of basaltic lava flows, tuff breccia, flow-banded rhyolite, chert and argillite. Rhyolite dikes and sills in the area have been dated (K-Ar 76.5 plus or minus 3.0 million years) as Upper Cretaceous. The Skeena Group rocks are intruded by an Eocene Nanika Intrusion comprised of quartz monzonite and porphyritic monzonite.

phyritic monzonite. One type of mineralization is hosted by a quartz filled shear zone with a width of approximately 3 metres that occurs in a sheared and sericitized rhyolite with patchy azurite staining. The mineralization consists of chalcopyrite, pyrite, stibnite, galena and sphalerite with secondary chalcocite, malachite, azurite, limonite and manganese oxides. A small amount of molybdenite has also been

PAGE: 10 REPORT: RGEN0100

### CAPSULE GEOLOGY

reported in the vein. Values up to at least 233.14 grams per tonne silver and 2.06 grams per tonne gold have been obtained. In 1929, a 3.0 metre sample across the shear assayed 233.14 grams per tonne silver and 0.9 per cent copper (Minister of Mines Annual Report 1929, page 175).

The other type of mineralization occurs over widths of 12 to 15 metres in a tuff breccia consisting locally of rhyolitic breccia fragments in an andesitic matrix. Pyrrhotite, chalcopyrite, sphalerite, and pyrite have selectively replaced the matrix and penetrated cracks in the coarse fragments. In 1929, a sample across 13.7 metres assayed 20.57 grams per tonne silver and 0.4 per cent copper (Minister of Mines Annual Report 1929, page 175). A recent mineralized grab sample from the same area assayed 13.7 grams per tonne silver, 0.26 per cent copper, 0.12 per cent zinc, 10.72 per cent iron and 0.016 per cent nickel (Geology, Exploration and Mining 1970, page 147). Also, similar mineralization is visible in trenches and pits several metres to the north and east of the main showing. A company report quotes seven assays on grab samples from this area averaging 30.86 grams per tonne silver and 0.18 per cent copper (Geology, Exploration and Mining 1970, page 147).

#### BIBLIOGRAPHY

EMPR AR 1929-175; 1966-103; 1968-139 EMPR ASS RPT 3064, 3096 EMPR GEM \*1970-141-149,Fig.17; 1971-172 EMPR MAP 69-1 EMPR PF (Richards, T.A., (1988): Prospecting - Geochemical Reports on the Tsalit 1 Claim, Nov.25, 1988) EMR MP CORPFILE (Mexxon Mines Ltd.; Maverick Mountain Resources Limited) GSC BULL 270 GSC MAP 278A; 671A; 971A GSC OF 351 GSC SUM RPT 1929A, p. 91 WWW http://www.infomine.com/index/properties/TSALIT\_CLAIMS.html

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/26 CODED BY: GSB REVISED BY: LLD FIELD CHECK: N

MINFILE NUMBER:	<u>093L 004</u>		NATIONA	L MINERAL INVENTORY:	093L2 Zn1	
NAME(S):	<u>CODE</u> , FEN, RED					
STATUS:	Showing British Columbia			MINING DIVISION:	Omineca	
NTS MAP: BC MAP:	093L02W			UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 10 19 N 126 56 48 W 884 Metres Within 500M Approximate centre of tre Exploration and Mining, 19	nching shown on Figure 42 172).	? (Geology,	NORTHING: EASTING:	6004600 634031	
COMMODITIES:	Zinc	Lead	Silver			
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Manganese encrustations Clay Argillic Unknown	Pyrite s along cracks. Silicific'n				
DEPOSIT						
CLASSIFICATION: TYPE:	Stockwork Epigenetic G06 Noranda/Kuroko r	Disseminated Hydrothermal nassive sulphide Cu-Pb-Zn	Industrial Min. I05	Polymetallic veins Ag-Pt	o-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE Jurassic	GROUP Hazelton	FORMATION Undefined F	N ormation	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Acid Pyroclastic Tuffaceous Breccia Dacitic Tuff					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOG	RAPHIC AREA: Nechako	o Plateau	
CAPSULE GEOLOGY	Mineralization occurs in an elliptical window of Jurassic Hazelton Group acid pyroclastic rocks consisting mainly of bleached dacitic tuffs and tuff breccias. Sulphide mineralization consists of pyrite, sphalerite, and galena. Pyrite occurs dissemi- nated and in veinlets, sphalerite occurs mainly in small veins and galena sometimes accompanies the sphalerite. The mineralization is often accompanied by intense clay alteration, silicification in places and manganese encrustations on cracks					
BIBLIOGRAPHY	EMPR AR 1965-81; J EMPR ASS RPT 799, 8247, 8354, 960 21663, 23034 EMPR EXPL 1976-147 1982-307; 1983- EMPR GEM 1970-149; EMPR MAP 69-1 EMPR OF 1994-14; J GSC BULL 270 GSC MAP 671A GSC OF 351 WWW http://www.inf	967-109; 1968-139 1229, 2734, 2898, 5, 9647, 10003, 10 7; 1977-192; 1978-2 438; 1984-325 1971-172; *1972-3 999-2	3257, 3646, 6320 156, 11286, 1309 16; 1979-226; 19 73-379,Fig.40,42	9, 7821, 6, 14029, 19458, 80-340;		
DATE CODED: DATE REVISED:	1985/07/24 1987/08/07	CODED BY: REVISED BY:	GSB LLD	F	FIELD CHECK: N FIELD CHECK: N	

### MINFILE NUMBER: 093L 005

#### NAME(S): BOB CREEK PLACER

54 18 25 N

Metres

kilometres south of Houston.

STATUS: Showing REGIONS: British Columbia

NTS MAP: 093L07E BC MAP:

LONGITUDE: 126 38 06 W

# NATIONAL MINERAL INVENTORY: 093L7 Au2

MINING DIVISION: Omineca

UTM ZONE: 09 (NAD 83)

NORTHING: 6020253 EASTING: 653868

COMMODITIES: Gold MINERALS

LATITUDE:

ELEVATION:

LOCATION ACCURACY: Within 1 KM

SIGNIFICANT: Gold COMMENTS: Placer. MINERALIZATION AGE: Unknown

#### DEPOSIT

	CHARACTER:	Uncons	solidated
(	CLASSIFICATION:	Placer	
	TYPE:	C01	Surficial placers

#### HOST ROCK

DOMINANT HOSTROCK: Sedimentary

 STRATIGRAPHIC AGE
 GROUP
 FORMATION
 IGNI

 Quaternary
 Undefined Group
 Unnamed/Unknown Formation
 IGNI

COMMENTS: Placer area located on Bob Creek where it joins Buck Creek, 9.7

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Gravel

### HOSTROCK COMMENTS: Recent gravel.

#### **GEOLOGICAL SETTING**

TECTONIC BELT: Intermontane TERRANE: Stikine

# PHYSIOGRAPHIC AREA: Nechako Plateau

#### CAPSULE GEOLOGY

Around the junction of Bob and Buck creeks, bedrock consists of Lower Jurassic Hazelton Group volcanics of the Telkwa Formation comprised of andesitic to rhyolitic tuff flows and breccia. These are overlain by younger Francois Lake Group, Upper Cretaceous Tip Top Hill volcanics and Eocene Buck Creek volcanics. The Jurassic and Cretaceous volcanics are intruded by Bulkley Intrusive gabbro stock and associated feldspar porphyry dikes. The Bob Creek canyon hosts hydrothermally altered volcanics

The Bob Creek canyon hosts hydrothermally altered volcanics with a large gossanous zone which is completely altered to an earthy mixture of sericite, kaolinite and limonite. These altered volcanics host mineralization (described in 093L 009-Bob Creek) and are considered to be the source of the placer gold since no gold was found in the stream above this zone.

A large tonnage of rimrock gravels were washed by hand mining methods and several grams of coarse angular gold with fine flakes were found near the foot of the canyon.

### BIBLIOGRAPHY

EMPR AR 1905-114; 1914-234; 1916-127; 1928-172; 1929-204; 1933-99; 1936-C37 GSC SUM RPT 1929A, pp. 92,93 GSC P 40-18 GSC MAP 671A EMPR MAP 69-1, p. 11 GSC OF 351 EMPR FIELDWORK 1985, pp. 121-123 EMPR BULL \*78 (in press) Placer Dome File > 1985/07/24 CODED BY: GSB

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/17 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 006</u>		NATIONAL MINERA	L INVENTORY:
NAME(S):	RAIN, MORICE MOUNTAIN, MOUND, RAVEN	,		
STATUS: REGIONS: NTS MAP: BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	Showing British Columbia 093L07W 54 16 00 N 126 49 06 W 915 Metres Within 500M Located on the west flank of Morice coutheast corner of D L 2003 15 k	e Mountain, adjacent to the	1M	VING DIVISION: Omineca UTM ZONE: 09 (NAD 83) NORTHING: 6015388 EASTING: 642081
COMMODITIES:	Silver Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L04 Porphyry Cu ± Mo ± Au		L01 Subvolca	nic Cu-Ag-Au (As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Lower Jurassic Eocene	GROUP Hazelton	<u>FORMATION</u> Telkwa	<u> </u>	NEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Breccia Tuff Granodiorite Quartz Porphyry			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC A	REA: Nechako Plateau
CAPSULE GEOLOGY	The Morice Mountain Jurassic Hazelton Group y have been intruded by ply Formation is composed pri andesitic to rhyolitic co sions are composed of gra which are in part porphy The showing is call andesitic tuffs and breed fragments of lithic tuff chalcopyrite. In 1977, 1 Samples from this drillin to 2.8 grams per tonne si	area is underlain by volcanics of the Telk ugs of Nanika Intrusi imarily of breccia, t omposition while the anodiorite, quartz mo ritic. ed the north breccia cia. The breccia is infilled by quartz w 143 metres of diamond ng collected in 1986 ilver, trace to 0.07	the Lower to wa Formation w ons. The Telk uff and flows Eocene Nanika nzonite and fe zone and occur comprised of a hich hosts pyr drilling was assayed trace per cent coppe	Middle hich wa of Intru- elsite rs in ngular rite and completed. gold, 0.8 er.
BIBLIOGRAPHY	EMPR ASS RPT 6311 (Fig.2 EMPR GEM 1970-155 EMPR EXPL *1977-E193; 198 GSC OF 351 EMPR MAP 69-1 Placer Dome File	), *10563, *15259 82-310; *1986-354		
DATE CODED: DATE REVISED:	1985/07/24 1987/08/26	CODED BY: GSB REVISED BY: LLC		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 007</u>		NATION	AL MINERAL INVENTORY:	093L7 Cu2		
NAME(S):	<u>Success</u> , raven, mour Van	ND,					
STATUS:	Showing British Columbia			MINING DIVISION:	Omineca		
NTS MAP: BC MAP	093L07W			UTM ZONE:	09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 17 02 N 126 48 52 W 1066 Metres Within 500M Located on the west flank incised creek, 15 kilometr	of Morice Mountain on thes southwest of Houston.	e north side of an	NORTHING: EASTING:	6017312 642275		
COMMODITIES:	Copper	Silver	Gold				
		Durito					
ASSOCIATED:	Quartz Malachite Azurite	Clay Chlor	te				
ALTERATION TYPE: MINERALIZATION AGE:	Silicific'n Unknown	Chloritic					
DEPOSIT CHARACTER:	Vein	Breccia	Disseminated				
CLASSIFICATION: TYPE:	Hydrothermal L01 Subvolcanic Cu-A	Ag-Au (As-Sb)	105	Polymetallic veins Ag-Pb	-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATIC</u>	DN	IGNEOUS/METAMO	ORPHIC/OTHER		
Eocene	hazonon	l circua		Nanika Intrusions			
LITHOLOGY:	Brecciated Siliceous Ande Rhyolite Granodiorite Quartz Porphyry	esite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIO	GRAPHIC AREA: Nechako	Plateau		
CAPSULE GEOLOGY	The Morice Mountain area is underlain by Lower to Middle Jurassic Hazelton Group volcanics of the Telkwa Formation which have been intruded by plugs of Nanika Intrusions. The Telkwa Formation is comprised of variegated red, maroon, green to grey basaltic to rhyo- litic flows, tuffs, and breccia. The Eocene Nanika Intrusions are composed of granodiorite, quartz monzonite and felsite dikes which are in part porphyritic. The "Lower showing", located at 1066 metres elevation, consists of pyrite, chalcopyrite, and bornite which is exposed for 20 metres in a silicified and brecciated zone in the andesites. The shear strikes approximately 165 degrees and is mineralized over a 37 metre length. Irregular clots of sulphides associated with quartz infill the fragmented breccia. Occasionally, quartz grains form up to 5 centimetre euhedral crystals. Silicification has bleached the black andesite to give the rock a dacitic appearance. The quartz infilling is vuggy. Minor chloritization occurs in the mafic minerals with minor clay altera- tion near chalcedony veining. In 1986 samples were collected from the old trenches. Massive pyrite with bornite from altered andesite assayed 0.022 grams per tonne gold, 96 grams per tonne silver and 8.8 per cent copper. Andesite with quartz veining containing pyrite, malachite and azurite assayed 0.08 grams per tonne gold, 19 grams per tonne silver and 1.58 per cent copper.						
BIBLIOGRAPHY	EMPR AR *1930-142, EMPR ASS RPT 797, EMPR GEM 1970-155; EMPR EXPL *1982-31	143; 1931-74; 193 2844, 6311, *1056 1977-E193 0; *1986-354	2-85; *1966-103 3, *15259, 19568				

GSC P \*40-18, p. 16 EMR MP CORPFILE (Moramulca Mines Ltd.) GSC MAP 671A EMPR MAP 69-1 GSC OF 351 EMPR OF 1994-14 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/13 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 008</u>	NATION	IAL MINERAL INVENTORY: 093L7 Cu4			
NAME(S):	PEACOCK, BLACK HAWK, SIL					
STATUS:	Showing British Columbia		MINING DIVISION: Omineca			
NTS MAP:	093L07E		UTM ZONE: 09 (NAD 83)			
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 17 05 N 126 44 57 W 1220 Metres Within 500M Located near the headwaters of Peacoc southwest of Houston.	k Creek, 15 kilometres south-	NORTHING: 6017538 EASTING: 646520			
COMMODITIES:	Silver Copper	Gold				
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Pyrite Copper carbonates. Quartz Quartz-Carb. Unknown	Specularite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-Ag-Au (As-Sb)	D03	Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOLIS/METAMORPHIC/OTHER			
Lower Jurassic	Hazelton	Telkwa				
LITHOLOGY:	Andesite Dacite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIC	OGRAPHIC AREA: Nechako Plateau			
INVENTORY						
ORE ZONE:	SAMPLE	REPORT ON: N				
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Selected sample. Minister of Mines Annual Report 1930, p	YEAR: 1930 <u>GRADE</u> 83.0000 Grams per tonne 1.4000 Grams per tonne 0.8000 Per cent ages 141-143.	9 9			
CAPSULE GEOLOGY						
CAPSULE GEOLOGY The area is underlain by Hazelton Group dacitic to andesitic flows of the Lower Jurassic Telkwa Formation. Widely scattered, one to 16 centimetre wide quartz veins carry pyrite, minor chalco- pyrite and bornite. A selected sample of mineralization from a quartz vein striking 065 degrees, assayed 2.06 grams per tonne gold, 82.29 grams per tonne silver and 10.1 per cent copper. At 1420 metres elevation on the Black Hawk claim, a shaft driven in sheared andesitic volcanics exposed pyrite, chalcopyrite, copper carbonates, and specularite. A selected sample in 1930 assayed 1.4 grams per tonne gold, 82.3 grams per tonne silver, and 0.8 per cent copper. BIBLIOGRAPHY						
	EMPR AS 1929-175; 1930-141-1 EMPR EXPL 1979-227 GSC MAP 671A; 971A GSC P 40-18A GSC OF 351	143; 1932-85				

EMPR MAP 69-1

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/17 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 009</u>			NATIONA	L MINERAL INVENT	ORY: 093L7 Au1
NAME(S):	BOB CREEK, GOLD BRICK BETH, HOPE, RISK, NEW BUCK, GODFREY, LC	K, BUCK, ORNE				
STATUS: REGIONS: NTS MAD	Past Producer British Columbia		Undergrou	und	MINING DIVIS	NON: Omineca
BC MAP:	54 19 15 N					UNC: 6010050
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	126 37 41 W 800 Metres Within 500M Located at the junction of I south of Houston.	Buck and Bob Creek	ks, about 10.6 kil	ometres	EAST	ING: 654330
COMMODITIES:	Gold	Silver	Zinc		Lead	
MINERALS SIGNIFICANT	Sphalerite Galena	Pyrite	Tetrahedrite	Arsenopyrit	e	
ASSOCIATED:	Chalcopyrite Quartz Carbonate	Barite	Hematite	Hydrozincite	•	
AI TERATION TYPE:	Gypsum Sericite	Chlorite	Araillic	r iyurozinoite	Silicific'n	
MINERALIZATION AGE: ISOTOPIC AGE:	Unknown 78.1 +/- 2.8 Ma	DATING METHOD:	Potassium/Argo	on N		Sericitized biotite
DEPOSIT			0			
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-A	Disseminated Hydrothermal Ag-Au (As-Sb)	Porphyry	/ 105	Polymetallic veins A	\g-Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP		MATION		IGNEOUS/ME	TAMORPHIC/OTHER
Upper Cretaceous Upper Cretaceous ISOTOPIC AGE:	Francois Lake 80.6 +- 2.8 Ma	пр т	орнії		Bulkley Intrus	sions
MATERIAL DATED:	Biotite					
LITHOLOGY:	Andesite Rhyolite Breccia Andesitic Tuff Gabbro Quartz Feldspar Porphyry	r Dike				
HOSTROCK COMMENTS:	Gabbro intrusive age ref	erence (Fieldwork 1	985, p. 123).			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic R	locks	PHYSIOG	RAPHIC AREA: Neo	chako Plateau
INVENTORY						
ORE ZONE:	ADIT		REPORT	ON: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Bulk Sam COMMODITY	nalysis nple <u>GR</u>	YEADE	AR: 1936		
	Gold	21	1.9000 Gran	ns per tonne		
COMMENTS: REFERENCE:	Seventy-seven tonnes of Minister of Mines Annual F	ore mined from a 9.0 Report 1936, page C	.1000 Per 0 0 metre adit. 37.	cent		
CAPSULE GEOLOGY	T		····		mallers n	
	are located around are comprised of a The most common un tions of accretion The host rock volcanics. 600 met	Le Hazerton Gro l the junction indesitic to rh hit is a massiv hary lapilli an t for mineraliz res wide. expo	of Bob and nyolitic tuf nyolitic tuf nd siltstone zation is a psed in the	Buck cree Buck cree fs, flows ccia with belt of a Bob Creek	ks. The rocks and breccia. thin intercala	2011 3 4-

volcanics, 600 metres wide, exposed in the Bob Creek canyon. The volcanics are part of the Francois Lake Group, Upper Cretaceous Tip Top Formation, and are crosscut by quartz-feldspar porphyry

PAGE: 19 REPORT: RGEN0100

#### CAPSULE GEOLOGY

feeder dikes and breccias. Younger, Tip Top Hill volcanics overlie the felsic volcanics east of the canyon. These are comprised of altered andesitic tuffs and breccias which underlie Eocene Buck Creek volcanics comprised of fine-grained dacitic lavas and breccias (Bulletin 78, Figure 1).

A gabbro stock intrudes the Jurassic and Cretaceous volcanics south of the canyon. Also, feldspar porphyry dikes intrude the Hazelton rocks. A potassium/argon age determination of biotite from the gabbro stock gives a Late Cretaceous age of 80.6 plus or minus 2.8 million years (Fieldwork 1985, page 123). The Bob Creek canyon hosts a large gossanous zone, which is

The Bob Creek canyon hosts a large gossanous zone, which is completely altered to an earthy mixture of sericite, kaolin, and limonite. The rock is oxidized and leached and hosts jarosite, hematite, hydrozincite and gypsum flakes in fractures. Mineralization occurs in veinlets, stringers and as minor disseminations in these hydrothermally altered rocks. In the rhyolite breccia, sulphides occur in veinlets, dissemina-

In the rhyolite breccia, sulphides occur in veinlets, disseminations or as coarse grains and fracture-fillings. In 1984, drilling intersected mineralized quartz-carbonate stringers hosting pyrite, sphalerite, galena, marcasite, chalcopyrite and arsenopyrite.

The main exploration target is midway between the canyon and the north contact with the gabbro. The target is an elliptical 80 by 50 metre area with gold and silver assays ranging over 4 grams per tonne and 35 grams per tonne respectively. The age of mineralization was determined as 78.1 plus or minus 2.8 million years from potassium/ argon analyses of sericitized biotite from a hydrothermally altered porphyry in the canyon area.

porphyry in the canyon area. On the Buck group two adits were driven along shear zones containing irregular stringers of galena, sphalerite with quartz and barite gangue. A selected sample assayed trace gold, 1450 grams per tonne silver, 7.0 per cent lead and 7.0 per cent zinc. A short adit driven on the right side of the creek exposed disseminations and small seams of pyrite, sphalerite and minor galena. A sample assayed 50 grams per tonne gold, 75.4 grams per tonne silver, 0.4 per cent lead and 1.8 per cent zinc.

In 1936, 77 tonnes of ore was mined from a 9 metre adit and produced 21.9 grams per tonne gold, 34.2 grams per tonne silver and 1.1 per cent zinc.

#### BIBLIOGRAPHY

EMPR AR 1914-234; 1916-127,128; 1927-140; 1928-172-173; 1930-143; 1932-85; 1933-98,99; 1936-C37; 1952-95; 1957-12; 1965-80-81; 1968-138 EMPR ASS RPT 6304, 6484, 6737, 6912, \*10166, 11976, 12521, \*13425, \*14698, 18665, 18666, 19229, 19879, 19883, 19889 EMPR BULL (1932) 3; 64; 78 (in press) EMPR EXPL 1977-E193; 1978-E218; 1981-222; \*1983-411; \*1984-327; \*1986-352 EMPR FIELDWORK \*1985, pp. 121-123, Fig. 17-1 EMPR GEM 1969-122, Fig. 13; 1970-119-128; \*1972-353-359 EMPR GEOL 1977-1981, p. 121 EMPR MAP 11; 69-1 EMPR OF 1994-14 EMPR P 1986-1; \*1990-2 EMPR PF (Crandall, J. and Nevin, A. (1977): Report on Geological and Geochemical Work Conducted on the New Buck, Godfrey, and Lorne Claims, Omineca Mining Division, B.C.; Berreta, M. (1977): I.P. Report for Bob Creek Property; Mid Mountain Mining Ltd., Prospectus, 1977; \*Kermeen, J.S. (1987): Report on the Bob Creek Gold-Silver Project, Mar.31, 1987 in Prospectus for Bard Silver and Gold Ltd., Nov.30, 1987; \*Jones, A.G. (1987): The Premier Prospect on the Bob Creek Gold-Silver Project in Prospectus for Bard Silver and Gold Ltd., Nov.30, 1987) EMR MP CORPFILE (Houston Gold Mines Ltd.; Lucky Strike Mines Ltd.) GSC BULL 270 GSC MAP 40-18A; 278A; 671A; 971A GSC OF 351 GSC P 36-20, pp. 121-123; 40-18 GSC SUM RPT 1929A, p. 93A GAC Program Abstracts 1983, Vol. 8, p. A12 GCNL #38,#55,#122, 1988 N MINER Feb.28, 1985 PR REL Royal County Minerals Corp., Feb.13, 17, 2003 V STOCKWATCH Jul.6, Aug.12, 25, 1988; \*Apr.4, 10, 1989 Placer Dome File

```
DATE CODED: 1985/07/24
DATE REVISED: 1989/04/10
```

CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 010</u>			NATIONAL MINERAL INVENTORY	: 093L7 Cu5
NAME(S):	STAR KLONDIKE, DUNG, CU, TRAC LAKE, KLONDI STAR, CHIEF, NC	ate, hot, Ke,			
STATUS:	Showing			MINING DIVISION	Omineca
NTS MAP:	093L07E			UTM ZONE	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 22 09 N 126 33 36 W 960 Metres Within 500M Approximate centre of are metres southeast of Hous	ea of drilling. Propert	y located 6.2 kilo-	NORTHING EASTING	: 6027341 : 658507
COMMODITIES:	Copper	Molybdenum	Silver	Gold	
MINERALS					
SIGNIFICANT: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Molybde Albitic	enite Bornite Sericitic	Pyrite N Carbonate	lagnetite Silicific'n	
ISOTOPIC AGE:	56.2 +- 3.0 Ma	DATING METHOD:	Potassium/Argon	MATERIAL DATED: Biot	ite
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Ma	Disseminated Hydrothermal b ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORI	MATION	IGNEOUS/METAN	IORPHIC/OTHER
Eower Jurassic Eocene ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	56.2 +/- 3.0 Ma Potassium/Argon Biotite	Teik	wa	Nanika Intrusions	
LITHOLOGY:	Quartz Feldspar Porphyry Andesite Rhyolite Tuff Breccia	/			
HOSTROCK COMMENTS:	Intrusive age from N. Ch	urch 1972 (Prelimina	ry Map 11).		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic R	ocks	PHYSIOGRAPHIC AREA: Nechak	o Plateau
INVENTORY					
ORE ZONE:	DRILLHOLE		REPORT ON:	Ν	
	CATEGORY: Assay/a SAMPLE TYPE: Drill Corr COMMODITY Copper	nalysis e <u>GR</u> 0	YEAR: ADE 2800 Per cent	1969	
COMMENTS: REFERENCE:	Quartz rich section of DD altered porphyry with nar Assessment Report *593	H-2 70 to 80 metres. row seams of magne 5.	Drill intersects etite & minor chalcop	pyrite.	
ORE ZONE:	SAMPLE		REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Sample from Star Klondik Property File - Fairbank, E	nalysis <u> </u>	YEAR: 2000 Grams p 3600 Grams p 1240 Per cent 66.	1986 er tonne er tonne	

# CAPSULE GEOLOGY

Lower Jurassic Hazelton Group volcanic rocks are intruded by a Nanika Intrusive quartz feldspar porphyry stock dated at 56.2 plus or minus 3.0 million years (Preliminary Map 11). The volcanic rocks

PAGE: 21 REPORT: RGEN0100

#### CAPSULE GEOLOGY

range in composition from basalt to rhyolite and are comprised mainly of pyroclastics and breccias. Copper, zinc and silver mineralization occur in the volcanics (refer to Deer - 093L 011).

Mineralization consisting mainly of chalcopyrite, magnetite, molybdenum and pyrite occurs as disseminations and fracture fillings in the porphyry intrusive and in the immediately adjacent Hazelton volcanics. Minor bornite has also been reported. Some albitization, carbonate alteration, sericitization, and kaolinization have taken place and one zone exhibits intense silicification. Only subeconomic grades of mineralization were encountered in fairly extensive drilling. Copper grades from within the porphyry system ranged from 0.01 to 0.54 per cent while grades from the country rock ranged from 0.01 to 0.18 per cent (Church, 1972). Gold grades from trace to 0.69 grams per tonne and silver grades from 0.69 to 13.7 grams per tonne were reported from Noranda's drill core samples (Assessment Report 5935).

Samples collected from the Star Klondike zone in 1986 ranged from 0.05 to 0.36 grams per tonne gold, 2.1 to 2.7 grams per tonne silver and 0.07 to 0.19 per cent copper (1988 Prospectus for Amanda Resources).

#### BIBLIOGRAPHY

EMPR ASS RPT 909, 1157, 1181, 4954, \*5759, 5882, \*5935, \*15383 EMPR EXPL 1975-140; 1976-148 EMPR GEM \*1972-384-390; 1974-259; 1986-351 EMPR AR 1965-80; 1966-103; 1968-138 EMR MP CORPFILE (Mexxon Mines Ltd.) EMPR MAP 11; 69-1 EMPR BULL 64; \*78 (in press) GSC 0F 351 GSC BULL 270 EMPR PF (Branchflower, J., (1974): Percussion Drilling report on the Dungate Creek Prospect, Northeast B.C. for Canadian Superior Exploration Ltd.; Company files and geological compilations by Canadian Superior Exploration Ltd.; miscellaneous maps; \*Fairbank, B.D., (1987): Geological and Geophysical Report on the Trac Lake property, Aug.31, 1987; \*Amendment No. 1 to the Prospectus of Amanda Resources Ltd., Sept.16, 1988; Amanda Resources Prospectus dated Apr.27, 1988) EMPR P \*1990-2 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/17 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 011</u>	NATIC	ONAL MINERAL INVENTORY: 093L7 Cu10
NAME(S):	<b>DEER</b> , MUD LAKE, TRAC, TRAC LAKE		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAP:	British Columbia 093L07E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 23 46 N 126 34 20 W 808 Metres Within 500M Copper showings from Assessment Re	port 1608 and Deer zone locatio	NORTHING: 6030310 EASTING: 657610 n
	from 1988 Prospectus for Amanda Res	ources (Fig. 3).	
COMMODITIES:	Copper Zinc	Silver	Fluorite
		e Elverite Durite	
	Perthite Magnetite	a Fluonte Pyrite	
ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Carbonate Fluoriti Potassic Silicific'n Unknown	e Ankerite Carbonate	
DEPOSIT			
CHARACTER: CLASSIFICATION: TYPE:	Vein Disseminated Epigenetic Hydrotherma L04 Porphyry Cu ± Mo ± Au I05 Polymetallic veins Ag-Pb-Zn±Av	d I Volcanogenic G06	Industrial Min. Noranda/Kuroko massive sulphide Cu-Pb-Zn
HOST ROCK DOMINANT HOSTROCK	: Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Rhyolitic Pyroclastic Rhyolite Felsite Porphyritic Andesite Volcanic Breccia Aplite Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYS	IOGRAPHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Copper	YEAR: 1986 <u>GRADE</u> 27.9000 Grams per ton 4.5600 Per cent 2.1000 Box cent	ne
COMMENTS: REFERENCE:	Sample from Deer zone, sample #2075 Property File - Fairbank, B.D., 1987.	5. 1000 Percent	
CAPSULE GEOLOGY			
	The area is underlain pyroclastics of the Lower J The rocks consist of porphy and tuffs. An aplite dike intrudes the volcanic seque Reports indicate that pyrite mineralization occur aplite dike. In 1972, a sa cent copper with traces of	by a steeply dipping survey a steeply dipping survey as a steeply dipping survey and steeply dipping survey and survey an	equence of rhyolitic , Telkwa Formation. reccias, rhyolite imately 3 metres sphalerite, and rocks and the ike assayed 1.5 per sment Report 3767).

Chalcopyrite occurs in areas of K-feldspar alteration as fine disseminations, along fractures and along narrow, widely spaced quartz veins. Galena, sphalerite and fluorite occur as coatings along fractures and in narrow quartz-carbonate veins in siliceous, ankeritic felsite. In 1986, pyrrhotite and magnetite were noted in areas where disseminations are more abundant. K-feldspathization, silicification and carbonate alteration occur in the area.

PAGE: 23 REPORT: RGEN0100

### CAPSULE GEOLOGY

Around the Deer zone occurrence, exposures of copper occur for a known distance of about 750 metes with localized exposures of lead, zinc and silver. Grab samples from these showings contained from 0.06 to 4.56 per cent copper, 0.2 to 7.8 per cent zinc and 2.05 to 27.8 grams per tonne silver (Amanda Resources, Prospectus, 1988). The hosting rhyolitic pyroclastic belt averages 400 to 600 metres in width and extends for about 5.2 kilometres in length. Toward the north end of the belt, poorly-bedded breccias suggest that an explosive volcanic vent may be present. It has been proposed that the Deer zone mineralization may be of volcanogenic type (Amanda Resources, Prospectus, 1988).

### BIBLIOGRAPHY

EMPR ASS RPT \*1608, 3767, \*15383, 18463 EMPR GEM \*1972-391-393 EMPR EXPL 1986-351 EMPR MAP 11; 69-1 GSC OF 351 GSC BULL 270 EMPR BULL 64; \*78 (in press) EMPR PF (\*Fairbank, B.D., (1987): Geological and Geophysical Report on the Trac Lake property, Aug.31, 1987; Amanda Resources Prospectus dated Apr.27, 1988; \*Amendment No. 1 to the Prospectus of Amanda Resources Ltd., Sept.16, 1988) EMPR OF 1992-16; 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/24 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 012</u>		NATION	AL MINERAL INVENTORY:	093L8 Cu1
NAME(S):	<u>Bornite</u> , Bar, Dana , Tex				
STATUS:	Prospect			MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAD:	British Columbia 093L08W			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 29 40 N 126 25 33 W 762 Metres Within 1 KM Located south of Perow, just kilometres northeast of Houst	west of Gilmore Lake ton.	e approximately 20	NORTHING: EASTING:	6041586 666711
COMMODITIES:	Copper Sil	lver	Lead	Zinc	Barite
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Barite Quartz Calcite Silicific'n Unknown	Tetrahedrite ( Barite Pyrite	Galena Sphalerit e Jasper	e	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION:	Vein Dis Epigenetic Ep H05 Epithermal Au-Ag: Iov Irregular Faulted 0300 x 0020 x 0007 Me	sseminated bithermal w sulphidation etres	Industrial Min. L01 STRIKE/DIP:	Subvolcanic Cu-Ag-Au ( TREND/PLU	(As-Sb) NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMAT	ION	IGNEOUS/METAM	ORPHIC/OTHER
Jurassic LITHOLOGY:	Hazelton Andesitic Pyroclastic Rhyolite Pyroclastic Tuff Breccia	Undefine	d Formation		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIO	GRAPHIC AREA: Nechako	o Plateau
INVENTORY					
ORE ZONE:	DRILLHOLE		REPORT ON: N		
REFERENCE:	CATEGORY: Assay/analy SAMPLE TYPE: Drill Core <u>COMMODITY</u> Silver Assessment Report 15479.	ysis <u>GRAD</u> E 65.140	YEAR: 1986 00 Grams per tonne		
CAPSULE GEOLOGY					
	comprised of andesit	eriain by Jura ic to rhyolition	ssic Hazelton Gro c flows, tuffs, a about 80 degrees	up volcanics nd breccia which	

strike uniformly northwest and dip about 80 degrees northeast. Mineralization consisting of chalcopyrite, bornite, and tetrahedrite occurs mainly as fragmental rims and disseminations in the matrix of a very strongly silicified andesitic to rhyolitic pyroclastic rock. Minor galena and sphalerite have also been reported. Scattered specks of chalcopyrite also occur in a strongly silicified, buff coloured rhyolite approximately 150 metres to the north. Silver values up to at least 65.14 grams per tonne have been obtained. Barite occurs in small veins (Assessment Report 15479).

Barite occurs in small veins (Assessment Report 15479). In 1986, a surface projection of a low-grade copper-silver bear-ing zone was defined by diamond drilling. The zone is approximately 300 metres long and up to 7 metres wide, striking northwest-southeast. The drilling intersected a strongly silicified, stratabound zone with sporadic stockwork development over 20 metres in true thickness, and with a steep northeast dip. Within the zone, weak copper-silver mineralization occurs as disseminations and irregular microvein fillings of chalcopyrite and tetrabedrite Gangue minerals include fillings of chalcopyrite and tetrahedrite. Gangue minerals include

# CAPSULE GEOLOGY

quartz, calcite, barite, pyrite and jasperoid. The zone appears to be faulted 50 metres below the surface and may be a favourable host for an epithermal precious/base metal deposit.

#### BIBLIOGRAPHY

EMPR ASS RPT 1153, \*6495, \*15479 EMPR EXPL 1977-194; 1987-C304 EMR MP CORPFILE (Mexxon Mines Ltd.) EMPR MAP 11; 69-1 GSC OF 351 GSC BULL 270 EMPR BULL \*78 (in press) EMPR P \*1990-2

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/24 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>U93L 013</u>	NATIONAL MINERAL INVENTO	JKY: 093L9 Cu2
NAME(S):	JOKER, SPRING		
STATUS: REGIONS: NTS MAD	Showing British Columbia	MINING DIVIS	SION: Omineca
BC MAP:			UNC: 0045070
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	126 08 23 W 1132 Metres Within 1 KM At elevation of 1132 metres along wes kilometres east-northeast of Topley.	t fork of Ailport Creek, 10.5	ING: 685087
COMMODITIES:	Copper Barite		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Barite Barite Calcite Carbonate Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Industrial Mir L01 Subvolcanic Cu-Ag-Au (As-Sb Mineralized barite vein, 0.5 metres in w	n. ) D03 Volcanic redbed Cu STRIKE/DIP: 340/80E TRENI idth.	MPLUNGE:
HOST ROCK			
DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION IGNEOUS/ME	TAMORPHIC/OTHER
LITHOLOGY:	Brecciated Feldspar Porphyry		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC AREA: Net	chako Plateau
CAPSULE GEOLOGY			
	The area is underlain Group volcanics. A barite ing 340 degrees and dipping chalcopyrite in a gangue of contained in a coarsely cry couple of small barite-calc with chalcopyrite also occu and silver are reported.	by Lower to Middle Jurassic Hazelton vein approximately 0.5 metres wide str: 80 degrees east is mineralized with 5 barite and calcite. The vein is stalline feldspar porphyry breccia. A site veins that are slightly mineralized or in the area. Only trace amounts of g	lk- d gold
BIBLIOGRAPHY	EMPR AR 1930-145 GSC SUM RPT 1928A, p. 76 GSC MAP 671A; 971A EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR ASS RPT *16193 EMPR EXPL *1987-C304		
DATE CODED: DATE REVISED:	1985/07/24 1987/08/25	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

<u>093L 014</u>		NATIONAL MINERAL INVENTORY:	093L9 Ag4
<u>EVERGREEN,</u> MAPLE LEAF			
Showing British Columbia		MINING DIVISION:	Omineca
093L09E		UTM ZONE:	09 (NAD 83)
54 34 02 N 126 12 53 W 1433 Metres Within 1 KM Located on the northeast slope of Mt. N northeast of Topley.	/icCrea, about 10 kilometre	NORTHING: EASTING: s	6050201 680059
Lead Copper	Zinc	Gold	
Galena Chalcopyrite Spha Quartz Barite Calcite Silicific'n Unknown	lerite Pyrite		
Vein Hydrothermal I05 Polymetallic veins Ag-Pb-Zn±A	u		
Volcanic			
GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMO	ORPHIC/OTHER
Andesite Basalt Tuff Volcanic Breccia			
Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	Plateau
The area is mainly und tuffs, and breccias of the consists of a two metre wid and silicified country rock pyrite. Approximately 120 consists of two quartz veir apart that are sparsely mir sphalerite. These veins al vein varies in width from ( is from 30 to 35 centimetre apparently low. EMPR AR 1926-144; 1928-176; GSC SUM RPT 1928A, p. 75 GSC MAP 671A; 971A GSC P 40-18A	derlain by andesiti Jurassic Hazelton de shear zone conta k with small amount metres vertically hs in andesite appr heralized with chal lso appear to be in 0.3 to 0.6 metres w es in width. Gold 1930-144; 1931-75	c and basaltic flows, Group. One showing ining highly altered s of galena and chalco- higher, another showing oximately 46 metres copyrite, galena, and a shear zones. One thile the other vein and silver values are	
GSC OF 351 GSC BULL 270 EMPR MAP 69-1 EMPR ASS RPT 16193 EMPR EXPL 1987-C304			
	093L 014 EVERGREEN, MAPLE LEAF Showing British Columbia 093L09E 54 34 02 N 16 12 53 W 1433 Metres Within 1 KM Located on the northeast slope of Mt. M northeast of Topley. Lead Copper Galena Chalcopyrite Spha Quartz Barite Calcite Silicific'n Unknown Vein Hydrothermal 105 Polymetallic veins Ag-Pb-Zn±A Volcanic <u>GROUP</u> Hazelton Andesite Basalt Tuff Volcanic Breccia Intermontane Stikine The area is mainly und tuffs, and breccias of the consists of a two metre wic and silicified country rock pyrite. Approximately 120 consists of two quartz veir apart that are sparsely mir sphalerite. These veins al vein varies in width from O is from 30 to 35 centimetre apparently low. EMPR AR 1926-144; 1928-176; GSC SUM RPT 1928A, p. 75 GSC MAP 671A; 971A GSC P 40-18A GSC BULL 270 EMPR ASS RPT 16193 EMPR EXPL 1987-C304	993L 014 EVERGREEN, MAPLE LEAF Showing British Columbia 093L09E 54 34 02 N 126 12 53 W 1433 Metres Within 1 KM Located on the northeast slope of Mt. McCrea, about 10 kilometre northeast of Topley. Lead Copper Zinc Galena Chalcopyrite Sphalerite Pyrite Quartz Barite Calcite Silicific'n Unknown Vein Hydrothermal 105 Polymetallic veins Ag-Pb-Zn±Au Volcanic <u>GROUP</u> <u>FORMATION</u> Hazelton Undefined Formation Andesite Basalt Tuff Volcanic Breccia Intermontane Silikine The area is mainly underlain by andesiti tuffs, and breccias of the Jurassic Hazelton consists of a two metre wide shear zone conta and silicified country rock with small amount pyrite. Approximately 120 metres vertically consists of a two quartz veins in andesite appr apart that are sparsely mineralized with chal phalerite. These veins also appear to be in vein varies in width from 0.3 to 0.6 metres w is from 30 to 35 centimetres in width. Gold apparently low. EMPR AR 1926-144; 1928-176; 1930-144; 1931-75 GSC CMM RPT 1928A, p. 75 GSC MMP 671A; 971A GSC P 40-18A GSC OF 40-18A GSC OF 40-18A GSC OF 351 GSC BULL 270 EMPR MAP 69-1 EMPR MAS RPT 16193 EMPR MAP 69-1 EMPR MAS RPT 16193 EMPR MAP CEVPL 1987-C304	931_011       NATIONAL MINERAL INVENTORY:         EVERGREEN, MAPLE LEAF       Showing       MINING DIVISION:         Showing       UTM ZONE:       1000000000000000000000000000000000000

MINFILE NUMBER:	<u>093L 015</u>			NATIONAL MINI	ERAL INVENTORY:	093L9 Ag1
NAME(S):	GOLDEN EAGLE, SUNSET					
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 0931 09F		Underground		MINING DIVISION:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 32 N 126 14 06 W 1204 Metres Within 500M Mine symbol on 1:50,000 top	pographic sheet.			NORTHING: EASTING:	6051076 678712
COMMODITIES:	Silver L	ead	Zinc	G	old	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Freibergite Pyrite Quartz Carbonate Silicific'n C Unknown	Sphalerite Rhodochrosite arbonate	Galena	Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallic veins A	g-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	FORMA Undefine	TION ed Formation		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Volcanic Breccia Andesite Tuff					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOGRAPH	IC AREA: Nechako	Plateau
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON	N		
	CATEGORY: Assay/ana SAMPLE TYPE: Chip COMMODITY	lysis <u>GRADI</u>	YEAR:	1986		
COMMENTS: REFERENCE:	Silver Sample taken over 3.0 metro Assessment Report 15063.	11.00 es.	)00 Grams	per tonne		
CAPSULE GEOLOGY						
	mineralization on t more or less parall The zones are 0.6 t northeast at 30 to to about 46 centime zones. Minor rhodo some points the qua galena, chalcopyrit silver values are c	of the Jurassic he Golden Eagle el shear zones o 1.5 metres wi 75 degrees. Le tres wide occur chrosite is rep rtz is heavily e, tetrahedrite ommon as well a s including tet	Hazelton G property i approximate de, strike nticular qu on the foc orted to oc mineralized , freibergi s significa	Froup. The sroup. The sassociate ly 21 metre northwest a lartz-carbon otwall side scur in thes twith sphal te and pyri int gold val	principal d with two s apart. nd dip ate veins up of the shear e veins. At erite, te. High ues. Minor	
	amounts of sulphide and along fractures 11.0 grams per tonn volcanics (Assessme:	in the altered e silver occurr nt Report 15063	ranedrite c , "bleached red over 0.3	l" volcanics metres in	seminations . In 1986, the altered	
BIBLIOGRAPHY	amounts of sulphide and along fractures 11.0 grams per tonn volcanics (Assessme: EM EXPL 2001-1-9 EMPR AR 1927-148; 1 75; 1932-85; 193 1939-56,58,92; 1 95 EMDP ASS PDT *15062	in the altered e silver occurr nt Report 15063 928-174,420; 19 3-99; 1934-A24, 940-23,41,43,78	ranedrite ( , "bleached ed over 0.3 ). 29-179,429; C12; *1937- ; 1941-24,4	<pre>l volcanics metres in 1930-143; C24; 1938-B 1,55; 1942-</pre>	seminations . In 1986, the altered 1931- 36,C49; 31; 1952-	

EMPR MAP 69-1 EMR MP CORPFILE (Topley Consolidated Mining and Development Company, Limited; Topley Silver Limited; Norex Resources Ltd.) GSC MAP 40-18A; 671A; 971A GSC P 40-18, p. 15; 36-20, p. 152 GSC SUM RPT 1928A, p. 74 GSC BULL 270 GSC OF 351 IPDM Dec. 1985

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/14 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 016</u>				NATIONAI	_ MINERAL INVENTORY:	093L9 Ag2
NAME(S):	<u>SILVER CUP</u> , C	CUP, GOLD					
STATUS:	Past Producer			Unde	erground	MINING DIVISION:	Omineca
REGIONS. NTS MAP: ΒC ΜΔΡ	093L09W	1				UTM ZONE:	09 (NAD 83)
LOTITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 43 N 126 15 19 W 1064 Metres Within 500M					NORTHING: EASTING:	6051365 677389
COMMODITIES:	Silver	Lea	d	Gol	d	Copper	Zinc
MINERALS SIGNIFICANT: ASSOCIATED	Tetrahedrite Chalcopyrite	Freibergite Specularite	Silver Pyrite Tourmaline	Sphalerite	e Galena		
ALTERATION:	Dolomite	Muscovite	Quartz	Illite	Pyrite		
ALTERATION TYPE: MINERALIZATION AGE:	Silicific'n Unknown	Carl	bonate				
DEPOSIT CHARACTER:	Vein	Diss	seminated				
CLASSIFICATION: TYPE:	Unknown 105 Polyme	tallic veins Ag-F	Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton		<u>FO</u> Un	RMATION defined Form	ation	IGNEOUS/METAM	ORPHIC/OTHER
00103310	TIGEOROTI						
LITHOLOGY:	Rhyolite Andesite Tuff						
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Rhyolite Andesite Tuff Intermontane Stikine				PHYSIOG	RAPHIC AREA: Nechako	) Plateau
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	Rhyolite Andesite Tuff Intermontane Stikine				PHYSIOG	RAPHIC AREA: Nechako	) Plateau
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Rhyolite Andesite Tuff Intermontane Stikine DRILLHOLE			REP	Physiog Ort on: N	RAPHIC AREA: Nechako	) Plateau
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Rhyolite Andesite Tuff Intermontane Stikine DRILLHOLE CATEGORY: SAMPLE TYPE: COMMODITY Silver	Assay/analys Drill Core	sis <u>G</u>	REP 3RADE 78.4000	PHYSIOG ORT ON: N YEAR: 1990 Grams per tonne	RAPHIC AREA: Nechakc	) Plateau
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Rhyolite Andesite Tuff Intermontane Stikine DRILLHOLE CATEGORY: SAMPLE TYPE: COMMODITY Silver Gold Copper Lead Zinc	Assay/analys Drill Core	sis <u> </u>	REP 3RADE 78.4000 0.3200 0.1900 5.7000 2.7000	PHYSIOG ORT ON: N YEAR: 1990 Grams per tonne Grams per tonne Per cent Per cent Per cent	RAPHIC AREA: Nechako	) Plateau
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	Rhyolite Andesite Tuff Intermontane Stikine DRILLHOLE CATEGORY: SAMPLE TYPE: COMMODITY Silver Gold Copper Lead Zinc Across 0.2 met Assessment Re	Assay/analys Drill Core re of core. aport 20948, pa	sis <u> </u>	REP 78.4000 0.3200 0.1900 5.7000 2.7000	PHYSIOG ORT ON: N YEAR: 1990 Grams per tonne Grams per tonne Per cent Per cent Per cent	RAPHIC AREA: Nechako	) Plateau
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	Rhyolite Andesite Tuff Intermontane Stikine DRILLHOLE CATEGORY: SAMPLE TYPE: COMMODITY Silver Gold Copper Lead Zinc Across 0.2 met Assessment Re	Assay/analys Drill Core re of core. sport 20948, pair	sis <u> </u>	REP 378.4000 0.3200 0.1900 5.7000 2.7000 2.7000	PHYSIOG ORT ON: N YEAR: 1990 Grams per tonne Grams per tonne Per cent Per cent Per cent	RAPHIC AREA: Nechako	) Plateau

of the Jurassic Hazelton Group. The original interest on the property was in two approximately parallel, flat dipping quartz veins about 210 metres apart. They vary from about 0.9 to 1.8 metres in width. A number of other small quartz and quartz-carbonate veins are also present. Mineralization includes tetrahedrite, freibergite, native silver, galena, sphalerite, chalcopyrite, and pyrite. Ankerite is believed to be the dominant carbonate and tourmaline is present in small amounts. Recently, attention has been focused on highly bleached and

Recently, attention has been focused on highly bleached and altered zones containing sulphide mineralization as disseminations and veinlets which surround the veins. Some samples have yielded relatively high gold and silver values. Petrographically the alteration consists of carbonate (dolomite), muscovite, quartz, plus or minus illite with minor pyrite and tourmaline.

Diamond drilling in 1990 intersected mineralized quartzcarbonate veins where one hole analysed 0.32 gram per tonne gold, 78.4 grams per tonne silver, 0.19 per cent copper, 5.7 per cent lead

### CAPSULE GEOLOGY

and 2.7 per cent zinc over 0.2 metre of core (Assessment Report 20948, page 6).

#### BIBLIOGRAPHY

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/14 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 017</u>		NATIONAL N	MINERAL INVENTOR	RY: 093L9 Ag3
NAME(S):	<u>TUYA,</u> THREE STAR, SHEILA				
STATUS:	Showing British Columbia			MINING DIVISIO	N: Omineca
NTS MAP: BC MAP:	093L09E			UTM ZON	NE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 35 06 N 126 14 43 W 1143 Metres Within 500M			NORTHIN EASTIN	NG: 6052101 NG: 678007
COMMODITIES:	Silver Gold Antimony	Zi	nc	Copper	Lead
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Chalcopyrite Quartz Malachite Azurite E "Manganese oxide". Epidote Oxidat Unknown	Specularite Pyrit pidote tion	e		
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Epigenetic Hydroi 105 Polymetallic veins Ag-Pb	thermal -Zn±Au	STRIKE/DIP: 095/30N	TREND/F	PLUNGE:
COMMENTS:	Attitude of principal shear zone.				
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION	mation	IGNEOUS/MET	AMORPHIC/OTHER
LITHOLOGY.	Andesite Breccia				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGR/	APHIC AREA: Nech	ako Plateau
INVENTORY					
ORE ZONE:	STOCKPILE	RE	PORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Bulk Sample COMMODITY Silver Gold	<u>GRADE</u> 946.3000 7.9000	YEAR: 1939 Grams per tonne Grams per tonne		
	Antimony	1.5000 0.7000	Per cent Per cent		
COMMENTS: REFERENCE:	Zinc Shipment of 0.42 tonnes of ore. Minister of Mines Annual Report	10.0000 1939, page 59.	Per cent		
CAPSULE GEOLOGY	The occurrence is	primarily hoste	d by epidotized	andesite	
	width of 1.8 to 2.4 met centimetres wide and is is 23 to 46 centimetres malachite, and manganes	c Hazelton Group zones. The prin ds along the sid tres. The hangi s sparsely miner s wide and is we pyrite, chalco se oxide. Two s	. Mineralization cipal showing co es of a shear zo ngwall band is 2 alized while the ll mineralized. pyrite, specular amples reported	on is onsists of one having a 25 to 38 e footwall sid Mineralizati rite, azurite, Ly assayed	le on

consists of sphalerite, pyrite, chalcopyrite, specularite, azurite, malachite, and manganese oxide. Two samples reportedly assayed 7.89 and 4.11 grams per tonne gold and 946.3 and 61.7 grams per tonne silver. At least two other shear zones occur on the property. A shipment of 0.42 tonnes of ore in 1939 assayed 7.9 grams per tonne gold, 946.3 grams per tonne silver, 1.5 per cent copper, 10.0 per cent zinc and 0.7 per cent antimony (Minister of Mines Annual Report 1939, page 59).

### BIBLIOGRAPHY

EMPR AR 1928-175,176; 1929-180; \*1937-C32, Special Rpt.; \*1939-59;

1940-45 GSC P 40-18, p. 15 GSC MAP 671A; 971A EMPR ASS RPT \*15063, 16193 EMPR EXPL 1986-355; 1987-C304 EMPR MAP 69-1 GSC 0F 351 GSC BULL 270 EMPR PF (Lay, D., (1937): Special Report for Minister of Mines)

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/14 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 018</u>		NATIONAL MIN	ERAL INVENTORY:	093L9 Ag2
NAME(S):	TOPLEY RICHFIELD, RED TO	P, RICHFIELD			
STATUS: REGIONS:	Past Producer British Columbia	Und	derground	MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L09W			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 35 47 N 126 15 48 W 1267 Metres Within 500M The Topley Richfield occurrer of Tachek Mountain about 10 kilometres northeast of Housto	nce is located on the south kilometres north of Topley on.	nwest slope and 35	NORTHING: EASTING:	6053322 676791
COMMODITIES:	Silver Lea	ad Zii	nc C	Gold	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Gold S Galena Sphalerite Quartz Ankerite Siderite Ankerite Silicific'n Car Unknown	Silver Tetrahedrite Chalcopyrite Calcite rbonate	e Arsenopyrite		
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Bre Epigenetic Hyd I05 Polymetallic veins Ag- G04 Besshi massive sulphi Alteration zone.	eccia drothermal Pb-Zn±Au ide Cu-Zn	H05 Epith STRIKE/DIP: 350/45S	ermal Au-Ag: low su TREND/PLUN	lphidation IGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMC	RPHIC/OTHER
Jurassic Triassic-Jurassic	Hazelton	Telkwa		Topley Intrusions	
LITHOLOGY:	Feldspar Crystal Tuff Lithic Tuff Greywacke Argillite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Intermontane Stikine In the eastern section of the S	Skeena Arch.	PHYSIOGRAPH	IIC AREA: Nechako	Plateau
INVENTORY					
ORE ZONE:	TOPLEY-RICHFIELD	RE	PORT ON: Y		
	CATEGORY: Indicated QUANTITY: 181420 COMMODITY Silver Gold Drill indicated. Conselion Minos Handbook 10	Tonnes <u>GRADE</u> 191.9600 4.2500	YEAR: 1989 Grams per tonne Grams per tonne		
	Canadian Wines Handbook 19	00-00, page 021.			
	The Topley Richf	field property is	underlain by Lower	-Middle	
	Overburden in the are Mineralization is hos feldspar crystal tuff beds of argillite. T (Hazelton Group) and	buy rocks in the e ea can be in exces sted primarily in ; f with lesser lith This sequence is p is conformably ov	ascern part of the s of 50 metres thi pyroclastic rocks ic tuffs, greywack art of the Telkwa erlain by pyroxene	comprised of es and thin Formation e-bearing	

andesitic flows of the Nilkitkwa Formation (Hazelton Group). The contact between these two formations is located on the western portion of the property and strikes 170 degrees dipping 45 degrees to the southwest. Mineralization is structurally controlled and occurs in two alteration zones which strike north-northwest (350 degrees) and dip 45 degrees to the southwest. The zones range from 10 to 40 metres in

### CAPSULE GEOLOGY

width and are about 25 metres apart. They are characterized by pervasive silicification, brecciation, sideritic alteration and quartz and calcite veining. Bladed ankerite occurs commonly in calcite vugs. Pyrite is the most abundant sulphide with minor native gold, native silver, tetrahedrite, arsenopyrite, galena, sphalerite and chalcopyrite occurring as stringers, disseminations and blebs.

Lenses containing stronger sulphide mineralization occur within the alteration zones and are called the B/C and D zones. These lenses vary in width from 1 to 5 metres apart and rake to the southwest. The mineralization occurs in several narrow bands separated by unmineralized zones and makes up about 10 to 15 per cent of the lenses. Two intersections in the B/C lens in 1980 assayed 5486 grams per tonne silver over 20 centimetres, and 4.8 grams per tonne gold with 202 grams per tonne silver over 7.6 metres respectively (Assessment Report 9294).

Faulting in the area has offset the main workings and displaced the main alteration zones by about 100 metres along a right-lateral fault.

Significant development from 2 levels occurred from 1927 to 1929 with significant recent evaluation occurring from 1979 to 1987. Drill indicated reserves at Topley Richfield are 181,420 tonnes grading 4.25 grams per tonne gold and 191.96 grams per tonne silver (Canadian Mines Handbook 1989-90, page 327).

#### BIBLIOGRAPHY

EMPR AR 1924-98; \*1926-138-143; \*1927-140-147; 1928-173; 1929-179; 1930-363; 1935-C39; 1937-C26; 1941-43; 1946-89; 1951-117; 1952-95; 1955-25; 1956-28 5553, 5707, 7817, 7957, 8525, 9294, 9563, EMPR ASS RPT 5438, 9875, 11454, 11704, 17374 EMPR BULL 1 (1929), p. 26; 64 EMPR ENG INSP Fiche No. 61663, 61664 EMPR EXPL 1975-E140; 1979-228; 1980-343; 1981-64,142; 1983-443; \*1987-B50-B53; 1988-C170 EMPR GEOL 1975-G65 EMPR MAP 64; 65 (1989); 69-1 EMPR OF 1992-1 EMPR PF (Whiting, F.B. (1980): Geological Report on the Richfield Property in Statement of Material Facts, Feb. 22, 1980; miscellaneous maps; Sirius Resource Corporation, Statement of Material Facts #117/88, p. 7) EMR MIN BULL MR 198, p. 237; 223 B.C. 229 EMR MP CORPFILE (Porcupine Goldfields Development and Finance Company; Topley Richfield Mining Company, Limited; Seemor Mines Limited; Cobre Exploration Limited) GSC MAP 671A; 971A; 1424A GSC MAP 0/IA/ //IA/ //IA/ GSC OF 351 GSC P 36-20, p. 154; 40-18, p. 13 GSC SUM RPT 1928 Part A, pp. 71-74 GCNL #11,#18,#98,#113,#200, 1980; #27,#32, 1981; #206, 1982 N MINER Feb.12,Aug.13, 1981 WWW http://www.infomine.com/ Placer Dome File EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1989/03/03 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 019</u>				NATION	AL MINERAL INVENTORY:	093L9 Au1
NAME(S):	<u>JACK RABBIT,</u> SAW, SI MEGAN	JSAN,					
STATUS:	Showing					MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L09W					UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 12 N 126 24 36 W 915 Metres Within 500M Claims are on a branch s metres northwest of Top Perow.	tream enteri ley or approx	ng Johnny David C kimately 6.4 kilome	Creek, 1 etres no	0 kilo- orth of	NORTHING: EASTING:	6050027 667427
COMMODITIES:	Copper	Silver	G	old			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE:	Chalcopyrite Quartz Anhydrite Malachite Epidote Magnetite Siderite Oxidation	e Calci Kaolir Epidote	ite hite Hematite So	ericitic	Chlorite	Argillic	Carbonate
MINERALIZATION AGE:	Unknown						
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic L01 Subvolcanic Cu- Mineralized shear zone.	Breccia Hydrotherr Ag-Au (As-S	nal Sb)	STRIKE	L04 /DIP: 160/	Porphyry Cu ± Mo ± Au 70W TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE Lower Jurassic Eocene	GROUP Hazelton		<u>FORMATION</u> Telkwa			<u>IGNEOUS/METAM</u> Unnamed/Unknov	ORPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Quartz Feldspar Porphyr Quartz Monzonite	y Dike					
HOSTROCK COMMENTS:	Porphyry Intrusion.						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	F	Plutonic Rocks		PHYSIC	GRAPHIC AREA: Nechako	Plateau
INVENTORY							
ORE ZONE:	VEIN		RE	PORT	ON: N		
	CATEGORY: Assay/ SAMPLE TYPE: Grab COMMODITY Silver	analysis	<u>GRADE</u> 171.4000	YE/ Gran	AR: 1927		
COMMENTS: REFERENCE:	Gold Copper 40 centimetre vein samp Minister of Mines Annual	e. Report 1928	42.5000 9.4000 3, page 177.	Gran Per o	ns per tonne cent		
CAPSULE GEOLOGY				-		1	
	The claims a volcanics of the rhyolitic flows, ton rocks are und comprised of dark property, Tertiar (Geological Surve rocks. They are basaltic flows an The Hazelton	re under Telkwa Fo tuff and erlain by green tu y Endako y of Cana comprise d sedimen rocks a	Lain by Lower Drmation, com breccia. So y Upper Trias iffs, flows a Group volcan ada Open File d of very mag nts. re comprised	Jura prise outh c sic 1 ind sh ics c 351) netic	assic Haz ad mainly of the pr Cakla Gro ales. N of the Ch overlie c, unifor	elton Group of andesitic to coperty the Hazel- oup volcanics North of the hina Nose Breccias the Hazelton muly black, hered, marcon to	
infilling in cavities and veinlets. Epidote is abundant. The volcanics are crosscut by a beige to buff coloured porphyry dike. The dike is 20 metres wide and hosts angular laths of bleached feldspar and rounded quartz eyes. Alteration consists of sericite and kaolinite minerals with 1.0 to 2.0 per cent disseminated pyrite and malachite. Malachite occurs in fractures or as rims on pyrite and chalcopyrite grains.

Near the quartz-feldspar porphyry dike of quartz monzonite composition, is a mineralized shear zone striking 160 degrees and dipping 70 degrees west. The gouge zone hosts fault breccia cemented with quartz and clay. It is bleached to pale green and hosts minor specular hematite. The shear cuts grey rhyolite and an andesitic fragmental rock with siderite, epidote, calcite, and malachite in the fractures.

In 1927, the Jack Rabbit mineralized shear was sampled. A 40 centimetre vein sample assayed 42.5 grams per tonne gold, 171.4 grams per tonne silver, and 9.4 per cent copper. Another 120 centimetre sample assayed 10.3 grams per tonne gold, 89.1 grams per tonne silver, and 2.5 per cent copper (Minister of Mines Annual Report 1928, page 117). In 1986, a grab sample of highly oxidized dump material assayed

In 1986, a grab sample of highly oxidized dump material assayed 0.28 grams per tonne gold, 4.1 grams per tonne silver, and 1.82 per cent copper. Also, a chip sample across 1.5 metres above a collapsed adit assayed 4.9 grams per tonne gold, 6.5 grams per tonne silver, and 0.22 per cent copper (Assessment Report 16071).

Widespread weak copper mineralization ranging from 0.02 to 0.07 per cent, is reported to occur in intrusive and volcanic rocks away from the vein and within an area about 60.0 metres in length along a creek east of the Jack Rabbit showing. In 1966, two samples taken above an old tunnel assayed 0.27 and 0.17 per cent copper.

#### BIBLIOGRAPHY

EMPR AR 1928-177; 1930-144; 1933-99; 1937-342 EMPR ASS RPT 2738, \*4760, \*13845, \*16071 EMPR EXPL \*1976-E148; \*1985-C313; 1987-C304; 1998-19-31 EMPR GEM 1970-157; 1973-342 EMPR MAP 69-1 GSC BULL 270 GSC MAP 671A; 971A GSC OF 351 GSC P 40-16, p. 16 GSC SUM RPT 1928A, p. 76

DATE CODED: 1985/07/24 DATE REVISED: 1987/07/13

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 020</u>	NATIONAL MINERAL INVENTORY: 093L10 Cu1	
NAME(S):	<b>BLACK MOUNTAIN</b> , LUCKY, LADY, PEHU, RANDOLPH, CAT, PEELER, JAVA		
STATUS: REGIONS	Showing British Columbia	MINING DIVISION: Omineca	
NTS MAP:	093L10E	UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 35 09 N 126 31 21 W 1286 Metres Within 1 KM	NORTHING: 6051527 EASTING: 660094	
COMMODITIES:	Copper Silver		
MINERALS			
SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Bornite Hematite Calcite Hematite Unknown		
DEPOSIT CHARACTER	Vein		
CLASSIFICATION: TYPE:	Epigenetic L01 Subvolcanic Cu-Ag-Au (As-Sb)	D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP FORMATION Tolkwa	IGNEOUS/METAMORPHIC/OTHER	<u>{                                    </u>
Jurassic		Topley Intrusions	
LITHOLOGY:	Andesite Andesitic Volcanic Granodiorite Quartz Monzonite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako Plateau	
INVENTORY			
ORE ZONE:	SAMPLE REPORT C	ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis YEA SAMPLE TYPE: Grab <u>COMMODITY</u> <u>GRADE</u> Silver 137.1000 Gram Copper 6.0000 Per c Mineralization occurs along bedding plane. Minister of Mines Annual Report 1928, page 177.	AR: 1928 ns per tonne cent	
CAPSULE GEOLOGY	The even is mainly underlain by Leven	Tunggig Hogelton Group	
	The area is mainly underlain by Lower volcanics of the Telkwa Formation which are Jurassic Topley Intrusions. Mineralization fractures in andesitic volcanic rocks and o bornite, calcite, and hematite. A 1928 rep lization along bedding planes and a sample tonne silver and 6.0 per cent copper (Minis 1928, page 177).	Jurassic Hazelton Group e intruded by Early n occurs in veins and consists of chalcopyrite, port referred to minera- gave 137.1 grams per ster of Mines Annual Report	
BIBLIOGRAPHY	EMPR EXPL 1988-C170,171 EMPR GEM 1969-120; 1970-158 EMPR AR 1928-177; 1967-107; 1968-136 EMPR ASS RPT 1559, 1667, *17553, 17688 EMR MP CORPFILE (Mexxon Mines Ltd.; Key Poi GSC OF 351 EMPR MAP 69-1 GSC MAP 671A GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208	int Mines Co. Ltd.)	

## BIBLIOGRAPHY

EMPR PF ( Singhai, G.C. (1988): Report on Perrow 300, Peeler and Java 300 Mineral Claims in Prospectus for Crisan Resources Ltd., Jan. 5, 1989).

DATE CODED:	1985/07/24
DATE REVISED:	1988/07/09

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 021</u>	NATIONAL MINERAL INVENTORY: 093L9 Cu4
NAME(S):	RAINBOW, A.E. WATSON	
STATUS: REGIONS:	Showing British Columbia	MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L09E	UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: EL EVATION:	54 33 40 N 126 11 06 W	NORTHING: 6049598 EASTING: 682008
LOCATION ACCURACY: COMMENTS:	Within 5 KM Located on hills east of the summit of Mt. McCrea, approximately kilometres northeast of Topley in a direct line.	y 9.7
COMMODITIES:	Copper	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Specularite Hematite Unknown	
CLASSIFICATION: TYPE:	Epigenetic Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb)	D03 Volcanic redbed Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic	
STRATIGRAPHIC AGE	GROUP FORMATION Telkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesitic Breccia Andesite Rhyolite Tuff Volcanic Flow	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC AREA: Nechako Plateau
INVENTORY		
ORE ZONE:	SAMPLE REPORT OF	N: N
	CATEGORY: Assay/analysis YEAF SAMPLE TYPE: Grab	R: 1928
COMMENTS: REFERENCE:	Copper 6.000 Per ce Selected sample also showed trace gold and silver. Minister of Mines Annual Report 1928, page 176.	nt
CAPSULE GEOLOGY		
	The showing is underlain by Lower Juras volcanics of the Telkwa Formation comprised rhyolitic flows, tuffs, and breccia. Minera bedding planes and in fractures within the a flows. The mineralization consists of chalo At elevation 1362 metres, bedding and j volcanics host chalcopyrite over 2.1 metres. 306 degrees and dips steeply southwest. In assayed 6.0 per cent copper, trace silver, a sample of a stringer from this showing assay (Minister of Mines Annual Report 1928, page metres south of this showing, an open cut in degrees and dipping southeast, shows copper	ssic Hazelton Group of andesitic to alization occurs along undesitic breccia and copyrite and specularite. jointing planes in the The bedding strikes 1928, a selected sample and trace gold. A surface red 1.0 per cent copper 176). Approximately 122 volcanics striking 080 mineralization in small

degrees and dipping southeast, shows copper mineralization in small fractures striking 018 degrees and dipping steeply southeast. A selected sample assayed 2.1 per cent copper (Minister of Mines Annual Report 1928, page 176). At elevation 1384 metres, specular hematite occurs along bedding planes in the volcanic flows. Minor chalcopyrite occurs with the hematite and a selected sample of the specularite assayed 0.2 per cent copper (Minister of Mines Annual Report 1928, page 176).

## BIBLIOGRAPHY

EMPR AR 1928-176

# BIBLIOGRAPHY

GSC MAP 671A EMPR MAP 69-1 GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/07 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 022</u>			NATIONA	L MINERAL INVENTORY:	093L10,15 Au1
NAME(S):	DOME MOUNTAIN (FORKS	), FORKS				
STATUS: REGIONS: NTS MAP: BC MAP:	Past Producer British Columbia 093L10E		Underground		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 25 N 126 37 16 W 1350 Metres Within 500M At the confluence of two crr 35 kilometres east of Smith	eeks on the eastern fla ers.	ank of Dome Mo	untain,	NORTHING: EASTING:	6068487 653141
COMMODITIES:	Gold S Antimony	Silver	Zinc		Lead	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Quartz Sericite Carbonate Sericitic ( Unknown	Chalcopyrite Fuchsite Carbonate	Arsenopyrite	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic H I01 Au-quartz veins I05 Polymetallic veins A 30 x 10 M Orebody.	Hydrothermal Ag-Pb-Zn±Au Metres	STRIKE/DIF	102 P:	Intrusion-related Au pyrr TREND/PLU	hotite veins INGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	<u>GROUP</u> Hazelton	<u>FORMA</u> Nilkitkw	TION a		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Tuff Schistose Andesite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOG	RAPHIC AREA: Nechako	o Plateau
				V		
COMMENTS:	CATEGORY: Indicated QUANTITY: 2000( COMMODITY Gold Drilling in 1985 defined a ge	) Tonnes <u>GRAD</u> 23.60 eological reserve.	YEAR: <u>E</u> 000 Grams p	1985 Der tonne		
	Tieldwork 1900, page 212.					
	At the Dome Mo was in the creek be andesites of the Lo Group). The orebod heavily charged (5 and sphalerite. La 30 to 150 centimetr altered and foliate sphalerite and arse dipping northeast a 85.4 grams per tonm northeast and avera tonne silver. Drilling in 19 grading 23.6 grams	ountain (Forks) ed, in a northea ower-Middle Jura ly (10 by 30 met to 10 per cent) ter tunnelling res in width hos ed tuffs. The v enopyrite. One overages (weight te silver over 1 ages 15.3 grams 285 defined a ge per tonne gold	occurrence, st trending ssic Nilkit res long) w with galen outlined tw ted in seri teins contai vein, trend ed) 42.1 gr 2 metres. per tonne g cological re (Fieldwork	the or shear kwa For as repo o quart cite-ca n pyrit ing nor ams per The oth old and serve o 1986, p	iginal showing zone in schistose mation (Hazelton rted as quartz nopyrite, pyrite z veins averaging rbonate-fuchsite e, galena, thwest and tonne gold and er vein trends 59.0 grams per f 20,000 tonnes age 212).	2
BIBLIOGRAPHY	EMPR AR 1915-77; 19 1924-96 EMPR ASS RPT *13277	916-130; 1918-12 7, *13827, *1561	2; *1922-10 4, *15659,	3; 1923 16171	-111;	

#### BIBLIOGRAPHY

EMPR EXPL 1984-329; 1987-C306 EMPR FIELDWORK \*1984, pp. 193-213; \*1986, pp. 201-222; 1988, pp. 195-208 EMPR MAP 65 (1989); 69-1 EMPR MINING 1981-1985 EMPR OF \*1987-1; 1992-1 EMPR PF (Canadian United Minerals Inc. 1987; A.J. Gaul, 1922; Canadian Silver Standard Mines Ltd.: Annual Report 1986; Claim Maps; Teeshin Resources Ltd., 1987 Annual Report) GSC OF 351 GCNL #193,#236, 1980; #29, 1981; #155, 1982; #99,#135,#153,#178,#179, #206,#225,#240, 1985; #15,#19,#27,#31,#58,#70,#109,#112,#130,#147, #154,#176,#182,#192,#204,#207,Dec.2,18, 1986; #32,#73,#76,#94,#98, #169,#174,Nov.18, 1987; #65,#66, 1988 IPDM Nov., May/June 1985; Feb. 1986 N MINER Dec.30, May 2, 1985; Jan.6,20,27, Feb.17,24, Mar.31, May 12, Jun.30, Nov.17, 1986; Jan.5, Nov.30, 1987; Apr.4, 1988 V STOCKWATCH Apr.14,16, May 22, Jun.18, Sept.3, Nov.17, 1987 WIN Vol. 1, #7, June 1987 WWW http://www.infomine.com/index/properties/DOME\_MOUNTAIN.html B.C. Business Magazine, Apr. 1986 North American Gold Mining Industry News Vol. 3, #15, Oct.11, Jul.19, Jun., Nov.8, 1985

DATE CODED: 1985/07/24 DATE REVISED: 1988/03/03 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 023</u>			NATIONAL I	MINERAL INVENTORY	:
NAME(S):	FREE GOLD (DOME MOU	I <mark>NTAIN)</mark> , SK, BABIN	E GOLD MINES			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L15E		Undergro	und	MINING DIVISION UTM ZONE	: Omineca : 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 17 N 126 36 06 W 1245 Metres Within 500M Located on the eastern fla of Smithers.	nk of Dome Mounta	in, 35 kilometre	s east	NORTHING	: 6070136 : 654337
COMMODITIES:	Gold	Silver	Zinc		Lead	Copper
MINERALS SIGNIFICANT:	Sphalerite Galena	Chalcopyrite	Pvrite	Tetrahedrite		
COMMENTS:	Gold "Rare free gold and tetrah	edrite".	.,			
ASSOCIATED: ALTERATION:	Quartz Chlorite Epidote	Clay	₋imonite			
ALTERATION TYPE: MINERALIZATION AGE:	Chloritic Unknown	Silicific'n	Potassio	;	Oxidation	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: COMMENTS:	Vein Epigenetic I05 Polymetallic veins Bladed #2 vein traced for 225 me occur 4.5 to 13.5 metres a metres to 2 metres in widt	Ag-Pb-Zn±Au tres; #3 vein traced apart. Dimension ra h.	for 120 metres, nges from a fev	both v centi-		
HOST ROCK	Volcanic					
2011.0001.0001.0001.0001.0001.0001.0001	· · · · · · · · · · · · · · · · · · ·					
STRATIGRAPHIC AGE	GROUP	FOF	MATION		IGNEOUS/METAN	10RPHIC/0THER
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary	GROUP Hazelton	<u> </u>	<u>MATION</u> itkwa		IGNEOUS/METAM	IORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY:	GROUP Hazelton Andesite Quartz Feldspar Porphyry	FOF Nilk	MATION itkwa		IGNEOUS/METAN Unnamed/Unkno	<u>IORPHIC/OTHER</u> wn Informal
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS:	GROUP Hazelton Andesite Quartz Feldspar Porphyry Porphyry Intrusions.	FOF Nilk	<u>MATION</u> Itkwa		IGNEOUS/METAN Unnamed/Unkno	<u>IORPHIC/OTHER</u> wn Informal
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Hazelton Andesite Quartz Feldspar Porphyry Porphyry Intrusions. Intermontane Stikine	FOF Nilk	Rocks	PHYSIOGR	IGNEOUS/METAN Unnamed/Unkno APHIC AREA: Hazelto	<u>IORPHIC/OTHER</u> wn Informal n Ranges
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	GROUP Hazelton Andesite Quartz Feldspar Porphyry Porphyry Intrusions. Intermontane Stikine	FOF Nilk	RMATION Itkwa	PHYSIOGR	IGNEOUS/METAN Unnamed/Unkno APHIC AREA: Hazelto	<u>IORPHIC/OTHER</u> wn Informal n Ranges
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Hazelton Andesite Quartz Feldspar Porphyry Porphyry Intrusions. Intermontane Stikine	FOF Nilk	RMATION itkwa Rocks REPORT	PHYSIOGR. ON: N	IGNEOUS/METAM Unnamed/Unkno APHIC AREA: Hazelto	<u>IORPHIC/OTHER</u> wn Informal n Ranges
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Hazelton Andesite Quartz Feldspar Porphyry Porphyry Intrusions. Intermontane Stikine VEIN CATEGORY: Assay/a SAMPLE TYPE: Chip COMMODITY Silver Gold Copper Lead Zinc	nalysis	Rocks REPORT 4.0000 Gra 1.5000 Gra 0.1400 Per 0.4600 Per 5.6000 Per	PHYSIOGR ON: N AR: 1987 ms per tonne ms per tonne cent cent cent	IGNEOUS/METAN Unnamed/Unkno	<u>IORPHIC/OTHER</u> wn Informal n Ranges
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	GROUP Hazelton Andesite Quartz Feldspar Porphyry Porphyry Intrusions. Intermontane Stikine VEIN CATEGORY: Assay/a SAMPLE TYPE: Chip COMMODITY Silver Gold Copper Lead Zinc Free gold analysis. Fieldwork 1986, pages 20	nalysis <u>GF</u> <u>3</u> 33 ( 11-222.	Rocks REPORT YE RODE 4.0000 Gra 1.5000 Gra 0.1400 Per 0.4600 Per 5.6000 Per	PHYSIOGR. ON: N AR: 1987 ms per tonne ms per tonne cent cent cent	IGNEOUS/METAN Unnamed/Unkno	<u>IORPHIC/OTHER</u> wn Informal n Ranges

moderate chlorite alteration with minor epidote along fractures. quartz feldspar porphyry intrusive shows weak potassium feldspar flooding and clay alteration. Structurally, the rocks are cut by high angle faults and

shears oriented from 290 to 330 degrees. The shears host narrow bands of intense chlorite alteration and orange limonitic weathering associated with smooth slickensided surfaces. The slickensides show many stages of movement at variable orientations. The faulting and shearing is believed to be the main control for the quartz veining.

Five major veins have been discovered and many smaller quartz veins, varying from a few centimetres to 2 metres in width. Most dip steeply northeast, east of the main showings some shallowdipping veins are also present. Some of the veins may merge at depth as indicated by conveying strike and dip directions. The veins contain up to 20 per cent finely disseminated or banded pyrite, with minor amounts of sphalerite, galena, tetrahedrite, and chalcopyrite and rare free gold. The gold occurs mainly as grains in galena and chalcopyrite and microveinlets in fractured pyrite. A test shipment of 680 pounds from vein #3 in 1938 averaged 61 grams per tonne gold, 75 grams per tonne silver, 1.54 per cent lead, 5.87 per cent zinc, 0.15 per cent copper, 0.02 per cent arsenic, 10.38 per cent sulphur. In 1940 another 2715 tonnes of high grade ore was shipped. In 1981, 186 tonnes was shipped which returned a grade of 47.3 grams per tonne gold.

Free Gold Analyses (all values in ppm) Cu Рb Zn Au Ag 34 56000 31.5 1400 4600 84 84 31.5 85A 18.5 1300 4700 105 12400 84- quartz vein from trench with sphalerite, trace galena, and chalcopyrite 85A-quartz vein with sphalerite, trace of galena (D. MacIntrye, 1987).

#### BIBLIOGRAPHY

EMPR FIELDWORK \*1984, pp. 193-213; 1986, pp. 201-222; 1988, pp. 195-208 EMPR AR 1915-77; 1916-130; 1918-122; 1933-98; 1934-C11; \*1938-B15; 1940-55; 1951-113; 1967-90 GSC P \*40-18, p. 9 EMPR PF (Canadian United Minerals Inc., 1987; Free Gold Maps) EMPR BULL 3, 1932, p. 16 EMPR EXPL 1976-E196; 1978-221; 1979-230; 1984-329; 1985-315; 1986-356; 1987-C308 EMPR ASS RPT 6194, 6 EMR MRI 80-7, p. 217 6619, 13277, 13827, 14407, \*15830, 16193 EMPR MAP 69-1 GSC OF 351 EMPR OF 1987-1 GCNL #185, 1982; #70,#147,#207, 1986; #32,#73,#76,#94,#98,#169,#174, Nov.18, 1987; #65,#66, 1988 N MINER Jan. 30, 1985; Jan. 6,20, 1986; Apr. 4, 1988 NAGMIN Oct. 11, 1985 VSW May 22, 1987 Reako Explorations Ltd. and Panther Mines Ltd., (1981): Stage One Report, Free Gold Property, Smithers, British Columbia Falconbridge File

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/21 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 024</u>		NATION	AL MINERAL INVENTORY:	093L15 Au2
NAME(S):	ASCOT, PIONEER, ST. EUGENE, M.S., BOW, BOLO, COSWAN, TRENCH 14, PYRITE, TEXASGULF, EASTERN				
STATUS:	Prospect			MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	093L15E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 15 N 126 43 56 W 1300 Metres Within 500M On Canyon Creek, near its hear The Trench 14 lies 1.5 kilometre showing lies 7.5 kilometres to the	dwaters. Location o s to the northeast an le northeast near Ne	f Coswan showing. d the Texasgulf well Creek.	NORTHING: EASTING:	6071649 645879
COMMODITIES:	Zinc Lead Silver Gold		Barite	Copper	Molybdenum
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Pyrite Sphalerite C Chalcocite Tetrahedrite Calcite Quartz Unknown	alena Barite Arsenopyrite	Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Vein Strata Epigenetic Exha E14 Sedimentary exhalative Veins or lenses (discontinuous)	abound lative Zn-Pb-Ag and bands.	Industrial Min. I05	Polymetallic veins Ag-Pt	o-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	<u>GROUP</u> Hazelton	<u>FORMATIO</u> Nilkitkwa	Ν	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Limy Siltstone Felsic Tuff Limestone				
HOSTROCK COMMENTS:	Limy siltstone and felsic tuff ov	erlie amygdaloidal b	asalts.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIO	GRAPHIC AREA: Nechako	o Plateau
CAPSULE GEOLOGY					
	The Ascot propert showings, is situated	y, covering a in the Babine	5-kilometre bel Mountains 30 ki	t of mineral lometres east of	
	Smithers. It is at th which flows southwest	e topographic to the Bulkley	divide between River, and Stin	Canyon Creek, mson Creek which	
	drains northwest to th means of an unmaintain	e Fulton River ed dirt road w	and Babine Lak hich leaves the	e. Access is by Smithers-Babine	
	Lake road at Kilometre Dome Mountain gold min	21 and ascend e (093L 276) i	s Canyon Creek. s 8 kilometres	The inactive southwest of the	
	centre of the Ascot cl Galena-sphalerite	aims. -barite showin	gs were discove	red near the head	
	of Canyon Creek in 195 significant work, in 1	1 but not expl 967-1969, was	ored at that the by Texas Gulf S	me. The earliest ulphur Company	
	which acquired the pro survey. Geological ma	perty as a res pping, soil ge drill bolo	ochemistry and i	alssance silt EM surveys were	
	main showings were re-	staked and/or	optioned numero	us times.	
	including Geostar Mini Company (1985) and Can	ng Corporation adian United M	(1984), Norand inerals Ltd. (1	a Exploration 986). A	
	comprehensive program Corporation. It inclu	was conducted ded backhoe tr	in 1987 by Geos enching which r	tar Mining evealed several	
	new mineral occurrence Alliance Mining Inc. i	s. The most r n 1996.	ecent work was p	performed by	
	Mineralization is the Lower Jurassic Nil	hosted in lim	ey siltstone and	d felsic tuff of	
		MICHWA FOIMACI	on (Hazelton Gr	oup). Underlying	
	the sediments are amyg consists of thin bands	daloidal basal of light colo	ts. The main si ured sphalerite	howing (Coswan) and specks of	

PAGE: 47 REPORT: RGEN0100

# CAPSULE GEOLOGY

CAPSULE GEOLOGY	are also re Barite, sph contact of near the he sphalerite, fillings in a diorite s	ported as c alerite, ch amygdaloida adwaters of and galena felsic tuf ill intrude	disseminations halcopyrite, an al basalt and l Canyon Creek, a as disseminat of and siltston es thinly bedde	and along be d arsenopyri imy sediment drilling ir ions and hai e; above the d argillites	edding in limestones te occur at the fau ts. To the northeas tersected pyrite, rline fracture mineralized sectio 5.	s. ilt st, on
	Au 61-A 63-1 0.10 68-1	Ag Cu <10 17	Ascot Property (all values i Pb Zn 2600 23 56000	Analyses n ppm) Mo Hg 4 0.02	As 1400	
	(Fieldwork, A tren mineralizat silver acro 16928). Minera	1986, page ch (Trench ion grading ss an estin lization (7	217). 14) on the nor g 6.5 per cent nated true widt Texasgulf) near	th side of C zinc and 50 h of 8 metre Newell Cree	Canyon Creek uncover grams per tonne es (Assessment Repor ek, 3.5 kilometres	red
	northeast o consists of A 14.6-metr cent lead ( Texasgulf s chalcopyrit andesite. Weymin Alliance Mi	f the main finely dis e composite Assessment howing, the e and sphal Mining Cor ning Ltd.	showing, teste sseminated spha e sample assaye Report 6784). e Eastern showi lerite with hor rp. plans to ac in 1999.	d by a Texas lerite and g d 0.67 per c East (1.5 k ng contains nfelsed fels quire the pr	Gulf drill hole, galena in felsic tur cent zinc and 0.12 p cilometres) of the disseminated sic tuffs and coperty from	f. Der
BIBLIOGRAPHY	EM EXPL *19 EMPR AR 190 EMPR ASS RP *14307, EMPR EXPL * EMPR FIELDW 195-208 EMPR GEM 19 EMPR MAP 69 EMPR OF *19 EMPR OF *19 EMPR PF (Rp Ascot Pr Geologic Weymin M GSC BULL 27 GSC MAP 671. GSC OF 351 GSC P 40-18 GSC SUM RPT GCNL #154, PR REL Weym	98, pp. C-2 8-64; 1909- T 1702A-C, *14616, 166 1978-222; * ORK 1984, p 69-100; 197 -1 87-1 t by Geosta operty, pre al Consulta ining Corp. 0 A; 971A 1910-97 1985; #71( <i>I</i> in Mining C	2-C-4; 2000-1-8 -85; 1911-109; 2139, 2140, 21 596, 16928, 195 *1985-C320; *19 pp. 193-213; *1 70 ar Mining Corp. epared for Alli ants Inc., Octo . Web site, Jun Apr.14), 1999 Corp., June 7,	1934-C11; *1 41, 6784, 69 88, 24007, 2 86-359; 1988 986, pp. 201 1985; *Geol ance Mining ber 25, 1996 e 1999))	1968-121 937, *10076, 24957 3-C173 1-222; 1988, pp. Logical Report - Inc., by B.J. Price 5, 77 pages (from	2
DATE CODED: DATE REVISED:	1985/07/24 1988/08/18		CODED BY: REVISED BY:	GSB LLD		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 025</u>			NATIONAL	MINERAL INVENTOR	Y:
NAME(S):	<b>Del Santo</b> , deep creek Burn, del/Santo	K, DEL,				
STATUS:	Prospect British Columbia				MINING DIVISIO	N: Omineca
NTS MAP:	093L10E				UTM ZON	E: 09 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 39 30 N 126 41 31 W 1065 Metres Within 500M Located near the headwar 17255, Figure 2).	ters of Deep Cree	ek (Assessm	ent Report	NORTHIN EASTIN	G: 6059219 G: 648882
COMMODITIES:	Copper	Zinc	Sil	ver	Gold	Lead
MINERALS						
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrrhotite Chlorite Epidote Chloritic Unknown	e Sphalerite Magnetite Epidote	e Tetrah Pyrolusite	edrite Magnetite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Massive Volcanogenic G04 Besshi massive su	Stratabound Epigenetic Ilphide Cu-Zn Metres	S	STRIKE/DIP: 130/	TREND/PI	LUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>F0</u>	<u>ORMATION</u>		IGNEOUS/META	MORPHIC/OTHER
Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	47.1 +/- 1.6 Ma Potassium/Argon Biotite				Unnamed/Unkn	own Informal
LITHOLOGY:	Chlorite Epidote Amygdalo Amygdaloidal Basalt Biotite Granodiorite Chert Siltstone Argillaceous Limestone	idal Andesite				
HOSTROCK COMMENTS:	Middle Jurassic Smithers the east of the property.	Formation tuffac	ceous sandst	one occurs to		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	Plutonic REL	c Rocks ATIONSHIP:	PHYSIOGR	APHIC AREA: Necha GRADE:	iko Plateau
INVENTORY						
ORE ZONE:	SAMPLE		RE	PORT ON: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Lead	nalysis	GRADE 562.0000 0.0200 1.1600 0.0260	YEAR: 1986 Grams per tonne Grams per tonne Per cent Per cent		
REFERENCE.	Zinc Fieldwork 1986 pages 20	1-222	0.3100	Per cent		
	1000, pages 20					
	The Del Sant Creek and the main massive pyrrhotite a fold closure. T altered amygdaloid Group, Nilkitkwa F mineralization and shaly siltstones a Hazelton Group, Sm	o prospect i showing is , chalcopyri he host rock al andesitic ormation. C to the east nd argillace ithers Forma	is located comprised ite, and n is an est basalt o Overlying c of the p eous limes ation. A	d near the head d of a north-tr minor sphalerit ast dipping chl of the Lower Ju the massive su property are th stones of the M biotite granod	waters of Deep ending band of e which occupic orite-epidote rassic Hazelton lphide inly bedded iddle Jurassic iorite intrusic	es n on

is exposed to the southeast of the showing and has been dated at 47.1 +/- 1.6 million years. Samples taken from the main mineralized zone in 1986, assayed 0.02 grams per tonne gold, 562 grams per tonne silver, 1.16 per cent copper, 0.026 per cent lead, and 0.31 per cent zinc (Fieldwork 1986, page 217). Telkwa Gold Corporation drilled in 1998 and conducted fieldwork in 1999.

#### BIBLIOGRAPHY

DATE CODED: 1985/07/24 DATE REVISED: 1988/03/03 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 026</u>	NATIONA	AL MINERAL INVENTORY: 093L10 Zn1
NAME(S):	COPPER CROWN (L.6472), RUBY (L COPPER HILL, LEN	.6474), GROUSE MOUNTAIN,	
STATUS:	Past Producer	Underground	MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAP	093L10E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 33 30 N 126 43 55 W 1400 Metres Within 500M Located just east of Coppermine Lake Lot 6474 on Grouse Mountain, 25.7 ki location of mineralization from Geology 1972, Figure 52.	e on crown Grants Lot 6472, and lometres southeast of Telkwa; y, Exploration and Mining	NORTHING: 6048010 EASTING: 646661
COMMODITIES:	Zinc Silver	Copper	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Chalcopyrite Pyri Quartz Carbonate Chlorite Mica Limonite Argillic Propylitic Unknown	te Clay Epidote Oxidation	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrotherm L01 Subvolcanic Cu-Ag-Au (As-S	nal b) G04	Besshi massive sulphide Cu-Zn
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Ashman	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Tuff Fossiliferous Limestone Siltstone Argillite Greywacke Breccia Mafic Dike Porphyry Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact Regional	PHYSIOC RELATIONSHIP: Syn-mineralization	GRAPHIC AREA: Nechako Plateau GRADE:
	U U	Post-mineralization	
INVENTORY			
ORE ZONE:	RUBY	REPORT ON: Y	
	CATEGORY: Inferred QUANTITY: 317485 Tonnes <u>COMMODITY</u> Silver Copper Zinc Nexteen Miner, Nexember 17, 1096	YEAR: 1986 <u>GRADE</u> 30.1600 Grams per tonne 0.3800 Per cent 4.2300 Per cent	
ORE ZONE:	RUBY	REPORT ON Y	
	CATEGORY: Indicated QUANTITY: 453550 Tonnes COMMODITY Silver	YEAR: 1986 GRADE 25.7100 Grams per tonne Der cent	
COMMENTS: REFERENCE:	Zinc Probable reserves. Northern Miner - November 17, 1986,	4.3500 Per cent page 13.	

## INVENTORY

ORE ZONE: TOTAL

TOTAL		RI	EPORT ON: N
CATEGORY: QUANTITY: COMMODITY	Unclassified 653112 Tonnes	GRADE	YEAR: 1984
Silver Copper Zinc		13.7100 0.4200 0.3000	Grams per tonne Per cent Per cent

REFERENCE: Northern Miner - March 29, 1984.

#### CAPSULE GEOLOGY

The Copper Crown and Ruby zones occur in Middle to Upper Jurassic Hazelton Group rocks of the Ashman Formation. This formation is comprised mainly of a sedimentary sequence hosting marine black shale, argillite, siltstone and greywacke with intercalated tuffs and breccia (Fieldwork 1988, Figure 1-23-2).

The more competent units are well jointed or cleaved and often display tectonic breccias in the vicinity of faults. Alteration has mainly affected the feldspar and ferromagnesium minerals producing

mica and clay minerals, chlorite, limonite, and less commonly epidote. The Hazelton rocks on Grouse Mountain are intruded by dikes and small stocks which strike north-northwest and dip south-southwest, and range between 10 to 60 metres in width. These include feldspar porphyry, biotite-feldspar porphyry and aphanitic basic dikes. A large dike on the west side of the mountain hosts bladed felds-

par porphyry with large plagioclase phenocrysts in the order of 4 centimetres in length and 0.5 centimetres thick. A second tablet porphyry dike parallels and locally crosscuts the bladed feldspar porphyry. A number of large dikes exposed in the north and central parts of the map area are possibly related to the bladed and tablet porphyries. The dikes are considered post mineralization as they crosscut areas in the Ruby zone. In addition to these intrusions, the area is traversed by numerous aphanitic mafic dikes which are light grey in color, granular in texture, and seldom more than 4.6 metres wide.

Mineralization consists of fine-grained sphalerite and chalcopyrite as breccia fillings in the northeast trending zones which are subparallel to the strata comprised of minor fossiliferous limestone and mainly a coarse tuff sequence. Also, in some areas there are massive sulphide fracture-fillings.

The Copper Crown zone is a dilated segment, 122 metres in length, of an extensive system of sulphide-bearing gash fractures which include the Ruby zone 366 metres to the southwest. Mineralization consists of subparallel lenses and joint fillings of sphalerite and chalcopyrite which crosscut bedding and are distributed in varying concentrations over 15 metres.

In 1985 a sample from a 2.0 metre open cut assayed 0.137 grams per tonne gold, 125.48 grams per tonne silver, 5.62 per cent copper, 0.01 per cent lead and 0.05 per cent zinc. Another sample, from a backhoe trench, covering 0.4 metres, assayed 0.069 grams per tonne gold, 367.54 grams per tonne silver, 12.6 per cent copper, 0.11 per cent lead, and 3.57 per cent zinc (Assessment Report 14256).

The Ruby zone which continues to the southwest more or less from where the Copper Crown zone ends, dips steeply to the northwest and is divided into three southwest shoots over a strike length of approximately 335 metres. The shoot furthest to the southwest appears to be the best mineralized. It is terminated against the large bladed feldspar porphyry dike and is crosscut by the younger tablet feldspar porphyry. The showing is banded, displaying a layer adjacent to the footwall composed mainly of quartz with blebs of pyrite and chalcopyrite, and toward the hangingwall, masses of pyrite, chalcopyrite, and sphalerite alternating with solid and brecciated country rock. To the northeast the zone widens to a multi-vein system hosting disseminated mineralization comprised mainly of sphalerite.

In 1985, samples from open cuts assayed 0.03 grams per tonne gold, 505.7 grams per tonne silver, 3.84 per cent copper, 0.03 per cent lead, 7.72 per cent zinc over 2.3 metres and 0.06 grams per tonne gold, 294.17 grams per tonne silver, 1.72 per cent copper, 0.68 per cent lead, and 15.42 per cent zinc over 1.2 metres (Assessment Report 14256).

Inferred reserves of the Ruby zone are 317,485 tonnes grading 30.16 grams per tonne silver, 0.38 per cent copper and 4.23 per cent zinc; probable reserves of the same zone are 453,550 tonnes grading 25.71 grams per tonne silver, 0.32 per cent copper and 4.35 per cent zinc (Northern Miner - November 17, 1986, page 13). Unclassified reserves of Copper Crown are 653,112 tonnes grading 13.71 grams per tonne silver, 0.42 per cent copper and 0.3 per cent zinc (Northern

Miner - March 29, 1984).

#### BIBLIOGRAPHY

MINFILE NUMBER:	<u>093L 027</u>		NATIONAL M	INERAL INVENTORY:	093L10 Ag5
NAME(S):	HUBER, MINERAL HILL, BUTTE, GRANBY, GRANITE, LONE PINE, INDEPENDENT				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L10E			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE:	54 31 10 N			NORTHING:	6043678
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	870 Metres Within 500M Showings occur near the base of Hill and Grouse Mountain, 30 kilor	f the western slopes between metres southeast of Telkwa.	Mineral	EASTING:	646603
COMMODITIES:	Silver Lead Gold	Copper		Zinc	Molybdenum
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Galena Quartz Unknown	Pyrite Molybdenite			
	Stoolwork				
CLASSIFICATION: TYPE:	Porphyry 105 Polymetallic veins Ag-Pb-	Zn±Au	L05 Po	rphyry Mo (Low F- tyj	pe)
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa		IGNEOUS/METAM	ORPHIC/OTHER
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	70 Ma Potassium/Argon Biotite			Bulkley Intrusions	
LITHOLOGY:	Porphyritic Granite Monzonite Alaskite Diorite Porphyry Hornfels Andesite Rhyolite Breccia Tuff				
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE: METAMORPHIC TYPE	Intermontane Stikine Contact	Plutonic Rocks RELATIONSHIP: Syn-mi	PHYSIOGRA	GRADE Hornfels	Plateau
	Contact				
ORE ZONE:	DRILLHOLE	REPORT O	N: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY Molybdenum	YEA GRADE 0.0170 Per ce	R: 1978		
COMMENTS:	0.008; Pb-0.048; Zn-0.006; and M	2). Reserves in 1976: Ag-12.0; loS2-0.002. ance for 1976: Assessment R	Cu-		
CAPSULE GEOLOGY			eport 0152).		
	The Huber Group co underlain by Lower Jura Formation. The rocks a black andesitic to rhyo coarse grey green and p The volcanics are dated at 70 million yea grained monzonite and d are altered and hornfel Mineralization is	vering Mineral Hill ( ssic Hazelton Group of re comprised of fine- litic flows and assoc urple lapilli tuff. intruded by four stag rs. Porphyritic gran acite intrude the Tel sed near the contact associated with a con	Claims A, B volcanics o -grained re ciated brec ges of Bulk nite, alask lkwa rocks. mplex serie	, C, and D are f the Telkwa d, green to cia, tuff with ley Intrusions ite, fine- The volcanics s of quartz	

veins and veinlets which crosscut the hornfelsed host rock and is disseminated in the porphyry intrusives.

In 1978, the Granby showing (Granite zone) was drilled and minor disseminated molybdenite was found in the porphyry granite north of the Breccia and Alaskite zones (Mineral Hill-093L 028). Molybdenite averaged 0.017 per cent over the length of the hole (Assessment Report 7117).

In 1976, 12 drill holes, north of the porphyry granite, were drilled in a thin cap of hornfelsed host rock which resembled the Breccia zone to the southwest and hosted minor chalcopyrite and molybdenite. In 1983, a sample of a quartz vein in a dacitic tuff outcropping hosted chalcopyrite and assayed 0.005 grams per tonne gold, 12.0 grams per tonne silver, 0.008 per cent copper, 0.048 per cent lead, 0.006 per cent zinc and 0.002 per cent MoS2 (Assessment Report 6152).

In 1914, the Lone Pine showing was described as occurring in argillaceous volcanics. It consists of a quartz vein striking north and dipping 75 degrees east, hosting galena, pyrite, and chalcopyrite. Samples from a 4.5 tonne stockpile averaged 1.7 grams per tonne gold, 2962 grams per tonne silver, 3.7 per cent copper and 24.7 per cent lead (Minister of Mines Annual Report 1915, page 78).

In 1917, the Independent showing consisted of a 1.0 metre wide quartz vein which hosted chalcopyrite, pyrite, quartz gangue, and silicified wallrock. A 13.6 tonne stockpile was estimated to average 12 per cent copper and 102.8 grams per tonne silver (Minister of Mines Annual Report 1917, page 122).

#### BIBLIOGRAPHY

EMPR AR \*1915-78; 1917-122; \*1927-138; \*1965-75,109-112,Fig. 10; 1966-102; 1967-107 EMPR ASS RPT 509, 510, 757, 2285, 2517, \*6152, \*7117, \*9135, \*12180, 17341, 21635, 22862 EMPR EXPL 1975-E142; \*1976-E149; \*1977-E195; 1978-E219; \*1981-6; \*1983-445; 1988-C171 EMPR MAP 69-1 GSC MAP 671A GSC OF 351 GSC BULL 270, p. 73 W MINER Feb. 1966 EMPR GEOLOGY 1977-1981, pp. 125-127,Fig. 41 EMPR FIELDWORK 1988, pp. 195-208 EMPR OF 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/15 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 028</u>				NATIC	NAL MINERAL INVE	ENTORY: 093L10 Mo1
NAME(S):	<u>MINERAL HILL,</u>	BRECCIA, ALA	SKITE				
STATUS: REGIONS:	Showing British Columbia					MINING E	DIVISION: Omineca
NTS MAP: BC MAP:	093L10E					UTI	M ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 30 55 N 126 44 16 W 892 Metres Within 500M Claims lie on the Fishpan Lake, 4.8 14 kilometres nor molybdenum min	lower west slo 8 kilometres sou rth-northwest o eralization.	pes of a hill ju uth of the Grou f Houston. Lo	st east of ise Mountain cation is mai	Summit or n zone of	NO E	RTHING: 6043209 ASTING: 646438
COMMODITIES:	Molybdenum	Сорр	er	Silve		Lead	Zinc
MINERALS							
SIGNIFICANT:	Molybdenite Pyrrhotite	Chalcopyrite	Galena	Tetrahe	drite Pyri	te	
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz S Chlorite He Chloritic Unknown	iderite ematite Quar	tz-Carb.				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L05 Porphyry	Breco Hydro Mo (Low F- ty	cia othermal pe)	Igneo	ous-contact I05	Polymetallic vei	ns Ag-Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE	GROUP		FOR	MATION		IGNEOUS	S/METAMORPHIC/OTHER
Lower Jurassic	Llozolton		Telle				
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	70 Ma Potassium/Argon Biotite	I	Terk	wa		Bulkley Ir	ntrusions
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY:	70 Ma Potassium/Argon Biotite Porphyry Granite Alaskite Monzonite Hornfels Andesite Dacite Rhyolite Breccia Tuff Lapilli Tuff		I EIK	wa		Bulkley Ir	ntrusions
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS:	70 Ma Potassium/Argon Biotite Porphyry Granite Alaskite Monzonite Hornfels Andesite Dacite Rhyolite Breccia Tuff Lapilli Tuff Also includes ap	plite vein.	I EIK	wa		Bulkley Ir	ntrusions
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	70 Ma Potassium/Argon Biotite Porphyry Granite Alaskite Monzonite Hornfels Andesite Dacite Rhyolite Breccia Tuff Lapilli Tuff Also includes ap Intermontane Stikine Contact	olite vein.	Plutonic R RELATI	ocks ONSHIP: Sy	PHYS n-mineralizati	Bulkley Ir IOGRAPHIC AREA: on GRADE:	ntrusions Nechako Plateau Hornfels
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY	70 Ma Potassium/Argon Biotite Porphyry Granite Alaskite Monzonite Hornfels Andesite Dacite Rhyolite Breccia Tuff Lapilli Tuff Also includes ap Intermontane Stikine Contact	plite vein.	Plutonic R RELATI	ocks ONSHIP: Sy	PHYS n-mineralizati	Bulkley Ir IOGRAPHIC AREA: on GRADE:	ntrusions Nechako Plateau Hornfels
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	70 Ma Potassium/Argon Biotite Porphyry Granite Alaskite Monzonite Hornfels Andesite Dacite Rhyolite Breccia Tuff Lapilli Tuff Also includes ap Intermontane Stikine Contact	plite vein.	Plutonic R RELATI	ocks ONSHIP: Sy REPO	PHYS n-mineralizati RT ON: N	Bulkley Ir IOGRAPHIC AREA: on GRADE:	ntrusions Nechako Plateau Hornfels
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	70 Ma Potassium/Argon Biotite Porphyry Granite Alaskite Monzonite Hornfels Andesite Dacite Rhyolite Breccia Tuff Lapilli Tuff Also includes ap Intermontane Stikine Contact DRILLHOLE CATEGORY: SAMPLE TYPE: COMMODITY Silver Copper Lead Zinc	olite vein. Assay/analysis Drill Core	Plutonic R RELATI s <u>GR</u> 1 1	ocks ONSHIP: Sy REPO <u>ADE</u> .8300 G .8300 F .8300 F	PHYS n-mineralizati RT ON: N YEAR: 1978 Grams per toni er cent er cent er cent	Bulkley Ir IOGRAPHIC AREA: on GRADE:	Nechako Plateau Hornfels

#### INVENTORY

ORE ZONE:	BRECCIA	REPORT ON:	Ν
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core	YEAR:	1978
	Molybdenum	0.0620 Per cent	
COMMENTS:	Grade in molybdenite (MoS2). Ave	erage MoS2 value over entire len	igth of
REFERENCE:	Assessment Report 7117.		

#### CAPSULE GEOLOGY

The claims are underlain by Lower Jurassic Hazelton Group volcanics of the Telkwa Formation. The rocks are comprised of fine-grained red, green to black andesitic to rhyolitic flows and associated breccia, tuff with coarse grey, green and purple lapilli tuff.

The volcanics are intruded by four stages of Bulkley Intrusions dated at 70 million years. Porphyritic granite, alaskite, finegrained monzonite and dacite intrude the Telkwa rocks. The volcanics are altered and hornfelsed near the contact. Molybdenum is associated with quartz veins in the Alaskite zone

Molybdenum is associated with quartz veins in the Alaskite zone as well as in the quartz-siderite cement of the fractured hornfels or Breccia zone.

The Alaskite zone consists of a dike-like, leucocratic, coarsegrained granite which hosts disseminated molybdenite in aplitic veins in the granite and alaskite. In 1978, a drill hole in this zone encountered mineralization throughout its entire length. The host rock is hornfelsed around the alaskite and both are crosscut by quartz veins and veinlets hosting molybdenite with minor chalcopyrite. The entire drill length averaged 0.057 per cent molybdenite. Some of the quartz veining molybdenite occurs with pyrite, chalcopyrite, galena, tetrahedrite, and pyrrhotite. In 1978, a 10 metre drill sample assayed 41.83 grams per tonne silver, 0.04 per cent copper, 1.83 per cent lead, and 1.27 per cent zinc (Assessment Report 7117). The Breccia zone consists of hornfelsed host rock which is

The Breccia zone consists of nornelsed host rock which is highly fragmented in places and is crosscut by a complex series of quartz veins and veinlets. Some of the coarser, pegmatitic veins host chalcopyrite and molybdenite while other quartz veins host only molybdenum. Molybdenite also occurs in the quartz-siderite cement in the brecciated rock or as thin films along chloritic fractures. In 1978, a drill hole encountered mineralization throughout its entire length which averaged 0.062 per cent molybdenite (Assessment Report 7117). Between 1966 and 1969, ten trenches in this area averaged 0.02 to 0.08 per cent MoS2 and 0.02 to 0.41 per cent copper. As well, younger quartz veins hosting tetrahedrite averaged 41.5 to 274.3 grams per tonne silver (Property File: Wilkinson, W.J., 1979).

### BIBLIOGRAPHY

EMPR AR 1914-227; 1924-98; 1925-141; 1926-137; 1927-138; \*1965-75, 109-112,Fig. 10; 1966-102; 1967-107 EMPR EXPL 1975-E142; 1976-E149; 1977-E195; \*1978-E219; 1981-6; 1983-445; 1988-C171 EMPR ASS RPT 509, 510, 757, 2285, 2517, 6152, \*7117, 9135, \*12180, 17341, 21635, 22862 EMPR MAP 69-1 GSC OF 351 GSC BULL 270, p. 73 EMPR GEOLOGY 1977-1981, pp. 125-127,Fig. 41 EMPR PF (Wilkinson, W.J.: Report-Appendix of Logs of Diamond Drill and Percussion Drill Holes - Jan. 31, 1979; Huber-Mineral Hill Molymines Ltd.- geology maps) EMPR OF 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/15

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 029</u>		NATIONAL M	INERAL INVENTORY:	093L10 Ag6
NAME(S):	PETE (MICKEY), MINERAL HILL F	<sup>=</sup> & G, MICKEY			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L10E			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 30 N 126 41 56 W 1219 Metres Within 500M Located near the northern end of east of Telkwa.	Mineral Hill, 25.8 kilom	netres south-	NORTHING: EASTING:	6044372 648919
COMMODITIES:	Silver Lead	Zi	nc	Copper	Gold
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Tetrahedrite Galena Quartz Unknown	Sphalerite Pyrite	Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS: HOST ROCK	Vein Epigenetic Hydrot 105 Polymetallic veins Ag-Pb- Mineralized quartz vein.	thermal Ig -Zn±Au S	neous-contact I01 Au STRIKE/DIP: 360/12E	-quartz veins TREND/PLUI	NGE:
DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	<u> </u>	IGNEOUS/METAMO	ORPHIC/OTHER
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	70 Ma Potassium/Argon Biotite			Bulkley Intrusions	
LITHOLOGY:	Rhyolite Dacite Breccia Tuff Diorite Porphyry Porphyritic Granite Monzonite Alaskite				
HOSTROCK COMMENTS:	Also includes granodiorite dike a	and diorite.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact Regional	Plutonic Rocks RELATIONSHIP:	PHYSIOGRA Syn-mineralization Post-mineralization	PHIC AREA: Nechako GRADE:	Plateau
INVENTORY					
ORE ZONE:	VEINLETS	RE	PORT ON: N		
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper Zinc Sample of pyritic veinlets.	<u>GRADE</u> 171.4000 0.0850 1.4000	YEAR: 1983 Grams per tonne Per cent Per cent		
	Assessment Report 12180.				
CAPSULE GEOLOGY	The Pete claims an by Lower Jurassic Hazel volcanics consist of fi rhyolitic flows and ass and purple lapilli tuff To the south and w (093L 027) claims are dated at 70 million yea of medium-grained granc	d Mineral Hill ton Group rocks ne-grained red, ociated breccia ///////////////////////////////////	F and G claims a: of the Telkwa F green to black a , tuff with coars l Hill (093L 02 r stages of Bulk nly scattered dil mall intrusive di	re underlain ormation. The andesitic to se grey, green, 8) and Huber ley Intrusions, kes comprised iorite intrude	

the massive fragmental volcanics. Mineralization occurs in a 30 centimetre wide guartz vein in altered fine-grained rhyolite and dacite close to the volcanic-diorite intrusive contact. The quartz vein hosts disseminated galena, tetra-hedrite, pyrite, sphalerite and minor chalcopyrite. In 1984, a chip sample across the vein assayed 0.095 grams per tonne gold, 107 grams per tonne silver, 0.04 per cent copper, 0.075 per cent lead, 0.04 per cent zinc, and trace molybdenum. A grab sample assayed 0.105 grams per tonne gold, 1824 grams per tonne silver, 0.14 per cent copper, 7.72 per cent lead, and 0.3 per cent zinc (Assessment Report 12180). In 1968, a sample from an old adit driven along a mineralized

quartz vein assayed 891 grams per tonne silver, 2.69 per cent lead, and 48.69 per cent zinc. Other quartz veins located 150 to 300 metres south of the adit assayed 1789 grams per tonne silver (Geology 1977-1981).

Further to the east, sphalerite occurs in rusty pyritic veinlets in dacite. In 1983, a sample assayed 171.4 grams per tonne silver, 0.085 per cent copper, and 1.4 per cent zinc (Assessment Report 12180).

#### BIBLIOGRAPHY

EMPR AR 1926-137; 1965-109-112; 1966-102; 1967-107 EMR MP CORPFILE (Molymine Explorations Ltd.) EMPR EXPL \*1983-445 EMPR ASS RPT \*12180 EMPR MAP 69-1 GSC MAP 671A GSC OF 351 GSC BULL 270, p. 73 EMPR GEOLOGY 1977-1981, pp. 125-127,Fig. 41

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/15

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 030</u>		NA	TIONAL MINERAL INVENTORY	′: 093L7,10 Cu1
NAME(S):	LAKEVIEW, THREE LAK	Æ, LV			
STATUS:	Prospect British Columbia			MINING DIVISION	: Omineca
NTS MAP: BC MAP	093L07E 093L10E			UTM ZONE	: 09 (NAD 83)
LOTTUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 30 00 N 126 36 06 W 1135 Metres Within 500M Located on the east fland of Houston.	k of Wilson Mountain,	10 kilometres northeas	NORTHING EASTING	: 6041801 : 655305
COMMODITIES:	Silver	Copper	Zinc	Lead	Gold
		rite Craesularite	Durita		
ASSOCIATED:	Quartz Carbonat	te Hematite	Pyrite	1-	
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Epidote Silicific'n Unknown	Hematite Epidote	Limonite Chlori Chloritic	te Oxidation	
DEPOSIT CHARACTER	Vein	Breccia			
CLASSIFICATION:	Hydrothermal K02 Pb-Zn skarn	Epigenetic	к	(01 Culskarn	
DIMENSION:	L01 Subvolcanic Cu-	-Ag-Au (As-Sb)	STRIKE/DIP	.320/85 TREND/PLI	INGE
COMMENTS:	Mineralized fracture syst	tem.			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FOR	MATION	IGNEOUS/METAN	IORPHIC/OTHER
	Rhyolite Pyroclastic				
	Limestone Breccia Andesite Tuff Basic Dike				
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE:	Stikine				o Plateau
	Contact Regional	I RELAT	Post-mineraliz	zation	
INVENTORY					
ORE ZONE:	DRILLHOLE		REPORT ON: N		
	CATEGORY: Assay/	analysis	YEAR: 19	55	
	COMMODITY Silver	<u> </u>	ADE 1 4000 Grams per t		
	Gold	1	.0300 Grams per t 7000 Per cent	ionne	
COMMENTS: REFERENCE:	Zinc Drilling intersected 1.3 m Assessment Report 123	, 0 netres (drill width) of m 16.	.6000 Per cent ineralization.		
CAPSULE GEOLOGY					_
	The showing the Telkwa Format tuffs, and brecci volcanics are mod epidotized with a cut by basic dike	occurs in Lower tion which const as with minor i lerately to inte abundant specula es which trend r	c Jurassic Hazelt Lst of andesitic Intercalated lime ensely silicified ar hematite. The orthwest and dig	ton Group volcanics o to rhyolitic flows, estone. Locally, the d, chloritized and e volcanics are cross o near vertically.	f -

The post-mineral basic dikes average 1.3 metres in width and show limonitic alteration on surface.

Vein system mineralization occurs in grey-green, unsorted fragmental breccia which hosts chalcopyrite and black sphalerite with quartz, carbonate, and hematite gangue. Mineralization is associated with the silicification of bedded, Hazelton rhyolitic pyroclastics

PAGE: 60 REPORT: RGEN0100

### CAPSULE GEOLOGY

with intercalated limestone-specular hematite beds. The length of the mineralized zone is in excess of 400 metres along a strike of 040  $\,$ degrees and dips near vertical to 70 degrees northwest. The individual mineralized bed are up to 3.0 metres in width with an average of 1.8 metres of massive specular hematite, chalco-pyrite, sphalerite, and pyrite. Drilling in 1955, cut the southern end of the vein, 1.3 metres in width, which assayed 1.03 grams per tonne gold, 171.4 grams per tonne silver, 7.7 per cent copper, and 0.6 per cent zinc (Assessment Report 12316). Silver values apparently are directly related to the amount of chalcopyrite present and zinc with minor lead values appear to be directly related to the amount of specular hematite present. In 1977, sampling of an epidote skarn assayed 154.0 grams per tonne silver, trace gold, 12.5 per cent zinc, 0.02 per cent lead, and 0.21 per cent copper. Also a sample of the high grade ore from the south dump assayed 518.0 grams per tonne silver, trace gold, 5.3 per cent copper, and 0.14 per cent zinc (Assessment Report 12316). BIBLIOGRAPHY EMPR AR 1909-85; 1917-112; 1926-144; 1966-102; 1967-108; 1968-138 EMPR GEM 1969-121; 1970-151; 1971-173 EMPR EXPL \*1983-442; 1988-C169 EMPR ASS RPT \*2145, 2732, \*12316, 13093, 17852 EMR MP CORPFILE (Buval Exec. Mining Ind. Ltd.; Abaca Resource Ind. Ltd.; Butler Mountain Minerals Corp.) GCNL #146, 1982; #14, 1983; #246, 1985 EMPR GEOLOGY \*1977-1981, pp. 123-124,Fig. 40 EMPR BULL 64, Fig. 8 EMPR MAP 69-1 GSC MAP 671A GSC OF 351 GSC BULL 270 EMPR PF (Lakeview - Three Lakes maps) N MINER Jan. 27, 1983 IPDV Feb. 1986

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/16 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 031</u>	NATIONAL MINERAL INVENTORY: 093L7 Cu6
NAME(S):	WALCOTT, CANYON, COPPER #2, CONFEDERATION, BLACK BEAR, VAIN SILVER STREAM	IO,
STATUS:	Showing British Columbia	MINING DIVISION: Omineca
NTS MAP:	093L07W	UTM ZONE: 09 (NAD 83)
LATITUDE:	54 26 20 N 126 49 16 W	NORTHING: 6034541
ELEVATION: LOCATION ACCURACY: COMMENTS:	700 Metres Within 500M Located on the west side of the Bulkley known as Sunrise Creek, 12.0 kilomet	y River, on a creek locally res west-northwest of Houston.
COMMODITIES:	Copper Silver	Gold
ASSOCIATED: ALTERATION:	Magnetite Chalcopyrite Pyrite Quartz Calcite Garnet Malachite Garnet Epidote Chlorite	e Pyroxene Silica
ALTERATION TYPE: MINERALIZATION AGE:	Skarn Oxidation Unknown	
		d
CLASSIFICATION:	Skarn Replacemen	nt Epigenetic K03 Felskarn
DIMENSION: COMMENTS:	Mineralized shear zone.	STRIKE/DIP: 230/60N TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic	
	GROUP	FORMATION IGNEOUS/METAMORPHIC/OTHER
Cretaceous-Tertiary	Παζειιοπ	Unnamed/Unknown Informal
LITHOLOGY:	Andesite Basalt Rhyolite Tuff Breccia Chert Diorite	
HOSTROCK COMMENTS:	Late Cretaceous to Eocene dioritic int	trusive.
	Intermentano	
TECTONIC BELT. TERRANE: METAMORPHIC TYPE:	Stikine Plu	Jonic Rocks PELATIONSHIP: Syn-mineralization GRADE:
	Regional	Post-mineralization Biodole.
INVENTORY		
ORE ZONE:	OPENCUT	REPORT ON: N
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 1928 GRADE
	Gold	260.4000 Grams per tonne 1.4000 Grams per tonne
COMMENTS:	Copper Sample of best mineralization from an o	3.2000 Per cent open cut.
REFERENCE:	Minister of Mines Annual Report 1928,	page 170.
ORE ZONE:	UKILLHOLE	REPORT ON: N
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core	YEAR: 1987
	Gold	1.4700 Grams per tonne
COMMENTS: REFERENCE:	Copper A 2.25 metre intersection from the 'O' z Assessment Report 17057.	0.5000 Per cent zone.

#### INVENTORY

ORE ZONE:	SHEAR		F	REPORT ON: N
	CATEGORY: SAMPLE TYPE:	Assay/analysis Grab		YEAR: 1931
	COMMODITY		GRADE	
	Silver		5.5000	Grams per tonne
	Copper		0.6000	Per cent
COMMENTS: REFERENCE:	Sample taken ad Minister of Mines	cross 2.7 metres a Annual Report 1	assayed trace gold. 931, page 75.	

#### CAPSULE GEOLOGY

The showings are underlain by Lower Jurassic Hazelton Group volcanics of the Telkwa Formation comprised of andesitic to rhyolitic flows, tuffs and breccia.

An open cut on the Vaino claim exposed chalcopyrite with malachite staining in altered andesitic volcanic rock. In 1928, a sample of best mineralization assayed 1.4 grams per tonne gold, 260.6 grams per tonne silver and 3.2 per cent copper (Minister of Mines Annual Report 1928, page 170).

Adjoining the Vaino on the west are the Black Bear and Silver Stream groups, which host a 4.6 metre shear zone in the volcanics which is sparsely mineralized with chalcopyrite, pyrite, and malachite. The shear strikes 230 degrees across the creek and dips 60 degrees northwest. In 1931, a sample taken across 2.7 metres assayed trace gold, 5.5 grams per tonne silver, and 0.6 per cent copper (Minister of Mines Annual Report 1931, page 75).

At elevation 777 metres, on the Confederation Group, basaltic rocks near a rhyolitic contact are mineralized with magnetite and minor chalcopyrite. In 1928, a selected sample of the best mineralization assayed 0.3 per cent copper and traces of silver and gold (Minister of Mines Annual Report 1928, page 170).

In 1986 these showings were restaked as the Canyon Claims. Rhyolitic volcanics of the Telkwa Formation striking east-west and dipping 45 degrees north are reported to be in contact with a Late Cretaceous to Eocene diorite intrusive. Magnetite, chalcopyrite, pyrite, gold and silver mineralization occur in bands of chert which appear to strike southeast and dip 45 degrees northeast, ranging between 1.0 to 2.0 metres in thickness.

In 1986, 33 rock samples collected in an area approximately 500 metres by 500 metres in the vicinity of the old trenches ranged between trace to 7.6 grams per tonne gold, 0.3 to 29.8 grams per tonne silver, and 0.02 to 39.0 per cent copper, and with average values of 0.6 grams per tonne gold, 5.2 grams per tonne silver and 2.5 per cent copper (Assessment Report 15357).

Work in 1987 was carried out on a number of skarn zones exposed on the south cliffs of Emerson Creek. Four zones, the A, O, Palmer and Lake, were mapped and consist of minor-massive replacement of the volcanics by magnetite, garnet, silica, pyroxene and epidote. The common host for the replacement is intensely chloritized fragmental andesite. The replacement commonly occurs in fine to coarse bands, often sub-parallel to bedding. Magnetite +/- garnet forms the outer edge of a replacement bed. Pyrite is common, usually with the garnet bands, and up to 1-2 per cent chalcopyrite occurs locally in the magnetite.

Gold values vary with the amount of copper present. A sample 2.25 metre sample from the O zone assayed 1.47 grams per tonne gold and 0.5 per cent copper (Assessment Report 17057).

## BIBLIOGRAPHY

EMPR AR \*1928-170; \*1931-75; \*1967-108 EMPR GEM 1970-156 EMPR EXPL \*1986-C354-355; \*1988-C169 EMPR ASS RPT 2308, 2309, 10903, \*15357, \*17057 GSC P 36-20, p. 120 EMR MP CORPFILE (Molymine Exploration Ltd.) GSC MAP 671A EMPR MAP 69-1 GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 032</u>			NATIONAL M	INERAL INVENTORY:	093L7 Mo1
NAME(S):	<u>Emerson</u> , Barr, Lybd Gooch, Jailbird	ENUM,				
STATUS:	Showing				MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	British Columbia 093L07W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 26 20 N 126 53 46 W 950 Metres Within 500M Located 5 kilometres we east of the junction of the 15 kilometres west-north	st of the Bulkley River Bulkley and Morris R west of Houston.	or 5 kilometres r ivers, approxima	orth- tely	Northing: Easting:	6034393 636444
COMMODITIES:	Molybdenum Zinc	Silver	Gold		Copper	Lead
			<b>0</b> + + +	<b>-</b>		
ASSOCIATED:	Molybdenite Pyrite Quartz	Galena	Sphalerite	letrahedrite		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Clay Sericite Argillic Unknown	Quartz Silicific'n	Sericitic			
DEPOSIT		Main				
CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L05 Porphyry Mo (Lc I05 Polymetallic vein	vein Igneous-contact w F- type) s Ag-Pb-Zn±Au	Hydrother	mal L04 Poi	Epigenetic rphyry Cu ± Mo ± Au	
HOST ROCK						
DOMINANT HOSTROCK:	Plutonic					
DOMINANT HOSTROCK:	Plutonic GROUP	FORM	IATION		IGNEOUS/METAM	ORPHIC/OTHER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Lower Jurassic Cretaceous-Tertiary	Plutonic <u>GROUP</u> Hazelton	<u>FORM</u> Telkv	MATION va		IGNEOUS/METAM	ORPHIC/OTHER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Lower Jurassic Cretaceous-Tertiary LITHOLOGY:	Plutonic <u>GROUP</u> Hazelton Quartz Feldspar Porphyr Rhyolite Breccia Andesite Dacite Lapilli Tuff Greywacke Siltstone	<u>FORN</u> Telkv y	IATION va		IGNEOUS/METAM	ORPHIC/OTHER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS:	Plutonic <u>GROUP</u> Hazelton Quartz Feldspar Porphyn Rhyolite Breccia Andesite Dacite Lapilli Tuff Greywacke Siltstone Late Cretaceous to Eoc	<u>FORN</u> Telkv y	1 <u>ATION</u> va		IGNEOUS/METAM	ORPHIC/OTHER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: <b>GEOLOGICAL SETTING</b> TECTONIC BELT:	Plutonic <u>GROUP</u> Hazelton Quartz Feldspar Porphyr Rhyolite Breccia Andesite Dacite Lapilli Tuff Greywacke Siltstone Late Cretaceous to Eoc Intermontane	FORM Telkv y sene porphyry intrusion	1ATION va	PHYSIOGRAI	IGNEOUS/METAM Unnamed/Unknow	ORPHIC/OTHER /n Informal
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: <b>GEOLOGICAL SETTING</b> TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Plutonic <u>GROUP</u> Hazelton Quartz Feldspar Porphyr Rhyolite Breccia Andesite Dacite Lapilli Tuff Greywacke Siltstone Late Cretaceous to Eoc Intermontane Stikine Contact Regional	<u>FORN</u> Telkv v v ene porphyry intrusion Plutonic Rc RELATIC	1ATION va n. DNSHIP: Syn-mi Post-m	PHYSIOGRAI	IGNEOUS/METAM Unnamed/Unknow PHIC AREA: Nechako GRADE:	ORPHIC/OTHER /n Informal
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: <b>GEOLOGICAL SETTING</b> TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY	Plutonic <u>GROUP</u> Hazelton Quartz Feldspar Porphyr Rhyolite Breccia Andesite Dacite Lapilli Tuff Greywacke Siltstone Late Cretaceous to Eoc Intermontane Stikine Contact Regional	<u>FORN</u> Telkv v v ene porphyry intrusion Plutonic Ro RELATIO	1ATION va n. DNSHIP: Syn-mi Post-m	PHYSIOGRAI	IGNEOUS/METAM Unnamed/Unknow PHIC AREA: Nechako GRADE:	ORPHIC/OTHER /n Informal
DOMINANT HOSTROCK: STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	Plutonic <u>GROUP</u> Hazelton Quartz Feldspar Porphyr Rhyolite Breccia Andesite Dacite Lapilli Tuff Greywacke Siltstone Late Cretaceous to Eoc Intermontane Stikine Contact Regional VEINS	<u>FORM</u> Telkv eene porphyry intrusion Plutonic Ro RELATIO	1ATION va n. DNSHIP: Syn-mi Post-m REPORT C	PHYSIOGRAI neralization ineralization N: N	IGNEOUS/METAM Unnamed/Unknow PHIC AREA: Nechako GRADE:	ORPHIC/OTHER vn Informal
DOMINANT HOSTROCK: STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE: COMMENTS:	Plutonic <u>GROUP</u> Hazelton Quartz Feldspar Porphyr Rhyolite Breccia Andesite Dacite Lapilli Tuff Greywacke Siltstone Late Cretaceous to Eoc Intermontane Stikine Contact Regional VEINS CATEGORY: Assay/a SAMPLE TYPE: Chip <u>COMMODITY</u> Gold Copper Molybdenum Chip samples from veins	y eene porphyry intrusion Plutonic Rc RELATIC analysis <u>GR/</u> 0.1 0.1 assayed gold, copper	ATION va DNSHIP: Syn-mi Post-m REPORT C YEA D950 Gram: 1250 Per ce 03540 Per ce , and molybdenit	PHYSIOGRAI neralization ineralization N: N R: 1982 s per tonne ent ent	IGNEOUS/METAM Unnamed/Unknow PHIC AREA: Nechako GRADE:	ORPHIC/OTHER /n Informal

ORE

#### INVENTORY

ORE ZONE:	SAMPLE		REI	PORTON: N
	CATEGORY: SAMPLE TYPE:	Assay/analysis Chip		YEAR: 1986
	COMMODITY	•	GRADE	
	Silver		2043.0000	Grams per tonne
	Gold		1.4400	Grams per tonne
	Copper		1.5100	Per cent
	Lead		8.7400	Per cent
	Zinc		7.3100	Per cent
COMMENTS:	Chip sample from from trench 86-2	m a galena-sphalerite stri	nger in altered	tuff,
REFERENCE:	Assessment Rep	port 15378.		

#### CAPSULE GEOLOGY

The claims are underlain by Lower Jurassic Hazelton Group volcanics of the Telkwa Formation comprised mainly of andesitic to dacitic pyroclastics, flows, breccia, and red to green tuffs with lapilli tuff. Minor interbedded greywacke, tuffaceous siltstone and shales strike north-northeast and dip between 15 and 35 degrees east.

The volcanics are intruded by a Late Cretaceous to Eocene quartz-feldspar porphyry plug which is intensely fractured and argillized. The intrusive plug is surrounded by Late Cretaceous to Early Tertiary Ootsa Lake volcanics comprised of flow banded rhyo-lite, rhyolitic crystal tuff and porphyritic quartz-eye rhyolites which are thought to be the extrusive equivalents of the porphyry stock. An advanced argillic alteration zone envelopes the intrusive and extrusive equivalents and is recognized by quartz and clay replacement of the feldspar.

Both the rhyolites and the quartz-feldspar porphyry are intensely fractured and invaded by several generations of quartz veins and veinlets which occur in parallel fractures or are multidirectional and crosscutting. A rare set of drusy veinlets are accompanied by an abundance of pyritohedral pyrite crystals. Also, minor late stage vuggy chalcedonic quartz veining hosts grey silica encapsulated by sulphide patches.

Molybdenite occurs in the quartz vein stockworks which are associated with the alteration envelope in the intrusive rocks. Pyrite is widespread throughout the argillic zone. In 1986 trenching uncovered scattered silver-rich, galena-sphalerite-tetrahedrite veins and veinlets associated with the contact zone in the altered volcanic rocks.

In 1982, chip samples of the veins assayed 0.095 grams per tonne gold, 0.381 per cent copper, 0.054 per cent MoS2 and 0.025 grams per tonne gold and 0.125 per cent MoS2 (Assessment Report 10903). In 1986, a sample of a pyrite-rich block assayed 0.55 grams per tonne gold, 6.9 grams per tonne silver, 0.01 per cent copper, 0.02 per cent lead and 0.01 per cent zinc. A sample from a galena-sphalerite stringer in altered tuff assayed 1.44 grams per tonne gold, 2403 grams per tonne silver, 1.51 per cent copper, 8.74 per cent lead and

7.31 per cent zinc (Assessment Report 15378). Locally, a breccia pipe occurs along the north side of the quartz-feldspar porphyry. The breccia has a highly siliceous matrix with intensely argillized and sericitized fragments. In 1978, a sample of the breccia assayed 0.44 per cent MoS2, trace to 6.6 per cent lead, trace to 0.02 per cent tungsten, trace to 0.037 per cent tin and 0.2 to 1.0 per cent fluorine (Assessment Report 7060).

## **BIBLIOGRAPHY**

EMPR AR 1965-80; 1966-103; \*1967-108; 1968-137 EMPR GEM 1969-122; 1970-156; 1971-174 EMPR EXPL \*1978-E218; \*1982-309-310; \*1986-C353; 1987-C302; 1988-C169 EMPR ASS RPT 869, 1139, 2308, 2309, 3077, \*7060, \*10903, \*14174, \*15378, \*16238, 16980 EMPR MAP 69-1 GSC OF 351 GSC MAP 671A EMPR FIELDWORK 1985, pp. 121-123 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/11/01

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 033</u>	NATIONAL MIN	NERAL INVENTORY: 093L11 Ag4
NAME(S):	HOPE, HANKIN BASIN		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L11E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 32 09 N 127 04 47 W 1380 Metres Within 5 KM Located on the right bank of the e vicinity of Old Tom ? (093L 034), Showing is located in the Hankin I Minister of Mines Annual Report 1	east fork of Goathorn Creek, in the 19 kilometres south of Telkwa. Basin area (refer to sketch map in 1911, page 100).	NORTHING: 6044837 EASTING: 624244
COMMODITIES:	Silver Gold	Copper	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Oxidation Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydroth L01 Subvolcanic Cu-Ag-Au (A : Mineralized quartz vein.	hermal As-Sb) D03 Volc STRIKE/DIP: 320/80N	anic redbed Cu TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	: Volcanic		
	GROUP Hazelton	FORMATION	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Felsite Dike		
GEOLOGICAL SETTING			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Stikine Contact Regional	RELATIONSHIP: Syn-mineralization Post-mineralization	GRADE:
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver	YEAR: 1932 GRADE 171,4000 Grams per tonne	
COMMENTS: REFERENCE:	Gold Copper Sample of best mineralization. Minister of Mines Annual Report 1	1.4000 Grams per tonne 10.0000 Per cent 1932, page 85.	
CAPSULE GEOLOGY	The showing is und canics of the Telkwa Fo maroon to grey andesiti volcanics have undergon intruded by a Late Cret diorite with associated A quartz vein with strikes 320 degrees and volcanics. The vein is sample of the best mine	erlain by Lower Jurassic Hazelton rmation comprised of variegated c to rhyolitic flows, tuffs and e extensive faulting and shearin aceous to Eocene intrusions comp felsite dikes. a maximum exposed width of 0.75 dips steeply northeast in the a mineralized with chalcopyrite a ralization assayed 1.4 grams per	n Group vol- red, green, breccia. The g. They are rised of grano- metres ndesitic nd pyrite. A tonne gold,

sample of the best mineralization assayed 1.4 grams per tonne gold, 171.4 grams per tonne silver and 10 per cent copper. A sample of the oxidized portion of the vein assayed 1.4 grams per tonne gold, 185.1 grams per tonne silver and 1.0 per cent copper (Minister of Mines Annual Report 1932, page 85).

### BIBLIOGRAPHY

EMPR AR 1911-100(map); \*1932-85 GSC MAP 44-23; 989 EMPR MAP 69-1 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/05 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 034</u>				NATIONA	L MINERAL INVENTORY:	093L11 Cu2
NAME(S):	<u>old tom</u> , ha Lava	NKIN, LORING	,				
STATUS:	Showing	_				MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093L11E	а				UTM ZONE:	09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 32 19 N 127 06 08 V 1128 Metres Within 500M Located on the Webster Creek Telkwa; locatio 7070).	l V c east side of H c on D.L. 631, a on of diamond o	lankin Basi approximate drillhole 1-7	n, on the east fork ely 19 kilometres so 8 (Assessment Re	of outh of sport	NORTHING: EASTING:	6045107 622780
COMMODITIES:	Copper	Si	lver	Gold		Zinc	
MINERALS SIGNIFICANT:	Chalcopyrite	Chalcocite	Pyrite	Magnetite	Sphalerite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Epidote Propylitic Unknown	Calcite Chlorite	Mica				
DEPOSIT							
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvol	Di Hy Icanic Cu-Ag-/	sseminated /drothermal Au (As-Sb)		D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP			FORMATION		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Black Argillite Felsite Dike						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Regional	F	RELATIONSHIP: Sy PC	PHYSIOC m-mineralization pst-mineralization	GRAPHIC AREA: Nechako GRADE:	) Plateau
INVENTORY							
ORE ZONE:	SAMPLE			REPO	RTON: N		
COMMENTS: REFERENCE:	CATEGORY: SAMPLE TYPE <u>COMMODITY</u> Silver Copper DDH-1 interset low gold, zinc a Assessment R	Assay/anal Grab cts 1.0 metre v and cadmium. eport 7070.	ysis  vide minera	<u>GRADE</u> 8.9000 G 0.4100 F alized zone, also sł	YEAR: 1978 Grams per tonne Per cent howed		
CAPSULE GEOLOGY							
	The c canics com to rhyolit extensive ceous to E light colo Sulph volcanics with lesse quartz, ep In 19 flat lying	laims are prised of ic flows, faulting a ocene intr red felsit ide minera which host r sphaleri idote, cal 78, Drill andesite	underla: variegat tuffs an nd shear usions of e dikes lization pyrite te and t cite, ch Hole #1 and inte	In by Lower J ted red, maro and breccia. ring. They a comprised of a conforms to , chalcopyrit tetrahedrite. alorite with , on the Old ersected a 1.	urassic Haze on, green to The volcanic re intruded granodiorite bands of sl e, chalcocit Gangue min micas and a Tom claim, o 0 metre wide	eiton Group vol- o grey andesitic cs have undergone by Upper Creta- e with associated hallowly dipping te and magnetite herals consist of ltered wall rock. cut grey to black e altered band	

which assayed 0.41 per cent copper, 8.9 grams per tonne silver with low gold, zinc and cadmium. At 17.7 metres another 1.9 metre wide intersection assayed 0.16 per cent copper, 3.0 grams per tonne silver with low gold and zinc (Assessment Report 7070). A second drill hole in grey to black, flat lying argillite intersected a 3.0 metre sulphide band which assayed 0.68 per cent copper, 18.2 grams per tonne silver and 0.96 grams per tonne gold. Another intersection at 90.5 metres assayed 0.05 to 0.37 per cent copper with low gold and silver (Assessment Report 7070).

#### BIBLIOGRAPHY

EMPR AR 1899-657; 1900-790; 1901-991; 1902-47; 1903-52; 1905-125; 1907-78; 1908-64; 1909-85; 1911-110,Map after p. 100; 1914-224; 1968-129 EMPR GEM 1969-86; 1970-159; 1972-417; \*1973-345; 1976-E151; \*1978-E220 EMPR EXPL 1980-345; \*1981-188 EMPR ASS RPT 1810, 1880, \*4831, \*7070, \*10043 GSC SUM RPT 1907, p. 20 GSC MAP 989 EMPR MAP 69-1 GSC OF 351 EMPR GEOLOGY 1977-1981, p. 129 EMPR MOF 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC P 44-23

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/05 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 035</u>	NATIONAL MINERAL INVENTORY: 093L11 Cu2
NAME(S):	HANKIN, LAVA, FOREST, TELKWA, HANKIN BASIN, LION, CAMOSUN	
STATUS: REGIONS:	Showing British Columbia	MINING DIVISION: Omineca
NTS MAP: BC MAP	093L11E	UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 30 N 127 05 56 W 1340 Metres Within 500M Located along the west fork of Goathorn Creek in the Hankin Bas area (refer to Minister of Mines Annual Report 1911, map after pa 100); approximately 1.5 kilometres east of Crater Lake, 19.3 kilo- metres south of Telkwa; showing location (Assessment Report 1	NORTHING: 6043599 EASTING: 623036 sin age 1810).
COMMODITIES:	Copper Silver Gold	
MINERALS SIGNIFICANT:	Chalcopyrite Chalcocite Magnetite Pyrite	Bornite
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Calcite Epidote Epidote Chlorite Mica Chloritic Epidote Silicific'n Unknown	
DEPOSIT		
CLASSIFICATION: TYPE:	Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb)	D03 Volcanic redbed Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic	
STRATIGRAPHIC AGE	GROUPFORMATIONHazeltonTelkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Quartz Porphyry Dike	
	Intermontane	PHYSIOGRAPHIC AREA: Hazelton Ranges
METAMORPHIC TYPE:	Stikine Contact Regional RELATIONSHIP: Syn-mine Post-min	eralization GRADE: neralization
INVENTORY		
ORE ZONE:	DUMP REPORT ON	J: N
COMMENTS	CATEGORY: Assay/analysis YEAR SAMPLE TYPE: Bulk Sample <u>COMMODITY</u> <u>GRADE</u> Silver 57.9000 Grams Gold 1.0000 Grams Copper 2.8000 Per cen Sample taken from dump material from 9.0 metre adit on Telkwa	Per tonne per tonne nt
REFERENCE:	claim. Minister of Mines Annual Report 1914, page K225	
CAPSULE GEOLOGY		
	The claims in the Hankin Basin area are Jurassic Hazelton Group rocks of the Telkwa I variegated red, maroon, green to grey andesit tuffs and breccia with minor intercalated see have undergone extensive faulting and shearin horizontal and are well exposed on both sides intruded by a series of roughly parallel quar averaging 30 centimetres in width, which str: from 50 to 70 degrees southeast. The dikes a Cretaceous to Eocene intrusives comprised of diorite.	underlain by Lower Formation comprised of tic to rhyolitic flows, diments. The volcanics ng. The rocks lie nearly s of the creek. They are rtz-porphyry dikes, ike 025 degrees and dip are related to the Upper granodiorite and quartz

Mineralization is developed along the bedding planes of the volcanics and generally shows enrichment near the dike contacts. The mineralization includes pyrite, chalcopyrite, and magnetite disseminated in a gangue of altered country rock, quartz and epidote. A sample from dump rock on the Telkwa claim assayed 1.0 grams per tonne gold, 57.9 grams per tonne silver, and 2.8 per cent copper (Minister of Mines Annual Report 1914, page K225).

of Mines Annual Report 1914, page K225). In 1968 and 1969, mapping and drilling indicated the mineralization is comprised of bands conforming with the low dipping volcanics and consisting of pyrite, chalcopyrite, chalcocite, and magnetite with lesser bornite and tetrahedrite in siliceous volcanic rocks. The gangue minerals consist of quartz, epidote, calcite, chlorite, micas, and altered wall rock.

### BIBLIOGRAPHY

EMPR AR 1899-657; 1900-790; 1901-991; 1902-47; 1903-52; 1905-125; 1907-78; 1908-64; 1909-85; 1911-110,\*Map after p. 100; \*1914-224; 1968-129 EMPR GEM 1969-86; \*1970-159; \*1972-417; \*1973-345; 1976-E151; 1978-E220 EMPR EXPL 1980-345; 1981-188 EMPR ASS RPT \*1810, 1875, 1880, 4811, \*4831, 7070, 8624, \*10043, 11903 GSC SUM RPT 1907, p. 20 GSC MAP 989 EMPR MAP 69-1 GSC OF 351 EMPR GEOLOGY 1977-1981, p. 129 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC P 44-23

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/05 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 036</u>	NATIONA	L MINERAL INVENTORY: 093L11 Cu3
NAME(S):	LORING, LAVA, HANKIN, SLUMP BLOCK, COPPER 2, ADELAIDE, HANKIN 23,24, STIRLING, BIG BLUE, YELLOWHAMMER		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP:	093L11E		UTM ZONE: 09 (NAD 83)
LATITUDE:	54 30 30 N		NORTHING: 6041713
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	1255 Metres Within 500M Located at the head of Hankin Basin on an ea Creek, 20.9 kilometres south of Telkwa; slump (Assessment Report 10043, 11903).	astern fork of Webster o block location	EASTING, 021930
COMMODITIES:	Copper Silver	Molybdenum	Gold
MINERALS		<b></b>	
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Molybdenite Malachite Epidote Limonite Epidote Oxidation Unknown	Magnetite Pyrite	
CLASSIFICATION: TYPE:	Epigenetic Hydrothermal L04 Porphyry Cu ± Mo ± Au	D03	Volcanic redbed Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP FOR	RMATION	IGNEOUS/METAMORPHIC/OTHER
		(wa	
LITHOLOGY:	Andesite Amygdaloidal Rhyolite Dike Tuff Breccia Intrusive Dike		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYSIOG	RAPHIC AREA: Hazelton Ranges
TERRANE: METAMORPHIC TYPE:	Contact Regional RELAT	ONSHIP: Syn-mineralization Post-mineralization	GRADE: Hornfels
INVENTORY			
ORE ZONE:	DRILLHOLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core	YEAR: 1974	
	COMMODITY GF	RADE	
REFERENCE:	Assessment Report 4831.		
CAPSULE GEOLOGY	The claims are underlain b	y Lower Turaggia Hage	lton Group Hol-
	The claims are underlain b canics of the Telkwa Formation green to grey andesitic to rhyo minor intercalated sediments. Upper Cretaceous to Eocene intr quartz monzonite with dikes of quartz porphyry. Alteration and mineralizat porphyry stock is related to a magnetite and with porphyritic alteration related to fracture minor chalcopyrite and trace mo Locally, the flat lying vo	y Lower Jurassic Haze comprised of variegat litic flows, tuffs, a The volcanics are int usions comprised of g granodiorite, felsite ion associated with a hornfelsed zone hosti stages within the sto controlled stockworks lybdenite. lcanics contain disse	encon Group Vol- end red, maroon, and breccia with rruded by an granodiorite and and rhyolitic a quartz feldspar ang pyrite and bock hosting a bearing pyrite, eminated chalco-

boothing the first typing volcanics contain disseminated charded pyrite over widths of 1.2 to 3.0 metres. A sample over 1.8 metres on the Stirling claim assayed trace gold, 41.1 grams per tonne silver, and 1.0 per cent copper. A sample across 1.2 metres on the Adelaide

PAGE: 72 REPORT: RGEN0100

#### CAPSULE GEOLOGY

loidal rhyolite dike cuts the Hazelton volcanics and forms a gossanous zone 100 metres east of the Slump Block which contains epidote, limonite, pyrite, magnetite with minor chalcopyrite and malachite. In 1974 drilling indicated 0.3 per cent copper is associated with this zone (Assessment Report 10043, page 7).

#### BIBLIOGRAPHY

EMPR AR 1901-991; 1902-47; 1903-52; 1905-84; 1910-110,\*Map after p. 100; \*1914-224; 1968-129 EMPR GEM 1969-86; \*1970-159; 1972-417; \*1973-345; 1976-E151; 1978-220 EMPR EXPL \*1980-345; \*1981-188 EMPR ASS RPT 1810, 1875, 1880, \*4811, \*4831, \*10043, 11903, 21765 GSC SUM RPT 988, Addendum p. 2 GSC MAP 989 EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208 EMPR OF 1989-16; 1993-21; 1994-14 Taylor, B., (1980): Report on the Copper 1-4 Claims, Jan.31, 1980 in Statement of Material Facts for Mecca Minerals Limited, dated Jul.15, 1980 GSC P 351 GSC P 44-23

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/05 CODED BY: GSB REVISED BY: LLD
MINFILE NUMBER:	<u>093L 037</u>			NATIONA	AL MINERAL INVE	ENTORY: 093L11 Cu3
NAME(S):	<u>LAVA</u> , LORING	, HANKIN				
STATUS: REGIONS:	Showing British Columbia	I			MINING [	DIVISION: Omineca
NTS MAP: BC MAP:	093L11E				UT	M ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 30 49 N 127 06 40 W 1215 Metres Within 500M Location of mine Report 1810, Fig	eralization along Lori gure L-G-2-68.	ng Creek from Ass	essment	NC E	RTHING: 6042310 ASTING: 622279
COMMODITIES:	Copper	Molybden	um			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE	Chalcopyrite Quartz Malachite Silicific'n Unknown	Malachite Mo	lybdenite			
	Children					
CHARACTER: CLASSIFICATION: TYPE:	Stockwork Epigenetic L05 Porphyr	Hydrother ry Mo (Low F- type)	mal	L04	Porphyry Cu ±	Mo ± Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton		<u>FORMATION</u> Telkwa		<u>IGNEOUS</u>	S/METAMORPHIC/OTHER
LITHOLOGY:	Siliceous Volcar Siliceous Pyrocl Rhyolite Flow Basalt Tuff Breccia Quartz Feldspa	nic astic r Porphyry Dike				
GEOLOGICAL SETTING	l					Herekan Denne
METAMORPHIC TYPE:	Stikine Contact	Regional	RELATIONSHIP:	Syn-mineralization Post-mineralization	GRAPHIC AREA: GRADE:	Greenschist Hornfels
CAPSULE GEOLOGY						
	The ar canics of t mainly basa and breccia Eocene intr porphyry wi In 196 nated chalc lying volca showing in with granod the silicif	tea is underlai the Telkwa Form alt and rhyolit t. These volca usions compris th associated and 1970 mol copyrite and ma mics along Lor Assessment Rep liorite and qua ied volcanics.	n by Lower Ju ation compris e flows, quar nics are intr ed of granodi dike swarms. ybdenite in a lachite along ing Creek (re ort 1810). T rtz-feldspar	arassic Hazelt ed of siliceo tz feldspar a uded by a Lat orite and qua quartz stock fractures wa fer to molybd his mineraliz porphyry dike	on Group vol us pyroclast sh flows, tu e Cretaceous rtz-feldspar work with di s mapped in enite stockw ation is ass s which cros	ics, iff to .ssemi- flat york sociated sscut
BIBLIOGRAPHY	EMPR AR 190 EMPR GEM 19 EMPR EXPL 1 EMPR ASS RF GSC SUM RPT GSC MAP 989 GSC OF 351 GSC P 44-23 EMPR FIELDW EMPR OF 198 EMPR MAP 69	1-991; 1902-47 969-86; *1970-1 980-345; 1981- T *1810, 1875, 988, Addendum 900RK 1988, pp. 99-16; 1993-21;	; 1903-52; 19 59; 1973-346 188 1880, 4811, p. 2 195-208 1994-14	05-84,125; 19 10043, 11903,	14-224; *196 21765	58-129
DATE CODED: DATE REVISED:	1989/04/10 / /		CODED BY: LL REVISED BY:	.D		FIELD CHECK: N FIELD CHECK:

MINFILE NUMBER: 093L 037

MINFILE NUMBER:	<u>093L 038</u>					NATIONA	L MINERA	L INVE	ENTORY:	093L1	1 Cu11
NAME(S):	<u>MARMOT</u> , CR CHIMNEY	ATER LAKE, LA	VA,								
STATUS:	Showing	-					MI	NING E	DIVISION:	Omine	eca
REGIONS. NTS MAP: BC MAP	093L11E	d						UTI	M ZONE:	09 (N	IAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 25 N 127 08 05 W 1585 Metres Within 500M Chimney show of Crater Lake, (Assessment F	/ ing located on th approximately 2 Report 10043).	ne east side of V 20 kilometres sou	Vebster ( uth of Te	Creek jus Ikwa	t west		NOE	RTHING: ASTING:	60433 62072	82 2
COMMODITIES:	Copper	Silve	er								
	Pornito	Chalconvrita	Chalaaaita	Totrob	odrito	Homotito					
	Specularite	Calcite	Chalcocite	retran	eante	nemaille					
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Epidote Unknown	Azurite	Epidote								
	Vain										
CLASSIFICATION: TYPE:	Epigenetic L01 Subvol	Hydr canic Cu-Ag-Au	rothermal (As-Sb)			D03	Volcanic	redbec	d Cu		
HOST ROCK DOMINANT HOSTROCK:	Volcanic										
STRATIGRAPHIC AGE	GROUP Hazelton		FORM	ATION wa			<u>IGI</u>	NEOUS	S/METAM	ORPHIC	C/OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Breccia										
GEOLOGICAL SETTING	Intermentane					DUVSIOC			Hozolton	Dong	
TECTONIC BELT. TERRANE: METAMORPHIC TYPE:	Stikine				Sun mine	relization			Crooper	hiot	55
	Regional		RELATIC		Post-mine	eralization	Gr		Hornfels	11151	
INVENTORY											
ORE ZONE:	SAMPLE			RE	PORT ON:	N					
	CATEGORY: SAMPLE TYPE: COMMODITY	Assay/analys Grab	is GRA	DE	YEAR:	1973					
COMMENTS: REFERENCE:	Silver Copper Average sampl Assessment R	e taken from the eport 4811.	108. 4.2 Chimney zone.	.7000 2600	Grams p Per cen	per tonne t					
CAPSULE GEOLOGY				<b>T</b>		- 1	· · · · ·	. 1 .	4		
	The s the Nilkit well-bedded intruded b diorite an Local intruded b the rocks	nowing is wi kwa Formatic d tuff and r y a Late Cre d quartz dic ly, the Haze y numerous g form a broad	thin Lower on, Red Tuff minor ash fl etaceous to orite with a elton Group granodiorite d anticline	Juras Membo Low tu Eocent associa rocks e stocl which	sic Haz er comp ff. Th e intru ated di are br ks and strike	celton G prised m lese pyr lsions c kes and coken by sills. es north	colasti comprise sills faults Struct n-northy	olcan of re ics a ed of s and cural vest	lics of d, re grano l are ly, and	_	

the rocks form a broad anticline which strikes north-northwest and plunges north with its axis through Crater Lake. The limbs find expression on the steep walls of the Hankin Basin. Faults and shear zones predominate in the cliffs above the lake and along Webster Creek. Block faults with variable displacement are common. The main mineralization occurs just west of Crater Lake on the east side of Webster Creek in the "Chimney zone". The Chimney zone is a structural zone 30.5 metres in length which consists of narrow weins traversing faults or shears in dark green and marcon andesitic

veins traversing faults or shears in dark green and maroon andesitic

	tuff. Surface expressions contain epidote. These are which carry malachite, borr tetrahedrite, hematite and assays over 24.4 metres ran and 29.8 to 425.1 grams per per cent copper and 108.7 of 4811). Other samples taken and and the Chimney zone, on th between 0.76 to 6.75 per ce silver (Assessment Report 4	of the veins show secondary enrichment ar e crosscut by calcite and quartz stringers hite, chalcopyrite, azurite, chalcocite, minor disseminated specularite. In 1973, ged between 0.76 to 15.6 per cent copper t conne silver. The showing averaged 4.26 grams per tonne silver (Assessment Report bout 500 metres south of the Crater Lake he Webster and Hankin claims, ranged ent copper and 10.9 to 21.6 grams per tonr 1811).	nd 5 5
BIBLIOGRAPHY	<pre>EMPR AR 1903-52; 1905-125; after p. 100; 1914-224; EMPR GEM 1969-86; 1970-159; EMPR EXPL *1980-345; *1981- EMPR ASS RPT 1810, 1880, *4 GSC P 44-23 EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 19 EMPR OF 1989-16 Taylor, B., (1980): Report 1980 in Statement of Mat dated Jul.15, 1980 EMR MP CORPFILE (Mecca Mine GSC OF 351 EMPR GEOLOGY 1977-1981, p.</pre>	1907-78; 1908-64; 1909-85; 1911-110,Map 1968-129 1972-417; *1973-345; 1976-E151; 1978-E22 188 4811, *4831, *7070, *8624, *10043, *11903 95-208 on the Copper 1-4 Mineral Claims, Jan.31, cerial Facts for Mecca Minerals Limited, erals Ltd.) 129	20
DATE CODED: DATE REVISED:	1985/07/24 1989/04/05	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: I FIELD CHECK: I

MINFILE NUMBER:	<u>093L 039</u>	N	TIONAL MINERAL INVENTORY: 093L11 Cu11
NAME(S):	CRATER LAKE, COPPER 1-4, LAVA, CIRQUE		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP:	093L11E		UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 21 N 127 07 34 W 1585 Metres Within 500M Located on the west wall of the inner approximately 20 kilometres south of showing (Assessment Report 10043	r depression of Crater Lake, Telkwa; location of Cirque ;).	NORTHING: 6043273 EASTING: 621282
COMMODITIES:	Copper Silver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Chalcopyrite Chal Specularite Quartz Calcite Malachite Azurite Epido Epidote Unknown	lcocite Tetrahedrite H	ematite
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Dissemina Epigenetic Hydrotherr L01 Subvolcanic Cu-Ag-Au (As-S D03 Volcanic redbed Cu	ted Stockwork nal Igneous-conta Sb)	ct _04  Porphyry Cu ± Mo ± Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Nilkitkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesitic Tuff Bedded Tuff Ash Flow Tuff		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PI	IYSIOGRAPHIC AREA: Hazelton Ranges
METAMORPHIC TYPE:	Regional	RELATIONSHIP: Syn-mineral Post-minera	zation GRADE: Greenschist ization
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper 3.0 metre sample Assessment Report 4811.	YEAR: 1 GRADE 101.8000 Grams per 1.5500 Per cent	973 tonne
CAPSULE GEOLOGY	The claims are under canics of the Nilkitkwa Fo of red, well-bedded tuff a	lain by Lower Jurassic ormation, Red Tuff Men and minor ash flow tuf	Hazelton Group vol- ber comprised mainly f. These pyroclastics

of red, well-bedded tuff and minor ash flow tuff. These pyroclastics are intruded by a Late Cretaceous to Eocene intrusion comprised of granodiorite and quartz diorite with dikes of granodiorite, felsite and rhyolitic quartz porphyry. Alteration and mineralization associated with the central stock

Alteration and mineralization associated with the central stock is related to a hornfelsed zone hosting pyrite and magnetite and with porphyritic stages within the stock hosting alteration related to fracture controlled stockworks bearing pyrite, minor chalcopyrite, and molybdenite. Away from the stock where small diorite stocks, and sills intrude the volcanics mineralization consists of pyrite, chalcopyrite, minor bornite, with epidote and chlorite.

pyrite, minor bornite, with epidote and chlorite. In the Crater Lake area, the Hazelton Group rocks are broken by faults and intruded by numerous granodiorite and quartz monzonite stocks and sills. Structurally the rocks form a broad anticline which

PAGE: 77 REPORT: RGEN0100

## CAPSULE GEOLOGY

strikes north-northwest and plunges north with its axis through Crater Lake. Faults and shear zones predominate in the cliffs above the lake and along Webster Creek. Block faults with variable displacements are common.

Mineralization occurs in narrow veins which traverse the faults and shears. Veins along the west wall of the inner depression of Crater Lake, known as the Cirque showing, host hematite, bornite, malachite, azurite, chalcopyrite, chalcocite and tetrahedrite. Southwest of the lake, copper staining occurs in bands along the cirque wall. In 1974, this chalcocite mineralized horizon was called C2 and consisted of very fine disseminated chalcocite in a band of green andesitic tuff. The zone is approximately 15.2 metres wide and in 1973 a 3.0 metre section assayed 101.8 grams per tonne silver and 1.55 per cent copper (Assessment Report 4811).

## BIBLIOGRAPHY

EMPR AR 1903-52; 1968-129 EMPR GEM 1969-86; \*1973-345; 1976-E151; \*1978-E220 EMPR EXPL \*1980-345; \*1981-188 EMPR ASS RPT \*4811, \*7070, 8624, \*10043, \*11903 GSC P 44-23 EMPR MAP 69-1 EMR MP CORPFILE (Mecca Minerals Ltd.) GSC OF 351 EMPR GEOLOGY 1977-1981, p. 129 EMPR FIELDWORK 1988, pp. 195-208 EMPR OF 1989-16 Taylor, B., (1980): Report on the Copper 1-4 Mineral Claims, Jan.31, 1980 in Statement of Material Facts for Mecca Minerals, Jul.15, 1980 GCNL #60,#214, 1978

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/05 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 040</u>		NATIONAL	MINERAL INVENTORY: 093L11 Cu4
NAME(S):	IDAHO, MOHOCK, HUNTE	R BASIN		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L11E			MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 37 N 127 09 59 W 1623 Metres Within 500M Located on the southeast approximately 20 kilometr map in Minister of Mines A	side of Cabinet Creek in Hu es south-southeast of Telk unnual Report 1925, page 1	unter Basin, wa (see sketch 40).	NORTHING: 6043699 EASTING: 618663
COMMODITIES:	Copper	Silver	Gold	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Chalcopyri Quartz Chlorite Chloritic Unknown	te		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic D03 Volcanic redbed C Mineralized quartz vein on	Disseminated Hydrothermal u the Idaho claim.	Breccia L01 S STRIKE/DIP: 055/80S	ubvolcanic Cu-Ag-Au (As-Sb) TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Lower Jurassic Upper Cretaceous	GROUP Hazelton	<u>FORMATIO</u> Telkwa	N	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions
LITHOLOGY:	Amygdaloidal Andesite Andesite Rhyolite Tuff Andesitic Breccia Quartz Feldspar Porphyry Felsite Dike	,		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGR	APHIC AREA: Hazelton Ranges
INVENTORY				
ORE ZONE:	SAMPLE		REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/au SAMPLE TYPE: Grab COMMODITY Silver Gold Copper 1.0 metre sample. Minister of Mines Appual B	nalysis <u>GRADE</u> 706.3000 2.7000 5.4000 Report 1914, page 219	YEAR: 1914 Grams per tonne Grams per tonne Per cent	
CAPSULE GEOLOGY	The claims ar canics comprised c with minor interca	e underlain by Low f andesitic to rhy lated sediments.	er Jurassic Hazel olitic flows, tuf South of the clai	ton Group vol- fs and breccia ms a Late

with minor intercalated sediments. South of the claims a Late Cretaceous to Eocene quartz-feldspar porphyry stock intrudes the volcanics with associated felsite dikes. The Idaho workings at elevation 1623 metres, consists of a 2.5 metre hole in amygdaloidal andesite which hosts minor bornite and chalcopyrite. To the south, a quartz vein up to 30 centimetres in width strikes 055 degrees and dips steeply southeast. Mineralization consists of bornite over 2.5 to 10 centimetres width on the hanging-wall.

wall. The Mohock adjoins the Idaho farther up the hill. The Mohock showing is a breccia zone striking 095 degrees in highly chloritized,

green andesite. The reddish, brecciated dike rock hosts disseminated bornite and chalcopyrite across a width of 1.2 to 1.5 metres. In 1914, a sample taken across 1.0 metres assayed 2.7 grams per tonne gold, 706.3 grams per tonne silver and 5.4 per cent copper (Minister of Mines Annual Report 1914, page 219).

## BIBLIOGRAPHY

EMPR AR 1904-102; 1905-84; 1908-64; 1909-85; 1911-112; \*1914-219; \*1925-140 EMPR MAP 69-1 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC SUM RPT 1906, p. 40; 1915, p. 64 GSC MAP 971A GSC OF 351 GSC P 44-23

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/06 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 041</u>		NATIONAL MINE	RAL INVENTORY:	093L11 Cu4
NAME(S):	KING (HUNTER BASIN), JACKPO WEB, HUNTER BASIN, HB	T, MEG,			
STATUS:	Past Producer	Underg	ground	MINING DIVISION:	Omineca
REGIONS: NTS MAP: RC MAD	093L11E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 01 N 127 10 26 W 1900 Metres Within 500M Located on the southeast side of Cabinet Creek, 21 kilometres sou	Hunter Basin, at the heac th-southwest of Telkwa.	l of	NORTHING: EASTING:	6042574 618206
COMMODITIES:	Copper Silver	Gold			
MINERALS					
SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Chalcopyrite C Pyrrhotite Galena S Quartz Silicific'n Unknown	Chalcocite Tetrahedr pecularite Magnetite	ite Pyrite		
DEPOSIT					
CHARACTER: CLASSIFICATION:	Vein Dissen Epigenetic Hydrot	ninated hermal As-Sh)		nic redbed Cu	
DIMENSION: COMMENTS:	Mineralized fissure vein infilling.	STR	RIKE/DIP: 065/10S	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMO	ORPHIC/OTHER
Lower Jurassic Upper Cretaceous	Hazelton	Telkwa		Bulkley Intrusions	
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Argillite Greywacke Quartz Feldspar Porphyry Felsite Dike				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPH	C AREA: Hazelton	Ranges
INVENTORY					
ORE ZONE:	VEIN	REPO	RT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold Copper 1.2 metre wide vein sample. Minister of Mines Annual Report 1	<u>GRADE</u> 164.5000 G 1.0000 G 2.0000 P 1914, page 220.	YEAR: 1915 irams per tonne irams per tonne er cent		
CAPSULE GEOLOGY					
	The claims are und canics comprised of and with minor intercalated intruded by a Late Cret associated satellitic f seminations and fissure ting. The mineralizati and tetrahedrite with m	erlain by Lower Ju lesitic to rhyolit: sediments. To the accous to Eccene of elsite dikes. Mine vein fillings with on includes bornit inor amounts of p	irassic Hazelton ic flows, tuffs a ne south, the vo quartz-feldspar p neralization occ th the vein-type te, chalcopyrite yrite, pyrrhotite	Group vol- and breccia lcanics are porphyry and urs as dis- predomina- , chalcocite e, galena,	

specularite and magnetite. On the King claim a silicified fracture zone 15 to 61 centimetres wide, striking 065 degrees and dipping very slightly to the southeast, is heavily mineralized with bornite, chalcopyrite, tetrahed-

rite, and specularite with minor magnetite in pockets or irregular lenses. In 1914, a whole vein sample, 1.2 metres in width, assayed 1.0 grams per tonne gold, 164.5 grams per tonne silver, and 2.0 per cent copper. Also a sample from the "West showing", the western end of the vein, comprised of bornite mixed with magnetite assayed 6.8 grams per tonne gold, 884.5 grams per tonne silver, and 29.0 per cent copper (Minister of Mines Annual Report 1914, page 220). In 1914 to 1915 about 37 tonnes of ore was shipped from a 7.7

In 1914 to 1915 about 37 tonnes of ore was shipped from a 7.7 metre shaft on the King claim and from open cuts on the Rainbow claim (093L 044). In 1925 new crosscut adits and drifting continued on a new discovery on the King claim and ore was shipped in 1940-1941 until the mine closed in 1941.

In 1940, 41 tonnes of ore was mined and 6.3 tonnes were shipped and produced 240 grams of gold, 4183 grams of silver and copper. In 1941, 225 tonnes were mined and produced 7166 grams gold, 193,779 grams silver and copper combined production from the King and Rainbow (093L 044) claims for the period 1915 to 1941 totals 269 tonnes of sorted ore which produced 8160 grams gold, 283,366 grams silver and 42710 kilograms copper.

In 1962, Canadian Mining Co. Inc., shipped 24.5 tonnes of ore from Hunter Basin which produced 8160 grams gold, 283,366 grams silver and 1647 kilograms copper.

#### BIBLIOGRAPHY

EMPR AR 1904-102; 1905-83,126; 1906-98; 1908-64; 1909-85; \*1911-111; \*1914-219; \*1925-139,140; 1939-99; \*1940-74,84; 1941-72; 1962-A46; \*1967-91 EMPR ASS RPT \*1086, 19555 EMPR GEM 1969-86; 1970-160; 1971-176; 1972-418 EMPR FIELDWORK 1988, pp. 195-208 EMPR OF 1989-16; 1993-21; 1994-14 GSC SUM RPT 1906, p. 40; \*1915, p. 64 EMPR MAP 69-1 EMR MP CORFILE (Hunter Basin Mines Ltd.) GSC MAP 971A GSC OF 351 GSC P 44-23 EMPR PF (Maps)

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/06 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 042</u>		NATIONAL MINERAL INVENTORY: 093L11	1 Ag1
NAME(S):	HUNTER, RIEGLE, HB, AJ, HUNTER BASIN, TRIBUNE, VIEW, PTARMIGAN			
STATUS: REGIONS: NTS MAP: PC MAD:	Developed Prospect British Columbia 093L11E	Underground	MINING DIVISION: Omined UTM ZONE: 09 (N/	ca AD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 35 N 127 11 13 W 1490 Metres Within 500M Located at the head of Cabinet Cre Basin, approximately 19 kilometres sketch map in Minister of Mines And	ek on the northwest side of Hu s south-southwest of Telkwa (s nual Report 1925, page 140).	NORTHING: 604360 EASTING: 617334 nter ee	03 4
COMMODITIES:	Copper Silver	Gold		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Bornite Chalcopyrite Ch Pyrite Pyrrhotite Galer Quartz Unknown	nalcocite Specularite na	Tetrahedrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Dissemir Epigenetic Hydrothe D03 Volcanic redbed Cu Disseminated mineralization occurs rock.	nated ermal STRIKE/DIF along one thin bed of volcanic	L01 Subvolcanic Cu-Ag-Au (As-Sb) 090/25N TREND/PLUNGE:	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Lower Jurassic Upper Cretaceous	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC	OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Argillite Greywacke Quartz Feldspar Porphyry Felsite Dike			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Hazelton Ranges	S
INVENTORY				
ORE ZONE:	DUMP	REPORT ON:	Ν	
COMMENTS	CATEGORY: Assay/analysis SAMPLE TYPE: Bulk Sample <u>COMMODITY</u> Silver Gold Copper Sample from 23 tonnes of ore	YEAR: <u>GRADE</u> 2523.4000 Grams p 0.6900 Grams p 1.2000 Per cent	1914 er tonne er tonne	
REFERENCE:	Minister of Mines Annual Report 19	14, page 221.		
CAPSULE GEOLOGY	The claims are unde canics comprised of red, flows, tuffs and breccia volcanics are intruded b porphyry intrusion and a Mineralization occu with the vein-type predo chalcopyrite, chalcocite pyrite, pyrrhotite, gale Disseminated minera	rlain by Lower Jurass purple, grey to gree with minor intercala y a Late Cretaceous t ssociated satellitic rs as disseminations minating. Mineraliza , and tetrahedrite wi na, and specularite. lization occurs along	A Hazelton Group vol- andesitic to rhyolitic ed sediments. The b Eocene quartz-feldspar elsite dikes. and fissure vein fillings tion includes bornite, th minor amounts of one thin bed of volcanic	

rock on the Hunter claim which strikes east-west and dips 25 degrees north. The bed is traceable for 91 metres and host bornite and specularite over widths of 15 to 91 centimetres, with local, high grade mineralization over widths of 20 to 30 centimetres. In 1914 several open cuts and a 4.8 metre adit exposed localized high grade mineralized lenses. A sample taken from a dump of about 23 tonnes of ore assayed 0.69 grams per tonne gold, 2523.4 grams per tonne silver and 1.2 per cent copper (Minister of Mines Annual Report 1914, page 221).

The Tribune claim adjoins the Hunter claim on the south side and hosts a mineralized quartz vein which was exposed within a 35 metre crosscut tunnel (refer to Tribune - 093L 255) located north of the Hunter workings and northeast of the Colorado workings (093L 043).

## BIBLIOGRAPHY

EMPR AR 1903-53; 1904-102; 1911-112,Map after p.100; \*1914-221; 1915-444; 1916-91; \*1925-139,\*140; 1929-171; 1939-99; 1967-91 EMPR GEM 1969-86; \*1970-160; \*1971-176; \*1972-418 EMPR ASS RPT \*1086 GSC SUM RPT 1906, p. 40; \*1915, p. 65 GSC MAP 971A EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208 EMPR OF 1989-16 GSC OF 351 EMR MP CORPFILE (Hunter Basin Mines Ltd.) GSC P 44-23 EMPR PF (Jones, H.M., (1967): Geological Report on the Al-4 Claim, Hunter Basin Area, B.C., Feb. 4, 1986; miscellaneous maps)

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/05 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 043</u>	NATI	ONAL MINERAL INVENTORY: 093L11 Ag2
NAME(S):	COLORADO, HUNTER BASIN, SILVER	RHILL	
STATUS: REGIONS:	Past Producer British Columbia	Underground	MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L11E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 46 N 127 11 37 W 1737 Metres Within 500M Located on the west side of Hunter B. Creek, 21 kilometres south-southwes Colorado tunnel from Assessment Re	asin, at the head of Cabinet t of Telkwa; location of port 10918.	NORTHING: 6043931 EASTING: 616894
COMMODITIES:	Copper Silver	Gold	
MINERALS			
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Bornite Chalo Quartz Calcite Clay Malachite Chlorite Zeolite Argillic Silicific'n Unknown	copyrite e Clay Zeolitic	
DEPOSIT	Vein Disseminat	ed	
CLASSIFICATION:	Epigenetic Hydrothern	nal Sb) D0	3 Volcanic redbed Cu
DIMENSION: COMMENTS:	Mineralized fissure vein.	STRIKE/DIP: 0	22/75N TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	: Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Hazellon	Текма	Bulkley Intrusions
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Argillite Greywacke Quartz Feldspar Porphyry Felsite Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine P	PHY Iutonic Rocks	SIOGRAPHIC AREA: Hazelton Ranges
INVENTORY			
ORE ZONE:	DUMP	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Bulk Sample COMMODITY Silver Gold Conper	YEAR: 191- GRADE 2372.5000 Grams per to 0.6900 Grams per to 6 5000 Per cent	4 nne
COMMENTS: REFERENCE:	Sample of unsorted ore from dump ma Minister of Mines Annual Report 1914	aterial. , page 221.	
CAPSULE GEOLOGY	The claims are underl canics comprised of red, p flows, tuffs and breccia w mately 1.6 kilometres sout Cretaceous to Eocene quart satellitic felsite dikes. A calcite and quartz	ain by Lower Jurassic F ourple, green to grey rh with minor intercalated th, the volcanics are in zz-feldspar porphyry sto filled fissure vein fro	Hazelton Group vol- hyolitic to andesitic sediment. Approxi- htruded by a Late bock and locally by om 30 to 61 centi-

metres wide strikes 022 degrees and dips 75 degrees northwest. The vein lies on a fault contact with a fine-grained, silicified grey volcanic which forms the hangingwall and a coarse-grained grey tuff which hosts tetrahedrite on the footwall. The quartz vein is separated from the host rock by a 1 centimetre thick clay zone. The

quartz vein is 30 to 60 centimetres wide and hosts chalcopyrite, tetrahedrite, and electrum with malachite staining near the tetrahedrite and quartz. Pale yellow electrum forms small wire-like crusts near the tetrahedrite veins. In this vicinity there is a heavy, grey to white clay on the hangingwall of the vein estimated at 20 centimetres width.

Northeast and on strike from the tunnel, fractures resulting from strong fracturing in the volcanics host abundant calcite, quartz, clay, zeolites, and chlorite. Several occurrences of malachite appear along fracture zones between the Colorado Tunnel and the Tribune (093L 255) Shaft.

The Colorado workings consisted of 2 drift adits both about 46 metres long with a 15 metre connecting raise. In 1914 a sample from the dump of unsorted ore assayed 0.69 grams per tonne gold, 2372.5 grams per tonne silver and 6.5 per cent copper (Minister of Mines Annual Report 1914, page 221). In 1914, about 38 tonnes of ore was shipped from this property.

In 1914, about 38 tonnes of ore was shipped from this property. From this ore 155,515 grams of silver and 2722 kilograms of copper were recovered.

## BIBLIOGRAPHY

EMPR AR 1909-85; 1911-112,Map 100; \*1914-173,220,509 EMPR GEM 1969-86; 1970-160 EMPR EXPL \*1982-312; 1988-C171 EMPR ASS RPT \*10918, 17448 EMPR MAP 69-1 EMPR OF MAP 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC SUM RPT \*1915, p. 65 GSC MAP 278A; 971A GSC P 44-23 GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1989/08/06 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 044</u>		NATIONA	L MINERAL INVENTORY:	093L11 Cu4
NAME(S):	RAINBOW (HUNTER BASIN), HU	JNTER BASIN			
STATUS:	Past Producer	Ur	nderground	MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L11E			UTM ZONE:	09 (NAD 83)
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 19 N 127 10 36 W 1524 Metres Within 500M Located on the southeast side of Creek, 21 kilometres south-south King (093L 041) which is to the s	f Hunter Basin, at the l hwest of Telkwa. The south at a higher eleva	head of Cabinet claim adjoins the ation.	NORTHING: EASTING:	6043125 618012
COMMODITIES:	Copper Silver	, c	Sold		
MINERALS					
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Bornite Chalcopyrite Quartz Unknown	Chalcocite Spec	ularite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Disse Epigenetic Hydro L01 Subvolcanic Cu-Ag-Au (	minated othermal (As-Sb)	D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	: Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMO	ORPHIC/OTHER
Lower Jurassic Upper Cretaceous	Hazelton	Telkwa		Bulkley Intrusions	
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Argillite Greywacke Quartz Feldspar Porphyry Felsite Dike				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOC	RAPHIC AREA: Hazelton	Ranges
INVENTORY					
ORE ZONE:	SHAFT	R	EPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Bulk Sample <u>COMMODITY</u> Silver Gold Copper 5.4 tonnes of ore from 3.0 metrer Minister of Mines Appual Report	GRADE 171.4000 2.0000 2.9000 e shaft. 1914, page 219	YEAR: 1914 Grams per tonne Grams per tonne Per cent		
		, page 210.			
	The Rainbow claim volcanics comprised of litic flows, tuffs and The volcanics are intr feldspar porphyry stoc A fracture zone w ritic volcanic rock ho	is underlain by red, purple, g breccia with m uded by a Late ( k and associated ith quartz infi sts mineralizat	y Lower Jurassi reen to grey ar inor intercalat Cretaceous to B d felsite dikes lling in a shat ion up to 6 met	c Hazelton Group desitic to rhyo- ed sediments. Cocene quartz- tered, porphy- tres in width.	

ritic volcanic rock hosts mineralization up to 6 metres in width. Mineralization consists of chalcopyrite, bornite, and specularite which occur as irregular lenses. Approximately 5.4 tonnes of ore taken from a 3 metre shaft along this vein in 1914, assayed 2.0 grams per tonne gold, 171.4 grams per tonne silver and 2.9 per cent copper (Minister of Mines Annual Report 1914, page 219). Combined production from the King (0931, 041) and Bainbow claims.

Combined production from the King (093L 041) and Rainbow claims (listed under Hunter Basin) for the period 1915 to 1941 totalled 269 tonnes of sorted ore which produced 8160 grams gold, 283,366 grams silver and 42,710 kilograms copper.

## BIBLIOGRAPHY

EMPR AR 1904-102; 1905-83,127; \*1906-98; 1908-64; 1909-85; 1911-111; \*1914-219; \*1925-140 GSC SUM RPT 1906, pp. 40,41; 1915, p. 64 EMPR MAP 69-1 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC MAP 971A GSC P 44-23 GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/06 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 045</u>		NATIONA	L MINERAL INVENTORY:	093L6 Cu8
NAME(S):	FOG (FLY), S.L. 15, SUNSETS CR WEBSTER 2	EEK,			
STATUS:	Prospect			MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L06E			UTM ZONE:	09 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 29 04 N 127 10 28 W 1600 Metres Within 500M Claims are 35 kilometres due sout kilometres east of Mooseskin John Trench location within Zone 1 (Min page 98, figure 11).	h of Smithers or a nny Lake at the he nister of Mines Ani	pproximately 10 ad of Sunsets Creek. nual Report 1967,	NORTHING: EASTING:	6038957 618264
COMMODITIES:	Molybdenum Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcopyrite Quartz Sericite Garnet Calc-silicate and garnet in skarns Argillic Sericitie Unknown	Pyrite Ma along contact zon c	agnetite e. Potassic	Skarn	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Dissem Porphyry Skarn L05 Porphyry Mo (Low F- type	ninated	Igneous-contact L04	Porphyry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic Upper Cretaceous	GROUP Hazelton	<u>FORMATIC</u> Telkwa	DN	IGNEOUS/METAM	DRPHIC/OTHER
LITHOLOGY:	Tuff Breccia Hornfels Skarn Andesite Rhyolite Quartz Feldspar Porphyry				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Plutonic Rocks RELATIONSH	PHYSIOC IIP: Syn-mineralization	GRAPHIC AREA: Hazelton GRADE: Hornfels	Ranges
INVENTORY					
ORE ZONE:	1		REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper Molybdenum West showing - quartz sericite zo Assessment Report 8444.	<u>GRADE</u> 0.0400 0.0250 one.	YEAR: 1980 Per cent Per cent		
CAPSULE GEOLOGY	Lower Jurassic Haz comprised of andesitic intruded by a Late Cret stock. The intrusion i effect on the Hazelton : Locally, the volca: minor intercalated flow hornfelsed as the intru the volcanics are skarn garnet with or without of Disseminated pyrite in Hydrothermal alter.	elton Group v to rhyolitic aceous to Eoo s an epizonal rocks. nics are comp s. The volca sive margin i ed producing disseminated the volcanics ation in the	volcanics of the flows, tuff and cene quartz-felds body which proc prised of fragmer anics are moderat is approached. I calc-silicate mi chalcopyrite and s increases towar core area of the	Telkwa Formation breccia are spar porphyry duced a domal ntal tuff with cely to intensely in some areas inerals and d magnetite. cds the contact.	

produced argillic alteration due to the breakdown of feldspar. As well, widely spaced sub-parallel quartz veins, ranging between 2 to 5 centimetres in widths host pyrite, chalcopyrite, and molybdenite. Two quartz-sericite zones, approximately 200 metres in diameter, host pyrite, molybdenite, and minor chalcopyrite along joints and fractures. Potassic alteration occurs lower and vertically beneath the

two quartz-sericite zones and is characterized by pink feldspar envelopes along fractures and in quartz veins.

Molybdenum mineralization is associated with the west and east (093L 046 - Fog) quartz-sericite zones as well as with the subparallel quartz veins. In 1980, a sample from the west Zone 1 (S.L. 15) showing assayed 0.025 per cent molybdenum and 0.04 per cent copper. Another sample from a shear assayed 0.003 per cent molybdenum and 0.11 per cent copper (Assessment Report 8444).

#### BIBLIOGRAPHY

EMPR AR 1905-128; 1914-222; \*1967-97-100; \*1968-128 EMPR GEM 1970-151 EMPR EXPL \*1980-341,342; 1983-440 EMR MP CORPFILE (Whitesail Mines Ltd.) EMPR MAP 69-1 GSC OF 351 EMPR ASS RPT \*1605, \*1922, \*8444, 8624, 11903 EMPR P \*1990-2

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 046</u>		NATION	AL MINERAL INVENTORY: (	093L6 Cu8
NAME(S):	FOG, S.L. 6, SUNSETS CREEK, WEBSTER 1				
STATUS: REGIONS: NTS MAP: BC MAP	Prospect British Columbia 093L06E			MINING DIVISION: ( UTM ZONE: (	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 29 01 N 127 09 15 W 1753 Metres Within 500M Claims are 35 kilometres due sout kilometres east of Mooseskin Johr Trench location within Zone 2 (Mir page 98, figure 11).	h of Smithers or app nny Lake at the hear nister of Mines Annu	proximately 10 d of Sunsets Creek. ial Report 1967,	NORTHING: ( EASTING: (	5038899 519580
COMMODITIES:	Molybdenum Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcopyrite Quartz Sericite Garnet Mag Calc-silicate minerals occur in ska Argillic Sericitic Unknown	Pyrite gnetite rn.	Potassic	Skarn	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry Skarn L05 Porphyry Mo (Low F- type	9)	L04	Porphyry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic Upper Cretaceous	GROUP Hazelton	<u>FORMATION</u> Telkwa	I	IGNEOUS/METAMO Bulkley Intrusions	RPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Quartz Feldspar Porphyry				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Plutonic Rocks RELATIONSHIF	PHYSIO 2: Syn-mineralization	GRAPHIC AREA: Hazelton GRADE: Hornfels	Ranges
INVENTORY					
ORE ZONE:	2	F	REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper Molybdenum Sample from east quartz sericite z Assessment Report 8444.	<u>GRADE</u> 0.0800 0.6450 zone.	YEAR: 1980 Per cent Per cent		
CAPSULE GEOLOGY	·				
	Lower Jurassic Haz comprised of andesitic intruded by a Late Creta stock. The intrusion is effect on the Hazelton is Locally, the volcai minor intercalated flow sely hornfelsed as the areas (093L 045 - Fog/)	elton Group vo to rhyolitic f aceous to Eoce s an epizonal rocks. nics are compr s. The volcan intrusive marg Fly) the volca	clcanics of the lows, tuff and me quartz-feld body which pro rised of fragme dics are modera gin is approach unics are skarn	Telkwa Formation breccia are spar porphyry duced a domal ntal tuff with tely to inten- ed. In some ed producing	

calc-silicate minerals and garnet with or without disseminated chal-copyrite and magnetite. Disseminated pyrite in the volcanics increases towards the contact. Hydrothermal alteration in the core area of the intrusive produced argillic alteration due to the breakdown of feldspar.

# CAPSULE GEOLOGY

CAPSULE GEOLOGI						
	As well, widely spaced sub-	parallel quartz veins, ranging between				
	denite	i nost pyrite, charcopyrite and moryb-				
	<pre>denite. Molybdenum mineralization is associated with two quartz- sericite alteration zones. The east zone (S.L. 6) is in excess of 200 metres in diameter and hosts pyrite, molybdenite, and minor chalcopyrite along joints and fractures. Potassic alteration occurs vertically beneath the two quartz- sericite zones and is characterized by pink feldspar envelopes along fractures and in quartz veins. In 1980, samples from the eastern quartz-sericite zone (Zone 2) assayed 0.645 per cent molybdenum, 0.08 per cent copper and 0.252 per cent molybdenum, 0.01 per cent copper, respectively. The latter is</pre>					
	a 0.5 metre channer sampre	(ASSESSMENC REPORT 0444).				
BIBLIOGRAPHY						
	EMPR AR 1905-128; 1914-222; EMPR GEM 1970-151 EMPR EXPL *1980-341,342; 19 EMR MP CORPFILE (Whitesail EMPR MAP 69-1 GSC OF 351 EMPR ASS RPT *1605, *1922,	*1967-97-100; 1968-128 983-440; 1988-C169 Mines Ltd.) *8444, 8624, 11903, 17977				
DATE CODED: DATE REVISED:	1985/07/24 1989/04/11	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N			

MINFILE NUMBER:	<u>093L 047</u>					NATIONAI	_ MINERAL INVENT	ORY: 093L6 Cu9
NAME(S):	<b>DENY NORTH</b> , I NORTH, FRIEND	DOMINION, DOM, DLY TRENCH						
STATUS:	Prospect						MINING DIVIS	SION: Omineca
REGIONS: NTS MAP:	British Columbia 093L06E						UTM Z	ONE: 09 (NAD 83)
BC MAP: LATITUDE:	54 28 00 N						NORTH	HING: 6037023
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	127 08 56 W 1920 Metres Within 500M Located near th Houston or 25 k	e headwaters of I ilometres southw	Denys Cree est of Telk	ek, 33 kilom wa.	etres w	est of	EAST	ΓΙΝG: 619972
COMMODITIES:	Silver	Lead		Zir	nc		Copper	Gold
MINERALS								
SIGNIFICANT:	Chalcopyrite Magnetite	Pyrite S	phalerite	Galena		Bornite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quărtz Malachite Epidote Unknown	Azurite Ep	pidote	Limonite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymet	Hydrot tallic veins Ag-Pb-	hermal Zn±Au					
HOST ROCK DOMINANT HOSTROCK:	Volcanic							
STRATIGRAPHIC AGE	GROUP		FO	RMATION			IGNEOUS/ME	ETAMORPHIC/OTHER
Lower Jurassic Upper Cretaceous	Hazelton		le	Ikwa			Bulklov Intrue	sions
							Buikley Intrus	510115
LITHOLOGY:	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill						Buikey muu	5015
GEOLOGICAL SETTING	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill							
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill Intermontane Stikine		Plutonic	Rocks	0	PHYSIOG	RAPHIC AREA: Haz	zelton Ranges
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill Intermontane Stikine Contact		Plutonic RELA	Rocks TIONSHIP:	Syn-mir	PHYSIOG	RAPHIC AREA: Haz GRADE:	zelton Ranges
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill Intermontane Stikine Contact		Plutonic RELA	Rocks TIONSHIP:	Syn-mir	PHYSIOG	RAPHIC AREA: Haz GRADE:	zelton Ranges
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill Intermontane Stikine Contact		Plutonic RELA	Rocks TIONSHIP: RE	Syn-mir PORT O	PHYSIOG heralization N: N	RAPHIC AREA: Haz GRADE:	zelton Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill Intermontane Stikine Contact VEIN CATEGORY: SAMPLE TYPE: COMMODITY	Assay/analysis Grab	Plutonic RELA	Rocks TIONSHIP: RE	Syn-mir PORT O YEAI	PHYSIOG neralization N: N R: 1980	RAPHIC AREA: Ha: GRADE:	zelton Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill Intermontane Stikine Contact VEIN CATEGORY: SAMPLE TYPE: <u>COMMODITY</u> Silver Gold	Assay/analysis Grab	Plutonic RELA	Rocks TIONSHIP: RE RADE 70.2000 2.2100	Syn-mir PORT O YEAI Grams Grams	PHYSIOG neralization N: N R: 1980 sper tonne per tonne	RAPHIC AREA: Haz GRADE:	zelton Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill Intermontane Stikine Contact VEIN CATEGORY: SAMPLE TYPE: <u>COMMODITY</u> Silver Gold Average of 30 s Assessment Re	Assay/analysis Grab amples of vein ma port 10011.	Plutonic RELA <u>G</u> aterial.	Rocks TIONSHIP: RE <u>RADE</u> 70.2000 2.2100	Syn-mir PORT O YEAI Grams Grams	PHYSIOG neralization N: N R: 1980 per tonne per tonne	RAPHIC AREA: Haz GRADE:	zelton Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	Andesite Tuff Dacite Basalt Tuff Breccia Granodiorite Porphyritic Dike Diorite Sill Intermontane Stikine Contact VEIN CATEGORY: SAMPLE TYPE: COMMODITY Silver Gold Average of 30 s Assessment Re	Assay/analysis Grab amples of vein ma port 10011.	Plutonic RELA <u>G</u> aterial.	Rocks TIONSHIP: RE RADE 70.2000 2.2100	Syn-mir PORT O YEAI Grams Grams	PHYSIOG neralization N: N R: 1980 sper tonne sper tonne	RAPHIC AREA: Ha: GRADE:	zelton Ranges

stock with associated quartz monzonite and porphyry dikes. In the central portion of the property there is a dark brown, strongly magnetic diorite sill which discordantly cuts the strata. The North showing (Friendly Trench), at 1920 metres elevation consists of a quartz vein fissure filling in brittle, and dense andesitic tuff which is magnetite rich. The vein is 1.0 metre wide and dips gently west. Limonite boxworks surround the vein system. Mineralization consists of chalcopyrite, pyrite, sphalerite, galena, bornite, malachite, and azurite.

In 1980, 30 samples of vein materials averaged 70.2 grams per tonne silver and 2.21 grams per tonne gold (Assessment Report 10011). In 1985 2 chip samples assayed 1.6 per cent copper, 13 per cent zinc, 7.2 per cent lead, 117.0 grams per tonne silver, 3.0 grams per tonne gold and 3.3 per cent copper, 21 per cent zinc, 0.4 per cent lead, 156.0 grams per tonne silver and 0.3 grams per tonne gold, respectively (Assessment Report 13191).

## BIBLIOGRAPHY

EMPR AR 1906-99; 1908-64; 1909-85; 1968-128 EMPR GEM \*1969-87-91; 1972-383; 1973-341 EMPR EXPL \*1981-180; \*1984-326; 1988-C169 EMPR ASS RPT \*4813, \*10011, \*13191, 17977 GSC SUM RPT 1906, p. 41 GSC P 44-23 EMPR MAP 69-1 GSC GF 351 GSC BULL 270 EMPR PF (Location maps of mineralized outcrops)

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/07 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 048</u>			NATIONAL	MINERAL INVENTORY:	093L6 Cu13
NAME(S):	<u>B,</u> ERIN, ERIN 2-4					
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L06E				MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 22 49 N 127 06 40 W Metres Within 500M Located at the head of Ho northwest of Houston, loc Haven Lake (Assessment	uston-Tommy Creek ation of mineralized Report 17994, figur	x, 32 kilometres w trenches around e 3).	vest	NORTHING: EASTING:	6027477 622677
COMMODITIES:	Copper	Silver	Gold			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Quartz Carbonate Epidote Malachite Oxidation Unknown	Chalcocite Azurite Propylitic	Tetrahedrite Carbonate	Malachite Rhodochros	ite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Breccia Porphyry D03 Volcanic redbed C	Stockwork Epigenetic u	Vein Hydrother	mal L01 \$	Subvolcanic Cu-Ag-Au (	(As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE Lower Jurassic Upper Cretaceous	GROUP Hazelton	<u>FORI</u> Telk	MATION wa		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Andesitic Tuff Rhyolite Dacite Tuff Quartz Feldspar Porphyry	,				
GEOLOGICAL SETTING	Intermentene			DUVEIOCI		Dongoo
METAMORPHIC TYPE:	Stikine Contact	Plutonic R RELATI	ocks ONSHIP: Syn-mi	neralization	GRADE: Hornfels	Ranges
CAPSULE GEOLOGY	The property Hazelton Group roc comprised mainly o associated dacite fine-grained to ap Locally, glassy ma strikes south and A quartz feld Late Cretaceous Bu of the property. degrees north. Alteration co without irregular old trenches, dug rhodochrosite is w (refer to Erin - 0 Mineralizatio bulldozer trenches malachite and azur patches in andesit Assays from trench silver with local In 1988, a sa per cent copper an from a quartz veim 20 per cent bornit tonne silver and 0	is predominant ks of the Telk of maroon and 1 and rhyolitic hanitic and ar roon and grey dips 25 to 45 spar porphyry lkley Intrusic The contact st nsists of pato quartz and car between 1965 a ridespread and 93L 298). n occurs in th Bornite, ch ite occur as m e and locally es with minerae gold values. mple of massiv d 268.45 grams in a trench w e assayed 5.50 .48 grams per	ily underlain twa Formation esser green volcanics. Te buff to pa crystal tuff degrees soui intrusive, p ons, was map rrikes 088 de thy epidote to the central print and 1969 on to may be relate the central print assive to le in quartz ve clization rep re copper mines with about 10 0 per cent co toonne gold	n by Lowen n. These andesitic The fels: ale green fs are pro- thwest. probably n ped in the egrees and in andesit lets. In the 'B' gn ted to the roperty an tetrahedh ocally dis eins and s ported hig neralizati silver. A 0 per cent	c Jurassic rocks are tuffs with mino ic volcanics are in colour. esent. Bedding related to the southeast part d dips about 74 te, with or the area of the coup claims, e mineralization rea exposed in rite, chalcocite, sseminated stringers. gh copper and ion assayed 15.60 A sample taken c chalcopyrite an 08.9 grams per nt Report 17994).	r

## BIBLIOGRAPHY

EMPR AR 1965-80; 1966-103 EMPR ASS RPT 1189; \*17994, 19360 EMPR MAP 69-1 EMPR OF 1990-5; 1994-14 GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1989/06/12 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 049</u>	Ν	IATIONAL MINERAL INVENTORY:		
NAME(S):	DENY SOUTH, DOMINION, DOM				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L06E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 27 00 N 127 09 06 W 1675 Metres Within 500M Located near the headwater and 25 kilometres southwes	s of Denys Creek, south of (093L 047) t of Telkwa.	NORTHING: 6035164 EASTING: 619840 ),		
COMMODITIES:	Copper Si	lver			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Chalcocite Calcite Malachite Azurite Epidote C Unknown	Bornite Specularite N Epidote Chlorite hloritic	<i>A</i> agnetite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic H D03 Volcanic redbed Cu Predominant direction of mir	ydrothermal STRIKE/DIP: heralized fractures.	L01 Subvolcanic Cu-Ag-Au (As-Sb) 270/80N TREND/PLUNGE:		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOLIS/METAMORPHIC/OTHER		
Lower Jurogoio	Hazaltan				
Lower Jurassic Upper Cretaceous	Hazelton	Telkwa	Bulkley Intrusions		
Lower Jurassic Upper Cretaceous LITHOLOGY:	Andesite Flow Basalt Flow Rhyolite Tuff Breccia Granodiorite Porphyry Dike Diorite Sill	Telkwa	Bulkley Intrusions		
Lower Jurassic Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Andesite Flow Basalt Flow Rhyolite Tuff Breccia Granodiorite Porphyry Dike Diorite Sill Intermontane Stikine	Telkwa Felkwa F	Bulkley Intrusions		
Lower Jurassic Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	Hazelton Hazelton Andesite Flow Basalt Flow Rhyolite Tuff Breccia Granodiorite Porphyry Dike Diorite Sill Intermontane Stikine	F Plutonic Rocks	Bulkley Intrusions		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Andesite Flow Basalt Flow Rhyolite Tuff Breccia Granodiorite Porphyry Dike Diorite Sill Intermontane Stikine	F Plutonic Rocks REPORT ON: 1	Bulkley Intrusions PHYSIOGRAPHIC AREA: Hazelton Ranges		
Lower Jurassic Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Andesite Flow Basalt Flow Rhyolite Tuff Breccia Granodiorite Porphyry Dike Diorite Sill Intermontane Stikine DRILLHOLE CATEGORY: Assay/anal SAMPLE TYPE: Drill Core <u>COMMODITY</u>	Plutonic Rocks Plutonic Rocks REPORT ON: 1 ysis <u>GRADE</u> 25.0000 Crome po	Bulkley Intrusions PHYSIOGRAPHIC AREA: Hazelton Ranges N 1974		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	Andesite Flow Basalt Flow Rhyolite Tuff Breccia Granodiorite Porphyry Dike Diorite Sill Intermontane Stikine DRILLHOLE CATEGORY: Assay/anal SAMPLE TYPE: Drill Core <u>COMMODITY</u> Silver Copper Five metre sample from drill of Assessment Report 4813.	Plutonic Rocks Plutonic Rocks REPORT ON: 1 ysis YEAR:	Bulkley Intrusions PHYSIOGRAPHIC AREA: Hazelton Ranges N 1974		

volcanics of the Telkwa Formation comprised mainly of andesitic to dacitic flows, tuff and breccia with epidotized vesicular basalt. The volcanics are intruded by a Late Cretaceous to Tertiary granodiorite stock and associated porphyry dikes. Due west northwest of the andesite containing the south showing is a dark brown, strongly magnetic diorite sill which discordantly cuts the strata. The South showing (located south of 093L 047 - Deny North) occurs in an andesitic to basaltic flow which exhibits well defined original comparison of the strate and the strate of the

The South showing (located south of 093L 047 - Deny North) occurs in an andesitic to basaltic flow which exhibits well defined epidote alteration. Mineralization occurs as disseminations and in seams and fractures which crosscut the volcanic host rock. Fractures predominantly strike northwest and dip steeply northeast. Mineralization consists of mainly chalcopyrite, chalcocite, bornite, and is also rich in specularite. Moderate chlorite alteration with

some calcite stringers also occurs in the volcanics as well as spectacular malachite and azurite staining along fractures. In 1974, a 5 metre core sample assayed 2.72 per cent copper and 25 grams per tonne silver (Assessment Report 4813).

#### BIBLIOGRAPHY

EMPR AR 1906-99; 1908-64; 1909-85; 1968-128
EMPR GEM \*1969-87-91; 1972-383; 1973-341
EMPR EXPL \*1981-180; \*1984-326
EMPR ASS RPT \*4813, \*10011, \*13191
GSC SUM RPT 1906, p. 41
GSC P 44-23
EMPR MAP 69-1
GSC OF 351
GSC BULL 270
EMPR PF (Cooke, D.L.,(1974): Petrographic Report on Five Thin
 Sections, Dominion Basin, Telkwa, British Columbia for Maharaja
 Minerals Inc., Feb.22, 1974)

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/07 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 050</u>	NATIONA	AL MINERAL INVENTORY:	
NAME(S):	DENY EAST, DOMINION, DOM			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L06E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 27 30 N 127 08 36 W 1500 Metres Within 500M Located near the headwaters of Denys ( and 25 kilometres southwest of Telkwa.	Creek, south of (093L 047),	Northing: Easting:	6036105 620356
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Malachite Quartz Limonite Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION:	Vein Epigenetic Hydrothermal	<b>D</b> 00		
TYPE: DIMENSION: COMMENTS:	L01 Subvolcanic Cu-Ag-Au (As-Sb) Mineralized vein.	STRIKE/DIP: 320/	Volcanic redbed Cu TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	: Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Lower Jurassic Upper Cretaceous	Hazelton	Геікwa	Bulkley Intrusions	
LITHOLOGY:	Basaltic Andesite Andesite Rhyolite Tuff Breccia Granodiorite Porphyry Dike Diorite Sill			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine Pluto	PHYSIOC onic Rocks	GRAPHIC AREA: Hazelton	n Ranges
CAPSULE GEOLOGY				
	The Dominion area is un volcanics of the Telkwa Form dacitic flows, tuff and brec The volcanics are intruded b diorite stock with associate andesite hosting the South s brown, strongly magnetic dic strata. The East showing (locat consists of a 15 centimetre traceable for 71 metres. Th onitic boxworks and is conta basaltic andesite and grey a mately 20 metres wide and is veins and veinlets containin infill the fractured zone.	derlain by Lower Jurass action comprised mainly of cia with epidotized vest y a Late Cretaceous to d quartz porphyry dikes howing (093L 049 - Deny rite sill which discord ed southeast of 093L 0 wide vein which strikes e mineralized vein is su ined within a contact zo highly fractured. A ho g chalcopyrite and malac	10 Hazelton Group of andesitic to icular basalt. Fertiary grano- . Due west of the South) is a dark antly cuts the 47 - Deny North) 320 degrees and i urrounded by lim- one between pink one is approxi- ost of quartz chite crosscut and	s
BIBLIOGRAPHY				
	EMPR AR 1906-99; 1908-64; 19 EMPR GEM *1969-87-91, 1972-3 EMPR EXPL 1981-180, *1984-32 EMPR ASS RPT 4813, *10011, * GSC SUM RPT 1906, p. 41 GSC P 44-23 EMPR MAP 69-1 GSC OF 351	09-85; 1968-128 83, 1973-341 6 13191		

## BIBLIOGRAPHY

GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/07 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 051</u>	NATIC	NAL MINERAL INVENTORY:
NAME(S):	NUMBER 51		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L06E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 21 48 N 127 03 48 W Metres Within 1 KM Map 69-1, #51.		NORTHING: 6025676 EASTING: 625832
COMMODITIES:	Molybdenum		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L05 Porphyry Mo (Low F- type)		
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
	Porphyritia Cronodiorita		
LITHOLOGY:	Quartz Diorite Volcanic		
HOSTROCK COMMENTS:	Quartz Diorite Volcanic Unspecified rock type, quartz mon	zonite and quartz diorite intrusion.	
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Quartz Diorite Volcanic Unspecified rock type, quartz mon Intermontane Stikine	zonite and quartz diorite intrusion. PHYS Plutonic Rocks	IOGRAPHIC AREA: Hazelton Ranges
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Ouplight Clarifoldione         Quartz Diorite         Volcanic         Unspecified rock type, quartz mon         Intermontane         Stikine         Molybdenum mineraliz         Tertiary porphyry stock i         Hazelton Group.	zonite and quartz diorite intrusion. PHYS Plutonic Rocks zation is reported to occu	IOGRAPHIC AREA: Hazelton Ranges ar in a Cretaceous- volcanics of the
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Molybdenum mineraliz Tertiary porphyry stock i Hazelton Group.	zonite and quartz diorite intrusion. PHYS Plutonic Rocks zation is reported to occu intruding Lower Jurassic o	NOGRAPHIC AREA: Hazelton Ranges ar in a Cretaceous- volcanics of the

MINFILE NUMBER:	<u>093L 052</u>		N	ATIONAL MI	NERAL INVENTORY:	093L3 Cu1
NAME(S):	<b>KING</b> , QUEEN, JACK, P.I., SQUEEK					
STATUS:	Showing				MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093L03W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 00 51 N 127 20 14 W 1290 Metres Within 500M Located 6.9 kilometres south of McE Tableland Mountain.	Bride Lake on the	north slope of		NORTHING: EASTING:	5986377 608953
COMMODITIES:	Molybdenum Copper					
MINERALS						
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcopyrite Chalcedony Limonite Silicific'n Potassic Unknown	Arsenopyrite	Pyrrhotite Sericitic	Pyrite		
DEPOSIT CHARACTER	Stockwork Breccia		Disseminated			
CLASSIFICATION:	Porphyry L05 Porphyry Mo (Low E- type)		Disserimated	104 Por	robyry Cu + Mo + Au	
SHAPE: MODIFIER	Tabular Sheared			204 101		
DIMENSION: COMMENTS:	3000 x 2000 Metres General shearing orientation, stocky	work orientation.	STRIKE/DIP:	345/43N	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMATIO	N		IGNEOUS/METAMO Unnamed/Unknow	ORPHIC/OTHER In Informal
LITHOLOGY:	Plagioclase Biotite Porphyry Monzonite					
HOSTROCK COMMENTS:	Quartz diorite stock.					
	Intermontane		P		PHIC AREA: Nechako	Plateau
	Stikine	REI ATIONISHI	D: Dre-minerali		GRADE: Zeolite	1 lateau
	rtogional			Zation		
ORE ZONE:	SAMPLE		REPORT ON: N	J		
	CATEGORY: Assav/analysis		YEAR: 1	990		
	SAMPLE TYPE: Grab COMMODITY	GRADE				
COMMENTS: REFERENCE:	Copper Assay from Energy, Mines and Petr Open File 1991-1.	0.1500 oleum Resources	Per cent s Laboratory.			
CAPSULE GEOLOGY						
	A previously undated intrudes sediments of the intrusion could possibly The sedimentary package of conglomerate with minor of The silicified quard disseminated and fracture as pyritehedrons and arso host arsenopyrite, pyrite monzonite matrix and dard disseminated sulphides. A grab sample taken 0.0118 per cent nickel, a 1991-1).	d, unmapped ; e Lower Cret. be related consists pre- coal. tz diorite tre e filling mo enopyrite. e, and pyrrh c, angular fr in 1990 ass. and 0.0811 p	plagioclase aceous Skee to the Eoce dominantly o quartz mo lybdenite, A breccia z otite. Bot ragments co ayed 0.015 er cent ars	e-biotite ena Group on Nanik of greyv chalcopy zone is n ch the me ontain mi per cent senic (Op	<pre>b porphyry b. The ca intrusions. vacke, shale, vacke, shale, vrite, pyrite reported to edium-grained lnor c copper, pen File</pre>	
BIBLIOGRAPHY	FMDR ASS RDT *1809					

## BIBLIOGRAPHY

. EMPR AR 1968-140 EMPR MAP 69-1 GSC OF 351 GSC BULL \*270 EMPR FIELDWORK \*1990 (Desjardins, et al) EMPR OF \*1991-1

DATE CODED: 1985/07/24 DATE REVISED: 1990/09/10 CODED BY: GSB REVISED BY: RLA

\_\_\_\_

MINFILE NUMBER:	<u>093L 053</u>		NATIONAL MINERAL INVENTORY: 093L	3 Mo1
NAME(S):	<u>LUCKY SHIP</u> , SAM, RAM, ROAD			
STATUS:	Developed Prospect		MINING DIVISION: Omir	neca
REGIONS: NTS MAP: BC MAP	British Columbia 093L03W		UTM ZONE: 09 (	NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 01 37 N 127 29 18 W 1260 Metres Within 500M Most pronounced zone of min	eralization noted during field evaluation	NORTHING: 5987 EASTING: 5990	577 22
COMMODITIES:	Molybdenum Cor	pper	allon.	
MINERALS				
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Pyrite Quartz Quartz Carbonate Silicific'n Car Unknown	Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Stockwork Bre Porphyry Hyd L05 Porphyry Mo (Low F- General north to northeast str	eccia drothermal type) uctural trend.	105 Polymetallic veins Ag-Pb-Zn±/	Au
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Jurassic Eocene	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPH	IC/OTHER
LITHOLOGY:	Rhyolite Porphyry Breccia Quartz Monzonite Porphyry Lapilli Tuff Crystal Lithic Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako Plate	au
	Contact	RELATIONSHIP:	GRADE: Hornfels	
ONE ZONE.	CATEGORY: Inferred QUANTITY: 18142000 COMMODITY	Tonnes YEAF	R: 1983	
COMMENTS:	Molybdenum Geological reserves mineable cent MoS2; conversion to Mo	by open pit. Grade given was 0.1 using the factor 1.6681.	nt 6 per	
	VSE Listing Statement 2956, C	Janamax Resources Inc., July 198	3.	
	The Lucky Ship s lapilli and crystal-1 of the Lower-Middle of stock, like most othe and has two porphyry plug is a white aphar phenocrysts which hav other porphyry phase (greater than 25 per mostly of fragments f The Lucky Ship of zone resulting from of chalcopyrite. Sulphi samples, but appear t mafic phases of the p predominates and is a overprinted by a late	stock cuts and has exten lithic tuffs of the sili Jurassic Telkwa Formatio er Eocene Nanika Intrusi and two breccia phases. nitic rock with sparse q ve been variably silicif is unaltered, light gre cent) phenocrysts. The from the first porphyry pocurrence is marked by carbonatization and oxid ides may comprise from 2 to be preferentially con rhyolite breccia. Molyb associated with the init er unmineralized rhyolit	sively silicified airfall ceous pyroclastic facies n (Hazelton Group). The ons, is a multiphase body The majority of the uartz and feldspar ied and kaolinized. The y and has abundant breccias are comprised but can be distinguished. an extensive gossanous ation of pyrite and to 10 per cent of some centrated in the more denite mineralization ial porphyry but has been e porphyry phase.	

#### BIBLIOGRAPHY

EMPR AR 1957-12; 1963-28; 1964-53; \*1965-84-87; 1966-104; 1967-109; 1968-139 EMPR BULL \*64, p. 126 EMPR MAP 58; 65 (1989); 69-1 EMPR ASS RPT 21645 EMPR PF (Geological Map (1966) 1:2400 scale; various maps) EMR MP CORPFILE (Wharf Resources Ltd; Southwest Potash Corporation; Amax Exploration Inc.) EMR MIN BULL MR 198, p. 237; 223 B.C. 228 GSC OF 351 GSC P 68-56 GSC MAP 971A GSC BULL 270 GCNL #210,#224, 1965 EMPR OF 1991-1; 1992-1; 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1990/09/23 CODED BY: GSB REVISED BY: RLA

MINFILE NUMBER:	<u>093L 054</u>		NATIONAI	_ MINERAL INVENTORY:
NAME(S):	<u>CHLORE</u> , HOPE			
STATUS:	Showing British Columbia			MINING DIVISION: Omineca
REGIONS. NTS MAP: ΒC ΜΔΡ	093L04W			UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 07 19 N 127 51 56 W Metres Within 1 KM Approximate centre of Chlore clain	n block.		NORTHING: 5997684 EASTING: 574143
COMMODITIES:	Copper Molybde	enum		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Molybdenite Unknown	Pyrrhotite Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Dissemi Porphyry Hydroth L04 Porphyry Cu ± Mo ± Au	inated ermal	L05	Porphyry Mo (Low F- type)
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP			IGINEOUS/IVIE TAWORFT ID/OTTIER
STRATIGRAPHIC AGE Jurassic Eocene	GROUP Hazelton	Undefined Formation		Unnamed/Unknown Informal
STRATIGRAPHIC AGE Jurassic Eocene LITHOLOGY:	GROUP Hazelton Granodiorite	Undefined Formation		Unnamed/Unknown Informal
STRATIGRAPHIC AGE Jurassic Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Hazelton Granodiorite Intermontane Stikine	Undefined Formation	PHYSIOG	Unnamed/Unknown Informal
STRATIGRAPHIC AGE Jurassic Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	GROUP Hazelton Granodiorite Intermontane Stikine The area is mainly volcanics which has beer is associated with an Ed Mineralization cons minor pyrrhotite. Pyrit occur as disseminations fractures and quartz vei quartz veinlets and only	Plutonic Rocks underlain by the Jura intruded by plutonic ocene granodiorite int sists of pyrite, chalc ce, chalcopyrite and p although locally, the inlets. Molybdenite of rarely as disseminat	PHYSIOG assic Ha c rocks. trusion. copyrite pyrrhoti ey are f generall tions.	Unnamed/Unknown Informal RAPHIC AREA: Hazelton Ranges zelton Group The occurrence , molybdenite and te generally ound along y occurs in
STRATIGRAPHIC AGE Jurassic Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	GROUP Hazelton Granodiorite Intermontane Stikine The area is mainly volcanics which has beer is associated with an Ed Mineralization cons minor pyrrhotite. Pyrit occur as disseminations fractures and quartz vei quartz veinlets and only EMPR ASS RPT *5466 EMPR GEM 1974-257 EMPR MAP 69-1 GSC OF 351 GSC BULL 270	Plutonic Rocks underlain by the Jura intruded by plutonic ocene granodiorite int sists of pyrite, chalc te, chalcopyrite and p although locally, the inlets. Molybdenite of y rarely as disseminat	PHYSIOG assic Ha c rocks. trusion. copyrite pyrrhoti ey are f generall tions.	Unnamed/Unknown Informal RAPHIC AREA: Hazelton Ranges zelton Group The occurrence , molybdenite and te generally ound along y occurs in

MINFILE NUMBER:	<u>093L 055</u>				NATIONAL MINEI	RAL INVENTORY:	
NAME(S):	<u>SAL</u> , FOG						
STATUS:	Showing					MINING DIVISION:	Omineca
NTS MAP:	093L04W					UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 09 07 N 127 53 36 W 1860 Metres Within 500M Approximate centre of Sal claim g	group.				Northing: Easting:	6000993 572276
COMMODITIES:	Copper Silver		Go	old			
MINERALS							
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Chalcocite Epidote Epidote Unknown	Pyrite					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Stocky Epigenetic D03 Volcanic redbed Cu	work					
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP	FOR	MATION			GNEOUS/METAMO	ORPHIC/OTHER
Lower Jurassic Jurassic	Hazelton	Unde	etined Fori	mation		Topley Intrusions	
LITHOLOGY:	Volcanic Breccia Andesite Breccia Tuff Monzonite Aplite Dike						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic R	ocks		PHYSIOGRAPHI	CAREA: Hazelton	Ranges
INVENTORY							
ORE ZONE:	FLOAT		RE	PORT ON:	N		
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Mineralized float from gossanous	<u> </u>	ADE 0.6000 .1700 .6000	YEAR: Grams p Grams p Per cent	1929 er tonne er tonne		
	Minister of Mines Annual Report	1929, page 1	78.				
GAPSULE GEULUGY	The area is underl which have been intrude likely part of the Jura dike swarms intrude the chalcocite mineralizati the Hazelton Group cons andesitic composition. sulphides in the volcar Mineralized float and assayed 0.17 grams and 1.6 per cent copper 178).	ain by the d by monz assic age ese rocks. on occurs sisting ma Gossanou ic rocks. from this per tonne (Ministe	ne Jura zonitic Topley Mino: s in he ainly o us zone s area gold, er of M	ssic Ha: stocks Intrus. r pyrite avily ej f brecc. s occur was samj 20.6 g: ines Ani	zelton Group and plugs t ions. Exten e, chalcopyr pidotized se ias, flows, with the co pled by D. L rams per ton nual Report	volcanics hat are sive aplitic ite, and ctions of and tuffs of pper ay in 1929 ne silver, 1929, page	
BIBLIOGRAPHY	EMPR ASS RPT 3875 EMPR GEM 1972-381 EMPR AR 1929-178 EMPR MAP 69-1 GSC OF 351						

## BIBLIOGRAPHY

GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 056</u>	NATIONAL MINE	ERAL INVENTORY: 093L5 Ag1	
NAME(S):	<u>Snowflake,</u> kitman, kit Tatsi	WAŊ		
STATUS:	Showing		MINING DIVISION: Omineca	
REGIONS: NTS MAP: BC MAP	093L05W		UTM ZONE: 09 (NAD 83)	
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 19 51 N 127 45 52 W Metres Within 5 KM There is some confusion in a about where this showing is it is "at the head of the Kitni states that it is "12 miles up about 1/2 mile from the Kitni is based on the 1921 descri	the Minister of Mines Annual Report s located. The 1918 reference states that akwa River" and the 1921 reference the Kitniakwa River on Gabriel Creek iakwa River". The location quoted here ption.	NORTHING: 6021035 EASTING: 580345	
COMMODITIES:	Silver C	Copper		
	An an an article Oilean			
ASSOCIATED: MINERALIZATION AGE:	Arsenopyrite Silver Quartz Carbonate Unknown	Chalcopyrite		
	Vein			
CLASSIFICATION:	Epigenetic - H	łydrothermal -Au (As-Sb) D03 Volca	nic redbed Cu	
DIMENSION: COMMENTS:	Mineralized dioritic porphyry	strike/DIP: 155/75W	TREND/PLUNGE:	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
Jurassic	Hazellon	Telkwa	Topley Intrusions	
LITHOLOGY:	Dioritic Porphyry Dike Andesite Tuff Breccia Granodiorite Monzonite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPH Plutonic Rocks	IC AREA: Hazelton Ranges	
CAPSULE GEOLOGY				
	The area is un of the Telkwa Forma breccias. The volc Intrusion comprised The showing co cuts red andesite a degrees and dipping the hangingwall of infilling hosting a Reports indicate th low. The well defin quartz-carbonate ga	derlain by Lower Jurassic Hazelton Gr tion comprised of andesitic flows, tu anics are intruded by a large Jurassi of granodiorite and monzonite. nsists of a dioritic porphyry dike wh nd ranges between 2 to 2.5 metres str 75 to 80 degrees southwest. Mineral the dike consists of quartz and carbo rsenopyrite, chalcopyrite, and native e silver content is good and the copp ed footwall to the dike also hosts min ngue along the contact with the andes	oup volcanics ffs and c Topley ich cross- iking 155 ization along nate silver. er values are neralized ite.	
BIBLIOGRAPHY	EMDD 3D 1010 50. 10	21 04. 1026 124		
	EMPR AR 1918-53; 19 EMPR MAP 69-1 GSC BULL 270 GSC OF 351 GSC P 44-23 WWW http://www.info	zi-94, 1920-124 mine.com/		
DATE CODED: DATE REVISED:	1985/07/24 1987/08/25	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N	
MINFILE NUMBER:	<u>093L 057</u>		NATIONAL MINERAL INVENTORY:	093L5 Au1
---	---	---	--	-----------------------
NAME(S):	CASCADE			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L05W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 15 59 N 127 56 06 W Metres Within 5 KM Property reported to be on metres above its junction w	the east side of Clore River, 29 kilo- ith the Zymoetz River.	NORTHING: EASTING:	6013684 569363
COMMODITIES:	Gold	Silver		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Unknown Quartz Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Epigenetic	Hydrothermal		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa		DRPHIC/OTHER
Cretaceous-remary			Unnamed/Unknow	n Informal
LITHOLOGY:	Andesite Tuff Breccia Granodiorite Monzonite		Unnamed/Unknow	n Informal
LITHOLOGY: HOSTROCK COMMENTS:	Andesite Tuff Breccia Granodiorite Monzonite Porphyry Intrusion.		Unnamed/Unknow	n Informal
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Andesite Tuff Breccia Granodiorite Monzonite Porphyry Intrusion. Intermontane Stikine	Plutonic Rocks	Unnamed/Unknow PHYSIOGRAPHIC AREA: Hazelton	n Informal Ranges
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Andesite Tuff Breccia Granodiorite Monzonite Porphyry Intrusion. Intermontane Stikine	Plutonic Rocks	Unnamed/Unknow PHYSIOGRAPHIC AREA: Hazelton	Ranges
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Andesite Tuff Breccia Granodiorite Monzonite Porphyry Intrusion. Intermontane Stikine The area is ur of the Telkwa Forma breccia. The Hazel porphyritic stock. The showing co values of gold and	Plutonic Rocks nderlain by Lower Jurassic ation comprised of andesiti Lton rocks are intruded by onsists of a flat lying qua silver.	PHYSIOGRAPHIC AREA: Hazelton Hazelton Group volcanics c flows, tuffs and a Cretaceous to Tertiary rtz vein which hosts	Ranges
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Andesite Tuff Breccia Granodiorite Monzonite Porphyry Intrusion. Intermontane Stikine The area is ur of the Telkwa Forma breccia. The Hazel porphyritic stock. The showing co values of gold and	Plutonic Rocks aderlain by Lower Jurassic ation comprised of andesiti ton rocks are intruded by onsists of a flat lying qua silver.	PHYSIOGRAPHIC AREA: Hazelton Hazelton Group volcanics c flows, tuffs and a Cretaceous to Tertiary rtz vein which hosts	rn Informal Ranges
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Andesite Tuff Breccia Granodiorite Monzonite Porphyry Intrusion. Intermontane Stikine The area is ur of the Telkwa Forma breccia. The Hazel porphyritic stock. The showing co values of gold and EMPR AR 1948-76 EMPR MAP 69-1 GSC OF 351 GSC BULL 270	Plutonic Rocks nderlain by Lower Jurassic ation comprised of andesiti lton rocks are intruded by onsists of a flat lying qua silver.	PHYSIOGRAPHIC AREA: Hazelton Hazelton Group volcanics c flows, tuffs and a Cretaceous to Tertiary rtz vein which hosts	Ranges

MINFILE NUMBER:	<u>093L 058</u>			NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>ALLIE,</u> LIMONITE				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L12W			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 33 59 N 127 49 06 W 1447 Metres Within 1 KM Located north of Limonite metres southwest of Smi	Creek in the Telkv thers.	va Pass area, 49 kilo-	NORTHING: EASTING:	6047183 576401
COMMODITIES:	Copper	Silver	Iron		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Chlorite Epidote Propylitic Unknown	Magnetite Sericite Sericitic	Limonite Limonite Chloritic		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Ma	Disseminated Industrial Min. o ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE Lower Jurassic Focene	GROUP Hazelton	<u>FC</u> Te	ORMATION Pikwa	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Granodiorite Quartz Porphyry Biotite Feldspar Porphyry Andesite Tuff Breccia				
HOSTROCK COMMENTS:	Nanika Intrusive locally	known as the How	son Batholith.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic	Rocks	PHYSIOGRAPHIC AREA: Hazeltor	Ranges
INVENTORY					
ORE ZONE:	ALLIE		REPORT ON	: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper Average of four grab san Assessment Report 2413	nalysis <u>(</u> nples averaging 1.	YEAR: SRADE 10.3000 Grams   0.1700 Per cen 5 metre across.	: 1969 per tonne t	
CAPSULE GEOLOGY	T	in Wenelten O	·····		
	Lower Jurass: are comprised of g The rocks are hig disseminated pyril Intrusion, locally medium-grained gr	green and pur hly fractured te. The volc known as th anodiorite.	ple andesitic f with chloritic anics are intru e Howson bathol Small stocks ar	Colore formation Flows, tuffs and breccia. c alteration and host ided by an Eocene Nanika lith, comprised mainly of id dikes of biotite-	

feldspar porphyry and quartz porphyry intrude the volcanics along the eastern margin of the contact with the granodiorite. The intrusive granodiorite hosts minor disseminated pyrite and chalcopyrite. The quartz porphyry dikes crosscut the granodiorite and volcanic flows. They are light colored and are intensely seri-citized and host minor disseminated magnetite. The biotite feldspar porphyry dikes crosscut both the granodiorite and the volcanics. They host secondary biotite and are propylitic with widespread

They host secondary biotite and are propylitic with widespread chlorite and epidote.

A dioritic dike, 30 to 60 metres wide, trending north-south crosscuts the granodiorite and is very magnetic hosting disseminated

## CAPSULE GEOLOGY

magnetite. The chalcopyrite associated with the granodiorite occurs mainly in quartz stringers and along pyritic shears. Pyrite is widely disseminated throughout both the volcanics and the intrusive. In 1969, four grab samples averaging 1.5 metres across a gossanous zone averaged 0.17 to 0.03 per cent copper and trace to 10.3 grams per tonne silver (Assessment Report 2413). Two large gossans are exposed on the claims. The Upper Gossan consists of 91 by 122 metres of limonite and the Lower Gossan, on Many Bear Creek, consists of a 61 metre wide limonitic zone.

#### BIBLIOGRAPHY

EMPR GEM \*1969-79; 1970-161 EMPR ASS RPT \*2413 EMPR MAP 69-1 GSC BULL 270 GSC MAP 971A GSC OF 351 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/04 CODED BY: GSB REVISED BY: LLD

#### MINFILE NUMBER: 093L 059 NATIONAL MINERAL INVENTORY: NAME(S): JOHN, LORI, SWAN STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093L08W UTM ZONE: 09 (NAD 83) BC MAP: LATITUDE: 54 26 00 N LONGITUDE: 126 25 06 W ELEVATION: 1067 Metres NORTHING: 6034806 EASTING: 667446 LOCATION ACCURACY: Within 1 KM COMMENTS: Located 16 kilometres east-northeast of Houston, east of the Apex claim showing (093L 245 to 247). COMMODITIES: Copper MINERALS SIGNIFICANT: Pyrite Chalcopyrite ASSOCIATED: Quartz ALTERATION TYPE: Silicific'n MINERALIZATION AGE: Unknown Magnetite Carbonate Carbonate DEPOSIT CHARACTER: Vein CLASSIFICATION: Hydrothermal TYPE: LÓ1 Subvolcanic Cu-Ag-Au (As-Sb) HOST ROCK DOMINANT HOSTROCK: Volcanic FORMATION STRATIGRAPHIC AGE GROUP IGNEOUS/METAMORPHIC/OTHER Jurassic Hazelton Undefined Formation **Bulkley Intrusions** Tertiarv LITHOLOGY: Vesicular Basalt Amygdaloidal Basalt **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Nechako Plateau TERRANE: Stikine METAMORPHIC TYPE: Regional Plutonic Rocks RELATIONSHIP: Syn-mineralization GRADE: CAPSULE GEOLOGY The claims are reportedly underlain by Eocene Francois Lake Group, Buck Creek Formation basalts which are thought to be part of the Swan Lake phase. Recent mapping indicates that these amygdaloidal basalts and vesicular basalts with interbedded andesitic to rhyolitic flows are correlative with the Jurassic Hazelton Group (Bulletin 78, Figure 1). The volcanics are intruded by a Tertiary Bulkley Intrusion com-prised of gabbro which is strongly magnetic and hosts disseminated pyrite. Associated quartz and quartz-carbonate veins crosscut the volcanics. The showing consists of mineralized infilling in a fault in the basalt. Vein materials are minor chalcopyrite, pyrite and quartz. BIBLIOGRAPHY EMPR GEM \*1973-342 EMPR EXPL 1980-342 EMPR ASS RPT \*4762, 8870 EMPR MAP \*11; 69-1 EMPR BULL 64; \*78 (in press) GSC BULL 270 GSC OF 351 DATE CODED: 1989/04/11 CODED BY: LLD FIELD CHECK: N REVISED BY: LLD DATE REVISED: 1989/08/24 FIELD CHECK: N

MINFILE NUMBER:	<u>093L 060</u>		NATIONAL MINERAL INVENTORY: 0	093L5 Cu3
NAME(S):	<u>BL</u> , BURNIE LAKE			
STATUS:	Showing British Columbia		MINING DIVISION: (	Omineca
NTS MAP: BC MAP	093L05E		UTM ZONE: 0	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 24 29 N 127 36 30 W 1200 Metres Within 500M On East side of Burns Lake, 51 kilo	ometres southwest of Smithers	NORTHING: 6 EASTING: 5 s.	6029816 590326
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown			
DEPOSIT	Lin la sua			
CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu		L01 Subvolcanic Cu-Ag-Au (A	As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	RPHIC/OTHER
Cretaceous-Tertiary	Hazelton	Undefined Formation	Unnamed/Unknown	n Informal
LITHOLOGY:	Andesite Granodiorite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Hazelton F	Ranges
CAPSULE GEOLOGY				
	The showing occurs Jurassic Hazelton Group, of Jurassic to Cretaceou coats fracture faces in	in andesitic volcanic just east of the con s granodiorite. Minc the volcanics.	c rocks of the Lower ntact with a tongue or amounts of copper	
BIBLIOGRAPHY	EMPR AR 1968-127 EMPR ASS RPT *1646, 1797 EMPR MAP 69-1 GSC P 44-23 GSC OF 351 GSC BULL 270	5		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/09	CODED BY: GSB REVISED BY: LLD	FIE	ELD CHECK: N ELD CHECK: N

MINFILE NUMBER:	<u>093L_061</u>		NATION	AL MINERAL INVENTORY:	093L6 Cu5
NAME(S):	<u>PRINCESS</u> , CACHE, SQ				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L06W			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 26 43 N 127 26 55 W 1676 Metres Within 500M Located on the summit at south-southwest of Smit	the head of Howson Cree hers.	k, 42 kilometres	NORTHING: EASTING:	6034173 600601
COMMODITIES:	Zinc	Copper	Silver		
MINERALS					
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE:	Sphalerite Chalcopy Quartz Calcite Hematite Epidote	rrite Hematite Chloritic			
MINERALIZATION AGE:	Unknown				
DEPOSIT	Vaia				
CLASSIFICATION: TYPE:	Epigenetic L01 Subvolcanic Cu-	Ag-Au (As-Sb)	D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATI	<u>ON</u>	IGNEOUS/METAM	ORPHIC/OTHER
Lower Jurassic Jurassic-Cretaceous	Hazelton	Undefined	Formation	Unnamed/Unknov	vn Informal
LITHOLOGY:	Andesite Pyroclastic Porphyry Acid Dike Basic Dike				
HOSTROCK COMMENTS:	Hazelton volcanics are	ntruded by both Bulkley a	nd Topley Intrusives.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIO	GRAPHIC AREA: Hazeltor	n Ranges
CAPSULE GEOLOGY					
	The area is that have been in Topley Intrusions mainly andesitic which have been c are generally str The Princess fine-grained, gre narrow shears and chalcopyrite in a	underlain by Juras truded by Late Cre . In the vicinity flows and pyroclas ut by numerous bas ongly chlorite and showing occurs in enish volcanics. veinlets of hemat gangue of white c	sic Hazelton Gro taceous Bulkley of the occurren tic strata of th ic and acid dike epidote altered highly sheared Mineralization c ite, iron-rich s alcite and quart	up volcanics and Jurassic ice, the rocks are the Hazelton Group is. The volcanics i. and epidotized ionsists of several phalerite and z.	
BIBLIOGRAPHY	EMPR AR 1909-275; EMPR ASS RPT 919, EMPR PF (*Hunter, River Area; No *Hunter, S.J. Area) EMPR MAP 69-1 GSC BULL 270 GSC P 44-23 GSC OF 351	1966-92; 1967-91- 929 S.J. (1966): How rcan Mines Ltd. Pr (1967): Howson Ba	97,Fig. 9; 1968- son Basin Proper ospectus) sin Property; Te	127 ty, Telkwa lkwa River	
DATE CODED: DATE REVISED:	1985/07/24 1988/11/28	CODED BY: REVISED BY	GSB (: LLD	F	TIELD CHECK: N TIELD CHECK: N

MINFILE NUMBER:	<u>093L 062</u>		NATIONAL MINERAL INVE	NTORY: 093L6 Cu2
NAME(S):	WAR EAGLE, ANNA EVA			
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093L06W		MINING E	NVISION: Omineca
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 27 26 N 127 24 31 W 1631 Metres Within 500M Located on the southeast side south-southwest of Smithers	e of Howson Creek Basin, 39 kil	NO E	RTHING: 6035560 ASTING: 603164
COMMODITIES:	Copper Silv	ver Zinc		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Calcite Limonite Epidote Oxidation Epi Unknown	Sphalerite Hematite idote	Pyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Bre Epigenetic L01 Subvolcanic Cu-Ag-A Mineralized gossan crosscut	eccia Dissemi Au (As-Sb) by post-mineral calcite veins.	nated D03 Volcanic redbec E/DIP: 305/ TR	l Cu END/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION		METAMORPHIC/OTHER
Cretaceous-Tertiary	hazeiton	Undenned F Unnation	Unnamed	d/Unknown Informal
LITHOLOGY:	Andesite Basalt Tuff Volcanic Breccia Porphyritic Granodiorite Quartz Feldspar Porphyry Felsite Aplite			
HOSTROCK COMMENTS:	Porphyry Intrusion.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA:	Hazelton Ranges
CAPSULE GEOLOGY				
	The area is main andesitic to basaltic Eocene granodiorite, felsite in the form of Hazelton rocks. Seve zation are related ma dotized volcanics. If hematite, bornite, an patches of disseminat A large gossanon vein showings is asso predominant shear str metre zone of iron or and minor chalcopyrit crosscut this zone.	nly underlain by Lower c flows, tuffs, and br granite, quartz-felds of dikes, sills and sm eral small occurrences ainly to fracturing an Mineralization consist nd locally, sphalerite ted chalcopyrite. us area located about ociated with a felsiti riking 305 degrees and xide (limonite) and is te. Post-mineral coar	Jurassic Hazelton Gr eccia. Late Cretaceo par porphyry, aplite all stocks intrude th of copper-silver min d brecciation in the s of pyrite, chalcopy . There are also min 800 metres southeast c stock. The gossan is marked by a 15 to mineralized with pyr se-grained calcite ve	oup us to and e erali- epi- rite, or of the is a 23 ite ins
BIBLIOGRAPHY	EMPR ASS RPT 917, 91; EMPR GEM 1972-382 EMPR AR 1906-99; 1909 1968-127 EMPR PF (*Hunter, S.C Area; Norcan Mines scales); *Hunter,	8, 919, 929, *3485, 20 9-85; 1911-113,288; 19 J., (1966): Howson Ba s Ltd. Prospectus; Mis S.J., (1967): Howson	601 66-92; 1967-91-97; sin Property; Telkwa cellaneous maps - (va Basin Property, Telk	River rious wa

River Area; Thompson, W.D., (1967): Report on Howson Creek Groups) GSC P 44-23 GSC MAP 971A GSC OF 351 GSC BULL 270 EMPR MAP 69-1 EMR MP CORPFILE (Accent Resources Ltd.; Pathfinder Resources Ltd.) EMPR OF 1990-5; 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 063</u>		NATIONAL MINERAL INVENTORY: 09	93L6 Cu1
NAME(S):	SANTA MARIA, FOOTWAL	L, S.H.		
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L06W	Underground	MINING DIVISION: O UTM ZONE: 09	mineca 9 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 28 00 N 127 22 15 W 1280 Metres Within 500M Located 1.2 kilometres west south-southwest of Smither	of Mooseskin Johnny Lake, 37 kilome rs.	NORTHING: 60 EASTING: 60 tres	)36667 )5589
COMMODITIES:	Copper S	lilver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Chalcocite Quartz Malachite Azurite Sericite Prehnite Silicific'n P Unknown	Bornite Tetrahedrite Epidote Calcite Zois Propylitic Oxidation	Pyrite site Zeolitic	
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Stockwork B Porphyry Ig L01 Subvolcanic Cu-Ag-	Breccia gneous-contact -Au (As-Sb)	D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Lower Jurassic Cretaceous-Tertiary	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMOR Unnamed/Unknown	PHIC/OTHER
LITHOLOGY:	Lapilli Tuff Volcanic Breccia Rhyolite Quartz Porphyry Felsite Aplite			
HOSTROCK COMMENTS:	Porphyry Intrusion.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Hazelton Ra	anges
CAPSULE GEOLOGY	West dipping La mainly of lapilli to Late Cretaceous to D sill or dike. The sill the east and west or been referred to as Hanging Wall vein. moderately to steep length of over 518 m 76 to 91 metres. The chalcocite, bornite Other veins or miner local scale the mine ably silicified, con alteration and minor zones. Alteration p	ower Jurassic Hazelton Gro uff and volcanic breccia h Eocene composite quartz po two main mineralized fract ontact zones of this intru the Santa Maria or Footwa The vein system strikes 3 ly southwest. The Santa M metres. The vein systems he mineralization consists , tetrahedrite, malachite, ralized fracture zones are eralization occurs within mposite fracture-breccia z r silicification occur adj products consist of epidot e.	up volcanics consisting ave been intruded by a rphyry/aplite/felsite ure structures occur at sion. These zones have 11 vein and the S.H. or 30 degrees and dips aria vein has a strike have a surface width of of chalcopyrite, also present. On a quartz veins and vari- ones. Strong propylitic acent to the fracture e, calcite, sericite,	
BIBLIOGRAPHY	EMPR ASS RPT 917, 9 EMPR AR 1916-91,125 1968-127 EMPR PF (*Hunter, S Area; Norcan Mine geology maps (vai Basin Property; 5 EMPR MAP 69-1	18, 919, 929, *3485, 20601 ; 1917-118,447; 1918-117; .J., (1966): Howson Basin es Ltd. Prospectus, Nov. 1 rious scales); *Hunter, S. Telkwa River Area in 093L	1966-92; 1967-91-97; Property; Telkwa River 966; Location and J., (1967): Howson 062)	

GSC MAP 971A GSC P 44-23 GSC BULL 270 GSC OF 351 EMR MP CORPFILE (Accent Resources Ltd.; Bethex Explorations Ltd.; Pathfinder Resources Ltd.) EMPR OF 1990-5; 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 064</u>	I	NATIONAL MINERAL INVENTORY	: 093L6 Cu4
NAME(S):	EVENING			
STATUS:	Showing		MINING DIVISION	Omineca
NTS MAP:	093L06W		UTM ZONE	: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 28 00 N 127 26 29 W 1280 Metres Within 500M Located on the north side southwest of Smithers.	of Howson Creek, 39 kilometres south-	NORTHING EASTING	: 6036563 : 601016
COMMODITIES:	Copper	Lead		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Hematite Quartz Epidote Chlorite Epidote Unknown	e Pyrite Galena Chloritic		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-A	ıg-Au (As-Sb)	D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAN	10RPHIC/OTHER
LITHOLOGY:	Andesite Tuff Andesite Diabase Dike			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Hazelto	n Ranges
CAPSULE GEOLOGY Mineralization consisting mainly of chalcopyrite, pyrite, galena and hematite is associated with narrow irregular shears in highly epidotized and chloritized fine-grained andesitic tuffs and/or flows of the Lower Jurassic Hazelton Group. In at least one case, the shear is adjacent to and within a diabase dike. The mineralized shears trend northeast to east and dip moderately north.				a
BIBLIOGRAPHY	EMPR ASS RPT 918, EMPR AR 1905-83; 1 105; 1916-125; EMPR PF (*Hunter, Area, Norcan Mi S.J. 1967: How	919, 929, *21722 906-99; 1907-79; 1909-85; 19 1917-117; 1966-92; 1967-95,F S.J. 1966: Howson Basin Pro nes Ltd. Prospectus; Miscell son Basin Property; Telkwa F	911-114,288; 1913- Fig. 9; 1968-127 operty; Telkwa River Laneous maps; *Hunter, River Area)	
	GSC MAP 971A GSC P 44-23 EMR MP CORPFILE (A Pathfinder Reso GSC SUM RPT 1906, EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR OF 1990-5; 19	Accent Resources Ltd.; Bethey Jurces Ltd.) p. 42 194-14	<pre>x Explorations Ltd,;</pre>	
DATE CODED: DATE REVISED:	1985/07/24 1986/12/01	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

FIELD CHECK: N

MINFILE NUMBER:	<u>093L 065</u>	NATIONAL MI	NERAL INVENTORY: 093L6 Cu7
NAME(S):	SILVER HEELS, JOKER, WHISPERING	WIND	
STATUS:	Showing Pritich Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093L06W		UTM ZONE: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 28 45 N 127 27 36 W 1768 Metres Within 1 KM Located in the basin of Evening Creek, approximately 37 kilometres southwest	a tributary of Howson Creek, of Smithers.	NORTHING: 6037928 EASTING: 599780
COMMODITIES:	Copper Silver	Gold	
MINERALS			
SIGNIFICAN I : ASSOCIATED: COMMENTS: MINERALIZATION AGE:	Chalcopyrite Specularite Pyrite Quartz Gangue consists of quartz and altered Unknown	e country rock.	
	Voin		
CLASSIFICATION: TYPE:	Epigenetic L01 Subvolcanic Cu-Ag-Au (As-Sb	) D03 Vol	canic redbed Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite		
	Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAF	PHIC AREA: Hazelton Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver	YEAR: 1917 GRADE 34.2900 Grams per tonne	
COMMENTS: REFERENCE:	Copper 3.6 metre sample. Minister of Mines Annual Report 1917,	3.0000 Per cent page 117.	
CAPSULE GEOLOGY	A dika 15 ta 18 matras	wide with a north strike or	d an oagt din
	Group. In the andesites on metres of mineralization co pyrite in a gangue of quart 1917 sample across 3.6 metr 2 to 3 per cent copper, and Report 1917, page 117). Ab larite mineralization was r	in andesite of the Lower Jur i the west side of the dike, onsisting of chalcopyrite, sp z and altered country rock w res assayed 34.29 grams per t t trace gold (Minister of Mir cout 1.2 metres of chalcopyri reported from the east side of	about 4.6 about 4.6 ecularite, and as exposed. A conne silver, les Annual te and specu- of the dike.
BIBLIOGRAPHY			
	EMPR ASS RPT 919, 929 EMPR AR 1907-79; 1908-64; 1 EMPR PF (*Hunter, S.J. 1966 Area, Norcan Mines Ltd. Basin Property; Telkwa R EMR MP CORPFILE (Accent Res EMPR MAP 69-1 GSC OF 351 GSC BULL 270	917-117; 1966-92; 1967-91,Fi Howson Basin Property; Te Prospectus; *Hunter, S.J. 19 iver Area) ources Ltd.; Pathfinder Resc	g.9; 1968-127 Ikwa River 67: Howson purces Ltd.)
DATE CODED: DATE REVISED:	1985/07/24 1987/08/25	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 066</u>	NATIONAL M	IINERAL INVENTORY: 093L6 Cu3	
NAME(S):	<u>DUCHESS (L.1820)</u>			
STATUS: REGIONS: NTS MAP: PC MAP:	Prospect British Columbia 093L06W	Underground	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 28 04 N 127 27 17 W 1433 Metres Within 500M Located at the head of Howson Creek, 40 kilo of Smithers.	metres south-southwest	NORTHING: 6036668 EASTING: 600149	
COMMODITIES:	Copper Silver	Gold	Zinc Lead	
MINERALS SIGNIFICANT:	Chalcopyrite Tetrahedrite Hematite Galena	Pyrite Sphalerite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Epidote Garnet Quartz Epidote Skarn Unknown			
	Voin Procio			
CLASSIFICATION: TYPE:	Epigenetic L01 Subvolcanic Cu-Ag-Au (As-Sb)	D03 Vo	lcanic redbed Cu	
DIMENSION: COMMENTS:	Mineralized shear zone.	STRIKE/DIP: 170/80E	TREND/PLUNGE:	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP FORM Hazelton Unde	ATION fined Formation	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Andesite Tuff Breccia Basic Dike Skarn			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRA	PHIC AREA: Hazelton Ranges	
CAPSULE GEOLOGY				
	A mineralized shear zone occurs in volcanics of the Lower Jurassic Hazelton Group. The zone has an attitude of 170 degrees and dips 80 degrees east with mineralized widths ranging up to about 3.7 metres. Mineralization consists of chalcopyrite, tetrahedrite, sphalerite, galena, hematite, and pyrite with quartz. The shear is near the contact between fine-grained epidotized andesite to the west and tuff to the east. The volcanics are cut by feldspar porphyry dikes that carry only minor amounts of sulphide. Pre-mineral and post-mineral faulting and shearing is common. A major fault strikes 350 degrees and dips 70 degrees west approximately 150 metres west of the Duchess adits. The fault is exposed along the bottom of a steep gully, where it parallels a basic dike with narrow breccia zones. A zone of quartz-garnet-epidote skarn extends from the west side of the gully eastward to the work- ings and bulldozer trenches.			
BIBLIOGRAPHY	<ul> <li>EMPR ASS RPT 918, 919, 929, *217</li> <li>EMPR AR 1906-99; 1907-79; 1911-1</li> <li>1928-168; 1929-169; 1952-95;</li> <li>EMPR PF (*Hunter, S.J. 1966: Ho Area, Norcan Mines Ltd. Prosp S.J. 1967: Howson Basin Prop GSC SUM RPT 1906, p. 42; 1907, p</li> <li>GSC MAP 971A</li> <li>GSC P 44-23</li> <li>EMR MP CORPFILE (Accent Resource)</li> </ul>	22 14; 1916-125; 1917-117 1966-92; 1967-92,Fig.9 wson Basin Property; T ectus; Miscellaneous m erty; Telkwa River Are . 21 s Ltd.; Bethex Explora	; 1926-138; ; 1968-127 Yelkwa River Haps; *Hunter, Haps: Ltd.;	

Pathfinder Resources Ltd.) EMPR EXPL 1983-441 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR OF 1990-5; 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 067</u>	NATIC	NAL MINERAL INVENTORY:	093L6 Cu3
NAME(S):	COUNTESS (L.1826)			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L06W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 28 19 N 127 27 17 W 1676 Metres Within 1 KM Crown Grant Lot 1826 adjoins the Duch head of Howson Creek, 40 kilometres	iess Lot 1820 (093L 066) at the south-southwest of Smithers.	NORTHING: EASTING:	6037132 600139
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-Ag-Au (As-Sb	D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYS	IOGRAPHIC AREA: Hazeltor	n Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Intermontane Stikine The area is mainly und Jurassic Hazelton Group. F copper occurrence north of possibly associated with th for the Duchess mineralizat Duchess consisted of a 33 m	PHYS erlain by volcanic roc igure 9 of the 1967 An the Duchess showing (0 e same shear zone that ion. In 1911, develop etre adit and open cut	NOGRAPHIC AREA: Hazeltor hual Report shows a 93L 066). It is is the main host ment work on the s on the Countess.	n Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Intermontane Stikine The area is mainly und Jurassic Hazelton Group. F copper occurrence north of possibly associated with th for the Duchess mineralizat Duchess consisted of a 33 m EMPR AR 1907-79; 1911-114; EMPR MAP 69-1 GSC OF 351 GSC BULL 270	PHYS erlain by volcanic roc igure 9 of the 1967 An the Duchess showing (O e same shear zone that ion. In 1911, develop etre adit and open cut 1967-94	NOGRAPHIC AREA: Hazektor hual Report shows a 93L 066). It is is the main host ment work on the s on the Countess.	n Ranges

MINFILE NUMBER:	<u>093L 068</u>		NATIONAL MINERAL INVENTORY	2: 093L6 Cu6
NAME(S):	TOM, CONTENTION			
STATUS: REGIONS: NTS MAP	Showing British Columbia		MINING DIVISION	: Omineca : 09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 29 00 N 127 29 36 W 1372 Metres Within 1 KM Located at the head of Evening approximately 39 kilometres so	g Creek, a tributary of Howson Cree outh of Smithers.	NORTHING EASTING	: 603 (1012 00) : 6038344 : 597610
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Quartz Calcite Malachite Azurite Epidote Chlo Unknown	Chalcocite Specularite Chlorite Epidote ritic Oxidation	Pyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Vein Diss Epigenetic L01 Subvolcanic Cu-Ag-Au Approximate north-south strike	eminated I (As-Sb) e with a 40-80 degree east dip.	D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAN	10RPHIC/OTHER
LITHOLOGY:	Tuff Andesite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Hazelto	n Ranges
CAPSULE GEOLOGY	The area is under epidotized and chlori dipping andesite dikes The mineralization occ zones. Often the mine as irregular lenses an with an east dip of 4 chalcopyrite, bornite and pyrite.	rlain mainly by Lower Ju tized andesite which has s. Two zones of mineral curs in narrow, irregula eralization is in quartz nd pockets. The veins m 0 to 80 degrees. Minera , chalcocite, specularit	rassic Hazelton Group been intruded by east ization are present. r fissures or in shear veins where it occurs ainly trend north-south lization consists of e, malachite, azurite,	
BIBLIOGRAPHY	EMPR ASS RPT *4812 EMPR GEM 1972-382; 19' EMPR AR 1909-275; 1910 GSC SUM RPT 1907, p. 3 EMPR MAP 69-1 GSC OF 351 GSC BULL 270	73-340 0-246; 1928-168; 1967-94 21	,Fig.9	
DATE CODED: DATE REVISED:	1985/07/24 1987/08/25	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 069</u>		NATIONAL MINERAL INVENTORY	′: 093L5 Cu1
NAME(S):	<u>Starr</u> , SR, PG, SC			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION	: Omineca
NTS MAP: BC MAP:	093L05E		UTM ZONE	: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 27 34 N 127 30 24 W 1615 Metres Within 1 KM		NORTHING EASTING	: 6035668 : 596803
COMMODITIES:	Copper	Silver		
MINERALS SIGNIFICANT:	Chalcopyrite Bornite	Tetrahedrite Magnetite	Sphalerite	
ASSOCIATED:	Galena Pyrite Calcite Quartz	Chlorite		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Calcite Quartz Quartz-Carb. Unknown	Potassic		
DEPOSIT CHARACTER:	Stockwork	Disseminated		
CLASSIFICATION: TYPE:	Hydrothermal L01 Subvolcanic Cu-A L04 Porphyry Cu ± Mc	Igneous-contact Ag-Au (As-Sb) ) ± Au	D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER
Cretaceous-Tertiary	Tidzenon	Ondenned Formation	Unnamed/Unkno	wn Informal
LITHOLOGY:	Andesite Dacite Tuff Volcanic Breccia Granite Diorite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Hazelto	n Ranges
CAPSULE GEOLOGY				
	The occurrence dacite, tuff and k Late Cretaceous to zone contain calci products. Mineral hedrite, pyrite, m as disseminations fillings in the co	e is situated at the contact preccia of the Lower Jurassi b Eocene intrusive rocks. R ite, potassium feldspar and ization consisting of chalc magnetite, with minor sphale in the granitic/dioritic in intact zone.	t between andesite, c Hazelton Group and ocks along the contact quartz as alteration opyrite, bornite, tetra rite and galena occurs trusive and as fracture	-
BIBLIOGRAPHY	EMDR ASS RDT 1600	*2448 *2449 3084		
	EMPR ASS RP1 1023, EMPR GEM 1969-91; EMPR AR 1906-100; GSC SUM RPT 1906, GSC MAP 971A GSC P 44-23 EMR MP CORPFILE (T EMPR MAP 69-1 GSC OF 351 GSC BULL 270	2440, 2449, 3004 1970-150 1916-125 p. 42 Yelkwa Mountain Mines Ltd.)		
DATE CODED: DATE REVISED:	1985/07/24 1988/12/02	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 070</u>		NATIONAL MINEF	RAL INVENTORY:	
NAME(S):	<u>PG</u> , BL, SR				
STATUS:	Showing British Columbia		٦	VINING DIVISION:	Omineca
NTS MAP: BC MAP	093L05E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 27 07 N 127 33 26 W 1043 Metres Within 500M Located in the Star Creek Basin, so 40 kilometres southwest of Telkwa	outh of Eagle Peak, approximate a.	ły	NORTHING: EASTING:	6034765 593543
COMMODITIES:	Copper Silver				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Dissemi Hydrothermal Porphyr L01 Subvolcanic Cu-Ag-Au (As	nated y s-Sb)	L04 Porphy	ry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION	<u>I</u>	GNEOUS/METAM	ORPHIC/OTHER
Cretaceous-Tertiary			ι	Jnnamed/Unknov	vn Informal
LITHOLOGY:	Andesite Tuff Breccia Granodiorite Quartz Monzonite				
HOSTROCK COMMENTS:	Late Cretaceous to Eocene granit	tic intrusion.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC	CAREA: Hazeltor	n Ranges
CAPSULE GEOLOGY The claims are underlain by Lower Jurassic Hazelton Group volcanics comprised mainly of green to purple andesitic flows, tuff and breccia. The volcanics are intruded by a Late Cretaceous to Eocene granodioritic stock. Copper and silver mineralization occurs in fractures and as disseminations of pyrite and chalcopyrite in the Hazelton volcanics and granitic intrusive rocks.					
BIBLIOGRAPHY	EMPR GEM 1969-91; 1970-1 EMPR ASS RPT 1623 EMPR MAP 69-1 GSC OF 351 GSC BULL 270	.50			
DATE CODED: DATE REVISED:	1985/07/24 1987/08/05	CODED BY: GSB REVISED BY: LLD		F	FIELD CHECK: N FIELD CHECK: N

NATIONAL MINERAL INVENTORY: 093L11 Cu8

MINING DIVISION: Omineca

UTM ZONE: 09 (NAD 83)

NORTHING: 6043026 EASTING: 599632

### MINFILE NUMBER: 093L 071

NAME(S): COPPER RIDGE (L.3401), COPPER BASIN, COPPER HILL

STATUS: Showing REGIONS: British Columbia NTS MAP: 093L11W BC MAP: LATITUDE: 54 31 30 N LONGITUDE: 127 27 38 W ELEVATION: 1645 Metres LOCATION ACCURACY: Within 500M COMMENTS: Lot 3401 is located at the head of a creek which flows north to the Telkwa River, 4.8 kilometres west of Howson Creek or 33.8 kilometres southwest of Smithers. The claim group consists of Crown Grants (Lots 1859-1863) and (Lots 3398-3404).

# MINERALS

SIGNIFICANT:	Chalcopyrite
ALTERATION:	Malachité
ALTERATION TYPE:	Oxidation
MINERALIZATION AGE:	Unknown

COMMODITIES: Copper

#### DEPOSIT

CHARACTER:	Disseminated	
CLASSIFICATION:	Epigenetic	
TYPE:	DO3 Volcanic redbed	Cu

#### HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER			
Cretaceous-Tertiary			Unnamed/Unknown Informal			
LITHOLOGY:	Andesite Flow Rhyolite Flow Tuff Volcanic Breccia Quartz Feldspar Porphyry Felsite Dike					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	HYSIOGRAPHIC AREA: Hazelton Ranges			
CAPSULE GEOLOGY						
	The Crown granted claims are underlain by Lower Jurassic Hazelton Group volcanics of the Telkwa Formation comprised of red, maroon, green to grey andesitic to rhyolitic flows, tuffs and breccia. The volcanics are intruded by Late Cretaceous to Eocene granitic stocks comprised of quartz-feldspar porphyry, felsite dikes and associated quartz veining. The mineralized showings on these Crown granted claims consist of chalcopyrite and malachite disseminated within Hazelton rocks.					
BIBLIOGRAPHY						
	EMPR AR 1909-84,275; 191 EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. EMPR OF 1989-16 GSC BULL 270 GSC OF 351 GSC P 44-23	1-287 195-208				
DATE CODED: DATE REVISED:	1985/07/24 1987/08/18	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N			

MINFILE NUMBER:	<u>093L 072</u>		NATIONAL MINERAL INVENTORY:	093L5 Cu2
NAME(S):	<u>TEL</u> , A, NORAD			
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L05E		UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 28 44 N 127 40 15 W 1219 Metres Within 500M Located at the head of Telkwa R Smithers.	River, 47 kilometres southwest of	NORTHING: EASTING:	6037618 586121
COMMODITIES:	Copper Silver			
	Chalcopyrite Chalcocite	Bornite Galena	Covellite	
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Calcite Malachite Carbonate Silicifi Unknown	ic'n		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Vein Epigenetic Hydro L01 Subvolcanic Cu-Ag-Au ( Numerous fault zones and dikes	othermal (As-Sb) s trend north to north-northwest.	D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u>	IGNEOUS/METAMO	ORPHIC/OTHER
Jurassic	hazokon	- Circle a	Topley Intrusions	
LITHOLOGY:	Lithic Tuff Andesitic Crystal Lithic Tuff Dacitic Crystal Lithic Tuff Quartz Feldspar Porphyry Lamprophyre Dike			
HOSTROCK COMMENTS:	Mineralization associated with	lamprophyric dikes.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Hazelton	Ranges
INVENTORY				
ORE ZONE:	TRENCHES	REPORT ON:	: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Copper Average from 14 widely spaced Assessment Reports 10444, 108	GRADE <u>GRADE</u> 8.2000 Grams p 0.1600 Per cen 1 trenches. 392.	: 1982 per tonne t	
CAPSULE GEOLOGY				
The area is underlain by volcanics and volcaniclastics of the Lower Jurassic Hazelton Group, Telkwa Formation. On the property, an andesitic to dacitic crystal-lithic tuff is predominant. In the southwest portion of the property a Jurassic Topley Intrusion of calc-alkaline composition is present. Quartz-feldspar porphyry dikes and later lamprophyric dikes are also present. Minor copper mineralization is commonly associated with the lamprophyric dikes. Numerous fault zones as well as the dikes generally trend north to north-northwest. The main copper-silver mineralization is restricted to narrow, calcified and silicified shear and fault zones. Mineralization consists of chalcopyrite, chalcocite, bornite, malachite, covellite and pyrite in a quartz and calcite gangue. Sampling of 14 widely spaced trenches over 270 metres gave a weighted average of 0.16 per cent copper and 8.2 grams per tonne silver (Assessment Reports 10444, 10892).				

EMPR ASS RPT 1188, 4191, \*10444, \*10892 EMPR EXPL 1982-308 EMPR GEM 1972-382 EMPR GEM 1972-382 EMPR AR 1965-76; 1966-91; 1967-100 EMPR MAP 69-1 EMR MP CORPFILE (Tyee Lake Resources Ltd.) GSC P 44-23 GSC OF 351 GSC BULL 270 EMPR PF (Nevin, A.E., (1971): Telkwa River Copper Property (Tel 1-72 claims), Omineca Mining Division, B.C., for Tyee Lake Resources Ltd.; Campbell, D.D., (1972): Telkwa River Copper Property, Telkwa B.C. for Tyee Lake Resources Ltd.; Rae, D.R., (1973): Geological, Geochemical and Geophysical Report on the Tel Group claims for Canadian Superior Exploration, Ltd.; Statement of Material Facts for Tyee Lake Resources Ltd., Jan. 28, 1972; maps - geological, magnetometer and silt sample locations) Chevron File

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 073</u>		NAT	IONAL MINERAL I	NVENTORY:	093L12 W1
NAME(S):	WHITEWATER, ROB ROY					
STATUS:	Showing British Columbia			MININ	IG DIVISION:	Omineca
NTS MAP: BC MAP	093L12E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 31 43 N 127 41 41 W 1426 Metres Within 500M Plot on Geological Survey of Cana	ada Preliminary Map	44-23.		NORTHING: EASTING:	6043121 584470
COMMODITIES:	Tungsten Gold		Zinc	Lead		Silver
MINERALS						
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Scheelite Sphalerite G Quartz Unknown	Salena				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Epigenetic 105 Polymetallic veins Ag-Pb- 102 Intrusion-related Au pyrrh Metres	-Zn±Au lotite veins	I1 Strike/dip: 0	2 W veins 025/25W	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNE	OUS/METAMC	)RPHIC/OTHER
LITHOLOGY:	Granite			·	5	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHY	YSIOGRAPHIC ARI	EA: Hazelton	Ranges
INVENTORY						
ORE ZONE:	SAMPLE	F	REPORT ON: N			
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold Lead Tungsten Zinc Best assay results of five sample tungstic oxide.	<u>GRADE</u> 78.8600 17.1400 5.6000 20.2800 20.2000 es; assays were rep	YEAR: 194 Grams per to Grams per to Per cent Per cent Per cent orted for	13 Jonne Jonne		
REFERENCE:	Bulletin 10, page 71.					
GAPƏULE GEULUGY	Mineralization is rocks of a Jurassic Top centimetres to 0.9 metr west. It is exposed fo small quantities at wid quartz lenses branching and galena mineralizati collected in 1943 over short adit along branch per tonne gold, nil to cent lead, 0.9 to 20.2 tungstic oxide (Bulleti	associated wit oley Intrusion. es and strikes or about 107 me lely scattered from the main on have been r widths of 35.5 a lenses. Thes 78.86 grams pe per cent zinc n 10, page 71)	h a quartz The vein 025 degree tres. Mine points alon vein. Sch eported. F centimetre e assayed t r tonne sil and 5.85 to	vein within g has a width o s and dips 29 ralization of g the vein an eelite, spha 'ive samples to s or less fro race to 17.1 ver, 0.1 to 9 0 20.28 per co	granitic of 7.6 5 degrees ccurs in nd in lerite, were om a 4 grams 5.6 per ent	
BIBLIOGRAPHY	EM OF 1999-3 EMPR AR 1925-139; 1931- EMPR BULL *10, p. 71 EMPR MAP 69-1 EMPR OF 1991-17, 1999-3 GSC EC GEOL 17, p. 58 GSC MAP 971A	74				

GSC OF 351 GSC P 44-23

DATE CODED: 1985/07/24 DATE REVISED: 1988/12/03 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 074</u>		NATIONAL MINERAL INVENTORY:	093L12 Pb1
NAME(S):	ZAP (BIG FOUR), LOST TREASU	RE, BIG FOUR		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L12E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 33 39 N 127 39 51 W 1127 Metres Within 500M Located on a ridge between Telky kilometres southwest of Smithers	wa Pass and the Telkwa River, 4	NORTHING: EASTING: 40	6046744 586380
COMMODITIES:	Lead Silver	Gold	Zinc	Copper
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Chalcopyrite Quartz Unknown	Sphalerite Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydroti 105 Polymetallic veins Ag-Pb-	hermal Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION		DRPHIC/OTHER
Eocene	Hazellon	Текжа	Nanika Intrusions	
LITHOLOGY:	Granodiorite Granite Andesite Tuff Rhyolite Volcanic Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Hazelton	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab	YEAR:	1926	
	COMMODITY Silver	GRADE 246.9000 Grams r	<u>ver tonne</u>	
	Gold Copper	0.6900 Grams p 2.5000 Per cent	ber tonne	
COMMENTS: REFERENCE:	Lead Selected sample. Minister of Mines Annual Report 1	36.3000 Per cent 926, page 138.	:	
CAPSULE GEOLOGY				
	Mineralization is grained granodioritic s contact with Lower Jura Formation occurs a shor varying in width from 0 coloured, fine-grained pyrite, chalcopyrite, g metres of mineralizatio 68.6 grams per tonne si per cent zinc. About 1 vein which was fairly w selected sample of the tonne gold, 246.9 grams per cent copper (Minist	associated with quartz tock of the Eocene Nan ssic Hazelton Group vo t distance to the east .9 to 2.4 metres strik granitic rock. The ve alena, and sphalerite. n at the bottom of a s lver, trace copper, 34 .8 tonnes of material ell mineralized over a best mineralization as per tonne silver, 36. er of Mines Annual Rep	velning in a fine- ika Intrusions. The lcanics of the Telkwa . Several quartz veins, e northwest in a light ins are mineralized with A sample across 0.5 haft assayed trace gold, per cent lead and 3.0 was mined from a quartz width of 6.0 metres. A sayed 0.69 grams per 3 per cent lead and 2.5 ort 1926, page 138).	

EMPR AR 1911-115; 1914-229; 1917-120; 1920-90; \*1926-138; 1929-171 EMPR GEM 1969-80; 1970-160

EMPR ASS RPT 2687 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 GSC MAP 278A; 971A GSC P 44-23

DATE CODED: 1985/07/24 DATE REVISED: 1989/02/20 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 075</u>			NATIONA	L MINERAL INVENTORY:	093L12 Fe1
NAME(S):	<b>Limonite Creek</b> , sumi Bear	AIT CREEK, IRONSIDI	ES (L.5815),			
STATUS:	Developed Prospect				MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L12W				UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 32 26 N 127 48 26 W 762 Metres Within 500M Located on the north side tributary of the Zymoetz F Terrace.	e of Limonite Creek, River, approximately	a westerly flowi 48 kilometres e	ing ast of	Northing: Easting:	6044321 577168
COMMODITIES:	Iron	Manganese	Sulphur		Phosphorus	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Limonite Pyrite Quartz Alunite Limonite Oxidation Unknown	Pyrophyllite	Topaz	Anhydrite		
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Massive Residual B01 Laterite Fe	Industrial Min.		B07	Bog Fe, Mn, U, Cu, Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE Lower Jurassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	GROUP Hazelton 52.2+/-1 Ma Uranium/Lead zircon	<u>FOR</u> Telk	MATION wa		IGNEOUS/METAM	ORPHIC/OTHER
Eocene					Nanika Intrusions	
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Quartz Monzonite Porphyritic Granodiorite					
HOSTROCK COMMENTS:	Fieldwork 1997, 31-1-9.					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic R	locks	PHYSIO	GRAPHIC AREA: Hazelton	Ranges
INVENTORY						
ORE ZONE:	LIMONITE CREEK		REPORT	ON: Y		
	CATEGORY: Indicate QUANTITY: 3175 COMMODITY	d 200 Tonnes <u>GR</u>	Ye RADE	EAR: 1957		
COMMENTS: REFERENCE:	Iron The estimate is based on Minister of Mines Annual	4 27 drillholes, drilled i Report 1957, page 1	4.0000 Per n 1957. 2.	cent		
CAPSULE GEOLOGY						
	The claims a volcanics of the ' to grey andesitic Limonite Creek, a porphyritic grano rocks. A host of pyrite crosscut th The age dete: a good lower inte	re underlain by Telkwa Formatio to rhyolitic: large Eocene I diorite and qua associated qua he volcanics. rmination is or rcept and a les	y Lower Jur on, compris flows, tuff Nanika Intr artz monzon artz veins f Eocene Na ss well def	assic Haz ed of red s, and br usive com ite intru containing nika Intru ined uppe	elton Group , purple, green eccia. South of prised of des the volcanic g disseminated usion which has r intercept of	

studied with modern instrumentation and 4 types (in addition to

## CAPSULE GEOLOGY

**BIBLIOGRAPHY** 

sericitic and propylitic) have been discerned: 1. Acid sulphate alteration is characterized by the presence of alunite and quartz, with or without pyrophyllite. Advanced argillic alteration with quartz and pyrophyllite.
 Aluminous alteration is characterized by andalusite, quartz and local lazulite. 4. Anhydrite-quartz is distal to most intensely altered rocks. These types of alteration are characteristic of high sulphidation systems. The weathering of pyrite has occurred to a depth of at least 135 metres and goethite has been redistributed to make this iron deposit (EM Fieldwork 1997, pages 31-1-9). On the north side of Limonite Creek, a large gossanous area hosts yellow and brown earthy limonite which occurs in platey layers from 2.5 to 7.6 centimetres in thickness, paralleling the surface of the hill which dips 30 degrees south. Thicknesses of 6.7 metres were encountered with an average thickness of 3.0 metres of clean limonite. In 1915, samples taken by the Mines Branch in Ottawa assayed 52.19 to 55.01 per cent iron, 0.83 to 1.99 per cent silica, 0.39 to 0.85 per cent manganese, 0.016 to 0.616 per cent phosphorous and 1.14 to 1.52 per cent sulphur. These results are the averages from 9 samples collected over 18.2 hectares (Minister of Mines Annual Report 1957, page 12). Drill indicated reserves based on 27 drillholes are 3,175,200 tonnes grading 44 per cent iron (Minister of Mines Annual Report 1957, page 12). EM FIELDWORK 1997, pp. 31-1-9 EMPR AR 1913-108,111; 1914-123,174,513; 1916-301; 1918-54; \*1957-12 EMPR MAP 69-1 EMPR OF 1998-8-E, pp. 1-25 EMPR PF (Rittenhouse, G., (1913): Company Report for North Pacific Iron Mines Ltd.; Summit Creek maps; in 093L 323 - Thompson, W.D. (1997): Exploration of the High Sulfidation Epithermal Prospects, Limonite Creek Area; Telkwa Gold Corp.) EMR MP CORPFILE (North Pacific Iron Mines Ltd.; Shawano Iron Mines Ltd.) GSC BULL 270 GSC EC GEOL No. 3, pp. 3,16 GSC MAP 278A; 971A GSC OF 351 GSC P 18; 44-23 GSC SUM RPT \*1915, pp. 67-69, \*Map 1605 CANMET IR 217, Vol. 2, p. 21 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/05 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 076</u>				NATIONA	L MINERAL INVENTORY:	093L13 Cu3
NAME(S):	HIDDEN VALL WINDY	<u>ey,</u> jan, lin	NDA,				
STATUS:	Prospect	-				MINING DIVISION:	Omineca
NTS MAP:	093L13W	la				UTM ZONE:	09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 53 49 N 127 52 13 V 1524 Metres Within 1 KM Located at the west-northwe	V V head of Kits st of Smithe	suns Creek, appr ers.	oximately 49 kilom	netres	NORTHING: EASTING:	6083908 572450
COMMODITIES:	Copper		Molybdenum	Gold		Silver	Lead
MINERALS	0				0 I I <sup>1</sup>		
SIGNIFICANT:	Magnetite	Molybder	nite Pyrite	Galena	Sphalerite		
ASSOCIATED: ALTERATION:	Epidote	Sericite	Kaolin	Carbonate	Quartz		
ALTERATION TYPE: MINERALIZATION AGE:	Chlorite Propylitic Unknown		Sericitic	Argillic		Silicific'n	Pyrite
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porph	yry Cu ± Mo	Vein Hydrothermal ± Au	Epigene	etic I05	Polymetallic veins Ag-Pl	p-Zn±Au
HOST ROCK DOMINANT HOSTROCK	: Plutonic						
STRATIGRAPHIC AGE	GROUP		<u>F</u>	ORMATION		IGNEOUS/METAM	ORPHIC/OTHER
Jurassic Cretaceous-Tertiary	Bowser Lake		U	Indefined Formation	n	Bulkley Intrusions	
LITHOLOGY:	Monzonite Feldspar Porp Quartz Monzo Tuff Volcanic Brec	hyry nite cia					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		Plutoni	ic Rocks	PHYSIOC	GRAPHIC AREA: Hazeltor	n Ranges
CAPSULE GEOLOGY The occurrence is located in an area where Jurassic Bowser Lake Group intermediate volcanic rocks have been intruded by Late Cretaceous to Tertiary Bulkley Intrusive rocks. The Bowser Lake rocks are comprised mainly of basaltic or andesitic tuff-breccia and tuff. The volcanics are intruded by pyritiferous monzonite and							

Cretaceous to Tertiary Bulkley Intrusive rocks. The Bowser Lake rocks are comprised mainly of basaltic or andesitic tuff-breccia and tuff. The volcanics are intruded by pyritiferous monzonite and feldspar porphyry measuring about 2.5 kilometres in length and 1 kilometre in width. Propylitic alteration envelopes an area of about 450 by 600 metres and hosts quartz, calcite and locally, barite veining with chalcopyrite, pyrite and molybdenite. Alteration around the porphyry intrusion consists of inner

Alteration around the porphyry intrusion consists of inner sericitic and argillic zones which are marked by an increase of kaolin, sericite, carbonate, and quartz. Molybdenite is more highly concentrated in these zones. The outer propylitic areas are characterized by the presence of epidote, chlorite, and lesser sericite, carbonate, and kaolin.

In 1970, drilling showed pyrite, chalcopyrite, molybdenite, and some magnetite in quartz and carbonate veinlets and along hair-line fractures for the entire length of the 183 metre hole. The overall grade of copper, molybdenum and precious metals are low. In the area of the drill hole the copper-molybdenum ratio was found to be three to one.

Recent work in the area has indicated that a later stage quartz monzonite plug has intruded both the volcanics and the porphyry. Chalcopyrite, molybdenite and pyrite represents early stage mineralization, and galena, sphalerite, arsenopyrite and pyrite accompanied by intense silicification is related to the later stage intrusive activity.

EMPR AR 1958-109-111; 1965-246; 1967-84; \*1968-109-111 EMPR GEM 1970-161; 1971-176 EMPR EXPL 1988-C172 EMPR ASS RPT 698, 18058, \*19799 EMPR BULL 64 EMPR MAP 69-1 GSC BULL 270 GSC P 44-23 GSC OF 351 EMPR PF (Maps and notes) EMPR OF 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/24 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 077</u>	N	IATIONAL MINERAL INVENTORY	/: 093L13 Ag1
NAME(S):	<u>KIT</u>			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION	I: Omineca
NTS MAP: BC MAP:	093L13W		UTM ZONE	:: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 53 59 N 127 46 06 W Metres Within 1 KM A silver-lead occurrence shown on Ma	ap 69-1 (#142).	NORTHING EASTING	6084327 578982
COMMODITIES:	Silver Lead			
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Galena Exact mineralogy not reported. Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown G06 Noranda/Kuroko massive sulpł	ide Cu-Pb-Zn	105 Polymetallic veins Ag-F	Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Jurassic Upper Cretaceous	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAN Bulkley Intrusion	<u>MORPHIC/OTHER</u> s
STRATIGRAPHIC AGE Jurassic Upper Cretaceous LITHOLOGY:	GROUP Bowser Lake Volcanic Breccia Tuff Volcanic Flow Porphyritic Granodiorite Quartz Monzonite	FORMATION Undefined Formation	IGNEOUS/METAN Bulkley Intrusion	<u>NORPHIC/OTHER</u> s
STRATIGRAPHIC AGE Jurassic Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT:	GROUP Bowser Lake Volcanic Breccia Tuff Volcanic Flow Porphyritic Granodiorite Quartz Monzonite	FORMATION Undefined Formation	<u>IGNEOUS/METAN</u> Bulkley Intrusion	S NORPHIC/OTHER
STRATIGRAPHIC AGE Jurassic Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	GROUP Bowser Lake Volcanic Breccia Tuff Volcanic Flow Porphyritic Granodiorite Quartz Monzonite Intermontane Stikine Contact Regional	FORMATION Undefined Formation P RELATIONSHIP: Syn-minera	IGNEOUS/METAN Bulkley Intrusion PHYSIOGRAPHIC AREA: Hazelto alization GRADE:	S NORPHIC/OTHER
STRATIGRAPHIC AGE Jurassic Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	GROUP Bowser Lake Volcanic Breccia Tuff Volcanic Flow Porphyritic Granodiorite Quartz Monzonite Intermontane Stikine Contact Regional The area is underlain comprised of grey to green flows. The volcanics are : Intrusion comprised of por A silver-lead occurrent between the intrusion and I	FORMATION Undefined Formation P RELATIONSHIP: Syn-minera basaltic to andesit intruded by a Late C ohyritic granodiorit ice is shown on Map Bowser Lake Group vo	IGNEOUS/METAN Bulkley Intrusion PHYSIOGRAPHIC AREA: Hazelto alization GRADE: Lake Group volcanics ic tuff, breccia and retaceous Bulkley e to quartz diorite. 69-1 near the contact lcanics.	s s
STRATIGRAPHIC AGE Jurassic Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY BIBLIOGRAPHY	GROUP Bowser Lake Volcanic Breccia Tuff Volcanic Flow Porphyritic Granodiorite Quartz Monzonite Intermontane Stikine Contact Regional The area is underlain comprised of grey to green flows. The volcanics are : Intrusion comprised of porp A silver-lead occurren between the intrusion and I EMPR MAP *69-1 GSC BULL 270 GSC OF *351 GSC P 44-23	FORMATION Undefined Formation P RELATIONSHIP: Syn-minera by Jurassic Bowser I basaltic to andesit intruded by a Late C ohyritic granodiorit. ice is shown on Map Bowser Lake Group vo	IGNEOUS/METAN Bulkley Intrusion PHYSIOGRAPHIC AREA: Hazelto alization GRADE: Lake Group volcanics ic tuff, breccia and retaceous Bulkley e to quartz diorite. 69-1 near the contact lcanics.	s s on Ranges

MINFILE NUMBER:	<u>093L 078</u>		NATIONA	L MINERAL INVENTORY:	093L13 Cu4
NAME(S):	<u>LEFTY</u> , L'ORSA				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L13W			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 19 N 127 51 06 W Metres Within 1 KM A copper-silver occurrence	e shown on Map 69-1 (#143)	).	NORTHING: EASTING:	6077437 573750
COMMODITIES:	Copper	Silver			
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Chalcopyrite Exact mineralogy not repor Unknown	ted.			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L01 Subvolcanic Cu-A	g-Au (As-Sb)	D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa		IGNEOUS/METAM	ORPHIC/OTHER
Cretaceous-Tertiary	hazonom	Tontid		Unnamed/Unknow	n Informal
LITHOLOGY:	Tuff Volcanic Breccia Volcanic Flow Felsic Intrusive				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact Regional	Plutonic Rocks RELATIONSHIP:	PHYSIOG Syn-mineralization Post-mineralization	GRAPHIC AREA: Hazelton GRADE:	Ranges
CAPSULE GEOLOGY	mbe ence is u	douloin bu toucu Tu			
	Formation volcanics breccia, tuff and i volcanics are intru- intrusion. A copper-silve between the intrus	s comprised mainly of flows of basaltic to uded by a Late Creta er occurrence is sho ion and the Telkwa vo	rassic Hazelic f varigated re rhyolitic com ceous to Terti wn on Map 69-1 olcanics.	n Group, Telkwa ed to green position. These ary felsic . near the contact	
BIBLIOGRAPHY	EMPR MAP *69-1 GSC BULL 270 GSC OF *351 GSC P 44-23				
DATE CODED: DATE REVISED:	1988/08/24 1989/08/24	CODED BY: LLI REVISED BY: LLI	0 0	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093L 079</u>			NATIONAL MINERAL INVENTORY: 09	93L13 Cu2
NAME(S):	<u>Louise Lake</u> , Lou, Roe Tenn, Louise	3,			
STATUS:	Developed Prospect			MINING DIVISION: O	mineca
NTS MAP:	093L13E			UTM ZONE: 09	9 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 51 08 N 127 41 24 W 1006 Metres Within 500M Trenches, 750 metres we northwest of Smithers (As	est of Louise La ssessment Rep	ke, about 34 kilometres port 18971).	NORTHING: 60 EASTING: 58 west-	079133 34104
COMMODITIES:	Copper	Molybdenum	Gold	Silver	
	Chalconvrite Molybde	onito Pvrito	Tennantite	Bornite	
ASSOCIATED:	Quartz Clay		Durito	Bornice	
ALTERATION TYPE: MINERALIZATION AGE:	Argillic Unknown	Sericitic	Silicific'n		
DEPOSIT CHARACTER	Stockwork	Disseminated			
CLASSIFICATION:	Porphyry				
		5 ± Au			
DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP		FORMATION	IGNEOUS/METAMOR	PHIC/OTHER
Jurassic-Cretaceous	Bowser Lake		Ashman	l Innamed/I Inknown	Informal
	Altered Foldener Dernhur	.,		Onnamed/Onknown	Intornal
	Quartz Monzonite Conglomerate Shale Greywacke Volcaniclastic Sandstone Basalt Andesite Tuff Andesite Flow	y			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	Over	lap Assemblage	PHYSIOGRAPHIC AREA: Hazelton R	anges
INVENTORY					
ORE ZONE:	TOTAL		REPORT ON:	Y	
COMMENTS: REFERENCE:	CATEGORY: Inferred QUANTITY: 50000 COMMODITY Gold Copper Molybdenum A possible resource base delineated a tabular zone T. Schroeter, Monthly Rep	d on previous d of copper-gold- port, June 1994.	YEAR: 0.3100 Grams p 0.3000 Per cent 0.0200 Per cent liamond drilling which pa molybdenum mineralizat	1994 per tonne t t rtially ion.	
CAPSULE GEOLOGY	_				
	The area is u sediments and less intermediate to fe striking predomina south dipping, 060 River.	underlain b ser volcani elsic intru antly 060 a degree tr	y Jurassic to Upp cs intruded by La sions. Abundant nd 335 degrees, c ending thrust fau	er Cretaceous clastic te Cretaceous and Eocene normal(?) faults ut the area as well as llts south of Zymoetz	
	interbedded sedime trending fault sys shore of Louise La	ents and vo stem runs t ake. Congl	lcanic rocks. A hrough Coal Creek omerates, greywad	major 060 degree and along the north ckes, shales and	

PAGE: 141 REPORT: RGEN0100

## CAPSULE GEOLOGY

volcaniclastics of the Lower-Upper Cretaceous Skeena Group are present on the north side of the fault; south of the fault are Middle-Upper Jurassic Ashman Formation shale, sandstone and conglomerate, and Upper Jurassic Netalzul Formation basalts, andesite tuffs and flows, both of the Jurassic-Lower Cretaceous Bowser Lake Group.

Locally, an intensely altered Eocene feldspar porphyry plug intrudes Skeena Group sediments adjacent to the major 060 degree trending fault. Petrographic studies of the altered feldspar porphyry indicate that its original composition was quartz monzonite.

Argillization, sericitization and silicification are the main alteration phases evident in the intrusive resulting in three distinct zones. These grade from a highly silicified central stockwork zone through an intermediate zone of moderate clay alteration and silicification, to a peripheral zone with an extremely high degree of kaolinization and moderate silicification.

Pyrite occurs in all alteration zones and varies from 1-10 per cent. The zones also host a stockwork of quartz-pyrite veinlets (2-20 millimetres wide) that contain minor amounts of chalcopyrite and molybdenite, with assays of up to 0.8 grams per tonne gold (Assessment Report 18971). There are 3 preferred orientations of the stockwork development: 340 degrees, 010 degrees and 060 degrees. Previous diamond drilling has partially delineated a tabular

zone of copper-gold-molybdenum porphyry-style mineralization estimated to contain a possible resource of 50 million tonnes grading 0.3 per cent copper, 0.02 per cent molybdenum and 0.31 gram per tonne gold (T. Schroeter, Monthly Report, June 1994). A 1992 drill hole intersected 1.46 per cent copper, 121 grams per tonne silver and 1.9 grams per tonne gold over 2.9 metres.

In 1995, with Explore B.C. Program support, Global Mineral and Chemical Ltd. completed 39 line kilometres of induced polarization surveys and collected 97 soil samples. The IP survey outlined two large zones of high chargeability in the western part of the property that warrant drill testing (Explore B.C. Program 95/96 - M83).

#### BIBLIOGRAPHY

EMPR ASS RPT 1999, 2278, 2372, 2697, 2698, 2937, 6105, 7961, 8710, 11772, 16869, \*18971 EMPR EXPL 1976-151; 1977-197; 1979-228; 1980-346; 1983-445; 1988-C172; 1996-B8; 1999-19-31 EMPR Explore B.C. Program 95/96 - M83 EMPR GEM 1969-80; 1970-161; 1971-176 EMPR MAP 69-1 EMPR OF 1992-1; 1998-8-F, pp. 1-60 EMPR PERS COMM Schroeter, T., Monthly Report, June 1994 EMR MP CORPFILE (Leitch Mines Limited) GSC OF 351 GSC P 44-23 GCNL #214(Nov.6), 1991; #9(Jan.14),#39(Feb.25), #87(May 5), #105(June 1), 1992; #144(July 28), 1998 N MINER Mar.2, June 1, 1992 WWW http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 1996/11/08 CODED BY: GSB REVISED BY: GO

\_\_\_\_

MINFILE NUMBER:	<u>093L 080</u>		NATIONAL MINERAL INVENTORY:	093L11 Ag3		
NAME(S):	<u>HANNAH,</u> GIPSY QUEEN					
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca		
NTS MAP: BC MAP:	093L11E		UTM ZONE:	09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 30 51 N 127 12 50 W 1735 Metres Within 5 KM Located on the west side of H Creek (see sketch map in Mir page 140).	Hunter Basin on the slope to Glacier hister of Mines Annual Report 1925,	NORTHING: EASTING:	6042198 615625		
COMMODITIES:	Silver Co	opper				
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Bornite Quartz Malachite Talc Oxidation Unknown					
DEPOSIT	Vicin					
CLASSIFICATION: TYPE:	Hydrothermal L01 Subvolcanic Cu-Ag-A	Au (As-Sb)	D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK	: Volcanic					
STRATIGRAPHIC AGE	GROUP		IGNEOUS/METAM	ORPHIC/OTHER		
Lower Jurassic Upper Cretaceous	Hazelton	lelkwa	Bulkley Intrusions			
LITHOLOGY:	Andesite					
	Rhyolite Tuff Breccia Quartz Feldspar Porphyry Felsite Dike					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Hazelton	Ranges		
INVENTORY						
ORE ZONE:	VEIN REPORT ON: N					
	CATEGORY: Assay/analy SAMPLE TYPE: Grab <u>COMMODITY</u>	ysis YEAR: <u>GRADE</u>	1914			
COMMENTS:	Silver 1.2 to 1.8 metre sample from	41.1400 Grams p mineralized quartz vein; also shows م	per tonne S			
REFERENCE:	trace gold. Minister of Mines Annual Rep	ort 1914, page 222.				
CAPSULE GEOLOGY						
	The showing is underlain by Lower Hazelton Group volcanics of the Telkwa Formation comprised of variegated red, green, maroon to grey andesitic to rhyolitic flows, tuffs, and breccia. The volcanics are intruded by a Late Cretaceous to Eocene quartz-feldspar porphyry and associated felsite dikes. On the Hannah, a shattered zone striking north, hosts numerous veinlets of quartz and quartz infillings. Some of the veinlets show considerable intergrowth of feldspar forming pegmatitic felsite dikes. Some of the veinlets host minor tetrahedrite with malachite staining. On the Gipsy Queen claim, which adjoins the Hannah, a vein or dike of decomposed talcy material carries considerable quartz with some malachite staining. The vein ranges from 1.2 to 1.8 metres in width. A sample of the best mineralization assayed trace gold, 41.14 grams per tonne silver, copper nil (Minister of Mines Annual Report 1914, page 222). Open cuts in the oxidized vein exposed a few specks of bornite with malachite staining.					

EMPR AR 1914-222; 1925-140 (Sketch Map) EMPR MAP 69-1 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC BULL 270 GSC P 44-23 GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	093L 081 NATIONAL MINERAL INVENTORY:					
NAME(S):	MMX					
STATUS: REGIONS: NTS MAP: PO MAP:	Showing		MINING DIVISION:	Omineca		
	093L13E		UTM ZONE:	09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 29 N 127 42 06 W Metres Within 1 KM Located approximately 4.5 kilomet Creek and the Zymoetz River, we	tres south of the junction of Coal st of the 093L 198 showings.	NORTHING: EASTING:	6068642 583549		
COMMODITIES:	Copper Silver					
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Bornite P Quartz Unknown	Yyrite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Breccia Epigenetic Hydroth L01 Subvolcanic Cu-Ag-Au (A	a nermal ss-Sb)	D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK: Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMO	ORPHIC/OTHER		
LITHOLOGY:	Andesite Flow Rhyolite Flow Tuff Volcanic Breccia					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	I	PHYSIOGRAPHIC AREA: Hazelton	Ranges		
CAPSULE GEOLOGY						
	The claims are underlain by Lower Jurassic Hazelton Group volcanics comprised mainly of rhyolitic to andesitic flows, tuff and breccia. Chalcopyrite, pyrite and bornite occur in quartz veins and veinlets which crosscut volcanic breccia.					
BIBLIOGRAPHY	EMPR AR *1968-124 EMPR MAP 69-1 GSC OF 351 GSC BULL 270					
DATE CODED: DATE REVISED:	1985/07/24 1988/07/11	CODED BY: GSB REVISED BY: LLD	F	IELD CHECK: N IELD CHECK: N		
MINFILE NUMBER:	<u>093L 082</u>	NATIONAL MINERAL INVENTOR	Y: 093L12 Cu1			
--	---	--	-------------------------			
NAME(S):	<u>NH</u> , NH 1-82, CARIBOU					
STATUS:	Showing	MINING DIVISIO	N: Omineca			
NTS MAP: BC MAP	093L12E	UTM ZON	E: 09 (NAD 83)			
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 43 00 N 127 42 56 W 1370 Metres Within 1 KM Located on Caribou Mountain, 8.0 kilometres due south of junction of Sandstone Creek and the Zymoetz River, 37 kilk south-southwest of Smithers. Location of "A" Zone miner (Howard, D.A. 1987, Figure 4)	NORTHIN EASTIN metres lization	G: 6064020 G: 582740			
COMMODITIES:	Copper Silver					
MINERALS						
SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Bornite Chalcocite Chalcopyrite Galena Possibly digenite. Calcite Quartz Unknown	Digenite				
DEPOSIT						
CLASSIFICATION: TYPE:	Epigenetic Hydrothermal D03 Volcanic redbed Cu	L01 Subvolcanic Cu-Ag-A	u (As-Sb)			
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP FORMATION Telkwa	IGNEOUS/META	MORPHIC/OTHER			
LITHOLOGY:	Lapilli Tuff Tuff Breccia					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC AREA: Hazel	on Ranges			
INVENTORY						
ORE ZONE:	SAMPLE REPC	rt on: N				
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY GRADE	YEAR: 1968				
COMMENTS: REFERENCE:	Silver 205.7000 C Copper 3.5100 F Across 7.6 metres of the A Zone; also showed trace gold Minister of Mines Annual Report 1968, pages 121-124.	rams per tonne er cent				
ORE ZONE:	A REPC	rt on: N				
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY GRADE	YEAR: 1987				
	Silver         268.4500         C           Copper         4.6700         F	rams per tonne er cent				
COMMENTS:	A 3.0 metre chip sample from mineralization parallel to a fault zone.					
	Property File - Howard, D.A., 1967.					
GAT SULE GEOLOGI	The property is underlain by Lower and Nilkitkwa Formations which form the Group. The lower most unit on the prope which consists of variegated red, maroon tuffs and flows. The Nilkitkwa rocks fo underlying mineralized Telkwa rocks. Th dip between 25 to 30 degrees southeast. is found within a green to grey, very fi tuff in association with northwest trend of mineralization have been identified o	Turassic rocks of the Telkw ower part of the Hazelton ty is the Telkwa Formation grey to green breccias, m a barren cap over the crocks strike northeast an Copper-silver mineralizati e to coarse-grained lapill ng fault zones. Four zone rer a strike length of abou	d on i s t			

300 metres. Zone A contains bornite, chalcocite and possibly digenite in fractures and calcite veinlets in the welded tuff unit. Mineralization is most abundant adjacent to a fault but extends for 30 metres northeast of the fault. Trace chalcopyrite and galena occur in a quartz carbonate veinlet near the fringe of the bornite and chalcocite mineralization. In 1987, a 3.0 metre chip sample taken from mineralization parallel to the fault zone exposed at "A" Zone assayed 4.67 per cent copper and 268.45 grams per tonne silver (Howard, D.A., 1987). The B zone consists of calcite and small amounts of disseminated chalcocite which occur in the matrix of a brecciated portion of the favourable tuff horizon. Small amounts of fine-grained chalcopyrite, bornite and chalcocite are present in the tuff for about 30 metres southwest of the breccia zone. One main vein up to about 20 centimetres wide and a few scattered associated veinlets mineralized with chalcocite, bornite and possibly digenite constitute the C zone. The D zone contains bornite and chalcocite as disseminations and in small fractures and calcite veins in altered lapilli tuff. Another sample in 1968, taken across 7.6 metres of the A zone gave trace gold, 205.7 grams per tonne silver and 3.51 per cent copper (Minister of Mines Annual Report 1968, pages 121-124).

#### BIBLIOGRAPHY

EMPR AR 1967-90; \*1968-121-124 EMPR ASS RPT 1640, 4671 EMPR GEM 1973-346 EMPR MAP 69-1 EMPR PF (\*Howard, D.A., (1987): Report on the Exploration Potential of the Caribou Mineral Claim on Caribou Mountain near Smithers, British Columbia (Oct., 1987) in Prospectus for Silver Box Resources Ltd., Jun.20, 1988) EMR MP CORPFILE (Babine International Resources Ltd.; Grandora Explorations Ltd.) GSC BULL 270 GSC MAP 971A GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 083</u>			NATIONA	L MINERAL INVENTORY: 093L12 Mo1
NAME(S):	<u>serb creek</u> , katie				
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093L12W				MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 38 46 N 127 45 40 W 1524 Metres Within 500M Located at the head of Ser southwest of Smithers.	b Creek, approxima	tely 38 kilometr	es west-	NORTHING: 6056117 EASTING: 579944
COMMODITIES:	Molybdenum	Copper	Lead		Zinc
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Molybdenite Sparse chalcopyrite, galen Quartz Calcite Sericite Orthoclase Propylitic Unknown	Chalcopyrite a and sphalerite. Epidote Sericitic	Galena Chlorite Pyrite	Sphalerite Pyrite	
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L05 Porphyry Mo (Low	Vein Hydrothermal F- type)		105	Polymetallic veins Ag-Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
<u>STRATIGRAPHIC AGE</u> Jurassic Mesozoic	GROUP Hazelton	<u>FORI</u> Unde	MATION fined Formation	1	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
LITHOLOGY:	Quartz Monzonite Granodiorite Quartz Feldspar Porphyry Quartz Diorite Porphyry Mafic Dike Quartz Monzonite Porphyry Granodiorite Porphyry	y			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Stikine		PHYSIOG	RAPHIC AREA: Hazelton Ranges
INVENTORY					
ORE ZONE:	SERB CREEK		REPORT	ON: Y	
COMMENTS: REFERENCE:	CATEGORY: Indicated QUANTITY: 411500 COMMODITY Molybdenum Probable reserves. Grade Mo using the factor 1.6681 National Mineral Inventory of	000 Tonnes <u>GR</u> 0. given was 0.08 per card 93L/12 Mo1.	YE ADE 0400 Per o r cent MoS2; co	AR: 1986 cent nversion to	
CAPSULE GEOLOGY					
	The Serb Creek composed mainly of Lower-Middle Jurass mineralization is a monzonite that exis is intruded by smal porphyry and a dike quartz feldspar por pyrite halo covers plug. The low grad veins (up to 2 cent fractures. The vei quartz, pyrite, mol and sphalerite mind alteration related carbonate and epido	<pre>&lt; occurrence i medium-graine sic Hazelton G associated wit sts as a core ll irregularly e swarm consis rphyry, granod and extends s de molybdenum timetres in wi ins and veinle lybdenite and eralization ar to mineraliza ote- chlorite-</pre>	s situated d granodion roup rocks h a fine-gr to the stoo shaped boo ting of qua iorite porp omewhat bey mineralizat dth), quart ts are comp epidote. Se also pres- tion are se orthoclase	within a rite which . Molybde rained plu ck. The q dies of qu artz monzo phyry and yond the q tion is co tz stockwo posed of v Sparse cha sent. Two ericite-or	Mesozoic stock intrudes unum g of quartz uartz monzonite artz diorite nite porphyry, mafic dikes. A quartz monzonite ntained in quartz orks and dry arying amounts of loopyrite, galena o types of thoclase-

The area of the showings is dominated by a 320 to 330 degree striking fracture system that is evident in the dike swarm, main shears and alteration zone. A late vein system comprised of mainly drusy quartz with calcite hosts galena and sphalerite. Probable reserves for the Serb Creek property are 41.15 million tonnes grading 0.04 per cent molybdenum (National Mineral Inventory card 93L/12 Mol). Grade given was 0.08 per cent MoS2; conversion to Mo using the factor 1.6681.

#### BIBLIOGRAPHY

EMPR AR \*1965-76-80; 1966-91 EMPR ASS RPT 5762 EMPR BULL 64 EMPR EXPL 1975-142 EMPR GEOLOGY 1975, p. 65 EMPR MAP 58; 65 (1989); 69-1 EMPR OF 1992-1; 1998-8-F, pp. 1-60 EMPR PF (Various geological maps) EMR MIN BULL MR 198, p. 238; 223 B.C. 232 GSC OF 351 GSC P 44-23

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/14 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 084</u>	NATIONAL MINERAL INVER	NTORY: 093L11 Cu6
NAME(S):	TABLE, TABLE NO.3, COPPER QUEEN		
STATUS: REGIONS	Showing British Columbia	MINING DI	VISION: Omineca
NTS MAP: BC MAP:	093L11W	UTM	ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 41 09 N 127 26 23 W 1554 Metres Within 1 KM Showing located on Table No. 3 claim, about of old workings on Stock No. 1 claim (see loca Assessment Report 3880).	NOR EA 1.2 kilometres south ation map in	THING: 6060950 STING: 600583
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Chalcocite Bornite Digenite Possibly digenite. Unknown	Malachite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Hydrothermal D03 Volcanic redbed Cu	STRIKE/DIP: 130/75S TRE	ND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	: Volcanic		
STRATIGRAPHIC AGE	GROUP FOR Hazelton Nilk	IGNEOUS/	METAMORPHIC/OTHER
LITHOLOGY:	Felsite Lithic Tuff Crystal Tuff Amygdaloidal Flow		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC AREA: H	lazelton Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> Gropper A 1.5 metre sample of weathered fault zone r assayed trace silver and gold.	YEAR: 1968 ADE 0.3300 Per cent naterial also	
REFERENCE:	Minister of Mines Annual Report 1968, page 1	29.	
GAFSULE GEULUGY	The area is underlain by H Lower Jurassic Nilkitkwa Format Cretaceous and Eocene intrusion of volcanic rocks, trending nor property, which are comprised Bornite, chalcocite and possibl disseminated in amygdules along spherulitic, flow-layered felsi The fault has an attitude of ap degrees south. This occurrence about 1.2 kilometres south of o (refer to Stock - 093L 085). of weathered material from the gold with 0.33 per cent copper page 129). About 500 metres south, on (?) and malachite occur along f This fracture zone strikes abou	azelton Group volcanic rocks of t ion which have been intruded by L s. The occurrence is within a se th to northeastwards through the argely of lithic and crystal tuff y digenite occur in veinlets and a fault zone between light-grey, te and purple amygdaloidal flows. proximately 130 degrees and dips is located on the Table No.3 cla ld workings on the Copper Queen M A chip sample taken across 1.5 me fault zone assayed trace silver a (Minister of Mines Annual Report the Table No.5 claim, minor chal ractures in siliceous volcanic rc t 130 degrees.	he ate ries

EMPR ASS RPT 1239, 2200, 3545, \*3880

EMPR AR 1917-119; 1919-365; 1961-18; 1967-100; 1968-128 EMPR GEM 1970-160; 1972-418 EMPR MAP 69-1 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC BULL 270 GSC MAP 278A GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/16 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 085</u>	NATIONAL MI	NERAL INVENTORY: 093L11 Cu6		
NAME(S):	STOCK, COPPER QUEEN, JANET, STOCK NO.1				
STATUS:	Past Producer	Underground	MINING DIVISION: Omineca		
NTS MAP: BC MAP	093L11W		UTM ZONE: 09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 41 40 N 127 27 18 W 1600 Metres Within 1 KM Old caved shaft located on Stock No.1 claim (see Assessment Report 3880) overlooking the west Creek.	e claim map in branch of Winfield	NORTHING: 6061886 EASTING: 599577		
COMMODITIES:	Copper Silver	Gold			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcocite Bornite Chalcopyrite Quartz Calcite Silicific'n Unknown				
	Vein				
CLASSIFICATION: TYPE: DIMENSION:	Hydrothermal D03 Volcanic redbed Cu	L01 Sub STRIKE/DIP: 120/75S	volcanic Cu-Ag-Au (As-Sb) TREND/PLUNGE:		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP FORM/ Hazelton FORM/	ATION	IGNEOUS/METAMORPHIC/OTHER		
LITHOLOGY:	Crystal Tuff Lithic Tuff				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAF	PHIC AREA: Hazelton Ranges		
	SHAFT				
URE ZUNE.		VEAD: 1069			
	SAMPLE TYPE: Chip COMMODITY GRAI	TEAR. 1900			
	Silver 17.1 Copper 3.4	400 Grams per tonne 000 Per cent			
COMMENTS:	A 3.65 metre sample taken above the main shaf trace gold.	t; also assayed			
REFERENCE:	Minister of Mines Annual Report 1968, page 129	l.			
	The area is underlain mainly by Hazelton Group volcanic rocks of the Lower Jurassic Nilkitkwa Formation which have been intruded by Late Cretaceous and Eocene intrusions. The occurrence is within a series of volcanic rocks which trend north to northeast and are comprised mainly of lithic and crystal tuff. There is a banded, siliceous volcanic rock that contains weak copper mineralization (mainly malachite) at several locations (refer to Table - 093L 084). The main showing on the Stock No.1 claim, hosts chalcocite, bornite and chalcopyrite along fractures and in calcite veinlets related to a fault zone which strikes about 120 degrees and dips 75 degrees south within siliceous lithic tuff. Chip samples of weathered outcrops in the vicinity of the old workings assayed 0.33, 0.45 and 0.31 per cent copper, respectively. A sample taken above the shaft assayed 17.14 grams per tonne silver and 3.40 per cent copper (Minister of Mines Annual Report 1968, page 129). During the period 1917 to 1919 about 11 tonnes of ore were shipped from this property. From this ore 31 grams of gold, 28.30 grams of silver and 2932 kilograms of copper were recovered. About 800 metres north of the old mine workings regional mappers found specks of chalcopyrite and pyrite in a 0.6 to 1.2 metre chert				

horizon exposed near a small lake. This area hosts extremely low copper concentrations in fracture controlled mineralization (Kirkham, 1968).

#### BIBLIOGRAPHY

EMPR ASS RPT 1239, 2200, 3545, \*3880 EMPR AR 1917-119; 1919-365; 1961-18; 1967-100; 1968-128 EMPR GEM 1970-160; 1972-418 EMPR MAP 69-1 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 195-208 GSC BULL 270 GSC MAP 278A GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/16 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 086</u>		NATIONA	L MINERAL INVENTORY	/: 093L11 Cu7
NAME(S):	INTERNATIONAL				
STATUS:	Showing British Columbia			MINING DIVISION	I: Omineca
NTS MAP: BC MAP:	093L11W			UTM ZONE	:: 09 (NAD 83)
LATITUDE: LONGITUDE:	54 43 50 N 127 27 36 W			NORTHING EASTING	6065897 5: 599167
ELEVATION: LOCATION ACCURACY:	Metres Within 5 KM				
COMMENTS:	Tentatively located at occurrence #151	on Map 69-1.			
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown				
DEPOSIT CHARACTER	Vein				
CLASSIFICATION: TYPE:	Unknown D03 Volcanic redbed Cu		L01	Subvolcanic Cu-Ag-Au	ı (As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa		IGNEOUS/METAN	MORPHIC/OTHER
LITHOLOGY:	Amygdaloidal Basalt Andesite				
	Tuff Volcanic Breccia				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOG	RAPHIC AREA: Nechal	ko Plateau
CAPSULE GEOLOGY					
	The area is underlain of the Telkwa Formation are	by Lower Jurassic comprised of vari	Hazelto egated	on Group volcanic red, maroon,	S
	green to grey andesitic flo basalt. These are in conta	ows, tuffs, breccia act with well bedde	and am d tuffs	ygdaloidal and flows of th	e
	Hazelton Group, Nilkitkwa F The mineral occurrence	ormation. consists of minor	chalco	pyrite and	_
	ence was reported to be loc Queen Mine (refer to Stock occurrence #151, from Map 6	ated about 3.5 kil - 093L 085) and i	ometres s tenta	from the Copper tively placed at	
BIBLIOGRAPHY					
	EMPR AR 1917-120 EMPR MAP 69-1 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 19 GSC BULL 270 GSC OF 351	5-208			
DATE CODED: DATE REVISED:	1985/07/24 1987/08/18	CODED BY: GSB REVISED BY: LLD			FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 087</u>			NATIONAL MINERAL INVENTORY: (	)93L14 Ag7
NAME(S):	KING TUT				
STATUS:	Showing			MINING DIVISION: (	Omineca
REGIONS: NTS MAP:	British Columbia 093L14W			UTM ZONE: (	)9 (NAD 83)
BC MAP: LATITUDE:	54 45 47 N			NORTHING: (	6069674
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	127 21 00 W 1067 Metres Within 500M			EASTING: (	606164
COMMODITIES:	Silver	Zinc	Lead	Copper	
MINERALS					
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Gal Siderite Quar Unknown	ena Chalcopy tz	yrite Arsenopyrite	Pyrite	
DEPOSIT					
CLASSIFICATION: TYPE:	vein Epigenetic I05 Polymetallic	Hydrothermal veins Ag-Pb-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP		FORMATION	IGNEOUS/METAMO	RPHIC/OTHER
Pliocene	Hazelion		Теккиа	Unnamed/Unknowr	n Informal
LITHOLOGY:	Rhyolite Andesite				
	Tuff Andesitic Flow Bred Felsite Granodiorite Porphyry	ccia			
HOSTROCK COMMENTS:	Mineralization app porphyry intrusion	ears to be genetically s.	related to the Tertiary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOGRAPHIC AREA: Hazelton I	Ranges
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON	: N	
	CATEGORY: As SAMPLE TYPE: Gr	say/analysis ab	YEAR:	: 1924	
	Silver	· · · ·	10.9700 Grams	per tonne	
REFERENCE:	30 centimetre chan Minister of Mines Ar	nel sample also snow inual Report 1924, pa	ed trace gold. ge 96.		
CAPSULE GEOLOGY					
The Hudson Bay Mountain area is underlain mainly by volcanic rocks of the Lower Jurassic Hazelton Group. Pyroclastic rocks, particularly lapilli tuff, of intermediate composition are the most abundant. Three main groups of felsic intrusions have been recognized in the district. These include felsites, granodiorites and Tertiary porphyries. Mineralization in the area seems to be genetically related to the Tertiary porphyry intrusions. Rocks at the King Tut occurrence consist mainly of rhyolite, andesite, tuff and andesite flow breccia. Mineralization is associ- ated with a shear zone from about 0.3 to 1.2 metres in width with a strike of 065 degrees to 070 degrees and dip 70 southeast to 70 degrees northwest. The main sulphides present are sphalerite, galena, chalcopyrite, arsenopyrite and pyrite. A channel sample across about 30 centimetres assayed trace gold and 10.97 grams per tonne silver (Minister of Mines Annual Report 1924, page 96).					
BIBLIOGRAPHY	GSC MEM 223, p GSC SUM RPT *1	о. 113 .925А, р. 132			

EMPR AR \*1924-96; 1927-136; 1928-161,420 EMPR EXPL 1978-87; 1979-229 GSC MAP 971A GSC P 44-23 Kirkham, R.V. (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin EMPR ASS RPT 14300 EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208 GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/21 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 088</u>				NATIONAL M	IINERAL INVENTO	RY: 093L14 Ag2
NAME(S):	DUTHIE, DUTH ASHMAN, FAL MAMIE, CORC MCPHERSON, CANARY	HE MINE, HENDER: ULT PLANE, DOME DNADO, SIL-VAN, RAVEN, HUMMIN	SON, E, GBIRD,				
STATUS:	Past Producer	r		Undergro	und	MINING DIVISIO	ON: Omineca
NTS MAP: BC: MAP	093L14W	Ja				UTM ZON	NE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 23 1 127 21 26 1 1142 Metres Within 500M Location of the	N W e McPherson adit,	, on the south	west side of Hu	dson Bay	NORTHI EASTIN	NG: 6070775 NG: 605674
	Mountain, 12 I	kilometres west of	Smithers. Se	e also Dome (0	93L 089).		
COMMODITIES:	Silver Copper	Lead		Zinc		Gold	Cadmium
MINERALS							
SIGNIFICANT:	Galena Gold	Sphalerite Chalcopyrite	Tetrahedrite Pyrite	Pyrargyrite Marcasite	Arsenopyrite Freibergite	)	
ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Silver Quartz Silicific'n Unknown	Pyrrhotite Carbonate	Chalcedony				
DEPOSIT							
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Vein Epigenetic I05 Polym Bladed Sheared	Hydro netallic veins Ag-P	othermal b-Zn±Au				
HOST ROCK							
DOMINANT HOSTROCK:	Volcanic						
DOMINANT HOSTROCK:	Volcanic <u>GROUP</u>		<u>FOR</u>			IGNEOUS/MET	AMORPHIC/OTHER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous	Volcanic <u>GROUP</u> Hazelton		<u>FOR</u> Und	MATION efined Formation	1	IGNEOUS/MET. Bulkley Intrusio	AMORPHIC/OTHER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous LITHOLOGY:	Volcanic GROUP Hazelton Andesite Rhyolite Tuff Lapilli Tuff Porphyritic Gr. Quartz Porphy Diabase Dike Dioritic Dike	anodiorite yritic Monzonite	Und	MATION efined Formation	<u>,</u>	IGNEOUS/MET. Bulkley Intrusic	AMORPHIC/OTHER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous LITHOLOGY: <b>GEOLOGICAL SETTING</b> TECTONIC BELT: TERRANE:	Volcanic <u>GROUP</u> Hazelton Andesite Rhyolite Tuff Lapilli Tuff Porphyritic Gr: Quartz Porphy Diabase Dike Dioritic Dike Intermontane Stikine	anodiorite yritic Monzonite	<u>FOR</u> Und	MATION efined Formation	PHYSIOGRA	IGNEOUSMET Bulkley Intrusic PHIC AREA: Haze	AMORPHIC/OTHER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous LITHOLOGY: <b>GEOLOGICAL SETTING</b> TECTONIC BELT: TERRANE: INVENTORY	Volcanic <u>GROUP</u> Hazelton Andesite Rhyolite Tuff Lapilli Tuff Porphyritic Gra Quartz Porphy Diabase Dike Dioritic Dike Intermontane Stikine	anodiorite yritic Monzonite	<u>FOR</u> Und	MATION efined Formation	PHYSIOGRA	IGNEOUS/MET. Bulkley Intrusic	AMORPHIC/OTHER ons
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous LITHOLOGY: <b>GEOLOGICAL SETTING</b> TECTONIC BELT: TERRANE: <b>INVENTORY</b> ORE ZONE:	Volcanic <u>GROUP</u> Hazelton Andesite Rhyolite Tuff Lapilli Tuff Porphyritic Gra Quartz Porphy Diabase Dike Dioritic Dike Intermontane Stikine	anodiorite yritic Monzonite	<u>FOR</u> Und	MATION efined Formation REPORT	PHYSIOGRA ON: Y	IGNEOUSMET	AMORPHIC/OTHER
DOMINANT HOSTROCK: STRATIGRAPHIC AGE Jurassic Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: REFERENCE:	Volcanic <u>GROUP</u> Hazelton Andesite Rhyolite Tuff Lapilli Tuff Porphyritic Gr. Quartz Porphy Diabase Dike Dioritic Dike Intermontane Stikine DUTHIE CATEGORY: QUANTITY: <u>COMMODITY</u> Silver Gold Lead Zinc Map 58.	anodiorite yritic Monzonite Measured 19700 To	- FOR Und - GF - 20 2 5 7	REPORT REPORT YE ADE 7.0000 Gra 5.500 Gra 5.000 Per 7.5000 Per	ON: Y CAR: 1985 The per tonne ms per tonne cent cent	IGNEOUSMET. Bulkley Intrusic	AMORPHIC/OTHER ons
DOMINANT HOSTROCK: STRATIGRAPHIC AGE Jurassic Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: REFERENCE: CAPSULE GEOLOGY	Volcanic <u>GROUP</u> Hazelton Andesite Rhyolite Tuff Porphyritic Gra Quartz Porphy Diabase Dike Dioritic Dike Intermontane Stikine DUTHIE CATEGORY: QUANTITY: <u>COMMODITY</u> Silver Gold Lead Zinc Map 58.	anodiorite yritic Monzonite Measured 19700 To	- FOR Und	REPORT REPORT YE ADE 7.0000 Gra 2.5500 Gra 5.0000 Per 7.5000 Per	ON: Y AR: 1985 ms per tonne ms per tonne cent	IGNEOUSMET. Bulkley Intrusic	AMORPHIC/OTHER ons

rhyolite and massive lapilli tuff which is cut by numerous diabasic and dioritic dikes. The flow-banded rhyolite outcrops along the southern part of Hudson Bay Mountain and is overlain to the north, east and west by massive lapilli tuff. The contact dips 20 degrees north at about 1220 metres in elevation on the Henderson vein. In

the vicinity of the veins the host rock is highly altered and bleached.

A Middle-Late Cretaceous Bulkley Intrusions stock intrudes the core of Hudson Bay Mountain and is comprised of porphyritic granodiorite and quartz monzonite with associated quartz veining.

The mineral deposits of the Duthie mine occupy four main fault zones, originally known as the Ashman, Henderson, Fault Plane and Dome. The mineralized fault zones or "vein-lodes" strike northeast and dip between 50 degrees southeast to 70 degrees northwest. They range from a few centimetres to 2.4 metres in width and from 213 to in excess of 1067 metres in length. The vein lodes are sliced, sheared and brecciated and host sulphide veins or infillings with vein quartz and carbonate gangue. The main ore minerals are galena, sphalerite, tetrahedrite, pyrargyrite, pyrite, arsenopyrite, gold, chalcopyrite, silver and freibergite. Ore from the Henderson-Ashman lode also contains pyrrhotite and marcasite. All the ore contains gold and rare visible gold is associated with the arsenopyrite. The ore is associated with minor quartz and carbonate gangue and is crosscut by younger chalcedony veins up to 5 centimetres in width. There is a progressive change in the mineralization in a

northeast direction along the Henderson-Ashman vein lode as the deposit approaches the granodioritic stock which forms the core of the mountain. The galena-sphalerite-tetrahedrite ore changes to arsenopyrite-sphalerite ore that contains more gold and zinc but less galena and silver.

The Henderson vein lode is marked by intense faulting and more brecciation than the other veins and has proved to be the most productive. It outcrops between 1082 to 1280 metres elevation for about 610 metres and then joins the Ashman vein lode. The combined veins have been traced to the northeast for 460 metres at 1360 metres elevation. The Henderson vein strikes 065 degrees and dips between 50 degrees southeast to 80 degrees northwest. The Ashman vein is traceable for 520 metres southwest of its junction with the Henderson.

At 1090 metres elevation, the Henderson vein joins the Fault Plane vein lode and the two veins plunge at a low angle southwest. The Henderson vein has a near vertical dip, whereas the Fault Plane striking nearly parallel, dips 55 to 60 degrees southeast. The fourth vein, the Dome (093L 089), lies 400 metres southeast

of the Henderson and strikes 065 degrees and dips 75 to 85 degrees northwest. The Dome vein is well-defined for 215 metres.

Measured geological reserves at Duthie are 19,700 tonnes grading 207 grams per tonne silver, 2.55 grams per tonne gold, 5 per cent lead and 7.5 per cent zinc (Map 58).

# BIBLIOGRAPHY

EMPR AR 1908-64,172; 1911-119; 1912-115; 1914-215,216; 1917-113; \*1922-108,109; 1923-108; 1924-94; 1925-135,359; 1926-129; 1927-134; 1928-159-161,520; 1929-161,429; 1930-139; 1934-C9-C11; 1939-69; 1940-55; 1941-55; 1942-54; 1946-86; \*1947-98-100; \*1948-82-85; 1950-100; 1951-112; 1952-93; 1953-93; 1954-95; 1956-26-27; 1957-10-11; 1963-25; 1968-120; 1979-129 EMPR ASS RPT 14300, 15709 EMPR BC METAL MM00030 EMPR FIELDWORK 1988, pp. 195-208 EMPR FIELDWORK 1988, pp. 193-208 EMPR INDEX 3-199 EMPR INF CIRC 1984-1, p. 13; 1985-1, p. 17 EMPR IR 1984-5, p. 115 EMPR MAP 58; 69-1; 65 (1989) EMPR MIN STATS 1985, p. 49; 1990, p. 27 EMPR MINING 1975-1980, Vol.1, p. 22; 1981-1985, pp. 15, 40; 1986-1987, p. 66 1986-1987, p. 57; 1988, p. 66 EMPR OF 1992-1; 1998-8-I, pp. 1-20 EMPR PF (Various Maps and Reports; Consolidated Silver Standard Mines Ltd., Annual Report 1988, p. 5) EMR MP CORPFILE (Duthie Mines Ltd.; Atlas Exploration Company Ltd.; Dorita Silver Mines Ltd.; Silver Standard Mines Ltd.) GSC BULL 270 GSC MAP 971A GSC MEM 223, p. 103 GSC OF 351 GSC P 36-20; 44-23 GSC SUM RPT 1908, p. 45; 1925 Part A, p. 130 CANMET IR 2269; 2948 GCNL Dec.18, 1978; May 18, 1979; #48, 1985; #76, 1987 N MINER Feb.16, 1978 W MINER Apr. 1947, p. 110 (Re-opening of the Duthie Mine) WWW http://www.infomine.com/index/properties/DUTHIE\_PROPERTY.html Kirkham, R.V. (1969): A Mineralogical and Geochemical Study of

the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/21 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 089</u>	NATIONAL MI	NERAL INVENTORY: 093L14 Ag2
NAME(S):	DOME, DOME EXTENSION (L.7261), HENDERS DUTHIE MINES, SIL-VAN	ON,	
STATUS:	Past Producer	Underground	MINING DIVISION: Omineca
NTS MAP:	093L14W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 21 N 127 21 00 W 1265 Metres Within 500M Located on the southwest side of Hudson Bay west of Smithers. The Dome lies 400 metres s Henderson (Duthie Mines) (093L 088).	Mountain, 12 kilometres outheast of the	NORTHING: 6070724 EASTING: 606140
COMMODITIES:	Silver Lead Cadmium	Zinc	Gold Copper
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Arsenopyrite Sphalerite Galena Quartz Unknown	Chalcopyrite Tetrahedrite	3
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothermal I05 Polymetallic veins Ag-Pb-Zn±Au 213 Metres Dome vein.	STRIKE/DIP: 065/80N	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Jurassic Cretaceous	GROUP FORM Hazelton Under	IATION fined Formation	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions
LITHOLOGY:	Dacite Flow Breccia Dacite Lapilli Tuff Rhyolite Diabase Dike Dioritic Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAF	PHIC AREA: Hazelton Ranges
CAPSULE GEOLOGY			
	The Dome lies 400 metres so Mines) (093L 088). Host rocks c Hazelton Group volcanics which c spherulitic flow-banded rhyolite diabasic and fine-grained diorit The Dome vein lode, at 1265 degrees and dips between 75 to 8 ranges from 0.9 to 2.0 metres in metres, and is hosted in altered parallel fissures host sulphide Mineralization consists of arsen chalcopyrite and tetrahedrite wi The Dome and Dome Extension	utheast of the Henders onsist of Lower to Midd onsist of massive lapi which are crosscut by ic dikes. metres elevation, str: 5 degrees to the north width, is well-defined dacitic flow breccia. stringers and infilling opyrite, sphalerite, py th minor quartz gangue veins are part of the	on (Duthle dle Jurassic Lli tuff and numerous ikes 065 vest. The vein d for 215 Several gs. yrite, galena, Duthle mine.
BIBLIOGRAPHY			
	<pre>EMPR AR 1908-64; 1914-216; 1922- 1926-129; 1927-134; 1928-159; 1951-112; 1952-93; 1953-42,93 1963-25; 1968-120; 1979-129 EMPR BC METAL MM00030 EMPR FIELDWORK 1988, pp. 195-208 EMPR INDEX 3-212; 4-125 EMPR IR 1984-2, p. 101 EMPR MAP 58; 65 (1989) EMPR MINING 1975-1980, Vol. 1, p EMPR PF (Refer to Duthie (093L</pre>	109; 1923-108; 1924-94 1929-161; 1930-139; 19 ; 1954-47,95; 1956-26-2 p. 22, 70, 73 088) for various maps a	; 1925-135; 934-C9; 27; 1957-10-11; and unpublished

reports; Consolidated Silver Standard Mines Ltd.; Annual Report 1988, p. 5) EMR MP CORPFILE (Duthie Mines Ltd.; Atlas Exploration Company Ltd.; Dorita Silver Mines Ltd.; Sil-Van Mines Ltd.; Silver Standard Mines Ltd.) GSC BULL 270 GSC MAP 971A GSC MEM \*223, p. 111 GSC OF 351 GSC SUM RPT 1908, p. 45; \*1925 Part A, p. 130 CANMET IR 2269; 2948 Kirkham, R.V. (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin W MINER, \*April 1947, p. 110 EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1990/04/25 CODED BY: GSB REVISED BY: LDJ

MINFILE NUMBER:	<u>093L 090</u>			NATIONAL MIN	IERAL INVENTORY:	093L14 Pb1
NAME(S):	<u>Coronado (l.1155),</u> ho Silver star, pay roll	DME RUN, CORONADO,				
STATUS:	Past Producer		Underground		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093L14W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 50 N 127 21 58 W 1036 Metres Within 500M Located on the west side Hudson Bay Mountain, 12	of Slocan Creek on the kilometres west of Smi	southwest side thers.	of	Northing: Easting:	6071596 605082
COMMODITIES:	Silver	Lead	Gold	2	Zinc	
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Galena Argentiferous galena. Quartz Silicific'n Unknown	Sphalerite	Tetrahedrite	Chalcopyrite		
	Voin	Broccia				
CLASSIFICATION: TYPE:	Epigenetic 105 Polymetallic veins	Hydrothermal				
DIMENSION: COMMENTS:	Two parallel shear zones	with sulphide mineraliza	STRIKE/DIP ation.	2: 045/80S	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMA</u> Telkwa	TION		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Andesitic Flow Tuff Rhyolite Flow Breccia					
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATION	SHIP: Syn-mine	PHYSIOGRAP	HIC AREA: Hazeltor GRADE:	n Ranges
INVENTORY	-		·			
ORE ZONE:	SHEAR		REPORT ON:	Ν		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Channel COMMODITY Silver Gold Ninety-one centimetre cha Geological Survey of Cana	nalysis <u>GRAD</u> 21.60 1.20 annel sample taken acro ada Memoir 223, page S	YEAR: E 000 Grams p 00 Grams p oss mineralized s 02 (Revised Ed. 1	1954 er tonne er tonne hear. 954).		
CAPSULE GEOLOGY						
	The host rock volcanics of the T breccia, andesitic massive lapilli tu In the Corona parallel shear zon breccia. The zone 045 degrees and di The westerly the Coronado and H a single sparsely where it branched rhyolite and is cr sulphides comprise sample taken acros 21.6 grams per ton	s are comprised Pelkwa Formation. Iff. do Group, minera is in the rhyoli s are approximat p between 75 to zone was prospec Iome Run claims. mineralized fiss into two fissure oss fractured wi is mainly of arse is the face assay ane silver.	of Lower Ju: They cons tic flow-ba: lization is te, andesit ely 290 met: 85 degrees ted by 3 ad The lower ure. It wa s. The hos th crosscut mopyrite. red 1.2 gram	rassic Haz ist mainly nded rhyol associated ic flows, res apart southeast. its along adit, No. s followed t rock is ting veinl A 91 centin s per tonn	elton Group of andesite, ite and d with two and flow and strike strike across 1, exposed for 6 metres silicified ets of metre channel e gold, and	

No. 2 adit along the shear hosted sulphide mineralization consisting of argentiferous galena, arsenopyrite, sphalerite with minor tetrahedrite and chalcopyrite. A selected sample of this ore assayed 12.3 grams per tonne gold, 708.3 grams per tonne silver, 16.96 per cent lead, and 12.06 per cent zinc (Geological Survey of Canada Memoir 233, page 92 - revised edition). The No. 3 adit showed sparse mineralization in the shear. However, in an open cut further east, at 1100 metres elevation, cross fractured and silicified flow breccia hosted disseminated arseno- pyrite. Production between 1915 to 1940, from the mineralized shear vein fillings on the Coronado and Home Run claims totalled 128 tonnes mined which produced 1,275 grams gold, 242,541 grams silver,
45,490 kilograms lead, and /,148 kilograms zinc.
<pre>EMPR AR 1908-171; 1909-84; 1911-118; 1912-114,325; 1913-107; *1914-173,213-215; 1915-77,444; 1918-117; 1919-102; 1933-97; 1938-B37,C49; 1939-35,57,92; 1940-23,43,76; 1950-100; 1963-25 GSC MEM *223, p. 92 GSC SUM RPT 1925A, p. 132 GSC P 36-20, p. 90; 44-23 GSC MAP 278A; 971A EMPR MAP 69-1 GSC EC GEOL No. 4, p. 42 EMPR ASS RPT 471, 14300, 15709 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin EMPR OF 1998-10</pre>

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/19 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 091</u>	NATIONAL M	INERAL INVENTORY: 093L14 Au1
NAME(S):	MAMIE (L.7262), ALDRIDGE, KIN, MAMIE VEIN EXTENSION		
STATUS:	Past Producer	Underground	MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAP:	British Columbia 093L14W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 51 N 127 21 00 W 1356 Metres Within 500M Located on the south slope of Hudson B west of Smithers.	ay Mountain, 12 kilometres due	NORTHING: 6071652 EASTING: 606118
COMMODITIES:	Gold Zinc	Copper	Lead Silver
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Sphalerite Arsenopyrite Chalc Minor chalcopyrite, rare galena. Unknown	opyrite Galena	
DEPOSIT			
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	StockworkShearEpigeneticHydrothermalI05Polymetallic veinsAg-Pb-Zn±Au100x 2MetresSheared and brecciated zone.	I STRIKE/DIP: 070/	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic Cretaceous Tertiary	Hazeiton	Теїкша	Bulkley Intrusions Unnamed/Unknown Informal
LITHOLOGY:	Andesite Andesite Flow Breccia Volcanic Breccia Dacite Porphyritic Granodiorite Felsic Dike Rhyolite Mafic Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine Plute	PHYSIOGRA onic Rocks	PHIC AREA: Hazelton Ranges
INVENTORY			
ORE ZONE:	MAMIE	REPORT ON: Y	
	CATEGORY: Measured QUANTITY: 55330 Tonnes	YEAR: 1951	
COMMENTS: REFERENCE:	Silver Gold Copper Zinc Proven reserves. VSE Offering of Rights Jul.17/85-Consol	102.8400       Grams per tonne         10.9700       Grams per tonne         0.7000       Per cent         7.0000       Per cent         idated Silver Standard Mining.	
CAPSULE GEOLOGY			
	The Hudson Bay Mountain Jurassic volcanic rocks of t is underlain by massive to f rhyolite and variegated gree	h area is underlain by Lowe the Hazelton Group. The Ma flow banded white to grey s en andesitic to dacitic flo	r-Middle mie occurrence pherulitic ws and flow

Jurassic volcanic rocks of the Hazelton Group. The Mamie occurrence is underlain by massive to flow banded white to grey spherulitic rhyolite and variegated green andesitic to dacitic flows and flow breccia which strike 135 degrees and dip between 30 to 45 degrees northeast. Also, a grey polymictic volcanic breccia of unknown attitude hosts angular to subangular clasts of felsic volcanics. Three main groups of felsic intrusions have been recognized, a

Intrusions and Early Tertiary mafic dikes followed by the emplacement of a series of felsic stocks and dikes. Mineralization in the area seems to be genetically related to the Tertiary porphyry intrusions.

PAGE: 164 REPORT: RGEN0100

# CAPSULE GEOLOGY

The mineralization consists of polymetallic, fissure-filling veins which are related to and radiate from a central molybdenum porphyry system that occurs to the northeast of the property. It is associated with a sheared and brecciated zone striking 070 degrees with a steep southeast dip in andesitic flows and breccias and consists of sphalerite and arsenopyrite with a little chalcopyrite and rarely galena. On surface the zone is 0.6 to 2.4 metres wide over an exposed length of about 100 metres. A shipment of 13.04 tonnes of ore in 1941 averaged 33.26 grams per tonne gold, 140.57 grams per tonne silver, 0.90 per cent copper and 11.2 per cent zinc (Minister of Mines Annual Report 1941, page A41).

Drilling around the old mine workings in 1985 intersected a 1.0metre section grading 16.46 grams per tonne gold, 78.86 grams per tonne silver, 10.7 per cent zinc and 0.73 per cent copper. Another 3.5-metre intersection assayed 2.06 grams per tonne gold, 18.5 grams per tonne silver, 3.9 per cent zinc and 0.13 per cent copper (Property File - Consolidated Silver Standard Mines Ltd., Mamie Property 1988 Mine Plan).

Proven reserves for the Mamie property are 55,330 tonnes grading 10.97 grams per tonne gold, 102.84 grams per tonne silver, 7.0 per cent zinc and 0.7 per cent copper (Vancouver Stock Exchange Offering of Rights July 17, 1985 - Consolidated Silver Standard Mining Ltd.). Metallurgical testing on bulk samples from the Mamie vein indicate that conventional flotation or cyanidation methods to attain economic concentrate are not possible.

#### BIBLIOGRAPHY

GSC MEM \*223, p. 114 EMPR BULL (1932) 1, p. 52 EMPR AR 1911-118; 1917-113; 1919-103; 1921-107,272; 1922-107; 1923-108; 1924-96; 1927-137; 1934-C7; 1935-C35; 1941-24,41, 43; 1950-100; 1951-112; 1952-93; 1953-93; 1963-25 EMPR ASS RPT 505, 14300, \*15546, 17082 EMPR ASS RPT 505, 14300, \*15546, 17082 EMPR ASS RPT 1925 Part A, p. 132 GSC 5UM RPT 1925 Part A, p. 132 GSC P 36-20, p. 83; 44-23 GSC C GEOL 4, p. 40 EMR MP CORPFILE (Dorita Silver Mines Ltd.; Silver Standard Mines Limited) GCNL #244, 1985; #30, 1986 N MINER Apr.7, 1986 GSC MAP 971A EMR MIN BULL MR 198, p. 238; 223 B.C. 234 EMPR MAP 65 (1989); 69-1 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V. (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin EMPR FF (Unpublished report; \*Consolidated Silver Standard Mines Ltd., Annual Report 1988, p. 3; Consolidated Silver Standard Mines Ltd., Mamie Property 1988 Mine Plan: vertical Longitudinal Section) EMPR OF 1992-1 EMPR OF 1992-1 EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1989/02/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 092</u>		NATIONAL MINERAL INVENTORY:	093L14 Au3		
NAME(S):	TORRENT, MARGARET, DOMINIC NEWCASTLE, VICTORY	N,				
STATUS:	Showing		MINING DIVISION:	Omineca		
REGIONS: NTS MAP:	British Columbia 093L14W		UTM ZONE:	09 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 00 N 127 21 15 W 1326 Metres Within 500M Located on east bank of Sloan C kilometres west of Smithers; Tor Group (see 093L 093).	reek on Hudson Bay Mountain, 1 rrent is part of the Victory	Northing: Easting: 1.3	6071924 605843		
COMMODITIES:	Gold Zinc	Silver	Copper	Lead		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Chalcopyrite Quartz Unknown	Galena Arsenopyrite	Pyrite			
	Voin Broom	io				
CLASSIFICATION:	Epigenetic Hydro	ita ithermal				
DIMENSION: COMMENTS:	Mineralized shear zone strikes n	STRIKE/DIF ortheast with a near vertical dip.	P: 045/90 TREND/PLU	INGE:		
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAM	ORPHIC/OTHER		
LITHOLOGY:	Andesite Breccia Flow Breccia Rhyodacite Lapilli Tuff					
	Intermontane		PHYSIOGRAPHIC AREA: Hazeltor	Ranges		
METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Syn-mine	ralization GRADE: Greense	chist		
INVENTORY		FOSt-mine				
ORE ZONE:	SAMPLE	REPORT ON:	Ν			
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold Zinc 1.2 metre wide sample. Property File - L. Batten, (1928):	<u>GRADE</u> <u>92.5700</u> Grams p 5.8300 Grams p 3.8000 Per cent Victory Group, Smithers, B.C.	1928 Der tonne Der tonne t			
CAPSULE GEOLOGY						
	The Hudson Bay Mountain area is underlain mainly by volcanic rocks of the Lower Jurassic Hazelton Group, Telkwa Formation. Pyro- clastic rocks, particularly lapilli tuff, of intermediate composition are the most abundant. Three main groups of felsic intrusions have been recognized in the district. These include felsites, grano- diorites and Tertiary porphyries. Mineralization in the area seems to be genetically related to the Tertiary porphyry intrusions. Mineralization on the Torrent claim occurs in a shear zone about 2.0 metres in width. The zone is within brecciated andesite and strikes northeast with a near vertical dip. Mineralization consists mainly of sphalerite, arsenopyrite, pyrite and lesser amounts of galena and chalcopyrite. A sample from a 1.2 metre width of mineralization assayed 5.83 grams per tonne gold, 92.57 grams per tonne silver and 3.8 per cent zinc (Batten, 1928).					

EMPR AR 1908-172; 1909-84; 1911-118; 1914-216; 1963-129 EMPR EXPL 1985-C320; 1988-C173 GSC SUM RPT 1908, p. 45; 1925A, p. 134 GSC EC GEOL 4, p. 45 EMPR MAP 69-1 GSC P 44-23 EMPR ASS RPT 505, 14300, 17773 EMPR PF (Rpt. L. Batten, 1928: Victory Group, Smithers, B.C.) GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/18 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 093</u>					NATIONAL MI	NERAL INVENTORY:	093L14 Pb2
NAME(S):	VICTORY, TRIU TORRENT	MPH, STANDAF	RD,					
STATUS:	<ul> <li>Past Producer</li> <li>British Columbia</li> <li>093L14W</li> <li>54 47 10 N</li> <li>127 21 31 W</li> <li>1158 Metres</li> <li>Within 500M</li> <li>Located on southwest side of Hudson Bay Mountai of Smithers. Victory claims extend into Myrtle and Ir (093) 094)</li> </ul>			Under	ground	d	MINING DIVISION:	Omineca
REGIONS: NTS MAP:							UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:				Mountain, 12 k le and Iron Kin	kilomet g claim	tres west ns	NORTHING: EASTING:	6072226 605550
COMMODITIES:	Silver	Lead	I	Zinc			Gold	Arsenic
MINERALS								
SIGNIFICANT:	Arsenopyrite Pyrite	Tetrahedrite	Galena	Sphale	rite	Chalcopyrite		
ALTERATION:	Sericite C Chlorite F	lay Q	uartz	Carbonate	Fu	uchsite		
ALTERATION TYPE: MINERALIZATION AGE:	Silicific'n Unknown	Chlo	ritic	Pyrit	e		Sericitic	Carbonate
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymet	Hydr allic veins Ag-P	othermal b-Zn±Au	Indu	strial N	lin.		
HOST ROCK DOMINANT HOSTROCK:	Volcanic							
STRATIGRAPHIC AGE	GROUP		_ <u>FC</u>	RMATION	IGNEOUS/METAMORPHIC		ORPHIC/OTHER	
Cretaceous-Tertiary	Hazeilon		IE	IKWA			Bulkley Intrusions	
LITHOLOGY:	Rhyolite Lapilli T Andesite Flow Tuff Flow Breccia Rhyolite Flow Granodiorite	uff						
HOSTROCK COMMENTS:	Mineralization i Bowser Lake G	s located near Group sediment	the sedimen s and Hazel	tary unconforn ton Group volc	nity be anics.	tween		
GEOLOGICAL SETTING	la (							Dener
METAMORPHIC TYPE:	Stikine Regional		Plutonic REL/	Rocks TIONSHIP: Sy	/n-min	eralization	GRADE: Greenso	chist
INVENTORY								
ORE ZONE:	ORE SHOOT			REPC	ORT ON	I: N		
	CATEGORY: SAMPLE TYPE: COMMODITY Silver Gold Lead Zinc	Assay/analysi Grab	s (	GRADE 358.3000 ( 15.1000 ( 6.4000 F 1.1000 F	YEAR Grams Grams Per cer	t: 1932 per tonne per tonne nt		
COMMENTS:	Selective sample	e by D. Lay in 1	932. Proven	quantity; grad	9	it.		
REFERENCE:	GSC Bulletin 1, p	o. bage 53; EMR M	1ineral Bulleti	n MR #198, pa	ge 238	3.		
CAPSULE GEOLOGY	_			_			_	
	The ho volcanics o andesite, a rhyolite fl Jurassic Bo conglomerat greywacke, rocks are i comprised o	st rocks co f the Telky ndesitic fl ows. The v wser Lake ( e overlain and slate a ntruded by f granodion	onsist of wa Format lows, flo volcanics Group sed by a mon all dippi a Late C rite with	Lower Jur ion compri w breccia, are uncon iments com otonous se ng in a so retaceous associate	assi sed tuf form pris ries uthe to T d qu	c Hazelton mainly of m f, and rhyc ably overla ed of a bas of siltsto rly directi ertiary Bul artz-feldsg	Group assive odacite to in by Upper sal pebble one, mudstone, on. These kley Intrusion ar porphyry	1

dikes. The rhyolitic and andesitic flows, breccia, and tuff show vein fissure infillings along sheared zones and faults which host sulphide mineralization. In order of abundance, the mineralization comprises arsenopyrite, galena, sphalerite, tetrahedrite and chalcopyrite. The sheared wall rock is bleached to light yellow and is silicified. The main mineralized zone is richest in galena, sphalerite and tetrahedrite and is located near the sedimentary unconformity. Depending on the proximity to the main Victory vein, the volcanic rock exhibits varying degrees of silicification, chloritization and pyritization. Pervasive sericitization and silicification is prevalent along the majority of shears. The alteration assemblage is typically sericite, clay, quartz and carbonate with bright fuchsite.

The Victory vein, is prospected by four adits and is known to extend approximately 1200 metres along strike from exposures in trenches, adits and surface outcrops. The main shear trends between 030 to 040 degrees and ranges in width from 0.25 to 2.0 metres. The main zone is hosted within a fractured shear zone and smaller peripheral splays in the rhyolitic rocks. The mineralization consists of fissure infilling containing galena, sphalerite, tetrahedrite, arsenopyrite and chalcopyrite. Silicified and chloritized rhyolite lapilli tuff represents the host lithology. A 13 centimetre channel sample across the main zone assayed 14.4 grams per tonne gold, 501.9 grams per tonne silver, 23.45 per cent lead and 13.36 per cent zinc (Geological Survey of Canada Bulletin 1).

Adit No. 2, at elevation 1209 metres, intersects altered and fractured andesite containing stringers of galena, sphalerite, arsenopyrite, and minor tetrahedrite and chalcopyrite. A 56 centimetre channel sample assayed 1.5 grams per tonne gold, 83.7 grams per tonne silver, 2.78 per cent lead, and 2.11 per cent zinc. Adit No. 3, at elevation 1245 metres, shows altered and sheared

Adit No. 3, at elevation 1245 metres, shows altered and sheared andesite with stringers and pockets of arsenopyrite with minor galena and sphalerite. The No. 4 adit, at elevation 1282 metres, consists of altered and fractured andesite with well mineralized stringers consisting mainly of arsenopyrite. In 1932, D. Lay selectively sampled No. 4 adit ore shoot 18 metres long and 1.0 metres wide. The sample assayed 15.1 grams per tonne gold, 358.3 grams per tonne silver, 6.4 per cent lead and 1.1 per cent zinc (Geological Survey of Canada Bulletin 1, page 53).

In 1987 to 1988, rehabilitation of some of the underground workings was initiated. An old drift was slashed for 61 metres and extended about 38 metres. Underground sampling of a vein in the new drift gave a zone grading 2.4 grams per tonne gold, 301.7 grams per tonne silver, 7.0 per cent zinc and 6.0 per cent lead (Assessment Report 14300).

In 1987, assays from the underground sampling ranged from 3.4 to 34.28 grams per tonne silver and 0.2 to 1.5 per cent lead and zinc. Where the vein hosts massive sulphides, the silver values range from 411.4 to 2000.0 grams per tonne and lead and zinc values run between 10 to 15 per cent. Gold values are associated with the silver at about a 1:100 ration, and gold values of about 3.2 grams per tonne are associated with arsenic values in the order of 1.0 to 5.0 per cent (Assessment Report 17773).

Production between 1913 to 1936 inclusive, totalled 53 tonnes mined and contained 560 grams per tonne gold, 77,166 grams per tonne silver, 17,061 kilograms lead, and 1,778 kilograms zinc. Proven reserves were reported at 4,200 tonnes with no grade stated, in 1953 by Sil-Van Consolidated Mining & Milling Co. Ltd. (Energy, Mines and Resources, Mineral Policy, Corpfile).

#### BIBLIOGRAPHY

GSC MEM \*226, pp. 77-80 GSC SUM RPT 1925A, p. 134 EMPR AR 1908-64; 1911-116; 1912-115; 1917-113; 1918-118; 1925-136; 1927-136; 1928-161; 1930-140; 1938-B39,C49; 1939-52,92; 1950-100; 1952-93; 1956-62; 1966-86 EMPR PF (Rpt. L. Batten, 1928: Victory Group, Smithers, B.C.; miscellaneous maps) GSC BULL \*1, p. 53; 270 EMPR EXPL 1977-E197; 1985-C320; 1988-C172 GSC MAP 971A GSC P 44-23 EMR MP CORPFILE (Dorita Silver Mines; Sil-Van Consolidated Mining and Milling Co. Ltd.) EMPR MAP 69-1 EMPR ASS RPT 13994, \*14300, \*17773 GSC OF 351 EMR MIN BULL \*#198, p. 238 GCNL #62,Mar.29, 1988

EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1989/05/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 094</u>		NATIONAL MINERAL INVENTORY:	093L14 Au2
NAME(S):	IRON KING (L.7266), MYRTLE (L.	7265)		
STATUS:	Prospect		MINING DIVISION:	Omineca
NTS MAP:	093L14W		UTM ZONE:	09 (NAD 83)
LATITUDE:	54 47 40 N		NORTHING:	6073174
LONGITUDE: ELEVATION:	127 20 41 W 1585 Metres		EASTING:	606421
COMMENTS:	Located on Sloan Creek on the so	uthwest side of Hudson Bay	Mountain,	
	12 kilometres west of Smithers.	2	<b>0</b> H	
COMMODITIES:	Silver Zinc	Copper	Gold	
MINERALS SIGNIFICANT:	Arsenopyrite Sphalerite	Chalcopyrite Pyrite		
MINERALIZATION AGE:	Unknown			
DEPOSIT CHARACTER	Vein			
CLASSIFICATION:	Epigenetic Hydroth	iermal		
	105 FOISTIELAING VEINS AG-FD-2	LITEAU		
DOMINANT HOSTROCK	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Lower Jurassic Cretaceous-Tertiary	Hazelton	Telkwa	Bulkley Intrusions	
LITHOLOGY:	Rhvolite Tuff			
	Andesite Tuff			
	Volcanic Breccia Granodiorite			
	Chancelonico			
GEOLOGICAL SETTING				_
TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Hazelton	n Ranges
METAMORPHIC TYPE:	Regional	RELATIONSHIP: Syn-mi	neralization GRADE:	
INVENTORY				
ORE ZONE:	VEIN	REPORT O	DN: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab	YEA	R: 1914	
	<u>COMMODITY</u>	GRADE	- por toppo	
	Copper	0.8000 Per ce	ent	
COMMENTS:	Zinc Selected grab sample from minera	15.8000 Per ce lized vein: trace gold.	ent	
REFERENCE:	Minister of Mines Annual Report 19	914, page 216.		
CAPSULE GEOLOGY		· · · · · · · · · · · · · · · · · · ·		
	Group volcanics of the T	felkwa Formation com	prised mainly of massive	
	andesite, rhyolite, and massive tuff. The volca	esitic flows, interca anics are intruded by	alated tuff, breccia and v a Late Cretaceous to	
	Early Tertiary granodion	tite stock and assoc	iated quartz-feldspar	
	An open cut on the	claim exposed string	gers carrying arsenopyrite	2,
	sphalerite, and chalcopy metres. The general str	rite across a width tike is 054 degrees v	of approximately 2.5 with a southeast dip. A	
	selected sample assayed	trace gold, 123.4 gi	rams per tonne silver,	
	Report 1914, page 216).		(MINISCEI OI MINES ANNUAL	
	on the adjacent Myr and a little sphalerite.	ctie claim two string. One selected samp	gers carry arsenopyrite le from each vein assayed	
	10.3 grams per tonne gol per tonne gold. 109.7 gr	ld, 78.9 grams per to rams per tonne silve	onne silver, and 6.9 grams r (Minister of Mines	3
	Annual Report 1914, page	e 216).	_ (	
BIBLIOGRAPHY				
	EMPR AR 1909-84; 1911-11	L7-118; 1912-45; *191	14-216	

GSC P 36-20, p. 90; 44-23 GSC MAP 971A GSC EC GEOL No. 4, p. 45, 1927 EMPR MAP 69-1 EMPR GEM 1973-347 EMPR ASS RPT \*14300, 17773 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24	CODED BY: GSB	
DATE REVISED: 1988/06/12	REVISED BY: LLD	

MINFILE NUMBER:	<u>093L 095</u>		NATIONAL M	INERAL INVENTORY:	
NAME(S):	HUMMING BIRD (L.7591), BULKL	EY RIVER			
STATUS: REGIONS: NTS MAP: BC MAP: LATITUDE: LONGITUDE: ELEVATION:	Showing British Columbia 093L14W 54 47 15 N 127 21 06 W 1220 Metres			MINING DIVISION: C UTM ZONE: 0 NORTHING: 6 EASTING: 6	Omineca 9 (NAD 83) 072391 05993
LOCATION ACCURACY: COMMENTS:	Within 500M Located on the southwest slope of the Henderson (Duthie Mine, 093L	of Hudson Bay Mounta ∟ 088).	ain, adjoins		
COMMODITIES:	Gold Silver	L	ead	Zinc	Manganese
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena A Quartz Oxidation Unknown	Arsenopyrite Pyrite	e Pyrolusite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Breccia Epigenetic Hydrotl 105 Polymetallic veins Ag-Pb-	a hermal In Zn±Au	dustrial Min.		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
<u>STRATIGRAPHIC AGE</u> Lower Jurassic	GROUP Hazelton	FORMATION Undefined For	mation	IGNEOUS/METAMOR	RPHIC/OTHER
LITHOLOGY:	Andesite Tuff Breccia				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRA	PHIC AREA: Hazelton F	Ranges
INVENTORY					
ORE ZONE:	VEIN	RE	PORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Cold	<u>GRADE</u> 733.7000	YEAR: 1929 Grams per tonne		
COMMENTS: REFERENCE:	Lead Zinc A 0.6 metre sample from the north Minister of Mines Annual Report 1	15.0000 25.6000 hern part of the vein. 1929, page 162.	Per cent Per cent		
CAPSULE GEOLOGY				· · · ·	
	The claim (Lot 759 volcanics comprised of and breccia. Quartz ve and pyrite crosscut the The main vein, str cuts. There is a consi material on the surface meters. The black oxid lusite. Beneath this d sphalerite, arsenopyrit altered dike rock that sample assayed 1.02 gra silver. In 1929, a 0.6 vein assayed 8.2 grams 15 per cent lead and 25	<pre>1) is underlain fractured red a ins hosting gal volcanics. iking 065 degred derable amount of the vein wh ized material w ecomposed area, e, galena and p is shattered ar ms per tonne go metre sample c per tonne gold, .6 per cent zin</pre>	by Lower Jurass nd green andesit ena, sphalerite, es was explored of black oxidize ich extends appr as identified in the ore is comp yrite with quart d brecciated. I ld and 355.5 gra f the northern e 733.7 grams per c.	IC Hazelton ic flows, tuffs arsenopyrite by several open d earthy oximately 152 1908 as pyro- rised of z gangue and n 1908 a ms per tonne xtremity of the tonne silver,	
JIJLIUUNAFN I	EMPR AR *1908-64,172; 1 EMPR MAP 69-1 EMPR PF (Claim Map 93L- EMPR FIELDWORK 1988, pp	912-115; *1914- 14W) . 195-208	216; *1929-162		

Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin GSC SUM RPT \*1908, p. 45 GSC EC GEOL \*1932, Vol. 12, p. 119 GSC OF 351 GSC BULL 270

DATE CODED: 1988/08/05 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 096</u>	NATION	AL MINERAL INVENTORY:	093L14 Cu2
NAME(S):	BONANZA, TRADE DOLLAR, SILVE	R LAKE		
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L14W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 00 N 127 22 06 W 1833 Metres Within 1 KM South side of Silvern Creek on Huds Smithers. Showing is south of Silver	on Bay Mountain, northwest of r Lake No.1 (Lot 7239).	Northing: Easting:	6075611 604846
COMMODITIES:	Copper Silver			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Bornite Chalcopyrite Pyri Quartz Unknown	te		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Breccia Epigenetic Hydrother L01 Subvolcanic Cu-Ag-Au (As-	mal Sb) D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Volcanic Breccia			
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYSIO	GRAPHIC AREA: Hazeltor	n Ranges
TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Syn-mineralization	GRADE:	Ū
CAPSULE GEOLOGY	The Bonanza claim li claims on Hudson Bay Moun Jurassic Hazelton Group v andesitic flows, intercal showing consists of a qua lization consists of born and pyrite. The only dev stripping.	es south of the Silver Lak tain. The claim is underl olcanics comprised mainly ated tuffs, and volcanic b rtz fissure vein in the br ite with minor sulphides m elopment were small open c	e - White Heather ain by Lower of andesite, preccia. The eccia. Minera- ainly chalcopyrite uts and some	
	EMPR AR *1916-124; *1928- EMPR MAP 69-1 EMPR ASS RPT *471 EMPR FIELDWORK 1988, pp. Kirkham, R.V., (1969): A the Zonal Distribution Columbia, Ph.D. Thesis GSC OF 351 GSC BULL 270	164 195-208 Mineralogical and Geochemi of Ores in the Hudson Bay , University of Wisconsin	cal Study of <sup>•</sup> Range, British	
DATE CODED: DATE REVISED:	1985/07/24 1988/06/12	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 097</u>		NATIONAL	MINERAL INVENTORY:	093L14 Ag4
NAME(S):	SILVER LAKE (L.7239),	WHITE HEATHER, SILVE	ER LAKE NO. 1		
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L14W		Underground	MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 50 N 127 21 56 W 1950 Metres Within 500M South side of the divide at Hudson Bay Mountain.	thead of Silvern and To	oboggan Creeks on	NORTHING: EASTING:	6077160 604988
COMMODITIES:	Silver	Lead	Zinc	Gold	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Galena Bornite Quartz Carbonate Malachite Limonite Unknown	Chalcopyrite	Sphalerite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic I05 Polymetallic veins Galena vein on claim Silve	Hydrothermal 3 Ag-Pb-Zn±Au er Lake No. 1.	L01 S STRIKE/DIP: 050/60N	ubvolcanic Cu-Ag-Au ( N TREND/PLU	(As-Sb) NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMA</u> Nilkitky	NTION	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Fossiliferous Limestone Volcanic Breccia				
GEOLOGICAL SETTING					Danara
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Stikine Contact Regional	RELATION	NSHIP: Syn-mineralization Post-mineralization	GRADE:	Ranges
INVENTORY					
ORE ZONE:	NO. 3		REPORT ON: Y		
COMMENTS: REFERENCE:	CATEGORY: Inferred QUANTITY: 300 COMMODITY Silver Gold Lead Zinc Basis of sampling surface metres long and over min Energy, Mines & Resource	00 Tonnes 449.1 1.71 6.70 17.7 e trenches (1964) 2 sho ing widths will produce es Canada Mineral Bull	YEAR: 1964 SE 300 Grams per tonne 00 Grams per tonne 00 Per cent 000 Per cent 000 Per cent 000 Per cent 005 aggregate 91.4 90.7 tonnes. etin 198, page 238.		
CAPSULE GEOLOGY	The property	ig underlein bu	Lower Turagaia Maga	lton Group	
	volcanics of the N andesite flows wit and a band of inte southeast and dips was driven into th along a tight fiss No mineralization were exposed in a this cut, sampled 4117.6 grams silve Canada Memoir 223, large flat area li located by test pi a fault fissure st	Jilkitkwa Format h associated re- erbedded fossili s steeply north. he massive andes sured fault whick was found but s nearby small, i: by J.D. Gallowa er and 47.8 per page 70). At ttered with dis ts and in one of criking 130 degr	ion. The rocks are d tuffs, red breccia ferous limestone whi At elevation 1950 ite and poorly bedde h strikes south and tringers and veinlet rregular shaped shea y in 1916 assayed 14 cent copper (Geologi 1980 metres elevatio integrated rock. Se pen cut a galena vei ees and dipping 60 d	comprised of s, green tuffs ch strikes metres, an adit d red tuffs dips vertically. s of bornite r. Ore from .5 grams gold, cal Survey of n there is a veral veins were n occurs along egrees	

northeast. The vein contains up to 5 per cent chalcopyrite associated with solid galena. Open cuts exposed a persistent fault fissure with variable mineral content or areas with very little or no vein filling. In a cut at elevation 2040 metres a vein is exposed for 4.6 metres. The vein ranges between 8 to 30 centimetres wide and consists of solid, coarsely crystalline galena with less than 1 per cent chalcopyrite. In 1934, a selected sample assayed 3.4 grams per tonne gold, 3515.9 grams per tonne silver and 83.58 per cent lead (Minister of Mines Annual Report 1934, page C6).

Along the northern rim of the flat area a shear zone in finegrained andesite is exposed striking from 90 to 135 degrees east and dipping from nearly vertical to 70 degrees south. There were three sulphide veins associated with this shear at elevation 2010 metres. The vein filling consists of approximately equal portions of solid galena and dark sphalerite with minor chalcopyrite. A representative sample assayed 8.2 grams per tonne gold, 1448.9 grams per tonne silver, 26.21 per cent lead, 28.45 per cent zinc, and 0.74 per cent copper (Minister of Mines Annual Report 1928, page Cl64). Additionally, two other mineralized veins were exposed, one containing an abundant amount of sphalerite with some carbonate gangue. Other smaller veins were exposed in the andesite and tuffaceous rocks near the centre of the large flat area.

In 1913, two tonnes of ore was mined and produced 5412 grams silver and 834 kilograms copper.

#### BIBLIOGRAPHY

GSC MEM \*223, pp. 70-71 GSC P 36-20, pp. 77-91 GSC BULL 1, p. 53 EMPR AR 1905-134; 1907-80; 1913-419; 1916-124; 1923-110; 1924-96; 1926-130; 1927-137; \*1928-C164; 1929-C165; 1931-73; 1933-98; 1934-C6; 1950-100; 1963-26; 1964-51; 1965-74; 1966-86 EMR MP CORPFILE (Sil-Van Mines Ltd. Report and Balance Sheet Nov. 30, 1964) EMPR MAP 69-1 GSC P 44-23 EMPR EXPL \*1977-E198 EMPR ASS RPT \*471 EMR MIN BULL MR \*198, p. 238 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin EMPR PF (Miscellaneous maps; Consolidated Silver Standard Mines Ltd., Annual Report 1988, p. 5) EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/09 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 098</u>			NATIONAL MI	NERAL INVENTORY:	093L14 Ag3
NAME(S):	<b>IRON VAULT (L.5754)</b> , SILVER SCHUFER	R CREEK, VAN AND	A (L.5756),			
STATUS:	Past Producer		Underground		MINING DIVISION:	Omineca
NTS MAP:	093L14W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 15 N 127 21 56 W 1740 Metres Within 500M Located on the south side of th Toboggan Creeks, on Hudson of Smithers.	ne divide at the heac Bay Mountain, 14.5	l of Silvern and kilometres nort	hwest	NORTHING: EASTING:	6077933 604970
COMMODITIES:	Silver Lea	d	Zinc		Gold	Copper
MINERALS			<b>_</b> .			
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Tetrahedrite Arsenopyrite Chalcopyrite Pyrite Calcite Unknown	Sphalerite	Galena	Pyrrhotite		
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Vein Pod Replacement Epig J01 Polymetallic manto Ag- Shape of modifier is lenticular	liform genetic Pb-Zn or pipe shaped.	Hydrotherma	al 105 Poly	vmetallic veins Ag-Pb	-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP	FORMATI	ON		IGNEOUS/METAMO	DRPHIC/OTHER
Cretaceous	Hazelton	NIIKITKWA			Bulkley Intrusions	
LITHOLOGY:	Andesite Tuff Andesitic Breccia Fossiliferous Limestone Granodiorite					
HOSTROCK COMMENTS:	Granodiorite Stock; dark red	and green bedded ti	uff.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Plutonic Rocks RELATIONS	HIP: Syn-mine Post-mine	PHYSIOGRAF ralization eralization	HIC AREA: Hazelton GRADE:	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON:	Ν		
	CATEGORY: Assay/analys SAMPLE TYPE: Grab COMMODITY Silver Gold Lead Zinc	sis <u>GRADE</u> 215.700 0.3400 2.0400 3.5000	YEAR: 00 Grams p 0 Grams p 0 Per cent 0 Per cent	1926 per tonne per tonne		
COMMENTS: REFERENCE:	Representative sample contair Minister of Mines Annual Repo	ning about 10 per ce rt 1926, page 129.	nt sulphides.			
CAPSULE GEOLOGY	On the Iron Vaul and red andesites wit of greenish tuffs by are part of the Lower The tuffs are mostly laminated with beddin vertical to 50 degree be north so where the are overturned. Thes 900 metre granodiorit Iron Mask claim and e Fraction claims, all	t claim the ho h some interbe a band of foss Jurassic Haze fine-grained a g, striking ea s north. The beds dip to t e rocks are in e stock which xtends west ac part of the Si	ost rocks c edded tuffs siliferous elton Group and massive ast and dip top of the he north o truded by outcrops o pross the C lver Creek	onsist of separated limestone. , Nilkitkw , but some ping from series is r northeas a 120 to 3 n the sout opper Quee Group. T	dark green from a series These rocks a Formation. beds are well nearly believed to t, the strata 00 metre by h end of the n and Lily the limestone	

PAGE: 178 REPORT: RGEN0100

## CAPSULE GEOLOGY

band is cut off to the west by the granodiorite stock. The limestone unit is lenticular in outline, attaining a maximum width of 20 metres. Mineralization occurs as lens-shaped pods consisting of pyrrhotite, sphalerite, and pyrite replacements in the limestone. Mineralization appears to be localized to zones where small faults crosscut the limestone. However, recrystallization and flowage have absorbed differential movement within the unit so that fissures do not penetrate the unit very deeply. Therefore, the orebodies occur along the contact and are characteristically short and lenticular in surface outline, but may be pipe-shaped. Along the south side of the limestone contact with green tuffs,

Along the south side of the limestone contact with green tuffs, a lenticular sulphide body, approximately 15 metres long and 5 metres wide, consists of about 40 per cent black sphalerite, 40 per cent pyrrhotite, and 10 per cent pyrite. Other sulphide lenses are exposed in open-cuts along the north side of the limestone band and occur along small faults both as fissure fillings and as replacements in the wall rocks.

A calcite vein occurs along a fault with vertical displacement in the andesitic rocks. It consists of sheared and brecciated andesite cemented by calcite with varying amounts of galena, sphalerite, tetrahedrite, arsenopyrite, and pyrite. The fault has a curving strike, changing from 210 to 260 degrees, and dips from 55 to 65 degrees southeast. At elevation 1720 metres, the fault is bordered on the south side by limestone 15 metres in width. The limestone has been heavily replaced along the fault by massive sulphides to form a lenticular orebody 9 metres long and 5 metres wide. The sulphides are present in the following order of abundance: pyrite, sphalerite, galena, arsenopyrite, pyrrhotite, and chalcopyrite.

The best mineralization occurs east of the fault along the east edge of the limestone body. A representative sample of the ore, containing about 10 per cent sulphides, assayed: 0.34 grams gold, 215.7 grams per tonne silver, 2.04 per cent lead, and 3.5 per cent zinc (Minister of Mines Annual Report 1926, page 129). Production in 1964 consisted of 3,235 grams silver, 663 kilograms lead, and 71 kilograms zinc.

#### BIBLIOGRAPHY

EMPR EXPL 1977-E198 GSC MEM \*223, pp. 65-69 EMPR AR 1908-65; 1909-84; 1912-115; 1913-108; 1914-513; 1916-123; 1917-114; 1918-118; 1919-103; 1925-137; \*1926-129; 1927-137; 1930-444; 1931-73; 1935-C39; 1950-100; 1963-26; 1965-51, 74; \*1966-86 GSC BULL 1 GSC P 36-20, pp. 77-82; 44-23 GSC SUM RPT 1925A, p. 138 EMPR PF (Map 1965, Silver Creek Deposit, Surf. Geol. & Drilling; miscellaneous maps) EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/08 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 099</u>		1	VATIONAL MI	NERAL INVENTORY:	093L14 Au5
NAME(S):	MATUSS, SILVER KING, LAST C	CHANCE (L.7255)				
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093L14W				MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 10 N 127 20 06 W 1400 Metres Within 500M Located on the west side of Tob Glacier, approximately 13 kilome	oggan Creek near the etres northwest of Sm	e foot of the ithers.		NORTHING: EASTING:	6077825 606936
COMMODITIES:	Silver Lead	Z	Zinc		Gold	Copper
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Galena Black sphalerite. Quartz Silicific'n Unknown	Sphalerite Cha	llcopyrite	Pyrrhotite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydro I02 Intrusion-related Au pyrr Quartz-arsenopyrite vein strikes southeast.	thermal hotite veins southwest, dips 50 to	STRIKE/DIP: 70 degrees	105 Pol 225/60E	ymetallic veins Ag-Pt TREND/PLU	o-Zn±Au NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE Jurassic-Cretaceous Lower Jurassic	<u>GROUP</u> Bowser Lake Hazelton	FORMATION Undefined Fo Undefined Fo	ormation ormation		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Rhyodacite Flow Dacitic Flow Greywacke Shale Conglomerate Siltstone Mudstone Quartz Feldspar Porphyry Dike					
HOSTROCK COMMENTS:	Hazelton Group unconformably	voverlain by Bowser (	Group sedim	ents.		
GEOLOGICAL SETTING	Interneting					Distant
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP	: Syn-miner	alization	GRADE:	Plateau
INVENTORY						
ORE ZONE:	VEIN	R	EPORT ON:	Ν		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel <u>COMMODITY</u> Silver Gold Thirteen centimetre channel sam pyrite vein. Geological Survey of Canada Me	GRADE 1.7000 12.3000 nple taken across a qu emoir 223, pages 69, 7	YEAR: Grams pe Grams pe Jartz-arseno 70.	1940 er tonne er tonne		
CAPSULE GEOLOGY						
	Massive andesite of unconformably overlain Group sediments. The The volcanic sequence is argillites and greywacd stained. The upper sur depressions infilled wi mainly of rounded grain	of the Lower Ju by Upper Juras contact strikes is hard and res ke are soft and rface of the an ith argillite a ns of andesite.	rassic Ha sic to Lo west and istant wh characte desite is nd coarse Both th	azelton Gr ower Creta d dips 70 hereas the eristicall s irregula e greywack he volcani	roup is decous Bowser degrees north. e shales, y iron- ir with te composed .c and sedi-	

PAGE: 180 REPORT: RGEN0100

## CAPSULE GEOLOGY

BIBLIOGRAPHY

mentary rocks are intruded by light colored quartz-feldspar porphyry dikes most of which range from 1 to 3 metres in width and from 150 to 300 metres in length. They contain up to 3 per cent 0.5 to 1.5 centimetre subangular sanadine crystals. One of these dikes intersects a vein at the portal of an adit indicating the dike intrusions were later than the fissuring. At an elevation of 1400 metres, an adit was driven along a quartz-arsenopyrite vein and a 13 centimetre channel sample across the vein assayed 12.3 grams gold and 1.7 grams silver (Geological Survey of Canada Memoir 223, page 69). Mineralization in the andesite appears to have a vertical zonation. The quartz-arsenopyrite veins and stringers change to lenses of black sphalerite and pyrrhotite cut by stringers of chalcopyrite along fissured zones.

EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/05 CODED BY: GSB REVISED BY: LLD
MINFILE NUMBER:	<u>093L 100</u>			NATIONAL MI	NERAL INVENTORY:	093L14 Zn1
NAME(S):	MAMMOTH (L.7249), IRON MAS	K (L.5750)				
STATUS: REGIONS: NTS MAP	Prospect British Columbia 0931 14W				MINING DIVISION:	Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 50 25 N 127 21 21 W 1400 Metres Within 500M Located on the west side of Schul Creek on Hudson Bay Mountain, 1	fer Lake at the h 3 kilometres nor	ead of Tobogga thwest of Smith	an ners.	NORTHING: EASTING:	6078257 605587
COMMODITIES:	Silver Lead		Zinc		Gold	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Sphalerite Pyrite Quartz Silicific'n Unknown	Galena I	Pyrrhotite	Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Vein Epigenetic Hydroth 105 Polymetallic veins Ag-Pb-2 Vein strikes west and dips steeply	nermal Zn±Au ∕ south.				
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE Lower Jurassic Cretaceous	GROUP Hazelton	<u>FORMATI</u> Nilkitkwa	ON		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Granodiorite Quartz Monzonite					
HOSTROCK COMMENTS:	Granodiorite stock; flat lying red	and green tuffs.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Plutonic Rocks RELATIONS	HIP: Syn-mine	PHYSIOGRAF ralization	PHIC AREA: Hazelton GRADE:	Ranges
CAPSULE GEOLOGY						
	The nost rocks are canics of the Nilkitkwa tuffs which exhibit gene pyrite, sphalerite, and verge in the west in an to occur in certain hor rusty rock. On the Mammoth clai south, can be traced in metres. The vein average pyrrhotite, arsenopyrite galena. To the west, th metres and consists main of chalcopyrite.	mainly Lowe Formation. erally flat- other miner anticlinal izons marked im a vein st the volcani ges about 30 e, and sphal ne vein narr hly of quart	They are They are lying bedd als. The structure. by a chan riking wes c rock for centimetr erite with ows to app z and pyri	Hazelton mainly gre ing planes bedding te Minerali ge in the t and dipp approxima es in widt a minor a roximately te with a	Group vol- een and red a containing ends to con- zation appears formation and bing steeply ttely 91 h and contains amount of 10 centi- minor amount	
BIBLIOGRAPHY	GSC MEM *223, pp. 65-69 EMPR AR 1907-80; 1908-64 GSC P 36-20, pp. 98,99; GSC SUM RPT 1925A, p. 13 GSC MAP 971A EMPR MAP 69-1 EMPR EXPL 1977-E198 GSC 0F 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. Kirkham, R.V., (1969): A the Zonal Distribution	4; 1909-85; 44-23 38 . 195-208 A Mineralogi on of Ores i	1911-288; .cal and Ge n the Huds	1931-73; 1 ochemical on Bay Rar	950-100 Study of ge, British	

Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/04 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 101</u>		NATIONAL MINERAL INVENTORY:	093L14 Au4
NAME(S):	<b>COPPER QUEEN (L.5751)</b> , SILVER	CREEK		
STATUS:	Developed Prospect		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L14W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 27 N 127 22 16 W 1615 Metres Within 500M East side of Silvern Lake on Hudso northwest of Smithers.	on Bay Mountain, 14.5 kilometre	NORTHING: EASTING: IS	6078296 604605
COMMODITIES:	Silver Zinc	Copper	Gold	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Pyrrhotite F Quartz Carbonate Marcasite Silicific'n Unknown	Pyrite Marcasite		
DEPOSIT	Main			
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein       Epigenetic       Hydroth         IO2       Intrusion-related Au pyrrho         Mineralized vein strikes north 80 d         shear zone within granodiorite sto	ermal otite veins STRIKE/DII legrees and dips 83 degrees no ick.	I05 Polymetallic veins Ag-Pb P: 080/83N TREND/PLUN orth in	-Zn±Au NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Lower Jurassic Cretaceous	GROUP Hazelton	FORMATION Nilkitkwa	IGNEOUS/METAMC Bulkley Intrusions	DRPHIC/OTHER
LITHOLOGY:	Andesite Tuff Fossiliferous Limestone Granodiorite Quartz Monzonite Lamprophyre Dike			
HOSTROCK COMMENTS:	Hudson Bay Mountain Stock.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Plutonic Rocks RELATIONSHIP: Syn-mine	PHYSIOGRAPHIC AREA: Hazelton ralization GRADE:	Ranges
INVENTORY				
ORE ZONE:	VEIN	REPORT ON	N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Gold	YEAR: <u>GRADE</u> 98.0600 Grams 5.1400 Grams	1954 Der tonne Der tonne	
COMMENTS:	30 centimetre channel sample take vein at the portal of the adit.	en across the central portion of	the	
REFERENCE:	Geological Survey of Canada Merr	noir 223, pages 65-69.		
CAPSULE GEOLOGY	Lower Jurassic Haze some interbedded tuffs a the Nilkitkwa Formation tuffs are generally fine laminated and strike eas degrees north. The nort The Hazelton Group rocks diorite stock of Cretace lamprophyre dike which of A mineralized guart	elton Group green and are separated from the by a fossiliferous li e-grained and massive, sterly with a dip of r thern dipping sequence are intruded by a Bu cous age. The stock i dips at a low angle to tz-carbonate vein exis	purple andesites with a green and red tuffs in mestone horizon. The but some beds are well hear vertical to 50 a is likely overturned. Alkley Intrusive grano- a cut by a 9 metre wide b the south. ts in a sheared zone in	

A mineralized quartz-carbonate vein exists in a sheared zone in the granodiorite stock. The vein strikes 080 degrees east and dips 83 degrees north. The sheared and altered rock is traversed by

sulphide stringers and seams comprised of pyrite, arsenopyrite and pyrrhotite. Some of the pyrrhotite is partly replaced by lamellar marcasite within carbonate veins. A 30 centimetre channel sample taken across the central portion of the vein at the portal adit assayed 5.14 grams gold and 98.06 grams silver (Geological Survey of Canada Memoir 223, pages 65 to 69).

#### BIBLIOGRAPHY

GSC MEM \*223, pp. 65-69 GSC P 36-20, pp. 77-82 EMPR AR 1907-80; 1914-153 GSC EC GEOL #4, 1927, p. 46 GSC SUM RPT 1925A, p. 138 GSC MAP 278A EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/04 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 102</u>	NATIONAL MIN	ERAL INVENTORY: 093L14 Cu1
NAME(S):	LAST CHANCE (L.7255)		
STATUS:	Prospect		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L14W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 54 N 127 22 00 W 1570 Metres Within 500M Located north of the headwaters of Toboggan Cl Mountain, 12.9 kilometres northwest of Smithers	reek on Hudson Bay	NORTHING: 6079137 EASTING: 604871
COMMODITIES:	Copper Silver		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Magnetite Magnetite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb) Shape of modifier is faulted. Mineralized vein.	Strike/DIP: 305/83N	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP FORMA Hazelton Undefin	TION ed Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Tuff		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional RELATION	PHYSIOGRAPH	IIC AREA: Hazelton Ranges GRADE:
INVENTORY			
ORE ZONE:	VEIN	REPORT ON: N	
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY GRAD Silver 68.60 Copper 2.50	YEAR: 1926 E 000 Grams per tonne 00 Per cent	
REFERENCE.	Selected channel of vein material collected by D. assayed. Geological Survey of Canada Memoir 223, page 1	Lay. Trace gold was	
REFERENCE:	Selected channel of vein material collected by D. assayed. Geological Survey of Canada Memoir 223, page (	Lay. Trace gold was 64.	
REFERENCE:	Selected channel of vein material collected by D. assayed. Geological Survey of Canada Memoir 223, page of Group volcanics consisting mainly Several small and irregular s were prospected by open cuts. Vei magnetite, considerable pyrite, an Three sulphide veins occupy fracted degrees west and dip steeply north against small cross faults and the is sparsely mineralized. Another mineralized vein stri- northeast. It is comprised of mas cut by small chalcopyrite stringen D. Lay in 1926 assayed trace gold 2.5 per cent copper. A representa 0.7 grams per tonne gold, 3.09 gra copper, and 0.16 per cent zinc (Ge 223, page 64). An adit driven 20 to disclose any mineralization.	Lay. Trace gold was 64. Middle to Lower Jurass of andesite and tuff. sulphide veins within t in mineralization is co d minor amounts of cha ares that strike from 0 h. The three veins ter e andesite wallrock is ikes 305 degrees and di ssive magnetite and pyr rs. A selected sample , 68.6 grams per tonne ative sample from the d ams per tonne silver, 3 cological Survey of Cam degrees east from the	ic Hazelton he andesite mprised of lcopyrite. 55 to 070 minate altered but ps 83 degrees ite and is collected by silver, and ump assayed .75 per cent ada Memoir vein failed

GSC MEM \*223, p. 64

GSC SUM RPT 1925A, p. 142 EMPR AR 1917-114; 1918-118; \*1926-131; 1941-43 GSC P 36-20, pp. 77-91; 44-23 GSC MAP 971A EMPR MAP 69-1 W MINER June 1964, #6, p. 24 EMPR EXPL 1977-E198 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/09 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 103</u>	Ν	IATIONAL MINERAL INVENTOF	RY: 093L14 Au6
NAME(S):	RIO GRANDE (L.7277), RICO ASPE JUMBO, IRON DOLLAR, LAST HOP CHAUFFER	EN, SPONDULIX, E,		
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093L14W		MINING DIVISIC UTM ZON	N: Omineca NE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 51 00 N 127 20 21 W 1370 Metres Within 500M Located on north side of the head of Mount Evelyn, approximately 13	of Toboggan Creek on the south kilometres northwest of Smither	NORTHIN EASTIN slope s.	IG: 6079364 IG: 606632
COMMODITIES:	Gold Silver	Copper	Lead	Zinc
			alana.	
ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Quartz Marcasite Quartz-Carb. Sericitic Unknown	Oxidation	alena	
	Voin			
CLASSIFICATION: TYPE: DIMENSION	Epigenetic Hydroth L01 Subvolcanic Cu-Ag-Au (A: Metres	ermal s-Sb) STRIKE/DIP	095/40N TREND/P	PLUNGE:
COMMENTS:	Unconformable contact of Hazelto a little south of east and dips 40 de	n Group and Bowser Group rock	is strikes	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Jurassic-Cretaceous Lower Jurassic	<u>GROUP</u> Bowser Lake Hazelton	FORMATION Undefined Formation Undefined Formation		AMORPHIC/OTHER
Cretaceous	<b>•</b> • • •		Buikiey Intrusio	ins .
LITHOLOGY:	Conglomerate Mudstone Granodiorite Quartz Monzonite Quartz Feldspar Porphyry Dike Andesite Tuff Rhyodacite Dacite			
HOSTROCK COMMENTS:	Mineralization occurs along Bows	er Lake/Hazelton Group contact		
GEOLOGICAL SETTING	Intermentene	F		aka Diataau
METAMORPHIC TYPE:	Stikine Contact	Plutonic Rocks RELATIONSHIP: Syn-minera	alization GRADE: Gree	nschist
INVENTORY				
ORE ZONE:	UNDERGROUND WORKINGS	REPORT ON: I	N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold Grab sample of Rio Grande ore ta Property File - A. Garde, 1934.	YEAR: GRADE 274.3000 Grams pe 25.4000 Grams pe ken from a crosscut by A. Garde	1933 r tonne r tonne	
CAPSULE GEOLOGY				
	The Rio Grande clai Hazelton Group volcanics Jurassic to Lower Cretac intruded by a Cretaceous diorite and quartz-monzo highest peak of Mount Ex	ms are underlain by Lo which are unconformab eous Bowser Group sedi Bulkley Intrusion, co mite. This intrusion relyn. Minor quartz-fe	wer to Middle Jurassi ly overlain by Upper ments. These rocks a mprised of grano- forms the core of the ldspar porphyry dikes	c re

PAGE 188 REPORT: RGEN0100

## CAPSULE GEOLOGY

associated with the Bulkley Intrusive crosscut the volcanics and sediments. The Hazelton Group rocks are comprised of a basal intermediate volcanic overlain by massive pale green dacite and rhyodacite flows. This is followed by 10 metres of bleached and shattered tuff overlain by massive andesite, andesitic flows and tuff. The Bowser Group unconformably overlies the Hazelton rocks. The sedimentary sequence consists of a poorly sorted basal conglom-erate which exhibits rusty weathering due to disseminated pyrite in the matrix.

The Rio Grande mineral occurrence coincides with shear filling and vein-type mineralization in the conglomerate. This is overlain by a monotonous series of upward fining grits, siltstones, and mudstone which are generally black, carbonaceous and rusty weathered. Shears and fractures are filled with quartz-sulphide veins which range between 5 centimetres to 3 metres thick and contain a variable amount of mineralization.

At an elevation of 1400 metres an adit was driven along the contact of the sediments and volcanics. The contact strikes a little south of east and dips 40 degrees north. Rocks at the dump site for the adit consist of siltstones traversed by fine pyrite seams. In an open cut on the contact there was rusty oxidized rock impregnated with arsenopyrite and pyrite. Similar mineralization occurs east-ward along the contact. A piece of the arsenopyrite taken from a crosscut assayed 25.4 grams per tonne gold and 274.3 grams per tonne silver (Property File - Garde, A., 1934). Mineralization occurs as infillings in shears and zones of

brecciation near the granodiorite intrusion at the volcanics. Adits at 1570 and 1675 metres elevation driven along fissures were both barren.

Imperial Metals Corporation optioned the Chauffer property in 1995. A polymetallic massive sulphide showing was trenched and drilled. A 0.52-metre intersection assayed 18.9 grams per tonne gold and 15.77 grams per tonne silver (Assessment Report 24354).

#### BIBLIOGRAPHY

EMPR AR 1934-C8; 1935-C48 EMPR ASS RPT \*471, \*11526, 17081, \*24354 EMPR EXPL \*1983-446; 1988-C172 EMPR FIELDWORK 1988, pp. 195-208 EMPR MAP 69-1 EMPR PF (\*Garde, A. (1934): Report; miscellaneous maps; Kuran, D.L. (1988): Report on the Mt. Evelyn Claims, Hudson Bay Mt. Area in Prospectus for More Resources Inc., Feb.27, 1989) GSC BULL 270 GSC MAP 971A GSC MEM \*223, p. 63 GSC OF 351 GSC P 36-20, p. 103; 44-23 Imperial Metals Corporation, 1995 Annual Report Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin DATE CODED: 1985/07/24 CODED BY: GSB

DATE REVISED: 1988/06/10

REVISED BY: LLD

MINFILE NUMBER:	<u>093L 104</u>		NATIONAL M	INERAL INVENTORY:	093L14 Au7
NAME(S):	RICO ASPEN (L.2648), RIO GRAN	IDE SYNDICATE			
STATUS: REGIONS:	Developed Prospect British Columbia			MINING DIVISION:	Omineca
BC MAP:	093L14W			UTMIZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 51 30 N 127 20 06 W 1675 Metres Within S00M Claim located on east side of Mour side of Hudson Bay Mountain, 13.	nt Evelyn summit on th 7 kilometres northwes	ne northeast st of Smithers.	NORTHING: EASTING:	6080297 606877
COMMODITIES:	Silver Lead	Zir	าด	Copper	Gold
MINERALS SIGNIFICANT:	Arsenopyrite Tetrahedrite Pyrite	Sphalerite Gale	ena Chalcopyrite	e	
MINERALIZATION AGE:	Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Breccia Epigenetic Hydroth 105 Polymetallic veins Ag-Pb-2 Shear zone.	n hermal Zn±Au S	STRIKE/DIP: 040/43E	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAM	ORPHIC/OTHER
Cretaceous	Hazelion	Undefined For	mation	Bulkley Intrusions	
LITHOLOGY:	Andesite Tuff Dacite Rhyodacite Breccia Granodiorite Quartz Monzonite				
GEOLOGICAL SETTING	Internetone				Distant
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Stikine Contact	Plutonic Rocks RELATIONSHIP:	Syn-mineralization	GRADE: Greenso	chist
INVENTORY					
ORE ZONE:	SHEAR	RE	PORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Bulk Sample COMMODITY	GRADE	YEAR: 1913		
COMMENTS:	Gold Copper 1913- 1.8 tonnes of ore was shipp	2897.0000 4.1100 7.0000 ped and assayed. San	Grams per tonne Grams per tonne Per cent nple type is		
REFERENCE:	Minister of Mines Annual Report 19	934, page C8.			
CAPSULE GEOLOGY					
	Rio Aspen claim is Hazelton Group volcanics sion which is comprised diorite stock and quart:	underlain by Lo s intruded by th of medium-grain z-monzonite. Th	ower to Middle J he Cretaceous Bu ned, equigranula hese rocks are u	urassic lkley Intru- r grano- nconformably	

Hazelton Group volcanics intruded by the Cretaceous Bulkley Intrusion which is comprised of medium-grained, equigranular granodiorite stock and quartz-monzonite. These rocks are unconformably overlain by Upper Jurassic to Lower Cretaceous Bowser Group sediments. The Hazelton volcanics consist of a basal intermediate volcanic flow overlain by dacite and rhyodacite, followed by 10 metres of tuff which is overlain by massive andesite, andesitic flows and tuff. The sediments are in contact with the volcanics at elevation 1430 metres and strikes slightly south of east and dips 40 degrees north.

A narrow mineralized zone between 1970 to 2010 metres elevation was prospected. The zone occurs in fine-grained granodiorite along a fault 5 centimetres in width. Jones (Geological Survey of

Canada Summary Report, 1925) describes the showing as a sheared zone striking 040 degrees and dipping 43 degrees southeast in andesitic flows and breccia. The shear at the surface shows mineralization in the form of stringers containing galena, sphalerite, arsenopyrite and pyrite. In 1913, 1.8 tonnes of ore were shipped and assayed 44.11 grams per tonne gold, 2897 grams per tonne silver and 7 per cent copper (Minister of Mines Annual Report 1934, page C8).

#### BIBLIOGRAPHY

GSC MEM \*223, pp. 63,64 EMPR AR 1909-84; \*1934-C8; 1935-G48 EMPR PF (\*Rpt by A. Garde, 1934; \*Kuran, D.L. (1988): Report on the Mount Evelyn Claims, Hudson Bay Mt. Area in Prospectus for More Resources Inc., Feb.27, 1989) EMPR ASS RPT \*471, \*11526, 17081 EMPR MAP 69-1 EMPR EXPL 1983-446; 1988-C172 GSC SUM RPT 1925A, p. 142 GSC MAP 971A GSC OF 351 GSC P 44-23 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/10 CODED BY: GSB REVISED BY: LLD

	0001 405			
WIINFILE NUWBER:	<u>093L 105</u>		NATIONAL MINER	AL INVENTORY: 093L14 Ag9
NAME(S):	<u>Evelyn</u> , fort george			
STATUS:	Developed Prospect		N	INING DIVISION: Omineca
NTS MAP:	093L14W			UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 51 45 N 127 19 31 W 1524 Metres Within 500M Located on the northeast side of northwest of Smithers.	Hudson Bay Mountain, 13.7 kilor	netres	NORTHING: 6080776 EASTING: 607490
COMMODITIES:	Silver Lead	Zinc	Gold	d Copper
MINERALS				
SIGNIFICANT:	Arsenopyrite Tetrahedrite Pyrite	Sphalerite Galena	Chalcopyrite	
ALTERATION TYPE: MINERALIZATION AGE:	Sílicific'n Unknown			
DEPOSIT CHARACTER:	<u>V</u> ein			
CLASSIFICATION: TYPE:	105 Polymetallic veins Ag-Pb	ornermai o-Zn±Au		
DIMENSION: COMMENTS:	Best assay from parallel shear z	strike/Dil zones.	P: 060/40E	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	<u> </u>	GNEOUS/METAMORPHIC/OTHER
Lower Jurassic Cretaceous	Hazelton	Undefined Formation	В	ulkley Intrusions
LITHOLOGY:	Andesite Tuff Dacite Rhyodacite Granodiorite Quartz Monzonite			
GEOLOGICAL SETTING	late was enter a			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Stikine Contact	RELATIONSHIP: Svn-mine	eralization G	RADE: Greenschist
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Channel	YEAR:	1940	
	<u>COMMODITY</u> Silver	<u>GRADE</u> 31,2000 Grams r	per tonne	
COMMENTS	Lead	0.2900 Per cen	t	
REFERENCE:	andesite at elevation 1600 metre	es. 25. 26. amoir 223, nages 61, 62		
		1101 220, pages 01, 02.		
CAPSULE GEOLOGY	The Lower to Midd	le Jurassic Hazelton Gr	oup volcanics	are
	intruded by the Cretace of equigranular granod feldspar porphyry dikes volcanics. The Hazelte flow overlain by massi metres of bleached tuf flows and tuff. On the property, I mineralized shear zone southeast was traced by sists of arsenopyrite.	eous Bulkley Intrusion iorite and quartz monzo s related to the intrus on Group consists of a ve dacite and rhyodacit f overlain by massive a between elevations 1570 striking 055 degrees a y open cut for 300 metr pyrite, galena, sphale	which consist onite. Minor sion crosscut basal interme te flows, then andesite, ande to 1690 metr and dipping 45 res. Minerali	s mainly quartz- the ediate 1 10 esitic ces, a 5 degrees tration con- trahedrite

The most extensive shearing and vein formation occurs at an elevation of 1600 metres. The andesite is sheared, altered, and

silicified. The altered rock is replaced by finely disseminated pyrite, and arsenopyrite, and is traversed by fine veinlets of galena and sphalerite. A chip sample taken across 2.0 metres assayed trace of gold, 31.2 grams per tonne silver, and 0.29 per cent lead (Geological Survey of Canada Memoir 223, page 61). Two parallel shear zones, striking 060 degrees and dipping 40 degrees southeast, show small amounts of galena, sphalerite, tetrahedrite, and up to 10 per cent arsenopyrite in silicified, sheared andesite. A 38 centimetre channel sample assayed 0.26 grams per tonne gold, 366.8 grams per tonne silver, and 42 per cent lead (Geological Survey of Canada Memoir 223, page 61). Further to the east, open cuts expose shear zones mineralized with a minor amount of arsenopyrite, galena, and sphalerite. At an elevation of 1687 metres sheared and silicified andesite

At an elevation of 1687 metres sheared and silicitied andesite hosts up to 10 per cent arsenopyrite with a little galena and sphalerite. A 30 centimetre channel sample assayed 0.17 grams per tonne gold and 37.0 grams per tonne silver (Geological Survey of Canada Memoir 223, page 61).

# BIBLIOGRAPHY

GSC MEM \*223, p. 61 GSC SUM RPT 1925A, p. 143A EMPR ASS RPT \*471, \*11526 EMPR AR 1923-110; 1925-136; 1926-132 EMPR EXPL 1983-446 GSC MAP 278A, 971A EMPR MAP 69-1 GSC OF 351 GSC P 44-23 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 106</u>	NA	TIONAL MINERAL INVENTORY	093L14 Ag15
NAME(S):	CARROLL, MOUNT EVELYN			
STATUS: REGIONS: NTS MAP: BC MAP: LATITUDE:	Prospect British Columbia 093L14W 54 51 15 N		MINING DIVISION: UTM ZONE: NORTHING:	Omineca 09 (NAD 83) 6079855
LONGITUDE. ELEVATION: LOCATION ACCURACY: COMMENTS:	127 19 10 W 1400 Metres Within 1 KM Located at north side of Toboggan C Evelyn, 13.7 kilometres northwest o	Creek on the south slope of Mour f Smithers.	EASTING.	607780
COMMODITIES:	Silver Lead	Zinc	Gold	Copper
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Galena Sp Quartz Carbonate Silicific'n Unknown	halerite Chalcopyrite F	Pyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothei 105 Polymetallic veins Ag-Pb-Zn Parallel shear zones at elevation 129 infilling.	rmal ±Au 50 metres with mineralized vein	050/65E TREND/PLL	INGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Lower Jurassic Cretaceous	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAM Bulkley Intrusions	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Dacite Rhyodacite Granodiorite Quartz Monzonite			
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	Pł	YSIOGRAPHIC AREA: Nechako	o Plateau
TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Syn-minerali	zation GRADE: Greens	chist
INVENTORY				
ORE ZONE:	SHEAR	REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 19 <u>GRADE</u>	928	
COMMENTS:	Silver Selected grab sample from altered of	43.2000 Grams per dike rock in a shear. (Assayed	tonne	
REFERENCE:	trace gold.) Geological Survey of Canada Memo	ir 223, page 62.		
CAPSULE GEOLOGY	The claims are under rhyodacite flow rocks of and are unconformably ove stones of the Upper Juras Cretaceous Bulkley Intrus dikes intrude the stratif Two adits along vein and 1585 metres, exposed content. Both veins were At an elevation of 1 silicified andesite strik southeast maintaining an altered dike rock consist selected sample assayed t silver. A sample from an	clain by andesite, tuff the Lower to Middle Ju rlain by conglomerates sic to Lower Cretaceou ions and younger quart ied rocks. Is in altered andesite, argentiferous galena w short and discontinuo 250 metres, a sheared es 050 degrees and dip average width of 46 ce s of finely disseminat race gold, and 43.2 gr	, and dacite to rassic Hazelton Group , grits, and mud- s Bowser Group. z-feldspar porphyry at elevations of 1400 tith a low gold us. and altered vein in s 65 degrees ntimetres. The ed pyrite. A ams per tonne tringer assayed	)

5485 grams per tonne silver and 73 per cent lead (Geological Survey of Canada Memoir 223, page 62).

## BIBLIOGRAPHY

GSC MEM \*223, pp. 62,63 GSC SUM RPT 1925A, p. 142 EMPR AR 1917-114; 1927-136; 1928-163; 1934-C8; 1935-G48 EMPR EXPL 1983-446 EMPR ASS RPT \*471, \*11526 EMPR MAP 69-1 GSC MAP 971A GSC OF 351 GSC P 44-23 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/11

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 107</u>		١	NATIONAL MI	NERAL INVENTORY:	
NAME(S):	GLACIER GULCH (NORTH	<u>I SIDE)</u>				
STATUS: REGIONS: NTS MAP	Past Producer British Columbia		Underground		MINING DIVISION:	Omineca
BC MAP:	54 40 48 N					6077227
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	127 16 56 W 884 Metres Within 500M Located below Lake Kathl approximately 8 kilometre	yn Glacier on the north s northwest of Smither	side of Glacier G	ulch	EASTING:	610342
COMMODITIES:	Silver	Lead	Zinc		Gold	Copper
SIGNIFICANT:	Arsenopyrite Galena Pyrite	Sphalerite	Chalcopyrite	Pyrrhotite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Silica Silicific'n Unknown					
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: DIMENISION:	Vein Epigenetic 105 Polymetallic veins	Hydrothermal Ag-Pb-Zn±Au	STRIKE/DID	010/50\\/		NGE
COMMENTS:	Main vein attitude. Shape	of modifier is sheared.	STRICE/DIE.	010/3000		NOL.
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP	FORMA	TION		IGNEOUS/METAMO	ORPHIC/OTHER
Lower Cretaceous	Skeena	Undefin	ed Formation			
LITHOLOGY:	Andesite Tuff Quartzite Greywacke Slate Conglomerate Coal					
HOSTROCK COMMENTS:	In fault contact with your	nger sediments contain	ing basal coal sea	ıms.		
GEOLOGICAL SETTING			_			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATION	ISHIP: Syn-minera	PHYSIOGRAF	PHIC AREA: Nechako GRADE:	Plateau
INVENTORY						
ORE ZONE:	DRIFT		REPORT ON:	N		
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Gold Lead Zinc 45.7 centimetre channel s Minister of Mines Annual F	nalysis <u>GRAD</u> 233.0 6.86 2.00 5.40 sample taken across the Report 1937, pages C20	YEAR: E 000 Grams pe 00 Grams pe 00 Per cent 00 Per cent e face of a drift. 0.33	1937 er tonne er tonne		
			.,			
CAPOULE GEULUGY	The mineraliz Jurassic Hazelton Lower Cretaceous S volcanic host rock and bedding planes quartz veins. The pyrite and pyrhot in fault contact w weathering quartzi sedimentary unit i	ation occurs nea Group volcanics keena Group sed: a and mineraliza in the tuffs of veins host occu- ite. The dark of oth the younger te, greywacke, s s comprised of a	ar a fault co of the Telkw iments. Frac tion occurs the Hazelto urrences of g green, fine-g sediments co slate and con a number of co	ontact wit va Formati tures cut along sil on Group a galena, sp grained a mprised co glomerate coal seams	th Lower ion and the cacross the licified joints as well as in obalerite, ndesites lie of rusty e. The basal s striking	

northwards and dipping 45 to 60 degrees east. The main quartz vein, at 900 metres elevation, hosts dark sphalerite and minor amounts of arsenopyrite, pyrite, pyrrhotite, galena, and chalcopyrite accompanied by minor quartz gangue. The vein strikes 010 degrees and dips between 50 to 60 degrees west. The fissuring extends to the fault contact of the volcanic and sedimentary rocks. Samples collected by D. Lay in 1937 near the bottom of the shaft assayed 2.05 grams per tonne gold and 20.57  $\,$ grams per tonne silver. Another sample collected by D. Lay, a 45.7 centimetre channel sample across the face of the drift assayed 6.86 grams per tonne gold, 233 grams per tonne silver, 2 per cent lead, and 5.4 per cent zinc (Minister of Mines Annual Report 1937, page C20).

In an open cut near the shaft a sphalerite vein 5 metres in length and 13 centimetres wide was exposed. Southwest of this vein is another vein consisting of equal parts of quartz and pyrrhotite with a little chalcopyrite. A 20 centimetre channel sample across the vein assayed 12.34 grams per tonne gold, 0.54 per cent copper,

and nickel nil (Minister of Mines Annual Report 1938). In another open cut, further southeast of the shaft, a vein was exposed consisting of solid sphalerite with 5 to 10 per cent quartz gangue, minor galena, pyrrhotite, and chalcopyrite. Production data between the years 1933 to 1939 totalled 165 tonnes mined with 9,236 grams gold, 36,919 grams silver, 2400 kilo-grams lead, and 6,053 kilograms zinc.

#### BIBLIOGRAPHY

GSC MEM \*223, pp. 72,73 EMPR AR 1926-131; 1927-137; 1928-163; 1930-140; 1933-97; 1934-C5; 1935-C35,G48; 1936-G43; \*1937-C20,33; 1938-B36-38; 1939-55,58,70; 1940-41,43; 1941-41; 1950-100; 1958-10; 1959-17; 1961-19; 1962-16; 1963-26; 1964-51 EMPR PF (Glacier Gulch Group) EMPR ASS RPT 5041, 6480, 10370, 18236, 19569, 20797, 21743 EMPR GEM 1973-347; 1974-262 EMPR MAP 69-1 GSC MAP 971A EMPR EXPL 1975-E143; 1977-E97 GSC OF 351 GSC P 44-23 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin EMPR OF 1993-21; 1994-14

DATE CODED: 1985/07/24 CODED BY: GSB FIELD CHECK: N DATE REVISED: 1988/06/02 REVISED BY: LLD FIELD CHECK: N

MINFILE NUMBER:	<u>093L 108</u>		NATIONAL M	INERAL INVENTORY:
NAME(S):	GLACIER GULCH (SOUTH SIDE)			
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093L14W			MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 39 N 127 16 36 W 870 Metres Within 500M Located south side of Glacier Gu Mountain, approximately 8 kilome	Ich on the east slope o etres northwest of Smit	f Hudson Bay hers.	NORTHING: 6076957 EASTING: 610706
COMMODITIES:	Silver Lead	Ziı	าด	Gold
MINERALS SIGNIFICANT: ASSOCIATED:	Arsenopyrite Tetrahedrite Pyrite Quartz Calcite Sic	Sphalerite Gale Jerite	ena Pyrrhotite	
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Silica Silicific'n Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal 105 Polymetallic veins Ag-Pb- Vein curves, striking 20 to 40 deg northwest.	-Zn±Au grees west and dips 40	STRIKE/DIP: 330/50W ) to 60 degrees	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	: Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined For	mation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Argillite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Pogional		PHYSIOGRA	PHIC AREA: Nechako Plateau
	regional	REPARONOLIII .	Cyrr mineralization	ONDE.
ORE ZONE:	ADIT	RE	PORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Gold Lead Zinc Ten centimetre channel sample fr Geological Survey of Canada Me	<u>GRADE</u> 621.9300 0.6700 9.5500 9.5400 rom adit at elevation 94 moir 223, pages 73-77	YEAR: 1940 Grams per tonne Grams per tonne Per cent Per cent 0 metres.	
CAPSULE GEOLOGY	Local quartz veini canics host occurrences Veins cut dark green si strike northwest and di	ng in the Lower s of galena, sph licified volcan p gently west.	Jurassic Hazelt alerite and arse ics and bedded a Veining general	on Group vol- nopyrite. rgillites which ly shows

good mineralization comprised of sphalerite, galena, pyrite, arseno-pyrite, pyrrhotite with quartz and minor siderite and calcite gangue. In some place minor occurrences of tetrahedrite are present. A 10 centimetre channel sample taken from an adit at elevation 940 metres assayed 0.67 grams per tonne gold, 621.93 grams per tonne silver, 9.55 per cent lead, and 9.54 per cent zinc. A 20 centimetre channel sample taken from another adit at 900 metres elevation assayed

0.51 grams per tonne gold, 255.6 grams per tonne silver, 4.41 per cent lead and 1.66 per cent zinc (Geological Survey of Canada Memoir 223).

EMPR PF (Glacier Gulch Group in 093L 110; Report by Jonson, Davidson and Daughty (1968) in 093L 110)
EMPR ASS RPT \*471, 545, 1730, 2245, 4756, 4871, 5041, 5928, 6480, 7565, 7780, \*10370, 18236, 19569, 20797, 21743
GSC MEM \*223, pp. 73-77
GSC P 36-20, pp. 96-97; 44-23
EMPR AR 1926-131; 1927-137; 1928-163; 1929-164; 1930-140; 1933-97; 1934-C5; 1935-C35,G48; 1936-G43; 1937-C20,33; 1938-B36-38; 1939-55,58,70; 1940-41-43; 1941-41; 1950-100; 1958-10; 1959-17; 1961-19; 1962-16; 1963-26; 1964-51
GSC MAP 917A
CIM BULL Sept. 1983
EMPR EXPL 1975-E143; 1976-E149; 1977-E197; 1979-229
EMPR MAP 69-1
GSC OF 351
GSC OF 351
GSC BULL 270
EMPR FIELDWORK 1988, pp. 195-208
Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin
EMPR OF 1993-21; 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/02 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 109</u>	NATIONAL MI	NERAL INVENTORY:	
NAME(S):	GLACIER GULCH GOLD (BISMUTH)			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L14W	Underground	MINING DIVISION: O UTM ZONE: 0	mineca 9 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 30 N 127 16 56 W 995 Metres Within 1 KM Located below Lake Kathlyn Glacier, approxim west of Smithers, on the east slope of Hudson	ately 8 kilometres north- Bay Mountain.	NORTHING: 60 EASTING: 67	076670 10356
COMMODITIES:	Gold Silver	Bismuth	Tellurium	Platinum
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION:	Tetradymite Gold Tetrahedrite Mineralization occurs in shear zones and quar Quartz Quartz Calcite Erythrite T Garnet	Bismuthinite Tellurobismuth rtz veins. Falc Sericite	nite	
COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Minor occurrence of cobalt bloom noted on qu Silicific'n Unknown	arry face.		
DEPOSIT CHARACTER: CLASSIFICATION	Vein Epigenetic Hydrothermal			
DIMENSION: COMMENTS:	IO2 Intrusion-related Au pyrrhotite veins Mineralized vein.	105 Pol STRIKE/DIP: 075/23S	ymetallic veins Ag-Pb-Z TREND/PLUNG	n±Au E:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP FORM Hazelton Under	MATION fined Formation	IGNEOUS/METAMOR	PHIC/OTHER
LITHOLOGY:	Andesite Tuff Andesitic Tuff			
GEOLOGICAL SETTING TECTONIC BELT:	Insular	PHYSIOGRAF	PHIC AREA: Nechako P	lateau
TERRANE: METAMORPHIC TYPE:	Stikine Contact Regional RELATION	ONSHIP: Syn-mineralization Post-mineralization	GRADE:	
INVENTORY				
ORE ZONE:	QUARRY	REPORT ON: N		
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> <u>GR/</u> Silver 126 Gold 232 Platinum 9. 1934 chip sample. Channel sample (1934) ass	YEAR: 1934 ADE 5.9000 Grams per tonne 2.8000 Grams per tonne 9000 Grams per tonne ayed 14.5 gold; 3.4		
REFERENCE:	Property File - Glacier Gulch Group.			
CAPSULE GEOLOGY	Mineralization occurs along massive, finely crystalline tuff Group volcanics. Several small showings carr and quartz veins were mapped and of massive silicified andesite a which is sheared and folded. Qu visible gold and crystals of tet amounts of erythrite (cobalt blo Large garnet crystals were also Assay results indicate the some platinum associated with th tetradymite occurs along the pla	sheared and altered zo s within the Lower Jura ying auriferous tetrady sampled. The hostrock add dark grey to black a arrying operations have radymite within quartz oom) were noted on the of noted near the quartz of presence of high gold, he bismuth-telluride dep ness of shearing and is	ones in assic Hazelton white in shears t is comprised andesitic tuff e exposed veins. Minor guarry face. veining. silver, and posits. The usually	

PAGE: 200 REPORT: RGEN0100

#### CAPSULE GEOLOGY

BIBLIOGRAPHY

accompanied by native gold. Most of the shears parallel the bedding planes and were produced during folding. These strike southeast dipping between 20 to 40 degrees to the southwest in the lower mineralized zone while the upper and more eastern zones strike south and dip 20 degrees east. The productive zones are mainly confined to the crest of an anticlinal fold with a near vertical axial plane and trends in a southwest direction. In some instances the mineralization appears to have filled pre-existing fractures due to a well developed "comb-structure" comprised of quartz crystals of appreciable size formed together with tetradymite crystals. In some cases the tetradymite shows a tendency to assume pseudomorphic form after quartz.

EMPR GEM 1973-347; 1974-262 EMPR GEM 1973-347; 1974-262 EMPR MAP 69-1 EMPR OF 1993-21; 1994-14 EMPR PF (Glacier Gulch Group in 093L 110; Report by Jonson, Davidson and Daughty (1968) in 093L 110) GSC BULL 270 GSC MAP 278A; 971A GSC MAP 278A; 971A GSC MEM \*223, pp. 73-77 GSC OF 351 GSC P \*36-20, pp. 91-96 CIM BULL Sept. 1983 Kirkham, R.V. (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/02 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 110</u>				NATIONAL M	INERAL INVENTORY: 093L14 M	<b>l</b> o1
NAME(S):	Yorke-Hardy Yorke Hardy	<b>Y</b> , GLACIER GUI Y	_CH, UNITY,				
STATUS:	Developed Pro	ospect				MINING DIVISION: Omineca	
REGIONS: NTS MAP:	British Columbi 093L14W	a				UTM ZONE: 09 (NAD	83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION:	54 49 12 N 127 18 00 V 1066 Metres	1 V				NORTHING: 6076086 EASTING: 609227	
LOCATION ACCURACY: COMMENTS:	Within 500M Located on the northwest of S	e east flank of Hu Smithers.	udson Bay Mou	ntain, 10 kilometres	3		
COMMODITIES:	Molybdenum	Tur	igsten	Copper		Zinc	
MINERALS		<b>.</b>		<b>.</b>			
SIGNIFICANT: ASSOCIATED:	Molybdenite Quartz	Scheelite Magnetite	Wolframite K-Feldspar	Chalcopyrite Garnet	Sphalerite Epidote		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	K-Feldspar Potassic Unknown	Sericite Ser	Silica icitic	Silicific'n			
DEPOSIT							
CHARACTER: CLASSIFICATION:	Stockwork Porphyry	Vei Epig	n genetic	Disseminat Hydrothern	ed nal		
TYPE: DIMENSION: COMMENTS:	L05 Porphy 2500 x 2100 Surface area o	yry Mo (Low F- x 1500 Met of molybdenite m	type) res hineralization.	STRIKE/D	L07 Poi IP:	rphyry W TREND/PLUNGE:	
HOST ROCK							
DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE	<u>GROUP</u>		<u>FOR</u>	MATION		IGNEOUS/METAMORPHIC/OT	THER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary	Blutonic <u>GROUP</u> Hazelton		<u>FOR</u> Und	MATION efined Formation		IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal	<u>THER</u>
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	Blutonic <u>GROUP</u> Hazelton 67-73 Ma Potassium/Arg Biotite	on	<u>FOR</u> Und	MATION efined Formation		IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal	THER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY:	Plutonic <u>GROUP     Hazelton     67-73 Ma     Potassium/Arg     Biotite     Granodiorite     Rhyolite Porph     Lamprophyre I     Quartz Feldspa     Andesite     Tuff </u>	ion iyry Dike ar Porphyry Dike	<u>FOR</u> Und	MATION efined Formation		IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal	<u>MER</u>
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS:	Plutonic <u>GROUP</u> Hazelton 67-73 Ma Potassium/Arg Biotite Granodiorite Rhyolite Porph Lamprophyre I Quartz Feldspa Andesite Tuff Biotite from th rhyolite plug.	ion Dike ar Porphyry Dike ne Hudson Bay	FOR Und	MATION efined Formation near the contact w	ith a	IGNEOUS/METAMORPHIC/OT	MER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERPANE:	Plutonic <u>GROUP</u> Hazelton 67-73 Ma Potassium/Arg Biotite Granodiorite Rhyolite Porph Lamprophyre I Quartz Feldspa Andesite Tuff Biotite from th rhyolite plug. Intermontane Stiking	ion Dike ar Porphyry Dike ne Hudson Bay	FOR Und	MATION efined Formation near the contact w	ith a PHYSIOGRA	IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal	MER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Plutonic <u>GROUP</u> Hazelton 67-73 Ma Potassium/Arg Biotite Granodiorite Rhyolite Porph Lamprophyre L Quartz Feldspa Andesite Tuff Biotite from th rhyolite plug. Intermontane Stikine Contact	ion Dike ar Porphyry Dike ne Hudson Bay Regional	FOR Und Mountain stock Plutonic F RELAT	MATION efined Formation near the contact w Rocks IONSHIP:	ith a PHYSIOGRA	IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal PHIC AREA: Nechako Plateau GRADE: Greenschist	MER
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY	Plutonic <u>GROUP</u> Hazelton 67-73 Ma Potassium/Arg Biotite Granodiorite Rhyolite Porph Lamprophyre I Quartz Feldspa Andesite Tuff Biotite from th rhyolite plug. Intermontane Stikine Contact	ion Dike ar Porphyry Dike ne Hudson Bay Regional		MATION efined Formation near the contact w cocks IONSHIP:	ith a PHYSIOGRA	IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal PHIC AREA: Nechako Plateau GRADE: Greenschist	<u>MER</u>
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: <b>GEOLOGICAL SETTING</b> TECTONIC BELT: TERRANE: METAMORPHIC TYPE: <b>INVENTORY</b> ORE ZONE:	Plutonic <u>GROUP</u> Hazelton 67-73 Ma Potassium/Arg Biotite Granodiorite Rhyolite Porph Lamprophyre I Quartz Feldspa Andesite Tuff Biotite from th rhyolite plug. Intermontane Stikine Contact YORKE-HARD <sup>1</sup>	ion Dike ar Porphyry Dike ne Hudson Bay Regional		MATION efined Formation near the contact w Rocks IONSHIP: REPORT ON	ith a PHYSIOGRA	IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal PHIC AREA: Nechako Plateau GRADE: Greenschist	<u>MER</u>
DOMINANT HOSTROCK: <u>STRATIGRAPHIC AGE</u> Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	Plutonic <u>GROUP</u> Hazelton 67-73 Ma Potassium/Arg Biotite Granodiorite Rhyolite Porph Lamprophyre I Quartz Feldspa Andesite Tuff Biotite from th rhyolite plug. Intermontane Stikine Contact YORKE-HARDY CATEGORY: QUANTITY: <u>COMMODITY</u>	on Dike ar Porphyry Dike ne Hudson Bay Regional Y Indicated 120000000	Mountain stock Plutonic F RELAT Tonnes	MATION efined Formation near the contact w cocks IONSHIP: REPORT ON YEAR	ith a PHYSIOGRAI I: Y I: 1998	IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal PHIC AREA: Nechako Plateau GRADE: Greenschist	<u>HER</u>
DOMINANT HOSTROCK: STRATIGRAPHIC AGE Jurassic Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE: COMMENTS:	Plutonic <u>GROUP</u> Hazelton 67-73 Ma Potassium/Arg Biotite Granodiorite Rhyolite Porph Lamprophyre I Quartz Feldspa Andesite Tuff Biotite from th rhyolite plug. Intermontane Stikine Contact YORKE-HARD' CATEGORY: QUANTITY: <u>COMMODITY</u> Molybdenum Grade reported	on Dike ar Porphyry Dike he Hudson Bay Regional Y Indicated 120000000	FOR Und Mountain stock Plutonic F RELAT Tonnes Tonnes Gr C ent MoS2. Incl	MATION efined Formation near the contact w Rocks IONSHIP: REPORT ON YEAR ADE .1520 Per cer udes 24,300,000 to	ith a PHYSIOGRAI I: Y I: 1998	IGNEOUS/METAMORPHIC/OT Unnamed/Unknown Informal PHIC AREA: Nechako Plateau GRADE: Greenschist	<u>HER</u>

#### INVENTORY

ORE ZONE: GLACIER GUL	REPORT ON: Y					
CATEGORY: QUANTITY:	Unclassified 90718500 Tonnes	3	YEAR: 1996			
COMMODITY		GRADE				
Molybdenum		0.1780	Per cent			
Tungsten		0.0320	Per cent			
COMMENTS: One hundred million tons grading 0.297 per cent MoS2 and 0.04 per cent WO3.						
DEFEDENCE, D. Davidson C	Numery Compared to Liter many		tion 1000			

REFERENCE: D. Davidson, Climax Canada Ltd., personal communication, 1996.

#### CAPSULE GEOLOGY

Lower-Middle Jurassic Hazelton Group andesite and tuffs are overlain by Lower-Upper Cretaceous Skeena Group sediments. A large discordant and differentiated granodiorite sheet is intruded into the volcanic sequence. The Early Tertiary-Late Cretaceous (67-73 Ma) Hudson Bay Mountain stock is concealed and is estimated to be 550 metres thick. It is divided texturally from the upper to lower contacts as aplitic granodiorite, porphyritic granodiorite and granodiorite, respectively. The stock contains blocks of Hazelton volcanics traceable for hundreds of metres. Lamprophyre dikes crosscut both the granodiorite and Hazelton rocks. The metamorphism is due to the intrusion of the Hudson Bay stock and the associated intrusion of a rhyolite porphyry plug and radial quartz-feldspar porphyry dikes. The rhyolite plug is oval shaped and at its upper contact are quartz stockworks and a high silica zone that crosscuts well-defined chill and crenulate quartz band zones.

Veins hosting molybdenite and scheelite occur over 3 kilometres horizontally and are enveloped by radial base metal veins that extend beyond an 8 kilometre radius. High-grade molybdenum zones occur in the lower portion of the differentiated granodiorite sheet and is an important lithologic control on mineralization.

The molybdenite mineralization occurs over a surface area of approximately 2.5 by 1.5 kilometres and a vertical distance of 2.1 kilometres. Strands of 0.2 per cent molybdenite appear over more than 600 metres vertically. Molybdenite occurs in three modes: 1) early fine-grained,

Molybdenite occurs in three modes: 1) early fine-grained, hairline stockwork veins characterized by potassic alteration and relatively low molybdenum values; 2) domal sets of fine-grained, banded quartz-molybdenite veins associated with phyllic alteration and high-grade assays; and 3) spectacular molybdenite crystals up to 5 centimetres in length occur in coarse-grained quartz-molybdenite veins characterized by potassic alteration envelopes with high assays.

Scheelite occurs in quartz-magnetite-potassium feldspar veins formed prior to the coarse-grained quartz-molybdenite veins. Scheelite also occurs as rare disseminations associated with andradite garnet, epidote and quartz assemblages formed prior to the fine-grained hairline stockwork veins. Minor amounts of wolframite are found downdip from the granodiorite sheet.

Late-stage vein mineralization includes pyrite, chalcopyrite, sphalerite and carbonate. The source of the mineralizing fluids is thought to be the Hudson Bay Mountain stock due to its spatial relationship. The tungsten-rich zone generally straddles the upper 0.2 per cent molybdenum boundary.

Unclassified reserves at Yorke-Hardy are 100 million tons (about 90.7 million tonnes) grading 0.297 per cent MoS2 (0.178 per cent Mo) and 0.04 per cent WO3 (0.032 per cent W) (D. Davidson, Climax Canada Ltd., personal communication, 1996).

Ltd., personal communication, 1996). In 1998, Verdstone Gold Corp. and Molycor Gold Corporation are evaluating the development of a high-grade core of 24,200,000 million tonnes of 0.24 per cent molybdenum (0.4 per cent MOS2).

In 1998, Giroux Consultants Ltd. evaluated the resource to be 120 million tonnes of 0.152 per cent molybdenum (0.254 per cent MoS2), including 24,200,000 tonnes of 0.24 per cent molybdenum (0.400 per cent MoS2). Estimates by Steininger in 1981 were 125,500,000 tonnes of 0.157 per cent molybdenum and 0.0238 per cent tungsten including 20,600,000 tonnes of 0.24 per cent molybdenum and 0.0317 per cent tungsten (GCNL #80 (April 27), 1998 and CMH 1998-99, page 461).

#### BIBLIOGRAPHY

EMPR AR 1958-10; 1959-17; 1961-19; 1962-16; 1963-26; 1965-74; 1966-86; 1967-90; 1968-120 EMPR ASS RPT \*471, 545, 1730, 2245, 4756, 4871, 5041, 5928, 6480, 7565, 7780, 10370, 18236, 19569, 20797, 21743 EMPR EXPL 1975-E143; 1976-E149; 1977-E197; 1979-229; 1980-346;

1999-19-31 EMPR FIELDWORK 1988, pp. 195-208 EMPR GEM 1969-85; 1970-163; 1971-177; 1972-419; 1973-347; 1974-262 EMPR MAP 58; 65 (1989); 69-1 EMPR OF 1992-1; 1993-21; 1994-14; 1998-8-F, pp. 1-60 EMPR PF (Jonson, Davidson and Daughty, (1968): Geology of the Hudson Bay Mtn. Molybdenum Deposit; Report on Glacier Gulch Group, undated; Miscellaneous photos of Glacier Gulch) EMR MIN BULL MR 158, p. 238; 223 B.C. 233 GSC BULL 64, p. 111, No.1, (1932) p. 54; 270 GSC MAP 971A GSC MEM 223 GSC OF 351 GSC OF 351 GSC P 36-20, pp. 91-97; 44-23 CIM Vol.76, No.857 (1983), p. 50; Sept. 1983 CMH 1998-99, p. 461 GCNL #58(Mar.24),#103(May 29), #168(Sept.2), #196(Oct.10), 1997; #80(Apr.27), #141(July 23), #142(July 24), 1998 PR REL Verdstone Gold Corporation and Molycor Gold Corporation, """" 100 Mar. 27 Oct 7 1007 March 19, May 27, Oct.7, 1997 WWW http://www.verdstonegroup.com/molycor/; WWW http://www.infomine.com/index/properties/YORK-HARDY.html Kirkham, R.V. (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin DATE CODED: 1985/07/24 DATE REVISED: 1997/04/15

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 111</u>		NATIONAL M	INERAL INVENTORY	: 093L14 Au10
NAME(S):	<u>Yukon (l.7280)</u> , grand view				
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093L14W			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 48 15 N 127 16 36 W 1525 Metres Within 500M Located 0.8 kilometres north of the Bay Mountain, 6.4 kilometres nort	e head of Simpson Cro hwest of Smithers.	eek on Hudson	NORTHING EASTING	6074361 610770
COMMODITIES:	Silver Lead	Zi	nc	Gold	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Arsenopyrite Sphalerite Quartz Malachite Limonite Unknown	Galena Chalo	copyrite Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydroth 105 Polymetallic veins Ag-Pb-2 Strong shear zone between granit varies from 45 to 60 degrees east	nermal Zn±Au te and volcanic contac t.	STRIKE/DIP: 135/53E ct. Strike dip	TREND/PLU	JNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic Cretaceous	GROUP Hazelton	FORMATION Undefined For	mation	IGNEOUS/METAN Bulkley Intrusions	IORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Rhyolite Greywacke Granite				
HOSTROCK COMMENTS:	At elevation 1524 metres, fine to	medium-grained gran	ite stock.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact Regional	Plutonic Rocks RELATIONSHIP:	PHYSIOGRA Syn-mineralization Post-mineralization	PHIC AREA: Nechaki GRADE:	o Plateau
INVENTORY					
ORE ZONE:	SHEAR	RE	PORT ON: N		
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel <u>COMMODITY</u> Silver Gold Copper Zinc Seventy-six centimetre channel sa filling. Geological Survey of Canada Men	<u>GRADE</u> 19.2000 4.1000 0.2100 1.6000 ample taken across sł	YEAR: 1929 Grams per tonne Grams per tonne Per cent Per cent neared in-		
CAPSULE GEOLOGY	Geological Survey of Carlada Men		1334).		
	The host rock is convolved to the second sec	omprised of Low largely of and . These are in ribed as a fine striking 135 t as traced with Near the cont e, pyrite and c utheast, the zo 4.1 grams per t nc and 0.21 per	er Jurassic Haze esite, rhyolite, truded by the La to medium-grain o 150 degrees an open cuts from t act, tuffs are i halcopyrite acro ne widens and a onne gold, 19.2 cent copper (Ge	lton Group intercalated te Cretaceous ed granite d dipping 60 to he granite mpregnated with ss a width of 76 centimetre grams per tonne ological Survey	2 1 2 7

of Canada Memoir 223, revised edition, 1954, page 130). A quartz vein, located southeast of the open cut mentioned above, hosts abundant arsenopyrite with minor pyrite and sphalerite. The wall rock is altered and bleached to a yellow hue. A representative sample of the vein quartz and arsenopyrite assayed 6.9 grams per tonne gold. At 1448 metres elevation, another quartz vein is exposed in two open cuts. The vein ranges from 30 to 45 centimetres in width, and the quartz carries abundant arsenopyrite and a little sphalerite. A typical sample (collected by Kindle 1954) assayed 3.4 grams per tonne gold and 0.6 per cent zinc (Geological Survey of Canada Memoir 223).

## BIBLIOGRAPHY

EMPR AR 1917-114; 1925-136; 1926-132; 1928-162; 1929-164 EMPR MAP 69-1 EMPR ASS RPT \*471, 16491 EMPR EXPL 1987-C308,309 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin GSC SUM RPT \*1925A, p. 137 GSC MAP 278A; 971A GSC MEM \*223 (Rev) p. 130 GSC P 44-23 GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/11 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 112</u>			NATIONAL MINERAL INVENTOR'	r: 093L14 Zn3
NAME(S):	TRIXIE				
STATUS:	Showing British Columbia			MINING DIVISION	I: Omineca
NTS MAP:	093L14W			UTM ZONE	E: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 52 40 N 127 18 06 W 640 Metres Within 1 KM Located at 640 metres elev Mountain, on an unnamed 1.6 kilometres from Evelyn	vation on the n creek that flow or 12.9 kilome	ortheast side of Hudson l rs into Toboggan Lake, al etres northwest of Smithe	NORTHING EASTING Bay pout rs.	6082512 608964
COMMODITIES:	Zinc	Manganese	Copper		
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Malachite "Unknown zinc-carbonate' Quartz Carbonate Malachite Unknown	Siderite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Industrial Min. 105 Polymetallic veins .	Ag-Pb-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton		FORMATION	IGNEOUS/META	MORPHIC/OTHER
LITHOLOGY:	Andesite				
	Andesite Flow Tuff Breccia				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Andesite Flow Tuff Breccia Intermontane Stikine			PHYSIOGRAPHIC AREA: Necha	ko Plateau
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Andesite Flow Tuff Breccia Intermontane Stikine The showing 1: comprised of andes: Lay described the s malachite staining the east bank of the metres. A sample : cant values. A pic to contain 10 per of presumed to be host vein.	ies within itic flows showing as in a deco ie creek f from the c cree of sid cent zinc ced as a z	Lower Jurassic H, , tuffs, and brec "very feeble min mposed and sheared or about 61 metre opper stained out erite taken from and 3 per cent maging carbonate with	PHYSIOGRAPHIC AREA: Nechal azelton Group volcanics cia. In 1926, Douglas eralization" showing d andesite exposed on s at elevation 640 crop yielded no signifi a vein nearby was found nganese. The metals ar hin a quartz-carbonate	ko Plateau - e
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Andesite Flow Tuff Breccia Intermontane Stikine The showing l: comprised of andes: Lay described the s malachite staining the east bank of th metres. A sample : cant values. A pic to contain 10 per of presumed to be host vein.	ies within itic flows showing as in a decon he creek f from the c ece of sid cent zinc ted as a z	Lower Jurassic H , tuffs, and brec "very feeble min mposed and sheare or about 61 metre opper stained out erite taken from and 3 per cent ma inc carbonate wit	PHYSIOGRAPHIC AREA: Nechal azelton Group volcanics cia. In 1926, Douglas eralization" showing d andesite exposed on s at elevation 640 crop yielded no signifi a vein nearby was found nganese. The metals ar hin a quartz-carbonate	ko Plateau - e
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Andesite Flow Tuff Breccia Intermontane Stikine The showing l: comprised of andes: Lay described the s malachite staining the east bank of th metres. A sample: cant values. A pic to contain 10 per presumed to be host vein. EM EXPL 1999-19-31 EMPR AR 1921-131 EMPR MAP 69-1 GSC BULL 270 GSC MEM 223, p. 120 GSC P 351 GSC P 351 GSC P 351 GSC P 351 GSC P 351 Columbia, Ph.D.	ies within tic flows showing as in a decoin te creek for from the c ece of sid cent zinc ced as a z 3, pp. 195 5 59): A Min thution of Thesis, Us	Lower Jurassic H, , tuffs, and brec. "very feeble min mposed and sheare or about 61 metre opper stained out erite taken from and 3 per cent mai inc carbonate wit -208 eralogical and Ge Ores in the Huds niversity of Wisc	PHYSIOGRAPHIC AREA: Nechal azelton Group volcanics cia. In 1926, Douglas eralization" showing d andesite exposed on s at elevation 640 crop yielded no signifi a vein nearby was found nganese. The metals ar hin a quartz-carbonate	ko Plateau  re

MINFILE NUMBER:	<u>093L 113</u>		NA	ATIONAL MINERAL INVENTORY	′: 093L14 Ag13
NAME(S):	VANCOUVER, LONE STAR,	SLOAN			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L14E		Underground	MINING DIVISION UTM ZONE	: Omineca : 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 48 00 N 127 14 16 W 732 Metres Within 500M Located on Simpson Creek, kilometres northwest of Sm	east side of Hudson ithers.	Bay Mountain, 4.0	NORTHING EASTING	6073960 613281
COMMODITIES:	Silver L	ead	Zinc	Gold	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Sphalerite Galena Unknown	Chalcopyrite	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS: HOST ROCK	Vein Epigenetic H I05 Polymetallic veins A Mineralized vein in shear zo	łydrothermal g-Pb-Zn±Au ne.	STRIKE/DIP:	130/65W TREND/PL	UNGE:
DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORM</u> Undefi	ATION ned Formation	IGNEOUS/METAN	/IORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Rhyodacite Flow Breccia				
	Intermentane				
METAMORPHIC TYPE:	Stikine Regional	RELATIO	NSHIP: Syn-mineral	ization GRADE:	lo Fialeau
CAPSULE GEOLOGY	The host rock volcanics which con tuffs and flow brec ing quartz and calc	is comprised o sist of purpli cia with green ite amygdules.	f Lower Jurass sh andesite fl tuff and rhyc	ic Hazelton Group ows, intercalated red dacitic flows contain	-
	On the south s shear zone striking The red tuff and an color along the she stringers and veinl sphalerite, galena, also carry similar In 1935, 23 to silver, 370 kilogra	ide of Simpson 124 degrees a desites are bl ar. This alte ets. The sulp pyrite, and c mineralization nnes were mine ms lead, and 1	Creek an adit nd dipping 65 eached and alt red rock is cr hide veins are halcopyrite. d producing 12 16 kilograms z	was driven in a degrees southwest. ered to a greyish osscut by sulphide comprised of Parallel fissures 75 grams per tonne inc.	
BIBLIOGRAPHY DATE CODED:	On the south s shear zone striking The red tuff and an color along the she stringers and veinl sphalerite, galena, also carry similar In 1935, 23 to silver, 370 kilogra EMPR AR 1916-122; 1 EMPR FIELDWORK 1988 EMPR MAP 69-1 GSC MAP 278A; 971A GSC OF 351 GSC P 44-23 GSC BULL 270 GSC ANN RPT 1925A, GSC MEM 223 (Rev) p Kirkham, R.V., (196 the Zonal Distri Columbia, Ph.D.	<pre>ide of Simpson 124 degrees a desites are bl ar. This alte ets. The sulp pyrite, and c mineralization nnes were mine ms lead, and 1 926-132; 1935- , pp. 195-208; p. 137 . 126 9): A Mineralo bution of Ores Thesis, Univer</pre>	Creek an adit nd dipping 65 eached and alt red rock is cr hide veins are halcopyrite. d producing 12 16 kilograms z A24; 1956-26; 1991, pp. 93- gical and Geoc in the Hudson sity of Wiscon	was driven in a degrees southwest. ered to a greyish cosscut by sulphide comprised of Parallel fissures 75 grams per tonne inc. 1966-91 101	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 114</u>			NATIONAL MIN	IERAL INVENTORY	: 093L14 Au13
NAME(S):	RACHEL, CASCADE					
STATUS: REGIONS: NTS MAP: BC MAP:	Prospect British Columbia 093L14W 093L14E				MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 35 N 127 15 16 W 1097 Metres Within 500M Located on Simpson Creek on ea 4.8 kilometres northwest of Smith	st side of Hudso hers.	n Bay Mountain,		NORTHING: EASTING:	6073160 612229
COMMODITIES:	Gold Silver		Lead	2	Zinc	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Sphalerite Quartz Carbonate Silicific'n Unknown	Galena	Pyrite C	Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrotl 105 Polymetallic veins Ag-Pb- Mineralized quartz-carbonate veir	hermal Zn±Au n in upper adit.	STRIKE/DIF	P: 100/10S	TREND/PLL	INGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	FORMAT Undefine	TION ed Formation		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Breccia Rhyodacite					
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATION	SHIP: Syn-mine	PHYSIOGRAPI ralization	HIC AREA: Nechako GRADE: Hornfels	o Plateau
CAPSULE GEOLOGY	The claim is under canics comprised of red tuff and rhyodacite flo volcanics. The zone co occurrences of arsenopy The upper showing vein which strikes 080 abundant pyrite and les minor chalcopyrite. Th tuff. Above the upper carbonate vein with ars 100 degrees and dip 10 upper adit vein appears striking 100 degrees an In 1986 samples fr tonne gold, 8.2 to 32.6 cent zinc and 0.87 per	lain by Low andesitic ws. The sh ntains band rite, sphal consists of degrees and ser arsenop e vein is h adit portal enopyrite, degrees sou to be a 3 d dipping 6 om this adi grams per cent lead (	er Jurassic flows and t owing is wi s of quartz erite and p a 8 to 15 dips 42 de yrite, spha osted by ho a 10 centi pyrite, and th. The co to 5 centim 0 degrees s t assayed 3 tonne silve Assessment	Hazelton of uffs with 1 thin a sheat veins with yrite. centimetre grees south lerite, ga rnfelsed, : metre wide minor gale ntinuation etre shear outh. .6 to 6.2 g r with up Report 151	Group vol- breccia, green ar zone in the h minor quartz h, with lena, and fine-grained quartz- ena strikes of the with gouge grams per to 8.66 per 40).	1
BIBLIOGRAPHY	EMPR EXPL 1986-359 EMPR ASS RPT *15140 EMPR FIELDWORK 1988, pp EMPR AR 1912-115; 1923- EMPR MAP 69-1 GSC MAP 971A GSC ANN RPT 1925A, p. 1 GSC MEM 223 (Rev) p. 91 GSC P 44-23 GSC BULL 270 GSC SUM RPT 1925A, pp.	. 195-208 110; 1924-9 37 120-143	6; 1925-136			

Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED:	1985/07/24
DATE REVISED:	1988/06/15

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 115</u>		NATIONAL M	INERAL INVENTORY:	093L14 Au11
NAME(S):	JESSIE (L.7031), LAST CHANCE	Ξ			
STATUS:	Prospect Britich Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L14W			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 25 N 127 15 56 W 1220 Metres Within 500M Located on Simpson Creek on th 5.6 kilometres west-northwest of	ne east side of Hudson of Smithers.	Bay Mountain,	Northing: Easting:	6072833 611522
COMMODITIES:	Silver Lead	Zi	nc	Gold	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Galena Quartz Silicific'n Unknown	Sphalerite Pyrite	3		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydro 105 Polymetallic veins Ag-Pt	othermal o-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined For	mation	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Andesite Tuff Rhyolite Rhyodacite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIONSHIP:	PHYSIOGRA Syn-mineralization	PHIC AREA: Nechako GRADE:	Plateau
INVENTORY					
ORE ZONE:	SAMPLE	RE	PORT ON: N		
COMMENTS	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold Lead Zinc Mineralized bost rock	GRADE 166.6000 4.8000 5.5500 13.1000	YEAR: 1954 Grams per tonne Grams per tonne Per cent Per cent		
REFERENCE:	Geological Survey of Canada Me	emoir 223, (Revised Ed	.), page 112.		
CAPSULE GEOLOGY	The host rock is sisting of andesite, i flows. The rock is al mineralizing hydrother At 1340 metres el mineralized fissures. angle and contain vein and galena. Small sul between the fissures. The two main vein elevation of 1370 metr and dipping south 35 d curved (saucer-shaped) The sulphide rich	Lower Jurassic H ntercalated tuff tered and bleach mal vein formati evation, an adit Both strike nor quartz, with py phide veinlets c s are traceable es. Their strik egrees. The fra quartz veins ra	azelton Group vo , rhyodacite and ed when it is fi on. was driven west therly and dip w rite, arsenopyri rosscut the alte for 122 metres n e changes gradua cture pattern ap nge from 16 to 4	lcanics con- rhyolite ssured due to in two est at a low te, sphalerite, red rock orth to an lly to due west pears to be 0 centimetres	

wide. A 25 centimetre channel sample assayed 11.7 grams per tonne gold, 110.05 grams per tonne silver, 0.60 per cent lead, and 12.60 per cent zinc (Assessment Report 471). A sample of the fractured and mineralized host rock adjoining

the veins was collected by Kindle in 1954 and assayed 4.8 grams per

tonne gold, 166.6 grams per tonne silver, 5.55 per cent lead, and 13.10 per cent zinc (Geological Survey of Canada Memoir 223, revised edition, page 112).

#### BIBLIOGRAPHY

GSC MEM \*223 (Rev) p. 112 EMPR AR 1917-114; 1927-136; 1928-162; 1933-97 EMR MP CORPFILE (Jessie Gold Mines Ltd.) EMPR MAP 69-1 GSC MAP 971A EMPR ASS RPT \*471 GSC OF 351 GSC P 44-23 EMPR PF (Norrie-Loewenthal, W.G., (1932): Report on the Property of the Jessie Gold Mines Ltd. includes plan of the Jessie Mine)

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/15 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 116</u>		NATIONAL M	IINERAL INVENTORY:	093L14 Ag12
NAME(S):	EMPIRE, RACHEL, BV, SUNSET, CASCADE				
STATUS:	Past Producer	Une	derground	MINING DIVISION:	Omineca
NTS MAP:	093L14W 093L14E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 00 N 127 16 56 W 1432 Metres Within 500M Located at the headwaters of Sir Bay Mountain, 6.4 kilometres we	mpson Creek on the ea	ist side of Hudson	NORTHING: EASTING:	6072034 610470
COMMODITIES:	Silver Lead Cadmium Antime	Zi	nc	Gold	Copper
MINERALS					
SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Tetrahedrite Quartz Silicific'n Unknown	Chalcopyrite Pyrite	Arsenopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydro 105 Polymetallic veins Ag-Pb	thermal p-Zn±Au			
DIMENSION: COMMENTS:	Mineralized quartz vein.	:	STRIKE/DIP: 305/60W	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Flow Breccia Hornfels				
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIONSHIP:	Syn-mineralization	GRADE: Hornfels	Plateau
INVENTORY	5		,		
ORE ZONE:	VEIN	RE	PORT ON: N		
COMMENTE	CATEGORY: Assay/analysis SAMPLE TYPE: Channel <u>COMMODITY</u> Silver Gold Cadmium Copper Lead Zinc Empire #1 sample #3105(15 cont	<u>GRADE</u> 1449.9000 1.0200 0.0100 0.4400 6.1400 0.7200	YEAR: 1986 Grams per tonne Grams per tonne Per cent Per cent Per cent Per cent Per cent		
DEEEDENCE:	Au-1.02; Ag-832.4; Pb-20.9; Zn-4	34.01; Cu-0.36; Cd-0.2	). Empile #2- 3; Sb-0.08. pt 15140 Eig 5		
	Linpite #1. Assessment Report	15 140, 1 lg. 4, #2. ASS.N	pt. 13140,11g. 5.		
	The claim is under Group volcanics compris On the south side of the in elevation, hosts a te Empire #1. A selected from the 30 centimetre gold, 7096 grams per te cent zinc (1914) (Minis At elevation 1443 which consisted of a 90 with a well mineralized	rlain by Lower t sed of andesitic he basin a shear high grade samp wide quartz vei onne silver, 25. ster of Mines An metres, an adit 0 to 120 centime d 8 to 30 centim	o Middle Jurassi flows, tuffs, a , between 1443 t tz vein and is r le of galena and n assayed 2.05 g 3 per cent lead, nual Report 1914 was driven alon tre altered frac etre quartz-sulp	c Hazelton nd breccia. o 1555 metres eferred to as sphalerite rams per tonne and 18.6 per , page 225). g the shear ture zone hide vein with	

MINFILE NUMBER: 093L 116

PAGE: 213 REPORT: RGEN0100

## CAPSULE GEOLOGY

gouge along the footwall. The fracture eventually pinches out and reappears on the hanging wall to the south. The shear vein continues with little fracturing and consists of galena, sphalerite, arsenopyrite with minor chalcopyrite, and tetrahedrite. In 1986, five chip samples were collected and assayed 0.6 to 3.3 grams per tonne gold, 57.9 to 1450 grams per tonne silver, 0.32 to 9.74 per cent lead, 0.22 to 8.47 per cent zinc with minor copper and cadmium values (Assessment Report 15140).

The Empire #1 shear vein is hosted in hornfelsed, fine-grained maroon to grey tuff. Recessive weathering shows the zone to be 30 metres wide and striking 160 degrees and dipping 80 degrees west. Manganese staining is common.

In 1914, three tonnes of ore was shipped from the Empire #1 workings and produced 20,030 grams silver and 699 kilograms lead. On the northwest side of the basin, a mineralized vein referred

On the northwest side of the basin, a mineralized vein referred to as Empire #2, strikes 310 degrees and dips 50 degrees west. The vein consists of 8 to 30 centimetres of silicified wall rock with quartz and abundant pyrite-galena-sphalerite and arsenopyrite. In 1986, three chip samples were taken across the vein as well as a high grade sample from the dump and assays ranged between 1.03 to 4.46 grams per tonne gold, 213.9 to 1292 grams per tonne silver, 7.5 to 36.67 per cent lead, 10.49 to 34.01 per cent zinc, 0.26 to 0.36 per cent copper, 0.07 to 0.23 per cent cadmium, and 0.02 to 0.12 per cent antimony (Assessment Report 15140).

#### BIBLIOGRAPHY

EMPR AR 1909-84; 1912-115; 1914-225; 1920-90; 1921-272; 1924-96 1925-137; 1926-132; 1928-161; 1929-164; 1931-73; 1938-B37,C49; 1952-94; 1968-120,121 EMPR GEM 1969-85; 1971-177 EMPR MAP 69-1 EMPR EXPL \*1986-359 EMPR ASS RPT \*15140 EMPR FIELDWORK 1988, pp. 195-208; 1991, pp. 93-101 GSC MEM 223 (Rev) p. 93 GSC SUM RPT 1925A, p. 136 GSC MAP 278A; 971A GSC P 44-23 GSC BULL 270 EMR MP CORPFILE (Buval Exec. Mining Ind. Ltd.; Abaca Resources Ind. Inc.) W MINER Dec. 1952, p. 45 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia Db D Decis University of Missensity Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/13 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 117</u>	NATIONAL MI	NERAL INVENTORY: 093L14 Ag1
NAME(S):	MIDNIGHT, SNOWSHOE, ROBIN		
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L14W 093L14E	Underground	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 07 N 127 15 21 W 1372 Metres Within 500M		NORTHING: 6072293 EASTING: 612161
COMMODITIES:	Silver Lead	Zinc	Gold Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE	Arsenopyrite Sphalerite Galena Pyrite Quartz Carbonate Silicific'n Quartz-Carb.	a Tetrahedrite Chalcopyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrothermal 105 Polymetallic veins Ag-Pb-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Andesitic Flow Tuff		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAF	PHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	VEIN	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel <u>COMMODITY</u> Silver Gold Copper Lead Zinc Twenty-three centimetre channel sample Minister of Mines Annual Report 1937, par	YEAR: 1937 <u>GRADE</u> 2890.0000 Grams per tonne 3.8000 Grams per tonne 1.3500 Per cent 46.3000 Per cent 8.2200 Per cent across sulphide vein. age C19.	
CAPSULE GEOLOGY		. h	
	canics comprised of relative grey andesite, andesitic flo is a complex, massive sulphi amounts of quartz and carbon strikes south to southeast a however, drill results indic The shear is traceable for 2 elevation. The andesitic wa and bleached and in places a pyrite. The quartz-sulphide metres wide, occur along the sphalerite, arsenopyrite, py A massive sulphide vein was exposed in a trench from 7.2 grams per tonne gold, 52 cent lead, 9.71 per cent zin metre wide massive sulphide workings, assayed 3.8 grams silver, 46.3 per cent lead,	If y hower ourassie hazerte ly unaltered, massive, purp ws, and intercalated tuff. de-sulphosalt shear zone wi ate gangue. On the surface nd dips 60 to 80 degrees so ate the dip is much shallow 15 metres between 1364 to 1 11 rocks have been hydrothe re silicified and impregnat veins, generally less thar shear zone and host mainly rite, chalcopyrite, and tet , ranging from 15 to 30 cer the 1938 workings. A samp 35.7 grams per tonne silver c, and 0.7 per cent copper. vein, exposed 92 metres nor per tonne gold, 2890 grams 8.22 per cent zinc, and 1.3	The shoup voi The shoung th variable the shear buthwest, ver at depth. 372 metres formally altered ed with minor 15 centi- r galena, rahedrite. timetres wide, ble assayed 43.9 per A 23 centi- th of the old per cent

copper. The area between these two trenches consists primarily
of barren quartz that possibly post-dates the sulphide mineralization (Minister of Mines Annual Report 1937, page C19).
 Mining in 1981 to 1982 included a total of 39 tonnes mined
and produced 312 grams gold, 197,039 grams silver, 280 kilograms
copper, 10.077 kilograms lead, and 5308 kilograms zinc.

## BIBLIOGRAPHY

EMPR AR 1928-162; 1929-163; 1931-73; 1936-B36,C6; \*1937-C19; 1952-94; 1966-91; 1968-121 EMPR GEM \*1971-177; 1975-E142 EMPR FIELDWORK \*1977, p. 67; 1988, pp. 195-208; 1991, pp. 93-101 EMPR ASS RPT \*471 EMPR MAP 69-1 GSC SUM RPT 1925A, p. 136 GSC MAP 278A; 971A GSC P 44-23 GSC MEM 226, p. 125 GSC OF 351 GSC BULL 270 EMR MP CORPFILE (Buval Mining Ind. Ltd.; Abaca Resources Ind. Inc.) W MINER \*V01. 37, June 1964, p. 24 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/16 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 118</u>		NATIONAL MINERAL INVENTORY:	093L14 Ag8
NAME(S):	HB, GROUNDHOG, CARIBOO			
STATUS:	Showing Britich Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L14W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 00 N 127 17 46 W 1675 Metres Within 500M Located at the head of Millers and Pine Creek on southeast shoulder of Hudso kilometres west of Smithers.	e Creeks on left side of Pin n Bay Mountain, approxim	NORTHING: EASTING: ately 6.0	6072013 609576
COMMODITIES:	Gold Silver	Lead	Copper	
MINERALS				
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Chalcopyrite Spha Quartz Unknown	lerite Pyrite		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrotherm 105 Polymetallic veins Ag-Pb-Zn±/	al Au		
HOST ROCK DOMINANT HOSTROCK	: Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Andesite Tuff Rhyolite Volcanic Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON	ł: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Lead	YEAR GRADE 277.7000 Grams 2.7000 Grams 2.1000 Per cer	t: 1911 per tonne per tonne	
REFERENCE:	Minister of Mines Annual Report 1911,	page 119.	n an	
CAPSULE GEOLOGY				
	The claims are underl canics comprised of andesi On the Cariboo, a fissure and strikes 310 degrees. fault fissure strikes 345 from 15 to 30 centimetres iron oxides. In 1911, a s 277.7 grams per tonne silv taken from this fissure at tonne gold, 178.6 grams pe per cent copper (Minister	ain by Lower Juras; tic to rhyolitic f yein 1.8 metres wi At 1722 metres ele degrees. The quar and hosts sphaleri ample assayed 2.7 g er, and 2.1 per cer a higher elevation r tonne silver, 3 of Mines Annual Rep	sic Hazelton Group vol- lows, tuffs and breccia. de host mineralization vation, a brecciated tz vein filling ranges te, chalcopyrite and grams per tonne gold, nt lead. Another sample n assayed 2.7 grams per 2 per cent lead and 0.75 port 1911, page 119).	
BIBLIOGRAPHY	EMPR AR *1911-119; 1912-11 GSC MEM 226 (Rev) p. 102 EMPR MAP 69-1 GSC P 44-23 EMPR EXPL 1980-346 EMPR ASS RPT 8940, *15140 EMPR PF (Sevensma, P.H., ( on the HB Claims) GSC BULL 270	5; 1926-132 1968): Buval Mines	Ltd. Examination Report	
GSC OF 351 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/17 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 119</u>		NATIONAL	MINERAL INVENTORY:	
NAME(S):	NEEPAWA, ALICE				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L14W			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 15 N 127 19 06 W 1667 Metres Within 1 KM Located on Hudson Bay N	lountain, west of Smither	S.	NORTHING: EASTING:	6072442 608136
COMMODITIES:	Silver	Lead	Zinc	Copper	Gold
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Galena Quartz Silicific'n Unknown	Sphalerite C	halcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic I05 Polymetallic veins Mineralized vein.	Hydrothermal Ag-Pb-Zn±Au	STRIKE/DIP: 018/85	W TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATIC Undefined	DN Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Andesitic Flow Tuff				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIONS	PHYSIOGF IIP: Syn-mineralization	RAPHIC AREA: Hazeltor GRADE:	n Ranges
CAPSULE GEOLOGY	The claim is underlain by Lower Jurassic Hazelton Group vol- canics comprised mainly of andesite, andesitic flows and intercalated tuff. A vein traced for approximately 305 metres carries arseno- pyrite, minor galena, and sphalerite across a width of 1.0 metres in the Hazelton volcanics. The vein strikes 018 degrees and dips steeply to near vertical to the west.				
BIBLIOGRAPHY	EMPR AR 1929-163 EMPR MAP 971A GSC MEM 223 (Rev) GSC MAP 971A GSC OF 351 GSC P 44-23 GSC BULL 270 EMPR FIELDWORK 198 Kirkham, R.V., (19 the Zonal Distr Columbia, Ph.D.	p. 118 8, pp. 195-208 69): A Mineralogic ibution of Ores in Thesis, Universit	cal and Geochemica n the Hudson Bay F ty of Wisconsin	al Study of Range, British	
DATE CODED: DATE REVISED:	1985/07/24 1988/06/17	CODED BY: REVISED BY	GSB : LLD	F	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 120</u>	NATIONAL MI	NERAL INVENTORY: 093L14 Ag5	
NAME(S):	MAYFLOWER, LITTLE HEATHER, FI MILL 3, UPLAND, GG, YORKE-HARDY	RONT LINE,		
STATUS:	Prospect		MINING DIVISION: Omineca	
REGIONS: NTS MAP:	093L14W		UTM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 50 N 127 19 51 W 1615 Metres Within 500M Located on the southwest side of H kilometres west of Smithers.	ludson Bay Mountain, 9.7	NORTHING: 6071650 EASTING: 607351	
COMMODITIES:	Silver Zinc Cobalt	Lead	Gold Copper	
	Arsononyrita Sphalarita G	elana Pyrrhatita Chalconyrita		
MINERALIZATION AGE:	Pyrite Tetrahedrite			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Epigenetic Hydrothe 105 Polymetallic veins Ag-Pb-Zr Metres	ermal Replacement 1±Au STRIKE/DIP: 360/15E	TREND/PLUNGE:	
COMMENTS:	Mineralized vein in parallel shear zo	ones.		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Andesite Andesitic Flow Tuff			
GEOLOGICAL SETTING				
METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Syn-mineralization	GRADE:	
INVENTORY				
ORE ZONE:	VEIN	REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel <u>COMMODITY</u> Silver Gold Forty-six centimetre channel sample centimetres ran gold 1.37 and silver Minister of Mines Annual Report 192	YEAR: 1929 <u>GRADE</u> 171.4000 Grams per tonne 0.6900 Grams per tonne e. Channel sample across 122 r 58.28. 29, page 162.		
CAPSULE GEOLOGY				
	The showings occur as approximately parallel shear zone replacements in the Lower Jurassic Hazelton Group volcanics. The host rocks are comprised mainly of massive andesite, andesitic flows and tuff. The shear zones strike between 360 and 015 degrees and have a near vertical dip or a slight dip to the west. Mineralization consists mainly of pyrrhotite, minor galena, pyrite and arsenopyrite. The Mayflower showing, at 1615 metres elevation, consists of 46 centimetres width of mineralized vein infilling with the central 30 centimetres comprised almost entirely of pyrrhotite. Associated sulphides include galena, arsenopyrite, pyrite, and minor chalco- pyrite. A 46 centimetre channel sample from this vein which is traceable for 91 metres assayed 0.69 grams per tonne gold, 171.4 grams per tonne silver (Minister of Mines Annual Report 1929, page			

162). On the Upland claim, at 1675 metres elevation, is a parallel vein sparsely mineralized with pyrrhotite and pyrite. An adit-drift, at elevation 1768 metres on the Upland claim, exposed a north-south

vein with a slight dip to the west and a 122 centimetre width. The 46 centimetre centre is comprised of massive pyrrhotite. A channel sample taken across the width assayed 1.37 grams per tonne gold, 58.28 grams per tonne silver (Minister of Mines Annual Report 1929, page 162). Verdstone Gold Corp. and Molycor Gold Corp. sampled on the

Verdstone Gold Corp. and Molycor Gold Corp. sampled on the GG claims in 1998. One 1.2-metre sample assayed 1.08 per cent copper, 0.02 per cent lead, 0.03 per cent zinc, 0.14 per cent cobalt, 89.1 grams per tonne silver and 2.48 grams per tonne gold (GCNL #142(July 24), 1998).

#### BIBLIOGRAPHY

EMPR AR 1909-84; 1911-119; 1912-115; \*1929-162; \*1930-139 EMPR ASS RPT 14300 EMPR FIELDWORK 1988, pp. 195-208 EMPR MAP 69-1 EMPR PF (Mayflower Group Claim Map 1":1000') GSC BULL 270 GSC MAP 971A GSC OF 351 GSC P 44-23 GSC SUM RPT 1925A, p. 90 GCNL #142(July 24), 1998 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/18 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 121</u>	NA	TIONAL MINERAL INVENTORY:	093L14 Cu4
NAME(S):	SMITHERS COPPER, PINE RIDGE			
STATUS: REGIONS	Prospect British Columbia		MINING DIVISION:	Omineca
NTS MAP:	093L14E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 50 N 127 11 16 W 640 Metres Within 500M Located on north side of Dahl Creek, Smithers.	1.6 kilometres southwest of	NORTHING: EASTING:	6070024 616598
COMMODITIES:	Copper Silver			
MINERALS SIGNIFICANT: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Bornite Malachite Azurite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothern L01 Subvolcanic Cu-Ag-Au (As-S Dominant fracturing.	nal b) [ STRIKE/DIP:	203 Volcanic redbed Cu 270/70S TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
<u>STRATIGRAPHIC AGE</u> Lower Jurassic	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Andesitic Flow Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY	Intermontane Stikine Regional	PH RELATIONSHIP: Syn-mineraliz	IYSIOGRAPHIC AREA: Nechako zation GRADE:	o Plateau
ORE ZONE:	SHEAR	REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper Selected samples from 1.8 metre she copper mineralization at elevation 660 Geological Survey of Canada Memoir	YEAR: 19 <u>GRADE</u> 123.4000 Grams per t 1.8000 Per cent ar zone in andesite which hosts metres. Assayed trace gold. 223 (Revised Ed. 1954), page 1	)54 tonne s 125.	
CAPSULE GEOLOGY				
	The showings occur in canics of the Telkwa Forma as small veinlets in the f dark purple, red and grey Dominant fracturing is 315 At 602 metres elevati consists of chalcopyrite, planes and poorly develope to find significant minera At 660 metres elevati width of 1.8 metres and ho samples from this shear as silver and 1.8 per copper (Rev.), page 125).	the Lower Jurassic H. tion. Mineralization racture zones and joi andesites, andesitic degrees and dipping on, mineralization in bornite, malachite, and lines of cleavage. lization. on, the andesite is sists copper mineraliza sayed trace gold, 123 (Geological Survey of	azelton Group vol- occurs nts in the massive flows, and tuff. 70 degrees south. the purple andesites nd azurite in joint An open cut failed heared across a tion. Selected .4 grams per tonne Canada Memoir 223,	
BIBLIOGRAPHY	EMR MP CORPFILE (Buval Exe Ind. Inc.) EMPR AR 1926-131; 1929-165 EMPR MAP 69-1	c. Mining Ind. Ltd.; . ; 1930-140; *1963-25-	Abaca Resources 26	

EMPR ASS RPT \*514 EMPR FIELDWORK 1988, pp. 195-208; 1991, pp. 93-101 GSC OF 351 GSC P 44-23 GSC MEM \*223 (Rev) p. 125 GSC MAP 971A GSC BULL 270 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/18 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 122</u>	NAT	IONAL MINERAL INVENTORY: 093L14	l Cu3
NAME(S):	CANADIAN CITIZEN (L.7171), SEYMO	UR		
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L14E 093L11E	Underground	MINING DIVISION: Omine UTM ZONE: 09 (N.	ca AD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 00 N 127 10 36 W Metres Within 500M Located on west side of the north end metres from Smithers.	of Seymour Lake, 3.2 kilo-	NORTHING: 606849 EASTING: 617353	97 3
COMMODITIES:	Copper Silver	Gold		
MINERALS SIGNIFICANT: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Silicific'n Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrotherma L01 Subvolcanic Cu-Ag-Au (As-Sb Mineralized fault zone in volcanics.	al D ) D STRIKE/DIP: :	03 Volcanic redbed Cu 310/77W TREND/PLUNGE:	
DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMORPHIC	OTHER
LITHOLOGY:	Andesite Rhyodacite Dacite Tuff Breccia Rhyolite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	PH <sup>1</sup> RELATIONSHIP: Syn-mineraliz	'SIOGRAPHIC AREA: Nechako Plateau ation GRADE:	J
INVENTORY				
ORE ZONE:	CANADIAN CITIZEN (L.7171)	REPORT ON: Y		
COMMENTS: REFERENCE:	CATEGORY: Indicated QUANTITY: 72575 Tonnes <u>COMMODITY</u> Silver Copper Probable ore reserve determined by dr grade shown above. Northern Miner - February 26, 1970, pa	YEAR: 197 <u>GRADE</u> 34.3000 Grams per to 0.9200 Per cent illing with a possible average age 5.	ro mne	
CAPSULE GEOLOGY				
	nne claims are underla volcanics of the Telkwa For rhyodacite, dacite, breccia and interbedded with a sedi age. The Hazelton Group ro moderately to the southwest The property is underl purple and grey volcanics w veinlets along a fault stri southwest. The veinlets ar Drilling in 1968-1969 to the east of the surface reported 72,575 tonnes of p of 34.3 grams per tonne sil northwest trending shear zo Production in 1962 inc	mation comprised of a and tuff. They are mentary succession of ocks strike north-nort ain by relatively una which host mineralizat king 310 degrees and ce comprised of bornit determined mineralizat showing. In 1970, th probable ore grading a over and 0.92 per cent one.	ndesite, rhyolite, conformably overlain Lower Cretaceous hwest and dip ltered, massive ion in small dipping 77 degrees e and chalcopyrite. tion beneath and e Northern Miner possible average copper in the and produced	

373 grams gold, 11,539 grams silver, and 1,647 kilograms copper.

EMPR AR 1925-137; 1926-131; 1927-131; 1930-444; 1963-25; 1966-90; 1968-120 EMPR GEM 1969-85; 1971-177 EMPR ASS RPT \*514, 902, \*906, 12395 EMPR FIELDWORK 1988, pp. 195-208; 1991, pp. 93-101 EMPR MAP 69-1 GSC MAP 971A GSC MAP 971A GSC MEM \*226 (Rev) p. 90 GSC SUM RPT 1925A, p. 138 GSC OF 351 GSC P 44-23 GSC BULL 270 EMR MP CORPFILE (Buval Exec. Mining Ind. Ltd.; Abaca Resources Ind. Inc.) EMR MIN BULL MR 198, p. 238; 223 B.C. 235 N MINER Feb. 26, 1970 p. 5 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/18 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 123</u>	NA	ATIONAL MINERAL INVENTORY:	093L11 Cu10			
NAME(S):	<u>GRIT,</u> TENAS	<u>GRIT</u> , TENAS					
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca			
NTS MAP: BC MAP:	093L11E 093L11W		UTM ZONE:	09 (NAD 83)			
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 57 N 127 14 28 W 1100 Metres Within 500M Located 17.7 kilometres southwest of claims from Assessment Report 1931,	Felkwa, location of Grit	NORTHING: EASTING:	6049756 613673			
COMMODITIES:	Copper						
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Malachite Unknown						
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu						
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAM	ORPHIC/OTHER			
LITHOLOGY:	Felsic Pyroclastic						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Pł	HYSIOGRAPHIC AREA: Hazeltor	n Ranges			
CAPSULE GEOLOGY	Malachite occurs in py mediate composition of the Formation.	roclastic rocks from Lower Jurassic Hazel	n felsic to inter- ton Group, Telkwa				
BIBLIOGRAPHY	EMPR AR 1969-86 EMPR ASS RPT *1931 EMPR MAP 69-1 EMPR OF 1989-16 EMPR FIELDWORK 1988, pp. 19 GSC BULL 270 GSC P 44-23 GSC OF 351	5-208					
DATE CODED: DATE REVISED:	1985/07/24 1988/06/18	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N FIELD CHECK: N			

MINFILE NUMBER:	<u>093L 124</u>			NATIONAL MIN	IERAL INVENTORY:	093L15 Cu1
NAME(S):	BIG ONION, CIMBRIA, AS JACK	TLAIS,				
STATUS: REGIONS: NTS MAP	Developed Prospect British Columbia				MINING DIVISION:	Omineca
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 48 35 N 126 53 46 W 1219 Metres Within 500M Located on the south side northeast of Smithers.	e of Astlais Mounta	ain, 17.7 kilometres e	east-	NORTHING: EASTING:	6075647 635209
COMMODITIES:	Copper	Molybdenum	Gold	:	Silver	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION:	Chalcopyrite Molybde Chalcocite Covellite Quartz Sericite Kaolinite	nite Bornite Chlorite	Pyrite	Magnetite		
ALTERATION TYPE: MINERALIZATION AGE:	Sericitic Unknown	Argillic	Propylitic			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo	Disseminated Hydrothermal b ± Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	<u>F(</u>	ORMATION		IGNEOUS/METAMO	ORPHIC/OTHER
Jurassic Jurassic Cretaceous-Tertiary	Hazelton	N	elkwa ilkitkwa		Unnamed/Unknow	n Informal
LITHOLOGY:	Quartz Feldspar Porphyry Quartz Diorite Porphyry Quartz Diorite Quartz Monzonite Dike Quartz Feldspar Porphyry Hornblende Andesite Dike Andesite Andesite Flow Andesitic Tlow Andesitic Tuff Andesitic Breccia	/ / Dike ?				
HOSTROCK COMMENTS:	The quartz diorite intrusion	on is locally called	I the Big Onion plutor	۱.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonio	c Rocks	PHYSIOGRAP	HIC AREA: Skeena F	Ranges
INVENTORY						
ORE ZONE:	BIG ONION		REPORT O	N: Y		
COMMENTS: REFERENCE:	CATEGORY: Combine QUANTITY: 94380 COMMODITY Copper Molybdenum Calculated by Canadian S Resource calculations by CIM Special Volume 46, p	ed 0000 Tonnes 	YEAI 0.4200 Per ce 0.0120 Per ce in Ltd. in 1977. are considerably les	R: 1977 Int Int Int		
ORE ZONE:	BIG ONION		REPORT O	N: Y		
COMMENTS	CATEGORY: Indicated QUANTITY: 32000 COMMODITY Copper Gold Silver Supergene portion estima	d 0000 Tonnes 9	YEA <u>GRADE</u> 0.3400 Per ce 0.0640 Grams 1.0000 Grams esources Ltd. in 199	R: 1991		
REFERENCE:	CIM Special Volume 46, pa	age 14.				

The Big Onion deposit is located on the south side of Astlais Mountain, 16 kilometres east of Smithers.

Copper showings at the Big Onion deposit were discovered in 1917 by prospectors Axel Almsted, Tommy Haig and Ben Benson. Two short adits were driven in the 1920s but intense exploration of the property did not occur until the prophyry copper boom in the early It was staked then by Jack Hemelspeck, Sr. and optioned in 1960s. 1964 to Noranda Exploration Co. Ltd. who carried out mapping, sampling, geophysical surveying and drilled two short holes. During 1966 and 1967, Texas Gulf Sulfur Co. Inc. completed an I.P. survey, bulldozer stripping and seven diamond drill holes (1217 metres). In 1970-71, Blue Rock Mining Corporation/Cyprus Anvil Mining Corporation completed 22 more diamond drill holes (7358 metres). The most extensive exploration of Big Onion was carried out by Canadian Superior Exploration Ltd. from 1974 to 1977. Geological and geophysical mapping was extended and 67 percussion holes (5003 metres) and 21 core holes (3058 metres) were drilled. Following an estimation of geologic reserves, Canadian Superior Exploration Ltd. judged the Big Onion prospect to be sub-economic and declined to do further work.

The Big Onion deposit is underlain by Lower-Middle Jurassic Hazelton Group volcanics (Telkwa and Nilkitkwa formations) comprised of variegated red, green to maroon andesitic flows, tuffs and breccia. The volcanic division is overlain by the Smithers Formation, also of the Hazelton Group, which is comprised of greywacke, siltstone, sandstone, shale, breccia and minor conglomerate.

Late Cretaceous to Eocene stocks intrude the Hazelton rocks. The Big Onion pluton is comprised of two phases, an early quartz feldspar porphyry and a later quartz diorite porphyry. The earlier intrusion forms a sheath around the quartz diorite and dikes of the quartz feldspar porphyry are common in the andesites near the margin of the pluton. The quartz feldspar porphyry is intensely altered with sericite, kaolinite and chlorite. A sample of intense sericite alteration has given an isotopic age of 117 Ma and a postmineral quartz monzonite porphyry dike was dated at 48.7 Ma.

In addition to the main plutonic rocks, there is a wide postmineralization quartz monzonite dike and several varieties of small, late hornblende andesite dikes. The quartz monzonite is sericitized and hosts disseminated pyrite and magnetite with chlorite and epidote.

Copper and molybdenum mineralization is widely distributed in minor amounts throughout the pluton, particularly near the contacts of the two phases and near the peripheral volcanics. Ore minerals include chalcopyrite, molybdenite and minor bornite. Pyrite is ubiquitous but most abundant in the volcanic rocks near the contact. Mineralization is contained largely in a stockwork of quartz-filled fractures or as disseminations throughout the pluton.

Copper and molybdenum appears to be intimately associated with the quartz diorite and is best developed along its sheared southeastern contact with the andesite.

Two main elongate mineralized zones with northeasterly trends parallel Astlais Creek. The South zone is approximately 1200 by 300 metres and the North zone is approximately 840 by 120 metres.

metres and the North zone is approximately 840 by 120 metres. Unclassified reserves at Big Onion are 18 million tonnes grading 0.36 per cent copper (CIM Special Volume 15 (1976), Table 1, Showing No.73). Canadian Superior Explorations Ltd., in 1977, calculated a geologic resource (probable and possible) of 94.38 million tonnes grading 0.42 per cent copper and 0.012 per cent molybdenum (0.02 per cent MOS2)(CIM Special Volume 46, page 414). At a cutoff grade of 0.25 per cent copper equivalent, the Big Onion was estimated to contain 69 million tonnes grading 0.397 per cent copper equivalent at a stripping ratio of 2.18.

In 1991, Varitech Resources Ltd. acquired an interest in the property from Mindoro Corp., who had optioned the claims from Jack Hemelspeck, Jr. Varitech Resources drilled eight HQ core holes (1696 metres) and estimated a supergene reserve of 32 million tonnes grading 0.34 per cent copper, 0.064 grams per tonne gold and 1.0 grams per tonne silver (CIM Special Volume 46, page 414).

Teck Exploration planned drilling the property in 1997. Reported reserves range from 2.4 million tonnes of 0.84 per cent copper (Craigmont) to 6.0 million tonnes grading 0.8 percent copper (Canadian Superior). (Pers. Comm. Mike Cathro, February 1997).

Consolidated Magna Ventures Ltd. and Gladiator Minerals Ltd. drilled six holes, totalling 1016 metres in 1998.

#### BIBLIOGRAPHY

EMPR AR 1927-138; 1932-85; 1964-52; 1965-73; \*1966-83-86,Fig. 9; 1967-90 EMPR ASS RPT 830, 2752, 2753, 5576, 5966, 6363, 6364, 6423, 16784,

22306 EMPR BULL 64, p. 126, Fig. 8 EMPR EXPL 1975-E143; 1976-E152; 1977-E198; 1988-C173; 1998-27; 1999-19-31 EMPR FIELDWORK 1986, p. 217; 1988, pp. 195-208; 1991, pp. 93-101 EMPR GEM 1970-164; 1974-263 EMPR GEOL \*1975, p. G66, Fig. G31 EMPR MAP 65 (1989); 69-1 EMPR OF 1992-1; 1992-3; 1994-14 EMPR P 1992-5 EMPR PF (Miscellaneous Underground Geology and Geochemical Plans, various scales) EMR MIN BULL MR 198, p. 238; 223 B.C. 236 EMR MP CORPFILE (Twin Peak Mines Ltd.; Twin Peak Resources Ltd.) GSC MAP 278A; 671A; 971A GSC OF 351 GSC P 40-18A GSC SUM RPT 1924 Part A, p. 34 CIM Special Volume \*15 (1976); \*46 (1995), pp. 410-415 GCNL #74(Apr.17),#142(Jul.24),#176(Sept.12), 1991; #126(July 2), #190(Oct.2), #219(Nov.16), 1998 N MINER Apr.22, Sept.23, Oct.28, 1991 PR REL Consolidated Magna Ventures Ltd., Nov.13, 1998 WWW http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 1999/04/29 CODED BY: GSB REVISED BY: LDJ

MINFILE NUMBER:	<u>093L 125</u>	NATIONAL M	INERAL INVENTORY: 093L15 Ag8
NAME(S):	<u>SILVER PICK</u> , LITTLE JOE		
STATUS: REGIONS: NTS MAP	Past Producer British Columbia	Underground	MINING DIVISION: Omineca
BC MAP: I ATITI IDE:	54 52 50 N		NORTHING: 6083708
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	126 48 16 W 1676 Metres Within 500M Located at the head of Little Joe Creek, 26 kilon Smithers.	netres northeast of	EASTING: 640852
COMMODITIES:	Silver Gold	Lead	Zinc Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Galena Sphalerite Quartz Limonite Oxidation Unknown	Chalcopyrite	
	Vein		
CLASSIFICATION:	Epigenetic Hydrothermal 105 Polymetallic veins Ag-Pb-Zn+Au		
DIMENSION: COMMENTS:	Mineralized quartz lenses and stringer zone.	STRIKE/DIP: 295/18N	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP FORM	IATION	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Tuff		
	Rhyolite Tuff Andesitic Dacitic Flow Volcanic Breccia		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRA	PHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	VEIN	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY GRA Silver 1440	YEAR: 1926 DE 0.0000 Grams per tonne	
	Gold 78. Copper 3.0	9000 Grams per tonne 0000 Per cent	
COMMENTS:	Surface sample of vein material taken 61 metres showing.	s above the main	
	Winister of Wines Annual Report 1926, page 134	4.	
CAPSULE GEOLOGI	The claims are underlain by volcanics comprised of andesitic tuff and breccia. The main showing consists of tetrahedrite, minor galena, sphal strikes 295 degrees and dips 15 t for 40 metres. The quartz lenses in width. A crosscut adit driven 122 r intersected a shear zone 0.3 metr dips 20 degrees west. Quartz ver disseminated tetrahedrite. In 1926, a surface sample of the main showing assayed 78.9 gra tonne silver and 3 per cent copper	Upper Cretaceous Kasa to dacitic flows, tuf f quartz lenses and st lerite and chalcopyrit to 20 degrees north an s range between 2.5 to metres southwest of th res wide, striking 032 ins, up to 5 centimetr f vein material taken ams per tonne gold, 14 er.	lka Group fs, rhyolitic ringers hosting e. The zone d is exposed 41 centimetres e main showing degrees and es wide, host 61 metres above 40 grams per

Approximately 400 metres east of the main showing, a vein 0.3 metres wide strikes 050 degrees and dips 20 degrees northwest. The

quartz vein hosts limonite, tetrahedrite, and chalcopyrite with minor galena. In 1940, a picked sample by Lang assayed 34 grams per tonne galena. In 1940, a picket sample by hang abba, a brance produced gold and 1440 grams per tonne silver. Between 1927 to 1938, 23 tonnes were mined and produced 466 grams gold, 209,230 grams silver, 886 kilograms copper, 420 kilograms lead and 836 kilograms zinc.

### BIBLIOGRAPHY

EMPR AR \*1922-106; 1923-111; \*1924-97; 1925-138; \*1926-134; 1927-119; 1929-168; 1931-73; 1938-B36,C49 EMPR FIELDWORK 1987, pp. 181-193; 1988, pp. 195-208; 1991, pp. 93-101 EMPR MAP 69-1 GSC MAP 278A; 671A; 971A GSC SUM RPT \*1924A, p. 33 GSC P \*40-18, p. 9 GSC OF 351 GSC BULL 270 EMR MP CORPFILE (Quyta Gold Mines Ltd.)

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/30 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 126</u>		NA	TIONAL MINERAL	. INVENTORY:	
NAME(S):	<u>Mert</u> , CU, BOB, HAIG'S					
STATUS	Showing			MIN	ING DIVISION	Omineca
REGIONS:	British Columbia			101114		
BC MAP:	093E13W					09 (NAD 03)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 00 N 126 50 06 W 975 Metres Within 1 KM Located on the southeas east-northeast of Smithe	t slope of Astlais Moun rs.	tain, 22.5 kilometres		NORTHING: EASTING:	6076539 639112
COMMODITIES:	Copper	Molybdenum	Silver			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Carbonat Ankerite Quartz-Carb. Unknown	Molybdenite e	Arsenopyrite			
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L04 Porphyry Cu ± M	o ± Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORM	IATION	IGN	EOUS/METAM	ORPHIC/OTHER
Lower Cretaceous Lower Jurassic Upper Cretaceous	Skeena Hazelton	Undef Undef	ined Formation ined Formation	Unn	amed/Unknow	n Informal
	Andonitia Tuff					
LITHOLOGY.	Rhyodacite Tuff Tuff Cherty Argillite Cherty Quartzite Quartz Diorite					
HOSTROCK COMMENTS:	Hazelton overlain by Sk stock.	eena sediments; intruc	led by quartz diorite			
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Ro	Cks Pt	HYSIOGRAPHIC AF	REA: Skeena F	Ranges
METAMORPHIC TYPE:	Contact	RELATIC	NSHIP: Syn-minerali	zation GRA	NDE:	
CAPSULE GEOLOGY						
	The claims are underlain by Lower Jurassic Hazelton Group vol- canics comprised of andesitic to dacitic pyroclastics which trend northeast. The Hazelton rocks are overlain by Lower Cretaceous Skeena Group argillaceous to quartzitic cherty sediments. The host rocks are intruded by a Late Cretaceous to Eocene quartz diorite stock which trends northeast. The intrusive is exposed on the claims and measured approximately 245 by 425 metres. Disseminated pyrite occurs in all of the rock types. Minor arsenopyrite occurs in the ankeritized sediments and related quartz- carbonate fractures. The quartz diorite intrusion hosts minor chalcopyrite, pyrite and molybdenite in hairline fractures, quartz veinlets, aplitic veins and along the joints within the stock.					
BIBLIOGRAPHY						
	EMPR GEM *1967-90 EMPR ASS RPT 1017 EMPR MAP 69-1 EMPR FIELDWORK 19 GSC BULL 270 GSC SUM RPT *1924 GSC OF 351	,288; 1968-119; , 1122, 1143, 1 88, pp. 195-208 A, p. 33	1969-369; *197 778, *2527 ; 1991, pp. 93-	0-164 101		
DATE CODED: DATE REVISED:	1985/07/24 1988/07/02	CODED REVISEI	BY: GSB D BY: LLD		F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093L 127</u>				Ν	IATIONAL M	INERAL INVE	NTORY:	093L15 Ag1
NAME(S):	<u>CRONIN,</u> CRON	IN MINE, BABINE							
STATUS: REGIONS	Past Producer British Columbi	2		Underg	ground		MINING D	IVISION:	Omineca
NTS MAP: BC MAP	093L15W	a					UTN	J ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 55 30 N 126 48 56 W 1560 Metres Within 500M The mine is loc Cronin, 28 kilor	r ated on Cronin Cro netres northeast o	eek, on the east of Smithers.	t side of Me	ount		NOI E/	RTHING: Asting:	6088630 639985
COMMODITIES:	Silver Cadmium	Lead		Zinc			Gold		Copper
MINERALS									
SIGNIFICANT: ASSOCIATED: ALTERATION TYPE:	Galena Freibergite Quartz Silicific'n	Boulangerite Chalcopyrite	Tetrahedrite Pyrite	Arsenop	oyrite	Sphalerite			
MINERALIZATION AGE:	Unknown								
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polyme	Stock Epiger etallic veins Ag-Pb	work netic -Zn <del>±</del> Au	Disse	eminated				
HOST ROCK DOMINANT HOSTROCK:	Plutonic								
STRATIGRAPHIC AGE	GROUP		FORM	ATION			<b>IGNEOUS</b>		ORPHIC/OTHER
Jurassic Cretaceous-Tertiary	Bowser Lake		Ashma	n			Unnamed	l/Unknow	n Informal
LITHOLOGY:	Rhyolite Porphy Argillite Sandstone Intraformationa Ash Tuff Grit Mudstone Quartz Diorite I Dioritic Lampro	yry I Pebble Conglome Dike phyre Dike	erate						
GEOLOGICAL SETTING									
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional		RELATIO	NSHIP:	F	PHYSIOGRA	PHIC AREA: GRADE:	Nechako	Plateau
INVENTORY									
ORE ZONE:	CRONIN			REPO	rt on:	Y			
	CATEGORY: QUANTITY: COMMODITY	Inferred 117923 Tor	nnes <u>GRAE</u>	DE	YEAR:	1972			
	Silver Gold Cadmium Lead		428.9 0.34 0.10 7.1	400 G 400 G 200 P 100 P	Frams pe Frams pe Per cent Per cent	er tonne er tonne			

Zinc 8.1200 Per cent REFERENCE: Statement of Material Facts May 6, 1974 - Hallmark Resources Ltd.

### INVENTORY

ORE ZONE:	CRONIN		RE	PORT ON: Y	
	CATEGORY: QUANTITY:	Indicated 42408 Tonnes		YEAR: 1972	
	COMMODITY Silver		GRADE	Crome por toppo	
	Gold		0.3400	Grams per tonne	
	Cadmium		0.1000	Per cent	
	Lead		7.1100	Per cent	
		<b>6 1 0 0</b>	0.1200	Percent	
COMMENTS:	inferred reserve of 117,923 tonnes at the same grade.				
DEEEDENIOE	<b>••••</b>			1.4.1	

REFERENCE: Statement of Material Facts May 6, 1974 - Hallmark Resources Ltd.

#### CAPSULE GEOLOGY

The geology at the Cronin mine is very complex, however three major rock types host the mineralized structures: the Middle to Upper Jurassic Bowser Lake Group (Ashman Formation), and two Late Cretaceous to Tertiary rhyolitic sub-volcanic intrusives. The Bowser Lake Group is in fault contact with Lower-Upper Cretaceous volcanic

rocks of the Kasalka Group immediately west of the showings. The sedimentary unit is comprised of a bedded clastic sequence of argillite, grits and minor pebble conglomerate. Sericite schist has developed at the contact with rhyolite. Sedimentary structures include graded bedding, crossbedding and slump structures. Tight folds were observed in the argillites and overturned beds indicate intense folding. Locally, the argillite is graphitic and hosts moderate to intense guartz veining, 1 to 4 millimetres in width, with minor galena. Interbedded mudstone, sandstone, intraformational pebble conglomerate and ash tuffs are also part of the sedimentary unit.

A grey, massive, medium to fine-grained rhyolite porphyry is the most prominent part of the intrusive complex. It is comprised of an aphanitic groundmass of quartz, sericite, calcite, zoisite, and chlorite with laths of albite. No appreciable chill margin was mapped at the contact with the sedimentary unit. A quartz stockwork exists within the rhyolite porphyry and this has been intruded by another porphyry which has in turn been cut by a second phase of quartz veining. The quartz veins average 4 to 20 millimetres in width and host sphalerite and galena.

Silicification adjacent to the quartz veining is the only alteration associated with this unit other than low grade regional metamorphism.

An altered, white to pale yellow rhyolitic stock intrudes the porphyry. Pyrite, sphalerite, and galena occur along fractures within the stock rather than in a quartz stockwork. A set of post-mineral, quartz diorite and dioritic lamprophyre dikes crosscut the host rocks.

The main exploration targets at Cronin are massive sulphide and quartz veins that contain argentiferous galena and sphalerite with minor pyrite and chalcopyrite. Boulangerite, freibergite and arsenopyrite have also been identified.

Sulphide mineralization occurs in quartz stockworks, quartz infilling in faults, along fractures or as disseminations in the intrusive. The mineralized veins are results of two sinuous faults which strike northeasterly and dip moderately westward. The quartz veins exposed in the workings range in width from 0.3 to 1.0 metres, striking northeast and dipping 45 to 65 degrees to the northwest. Mineralization occurs as pods up to 40 metres long by 6 metres wide within the main fault system. There is a distinct zoning of minerals within the pods; galena, boulangerite and tetrahedrite are concentrated near the fault plane with the sphalerite spread out into the altered and brecciated wallrock. Pyrite and chalcopyrite occur erratically throughout the vein system.

Indicated reserves at Cronin are 42,408 tonnes grading 428.5 grams per tonne silver, 0.34 gram per tonne gold, 7.11 per cent lead, 8.12 per cent zinc and 0.1 per cent cadmium subject to dilution of up to 20 per cent. There is an additional inferred reserve of 117,923 tonnes at the same grade (Statement of Material Facts May 6, 1974 -Hallmark Resources Ltd.).

Production from 1917 to 1974 totalled 25,838 tonnes yielding 8,169,918 grams of silver, 8,772 grams of gold, 18,012 kilograms of cadmium, 10,394 kilograms of copper, 1,367,178 kilograms of lead and 1,517,881 kilograms of zinc.

BIBLIOGRAPHY

EMPR AR 1910-86; 1911-108,287,288; 1914-229-233; 1916-128-130; 1917-

108-111; 1918-121; 1919-103; 1920-87-89; 1921-101; 1923-111; 1924-97; 1928-167; 1929-168; 1930-141; 1931-73; 1948-85; \*1949-94-98,Fig. 4; 1950-101; 1951-112; 1952-94; 1956-27; 1957-12; 1962-16; 1963-26; 1964-52; 1965-73; 1966-82; 1967-89 EMPR ASS RPT \*5526, \*5674, \*16603, 16721, 17712 EMPR BC METAL MM00471 EMPR EXPL \*1978-E221; 1987-C310; 1988-C174 EMPR FIELDWORK 1974, p. 81; \*1987, pp. 191,192; 1988, pp. 195-208; 1991, pp. 93-101 EMPR GEM 1969-100; 1970-164; 1971-178; 1972-420; 1973-347; 1974-263; 1975-E144 EMPR GEOL 1975, pp. G67-69; 1977-81, p. 130 EMPR MAP 65 (1989); 69-1 EMPR OF 1992-1 EMPR PF (Geological Report; Hallmark Resources Ltd.; Mellin, R.G. (1928): Report on Babina-Bonanza Mining and Milling Co.; Langley, A.G. (1929): Report on the Babine Bonanza Mine; Livgard, E. (1973): Report on the Cronin Mine; Schroeter, T. (1974): Examination and Sampling of the Upper Showings of the Cronin Mine; Croteau, F.L. (1974): Discussion on Geological Report on the Cronin Mine; Holland, S. (1974): Report on Cronin Mine; \*Croteau, F.L. (1974): Geological Report for Hallmark Resources Ltd.; Miscellaneous maps of Cronin Mine - various scales, photos)
EMR MIN BULL MR 198, p. 239; 223 B.C. 237
EMR MP CORPFILE (Babine Bonanza Milling and Mining Co. Ltd.; Sproatt Silver Mines Ltd.; Mid-Continent Goldfields Ltd.; Hallmark Resources Ltd.) GSC BULL 270 GSC MAP 278A; 671A; 971A GSC OF 351 GSC P 40-18A GSC SUM RPT 1910, p. 96; 1924 Part A, pp. 30-32 GCNL #123,#139, 1976; Jul.21, 1977; #112, 1982; #139, 1983; #43,#55, #80,#89,#118, 1985; #139,#163, 1986; #83,#196,Oct.12, 1988; #121(Jun.22), 1990 INPD Mar/Apr, 1983 N MINER \*Dec.29, 1977; May 25, 1976 WWW http://www.infomine.com/ Chevron File Falconbridge File EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/20 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 128</u>	NATIONAL M	INERAL INVENTORY: 093L15 Ag4	
NAME(S):	HYLAND BASIN, HIGHLAND BASIN			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia	Underground	MINING DIVISION: Omineca	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY:	54 54 40 N 126 51 16 W 1735 Metres Within 500M		NORTHING: 6087008 EASTING: 637540	
COMMENTS:	Located at the head of Cronin Creek, 2- Smithers.	4 kilometres northeast of		
COMMODITIES:	Lead Zinc	Silver	Gold	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Chalco Quartz Silicific'n Unknown	pyrite Pyrite Tetrahedrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrotherma 105 Polymetallic veins Ag-Pb-Zn±A	al u		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Upper Cretaceous Lower Jurassic	<u>GROUP</u> Kasalka Hazelton	FORMATION Brian Boru Undefined Formation	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Tuff Argillite Limestone Rhyolite Rhyodacite Flow Quartz Porphyry Dike			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRA	PHIC AREA: Nechako Plateau	
CAPSULE GEOLOGY	The claims are underlain by Middle to Upper Jurassic Bowser Lake Group sediments comprised of deformed argillite, limestone, and tuff which contact Cretaceous Kasalka Group massive rhyolitic to dacitic flows and tuff of the Brian Boru Formation. The argillite is cross cut by several rhyolitic and quartz porphyry dikes which follow shears in the host rock. Quartz veins are associated with the rhyolite dikes which strike east parallel to the shearing or slaty cleavage in the argillites. The main showing consists of lenticular quartz veins which parallel the wall of the rhyolite dike, striking east and are parallel to the shearing in the argillite. The quartz varies from a thin streak to 1.5 metres in width. The quartz is barren in places while elsewhere is well mineralized with galena, sphalerite, tetra- hedrite and chalcopyrite. The sulphide content is erratic and in a second quartz zone mineralization consists of pyrite, galena, sphaler- ite, chalcopyrite and very minor tetrahedrite. Between 1935 to 1940, 10 tonnes of ore was mined and produced 342 grams gold, 84,880 grams silver, 3,396 kilograms lead and 397			
BIBLIOGRAPHY	EMPR AR 1922-105; 1923-111; A24,C39; 1939-58; 1940-2 EMPR MAP 69-1 EMPR FIELDWORK *1987, pp. 1 93-101 GSC SUM RPT 1924A, p. 32 GSC P 40-18, p. 5 GSC OF 351 GSC BULL 270	1924-97; 1925-137; *1926-1 3,55; 1951-112 90,191; 1988, pp. 195-208;	32,133; 1935- 1991, pp.	

EMR MP CORPFILE (Hyland Basin Gold Mines Ltd.; Rayrock Mines Ltd.)

DATE CODED: 1985/07/24 DATE REVISED: 1988/01/20 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 129</u>	NATIONAL MI	NERAL INVENTORY: 093L15 Ag5
NAME(S):	LORRAINE, VICTORIA, SILVER	QUEEN	
STATUS: REGIONS:	Past Producer British Columbia	Underground	MINING DIVISION: Omineca
BC MAP: BC MAP: LATITUDE:	093L15W		UTM ZONE: 09 (NAD 83)
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	126 48 36 W 1550 Metres Within 500M Located on the east side of Mo Creek, 27 kilometres northeast	ount Hyland, at the head of Higgins t of Smithers.	EASTING: 640469
COMMODITIES:	Silver Lead	d Zinc	Copper
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Quartz Ankerite Unknown	Chalcopyrite Pyrite Tetrahedrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hyd 105 Polymetallic veins Ag-F West vein showing consists of stringers.	rothermal Pb-Zn±Au STRIKE/DIP: 180/70W two parallel mineralized quartz	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic	Kasalka Hazelton	Undefined Formation	
LITHOLOGY:	Phyllite Tuff Rhyolite Tuff Rhyodacite Flow Quartz Porphyry Dike		
HOSTROCK COMMENTS:	Hazelton rocks in fault(?) con	tact with Kasalka Group.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	PHYSIOGRAF RELATIONSHIP: Syn-mineralization	PHIC AREA: Nechako Plateau GRADE:
INVENTORY			
ORE ZONE:	VEIN	REPORT ON: N	
	CATEGORY: Assay/analys SAMPLE TYPE: Grab COMMODITY Silver	sis YEAR: 1946 <u>GRADE</u> 483,4000 Grams per tonne 7,1000 Per cont	
COMMENTS: REFERENCE:	130 centimetre channel sample Minister of Mines Annual Report	e. rt 1946, page 88.	
CAPSULE GEOLOGY	The heat reaks is	ngludo Lower Turaggig Hagelton(2)	Group godi-
	ments and volcanics. grey to orange weather dipping southeastward colored rhyodacitic f Brian Boru Formation. quartz porphyry dikes parallel the slaty cl. An orange-weathering post tectonic. Orang green fragmental tuff tuffs which contain f ing siltstone. The tr	The sediments consist mainly of c ring phyllite with contorted beddi s. They are in contact with massi lows and tuffs of the Cretaceous K The argillite is crosscut by rhy which dip steeply westward. Quar eavage and have been folded and di massive andesite dike cuts the phy e-weathering siltstone and less fc overlie the phyllites. Thick-bed low banded rhyolite overlie the or wo showings are referred to as the	deformed dark ling planes ive light (asalka Group, volitic and rtz stringers ismembered. vilite and is pliated massive ded ash flow range weather- Main and West

veins, respectively. The Main vein is a bedded quartz stringer lode in the argillaceous phyllite. It is irregular and averages 46 centimetres in width.

	The quartz vein hosts copyrite and minor tet taken in 1946 assayed lead (Minister of Mine The West vein cor separated by 50 centim network strikes south host disseminated pyri composite channel samp 6.9 grams per tonne si Annual Report 1946, pa In 1917, 6.4 tonr silver and 3,175 kilog	disseminated pyrite, galena, sphaleri crahedrite. A 130 centimetre channel 483.4 grams per tonne silver and 7.1 es Annual Report 1946, page 88). hsists of two parallel quartz stringen metres of sheared argillite and gouge and dips 70 degrees west. The quartz ite, galena, sphalerite and chalcopyri ple of the two stringer zones in 1946 liver and 1.2 per cent zinc (Minister age 88). hes of ore was mined and produced 19,4 grams lead.	ite, chal- sample per cent r zones . The vein z stringers ite. A assayed of Mines 448 grams
BIBLIOGRAPHY	EMPR AR 1909-K84; 1910 1926-132,134; 1928- 1940-44; *1946-88; EMPR FIELDWORK *1987, EMPR MAP 69-1 GSC MAP 278A; 671A; 97 GSC SUM RPT *1924A, pr GSC P 40-18, p. 7	0-K87; 1918-119; 1921-103; 1922-106; 1 -167; 1929-166; 1930-141; 1931-73; 193 *1951-112; 1958-10; 1966-82 p. 191; 1988, pp. 195-208; 1991, pp. 71A p. 32,33	1924-97; 38-C49; 93-101
DATE CODED:	GSC OF 351 GSC BULL 270 EMR MP CORPFILE (Lorra Native Mines Ltd.) 1985/07/24 1988/01/20	aine Silver Mines Ltd.; Rayrock Mines CODED BY: GSB REVISED BY: UD	Ltd.; FIELD CHECK: N

MINFILE NUMBER:	<u>093L 130</u>		NATIONAL MIN	ERAL INVENTORY: 0	93L15 Cu3
NAME(S):	<u>JUD,</u> SUSAN, IRIQUOIS, SOCIAL				
STATUS:	Showing			MINING DIVISION: C	Omineca
REGIONS: NTS MAP:	British Columbia 093L15W			UTM ZONE: 0	9 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 52 00 N 126 53 36 W 1890 Metres Within 1 KM Located between the hea fork of Driftwood Creek, 2	d of Ganokwa Creek and the 1 kilometres northeast of Smi	head of the east thers.	NORTHING: 6 EASTING: 6	5081987 535197
COMMODITIES:	Copper	Silver			
MINERALS					
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Quartz Malachite Azurite Epidote Unknown	Chalcocite Tetrah Chlorite Epidote Chloritic	edrite		
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-A	Hydrothermal Ag-Au (As-Sb)	D03 Volca	nic redbed Cu	о <b>г</b> .
COMMENTS:	Mineralized vein in a shea	ar in andesitic volcanics.	51 RIKE/DIP: 325/551N	I REND/PLUN	GE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Nilkitkwa		IGNEOUS/METAMOR	RPHIC/OTHER
LITHOLOGY:	Andesite Tuff Flow Breccia				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE	Intermontane Stikine		PHYSIOGRAPH	IIC AREA: Skeena Ra	anges
METAMORPHIC TYPE:	Regional	RELATIONSHIP:	Syn-mineralization	GRADE:	
INVENTORY					
ORE ZONE:	ADIT	RE	PORT ON: N		
COMMENTS	CATEGORY: Assay/as SAMPLE TYPE: Grab COMMODITY Silver Copper 0.9 metre sample from up	nalysis <u>GRADE</u> 89.1000 13.5000 per adit also had trace gold.	YEAR: 1929 Grams per tonne Per cent		
	Minister of Mines Affidar	Report 1929, page 107.			
CAPSULE GEULUGY	The claims ar canics of the Nilk andesitic flows, t hedrite occur in v bleached and exhib veins. The main mine andesitic volcanic able for a conside 320 to 330 degrees In 1929, a sa trace gold, 89.1 g Another sample fro trace silver only At 1914 metre tion is not so pre	the underlain by Lower titkwa Formation comp outf and breccia. Boy reins and brecciated bit chlorite and epid eral occurrence is a sand dips between 50 umple across 0.9 metr- grams per tonne silver om the adit floor ass. (Minister of Mines Ar es elevation, where the evalent.	Jurassic Hazelton rised mainly of an rnite, chalcocite zones. The andesi ote alteration adj well defined shear p to 145 centimetr vein has a strike to 57 degrees nor es in the upper ad r and 13.5 per cent ayed 31.2 per cent nnual Report 1929, he vein apexes, th	Group vol- desite, and tetra- tic rocks are acent to the zone in the es and trace- varying from theast. it assayed t copper. copper with page 167). e mineraliza-	

DATE CODED:	1985/07/24
DATE REVISED:	1988/06/30

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 131</u>		NATIONAL MINER	AL INVENTORY: 093L15 Ag6
NAME(S):	DRIFT, HARVEY, SUMMER, WINTER, PACK-TRAIN			
STATUS:	Past Producer	Underground	d N	/INING DIVISION: Omineca
REGIONS: NTS MAP:	093L15W			UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 52 35 N 126 57 16 W 1377 Metres Within 500M Located on the east side of Driftw of Smithers.	vood Creek, 17.7 kilometres no	rtheast	NORTHING: 6082953 EASTING: 631244
COMMODITIES:	Copper Silver	Lead		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION ALTERATION TYPE:	Chalcopyrite Tetrahedrite Pyrite Quartz Carbonate Covellite Silicific'n	Bornite Chalcocite	Galena	
MINERALIZATION AGE:	Unknown			
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrot D03 Volcanic redbed Cu Mineralized fissures strike northw	hermal STRIKE/D vest and dip northeast.	L01 Subvolo IP: 270/45N	canic Cu-Ag-Au (As-Sb) TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	<u> </u>	GNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Basalt Lapilli Tuff Vitric Tuff Phyllite Flow Breccia	NIINIKWA		
GEOLOGICAL SETTING	late me enter e			
TECTONIC BELT. TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Svn-min	eralization G	RADE: Blueschist
INVENTORY		· · · · · · · · · · · · · · · · · ·		
ORE ZONE:	DRIFT	REPORT ON	J: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper Lead Average non-weighted assays. Assessment Report 3277.	YEAR <u>GRADE</u> 304.7900 Grams 2.0100 Per cer 0.9800 Per cer	e: 1970 per tonne nt nt	
CAPSULE GEOLOGY	The claims are und canics of the Nilkitkwa green to grey basalt wi dense, fine-grained tuf siltstone and conglomer	erlain by Lower Juras Formation. They are th andesitic to dacit f, vitric tuff, lapil ate.	sic Hazelton ( comprised of ic pyroclastic li tuff, phyli	Group vol- maroon to cs including lite, shale,

The mineralization occurs in a number of near parallel fissures with quartz and quartz-carbonate infilling in the andesite. The fracture/fissures strike approximately northwest and dip northeast and appear to conform with the bedding planes of the enclosing tuffs. Ten fissures occur over 460 metres and mineralization is reported to vary from 1.2 to 12 metres in width along the flow top shears. Sulphide mineralization is restricted to quartz-sulphide lenses

and veins in the shear zones and includes chalcopyrite, tetrahedrite, and minor galena, bornite, chalcocite, and pyrite. In 1970, samples collected from seven of the Harvey quartz vein showings assayed: 0.90 per cent copper, 735.76 grams per tonne silver and 0.21 grams per tonne gold (Assessment Report 3277). Between 1917 to 1927, 14 tonnes of ore was mined and produced 70,573 grams silver, and 1989 kilograms copper.

### BIBLIOGRAPHY

EMPR AR 1917-447; 1918-119; 1919-103; 1921-103; 1925-138; 1926-134; \*1927-119; \*1928-164; 1929-165; 1940-214 EMPR GEM \*1971-178; 1972-420 EMPR ASS RPT \*1127, \*3277, \*3768 EMPR FIELDWORK 1987, pp. 181-193; 1988, pp. 195-208; 1991, pp. 93-101 EMPR PF (Galloway, J.D., (1921): Report on the Harvey Group; Kelly, S.F., (1970): Driftwood Mines Ltd., Report on the Drift Claims on Harvey Mountain near Smithers; maps; Driftwood Mines Ltd., Prospectus May 12, 1971; Prospectus September 20, 1972) EMPR MAP 69-1 GSC SUM RPT 1924A, p. 34 GSC MAP 278A GSC OF 351 GSC BULL 270 GCNL #172, 1984 N MINER Sept.13, 1984

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/26 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 132</u>			NATIONAL M	IINERAL INVE	NTORY: 09	3L15 Ag7
NAME(S):	DRIFTWOOD (L.6776), F Annie D. (l.3674), ken	Rainbow, Judge,					
STATUS: REGIONS:	Past Producer British Columbia		Underg	round	MINING D	IVISION: Or	nineca
NTS MAP: BC MAP:	093L15W				UTN	/ ZONE: 09	(NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 53 10 N 126 57 56 W 1300 Metres Within 500M Located on the east and metres northeast of Smi Babine Mountains. Locat 6776.	south sides of Driftw thers on the southwe tion is the centre of D	ood Creek, 17 st facing flank riftwood Creel	7.7 kilo- c of the k Lot	NOI E/	RTHING: 60 ASTING: 63	84014 0500
COMMODITIES:	Silver Antimony	Lead Barite	Zinc		Copper		Gold
MINERALS SIGNIFICANT:	Chalcopyrite Pyrite	Tetrahedrite	Bornite	Galena			
ASSOCIATED:	Sphalerite Barite Quartz Siderite						
ALTERATION:	Covellite Malachite Sericite Chlorite	e Azurite	Silica	Carbonate	Ovidation		
MINERALIZATION AGE:	Unknown	Carbonate	Silicin	511	Oxidation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic I05 Polymetallic vein Mineralized quartz vein ti	Hydrothermal s Ag-Pb-Zn±Au hat produced 1937 or	Indust STRI re shipment.	rial Min. KE/DIP: 085/75S	TRI	END/PLUNG	E:
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton	<u> </u>	MATION tkwa		<u>IGNEOUS</u>	METAMORE	PHIC/OTHER
LITHOLOGY:	Andesite Tuff Basaltic Pyroclastic Dacitic Pyroclastic Flow Breccia Lapilli Tuff Vitric Tuff Amygdaloidal Basalt						
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane			PHYSIOGRA	PHIC AREA	Skeena Rar	Ides
TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELAT	IONSHIP: Syr	-mineralization	GRADE:	Blueschist	0
INVENTORY							
ORE ZONE:	SAMPLE		REPOR	rt on: N			
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Averaged assays from s Assessment Report 6610	analysis <u>GR</u> 98 0 0 elected grab sample: 0.	ADE 3.7400 Gr .2700 Gr .7700 Pe s on the Driftv	YEAR: 1977 Tams per tonne ams per tonne er cent vood claims.			
CAPSULE GEOLOGY							
	The property canics of the Nil green to grey and including dense, and coarse to fin of pyrite, chalco quartz-carbonate	is underlain h kitkwa Formatic esite with basa fine-grained to e-grained breco pyrite, and ten infillings in the	by Lower J bn. They altic to d uff, vitri cia. Mine trahedrite faults and	urassic Hazel are comprised acitic pyrocl c tuff, lapil ralization co occurs in qu fractures wi	ton Group of maroo: astics li tuff, nsisting artz vein thin the	vol- n to lahar mainly s and	

andesitic tuffs and amygdaloidal basalts.

A lenticular quartz vein, approximately 15 centimetres wide strikes 085 degrees and dips between 50 degrees south to near vertical. The vein consists of quartz, tetrahedrite, chalcopyrite, galena, sphalerite, and pyrite. In 1937, 8.2 tonnes of ore was shipped from this vein and produced 93 grams gold, 21,928 grams silver, 190 kilograms copper, 327 kilograms lead, and 245 kilograms zinc (Minister of Mines Annual Report 1937, page C33).

Approximately 15 metres above these workings are two mineralized quartz veins which strike 005 degrees and dip 40 degrees east and 295 degrees and dips 67 degrees south. The former is terminated by a fault in the altered andesitic tuff which strikes 320 degrees and dips 55 degrees southwest. Mineralization in the quartz stockworks and veinlets occurs as disseminations of tetrahedrite, chalcopyrite, bornite with minor chalcocite, covellite, malachite, and azurite.

Another type of mineralization on the property occurs as lensoid veins along shears and faults which are genetically related to the southeast trending regional direction of shearing and fracturing. Mineralization occurs in quartz, carbonate or sideritic infillings with clots and masses of tetrahedrite and chalcopyrite. In 1977 a selected sample from the Driftwood high grade vein assayed: 9.3 per cent copper, 1080.7 grams per tonne silver, and 2.4 grams per tonne gold (Assessment Report 6610).

Barite veinlets also crosscut the volcanics. In 1977 a barite vein chip sample assayed 0.13 per cent copper, 35.3 grams per tonne silver and 0.14 grams per tonne gold (Assessment Report 6610).

On the Judge No. 1 claim, mineralization is concentrated along silicified zones paralleling beds of tuff. Pyrite, chalcopyrite, bornite, and tetrahedrite occur in two beds confined to a maroon breccia lying between beds of fine-grained reddish tuffs. In 1937 a 647 kilogram sample assayed: 1028 grams per tonne silver, 40.5 grams per tonne gold and 10 per cent copper (Minister of Mines Annual Report 1937, page C33). In 1939 another 0.49 tonne sample assayed 19.5 grams per tonne gold, 1378 grams per tonne silver, 12 per cent copper, 0.9 per cent zinc, and 1.65 per cent antimony (Minister of Mines Annual Report 1939, page A59).

Mines Annual Report 1939, page A59). In 1937, about 9 tonnes of ore was shipped from the Driftwood property. From this ore 93 grams of gold, 21,928 grams of silver, 109 kilograms of copper, 327 kilograms of lead and 245 kilograms were recovered.

#### BIBLIOGRAPHY

EMPR AR 1921-102; 1923-111; 1924-97; 1925-138; 1927-481; 1928-166; 1929-165; 1930-140; 1931-73; \*1937-C33; 1938-C49; \*1939-A59 EMPR EXPL 1976-E152; \*1977-E99 EMPR ASS RPT \*1127, \*6610 EMPR MAP 69-1 EMPR FIELDWORK \*1987, p. 190; 1988, pp. 195-208; 1991, pp. 93-101 EMPR FF (Gaul, A.J., (1928): Report of Examination of Babine Silver King Group; Miscellaneous maps) GSC SUM RPT 1924A, p. 34 GSC P 40-18, p. 8 GSC MAP 671A; 971A GSC BULL \*270, pp. 9-27 GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/26 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 133</u>			NATIONAL MINE	RAL INVENTORY:	093L14 Ag10
NAME(S):	PATRIOTIC (L.3311), RED	D CROSS (L.3310), BC	OWL (L.3315)			
STATUS:	Showing British Columbia			I	VINING DIVISION:	Omineca
NTS MAP:	093L14E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 53 10 N 127 10 56 W 530 Metres Within 500M Located on the east bank of Evelyn on D.L. 3311, appro Smithers.	of the Bulkley River, 4 oximately 17 kilometre	.8 kilometres eas	st of st of	NORTHING: EASTING:	6083631 616603
COMMODITIES:	Lead	Zinc	Silver	Go	ld	
MINERALS						
SIGNIFICANT: MINERALIZATION AGE:	Sphalerite Galena Unknown	Jamesonite	Tetrahedrite	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallic veins	Hydrothermal Ag-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP	FORM	ATION	<u> </u>	GNEOUS/METAM	ORPHIC/OTHER
Lower Cretaceous Cretaceous-Tertiary	Skeena	Kitsun	s Creek		Unnamed/Unknow	n Informal
LITHOLOGY:	Andesitic Tuff Greywacke Shale Schist Conglomerate Porphyry Quartz Porphyry Dike					
HOSTROCK COMMENTS:	Porphyry intrusion.					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Roo	cks	PHYSIOGRAPHIC	CAREA: Skeena I	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON	1: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Lead Zinc	alysis <u>GRA</u> 761. 2.0 34.8	YEAR DE 1000 Grams 000 Per cer 3000 Per cer	t: 1918 per tonne nt		
COMMENTS: REFERENCE:	Sample taken across 0.6 n Minister of Mines Annual R	netre assayed only tra eport 1918, page 118	ace gold. 3.			
CAPSULE GEOLOGY						
	Lot 3311 is u: (Kitsun Creek Form, shale and conglome: Cretaceous to Tert Locally, the by a wide, fine-gr in a fracture zone roughly paralleling	nderlain Lower ation) comprise rate. The Skee iary porphyry s property is und ained quartz po in the schist g it. Minerali hist varving f	Cretaceous ed of andesi ma Group is stock and as lerlain by s prphyry dike about 15 me zation occu	Skeena Group tic tuff, gre intruded by sociated dike chists which . Mineraliza tres from the rs as fissure 1 2 metres in	sediments ywacke, a Late s. are intruded tion occurs dike and vein in- width and	

in a fracture zone in the schist about 15 metres from the dike and roughly paralleling it. Mineralization occurs as fissure vein infillings in the schist, varying from 0.3 to 1.2 metres in width and striking 100 degrees. Sulphide mineralization consists of sphalerite, galena, jamesonite with minor tetrahedrite and pyrite. The galena and tetrahedrite carry good silver values. In 1918, a sample across 0.6 metres in an open cut assayed trace

gold, 761.1 grams per tonne silver, 2 per cent lead, and 34.8 per cent tonne gold, 4278.8 grams per tonne silver, 46 per cent lead, and 20.4 per cent zinc (Minister of Mines Annual Report 1918, page 118).

EMPR AR 1918-118; 1924-366 EMPR FIELDWORK 1988, pp. 195-208; 1991, pp. 93-101 EMPR MAP 69-1 GSC OF 351 GSC P 44-23 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 134</u>				NATIONAL M	INERAL INVENTORY	: 093L14 Sb1
NAME(S):	REISETER 4, REISETER, N	JUMBER ONE					
STATUS:	Past Producer	O	pen Pit			MINING DIVISION	Omineca
REGIONS: NTS MAP:	British Columbia 093L14E					UTM ZONE:	: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION:	54 55 02 N 127 09 44 W 778 Metres					NORTHING EASTING	: 6087126 : 617795
LOCATION ACCURACY: COMMENTS:	Within 500M Located on the south side Smithers; mineralized loca 4478, Figure 2), vein num	e of Reiseter Creation on Reiseter ber one.	ek, 15.3 kilom 4 claim (Asse	etres north essment Re	of eport		
COMMODITIES:	Antimony	Zinc	Si	lver		Copper	Molybdenum
		0.1					
SIGNIFICANT:	Stibnite Sphalerite Pyrite	Galena	Molybde	nite C	halcopyrite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Silica Sericite Silicific'n Unknown	Epidote Propylitic	Chlorite	Kaolini	te		
DEPOSIT	Vein						
CLASSIFICATION: TYPE:	Epigenetic L01 Subvolcanic Cu-A	Hydrothermal Ag-Au (As-Sb)			105 Po	lymetallic veins Ag-P	b-Zn±Au
DIMENSION: COMMENTS:	Main attitude of mineralize	ed veins.		STRIKE/DIP	: 055/50E	TREND/PLU	JNGE:
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary						
STRATIGRAPHIC AGE	GROUP	<u>F</u>	ORMATION			IGNEOUS/METAN	IORPHIC/OTHER
Cretaceous-Tertiary	Skeena	ł	Altsuns Creek			Unnamed/Unknor	wn Informal
LITHOLOGY:	Sandstone Greywacke Tuff Shale Granodiorite Hornfels						
HOSTROCK COMMENTS:	Granodiorite stock.						
GEOLOGICAL SETTING							_
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Pluton RF	ic Rocks	Svn-miner	PHYSIOGRA alization	PHIC AREA: Skeena GRADE: Hornfel:	Ranges
INVENTORY				-,			-
ORE ZONE:	VEIN		RE	PORT ON:	N		
	CATEGORY Assav/a	nalvsis		YEAR	1970		
	SAMPLE TYPE: Chip COMMODITY	linaryolo	GRADE	1 <b>L</b> ) u ti	1010		
COMMENTS:	Antimony A 60 centimetre chin sam	nle includes qua	2.2000	Per cent			
REFERENCE:	host rock, also assayed t	race gold. Mining in British (	Columbia 197	0 nade 16	3		
				o, page 10.	0.		
GARGULE GEULUGY	The claims an Formation sediment greywacke, sandsto Late Cretaceous to dikes which exhibit minor epidote, chi contact with the in pyrite. Mineralization nated pyrite with planes. Some moly	re underlain ts of the Sk one and shal to Eocene gra its propylit lorite and k intrusion ar on is found blebs in th ybdenite an	by Lower eena Grou es. The nodiorite ic altera aolinite. e hornfel throughou e fractur minor cha	Cretaco p compr sedimen stock a tion, ma The SI sed and t the se es and a lcopyri	eous Kits ised main ts are in and assoc ainly ser keena sed host dis ediments along sch te occur	un Creek ly of truded by a iated porphyry icite, silica, iments near the seminated as dissemi- istosity along fractures	9

Reiseter 5). On the Reiseter property there are seven known parallel veins structures within shear zones that strike north-northeast and dip moderately to the east. The veins range from 7.6 to 25.5 centimetres in width and host stibnite with some sphalerite, galena and minor chalcopyrite. Approximately 1.5 centimetre rock fragments are cemented by sulphides and quartz. The veins characteristically have sharp contacts with the silicified siltstone.

The number one vein, located between 760 and 790 metres elevation, has been developed by a series of pits and trenches over a strike length of 145 metres and varies in width from 15 to 60 centimetres. In the northern most pit, stibnite occurs mainly as coarse-grained tabular crystals with finer material occurring along the hangingwall. In 1970, a grab sample from this vein assayed 4.0 per cent antimony and trace gold. A chip sample taken across 60 centimetres including the quartz vein material and host rock, assayed 2.2 per cent antimony with trace gold (Geology, Exploration and Mining in British Columbia 1970, page 163).

In 1970, 19 tonnes of high grade vein material from the number one vein was shipped from this property. From this, 6302 kilograms of antimony were recovered.

#### BIBLIOGRAPHY

EMPR GEM \*1970-162,163,481; 1973-347; 1974-262 EMPR ASS RPT \*4478, 5011, \*5012 EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208; 1991, pp. 93-101 GSC P 44-23 GSC OF 351 GSC BULL 270, p. 6 EMR MP CORPFILE (Taseko Mines Ltd.; Channel Copper Mines Ltd.)

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/29 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 135</u>		NATIONA	AL MINERAL INVENTORY:	093L14 Sb1
NAME(S):	REISETER, REISETER 1, REISETER	CREEK			
STATUS:	Prospect			MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093L14E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 55 24 N 127 09 53 W 650 Metres Within 500M Located along the south bank of R	Reister Creek; old trench locatio	on	NORTHING: EASTING:	6087802 617617
	(Personal Comments P. Desardins	s - Fieldwork 1988).			
	Gold Silver	Copper			
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Pyrite found in veinlets and in qua Quartz Silicific'n Unknown	rtz blebs of up to 2.0 centimet	res.		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Epigenetic Hydroth L01 Subvolcanic Cu-Ag-Au (A	nermal ls-Sb)	105	Polymetallic veins Ag-Pb	-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
	GROUP	FORMATION Kitsung Crook		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Siliceous Sandstone	Nisuns Greek			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	RELATIONSHIP:	PHYSIO	GRAPHIC AREA: Skeena F GRADE: Hornfels	Ranges
INVENTORY					
ORE ZONE:	VEIN	REPORT ON	I: N		
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Gold Copper Sample APE 88-25-1 taken from a old trench.	YEAR <u>GRADE</u> 218.0000 Grams 6.8400 Grams 0.0870 Per cer a pyritic quartz vein in an	e: 1988 per tonne per tonne nt		
REFERENCE:	Personal Communication - P.A. De	esjardins, Fieldwork, 1988.			
CAPSULE GEOLOGY	The prospect occurs Cretaceous Skeena Group by a swarm of leucocrat from 4.5 to 6.0 metres and blebs of pyrite in s carbonate veinlets. So along fractures in the 093L 136 - Reiseter 5) nite, sphalerite, galena Reiseter). Mapping in 1988 und disseminated pyrite in o Sample APE 88-25-1, take grams per tonne gold, 22 copper. Sample APE 88-2 country rock, assayed 0 copper and 0.001 per cen Fieldwork, 1988).	s in siliceous sandst , Kitsun Formation. ic quartz feldspar po in width and have cau found throughout the fractures and within me molybdenite and mi intrusive dikes and h . Other quartz veins a and minor chalcopyr covered an old trench quartz stockworks wit en from a quartz vein 18.0 grams per tonne 25, taken across the .002 grams per tonne nt zinc (Personal Com	one of s The sed: rphyry of sed seld sediment quartz a ornfels in the ite (re: which l hin sil: with py silver a yein ind gold, 0 ments: 1	the Lower iments are intruded dikes which range ective hornfelsing ts as disseminated and quartz- lcopyrite occur (refer to area host stib- fer to 093L 134 - hosts blebs and iceous sandstone. yrite assayed 6.84 and 0.087 per cent cluding some .007 per cent P.A. Desjardin,	d

EMPR GEM \*1970-162,163; 1973-347; 1974-262 EMPR ASS RPT \*4478, 5011, 5012 EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208; 1991, pp. 93-101 GSC P 44-23 GSC OF 351 GSC BULL 270

DATE CODED: 1989/05/01 DATE REVISED: 1989/08/24 CODED BY: LLD REVISED BY: LLD

MINFILE NUMBER:	<u>093L 136</u>		NATIONAL MINERAL INVENTOR	Y: 093L14 Sb1
NAME(S):	REISETER 5			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION	N: Omineca
NTS MAP: BC MAP:	093L14E		UTM ZON	E: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 55 21 N 127 09 05 W 930 Metres Within 500M Location of molybdenum r (Assessment Report 4478	nineralization on the Reiseter 5 claim 3).	NORTHING	G: 6087732 G: 618474
COMMODITIES:	Molybdenum	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcop Quartz Carbonate Pyrite Silica Propylitic Unknown	yrite Carbonate		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L05 Porphyry Mo (Lov	v F- type)	L04 Porphyry Cu ± Mo ± A	u
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek	IGNEOUS/META	MORPHIC/OTHER
Cretaceous-Tertiary			Unnamed/Unkno	own Informal
LITHOLOGY:	Granodiorite Quartz Feldspar Porphyry Sediment/Sedimentary	Dike		
	Intermontane			a Rances
METAMORPHIC TYPE:	Stikine Contact	Plutonic Rocks RELATIONSHIP:	GRADE: Hornfe	els
CAPSULE GEOLOGY	The area is u (Kitsun Creek Form granodioritic stoc intrude the Skeena widespread as well exhibits propyliti dote, chlorite and Molybdenite a in quartz veinlets in the hornfels. Surrounding t and northwest of i chalcopyrite (refe host stibnite with pyrite (refer to 0	anderlain by Lower Cretaceo (ation). Locally, a Late C (k and associated quartz-fe (a Group rocks. Selective b (a s abundant disseminated ) (c alteration, mainly seric (a kaolinite. (a dininte.) (a dinint chalcopyrite occu (b within the intrusive, ass (c and a series of quartz v (c tare a series of quartz v (c to 093L 135 - Reiseter (c) varying amounts of sphale (c) 134 - Reiseter).	us Skeena Group sediment retaceous to Eocene ldspar porphyry dikes iotite-hornfelsing is pyrite. The stock ite, silica, minor epi- r on dry fractures and ociated porphyry dikes a zone at a lower elevatic eins which host pyrite a Creek) and veins which rite, galena and chalco-	and on and
BIBLIOGRAPHY	EMPR GEM *1970-162	2,163; 1973-347; 1974-262		
	EMPR ASS RPT *4478 EMPR MAP 69-1 EMPR FIELDWORK 198 EMR MP CORPFILE (T GSC P 44-23 GSC OF 351 GSC BULL 270	8, 5011, 5012 88, pp. 195-208; 1991, pp. aseko Mines Ltd.; Channel	93-101 Copper Mines, Ltd.)	
DATE CODED: DATE REVISED:	1989/03/26 / /	CODED BY: LLD REVISED BY:		FIELD CHECK: N FIELD CHECK:

MINFILE NUMBER:	<u>093L 137</u>			NATIONAL M	INERAL INVENTORY:	
NAME(S):	<u>BULKLEY</u> , BR					
STATUS:	Prospect British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L14E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 56 00 N 127 14 36 W 450 Metres Within 500M Claims straddle the north of Smithers.	Bulkley River, within I	_ot 3294, 17 kilo	metres	Northing: Easting:	6088785 612552
COMMODITIES:	Silver	Lead	Zin	с	Copper	Gold
	Sphalarita Gal		urito Durito	Totrabodrito		
ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Jamesonite Quartz Side Silicific'n Unknown	erite	ynte Fynte	retraneunte		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallic	Hydrothermal veins Ag-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE	GROUP	<u> </u>	FORMATION		IGNEOUS/METAMO	ORPHIC/OTHER
Eocene	Skeena		KIISUNS CIEEK		Goosly Intrusions	
LITHOLOGY:	Shale Greywacke Conglomerate Porphyritic Quartz N	Monzonite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	Plutc R	nic Rocks ELATIONSHIP: 3	PHYSIOGRA Syn-mineralization	PHIC AREA: Nechako GRADE:	Plateau
INVENTORY						
ORE ZONE:	WORKINGS		REF	PORT ON: N		
COMMENTS	CATEGORY: As SAMPLE TYPE: Gr <u>COMMODITY</u> Silver Gold Copper Lead Zinc Samples from old w	ssay/analysis ab	GRADE 415.5000 0.1000 0.1200 12.1200 31.6000	YEAR: 1985 Grams per tonne Grams per tonne Per cent Per cent Per cent		
REFERENCE:	Assessment Report	t 13843.				
CAPSULE GEOLOGY	The claim sediments (Kit fine-grained of strike east ar The sedim and veinlets f chalcopyrite, Samples f 415.5 grams pe lead and 0.12 Mineraliz Intrusion whice	ms are underlai tsun Creek Form greywacke, shal nd dip moderate ments are cross nosting sphaler and pyrite. From the old wo er tonne silver per cent coppe zation is relat ch is comprised	n by Lower ation). Th es and poly ly north. cut by quar ite, galena rkings assa , 31.6 per r (Assessme ed to the I of quartz-	Cretaceous Skee ey consist main mictic conglome tz and quartz-s , jamesonite, t yed 0.1 grams cent zinc, 12.1 ant Report 13843 ate Eocene Goos monzonite porph	na Group ly of rate which iderite veins etrahedrite, per tonne gold, 2 per cent ). ly Lake yry.	
BIBLIOGRAPHY	EMPR AR 1918-1 EMPR ASS RPT	118 *8940, *13843				
EMPR EXPL 1980-346; 1985-C319 EMPR FIELDWORK 1988, pp. 195-208; 1991, pp. 93-101 EMPR MAP 69-1 GSC OF 351 Falconbridge File

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/29 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 138</u>	NATIONA	L MINERAL INVENTORY:
NAME(S):	<b>AG</b> , PB, SIS, SILVER BOX CAR		
STATUS: REGIONS: NTS MAP: BC MAP	Showing British Columbia 093L14E 093L15W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 56 30 N 127 01 06 W Metres Within 500M Located near headwaters of F Bridge Creek, 19.3 kilometres	Reiseter Creek on the east side of Two north-northeast of Smithers.	NORTHING: 6090097 EASTING: 626940
COMMODITIES:	Lead Zine	c Silver	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Quartz Silicific'n Unknown	Arsenopyrite Pyrite	
DEPOSIT			
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hyd 105 Polymetallic veins Ag-	drothermal Pb-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Lower Jurassic Lower Cretaceous Upper Cretaceous	GROUP Hazelton Skeena	FORMATION Undefined Formation Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesitic Flow Tuff Breccia Argillite Quartz Monzonite		
HOSTROCK COMMENTS:	Quartz monzonite stock.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	PHYSIOC Plutonic Rocks RELATIONSHIP: Syn-mineralization	GRAPHIC AREA: Skeena Ranges GRADE:
CAPSULE GEOLOGY			
	The claims are used of the stock which intrudes Lower Cretaceous Skeet intensely silicified Mineralization of which host pyrite and Cabin location show of of quartz veins cross occurrences of pyrite	underlain by a Late Cretaceous of both Lower Jurassic Hazelton Gr and Group sediments. The contact and is weakly mineralized with occurs in a small network of qua d silver bearing galena. Old wo quartz veins with arsenopyrite. Sout banded, slatey argillite an e, galena, and possibly sphaler:	quartz monzonite coup volcanics and st aureole is pyrite. artz veinlets orkings at the The network ad host minor ite.
BIBLIOGRAPHY	EMPR EXPL *1975-E143 EMPR ASS RPT *2657, 5 EMPR MAP 69-1 EMPR FIELDWORK 1987, EMPR PF (*Dickson, M. Reiseter Creek in 1987) GSC OF 351 GSC BULL 270	pp. 181-193; 1988, pp. 195-208 P. (1986): Report on the Silve Prospectus for Altec Developmen	: 1991, pp. 93-101 er Box Property, nt Corp., Jun.26,
DATE CODED: DATE REVISED:	1985/07/24 1988/06/29	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 139</u>	NATIONAL N	/INERAL INVENTORY: 093L15 Cu2
NAME(S):	REISITER CREEK		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L15W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 56 45 N 126 58 16 W Metres Within 500M Showing at the head of Reiseter Cr Smithers.	eek, 22.5 kilometres northeast of	NORTHING: 6090648 EASTING: 629951
COMMODITIES:	Copper Lead	Zinc	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Chalcopyrite Py Quartz Unknown	yrite	
DEPOSIT			
CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal 105 Polymetallic veins Ag-Pb-Z	n±Au	
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary		
STRATIGRAPHIC AGE	GROUP Skeena	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
Cretaceous			Unnamed/Unknown Informal
LITHOLOGY:	Argillite Quartz Monzonite Aplite Dike Granodiorite Dike		
HOSTROCK COMMENTS:	Quartz monzonite stock.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	PHYSIOGRA Plutonic Rocks RELATIONSHIP: Syn-mineralization	APHIC AREA: Skeena Ranges GRADE:
	0		
CAPSULE GEOLOGY	The host rock is Lo	wer Cretaceous Skeena Group ar	gillite which
	is intruded by dikes and tion and related quartz monzonite stock. Quartz infilling in with intergrown crystals In two of these veins cr interstitial to the quar narrow band of less than Disseminated pyrite the bedding planes in th	sills of aplitic to granodion veins associated with a Cretac fractures exhibits a cockscom projecting toward the centre ystalline galena and chalcopyn tz. The sulphides are confine 30 centimetres in width. is found as shear mineralizat e argillite.	ritic composi- ceous quartz of the vein. rite were ed to a rion along
BIBLIOGRAPHY	FMDR FIFI.DWORK 1087 ~~	181-193: 1988 nr 195-2000 1	991 pp 93-101
	EMPR MAP 69-1 GSC P 40-18, p. 8 GSC MAP 671A; 971A GSC SUM RPT 1924A, p. 35 GSC OF 351	101 175, 1700, pp. 195-200, 1	, <u>P</u> P
DATE CODED: DATE REVISED:	1985/07/24 1988/06/29	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 140</u>	NATIONAL MIN	IERAL INVENTORY: 093L15 Ag2	
NAME(S):	<u>Debenture (l.6310)</u> , wanda			
STATUS:	Prospect British Columbia		MINING DIVISION: Omineca	
NTS MAP: BC MAP	093L15W		UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 58 50 N 126 52 36 W 1450 Metres Within 500M Located on the south side of Depenture of Smithers.	e Creek, 29 kilometres northeast	NORTHING: 6094690 EASTING: 635882	
COMMODITIES:	Lead Zinc	Silver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Quartz Sericite Chlorite Epidote Sericitic Silicific'n Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polymetallic veins Ag-Pb-Zn±At	J		
HOST ROCK DOMINANT HOSTROCK:	: Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMORPHIC/OTHER	
Upper Cretaceous			Unnamed/Unknown Informal	
LITHOLOGY:	Andesite Rhyodacite Flow Breccia Lapilli Tuff Quartz Diorite Sill			
HOSTROCK COMMENTS:	Quartz diorite.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAP	HIC AREA: Nechako Plateau	
CAPSULE GEOLOGY	The Debenture (Lot 6310) and 5 other Crown grants (Lots 6311-6315) are located on the south side of Debenture Creek, on the northeast boundary of Babine Mt. Park. The claims are underlain by Lower Jurassic Hazelton Group volcanics of the Telkwa Formation comprised mainly of andesite, rhyodacite flows, breccia and tuff. The volcanics are intruded by a Late Cretaceous quartz diorite sill about 6 metres thick which strikes northwest and dips between 40 to 45 degrees to the south- west. The intrusion cuts chlorite-epidote altered lapilli tuffs. Mineralization consists of fracture fillings in the numerous fault/fracture systems in the volcanics. The No. 2 vein occurs in a fracture which crosscuts the bedding and dips 78 degrees. The volcanics are sericitized and partly silicified and host mineralized seams and fairly massive bands of disseminated galena with minor sphalerite. The vein is mineralized with galena seams and stringers within brecciated vein quartz and wall rock. The No. 1 vein is exposed in a steep inaccessible bluff and dips 75 degrees south. It was traced intermittently for 61 metres.			
BIBLIOGRAPHY	EMPR AR 1913-108; 1915-77; EMPR ASS RPT *1643 EMPR FIELDWORK *1987, p. 19 EMPR MAP 69-1 EMR MP CORPFILE (Debenture Sproatt Silver Mines Ltd New Cronin Babine Mines GSC BULL 270 GSC MAP 671A; 971A	1916-91,130; 1964-52 1; 1988, pp. 195-208; 1991, p Creek Mines Ltd.; Native Mine .; Wanda Mines and Exploration Ltd.)	pp. 93-101 es Ltd.; ons Ltd.;	

GSC OF 351 GSC P 40-18, p. 5 GSC SUM RPT 1924A, p. 32

DATE CODED: 1985/07/24 DATE REVISED: 1988/01/20 CODED BY: GSB REVISED BY: LLD

\_\_\_\_

MINFILE NUMBER:	<u>093L 141</u>		NATIONAL MINE	RAL INVENTORY:	
NAME(S):	<u>OPHIR</u>				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION: Omineca	
BC MAP:	093L10E				
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 42 00 N 126 34 06 W 1040 Metres Within 500M Located on the southeast base kilometres southeast of Smither	of Dome Mountain on rs (Assessment Report	Guess Creek, 38 13638).	NORTHING: 6064123 EASTING: 656693	
COMMODITIES:	Gold Man Silver	iganese I	.ead Zi	nc Copper	
MINERALS					
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Galena Quartz Calcite Chlorite Hematite Chloritic Quar Unknown	Pyrite Magne	tite		
		eminated			
CLASSIFICATION: TYPE:	Epigenetic Hydr 105 Polymetallic veins Ag-P	rothermal I Pb-Zn±Au	ndustrial Min.		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMORPHIC/OTHER	<u> </u>
		INIIKIIKWA			
LITHOLOGY:	Felsic Tuff Volcanic Sandstone Diabase				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPH	C AREA: Nechako Plateau	
		-			
ORE ZONE:	SAMPLE	۲	EPORTON: N		
	CATEGORY: Assay/analysi SAMPLE TYPE: Grab COMMODITY Gold Manganese Lead	IIS <u>GRADE</u> 0.0150 0.1000 0.0300	YEAR: 1985 Grams per tonne Per cent Per cent		
REFERENCE:	Zinc Assessment Report 13638.	0.0750	Per cent		
CAPSULE GEOLOGY					
	Lower Jurassic Ha are exposed along Gues grey medium-grained fe pyrite, disseminated a Quartz-carbonate and o 1985, samples of the v trace silver, 0.1 per cent lead and 0.001 gr 0.7 per cent manganese (Assessment Report 136 The eastern part volcanic sandstone. H is chloritized with ca nated as well as 5 per	azelton Group ro ss Creek. On th elsic tuff with and in fracture chlorite veinlet volcanic assayed cent manganese, rams per tonne g e, 0.06 per cent 638). of the claims h Exposed in the s alcite fracture r cent magnetite	cks of the Nilkitkw. e north bank of the quartz eyes hosts 3 filling with minor s crosscut the fels 0.015 grams per to 0.075 per cent zim old, 0.045 per cent zinc and 0.02 per ost medium-grained, outhwest parts, is filling. Hematite and pyrite.	A Formation creek, light per cent chalcopyrite. ic tuff. In nne gold, c, 0.03 per copper, cent lead dark grey diabase which is dissemi-	
BIBLIOGRAPHY	EMPR EXPL *1985-C318 EMPR ASS RPT 7286, *13 GSC OF 351 GSC BULL 270	3638			

EMPR OF 1987-1 EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/16 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 142</u>		NATIONA	L MINERAL INVEN	TORY: 093L10 Zn3
NAME(S):	<b>BRENDA</b> , BULKLEY, PARAD BW, BURN 2, ARCTIC	ISE,			
STATUS:	Showing			MINING DIV	ISION: Omineca
NTS MAP:	093L10E			UTM	ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 40 15 N 126 37 23 W 1310 Metres Within 1 KM Located on a small tributary Dome Mountain; old copper Figure 4.	of Guess Creek, 8.5 kilome showing from Assessment	etres south of Report 17255,	NOR EAS	THING: 6060758 STING: 653277
COMMODITIES:	Copper Si	ilver Zi	inc	Gold	
MINERALS SIGNIFICANT: ASSOCIATED: AI TERATION:	Sphalerite Arsenopyrite Magnetite Quartz Malachite	e Chalcopyrite Pyr	rhotite Pyrite		
ALTERATION TYPE: MINERALIZATION AGE:	Oxidation Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein M Epigenetic M L01 Subvolcanic Cu-Ag- I05 Polymetallic veins Ag	lassive D lesothermal Au (As-Sb) g-Pb-Zn±Au	isseminated D03	Volcanic redbed C	Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic Jurassic	GROUP Hazelton	FORMATION Nilkitkwa		IGNEOUS/M	IETAMORPHIC/OTHER
LITHOLOGY:	Andesitic Tuff Feldspar Crystal Tuff Lapilli Tuff Breccia Diorite				
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane		PHYSIOC	GRAPHIC AREA: N	echako Plateau
TERRANE: METAMORPHIC TYPE:	Stikine Contact Regional	Plutonic Rocks RELATIONSHIP:	Syn-mineralization Post-mineralization	GRADE: G H	reenschist ornfels
INVENTORY					
ORE ZONE:	TRENCH	RE	EPORT ON: N		
	CATEGORY: Assay/anal SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper	lysis <u>GRADE</u> 261.0000 1.9600	YEAR: 1988 Grams per tonne Per cent		
REFERENCE:	Assessment Report 17255.	e old trenches exposed on	Line 22+0000.		
CAPSULE GEOLOGY	The area is und of the Telkwa Format breccias. Overlying which is comprised ary rocks. The volc granodiorite, monzor Locally, the vo degrees and dip 25 d is underlain mainly of the Lower Jurassi intrusive is exposed A shear zone ra	derlain by Lower Ju tion comprised of a g the Telkwa Format of a mixture of pyr canics are intruded nite, and diorite. blcanic rocks of th degrees southwest. by maroon feldspar to Nilkitkwa Format d. anging from 6 to 12	arassic Hazelto undesitic flows ion, is the Ni oclastics, flo by stocks cor the Hazelton Gro The area of t -crystal tuff ion. To the e	on Group volca s, tuffs and ilkitkwa Forma ows and sedime mprised of oup strike 310 the Brenda sho and lapilli f east, a diorit	anics ation ent- ) owing tuff te put.

065 degrees in the andesitic tuff. Mineralization occurs in part as

disseminations and as replacement infillings along bedding planes adjacent to the shearing. On the right side of the creek open cuts expose massive pyrite with magnetite, sphalerite, and malachite staining. A sample across 1.8 metres of solid sulphide assayed trace silver, gold, copper, and 1.2 per cent zinc (Assessment Report 1665). About 300 metres to the northeast there is a slightly mineralized diorite hosting chalcopyrite and pyrite. On the Paradise property, the shear zone was described in 1918 as locally hosting quartz veining, ranging from 1.5 to 3.0 metres in width, mineralized with pyrite, magnetite, and minor arsenopyrite and pyrrhotite. Recently, an old campsite and trenches were found. Abundant malachite staining occurs in the old trenches. In 1988, a grab sample from one of the trenches assayed 1.96 per cent copper and 261 grams per tonne silver (Assessment Report 17255). About 400 metres to the east is a small quartz vein with minor galena and chalcopyrite mineralization. BIBLIOGRAPHY EMPR AR 1918-124; 1929-170; \*1968-137 EMPR ASS RPT 1665, 2444, 2543, 7286, \*17255, 17478, 17874 EMPR EXPL \*1988-C170 GSC P 40-18 GSC MAP 671A; 971A EMPR FIELDWORK \*1986, p. 216; \*1988, pp. 195-208 EMPR OF \*1987-1 EMPR MAP 69-1

GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/26 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 143</u>		NATIONAL MINE	RAL INVENTORY: 093L10 Ag1
NAME(S):	TONY, IVANHOE, BW, ARCTIC, DEL SANTO			
STATUS:	Showing			MINING DIVISION: Omineca
REGIONS: NTS MAP:	093L10E			UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 40 13 N 126 36 35 W 1402 Metres Within 1 KM Showing on crest of hill, 8 Mountain; BW showing fr	3 kilometres south-southeast of Do om Assessment Report 17255, Fig	ome gure 4.	NORTHING: 6060725 EASTING: 654139
COMMODITIES:	Copper	Silver Gold		
MINERALS				
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Chalcop Quartz Carbonate Malachite Azurite Propylitic Unknown	yrite Sphalerite Galena e Pyrite Kaolinite Silicific'n Carbo	nate O>	idation Argillic
DEPOSIT	Mala			
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic 105 Polymetallic vein	Mesothermal s Ag-Pb-Zn±Au		
DIMENSION: COMMENTS:	Mineralized shear zone in	n andesitic volcanics.	IKE/DIP: 040/60S	IREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic Lower Jurassic Jurassic	Hazelton Hazelton	Telkwa Nilkitkwa		Topley Intrusions
LITHOLOGY:	Andesite Tuff Breccia Calcareous Sediment/Sed Monzonite Diorite Granodiorite	dimentary		
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHI	C AREA: Nechako Plateau
INVENTORY				
ORE ZONE:	SAMPLE	REPOR	rt on: N	
	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver	analysis <u>GRADE</u> 360.0000 G	YEAR: 1988	
COMMENTS: REFERENCE:	A selected sample over 4 Assessment Report 1725	4.0 metres. 55.		
ORE ZONE:	SHEAR	REPOR	rt on: N	
	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver	analysis <u>GRADE</u> 62.0000 G	YEAR: 1968	
COMMENTS: REFERENCE:	1.8 metre sample. Minister of Mines Annual	Report 1968, page 137.		
CAPSULE GEOLOGY				

The area is underlain by Lower Jurassic Hazelton Group volcanics of the Telkwa Formation and volcanics and sediments which are part of the Nilkitkwa Formation. The rocks consist of andesitic flows, tuffs and breccias with associated calcareous sediments. These formations

are intruded by stocks comprised of granodiorite, monzonite and diorite which form part of the Topley Intrusive Suite.

Locally, the area of mineralization is underlain by a mixture of altered lapilli tuff and fine grained calcareous sediments which are in contact with a diorite intrusive. Mineralization consisting of galena and sphalerite, associated with carbonate veining, is abundant. Local propylitic alteration in the form of bleaching, kaolinization, pyritization with silicification is also associated with the carbonate veining.

A quartz-carbonate alteration zone (Tony or BW showing) with disseminated tetrahedrite mineralization is hosted in fine-grained sediments. The mineralization is traceable over 80 metres and a selected sample assayed up to 360 grams per tonne silver over 4.0 metres (Assessment Report 17255).

The tetrahedrite is disseminated through a quartz-carbonate alteration zone and also in the adjacent sediments. Chalcopyrite, sphalerite and galena are also present in variable amounts.

The main showing is on the crest of a hill where a shear zone up to 2.0 metres wide crosscuts the andesitic tuff and strikes 040 degrees and dips 60 degrees southeast. The shear hosts tetrahedrite, chalcopyrite, and malachite with azurite. Silver assays run up to 70 grams per tonne. A sample across 1.8 metres assayed trace gold, 62 grams per tonne silver, and 0.6 per cent copper. About 150 metres south of the shaft, the andesite shows slight copper mineralization over 3.4 metres and assayed trace gold, 64 grams per tonne silver, and 0.5 per cent copper (Minister of Mines Annual Report 1968, page 137).

About 400 metres east of the shaft, a granodioritic intrusive hosts small chalcopyrite bearing quartz veins. A sample across a 23 centimetre vein assayed trace gold, and copper with 68.5 grams per tonne silver (Minister of Mines Annual Report 1968, page 137).

#### BIBLIOGRAPHY

EMPR AR 1928-169; 1929-170; \*1968-137 EMPR ASS RPT 1665, 2444, 2543, 7286, \*17255, 17478, \*17874 EMPR EXPL \*1988-C170 EMPR FIELDWORK \*1986, p. 216; 1988, pp. 195-208 EMPR MAP 69-1 EMPR OF \*1987-1 GSC BULL 270 GSC MAP 671A; 971A GSC OF 351 GSC P 40-18 WWW http://www.infomine.com/index/properties/DEL\_SANTO\_\_GROUSE.html Falconbridge File

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/26 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 144</u>		NATIONAL MINERAL	INVENTORY: (	093L16 Cu4
NAME(S):	TACHI, TACHEK, MET, GOLD DUST II				
STATUS:	Showing		MIN	ING DIVISION: (	Omineca
REGIONS: NTS MAP:	British Columbia 093L16E			UTM ZONE: (	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 10 N 126 10 51 W 884 Metres Within 500M Located on Tachek Creek metres south-southwest of	on the west side of Babine Lake f Topley Landing.	, 6.4 kilo-	NORTHING: 6 EASTING: 6	6070928 681421
COMMODITIES:	Copper	Molybdenum			
MINERALS					
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Sericite Chlorite Sericitic Unknown	Molybdenite Magnetite Epidote K-Feldspar Chloritic	9		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L04 Porphyry Cu ± Mc	Breccia Hydrothermal Porp ± Au	hyry L05 Porphyry N	Ио (Low F- type	<del>)</del>
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE Lower Jurassic Jurassic	GROUP Hazelton	FORMATION Undefined Forma	tion IGNI Top	EOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Granodiorite Quartz Monzonite Biotite Quartz Feldspar Di Andesite Tuff Flow Breccia	Ke			
HOSTROCK COMMENTS:	Mineralization associate dikes.	d with biotite-quartz-feldspar por	phyry		
	Intermontane		PHYSIOGRAPHIC AF	RA: Nechako I	Plateau
METAMORPHIC TYPE:	Stikine Contact	Plutonic Rocks RELATIONSHIP: Sy	n-mineralization GRA	DE:	
CAPSULE GEOLOGY	The claims are underlain by Triassic to Lower Jurassic Hazelton Group schistose volcanics comprised mainly of andesitic flows, tuff and breccia which strike northwards and dip steeply east. These rocks are intruded by a Jurassic Topley Intrusion which underlies the central part of the claims. The Topley granitic rocks are comprised mainly of granodiorite to quartz monzonite. They are crosscut by biotite-quartz-feldspar porphyry dikes which have irregular, commonly brecciated contacts and strike predominantly east. Alteration products include sericite on feldspars and incipient chloritization of biotite. More altered varieties of the intrusive exhibit porphyroblasts of potash feldspar plus epidote, chlorite, potash feldspar and magnetite in and marginal to numerous fractures. Sulphide mineralization, consisting of pyrite, chalcopyrite, and molybdenite appears to be widespread marginal to the biotite- quartz feldspar porphyry dikes. In general, the molybdenum is restricted to potash feldspar rimmed fractures, while chalcopyrite occurs both in fractures and as disseminations in both the granitic rocks and the porphyries. Precious metal values were noted in the contact zones.				
BIBLIOGRAPHY	EMPR ASS RPT 4479, EMPR BULL 110 EMPR GEM 1965-90; 1977-E200; 1988	16874 1968-133; 1969-115; 19 -C174	70-157; 1973-350;		

EMPR MAP 69-1 EMPR OF 1996-29 GSC BULL 270 GSC MAP 671A GSC OF 351 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/26 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 145</u>			NAT	TIONAL MINERAL INVENTORY	: 093L16 Pb1
NAME(S):	NEWMAN, GRANISLE, RC	BINHOOD				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L16E				MINING DIVISION UTM ZONE	Omineca
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 56 15 N 126 10 26 W 716 Metres Within 500M Located 1.2 kilometres so southwest end of McDona	uthwest of the Gra Id Island (Granisl	anisle Mine I e 093L 146)	Pit on the	NORTHING	: 6091492 : 681038
COMMODITIES:	Lead	Zinc	Si	lver	Gold	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Quartz Carbonate Quartz-Carb. Unknown	Chalcopyrit	e Pyrite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic 105 Polymetallic veins Mineralized quartz-carbor	Breccia Hydrothermal Ag-Pb-Zn±Au nate breccia vein.	:	STRIKE/DIP:	030/60S TREND/PLU	JNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FC</u> Te	<u>ORMATION</u> elkwa			IORPHIC/OTHER
Eocene ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	51.2 +/- 2 Ma Potassium/Argon Biotite				Babine Intrusions	i
LITHOLOGY:	Andesite Breccia Amygdaloidal Andesite Tuff Biotite Feldspar Porphyry Quartz Diorite	Dike				
HOSTROCK COMMENTS:	Age from biotite near ore p. 182).	body (Minister of	Mines Annu	ual Report 197	71,	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic	Rocks	PH	YSIOGRAPHIC AREA: Nechak	o Plateau
INVENTORY						
ORE ZONE:	VEIN		RE	PORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/at SAMPLE TYPE: Grab COMMODITY Silver Gold Lead Zinc Sample from mineralized of National Mineral Inventory	nalysis ( quartz-carbonate Card 93L16 Pb1.	GRADE 411.4000 3.4000 13.0000 19.0000 vein.	YEAR: 19 Grams per tu Grams per tu Per cent Per cent	71 onne onne	
CAPSULE GEOLOGY				_	· · · · ·	
	McDonald Isla volcanics of the T waterlain andesite dip at moderate an part of the island thin bedded shales Copper minera with an Eocene Bab feldspar porphyry At lake level	nd is underl elkwa Format tuffs and k gles to the by massive lization (Gr ine Intrusiv dike which s on the sout	ain by L ion comp preccias. west and and amyg canisle M re quartz strikes n thwest en	ower Juras rised of g These st are overl daloidal a ine 093L 1 diorite p ortheaster d of the i	ssic Hazelton green to purple crike northerly and lain in the western andesitic flows and 146) is associated olug and a biotite- cly across the island island, 1.2 kilometre	5

south of the pit, a quartz-carbonate breccia vein hosts sphalerite, galena, pyrite, and chalcopyrite. The vein contains some silver and follows a northeast striking fault for a limited distance. The vein strikes 030 degrees and dips approximately 60 degrees southeast. A grab sample is reported to have assayed 3.4 grams per tonne gold, 411.4 grams per tonne silver, 13 per cent lead, and 19 per cent zinc (National Mineral Inventory Card 93L16 Pb1).

# BIBLIOGRAPHY

EMPR AR 1913-113; 1927-149; \*1940-78; \*1965-93-99,Fig. 15 EMPR BULL 110 EMPR GEM \*1971-178-183,Fig. 28 EMPR MAP 69-1 EMPR OF 1996-29 GSC BULL 270 GSC MAP 671A GSC OF 351 GSC P 40-18, p. 12

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/19 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 146</u>			NATIONAL MI	NERAL INVENTORY:	093L16 Cu1
NAME(S):	<b>GRANISLE</b> , MACDONALD ISLAND, COPPER ISLAND, BELL, RICHMOND					
STATUS:	Past Producer	Oper	n Pit		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L16E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 56 40 N 126 09 26 W 770 Metres Within 500M Located on MacDonald Island kilometres northeast of Smith	d in Babine Lake hers.	e, approximately 6	64	NORTHING: EASTING:	6092308 682074
COMMODITIES:	Copper Si	ilver	Gold		Molybdenum	
SIGNIFICANT: ASSOCIATED:	Chalcopyrite Bornite Quartz Magnetite	Pyrite Specularite	Molybdenite	Durita		
ALTERATION:	Chlorite Quartz	Apatite	Carbonate	Pyrite		
MINERALIZATION AGE:	Potassic Se Unknown	ericitic	Propyliti	C		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry Hy L04 Porphyry Cu ± Mo ±	ydrothermal Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u> </u>	RMATION kwa		IGNEOUS/METAM	DRPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	51.2 +/- 2 Ma Potassium/Argon Biotite					
LITHOLOGY:	Biotite Feldspar Porphyry Quartz Diorite Porphyry Dike Andesite Andesite Tuff Andesite Breccia Chert Pebble Conglomerate Shale					
HOSTROCK COMMENTS:	Age date determined from to Mines Annual Report 1971,	biotite from near page 182).	the orebody (Min	nister of		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic	Rocks	PHYSIOGRAF	PHIC AREA: Nechako	Plateau
INVENTORY						
ORE ZONE:	GRANISLE		REPORT	ON: Y		
COMMENTS:	CATEGORY: Unclassifier QUANTITY: 11900000 COMMODITY Copper Gold Remaining in situ resources	d D0 Tonnes <u>G</u> using a 0.30 pe	YE <u>RADE</u> 0.4100 Per 0.1500 Gra r cent copper cu	EAR: 1992 cent ms per tonne toff.		
KEFERENCE:	UIVI Special Volume 46, page	e 254.				
CAPSULE GEOLOGY	MacDonald Islar Formation (Hazelton waterlain andesite t pebble conglomerates These rocks strike n and are overlain in amygdaloidal andesit	nd is under Group) volc tuffs and bu s in the cer northerly ar the western tic flows an	lain by Lowe canics compr reccias with ntral and ea nd dip at mo n part of th nd thin bedd	er-Middle Jura ised of greer minor interc stern part of derate angles le island by m led shales.	assic Telkwa a to purple calated chert the island. a to the west assive and	

Copper mineralization at the Granisle mine is associated with a series of Eocene Babine Intrusions which occur in the central part of

PAGE: 269 REPORT: RGEN0100

## CAPSULE GEOLOGY

the island. The oldest is an elliptical plug of dark grey quartz diorite approximately 300 by 500 metres in plan. The most important intrusions are biotite-feldspar porphyries of several distinct phases which overlap the period of mineralization. The largest and oldest is a wide northeasterly trending dike which is intrusive into the western edge of the quartz diorite pluton. The contact is near vertical and several small porphyry dikes radiate from the main dike. Several of the phases of the porphyry intrusions are recognized within the pit area. Potassium-argon age determinations on four biotite samples collected in and near the Granisle ore body yielded the mean age of 51.2 Ma plus or minus 2 Ma (Minister of Mines Annual Report 1971).

The wide porphyry dike which strikes northeast is bounded by two parallel northwest striking block faults. The westernmost crosses the island south of the mine and the eastern fault extends along the channel separating the island from the east shore of Babine Lake.

An oval zone of potassic alteration is coincident with the ore zone. The main alteration product is secondary biotite. This potassic alteration zone is gradational outward to a quartz-sericitecarbonate-pyrite zone which is roughly coaxial with the ore zone. Within this zone, the intrusive and volcanic rocks are weathered to a uniform buff colour with abundant fine-grained quartz. Mafic minerals are altered to sericite and carbonate with plagioclase clouded by sericite. Pyrite occurs as disseminations or as fracture-fillings. Beyond the pyrite halo, varying degrees of propylitic alteration occurs in the volcanics with chlorite, carbonate and epidote in the matrix and carbonate-pyrite in fractured zones. Clay mineral alteration is confined to narrow gouge in the fault zones.

The principal minerals within the ore zone are chalcopyrite, bornite and pyrite. Coarse-grained chalcopyrite is widespread, occurring principally in quartz-filled fractures with preferred orientations of 035 to 060 degrees and 300 to 330 degrees with near vertical dips. Bornite is widespread in the southern half of the ore zone with veins up to 0.3 metres wide hosting coarse-grained bornite, chalcopyrite, quartz, biotite and apatite.

Gold and silver are recovered from the copper concentrates. Molybdenite occurs within the ore zone, most commonly in drusy quartz veinlets which appear to be later than the main stage of mineralization. Magnetite and specularite are common in the north half of the ore zone where they occur in fractures with chalcopyrite and pyrite. Pyrite occurs in greatest concentrations peripheral to the orebody as blebs, stringers and disseminations.

Mining at Granisle was suspended in mid-1982. Production from 1966 to 1982 totalled 52,273,151 tonnes yielding 69,752,525 grams of silver, 6,832,716 grams of gold, 214,299,455 kilograms of copper and 6,582 kilograms molybdenum.

Unclassified reserves are 14,163,459 tonnes grading 0.442 per cent copper (Noranda Mines Ltd. Annual Report 1984).

Remaining in situ reserves, as modelled in 1992 using a 0.30 per cent copper cutoff, are estimated to be 119 million tonnes grading 0.41 per cent copper and 0.15 grams per tonne gold (CIM Special Volume 46, page 254).

# BIBLIOGRAPHY

EMPR AR 1913-113; 1927-149; 1929-180; 1946-89; 1955-29; 1956-29; 1957-13; 1959-18; 1962-16; 1963-27; \*1965-93-99,Fig. 15; 1966-97; 1967-104; 1968-132 EMPR ASS RPT 21012 EMPR BC METAL MM00026 EMPR GEM 1969-114; 1970-165; \*1971-178-183,Fig. 28; 1972-425; 1973-351; 1974-265 EMPR IR 1984-2, pp. 99, 101; 1984-3, pp. 105, 107; 1984-4, p. 121 EMPR MAP 65 (1989); 69-1 EMPR MINING Vol.1 1975-1980; 1981-1985 EMPR OF 1992-1; 1992-3; 1996-29; 1998-8-F, pp. 1-60 EMPR PF (Collection of unpublished reports; miscellaneous maps; air photos; Handelsman, S.D. and Fahrni, K.C. (1971): Use of Computer at Granisle Copper; Montigny, R.R. (1971): Open Pit Mining at Granisle Copper; Wilkinson, S.J. (1971): Control of Mineralization by Fracturing at Granisle; Fahrni, K.C. (undated): Geology of Granisle Copper Deposit) EMR MIN BULL MR 166; 223 B.C. 238 EMR MP CORPFILE (Pacific Base Metals Ltd.; Granby Mining Corp.; Granisle Copper Ltd.; Noranda Mines Ltd.) GSC BULL 270 GSC MAP 278A; 671A; 971A GSC OF 351 GSC P 36-20, p. 155; 40-18A, p. 12

CIM Special Volume \*15 (1976), pp. 239-244; Vol. 67, Feb. 1974, p. 110; \*46, pp. 247-255, 256-289 CMH 1983-84, p. 256; 1987-88, p. 288 GCNL #10, 1973; #14, 1977; #13, 1978; #20, 1979; (Feb.,May,Aug. 1976; Feb.,Mar.,Aug.,Sept.,Oct., 1978; Jan., 1979) International Geological Congress, Guidebook A09-C09 (1972), pp. 27-35 N MINER Jan. 26, 1978; Feb. 15,22, 1979; Apr. 22,Oct., 1982 The Province Newspaper Apr. 14, 1982 W MINER Vol.41, No.5, May 1967, pp. 31-38; Feb. 1968; Vol.47, June 197 pp. 11-22; May, Mar. 1979; May, Oct. 1982; Apr. 1984 EMPR OF 1998-10 EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/19 CODED BY: GSB REVISED BY: LLD

\_\_\_\_

MINFILE NUMBER:	<u>093L 147</u>	NATIONA	L MINERAL INVENTORY:	
NAME(S):	COAL CREEK, TELKWA			
STATUS:	Past Producer British Columbia	Underground	MINING DIVISION: Omineca	
NTS MAP: BC MAP	093L13E		UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 46 N 127 43 06 W Metres Within 1 KM Coal Licences extend from 54 degr degrees 39' to 127 degrees 48'. La approximate centre of the property	rees 47' to 54 degrees 52' and 127 atitude and longitude indicate the /.	NORTHING: 6076565 EASTING: 582331	
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary A04 Bituminous coal Irregular Faulted The structure is dominated by a nu northwest-southeast trending fault	A03 umber of northeast-southwest to ts.	Sub-bituminous coal	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Telkwa Coal Measures	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Coal Mudstone Siltstone Sandstone Conglomerate			
HOSTROCK COMMENTS:	Minor conglomerate.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Intermontane Bowser Lake Regional Rank falls between High Volatile A	PHYSIOC RELATIONSHIP: and B Bituminous coal.	GRAPHIC AREA: Hazelton Ranges GRADE: HVol Bituminous	
INVENTORY				
ORE ZONE:	COAL CREEK	REPORT ON: Y		
COMMENTS: REFERENCE:	CATEGORY: Indicated QUANTITY: 281170 Tonn <u>COMMODITY</u> Coal Probable reserve; grade is based of matter content. Coal Assessment Reports 222, 223	YEAR: 1986 GRADE 0.9000 Per cent on reflectivity of volatile 3.		
CAPSULE GEOLOGY	<b></b>			
	Up to six seams occur in Telkwa coal measures within stratified rocks of the Lower Cretaceous Skeena Group. The coal is high volatile bituminous, A to B in rank and contains a number of rock partings and occasionally pyrite spherulites. The No. 1 or Main seam and the No. 2 seam are the economically more important coal seams. The No. 1 seam is 2.6 metres to 5 metres thick and contains signifi- cant ash in its lower portion. Volatile matter ranges from 32.2 to 37.2 per cent, fixed carbon from 53.3 per cent to 55.3 per cent, ash from 3.54 to 11.45 per cent, sulphur from 0.38 to 0.53 per cent and BTU from 11941 to 13258 (1913). The No. 2 seam is approximately 1.7 metres thick (0.7 to 2.0 metres) and contains 2 significant claystone partings. The seams are interbedded with mudstone, siltstone and sandstone. The remaining seams are generally less than 1 metre			

thick. The structure in the area is dominated by a number of northeast

to northwest trending faults. Probable reserves are estimated at 281,170 tonnes of high volatile, both A and B bituminous, high sulphur, low free swelling index coal with a calorific value in the range of 3653 K-cal/kilogram (Air Dried Basis) to 3779 K-cal/kilo-gram (Air Dried Basis), (Paper 1986-5), (see 093L 154).

# BIBLIOGRAPHY

EMPR COAL ASS RPT 219, 220, \*222, \*223 EMPR FIELDWORK \*1982, pp. 113-122; \*1983, pp. 81-90 EMPR INF CIRC 1989-5 EMPR MAP 69-1 EMPR P \*1986-5, p. 18, Fig. 1; 1991-2 GSC BULL \*270 GSC MEM 69 GSC OF 351 GSC P \*89-4, pp. 39-41

DATE CODED: 1985/07/24CODED BY:GSBFIELD CHECK:NDATE REVISED: 1989/06/10REVISED BY:LLDFIELD CHECK:N

MINFILE NUMBER:	<u>093L 148</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	EVELYN STATION COAL, EVELYN			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093I 14W		MINING DIVISION:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 55 18 N 127 19 06 W 500 Metres Within 500M Coal seams located along the creek bar to 520 metres.	nks between an elevation o	NORTHING: EASTING: Df 490	6087369 607778
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A03 Sub-bituminous coal			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Telkwa Coal Measures	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Coal Sandstone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake		PHYSIOGRAPHIC AREA: Hazeltor	n Ranges
CAPSULE GEOLOGY				
	Coal seams up to 23 cer with feldspathic sandstones along the banks of the creek at closely spaced intervals coal seams are interbedded w rocks and are part of the Te	ntimetres in thick between 490 and 5 c. The coal seams separated by seam within the Lower C elkwa coal measure	ness occur interbedded 20 metres in elevation occur in one location s of bone coal. The retaceous Skeena Group s.	
BIBLIOGRAPHY	EMPR FIELDWORK *1982, pp. 13 GSC BULL *270 EMPR P 1986-5, p. 18,Fig. 1 GSC P 89-4, pp. 39-41 EMPR INF CIRC 1989-5 GSC MEM 69 GSC OF 351 EMPR MAP 69-1	13-122; *1983, pp.	81-90; 1988, pp. 195-20	8
DATE CODED: DATE REVISED:	1985/07/24 0 1989/04/30 F	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<b><u>093L 149</u></b> NATIONAL MINERAL INVENTORY:				
NAME(S):	LAKE KATHLYN, TELKWA, GLACIER	GULCH			
STATUS: REGIONS:	Past Producer British Columbia	Underground	MINING DIVISION: Omineca		
NTS MAP: BC MAP:	093L14W		UTM ZONE: 09 (NAD 83)		
LATITUDE: LONGITUDE:	54 49 45 N 127 16 18 W		NORTHING: 6077151 EASTING: 611023		
ELEVATION: LOCATION ACCURACY:	Metres Within 500M				
COMMENTS:	Latitude and longitude indicate the ap property.	proximate centre of the			
COMMODITIES:	Coal				
MINERALS					
SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous				
DEPOSIT					
CHARACTER: CLASSIFICATION:	Stratiform Sedimentary				
TYPE: SHAPE:	A05 Anthracite Irregular	A04	Bituminous coal		
MODIFIER: COMMENTS:	Folded Faulted Beds strike northwest-southeast and	dip 55-70 degrees northeast. Coal			
	is locally sheared and contains slicker faults are present in the area.	nsides in places. A number of			
HOST ROCK					
DOMINANT HOSTROCK:	: Sedimentary				
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Telkwa Coal Measures	IGNEOUS/METAMORPHIC/OTHER		
LITHOLOGY:	Coal				
	Shale Sandstone				
	Carbonaceous Shale Carbonaceous Sandstone				
	Argillite Greywacke				
	Intermontane	PHYSIO			
TERRANE: METAMORPHIC TYPE	Bowser Lake	RELATIONSHIP: Post-mineralization	GRADE:		
COMMENTS:	Coal rank is Meta Anthracite.				
	Coal seams occur in t	he Telkwa coal measures i:	nterbedded with		
	Skeena Group. On the sout	h side of Glacier Gulch a	pproximately 20		
	of the seams range from 0.	2 metres to 0.3 metres th	ick, however two		
	thick also occur. On the	north side of Glacier Gul	ch four thin (less		
	number of adits and analys	es of various adit sample	s yield ash,		
	ranging from 9.5 to 28.1 p	per cent, $3.1$ to $7.1$ per c	ent, $69.8 \text{ to } 51.4$		
	small tonnage of coal was	mined from the Lake Kathl	yn Coal Mine from		
	Beds strike northwest	and dip northeast 55 to	70 degrees. The		
	A number of faults are als	o present in the area.	Tous Stickenslues.		
BIBLIOGRAPHY	EMDD ND *1017 105 106				
	EMPR FIELDWORK *1982, pp.	113-122; *1983, pp. 81-90	; 1988, pp.		
	EMPR INF CIRC 1989-5				
	EMPR P *1986-5, pp. 17,18,	Fig.1; 1991-2			

GSC BULL \*270 GSC MEM 69, 223, pp. 21,\*96-100,134 GSC OF 351 GSC P \*89-4, pp. 39-41 GSC SUM RPT 1925A, pp. 119,124

DATE CODED: 1985/07/24 DATE REVISED: 1989/06/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 150</u>	NATIONAL MIN	ERAL INVENTORY:	
NAME(S):	DRIFTWOOD CREEK			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L14E		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 00 N 127 00 16 W Metres Within 1 KM		NORTHING: EASTING:	6078070 628173
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Tertiary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A02 Lignite			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION Unnamed/Unknown Formation	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Lignite Coal			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Overlap Assemblage Regional	PHYSIOGRAPH RELATIONSHIP: Post-mineralization	IIC AREA: Skeena F GRADE: Lignite	Ranges
CAPSULE GEOLOGY	Lignite coal occurs or Tertiary sediments. The li 8 per cent moisture and 13.	n Driftwood Creek in a small p ignite is 55 centimetres thick .4 per cent ash.	oatch of and contains	
BIBLIOGRAPHY	EMPR FIELDWORK *1982, pp. 1 195-208; 1991, pp. 93-10 EMPR MAP 69-1 EMPR P *1986-5, p. 17, Fig. GSC P 89-4 GSC BULL *270 GSC OF 351	113-122; *1983, pp. 81-90; 198 )1 .1	38, pp.	
DATE CODED: DATE REVISED:	1985/07/24 1988/04/30	CODED BY: GSB REVISED BY: LLD	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	093L 151		NATIONAL MINERA	L INVENTORY:
NAME(S):	GUESS CREEK COAL			
STATUS:	Showing		MI	NING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093L15E 093L16W			UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE:	54 50 05 N			NORTHING: 6079222
LONGITUDE: ELEVATION:	126 31 06 W 915 Metres			EASTING: 659384
LOCATION ACCURACY: COMMENTS:	Within 500M Coal licences located about 6 ki	lometres east of Fulton Lake, alon	Iq	
	Guess Creek at Kilometre 76 or	the Chapman Lake forest service	e road.	
COMMODITIES:	Coal			
MINERALS SIGNIFICANT:	Coal			
ASSOCIATED:	Quartz Montmorillonite	Kaolinite Calcite P	lagioclase	
MINERALIZATION AGE:	Upper Jurassic			
DEPOSIT CHARACTER	Stratiform			
CLASSIFICATION:	Sedimentary A05 Anthracite		A03 Sub-bitur	ninous coal
DIMENSION:	A04 Bituminous coal	STRIKF/DI	P: 045/45F	TREND/PLUNGE:
COMMENTS:	Seams dip east and strike north	-northeast.	0.0, 101	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	<u> </u>	NEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Coal			
	Siltstone			
	Tuffaceous Greywacke			
	Rhyodacite Dike			
HOSTROCK COMMENTS:	Sediments are described as M fossils present, ranging from E	liddle Jurassic or younger as defir Bathonian to Oxfordian.	ned by	
	Intermentane			NREA: Nachaka Plataau
TECTONIC BELT. TERRANE:	Stikine			AREA. Nechako Plaleau
WETAWORFHIC TTFE.	Regional	Post-mine	eralization	MVol Bituminous
CAPSULE GEOLOGY	Sediments hosting	the Guess Creek coal s	seams consist o	of Middle
	Jurassic or younger se stone, tuffaceous grey	wacke and minor conglom	reywacke, silts merate. These	stone, mud- sediments
	metres of rock and over	ept along sections of G rburden are exposed in	vertical cliff	fs.
	A prominent rhyod stone and coal, and is	lacite dike cuts metamor light grey in colour w	phosed sandsto with a groundma	one, mud- ass con-
	guartz and plagioclase	lspar and quartz with ph	enocrysts of b	piotite,
	Four separate coa 1985. Individual coal	seams are up to 1.8 me	tified and sar	npled in ess and
	aggregate intervals, w stone partings, measur	nich include mudstone a e up to 7 metres. The	and tine-graine seams dip east	ed sand- t and strike
	north-northeast. Seam and the other 3 seams	ע was traced over a st were poorly exposed. G	rike length of Fraphite was no	t 30 metres, ot detected
	in any of the coal sea Reflectance tests	ms. , using the mean maximu	um of vitrinite	e in oil
	techniques, indicated of a high rank. Seam	that samples from the s A was ranked as meta-ar	seam near Guess hthracite, Sear	s Creek were n B and D
	ranged trom semi-anthr low-volatile bituminou	acite to anthracite and s and high-volatile bit	a Seam C ranged cuminous. The	variation
	in rank between the se have locally, metamorp	ams is thought to be rephosed the coals. The c	edated to the d legree of coal	ification
	reflects this thermal	alteration.		

EMPR MAP 69-1 EMPR EXPL \*1986, pp. B65-B70 Strack, E., (1975): Strack's Textbook of Coal Petrology (revised edition), Gebruder Borntraeger, Berlin, Stuttgart, p. 51 GSC 0F 351 GSC P 89-4 GSC BULL 270 GSC MEM 69 EMPR P 1986-5

DATE CODED: 1988/05/13 DATE REVISED: / / CODED BY: LLC REVISED BY:

MINFILE NUMBER:	<u>093L 152</u>	NATIC	NAL MINERAL INVENTORY:
NAME(S):	<b>PINE CREEK</b> , AVELING, TELKOAL, TELKWA NORTH, AVELLING, BETTY		
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L11E	Underground	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 40 00 N 127 10 06 W Metres Within 1 KM The licenses are located at the conflue River See Telkwa (093) 156) and Go	nce of Pine Creek and Telkwa athorn (0931–155)	NORTHING: 6059240 EASTING: 618132
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary A03 Sub-bituminous coal Irregular Folded Faulted Strata dip generally dips less than 20 c and is often associated with minor fold	legrees north. Faulting occurs ing.	
HOST ROCK DOMINANT HOSTROCK	: Sedimentary		
STRATIGRAPHIC AGE	GROUP Skeena	FORMATION Telkwa Coal Measures	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Coal Mudstone Sandstone		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	PHYS	IOGRAPHIC AREA: Nechako Plateau
CAPSULE GEOLOGY	At least 15 coal seams present in the Telkwa coal sandstone of the Lower Cret from 0.31 metres to 3.4 met upper 3 seams and the brigh metres thick. Analyses of 70.90 per cent, volatile ma carbon 13.15 to 50.03 per have a calorific value rang The coal is generally "good predominant durain with this a few millimetres thick. M	s and several zones with measures interbedded with caceous Skeena Group. The cres thick and with the to coal seam, are general 6 samples show ash rang atter from 14.72 to 24. Sent, sulphur 0.52 to 0 ging from 2844 to 9581 h d quality hard black coa in bands of clarain", general finor amounts of coaly se	h minor seams are ith mudstone and The coal seams vary exception of the ally less than 2 ging from 19.35 to 77 per cent, fixed .78 per cent and BTU's per pound. al consisting of enerally less than shale are present in

the coal.

EMPR AR 1944-88,126-127; 1945-139,171 EMPR COAL ASS RPT \*230, 828, 844, 863 EMPR EXPL \*1989-175-179 EMPR FIELDWORK \*1982, pp. 113-122; \*1983, pp. 81-90; 1988, pp. 195-208; 1991, pp. 451-460 EMPR GEM 1969-422 EMPR INF CIRC 1989-5 EMPR MAP 69-1 EMPR OF 1989-16 EMPR P 1986-5 GSC BULL \*270 GSC MEM 69 GSC OF 351

The strata dip predominantly north, at angles less than twenty degrees. Faulting occurs and is often associated with minor folding.

GSC P \*1989-4, pp. 39-41

DATE CODED: 1985/07/24 DATE REVISED: 1989/06/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 153</u>	NAT	IONAL MINERAL INVENTORY:
NAME(S):	Morice River, Telkwa		
STATUS: REGIONS: NTS MAP: BC MAP: LATITUDE: LONGITUDE:	Prospect British Columbia 093L06E 54 24 55 N 127 14 31 W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83) NORTHING: 6031151 EASTING: 614084
ELEVATION: LOCATION ACCURACY: COMMENTS:	Metres Within 1 KM The property is located near the approximate centre of the prope above.	headwaters of Deny's Creek, with the rty at the latitude and longitude given	e
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary A03 Sub-bituminous coal Irregular Folded Fault Series of northwest-southeast t vertical both normal and reverse Displacement on faults appears	ed rending folds and steep dipping to e faults are main structural features. to be limited. Modifier sheared.	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Skeena	FORMATION Telkwa Coal Measures	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Coal Mudstone Siltstone Sandstone		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	РНҮ	SIOGRAPHIC AREA: Hazelton Ranges
CAPSULE GEOLOGY	Up to 10 coal sea seams are considerably coal measures interbed stone and sandstone of seam ranges from absen approximately ranges f upper seam ranges from coal in general is pre fine laminae of brittl the coal giving rise t Pyrite is quite common and locally intense sh per cent (one sample 3 cent (one sample 14.3 basis) and cabrific co sample 1,137). The structure con northwest. Folding is in places. Numerous n which are mainly steep present. Displacement	ms, of which three; the Lo thicker than the others, ded with mudstone and less the Lower Cretaceous Skee t to 2.3 metres in thickne rom 0.3 to 1.4 metres absent dominantly dull black, usu e bright coal. Bands of m o a high ash content of 10 and the coal seams exhibi earing. Fixed carbon rang .7 per cent), volatile mat per cent) sulphur 0.49 to ntent 14,460 to 15,067 BTU sists of a series of paral locally very tight and ov orthwest trending normal a o dipping to vertical and s	wer, Middle and Upper occur in the Telkwa er amounts of silt- na Group. The lower ss, the middle seam hickness and the to 1.8 metres. The ally well bedded with udstone are common in to 82 per cent. t small scale folding es from 25 to 61.8 ter 21.9 to 28.3 per 5.42 per cent (dry per pound (one lel folds trending rerfolding is present nd reverse faults hear zones are also be limited.
BIBLIOGRAPHY	EMPR COAL ASS RPT *227 EMPR FIELDWORK *1982, 195-208 EMPR INF CIRC 1989-5 EMPR MAP 69-1 EMPR OF 1989-16	pp. 113-122; *1983, pp. 81	-90; 1988, pp.

EMPR P 1986-5, p. 17, Fig. 1; 1991-2 GSC BULL \*270 GSC MEM 69 GSC OF 351 GSC P \*89-4, pp. 39-41

DATE CODED: 1985/07/24 DATE REVISED: 1989/06/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 154</u>	NATIO	ONAL MINERAL INVENTORY:	
NAME(S):	ZYMOETZ RIVER, COAL CREEK, TEL	KWA		
STATUS:	Prospect British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L13E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 48 59 N 127 44 21 W Metres Within 5 KM The latitude and longitude indicate the property, which straddles Coal Creek with the Zymoetz River.	e approximate centre of the upstream from its confluence	Northing: Easting:	6075088 581019
COMMODITIES:	Coal			
	Cool			
MINERALIZATION AGE:	Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: COMMENTS:	Stratiform Sedimentary A04 Bituminous coal Regular The strata consistently strike northea at an average of 24 degrees (20-30 d faults have been encountered in the a	ast-southwest and dip northwest legree range). No major folds or area.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Telkwa Coal Measures		ORPHIC/OTHER
LITHOLOGY:	Coal Mudstone Siltstone Sandstone Conglomerate Volcanic Flow			
HOSTROCK COMMENTS:	Strata termed Telkwa coal, Fieldwork	k 1984 (called Hazelton Group).		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYS	SIOGRAPHIC AREA: Hazelton	Ranges
TERRANE: METAMORPHIC TYPE: COMMENTS:	Bowser Lake Regional Rank is High Volatile Bituminous A.	RELATIONSHIP: Post-mineraliza	tion GRADE: HVol Bitu	uminous
CAPSULE GEOLOGY				
	Five coal seams with with the thickest seam bei approximately 250 metres i bituminous, A in rank and and sandstone of the Lower correlated over a distance the Telkwa coal measures. cleaned, air dried and was following results: moistu volatile matter 34.35 per The strata strike nor average of 24 degrees. No in the area (see 093L 147	an aggregate thickness ing 3.0 metres, occur in in thickness. The coal is interbedded with mud of Cretaceous Skeena Grou of at least 0.5 kilome Proximate analysis of shed at specific gravity are 1.98 per cent, ash 9 cent and fixed carbon 5 otheast and dip northwes o major faults or folds of).	of 4 to 9 metres a section up to is high volatile stone, siltstone p. The seams can be tres and are part of drillhole samples 1.5 yielded the .58 per cent, 3.92 per cent. t at an have been encountere	d
BIBLIOGRAPHY	EMPR COAL ASS RPT *232, *2 EMPR EXPL *1986, p. C475 EMPR FIELDWORK *1983, pp. EMPR INF CIRC 1989-5 EMPR MAP 69-1 EMPR P *1986-5, p. 18, Fig GSC BULL *270 GSC MEM 69, pp. 167-189 GSC OF 351	233 81-90 g. 1; 1991-2		

GSC P \*89-4, pp. 39-41

DATE CODED: 1985/07/24 DATE REVISED: 1989/06/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 155</u>		NATIONAL MI	NERAL INVENTORY:
NAME(S):	GOATHORN CREEK (TELKWA), TELKV NO. 1, NO. 2, NO. 3, NO. 4, NO. 4 EXTENSION, PIT ROAD, LUSCAR MCNEIL, FORESTBURG, BULKLEY VALLEY, PIT 6, WEST GOAT	WA, BETTY, HORN		
STATUS: REGIONS	Past Producer British Columbia	Open Pit	Underground	MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L11E			UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE:	54 37 00 N 127 08 06 W			NORTHING: 6053734 EASTING: 620429
ELEVATION: LOCATION ACCURACY: COMMENTS:	Metres Within 1 KM The property lies south of Telkwa Rive Goathorn Creek. Production included w	r and to the with Telkwa	east and west of (093L 156).	
COMMODITIES:	Coal			
	Qual			
MINERALIZATION AGE:	Lower Cretaceous			
	Stratiform			
CLASSIFICATION:	Sedimentary A04 Bituminous coal			
SHAPE: MODIFIER:	Irregular Folded Faulted			
COMMENTS:	Strata gently folded; area is intensely f trending faults have dissected area into linear northwest trending blocks.	aulted. Set	of northwest of subparallel,	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Skeena	<u>FORMATI</u> Telkwa Co	ON Dal Measures	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Coal Mudstone Shale Sandstone Conglomerate			
	Intermentano			
TECTONIC BELT. TERRANE: METAMORPHIC TYPE	Bowser Lake Regional	RELATIONS	HIP: Post-mineralization	GRADE: HVol Bituminous
COMMENTS:	The Betty Seam lies between Med. and	High Volatil	e A Bituminous.	
CAPSULE GEOLOGY	The Lower Cretaceous S into a lower mudstone, sand coal seams which are approx "coal member" which is appr coal seams, mudstone and gr present in the "coal member seam" marks the base of the 4 metres thick and contains to 18 centimetre white clay mudstone parting. The seam per cent, a high BTU value approximately 0.75 per cent bituminous in rank. The Be underground mines numbers 1 No. 4 Extension Mine. Two 1.2 metres thick, separated approximately 9 to 10 metre seam occurs approximately 2 2 to 3 metres thick. The s very low raw ash content of per cent and a very high he dry basis). The "Pit Road" approximately 15 to 20 metr	keena Gr stone, c imately oximatel itty mud ". The member. two thi parting has a l 12,070 B (raw dr tty seam , 2, 3 a closely by 0.5 s above 5 metress eam cont 11 per ating va seam wh	oup in the area may onglomerate unit wit 130 metres thick and y 90 metres thick and y 90 metres thick wh stone. Up to six co lowermost of the sea The Betty seam is n continuous parting and a lower 5 to 8 ow raw ash content of TU per pound, sulphu y basis) and is high was mined in the no nd was being mined i spaced thin seams 1. metres of mudstone of the Betty seam. The above the thin sea ans no persistent p cent, moderately hig lue of 13,270 BTU pe ich is 4 metres thic raphically above the	be subdivided th minor thin d an upper nich contains bal seams are ams, the "Betty approximately gs, an upper 10 centimetre of 6.6 to 12.6 ar content of h volatile A bw abandoned in 1978 in the 0 metres and occur e No. 4 Mine ms and averages bartings, has a gh sulphur 1.67 er pound, (raw ck occurs e No. 4 mine b is bighty

oxidized containing on a dry basis 13.5 per cent ash, 0.74 per cent sulphur and 10,917 BTU per pound. The stratigraphically highest seam, the Pit seam averaged approximately 3 metres in the pit area. The structure consists of a series of north-northwest trending gentle folds with dips generally less than 20 degrees. The area is intensely faulted. A set of northwest trending faults have dissected the region into a number of subparallel linear northwest trending blocks. The central block, which contains all the known coal occurrences in the project area, exhibits a strong closely spaced set of east-northeast trending, near vertical faults. The effect of these faults in the old Mines numbers 1, 2, 3 and 4 and the present No. 4 Extension Mine is generally to progressively down drop the coal horizon to the north side of each fault. Manalta Coal Ltd. drilled the property in 1996 and 1997. See Telkwa (093L 156) for production and additional references.

#### BIBLIOGRAPHY

EMPR COAL ASS RPT 237, \*249, \*250, \*251, \*252, 828, 844, 863 EMPR EXPL 1986, p. C475; 1996-A25,B7; 1997-14 EMPR FIELDWORK \*1982, pp. 113-122; \*1983, pp. 81-90; 1988, pp. 195-208; 1991, pp. 451-460 EMPR INF CIRC 1989-5; 1997-1, p. 23; 1998-1, p. 23 EMPR MAP 69-1 EMPR MAP 69-1 EMPR P \*1986-5, pp. 11-17, Fig. 1; 1991-2 GSC BULL \*270 GSC MEM 69 GSC OF 351 GSC P \*89-4, pp. 39-41

DATE CODED: 1985/07/24 DATE REVISED: 1989/06/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 156</u>	NATIONAL N	/INERAL INVENTORY:
NAME(S):	TELKWA COAL, TELKWA RIVER, GOA TELKWA SOUTH, BUCKLEY VALLEY, F MANALTA, CROWSNEST RESOURCES, NO. 1, NO. 2, NO. 3, PIT 3, MCNIEL, LUSCAR SALES	,THORN, FORESTBURG COLLERIES, , TENAS CREEK,	
STATUS:	Past Producer British Columbia	Open Pit Underground	MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L11E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 37 38 N 127 09 41 W 762 Metres Within 500M The Telkwa coalfield may be subdivide North (093L 152) and the Buckley Valle mine is located 10 kilometres south of T Creek. Includes production for Goathou	d into Telkwa South, Telkwa y Option. The Telkwa coal elkwa, straddling Goathorn n Creek (093L 155).	NORTHING: 6054863 EASTING: 618694
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratabound Massive Sedimentary Fossil Fuel A04 Bituminous coal Tabular Folded Faulted Major north trending normal and revers the property into several fault blocks.	e fault zones have divided	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Cretaceous	GROUP Skeena	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY:	GROUP Skeena Coal Claystone Siltstone Sandstone Conglomerate Tuff Lava	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING	GROUP Skeena Coal Claystone Siltstone Sandstone Conglomerate Tuff Lava	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	GROUP Skeena Coal Claystone Siltstone Conglomerate Tuff Lava Intermontane Bowser Lake Regional	FORMATION Undefined Formation PHYSIOGRA RELATIONSHIP:	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	GROUP Skeena Coal Claystone Sandstone Conglomerate Tuff Lava Intermontane Bowser Lake Regional	FORMATION Undefined Formation PHYSIOGRA RELATIONSHIP: volatile A bituminous.	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS: INVENTORY	GROUP Skeena Coal Claystone Siltstone Sandstone Conglomerate Tuff Lava Intermontane Bowser Lake Regional	FORMATION Undefined Formation PHYSIOGRA RELATIONSHIP: rolatile A bituminous.	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS: INVENTORY ORE ZONE:	GROUP Skeena Coal Claystone Siltstone Sandstone Conglomerate Tuff Lava Intermontane Bowser Lake Regional Coal rank ranges from medium to high v	FORMATION Undefined Formation PHYSIOGRA RELATIONSHIP: volatile A bituminous. REPORT ON: Y	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS: INVENTORY ORE ZONE:	GROUP Skeena Coal Claystone Siltstone Sandstone Conglomerate Tuff Lava Intermontane Bowser Lake Regional Coal rank ranges from medium to high v TELKWA CATEGORY: Inferred QUANTITY: 125000000 Tonnes COMMODITY	FORMATION Undefined Formation PHYSIOGRA RELATIONSHIP: volatile A bituminous. REPORT ON: Y YEAR: 1997 GRADE 100.0000 Per cent	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	GROUP Skeena Coal Claystone Siltstone Sandstone Conglomerate Tuff Lava Intermontane Bowser Lake Regional Coal rank ranges from medium to high v TELKWA CATEGORY: Inferred QUANTITY: 12500000 Tonnes <u>COMMODITY</u> Coal Geological resource. Information Circular 1998-1, page 23.	FORMATION Undefined Formation PHYSIOGRA RELATIONSHIP: volatile A bituminous. REPORT ON: Y YEAR: 1997 GRADE 100.0000 Per cent	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS: INVENTORY ORE ZONE: COMMENTS: REFERENCE: ORE ZONE:	GROUP Skeena Coal Claystone Siltstone Sandstone Conglomerate Tuff Lava Intermontane Bowser Lake Regional Coal rank ranges from medium to high v TELKWA CATEGORY: Inferred QUANTITY: 125000000 Tonnes <u>COMMODITY</u> Coal Geological resource. Information Circular 1998-1, page 23. TELKWA	FORMATION Undefined Formation PHYSIOGRA RELATIONSHIP: rolatile A bituminous. REPORT ON: Y YEAR: 1997 GRADE 100.0000 Per cent REPORT ON: Y	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS: INVENTORY ORE ZONE: ORE ZONE:	GROUP   Skeena   Coal   Claystone   Siltstone   Sandstone   Conglomerate   Tuff   Lava   Intermontane   Bowser Lake   Regional   Coal rank ranges from medium to high v   TELKWA   CATEGORY: Inferred   QUANTITY: 125000000 Tonnes   COMMODITY Coal   Geological resource. Information Circular 1998-1, page 23.   TELKWA CATEGORY:   CATEGORY: Measured   QUANTITY: 50000000 Tonnes   COMMODITY Coal	FORMATION Undefined Formation PHYSIOGRA RELATIONSHIP: volatile A bituminous. REPORT ON: Y YEAR: 1997 GRADE 100.0000 Per cent REPORT ON: Y YEAR: 1997 GRADE	APHIC AREA: Nechako Plateau GRADE: HVol Bituminous MVol Bituminous

PAGE: 288 REPORT: RGEN0100

# CAPSULE GEOLOGY

At least 14 coal seams occur in the Telkwa Basin in the Lower-Upper Cretaceous Skeena Group interbedded with claystone, siltstone, sandstone, conglomerate and minor tuff and lava beds. Within the Goathorn Creek area 10 major correlatable seams have been found. Average aggregate thickness of the upper 9 seams varies from 14 metres in the east to 18 metres in the west. East of Goathorn Creek the upper 9 seams range individually from 0.5 to 2.5 metres in thickness. West of Goathorn Creek individual coal seam intersections up to 7.6 metres thick have been observed. Seam 1 averages 3.5 metres in thickness. In the Telkwa North-Avelling Hill area (093L 152) the upper 9 seams have an aggregate thickness of up to 18 metres. At Pine Creek, some of the upper seams are present in addition to seam 1. These seams are thin, less than 2.0-metres thick, and of unknown lateral continuity. Seam 1 is present with an average thickness of 5 metres at Cabinet Creek. The upper seams are thin in this area.

The coal in the Telkwa occurrence area is high volatile A bituminous in rank. Overall coal quality values for the Goathorn East, Goathorn West (093L 155) and Telkwa North areas have the following ranges: volatile matter - 26.70 to 28.10 per cent; ash - 8.70 to 9.60 per cent; moisture - 0.92 to 1.23 per cent; fixed carbon - 60.90 to 62.60 per cent; calorific value 7380 to 7540 and sulphur - 1.06 per cent (air dry basis, 1.6 float).

Proven in-situ coal reserves in the Goathorn Creek area amount to 50 million tonnes. Areas east and west of Goathorn Creek have been designated as potential open pit sites. Possible reserves in the area amount to 25.8 million tonnes in the Telkwa North-Avelling Hill, Pine Creek and Cabinet Creek areas (Coal Assessment Reports 232, 233, 238 and 252).

In the Goathorn Creek area, major north trending normal and reverse faults have divided the property into several fault blocks. The faults are actually fault zones with many imbricates and splays. In the Goathorn East area the beds strike 350 degrees and dip 10 to 35 degrees east. In the Goathorn West area the strata generally strike east with southerly dips between 10 and 30 degrees.

North and east trending normal faults cut the sequence and a synclinal fold has been identified in the westernmost fault block. In the Telkwa North area one fault block with a north strike and 10 to 15 degree easterly dip occurs. In the Pine Creek area a monocline occurs with a strike of 290 degrees and a dip of 5 to 10 degrees. At Cabinet Creek the strata strikes 330 degrees and dips approximately 13 degrees northeast.

Previous mines in the area include No. 1 mine, No. 2 mine, No. 3 mine, No. 4 mine, No. 4 Extension mine, Luscar open pit mine and the McNeil mine.

Geological reserves in the main deposit are estimated to be 38.7 million tonnes contained within four pit areas (Information Circular 1996-1, page 21).

Manalta Coal Ltd. conducted an extensive exploration program in 1996, including the drilling of 100 holes totalling 15,000 metres. Drilling in the Tenas Creek area, south of Telkwa River, has proved significant resources in three shallow dipping coal seams. The property now has four areas with mineable coal reserves.

Mineable reserves on the property are estimated at 46 million tonnes; 20 million tonnes in Tenas, 16 million tonnes in Pit 3 and satellite deposits, and 10 million tonnes north of the Telkwa River in Pit 7 and 8 deposits (Exploration in B.C., 1996, page B7). In 1997, Manalta drilled 128 holes in the Tenas Creek, Pit 3 and West Goathorn areas. The in situ resource of the Telkwa property is estimated at 125 million tonnes. The in situ mineable reserve, contained in 6 separate pits, is estimated at 50 million tonnes (Information Circular 1998-1, page 23). Manalta, now Luscar Ltd., is seeking project approval and proposes to produce 1.5 million tonnes per year over a 23-year mine life.

tonnes per year over a 23-year mine life. Luscar Ltd. announced in March 2000 that it will not proceed with development of Telkwa Coal.

#### BIBLIOGRAPHY

EMPR AR 1944-88,126; 1945-139,171; 1946-218,247; 1947-238,264; 1948-204,232-233; 1949-278,308; 1950-244,273-274; 1951-249,288, \*291-297; 1952-286,319-321; 1953-226,255-257; 1954-214,245-247; 1955-133,161; 1956-198,224-225; 1957-121,145; 1958-135,154; 1959-253,273; 1960-218,238; 1961-253,273; 1962-258,278; 1963-239,264; 1964-308,326; 1965-390,391,410; 1966-375,376,393; 1969-A49; 1970-A48; 1972-A48; 1973-A48; 1974-A114; 1975-A88; 1976-A98; 1977-110; 1978-122; 1979-122 EMPR COAL ASS RPT \*232, \*233, 237, \*238, \*252, 828, 844, 863 EMPR EXPL 1996-A25,B7; 1997-14; 1986-C475; \*1989-175-179, Vol. 1, p. 52; 1998-13; 1999-19-31
EMPR FIELDWORK \*1982, pp. 113-121; \*1983, pp. 81-90; 1988, pp. 195-208; 1991, pp. 451-460 EMPR GEOL 1977-1981, p. 129 EMPR INF CIRC 1989-5; 1993-13, p. 15; 1994-1, p. 15; 1994-19, p. 17; 1995-1, p. 17; 1995-9, p. 21; 1996-1, p. 21; 1997-1, p. 23; 1999-1, pp. 12, 13 EMPR MAP 65 (1989); 69-1 EMPR MINING 1975-1980, p. 52; 1981-1985, p. 79; 1986-1987, p. 76; 1988, p. 77 EMPR OF 1989-16; 1992-1; 1994-1 EMPR P 1986-3, \*1986-5, pp. 11-17; 1991-2 EMPR PF (Adamson, T.J. (1978) Telkwa Coal Project - Report on 1978 Fieldwork; unpublished report by Buckley Valley Collieries Ltd.; Environmental Assessment Office (1997): Telkwa Coal Project, report in part from www.eao.gov.bc.ca/project/mining/telkwa) GSC MEM 69 GSC OF 351 GSC P \*89-4, pp. 39-41 CMJ August 1997, p. 29 WWW http://www.lascar.com DATE CODED: 1985/07/24 DATE REVISED: 1988/06/10 REVISED BY: LLD FIELD CHECK: N FIELD CHECK: N FIELD CHECK: N

NATIONAL MINERAL INVENTORY:

MINING DIVISION: Omineca

UTM ZONE: 09 (NAD 83)

NORTHING: 6030363 EASTING: 613472

## MINFILE NUMBER: 093L 157

### NAME(S): DENY'S CREEK, CLARK FORK

STATUS: Prospect REGIONS: British Columbia NTS MAP: 093L06W 093L06E BC MAP: LATITUDE: 54 24 30 N LONGITUDE: 127 15 06 W ELEVATION: Metres LOCATION ACCURACY: Within 1 KM COMMENTS:

COMMODITIES: Coal

### MINERALS

SIGNIFICANT: Coal MINERALIZATION AGE: Lower Cretaceous

## DEPOSIT

CHARACTER: Stratiform CLASSIFICATION: Sedimentary TYPE: A04 Bituminous coal SHAPE: Irregular MODIFIER: Folded Faulted COMMENTS: Structure consists of a northwest trending normal fault to the southeast of which are 2 small synclines. Extent of folds to the northwest is unknown, but beds generally dip 15-35 degrees northwest.

### HOST ROCK

DOMINANT HOSTROCK: Sedimentary

	Counternary				
STRATIGRAPHIC AGE	GROUP Skeena	<u>FORMATION</u> Telkwa Coal Me	easures	IGNEOUS/ME	TAMORPHIC/OTHER
LITHOLOGY:	Coal Mudstone Siltstone Sandstone Conglomerate Volcanic Flow				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Intermontane Bowser Lake Regional Rank is High Volatile A Bituminous.	RELATIONSHIP: 1	PHYSIOGRAPH Post-mineralization	IC AREA: Haz GRADE: HVc	celton Ranges ol Bituminous
CAPSULE GEOLOGY	Up to 4 coal seams oc with mudstone, siltstone a Group. Four seams may be property with the aggregat ranging from 3 metres to g of the property fewer seam from the property indicate carbon, sulphur and BTU pe 60.75 per cent; 29.61 to 3 0.45 to 1.69 per cent and sedimentary section ranges	cur in the Te nd sandstone present in th e thickness o reater than 6 s are present the followin r pound range 0.95 per cent 11,923 to 12, from 0 to 25	elkwa coal measures of the Lower Crets le south central point in the seams in the metres. In the cash, volatile m son a dry basis: 54.33 to 58.86 646 respectively.	s interbed aceous Ske art of the e south northern p ree sample atter, fix 10.19 to per cent; The ness and	dded eena ee oart es ced

individual beds are lensed and pinch out laterally. The structure, interpreted from photogeology, consists of a northeast trending normal fault, to the southeast of which are two small synclines. The general dip on the northwest side of the fault ranges from 15 to 35 degrees northwest.

#### BIBLIOGRAPHY

EMPR COAL ASS RPT \*233 EMPR FIELDWORK \*1982, pp. 113-122; \*1983, pp. 81-90 EMPR INF CIRC 1989-5 EMPR MAP 69-1 EMPR P \*1986-5, p. 17, Fig. 1; 1991-2 GSC BULL \*270 GSC MEM 69 GSC OF 351

GSC P 73-31, \*89-4, pp. 39-41

DATE CODED: 1985/07/24 DATE REVISED: 1989/06/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 158</u>	NA	ATIONAL MINERAL IN	IVENTORY:	
NAME(S):	THAUTIL RIVER, CLARK FORK				
STATUS:	Showing British Columbia		MINING	3 DIVISION:	Omineca
NTS MAP: BC MAP	093L06W		ι	JTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 17 40 N 127 19 56 W Metres Within 1 KM The latitude and longitude indicate th property. The area is located on the confluence with the Morice River.	e approximate centre of the Thautil River north of its	ŗ	NORTHING: EASTING:	6017565 608544
COMMODITIES:	Coal				
	0!				
MINERALIZATION AGE:	Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary A04 Bituminous coal Irregular Folded Structure consists of north northeas northeast plunging syncline which a by faulting. Dips are generally less t	t-south southwest trending, nor pears to be relatively undisturb han approximately 25 degrees.	th ed		
HOST ROCK DOMINANT HOSTROCK	Sedimentary				
STRATIGRAPHIC AGE	GROUP Skeena	FORMATION Telkwa Coal Measures	IGNEC	US/METAM	ORPHIC/OTHER
LITHOLOGY:	Coal Conglomerate Sandstone Shale				
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	Pł	HYSIOGRAPHIC ARE	A: Nechakc	o Plateau
TERRANE: METAMORPHIC TYPE: COMMENTS:	Bowser Lake Regional Rank is High Volatile A Bituminous.	RELATIONSHIP: Post-minera	lization GRAD	∃: HVol Bitu	uminous
CAPSULE GEOLOGY					
	One coal seam, appro northern part of the prop and shale and occurs towa is up to 275 metres thick dominantly of conglomerat Skeena Group, Red Rose Fo The structure in the northeast north-northeast be relatively undisturbed the south and a large ext north because the sedimen of the property boundary. 25 degrees.	ximately 1.5 metres th erty. The seam is int rds the top of the sed . The remainder of th e which is part of the rmation. area consists of an a plunging syncline. T by faulting. The coa ent of coal measures i ts are terminated by i Dips on the property	ick, outcrops erbedded with imentary secti e section cons Lower Cretace pproximately n he section app l seam is erod s unlikely to ntrusives just are no greate	at the sandston on which ists pre ous orth- ears to ed to the north r than	e 
BIBLIOGRAPHY	EMPR COAL ASS RPT 232, *2 EMPR FIELDWORK *1982, pp. GSC BULL *270 EMPR P 1986-5, p. 17, Fig EMPR INF CIRC 1989-5 GSC P *89-4, pp. 39-41 GSC MEM 69 GSC OF 351 EMPR MAP 69-1	33, *241 113-122; *1983, pp. 8 . 1	1-90		
DATE CODED: DATE REVISED:	1985/07/24 1989/06/10	CODED BY: GSB REVISED BY: LLD		F	IELD CHECK: N

MINFILE NUMBER:	<u>093L 159</u>	NATIO	DNAL MINERAL INVENTORY:	
NAME(S):	CHISHOLM LAKE			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L03E		UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 13 25 N 127 12 51 W Metres Within 1 KM The property is located immediately n No coal was found on the Suncor Chi and longitude above indicate the appr Licences.	orth of Chisholm Lake (Shell). sholm Lake property. The latitude roximate centre of the Shell	NORTHING: EASTING:	6009873 616426
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary A04 Bituminous coal Irregular Folded Structure consists of series of relativ 20-50 degrees east. North northeast fault separates sediments from volca	ely undisturbed strata dipping -south southwest trending reverse nic basement in southwest of area	9 a.	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	<u>FORMATION</u> Telkwa Coal Measures	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Coal Sandstone Mudstone Shale			
HOSTROCK COMMENTS:	Coal bearing sediments in Hazelton	Group by D. Handy, S. Cameron.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Intermontane Bowser Lake Regional Rank is High Volatile A Bituminous.	PHYS RELATIONSHIP: Post-mineraliza	SIOGRAPHIC AREA: Nechako tion GRADE: HVol Bitu	) Plateau uminous
CAPSULE GEOLOGY	The only coal occurre seam approximately 1.5 met Chisholm Creek within rock The seam was not present in coal was encountered on Su south. The structure in the of relatively undisturbed north-northeast trending n	ence on the Shell proper tres in thickness which a drillhole downdip o uncors property to the e Chisholm area (swell) c strata dipping 20 to 50 ceverse fault in the sou	ty is a single coal outcrops along us Skeena Group. f the outcrop. No ast, southeast and onsists of a series degrees east. A thwest separates the	·
BIBLIOGRAPHY	sediments from the volcani EMPR COAL ASS RPT *217, 21 EMPR FIELDWORK *1982, pp. GSC BULL *270 EMPR P 1986-5, p. 17, Fig. EMPR INF CIRC 1989-5 GSC P *89-4, pp. 39-41 GSC MEM 69 GSC OF 351 EMPR MAP 69-1	ic basement in this area 18 113-122; *1983, pp. 81- . 1	90	
DATE CODED: DATE REVISED:	1985/07/24 1989/06/10	CODED BY: GSB REVISED BY: LLD	F	TIELD CHECK: N

# MINFILE NUMBER: 093L 160 NATIONAL MINERAL INVENTORY: NAME(S): GOLDSTREAM, SOUTH CHISHOLM LAKE STATUS: Showing REGIONS: British Columbia NTS MAP: 093L03E BC MAP: MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83) LATITUDE: 54 11 55 N LONGITUDE: 127 11 56 W ELEVATION: Metres NORTHING: 6007118 EASTING: 617493 LOCATION ACCURACY: Within 1 KM COMMENTS: COMMODITIES: Coal MINERALS SIGNIFICANT: Coal MINERALIZATION AGE: Lower Cretaceous DEPOSIT CHARACTER: Stratiform CLASSIFICATION: Sedimentary TYPE: A04 Bituminous coal HOST ROCK DOMINANT HOSTROCK: Sedimentary STRATIGRAPHIC AGE GROUP Lower Cretaceous Skeena **FORMATION** IGNEOUS/METAMORPHIC/OTHER Telkwa Coal Measures LITHOLOGY: Coal **GEOLOGICAL SETTING** TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Nechako Plateau TERRANE: Bowser Lake CAPSULE GEOLOGY A 4.0 by 3.2 kilometre remnant basin in the Lower Cretaceous Skeena Group contains coal seams up to 1.7 metres thick. The seams are part of the Telkwa coal measures which are considered to be contained within strata of a basin referred to as the Skeena Basin. BIBLIOGRAPHY EMPR P 1986-5, p. 17, Figure 1 GSC BULL 270 GSC P \*89-4, pp. 39-41 EMPR INF CIRC 1989-5 GSC MEM 69 GSC OF 351 EMPR MAP 69-1 DATE CODED: 1985/07/24 DATE REVISED: 1989/06/10 CODED BY: GSB REVISED BY: LLD FIELD CHECK N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 161</u>	NATIONA	L MINERAL INVENTORY:
NAME(S):	BABINE LAKE, TUCHI COAL		
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093L09W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 40 00 N 126 25 06 W Metres Within 5 KM Impure coal occurrence was reported o 2.7 kilometres above its mouth at Babin	on Tuchi River approximately e Lake.	NORTHING: 6060760 EASTING: 666493
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Upper Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Stratiform Sedimentary A03 Sub-bituminous coal 0.6 metre wide seam of impure coal.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Skeena	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Coal Sandstone Mudstone Conglomerate		
HOSTROCK COMMENTS:	Skeena Group rocks were previously Group.	described as part of the Sustut	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOG	RAPHIC AREA: Nechako Plateau
CAPSULE GEOLOGY	In 1909, a 0.6 metre w Tuchi River situated approx at Babine Lake (see Paper 1 available and the occurrence The area in which the Cretaceous to Tertiary stra conglomerate, sandstone, mu were reported as part of th Canada Open File 351 and Ma of the Late Cretaceous Skee	ride seam of impure coal w imately 2.7 kilometres ak 986-5, Figure 1). No qua ie has not been located si occurrence was reported i tified rocks comprised ma dstone, and minor coal. ie Sustut Group (Geologica p 69-1) but are not refer ina Group (Paper 1986-5).	as reported on ove its mouth lity data are nce. s underlain by inly of These rocks l Survey of red to as part
BIBLIOGRAPHY	EMPR P *86-5, p. 17, Figure EMPR INF CIRC 1989-5 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 GSC MEM 69 Falconbridge File EMPR BULL 110	: 1	
DATE CODED: DATE REVISED:	1989/02/20 / /	CODED BY: LLD REVISED BY:	FIELD CHECK: N FIELD CHECK:

MINFILE NUMBER:	<u>093L 162</u>	NATIONA	L MINERAL INVENTORY:	093L2 Ag2
NAME(S):	<b>COLE</b> , DIAMOND BELLE, SHEAR VEIN, BEAR VEIN, BARITE VEIN, SILVER QUEI NGV	EN,		
STATUS:	Developed Prospect		MINING DIVISION:	Omineca
NTS MAP:	093L02E		UTM ZONE:	09 (NAD 83)
LATITUDE: LATITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 05 34 N 126 42 21 W 960 Metres Within 500M Mine symbol on 1:50,000 Topo sheet, p 3.2 kilometres north of the southeast en south of Houston. See Silver Queen (09 (093L 216).	roperty located at Cole Lake, Id of Owen Lake, 32 kilometres 93L 002) and Chisholm	NORTHING: EASTING:	5996278 650035
COMMODITIES:	Silver Gold Manganese Barite	Zinc Cadmium	Lead	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Sphalerite Galena Chalco Quartz Rhodochrosite Barite Kaolin Pyrite Unknown	oyrite Pyrite e		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Breccia Epigenetic Hydrotherma 105 Polymetallic veins Ag-Pb-Zn±Ar	l Industrial Min.		
HOST ROCK DOMINANT HOSTROCK	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Upper Cretaceous Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY:	Francois Lake 75.5 +/- 1.0 Ma Potassium/Argon Biotite Dacitic Volcanic Breccia	пр төр нш	Bulkley Intrusions	
	Dacite Dioritic Sill Microdiorite			
HOSTROCK COMMENTS:	Mine Hill microdiorite sill dated by N. Ch	urch 1973, Prelim. Map 11.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOG	RAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	DIAMOND BELLE	REPORT ON: Y		
COMMENTS: REFERENCE:	CATEGORY: Indicated QUANTITY: 145152 Tonnes <u>COMMODITY</u> Silver Reserves for Diamond Belle vein. Property File - unpublished report.	YEAR: 1970 GRADE 301.7000 Grams per tonne		
CAPSULE GEOLOGY	The area of the showin Cretaceous series of volcan rocks consist mainly of dac part of the Francois Lake G body of microdiorite dated	gs is primarily underlain ic rocks and intrusions. ites and dacitic andesite roup, Tip Top Hill Format as 75.5. plus or minus 1.	by an Upper The volcanic s that are likely ion. A sill-like 0 million years	

rocks consist mainly of dacites and dacitic andesites that are likely part of the Francois Lake Group, Tip Top Hill Formation. A sill-like body of microdiorite dated as 75.5, plus or minus 1.0 million years (N. Church, Bulletin 78, Table 2.3), intrudes these volcanic rocks. The showings are mainly hosted by a kaolinized and pyritized dacitic volcanic breccia with the microdiorite lying to the west. Pulaskite, dikes occur in the vicinity of some veins. At least five veins have been discovered that host sulphide minerals consisting mainly of sphalerite, galena and pyrite with some accessory chalcopyrite. The gangue is composed of cherty quartz, carbonate minerals such as rhodochrosite and some barite. Work on the showings has mainly been

PAGE: 297 REPORT: RGEN0100

# CAPSULE GEOLOGY

	<pre>in conjunction with work or The Diamond Belle vein the Cole Shaft. The vein a 130 degrees and dips steep part striking easterly befor dike which strikes 150 degn sphalerite, galena, pyrite, quartz, carbonate, rhodoch The Shear vein, near t strikes northerly and dips of 213 metres. The mineral result of replacement and Vein mineralization st Diamond Belle, located 15 m metres width, 2.4 grams per 1.3 per cent copper, 2.2 per The Bear vein, located strikes south for approxima across the vein yielded all pyrite hosting modest pred The Barite vein, located system, strikes southeast of A gangue rich sample over 1 92.6 grams per tonne silver lead, 1.1 per cent zinc, 12 0.36 per cent calcium, trad 0.03 per cent antimony. The NGV vein, located strikes 160 degrees dipping 50 metres. In 1970, a 76 of assayed 1.37 grams per tonne per cent conper 128 per cent</pre>	A the adjacent Silver Queen (093L 002). A was the focus of early exploration hosti averages 0.6 to 0.9 metres in width striki by over the central part with the southern ore pinching out against the pulaskite cees. Mineralization consists of and minor chalcopyrite in a gangue of cosite and barite. The east end of the Diamond Belle veins, near vertically over an exposed length dization is patchy and appears to be the avity infilling in a shear. Triking southeast and parallel to the hetres to the south, assayed over 1.0 tonne gold, 637.7 grams per tonne silver ar cent lead, and 5.5 per cent zinc. A 300 metres southwest of the Cole shaft, ately a 67 metre exposure. A chip sample nost pure amber sphalerite with minor cous metal values and cadmium. A 150 metres west of the Cole vein discontinuously for 107 metres in length. A 204 per cent copper, 0.58 per cent 2.9 per cent iron, 7.8 per cent manganese, the cadmium, 0.07 per cent arsenic, and in the southern part of the prospect area g 75 degrees northeast and is exposed for centimetre piece of mineralized drill core the gold, 447.5 grams per tonne silver, 0.1	ng ng , , , , ,
BIBLIOGRAPHY	EMDR AR 1916-144 159: 1923-	-116: 1927-139: 1928-170: 1929-171: 1967-	
	109 EMPR ASS RPT 2272, 11659, 2 EMPR BULL *78 (in press) EMPR EXPL 1983-436 EMPR GEM *1969-139-141,Fig. *1972-366-370,Fig. 39 EMPR MAP *11; 69-1 EMPR PF 1990-2 EMPR PF (See file for 092L Property; *Batten, H.L. Properties; *Nesbitt, B. Properties; *Nesbitt, B. Properties; *Batten, H.L. *Ball, C.W. (1955), Crow Morice River Area, B.C. Recommendations on the C Ltd.; 1967 - Geological Co.; Chisholm, E.O. (196 Explorations Ltd., Owen EMR MP CORPFILE (Federal Mi and Development Co. Limi GSC MAP 671A GSC SUM RPT *1929A, pp. 77- GCNL #86, 1981 WWW http://www.kettleriver Cummings, W.W. (1986): Rep Houston Metals Corporati 29, 1986) EMPR OF 1998-10	24899, 25370 21; *1970-139-140; 1971-171; 002; *Turnbull, J.M. (1928) Owen Lake (1928), Summary Report on the Owen Lake I. (1941), Report on Owen Lake Mining (1949) Report on Owen Lake Properties; m-Granted Mineral Claims, Owen Lake, * Chisholm, E.O. (1972), Report and Owen Lake Property of Frontier Explorations if): Qualifying Report on Frontier Lake Area) ing and Smelting Co.; Owen Lake Mining ted; Frontier Exploration Limited) *89,Fig. 3 com bort on the Owen Lake Property in .on Statement of Material Facts (Oct.	15
DATE CODED: DATE REVISED:	1985/07/24 1987/08/26	CODED BY: GSB REVISED BY: LLC	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 163</u>	NATIONAL MINE	ERAL INVENTORY:	093L16 Cu6
NAME(S):	<u>O</u> , HAL, PAS			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L16W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 50 N 126 18 06 W 869 Metres Within 500M Located 4.8 kilometres west of Topley of Fulton Lake.	and about 3.5 kilometres north	Northing: Easting:	6081127 673242
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Chalcocite Chalco Epidote Malachite Epidote Unknown	ppyrite		
		set		
CLASSIFICATION: TYPE:	Epigenetic D03 Volcanic redbed Cu	2		
HOST ROCK DOMINANT HOSTROCK:	Metavolcanic			
STRATIGRAPHIC AGE	GROUP Takla	FORMATION Undefined Formation	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Porphyritic Augite Flow Breccia Tuff Shale			
GEOLOGICAL SETTING				Distant
TECTONIC BELT: TERRANE:	Intermontane Stikine Regional			Plateau
	Regional		GIADE.	
CAPSULE GEOLOGY	The claims are underla comprised mainly of augite occurrences of dark grey s The porphyry flows and chalcocite and malachite. fractures in the volcanic f	ain by Triassic Takla Group vo porphyry flows, breccia and t nale and minor conglomerate. d tuff host minor occurrences Chalcopyrite occurs in fine e flows.	lcanics uff with of bornite, pidote filled	
BIBLIOGRAPHY	השחה אמי החשי 1160 ×1160	1950 1995 *9459		
	EMPR ASS RF1 ^1160, ^1168, EMPR GEM 1967-102; *1970-16 EMPR MAP 69-1 EMPR OF 1996-29 GSC MAP 671A GSC OF *351 EMPR BULL 110	1230, 1723, "2457 58; *1972-421		
DATE CODED: DATE REVISED:	1985/07/24 1987/07/02	CODED BY: GSB REVISED BY: LLD	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093L 164</u>		NATIONAL MINERAL	INVENTORY:	093L16 Cu7
NAME(S):	MINE, DEL, LOU, MINE 1-22				
STATUS:	Showing		MIN	ING DIVISION:	Omineca
NTS MAP:	093L16W			UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 55 07 N 126 17 40 W 792 Metres Within 1 KM Located 5.6 kilometres northwest of the	e Granisle Townsite.		NORTHING: EASTING:	6089086 673399
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Malachite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Epigenetic Porphyry D03 Volcanic redbed Cu		L04 Porphyry C	Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Metavolcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGN	EOUS/METAM	ORPHIC/OTHER
Permian	Tania	Undenned i Unnation	Unn	amed/Unknow	n Informal
LITHOLOGY:	Augite Porphyritic Flow Tuff Breccia Shale Limestone Quartzite				
HOSTROCK COMMENTS:	Permian limestone.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AF	REA: Nechako	Plateau
CAPSULE GEOLOGY					
	The property is underl comprised of augite porphyr grey shale and minor conglo and Lou claims, Permian lim older shales, quartzites an Trenching exposed mino of chalcopyrite with malach Triassic volcanics.	ain by Triassic Tal ry flows, breccia au merate. To the ear hestone is exposed with a related metamorph or copper mineralizant hite on fractures with	<pre>kla Group volca hd tuff with mi st, on part of with Permian an hic rocks. ation comprised ithin the dark</pre>	anics inor dark the Del nd/or d mainly green	
BIBLIOGRAPHY					
	EMPR AR 1967-102; 1968-133 EMPR ASS RPT *1160, 1724, * EMPR GEM 1969-369; 1970-168 EMPR MAP 69-1 EMPR OF 1996-29 GSC MAP 671A GSC OF *351 EMPR BULL 110	1725 3; *1972-424			
DATE CODED: DATE REVISED:	1985/07/24 1989/02/20	CODED BY: GSB REVISED BY: LLD		F	TELD CHECK: N

MINFILE NUMBER:	<u>093L 165</u>	NATIONAL MINE	RAL INVENTORY: 093L15 Ag11
NAME(S):	SHAMROCK, LAKEVIEW		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L15W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 52 00 N 126 52 06 W 1829 Metres Within 1 KM The property is located at the head of the Creek, approximately 21 kilometres north	e east fork of Driftwood east of Smithers.	NORTHING: 6082036 EASTING: 636801
COMMODITIES:	Copper Silver		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Bornite Covellite Chalcocite Calcite Quartz Unknown	Copper	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS: HOST ROCK	Vein Breccia Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb) Mineralized shear on Lakeview showing	D03 Volca STRIKE/DIP: 045/69S	nic redbed Cu TREND/PLUNGE:
DOMINANT HOSTROCK:	Volcanic	ΕΩΡΜΑΤΙΩΝ	
Lower Jurassic	Hazelton	Nilkitkwa	
LITHOLOGY:	Andesite Tuff Flow Breccia Andesitic Breccia		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE	Intermontane Stikine		IC AREA: Skeena Ranges
	Regional Ri	ELATIONSHIP: Syn-mineralization	GRADE:
ORF ZONE:	VFIN	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper 0.6 metre sample from mineralized vein. Minister of Mines, Annual Report 1922, p.	YEAR: 1922 <u>GRADE</u> 102.9000 Grams per tonne 0.9000 Per cent age 106.	
CAPSULE GEOLOGY			
	The claims are underlai Nilkitkwa Formation volcanic flows, tuffs and breccia. The Shamrock showing is 0.3 to 0.9 metres in width c calcite. Mineralization con with minor native copper. I material assayed 102.9 grams (Minister of Mines Annual Re The Lakeview showing is metres in width, striking 04 southeast. The quartz vein	n by Lower Jurassic Hazelton s comprised mainly of andesi a vein (in maroon andesite) omprised of brecciated andes sists of bornite, covellite n 1922, a 0.6 metre sample of per tonne silver and 0.9 per port 1922, page 106). a mineralized shear zone av 5 degrees and dipping 69 degr hosts bornite.	Group, te, andesitic ranging from ite and and chalcocite f the vein r cent copper eraging 1.5 rees
BIBLIOGRAPHY			
	EMPR AR *1922-106; 1925-138; EMPR GEM 1970-165 EMPR MAP 69-1 EMPR FIELDWORK 1987, pp. 181 GSC SUM RPT 1924A GSC MAP 671A	*1929-167 -193; 1988, pp. 195-208; 199	1, pp. 93-101

GSC	OF 351	
GSC	BULL 2	70

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/30 CODED BY: GSB REVISED BY: LLD

\_\_\_\_

MINFILE NUMBER:	<u>093L 166</u>		NATIONAL MINERAL INVENTORY: 093L6 Cu12
NAME(S):	LOLJUH, JOE 85 - 87, CORN		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L06E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 23 55 N 127 13 06 W 1524 Metres Within 500M Located on the north side of Loljuh Cre south of Smithers or 37 kilometres wes	ek, approximately 61 kilom st of Houston (See 093L 1	NORTHING: 6029335 EASTING: 615663 netres 168).
COMMODITIES:	Lead Zinc	Silver	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Pyrite Calcite Siderite Limonite Oxidation Carbonate Unknown	Pyrrhotite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Disseminate Epigenetic 105 Polymetallic veins Ag-Pb-Zn±A	ed Nu	
HOST ROCK DOMINANT HOSTROCK	: Volcanic		
STRATIGRAPHIC AGE Lower Jurassic Unknown	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
LITHOLOGY:	Andesite Rhyolite Tuff Flow Breccia Syenite		
HOSTROCK COMMENTS:	Syenite.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine Plu	utonic Rocks	PHYSIOGRAPHIC AREA: Hazelton Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON	l: N
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR GRADE	: 1970
	Silver Copper Lead Zinc	0.0060 Grams 0.1000 Per cen 0.4000 Per cen	per tonne ht t
REFERENCE:	Assessment Report 2292, 2893.	0.4000	1.
CAPSULE GEOLOGY BIBLIOGRAPHY	The claims are underla volcanics comprised mainly breccia. In the southwest a small syenite intrusion of disseminated magnetite. Source 1 (Joe 85 claim containing disseminated pyn contact with carbonate roch volcanics hosting 2 to 5 pe vein material assayed: 0.1 per cent lead and 0.006 gra	ain by Lower Jurass of andesitic to rh section of the cla butcrops and hosts m) hosts a gossanou rite and pyrrhotite s and calcite-side er cent galena and l per cent copper, ams per tonne silve	sic Hazelton Group hyolitic flows, tuff and aim (Joe 1 - 093L 168) 1 to 1.5 per cent us, light green andesite e. The andesite is in erite veins crosscut the sphalerite. In 1970, the 0.4 per cent zinc, 0.4 er.
	EMPR GEM 1969-92; *1970-15( EMPR EXPL *1988-C169 EMR MP CORPFILE (Lobell Mir GSC P 44-23	); *1972-383 nes Ltd.)	MINFILF NUMBER: 093L 166

EMPR MAP 69-1 GSC OF 351 EMPR ASS RPT \*2292, \*2893, 3874, \*17407

DATE CODED: 1985/07/24 DATE REVISED: 1987/07/02 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 167</u>	NATIONAL MI	NERAL INVENTORY:	093L16 Cu8
NAME(S):	ALP			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L16W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 00 N 126 22 06 W Metres Within 1 KM Located south of Fulton Lake, 16 kil	ometres west of Topley Landing.	NORTHING: EASTING:	6077565 669091
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Lower Jurassic Upper Cretaceous	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Andesite Tuff Flow Breccia Granodiorite			
HOSTROCK COMMENTS:	Upper Cretaceous granodiorite sto	ock.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	PHYSIOGRAF Plutonic Rocks RELATIONSHIP: Syn-mineralization	PHIC AREA: Nechako GRADE:	Plateau
CAPSULE GEOLOGY	An Upper Cretaceous Hazelton Group volcanics consist of massive maroor and breccia. Mineralizat chalcopyrite in the Hazel	granodioritic stock intrudes L of the Telkwa Formation. The n to green andesite, andesitic tion consists of minor dissemin lton rocks.	ower Jurassic volcanics flows, tuff ated	
BIBLIOGRAPHY	EM OF 2001-03 EMPR GEM *1970-168 EMPR MAP 69-1 GSC BULL 270 GSC MAP 671A GSC OF *351 EMPR BULL 110			
DATE CODED: DATE REVISED:	1985/07/24 1987/07/06	CODED BY: GSB REVISED BY: LLC	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093L 168</u>		NATIONAL MINERAL INVENTORY:	093L6 Cu12
NAME(S):	JOE 1-3, LOLJUH CREEK, CORN			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L06E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 23 30 N 127 13 06 W 1520 Metres Within 500M Located on the south side of Loljuh south of Smithers or 37 kilometres	n Creek, approximately 61 kilom s west of Houston (See 093L_1	NORTHING: EASTING: 166).	6028563 615682
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Py Malachite Epidote Lin Epidote Oxidatic Unknown	rrhotite Magnetite nonite on		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-Ag-Au (A	s-Sb)	D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	: Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Lower Jurassic Unknown	Hazelton	Undefined Formation	Unnamed/Unknow	n Informal
LITHOLOGY:	Andesite Rhyolite Tuff Flow Breccia Syenite			
HOSTROCK COMMENTS:	Syenite.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Plutonic Rocks RELATIONSHIP: Syn-mine	PHYSIOGRAPHIC AREA: Hazelton eralization GRADE:	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON	: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper	YEAR: <u>GRADE</u> 0.1600 Per cen	: 1970 	
REFERENCE:	Assessment Report 2893.			
CAPSULE GEOLOGY	The claims are under Group volcanics comprise tuff and breccia. In the synite intrusion outcro magnetite. Source 2 (Joe 1-3 of flow which hosts pyrite, fillings. The volcanics Malachite occurs as blead a sample assayed 0.16 per	erlain by Lower to Mic ed mainly of andesitic ops and hosts 1 to 1.5 claims) consists of ar , chalcopyrite and pyr s host less than 0.5 p os and as staining alc er cent copper.	ddle Jurassic Hazelton to rhyolitic flows, of the claims a small per cent disseminated n epidotized, volcanic crhotite as fracture per cent magnetite. ong fractures. In 1970	
BIBLIOGRAPHY	EMPR AR 1969-92; 1970-15 EMPR EXPL *1988-C169 EMPR ASS RPT 2292, *2893 EMR MP CORPFILE (Lobell EMPR MAP 69-1 GSC P 44-23	50; 1972-383 3, 3874, *17407 Mines Ltd.)		

GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1987/07/07 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 169</u>	NA	ATIONAL MINERAL INVENTORY:	093L4 Cu2
NAME(S):	LORI			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L04E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 04 35 N 127 40 59 W 1650 Metres Within 1 KM 2.4 kilometres north of Mount Loring.		NORTHING: EASTING:	5992823 586165
COMMODITIES:	Copper			
MINERALS				
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Chalcopyrite Pyrite Malachite Epidote Oxidation Epidote	9		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Vein Disseminat Igneous-contact D03 Volcanic redbed Cu	ed		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION Nilkitkwa	IGNEOUS/METAM	ORPHIC/OTHER
DATING METHOD: Cretaceous-Tertiary	Fossil	Ινιικικωα	Unnamed/Unknov	vn Informal
LITHOLOGY:	Limestone Volcanic Quartz Diorite Quartz Monzonite Granodiorite			
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper 1971) als	o Telkwa Formation, GSC OF	351.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine P	Pł lutonic Rocks	HYSIOGRAPHIC AREA: Tahtsa F	Range
CAPSULE GEOLOGY				
	The area is mapped as the Hazelton Group, which plugs and stocks. The sho cular lavas. Strongly epi rite as occasional shears seminated bornite and chal a volcanic-intrusive conta limestone.	the Lower Jurassic N is intruded by Late C wing is hosted in lin dotized lava contains and weak disseminatic copyrite occur in a f ct. Malachite staini	Wilkitkwa Formation of Pretaceous to Eocene estone and red vesi- s chalcopyrite and py- ms. Finely dis- cault zone adjacent to mg is found in the	
BIBLIOGRAPHY	EMPR PF (*GSC Report, H.W. EMPR GEM 1972-380 GSC OF 351 GSC BULL 270 EMPR MAP *69-1 EMPR *Mineral Claim Map 93	Tipper, 1971) L/4E		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/05	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 170</u>	NATI	ONAL MINERAL INVENTORY:	
NAME(S):	MOUNT LORING			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L04E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 03 11 N 127 41 36 W 1560 Metres Within 1 KM 0.8 to 1.2 kilometres west-southwest o	f Mount Loring.	NORTHING: EASTING:	5990214 585540
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Oxidation Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Lower Jurassic DATING METHOD:	<u>GROUP</u> Hazelton Fossil	FORMATION Nilkitkwa	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Volcanic			
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper 1971) also	Telkwa Formation GSC OF 351		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHY	SIOGRAPHIC AREA: Tahtsa F	Range
CAPSULE GEOLOGY	Malachite staining is Jurassic Nilkitkwa Formatio	noted on volcanic rock n (Hazelton Group), po	cs of the Lower ossibly on float.	
BIBLIOGRAPHY	EMPR PF (GSC Report, H.W. T GSC OF 351 GSC BULL 270 EMPR MAP 69-1	ipper, 1971)		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD	F	TIELD CHECK: N

MINFILE NUMBER:	<u>093L 171</u>	NATIONA	L MINERAL INVENTORY:
NAME(S):	MORICE LAKE		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
BC MAP:	093L04E		UTMIZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 02 29 N 127 39 30 W 1275 Metres Within 1 KM 1.6 to 2.8 kilometres up I	oring Creek from Morice Lake.	NORTHING: 5988959 EASTING: 587856
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Malachite Epidote Quartz Garnet Hematite Oxidation Unknown	Malachite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed	Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic DATING METHOD:	Hazelton Fossil	Telkwa	
LITHOLOGY:	Breccia Volcanic		
HOSTROCK COMMENTS:	"Red Volcanic Unit", re Telkwa (GSC OF 351) I	d volcanic breccias (Tipper, 1971); mapped as but may be basal Nilkitkwa Formation.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOC	RAPHIC AREA: Tahtsa Range
CAPSULE GEOLOGY	Malachite st garnet and hemati Unit") which are top of the Telkwa	aining and minor bornite occur with te in red volcanic breccias (called either at the base of the Nilkitkwa Formation (Lower Jurassic Hazelton	epidote, quartz, the "Red Volcanic Formation or the Group).
BIBLIOGRAPHY	EMPR PF (GSC Repo GSC OF 351 GSC BULL 270 EMPR MAP 69-1	rt, H.W. Tipper, 1971)	
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 172</u>	NATIONAL MINE	ERAL INVENTORY	:
NAME(S):	CORONA PEAK			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L04W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 05 11 N 127 49 06 W 1650 Metres Within 1 KM In saddle southeast of Corona Peak.		Northing: Easting:	: 5993779 : 577296
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Oxidation Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Lower Jurassic DATING METHOD:	<u>GROUP</u> Hazelton Fossil	FORMATION Telkwa	IGNEOUS/METAN	ORPHIC/OTHER
LITHOLOGY:	Volcanic Breccia			
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper 1971); map also be basal Nilkitkwa Formation.	ped as Telkwa Formation, may		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPH	IC AREA: Tahtsa I	Range
CAPSULE GEOLOGY	Minor malachite stainin Jurassic Hazelton Group (eit Nilkitkwa Formation). Lowen intrude the volcanics nearby	ng is found in red breccias o ther top of Telkwa Formation c Cretaceous to Eocene plugs 7.	f the Lower or base of and stocks	
BIBLIOGRAPHY	EMPR PF (GSC Report, H.W. T: GSC OF 351 GSC BULL 270 EMPR MAP 69-1	ipper, 1971)		
DATE CODED: DATE REVISED:	1985/07/24 0 1987/03/06	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

NAME(S):	HOPE PEAK		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L04W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 07 04 N 127 54 18 W 1230 Metres Within 1 KM Four kilometres south of Hope Peak.		NORTHING: 5997180 EASTING: 571573
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Malachite Calcite Malachite Oxidation Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu		
HOST ROCK DOMINANT HOSTROCK	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY:	GROUP Hazelton Breccia Volcanic	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS:	GROUP Hazelton Breccia Volcanic "Red Volcanic Unit", mapped as Telkw could be basal Nilkitkwa Formation.	EORMATION Telkwa a (GSC OF 351) Tipper, 1971 or	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Hazelton Breccia Volcanic "Red Volcanic Unit", mapped as Telkw could be basal Nilkitkwa Formation. Intermontane Stikine	<u>FORMATION</u> Telkwa a (GSC OF 351) Tipper, 1971 or PHYSIOGRAPH	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	GROUP Hazelton Breccia Volcanic "Red Volcanic Unit", mapped as Telkw could be basal Nilkitkwa Formation. Intermontane Stikine Minor malachite and bo in red breccias of the Lowe Nilkitkwa Formation or Uppe to Eocene plugs and stocks	FORMATION Telkwa a (GSC OF 351) Tipper, 1971 or PHYSIOGRAPH rnite is found in small calci r Jurassic Hazelton Group (ei r Telkwa Formation). Lower C intrude the volcanics nearby.	IGNEOUS/METAMORPHIC/OTHER IIC AREA: Hazelton Ranges the lenses ther basal tretaceous
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	GROUP Hazelton Breccia Volcanic "Red Volcanic Unit", mapped as Telkw could be basal Nilkitkwa Formation. Intermontane Stikine Minor malachite and bo in red breccias of the Lowe Nilkitkwa Formation or Uppe to Eocene plugs and stocks EMPR PF (GSC Report, H.W. T GSC OF 351 GSC BULL 270 EMPR MAP 69-1	FORMATION Telkwa a (GSC OF 351) Tipper, 1971 or PHYSIOGRAPH rnite is found in small calci r Jurassic Hazelton Group (ei r Telkwa Formation). Lower C intrude the volcanics nearby. ipper, 1971)	IGNEOUS/METAMORPHIC/OTHER

MINFILE NUMBER:	<u>093L 174</u>		NATIONAL	_ MINERAL INVENTORY:	
NAME(S):	<u>GSC 1971 - 6</u>				
STATUS:	Showing British Columbia			MINING DIVISION: Omineca	
NTS MAP:	093L04W			UTM ZONE: 09 (NAD 83	3)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 07 41 N 127 54 59 W 1365 Metres Within 1 KM 3.2 kilometres south/southwes	t of Hope Peak.		NORTHING: 5998312 EASTING: 570811	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcocite Bornite Malachite Oxidation Unknown	Malachite			
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Unknown				
TYPE:	D03 Volcanic redbed Cu		L01	Subvolcanic Cu-Ag-Au (As-Sb)	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa		IGNEOUS/METAMORPHIC/OTH	<u>ER</u>
LITHOLOGY:	Volcanic				
HOSTROCK COMMENTS:	"Lower Green Volcanic Unit"	(Tipper 1971).			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOG	RAPHIC AREA: Hazelton Ranges	
CAPSULE GEOLOGY	Malachite, borni volcanics of the Telk which is intruded by	te and chalcocite are fo wa Formation (Lower Jura Lower Cretaceous to Eoce	ound in assic Ha ene plug	shears in green zelton Group) s and stocks.	
BIBLIOGRAPHY	EMPR PF (GSC Report, GSC OF 351 GSC BULL 270 EMPR MAP 69-1	H.W. Tipper, 1971)			

DATE CODED: 1985/07/24 DATE REVISED: 1987/03/06 CODED BY: GSB REVISED BY: LLD

NAME(S): GSC 1971 - 7

STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca	
NTS MAP: BC MAP:	093L04E		UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 12 44 N 127 43 36 W 1500 Metres Within 1 KM Southwest side of Herd Dome.		NORTHING: 6007883 EASTING: 583039	
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Copper Quartz Calcite Prehnite Laumontite Oxidation Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK	: Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Volcanic			
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper 1971), re or basal Nilkitkwa Formation).	ed vesicular flows (Telkwa		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPH	IC AREA: Tahtsa Range	
CAPSULE GEOLOGY	Very minor native copp prehnite (?) and laumonite Hazelton Group (either top Formation).	per is found in pods with quar in red vesicular flows of Low of Telkwa Formation or base o	tz, calcite er Jurassic f Nilkitkwa	
BIBLIOGRAPHY	EMPR PF (GSC Report, H.W. 7 GSC OF 351 GSC BULL 270 EMPR MAP 69-1	Fipper, 1971)		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093L 176</u>	١	ATIONAL MINERAL INVENTORY:	
NAME(S):	<u>GSC 1971 - 8</u>			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
BC MAP:	093L04E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 12 53 N 127 43 40 W 1500 Metres Within 1 KM West/southwest side of Herd Dome.		NORTHING: EASTING:	6008159 582962
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcocite Quartz Calcite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Volcanic			
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper, 1971), re probably float.	d vesicular volcanics,		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	F	PHYSIOGRAPHIC AREA: Tahtsa F	Range
CAPSULE GEOLOGY	Minor chalcocite with ular volcanics (probably fl (either Upper Telkwa Format	quartz and calcite oat) of the Lower J ion or basal Nilkit	is found in red vesic- urassic Hazelton Group kwa Formation).	
BIBLIOGRAPHY	EMPR PF (GSC Report, H.W. T GSC OF 351 GSC BULL 270 EMPR MAP 69-1	ipper, 1971)		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 177</u>	NATIONAL MINE	RAL INVENTORY:
NAME(S):	<b>HERD DOME</b> , PIPE, ONUCKI, BRAGG LAKE		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093L04E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 13 49 N 127 39 55 W 1800 Metres Within 1 KM Northeast of Herd Dome about 70 kilome community of Smithers (Assessment Re	etres south-southwest of the port 22542).	NORTHING: 6009965 EASTING: 587004
COMMODITIES:	Copper Silver		
MINERALS			
SIGNIFICANT: ALTERATION:	Chalcopyrite Pyrite Bornite Albite Quartz Chlorite Azurite	Covellite Chalcocite Pyrite Malachite	
ALTERATION TYPE: MINERALIZATION AGE:	Albitic Oxidation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Vein Hydrothermal Epigenetic L01 Subvolcanic Cu-Ag-Au (As-Sb)		
HOST ROCK DOMINANT HOSTROCK:	· Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic	Hazelton	Telkwa	
LITHOLOGY:	Dacite Dacite Porphyry Dacite Lapilli Tuff Dacitic Breccia Andesite Andesitic Tuffaceous Rock Porphyritic Andesite Fragmental Andesite Basalt		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPH	C AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Copper	YEAR: 1991 <u>GRADE</u> 12.0000 Grams per tonne 0.5500 Per cent	
COMMENTS: REFERENCE:	Over an interval of 6 metres. Assessment Report 22542, page 9.		
CAPSULE GEOLOGY			
	The Herd Dome occurrent rocks of the Lower Jurassic Reddish brown coloured basal comprise massive flows, brec have been identified within contain copper mineralizatic Lake zones.	te is underlain by well-layer Telkwa Formation (Hazelton G ts are the most abundant rool cia, tuffs and fragmentals. the central part of the prope on. These are the Pipe, Onucl	ed volcanic roup). < type and Three areas erty which <i and="" bragg<="" td=""></i>

At the Pipe zone, exposures of andesitic or dacitic flow rocks are typically fragmental, brecciated or tuffaceous in appearance. They are stained by malachite and azurite and contain varying amounts of chalcopyrite and pyrite as veinlets and disseminations. Bornite, covellite and chalcocite have also been identified. The hostrock is an albite-quartz-chlorite-pyrite altered dacitic porphyry or a dacitic coarse lapilli tuff or breccia. Chip and panel sampling of one mineralized outcrop yielded 0.55 per cent copper and 12 grams per

## CAPSULE GEOLOGY

tonne silver over an interval of 6 metres (Assessment Report 22542, page 9).

The Onucki zone is located about 1000 metres east of the Pipe zone. Chalcopyrite-pyrite mineralization appears to be associated with andesitic tuffaceous rocks.

Chalcopyrite-pyrite-malachite mineralization occurs as fracture fillings and as veinlets in porphyritic and fragmental andesitic outcrops in the vicinity of Bragg Lake.

Copper mineralization was discovered in the late 1970's by Mr. Frank Onucki. Subsequently, Mr. Onucki staked five claim blocks in 1980 and returned to prospect his ground in 1981. Further work was completed by Utah Mines Inc. and Noranda Exploration Ltd. in 1983, however, the claims were allowed to lapse. The property remained dormant and unexplored until 1991, when Mr. Onucki re-staked the claims. In 1991, Placer Dome optioned the properties. After examining assay reports and mineralized rock samples from the Pipe Area, Placer staked additional claims. Exploration activities included 103 chip, panel and grab samples collected from mineralized outcrops mainly from the Pipe area. Abacus Mining & Exploration Corp. holds the property.

### BIBLIOGRAPHY

EMPR ASS RPT \*22542 EMPR MAP 69-1 EMPR OF 1994-14 EMPR PF (GSC Report, H.W. Tipper, 1971) GSC BULL 270 GSC OF 351 GCNL #172(Sept.8), 2000 WWW http://www.abacusminerals.com; http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 1995/02/22 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093L 178</u>		NATIONAL MINERAL IN	IVENTORY:
NAME(S):	<u>GSC 1971 - 10</u>			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L04E		MINING	3 DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 14 28 N 127 39 21 W 1800 Metres Within 1 KM Northeast of Herd Dome.		I	NORTHING: 6011182 EASTING: 587597
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Malachite Oxidation Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Unknown D03 Volcanic redbed Cu		L04 Porphyry Cu	± Mo ± Au
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Cretaceous-Tertiary	GROUP	FORMATION	IGNEC Unnan	<u>US/METAMORPHIC/OTHER</u> ned/Unknown Informal
LITHOLOGY:	Intrusive			
HOSTROCK COMMENTS:	Intrudes "Red Volcanic" Unit Te Jurassic).	elkwa Formation, Hazelton Grou	ıp (Lower	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC ARE	A: Nechako Plateau
CAPSULE GEOLOGY	Disseminated mala intrusive (Lower Creta of the Lower Jurassic '	chite and bornite occu ceous to Eocene) assoc Telkwa Formation (Haze	ar in a grey silic Siated with red vo Silton Group).	eous lcanics
BIBLIOGRAPHY		······································		
	EMPR PF (GSC Report, H GSC OF 351 GSC BULL 270 EMPR MAP 69-1	.w. Tipper, 1971)		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

NAME(S):	<b><u>GSC 1971 - 11</u></b> , THAUTIL RIVE	ER	
STATUS: REGIONS: NTS MAP	Showing British Columbia 0931 06W		MINING DIVISION: Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 18 00 N 127 25 59 W 1065 Metres Within 1 KM West of Thautil River.		NORTHING: 6018033 EASTING: 601969
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: COMMENTS: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Chlorite Epidote Amygdaloidal fillings. Chlorite Unknown	Orthoclase	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu		
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY:	GROUP Hazelton Volcanic	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS:	GROUP Hazelton Volcanic "Red Volcanic Unit" (Tipper 1 Formation.	<u>FORMATION</u> Telkwa 1971) Telkwa Formation or basal Nilkitkwa	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Hazelton Volcanic "Red Volcanic Unit" (Tipper 1 Formation. Intermontane Stikine	<u>FORMATION</u> Telkwa 1971) Telkwa Formation or basal Nilkitkwa PHYSIOGRAPH	IGNEOUS/METAMORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	GROUP Hazelton Volcanic "Red Volcanic Unit" (Tipper 1 Formation. Intermontane Stikine Minor chalcopyri as amygdaloidal filli assic Hazelton Group	FORMATION Telkwa 1971) Telkwa Formation or basal Nilkitkwa PHYSIOGRAPH ite occurs with chlorite, epidote an ings in grey-red flow volcanics of t (Telkwa Formation or basal Nilkitkw	IGNEOUS/METAMORPHIC/OTHER IIC AREA: Hazelton Ranges d orthoclase he Lower Jur- va Formation).
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	GROUP Hazelton Volcanic "Red Volcanic Unit" (Tipper 1 Formation. Intermontane Stikine Minor chalcopyri as amygdaloidal filli assic Hazelton Group EMPR PF (GSC Report, Photos) GSC OF 351 GSC BULL 270 EMPR MAP 69-1	<u>FORMATION</u> Telkwa 1971) Telkwa Formation or basal Nilkitkwa PHYSIOGRAPH ite occurs with chlorite, epidote an ings in grey-red flow volcanics of t (Telkwa Formation or basal Nilkitkw H.W. Tipper, 1971; Miscellaneous Ma	IGNEOUS/METAMORPHIC/OTHER IIC AREA: Hazelton Ranges d orthoclase he Lower Jur- a Formation). ps and

MINFILE NUMBER:	<u>093L 180</u>	Ν	ATIONAL MINERAL INVENTORY	:
NAME(S):	<u>GSC 1971 - 12</u>			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L06W		MINING DIVISION: UTM ZONE:	: Omineca : 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 18 18 N 127 25 02 W 1065 Metres Within 1 KM To west of Thaulit River.		NORTHING EASTING	: 6018612 : 602986
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Malachite Epidote Oxidation Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Unknown D03 Volcanic redbed Cu		L04 Porphyry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER
	Hazeiton	Теккиа		
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper 1971), Te Formation.	lkwa or basal Nilkitkwa		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Р	HYSIOGRAPHIC AREA: Hazelto	n Ranges
CAPSULE GEOLOGY	Very minor malachite i of the Lower Jurassic Hazel Nilkitkwa Formation). On G and minor disseminated chal volcanics, and in a granodi	s found in epidotiz ton Group (Telkwa F abriel Creek direct copyrite are report orite plug adjacent	ed red-green volcanics ormation or basal ly northeast, pyrite ed, also in Hazelton to the volcanics.	
BIBLIOGRAPHY	EMPR PF (GSC Report, H.W. T GSC OF 351 GSC BULL 270 EMPR ASS RPT 2428 EMPR MAP 69-1	'ipper, 1971)		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 181</u>		NATIONA	AL MINERAL INVENTORY	<u>/:</u>
NAME(S):	<u>GSC 1971 - 13</u>				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION	: Omineca
NTS MAP: BC MAP:	093L06W			UTM ZONE	: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 15 30 N 127 20 11 W 900 Metres Within 1 KM 2.4 kilometres upstream along secon	nd tributary of Thautil River.		NORTHING EASTING	: 6013542 : 608368
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcocite Calcite Malachite Oxidation Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Dissemina Unknown D03 Volcanic redbed Cu	ated	L01	Subvolcanic Cu-Ag-Au	(As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa		IGNEOUS/METAN	IORPHIC/OTHER
LITHOLOGY:	Volcanic				
HOSTROCK COMMENTS:	"Red Volcanic Unit", (Tipper, 1971) Nilkitkwa Formation.	Upper Telkwa Formation or t	oasal		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIO	GRAPHIC AREA: Nechak	o Plateau
CAPSULE GEOLOGY	Malachite and chalco vesicular flows of the Ha Formation or basal Nilkit	cite are found in ca zelton Group (Lower kwa Formation).	alcite Jurass	veins in red ic, either Telkwa	
BIBLIOGRAPHY	ENDD DE (COC Dements II N	m <sup>1</sup>			
	EMPR PF (GSC Report, H.W. GSC OF 351 GSC BULL 270 EMPR MAP 69-1	Tipper, 1971)			
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD			FIELD CHECK: N FIELD CHECK: N

NAME(S): GSC 1971 - 14

STATUS: REGIONS <sup>:</sup>	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L03E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 12 00 N 127 00 51 W 750 Metres Within 1 KM On north side of Morice River.		NORTHING: EASTING:	6007595 629538
COMMODITIES:	Copper			
MINERALS				
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Epidote Malachite Oxidation Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Lower Jurassic	Hazelton	Текжа		
LITHOLOGY:	Volcanic			
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper 1971) Tel Nilkitkwa Formation.	kwa Formation or basal		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	o Plateau
CAPSULE GEOLOGY				
	Very minor malachite o volcanic flows of the Lower tion or basal Nilkitkwa For	occurs with epidote Jurassic Hazelton rmation).	in vesicles in red Group (Telkwa Forma-	
BIBLIOGRAPHY				
	EMPR PF (GSC Report, H.W. 7 GSC OF 351 GSC BULL 270 EMPR MAP 69-1	upper, 1971)		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD	I	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 183</u>	NATI	ONAL MINERAL INVENTORY	/:
NAME(S):	<u>GSC 1971 - 15</u>			
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093L05W		MINING DIVISION UTM ZONE	: Omineca :: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 24 14 N 127 52 36 W 1065 Metres Within 1 KM Approximately 2.4 kilometres south of h north-south to west of Howson Peak.	igh point on ridge running	NORTHING EASTING	6029041 572918
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION: MINERALIZATION AGE:	Copper Prehnite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAN	/ORPHIC/OTHER
LITHOLOGY:	Volcanic			
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper 1971) Tell Formation.	wa Formation or basal Nilkitkw	а	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHY	SIOGRAPHIC AREA: Hazelto	n Ranges
CAPSULE GEOLOGY	Native copper is found flows of the Lower Jurassic basal Nilkitkwa Formation).	with prehnite in red Hazelton Group (Telky	vesicular volcanic wa Formation or	
BIBLIOGRAPHY		- 1051)		
	EMPR PF (GSC Report, H.W. T GSC OF 351 GSC BULL 270 EMPR MAP 69-1	1pper, 1971)		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

NAME(S):	<u>GSC 1971 - 16</u>				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP:	093L05E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 29 11 N 127 36 14 W 1800 Metres Within 1 KM About 3.2 kilometres north-northwest o	f Eagle Peak.	NORTHING: EASTING:	6038537 590441	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Calcite Oxidation Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu				
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER	
Lower Jurassic	Hazellon	Текжа			
LITHOLOGY:	Volcanic				
HOSTROCK COMMENTS	"Red Valgonia Linit" (Tinner 1071) Tel				
HOUTTOOK COMMENTO.	Formation.	kwa Formation or basal Niikitkwa			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	wa Formation or basal Niikitkwa PHYSIOGRAPHI	CAREA: Hazelton	Ranges	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Very minor malachite i formation).	wa Formation or basal Niikitkwa PHYSIOGRAPHI s found with calcite in red vo Group (Telkwa Formation or ba	CAREA: Hazekon olcanics of asal Nilkitkw	<b>Ranges</b> a	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Very minor malachite i the Lower Jurassic Hazeltor Formation).	Wa Formation or basal Niikitkwa PHYSIOGRAPHI s found with calcite in red vo Group (Telkwa Formation or ba	CAREA: Hazekon olcanics of asal Nilkitkw	Ranges a	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Very minor malachite i the Lower Jurassic Hazeltor Formation). EMPR PF (GSC Report, H.W. 7 GSC OF 351 GSC BULL 270 EMPR MAP 69-1	Wa Formation or basal Niikitkwa PHYSIOGRAPHI s found with calcite in red vo Group (Telkwa Formation or ba	CAREA: Hazelton	Ranges a	

MINFILE NUMBER:	<u>093L 185</u>	NATION	AL MINERAL INVENTORY:		
NAME(S):	<u>GSC 1971 - 17</u>				
STATUS:	Showing		MINING DIVISION:	Omineca	
NTS MAP:	093L11W		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 32 48 N 127 22 13 W 900 Metres Within 1 KM 6.4 kilometres along the mining road fro Howson Creek.	om Telkwa River to the west of	NORTHING: EASTING:	6045568 605418	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu	L04	Porphyry Cu ± Mo ± Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMO	ORPHIC/OTHER	
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY:	GROUP Hazelton Volcanic	<u>FORMATION</u> Telkwa	IGNEOUS/METAMO	DRPHIC/OTHER	
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS:	GROUP Hazelton Volcanic "Red Volcanic Unit" (Tipper 1971) Tell Formation.	FORMATION Telkwa wa Formation or basal Nilkitkwa	<u>IGNEOUS/METAMC</u>	DRPHIC/OTHER	
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Hazelton Volcanic "Red Volcanic Unit" (Tipper 1971) Tell Formation. Intermontane Stikine	FORMATION Telkwa wa Formation or basal Nilkitkwa PHYSIO	IGNEOUS/METAMC	DRPHIC/OTHER	
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	GROUP Hazelton Volcanic "Red Volcanic Unit" (Tipper 1971) Tell Formation. Intermontane Stikine Minor amounts of chalc Lower Jurassic Hazelton Groc Formation). Late Cretaceou plugs and stocks intrude the	FORMATION Telkwa kwa Formation or basal Nilkitkwa PHYSIO opyrite is found in gree up (Telkwa Formation or s to Eocene biotite-feld e volcanics nearby.	<u>IGNEOUS/METAMO</u> GRAPHIC AREA: Hazelton n volcanics of the basal Nilkitkwa spar porphyry	DRPHIC/OTHER	
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	GROUP Hazelton Volcanic "Red Volcanic Unit" (Tipper 1971) Tell Formation. Intermontane Stikine Minor amounts of chalc Lower Jurassic Hazelton Gro Formation). Late Cretaceou plugs and stocks intrude th EMPR PF (GSC Report, H.W. T GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 19 EMPR OF 1989-16 EMPR MAP 69-1	FORMATION Telkwa wwa Formation or basal Nilkitkwa PHYSIO opyrite is found in gree up (Telkwa Formation or s to Eocene biotite-feld e volcanics nearby. Cipper, 1971) 5-208	GRAPHIC AREA: Hazelton	DRPHIC/OTHER	
MINFILE NUMBER:	<u>093L 186</u>		NATIONAL MIN	ERAL INVENTORY:	
---	--	--	---	--	---
NAME(S):	<u>GSC 1971 - 18</u>				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L12W			MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 40 22 N 127 48 33 W 1365 Metres Within 1 KM Head of north fork of Serb Cre	ek.		NORTHING: 6059031 EASTING: 576793	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Bornite Chalcopyrite Epidote Tremolite Wollastonite Unknown	Chalcocite Chlorite Manganite	Garnet		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Podiform Dise Epigenetic D03 Volcanic redbed Cu	cordant	K01 Cu sł	karn	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic Eocene	GROUP Hazelton	<u>FORMATION</u> Telkwa		IGNEOUS/METAMORPHIC/OTHER Nanika Intrusions	_
LITHOLOGY:	Volcanic Quartz Monzonite Felsite				
HOSTROCK COMMENTS:	"Lower Green Volcanic Unit"	(Tipper 1971).			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPH	IIC AREA: Hazelton Ranges	
CAPSULE GEOLOGY	Pods of bornite, with epidote, tremoli astonite in green vol (Telkwa Formation). Intrusions (quartz mo	chalcopyrite and minor te, chlorite, magnetite canics of the Lower Jur The volcanics are intru nzonite, felsite partly	chalcocite , minor garn assic Hazelt ded by the E porphyritic	are found let and woll- on Group Cocene Nanika :).	
BIBLIOGRAPHY	EMPR PF (GSC Report, GSC OF 351 GSC BULL 270 EMPR MAP 69-1	H.W. Tipper, 1971)			
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093L 187</u>	Ν	IATIONAL MINERAL INVENTORY:	
NAME(S):	<u>GSC 1971 - 19</u>			
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093L12W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 39 29 N 127 54 21 W 1350 Metres Within 1 KM 3.2 kilometres east of Zymoetz River.		NORTHING: EASTING:	6057291 570585
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcocite Quartz Epidote Tremoli Malachite Chrysocolla Oxidation Unknown	e Garnet		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Epigenetic K01 Cu skarn		D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Volcanic			
HOSTROCK COMMENTS:	"Lower Green Volcanic" Unit (Tipper	1971).		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	, F	PHYSIOGRAPHIC AREA: Hazeltor	n Ranges
CAPSULE GEOLOGY Chalcocite, malachite and chrysocolla (?) are found with quartz, epidote, tremolite and garnet in green volcanics of the Lower Jurassic Hazelton Group (Telkwa Formation).				
BIBLIOGRAPHY		1071)		
	EMPR PF (GSC Report, H.W. GSC OF 351 GSC BULL 270 EMPR MAP 69-1	npper, 19/1)		
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 188</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	<u>GSC 1971 - 20</u>		
STATUS:	Showing		MINING DIVISION: Omineca
NTS MAP:	093L12W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 41 15 N 127 54 39 W 1200 Metres Within 1 KM Approximately 8 kilometres southea (east of Zymoetz River).	st of the mouth of Red Canyor	NORTHING: 6060562 EASTING: 570211 Creek
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Chalcopyrite Quartz Epidote Malachite Oxidation Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed Cu		
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Volcanic		
HOSTROCK COMMENTS:	"Red Volcanic Unit" (Tipper, 1971) Nilkitkwa Formation.	Telkwa Formation or basal	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Hazelton Ranges
CAPSULE GEOLOGY	Bornite, chalcopyrit epidote in red volcanics Formation or basal Nilkit	e and malachite are of the Lower Jurassi kwa Formation).	found with quartz and c Hazelton Group (Telkwa
BIBLIOGRAPHY	EMPR PF (GSC Report, H.W. GSC OF 351 GSC BULL 270 EMPR MAP 69-1	. Tipper, 1971)	
DATE CODED: DATE REVISED:	1985/07/24 1987/03/06	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 189</u>		NATIONAL MINERAL INVENTORY:	: 093L6 Cu11
NAME(S):	<u>Wolverine</u> , Lg			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP:	093L06W		UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 24 06 N 127 29 46 W 1600 Metres Within 1 KM At head of a southwest tributary of Star south-west of Smithers.	rr Creek, 40 kilometres	NORTHING: EASTING:	6029255 597624
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown			
	Vein Breccia			
CLASSIFICATION: TYPE:	Unknown L01 Subvolcanic Cu-Ag-Au (As-Sb	)	D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Volcanic Brecciated Vein			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Hazeltor	n Ranges
CAPSULE GEOLOGY	Chalcopyrite occurs in cut volcanic rocks of the L	n breccia veins of Jower Jurassic Haze	variable width which lton Group.	
BIBLIOGRAPHY	EMPR GEM 1971-173 GSC OF 351 GSC BULL 270 EMPR MAP 69-1			
DATE CODED: DATE REVISED:	1985/07/24 1987/03/09	CODED BY: GSB REVISED BY: LLD	I	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 190</u>	NATIONAL MINERAL INVENTORY: 093L9 Cu10
NAME(S):	THEZAR 75 (WEST), LENNAC LAKE	
STATUS: REGIONS:	Prospect British Columbia	MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L09W 093L16W	UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 00 N 126 20 16 W 991 Metres Within 500M Located just north of Lennac Lake, 14.5 kilometres southwest of Landing on Babine Lake (See 093L 191).	NORTHING: 6070224 EASTING: 671335 Topley
COMMODITIES:	Copper Molybdenum	
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Chalcocite Pyrite Magnetite Quartz Malachite Chlorite Epidote Pyrite Propylitic Pyrite Unknown	Molybdenite
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Epigenetic Hydrothermal L04 Porphyry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Plutonic	
STRATIGRAPHIC AGE Lower Jurassic	GROUPFORMATIONHazeltonUndefined Formation	
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	77 +/- 2 Ma Potassium/Argon Biotite	Unnamed/Unknown miorma
LITHOLOGY:	Andesite Tuff Rhyolite Tuff Breccia Argillite Conglomerate Porphyry Quartz Diorite Porphyry Biotite Quartz Diorite Dike	
HOSTROCK COMMENTS:	U.B.C. Geochronology Lab, 1972.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Plutonic Rocks Contact RELATIONSHIP: Syn-mine	PHYSIOGRAPHIC AREA: Nechako Plateau eralization GRADE:
INVENTORY		
ORE ZONE:	SAMPLE REPORT ON	N
COMMENTS:	CATEGORY: Assay/analysis YEAR SAMPLE TYPE: Channel COMMODITY Copper <u>GRADE</u> 0.2600 Per cer 6.0 metre channel sample across quartz diorite porphyry.	t 1971
REFERENCE:	Assessment Report 3807.	
CAPSULE GEULUGY	Lower Jurassic Hazelton Group volcanics andesitic to rhyolitic tuff, breccia, minor a ate dip gently northeast. The volcanics are Tertiary quartz diorite porphyry stock and re diorite porphyry dikes which trend northeast Triassic Takla volcanics discordantly overlie The Takla rocks are comprised of chert, volca breccia, massive dacite to andesite flows and The West Zone porphyry intrusion contain disseminated pyrite and fine-grained pyrite, cite, magnetite and traces of molybdenum in o	comprised of andesite, argillite and conglomer- intruded by an Early elated biotite-quartz East of the property, the Hazelton Group. anic and sedimentary tuff. s fine-grained, chalcopyrite, chalco- quartz veins and along

MINFILE NUMBER: 093L 190

fractures. Chalcocite commonly occurs as coatings on the chalcopyrite grains. Malachite is widespread along fractures and is locally abundant in shears. The highly pyritized volcanics adjacent to the porphyry on the east and northeast property hosts minor chalcopyrite and malachite. Associated with the porphyry intrusion is a northwest trending pyritic and propylitic zone. Quartz vein stockworks are associated with secondary potassic feldspar and biotite in the porphyry dikes. In 1971, ten channel samples ranging between 0.6 to 7.6 metres in length across the porphyry intrusion assayed: 0.04 to 0.26 per cent copper, less than 0.004 per cent molybdenum and less than 1.4 grams per tonne silver. The best assay consisted of a 6.0 metre channel sample which hosted 0.26 per cent copper (Assessment Report 3807).

## BIBLIOGRAPHY

EM OF 2001-03 EMPR ASS RPT \*3807, 3808, \*5031, 9934 EMPR GEM 1971-175; \*1972-395, Fig. 48; 1973-344; 1974-260 EMPR MAP 69-1 EMPR OF 1996-29 EMPR PF (Thezar Claim Map 1":2640 ft. by Amax Exploration Inc.) GSC BULL 270 GSC MAP 671A GSC OF 351 Chevron File Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/06 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 191</u>			NATIONA	L MINERAL INVENTORY: 093L9 Cu10
NAME(S):	THEZAR 81 (EAST), L	ENNAC LAKE			
STATUS:	Showing				MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093L09W 093L16W				UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE:	54 44 50 N				NORTHING: 6069922
LONGITUDE:	126 20 06 W 991 Metres				EASTING: 671526
LOCATION ACCURACY:	Within 500M	annaciaka 145	kilomotros southwost of	Toploy	
COMMENTS.	Landing on Babine La	e (See 093L 190	).	Topley	
COMMODITIES:	Copper				
	Chalcopyrite Pyrit	Magnetit	e Sobalerite		
ASSOCIATED:	Quartz Calcite		e Oprialente		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Propylitic Unknown	Silicific'n	Argillic		
	Vein	Stockwork			
CLASSIFICATION:	Epigenetic			105	Delumetellie veine Ar Dh. Zn. Av
	L04 Porpnyry Cu ±	MO ± AU		105	Polymetallic veins Ag-Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton		FORMATION Undefined Formation		
ISOTOPIC AGE:	77 +/- 2 Ma				Unnamed/Unknown Informal
MATERIAL DATED:	Potassium/Argon Biotite				
LITHOLOGY:	Andesite				
	Tuff Breccia				
	Argillite Conglomerate				
	Quartz Diorite Porphy	/ / Diko			
HOSTROCK COMMENTS:	U.B.C. Geochronolog	/ Lab, 1972.			
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE:	Intermontane Stikine	Pluto	onic Rocks	PHYSIO	GRAPHIC AREA: Nechako Plateau
CAPSULE GEOLOGY					
	Lower Jura andesitic to rh	sic Hazeltor	Group volcanics	compri: argilli	sed of andesite, te and conglomer-
	ate dip gently	ortheast. 1	The volcanics are	intrude	ed by an Early
	dikes and quart	-hornblende-	biotite-feldspar	porphy	ry dikes. East of
	Hazelton Group.	The Takla r	cocks are comprise	ed of cl	nert, volcanic and
	The East Z	ne is charac	terized by a seri	les of (	copper showings in
	the Hazelton ro weak to intense	y bleached a	canics are typicand pyritic (2 to	4 per 0	akly propylitized, cent). Bleaching
	is a combination Fine to medium-	ı of argilliz Trained pyrit	ation and silicif e, chalcopyrite a	fication and magn	n of the rock. netite with minor
	hematite and spi disseminated in	alerite (?) the host roo	occur predominant k. A stockwork o	ly alou of mine	ng fractures or are ralized quartz-
	calcite veins a and chalcopyrit fractures.	d veinlets o mineralizat	crosscut the volca cion. Malachite s	anics an staining	nd host pyrite g occurs along
	EM OF 2001-03	07 3900 *5	031 9934		
	EMPR GEM *1971- EMPR MAP 69-1	75; *1972-39	95, Fig. 48; 1973-	-344; 19	974-261

EMPR OF 1996-29 EMPR PF (Thezar Claim Map, 1970's by Amax Exploration Inc.) GSC BULL 270 GSC MAP 671A GSC OF 351 Chevron File Placer Dome File EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/06 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 192</u>	NATIONAL MI	NERAL INVENTORY:	093L16 Cu3	
NAME(S):	CORTINA				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP:	093L16W		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 00 N 126 16 06 W 890 Metres Within 500M Centre of claims, located 9.7 kilometre Landing and 2.0 kilometres south of Fe	es west-southwest of Topley ulton Lake.	NORTHING: EASTING:	6074104 675659	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Disseminate Porphyry Igneous-co L04 Porphyry Cu ± Mo ± Au	ed ntact			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER	
Cenozoic			Babine Intrusions		
LITHOLOGY:	Andesite Flow Rhyolite Flow Tuff Flow Breccia Granodiorite Biotite Feldspar Porphyry Dike				
GEOLOGICAL SETTING	Intermontane	PHYSIOGRAP	HIC AREA <sup>.</sup> Nechako	Plateau	
METAMORPHIC TYPE:	Stikine Contact	RELATIONSHIP: Syn-mineralization	GRADE:		
CAPSULE GEOLOGY					
	Lower to Middle Jurassic Hazelton Group volcanics comprised mainly of andesitic to rhyolitic flows, tuff and breccia are intruded by a Cenozoic Babine Intrusion consisting of granodiorite and associated biotite-feldspar porphyry dikes. Chalcopyrite and pyrite occur as disseminations and as fracture fillings in the porphyry intrusion and marginal to the contact zone.				
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT *2974, 2975, EMPR GEM *1970-167; *1971- EMPR MAP 69-1 EMPR OF 1996-29 GSC BULL 270 GSC MAP 671A GSC OF *351 EMPR BULL 110	3542 183; *1972-Fig. 48			
DATE CODED: DATE REVISED:	1985/07/24 1987/07/08	CODED BY: GSB REVISED BY: LLD	F	TELD CHECK: N TELD CHECK: N	

MINFILE NUMBER:	<u>093L 193</u>		NATIONAL MINERAL INVENTORY	/: 093L9 Cu8	
NAME(S):	COUGAR				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L09W 093L09E		MINING DIVISION UTM ZONE	l: Omineca :: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 41 00 N 126 15 06 W 1006 Metres Within 500M Centre of claims, located near the ju Creeks, approximately 24 kilometres	nction of Tachek and Strimbo s north of Topley.	NORTHING EASTING	6063022 677166	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry Igneous-o L04 Porphyry Cu ± Mo ± Au	contact	L01 Subvolcanic Cu-Ag-Au	ı (As-Sb)	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic Jurassic	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAN Topley Intrusions	MORPHIC/OTHER	
LITHOLOGY:	Andesite Tuff Breccia Quartz Monzonite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechak	ko Plateau	
CAPSULE GEOLOGY Lower Jurassic Hazelton Group andesite, tuff and breccia of the Telkwa Formation are intruded by a Jurassic Topley Intrusion com- prised of quartz monzonite. Pyrite and minor chalcopyrite occur as disseminations throughout both rock types.					
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT 2972, 2973, EMPR GEM 1970-167; *1971- EMPR MAP 69-1 GSC BULL 270 GSC MAP 671A GSC OF *351 EMPR BULL 110	*3262 175; *1972-Fig. 48			
DATE CODED: DATE REVISED:	1985/07/24 1987/07/08	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093L 194</u>				NATION	AL MINERAL INVENTORY:	093L11 Cu5
NAME(S):	<u>Hos</u> , Jan Ho	WSAN					
STATUS: REGIONS: NTS MAP:	Showing British Columbi 093L11W	ia				MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 35 00 N 127 24 06 V 1219 Metres Within 500M Located on the southwest of T location from A	V V e west side Felkwa or 3 Assessmen	of Howson Cree 2 kilometres sou t Report 3583.	k valley, 25.8 kilomet ithwest of Smithers; t	res trench	NORTHING: EASTING:	6049601 603295
COMMODITIES:	Copper		Silver	Gold			
MINERALS							
SIGNIFICANT: ASSOCIATED:	Chalcocite Quartz	Bornite	Pyrite				
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Epidote Pyrite Unknown	Hematite	Malachite Epidote	Pyrite Oxidation			
DEPOSIT	Vain		Discontinuted				
CLASSIFICATION: TYPE:	Vein Hydrothermal L04 Porphy	yry Cu ± Mo	Disseminated		L01	Subvolcanic Cu-Ag-Au (	As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP		<u>F</u>			IGNEOUS/METAMO	ORPHIC/OTHER
			ľ	eikwa			
LITHOLOGY.	Andesite Flow Dacite Flow Rhyolite Basalt Flow Tuff Breccia						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine				PHYSIO	GRAPHIC AREA: Hazelton	Ranges
INVENTORY							
ORE ZONE:	SAMPLE			REPORT O	N: N		
	CATEGORY: SAMPLE TYPE COMMODITY Copper	Assay/a : Grab	Inalysis	YEA GRADE 3 2500 Per ce	R: 1972		
COMMENTS:	Selected samp	ple from py	rite zone also ho	sts traces of silver			
REFERENCE:	Assessment R	Report 3583	8.				
CAPSULE GEOLOGY				her Tarra Tarra			
	<pre>volcanics in the Telkwa Formation comprised of andesitic to dacitic flows, rhyolite, basalt flow, tuff and breccia. The volcanics have been intruded by tongues and dikes of porphyritic granodiorite and related granitic rocks ranging from Late Cretaceous to Eocene in age. Mineralization consists of numerous pyritic zones in the volcanics which host low values in gold, silver, and copper. A selected sample in 1972 assayed 3.25 per cent copper (Assessment Report 3583). Associated with the pyritic zones are felsite dikes which are fractured and mineralized with chalcocite, bornite, and secondary malachite. Also associated with the mineralization in the volcanics are veinlets and blebs of epidote, hematite, and quartz.</pre>						
BIBLIOGRAPHY	EMPR GEM 1 Empr agg p	972-418	3				
	EMPR MAP 6	.ri "358. 9-1	L. L				

GSC OF 351 GSC MAP 971A GSC P 44-23 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 EMPR OF 1989-16

DATE CODED: 1985/07/24 DATE REVISED: 1987/07/08 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 195</u>		NATIONAL MINI	ERAL INVENTORY:	093L5 Cu4
NAME(S):	KITNAYAKWA RIVER				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L05W			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 23 59 N 127 49 06 W 915 Metres Within 5 KM Location taken from GSC Map 2	278A.		Northing: Easting:	6028640 576712
COMMODITIES:	Copper Silve	r			
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Unknown Unspecified. Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L01 Subvolcanic Cu-Ag-Au	(As-Sb)	L04 Porpt	nyry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAM	ORPHIC/OTHER
Lower Jurassic Cretaceous	Hazelton	Undefined Formation		Unnamed/Unknow	n Informal
LITHOLOGY:	Andesite Rhyolite Tuff Tuff Breccia Granodiorite Quartz Feldspar Porphyry Dike				
HOSTROCK COMMENTS:	Granodiorite Intrusion.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPH	IC AREA: Hazelton	Ranges
CAPSULE GEOLOGY The copper-silver occurrence shown on Geological Survey of Canada Map 278A is underlain by Lower Jurassic Hazelton Group volcanics comprised of andesite, andesitic to rhyolitic tuff, flows and breccia. The Hazelton rocks are intruded by a Cretaceous granodiorite stock and associated quartz-feldspar porphyry dikes.					
BIBLIOGRAPHY	GSC OF 351 GSC MAP 278A GSC BULL 270				
DATE CODED: DATE REVISED:	1985/07/24 1987/07/08	CODED BY: GSB REVISED BY: LLD		F	TIELD CHECK: N

MINFILE NUMBER:	<u>093L 196</u>			NATIO	ONAL MINERAL INVENTORY:	093L12 Au1
NAME(S):	<b>PASS</b> , ZAP, KITCHENER, HELEN					
STATUS:	Prospect				MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L12E				UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 33 23 N 127 42 03 W 1463 Metres Within 500M Located on the south side of Smithers.	of Telkwa Pass,	42 kilometres	southwest	NORTHING: EASTING:	6046205 584018
COMMODITIES:	Lead	Zinc	Silve	ər	Gold	Copper
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Pyrite Galena Quartz Specularite	Sphalerite Magnetite	Chalcopyrit Tourmalii	ie ne		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallic veins	Hydrothermal Ag-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	<u> </u>	RMATION		IGNEOUS/METAM	ORPHIC/OTHER
Eocene	Tidzeiton	16	inwa		Nanika Intrusions	
LITHOLOGY:	Porphyritic Quartz Monzon Porphyritic Monzonite Monzodiorite Diorite Andesitic Dike Andesitic Rhyolitic Tuff Andesitic Rhyolitic Flow Andesitic Rhyolitic Breccia	ite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic	Rocks	PHYS	SIOGRAPHIC AREA: Hazeltor	n Ranges
INVENTORY						
ORE ZONE:	VEINS		REPO	ORT ON: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Lead Zinc	nalysis <u>(</u>	GRADE 71.9000 16.7000 0.2200 4.6000	YEAR: 1990 Grams per tor Grams per tor Per cent Per cent Per cent	) Ine Ine	
COMMENTS:	Highest values from a range exposed over 1.5 to 2 met Low values in the range w per tonne silver, 0.66 per c per cent copper.	ge of average ass res of true thickn ere 7.8 grams pe cent lead, 0.51 pe	say grades of ess from type r tonne gold, 3 r cent zinc an	material 1 veins. 32.2 grams d 0.04		
	Assessment Reput 20320	, paye a.				
CAPSULE GEOLOGY	At the Pass o veining in a quart Intrusions. The c breccias of the Lo occurs a short dis divided into two s diorites and 2) fe Numerous andesitic property lie along degrees northwest	ccurrence, m z monzonite ontact with wer Jurassic tance to the uites: 1) ma lsic porphyr dikes intru two average and 175 degr	ineralizat intrusion andesitic Telkwa Fo east. Th fic rich, itic monzo de suite I trends st ees dippir	tion is as of the Eo to rhyoli prmation ( he intrusi quartz-po pnites and L rocks. triking 02 ng 69 degr	sociated with quartz ocene Nanika tic tuff, flows and Hazelton Group) ve rocks can be or monzodiorites to l quartz monzonites. Faults on the 0 degrees dipping 42 cees southwest. The	2

PAGE: 339 REPORT: RGEN0100

### CAPSULE GEOLOGY

BIBLIOGRAPHY

former commonly displays mineralization comprising specularite-magnetite-pyrite and chalcopyrite. Quartz vening occurs along an approximately linear zone trending 035 to 215 degrees and is approximately 1000 metres long. Detailed mapping revealed five types of quartz veins. Type 1) quartz-sulphide veins hosted by porphyritic monzonite to quartz monzonite. Veins are from 1.5 to 2 metres wide displaying vertically zoned, banded sulphides of 10-15 per cent combined pyrite and galena with 5 per cent sphalerite and minor (1-2 per cent) chalcopyrite. Type 2) quartz-sulphide veins hosted by monzodiorite to diorite. Veins are from 1 to 1.5 metres wide displaying vertically zoned, weakly banded and disseminated sulphides of 5-7 per cent combined pyrite and galena, minor (1-2 per cent) sphalerite and trace (less than 1 per cent) chalcopyrite. Type 3) quartz-pyrite veins hosted by monzodiorite to diorite. Veins are from 1 to 2 metres wide and carry up to 5 per cent coarse, subhedral pyrite and minor (less than 2 per cent) galena and sphalerite as disseminations, pods and stringers. Type 4) barren quartz veins hosted by monzodiorite to diorite in contact with monzonite to quartz monzonite. Veins are 1 to 1.5 metres wide and milkly white. Type 5) quartz-pyrite-tourmaline veins hosted by monzodiorite to diorite in contact with monzonite to quartz monzonite. Veins are 1 to 1.5 metres wide and display vertically zoned mineralization with 1-4 per cent combined pyrite and tourmaline. Type 1 veins are the most significant as they yield the highest gold, silver, lead and zinc values. Type 2 veins yield moderate gold and silver values. The remaining types yield relatively low values. Average assay grades of material exposed over 1.5 to 2 metres of true thickness from type 1 veins have the following ranges (Assessment Report 20520, page 9): Gold 7.8 - 16.7 g/t Silver 32.2 - 71.9 g/t Lead 0.66 - 4.6 % Zinc 0.51 - 5.8 % Zinc 0.51 - 5.8 % Copper 0.04 - 0.22 % EMPR ASS RPT 2687, 19088, \*20520 EMPR AR 1909-85; 1911-115; 1914-228; 1925-138; 1929-171; 1931-74 EMPR GEM 1969-80; 1970-160 EMPR MAP 69-1 GSC MAP 278A GSC P 44-23 GSC OF 351

GSC BULL 270 EMPR OF 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1995/03/01 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093L 197</u>	NATI	ONAL MINERAL INVENTORY: 0	93L12 Ag1
NAME(S):	<u>SURPRISE</u> , GRANDVIEW, HATCH			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L12E		MINING DIVISION: ( UTM ZONE: (	Omineca )9 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 36 37 N 127 39 23 W 1737 Metres Within 1 KM		NORTHING: 6 EASTING: 5	6052254 586777
COMMODITIES:	Silver Lead	Gold	Copper	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Tetrahedrite Chalcop Pyrite Quartz Unknown	oyrite Arsenopyrite Si	lver	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrothermal 105 Polymetallic veins Ag-Pb-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Flow Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHY	SIOGRAPHIC AREA: Hazelton F	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Gold Copper Lead Selected sample of ore from Morning Star Minister of Mines Annual Report 1920, pa	YEAR: 192 <u>GRADE</u> 14.4000 Grams per tor 12.0000 Per cent 26.0000 Per cent claim. ige 91.	0 nne	
CAPSULE GEOLOGY	N number of months upin	- eren in the Tener	Tumpagia Herolton	
	A number of quartz vein Group rocks of the Telkwa Fo variegated red, green, maroo flows, and breccias. The ve 1.5 metres with flat dips. with galena, tetrahedrite, c Only small amounts of native The main vein varies fr east-west and dipping northw	s occur in the Lower rmation which is comp n to grey andesitic t ins have widths of a The veins are irregul halcopyrite, pyrite, silver occur in the om 0.3 to 0.9 metres ards at 33 degrees.	Jurassic Hazelton prised mainly of to rhyolitic tuffs, few centimetres to larly mineralized and arsenopyrite. high grade areas. in width, striking A sample across	

EMPR AR 1911-116; 1914-229; \*1920-91; \*1929-170; 1931-74 GSC MAP 278A W MINER, Feb. 1952, p. 46 EMPR MAP 69-1 GSC OF 351 GSC P 44-23 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 198</u>		NATIONA	L MINERAL INVENTORY: 093L13 Cu1
NAME(S):	<b>CARIBOU</b> , PTARMIGAN, CAR, C.P., AX 1-36			
STATUS: REGIONS: NTS MAD:	Showing British Columbia 093L13W 093L13E			MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 09 N 127 45 56 W 1067 Metres Within 5 KM Located 4.8 kilometres south of the juncti Zymoetz River, approximately 37 kilomet	ion of Coal Creek and the tres west of Smithers.	)	NORTHING: 6067949 EASTING: 579449
COMMODITIES:	Copper Silver			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Azurite Malachite Oxidation Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb)		D03	Volcanic redbed Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation		IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Flow Rhyolite Flow Tuff Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOC	GRAPHIC AREA: Hazelton Ranges
INVENTORY				
ORE ZONE:	TRENCH	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Copper 4.6 metre chip sample taken across a tre Minister of Mines Annual Report 1968, pa	YEAR: <u>GRADE</u> 17.1000 Grams p 0.1400 Per cent ench. age 124.	1968 Der tonne	
CAPSULE GEOLOGY		0		
	The claims are underlai volcanics comprised mainly o and breccia. Minor chalcopy and pink felsic volcanic flo mineralization has probably malachite and azurite occur In 1968, a chip sample gold nil, 17.1 grams per ton of Mines Annual Report 1968, There are several other this property. Also, to the pyrite, and bornite have bee breccias (See 093L 081).	n by Lower Jurass f pink rhyolitic rite occurs along ws near a contact been emplaced alo in the fractures. taken across a 4. ne silver, 0.14 p page 124). minor copper-sil east of the show n reported to occ	ic Haze flows, fractu with a fa 6 metre er cent ver sho ing, ch ur in c	elton Group andesite, tuff ares in the grey a mafic flow. The ault. Secondary e trench assayed t copper (Minister owings reported on nalcopyrite, quartz veins and
BIBLIOGRAPHY	EMPR AR 1968-124 GSC P 44-23 EMPR MAP 69-1 GSC OF 351			

GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/11 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 199</u>		NATIONAL MINERAL INVENTORY: (	093L9 Cu7
NAME(S):	TOTEM, TOPLEY, BABIN	E		
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L09E 093L16E		UTM ZONE: (	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 00 N 126 05 36 W 712 Metres Within 500M Located on the west shor Topley Landing or 64 kilo	re of Babine Lake, 4.8 kilometres sout metres east of Smithers.	NORTHING: 6 EASTING: 6	6070849 687063
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrrhoti Quartz Epidote Chlorite Epidote Unknown	te Pyrite Chloritic		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal L04 Porphyry Cu ± M Rhyolitic dike with disserr	Disseminated Porphyry o ± Au STRIKE/ ninated pyrite and magnetite.	/DIP: 015/80N TREND/PLUN	IGE:
HOST ROCK DOMINANT HOSTROCK	: Plutonic			
STRATIGRAPHIC AGE Eocene Jurassic	GROUP Undefined Group	FORMATION Buck Creek	IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Amygdaloidal Andesite Porphyritic Andesite Andesite Breccia Granodiorite Granite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako	Plateau
CAPSULE GEOLOGY				
	The claims and comprised of gran. The intrusive is a is crosscut by dil The dikes measure pyrite and minor to steeply to the non Eocene Buck ( The volcanics are andesite, andesite dark red, very mag crosscut by quart; Mineralizatio pyrite and pyrrho pyrite in the quart	re underlain by a Jurassic ite to granodiorite with a slightly epidotized and ch kes ranging in composition 0.9 to 3.7 metres in widt magnetite. They strike 01 rth. Creek volcanics overlie th comprised of amygdaloidal e, and breccia. The amygd gnetic and host calcite am z-epidote stringers. on in the granodiorite con tite disseminated in fract rtz veins.	Topley Intrusion ssociated quartz veining. loritized. The intrusive from basalt to rhyolite. h and host disseminated 0 to 020 degrees and dip e granodioritic stock. andesite, porphyritic aloidal rocks are black to hygdules. They are sists of traces of chalco-	
BIBLIOGRAPHY	EM OF 2001-03 EMPR AR 1968-133 EMPR ASS RPT *209 EMPR GEM 1969-117 EMPR MAP 69-1 EMPR OF 1996-29 GSC MAP 671A GSC OF 351 Falconbridge File	4, 2095, *2727 ; *1970-156		

EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/08 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 200</u>	NATIONA	L MINERAL INVENTORY: 093L15 Ag10
NAME(S):	<u>SILVER SADDLE,</u> CRONIN		
STATUS:	Showing		MINING DIVISION: Omineca
NTS MAP:	093L15W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 53 40 N 126 49 06 W 2027 Metres Within 1 KM Located on the east spur of Mount Hyla Creeks, 26 kilometres northeast of Smit	nd, between Higgins and Cronin hers.	NORTHING: 6085225 EASTING: 639913
COMMODITIES:	Copper Lead	Silver	Gold
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Galena Quartz Malachite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Epigenetic Hydrotherma I05 Polymetallic veins Ag-Pb-Zn±Au	I I STRIKE/DIP: 030/10	)n trend/plunge:
COMMENTS: HOST ROCK DOMINANT HOSTROCK:	Mineralized quartz vein. Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Tuff Breccia		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOG	RAPHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	VEIN	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Lead Selected sample of mineralized quartz v Minister of Mines Annual Report 1929, p	YEAR: 1929 <u>GRADE</u> 1200.0000 Grams per tonne 48.0000 Grams per tonne 0.5000 Per cent 20.0000 Per cent rein. pages 168-169.	
CAPSULE GEOLOGY			
	The showing is a quart Hazelton Group volcanics of of andesitic to rhyolitic f The mineralized quartz gently northeast. At 2,027 vein exposed quartz with ga A selected sample assayed 4 tonne silver, 0.5 per cent Mines Annual Report 1929, p A few other mineralized	z vein which crosscuts Lo the Telkwa Formation whi lows, tuff and breccia. vein strikes 030 degrees metres in elevation, an lena, chalcopyrite and ma 8 grams per tonne gold, 1 copper and 20 per cent le age 167). d quartz veins outcrop on	wer Jurassic ch is comprised and dips open cut in the lachite staining. ,200 grams per ad (Minister of this property.
BIBLIOGRAPHY	EMPR AR 1925-138; *1926-132 EMPR MAP 69-1 EMPR FIELDWORK 1987, pp. 18 GSC MAP 671A; 2048 GSC OF 351 GSC SUM RPT 1924A	,134; *1929-167,168; 1930 1-193; 1988, pp. 195-208;	-141 1991, pp. 93-101

GSC BULL 270 EMR MP CORPFILE (Sproatt Silver Mines Ltd.)

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/07 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 201</u>					NATIONAL M	INERAL INVENTORY:	093L15 Ag3
NAME(S):	<u>silver king</u> , s skookum, elk	ILVER KINC	G MINE, LA MA	RR,				
STATUS:	Past Producer				Undergro	und	MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	093L15W						UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 54 50 N 126 52 56 W 1524 Metres Within 500M Location of Silve kilometres porthe	r King #2 c	laim at the he	ad of Driftv	vood Cree	k, 24	NORTHING: EASTING:	6087262 635751
COMMODITIES:	Silver		_ead		Zinc		Copper	Gold
SIGNIFICANT:	Galena S	Sphalerite	Chalcopy	rite P	/rite	Tetrahedrite		
ASSOCIATED:	Copper Quartz C	Carbonate						
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Limonite C Chloritic Unknown	Chlorite (	Carbonate		Oxidatio	n		
DEPOSIT								
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic 105 Polymeta	l allic veins /	⊣ydrothermal \g-Pb-Zn±Au					
DIMENSION: COMMENTS:	Adit follows mine	eralized qu	artz veins alo	ng shears.	STRIKE	/DIP: 120/50N	TREND/PLU	NGE:
HOST ROCK								
DOMINANT HOSTROCK:	Volcanic							
STRATIGRAPHIC AGE	<u>GROUP</u> Kasalka			FORMATIC Undefined	<u>)N</u> Formation		IGNEOUS/METAM	ORPHIC/OTHER
	Tuff							
LIHOLOGT.	Rhyolite Tuff Andesite Flow Dacitic Flow Breccia							
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional		DI			PHYSIOGRA	PHIC AREA: Skeena	Ranges
	Regional		11		III. Oyn n	interailzation	GIVIDE.	
INVENIORY								
ORE ZONE:	DRILLHOLE				REPORT	ON: N		
	CATEGORY: SAMPLE TYPE: COMMODITY	Assay/ana Drill Core	alysis	GRADE	YE	AR: 1981		
REFERENCE	Gold Assessment Rer	ort 10637		1.3700	Grar	ns per tonne		
CAPSULE GEOLOGY	The cla	aims are	underlai	n by Upp	per Cret	aceous Kasa	lka Group	
	volcanics c breccia whic The mineral: porphyritic A major steeply east mineralized	omprised ch have ized she to weak r fault t. This shear a	l of varice been subje ars are he tly foliate along Dri fault pos	olored p ected to osted by ed rhyo ftwood ( stdates	porphyr: p intens y green litic tu Creek st the min	itic tuffs, se thrusting to cream co uff which di crikes north meralization	flows and and faulting. lored, weakly ps southeast. and dips as it displace	s
	The min shear zones to 130 degre occur as dis	neraliza which s ees and scontinu	tion occu strike eas dips 45 to lous string	rs along t and d o 60 deg gers and	g quart: ip 45 to grees no d lentio	z veins and o 70 degrees ortheast. T cular masses	associated north. An adi he quartz veins of shattered	t

quartz ranging in width from 2.5 centimetres to 1.8 metres and con-tain variable amounts of galena, sphalerite, chalcopyrite, pyrite, tetrahedrite and minor native copper. Another set of parallel quartz and quartz-carbonate veins dip southwest. They host fine-grained pyrite, chalcopyrite and tetrahed-

BIBLIOGRAPHY

rite. Also found were limonitic pseudomorphs of pyrite, galena and sphalerite. There is abundant disseminated pyrite along foliation shears. The 1981 drill assays ranged from 0.069 to 1.37 grams per tonne gold and 0.343 to 3.428 grams per tonne silver (Assessment Report 10637). Between 1917 to 1927, 12 tonnes of ore were mined and produced 62 grams of gold, 41,865 grams of silver, 107 kilograms of copper, 3,490 kilograms of lead and 348 kilograms of zinc. In 1937 a shipment of 8837 kilograms of sorted ore was shipped to the Dept. of Mines Sampling Plant at Prince Rupert. This ore assayed 10.6 grams per tonne gold, 2417 grams per tonne silver, 1.2 per cent copper, 3.6 per cent lead and 2.7 per cent zinc. EMPR AR 1917-106; 1919-103; 1920-89; 1921-103; 1922-107; 1923-111; 1924-97; 1925-137; 1926-132; 1927-119; 1928-167; 1929-165; 1930-141; 1931-73; \*1937-C16; 1939-70; 1940-55; 1941-44; \*1946-87 EMPR MAP 69-1 EMPR EXPL \*1982-312 EMPR ASS RPT \*10637 EMPR FIELDWORK, \*1987, p. 190; 1988, pp. 195-208; 1991, pp. 93-101 GSC BULL 270 GSC SUM RPT \*1924A, p. 35 GSC P \*40-18, p. 6 GSC OF 351 GSC MAP 671A, 971A, 2048 EMR MP CORFFILE (Babine Silver King Mining Company) GCNL #164, 1983; #199,#238, 1985; #7, 1986

DATE CODED: 1985/07/24 DATE REVISED: 1988/01/20

IPDM Feb/Mar,Nov,Dec, 1985

CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 202</u>			NATIONA	L MINERAL INVENTORY:	093L7 Cu3
NAME(S):	<u>SHOLTO,</u> MOUND, RAVE VAN	N,				
STATUS:	Showing				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L07W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 17 00 N 126 48 06 W 1069 Metres Within 500M Located on the west flank of Houston.	s of Morice Mountai	n, 15 kilometres	s southwest	NORTHING: EASTING:	6017276 643108
COMMODITIES:	Copper	Gold	Silver			
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Calcite Epidote Garnet Skarn Unknown	Actinolite Epidote	Tremolite	Malachite		
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal K01 Cu skarn	Skarn		L01	Subvolcanic Cu-Ag-Au (	As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP		RMATION		IGNEOUS/METAMO	ORPHIC/OTHER
Eocene	Hazellon	Ter	ĸwa		Nanika Intrusions	
LITHOLOGY:	Hornfels Basalt Basalt Limestone Hornfels Tuff Rhyolite Breccia Quartz Monzonite Felsite					
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane			PHYSIOG	RAPHIC AREA: Nechako	Plateau
TERRANE: METAMORPHIC TYPE:	Stikine Contact	Plutonic I RELA	Rocks TIONSHIP: Syn-	-mineralization	GRADE: Hornfels	
INVENTORY						
ORE ZONE:	SAMPLE		REPOR <sup>-</sup>	TON: N		
COMMENTS	CATEGORY: Assay/a SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Mineralized limestone wit	nalysis <u>G</u>	YI RADE 1.7100 Gra 1.0300 Gra 4.9000 Per	EAR: 1930 ams per tonne ams per tonne r cent		
REFERENCE:	Minister of Mines Annual	Report 1930, page	142.			
CAPSULE GEOLOGY	The Morice Mo Hazelton Group vol intruded by plugs composed primarily rhyolitic composit composed of quarts porphyritic. The Sholto sh	ountain area i lcanics of the of Nanika Int y of breccia, zion while the z monzonite an nowing is desc	s underlain Telkwa For Tusions. T tuff, and f Cocene Nar d felsite v cribed as th	h by the Lo rmation whi The Telkwa flows of ba hika Intrus which are i he Upper sh	wer Jurassic ch have been Formation is saltic to ions are n part cowing, and is	

located at elevation 1069 metres. Chalcopyrite, pyrite, and malachite occurs with epidote in black hornfelsed basalt with thin intercalated dark grey limestone striking 027 degrees and dipping steeply southeast. A 25 metre trench exposed irregular clots of

chalcopyrite in the hornfelsed volcanics. Skarn alteration consists of calc-silicates, epidote, garnet, tremolite, and actinolite with minor coarse calcite. The epidote occurs as ovoids or is massive near the mineralization. In 1930, a selected sample of a mineralized chalcopyrite seam in the limestone assayed 1.03 grams per tonne gold, 61.71 grams per tonne silver, and 4.9 per cent copper (Minister of Mines Annual Report 1930, page 142).

#### BIBLIOGRAPHY

EMPR ASS RPT 797, 2844, 6311, \*10563, \*15259 EMPR AR 1930-142,143; 1931-74; 1932-85; 1966-103 EMPR GEM 1970-155; 1977-E193 EMPR EXPL \*1982-310; \*1986-354 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/13 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 203</u>			NATIONA	L MINERAL INVENTOR	Y: 093L7 Cu8
NAME(S):	HARRY DAVIS, CUP, HD HILLTOP 11, LEADER, DE GROUSE, H.D., BASELINE TOWER, ZONE	1-4, LTA, <u>,</u>				
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093L07E				MINING DIVISION UTM ZONE	I: Omineca E: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 27 30 N 126 39 36 W 1080 Metres Within 1 KM Showings on HD 1 to 4 a on Mount Harry Davis. S Bob (093L 214).	re located 7.0 kilometre ee also Ed (093L 204),	es north of Houst Hilltop (093L 205	on 5) and	NORTHING EASTING	G: 6037039 G: 651682
COMMODITIES:	Zinc Cadmium	Lead Bismuth	Copper Antimony		Silver	Gold
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Quartz Calcite Malachite Azurite Silicific'n Unknown	Chalcocite Fluorite Sericite Carbonate	Chalcopyrite Sericitic	Bornite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu- G06 Noranda/Kuroko	Disseminated Hydrothermal Ag-Au (As-Sb) nassive sulphide Cu-P	b-Zn	105	Polymetallic veins Ag-F	Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORM</u> Telkw	ATION a		IGNEOUS/METAI	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY:	GROUP Hazelton Vesicular Basalt Crystal Tuff Lithic Tuff Basalt Breccia Rhyolite Limestone Greywacke Argillite Chert	FORM Telkw	ATION a		<u>IGNEOUS/METAI</u>	Morphic/other
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Hazelton Vesicular Basalt Crystal Tuff Lithic Tuff Basalt Breccia Rhyolite Limestone Greywacke Argillite Chert Intermontane Stikine	F <u>ORM</u> Telkw	ATION a	PHYSIOC	IGNEOUS/METAI	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	GROUP Hazelton Vesicular Basalt Crystal Tuff Lithic Tuff Basalt Breccia Rhyolite Limestone Greywacke Argillite Chert Intermontane Stikine	<u>FORM</u> Telkw	ATION a	PHYSIOC	IGNEOUS/METAI	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Hazelton Vesicular Basalt Crystal Tuff Basalt Breccia Rhyolite Limestone Greywacke Argillite Chert Intermontane Stikine VEIN CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver Gold Cadmium Lead Antimony	nalysis <u>GRA</u> 0.1 0.1 0.0 0.0	ATION a REPORT ON YEAR DE D000 Grams 400 Grams 800 Per cen 000 Per cen 000 Per cen	PHYSIOC N 1985 Per tonne per tonne tt	<u>IGNEOUS/METAI</u> GRAPHIC AREA: Nechal	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Jurassic LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	GROUP Hazelton Vesicular Basalt Crystal Tuff Lithic Tuff Basalt Breccia Rhyolite Limestone Greywacke Argillite Chert Intermontane Stikine VEIN CATEGORY: Assay/a SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Cadmium Lead Antimony Zinc Sample taken across a q Bismuth, grading 0.04 pe Assessment Report 1415	Inalysis GRAU 59.0 0.1 0.1 0.1 0.1 0.28.0 uartz-carbonate vein. r cent. 7.	ATION a REPORT ON YEAR DE 0000 Grams 400 Grams 800 Per cen 000 Per cen 600 Per cen 600 Per cen 600 Per cen Also contains	PHYSIOG I: N I: 1985 Per tonne per tonne it it	IGNEOUSMETAI	MORPHIC/OTHER

series of copper, zinc and cadmium showings on Mount Harry Davis, 5 kilometres north of Houston. The showings span a 4-kilometre strike length from the southern base to the top of the mountain. They are

PAGE: 353 REPORT: RGEN0100

## CAPSULE GEOLOGY

accessed by a dirt road which services four communication towers on the mountain. Prospecting of showings on Mount Harry Davis dates from the 1920s. More recent exploration was conducted by Placer Development Ltd. (1981-1982), Eldor Resources Ltd. (1985), Equity Silver Mines Ltd. (1988) and Teck Corp. (1993). In 1998, property owners Wesley Moll and Dan Merkley drilled one core hole.

The property is underlain by Lower Jurassic Hazelton Group volcanics of the Telkwa Formation. The rocks are comprised of a series of subaqueous pyroclastic flows and breccias, reworked tuffs, and volcaniclastic sediments which indicate a subaqueous depositional environment. Locally the rocks are comprised of calc-alkaline basalt to rhyolite flows, tuffs, and breccia with minor interbedded limestone, greywacke, argillite, chert, and shale. Mineralization consists primarily of fracture controlled copper,

Mineralization consists primarily of fracture controlled copper, silver, and arsenic. On the property, in the Switchback area, zinc occurs in silicified pyroclastics and rhyolite. Sphalerite occurs as disseminated, ragged grains rimmed by sericite in thin carbonate veinlets.

North of the peak of Mount Harry Davis, the Baseline showings consist of 28 per cent zinc occurring as thin fracture coatings or disseminated in large calcite veins. In 1985, a sample across a quartz-carbonate vein from the Baseline showings assayed 0.14 grams per tonne gold, 59 grams per tonne silver, 28 per cent zinc, 2 per cent lead, 0.18 per cent cadmium, 0.06 per cent tin, and 0.04 per cent bismuth (Assessment Report 14157).

The major occurrences consist of epigenetic zinc in quartzcarbonate veins or as disseminated sphalerite, related to the silicification of felsic pyroclastics and tectonic breccia with later stage carbonate alteration. Chalcopyrite, galena, and minor bornite grains are disseminated and fill hairline fractures in a light grey lithic tuff. Also, chalcopyrite, bornite, azurite, malachite, and fluorite occur in hairline fractures with minor sphalerite and galena in a massive, white to buff coloured pumaceous tuff. Minor sphalerite is randomly disseminated throughout a grey-green crystal tuff.

Syngenetic zinc and fluorite occur in the Hilltop showing (093L 205) in chert. This deposit is discordantly crosscut by quartz or quartz-calcite veinlets with or without sphalerite. See also Ed (093L 204) and Barb (093L 214).

#### BIBLIOGRAPHY

EMPR AR 1918-127; 1925-141; 1927-139; \*1929-176; 1930-143; 1931-74; 1967-108 EMPR ASS RPT \*9849, \*10796, \*14157, 18360, 18864, 18911, 23232 EMPR EXPL \*1977-E194; \*1979-227; \*1981-135; 1982-308; \*1985-C311; \*1998-C-1-C-13 EMPR FIELDWORK 1977, P1978-1, p. 66 EMPR GEOLOGY 1977-1981, pp. 122-123,Fig. 39 EMPR MAP 69-1 EMPR OF 1994-14 EMR MP CORPFILE (Molymine Explorations Ltd.) GSC BULL 270 GSC MAP 278A, 671A GSC OF 351 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 204</u>	NATIONA	AL MINERAL INVENTORY: 093L7 Cu7
NAME(S):	ED, WESTGARDE, SWITCHBACK, WAVE, HARRY DAVIS, HD, H.D.		
STATUS:	Showing		MINING DIVISION: Omineca
NTS MAP:	093L07E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 26 00 N 126 38 46 W 793 Metres Within 500M Showing on ED 13, located 168 m of Lot 3448, approximately 2.4 kilou Harry Davis (093L 203), Hilltop (09	etres northwest of the northeast corner metres north of Houston. See also 3L 205) and Barb (093L 214).	NORTHING: 6034288 EASTING: 652676
COMMODITIES:	Copper Silver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Bornite Calcite Malachite Chlorite Unknown		
DEPOSIT	Vein Breccia	Disseminated	
CLASSIFICATION: TYPE:	Hydrothermal L01 Subvolcanic Cu-Ag-Au (As	s-Sb) D03	Volcanic redbed Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Basalt Dacite Tuffaceous Breccia Crystal Tuff Lithic Tuff Breccia Felsic Pyroclastic		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYSIOC	GRAPHIC AREA: Nechako Plateau
TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Syn-mineralization	GRADE:
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Copper 44 metre chip sample taken near th Geology, Exploration and Mining 19	YEAR: 1970 <u>GRADE</u> 113.0000 Grams per tonne 0.9600 Per cent ne Westgarde excavation. 970, pages 151-154.	
CAPSULE GEOLOGY	The Harry Davis pro	nerty is underlain by Lower	Jurassic Hazelton
	Group volcanics (Telkwa of amygdaloidal basalt, tuff, crystal tuff, lith	Formation). They are comprimaroon to green andesite, to ic tuff, and breccia. Bedro	ised of a sequence uff, rhyolitic ock exposures

consist of dark brown basalt with minor breccia and maroon dacitic tuff breccias which have undergone low grade regional metamorphism. The main zone of mineralization is in basalt near the Westgarde excavation. Chip samples over 44 metres in 1970 assart hear the westgar excavation. Chip samples over 44 metres in 1970 assayed 0.96 per cent copper and 113 grams per tonne silver (Geology, Exploration and Mining 1970, page 151). Maroon dacitic tuff breccia is in fault contact with the basalt. The tuff assayed 0.004 per cent copper, and no silver. Malachite stained grab samples from the maroon dacite exposure

assayed 1.44 per cent copper and 137 grams per tonne silver (Geology,

Exploration and Mining 1970, page 151).
 Polished slabs of mineralized basalt showed numerous subparallel hairline cracks filled with chalcopyrite and calcite and
in other samples, blebs of bornite, chalcopyrite, and chlorite
found as filling and replacing small amygdules.
 The main fracture system strikes 015 degrees and dips 70
degrees northwest with a weaker system striking 125 degrees and
dipping 45 degrees southwest. The north direction is thought to be
parallel with faulting in the area.
 See also Harry Davis (093L 203), Hilltop (093L 205) and
Barb (093L 214).

### BIBLIOGRAPHY

EMPR AR 1967-108 EMPR ASS RPT \*10796 EMPR EXPL \*1982-308; 1998-C1-C13 EMPR GEM \*1969-121, \*1970-151-154,\*Fig. 18 EMPR MAP 69-1 GSC BULL 270 GSC MAP 671A GSC OF 351 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 205</u>	NATIONAL MINERAL INVENTORY: 093L7 Cu8				
NAME(S):	HILLTOP 11, HD, CUP, LEADER, GROUSE, HARRY DAVIS, H.D.					
STATUS: REGIONS:	Showing British Columbia	MINING DIVISION: Omineca				
BC MAP:						
LATITODE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 27 00 N 126 39 06 W 1243 Metres Within 500M Showing located on Mt. Harry Davis between the CN Radio To BC Tel Microwave Tower, 6.4 kilometres north of Houston. Hil part of the Harry Davis (093L 203). See also Ed (093L 204) an (093L 214).	EASTING: 6036130 EASTING: 652253 bwer and the ltop is nd Barb				
COMMODITIES:	Zinc Lead Copper	Cadmium				
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Chalcopyrite Bornite Fluorite Quartz Carbonate Malachite Greenockite Carbonate Unknown					
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Syngenetic G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn	L01 Subvolcanic Cu-Ag-Au (As-Sb)				
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUPFORMATIONHazeltonTelkwa	IGNEOUS/METAMORPHIC/OTHER				
LITHOLOGY:	Chert Basalt Tuff Rhyolite Lithic Tuff Crystal Tuff Breccia Limestone Greywacke Argillite					
HOSTROCK COMMENTS:	Additional lithology includes felsic pyroclastics.					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC AREA: Nechako Plateau				
CAPSULE GEOLOGY						
	GEOLOGY The Hilltop 11 claim is underlain by Lower Jurassic Hazelton Group rocks (Telkwa Formation). The rocks are comprised of a series of subaqueous pyroclastic flows and breccias, reworked tuffs and volcaniclastic sediments. Locally, calc-alkaline basalt to rhyolite flows, tuffs, and breccia occur with interbedded limestone, greywacke, argillite, chert, and shale. The Hilltop showing is described as a syngenetic deposit in a northeast striking, west dipping chert. Honey brown coloured sphalerite occurs in globules with cadmium and fluorite inclusions. Cadmium occurs as stains or coatings where the sphalerite grains are present. Chalcopyrite, galena, and minor bornite grains occur as disseminations or as infillings in hairline cracks with secondary malachite along fractures. Epigenetic zinc occurs in quartz-carbonate veins or as disseminated sphalerite related to the silicification of felsic pyroclastics and tectonic breccia with later carbonate alteration. These occurrences are described in the Harry Davis prospect (093L 203). See also Ed (093L 204) and Barb (093L 214).					
BIBLIOGRAPHY	EMPR AR 1918-127; 1925-141; 1927-139; *1929	9-176; 1930-143; 1931-				

74; 1967-108 EMPR ASS RPT \*9849, \*10796, \*14157, 18360, 18864, 18911, 23232 EMPR EXPL 1977-E194; 1979-227; 1981-135; 1982-308; \*1985-C311; 1998-C1-C13 EMPR FIELDWORK 1977, p. 66 EMPR GEOLOGY 1977-1981, pp. 122-123,Fig. 39 EMPR MAP 69-1 EMPR OF 1999-2; 1994-14 EMR MP CORPFILE (Molymine Explorations Ltd.) GSC BULL 270 GSC MAP 278A, 671A GSC OF 351 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 206</u>			N	ATIONAL MI	NERAL INVENTORY:	093L10 Ag4
NAME(S):	JOE B						
STATUS:	Showing					MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093L10E					UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 32 00 N 126 39 06 W 1055 Metres Within 1 KM Located on the southeasterly s elevation, approximately 26 kilk from Minister of Mines Annual	slopes of Gro lometres sout Report 1928,	use Moun heast of T page 169	tain at 1055 m elkwa. Locatio	etres on	NORTHING: EASTING:	6045400 651944
COMMODITIES:	Copper Silve	/er					
MINERALS							
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Quartz Malachite Clay Argillic Chlo Unknown	Sericite oritic	Mica	Epidote Sericitic		Epidote	
	Voin						
CLASSIFICATION: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Epigenetic Hyd 105 Polymetallic veins Ag-F Mineralized guartz vein.	drothermal Pb-Zn±Au		STRIKE/DIP:	355/20E	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP	<u>F(</u>		N		IGNEOUS/METAMO	ORPHIC/OTHER
		16	eikwa				
LITHOLOGY:	Tuff Andesite Flow Lapilli Tuff Dacite Flow Greywacke Argillite Feldspar Porphyry Dike Lamprophyre Dike						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			P	HYSIOGRAF	PHIC AREA: Nechako	Plateau
INVENTORY							
ORE ZONE:	SAMPLE			REPORT ON: N	1		
	CATEGORY: Assay/analys SAMPLE TYPE: Chip COMMODITY	sis (	GRADE	YEAR: 1	928		
COMMENTS: REFERENCE:	Silver Copper Sample taken across 22.9 cen Minister of Mines Annual Repo	ntimetres, also ort 1928, page	548.5600 0.7000 o assayed e 169.	Grams per Per cent trace gold.	tonne		
CAPSULE GEOLOGY							
	The showing is u (Telkwa Formation) co marcon tuff overlain greywacke and argilli marcon and are fine-g These are overlain by The volcanics ar minerals with less co	inderlain omprised m by a sequ ite. The grained, t / massive ce altered ommon, epi	by Low mainly of tuffs : thinly dark g: dark g: dote.	er Jurassic of a unifon f tuff, lap range from oedded, lan reen andesi ng mica, ch	Hazelto cm, fine- billi tuf dark gree ninated o itic to o nlorite,	on volcanics grained if, tuffaceous by to green to or massive. lacitic flows. and clay	

The Hazelton rocks are intruded by a series of feldspar porphyry dikes trending north-northwest and west ranging between 30 to 70 metres in width. Basic lamprophyre dikes also crosscut the volcanics.

The Joe B showing consists of a 22.9 centimetre wide quartz vein striking 355 degrees and dipping 20 degrees southeast. The vein is

mineralized with tetrahedrite and secondary malachite. In 1928, a sample across 22.9 centimetres assayed trace gold, 548.56 grams per tonne silver and 0.7 per cent copper (Minister of Mines Annual Report 1928, page 169).

### BIBLIOGRAPHY

EMPR AR 1926-135; \*1928-169,170 EMPR MAP 69-1 GSC MAP 278A, 671A GSC OF 351 EMPR FIELDWORK 1988, pp. 195-208 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/11 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 207</u>		I	NATIONAL MINE	ERAL INVENTORY:	
NAME(S):	<u>HAG</u> , RED, TREK					
STATUS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP:	093L16E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 59 00 N 126 07 36 W 900 Metres Within 500M Located on the east side of Hawthorne Bay (1.0 kilom kilometres porth of Topley	of Babine Lake, 2.6 kilo hetres north of 093L 20 Landing	metres north of 08 - Trek) 19		NORTHING: EASTING:	6096714 683853
COMMODITIES.	Copper	Lead	Zinc			
	Соррсі	Lodu	Zine			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Quartz Carbonate Silicific'n Unknown	Chalcopyrite Carbonate	Pyrite			
	Main	Maasiya				
CLASSIFICATION:	Hydrothermal	Massive				
TYPE: DIMENSION: COMMENTS	I05 Polymetallic veins	s Ag-Pb-Zn±Au zed quartz-carbonate v	STRIKE/DIP	: 074/75N	TREND/PLU	NGE:
DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMA</u> Telkwa	ATION a		IGNEOUS/METAMO	DRPHIC/OTHER
Eocene					Dabine muusions	
LITHOLOGY:	Andesite Tuff Breccia Greywacke Siltstone Graphitic Shale Porphyritic Granodiorite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Roc	ks	PHYSIOGRAPH	IC AREA: Nechako	Plateau
CAPSULE GEOLOGY						
	The area is u Formation volcanic with intercalated volcanics are intr porphyritic grand overlain by interb Group. The showing of hosting galena, sp crosscuts the Haze 75 degrees northeas occurrence.	anderlain by Low es comprised of a greywacke, argi uded by an Eocer ilorite. The Ha bedded sandstone consists of a 0 bhalerite, chalc elton rocks. The st. The occurre of the Trek (	er Jurassic H andesitic flo llite, and go ne Babine Int zelton rocks , shale and r 3 metre wide opyrite and r e vein strike ence is in a 093L 208) mas	Hazelton Grows, tuffs, raphitic sh. trusion com are unconf. mudstone of quartz-car minor pyrit es 074 degr greywacke ssive bande	oup, Telkwa and breccia ale. The prised of ormably the Sustut bonate vein e which ees and dips exposed 1.0 d pyrrhotite	
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT *893, EMPR BULL 64, Fig. EMPR EXPL *1986-36 EMPR GEM 1966-95; EMPR MAP 69-1 EMPR OF 1996-29 EMR MP CORPFILE (E GSC MAP 671A GSC OF 351 Placer Dome File	*4189, 14093, 8, 26 51; 1988-C174 *1967-107; 1972 Bethex Exploratio	*14778, 1719( -426 ons Ltd.)	0		
EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/20 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 208</u>				NATIONAL MINERAL IN	IVENTORY: 093L1	6 Pyr1
NAME(S):	<u>trek</u> , hag, rei	C					
STATUS:	Showing				MINING	3 DIVISION: Omine	eca
NTS MAP:	093L16E				1	UTM ZONE: 09 (N	IAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 58 40 N 126 07 36 W 732 Metres Within 500M Located on the e Hawthorne Bay,	east side of Bab 18.3 kilometres	ine Lake, 1 due north	I.6 kilometres north of of Topley Landing.	I	NORTHING: 60960 EASTING: 68387	96 8
COMMODITIES:	Copper	Lead		Zinc			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Pyrrhotite ( Unknown	Chalcopyrite	Pyrite	Magnetite			
DEPOSIT	Maaaiya	Vain		Disseminat	d Ctrotifor	~	
CLASSIFICATION: TYPE:	Hydrothermal G04 Besshi n	nassive sulphid	e Cu-Zn	Disseminat	Suamon	п	
HOST ROCK							
DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton		- F	<u>ORMATION</u> Telkwa	IGNEC	<u>US/METAMORPHIC</u>	C/OTHER
Eocene					Babine	Intrusions	
	Basalt Tuff Greywacke Breccia Argillite Graphitic Shale Porphyritic Gran	odiorite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		Pluton	ic Rocks	PHYSIOGRAPHIC ARE	A: Nechako Platea	u
CAPSULE GEOLOGY							
	The cla Telkwa Forma and tuff wi The volcani. of porphyri overlain by Group. Drillin underlain by andesites and sections of banded pyrri graphitic za the host roo Sulphic magnetite in filling pyr. In 1960 occurring in chalcopyrite east, and oo the northwas A basin	aims are un ation volca th intercal cs are intr tic granodi interbedde ng near the y an interb nd black ar up to 1.5 hotite, pyr ones. Band ck. de minerali n the Hazel ite and pyr 6, Bethex r n the Hazel e. The vei ccurs in a st corner c c dike was n addition	derlain nics co ated gr uded by orite. d sands ecentra edded s gillace metres ite wit ling app zation ton roc rhotite greywac f the R seen to to the	by Lower Juras: mprised of ande: eywacke, argill: an Eocene Babin The Hazelton ro tone, shale and l part of the pr equence of mode: ous, locally gra of disseminated h minor chalcopy ears to be confo also consists of ks with minor d in graphitic so a 0.3 metre qua ks hosting gales es 074 degrees of ke exposed 1.0 J ed 2 claim (HAG cut the stringo	sic Hazelton Grou sitic to basaltic ite and graphitic he Intrusion comp pocks are unconfor mudstone of the coperty indicated cately dipping, f aphitic sediments , stringer and ma yrite were found ormable with laye E disseminated and f ections. artz-carbonate ve ha, sphalerite an dipping 75 degree cilometre northea 093L 207). er and massive ba c-mineral shearin	<pre>p, flows shale. rised mably Sustut it is ragmental . Inter- ssive in the ring in rite with racture in d s north- st of nded g and</pre>	
	narrow carbo	onate fille	d fract	ures. Also, nor	th of the claims	a	

narrow carbonate filled fractures. Also, north of the claims a medium-grained diorite with lesser hornblende porphyry were noted cutting interbedded andesite tuff and argillaceous siltstone with some banded greywacke.

EM OF 2001-03 EMPR ASS RPT \*893, \*4189, 14093, \*14778, 17190 EMPR BULL 64, Fig. 8, 26 EMPR EXPL \*1986-361; 1988-C174 EMPR GEM 1966-95; \*1967-102; 1972-426 EMPR MAP 69-1 EMPR OF 1996-29; 1999-2 EMPR PF (Miscellaneous maps; Map of Trek Group Drillhole Locations (1967) by Bethex Exploration Ltd.) EMR MP CORPFILE (Bethex Explorations Ltd.) GSC BULL 270 GSC MAP 671A GSC OF 351 Placer Dome File EMPR BULL 110 COPED PY: GSP

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/16 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 209</u>			NATIONAL MINE	RAL INVENTORY:	
NAME(S):	MAG, STHUF					
STATUS: REGIONS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L16E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 58 12 N 126 08 01 W Metres Within 1 KM The claims lie north of Hay	vthorne Bav on the	east side of Babine	3	NORTHING: EASTING:	6095212 683469
	Lake.					
COMMODITIES:	Copper	Lead	Zinc			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Calcite Unknown	Chalcopyrite	Pyrite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallic veins	Disseminated Hydrothermal Ag-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE Lower Jurassic Eocene	GROUP Hazelton	<u>FOR</u> Tell	RMATION kwa		IGNEOUS/METAM Babine Intrusions	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Breccia Argillite Greywacke Shale Porphyritic Granodiorite Biotite Feldspar Porphyry Biotite Feldspar Porphyry	Dike				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic F	Rocks	PHYSIOGRAPHI	CAREA: Nechako	o Plateau
CAPSULE GEOLOGY						
	The claims are underlain by Lower Jurassic Hazelton Group, Telkwa Formation rocks comprised of andesitic tuff and breccia with interbedded argillite, greywacke and shale. The volcanics are intruded by an Eocene Babine Intrusive which consists of a northeast extension of a biotite-feldspar porphyry dike. This dike occurs in the southern part of the Granisle Copper Ltd. property. The interbedded argillites and greywackes strike north and dip to the west at moderate angles. Locally, a 0.3 metre wide calcite vein containing disseminated galena and sphalerite with minor chalcopyrite and pyrite follows a west trending shear zone. Disseminated pyrite, accompanied by iron staining, occurs in the argillites and greywackes adjacent to the					
BIBLIOGRAPHY	EM OF 2001-03 EMPR AR *1965-103; EMPR BULL 64 EMPR MAP 69-1 EMPR OF 1996-29 GSC BULL 270 GSC MAP 671A GSC OF 351 EMPR BULL 110	1967-105; 19	68-134			
DATE CODED: DATE REVISED:	1985/07/24 1988/08/04	CODE REVIS	D BY: GSB ED BY: LLD		F	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 210</u>	NATIONA	AL MINERAL INVENTORY:	093L9 Cu6	
NAME(S):	RED				
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP:	093L09E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 00 N 126 03 06 W 830 Metres Within 1 KM Located on the southwest side of Ba east of Topley Landing.	bine Lake, 10.5 kilometres south-	NORTHING: EASTING:	6069107 689821	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Chlorite Epidote Chloritic Epidote Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L04 Porphyry Cu ± Mo ± Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION Buck Crook	IGNEOUS/METAM	ORPHIC/OTHER	
Jurassic	Undenned Group	Buck Creek	Topley Intrusions		
LITHOLOGY:	Amygdaloidal Andesite Porphyritic Andesite Andesite Breccia Granodiorite Granite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIO0 Plutonic Rocks	GRAPHIC AREA: Nechako	o Plateau	
CAPSULE GEOLOGY	The claims are under	lain by a Jurassic Topley 3	Intrusion		
	<pre>comprised of granite to granodiorite with associated quartz veining. The intrusive is slightly chloritized and epidotized. Eocene Buck Creek volcanics overlie the granodioritic stock. The volcanics are comprised of amygdaloidal andesite, porphyritic andesite, andesite and breccia. The amygdaloidal rocks host cal- cite amygdules and are very magnetic. Mineralization in the intrusive consists of disseminations of chalcopyrite throughout the Topley granitic rock.</pre>				
BIBLIOGRAPHY	EM OF 2001-03 EMPR GEM *1969-119 EMPR MAP 69-1 GSC OF 351 EMPR BULL 110				
DATE CODED: DATE REVISED:	1985/07/24 1987/07/09	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093L 211</u>		NATIONAL MINERAL INVENTORY	′: 093L9 Cu3	
NAME(S):	<b>SUMMIT</b> , CRIS, CLEO, LANA, REDTOP, BEAVER I	DAM			
STATUS:	Showing British Columbia		MINING DIVISION	: Omineca	
NTS MAP: BC MAP	093L09W		UTM ZONE	:: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 37 00 N 126 18 06 W 975 Metres Within 500M Located east of Redtop Cre kilometres east-north east of	eek, 12.9 kilometres north of Topley or 5 of Smithers.	NORTHING EASTING	6055482 674229	
COMMODITIES:	Copper I	Molybdenum			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Molybden Quartz Carbonate Sericite Sericitic O Unknown	ite Pyrite Chlorite Chloritic Potassic			
DEPOSIT	Ota alwarada	Discoursing to d			
CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry I L04 Porphyry Cu ± Mo	Disseminated Hydrothermal ± Au	L05 Porphyry Mo (Low F- ty	ype)	
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Endako	FORMATION Undefined Formation	IGNEOUS/METAN	IORPHIC/OTHER	
Jurassic			Topley Intrusions	3	
LITHOLOGY:	Basaltic Breccia Vesicular Basalt Granodiorite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechak	o Plateau	
CAPSULE GEOLOGY					
Drilling discovered that the claims are underlain by a Jurassic Topley Intrusion comprised of granodiorite. Younger, highly magnetic, Tertiary Endako Group volcanics are exposed along Redtop Creek. The volcanics consist of Oligocene vesicular basalt and basaltic breccia of the China Nose Breccias (GSC Map 351). The Topley granitic rocks contain pyrite, chalcopyrite and molybdenite. Where they are relatively unaltered, the rock is fine-grained granodiorite which is light grey in colour and consists of quartz, plagioclase with incipient sericite alteration, potassic feldspar, hornblende altered to green biotite, and primary biotite altered to chlorite. Better grades of mineralization occur in the intensely altered varieties of granodiorite which are buff coloured and consist essentially of quartz, sericite, and carbonate. The chalcopyrite, molybdenite, and pyrite commonly occur as selvages or disseminations in 0.3 to 0.6 centimetre quartz veinlets which are rimmed by secondary potassic-feldspar. Approximately 30 metres of glacial drift overlies the minera- lized zone					
BIBLIOGRAPHY					
	EM OF 2001-03 EMPR AR 1926-138-144 EMPR ASS RPT 2293, *2562, 2930, 2958 EMPR GEM *1969-119; 1970-157; *1972-394,*Fig. 48; *1973-343 EMPR MAP 69-1 EMR MP CORPFILE (Whitesail Mines Ltd.; Ducanex Resources Ltd.; Lacanex Mining Co. Ltd.) GSC OF 351 Placer Dome File				

EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1987/07/09 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 212</u>		NATIONAL MINERAL INVENTORY	: 093L16 Cu5	
NAME(S):	Donna, Karen, Karen 14-17				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP:	093L16E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 48 00 N 126 12 56 W 762 Metres Within 500M Located 7.3 kilometres west of To Smithers.	pley Landing or 61 kilometres e	NORTHING EASTING	: 6076091 : 678978	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Magnetite Chlorite Epidote Cal Propylitic Chloritie Unknown	rbonate C			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal Porphy L04 Porphyry Cu ± Mo ± Au	ry			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	IORPHIC/OTHER	
Lower Jurassic Jurassic	Hazelton	Telkwa	Topley Intrusions		
LITHOLOGY:	Andesite Andesite Tuff Granodiorite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechak	o Plateau	
CAPSULE GEOLOGY					
	Jurassic Topley granite intrudes Lower Jurassic Hazelton Group volcanics (Telkwa Formation) comprised mainly of dark green to red andesite and andesitic tuff. The granodioritic stock also intrudes older, Permian dark grey limestone and shale zones. The Topley granodiorite exhibits propylitic alteration and hosts disseminated magnetite. The mafic minerals are chloritized. Chalcopyrite is reported to be disseminated locally within the intrusive.				
BIBLIOGRAPHY					
	EM OF 2001-03 EMPR ASS RPT *2199, 283 EMPR GEM *1969-118 EMPR MAP 69-1 EMPR OF 1996-29 EMR MP CORPFILE (Whites GSC BULL 270 GSC MAP 671A GSC OF 351 EMPR BULL 110	9 ail Mines Ltd.)			
DATE CODED: DATE REVISED:	1985/07/24 1988/07/09	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093L 213</u>	NATIONA	AL MINERAL INVENTORY:		
NAME(S):	<u>FG</u>				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca		
NIS MAP: BC MAP:	093L09E				
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	126 14 06 W 950 Metres Within 500M Located east of Tachek Lake, 11.3 H	ilometres south of Topley Landing.	EASTING: 678094		
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Dissemin Hydrothermal Porphyry L04 Porphyry Cu ± Mo ± Au	ated Igneous-contact L01	Subvolcanic Cu-Ag-Au (As-Sb)		
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER		
Jurassic	Hazeiton	Теккиа	Topley Intrusions		
LITHOLOGY:	Andesite Rhyolite Tuff Flow Breccia Granodiorite Quartz Feldspar Porphyry Dike				
	Intermentano				
METAMORPHIC TYPE:	Stikine Contact	Plutonic Rocks RELATIONSHIP: Syn-mineralization	GRADE:		
CAPSULE GEOLOGY Lower Jurassic Hazelton Group volcanics (Telkwa Formation) comprised of andesitic to rhyolitic flows, tuff and breccia are intruded by a Jurassic Topley Intrusion. The intrusion is comprised of granodiorite and associated quartz-feldspar porphyry dikes and quartz veins. Chalcopyrite occurs as disseminations in the intrusive and associated veins as well as in the adjacent andesitic volcanics.					
BIBLIOGRAPHY	1000 1 11				
	EM EXPL 1999-1-11 EM OF 2001-03 EMPR ASS RPT *2050 EMPR GEM *1969-118 EMPR MAP 69-1 GSC BULL 270 GSC OF 351				
DATE CODED: DATE REVISED:	1985/07/24 1988/07/09	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>093L 214</u>	NAT	IONAL MINERAL INVENTORY	′: 093L7 Cu9	
NAME(S):	BARB, HARRY DAVIS				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION	: Omineca	
NTS MAP: BC MAP: LATITUDE:	093L07E			: 09 (NAD 83) : 6032107	
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	126 39 16 W 800 Metres Within 500M Located on the south slope of Mt. Harry Houston.	Davis, 1.6 kilometres north of	EASTING	652207	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Malachite Azurite Quartz Calcite Malachite Azurite Chlorite Epidote Chloritic	Epidote			
		4			
CLASSIFICATION: TYPE:	Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb)	) D(	03 Volcanic redbed Cu		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAN	IORPHIC/OTHER	
LITHOLOGY:	Andesite Porphyry Andesite Rhyolite Basalt Breccia Tuff Crystal Tuff Lithic Tuff				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	РНҮ	SIOGRAPHIC AREA: Nechak	o Plateau	
CAPSULE GEOLOGY					
	The claims are underlain by Lower Jurassic Hazelton Group volcanics of the Telkwa Formation. The volcanics are comprised of massive purple to green andesite, andesitic to rhyolitic tuff and flows, crystal tuff and lithic tuff. Massive andesite is commonly porphyritic with plagioclase phenocrysts. Quartz-calcite and quartz veins occur along shear planes and fractures with associated epidote and chlorite. Malachite, azurite and bornite are reported as occurring in the fractured Hazelton andesite. See also Harry Davis (093L 203), Ed (093L 204) and Hilltop (093L 205).				
BIBLIOGRAPHY	EN EVEL 1000 C 1 C 12				
	EM EXPL 1998-C-1-C-13 EMPR ASS RPT 2544 EMPR GEM 1970-155 EMPR MAP 69-1 GSC BULL 270 GSC MAP 671A GSC OF 351				
DATE CODED: DATE REVISED:	1985/07/24 1988/07/09	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093L 215</u>		NATIONAL MINERAL INVENTORY: 093L16 Fe1		
NAME(S):	BADGE				
STATUS:	Showing		MINING DIVISION: Omineca		
NTS MAP:	093L16W		UTM ZONE: 09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 00 N 126 20 06 W 914 Metres Within 500M Located on the north side of Fu Landing.	ulton Lake, 12 kilometres west of T	NORTHING: 6079500 EASTING: 671161 opley		
COMMODITIES:	Iron Mag	netite			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Magnetite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Industrial Min. L04 Porphyry Cu ± Mo ± Au	J			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE Lower Jurassic Mesozoic	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal		
LITHOLOGY:	Diorite Andesite Tuff Graphitic Argillite				
HOSTROCK COMMENTS:	Intrusive diorite hosts dissemi	nated magnetite.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako Plateau		
CAPSULE GEOLOGY Lower Jurassic Hazelton Group volcanics comprised of andesite, tuff and minor graphitic argillite are crosscut by diorite which hosts disseminated magnetite.					
BIBLIOGRAPHY	EM OF 2001-03 EMPR GEM *1969-115; * EMPR MAP 69-1 EMPR OF 1996-29 GSC BULL 270 GSC MAP 671A GSC OF 351 EMPR BULL 110	1970-168			
DATE CODED: DATE REVISED:	1985/07/24 1988/07/09	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>093L 216</u>			NATIONAL MINE	ERAL INVENTORY:	093L2 Ag1
NAME(S):	CHISHOLM, MIDNIGHT, MCLE MAE, SILVER QUEEN	EAN,				
STATUS:	Past Producer		Underground		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L02E				UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 04 22 N 126 42 57 W 802 Metres Within 500M See Silver Queen (093L 002)	and Cole (093L 16	2).		NORTHING: EASTING:	5994032 649452
COMMODITIES:	Zinc Silv	ver	Gold	Le	ead	Manganese
MINERALS						
SIGNIFICANT:	Sphalerite Galena Tennantite Wad	Chalcopyrite	Pyrite T	etrahedrite		
ASSOCIATED: COMMENTS: MINERALIZATION AGE:	Quartz Barite Manganese oxides. Unknown	Rhodochrosite	Siderite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hy 105 Polymetallic veins Ag	drothermal -Pb-Zn±Au	Industrial Mi	n.		
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP	FORMA			IGNEOUS/METAMO	RPHIC/OTHER
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	75.5 +/- 1 Ma Potassium/Argon Biotite	Undeni	leu Formation		Bulkley Intrusions	
LITHOLOGY:	Felsic Tuff Volcanic Breccia Tuffaceous Breccia Sill					
HOSTROCK COMMENTS:	Sill-like body of microdiorite breccias of Skeena? Group.	intrudes the dacitic Sill dated by N. Ch	tuffs and tuff aurch 1973, Prel.I	Map 11.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOGRAPH	IC AREA: Nechako	Plateau
CAPSULE GEOLOGY						
	The area is prin volcanic rocks and in massive rhyolite with and felsic volcanics Skeena(?) Group (Bul. microdiorite intrudes Cretaceous in age. The showings are and tuff breccias. I subparallel veins for north of this group. argentiferous sphale tennantite-tetrahedr Cherty quartz, carbon constitute part of th oxides (wad) are also	marily underl ntrusions. T h a mixed ass that are lik letin 78, Fig s these volca: e mainly host Four northwes rm a group wh The quartz rite, galena, ite in rhodoc hate and side he gangue min o present.	ain by an Up he volcanic emblage of c ely part of ure 1). A s nic rocks an ed by highly t veins have ile a fourth veins are ma pyrite, cha hrosite, qua rite, with s erals. Smal	oper Cretace rocks consi conglomerate the Lower C sill-like bo nd has been r altered fe been disco vein occur tinly minera lcopyrite, artz, and ba some barite l deposits	ous series of st mainly of , sandstone retaceous dy of dated as Late lsic tuffs vered. Three s to the lized with and rite gangue. also of manganese	
BIBLIOGRAPHY						
	EMPR AR 1916-159; 19 EMPR ASS RPT 294, 42 25370 EMPR BULL *78 (in pr EMPR EXPL 1984-321-33 EMPR GEM 1969-132 EMPR MAP *11; 69-1 EMPR PF (*Batten, H.3	23-116; 1928- 1, 1133, 1184 ess) 22 L. (1928), Sun	171 , 2272, 1165 mmary Report	59, *12876, : on the Owe	24568, 24899, n Lake	

Properties; \*Batten, H.L. (1949), Report on Owen Lake Properties; \*Ball, C.W. (1955), Crown-granted mineral claims, Owen Lake, Morice River Area, B.C.) GSC OF 351 GSC SUM RPT \*1929A, pp. 77-84 WWW http://www.kettleriver.com

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/17 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 217</u>	NATIONAL MINERAL INVENTORY: 093L2 Zn2
NAME(S):	NEW DISCOVERY, SNOWSTORM, WINN, NOW, WINNINYIK HILL	
STATUS:	Showing	MINING DIVISION: Omineca
REGIONS: NTS MAP:	093L02E	UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 07 38 N 126 43 20 W 1082 Metres Within 1 KM Showing 5 on Figure 34 - 1972 Geology, Exploration located on the north side of Tip Top Hill, 3.2 kilometres north end of Owen Lake, about 18 kilometres south	NORTHING: 6000075 EASTING: 648839 and Mining in B.C., s east of the of Houston.
COMMODITIES:	Zinc Silver	Gold
MINERALS		
SIGNIFICANT: MINERALIZATION AGE:	Sphalerite Galena Tetrahedrite Cha Unknown	alcopyrite Pyrite
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Breccia Epigenetic I05 Polymetallic veins Ag-Pb-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic	
STRATIGRAPHIC AGE	GROUPFORMATIOFrancois LakeTip Top Hill	N IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesitic Porphyry Tuff Breccia	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC AREA: Nechako Plateau
INVENTORY		
ORE ZONE:	BRECCIA	REPORT ON: N
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY GRADE	YEAR: 1928
COMMENTS: REFERENCE:	Selected sample of breccia. Minister of Mines, Annual Report 1928, page 171.	Per cent
CAPSULE GEOLOGY	The area is underlain by Upper and dacitic volcanic rocks of the Fr intruded by porphyry plugs. Sulphid lets in fractured, sheared or altere Locally, rocks exposed on the c and andesitic porphyry. Sparse mine pyrite, pyrite, tetrahedrite, galena disseminations in the matrix of volc shears and fissures. Two shear zone degrees contain mineralized stringer 1928, a selected sample of the brecc 1.0 per cent zinc and nil lead (Mini page 171).	Cretaceous Tip Top Hill andesite ancois Lake Group which have been e mineralization occurs in vein- d zones striking north-south. laims consist of tuffs, breccias, ralization comprised of chalco- , and sphalerite occurs as anic breccias and as stringers in s striking 325 degrees and 290 s and sparse disseminations. In ia assayed trace gold, silver, ster of Mines Annual Report 1928,
BIBLIOGRAPHY	EMPR ASS RPT 8596, 10012, 13161 EMPR EXPL 1980-339; 1984-323 EMPR GEM 1972-372,Fig. 34 EMPR AR 1928-171 EMPR MAP *11; 69-1 GSC OF 351 GSC SUM RPT 1929A, p. 90,Fig. 3 GSC MAP 671A EMPR BULL *78 (in press)	

EMPR P \*1990-2

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 218</u>	NATIONAL MINERAL	INVENTORY: 093L2 Zn3		
NAME(S):	<u>WINN,</u> WINNINYIK HILL, NOW				
STATUS:	Showing British Columbia	MINI	NG DIVISION: Omineca		
NTS MAP:	093L02E		UTM ZONE: 09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 08 00 N 126 42 15 W 1333 Metres Within 1 KM Showing 4 on Figure 34 - 1972 Geology	, Exploration and Mining in B.C.	NORTHING: 6000792 EASTING: 649997		
COMMODITIES:	Lead Zinc				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Galena Sphalerite Pyrite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallic veins Ag-Pb-Zn±A	u			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION IGNE	OUS/METAMORPHIC/OTHER		
	Dacite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC AR	EA: Nechako Plateau		
CAPSULE GEOLOGY					
	The area is underlain mainly by Upper Cretaceous Tip Top Hill andesite and dacitic volcanic rocks of the Francois Lake Group which have been intruded by porphyry plugs. Pyrite, sphalerite and galena mineralization occurs in veinlets in fractured, sheared or altered zones striking north-south.				
BIBLIOGRAPHY	EMPR ASS RPT 8596, 10012, 1 EMPR EXPL 1980-339; 1984-32 EMPR GEM *1972-372,Fig. 34 EMPR MAP 11; 69-1 GSC OF 351 EMPR BULL *78 (in press) EMPR P *1990-2	3161 3			
DATE CODED: DATE REVISED:	1985/07/24 1988/08/25	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>093L 219</u>				NATIONAL MIN	ERAL INVENTORY:	
NAME(S):	<u>Ketza</u> , jen, ru	M					
STATUS: REGIONS:	Showing British Columbia					MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L16E					UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 57 30 N 126 12 21 W 735 Metres Within 500M Located on the s	outh end	of the Newma	an Peninsula on Babine	Eake.	NORTHING: EASTING:	6093728 678900
COMMODITIES:	Copper						
MINERALS	<b>.</b>						
SIGNIFICANT: ASSOCIATED:	Chalcopyrite Gypsum	Pyrite	Magnet	tite			
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Hematite Sericitic Unknown	Sericite	Carbona Propylitic	ate			
	Vein		Breccia	Dissemin	ated		
CLASSIFICATION: TYPE:	Hydrothermal L04 Porphyry	/ Cu ± Mo	± Au	Disserini			
HOST ROCK DOMINANT HOSTROCK	Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton			FORMATION	,	IGNEOUS/METAM	ORPHIC/OTHER
Eocene	hazonom			Chaomica i cimaton		Babine Intrusions	
LITHOLOGY:	Andesite Basalt Lapilli Tuff Tuff Rhyolite Flow						
	Breccia Dacite Biotite Hornblend Porphyry Flow	le Feldspa	ar Porphyry				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		Plu	itonic Rocks	PHYSIOGRAPH	HIC AREA: Nechako	) Plateau
CAPSULE GEOLOGY							
	The cla volcanics co tuffs, lapid around Ketza rocks relate The Eoo phyry flows Sericitic ar central part Pyrite andesitic tu in gypsum ve minutes 126 hematite are	aims ar pmprise lli tuf a Lake. ed to t cene ro overla nd prop t of th and tr uffs an einlets degree e found	e underla d of rhyco fs, and b The vol he Babine cks consi in by bre ylitic zo e peninsu ace amoun d breccia on the R s 12 minu in the p	in by Lower Jura olitic to dacitic preccia which gra- canics are in fa Intrusions. .st of biotite-ho eccias partially onal alteration a ta. .ts of chalcopyri as. Pyrite and s Rum claims (Rum I utes). Minor dis porphyry flows.	assic Hazeltor c flows, porph ades to andesi ault contact w problende-felo derived from affects the no te occur in f moky quartz a csland 54 degr asseminated mag	n Group hyritic flows, ttic flows with Eocene dspar por- the flows. brth and fractured are found cees 58 gnetite and	
BIBLIOGRAPHY			-				
	EM OF 2001-0 EMPR AR *190 EMPR ASS RPT EMPR BULL 64 EMPR GEM 197 EMPR MAP 12 EMPR OF 1990 EMPR PF (Bea Drillhole GSC BULL 270 GSC MAP 6712	03 55-103; f 678, 4, Fig. 70-167; ; 69-1 5-29 aton, R e Recor 0	*1967-10 810, 811, 8,26 1971-183 .H. (1971 ds for Te	95 844, 1072, 2646 3 .): Drillhole Lo exacal Resources	5, *10333 ocation Map ar Ltd.)	nd Diamond	

GSC OF 351 EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/04 CODED BY: GSB REVISED BY: LLD

\_\_\_\_

MINFILE NUMBER:	<u>093L 220</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<b>Kare</b> , R 186, RR, BAB, TONJA, BABS			
STATUS:	Showing		MINING DIVISION: Omi	neca
REGIONS: NTS MAP: BC MAP	British Columbia 093L16E		UTM ZONE: 09	(NAD 83)
LATITUDE: LONGITUDE: FLEVATION	54 57 30 N 126 05 06 W 913 Metres		NORTHING: 6094 EASTING: 6866	1043 334
LOCATION ACCURACY: COMMENTS:	Within 500M Located on the east shore	e of Babine Lake, east of Hawthorne	Bay.	
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Carbonate Carbonate Sericite Sericitic Unknown	Biotite Propylitic Potassic		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L04 Porphyry Cu ± Mo	Disseminated Hydrothermal o ± Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPH	IC/OTHER
Eocene	Hazelton	Теккиа	Babine Intrusions	
LITHOLOGY:	Andesite Basalt Tuff Argillite Breccia Greywacke Biotite Homblende Feldspa Feldspar Porphyry	ar Porphyry		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako Plate	au
CAPSULE GEOLOGY				
	The claims are underlain by Lower Jurassic Hazelton Group rocks (Telkwa Formation), comprised of andesitic flows, tuff, and breccia with intercalated argillite and greywacke. Eocene dikes and sills crosscut the volcanics and are related to the Babine intrusions. They are comprised of granitic to feldspar porphyritic textured diorite with an economically mineralized biotite-hornblende feldspar porphyry member. Zonal alteration is associated with the mineralized porphyry. Alteration associated with ore grade material is potassic with secondary biotite. A concentric intermediate zone surrounds the secondary biotite and is defined by the presence of fracture con- trolled pyrite with or without quartz carbonate gangue. The outermost zone is defined by the presence of carbonate fracture fillings with or without minor pyrite. Chalcopyrite is associated with secondary biotite in a small feldspar porphyry dike trending northwest on R-186 and 188 west of Hawthorne Bay. In 1972, the grade was estimated at 0.1 per cent copper over 3.0 metres (Assessment Report 4250). East and west of this occurrence are weakly altered volcanic host rocks which contain carbonate veinlets. A narrow northwest trending shear on Bab-131 is mineralized with pyrite, chalcopyrite, sericite, and secondary biotite.			
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT 4249, EMPR BULL 64, Fig.	*4250, 4426 8,26		

EMPR GEM \*1972-425 EMPR MAP 12; 69-1 EMPR OF 1996-29 EMPR PF (Tro-Buttle Exploration Ltd. (1970): Map of Kare Claims and Summary of Available Survey Data with drillhole locations and Diamond drillhole logs) GSC BULL 270 GSC MAP 671A GSC OF 351 Placer Dome File EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/04 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 221</u>			NATION	NAL MINERAL INVENTOR	RY: 093L3 Cu2
NAME(S):	<u>HAGAS</u> , HAG					
STATUS: REGIONS:	Showing British Columbia				MINING DIVISIO	N: Omineca
BC MAP:	093L03E					NE: U9 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 09 33 N 127 02 21 W 881 Metres Within 500M Located 6.0 kilometres north trenchings examined during	west of Pimpernel M field check.	lountain; ce	ntred on	NORTHIN EASTIN	IG: 6003007 IG: 628033
COMMODITIES:	Copper G Cadmium	Gold	Silver		Zinc	Lead
MINERALS						
SIGNIFICANT: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Tetrahedrite Copper occurs as native co Argillic S Unknown	Chalcopyrite pper in small quartz ilicific'n	Argentite stringers. Propyli	Copper tic		
		Ning a service at a st				
CLASSIFICATION: TYPE:	Epigenetic E L01 Subvolcanic Cu-Ag-	pithermal -Au (As-Sb)		D03	Volcanic redbed Cu	
MODIFIER:	Fractured	Actros	стри			
	IV	lettes	3111	NL/DIF. 090	1133 INLIND/F	LONGE.
DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORM</u> Telkwa	ATION a		IGNEOUS/MET/	AMORPHIC/OTHER
LITHOLOGY:	Lapilli Tuff Feldspar Hornblende Andes Dacite Gabbro	ite				
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIC	DGRAPHIC AREA: Nech	ako Plateau
METAMORPHIC TYPE:	Regional	RELATION	NSHIP: Pre- Syn	mineralizatior -mineralizatio	n GRADE: Zeolit m	e
INVENTORY						
ORE ZONE:	DRILLHOLE		REPOR	TON: N		
	CATEGORY: Assay/ana SAMPLE TYPE: Drill Core COMMODITY Silver	Ilysis	Y )E	EAR: 1989	- -	
	Cadmium	0.33	300 Pe	r cent	e	
	Copper Lead	1.23 0.85	300 Pe 500 Pe	r cent r cent		
COMMENTS:	Zinc Best results from two drillho	0.98 les that intersected	300 Pe significant	r cent		
REFERENCE:	mineralization in altered vola Assessment Report 19743.	anic rocks. page 1.	2			
	The property is	s underlain by	Lower J	urassic T	elkwa Formation o	f
	dacite, rhyolite, b Telkwa rocks are mai	asalt, flows as roon to red lag	nd pyroc pilli tu	lastics. ffs which	Locally, the hos have been	t

pervasively propylitically and argillically altered. Quartz stringers, along fracture surfaces (striking approximately 090 degrees and dipping approximately 75 degrees) contain disseminated chalcopyrite, sphalerite and native copper. A sample yielded 2.03 per cent copper, 4.11 grams per tonne silver, and 0.069 grams per tonne gold (Assessment Report 8447). An isolated gabbroic body has been silicified and propylitically

altered with associated malachite mineralization.

Follow-up trenching has exposed an extensive gossanous zone with limited/no mineralization. In 1989, two drillholes intersected significant mineralization in altered volcanic rocks. The mineralized zone extends from 100.65 to 102.65 metres in DDH 89-3 and comprises pyrite, tetrahedrite, chalcopyrite and argentite; native copper is also evident. Analyses yielded 0.33 per cent cadmium, 0.85 per cent lead, 0.98 per cent zinc, 42.8 grams per tonne silver and 1.23 per cent copper (Assessment Report 19743, page 1.

#### BIBLIOGRAPHY

EMPR ASS RPT 4194, 6233, 6658, 8447, 12480, 13097, \*14060, \*15175, 15787, 16872, \*19743 EMPR EXPL 1977-192; 1978-217; 1984-325; 1985-C311; 1986-351; 1987-C302; 1988-C168 EMPR GEM 1972-379; 1973-339 EMPR MAP 11; 69-1 GSC OF 351 GSC BULL 270 GSC MAP 971A EMPR PF (\*Sampson, C.J. (1987): Report on Geology, Geophysics and Exploration Potential on the Hagas Claims, Sept. 28, 1987 in Prospectus for Progold Resources Ltd. dated Mar. 21, 1989) EMPR OF 1991-1; 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1990/09/12 CODED BY: GSB REVISED BY: RLA

MINFILE NUMBER:	<u>093L 222</u>	NA	ATIONAL MINERAL INVENTORY: 093L4 Cu3
NAME(S):	MO		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093L04E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 09 00 N 127 32 06 W 1372 Metres Within 1 KM Located 3.2 kilometres west of on a tributary of Gosnell Cree	of the Nanika Mountain Forestry lookou k, 64 kilometres southwest of Houston	NORTHING: 6001203 EASTING: 595681 t,
COMMODITIES:	Copper Mc	blybdenum	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Molybdenite Unknown	Pyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo ± A	Au	L05 Porphyry Mo (Low F- type)
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
LITHOLOGY:	Granite		
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Granite Intermontane Stikine	Pł Plutonic Rocks	HYSIOGRAPHIC AREA: Tahtsa Range
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Granite Intermontane Stikine The area is mai canics which have be shear zones in a gra pyrite, pyrite and m	PH Plutonic Rocks nly underlain by Jurassic H en intruded by Eocene grani nitic intrusion are mineral olybdenite.	HYSIOGRAPHIC AREA: Tahtsa Range Hazelton Group vol- tic rocks. Narrow Lized with chalco-
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Granite Intermontane Stikine The area is mai canics which have be shear zones in a gra pyrite, pyrite and m EMPR GEM 1972-380 EMPR MAP 69-1 GSC OF 351 GSC BULL 270	Ph Plutonic Rocks nly underlain by Jurassic H en intruded by Eocene grani nitic intrusion are mineral olybdenite.	HYSIOGRAPHIC AREA: Tahtsa Range Hazelton Group vol- ttic rocks. Narrow Lized with chalco-

MINFILE NUMBER:	<u>093L 223</u>		NATIONA	AL MINERAL INVENTORY: 093L10 Cu3
NAME(S):	<b>BURBRIDGE LAKE</b> , SUMM PARADISE	IT, BULKLEY,		
STATUS:	Prospect			MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAD	093L10W			UTM ZONE: 09 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 43 00 N 126 46 06 W 1200 Metres Within 500M Southwest of Burbridge La	ake.		NORTHING: 6065549 EASTING: 643749
COMMODITIES:	Copper	Molybdenum		
	Chalconvrite Molybder	nite Sphalerite	Pyrite Magnetite	
	Copper Bornite	lite Ophalente	r ynte Magnetite	
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chlorite Calcite Propylitic Unknown	Sericite Clay Argillic		
DEPOSIT	Vein	Disseminated	Breccia	
CLASSIFICATION: TYPE:	Porphyry L04 Porphyry Cu ± Mo	Hydrothermal ± Au	105	Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: COMMENTS:	175 x 15 Mineralized shear zone att The mineralized diorite sill 1500 metres long.	Metres itude and dimensions (n is 150 to 200 metres thi	STRIKE/DIP: ot diorite sill). ck and at least	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
	GROUP Hazelton	FORMAT Nilkitkwa	ION	IGNEOUS/METAMORPHIC/OTHER
Jurassic		Tunktikwe	·	Unnamed/Unknown Informal
LITHOLOGY:	Rhyolite Tuff Andesite Dacite Tuff Diorite Sill Porphyry Granodiorite Feldspathic Tuff Breccia Epiclastic			
HOSTROCK COMMENTS:	Diorite sill intrudes rhyoli	te tuffs.		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane		PHYSIO	GRAPHIC AREA: Hazelton Ranges
TERRANE: METAMORPHIC TYPE:	Stikine Regional	Plutonic Rocks RELATIONS	s SHIP:	GRADE: Greenschist
CAPSULE GEOLOGY	Semi-massive	nvrite magnetit	e with minor spha	lerite and
	<pre>charter of particle and approved a southwest dipping, northwest striking zone in altered rhyolite tuffs of the Lower Jurassic Hazelton Group, Nilkitkwa Formation. The zone is up to 15 metres wide and 175 metres long, and is not known to contain significant gold or silver concentrations. A foliated diorite sill, which dips moderately to the southwest, intrudes the rhyolitic tuffs. The upper part of the sill is porphyritic and approaches granodiorite to quartz monzonite in compo- sition. Clay, chlorite, carbonate, sericite and quartz alteration is pervasive with disseminations and fracture-fillings of pyrite, chalco- pyrite and molybdenite. Above the contact, a zone of disseminated and banded pyrite extends into altered rhyolitic volcanic rocks. The best molybdenum and copper grades are found at the transition from argillic to propylitic alteration which marks the compositional change from porphyritic quartz monzonite to foliated diorite. The diorite sill is cut off to the west by a fault and south of the sill limy sediments overlie the volcanics.</pre>			

Diamond drilling in 1991 intersected maroon feldspathic tuffs, breccias, epiclastics and andesitic flows. Native copper and bornite

were observed in maroon andesites.

# BIBLIOGRAPHY

EMPR FIELDWORK 1974, p. 82; 1977, p. 67; \*1986, pp. 201-222; 1988, pp. 195-208
EMPR GEM 1973-349
EMPR EXPL 1975-E141; 1977-E195; 1980-344
EMPR ASS RPT 5422, 6386, \*9073, 21446, 21641
EMPR AR 1918-124
EMPR GEOL \*1977-1981, p. 127, Fig. 42
EMPR MAP 69-1
GSC OF 351
EMPR PF (Burnbridge Lake Prospect Claim Map and Drillhole locations (1977) by Asarco)
GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/03/14 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 224</u>		N	ATIONAL MINERAL	INVENTORY:	093L16 Cu9
NAME(S):	<u>SAT</u> , BRO, M					
STATUS:	Showing British Columbia			MIN	NG DIVISION:	Omineca
REGIONS. NTS MAP: ΒC ΜΔΡ	093L16W				UTM ZONE:	09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 53 00 N 126 25 26 W 290 Metres Within 500M Located between Broughton Cree west-southwest of the Granisle T Smithers.	ek and Saturday La ownsite or 48 kilo	ke, 12.9 kilome netres northea	tres st of	NORTHING: EASTING:	6084849 665249
COMMODITIES:	Copper					
MINERALS						
SIGNIFICANT:	Chalcopyrite Chalcocite Sphalerite Molybdenite	Pyrite Pyr	rhotite Ga	lena		
ASSOCIATED: ALTERATION:	Quartz Chalcocite Malachite ( Epidote Zeolite Sei	Chlorite Carl ricite	oonate Ca	alcite		
ALTERATION TYPE: MINERALIZATION AGE:	Propylitic Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Stockv Epigenetic Hydroti L04 Porphyry Cu ± Mo ± Au	vork hermal	Disseminated Igneous-conta	act		
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATIC</u> Telkwa	DN	<u>IGNI</u>	EOUS/METAM	ORPHIC/OTHER
Eocene ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	50-53 Ma Potassium/Argon Biotite			Bab	ne Intrusions	
LITHOLOGY:	Andesite Tuff Siltstone Shale Hornfels Biotite Feldspar Porphyry Hornblende Feldspar Porphyry					
HOSTROCK COMMENTS:	Hornblende-feldsar porphyry wi of intrusive.	ith flow texture is e	extrusive equiva	llent		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane		Ρ	HYSIOGRAPHIC AF	EA: Nechako	Plateau
METAMORPHIC TYPE:	Stikine Contact	Plutonic Rocks RELATIONSH	IIP: Syn-minera	lization GRA	DE: Hornfels	
CAPSULE GEOLOGY The Sat claims are underlain by Lower Jurassic Hazelton Group, Telkwa Formation volcanics consisting of massive, fragmental maroon to green andesite. This basal unit is conformably overlain by siltstones and shales which strike northwest and dip gently west. The Hazelton Group rocks are variably fractured and are hornfelsed marginal to the intrusive rocks. The volcanics are intruded by an Eocene Babine intrusion. Fine to medium-grained biotite-feldspar porphyries of granodiorite composition occur as dikes in the layered rocks and are dated at 50 to 53 million years. Hornblende-feldspar porphyries, displaying flow or trachytic textures, occur as the extrusive equivalent of the intrusive dikes. Oligocene amygdaloidal basalt and andesite unconformably overlies the Jurassic layered rocks. These rocks are fresh and host amygdules of calcite and zeolite. The sediments and volcanics are hornfelsed and bleached near the contact with the intrusive and show quartz with sericite marginal to and pyrrhotite mineralization.						

Chalcopyrite and pyrite occurs in hairline fractures in the

biotite-feldspar porphyry which shows chlorite-carbonate-epidote alteration. This alteration is transitional to potassic feldspar alteration with secondary biotite to the east of the property. Malachite and chalcocite occurs in the volcanics as well as minor occurrences of molybdenum, galena and sphalerite in quartz veinlets.

#### BIBLIOGRAPHY

EM OF 2001-03 EMPR ASS RPT 5620, \*6424, \*9471, \*10688 EMPR BULL 64, Fig. 8 EMPR EXPL 1975-E145; 1977-E199; 1981-45; 1982-313 EMPR GEM \*1972-422, Figure 56; 1973-349 EMPR MAP 12; 69-1 EMPR OF 1996-29 EMPR PF (Miscellaneous Map and notes) GSC BULL 270 GSC MAP 671A GSC OF 351 GCNL #130,#140, 1982 EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/29 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 225</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>PRO,</u> FIT, ANNY, GOLD DUST I			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L16E		MINING DIVISION: ( UTM ZONE: (	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 00 N 126 11 36 W Metres Within 1 KM Located 4.8 kilometres southwest	of Topley Landing.	NORTHING: ( EASTING: (	6072440 680555
COMMODITIES:	Copper Molybde	enum		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Molybdenite Unknown	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Dissemi Porphyry Hydroth L04 Porphyry Cu ± Mo ± Au	nated ermal		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u> Lower Jurassic Jurassic	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMO Topley Intrusions	RPHIC/OTHER
LITHOLOGY:	Quartz Diorite Diorite Pyroclastic Andesite Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako	Plateau
CAPSULE GEOLOGY				
	Lower Jurassic Haze pyroclastics with associ rocks are intruded by a comprised of quartz dior chalcopyrite and molybde fracture fillings in the pyrite.	elton Group rocks cons ated argillaceous and Jurassic Topley Intru- rite and associated di enite were found as di e intrusive as well as	sisting of andesitic d siliceous sedimentary usion. The intrusive is lorite. Traces of isseminations and s 1.0 to 3.0 per cent	
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT 16874 EMPR EXPL 1988-C174 EMPR GEM 1973-350 EMPR MAP 69-1 EMPR OF 1996-29 GSC BULL 270 GSC OF 351 EMPR BULL 110			
DATE CODED: DATE REVISED:	1985/07/24 1988/07/11	CODED BY: GSB REVISED BY: LLD	FII FII	ELD CHECK: N ELD CHECK: N

MINFILE NUMBER:	<u>093L 226</u>			ı	NATIONA	L MINERAL INVENTORY:	
NAME(S):	HUBERT, TEX, BEV						
STATUS: REGIONS	Showing British Columbia					MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L11E					UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 36 13 N 127 01 50 W 1036 Metres Within 500M Located 6.4 kilometres sou kilometres southeast of Sr from Assessment Report 4	uth of Telkwa or nithers; location 4808.	Hubert Creek of mineralized	or 25.7 I outcrop		NORTHING: EASTING:	6052466 627213
COMMODITIES:	Copper	Silver					
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Malachite Azurite Oxidation Unknown	Limonite					
DEPOSIT	Lin ha sua						
CLASSIFICATION: TYPE:	Unknown Unknown D03 Volcanic redbed C	u			L01	Subvolcanic Cu-Ag-Au (	(As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton	!	<u>FORMATION</u> Telkwa			IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Flow Rhyolite Flow Tuff Breccia						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			I	PHYSIOC	GRAPHIC AREA: Nechako	Plateau
INVENTORY							
ORE ZONE:	SAMPLE		RE	PORT ON:	Ν		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab	nalysis	GRADE	YEAR:	1973		
COMMENTS: REFERENCE:	Silver Copper Selected sample. Assessment Report 4808.		85.7100 1.7850	Grams pe Per cent	er tonne		
CAPSULE GEOLOGY	The chewing i	a undorlair	Lower Tu	coggia I	Jarolto	n volgoniga	
	(Telkwa Formation) tuff, and breccia. pyrite, malachite, volcanics. In 197 per cent copper, a 4808).	, comprised Mineraliz and azurit 3, a select nd 85.71 gr	a lower out ation cons ation cons	itic to sisting on oxide from th onne sil	rhyoli of cha es, occ ne show lver (2	tic flows, llcopyrite, curs in the ying assayed 1.785 Assessment Report	
BIBLIOGRAPHY	EMPR GEM 1973-346; EMPR ASS RPT 4808 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 198 EMPR OF 1989-16	1974-261 8, pp. 195-	208				
DATE CODED: DATE REVISED:	1985/07/24 1989/02/11	CC	DED BY: GS	B D		F	TELD CHECK: N TELD CHECK: N

MINFILE NUMBER:	<u>093L 227</u>		NATIONAL MINERAL INVENTORY:	093L6 Cu15
NAME(S):	<b>RUDY</b> , TOMMY, PETE, RUTZ			
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L06E		UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 25 05 N 127 08 44 W 1600 Metres Within 500M North showing located on the east kilometres west of Houston (Asse	side of Houston-Tommy Cree ssment Report 4891).	NORTHING: EASTING: k, 32	6031620 620330
COMMODITIES:	Copper Silver	Lead	Zinc	Molybdenum
MINERALS				-
SIGNIFICANT:	Chalcopyrite Chalcocite	Bornite Magnetite	Pyrite	
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Calcite Malachite Azurite Ep Silicific'n Epidote Unknown	idote		
DEPOSIT	Vaia			
CLASSIFICATION:	Epigenetic Hydroth			
DIMENSION: COMMENTS:	Mineralized quartz vein.	STRIKE/DI	IP: 075/45S TREND/PLUI	NGE:
HOST ROCK DOMINANT HOSTROCK:	: Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	DRPHIC/OTHER
Cretaceous-Tertiary	Hazelton	Undefined Formation	Unnamed/Unknow	n Informal
LITHOLOGY:	Andesite			
	Rhyolite Tuff			
	Flow Breccia Granodiorite Quartz Monzonite			
HOSTROCK COMMENTS:	Granodiorite.			
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	Plutonic Pocks	PHYSIOGRAPHIC AREA: Hazelton	Ranges
METAMORPHIC TYPE:	Contact	RELATIONSHIP: Syn-min	eralization GRADE:	
INVENTORY				
ORE ZONE:	VEIN	REPORT ON	J: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY	YEAR	t: 1973	
COMMENTS: REFERENCE:	Silver Copper Sample across sulphide vein. Assessment Report 4890.	72.0000 Grams 2.4000 Per cer	per tonne nt	
CAPSULE GEOLOGY				
	The claims are under volcanics comprised of a breccia. The volcanics granodioritic to quartz- quartz veins. Mineralization in f bornite, chalcopyrite, o molybdenum. The gangue epidote.	erlain by Lower Juras andesitic to rhyoliti are intruded by a La -monzonitic stock with the dikes consists of chalcocite with minor minerals are mainly o	sic Hazelton Group c flows, tuff and te Cretaceous to Tertiary h associated dikes and pyrite, magnetite, galena, sphalerite and quartz, calcite and	

A quartz vein, 0.15 metres wide and 10.7 metres long, crosscuts green andesite striking 075 degrees and dipping south. The vein hosts black sphalerite, chalcopyrite and secondary malachite and

azurite. In 1973, chip samples across the vein assayed: 0.87 to 2.4 per cent copper, and 26.7 to 72 grams per tonne silver (Assessment Report 4890). A shear zone, 0.9 metres wide and 2.4 metres long, in the volcanics hosts mineralizing fissure infilling comprised of bornite and malachite. In 1973, chips across the shear assayed: 30.7 to 32.8 per cent copper and 4,780 to 6,460 grams per tonne silver (Assessment

# BIBLIOGRAPHY

EMPR GEM 1973-341 EMPR EXPL \*1988-C169 EMPR ASS RPT 4891, \*17407 EMPR MAP 69-1 GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1989/03/07 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 228</u>		NATIONAL MINE	RAL INVENTORY: 093L6 Cu16
NAME(S):	<u>Pete</u> , Tommy, Kuku			
STATUS:	Showing			MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093L06E			UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY:	54 24 53 N 127 10 17 W 1675 Metres			NORTHING: 6031206 EASTING: 618664
COMMENTS:	West showing located on a Creek, 33.8 kilometres we	a ridge on the west side of Ho st of Houston (Assessment R	uston-Tommy eport 4891).	
COMMODITIES:	Copper	Silver Go	bld	
MINERALS SIGNIFICANT: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Bornite Malachite Azurite Unknown	Pyrite Galena		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-A	Hydrothermal g-Au (As-Sb)		
COMMENTS:	Mineralized, parallel quart	z-feldspar porphyry veins.	$\frac{1}{100}$	IREND/PLUNGE.
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u>		IGNEOUS/METAMORPHIC/OTHER
Cretaceous-Tertiary		r on wa		Unnamed/Unknown Informal
LITHOLOGY:	Andesite Rhyolite Tuff Flow Breccia Granodiorite			
	Quartz Feldspar Porphyry Feldspar Porphyritic Dike	Dike		
HOSTROCK COMMENTS:	Tertiary to Cretaceous gr	anodiorite stock.		
	Intermontane		PHYSIOGRAPHI	C AREA: Hazelton Ranges
METAMORPHIC TYPE:	Stikine Contact	Plutonic Rocks RELATIONSHIP:	Syn-mineralization	GRADE:
INVENTORY			,	
ORE ZONE:	SAMPI F	RF	PORT ON' N	
	CATEGORY: Assav/ar	nalvsis	YEAR: 1973	
	SAMPLE TYPE: Grab COMMODITY	GRADE		
	Silver Gold	191.3000 1.4700	Grams per tonne Grams per tonne	
COMMENTS: REFERENCE:	Copper Sample from mineralized of Assessment Report 4891.	5.5000 quartz feldspar porphyry dike.	Per cent	
CAPSULE GEOLOGY				
	The claims ar Telkwa Formation v flows, tuff and br Cretaceous to Tert feldspar porphyry A fracture in degrees southeast. bornite and malach copper and 8.2 grau A set of para cut maroon andesit These quartz felds wide and 161 to 20 pyrite, chalcopyri	e underlain by Lower olcanics comprised m eccia. The volcanic iary granodioritic s dikes. the volcanics strik. Fracture infilling ite. In 1973, a sam ms per tonne silver llel veins, approxim e and strike north-s par porphyry dikes r 1 metres in length. te, minor galena and	Jurassic Hazelton ainly of andesitic s are intruded by I tock with associate es 230 degrees and hosts pyrite, chal ple assayed: 0.97 (Assessment Report ately 10.7 metres a outh dipping 70 deg ange between 0.3 to Mineralization cor secondary malachit	Group, to rhyolitic ate dips 80 .copyrite, per cent 4891). upart cross- prese east. 0.9 metres isists of a and

azurite. In 1973, a sample assayed: 5.5 per cent copper, 191.3 grams per tonne silver and 1.47 grams per tonne gold (Assessment Report 4891).

### BIBLIOGRAPHY

EMPR GEM 1973-341 EMPR EXPL \*1988-C169 EMPR ASS RPT \*4891, \*17407 EMPR MAP 69-1 GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1989/03/03 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 229</u>	NATIONAL MIN	ERAL INVENTORY: 093L14 Zn2
NAME(S):	<u>JOSIE (L.7251)</u>		
STATUS: REGIONS	Prospect British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L14W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 10 N 127 21 06 W 1615 Metres Within 500M Located south of Schufer Lake at the h Bay Mountain, 12.9 kilometres northwe adjacent to the Van Anda claim in the S	ead of Toboggan Creek on Hudson st of Smithers. JOSIE is Silver Creek Group (093L 098).	NORTHING: 6077799 EASTING: 605866
COMMODITIES:	Zinc Silver		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Sphalerite Pyrrhotite Pyrite Unknown		
DEPOSIT	N/ 1		
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrotherma I05 Polymetallic veins Ag-Pb-Zn+A	al	
DIMENSION: COMMENTS:	Parallel sulphide veins.	STRIKE/DIP: 070/57E	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Nilkitkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Flow Breccia		
GEOLOGICAL SETTING			
METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Syn-mineralization	GRADE:
CAPSULE GEOLOGY	_, , , , , , , ,		
	The area is underlain volcanics of the Nilkitkwa andesitic flows, tuff and k crosscut the andesite at 16 degrees and dip 50 degrees centimetres in width. Sulp sphalerite, pyrrhotite and At 1630 metres elevati dipping 65 degrees southeas is 15 metres long and 15 ce sphalerite with minor pyrrh	Formation comprised of massiv Formation comprised of massiv preccia. Two parallel sulphic 515 metres elevation. The vei southeast, and range between ohide mineralization consists pyrite. .on, another vein striking 040 st outcrops in the andesitic r entimetres wide and hosts dark notite and pyrite.	roup re andesite, le veins ns strike 070 2.5 to 20 of degrees and rock. The vein c, massive
BIBLIOGRAPHY	GSC MEM 226, p. 112 EMPR AR 1914-138; 1928-165 GSC MAP 971A GSC P 44-23 EMPR MAP 69-1 GSC OF 351 GSC BULL 270		
DATE CODED: DATE REVISED:	1985/07/24 1988/06/22	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 230</u>		NATIONAL N	INERAL INVENTORY:	093L14 Cu2
NAME(S):	TRADE DOLLAR 2, TRADE SECOND GLACIER (L.7267)	DOLLAR 3, CEE (L.7242), , SILVER LAKE			
STATUS:	Prospect			MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP:	British Columbia 093L14W			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 30 N 127 21 56 W 2027 Metres Within 1 KM Located at the head of Silve Mountain, 14.5 kilometres n	ern Creek on the west side orthwest of Smithers.	e of Hudson Bay	Northing: Easting:	6076542 605003
COMMODITIES:	Copper S	Silver	Lead	Zinc	
MINERALS					
SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Galena Unknown	Sphalerite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Epigenetic H I05 Polymetallic veins A	lydrothermal g-Pb-Zn±Au	Strike/DIP: 045/65E	TREND/PLU	NGE:
COMMENTS:	Mineralized vein.				
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Nilkitkwa	<u> </u>	IGNEOUS/METAM	ORPHIC/OTHER
		Niikiikwa			
LITHOLOGY:	Tuff Flow Breccia				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRA	APHIC AREA: Hazelton	Ranges
CAPSULE GEOLOGY					
	Host rocks con (Nilkitkwa Formatio red and green tuffs the volcanics strik and extends across claims. According good chalcopyrite m sphalerite.	sist of Lower Jura n) comprised of ar and flow breccia. ing 045 degrees ar Trade Dollar No. 2 to Lay in 1928, th ineralization with	assic Hazelton Gro desitic flows wit A mineralized v d dipping 65 degr 2 and 3, Cee and 3 he mineralized bar associated galer	oup volcanics ch associated rein crosscuts cees southeast second Glacier nd of rock shows na and	
BIBLIOGRAPHY	222 VTV +00C 10	~			
	GSC MEM *226, p. 12 EMPR AR 1905-134; 1 1931-73; 1933-98 EMPR EXPL 1977-E198 EMR MP CORPFILE (Si EMPR ASS RPT 471 GSC MAP 971A GSC P 44-23 GSC SUM RPT 1925A, EMPR BULL (1932) 1, EMR MR-198, p. 238 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988 EMPR MAP 69-1	6 916-124; 1926-130; ; 1934-C6,66; 1963 1-Van Mines Ltd.; p. 141 p. 53 , pp. 195-208	1927-137; *1928- 3-26: 1964-51; 196 Hudson Bay Mtn. S	-164; 1929-C165; 56-86 Silver Mines)	
DATE CODED: DATE REVISED:	1985/07/24 1988/06/18	CODED BY: REVISED BY:	GSB LLD	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093L 231</u>	NATIONAL MI	NERAL INVENTORY: 093L14 Ag4
NAME(S):	SILVER LAKE 2 (L.7240), TRADE DO	LLAR, SILVER LAKE	
STATUS: REGIONS: NTS MAP: BC MAP:	Past Producer British Columbia 093L14W	Underground	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 47 N 127 21 36 W 2030 Metres Within 500M South side of divide at the head of Silv Hudson Bay Mountain, 14.5 kilometres ized vein strikes along the boundary of Lake #2 claims.	ern and Toboggan Creeks on s northwest of Smithers. Mineral- f the Trade Dollar and Silver	NORTHING: 6077076 EASTING: 605347
COMMODITIES:	Silver Lead	Zinc	Gold
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Bornite Quartz Carbonate Unknown	e Chalcopyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrotherm 105 Polymetallic veins Ag-Pb-Zn±A Mineralized vein strikes along claim bo Trade Dollar.	al Au STRIKE/DIP: 275/75N bundary of Silver Lake #2 and	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Lower Jurassic	GROUP Hazelton	FORMATION Nilkitkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Fossiliferous Limestone Breccia		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE	Intermontane Stikine Regional	PHYSIOGRAF	PHIC AREA: Hazelton Ranges
ORE ZONE:	VEIN	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Gold	YEAR: 1928 GRADE 1954.0000 Grams per tonne 11.6000 Grams per tonne	
COMMENTS: REFERENCE:	76 centimetre channel sample from mir Minister of Mines Annual Report 1928,	as.0000 Per cent neralized vein. page 164.	
CAPSULE GEOLOGY			
	The host rock is Lower (Nilkitkwa Formation). Bed associated red tuffs, red b interbedded fossiliferous 1 mainly galena strikes 275 o vein parallels the claim bo No. 2 claims. In 1928, a o vein assayed: 11.6 grams pe and lead 36 per cent (Minis In 1917, 5 tonnes of o 36,079 grams silver, and 1	r Jurassic Hazelton Group vol drock is comprised of andesit breccias, green tuff and a ba limestone. A mineralized vei degrees and dips 75 degrees r oundary of the Trade Dollar a channel sample from the 76 ce er tonne gold, 1,954 grams pe ster of Mines Annual Report 1 ore was mined and produced 62 ,817 kilograms lead.	canics fic flows with and of .n hosting hortheast. The and Silver Lake entimetre wide er tonne silver .928, page 164). 2 grams gold,
BIBLIOGRAPHY	GSC MEM *223, pp. 70-71 GSC P 36-20, pp. 77-91 GSC BULL (1932)1, p. 53; 2'	70	
EMPR AR 1905-134; 1907-80; 1913-419; 1916-124; 1923-110; 1924-96; 1926-130; 1927-137; \*1928-164; 1929-165; 1931-72; 1933-98; 1934-C6; 1950-100; 1963-26; 1964-51; 1965-74; 1966-86 EMPR ASS RPT \*471 GSC OF 351 EMPR MAP 69-1 EMR MR-198, p. 238 EMPR FIELDWORK 1988, pp 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/22 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 232</u>			NATIONAL MINE	RAL INVENTORY:	093L14 Pb1
NAME(S):	<u>Silver Star (l.2546)</u> , C Pay Roll	CORONADO, HOMERUN,				
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093L14W				MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 40 N 127 21 58 W 1036 Metres Within 500M Located on the west side Hudson Bay Mtn., 12.0 kild Group (093L 090).	of Sloan Creek on the s ometres west of Smither	outhwest side os. Part of Coro	of nado	NORTHING: EASTING:	6071287 605090
COMMODITIES:	Silver	Lead	Zinc	Go	ld	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Galena Quartz Silicific'n Unknown	Sphalerite Oxidation	Tetrahedrite			
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Epigenetic 105 Polymetallic veins	Hydrothermal Ag-Pb-Zn±Au	STRIKE/DIE	D· 045/80E		NGE
COMMENTS:	Two parallel shear zone w	ith sulphide mineralizati	on.	. 043/002		NOL.
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMAT</u> Telkwa	10N		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Andesite Rhyolite Flow Flow Breccia Tuff Lapilli Tuff					
GEOLOGICAL SETTING						_
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIONS	SHIP: Syn-mine	ralization	GRADE:	Ranges
INVENTORY						
ORE ZONE:	SHEAR		REPORT ON:	Ν		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY	nalysis <u>GRADE</u>	YEAR:	1954		
	Gold Lead Zinc	837.20 2.060 11.13( 7.830	00 Grams p 00 Grams p 00 Per cent	per tonne per tonne t		
COMMENTS: REFERENCE:	Grab sample from mineral Geological Survey of Cana	ized shear zone. ada Memoir 223 (Revise	d Ed. 1954), pag	ge 92.		
CAPSULE GEOLOGY	_		_			
	The host rock Telkwa Formation v breccia, spherulit The Silver St	s are comprised o olcanics. They ic flow-banded r ar claim hosts o	of Lower Ju consist mai hyolite and ne of the t	rassic Hazel nly of andes massive lap wo parallel	ton Group, site, flow silli tuff. shears in	

Telkwa Formation volcanics. They consist mainly of andesite, flow breccia, spherulitic flow-banded rhyolite and massive lapilli tuff. The Silver Star claim hosts one of the two parallel shears in the Coronado Group which strike 045 degrees and dip 75 degrees to the southeast. This east zone, at 1036 metres elevation, can be traced along strike for 122 metres. An adit in the sheared and brecciated rhyolite exposed galena, sphalerite and minor tetrahedrite. Further to the northeast the shear hosts veinlets of solid sulphides, mainly galena, sphalerite and some tetrahedrite. A grab sample of this weathered and oxidized ore assayed 2.06 grams per tonne gold, 837.2 grams per tonne silver, 11.13 per cent lead and 7.83 per cent zinc (Geological Survey of Canada Memoir 223, page 92).

EMPR AR 1908-171; 1909-84; 1911-118; 1912-114,325; 1913-107; \*1914-173,213-215; 1915-77,444; 1918-117; 1919-102; 1933-97; 1938-B37, C49; 1939-35,57,92; 1940-23,43,76; 1950-100; 1963-25 GSC MEM \*223, p. 92 GSC SUM RPT 1925A, p. 132 GSC P 36-20; 44-23 GSC MAP 278A, 971A EMPR ASS RPT 471 GSC EC GEOL No. 4, p. 42 EMPR PF (Kirkham, PHD Thesis, 1969, "A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Mountain Range, B.C.") EMPR MAP 69-1 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/18 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 233</u>	NATIONAL MI	NERAL INVENTORY:	093L14 Ag6
NAME(S):	MANITOBA, NEEPAWA, MOONSHI MILL 3	INE,		
STATUS:	Prospect		MINING DIVISION:	Omineca
REGIONS. NTS MAP: BC MAP	093L14W		UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 50 N 127 19 06 W 1536 Metres Within 1 KM Located on the west side of Miller ( Bay Mountain, 9.7 kilometres west claim in the Neepawa Group.	Creek, on the south side of Hudson of Smithers. Showing on the Manitoba	NORTHING: EASTING:	6071669 608155
COMMODITIES:	Gold Silver	Zinc	Lead	
MINERALS	On balanita Annan an mita	O alema		
SIGNIFICANT: MINERALIZATION AGE:	Sphalerite Arsenopyrite C Unknown	Galena		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrothe 105 Polymetallic veins Ag-Pb-Z	ermal In±Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Andesite Tuff Flow Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	PHYSIOGRAI RELATIONSHIP: Syn-mineralization	PHIC AREA: Hazelton GRADE:	Ranges
INVENTORY				
ORE ZONE:	TRENCH	REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold	YEAR: 1929 <u>GRADE</u> 130.2800 Grams per tonne 13.0300 Grams per tonne		
COMMENTS: REFERENCE:	Zinc Selected sample from a trench. Minister of Mines Annual Report 19	6.2000 Per cent 029, page 163.		
CAPSULE GEOLOGY				
	The showing is unde volcanics comprised main the Manitoba claim, at 1 vein hosting sphalerite, sample from the trench i 130.28 grams per tonne s Mines Annual Report 1929	erlain by Lower Jurassic Hazelto ly of andesite, tuff and flow H 536 metres elevation, there is arsenopyrite and minor galena In 1929 assayed 13.03 grams per silver, and 6.2 per cent zinc (M , page 163).	on Group preccia. On a mineralized . A selected tonne gold, Minister of	
BIBLIOGRAPHY	GSC MEM *223, p. 118 EMPR AR 1911-119; 1912-1 GSC P 44-23 EMPR ASS RPT 14300 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. Kirkham, R.V., (1969): A the Zonal Distributio	15; *1929-163 195-208 Mineralogical and Geochemical on of Ores in the Hudson Bay Ram	Study of ige, British	

Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/22 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 234</u>	NATIONAL M	INERAL INVENTORY: 093L14 Ag6
NAME(S):	<u>NEE</u> , NEEPAWA		
STATUS: REGIONS	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L14W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 24 N 127 19 36 W 1356 Metres Within 500M Located on the west side of Mill Bay Mountain, 9.7 kilometres w claim in the Neepawa Group.	ler Creek on the south side of Hudson rest of Smithers. Showing on the Nee	NORTHING: 6068998 EASTING: 607682
COMMODITIES:	Lead Silve	er	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Galena Sphalerite Unknown	Arsenopyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Vein Epigenetic Hydr I05 Polymetallic veins Ag-P	othermal b-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION	IGNEOUS/METAMORPHIC/OTHER
	Andesite		
	Tuff Flow Breccia		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYSIOGRA	PHIC AREA: Hazelton Ranges
TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Syn-mineralization	GRADE:
CAPSULE GEOLOGY	Host rock consist comprised mainly of ar 1356 metres elevation, open cut showed minor minor occurrences of s	ts of Lower Jurassic Hazelton Gron ndesite, tuff and breccia. On the , a mineralized vein strikes 015 of sulphide mineralization, mainly sphalerite and arsenopyrite.	up volcanics e Nee claim, at degrees. An galena with
BIBLIOGRAPHY	GSC MEM *223, p. 118 EMPR AR *1929-163 GSC P 44-23 EMPR MAP 69-1 GSC OF 351 GSC BULL 270		
<b></b>	EMPR FIELDWORK 1988, p Kirkham, R.V., (1969): the Zonal Distribut Columbia, Ph.D. The	55. 195-206 A Mineralogical and Geochemical tion of Ores in the Hudson Bay Ran esis, University of Wisconsin	Study of nge, British

MINFILE NUMBER:	<u>093L 235</u>		NATIONAL MINERAL INVENTOR	RY: 093L14 Au12
NAME(S):	DOROTHY, CASCADE, HEATHER, EMPIRE, RACHEL			
STATUS:	Showing		MINING DIVISIO	N: Omineca
REGIONS: NTS MAP:	093L14W		UTM ZON	E: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 37 N 127 17 01 W 1647 Metres Within 500M Adjacent to the Empire Group at the head Creek, on the east side of Hudson Bay Mt west of Smithers.	l of the south fork of Simp tn., 7.2 kilometres north-r	NORTHIN EASTIN pson horth	G: 6073176 G: 610352
COMMODITIES:	Gold Silver	Lead	Zinc	Copper
MINERALS SIGNIFICANT: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Chalcopy Oxidation Unknown	vrite Tetrahedrite	Arsenopyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothermal I05 Polymetallic veins Ag-Pb-Zn±Au Shear zone with mineralized veinlets.	STRIKE/DIP	: 305/58W TREND/P	LUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/META	MORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Flow Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional RE	ELATIONSHIP: Syn-miner	PHYSIOGRAPHIC AREA: Necha ralization GRADE:	ako Plateau
INVENTORY				
ORE ZONE:	SHEAR	REPORT ON:	Ν	
COMMENTS	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Zinc Sample taken from mineralized shear.	YEAR: <u>GRADE</u> 8.6000 Grams p 3.4000 Grams p 3.4000 Per cent	1931 er tonne er tonne	
REFERENCE:	DIMD		Ν	
UKE ZOINE.	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Lead	GRADE         YEAR:           61.4000         Grams p           7.9000         Grams p           0.0200         Per cent           2.0900         Per cent	1985 er tonne er tonne	
COMMENTS: REFERENCE:	Grab sample from mineralized dump site. Assessment Report 15140.	1.4200 Per cent		
CAPSULE GEOLOGY	The Dorothy Group is und	derlain by Lower a	Jurassic Hazelton Grou	p

The Dorothy Group is underlain by Lower Jurassic Hazelton Group volcanics comprised of andesite, tuff and flow breccia. A rusty, manganese stained shear zone in the volcanics, striking 305 degrees and dipping southwest approximately 58 degrees, hosts mineralized veinlets. Mineralization consists of galena, sphalerite, chalco-

pyrite and tetrahedrite. Chalcopyrite with tetrahedrite veinlets crosscut the galena-sphalerite veins. Several arsenopyrite-rich, arsenic stained lenses were noted locally with galena-pyritesphalerite-chalcopyrite seams and stringers. A sample across the shear zone, collected by D. Lay in 1931 assayed 3.4 grams per tonne gold, 8.6 grams per tonne silver and 3.4 per cent zinc (Minister of Mines Annual Report 1931, page 73). In 1985, a dump grab sample with galena-pyrite-sphalerite assayed 7.9 grams per tonne gold, 61.4 grams per tonne silver, 2.09 per cent lead, 1.42 per cent zinc, and 0.02 per cent copper. An arsenopyriterich sample assayed 9.0 grams per tonne gold and 26.05 grams per tonne silver (Assessment Report 15140).

### BIBLIOGRAPHY

GSC MEM 223, p. 102 GSC P 44-23 EMPR AR \*1931-73; 1952-94 EMPR EXPL 1986-359 EMPR ASS RPT \*15140 GSC SUM RPT \*1925, p. 137 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/22 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 236</u>	NATIONAL MINI	ERAL INVENTORY: 093L14 Au12
NAME(S):	HEATHER, CASCADE, EMPIRE, RACHEL		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
REGIONS. NTS MAP: RC MAD	093L14W		UTM ZONE: 09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 40 N 127 17 01 W 1638 Metres Within 500M Showing on the north side of the rido Creek on the east side of Hudson Ba northwest of Smithers.	ge between the forks of Simpson y Mountain, 7.2 kilometres north-	NORTHING: 6073268 EASTING: 610350
COMMODITIES:	Zinc Silver	Gold	
MINERALS			
SIGNIFICANT: MINERALIZATION AGE:	Arsenopyrite Sphalerite Unknown		
DEPOSIT CHARACTER:	Vein		
CLASSIFICATION: TYPE:	Epigenetic Hydrothern 105 Polymetallic veins Ag-Pb-Zn-	mal ±Au	
DIMENSION: COMMENTS:	Mineralized vein at 1638 metres eleve	STRIKE/DIP: 320/48S ation.	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
	Hazellon	Underned Formation	
LITHOLOGY:	Andesite Tuff Flow Breccia		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE	Intermontane	PHYSIOGRAPH	IIC AREA: Nechako Plateau
METAMORPHIC TYPE:	Regional	RELATIONSHIP: Syn-mineralization	GRADE:
INVENTORY			
ORE ZONE:	SHEAR	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> Silver	YEAR: 1931 GRADE 17.1400 Grams per tonne	
	Gold Zinc	0.4200 Grams per tonne 3.4000 Per cent	
COMMENTS: REFERENCE:	84 centimetre sample taken across n Minister of Mines Annual Report 193	nineralized shear. 1, page 73.	
CAPSULE GEOLOGY			
	The Heather claim is volcanics comprised of an elevation of 1638 metres, a shear striking 320 degr veinlets consist of sphal. Mineralization occur and in 1931, a sample tak gold, 17.14 grams per ton of Mines Annual Report 19	underlain by Lower Jurassic Ha desite, tuff and flow breccia. an open cut exposed mineralize ees and dipping 48 degrees sout erite and arsenopyrite. s over an 84 centimetre width o en across this assayed 0.42 gra ne silver, and 3.4 per cent zin 31, page 73).	At an d veinlets in hwest. The f the shear, ms per tonne c (Minister
BIBLIOGRAPHY	EMPR AR *1931-73; 1952-94 GSC MEM 223, p. 102 GSC P 44-23 GSC MAP 278A; 971A EMPR EXPL 1986-359 EMPR ASS RPT *15140 GSC SUM RPT 1925A, p. 137 EMPR MAP 69-1		

GSC OF 351 GSC BULL 270 EMPR FIELDWORK 1988, pp. 195-208 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/22 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	093L 237	Ν	IATIONAL MINERAL INVENT	ORY: 093L14 Cu5
NAME(S):	ZEOLITIC (L.5447), ZEOLITIC 1			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L14E		MINING DIVI UTM Z	SION: Omineca ONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 30 N 127 10 56 W 548 Metres Within 500M Located on lower southeast slope of H west edge of the town of Smithers.	udson Bay Mountain, on the	NORTI EAS	HING: 6069415 TING: 616972
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrotherma L01 Subvolcanic Cu-Ag-Au (As-Sb Mineralized shear zone in rhyolite flow	al )) STRIKE/DIP: /.	225/75E TREN	D/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Nilkitkwa	IGNEOUS/MI	ETAMORPHIC/OTHER
LITHOLOGY:	Amygdaloidal Rhyolite Flow Flow Breccia Tuff Andesite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	F RELATIONSHIP: Syn-minera	PHYSIOGRAPHIC AREA: Ne alization GRADE:	chako Plateau
CAPSULE GEOLOGY	The Zeolitic Group is volcanics (Nilkitkwa Format amygdaloidal rhyolite flows structure that strikes 040 A narrow shear zone in the dipping 75 degrees southeas chalcopyrite.	underlain by Lower tion). The host roc which exhibit a po degrees and dips 25 rhyolite, striking st, is sparsely mine	Jurassic Hazelton G k is reddish-brown, orly defined flow degrees southeast. 225 degrees and ralized with pyrite	roup and
BIBLIOGRAPHY	<pre>EMPR FIELDWORK 1988, pp. 19 EMPR AR 1918-472 EMPR MAP 69-1 GSC MEM *223, p. 131 GSC P 44-23 GSC OF 351 GSC BULL 270 Kirkham, R.V., (1969): A Mi the Zonal Distribution of Columbia, Ph.D. Thesis,</pre>	95-208; 1991, pp. 93 Ineralogical and Geo of Ores in the Hudso University of Wisco	-101 chemical Study of n Bay Range, Britis nsin	h
DATE CODED: DATE REVISED:	1985/07/24 1988/06/22	CODED BY: GSB REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 238</u>		NATIONAL MINERAL INVENTORY:	093L14 Ag14		
NAME(S):	ZOBNIC					
STATUS: REGIONS: NTS MAP:	Showing British Columbia 0931 14E		MINING DIVISION:	Omineca 09 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 17 N 127 12 06 W 549 Metres Within 500M Located on Chicken Lake Creek ap of Smithers	proximately 1.5 kilometres n	NORTHING: EASTING:	6072690 615636		
COMMODITIES:	Silver Copper	Gold	Lead	Zinc		
MINERALS						
SIGNIFICANT: ALTERATION: MINERALIZATION AGE:	Galena Sphalerite Pyr Malachite Unknown	ite Tetrahedrite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothe 105 Polymetallic veins Ag-Pb-Z Mineralized shear zone in andesite.	ermal n±Au STRIKE/L	L01 Subvolcanic Cu-Ag-Au DIP: 285/60W TREND/PLU	(As-Sb) NGE:		
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER		
LITHOLOGY:	Andesite Tuff Flow Breccia Rhyodacite Rhyolite Flow					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIONSHIP: Syn-mir	PHYSIOGRAPHIC AREA: Nechako neralization GRADE:	) Plateau		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper Selected sample from upper zone. Minister of Mines Annual Report 19	YEAI <u>GRADE</u> 3566.0000 Grams 1.5000 Per ce 27, page 137.	R: 1927 s per tonne ent			
CAPSULE GEOLOGY	, The claims are underlain by Lower Jurassic Hazelton Group volcanics comprised mainly of andesite, tuff, flow breccia and rhyodacite to rhyolitic flows. At elevation 549 metres, a sparsely mineralized shear zone in the andesite strikes 285 degrees and dips 60 degrees southwest. The shear hosts minor galena, sphalerite and pyrite. Two other parallel mineralized shear zones striking northwest host malachite staining with the upper zone hosting minor tetrahedrite. A selected sample from the upper zone in 1927 assayed trace gold, 3566 grams per tonne silver and 1.5 per cent copper (Minister of Mines Annual Report 1927, page 137).					
BIBLIOGRAPHY	EMPR FIELDWORK 1988, pp. EMPR AR 1927-137; *1966- EMPR GEM 1971-177 EMPR MAP 69-1 GSC MAP 971A GSC P 44-23	195-208; 1991, pp. 91	93-101			

GSC OF 351 GSC MEM \*223, p. 131 GSC BULL 270 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/22 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 239</u>	NATIONAL M	INERAL INVENTORY: 093L2 Cu1
NAME(S):	POPLAR, TAGETOCHLAIN		
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093L02W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 01 00 N 126 59 24 W 920 Metres Within 500M Located on the northeast side of Tagetoc south-southwest of Houston.	hlain Lake, 48 kilometres	NORTHING: 5987246 EASTING: 631694
COMMODITIES:	Copper Molybdenum	Silver	Zinc
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Molybder Quartz Carbonate Gypsum Potassic Sericitic Unknown	nite Sphalerite n Malachite Azurite Argillic	Propylitic
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS	Stockwork Disseminated Porphyry Hydrothermal L04 Porphyry Cu ± Mo ± Au Average attitude of a mineralized dike sw	STRIKE/DIP: 315/90	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	: Plutonic		
STRATIGRAPHIC AGE Jurassic Cretaceous	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions
LITHOLOGY:	Biotite Porphyry Biotite Monzonite Porphyry Granodiorite Hornfels Andesite Tuff Lapilli Tuff Agglomerate Flow Breccia Argillite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Pluto Contact RI	PHYSIOGRA nic Rocks ELATIONSHIP:	PHIC AREA: Nechako Plateau GRADE: Hornfels
INVENTORY			
ORE ZONE:	POPLAR CATEGORY: Measured QUANTITY: 75000000 Tonnes COMMODITY Copper	REPORT ON: Y YEAR: 1983 GRADE 0.3500 Per cent	
REFERENCE:	Silver Molybdenum CIM Special Volume 37, page 185.	2.8000 Grams per tonne 0.0600 Per cent	
ORE ZONE:	POPLAR	REPORT ON: Y	
	CATEGORY: Unclassified QUANTITY: 144117000 Tonnes COMMODITY Copper Molybdenum Ore recorver down to the 1624 heads! at	YEAR: 1991 <u>GRADE</u> 0.3680 Per cent 0.0110 Per cent a strip ratio between 1:1 and	
REFERENCE:	2:1. George Cross News Letter No.162 (Aug	ust 22), 1991.	

The Lower-Middle Jurassic Hazelton Group volcanics are intruded

PAGE: 411 REPORT: RGEN0100

### CAPSULE GEOLOGY

by a Middle-Late Cretaceous Bulkley Intrusions. The Hazelton rocks are comprised of massive andesite, tuff, lapilli tuff, agglomerate, flow breccia with narrow bands and interbedded argillite. This group is overlain by Juro-Cretaceous sediments which are estimated to be 400 metres thick. The basal unit is comprised of gritty argillite overlain by sorted to unsorted medium to coarse-grained sandstone and conglomerate. The average bedding strikes 035 degrees and dips 60 degrees to the southeast.

The Bulkley Intrusions are comprised of a granodiorite to biotite monzonite porphyry which is aplitic near the contact margins. The stock is weakly mineralized with chalcopyrite, molybdenite and pyrite in fracture-fillings. As well, the biotite porphyry hosts an estimated 1.5 per cent of disseminated sulphides, mainly pyrite with minor chalcopyrite.

A 200-metre wide dike swarm associated with the biotite porphyry stock crosscuts the volcanics which have undergone considerable fracturing/faulting and hornfelsing throughout. Mineralization in the quartz veins and dike swarms is comprised of pyrite with minor chalcopyrite. A 1.0-metre wide quartz-carbonate vein hosts chalcopyrite and sphalerite with associated malachite and azurite. Minor molybdenum occurs in gypsum and quartz veins.

There is a well-developed hydrothermal alteration facies concentric to the biotite porphyry which includes potassic, phyllic, argillic and propylitic zones. There is weak hornfelsing throughout the volcanics and it is strongest near the contact with the granodiorite stock. Mineralization in the hornfelsed aureole consists mainly of disseminated pyrite with very minor chalcopyrite. Unclassified ore reserves down to the "624 bench" are

Unclassified ore reserves down to the "624 bench" are 144,117,000 tonnes grading 0.368 per cent copper and 0.011 per cent molybdenum at a strip ratio between 1:1 and 2:1 (George Cross News Letter #162, 1991). In 1983, reserves were estimated at 75,000,000 tonnes at 0.35

In 1983, reserves were estimated at 75,000,000 tonnes at 0.35 per cent copper, 0.06 per cent molybdenum (0.1 per cent MoS2) and 2.8 grams per tonne silver (CIM Special Volume 37, page 185).

#### BIBLIOGRAPHY

EMPR ASS RPT 3665, 5360, 5361, 5586, 5679, 5726, \*6065, 6136, 6539, 7983, 8129, 8186, 9431, 10298, 22092 EMPR EXPL 1975-E138; 1976-E145; 1977-E191; 1979-E226; 1980-340 EMPR FIELDWORK 1977, p. 65 EMPR GEM 1972-373; 1974-256 EMPR GEOL 1977-1981, p. 120 EMPR MAP 58; 65 (1989); 69-1 EMPR OF 1992-1; 1992-3; 1994-14 EMPR PF (Jones, H.M., (1972): Geological and Geochemical Report on the Poplar Mineral Claims; Miscellaneous Unpublished Reports, Maps) EMR MIN BULL MR 223 B.C. 227 GSC BULL 270, p. 73 GSC MEM 299, pp. 35-48 GSC OF 351 GSC P 71-1A, pp. 34-36; 72-1A, pp. 39-41 CIM Vol.1 Jan.-Mar. 1986, pp. 38-45 CIM Special Vol. 37, p. 185 GCNL #162(Aug.22),#202(oct.21), 1991; #9(Jan.14), 1992 N MINER Sept. 16, 30, 1991 Placer Dome File EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1988/06/23 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 240</u>						NATIONAL MIN	IERAL INVE	ENTORY:	
NAME(S):	<b>LUNLIK</b> , TEL, F	LAT TOP N	NOUNTAIN	١						
STATUS:	Showing							MINING D	NVISION:	Omineca
NTS MAP:	093L06E	l						UTI	M ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 23 00 N 127 05 06 W 1800 Metres Within 1 KM On "Flat Top Mo west of Houstor Report 18032).	ountain" ea n, location	ast of Tomi of minera	my Cree lization	ek approxima on Tel claim	itely 29 kilo s (Assessi	metres ment	NO E	RTHING: ASTING:	6027863 624364
COMMODITIES:	Copper		Gold							
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Orthoclase Limonite Oxidation Unknown	Bornite Quartz Epidote	Pyu Ca Garr Epidote	rite Ilcite net	Pi	opylitic				
CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyı	ry Cu ± Mo	o ± Au							
HOST ROCK DOMINANT HOSTROCK:	Plutonic									
STRATIGRAPHIC AGE	GROUP			<u>F</u> (	ORMATION			<b>IGNEOUS</b>	METAM	ORPHIC/OTHER
Lower Jurassic Upper Cretaceous	Hazelton			10	elkwa			Bulkley Ir	ntrusions	
LITHOLOGY:	Quartz Diorite Granodiorite Quartz Monzon Fragmental Rhy Andesite Tuff Breccia	ite olite								
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine	Pagional		Plutonia	C Rocks	Sun minor	PHYSIOGRAP	HIC AREA:	Hazelton	Ranges
	Contact	Regional		NEL	ATIONSHIF.	Syn-miner	IdiizdiiOIT	GRADE.	Hornfels	11151
INVENTORY										
ORE ZONE:	SAMPLE				RE	PORT ON:	Ν			
COMMENTS:	CATEGORY: SAMPLE TYPE: <u>COMMODITY</u> Gold Copper Grab sample w	Assay/a Grab	nalysis	gyrite.	<u>GRADE</u> 0.8570 0.0169	YEAR: Grams p Per cent	1988 er tonne			
REFERENCE:	Assessment Re	eport 1803	2.							
CAPSULE GEOLOGY The area is underlain by Lower Jurassic Hazelton Group, Telkwa Formation rocks comprised primarily of andesitic to rhyolitic flows with associated tuffs and breccias. Small masses of Late Cretaceous granodiorite and quartz monzonite (probably related to the Bulkley Intrusions) intrude the volcanics. Chalcopyrite and pyrite are reported to occur with quartz and orthoclase in fractured fine to medium-grained quartz diorite. In 1974, six diamond drill holes, totalling 813.5 metres, were drilled										

on the Lunlik claims to test for mineralization in the quartz diorite stock. Minerals noted from drilling reports include chalcopyrite, pyrite, bornite, chalcocite, limonite, epidote and garnet. Disseminated pyrite was also reported to occur in rhyolitic fragmented rocks. Recently this area has been restaked as the Tel 1-8 claims. In 1988, a grab sample taken from the limonitic granodioritic intrusive

with minor chalcopyrite and pyrite assayed 0.857 grams per tonne gold and 0.0169 per cent copper. Another grab sample assayed 0.0881 per cent copper (Assessment Report 18032).

### BIBLIOGRAPHY

EMPR GEM 1974-258 EMPR EXPL 1988-C168 EMPR ASS RPT 1189, \*5094, \*18032, 19332 EMPR MAP 69-1 EMPR OF 1990-5; 1994-14 EMPR PF (Report by T. Schroeter, Nov. 1975) GCS OF 351 GSC BULL 270

DATE CODED:	1985/07/24	CODED BY:	GSB	FIELD CHECK: N
DATE REVISED:	1988/03/25	REVISED BY: I	LLD	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 241</u>	NATIONAL MINE	ERAL INVENTORY:
NAME(S):	MSJ		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L06W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 24 30 N 127 22 12 W 1097 Metres Within 500M Located 5.2 kilometres southwest of th Lake, 43.5 kilometres south-southwest	ne south end of Mooseskin Johnny t of Smithers.	NORTHING: 6030178 EASTING: 605793
COMMODITIES:	Copper Molybdenur	n	
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Molybo Quartz Sericite Pyrite Sericitic Oxidation Unknown	denite Chalcocite Tenorite Malachite Tenorite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Disseminate Porphyry L04 Porphyry Cu ± Mo ± Au	ed	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Lower Jurassic Cretaceous	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
LITHOLOGY:	Quartz Monzonite Quartz Monzonite Porphyry Andesite Andesite Tuff Flow Andesite Breccia		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Pl Contact	PHYSIOGRAPH utonic Rocks RELATIONSHIP: Syn-mineralization	IC AREA: Hazelton Ranges GRADE:
CAPSULE GEOLOGY	Lower Jurassic Hazelto breccias are intruded by a which hosts disseminated an comprised mainly of pyrite tenorite, sooty chalcocite of quartz monzonite porphy: sericite and pyrite).	on Group andesitic flows, tuff Cretaceous quartz monzonite p nd fracture controlled mineral with minor chalcopyrite, moly and malachite staining. Seve ry are strongly phyllic altere	s and orphyry stock ization bdenite, ral outcrops d (quartz,
BIBLIOGRAPHY	EMPR GEM *1974-258 EMPR EXPL *1975-E139 EMPR ASS RPT 5208, *19493, GSC OF 351 EMPR MAP 69-1 GSC BULL 270 EMPR OF 1990-5; 1994-14	22058	
DATE CODED: DATE REVISED:	1985/07/24 1987/06/23	CODED BY: GSB REVISED BY: LLC	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 242</u>	NATIONAL	MINERAL INVENTORY:
NAME(S):	<u>JILL</u> , FG		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093L09E		UTM ZONE: 09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 30 N 126 14 06 W 945 Metres Within 500M Located 9.7 kilometres southwest o of the Topley Landing road, 60 kilor	f Topley Landing, immediately north netres east of Smithers.	NORTHING: 6069553 EASTING: 677985
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Dissemin Porphyry L04 Porphyry Cu ± Mo ± Au	ated	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Lower Jurassic Jurassic	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER Topley Intrusions
LITHOLOGY:	Granodiorite Biotite Feldspar Porphyry Dike Tuff Andesite Flow Breccia		
GEOLOGICAL SETTING			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Stikine Contact	Plutonic Rocks RELATIONSHIP: Syn-mineralization	GRADE:
CAPSULE GEOLOGY			
	The claims are under Telkwa Formation volcanio flows, tuff and breccia. Topley Intrusion comprise feldspar porphyry dikes. disseminations in the vol associated with the intru	rlain by Lower Jurassic Hazel cs comprised mainly of andesi The volcanics are intruded ed of granodiorite and associ Pyrite and traces of chalco lcanics and the intrusion as usion.	ton Group, te, andesitic by a Jurassic ated quartz- pyrite occur as well as in veins
BIBLIOGRAPHY			
	EM EXPL 1999-1-11 EM OF 2001-03 EMPR ASS RPT 2050, *4427 EMPR EXPL *1974-260 EMPR GEM 1969-119; *1973 EMPR MAP 69-1 GSC BULL 270 GSC OF 351 Placer Dome File EMPR BULL 110	-342	
DATE CODED: DATE REVISED:	1985/07/24 1987/06/23	CODED BY: GSB REVISED BY: LLC	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 243</u>		NATIONAL MINERA	L INVENTORY:
NAME(S):	JACOB			
STATUS:	Showing British Columbia		MIN	NING DIVISION: Omineca
NTS MAP: BC MAP:	093L09W			UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION:	54 43 00 N 126 17 06 W Metres			NORTHING: 6066646 EASTING: 674874
LOCATION ACCURACY: COMMENTS:	Within 1 KM Located 24 kilometres wes of Baboon Lake.	st of Topley Landing and 3.2 kilor	netres north	
COMMODITIES:	Copper	Molybdenum		
	Pyrite Chalcopyrite	e Molybdenite Bornite	Magnetite	
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Quartz Carbonate Chlorite Epidote Propylitic Unknown	Pyrite Sericite Sericitic	magnette	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo	Disseminated Hydrothermal ± Au		
HOST ROCK DOMINANT HOSTROCK:	: Volcanic			
STRATIGRAPHIC AGE Lower Jurassic Jurassic	GROUP Hazelton	FORMATION Undefined Format	ion Top	EOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Breccia Granodiorite Biotite Feldspar Porphyry			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Plutonic Rocks RELATIONSHIP: Syr	PHYSIOGRAPHIC A n-mineralization GR	REA: Nechako Plateau ADE:
CAPSULE GEOLOGY				
	Host rocks ar of andesite, tuff pyritized and host fractures. Interb disseminated pyrit	e Lower Jurassic Hazelt and breccia. The andes s minor magnetite and t edded tuffs are bleache e.	con Group volcanics site is chloritized craces of chalcopyr ed and sericitic ho	comprised and ite in the sting
	The volcanics comprised of grano Associated quartz with minor chalcop netite and sphaler	are intruded by Jurass diorite and associated veining and quartz-cark yrite, molybdenite and ite were noted in some	sic Topley Intrusio biotite-feldspar p ponate stringers ho bornite. Traces o quartz-carbonate s	ns orphyry. st pyrite f mag- tringers.
BIBLIOGRAPHY				
	EM OF 2001-03 EMPR ASS RPT *5596 EMPR EXPL *1976-E1 EMPR GEM *1974-260 EMPR MAP 69-1 GSC BULL 270 GSC OF 351 Placer Dome File EMPR BULL 110	49		
DATE CODED: DATE REVISED:	1985/07/24 1987/06/23	CODED BY: GSB REVISED BY: LLC		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 244</u>		NATIONAI	_ MINERAL INVENTORY	/: 093L11 Cu1
NAME(S):	<u>BILL</u> , JO				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093I 11E			MINING DIVISION	: Omineca : 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 36 00 N 127 03 06 W 1219 Metres Within 1 KM Located 11.3 kilometres due south of Creek; location is centre of Jo-Bill clai	Telkwa at the head of Hube ms.	ert	NORTHING	6052026 625861
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Malachite Unknown				
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE:	Massive Disseminat Epigenetic L01 Subvolcanic Cu-Ag-Au (As-S	ed Vein b)	D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	<u> </u>	IGNEOUS/METAN	MORPHIC/OTHER
LITHOLOGY:	Andesite Andesite Flow Tuff Agglomerate				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIONSHIP: Syn-mine	PHYSIOG	RAPHIC AREA: Nechak GRADE:	ko Plateau
CAPSULE GEOLOGY BIBLIOGRAPHY	The claims are underl volcanics (Telkwa Formatio dark green andesite and an agglomerate. The volcanic northwest axis which dips A weak shear zone abo dips vertical. Mineraliza finely disseminated to mas along fractures and faults a massive dark green to bl average grade across the 7 copper (Assessment Report Other mineralization pyrite, minor chalcopyrite EMPR GEM 1974-261 EMPR ASS RPT 5156, *5162 GSC P 44-23 EMPR MAP 69-1 GSC OF 351 GSC BULL 270	ain by Lower Jurass m), comprised of re desitic flows with s appear to be gent moderately southwes but 76 metres wide t tion, as exposed in sive chalcopyrite w within the sheared ack andesite. A vi ack andesite. A vi 5162). in the volcanics co and malachite stai	sic Haze ed to pu interbe ly fold st. crends 0 n trench with qua d area. 0.15 to onsists ining.	lton Group rple and dded tuff and ed along a 20 degrees and , consists of rtz infilling The host rock i timate of the 0.20 per cent of disseminated	s
DATE CODED: DATE REVISED:	Material Facts for Angl EMPR FIELDWORK 1988, pp. 1 EMPR OF 1989-16 1985/07/24 1987/06/23	O-Bomarc Mines Ltd. 95-208 CODED BY: GSB REVISED BY: LLD	., dated	May, 1974	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 245</u>			NATIONAL M	INERAL INVENTORY:	
NAME(S):	<u>APEX 9</u> , ROAD					
STATUS:	Prospect				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L08W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 25 00 N 126 25 06 W 914 Metres Within 500M Located 14.5 kilometres northeast of Aiken Cree	east-northeast of Houst k.	on, 3.2 kilomet	res	NORTHING: EASTING:	6032952 667514
COMMODITIES:	Silver Barite	Gold Strontium	Copper Cadmium		Lead Antimony	Zinc Mercury
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Chalco Quartz Carbona Malachite Azurite Oxidation Unknown	cite Galena te Barite Limonite	Barite	Hematite		
	Voin					
CLASSIFICATION: TYPE:	Hydrothermal L01 Subvolcanic Cu	Industrial Min. -Ag-Au (As-Sb)		D03 Vo	Icanic redbed Cu	
DIMENSION: COMMENTS:	Flow banding in volcani	cs.	STRIKE/	'DIP: 040/70N	IREND/PLUN	IGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	FORM/ Undefir	ATION ned Formation		IGNEOUS/METAMC	RPHIC/OTHER
LITHOLOGY:	Andesite Andesite Flow Rhyolite Flow Breccia Argillite					
	Intermentane					Plotoou
METAMORPHIC TYPE:	Stikine Contact	RELATION	NSHIP: Syn-mi	ineralization	GRADE:	Fialeau
INVENTORY						
ORE ZONE:	ROAD		REPORT C	DN: N		
	CATEGORY: Assay, SAMPLE TYPE: Grab COMMODITY	/analysis GRAE	YEA	NR: 1974		
	Silver Copper	0.00 0.13 0.07	040 Gram 0310 Per c 060 Per c	ent ent		
	Strontium Zinc	0.15	560 Perci 500 Perci	ent		
COMMENTS:	Grab sample from miner showing). Barium assay Assessment Report 528	alized fractures in maroo ed 9.58 per cent.	on andesite (Ro	bad		
	The property	, is in part unde	ulain bu T	owor Turoga	ia Terelter	

Group volcanics comprised mainly of massive, maroon to green andesite, andesitic flows and breccias with a lesser amount of massive, light-colored rhyolite. Locally there are volcanics comprised mainly of vesicular basalt flows with calcite-quartz epidote amygdules as well as interbedding siliceous argillite and agglomerate. Flow banding in the volcanics strikes 040 degrees and dips 70 degrees northwest.

Light grey to flesh tone rhyolite, with euhedral to subhedral feldspar grains, exhibits extensive limonite and hematitic staining. In 1974, a grab sample of the rhyolite assayed 0.0143 per cent molybdenum, 0.0021 per cent copper, 0.0158 per cent lead, 0.0390 per cent

zinc, 0.006 grams per tonne silver, trace of gold and 0.25 per cent mercury (Assessment Report 5288).

The volcanics are crosscut by a dark green, strongly magnetic gabbroic intrusion which hosts disseminated pyrite. As well, associated quartz and quartz-carbonate veins crosscut the volcanics and host both disseminated and blebs of pyrite and chalcopyrite. The Road showing hosts disseminated chalcopyrite, chalcocite, galena, specular hematite, malachite and azurite in fracture zones within the maroon andesite. Associated with the fractures are near

vertical barite veins which range up to 0.3 metres in width. In 1973, a grab sample assayed trace silver, 0.009 per cent copper, 0.051 per cent zinc, 0.009 per cent lead, 0.002 per cent arsenic, 19 per cent barium and 0.625 per cent strontium. In 1974 a grab sample assayed 0.004 grams per tonne silver, 0.131 per cent copper, 0.076 per cent lead, 0.505 per cent zinc, 0.84 per cent mercury, 9.58 per cent barium and 0.156 per cent strontium (Assessment Report 5288).

In 1986, other outcrops of rhyolite located in the road cut at the eastern property boundary were found to be enriched in silver, cadmium, and mercury. Also, rhyolite rocks in the southwestern corner of the claim group carry values up to 0.05 grams per tonne gold and 10.5 grams per tonne silver as well as high arsenic, barium, cadmium, copper, antimony, zinc, and mercury values (Assessment Report 15489).

#### BIBLIOGRAPHY

EMPR GEM \*1974-259 EMPR ASS RPT \*5288, 6427, 11504, 15408, 15489, 17154, 18519 EMPR EXPL 1977-E194; 1983-442; 1987-C303; 1988-C169 GSC OF 351 EMPR MAP \*11; 69-1 EMPR BULL \*78 GSC BULL 270 EMPR OF 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1987/06/24 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 246</u>	NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>APEX 8,</u> POND		
STATUS: REGIONS:	Showing British Columbia	MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L08W	UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 25 01 N 126 25 41 W 915 Metres Within 500M Located 14.5 kilometres east-n northeast of Aiken Creek. Roa 093L 245.	NORTHING: EASTING: ad showing on Apex claims refer to	6032960 666883
COMMODITIES:	Copper Iron	ı	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Bornite Calcite Malachite Unknown	Magnetite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Industrial Min. L01 Subvolcanic Cu-Ag-Au Mineralization occurs along do	u (As-Sb) D03 Volcanic redbed Cu STRIKE/DIP: 005/70W TREND/PLU minant fractures in basalt.	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Andesitic Breccia Rhyolite Vesicular Basalt Amygdaloidal Basalt Gabbro		
HOSTROCK COMMENTS:	Gabbro Intrusion.		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYSIOGRAPHIC AREA: Nechako	Plateau
TERRANE: METAMORPHIC TYPE:	Stikine Contact	RELATIONSHIP: Syn-mineralization GRADE:	
CAPSULE GEOLOGY	The property is Group volcanics compr andesitic flows and b coloured rhyolite. L basalt flow with calc siliceous argillite a strikes 040 degrees a flesh tone rhyolite w exhibits extensive li The volcanics ar gabbro intrusion whic quartz and quartz-car both disseminated and The Pond showing dominant fractures in and dip 70 degrees we chalcopyrite, bornite	in part underlain by Lower Jurassic Hazelton rised mainly of massive maroon to green andesite, preccias with a lesser amount of massive, light locally there is a dark green to black, vesicular eite-quartz amygdules as well as interbedded and agglomerate. Flow banding in the volcanics and dips 70 degrees northwest. A light grey to with euhedral to subhedral feldspar grains monitic and hematitic staining. The crosscut by a dark green, strongly magnetic th hosts disseminated pyrite. Also, associated bonate veins crosscut the volcanics and host blebs of pyrite and chalcopyrite. (, on the Apex 8 claim, hosts mineralization alon the basalt. The fractures strike 005 degrees est. Mineralization consists of magnetite, e, malachite and calcite infilling.	g
BIBLIOGRAPHY	EMPR GEM *1974-259 EMPR EXPL 1977-E194; EMPR ASS RPT *5288, 6 GSC OF 351 EMPR MAP *11; 69-1 EMPR BULL *78 GSC BULL 270	1983-442; 1987-C303; 1988-C169 427, 11504, 15408, 15489, 17154, 18519	

EMPR	P '	1990-2
EMPR	OF	1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1987/06/24 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 247</u>		NATIONA	L MINERAL INVENTORY:	
NAME(S):	APEX 18, BEAVER POND	CREEK			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L08W			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 24 15 N 126 25 09 W 915 Metres Within 500M Property located 14.5 kilor metres northeast of Aiken to (093L 245 and 246).	netres east-northeast of F Creek. Other showings	Houston, 3.2 kilo- on Apex claims refer	NORTHING: EASTING:	6031560 667511
COMMODITIES:	Copper	Silver	Gold	Barite	Strontium
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Chalcoci Quartz Barite Limonite Hematite Oxidation Unknown	te Bornite Malachite Silicific'n			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-A	Hydrothermal g-Au (As-Sb)	Industrial Min. D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATIC		IGNEOUS/METAMO	ORPHIC/OTHER
Lower Jurassic	Hazelton	Undefined	Formation		
LITHOLOGY:	Andesite Andesitic Breccia Rhyolite Vesicular Basalt Amygdaloidal Basalt				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	RELATIONS	PHYSIOG HIP: Syn-mineralization	RAPHIC AREA: Nechako GRADE:	Plateau
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Gold Grab sample taken 200 m Assessment Report 15485	nalysis <u>GRADE</u> 6.0000 0.0620 etres southeast of Beaver 9.	YEAR: 1986 Grams per tonne Grams per tonne r Pond.		
CAPSULE GEOLOGY	The property Group volcanics co andesitic flows an coloured rhyolite. basalt flow with c interbedded silice	is in part underl. mprised mainly of d breccias with a Locally, there alcite-quartz-epi ous argillite and	ain by Lower Jura massive maroon t lesser amount of is a black to gre dote amygdules as agglomerate. Fl	ssic Hazelton o green andesite, massive, light en, vesicular well as low banding in the	

yolcanics strikes 040 degrees and dips 70 degrees northwest. A light grey to flesh tone rhyolite with euhedral to subhedral feldspar grains exhibits extensive limonitic and hematitic staining. The volcanics are crosscut by a dark green, strongly magnetic gabbro intrusion which hosts disseminated pyrite. Also, associated

gabble intrusion which hosts disseminated pyrite. Also, associated quartz and quartz-carbonate veins crosscut the volcanics and host both disseminated and blebs of pyrite and chalcopyrite. The Beaver Pond showing, on the Apex 18 claim, consists of mineralized quartz veins and quartz-carbonate veinlets in a 91 metre section in basalt. A 3.0 metre fracture zone in the basalt hosts quartz infilling with associated chalcopyrite, chalcocite, bornite and malachite. The guartz-carbonate veinlets host discominated and malachite. The quartz-carbonate veinlets host disseminated

chalcopyrite and bornite with malachite staining. In 1986, a sample taken from a small barite vein from "the Ba showing" at the northern end of Beaver Pond indicated strong enrichment in base metal trace elements like copper and silver, as well as in barium and strontium. Approximately 200 metres southeast of Beaver Pond a sample assayed 6.0 grams per tonne silver and 0.062 grams per tonne gold (Assessment Report 15489).

### BIBLIOGRAPHY

EMPR GEM \*1974-259 EMPR EXPL 1977-E194; 1983-442; 1987-C303; 1988-C169 EMPR ASS RPT \*5288, 6427, 11504, 15408, 15489, 17154, 18519 GSC OF 351 EMPR MAP \*11; 69-1 EMPR BULL \*78 GSC BULL 270 EMPR P \*1990-2 EMPR OF 1994-14

DATE CODED: 1985/07/24 DATE REVISED: 1987/06/24 CODED BY: GSB REVISED BY: LLC

MINFILE NUMBER:	<u>093L 248</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	FENTON, FENTON 1-14, CODE			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP:	093L02W		UTM ZONE:	09 (NAD 83)
LATITUDE:	54 09 00 N		NORTHING:	6002213
ELEVATION:	Metres		EASTING.	033932
COMMENTS:	Located on the west slope of Ts	alit Mountain, near the headwate	rs	
COMMODITIES.	Copper Silver	Zinc		
SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite S Unknown	Sphalerite		
DEPOSIT		minated		
CLASSIFICATION:	Epigenetic Hydro	thermal	L 01 Subvolcanic Cu-Ag-Au (	Ac-Sh)
HOST ROCK				A3-00)
DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	DRPHIC/OTHER
Eocene	Skeena	Ondenned Formation	Nanika Intrusions	
LITHOLOGY:	Andesite			
	Rhyolite			
	Volcanic Breccia Tuff			
	Quartz Monzonite Porphyritic Monzonite			
TECTONIC BELT:	Intermontane		PHYSIOGRAPHIC AREA: Nechako	Plateau
METAMORPHIC TYPE:	Stikine Contact	RELATIONSHIP:	GRADE:	
CAPSULE GEOLOGI	The claims are un	derlain by the Lower Cr	etaceous Skeena Group	
	argillites overlain by	ry rocks which consist andesite, tuff-breccia	of basal sandstone and , rhyolite, and basalt	
	with andesite flows. ( lens-shaped body of tu	On the west side of Tsa ff breccia is found nea	lit Mountain, a thick r the top of a basalt-	
	andesite lava pile. The Nanika Intrusive compr	he Mesozoic rocks are i ised of a mass of quart	ntruded by an Eocene z monzonite and	
	on the claims, bas	salt outcrops and appea	rs to overlie andesite	
	on the lower slopes of was found throughout the	the mountain. Pyritic he claims. Pyrite and	, rhyolite tuff float vein chalcopyrite was	
	found in the volcanics In 1982, a signif	in a trench that was end icant copper-silver geo	xcavated in 1976. chemical anomaly 488	
	metres long, open at be coincide with one of the	oth ends, and 122 metre he major northwest-sout	wide was found to heast fault zones on the	
	property. The anomaly major fault zones.	covers the intersection	n of at least three	
	A second anomalous	s area, a silver-lead-z ered agglomerate unit.	inc anomaly, was found Sphalerite	
	mineralization occurs a disseminations in the a	in steeply dipping vein agglomerate unit.	lets and as fine	
BIBLIOGRAPHY				
	EMPR GEM *1970-142-149 EMPR EXPL *1975-138	,Fig. 14		
	EMPR ASS RPT 1229, 568 EMPR PF (*Unpublished	4 report on Fenton Group.	Tsalit Mountain	
	Project, Houston, B Consolidated Church	.C. Nov. 1976; Rights O	ffering Circular for ept. 24, 1987; Fenton	
	Claim maps)	III INCOLPTINCE INC., D	ere. 21, 1967, rencon	

GSC MAP 278A; 671A; 971A EMPR MAP 69-1 GSC OF \*351 GCNL #227, 1982; #17, 1983

DATE CODED: 1987/10/10 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 249</u>	NATIONAL MINE	ERAL INVENTORY:
NAME(S):	<u>NATIVE</u> , ARROW B		
STATUS:	Showing		MINING DIVISION: Omineca
NTS MAP:	093L15W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 53 00 N 126 48 06 W Metres Within 5 KM Located 3 kilometres southeast of Me Creek and Higgins Creek.	ount Hyland, between Little Joe	NORTHING: 6084022 EASTING: 641020
COMMODITIES:	Silver Lead	Zinc	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Galena Sphalerite Chal Unknown	lcopyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polymetallic veins Ag-Pb-Zn:	±Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Kasalka	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Flow Breccia Argillite Rhyolite Dike		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYSIOGRAPH	IC AREA: Skeena Ranges
TERRANE: METAMORPHIC TYPE:	Stikine Contact	RELATIONSHIP: Syn-mineralization	GRADE:
CAPSULE GEOLOGY	The claims are under canics comprised mainly o lite. The showing consists crosscut the argillite ne consists of galena, sphal	lain by Upper Cretaceous Kasalk f andesite, tuff, flow breccia of mineralized veins and strin ar a rhyolite dike contact. Mi erite and chalcopyrite.	a Group vol- and argil- gers which neralization
BIBLIOGRAPHY	EMPR EXPL 1977-E199 EMPR MAP 69-1 EMPR FIELDWORK 1987, pp. GSC OF 351 GSC BULL 270	181-193; 1988, pp. 195-208; 199	1, pp. 93-101
DATE CODED: DATE REVISED:	1985/07/24 1988/06/25	CODED BY: GSB REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 250</u>	NATIC	NAL MINERAL INVENTORY: 093L10 Zn6
NAME(S):	<u>SOLO,</u> EAST LODE		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L10E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 11 N 126 41 45 W 1325 Metres Within 1 KM The claim is located on the northeaste overlooking Fish Lake (currently McQ southeast of Telkwa. Location of mir Exploration and Mining 1972, Figure 4	ern slopes of Grouse Mountain, uarrie Lake), 26 kilometres neralized showing from Geology, 9.	NORTHING: 6049353 EASTING: 648954
COMMODITIES:	Gold Silver	Zinc	Lead
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Chalcopyrite Pyri Quartz Silicific'n Unknown	ite	
DEPOSIT	Voin		
CLASSIFICATION: TYPE:	Epigenetic Hydrothern 105 Polymetallic veins Ag-Pb-Zn±	nal Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Breccia		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYS	IOGRAPHIC AREA: Nechako Plateau
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	Intermontane Stikine	PHYS	IOGRAPHIC AREA: Nechako Plateau
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Intermontane Stikine VEIN	PHYS REPORT ON: N	IOGRAPHIC AREA: Nechako Plateau
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Intermontane Stikine VEIN CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Zinc Sample from mineralized vein, also he	PHYS REPORT ON: N YEAR: 1926 <u>GRADE</u> 75.4000 Grams per ton 10.2000 Grams per ton 26.5000 Per cent posts trace lead.	IOGRAPHIC AREA: Nechako Plateau
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	Intermontane Stikine VEIN CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Zinc Sample from mineralized vein, also he Minister of Mines Annual Report 1926	PHYS REPORT ON: N YEAR: 1926 <u>GRADE</u> 75.4000 Grams per ton 10.2000 Grams per ton 26.5000 Per cent osts trace lead. 5, page 38.	IOGRAPHIC AREA: Nechako Plateau
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	Intermontane Stikine VEIN CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Zinc Sample from mineralized vein, also he Minister of Mines Annual Report 1926 The claim is underlai volcanics (Telkwa Formatic basaltic tuffs, red tuffs a silicified vein hosting pyrite paralleling the bed country rock. In 1926, a grams per tonne gold, 75.4 and trace lead (Minister co	PHYS REPORT ON: N YEAR: 1926 <u>GRADE</u> 75.4000 Grams per ton 10.2000 Grams per ton 26.5000 Per cent osts trace lead. 5, page 38. In by Lower Jurassic Haze (n), comprised mainly of and breccia. The main a sphalerite, with minor of ding planes of the enclo- sample of the mineraliz. I grams per tonne silver of Mines Annual Report 12	NOGRAPHIC AREA: Nechako Plateau ne ne andesitic flows, showing consists of chalcopyrite and osing andesite ed zone assayed 10.2 , 26.5 per cent zinc 226, page 38).
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY BIBLIOGRAPHY	Intermontane Stikine VEIN CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Zinc Sample from mineralized vein, also he Minister of Mines Annual Report 1926 The claim is underlai volcanics (Telkwa Formatic basaltic tuffs, red tuffs a silicified vein hosting pyrite paralleling the bed country rock. In 1926, a grams per tonne gold, 75.4 and trace lead (Minister of	PHYS REPORT ON: N YEAR: 1926 <u>GRADE</u> 75.4000 Grams per ton 10.2000 Grams per ton 26.5000 Per cent osts trace lead. 5, page 38. In by Lower Jurassic Haz. on), comprised mainly of and breccia. The main s sphalerite, with minor of and breccia. The main s sphalerite, with minor of and planes of the encles sample of the mineralized grams per tonne silver of Mines Annual Report 1:	HOGRAPHIC AREA: Nechako Plateau ne ne ne ne showing consists of chalcopyrite and osing andesite ed zone assayed 10.2 , 26.5 per cent zinc 026, page 38).
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY BIBLIOGRAPHY	Intermontane Stikine VEIN CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Zinc Sample from mineralized vein, also he Minister of Mines Annual Report 1926 The claim is underlaid volcanics (Telkwa Formatic basaltic tuffs, red tuffs a silicified vein hosting pyrite paralleling the bed country rock. In 1926, a grams per tonne gold, 75.4 and trace lead (Minister of EMPR AR *1926-38 EMPR MAP 69-1 GSC OF 351 EMPR GEM 1970-158; *1972-F GSC MAP 671A GSC BULL 270 EMPR FIELDWORK *1988, pp.	PHYS REPORT ON: N YEAR: 1926 <u>GRADE</u> 75.4000 Grams per ton 10.2000 Grams per ton 26.5000 Per cent osts trace lead. 5, page 38. In by Lower Jurassic Haze on), comprised mainly of and breccia. The main a sphalerite, with minor of and breccia. The main a sphalerite, with minor of ang planes of the encle ample of the mineralized grams per tonne silver of Mines Annual Report 1: Fig. 49 195-208	ACCRAPHIC AREA: Nechako Plateau

MINFILE NUMBER:	<u>093L 251</u>			NATIONAL MINERAL I	INVENTORY:	093L10 Ag2
NAME(S):	GROUSE MOUNTAIN, CC CHANCE, JULIA, GWENDA	RNUCOPIA, LAST ( A	CHANCE,			
STATUS:	Past Producer		Underground	MININ	NG DIVISION:	Omineca
NTS MAP: BC MAP	093L10E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 42 N 126 44 33 W 1372 Metres Within 500M Located on Grouse Moun kilometres north-northwes Mining in British Columbia	tain, 34 kilometres : st of Houston (Geol 1972).	southeast of Smithers ogy, Exploration and	or 20	NORTHING: EASTING:	6050213 645907
COMMODITIES:	Silver	Copper	Zinc	Gold		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Chalcop Quartz Carbonate Epidote Chlorite Propylitic Unknown	yrite Sphalerite Pyrite Kaolinite Sericitic	Sericite Silicific'n			
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic I05 Polymetallic veins 200 Julia vein (Last Chance); (Cornucopia) which strike	Hydrothermal Hydrothermal Ag-Pb-Zn±Au Metres 300 metres east is is 025 degrees and	STRIKE/DIP the Gwenda vein I dips 40 degrees eas	: 020/85E t.	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
<u>STRATIGRAPHIC AGE</u> Jurassic	GROUP Hazelton	<u> </u>	RMATION kwa	IGNE	OUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Tuff Lapilli Tuff Andesite Flow Argillite Dacite Flow Greywacke Feldspar Porphyry Dike Granodiorite Dike Lamprophyre Dike					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOGRAPHIC AR	EA: Nechako	Plateau
INVENTORY						
ORE ZONE:	RUBY		REPORT ON:	Y		
COMMENTS: REFERENCE:	CATEGORY: Indicated QUANTITY: 3600 COMMODITY Silver Copper Zinc Drill indicated mineralized Assessment Report 2066	body. 5, page 1.	YEAR: RADE 30.1000 Grams p 0.3800 Per cent 4.2300 Per cent	1990 er tonne		
CAPSULE GEOLOGY						
	The Grouse Mo Jurassic Hazelton a uniform fine-gra moderate cleavage tuff, lapilli tuff ranges from dark o bedded, laminated	ountain occurr Group rocks ( ained maroon t This is ove t, tuffaceous grey to green and massive.	ence is underl Telkwa Formati uff which is ma rlain by a var greywacke and to maroon, is The tuffs ar	ain by Lower-Mi on), comprised assive, showing iegated sequenc argillite. The fine-grained, t e overlain by a	ddle mainly of weak to e of tuff hinly massive	

dark green andesitic to dacitic flows. The volcanics are crosscut by a series of feldspar porphyry dikes trending north-northwest and dipping west ranging between 30 to

PAGE: 429 REPORT: RGEN0100

### CAPSULE GEOLOGY

70 metres in width. The volcanics are also crosscut by silicified granodioritic dikes and dark grey lamprophyre dikes. The lamprophyre dikes in the vicinity of the Julia vein strike 105 degrees and dip 75 to 80 degrees south.

The Hazelton rocks are highly broken and fractured with quartzcarbonate infilling with associated epidote and chlorite. Larger veins show weak sericitization. Stringer and breccia zones are silicified and the volcanics are bleached and partly altered to kaolinite.

Mineralization occurs as high-grade silver veins. The Julia vein (formerly Last Chance) is a series of three parallel veins traceable for 200 metres. The veins occur along shears which trend 010 to 030 degrees and dip 80 to 90 degrees east. Mineralization on the surface consists of tetrahedrite blebs with pyrite and chalcopyrite in quartz-carbonate gangue with honey-coloured sphalerite. In 1984, 25 samples averaged 17.8 to 6360 grams per tonne silver, 3.96 per cent copper and 4.73 grams per tonne gold. Four wallrock samples assayed 32.5 to 141.59 grams per tonne silver, 0.51 grams per tonne gold and 0.06 per cent copper over 1.0 metres, and 196 grams per tonne silver, 0.72 grams per tonne gold and 0.17 per cent copper over 1.5 metres. In 1925 a sample assayed 212.6 grams per tonne silver, trace gold, 0.04 per cent zinc, 4.96 per cent iron and 0.06 per cent antimony (Assessment Report 13364). Approximately 300 metres east of the Julia vein is the Gwenda

Approximately 300 metres east of the Julia vein is the Gwenda vein (formerly Cornucopia) which strikes 020 to 030 degrees and dips 40 degrees east. The vein is exposed for 6.0 metres and ranges between 10 to 30 centimetres in width. The showing hosts disseminated tetrahedrite, chalcopyrite and honey-coloured sphalerite in quartz-carbonate gangue. In 1984, two grab samples assayed 48.7 grams per tonne silver, 0.14 grams per tonne gold, 0.11 per cent copper and 8.41 per cent zinc, and 840.6 grams per tonne silver, 0.75 grams per tonne gold, 1.01 per cent copper and 0.25 per cent zinc respectively (Assessment Report 13364). In 1925 a sample from an opencut in this vein assayed 1.7 grams per tonne gold, 2540 grams per tonne silver, 1.44 per cent copper, 0.06 per cent lead, 1.95 per cent zinc and 1.0 per cent antimony (Minister of Mines Annual Report 1925, page 141).

Other showings consist of the Christina showing (093L 295) in the northeast part of the claims. It is a silicified stringer zone hosting tetrahedrite, sphalerite, minor galena and pyrite. The Paola showing (093L 296) in the southeast part of the claims is a shear striking north and dipping 30 to 40 degrees west and hosts extensive malachite staining in an opencut. Between 1938 and 1940, 2.72 tonnes of ore from the Cornucopia

Between 1938 and 1940, 2.72 tonnes of ore from the Cornucopia showing produced 12548 grams silver and 85.3 kilograms copper. A drill indicated mineralized body (Ruby) contains 360,000 tonnes grading 30.1 grams per tonne silver, 0.38 per cent copper and 4.23 per cent zinc (Assessment Report 20665, page 1).

BIBLIOGRAPHY

EMPR AR \*1925-141; 1926-135; 1928-169; 1929-169; 1935-C40; \*1937-C11; 1938-C49; 1939-99; 1940-41; 1965-74 EMPR GEM 1970-158; \*1972-397-417 EMPR EXPL 1981-227; 1983-444; \*1984-328; 1985-C314 EMPR ASS RPT \*10182, 12374, \*13364, \*13720, \*14256, 20665, 21880 EMPR MAP 65 (1989); 69-1 EMPR OF 1992-1; 1994-14 EMPR FIELDWORK \*1988, pp. 195-208 GSC MAP 671A GSC OF 351 GSC BULL 270 GCNL #227(Nov.27), 1981; #237(Dec.7), 1983; #55(Mar.19), #120(June 21), #133(July 11), #154(Aug.10), #173(Sept.7), #182(Sept.20), #198(oct.15), 1984; #243(Dec.19), 1989 N MINER Apr.30, 1981; Mar.29, Nov.29, 1984 IPDM May/June 1984

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/13 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 252</u>	Ν	IATIONAL MINERAL INVENTO	RY: 093L15 Cu4
NAME(S):	FISHER, SIMPSON			
STATUS:	Showing British Columbia		MINING DIVISIO	DN: Omineca
NTS MAP: BC MAP:	093L15W		UTM ZOI	NE: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 53 45 N 126 47 06 W 1633 Metres Within 1 KM Located 1.6 kilometres below the Lorrain above Higgins Creek, approximately 29 k Smithers.	e (093L 126), 300 metres ilometres northeast of	NORTHI EASTIN	NG: 6085447 NG: 642045
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Malachite Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Unknown L01 Subvolcanic Cu-Ag-Au (As-Sb)		I13 Sn veins and greisen	S
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
	GROUP Kasalka	FORMATION	IGNEOUS/MET	AMORPHIC/OTHER
LITHOLOGY:	Rhyolite Andesite Tuff Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	F	PHYSIOGRAPHIC AREA: Nech	ako Plateau
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: I	N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper	YEAR: <sup>-</sup> GRADE 0.4000 Per cent	1929	
COMMENTS: REFERENCE:	Sample of rhyolite with malachite staining Minister of Mines Annual Report 1929, pa	l. Ige 168.		
CAPSULE GEOLOGY	The area is underlain b comprised mainly of andesite The showing is located past producing Lorraine (Vic is an exposed band of rhyoli malachite. In 1929, a sampl metres assayed traces of sil (Minister of Mines Annual Re	y Upper Cretaceous , rhyolite, tuffs approximately 1.6 toria) deposit (09 te which is irregu e from the best mi ver and gold with port 1929, page 16	Kasalka Group rocks and breccia. kilograms below the 3L 129). The showin larly mineralized wit neralized area over 7 0.4 per cent copper 8).	ng :h 2 . 6
BIBLIOGRAPHY	EMPR AR 1918-121; 1929-168 EMPR MAP 69-1 EMPR FIELDWORK 1987, pp. 181 GSC MAP 671A GSC OF 351	-193; 1988, pp. 19	5-208; 1991, pp. 93-1	.01
DATE CODED: DATE REVISED:	1985/07/24 C 1987/08/21 R	ODED BY: GSB EVISED BY: LLC		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 253</u>	NATIONAL MI	NERAL INVENTORY:
NAME(S):	HOME, PEACHHAVEN, FAIRHAVEI	N	
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L15W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 52 30 N 126 57 06 W 1475 Metres Within 1 KM Located east of Driftwood Creek (L 20 kilometres northeast of Smithers	Lot 6449) (093L 132) approximately s.	NORTHING: 6082803 EASTING: 631426
COMMODITIES:	Silver Lead	Zinc	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Galena Sphalerite Ch Quartz Malachite Unknown	nalcopyrite Pyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Epigenetic Hydroth 105 Polymetallic veins Ag-Pb-Z	ermal In±Au STRIKE/DIP: 350/63S	TREND/PLUNGE:
COMMENTS:	Mineralized shear zone in porphyri	tic andesite.	
DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Lower Jurassic Upper Cretaceous	GROUP Hazelton	<u>FORMATION</u> Nilkitkwa	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
LITHOLOGY:	Porphyritic Andesite Basalt Breccia Granodiorite		
HOSTROCK COMMENTS:	Granodiorite stock.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE	Intermontane Stikine Contact	PHYSIOGRAI Plutonic Rocks RELATIONSHIP: Syn-mineralization	PHIC AREA: Skeena Ranges
	Contact		
ORE ZONE:	SHEAR	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver	YEAR: 1929 <u>GRADE</u> 13.7000 Grams per tonne 4.5000 Por cont	
COMMENTS: REFERENCE:	Sample from mineralized shear. Minister of Mines Annual Report 19	929, page 168.	
CAPSULE GEOLOGY			
	The host rocks are the Nilkitkwa Formation, Cretaceous to Eocene gra The showing is with to basalt which strikes Mineralization includes malachite staining and q altered and bleached. I 13.7 grams per tonne sil (Minister of Mines Annua On the north side o quartz veins crosscut th and chalcopyrite.	Lower Jurassic Hazelton Group v which are altered and deformed inodiorite intrusion. in a shear zone in the porphyr: 350 degrees and dips 63 degrees chalcopyrite, pyrite, galena, s juartz gangue. The host rock is in 1929, a sample from this shea ver, trace gold and 4.5 per cer ch Report 1929, page 168). of the shear, up to 1530 metres be volcanics and host minor gale	itic andesite southwest. sphalerite with ar zone assayed nt zinc in elevation, ena, sphalerite
BIBLIOGRAPHY	EMPR AR *1928-166; *1929 EMPR MAP 69-1	0-168	

EMPR FIELDWORK 1987, pp. 181-193; 1988, pp. 195-208; 1991, pp. 93-101 GSC BULL 270 GSC MAP 671A, 971A GSC OF 351

DATE CODED: 1985/07/24 DATE REVISED: 1987/06/30 CODED BY: GSB REVISED BY: LLC
MINFILE NUMBER:	<u>093L 254</u>		NATIONAL MINERAL INVENTORY:	093L10 Ag3
NAME(S):	HIDDEN TREASURE, COPPERHILL, GIO -	6		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L10E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 22 N 126 42 42 W 1372 Metres Within 500M Located on the northeast slope of Grous 0.3 kilometres northeast of North Lake, 2 of Telkwa. Location of showing from Ge Mining 1972, Figure 49.	e Mountain in a deep gull 8.5 kilometres southeast ology, Exploration and	NORTHING: EASTING: ly,	6049660 647920
COMMODITIES:	Silver Copper	Zinc	Lead	Gold
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Sphalerite Galena Chlorite Clay Argillic Chloritic Unknown	a Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb) I05 Polymetallic veins Ag-Pb-Zn±Au Strike of mineralized shear	STRIKE/DIF	G06 Noranda/Kuroko massive P: 030/ TREND/PLU	e sulphide Cu-Pb-Zn NGE:
HOST ROCK				
DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Tuff Rhyolite Flow Andesite Volcanic Breccia Feldspathic Epiclastic			
HOSTROCK COMMENTS:	Also includes monzonite-porphyry-dike	and felsite-dike.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Copper Lead Zinc Sulphide rich sample. Minister of Mines Annual Report 1928, pa	YEAR: <u>GRADE</u> 171.4000 Grams p 1.5000 Per cent 24.0000 Per cent 11.0000 Per cent age 169.	1928 per tonne	
CAPSULE GEOLOGY		-		
	The showing occurs in L Telkwa Formation comprised of deposits interbedded with gr includes fine-grained crysta breccia and feldspathic epic The volcanics are intru	ower Jurassic Haz f massive maroon een andesite to r l tuff, lapilli t lastics.	elton Group rocks of the to grey breccia and tuff hyolite flows. Tuff uff, coarse-grained	

The volcanics are intruded dikes and small stocks of monzonite porphyry. The dikes range between 10 to 60 metres in width and strike north northwest and dip moderately west southwest. The Hidden Treasure mineral showing consists of pyrite, chalco-pyrite, sphalerite, and galena infilling a steeply dipping shear zone varying from 0.6 to 1.8 metres in width. The zone strikes 030 degrees, cutting a sequence of moderately folded argillite and tuffaceous rocks. Sulphides infill the shear, which diverges and is

parallel to the bedding at the base of a thick pyroclastic deposit. Alteration minerals are mainly chlorite with clay products. The best mineralization occurs in a schist crosscutting a westerly dipping felsite dike. In 1928, two sulphide rich samples assayed 171.4 grams per tonne silver, trace gold, 1.5 per cent copper, 24 per cent lead, 11 per cent zinc, and 54.9 grams per tonne silver, trace gold and 4.3 per cent copper, respectively (Minister of Mines Annual Report 1928, page 169).

#### BIBLIOGRAPHY

EMPR AR 1924-98; 1925-141; \*1928-169; 1929-169; 1965-74 EMPR GEM 1970-158, \*1972-397-417,Fig. 49 EMPR EXPL \*1980-344, \*1983-444; 1987,-C308 EMPR ASS RPT 726, 6429, 9087, \*12374, 13720, \*15999 EMPR MAP 69-1 EMPR FIELDWORK \*1988, pp. 195-208 GSC MAP 671A GSC MAP 671A GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/13 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 255</u>		NATIONA	L MINERAL INVENTORY: 093L11 Ag1	
NAME(S):	TRIBUNE, HUNTER BASIN				
STATUS:	Showing			MINING DIVISION: Omineca	
REGIONS: NTS MAP:	British Columbia 093L11E			UTM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 32 02 N 127 11 08 W 1798 Metres Within 500M Located on the north side of northwest side of Hunter B	of Cabinet Creek near the asin approximately 19 kil	summit on the ometres south-	NORTHING: 6044439 EASTING: 617403	
	southwest of Telkwa Tribu Minister of Mines Annual R	ne claim adjoins (refer to eport 1925, page 140).	1925 sketch map		
COMMODITIES:	Silver	Copper	Gold		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Tetrahed Quartz Calcite Malachite Silicific'n Unknown	rite Oxidation			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic L01 Subvolcanic Cu-Ag Mineralized quartz-carbona	Hydrothermal g-Au (As-Sb) ate vein.	D03 STRIKE/DIP: 328/7(	Volcanic redbed Cu )W TREND/PLUNGE:	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic Upper Cretaceous	GROUP Hazelton	<u>FORMATIC</u> Telkwa	N	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions	
LITHOLOGY:	Andesite Rhyolite Tuff Breccia Quartz Feldspar Porphyry Felsic Dike				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOG	RAPHIC AREA: Nechako Plateau	
INVENTORY					
ORE ZONE:	VEIN		REPORT ON: N		
	CATEGORY: Assay/an SAMPLE TYPE: Channel <u>COMMODITY</u> Silver Copper	alysis <u>GRADE</u> 994.3000 1.8000	YEAR: 1914 Grams per tonne Per cent		
COMMENTS:	30 centimetre sample take assayed trace gold.	n across of mineralized q	uartz vein; also		
REFERENCE:	Minister of Mines Annual R	eport 1914, page 221.			
CAPSULE GEOLOGY	The showing is	underlain by Low	er Jurassic Haze	lton Group	
	volcanics comprised of andesitic to rhyolitic flows, tuffs, and breccia with minor intercalated sediments. The volcanics are intruded by a Late Cretaceous to Eocene quartz-feldspar porphyry stock and associated felsite dikes with quartz or quartz-calcite stringers. A quartz vein, 20 to 46 centimetres wide, striking north 328 degrees and dipping 70 degrees southwest, hosts chalcopyrite and tetrahedrite mineralization. In 1914, a 30 centimetre sample taken across the vein assayed trace gold, 994.3 grams per tonne silver and 1.8 per cent copper (Minister of Mines Annual Report 1914, page 221). The vein is traceable for 91 metres and was exposed along a 35 metre crosscut tunnel. In 1911, a sample across the vein assayed 0.69 grams per tonne gold, 846.9 grams per tonne silver, and 2.1 per cent				

copper (Minister of Mines Annual Report 1911, page 112). Several occurrences of malachite along fracture zones in the volcanic host are reported to occur between the Colorado Tunnel (093L 043) and the Tribune Shaft. The Tribune claim adjoins the Hunter claim (093L 042) to the north and is located northeast of the Colorado workings (093L 043).

#### BIBLIOGRAPHY

EMPR AR \*1911-112; \*1914-221; 1925-140 EMPR GEM 1969-86; 1970-160 EMPR EXPL 1982-312 EMPR ASS RPT \*10918 GSC SUM RPT 1915, p. 65 GSC OF 351 GSC P 44-23 GSC MAP 278A; 971A EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208 EMPR OF 1989-16

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/02 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 256</u>			NATIONAL MINE	ERAL INVENTORY:	093L1 Ag2
NAME(S):	<u>GAUL</u> , SAM					
STATUS:	Prospect				MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L01W				UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 09 40 N 126 17 00 W 1100 Metres Within 500M Located 3.2 kilometres so approximately 36 kilometre located about 500 metres 16968, Figure 2).	utheast of Goosly L es southeast of Smi east of Bessemer (	ake, along Besse thers. Drill holes Creek (Assessme	mer Creek, nt Report	NORTHING: EASTING:	6004857 677367
COMMODITIES:	Silver	Copper	Zinc			
MINERALS						
SIGNIFICANT: ASSOCIATED: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrit Quartz Carbonate Rare galena. Carbonate Unknown	e Tetrahedrite Silicific'n	Sphalerite	Galena		
CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L01 Subvolcanic Cu-A	Breccia Epigenetic Ag-Au (As-Sb)				
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP	FOF	RMATION		IGNEOUS/METAM	ORPHIC/OTHER
Lower Cretaceous Eocene	Skeena	Und	efined Formation		Goosly Intrusions	
LITHOLOGY:	Tuff Flow Breccia Argillite Feldspar Porphyry Dike Andesitic Dike Syeno Monzonite					
HOSTROCK COMMENTS:	Goosly Lake Intrusion in as 48 million years.	the northeast part of	of the property is a	dated		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic F	Rocks	PHYSIOGRAPH	IC AREA: Nechako	Plateau
INVENTORY						
ORE ZONE:	DRILLHOLE		REPORT (	DN: N		
	CATEGORY: Assay/a SAMPLE TYPE: Drill Core COMMODITY	nalysis • <u>GF</u>	YEA RADE	AR: 1987		
COMMENTS: REFERENCE:	Silver Copper 65.4 metre intersection fro Assessment Report 1696	44 ( om drill hole 87TG20 8.	42.2800 Gram ).7100 Per c	ns per tonne ent		
CAPSULE GEOLOGY						
	The area is u volcanics comprise pyroclastics, main clastic conglomera Mesozoic conglomer The northeast of the Eocene Goos plagioclase porphy topographic featur years. Much of th	underlain by L ed of basal tu ly tuff and f tte and argill cates show gra c claim area i sly Lake Intru vry or syenomo ce. The monzo he western par	ower Cretace ff and congl low breccia, ite (Bulleti ded beds wit s underlain sion, which nzonite and nite was dat t of the pro	ous Skeena(?) omerate overl which are ca n 78, Figure h "tops" to t by an isolate is comprised forms the hig ed at about 4 perty is unde of the Force	Group ain by pped by 1). The he west. d appendage of hest local 8 million rlain by c Coccly Lako	

pyroclastics and sedimentary-volcanic rocks of the Eocene Goosly Lake Formation (Francois Group). Mineralization occurs as sulphide fracture fillings, sulphides in quartz-carbonate veinlets ranging up to 20 centimetres, and

sulphide disseminations. Mineralization is comprised of low grade chalcopyrite and tetrahedrite with occasional narrow sections of high grade chalcopyrite. Sphalerite and rarely galena occur locally; pyrite is ubiquitous. Sulphide mineralized veins usually form angles of 60 to 80

Sulphide mineralized veins usually form angles of 60 to 80 degrees opposite to bedding. Chalcopyrite mineralization increases locally with tetrahedrite and occasionally sphalerite mineralization usually occurring in the thicker quartz-carbonate veining.

The 1985 drill program intersected mineralization in faults and fractures in argillite with interbedded green tuff and lapilli tuff. Mineralization consisted of pyrite, chalcopyrite, tetrahedrite and sphalerite. An average assay over 36.5 to 99.0 metres was reported to be 2.9 grams per tonne silver, 0.09 per cent copper and 0.05 per cent zinc (Assessment Report 13943).

Higher grade copper-silver mineralization is located adjacent to the north-northeast striking dikes in ash tuffs and also near the base of the interbedded argillic horizon near the top of the ash tuffs. In 1987, drill hole 87TG20 intersected mineralization adjacent to the north-northeast striking dikes. A 65.4 metre intersection assayed 12.9 grams per tonne silver with 0.71 per cent copper. Included within this intersection is a 3.8 metre section which assayed 105.4 grams per tonne silver and 7.88 per cent copper (Assessment Report 16968).

The mineralization adjacent to the andesitic and feldspar porphyry dikes is though to be related to and may be a southern projection of mineralization associated with the Equity Silver Mine (refer to 093L 001).

#### BIBLIOGRAPHY

EMPR GEM \*1969-150; 1971-168 EMPR ASS RPT 2124, \*13943, \*16968 EMPR EXPL \*1985-C310; 1988-C167 EMPR FIELDWORK 1992, pp. 475-481 EMPR MAP \*11; 69-1 EMPR BULL \*78 (in press) GSC OF 351 EMR MP CORPFILE (Maverick Mtn. Resources Ltd.; Silver Standard Mines Ltd.) N MINER Nov. 9, 1987 ECON GEOL 1984, Vol. 79, No. 5, pp. 947-986 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1989/04/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 257</u>	NATIONA	AL MINERAL INVENTORY:	
NAME(S):	<u>SMITHERS</u>			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L14E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 48 00 N 127 10 06 W 457 Metres Within 1 KM Located 1.6 kilometres north of Smithe	rs.	NORTHING: EASTING:	6074074 617744
COMMODITIES:	Clay			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Clay Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Residual Industrial Mir B06 Fireclay	n. E07	Sedimentary kaolin	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Clay		Chinamed Chines	in mornal
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIO	GRAPHIC AREA: Nechako	o Plateau
CAPSULE GEOLOGY	About 1.6 kilometres r deposit of fine-grained bro road. The material had a s drying.	orth of Smithers brick w wnish-grey clay located short firing range and cr	as made from a just east of the acked badly during	r
BIBLIOGRAPHY	EMPR BULL 30, pp. 16,55 EMPR FIELDWORK 1988, pp. 19	95-208; 1991, pp. 93-101		
DATE CODED: DATE REVISED:	1985/07/24 1988/08/05	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N

\_

MINFILE NUMBER:	<u>093L 258</u>	N	ATIONAL MINERAL INVENTORY:	:
NAME(S):	TSALIT MOUNTAIN			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L02W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 09 30 N 126 56 46 W 1035 Metres Within 1 KM Located on the northwest slope of Ts	alit Mountain, along Fenton Cro	NORTHING: EASTING: eek.	6003087 634111
COMMODITIES:	Perlite			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Perlite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Massive Volcanogenic Industrial M R12 Volcanic glass - perlite	1in.		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Ootsa Lake	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Rhyolite Flow Dacite Flow Volcanic Breccia Tuff Perlite Porphyritic Feldspar Trachyte Quartz Porphyritic Rhyolite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Ρ	HYSIOGRAPHIC AREA: Nechako	o Plateau
CAPSULE GEOLOGY				
	The area is underlain comprised mainly of rhyoli The youngest formation in volcanic rocks", are found elongated zone on the nort consists of volcanic breck thought to be post-Miocene Fenton Creek, this unit is rhyolitic lava (perlite) a this volcanic complex char trachyte and to the south	<pre>by Tertiary Ootsa La tic to dacitic flows the area, tentatively a mainly in a 2.4 by thwest slope of Tsalid tias, lava, tuff, and in age. In places, comprised mainly of and breccia. Immediating to quartz porphyry rl</pre>	ake Group volcanics , tuffs, and breccia. y named "Fenton Creek 4.0 kilometre laterally t Mountain. This unit dikes which are especially east of cream coloured glassy tely to the northwest feldspar porphyry hyolite.	<i>,</i>
BIBLIOGRAPHY	EMPR GEM *1972-373-379,*Fi EMPR MAP 69-1 GSC OF 351	.g. 40		
DATE CODED: DATE REVISED:	1985/07/24 1988/08/07	CODED BY: GSB REVISED BY: LLD	F	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 259</u>	NATI	ONAL MINERAL INVENTORY: 093L9 Cu5
NAME(S):	TACHEK MOUNTAIN		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L09E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 38 00 N 126 12 06 W Metres Within 5 KM Located in an area of granitic rock no Mountain, 14 kilometres northeast of	orth and east of Tachek Topley.	NORTHING: 6057588 EASTING: 680610
COMMODITIES:	Copper Silver	Gold	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Breccia Epigenetic Hydrothern L04 Porphyry Cu ± Mo ± Au	nal I05	Polymetallic veins Ag-Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
Jurassic			Topley Intrusions
LITHOLOGY:	Granodiorite Andesite Tuff Breccia Diorite Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine P	PHY:	SIOGRAPHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 193	2
COMMENTS: REFERENCE:	Silver Gold Selected sample from mineralized and Minister of Mines Annual Report 1932	2.7000 Grams per too 0.6800 Grams per too d brecciated dike. 2, page 85.	nne
CAPSULE GEOLOGY			
	The showing is locate located northeast of Tache intrudes Lower Jurassic Ha Locally, the granodic comprised of chalcopyrite by a dioritic dike up to O dike contain a few centime mineralized with chalcopyr 0.68 grams per tonne gold Mines Annual Report 1932,	ed with the large Jurass ek Mountain. The granod azelton Group andesitic pritic intrusive shows s and pyrite. The granod 0.7 metres in width. Bo etres of breccia cemente rite. In 1932, a select and 2.7 grams per tonne page 85).	sic Topley Intrusion dioritic stock tuffs and flows. slight mineralization diorite is crosscut th walls of the ed with quartz and ed sample assayed e silver (Minister of
BIBLIOGRAPHY	EM OF 2001-03 EMPR AR 1932-85 EMPR MAP 69-1 GSC BULL 270 GSC MAP 671A GSC OF 351 Placer Dome File		

# BIBLIOGRAPHY

EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/25 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 260</u>			NATIONAL M	NERAL INVENTORY:	
NAME(S):	<u>SAM</u> , NWB, DG					
STATUS:	Showing				MINING DIVISION:	Omineca
NTS MAP:	093L01W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 10 35 N 126 19 38 W 1006 Metres Within 500M Located on the northeast southeast of Houston; loc zone (Assessment Repor	side of Goosly Lake a ation of 1987 diamon t 17307).	about 32 kilomet d drilling in the E	res Fast	NORTHING: EASTING:	6006447 674438
COMMODITIES:	Silver	Zinc				
MINERALS						
SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION:	Pyrite Sphalerite Pyrite is the dominant sulp Quartz Calcite Sericite Carbonate	Chalcopyrite hide. Chlorite	Tetrahedrite Quartz	Arsenopyrite Pyrite		
ALTERATION TYPE: MINERALIZATION AGE:	Clay Sericitic Unknown	Carbonate	Chloritic		Silicific'n	Argillic
	Voin	Massivo	Broccia			
CLASSIFICATION:	Epigenetic	Hydrothermal	Dieccia	105 Pol	vmetallic veins Ag-Ph	-7n+Δu
DIMENSION: COMMENTS:	Mineralized zone strikes	20 degrees and dips	STRIKE steeply north.	/DIP: 120/80N	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP		MATION		IGNEOUS/METAMO	ORPHIC/OTHER
Eocene	Francois Lake Francois Lake	Goos	bp Hill Iy Lake			
LITHOLOGY:	Andesitic Tuff Volcanic Breccia					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIO	ONSHIP: Syn-m Post-n	PHYSIOGRAI ineralization nineralization	PHIC AREA: Nechako GRADE: Greensc	Plateau hist
INVENTORY						
ORE ZONE:	DRILLHOLE		REPORT (	ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Drill Core COMMODITY Silver Zinc 2.3 metre sample from dril Assessment Report 1730	nalysis <u>GR/</u> 126 0. 1 hole 22 7.	YE/ ADE 3.0000 Gram 7700 Per c	AR: 1987 ns per tonne ent		
CAPSULE GEOLOGY						
	The Sam prope Nechako Trough whi Mesozoic volcanic sequence of Tertia Along the nor Cretaceous to Tert Cretaceous to Tert Cretaceous Tip Top Eocene Goosly Lake comprised mainly of clastics which are lavas, breccias, s (Bulletin 78, Figu	erty is located ch hosts strat and sedimentar ry volcanics. th side of Goo ciary Francois b Hill Formatio c Formation. T of andesite, an c overlain by f sills and stock ure 1).	within the a consistin y rocks ove sly Lake, t Lake Group n volcanics he Tip Top desitic to eldspathic s of the Go	e northern pa g of a seque rlain by an he area is a rocks, main which are o Hill Format: dacitic lava andesite, tr osly Lake Fo	art of the ence of extensive underlain by ly Upper overlain by ion is as and pyro- rachyandesite ormation	

(Bulletin 78, Figure 1). Most of the rocks have undergone sericite-carbonate-chlorite and quartz alteration. Grey clay is found locally along fracture and pyrite is disseminated throughout. Massive sulphide veins, ranging

from 0.1 to 3.0 metres in width, occur along the southeast side of the altered belt of andesitic tuffs and volcanic breccias. The dominant sulphide in these veins is pyrite with minor sphalerite and traces of chalcopyrite, tetrahedrite and arsenopyrite. The alteration zone strikes about 120 degrees, dips steeply north and ranges from 70 to 200 metres in widths. Majority of the massive to semi-massive sulphides were located within the East zone, at depths of 20 to 230 metres. Four small mineralized intervals were intersected in the West zone, located 500 metres northwest of the East zone. The rocks between these zones (the Central zone) are altered, but no significant mineralization was found. Drilling in 1986 and 1987 in the East zone within the pyritic calcite-quartz-silicate alteration zone intersected several massive to semi-massive sulphide intervals with silver values ranging from 25.0

semi-massive sulphide intervals with silver values ranging from 25.0 to 715.0 grams per tonne values usually less than 1 per cent with high values up to 9.5 per cent zinc (Assessment Report 17307). The sulphide intervals were often brecciated, and locally clay is a matrix.

#### BIBLIOGRAPHY

EMPR GEM 1969-150-151; \*1971-119-238; 1972-366; 1974-255-256 EMPR EXPL 1988-C168 EMPR ASS RPT 2311, 3508, 5195, \*17307 EMPR FIELDWORK 1984, pp. 175-188; 1992, pp. 475-481 EMPR MAP 71; 69-1 EMPR BULL \*78 (in press) GSC MAP 671A GSC OF 351 ECON GEOL 1984, Vol. 79, No. 5, pp. 947-986 GCNL #54, 1981

DATE CODED: 1989/04/07 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 261</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	Lewes River, Gail, GM	GW	
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:			
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY COMMENTS:	54 11 00 N 126 24 36 W 915 Metres : Within 500M : Located approximately 40 metres southwest of Goo	kilometres southeast of Houston, 4.0 ki sly Lake on the Lewes River property.	NORTHING: 6007018 EASTING: 669008
COMMODITIES:	Titanium	Nepheline Syenite	
	Haran Marina Maraka Kara		
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Biotite Apatite	Magnetite	
ISOTOPIC AGE:	48.8 +-3 Ma	DATING METHOD: Potassium/Argon	MATERIAL DATED: Biotite
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Magmatic R13 Nepheline syenite	Industrial Min.	
HOST ROCK DOMINANT HOSTROCK	: Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous Upper Cretaceous	Skeena Francois Lake	Undefined Formation Tip Top Hill	
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	48.8 +/- 3 Ma Potassium/Argon Biotite		Goosiy Intrusions
LITHOLOGY	: Syeno Monzonite Alkalic Gabbro Gabbro Andesite Andesitic Dacite Tuff Sediment/Sedimentary Vo	Icanic	
HOSTROCK COMMENTS:	Lithology also includes s	yenodiorite.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako Plateau
CAPSULE GEOLOGY			
	Three alkalir occur along a nort 4.8 kilometres sou large stock to the The Lewes Riv Skeena Group rocks Hill volcanics (Bu comprised of a mix fragmental rocks w conglomerate. The andesitic dacite 1 The alkaline consisting of 65 t accessory biotite, and traces of quar gabbroic phases ar chlorite pseudomor minerals. Several signi alkaline rocks of east of Goosly Lak Equity Silver prop	he stocks, spaced at about 1 theast trend. The Lewes Riv athwest of Goosly Lake, is p e east (093L 263) is descri- ver Goosly Lake stock intrud and Upper Cretaceous France illetin 78, Figure 1). The end assemblage of sediments with intercalated shale, mass a Tip Top Hill volcanics con- tavas and pyroclastics. intrusive ranges from gabbr to 80 per cent plagioclase, apatite, and magnetite. I fitz are found in the more ac re enriched in pyroxene and types after olivine with access the Goosly Lake area. Appr te, at the east end of the i perty (093L 001) hosts a re for an end of the starts and the starts and the starts and the goosly Local contracts and the starts and the starts and the starts and the starts are starts and the starts and the starts and the starts and the starts are starts and the starts are starts and the starts are starts and the starts	3 kilometre intervals, rer intrusion, located poorly exposed, but, the bed in detail. les Lower Cretaceous tois Lake Group, Tip Top Skeena Group rocks are and felsic volcanic sive rhyolite lava and sist mainly of andesite, to to syenomonzonite, 5 to 20 per cent augite, interstitial feldspar tidic varieties. The contain calcite and are associated with the roximately 3.2 kilometres intrusive belt, the placement sulphide de- prite tetrabedrite

posit consisting of lenses of pyrite-chalcopyrite-tetrahedrite located adjacent to the stock. Approximately 25 kilometres southwest of Goosly Lake, showings at the Silver Queen Mine (093L 002),

thought to be related to alkaline dikes, are fissure veins of pyritesphalerite with galena and local concentrations of chalcopyrite with some tennanite. In 1970, an analysis of the gabbro phase of the alkaline intrusion, located 4.8 kilometres southwest of Goosly Lake, showed 2.1 per cent ilmenite. As well, analysis of the syenogabbroic phase showed 2.8 per cent ilmenite and 1.0 per cent nepheline (Geology, Exploration and Mining in B.C. 1970, p. 124).

#### BIBLIOGRAPHY

EMPR GEM \*1970-119-125, Fig. 10 EMPR FIELDWORK 1992, pp. 475-481 EMPR MAP \*11; 69-1 EMPR BULL \*78 (in press) EMPR PF (Tully, P., (1969): Report on the AGS, BBT, FKE Mineral Claim Groups, Omineca Mining Division; Overstall, R., (1971): Property Examination Report on Gail and GMGW Groups for Canadian Superior Ltd.; Archer, A.R., (1971): Geochemical and Geology of the Gail and GMGW claims, Omineca Mining Division; Adamson, (1971): Summary Report on Gail and GMGW Groups for Lewes River Mines Ltd.; Culbert, R.R., (1976): Report on Gillian Mines Ltd., Goosly Lake Property, Omineca Mining Division; Field Notes of Lewes River Property (1972) and miscellaneous maps) EMPR OF 1991-10 GSC OF 351 GSC BULL 239, pp. 143-145

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/07 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 262</u>		NATIONAL MINERAL INVENTORY:		
NAME(S):	PARROTT LAKE				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L02E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 07 10 N 126 36 36 W 915 Metres Within 500M Located approximately 30 west of the south end of u	kilometres south of Houston, immediat upper Parrott Lake.	NORTHING: 5999452 EASTING: 656200 tely		
COMMODITIES:	Nepheline Syenite				
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE: ISOTOPIC AGE:	Nepheline Biotite Apatite Unknown 49.4 +- 1.5 Ma	Magnetite DATING METHOD: Potassium/Argon	MATERIAL DATED: Biotite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Magmatic R13 Nepheline syenite	Industrial Min.			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Francois Lake	FORMATION Goosly Lake	IGNEOUS/METAMORPHIC/OTHER		
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	48.8 +/- 3 Ma Potassium/Argon Biotite				
LITHOLOGY:	Syeno Monzonite Alkalic Gabbro Gabbro Feldspathic Andesite Trachyandesite Breccia				
HOSTROCK COMMENTS:	Lithology also includes s	yenodiorite.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako Plateau		
CAPSULE GEOLOGY	Three alkaline stocks, spaced at about 13 kilometre intervals, occur along a northeast trend. The Parrott Lake intrusion, located at the west end of the intrusive belt, is poorly exposed, but, the large stock to the east (093L 263) is described in detail. The Parrott Lake intrusive was dated at 49.4, plus or minus, 1.5 million years (Energy, Mines and Petroleum Resources, Preliminary Map 11). South of Parrott Lake, the Goosly Lake stock intrudes Francois Lake Group, Eocene Goosly Lake Formation volcanics comprised mainly of feldspathic andesite and trachyandesite lavas with breccias and sills (Bulletin 78, Figure 1). The alkaline intrusive ranges from gabbro to syenomonzonite consisting of 65 to 80 per cent plagioclase, 5 to 20 per cent augite, accessory biotite, apatite and magnetite. Interstitial feldspar and traces of quartz are found in more acidic varieties. The gabbroic phases are enriched in pyroxene and contain calcite and chlorite pseudomorphs after olivine with accessory feldspathoid minerals. Several significant mineral occurrences are associated with the alkaline rocks of the Goosly Lake area				

alkaline rocks of the Goosly Lake area. Approximately 9.0 kilometres to the southwest of the Parrott Lake intrusion, showings at the Silver Queen Mine (093L 002), thought to be related to the alkaline dikes, host fissure veins of pyrite-sphalerite with galena and local concentrations of chalcopyrite with some tennanite. In 1970, an analysis of the syenomonzonite at the south end of Upper Parrott Lake showed trace ilmenite with 1.4 per cent nepheline (Geology, Exploration and Mining in British Columbia 1970, page 124).

#### BIBLIOGRAPHY

EMPR GEM \*1970-119-125, Fig. 10 GSC BULL 239, pp. 143-145 EMPR MAP \*11; 69-1 EMPR BULL \*78 (in press) GSC OF 351 EMPR OF 1991-10

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/07 CODED BY: GSB REVISED BY: LLD

MINF	FILE NUMBER:	<u>093L 263</u>		NATIONAL	_ MINERAL INVENTORY:
	NAME(S):	GOOSLY LAKE			
	STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093L01E 093L01W			MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LOCATION	LATITUDE: LONGITUDE: ELEVATION: ACCURACY: COMMENTS:	54 09 00 N 126 14 46 W 1520 Metres Within 1 KM Located 40.2 kilometres s kilometres east of Goosly	southeast of Houston, centre Lake on the Kennco propert	of stock is 4.8 y.	NORTHING: 6003715 EASTING: 679845
С	OMMODITIES:	Titanium			
MINERALS A MINERALI IS	SIGNIFICANT: ASSOCIATED: ZATION AGE: OTOPIC AGE:	Ilmenite Biotite Apatite Eocene 48.3 +/- 3 Ma	Magnetite DATING METHOD: Potassi	um/Argon M	IATERIAL DATED: Biotite
DEPOSIT CLA	CHARACTER: SSIFICATION:	Disseminated Magmatic	Industrial Min.		
HOST ROCI DOMINAN	<b>K</b> T HOSTROCK:	Plutonic			
STRATIGRA	PHIC AGE	GROUP	FORMATION	rmation	IGNEOUS/METAMORPHIC/OTHER
Eocene IS DATI MATE	OTOPIC AGE: ING METHOD: RIAL DATED:	48.8 +/- 3 Ma Potassium/Argon Biotite	Undernied PC	n nauon	Goosly Intrusions
	LITHOLOGY:	Syeno Monzonite Alkalic Gabbro Felsic Volcanic Sediment/Sedimentary			
HOSTROCK	COMMENTS:	Lithology also includes s	yenodiorite.		
GEOLOGIC TEC	AL SETTING CTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOG	RAPHIC AREA: Nechako Plateau
CAPSULE G	ILE GEOLOGY The Goosly Lake intrusion, 4.8 kilometres east of Goosly Lake, is a quadrate body, approximately 3.2 kilometres on a side, which cuts Early Mesozoic lavas and pyroclastic rocks with some argillite. The intrusion seems to be the source of the Eocene Goosly Lake volcanics comprised of trachyandesite and trachyte. The hosting volcanics are part of the Lower Cretaceous Skeena Group which are comprised of a mixed assemblage of sediments and felsic volcanic fragmental rocks with intercalated shale, massive rhvolite lava, and				

conglomerate (Bulletin 78, Figure 1). The alkaline intrusive ranges from gabbro to syenomonzonite, consisting of 65 to 80 per cent plagioclase, commonly occurring as large bladed phenocrysts, 5 to 20 per cent augite as small rounded grains or long prismatic phenocrysts, and accessory biotite, apatite and magnetite. Interstitial feldspar and traces of quartz are found in the more acidic varieties. The gabbroic phases are enriched with pyroxene and contain calcite and chlorite pseudomorphs after olivine with accessory feldspathoid minerals.

The lavas, believed to be associated with the stocks, contain the same minerals with the addition of occasional hornblende, but in somewhat different proportions. Parts of the volcanic sections are unusually massive suggesting very thick lava flows or possibly sills. Several significant mineral occurrences are associated with the

alkaline rocks of the Goosly Lake area. Approximately 3.2 kilometres east of Goosly Lake, at the east end of the intrusive belt, the Equity Silver property (093L 001) hosts a replacement sulphide deposit consisting of lenses of pyrite-chalcopyrite-tetrahedrite located adjacent to the alkaline stock. A rare iron phosphate mineral, scorzalite is associated with the mineralization on this property.

In 1969, an analysis of the syenomonzonite, located 6.4

kilometres east of Goosly Lake, showed 2.6 per cent ilmenite (Geology, Exploration and Mining in British Columbia 1969, page 148).

CODED BY: LLC REVISED BY: LLD

# BIBLIOGRAPHY

EMPR GEM \*1969-122-151; \*1970-119-125, Fig. 10 EMPR FIELDWORK 1992, pp. 475-481 EMPR MAP \*11; 69-1 EMPR BULL \*78 (in press) GSC BULL \*239, pp. 143-145 GSC OF 351

DATE CODED:	1987/08/07	
DATE REVISED:	1989/08/28	

\_\_\_\_

MINFILE NUMBER:	<u>093L 264</u>				NATION	AL MINERAL INVENTORY:	
NAME(S):	<u>TIMBAR</u>						
STATUS: REGIONS:	Showing British Columbi	a				MINING DIVISION:	Omineca
BC MAP: BC MAP: LATITUDE:	093L07E 54 27 30 N 126 34 06 M	1				NORTHING:	09 (NAD 83) 6037240 657623
ELEVATION: LOCATION ACCURACY: COMMENTS:	646 Metres Within 500M Located on the east of Housto	e east shoulder c	of Mount Harry Da	avis, 8 kilometre	es north-		007020
COMMODITIES:	Copper	Silve	er				
	Connor	Chalasaita	Totrobodrito	Domito	Chalaany	rito	
ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Quartz Malachite Unknown	Calcite Hematite	Epidote	Donnie	Спасору	me	
	Voin						
CLASSIFICATION: TYPE:	Epigenetic D03 Volcan	Hyd nic redbed Cu	rothermal		L01	Subvolcanic Cu-Ag-Au	(As-Sb)
HOST ROCK DOMINANT HOSTROCK	: Volcanic						
STRATIGRAPHIC AGE	<u>GROUP</u> Ootsa Lake		<u>FORM</u>	ATION ned Formation		IGNEOUS/METAM	ORPHIC/OTHER
Lower Jurassic	Hazelton		Telkw	a			
LITHOLOGY:	Trachybasalt Andesite Rhyolite Tuff Breccia Rhyolite Flow Dacitic Flow						
HOSTROCK COMMENTS:	Ootsa Lake v	olcanics in fault	contact with Haz	elton Group.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine				PHYSIO	GRAPHIC AREA: Nechako	Plateau
INVENTORY							
ORE ZONE:	SAMPLE			REPORT C	DN: N		
	CATEGORY: SAMPLE TYPE COMMODITY	Assay/analys : Grab	iis GRAI	YEA	R: 1982		
	Silver Copper		5.4 0.6	900 Gram 600 Per ce	s per tonne ent		
COMMENTS: REFERENCE:	Mineralized gra Assessment R	ab sample. eport 9849, 110	31.				
CAPSULE GEOLOGY	Fogon	o Ootaa Iak	o wolconica	acmprised .	of rhyol	itia to dogitia	
	flows, tuf with older (Telkwa Fo breccias, Nativ canics. A Telkwa For bornite an Miner 1) associa 2) found a	fs, and bre Hazelton G rmation) ar tuff, andes e copper wa ssociated m mation are d traces of alization o ted with qu	c volcamics coas with m roup rocks. e comprised ite with bas s found in t ineralizatic malachite, c chalcopyrit ccurs in fou artz-calcite cture infil	The Lower of variega altic to ri he trachyt on in these halcocite, e. mr modes as in large	Jurassi ted red hyolitic tuffs a minor t follows fracture	<pre>in fault contact c Hazelton rocks to maroon flows. t/andesite vol- nd flow rocks of etrahedrite, : fillings</pre>	
	2) found a 3) mineral calcite, a vesicular	s occur as nd minor ep basalt	small circul idote in the	ar concret: amygdaloid	ions wit dal cavi	h quartz, ties within	

4) minor chalcopyrite occurs with hematite and traces of malachite in small fractures within a hematitic andesite tuff.

In 1982, mineralized grab samples assayed 5.49 grams per tonne silver, 0.66 per cent copper and 1.71 grams per tonne silver, 0.3 per cent copper, respectively.

#### BIBLIOGRAPHY

EMPR EXPL \*1982-309 EMPR ASS RPT \*9849, \*11031 EMPR MAP 69-1 GSC OF 351 GSC BULL 270

DATE CODED: 1985/07/24 DATE REVISED: 1988/07/10 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 265</u>			NATIONA	AL MINERAL INVENTORY:	
NAME(S):	<u>IRK</u> , WL, JAN					
STATUS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L02E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 12 00 N 126 38 06 W 1150 Metres Within 500M Located north of Parrott La of Houston.	ake on Parrott Creek, :	22 kilometres sou	ıth	NORTHING: EASTING:	6008357 654267
COMMODITIES:	Silver	Zinc	Lead		Copper	Barite
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Quartz Carbonate Silicific'n Unknown	Tetrahedrite Barite Carbonate	Chalcopyrite	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal 105 Polymetallic veins	Disseminated Industrial Min. Ag-Pb-Zn±Au		E05	Sandstone Pb	
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE Upper Cretaceous Eocene	<u>GROUP</u> Francois Lake	FORM Tip Toj	ATION D Hill		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Dacite Flow Rhyolite Tuff Syeno Monzonite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Ro	ks	PHYSIOC	GRAPHIC AREA: Nechako	Plateau
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON	: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver Zinc Mineralized andesite. Assessment Report 1275	nalysis <u>GRA</u> 39.0 0.2 3	YEAR DE 5000 Grams 770 Per cen	: 1984 per tonne t		
CAPSULE GEOLOGY						
	The claims ar Lower Jurassic Haz of red, green to m Telkwa rocks are of Tip Top Hill Forma andesite and andes intruded by a Late monzonite to porph porphyry dikes (Bu To the east,	e underlain by selton Group vol maroon andesitic overlain by Uppe stic to dacitic e Cretaceous Bul pyritic granodic illetin 78, Figu the Telkwa rock	several form canics (Tell tuffs and the comprised of flows and b kley Intrust rite and ass are 1).	mations wa Form flows. s France f biotit preccia ive comp sociated ain by P	, the oldest being mation), comprised To the west, the bis Lake Group, te- hornblende . These rocks are prised of quartz d feldspar Eocene Goosly Lake	

To the east, the Telkwa rocks are overlain by Eocene Goosly Lake volcanic sills and trachytic flows of the Francois Lake Group. These are overlain by the Houston Member of the Eocene Buck Creek volcanics comprised of massive, vesicular to aphanitic andesite, dacite flows, breccia and minor basalt. To the south, near Parrott Lake these rocks are intruded by an Eocene Goosly Lake syenomonzonite plug.

Locally, the volcanics were mapped as Late Cretaceous Tip Top Hill andesitic, dacitic and rhyolitic flows and pyroclastics. The most common outcrop is red andesitic tuff which is sheared, bleached as well as carbonate altered and silicified hosting 0.1 per cent barite. Other rocks include rhyolitic to dacitic flows with a white,

dense groundmass some hosting quartz eyes. Some of these rocks are brecciated and are crosscut by quartz veinlets hosting pyrite. A syenomonzonite plug or a northwest trending Tertiary dike is in contact with the rhyolitic rocks. Mineralization consists of low grade disseminated galena, sphalerite and pyrite in a calcareous arkose(?) on the east side of the claims. Also, weak chalcopyrite and pyrite occurs in quartz veinlets in the rhyolitic and andesitic flows. In 1984, a sample of the mineralized andesite assayed 39.6 grams per tonne silver and 0.277 per cent zinc (Assessment Report 12753).

#### BIBLIOGRAPHY

DATE CODED: 1985/07/24 DATE REVISED: 1988/08/17 CODED BY: GSB REVISED BY: LLD

MINFILE NUMBER:	<u>093L 266</u>			NATIONA	L MINERAL INVENTORY	:
NAME(S):	MOUNT MCKENDRICK, PIONEE ST. EUGENE, MCKEN	ER, ST. ANNE,				
STATUS:	Showing				MINING DIVISION	Omineca
REGIONS: NTS MAP:	093L15E				UTM ZONE:	: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 25 N 126 44 13 W 1650 Metres Within 500M On southeast slope of Mount M	cKendrick.			NORTHING EASTING	: 6077511 : 645386
COMMODITIES:	Lead Zinc		Copper		Arsenic	Antimony
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Arsenopyrite Quartz Unknown	Pyrite C	Chalcopyrite	Galena		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Indus L01 Subvolcanic Cu-Ag-Au I05 Polymetallic veins Ag-P	strial Min. (As-Sb) b-Zn±Au		G04	Besshi massive sulphid	e Cu-Zn
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMA</u> Telkwa	ΠΟΝ		IGNEOUS/METAM	IORPHIC/OTHER
LITHOLOGY:	Tuff Granitic Sill Greenstone					
HOSTROCK COMMENTS:	Granite-greenstone sill comple	ex with overlying p	ohyllitic tuffs.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOG	RAPHIC AREA: Nechak	o Plateau
CAPSULE GEOLOGY						
	A northwest trend a greenstone-granite s the Lower Jurassic Haz section of greenstone of the Hazelton Group (Fieldwork, 1988). The vein range up and contains pyrite, s galena. Samples colle of sphalerite and arse anomalous.	ding steeply sill complex relton Group, intruded by and is belie to 0.9 metr sphalerite, a ected in 1986 enopyrite. M	dipping qua and overly Telkwa Fo leucograni ved to be es wide and rsenopyrita contain p ercury cond	artz vei ing phyl rmation. tic lens older, p d extend e, chalc yrite wi centrati	n cuts through litic tuffs of The thick es is atypical erhaps Triassic s for 500 metres opyrite and th minor amounts ons are also	,
	FIE TABLE 14 23-1 3.03 123 23-3 1.09 78 note: 23-1, 23-3 are c sphalerite from	LDWORK 1986, - MOUNT MCKE (all values Cu Zn 470 13100 600 30400 puartz vein s Mt. McKendri	p. 213 NDRICK VEI in p.p.m. Mo Hg 4 2.1 <2 2.5 amples with ck.	N ANALYS ) 5 960 4 13600 h pyrite	ES Sb 335 170 and minor	
BIBLIOGRAPHY	END STREET	102 012	+1000	201 202	+1000	
	EMPR FIELDWORK 1984, p pp. 195-208 EMPR AR 1934-C11 EMPR EXPL 1986-C360 EMPR ASS RPT 14026, 15 EMPR MAP 69-1 GSC OF 351 GSC BULL 270, p. 73	5149, 15391	^⊥ух6, рр.	201-222	, <u>,</u> ταΩΩ,	
DATE CODED: DATE REVISED:	1987/03/06 1988/03/16	CODED BY REVISED B	1: PD BY: LLD			FIELD CHECK: Y FIELD CHECK: N

MINFILE NUMBER:	<u>093L 267</u>	NA	TIONAL MINERAL INVENTORY	: 093L2 Ag3
NAME(S):	FAR, MO, SUMMIT			
STATUS: REGIONS: NTS MAP	Showing British Columbia 093I 02W		MINING DIVISION: LITM ZONE	Omineca 09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 09 04 N 126 51 48 W 1280 Metres Within 500M Located 700 metres northeast of the on Tsalit Mountain, approximately 32	e Far(Grubstake) showing (093L 2 kilometres southwest of Houstor	003) 1.	6002444 639540
COMMODITIES:	Molybdenum Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Molybdenite Chalcopyrite P Quartz Calcite Amph Unknown	Pyrrhotite Pyrite ibole		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Epigenetic L01 Subvolcanic Cu-Ag-Au (As-	Sb) L	05 Porphyry Mo (Low F- ty	pe)
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Cretaceous Eocene	GROUP Skeena	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Amygdaloidal Basalt Hornfels Rhyolite Tuff Breccia Chert Quartz Monzonite Porphyritic Monzonite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PH Plutonic Rocks	YSIOGRAPHIC AREA: Nechak	o Plateau
CAPSULE GEOLOGY				
	The general area is primarily underlain by Mesozoic Skeena Group rocks consisting of basaltic lava flows, tuff breccia, flow-banded rhyolite lava, chert and argillite. Rhyolite dikes and sills in the area have been dated (potassium-argon: 76.5 +/- 3 Ma) as Upper Cretaceous. The Skeena Group rocks are intruded by an Eocene Nanika Intrusion comprised of quartz monzonite and porphyritic monzonite. The Summit showing consists of mineralized amygdaloidal basalt which is locally hornfelsed. Fractures and amygdules are filled with quartz, calcite, amphibole and concentrations of pyrrhotite, molybdenite, minor pyrite and chalcopyrite. The Summit showing and the Grubstake showing (093L 003) have been explored as part of the same property.			
BIBLIOGRAPHY	EMPR GEM *1970-141-149,Fi EMPR ASS RPT 3064, 3096 EMR MP CORPFILE (Mexxon M EMPR MAP 69-1 EMPR PR (Richards, T.A. ( Tsalit 1 Claim, Novemb GSC BULL 270 GSC OF 351	g. 17; 1971-172; 1972-3 lines Ltd; Maverick Mtn 1988): Prospecting-Geo er 25, 1988 (see Grubst	353 . Resources Ltd.) ochemical Report on th take, 093L 003))	le
DATE CODED: DATE REVISED:	1986/11/03 1989/06/07	CODED BY: GRF REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 268</u>		NATIONAL MINERAL INVENTORY:	093L7 Cu3
NAME(S):	CROESUS, RAVEN			
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093L07W		UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY:	54 17 16 N 126 49 01 W Metres Within 1 KM		NORTHING: EASTING:	6017739 642099
COMMENTS:	of Houston.	e Mountain, 15 kilometres sout	nwest	
COMMODITIES:	Copper Silver	Gold		
MINERALS SIGNIFICANT: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Pyrite Hematite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Dissemir Porphyry	nated	101 Subveleppie Cu Ag Au (	Ac Sh)
HOST ROCK			Lon Subvolcanic Cu-Ag-Au (	AS-3D)
DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Lower Jurassic Eocene	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAM	DRPHIC/OTHER
LITHOLOGY:	Granodiorite Gabbro Quartz Monzonite Felsite Tuff Basaltic Flow Rhyolite Flow Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Sample from gabbro. Assessment Report 15259.	YEAR: 9.0000 Grams p 0.0800 Grams p 0.7800 Per cent	1986 er tonne er tonne	
CAPSULE GEOLOGY			_	
	The Morice Mountain Hazelton Group volcanics intruded by plugs of Nan composed primarily of br rhyolitic composition wh mainly of quartz monzoni The Croesus is loca hosts chalcopyrite in gr zation assayed 0.3 per c 1930, page 143).	area is underlain by (Telkwa Formation) w ika Intrusions. The eccia, tuff, and flow ile the Eocene Nanika te and felsite which ted south of the Shol anodiorite. A sample ent copper (Minister	the Lower Jurassic hich have been Telkwa Formation is s of basaltic to Intrusions are composed are in part porphyritic. to (093L 202) and of the best minerali- of Mines Annual Report	

At a higher elevation, an alaskite intrusive is well pyritized and hosts traces of chalcopyrite. In 1986, this showing is described as occurring within gabbro. A sample of the gabbro with disseminated pyrite, chalcopyrite, and hematite assayed 0.08 grams per tonne gold, 9.0 grams per tonne silver, and 0.78 per cent copper (Assessment Report 15259).

#### BIBLIOGRAPHY

EMPR AR \*1930-143; \*1931-74; 1932-85 EMPR EXPL 1986-354 EMPR ASS RPT \*15259, 19568 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR OF 1994-14 Placer Dome File

DATE CODED: 1986/11/06 DATE REVISED: 1988/08/13 CODED BY: GRF REVISED BY: LLD

MINFILE NUMBER:	<u>093L 269</u>	NATIONA	AL MINERAL INVENTORY:	093L7 Cu2
NAME(S):	<b>VAN</b> , WYK, GERRY, POT			
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093L07W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 16 53 N 126 48 58 W Metres Within 1 KM Located on the west flank of Morice N of Houston.	Nountain, 15 kilometres southwest	NORTHING: EASTING:	6017030 642175
COMMODITIES:	Copper Molybdenu	m		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Chalcopyrite Molybdenite Py Quartz Malachite Unknown	rite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Porphyry L05 Porphyry Mo (Low F- type)	L04	Porphyry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMC	RPHIC/OTHER
Eocene		Tontwa	Nanika Intrusions	
LITHOLOGY:	Quartz Monzonite Felsite Andesite Flow Rhyolite Flow Tuff Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine P	PHYSIO0	GRAPHIC AREA: Nechako	Plateau
CAPSULE GEOLOGY	The Morice Mountain area is underlain by Lower Jurassic Hazelton Group volcanics (Telkwa Formation) which have been intruded by plugs of Eocene Nanika Intrusions. The Telkwa Formation consists of andesitic to rhyolitic flows, tuffs and breccia. The Eocene Nanika Intrusions are composed of quartz monzonite and felsite stocks which are, in part, porphyritic. Molybdenite, chalcopyrite and pyrite are reported to occur in quartz veins and as disseminations in the quartz monzonite intrusions.			
BIBLIOGRAPHY	EMPR ASS RPT 797, 2844, 19 EMPR AR *1966-103 EMPR GEM 1970-155 EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR OF 1994-14	9568		
DATE CODED: DATE REVISED:	1986/11/06 1988/08/13	CODED BY: GRF REVISED BY: LLD	FI	ELD CHECK: N ELD CHECK: N

MINFILE NUMBER:	<u>093L 270</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	SILVER KING 1			
STATUS: REGIONS: NTS MAP	Showing British Columbia		MINING DIVISION:	Omineca
LOCATION ACCURACY: LOCATION ACCURACY: COMMENTS:	54 34 55 N 126 14 27 W 1113 Metres Within 1 KM		NORTHING: EASTING:	6051772 678308
COMMODITIES:	Zinc	Silver		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Quartz Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic 105 Polymetallic veins	Breccia Ag-Pb-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Andesite Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	Plateau
CAPSULE GEOLOGY	CAPSULE GEOLOGY The area is underlain by volcanic rocks of the Jurassic Hazelton Group. The Silver King 1 occurrence consists of three shear zones, within a width of 69 metres, in andesite breccia. It is reported that mineralized quartz seams occur on the footwall of all the shears. In one shear, a width of 23 centimetres of quartz containing sphalerite was exposed.			
BIBLIOGRAPHY				
	EM OF 2001-03 EMPR MAP 69-1 EMPR PF (Lay, D., Special Report) GSC BULL 270 GSC OF 351	(1937): Silver King and No	. 1 Fraction, EMPR AR	
DATE CODED: DATE REVISED:	EM OF 2001-03 EMPR MAP 69-1 EMPR PF (Lay, D., Special Report) GSC BULL 270 GSC OF 351 1986/11/20 1988/06/25	(1937): Silver King and No CODED BY: GRF REVISED BY: LLD	. 1 Fraction, EMPR AR F F	IELD CHECK: N IELD CHECK: N
DATE CODED: DATE REVISED:	EM OF 2001-03 EMPR MAP 69-1 EMPR PF (Lay, D., Special Report) GSC BULL 270 GSC OF 351 1986/11/20 1988/06/25	(1937): Silver King and No CODED BY: GRF REVISED BY: LLD	. 1 Fraction, EMPR AR F F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093L 271</u>	NATIONAL MIN	ERAL INVENTORY:
NAME(S):	MAPLE LEAF (L.4898)		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093L09E		UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 38 N 126 13 29 W 1265 Metres Within 1 KM		NORTHING: 6051288 EASTING: 679369
COMMODITIES:	Silver Zinc	Gold	
MINERALS			
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena F Quartz Rhodochrosite Unknown	reibergite Pyrite	
	Voin Broosi	2	
CLASSIFICATION:	Epigenetic		
DIMENSION:	Attitude of minoralized about zon	STRIKE/DIP: 095/55N	TREND/PLUNGE:
	Autoue of mineralized shear zon	es.	
DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
		Undefined Formation	
LITHOLOGY:	Andesite Breccia		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPH	IC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	VEIN	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 1937 GRADE	
	Silver Gold	829.7000 Grams per tonne 0.6900 Grams per tonne	
COMMENTS:	Zinc Sample from mineralized quartz v	5.0000 Per cent ein.	
REFERENCE:	Property File - Lay, D.,(1937): Ma	ple Leaf Grp., Special Report.	
CAPSULE GEOLOGY	The area is underl ton Group. The Maple L zones, 87 metres apart, quartz stringers are co 095 degrees and dip 55 sisting of some sphaler by the quartz stringers ected sample gave an as per tonne silver and 5.	ain by volcanic rocks of the Jura weaf occurrence consists of two pa in andesite breccia. Small mine ontained within the shear zones wh degrees northeasterly. Mineraliz ite, pyrite, galena and freibergi with minor associated rhodochros say of 0.69 grams per tonne gold, 0 per cent zinc (Lay, 1937).	assic Hazel- erallel shear eralized hich strike ation con- te is carried site. A sel- 829.7 grams
BIBLIOGRAPHY			
	EM OF 2001-03 EMPR ASS RPT 16193 EMPR EXPL 1987-C304 EMPR MAP 69-1 EMPR PF (Lay, D. (1937) GSC BULL 270 GSC OF 351	, Maple Leaf Group, EMPR AR Speci	al Report)
DATE CODED: DATE REVISED:	1986/11/20 1988/06/25	CODED BY: GRF REVISED BY: LLD	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 272</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	ORIOLE			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L09E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 35 04 N 126 13 23 W 1219 Metres Within 1 KM		NORTHING: EASTING:	6052096 679445
COMMODITIES:	Silver Zinc	Lead	Gold	
MINERALS				
SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Actual minerals not mentioned - assum Quartz Unknown	e sphalerite and galena p	resent.	
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic 105 Polymetallic veins Ag-Pb-Zn±A	u		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	DRPHIC/OTHER
JURASSIC	Hazelton	Underined Formation		
LITHOLOGY:	Porphyritic Andesite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	VEIN	REPORT ON	ł: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold Lead Zinc	YEAR <u>GRADE</u> 1652.5700 Grams 1.0300 Grams 7.0000 Per cer 8.0000 Per cer	: 1937 per tonne per tonne nt t	
COMMENTS: REFERENCE:	Sample from mineralized quartz vein. Property File - Lay, D.,(1937): Oriole, S	pecial Report.		
CAPSULE GEOLOGY				
	The area is underlain age Hazelton Group. The Or quartz in a shear zone in p ized quartz assayed 1.03 gr silver, 7.0 per cent lead a	by volcanic rocks riole occurrence corphyritic andesi rams per tonne golo and 8.0 per cent z	of the Jurassic onsists of a band of te. A sample of mineral- d, 1652.57 grams per tonn inc (Lay, 1937).	2
BIBLIOGRAPHY	EM OF 2001-03 EMPR MAP 69-1 EMPR PF (Lay, D., (1937): C	priole, EMPR AR Sp	ecial Report) 270	
	GSC OF 351			
DATE CODED: DATE REVISED:	1986/11/20 1988/06/25	CODED BY: GRF REVISED BY: LLD	F F	ELD CHECK: N ELD CHECK: N

MINFILE NUMBER:	<u>093L 273</u>	NATIONA	L MINERAL INVENTORY:	
NAME(S):	<u><b>BOX</b></u> , TUYA			
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L09E		UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 22 N 126 14 37 W 1189 Metres Within 1 KM		NORTHING: EASTING:	6050746 678168
COMMODITIES:	Silver Lead	Zinc	Gold	Copper
MINERALS				
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Tetrahedrite Spha Quartz Unknown	erite Chalcopyrite Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Breccia Epigenetic Hydrotherm 105 Polymetallic veins Ag-Pb-Zn±A	al Nu		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Andesite Feldspar Porphyry Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIO	GRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Lead A 10 centimetre wide sample from a s Minister of Mines Annual Report 1927,	YEAR: 1927 GRADE 2811.4000 Grams per tonne 2.0600 Grams per tonne 48.0000 Per cent eam of galena. page 148.		
CAPSULE GEOLOGY	The energie underlaim	by volcenic vector of the	Tumpania Hanal	
	desitic feldspar porphyry- galena and tetrahedrite oc 0.3 metres to 1.2 metres w to the northeast. A sample centimetres wide, assayed tonne silver and 48 per cen 1927, page 148).	by volcante locks of the ence consists of two quar- preccia. Pyrite, chalcopy cur in the quartz veins, v ide, and strike northwest e from a seam of galena, a 2.06 grams per tonne gold nt lead (Minister of Mines	vrite, sphalerite, which range from with a steep dip approximately 10 , 2811.4 grams per s Annual Report	
BIBLIOGRAPHY	FM OF 2001-02			
	EM OF 2001-03 EMPR AR 1927-148; 1933-99; EMPR ASS RPT *15063, 16193 EMPR EXPL 1986, p. C355; 1 EMPR MAP 69-1 GSC BULL 270 GSC OF 351 GSC SUM RPT 1928, Part A, p	1934-C13 987, p. C304 p. 75		
DATE CODED: DATE REVISED:	1986/11/20 1988/10/26	CODED BY: GRF REVISED BY: LLD	F	ELD CHECK: N ELD CHECK: N

MINFILE NUMBER:	<u>093L 274</u>		NATIONAL MINERAL INVENTORY:	093L12 Cu1
NAME(S):	<u>AB</u>			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L12E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 42 34 N 127 45 01 W 1829 Metres Within 1 KM		NORTHING: EASTING:	6063176 580517
COMMODITIES:	Copper Silver			
ALTERATION: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Charcocite Bornite Charcopy Chlorite Chloritic Unknown	nte		
DEPOSIT				
CLASSIFICATION: TYPE:	Hydrothermal D03 Volcanic redbed Cu		L01 Subvolcanic Cu-Ag-Au (	As-Sb)
HOST ROCK DOMINANT HOSTROCK	: Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Porphyritic Andesite Amygdaloidal Andesite Tuff Lapilli Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Hazelton	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY	YEAR: <u>G</u> RADE	1973	
	Silver Copper	37.0000 Grams p 0.8700 Per cent	per tonne	
COMMENTS: REFERENCE:	Chip sample across 20 centimetres. Assessment Report 4671.			
CAPSULE GEOLOGY		Turnania Hanaltan	Gueun underlie the	
	area of the occurrence. The loidal andesites, while the t bedded forms. Mineralization structural and stratigraphic occurs over 60 metres along t consists of fracture fillings in chloritized andesite over for about 6 metres. A chip s grams per tonne silver and 0. 4671). Another zone contains veins associated with a 0.6 r	flows are mainly tuffs occur in bo n appears to have controls. Coppe two parallel faul s and veinlets of a zone 0.3 metre sample across 20 .87 per cent copp s narrow chalcopy metre wide fault	porphyritic, amygda- th massive and well- been affected by both r-silver mineralization t zones. The main zone chalcocite and bornite s wide, which is exposed centimetres gave 37 er (Assessment Report rite and chalcocite zone.	

# BIBLIOGRAPHY

EMPR	ASS	RPT	*4671
EMPR	GEM	1973	3-346
EMPR	MAP	69-1	-
GSC (	DF 35	51	
GSC H	BULL	270	

DATE CODED:	1986/12/05
DATE REVISED:	1987/06/25

MINFILE NUMBER:	<u>093L 275</u>	1	NATIONAL MINERAL INVENTORY:	
NAME(S):	CABIN (DOME MOUNTAIN), GRIZZLY	( (L.2900)		
STATUS:	Prospect		MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	093L10E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 38 N 126 37 53 W 1455 Metres Within 500M Vein is on strike with and probably the (093L 276).	same as the Boulder Vein	NORTHING: EASTING:	6068866 652466
COMMODITIES:	Gold Silver Antimony	Copper	Lead	Zinc
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Arsenopyrite Galen Quartz Silicific'n Unknown	a Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	Vein Epigenetic I02 Intrusion-related Au pyrrhotite Bladed Dimension is 3 metres wide.	veins STRIKE/DIP:	I05 Polymetallic veins Ag-Pb 045/55E TREND/PLU	o-Zn±Au NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
<u>STRATIGRAPHIC AGE</u> Lower Jurassic	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff			
HOSTROCK COMMENTS:	"Phyllitic maroon tuff unit" (1JT4); Fie	ldwork, 1986.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	I	PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	CABIN VEIN	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Gold Copper Lead Antimony Zinc Cabin vein analysis. Fieldwork 1986, page 201-222.	YEAR: <u>GRADE</u> 126.0000 Grams pe 5.5000 Grams pe 0.8000 Per cent 4.8800 Per cent 0.1400 Per cent 2.4200 Per cent	1987 er tonne er tonne	
CAPSULE GEOLOGY	The Cabin Vein is exp northeast and dipping south contains abundant pyrite w and chalcopyrite. The vein narrow zone of strongly al andesites and tuffs of the Formation). In 1987 assay gold. In 1981 samples assay per tonne silver, 1 per cen per cent zinc.	psed in the banks of heast. It averages ith lesser amounts of n crosscuts the regi tered (silicified) a Lower Jurassic Haze s over 1.2 metres ga ayed 8.3 grams per t nt copper, 1.73 per	Federal Creek, strikin 3 metres in width and of arsenopyrite, galena conal foliation in a and foliated green elton Group (Telkwa ave 10.9 grams per tonne conne gold, 2832 grams cent lead and 1.88	a

The Boulder Vein (MINFILE 093L 276) is likely the same as the Cabin vein, occurring 350 metres along strike to the east. The combined length of the two (?) veins exceed 750 metres.

FIELDWORK 1986, p. 209

	TABLE 3 - CABIN VEIN ANALYSES (all values in p.p.m.)											
	Au	Ag Cu	Pb	Zn	Co	Ni.	Mo	Cd	Hg	As	Sb	Ва
	8 5.5 8A 8.2 8B 4.1 8C 7.5 8D <0.3 12 12.3 12A <0.3 8 Quartz creek; 8B vein in c vein, Cab dump.	126 8000 77 4000 157 68000 370 34600 <10 320 106 19000 <10 142 vein, Cab Quartz v reek; 8D Sin vein a	48800 28300 4200 3800 110 3300 40 in vein ein, Ca Altered dit dum	24200 22700 4900 13400 540 255 in cre bin vei volcan p; 12A	2 2 14 8 12 6 16 eek.; 1 n in 1ic, Alte	14 14 12 10 <2 11 3 8A cre Cabi red	4 6 12 <4 4 4 2 0 4 2 4 2 0 4 0 2 0 2 0 1 2 0 2 0 1 2 0 2 0 1 2 0 2 0	410 380 78 255 6 124 <1 tz ve 8C Q in in anic,	7.0 4.8 0.4 1.9 0.1 8.4 <.1 in, C uartz Cabi	1700 887 154 1700 20 850 52 2abin v ; vein, ek; 12 .n veir	1400 566 68 2800 26 1400 <5 rein in Cabin Quart: n adit	68 34 50 135 1920 139 1102 a a
BIBLIOGRAPHY	EMPR FIEL pp. 19 EMPR PF ( 1987; EMPR AR 1 GSC BULL EMPR EXPL EMPR MAP GCNL #185 IPDM Nov. EMPR ASS EMPR OF 1 GSC OF 35	DWORK 198 5-208 Rpt. by A Teeshin R 922-103; 270 *1987, p 69-1 , 1982; # 1985 RPT 15614 987-1 1	4, pp. .J. Gau esource 1923-11 p. B54, 24,#178 , 15659	193-213 1, 1922 s Ltd., 2; 1924 B55,C30 , 1985 , 16171	8; *1 2; *C 198 -96	986, anad 7 An	pp. ian- nual	201- Unite Repo	222; d Min rt)	1988, merals,	Inc.	,
DATE CODED: DATE REVISED:	1987/03/06 1988/08/24			CODED REVISE	D BY: ED BY:	PD LLD						FIELD CHE

MINFILE NUMBER:	093L 276 NATIONAL MINERAL INVENTORY:						
NAME(S):	DOME MOUNTAIN, BOULDER, ARGILLITE						
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093L10E		Underground	MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 42 N 126 37 24 W 1418 Metres Within 500M Located on Dome Mounta Boulder vein is partially o the same as the Cabin of	ain about 38 kilometres ea: n Lot 2900, on strike with, ccurrence (093L_275).	st of Smithers. The and probably	NORTHING: EASTING:	6069007 652980		
COMMODITIES:	Gold	Silver	Zinc	Lead			
MINERALS							
SIGNIFICANT: ASSOCIATED: ALTERATION:	Sphalerite Gold Quartz Carbonate	Galena Pyrit	e				
	Sericite Chlorite Pyrite	Epidote Quar	z Carbona	ate			
ALTERATION TYPE: MINERALIZATION AGE:	Sericitic Unknown	Chloritic					
DEPOSIT							
CHARACTER: CLASSIFICATION:	Vein Epigenetic	Hydrothermal					
TYPE:	I01 Au-quartz veins I05 Polymetallic veins	s Ag-Pb-Zn±Au	IC	02 Intrusion-related Au pyri	hotite veins		
SHAPE: DIMENSION: COMMENTS:	Bladed 150 x 2 Boulder vein.	Metres	STRIKE/DIP:	090/40S TREND/PLL	INGE:		
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATI Nilkitkwa	ON	IGNEOUS/METAM	ORPHIC/OTHER		
LITHOLOGY:	Amygdaloidal Flow Lapilli Tuff Argillite						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PH	YSIOGRAPHIC AREA: Nechako	o Plateau		
INVENTORY							
ORE ZONE:	TOTAL		REPORT ON: Y				
	CATEGORY: Combine QUANTITY: 2007 COMMODITY Gold	ed 768 Tonnes GRADE 14 900	YEAR: 19	94			
COMMENTS: REFERENCE:	Current in situ possible, probable and proven reserves of the Boulder and Argillite veins. George Cross News Letter No.68 (April 11), 1994.						
CAPSULE GEOLOGY	_						
	The Dome Mountain vein occurrence is located on the eastern limb of a southeast plunging open anticline and cuts across a thick sequence of amygdaloidal flows and lapilli tuffs of the Lower-Middle Jurassic Hazelton Group, Nilkitkwa Formation. Rocks in the hanging wall are sericitized near the vein and grade outward into strong chlorite alteration with local concentrations of epidote, quartz, carbonate and pyrite. Footwall rocks are generally less altered. The quartz-carbonate vein averages about 2.7 metres in width and has a sharp footwall contact that appears to be sheared with associated gouge development. The vein is coincident with a narrow, weakly developed zone of bleached volcanic rocks. The hanging wall contact is gradational with a zone of pervasive sericite alteration that extends several metres into the wallrock. Both barren and galena-sphalerite-bearing guartz stringers occur within this altered						

common within the chlorite-altered volcanic rocks away from the main

vein. The Boulder vein and an associated splay are well-defined along a 150 metre exploration drift completed in 1987. The vein strikes east and dips between 40 to 60 degrees south. It is a brecciated to massive quartz-carbonate vein cut and offset by several shear zones that have a similar trend to it. The vein pinches and swells from thicknesses of less than 1.0 metre to about 15.0 metres. Sulphide minerals occur in fractures or form massive banded

concentrations within the quartz vein. Higher grade sections host semi-massive to massive concentrations of sulphides with coarsegrained crystal aggregates, fracture-fillings and disseminations. Gold occurs as fine grains along pyrite boundaries or is disseminated in quartz-carbonate microveinlets.

The Boulder Creek vein extends southeastward into the Argillite zone which comprises an irregular network of auriferous quartz veins within argillite of the Nilkitkwa Formation. This zone is at a higher stratigraphic level than Boulder Creek but the zones are mineralogically similar with the best gold grades occurring where the quartz veins contain sphalerite and galena.

Current in situ possible, probable and proven reserves of the Boulder and Argillite veins are 200,768 tonnes grading 14.9 grams per tonne gold. The cutoff grade is 10.2 grams per tonne gold and the minimum mining width is 1.6 metres (horizontal) and 2.0 metres (vertical) (George Cross News Letter No.68 (April 11), 1994).

In 1991, ore mined (5079-tonne bulk sample) from the upper level of the Boulder zone was sent in two lots to the Equity Silver mine (093L 001) and the Premier mine (104B 054) to test for cost ore custom milled at the Premier mine mill were 86,179 grams of gold and 136,982 grams of silver. The operator of the mine (Timmins Nickel) has reported development will allow a production rate of 4535 to 5442 tonnes per month at an anticipated grade of 17.14 grams per tonne gold (George Cross News Letter No.6, 1992). A second portal has been collared at the 1280-metre level approximately 500 metres to the east of the existing portal at the

1370-metre level.

#### BIBLIOGRAPHY

EMPR ASS RPT \*15614, \*15659, 16171, 18620, 18905, 19188, 19498, 19510, 20378, 20974, 21802 EMPR EXPL \*1987, pp. B53-B58,C306 EMPR FIELDWORK 1984, pp. 193-213; 1986, pp. 201-222; 1988, pp. 195-208 EMPR INF CIRC 1993-13 EMPR MAP 65 (1989); 69-1 EMPR OF 1987-1; 1992-1; 1992-3; 1994-1 EMPR PF (Canadian-United Minerals Inc., Public presentation by President (L. Ostensoe) at Hudson Bay Lodge, Smithers, 1986; Teeshin Resources Ltd., 1987 Annual Report; Geology notes from CIM District 6 meeting, 1986) EMR MIN BULL MR 223 B.C. 231 GSC BULL 270 GSC OF 351 GCNL #9,#15,#19,#27,#31,#112,#130,#176,#182,#192,#207, 1986; #94, 1987; #17(Jan.25),#100(May 25),#105(June 1),#115(June 15), #143(Jul.26),#179(Sept.18),#233(Dec.5),#241(Dec.15), 1989; #2(Jan.3),#12(Jan.17),#24(Feb.2),#29(Feb.9),#33(Feb.15), #59(Mar.23),#124(Jun.27),#172(Sept.6),#226(Nov.22), 1990; #116(June 17),\*#180(Sept.18),#239(Dec.12), 1991; #6(Jan.9), #24(Feb.4),#46(Mar.5),#47(Mar.6),#117(June 17),#133(July 10), 1992; #68(Apr.11), 1994 IPDM Feb. 1986 N MINER Dec.30, 1985; Jan.20,27, Feb.17,24, May 12, 1986; July 20, Aug.22, 1988; Apr.10, June 5, Aug.7, Dec.18, 1989; Sept.10, Oct.8, 1990; July 1, 1991; Feb.10, Mar.30, Aug.3, 1992 MIN REV March/April 1989 N MINER MAG Jan., 1990 NW PROSP Jan./Feb., Sept./Oct. 1989 PERS COMM (C. Stewart, September 10, 1987) V STOCKWATCH July 21, 1987; June 17, July 26, 1989 WWW http://www.infomine.com/index/properties/DOME\_MOUNTAIN.html Teeshin Resources Ltd., (1988): Stage I Report, Volume 1, Environmental Assessment DATE CODED: 1987/03/06 CODED BY: PD

DATE REVISED: 1989/04/04

REVISED BY: LLD
MINFILE NUMBER:	<u>093L 277</u>				NATIONA	L MINERAL INVENTORY:	
NAME(S):	9800 (DOME MOUNTA	<u>N)</u> , NO. 4 (L.2914	ł)				
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093L10E					MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 17 N 126 37 11 W 1350 Metres Within 500M					NORTHING: EASTING:	6068243 653239
COMMODITIES:	Gold Arsenic	Silver	Z	inc		Lead	Copper
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Quartz Unknown	Arsenop	yrite Cha	copyrite	Scorodi	ite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallic vei	Stockwork Industrial Min. ns Ag-Pb-Zn±Au	Ν	lassive	102	Disseminated Intrusion-related Au pyrr	hotite veins
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
<u>STRATIGRAPHIC AGE</u> Lower Jurassic	GROUP Hazelton		<u>FORMATION</u> Nilkitkwa			IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Shale Tuff Graphitic Shale						
HOSTROCK COMMENTS:	"Phyllitic maroon tuff u	nit" (1JT4); Fieldw	vork, 1986.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine				PHYSIOG	GRAPHIC AREA: Nechako	o Plateau
INVENTORY							
ORE ZONE:	9800		R	EPORT ON:	Ν		
	CATEGORY: Assay SAMPLE TYPE: Chip COMMODITY	/analysis	GRADE	YEAR:	1987		
COMMENTS: REFERENCE:	Silver Arsenic Gold Copper Lead Zinc Massive sulphide from 9 Fieldwork 1986, pages	1800 zone, Dome 201-222.	1809.0000 1.8000 76.6100 0.7000 14.7000 29.8000 Mountain.	Grams p Per cent Grams p Per cent Per cent Per cent	per tonne		
CAPSULE GEOLOGY							
	Mineralizat stratigraphy and to massive sphal and (2) white qu sphalerite, and with hosting sha	ion at 9800 ; cleavage. l erite-galena artz veins a galena. Qua: le and grev ;	zone is a Mineraliza -pyrite-ch nd stringe rtz and ma tuff are s	discord ation oc alcopyr ers with assive s sharp	ant vei curs as ite lay dissem ulphide Hanging	In which cuts (1) foliated vers and lenses, minated pyrite, e vein contacts wall alteration	

with hosting shale and grey tuff are sharp. Hangingwall alteration is limited to minor quartz veining extending less than 20 centimetres into the overlying black shale. These veins are much lower grades. Structurally below the vein is a zone of white quartz stringers (stockwork). Several veins are folded and contorted. The host grey tuff is bleached and contains disseminated arsenopyrite needles, scorodite and pyrite. Sphalerite, galena and pyrite veins and patches occur locally. The stockwork zone is cut by anastomosing shear planes.

In detail, stratigraphic and structural locations of the vein varies on the north end of the present workings (Aug. 19, 1986). The vein is at a sheared, black graphitic contact of graphitic shale and fine-grained grey tuff. A fault contact is evident because bedding and cleavage are parallel in the black shale but in angular

BIBLIOGRAPHY

discordance with the tuff cleavage. Layering in the vein is subparallel to the fault contact. The host rock is Lower Jurassic Nilkitkwa Formation (Hazelton Group).

		FIE TABLE	LDWORK 5 - 98	1986, p. 300 ZONE A	213 ANALYSES			
No.	Au	Ag	Cu	Pb	Zn	Мо	Hg	As
 254-4 254-4 т	76.61 Massive	 1809 sulphid	7000 e, Dome	147000 Mt. 9800	298000 298000 Zone	 <5	11.36	18000
and pr silver	oduced 3	30.17 gr	ams per	tonne go	old and 7	71.4 gi	rams per	tonne
EMPR F EMPR P Tee GCNL #	IELDWORK F (Rpt. shin Res	( 1984, by A.J. sources	pp. 193 Gaul, Ltd., 1	8-213; *19 1922; *Ca 987 Annua	986, pp. 2 anadian-Un al Report	201-222 nited M	2 Ainerals	Inc. 198

EMPR FIELDWORK 1984, pp. 193-213, \*1986, pp. 201-222 EMPR PF (Rpt. by A.J. Gaul, 1922; \*Canadian-United Minerals Inc. 1987; Teeshin Resources Ltd., 1987 Annual Report) GCNL #178, 1985; #130,#176, 1986 N MINER Jan 6, 1986 IPDM Nov 1985 EMPR EXPL 1987, p. C306 GSC BULL 270 EMPR MAP 69-1 EMPR ASS RPT 15614, 15659, 16171 EMPR OF 1987-1 GSC OF 351

DATE CODED: 1987/03/06 DATE REVISED: 1988/03/12 CODED BY: PD REVISED BY: LLD

MINFILE NUMBER:	<u>093L 278</u>		NAT	IONAL MINERAL INV	/ENTORY:
NAME(S):	CHANCE (DOME MOUNTA	<u>AIN)</u>			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L10E			MINING U	DIVISION: Omineca TM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 55 N 126 36 51 W 1350 Metres Within 500M 750 metres southwest of F a small southeast flowing t	ree Gold (093L 023), in ributary of Federal Cree	bed of Camp Creek k.	N <,	ORTHING: 6069429 EASTING: 653556
COMMODITIES:	Gold Barite	Silver Antimony	Copper	Zinc	Lead
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Barite Oxidation Unknown	Barite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	Vein Epigenetic I05 Polymetallic veins Bladed 0120 Dimension of deposit is 12 dip.	Industrial Min. Ag-Pb-Zn±Au Metres 0 centimetres wide. Has	I02 STRIKE/DIP: s a steep northeast	2 Intrusion-relate	ed Au pyrrhotite veins REND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMAT	ON	IGNFOL	JS/METAMORPHIC/OTHER
Lower Jurassic	Hazelton	Telkwa			
LITHOLOGY:	Tuff				
HOSTROCK COMMENTS:	"Fragmental volcanic unit	" (1JT3); Fieldwork, 198	6.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHY	ÍSIOGRAPHIC AREA	: Nechako Plateau
INVENTORY					
ORE ZONE:	CHANCE VEIN		REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/an SAMPLE TYPE: Chip COMMODITY Gold Barite Copper Lead Antimony Zinc Chance vein. Fieldwork 1986, pages 207	alysis <u>GRADE</u> 2.700 0.028 0.150 0.005 0.029 0.059 I-222.	YEAR: 198 O Grams per to Per cent O Per cent O Per cent 8 Per cent O Per cent	nne	
	A 120 centime is exposed in a be altered tuffs of t The surface exposu bordering the vein pyrite in the vein of barium. "Fair"	tre wide, steeply d of Camp Creek, he Lower Jurassic re is oxidized an walls. Minerali . The wallrocks gold values are FIELDWORK 1986 TABLE 13 - CHANCE (all values	y northeast di hosted in the Telkwa Forma d there is 10 zation consis contain an an reported (Ann pp. 201-222 VEIN ANALYSE s in p.p.m.)	pping quartz v foliated and tion (Hazelton centimetres o ts of coarse-g omalous concen ual Report 192 S	ein Group). f gouge rained tration 3).
	Au Ag Cu	Pb Zn Co	Ni Mo Cd	Hg As Sb	Ba 
	35 2.7 <10 150 35A <0.3 <10 6	u 58 590 6 D 24 110 15	10 <4 10 10 <4 <1	2.4 96 298 0.1 14 <5	282 1962

FIELD CHECK: N

#### CAPSULE GEOLOGY

35 Quartz vein, Chance vein; 35A Altered volcanic, Chance vein.

BIBLIOGRAPHY EMPR FIELDWORK 1984, pp. 193-213; 1986, pp. 201-222; 1988, pp. 195-208
EMPR PF (Rpt. by A.J. Gaul, 1922; Canadian-United Minerals Inc., 1987;
 Teeshin Resources Ltd., 1987 Annual Report)
EMPR AR 1923-112 EMPR AR 1923-112 EMPR EXPL 1987, p. C306 GSC BULL 270 EMPR MAP 69-1 EMPR ASS RPT 15614, 15659, 16171 EMPR OF 1987-1 GSC OF 351 DATE CODED: 1987/03/13 DATE REVISED: 1988/03/13 CODED BY: MM REVISED BY: LLD FIELD CHECK: N

MINFILE NUMBER:	<u>093L 279</u>		NATIONA	L MINERAL INVENTORY	:
NAME(S):	JANE (DOME MOUNTAIN), HIGO SNOWDROP (L.2904)	GINS, CHISHOLM,			
STATUS:	Prospect			MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP:	British Columbia 093L10E			UTM ZONE:	09 (NAD 83)
LATITUDE:	54 44 20 N 126 38 26 W			NORTHING:	6068290
ELEVATION: LOCATION ACCURACY: COMMENTS:	1620 Metres Within 500M On southwest slope of Dome Mo	ountain Ridge.			
COMMODITIES:	Gold Silver Lead	C	opper	Barite	Zinc
	Chalaanurita Sahalarita				
ASSOCIATED: ALTERATION:	Quartz Barite Sericite	Galena Fylite			
ALTERATION TYPE: MINERALIZATION AGE:	Sericitic Unknown				
	Main				
CHARACTER: CLASSIFICATION:	Epigenetic Indust	trial Min.		Delumetellie veine Ar D	h 7n . Au
COMMENTS:	Lenticular. Dimension ranges fro metres. Strike/dip is northwest 5	om 30-130 centimetres 0 degrees north.	wide by 150	Polymetallic veins Ag-Pl	D-ZN±AU
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAM	IORPHIC/OTHER
		TEIKWA			
LITHOLOGY:	luff				
HOSTROCK COMMENTS:	"Phyllitic maroon tuff unit" (1JT4	4); Fieldwork, 1986.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOC	GRAPHIC AREA: Nechako	o Plateau
INVENTORY					
ORE ZONE:	JANE VEIN	RE	PORT ON: N		
	CATEGORY: Assay/analysis	5	YEAR: 1987		
	COMMODITY Silver	GRADE			
	Gold	45.0000 4.8000	Grams per tonne		
	Copper	1.0600 4.0300	Per cent Per cent		
	Lead Zinc	0.0070 0.0140	Per cent Per cent		
COMMENTS: REFERENCE:	Jane vein with trace barite. Fieldwork 1986, pages 201-222.				
CAPSULE GEOLOGY					
	The Jane vein occu the Lower Jurassic Tell	urs in a zone of kwa Formation (H	strongly foli azelton Group	lated tuffs of ). The vein is	
	30 to 130 centimetres was a narrow zone of seric:	wide and trends ite alteration a	northwest dipp long its margi	oing north, with	

a narrow zone of sericite alteration along its margins. Variable amounts of sulphides are present including shattered pyrite and chalcopyrite. In 1922, a test sample of 100 lbs. taken over 0.6 metres assayed 148.8 grams per tonne gold, 358.6 grams silver and 4.6 per cent copper. Assays in 1984, over 1.5 metres give 68.6 grams per tonne gold and 140.6 grams per tonne silver. Ore was mined from the Chisholm vein, located southeast of the Jane vein. In 1918, 12.7 tonnes of ore produced 82.28 grams per tonne gold.

tonne gold.

In 1986, a grab sample from the Dome vein, located on the Dome 4 claim approximately 1.0 kilometres northwest of the Jane vein, assayed 4.11 grams per tonne gold. Trace barite is associated with the quartz veining.

				FI	ELDWC	DRK 198	86, p	р. 2	01-2	22						
				TAE	BLE 7	- JANI	E VEI	N AN	ALYS	ES						
					(all	values	s in j	p.p.	m.)	_			_			
		Au	Ag	Cu	Pb	Zn	Co	Ni	Мо	Cd	Hg	As	Sb	Ba		
	65 63 68A <	2.0 4.8 0.3	<10 45 <10	6200 40300 92 1100	70 140 60	39 90 980 231	6 8 19 23	20 17 5 8	56 10 <4	<1 <1 <1	0.4 0.2 0.1	14 320 <10 20	<5 <5 <5	23 1060 48 263	6 0 1 4	
	65 - trenc sampl	surfac h, qua e, alt	ce tro artz tered	ench, c vein wi phylli	uartz th ch	vein alcopy uff; (	with vrite 55A -	tra , tr sur	ce c ace face	halc bari tre	opyri te; 6 nch, a	te; 63 8A - s altere	- s urfa d wa	urfac .ce .llroc	e k	
BIBLIOGRAPHY	EMPR PP EMPR EMPR EMPR GSC B EMPR GSC O GSC O	FIELDW . 195- AR *19 PF (Rp eshin OF 198 EXPL 2 MAP 69 ASS RI F 351	WORK -208 918-1 pt. by Reso 37-1 1987, 70 9-1 PT 15	1984, p 22; 192 y A.J. urces I p. C30 514, 15	pp. 19 22-100 Gaul, Ltd., 06	93-213 ); 1922 1922 1987 2 16171	* *19 3-111 * Can. Annua	86, ; 19 adia 1 Re	pp. 24-9 n-Un port	201- 6 ited )	222; Mine:	1988, rals I	nc.	1987;		
DATE CODED: DATE REVISED:	1987/03/ 1988/08/	/06 /24				CODED REVISEI	BY: F DBY: L	PD LD						F F	IELD CHECK IELD CHECK	: Y : N

MINFILE NUMBER:	<u>093L 280</u>							N	ATIONA	AL MINE	ERAL IN	VENTOF	RY:	
NAME(S):	HOOPES (DO		TAIN),	SNOWDR	ROP (L.2	904)								
STATUS:	Prospect	hia									MINING	G DIVISIC	DN: O	mineca
REGIONS: NTS MAP: BC MAD:	093L10E	idia									ι	JTM ZON	NE: 09	9 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 40 126 38 28 1590 Metres Within 500M On southeas	N W S t side of Do	me Mou	ıntain.							٢	NORTHIN EASTIN	NG: 60 NG: 69	068907 51838
COMMODITIES:	Gold		Silve	r		Le	ead			Zi	nc			Copper
MINERALS														
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Quartz Unknown	Galena Barite	A	Sphaler Ibite	ite	Pyrite								
	Voin		Brec	cia										
CLASSIFICATION:	Epigenetic	sion-related		rhotite vei	ine				105	Polym	otallic y	ins Aa	_Dh_7	n+Au
SHAPE: COMMENTS:	Bladed Dimension of 60 degrees i	f deposit is northwest.	a 1 met	re wide ve	ein. Stri	ke/dip	is nort	heast/	100	1 Olym		veins Ag	-1 0-2	
HOST ROCK DOMINANT HOSTROCK:	Volcanic													
STRATIGRAPHIC AGE	<u>GROUP</u> Hazelton			_	<u>FORMA</u> Telkwa					-	<u>IGNEO</u>	US/MET/	AMOR	PHIC/OTHER
LITHOLOGY:	Tuff Breccia													
HOSTROCK COMMENTS:	"Fragmenta	Il volcanic u	nit" (1J	Γ3); Fieldv	work, 19	86.								
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	9						Ρ	HYSIOC	GRAPH	IC ARE/	A: Nech	ako P	lateau
INVENTORY														
ORE ZONE:	HOOPES VEI	N				RE	PORT	ON: N	1					
	CATEGORY: SAMPLE TYF	: Assay/ PE: Chip	'analysi	S	GRAD	E	YE	AR: 1	987					
	Silver Gold Copper				44.00 2.40 0.01	000 000 00	Grai Grai Per	ns pei ns pei cent	r tonne r tonne					
	Lead				0.01	70 940	Per Per	cent						
COMMENTS: REFERENCE:	Hoopes quar Fieldwork 19	rtz vein. 186, pages 2	201-222		0.02									
CAPSULE GEOLOGY														
	A st chalcopyr trench, a occurs. be flat 1	teep dipp tite is e 20 metr This zor ying.	ping o expose re zon ne is	quartz ed in t ne of p in a q	vein w renche yrite uartz	with es in with and	abun one les albi	dant area ser s te he	pyrit a. In sphale ealed	te and n an a erite brec	d less adjace and g cia an	ser ent galena nd may	L F	
	massive a Group). Assa	igglomera The veir lys in 19	ate (In and )82 we	ower J brecci ere 14.	urass: a zone 4 gran	ic Te app ns pe	lkwa ear r to:	Forr to ci	nation rosscu gold,	n of ut th 60.3	the Ha e fol: grams	azelto iation s per	on	
	tonne sil cent zinc Traces of	ver, 1.2 . A gra barite	25 per ab sam were	cent ple in found	copper 1987 in the	r, 0. assa e qua	5 pe yed rtz	r cen 34.3 vein:	nt lea grama ing.	ad an s per	d 3.5! tonne	5 per e gold	l.	
			Fr 7	om Fie ABLE 8	ldwor - HOO	x 198 OPES lues	6, p VEIN	p. 20 ANAI	01-222 LYSES	2:				
	Au 	Ag 	Cu	Pb	Zn 	Co	Ni	Mo	Cd	Hg	As	Sb 	Ba	
	48A 2.4	44	102	168	240	25	8	100	<1	1.5	30	<5	<10	

BIBLIOGRAPHY

 50 < 0.3 <10</td>
 172
 42
 590
 24
 9
 20 <1</td>
 0.3 <10 <5</td>
 6383

 50A < 0.3 <10</td>
 34
 12
 372
 17
 5
 <4</td>
 <1</td>
 <10 <5</td>
 1793

 51
 36.0
 550
 34800
 1800
 326
 19
 25
 64
 4
 3.0
 220 <5</td>
 76

 48-A
 Quartz
 vein, Hoopes;
 50
 Quartz
 vein, Hoopes;
 50-A
 Altered

 volcanic, Hoopes;
 51
 Quartz
 vein, Hoopes;
 50-A
 Altered

 volcanic, Hoopes;
 51
 Quartz
 vein, Hoopes;
 50-A
 Altered

 Volcanic, Hoopes;
 51
 Quartz
 vein, Hoopes;
 50-A
 Altered

 PD:
 195-208
 EMPR AR
 1922-102
 EMPR PF (Rpt. by A.J. Gaul, 1922; Canadian-United Minerals Inc. 1987;
 Teeshin Resources Ltd., 1987 Annual Report)

 GCNL #185, 1982
 EMPR AS
 1987, p. C306
 GSC BULL 270
 EMPR AS RPT 15614, 15659, 16171

 EMPR OF 1987-1
 GSC OF 351
 GSC OF 351
 GODED BY: PD
 FIELD CHECK: Y

 DATE REVISED:
 1988/03/12

MINFILE NUMBER:	<u>093L 281</u>	NATIONA	L MINERAL INVENTORY:	
NAME(S):	RAVEN (DOME MOUNTAIN), RAVEN (L.2	897)		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L10E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 55 N 126 39 46 W 1650 Metres Within 500M On north side of Dome Mountain.		NORTHING: 6069324 EASTING: 650428	
COMMODITIES:	Gold Silver Arsenic	Copper	Zinc Lead	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Vein Epigenetic Industrial Min. I02 Intrusion-related Au pyrrhotite veir Irregular Folded	ns 105	Polymetallic veins Ag-Pb-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP F Hazelton T	ORMATION Felkwa	IGNEOUS/METAMORPHIC/OTHEF	२
LITHOLOGY:	Tuff			
HOSTROCK COMMENTS:	"Fragmental volcanic unit" (1JT3); Fieldw	ork, 1986.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIO	GRAPHIC AREA: Nechako Plateau	
INVENTORY				
ORE ZONE:	DUMP	REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 1987		
	Silver Arsenic Gold Copper Lead Zinc	235.0000         Grams per tonne           0.0420         Per cent           69.0000         Grams per tonne           2.9200         Per cent           0.0540         Per cent           0.0140         Per cent		
COMMENTS: REFERENCE:	Raven quartz vein dump. Fieldwork 1986, pages 201-222.			
CAPSULE GEOLOGY	The host rocks are tuffs (Hazelton Group) which have b folded. The vein is up to 20 to the foliation (it has also chalcopyrite are abundant. G tonne gold.	of the Lower Jurassic een strongly foliated a centimetres wide and been folded); shattere rab samples in 1987 ran	Telkwa Formation and subsequently lies conformable ed pyrite and n 16.1 grams per	
	Au       Ag       Cu       Pb         124       2.0       28       4000       84         124A       69.0       235       29200       540         124B       33.6       72       18300       284         124       Quartz       vein, Raven vein d         124B       Quartz       vein, Raven vein d	Calues in p.p.m.) Zn Co Ni Mo Cd I 265 25 14 22 <1 ( 136 9 10 8 4 ( 83 12 12 18 1 ( ump; 124A Quartz vein, dump.	Hg As Sb Ba 0.1 88 5 170 0.2 420 5 <10 0.1 148 5 44 Raven vein dump;	
BIBLIOGRAPHY	EMPR FIELDWORK *1984, pp. 193 pp. 195-208	-213; 1986, pp. 201-22;	2; 1988,	

#### BIBLIOGRAPHY

EMPR AR 1922-100
EMPR PF (Canadian-United Minerals Inc. 1987; Teeshin Resources Ltd.,
 1987 Annual Report)
EMPR EXPL 1987, p. C306
GSC BULL 270
EMPR MAP 69-1
EMPR ASS RPT 15614, 15659, 16171
EMPR OF 1987-1
GSC OF 351

DATE CODED: 1987/03/06 DATE REVISED: 1988/03/12 CODED BY: PD REVISED BY: LLD

MINFILE NUMBER:	<u>093L 282</u>			NATIONAL N	MINERAL INVENTOR	<b>/</b> :
NAME(S):	HAWK (DOME MOUNTAI	<u>N)</u> , HAWK (L.2888)				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L10E				MINING DIVISION UTM ZONE	I: Omineca E: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 59 N 126 38 53 W 1635 Metres Within 500M Located on the east side of	of Dome Mountain.			NORTHING EASTING	6069479 6: 651371
COMMODITIES:	Gold Copper	Silver Barite	Arsenic		Zinc	Lead
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Pyrite Sphalerite Barite Unknown	Galena	Chalcopyrite	Arsenopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	Vein Epigenetic I02 Intrusion-related A Bladed Dimension ranges from 20 east dip.	Industrial Min. Au pyrrhotite veins D to 30 centimetres v	STRIKE/C vide. Has a steep	105 Po DIP: 200/ north-	olymetallic veins Ag-F TREND/PL	Pb-Zn±Au UNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	<u>GROUP</u> Hazelton	<u> </u>	MATION wa		IGNEOUS/METAI	MORPHIC/OTHER
LITHOLOGY:	Tuff					
HOSTROCK COMMENTS:	"Fragmental volcanic uni	t" (1JT3); Fieldwork,	1986.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOGRA	APHIC AREA: Nechal	ko Plateau
INVENTORY						
ORE ZONE:	HAWK VEIN		REPORT O	N: N		
	CATEGORY: Assay/a SAMPLE TYPE: Chip COMMODITY Silver Arsenic Gold Copper Zinc Lisuda quanta unio	nalysis <u>GR</u> 10 0 0 0 0 0 0 0 0	YEAF <u>ADE</u> 1.0000 Grams 4900 Per ce 3.000 Grams 2000 Per ce 0.270 Per ce	R: 1987 per tonne nt per tonne nt nt		
REFERENCE:	Fieldwork 1986, pages 20	1-222.				
CAPSULE GEOLOGY	The quartz vertex to the northeast, pyrite with lesser arsenopyrite. The Formation (Hazelto slatey cleavage wh 1922 assayed 44.6 A grab sample in 1 	eins are 20 to striking south amounts of sp host rocks an on Group) which ich dips moder grams gold per 987 assayed 32 FIELDWORK 12 TABLE 9 - HAW (all valu Cu Pb Zn 51 40 18 54 20 288 00 30 268 80 206 196	30 centimetr least, and co balerite, ga e tuffs of t have a well ately to the tonne and 3 2.2 grams per 86, pp. 201- VK VEIN ANALY les in p.p.m. Co Ni Mo <2 10 4 16 7 4 6 10 4 20 7 4	res wide ar ntain main lena, chal he Lower of developed he towne gol 222 CSES Cd Hg <1 <.1 1 <.1 <1 <.1 2 <.1	Ad dip steeply hly shattered lcopyrite and Jurassic Telkwa d foliation of t. Samples in per tonne silve ld. As Sb Ba 28 4 70 25 <3 170 4900 12 <1 5400 3 61	r.

2G Quartz vein, Hawk vein; 3C Altered volcanic, Hawk vein; 5 Quartz vein, Hawk vein; 5A Altered volcanic, Hawk vein.

## BIBLIOGRAPHY

EMPR FIELDWORK 1984, pp. 193-213; 1986, pp. 201-222; 1988, pp. 195-208 EMPR PF (Rpt. by A.J. Gaul, 1922; Canadian-United Minerals Inc. 1987; Teeshin Resources Ltd., 1987 Annual Report) GCNL #178, 1985 IPDM Nov, 1985 EMPR EXPL 1986-356; 1987-C306 EMPR ASS RPT 14407, 16171 EMPR OF 1987-1 GSC OF 351 GSC BULL 270 EMPR MAP 69-1

DATE CODED: 1987/03/06 DATE REVISED: 1988/08/17 CODED BY: PD REVISED BY: LLD

MINFILE NUMBER:	<u>093L 283</u>	NATI	IONAL MINERAL INVENTORY	:
NAME(S):	PTARMIGAN (DOME MOUNTAIN),	, PTARMIGAN (L.2893)		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L15E		MINING DIVISION	: Omineca : 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 43 N 126 39 28 W 1470 Metres Within 500M		NORTHING EASTING	: 6070818 : 650700
COMMODITIES:	Gold Silver Copper	Arsenic	Zinc	Lead
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Arsenopyrite Sphalerite G Quartz Barite Unknown	Galena Pyrite		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	Vein Epigenetic Industrial I02 Intrusion-related Au pyrrhot Bladed 0075 Metres Dimension of deposit is 75 centime or northeast.	l Min. Lite veins I05 STRIKE/DIP: Stres wide. Dips steeply southwest	5 Polymetallic veins Ag-P TREND/PLU	b-Zn±Au JNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAN	10RPHIC/OTHER
LITHOLOGY:	Schistose Andesite			
HOSTROCK COMMENTS:	"Fragmental volcanic unit" Telkwa	Formation (1JT3); Fieldwork, 1986.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHY	SIOGRAPHIC AREA: Nechak	o Plateau
INVENTORY				
ORE ZONE:	DUMP	REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Arsenic Gold Copper	YEAR: 198 <u>GRADE</u> 110.0000 Grams per to 2.2500 Per cent 134.7000 Grams per to 0.1600 Per cent	7 nne nne	
COMMENTS:	Lead Zinc Ptarmigan quartz vein dump.	0.2100 Per cent 0.3800 Per cent		
REFERENCE:	Fieldwork 1986, pages 201-222.			
CAPSULE GEOLOGY	Four parallel quart dipping steeply southwes schistose (but unaltered Formation (Hazelton Group and arsenopyrite rich bas to contain lenses of gal	z veins are exposed up to t or northeast. The host ) andesite of the Lower of p). On the surface the nds and underground the M ena, pyrite and sphalerit	o 75 centimetres widd t rock is strongly Jurassic Telkwa veins contain pyrite No. 2 vein is reporte te.	e, ed
	Au         Ag         Cu           112         1.4         10         310           114B         120.7         74         1200           116         134.7         110         1600           116B         37.7         82         1700           116A         159.0         257         2700           112         Quartz         vein,         Ptarmig.	11 - PTARMIGAN VEIN ANAI         (all values in p.p.m.)         Pb       Zn       Co Ni Mo       O         126       670       25       13       6         2700       3400       11       15       10       9         2100       3800       <2	LYSES Cd Hg As Sb Ba 9 0.2 1600 <3 < 51 2.9 4000 22 <3 43 0.9 22500 136 15 92 2.0 16000 127 01 2.1 55800 71 3 z vein, Ptarmigan	a 10 10 44 68 29

vein dump; 116 Quartz vein, Ptarmigan vein dump; 116B Quartz vein, Ptarmigan vein dump; 116A Quartz vein, Ptarmigan vein dump.

## BIBLIOGRAPHY

EMPR FIELDWORK 1984, pp. 193-213; 1986, pp. 201-222; 1988, pp. 195-208 EMPR AR 1923-111; 1924-97 EMPR PF (Canadian-United Minerals Inc. 1987; Teeshin Resources Ltd., 1987 Annual Report) EMPR EXPL 1987, p. C306 GSC BULL 270 EMPR MAP 69-1 EMPR ASS RPT 15614, 15659, 16171 EMPR OF 1987-1 GSC OF 351

DATE CODED: 1987/03/06 DATE REVISED: 1988/03/13 CODED BY: PD REVISED BY: LLD

MINFILE NUMBER:	<u>093L 284</u>	I	NATIONAL MINERAL INVENTORY	<i>(</i> :
NAME(S):	EAGLE (DOME MOUNTAIN), EAGLE (L.2	2889)		
STATUS:	Showing		MINING DIVISION	I: Omineca
NTS MAP:	093L15E		UTM ZONE	: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 25 N 126 39 16 W 1539 Metres Within 500M The Eagle Vein occurs 275 metres northe	east of the Gem (093L_28	NORTHING EASTING 35).	6: 6070269 6: 650933
COMMODITIES:	Gold Silver			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Pyrite Quartz Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: COMMENTS:	Vein Epigenetic I02 Intrusion-related Au pyrrhotite ve Bladed Steep northeast dip.	ins	105 Polymetallic veins Ag-F	Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAN	MORPHIC/OTHER
LITHOLOGY:	Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechał	ko Plateau
INVENTORY				
ORE ZONE:	EAGLE VEIN	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Gold Grab sample from Eagle vein. Fieldwork 1986, pages 201-222.	YEAR: GRADE 34.3000 Grams p	1987 er tonne	
CAPSULE GEOLOGY				
	A poorly exposed, leach metres wide, dips steeply no Lower Jurassic Telkwa Format the full width assayed 38.4 tonne silver (Gaul, 1922). grams per tonne gold (Fieldw	ed and decomposed rtheast in weakly ion (Hazelton Grou grams gold per ton Recent grab sample ork, 1986).	quartz vein, 20 centi- altered tuffs of the up). A sample across nne and 24 grams per es assayed up to 34.3	
BIBLIOGRAPHY	ENDD ETEIDWODK +1004 10	2 212 • 1026	201 222 1000 105	
	208 EMPR PF (*Rpt. by A.J. Gaul, Teeshin Resources Ltd., 1 EMPR EXPL 1987, p. C306 GSC BULL 270 EMPR MAP 69-1 EMPR ASS RPT 15614, 15659, 1 EMPR OF 1987-1 GSC OF 351	1922; Canadian-Un 987 Annual Report 6171	nited Minerals Inc. 198	7;
DATE CODED: DATE REVISED:	1987/03/06 C 1988/03/13 R	ODED BY: PD EVISED BY: LLD		FIELD CHECK: Y FIELD CHECK: N

MINFILE NUMBER:	<u>093L 285</u>	NATION	AL MINERAL INVENTORY:	
NAME(S):	GEM (DOME MOUNTAIN), GEM (L.2896)			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L15E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83	)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 20 N 126 39 28 W 1560 Metres Within 500M 750 metres along strike from Hawk Vein (6	093L 282).	NORTHING: 6070107 EASTING: 650724	,
COMMODITIES:	Gold Silver Arsenic	Zinc	Lead Copper	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Arsenopyrite Sphale Quartz Unknown	rite Galena Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: COMMENTS:	Vein Epigenetic Industrial Min. IO2 Intrusion-related Au pyrrhotite veir Bladed Dip varies moderately northeast to steep s deposit is 0.3 to 1.0 metres wide, and strik and southwest.	ns I05 southwest. Dimension of ke/dip is 110 northeast	Polymetallic veins Ag-Pb-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP F Hazelton T	<u>ORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHE	R
LITHOLOGY:	Tuff			
HOSTROCK COMMENTS:	"Fragmental volcanic unit" (1JT3); Fieldw	ork, 1986.		
<b>GEOLOGICAL SETTING</b> TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIO	GRAPHIC AREA: Nechako Plateau	
INVENTORY				
ORE ZONE:	GEM VEIN	REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Arsenic Gold Copper Lead Zinc	YEAR: 1987 <u>GRADE</u> 600.0000 Grams per tonne 1.3800 Per cent 136.0000 Grams per tonne 3.1300 Per cent 0.6100 Per cent 4.0000 Per cent		
COMMENTS: REFERENCE:	Gem quartz vein. Fieldwork 1986, pages 201-222.	4.0000 For cont		
CAPSULE GEOLOGY	Four parallel quartz vei	ns 03 to 1 metre wid	e strike southeast	
	and dip moderately northeast medium to thickly bedded tuff (Hazelton Group), which are w contain shattered pyrite and arsenopyrite, sphalerite and centimetres) run 87.8 grams p silver (Gaul, 1922). Recent per tonne.	to steeply southwest. s of the Lower Jurassi eak to moderately foli lesser amounts of chal galena. Assays across er tonne gold and 190. (1987) grab samples ru	The host rock is c Telkwa Formation ated. The veins copyrite, the main vein (61 7 grams per tonne n 94.6 grams gold	
	FIELDWORK TABLE 10 - (all va Au Ag Cu Pb 110A 35.0 88 7300 1700 7 110B 8.2 <10 770 192 110 136.0 600 31300 6100 4	1986, pp. 201-222         GEM VEIN ANALYSES         lues in p.p.m)         Zn Co Ni Mo Cd         0200 8 9 6 <1	Hg As Sb Ba 4.3 705 117 38 0.5 100 <3 100 2.6 13800 345 44	

110A Quartz vein, Gem vein; 110B Quartz vein, Gem vein; 110 Quartz vein, Gem vein.

## BIBLIOGRAPHY

EMPR FIELDWORK \*1984, pp. 193-213; 1986, pp. 201-222; 1988, pp. 195-208
EMPR PF (Rpt. by A.J. Gaul, 1922; Canadian-United Minerals Inc. 1987; Teeshin Resources Ltd., 1987 Annual Report)
EMPR EXPL 1987, p. C306
EMPR MAP 69-1
GSC BULL 270
EMPR ASS RPT 15614, 15659, 16171
EMPR OF 1987-1
GSC OF 351

DATE CODED: 1987/03/06 DATE REVISED: 1988/03/13 CODED BY: PD REVISED BY: LLD

\_\_\_

MINFILE NUMBER:	<u>093L 286</u>	N	ATIONAL MINERAL INVENTOR	XY:
NAME(S):	<u>TINA</u>			
STATUS:	Showing British Columbia		MINING DIVISIO	N: Omineca
NTS MAP: BC MAP	093L15E		UTM ZON	E: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 47 45 N 126 38 41 W 1100 Metres Within 500M Located in lower Byron Creek.		NORTHIN EASTIN	G: 6074616 G: 651413
COMMODITIES:	Copper Gold Antimony	Silver	Zinc	Arsenic
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Tennantite Malachite Azurite Oxidation Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Vein Dissemina Epigenetic Industrial I I02 Intrusion-related Au pyrrhotit Irregular Sheared Dimension of deposit is 1.5 metres v	ated Min. te veins wide and strike/dip is steep wes	105 Polymetallic veins Ag-	Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Nilkitkwa	IGNEOUS/META	MORPHIC/OTHER
LITHOLOGY:	Rhyolite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Ρ	HYSIOGRAPHIC AREA: Necha	ako Plateau
ORE ZONE.	VEINS		N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Arsenic Gold Copper Antimony Zinc	YEAR: 1 <u>GRADE</u> 10.0000 Grams per 0.4900 Per cent 0.0200 Grams per 0.5500 Per cent 0.0740 Per cent 0.1200 Per cent	r tonne r tonne	
REFERENCE:	Fieldwork 1986, pages 201-222.	et in Byron Creek.		
CAPSULE GEOLOGY	The showing in Lower irregular patches of mala tetrahedrite-tennantite (1 rhyolite of the Lower Jur. Further upstream, several quartz-carbonate veins oc samples (1986) revealed n FIE TABLE 15 Au Ag Cu 49-1 <0.017 <10 1 50-3 <0.017 <10 1 50-5 0.020 <10 2 55-3 <0.017 <10	Byron Creek consists chite, azurite, chalco XRD identification) ho assic Nilkitkwa Format barren, 5 to 10 centi cur along shear zones o significant gold or LDWORK 1986, p. 216 - TINA COPPER PROSPECT (all values in p.p.m.) Zn Mo Hg 8 200 9 0.06 8 200 9 0.06 7 136 3 0.04 6 46 5 0.02	of a small zone of opyrite and osted in massive tion (Hazelton Group) imetres thick . Several grab silver values. T ANALYSES ) As Sb <20 <10 <20 <10 <20 <10	-

50-6 <0.020 <10 5500 1200 13 18.00 4900 743 note: Samples 50-3, 50-5, and 50-6 represent barren quartz veins in

shear zones from the Tina prospect. 49-1 Altered volcanic, Byron Creek; 50-3 Quartz vein, Tina prospect, Byron Creek; 50-5 Quartz vein, Tina prospect, Byron Creek; 55-3 Quartz vein, Tina prospect, Byron Creek; 50-6 Quartz vein, Tina prospect, Byron Creek.

## BIBLIOGRAPHY

EMPR FIELDWORK 1984, pp. 193-213; 1986, pp. 201-222; 1988, pp. 195-208 EMPR OF 1987-1 GSC OF 351 EMPR EXPL 1987, p. C306 EMPR MAP 69-1 GSC BULL 270 EMPR ASS RPT 16171 Placer Dome File

DATE CODED: 1987/03/06 DATE REVISED: 1988/03/16 CODED BY: PD REVISED BY: LLD

MINFILE NUMBER:	<u>093L 287</u>	NATIONAL MINE	RAL INVENTORY: 093L10 Cu2		
NAME(S):	EUREKA (L.6473), GM, COPPERHILL, GROUSE MOUNTAIN				
STATUS:	Showing		MINING DIVISION: Omineca		
REGIONS: NTS MAP:	093L10E		UTM ZONE: 09 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 33 49 N 126 43 10 W 1463 Metres Within 500M Located on Lot 6473, along the north sho Grouse Mountain, 25.8 kilometres southe mineralized zone from Assessment Repo	re of Coppermine Lake on ast of Telkwa; location of ort 14256.	NORTHING: 6048624 EASTING: 647450		
COMMODITIES:	Copper Silver	Gold			
MINERALS					
SIGNIFICANT: ASSOCIATED	Chalcopyrite Pyrite				
ALTERATION:	Chlorite Limonite Clay	Mica Carbonate			
ALTERATION TYPE: MINERALIZATION AGE:	Argillic Propylitic Unknown	Oxidation			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb) Mineralized quartz vein system.	STRIKE/DIP: 070/75N	TREND/PLUNGE:		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER		
Upper Jurassic	Hazelton	Ashman			
LITHOLOGY:	Tuffaceous Sediment/Sedimentary Greywacke Argillite Shale Tuff Basic Dike				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHI	C AREA: Nechako Plateau		
INVENTORY					
ORE ZONE:	TRENCH	REPORT ON: N			
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper 2.0 metre sample from a back hoe trench and zinc 0.17 per cent. Assessment Report 14256.	YEAR: 1985 GRADE 21.2560 Grams per tonne 4.4570 Grams per tonne 0.1800 Per cent 1. Lead assayed 0.01 per cent,			
CAPSULE GEOLOGY					
	The showing occurs in Middle to Upper Jurassic Hazelton Group, Ashman Formation rocks. The Ashman Formation is mainly a sedimentary sequence comprised of marine black shale, argillite, siltstone and greywacke with intercalated tuffs and breccia (Fieldwork 1988, Figure 1-23-2). Alteration has affected mainly feldspar and ferromagnesium minerals producing mica and clay minerals, chlorite, limonite, carbonates, and less commonly epidote. The Hazelton rocks are intruded by dikes and small stocks of monzonite porphyry. The dikes range between 10 to 60 metres in width				

and strike north-northwest and dip moderately west-southwest. The Eureka showing is a pyrite-chalcopyrite quartz vein system

dipping 75 degrees northwest and striking 070 degrees subparallel to the central part of the north shore of Coppermine Lake. The host rocks are green tuffaceous sedimentary rocks which are crosscut by an aphanitic basic dike near the quartz vein network. On surface, the vein is traceable for 91 metres following a line of old sloughed trenches. In 1914, a sample across a width of 1.5 metres assayed trace gold, 164.5 grams per tonne silver, and 6.2 per cent copper (Minister of Mines Annual Report 1914, page 228). In 1985, a 2.0 metre sample from a backhoe trench assayed 4.457 grams per tonne gold, 21.256 grams per tonne silver, 0.18 per cent copper, 0.01 per cent lead, and 0.17 per cent zinc. Another backhoe sample across 1.7 metres width assayed 1.029 grams per tonne gold, 66.855 grams per tonne silver, 1.93 per cent copper, 0.01 per cent lead, and 0.06 per cent zinc (Assessment Report 14256).

#### BIBLIOGRAPHY

EMPR AR \*1914-228; 1916-127; 1920-349; 1937-C11; 1951-115; 1965-74 EMPR GEM 1970-158; \*1972-397-417,\*Fig. 49 EMPR ASS RPT 726, \*6429, \*9087, \*12374, \*14256 EMPR EXPL 1977-E196; \*1980-344; \*1983-444; \*1985-C314 EMPR FIELDWORK \*1988, pp. 195-208 GSC SUM RPT \*1915, pp. 65-67, Map 1608 EMPR MAP 69-1 GSC MAP 671A GSC OF 351 GSC BULL 270 Placer Dome File

DATE CODED: 1987/07/14 DATE REVISED: 1988/09/30 CODED BY: LLC REVISED BY: LLD

MINFILE NUMBER:	<u>093L 288</u>	NATION	AL MINERAL INVENTORY: 093L10 Zn4
NAME(S):	SCHORN, LAKEVIEW (L.6284), GROUSE MOU	NTAIN	
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 33 30 N 126 43 13 W 1432 Metres Within 500M Showings on Lot 6284 on Grouse Mountain at Coppermine Lake, 25.8 kilometres southeast o mineralization from Geology, Exploration and M	the south edge of f Telkwa, location of lining 1972, Figure 49.	NORTHING: 6048035 EASTING: 647415
COMMODITIES:	Zinc Silver	Copper	Gold
MINERALS			
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Sphalerite Pyrite Quartz Chlorite Limonite Mica C Argillic Propylitic Unknown	lay Epidote Oxidation	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb)	G06	Noranda/Kuroko massive sulphide Cu-Pb-Zn
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP FORM Hazelton Ashr	<u>/ATION</u> 1an	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Greywacke Argillite Shale Tuff Breccia Basic Dike Feldspar Porphyry Feldspar Biotite Porphyry		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIC	GRAPHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	OPENCUT	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> <u>GR/</u> Silver 177 Gold 0. Copper 2. Zinc 9. 1.3 metre sample from an open cut. Lead assa Assessment Report 14256.	YEAR: 1985 <u>ADE</u> <u>5.5000</u> Grams per tonne 0300 Grams per tonne 3100 Per cent 1600 Per cent ayed 0.02 per cent.	
CAPSULE GEOLOGY	The showings occur in Middl Ashman Formation rocks. The Ash sedimentary sequence comprised o siltstone, greywacke with some i (Fieldwork 1988, Figure 1-23-2). Alteration has affected mai minerals producing mica and clay carbonates, and less commonly ep The Hazelton rocks are intr strike north-northwest and dip w porphyry, feldspar-biotite porph	e to Upper Jurassic man Formation is ma f marine black shal ntercalated tuffs a nly the feldspar ar minerals, chlorite dote. uded by dikes and s rest-southwest. The pyry, and aphanitic	Hazelton Group, inly a e, argillite, nd breccia d ferromagnesium e, limonite, mall stocks which se include feldspar basic dikes.

The Lakeview showing consists of two quartz veins enriched in chalcopyrite and sphalerite, exposed near the south shore of Coppermine Lake. These veins strike across gently dipping greywacke and

argillaceous beds toward an aphanitic basic dike about 76 metres to the southwest.

The east vein, explored by an open cut 6 metres in length near lake level, contained an estimated 30 per cent sulphides. A 1.0 metre sample assayed trace gold, 178 grams per tonne silver, 2.28 per cent copper, 0.08 per cent lead, 13.6 per cent zinc, and 7.2 per cent iron (Geology, Exploration and Mining 1972, page 410). In 1985, a 1.3 metre sample from an open cut assayed 0.17 grams

In 1985, a 1.3 metre sample from an open cut assayed 0.17 grams per tonne gold, 474.2 grams per tonne silver, 4.97 per cent copper, 0.45 per cent lead, and 12.84 per cent zinc. A 1.0 metre sample from an old adit assayed 0.03 per cent gold, 174.5 grams per tonne silver, 2.31 per cent copper, 0.02 per cent lead, and 9.16 per cent zinc (Assessment Report 14256).

The Schorn zone is comprised of an assortment of veins and veinlets striking northeasterly at approximately 025 degrees from the contact of an aphanitic basic dike over 67 metres to a point near the southwest shore of Coppermine Lake. The mineralized veins crosscut gently dipping beds of dark brown tuff and grey siltstones. The apparent main vein exposed in the trenches at the northeast

The apparent main vein exposed in the trenches at the northeast end of the zone, is about 25 centimetres wide consisting of quartz and mineralized wall rock with 17 per cent combined pyrite, chalcopyrite, and sphalerite. An assay of this material yielded trace gold, 116.6 grams per tonne silver, 1.0 per cent copper, 0.03 per cent lead, 9.1 per cent zinc, and 3.86 per cent iron (Geology, Exploration and Mining 1972, page 410). In 1985, a 0.25 metre sample from a hand dug trench assayed 0.34

In 1985, a 0.25 metre sample from a hand dug trench assayed 0.34 grams per tonne gold, 134.4 grams per tonne silver, 0.89 per cent copper, 0.03 per cent lead, and 9.96 per cent zinc. Another 0.25 metre sample from an open cut assayed 0.03 grams per tonne gold, 343.2 grams per tonne silver, 1.90 per cent copper, 0.12 per cent lead, and 16.72 per cent zinc (Assessment Report 14256).

#### BIBLIOGRAPHY

EMPR AR 1914-228; 1921-345; 1923-113; 1924-98; 1925-141; 1926-135; 1928-169; \*1951-113-117; 1952-94; 1965-74 EMPR GEM 1970-158; \*1972-397-417,Fig. \*49,52,53 EMPR EXPL \*1977-E196; \*1980-344; \*1983-444; 1985-C314 EMPR ASS RPT 726, \*6429, \*9087, \*12374, \*14256 GSC MAP 671A EMPR MAP 69-1 GSC OF 351 GSC BULL 270 EMPR FIELDWORK \*1988, pp. 195-208 EMPR P \*1990-2

DATE CODED: 1987/07/14 DATE REVISED: 1988/09/30

CODED BY: LLC REVISED BY: LLD

MINFILE NUMBER:	<u>093L 289</u>	NATIONAL	MINERAL INVENTORY:	093L10 Zn5
NAME(S):	RAINSTORM, BLACK FOX, GROUSE MOUNT	AIN		
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093L10E		UTM ZONE:	09 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 33 44 N 126 43 52 W 1380 Metres Within 500M Located just north Crown Grant Lots 6472 and 25.7 kilometres southeast of Telkwa. Showin east of the turnoff to the road to North Lake (s Exploration and Mining 1972, Figure 49).	d 6476 on Grouse Mountain, g is located 61 metres see Geology,	NORTHING: EASTING:	6048445 646701
COMMODITIES:	Zinc Silver Iron	Gold	Copper	Lead
	Sphalerite Chalcopyrite Pyrite			
ASSOCIATED:	Quartz	lico Enidoto		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Argillic Propylitic Unknown	Oxidation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrothermal L01 Subvolcanic Cu-Ag-Au (As-Sb)	Industrial Min. G06	Noranda/Kuroko massive	sulphide Cu-Pb-Zn
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP FOR	MATION	IGNEOUS/METAMO	DRPHIC/OTHER
	Razeitori Asri	nan		
LITHOLOGY:	Greywacke Andesitic Pyroclastic Argillite Basic Dike			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOG	RAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	OPENCUT	REPORT ON: N		
	CATEGORY: Assay/analysis	YEAR: 1985		
	<u>COMMODITY</u> GR	ADE		
	Gold Copper	.0020 Grams per tonne 1900 Per cent		
	Lead 0	.6700 Per cent		
COMMENTS: REFERENCE:	4.0 metre sample from an open cut. Assessment Report 14256.			
CAPSULE GEOLOGY	The showings again in Midd	le to Upper Turaggia I	Jazelton Group	
	Ashman Formation rocks. The Ash sequence comprised of marine bla greywacke with intercalated tuf 1-23-2). Alteration has affected mai minerals producing mica and clay carbonates, and less commonly ep	man Formation is main ack shale, argillite, fs and breccia Fieldwo inly the feldspar and y minerals, chlorite, pidote.	lazeiton Group, hly a sedimentary siltstone and ork 1988, Figure ferromagnesium limonite,	

The Hazelton rocks are intruded by dikes and small stocks which strike north-northwest and dip west-southwest. These include feldspar porphyry, biotite feldspar porphyry, and aphanitic basic dikes.

dikes. The Rainstorm zone consists of shallow-dipping sulphide rich lenses near the base of an andesitic pyroclastic unit above a thick

sequence of grey siltstones and greywacke. A sample taken across 0.9 metres containing three narrow seams comprised essentially of pyrite, sphalerite, and quartz assayed trace gold, 6.9 grams per tonne silver, 0.09 per cent copper, 0.04 per cent lead, 5.9 per cent zinc, and 7.07 per iron (Geology, Exploration and Mining 1972, page 412).

Immediately to the east, erosion has removed the andesitic pyroclastics and exposed two additional mineralized veinlets in the sedimentary sequence. The veinlets consist of pyrite, chalcopyrite, and sphalerite cutting sharply across gently dipping beds. A well mineralized sample assayed 0.34 grams per tonne gold, 116.6 grams per tonne silver, 1.15 per cent copper, 10.10 per cent zinc, 0.23 per cent lead, and 12.0 per cent iron (Geology, Exploration and Mining 1972, page 412).

A fourth showing further to the east consists of small veins leading away from the contact to an aphanitic basic dike which intrudes the sedimentary sequence and an outlier of andesite.

intrudes the sedimentary sequence and an outlier of andesite. In 1985, a 4.0 metre sample from an open cut assayed 0.002 grams per tonne gold, 57.6 grams per tonne silver, 0.19 per cent copper, 0.67 per cent lead, and 9.64 per cent zinc. Another sample from a bulldozer trench, taken over 0.3 metre assayed 0.03 grams per tonne gold, 143.65 grams per tonne silver, 0.39 per cent copper, 2.93 per cent lead, and 23.2 per cent zinc (Assessment Report 14256).

#### BIBLIOGRAPHY

EMPR AR 1925-141; \*1926-135; 1927-138; 1928-169; 1937-C11; 1965-74 EMPR GEM 1970-158; \*1972-397-417,Fig. \*49,\*54 EMPR EXPL 1977-E196; \*1980-344; \*1983-444; \*1985-C314 EMPR ASS RPT 726, \*6429, \*9087, \*12374, \*14256 EMPR MAP 69-1 EMPR FIELDWORK \*1988, pp. 195-208 GSC MAP 671A GSC OF 351 GSC BULL 270

DATE CODED: 1987/07/14 DATE REVISED: 1989/06/10 CODED BY: LLC REVISED BY: LLD

MINFILE NUMBER:	<u>093L 290</u>			NATIONAL M	INERAL INVENTORY:	
NAME(S):	<u>KIN 3,</u> MAMIE					
STATUS: REGIONS: NTS MAP	Showing British Columbia				MINING DIVISION:	Omineca
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 46 59 N 127 18 41 W 1740 Metres Within 500M Located 125 metres sou	uth of Crater Lake or	Miller Creek	on the east	NORTHING: EASTING:	6071958 608595
	Location of 10 metre ad 15546).	it on the Kin 3 claim	(Assessment	Report		
COMMODITIES:	Gold	Silver	Zinc	;	Lead	Copper
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Sphalerite Galena Unknown	Chalcopyrite	e Pyrite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown 105 Polymetallic vei	ns Ag-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FC</u> Te	<u>RMATION</u> Ikwa		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Andesite Tuff Breccia Rhyolite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOGRA	PHIC AREA: Hazelton	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REP	ORT ON: N		
	CATEGORY: Assay SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Gold Copper Lead	/analysis <u>(</u>	SRADE 14.0000 3.2200 0.0900 0.0200	YEAR: 1987 Grams per tonne Grams per tonne Per cent Per cent		
COMMENTS: REFERENCE	Zinc Sample #19983, width i Assessment Report 15	s 0.15 metres.	4.6000	Per cent		
REFERENCE:	Assessment Report 15	046. uth of Crater	Lake is u	nderlain by Low	er Jurassic	
	Hazelton Group v andesitic to rhy In 1986 sam from an occurren Crater Lake alon grams per tonne 0.02 per cent le 15546). Further sou adit was discove taken in 1986 as silver, 0.015 pe lead (Assessment Group (refer to 1	olcanics of th olitic tuffs, pling on the K ce located 125 g Miller Creek gold, 14.0 gra ad, and 0.09 p th, along the red. Just sou sayed 7.9 gram r cent copper, Report 15546) Mamie 093L 09	e Telkwa i flows, and in 3 claim metres so . The 0 ms per ton er cent co west side th of the s per ton 0.055 per . The pro 1).	Formation compr d breccias. m indicated hig outh of the sou 15 metre sample nne silver, 4.6 opper (Assessme: of Miller Cree adit, a 0.5 me ne gold, 26.0 g r cent zinc and operty is part	ised of h gold values theast area of assayed 3.22 per cent zinc, nt Report k a 10 metre tre sample rams per tonne 0.012 per cent of the Mamie	
BIBLIOGRAPHY	EMPR EXPL *1987, EMPR ASS RPT , 1	p. C308 4300*15546				

#### BIBLIOGRAPHY

EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208 GSC BULL 270 GSC MEM 223 GSC MAP 971A GSC OF 351 Kirkham, R.V., (1969): A Mineralogical and Geochemical Study of the Zonal Distribution of Ores in the Hudson Bay Range, British Columbia, Ph.D. Thesis, University of Wisconsin

DATE CODED: 1987/08/24 DATE REVISED: 1988/08/24 CODED BY: LLC REVISED BY: LLD

MINFILE NUMBER:	<u>093L 291</u>		NATIONAL MINERAL INVENTORY	: 093L2 Ag3
NAME(S):	<u>GRECO</u> , FAR, GRUBSTAKE			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION	Omineca
NTS MAP: BC MAP:	093L02W		UTM ZONE	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 09 40 N 126 52 26 W Metres Within 1 KM	Srubstake (Far) showing	NORTHING EASTING	: 6003536 : 638817
	(093L 003) on the north slope of Tsa southwest of Houston.	lit Mountain, 30 kilometres		
COMMODITIES:	Molybdenum			
	Molyhdenite Specularite P	rito		
MINERALIZATION AGE:	Unknown			
DEPOSIT CHARACTER:	Disseminated			
CLASSIFICATION: TYPE:	Porphyry L05 Porphyry Mo (Low F- type)			
HOST ROCK DOMINANT HOSTROCK	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM Nanika Intrusions	IORPHIC/OTHER
LITHOLOGY:	Quartz Monzonite Porphyritic Monzonite Felsite Dike Biotite Granite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechak	o Plateau
CAPSULE GEOLOGY				
	The showing lies with of quartz monzonite and p dikes.	hin an Eocene Nanika orphyritic monzonite	Intrusive comprised with associated felsite	2
	The showing is descr the north slope of Tsalit minor disseminated flakes The showing is located ab Far showing (093L 003).	ibed as within a bio Mountain. The medi of molybdenum, spec out 2.4 kilometres r	tite granite outcrop on um-grained granite hosts ularite, and pyrite. North of the Grubstake-	3
BIBLIOGRAPHY	ENDD GEN \$1070 141 140 E	. 17. 1071 170		
	EMPR GEM *1970-141-149, F EMPR ASS RPT 3064, 3096 EMR MP CORPFILE (Mexxon M EMPR MAP 69-1 GSC OF 351 EMPR BULL 78 (in press)	ines Ltd.; Maverick	Mtn. Resources Ltd.)	
DATE CODED: DATE REVISED:	1987/08/26 1989/09/08	CODED BY: LLD REVISED BY: LLD		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 292</u>		NATIONAL	MINERAL INVENTORY	′: 093L15 Au3
NAME(S):	VIKING				
STATUS: REGIONS: NTS MAB:	Showing British Columbia			MINING DIVISION	: Omineca
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 53 36 N 126 57 55 W 1130 Metres Within 5 KM Located north of Driftwood Creek, 1 Smithers.	19.3 kilometres northeast of		NORTHING EASTING	: 609 (NAD 83) : 6084818 : 630494
COMMODITIES:	Gold Silver				
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Pyrite Pyrite stringers host low values of g Unknown	gold and silver.			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrothe 105 Polymetallic veins Ag-Pb-Zi	ermal n±Au	L01	Subvolcanic Cu-Ag-Au	(As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAN	IORPHIC/OTHER
Cretaceous-Tertiary	Skeena	Kitsuns Creek Unnamed/Unkn			
LITHOLOGY:	Conglomerate Argillite Quartzite Dioritic Porphyry				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGI	RAPHIC AREA: Skeena	Ranges
CAPSULE GEOLOGY					
	The area is underla (Kitsum Creek Formation) shale, and tuff. The sec Tertiary dioritic porphy: Locally, the rocks of mass of diorite. On the sandstone are crosscut by of gold and silver. Minuthe conglomerate. Test p zation is widespread in a	in by Lower Cretaceou comprised of conglor diments are intruded ry with associated di consist of flat lying of argillites and qua Viking, the flat lying y stringers of pyrite eralization appears t pits along the hills an area of about 215	as Skeen nerate, g by a Cr ikes. g sandst artzites ing cong e carryin to infil ide show metres	a Group sediment greywacke, etaceous to ones and con- intruded by a lomerate and ng low values l fractures in the minerali- in length.	s
BIBLIOGRAPHY	EMPR MAP 69-1 EMPR FIELDWORK 1987, pp. GSC BULL 270, p. 6 GSC P 36-20, p. 110 GSC MAP 671A GSC OF 351	181-193; 1988, pp. 1	195-208;	1991, pp. 93-10	1
DATE CODED: DATE REVISED:	1988/08/24 1989/09/08	CODED BY: LLD REVISED BY: LLD			FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 293</u>	NATIONAL M	IINERAL INVENTORY:
NAME(S):	<u>ALLIN</u> , DEV, GO		
STATUS: REGIONS: NTS MAP	Prospect British Columbia 0931 01E		MINING DIVISION: Omineca
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 11 02 N 126 11 39 W 1370 Metres Within 500M Located on the west side of Allin Cree east of Goosly Lake and 38 kilometres community of Houston (Assessment F	k, about 9.0 kilometres due s south-southeast of the Report 17680).	NORTHING: 6007618 EASTING: 683087
COMMODITIES:	Copper Silver	Zinc	Lead Molybdenum
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Pyrrhotite Sphaler Galena Molybdenite Tetra Quartz Sericite Pyrite Sericitic Propylitic	rite Chalcopyrite Arsenopyrite ahedrite Chlorite Calcite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Vein Epigenetic Hydrotherm L01 Subvolcanic Cu-Ag-Au (As-S	nal Replacement b)	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Eocene Eocene	GROUP Francois Lake	FORMATION Goosly Lake	IGNEOUS/METAMORPHIC/OTHER Goosly Intrusions
LITHOLOGY:	Andesite Dacite Latite Dacite Latite Flow Dacite Latite Tuff Dacite Latite Lapilli Tuff Dacite Dike Andesite Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRA	APHIC AREA: Nechako Plateau
CAPSULE GEOLOGY			
	The Allin occurrence Formation (Francois Lake G The property lies on Mine property (093L 001). coincident geochemical and moderately to strongly alt chlorite-calcite-pyrite) v disseminated and fracture- consist of interlayered an lapilli tuffs cut by narro sulphides comprise pyrite sphalerite, chalcopyrite, tetrahedrite.	area is underlain by the Eoc roup). the eastern boundary of the Drilling in 1987, within ar geophysical anomalies, inte ered (quartz-sericite-pyrite olcanic rocks with up to 15 controlled sulphides. The v desite, dacite and latite fl w unaltered dacite and andes and pyrrhotite with minor to arsenopyrite, galena, molybo	ene Goosly Lake Equity Silver a area of ersected e and per cent rolcanic rocks .ows, tuffs and site dikes. The o trace lenite and
BIBLIOGRAPHY	EMPR ASS RPT 2291, 2906, * EMPR BULL *78 (in press) EMPR EXPL *1987-C300; 1988 EMPR FIELDWORK 1992, pp. 4 EMPR GEM 1969-149; 1970-12 EMPR MAP *11; 69-1 EMPR OF 1994-14 EMPR PF (*Amir Mines Ltd., national Resources Inc. Management Information *Westview Resources Inc	16032, *17680, 19409, 23132 -C167 75-481, *1997, pp. 23-1-23-1 5 Normine Resources Ltd., Bem : Notice of General meeting Circular, Oct.7, 1988, pp. 5 ., Statement of Material Fac	0 na Inter- and Joint 9,60; ts #84/88,

## BIBLIOGRAPHY

Dec.9, 1988, pp. 3-6) GSC MAP 5302G GSC OF 351 Placer Dome File

DATE CODED: 1989/04/04 DATE REVISED: 1995/02/21 CODED BY: LLD REVISED BY: GO

MINFILE NUMBER:	<u>093L 294</u>		NATI	IONAL MINERAL INVI	ENTORY:	
NAME(S):	NORTH LAKE, GROUSE MOUNTAIN					
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L10E			MINING I	DIVISION: Omineca TM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 01 N 126 43 03 W 1440 Metres Within 500M Located on the west shore of North I of mineralization from Geology, Minir Figure 49.	Lake on Grouse ng and Exploratio	Mountain, locatior n 1972,	NC E	DRTHING: 6048999 EASTING: 647564	
COMMODITIES:	Silver Copper		Gold	Zinc	Lead	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Chlorite Mica Clay Argillic Propylitic Unknown	Limonite	Epidote Oxidation			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrother L01 Subvolcanic Cu-Ag-Au (As-	rmal Sb)	GC	)6 Noranda/Kurok	o massive sulphide Cu-Pb-Zn	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATIOI</u> Ashman	N	IGNEOU	S/METAMORPHIC/OTHER	
LITHOLOGY:	Argillite Greywacke Tuff					
HOSTROCK COMMENTS:	Middle to Upper Jurassic argillite se Ashman Formation.	equence of the H	azelton Group,			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIONSHI	PHY P:	SIOGRAPHIC AREA: GRADE:	Nechako Plateau Greenschist	
INVENTORY	U U					
ORE ZONE:	TRENCH		REPORT ON: N			
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Gold Copper Sample #R21034, 1.0 metre wide ch Assessment Report 14256.	<u>GRADE</u> 40.1100 1.7100 1.5900 ip sample from ti	YEAR: 198 Grams per to Grams per to Per cent rench.	5 nne nne		
CAPSULE GEOLOGY	The Nerth Lake chevi	ng ig under	lain bu Midd	le te Upper Tur	e a a i a	
	The North Lake showing is underlain by Middle to Upper Jurassic Hazelton Group, Ashman Formation rocks. The Ashman Formation is mainly a sedimentary sequence comprised of marine black shale, argillite, greywacke and siltstone with some intercalated tuff and breccia (Fieldwork 1988, Figure 1-23-2). Alteration has affected mainly the feldspar and ferromagnesium minerals producing mica, clay minerals, chlorite, limonite, carbonates and less commonly, epidote. The Hazelton rocks are intruded by dikes and small stocks which strike north-northwesterly and dip west-southwest. These include feldspar porphyry dikes and aphanitic basic dikes. Mineralization at the North Lake showing consists of lenticular quartz-chalcopyrite-pyrite veinlets which occur within a brecciated shear zone along the west shore of North Lake. Open cuts expose a 0.45 metre wide shear zone which strikes about 060 degrees and dips 70 degrees to the northwest. In 1985, a 1.0 metre wide chip sample from a trench assayed 1.71					

grams per tonne gold, 40.11 grams per tonne silver, 1.59 per cent copper, 0.32 per cent zinc and 0.01 per cent lead. Another 0.45 metre wide sample assayed trace gold, 122.74 grams per tonne silver, 4.3 per cent copper, 2.7 per cent zinc and 0.1 per cent lead (Assessment Report 14256).

## BIBLIOGRAPHY

EMPR AR 1295-141; \*1926-135; 1927-138; 1928-169; 1937-C11; 1965-74 EMPR GEM 1970-158; \*1972-397-417,\*Fig.49, 54 EMPR EXPL 1977-E196; \*1980-344; \*1983-444; \*1985-C314 EMPR ASS RPT 726, 6429, 9087, \*12374, \*14256 EMPR MAP 69-1 EMPR FIELDWORK 1988, pp. 195-208 GSC MAP 671A GSC OF 351 GSC BULL 270

DATE CODED: 1989/07/07 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 295</u>			NATIONAL I	MINERAL INVENTORY:	
NAME(S):	CHRISTINA, CHANCE					
STATUS:	Showing				MINING DIVISION:	Omineca
NTS MAP:	093L10E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 58 N 126 44 22 W 1310 Metres Within 500M Location of Christina shor 3; located on the northwe of the Cornucopia deposi	wing from Ass st slopes of G t (093L 251).	essment Report 1 Frouse Mountain ju	3364, Figure Ist north	NORTHING: EASTING:	6050714 646089
COMMODITIES:	Silver	Gold	Zinc	:	Copper	Lead
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Tetrahedi Quartz Mica Chlorite Argillic Unknown	rite Galen Clay Propylitic	a Pyrite Epidote Silic	ific'n		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic 105 Polymetallic veins	Hydrotherma Ag-Pb-Zn±A	al u			
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton		<u>FORMATION</u> Telkwa		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Tuff Lapilli Tuff Tuffaceous Greywacke Andesite Dacite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional		RELATIONSHIP:	PHYSIOGR	APHIC AREA: Nechako GRADE: Greensc	Plateau hist
ORF ZONE.	TRENCH		RFPC	ORT ON' N		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Lead Zinc Grab sample #808 from c Assessment Report 1336	nalysis  rat trench on C 4.	GRADE 155.6500 0.2400 0.1100 0.0800 3.4500 Christina showing.	YEAR: 1984 Grams per tonne Grams per tonne Per cent Per cent Per cent		
CAPSULE GEOLOGY	The Christina (Cornucopia - 093I Jurassic Hazelton mainly of a unifor of tuff, lapilli t dark grey to green laminated or massi to dacitic flows.	a occurren 5 251) pr Group roc cm, fine-g cuff and t to maroo ive. Thes	ce is part of operty. The ks (Telkwa Foc uffaceous gre n and are fir e are underla	f the Grouse M area is under ormation), com h tuff overlai eywacke. The he-grained, th ain by massive	ountain lain by Lower prised n by a sequence tuffs range from inly bedded, green andesitic	9

Locally the volcanics are altered hosting abundant mica, chlorite and clay with less common epidote. The Christina showing occurs in the northeastern part of the claims around the edge of a small swamp. It is comprised of a silici-fied stringer zone within altered tuff. Mineralization exposed in the trenches consists of sphalerite, tetrahedrite with minor pyrite and galena. Three grab samples from the mineralized exposure averaged

0.17 grams per tonne gold, 165.6 grams per tonne silver, 0.14 per cent copper, 1.9 per cent zinc and 0.04 per cent lead. A fourth sample assayed 1.58 grams per tonne gold, 1165.0 grams per tonne silver, 0.87 per cent copper, 1.91 per cent zinc and 0.09 per cent lead (Assessment Report 13364, page 16).

## BIBLIOGRAPHY

EMPR ASS RPT 10182, 12374, \*13364, 13720, 14256 EMPR EXPL 1981-227; 1983-444; \*1984-328; 1985-C314 EMPR FIELDWORK 1988, pp.195-208 EMPR GEM \*1972-397-417,Fig. 49 EMPR MAP 69-1 GSC BULL 270 GSC MAP 671A GSC OF 351 WWW http://www.infomine.com/

DATE CODED: 1989/07/07 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 296</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	PAOLA, L'ORSA, CHANCE			
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093L10E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 25 N 126 44 05 W 1430 Metres Within 500M Location of Paola showing from located on Grouse Mountain jus (093L 251).	Assessment Report 13364, Fi t southeast of the Cornucopia of	NORTHING: EASTING: igure 3; deposit	6049704 646427
COMMODITIES:	Silver Copp	er		
	Tatalaalita Malaalita			
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Malachite Mica C Oxidation Argilli Unknown	Chlorite Clay Ep ic Propylitic	pidote	
DEPOSIT CHARACTER	Vein			
CLASSIFICATION: TYPE:	Epigenetic L01 Subvolcanic Cu-Ag-Au	(As-Sb)	G06 Noranda/Kuroko massive	e sulphide Cu-Pb-Zn
DIMENSION: COMMENTS:	Mineralized vein strikes north a	STRIKE	/DIP: 360/35W TREND/PLUI rees west.	NGE:
HOST ROCK DOMINANT HOSTROCK	: Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
		Telkwa		
LITHOLOGY:	Lapilli Tuff Tuffaceous Greywacke Argillite Andesite Dacite			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	Plateau
	Regional	RELATIONSHIP:	GRADE: Greenso	hist
INVENTORY				
ORE ZONE:	OPENCUT	REPORT (	ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip	s YEA	AR: 1984	
	<u>COMMODITY</u> Silver	<u> </u>	ns per tonne	
COMMENTS: REFERENCE:	Copper A 1.2 metre sample taken from t Assessment Report 13364.	0.5400 Per c the north end of an open cut.	cent	
CAPSULE GEOLOGY			Northe in Commencie	
	Group volcanics (Telkw uniform, fine-grained lapilli tuff, tuffaceo from dark grey to gree ded, laminated or mass andesitic to dacitic f The volcanic rock minerals with less com The Hazelton rock dikes trending north-n 70 metres in width. B volcanics. The Paola quartz	The area is underlain a Formation), compris maroon tuff overlain us greywacke and argi n to maroon and are f ive. These are under lows. s are altered hosting mon, epidote. s are intruded by a s orthwest and west dip asic lamprophyre dike vein infills a shear	by Lower Jurassic Hazelto sed mainly of a by a sequence of tuff, lllite. The tuffs range fine-grained, thinly bed- clain by massive green g mica, chlorite, and clay series of feldspar porphyry oping ranging between 30 to es also crosscut the in altered and bleached	n
maroon tuff with an alteration zone of approximately 8.0 metres in width. The vein strikes north and dips 30 to 40 degrees west hosting a 2.0 metre wide section of disseminated malachite staining in a open cut. In 1984, four samples taken over 1.0 to 1.2 metres assayed 67.5 grams per tonne silver and 0.36 per cent copper (Assessment Report 13364). Just north of the Paola mineralization, tetrahedrite is exposed in the Ag showing. The mineralization is contained within a quartzcarbonate infilled shear zone (see Assessment Report 13364, Figure 3). No assay data is available.

#### BIBLIOGRAPHY

EMPR GEM \*1972-397-417,Fig. 49 EMPR EXPL 1981-227; 1983-444; \*1984-328; 1985-C314 EMPR ASS RPT 10182, 12374, \*13364, 13720, 14256, 21880 EMPR FIELDWORK 1988, pp.195-208 EMPR MAP 69-1 EMPR OF 1994-14 GSC OF 351 GSC BULL 270 GSC MAP 671A

DATE CODED: 1989/07/07 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 297</u>	NATIONA	L MINERAL INVENTORY:
NAME(S):	<u>SNOW</u> , ISLAND, PENINSULA, DISCOVERY		
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093L12E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 40 00 N 127 41 28 W 1175 Metres Within 500M The property is located along Snow about 30 kilometres southwest of S (Assessment Report 18014).	v Creek, just south of Serb Creek Smithers. Location of Island zone	NORTHING: 6058486 EASTING: 584418
COMMODITIES:	Gold Silver	Zinc	Copper Lead
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Spl Quartz Carbonate Silicific'n Pyrite Unknown	halerite Galena	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothe 105 Polymetallic veins Ag-Pb-Z Regional fault structure trends nort	ermal In±Au I02 STRIKE/DIP: th.	Intrusion-related Au pyrrhotite veins TREND/PLUNGE: 360/
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Lower Jurassic Eocene	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMORPHIC/OTHER Nanika Intrusions
LITHOLOGY:	Andesitic Tuff Andesite Breccia Tuff Pyritic Fine Grained Breccia Quartz Diorite Porphyritic Granodiorite Dike		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYSIOG	RAPHIC AREA: Hazelton Ranges
TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP: Syn-mineralization	GRADE:
INVENTORY			
ORE ZONE:	VEINS	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Lead Zinc	YEAR: 1988 <u>GRADE</u> 84.5000 Grams per tonne 4.5300 Grams per tonne 0.3900 Per cent 0.2900 Per cent 0.7200 Per cent	
COMMENTS: REFERENCE:	Quartz-carbonate veins. Assessment Report 18014.		
CAPSULE GEOLOGY	The Snow property i acid volcaniclastic rock Telkwa Formation. The T andesite breccia and tuf A coarse-grained qu	s predominantly underlain by s of the Lower Jurassic Haze 'elkwa rocks consist mainly o f with intercalated green tu artz diorite stock intrudes	intermediate to lton Group, f red to maroon ffs and breccia. the volcaniclastic

A coarse-grained quartz diorite slock infrudes the volcanicias rocks in the southwest corner of the claims. The stock is part of the Eocene Nanika Intrusions. Associated porphyritic granodiorite dikes ranging from tens of centimetres to several metres in width intrude both the volcaniclastics and the quartz diorite stock. Pyritic envelopes of weak to moderate silicification are associated with the granodiorite dikes. Sparse quartz and

quartz-carbonate veins are present within the silicified envelopes. Snow Creek follows the trace of a north trending regional fault. Numerous splay faults and shear zones associated with the regional structure trend northeast to southeast. The dikes intrude along these splay faults.

Mineralization on the property consists of sulphide fracture fillings and sulphide-rich quartz-carbonate veins proximal to porphyritic granodiorite dikes. Pyrite is the dominant sulphide with minor chalcopyrite, sphalerite and galena. The mineralized veins and fractures trend northeast to southeast and dip steeply to the north and south. Three mineralized zones, the Island, Discovery and Peninsula zones, respectively, occur along the north-south trending regional fault and are exposed along a 600 metre section in Snow Creek.

Grab samples of sheared, pyritic fine breccia assayed up to 6.17 grams per tonne gold, 56.57 grams per tonne silver and 0.19 per cent zinc. Grab samples from mineralized quartz-carbonate veins assayed up to 4.53 grams per tonne gold, 84.5 grams per tonne silver, 0.72 per cent zinc, 0.39 per cent copper, and 0.29 per cent lead. A 1.0 metre wide chip sample taken from the Island showing assayed 0.625 grams per tonne gold, 12.3 grams per tonne silver, 0.021 per cent copper, 0.021 per cent lead and 0.086 per cent zinc (Assessment Report 18014).

#### BIBLIOGRAPHY

EMPR AR 1965-76-80; 1966-91 EMPR EXPL 1988-C171 EMPR ASS RPT 4671, 5762, \*18014, 22056, 22648 EMPR MAP 69-1 EMPR OF 1994-14 GSC OF 351 GSC BULL 270 Placer Dome File

DATE CODED: 1989/06/13 DATE REVISED: 1995/02/22 CODED BY: LLD REVISED BY: GSB

MINFILE NUMBER:	<u>093L 298</u>		N	ATIONAL MINERAL INVE	NTORY:
NAME(S):	<u>ERIN,</u> ERIN 4, B				
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093L06E			MINING DI UTM	IVISION: Omineca //ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	54 22 11 N 127 06 46 W 1706 Metres Within 500M Erin property is located on 45 kilometres south of Sm on the Erin 4 claim (Asses	the east side of Hou: ithers. Location is min sment Report 17994,	ston Tommy Creek, neralized trench Figure 3).	NOF EA	RTHING: 6026300 ASTING: 622601
COMMODITIES:	Copper Gemstones	Silver	Gold	Iron	Antimony
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Rhodochrosite Quartz Malachite Azurite Oxidation Unknown	Chalcocite Carbonate Epidote Propylitic	Tetrahedrite R Carbonate	hodochrosite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Igneous-contact D03 Volcanic redbed C K01 Cu skarn	Epigenetic Cu	Hydrothermal	Industrial Mir L01 Subvolcanic Cu-	n. -Ag-Au (As-Sb)
COMMENTS:	Bedding strikes south and	a dips 25 to 45 degree	es southwest.		
DOMINANT HOSTROCK	Volcanic				
	GROUP Hazelton	<u>FORM</u>	IATION	IGNEOUS	/METAMORPHIC/OTHER
Upper Cretaceous				Bulkley In	trusions
LITHOLOGY:	Andesite Andesitic Tuff Rhyolite Dacite Quartz Feldspar Porphyry				
GEOLOGICAL SETTING TECTONIC BELT: TERRANIE	Intermontane Stikine	Plutonic Ro	P	HYSIOGRAPHIC AREA:	Nechako Plateau
METAMORPHIC TYPE:	Contact Regional	RELATIO	DNSHIP: Syn-mineral Post-minera	ization GRADE: 0	Greenschist Hornfels
CAPSULE GEOLOGY					
	The property Hazelton Group roc comprised mainly of associated dacite fine-grained to ap Locally, glassy ma strikes south and A quartz feld Late Cretaceous Bu of the property. degrees north. Alteration co without irregular In the area of the 'B' group clai and may be related occurs as small pa disseminations in Mineralization bulldozer trenchess malachite and azur patches in andesit to B-093L 048). high copper and si A sample (JR8	is predominant ks (Telkwa Form of maroon and l and rhyolitic bhanitic and ar roon and grey dips 25 to 45 spar porphyry lkley Intrusion The contact st unsists of patc quartz and car of the old tren ms (B - 093L to the copper tches (less the the andesite. on occurs in the bite occur as mu- e and locally Assays from tro lver with loca (8-33) taken fr	y underlain by mation). These esser green and volcanics. The e buff to pale crystal tuffs a degrees southwe intrusive, prob ns, was mapped rikes 088 degre hy epidote in a bonate veinlets ches, dug betwe 048), rhodochro mineralization an 1.0 centimet e central prope alcopyrite, tet assive to local in quartz veins enches with min l gold values. om a trench con	<pre>/ Lower Jurassic 2 rocks are lesitic tuffs with 2 felsic volcanics green in colour. are present. Bedo 2st. 2ably related to the in the southeast 2es and dips about andesite, with or 3. 2en 1965 and 1969 2site is widespread 1. The rhodochrost 2re wide) and as 2erty area exposed 2rahedrite, chalco 11y disseminated 3 and stringers (1) 2 neralization repoint about 20 20 20 20 20 20 20 20 20 20</pre>	h minor s are ding the part t 74 on ad site in ocite, refer rted per

cent rhodochrosite assayed 1.36 per cent manganese, 0.002 per cent antimony and 0.009 per cent arsenic. A sample of gossanous rock taken just north of a trench which cuts the contact between andesite tuff and quartz feldspar porphyry, assayed 0.287 per cent zinc, 0.008 per cent lead, 0.521 per cent manganese, 7.89 per cent iron and 18.07 per cent calcite (Assessment Report 17994).

#### BIBLIOGRAPHY

EMPR AR 1965-80; 1966-103 EMPR EXPL 1988-C168 EMPR ASS RPT 1189; \*17994, 19360 EMPR MAP 69-1 EMPR OF 1990-5; 1994-14 GSC OF 351 GSC BULL 270

DATE CODED: 1989/06/12 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 299</u>	NATIONAI	L MINERAL INVENTORY:
NAME(S):	<u>DEL</u>		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093L06E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 22 42 N 127 07 29 W 1722 Metres Within 500M Located along the east side mineralization on the Del 1 9).	of Houston-Tommy Creek; location of claim (Assessment Report 18032, Figure	NORTHING: 6027237 EASTING: 621799
COMMODITIES:	Copper	Silver	
MINERALS		<b>5</b>	
ASSOCIATED:	Quartz Carbonate	Bornite	
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Azurite Oxidation I Unknown	Epidote Carbonate Propylitic	
	Discominated		
CLASSIFICATION: TYPE:	Porphyry I D03 Volcanic redbed Cu	Epigenetic Hydrothermal J L01	Subvolcanic Cu-Ag-Au (As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	TIAZERUT	Teikwa	Bulkley Intrusions
LITHOLOGY:	Andesite Andesitic Tuff Flow Breccia Granodiorite Quartz Monzonite		
GEOLOGICAL SETTING			
TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOG Plutonic Rocks	RAPHIC AREA: Nechako Plateau
METAMORPHIC TYPE:	Contact Regional	RELATIONSHIP: Syn-mineralization	GRADE: Greenschist Hornfels
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/an	alysis YEAR: 1988	
	SAMPLE TYPE: Grad	GRADE	
COMMENTS	Copper Sample 26222	6.1400 Per cent	
REFERENCE:	Assessment Report 18032		
CAPSULE GEOLOGY	The Del alsing	a and underlain by Lever Turaggia	Hagalton Group
	rocks (Telkwa Forma primarily of andesi breccias. Small ma monzonite (probably volcanics. Associa striking 070 to 075 volcanics. Regional alter in andesite, with of Mineralization concentrations of of azurite in andesite 'B' occurrence (ref In 1988, a gra	ation). The Telkwa Formation is c itic to rhyolitic flows with assoc asses of Late Cretaceous granodior y related to the Bulkley Intrusion ated aplite dikes, up to 2.0 metre b degrees with steep to near verti ration is locally present as patch for without quartz and carbonate ve h on the Del property consists of chalcopyrite, pyrite, bornite, mal ic volcanics. The mineralization for to 093L 048). ab sample (#36323) assayed 6.14 pe	interior of the product of the produ

copper, and 25.3 grams per tonne silver. Another sample (#32502) assayed 0.21 per cent copper (Assessment Report 18032).

# BIBLIOGRAPHY

EMPR AR 1965-80; 1966-102 EMPR GEM 1974-258 EMPR EXPL 1988-C168 EMPR ASS RPT 1189, 5094, 17994, \*18032 EMPR MAP 69-1 EMPR OF 1361 GCS OF 351 GSC BULL 270

DATE CODED: 1989/07/13 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 300</u>	NATIC	NAL MINERAL INVENTORY:
NAME(S):	CAMP LAKE		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L10E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 43 07 N 126 42 28 W 1095 Metres Within 500M Located to the southeast or refer to occurrence #15 (C	of Guess Lake on the north side of Camp Lake Open File Map 1987-1).	NORTHING: 6065891 EASTING: 647641
COMMODITIES:	Copper	Silver	
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Exact mineralogy not repo Quartz Chlorite Epidote Chloritic Unknown	rted. Carbonate Epidote Carbonate	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-A	Ng-Au (As-Sb) D03	Volcanic redbed Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
	GROUP Hazelton	FORMATION Nilkitkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Amygdaloidal Basalt		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane	PHYS	IOGRAPHIC AREA: Hazelton Ranges
TERRANE: METAMORPHIC TYPE:	Stikine Regional	RELATIONSHIP:	GRADE: Greenschist
CAPSULE GEOLOGY	The area is u Jurassic Hazelton several small copp Locally, the copper-silver bear pervasive chlorite Logging Limited of but failed to inte	Inderlain by amygdaloidal basalt Group, Nilkitkwa Formation. The eer-silver vein occurrences. Camp Lake showing consists of so ing quartz veins. The veins occur e-epidote-carbonate alteration. Smithers, completed one drill M ersect mineralization at depth.	of the Lower is formation hosts mall, discontinuous cur within zones of In 1982, D. Groot nole on the property
BIBLIOGRAPHY			
	EMDD ETELDWODY +10	0 cmm - 201 222, 1000 105 20	n
	EMPR FIELDWORK *19 EMPR OF *1987-1 EMPR MAP 69-1 GSC OF 351 GSC BULL 270	86 pp. 201-222; 1988 pp. 195-20	3

MINFILE NUMBER:	<u>093L 301</u>	Ν	IATIONAL MINERAL INVENTORY:	
NAME(S):	<u>BURN 7</u> , DEL SANTO			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L10E		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 38 44 N 126 42 29 W 1066 Metres Within 500M Fieldwork 1988, page 196, Figure	1-23-2.	NORTHING: EASTING:	6057763 647889
COMMODITIES:	Copper Silver	Lead	Zinc	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Sphalerite Quartz Silicific'n Unknown	Galena		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Podifor Epigenetic I05 Polymetallic veins Ag-Pb-	m Zn±Au	G04 Besshi massive sulphide	Cu-Zn
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Nilkitkwa	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Amygdaloidal Andesite Basalt Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Ρ	PHYSIOGRAPHIC AREA: Nechako	Plateau
CAPSULE GEOLOGY	The area is underl Lower Jurassic Hazelton discontinuous copper-si areas of pervasive chlo chalcopyrite, sphalerit veining.	ain by amygdaloidal and Group, Nikitkwa Format lver bearing quartz vei rite-epidote-carbonate e and galena are reporte	esite and basalt of the ion. Locally, small ns cut the volcanics in alteration. Pods of ed in the quartz	
BIBLIOGRAPHY	EMPR ASS RPT 1665, 2238 EMPR EXPL 1979-228; *19 EMPR FIELDWORK 1984, pp EMPR GEM 1969-120; 1970 EMPR MAP 69-1 EMPR OF 1987-1 GSC BULL 270 GSC MAP 671A, 971A GSC OF 351 WWW http://www.infomine Falconbridge File	, 2543, 7286, *17255, 1 88-C170 .193-213; 1986, pp. 210 -158 .com/index/properties/D	7478, *17874 -222; *1988, pp. 195-20 EL_SANTOGROUSE.html	8
DATE CODED: DATE REVISED:	1988/09/20 1989/09/08	CODED BY: LLD REVISED BY: LLD	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093L 302</u>		NATIONAL MIN	IERAL INVENTORY:	093L10 Cu1
NAME(S):	<b>JAVA</b> , PERROW, LUCKY, LADY, PEHU				
STATUS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L10E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 36 43 N 126 31 28 W 1128 Metres Within 500M Located southeast of Angela Lake,	Figure 3 (Assessment Rep	ort 17553).	NORTHING: EASTING:	6054427 659866
COMMODITIES:	Copper Silver	Gold			
	Chalconvrite Durite Sol	alerite Galena	Bornite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Calcite Quartz Epide Malachite Specularite Ba Carbonate Oxidation Unknown	arite Epidote n Epidote	Domine		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic Cu-Ag-Au (As	-Sb)	l05 Poly	metallic veins Ag-Pb	-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa		IGNEOUS/METAMC	ORPHIC/OTHER
Jurassic		TORWO		Topley Intrusions	
LITHOLOGY:	Andesite Andesitic Volcanic Tuff Granodiorite				
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	Plutonic Rocks RELATIONSHIP:	PHYSIOGRAP	HIC AREA: Nechako GRADE: Greensc	Plateau hist
INVENTORY					
ORE ZONE:	SAMPLE	REPORT (	DN: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY	YEA GRADE	NR: 1988		
COMMENTS: REFERENCE:	Copper 2.0 metre chip sample. Singhai, 1988.	0.4200 Per c	ent		
CAPSULE GEOLOGY					
	The area is underla Formation volcanics comp volcanics are intruded b Suite. Mineralization occu chalcopyrite within nume mineral assemblage of py tetrahedrite, and occasi fine-grained, greenish a barite, and epidote also found as gangue minerals but has not been confirm A two metre chip sa cent zinc, 0.34 grams pe A grab sample from the s 0.27 grams per tonne gol	in by Lower Jurassi rised of andesitic y granodioritic sto rs as fine fracture rous fine veinlets rite, chalcopyrite, onal very minor bor ndesitic volcanics. occur. Quartz, ca in the veins. Som ed. mple assayed 0.42 p r tonne silver and ame area assayed 0. d (Singhai, 1988).	c Hazelton G flows and tu cks of the T fillings an of calcite. minor sphal nite is foun Malachite, lcite and ep e free gold er cent copp 0.69 grams p 42 per cent	roup, Telkwa ffs. The opley Intrusive d blebs of The general erite, galena, d within specularite, idote are was reported er, 0.02 per er tonne gold. copper and	e
DIBLIUGKAPHY	EMPR GEM 1969-120; 1970- EMPR AR 1928-177; 1967-1	158 07; 1968-136			

EMPR EXPL \*1988-C170,171
EMPR ASS RPT 1559, 1667, \*17553, 17668, 18948
EMPR PF (Singhai, G.C. (1988): Report on Perrow 300, Peeler and Java 300 Mineral claims in Prospectus for Crisan Resources Ltd., Jan. 5, 1989).
EMPR FIELDWORK 1988, pp. 195-208
EMPR MAP 69-1
EMR MP CORPFILE (Mexxon Mines Ltd., Key Point Mines Co. Ltd.)
GSC OF 351
GSC MAP 671A
GSC BULL 270

DATE CODED: 1989/09/05 DATE REVISED: / / CODED BY: LLD REVISED BY:

MINFILE NUMBER:	<u>093L 303</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u><b>SU</b></u> , SU 2-3			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L15E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 52 22 N 126 37 58 W Metres Within 500M Centre of claims.		NORTHING: EASTING:	6083201 651892
COMMODITIES:	Zinc Silver	Lead		
MINERALS				
SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Calcite Carbonate Unknown	Pyrite		
CLASSIFICATION: TYPE:	Epigenetic I05 Polymetallic veins Ag-Pl	o-Zn±Au		
HOST ROCK DOMINANT HOSTROCK	: Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Breccia	Undernied Formation		
	Amygdaioidal Andesite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	BRECCIA	REPORT	ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	s YE/	AR: 1988	
COMMENTS: REFERENCE:	Zinc Grab samples from coarse brec Assessment Report 18177.	2.9000 Per c cia with sphalerite and galena	cent L	
CAPSULE GEOLOGY	The Que reconceptor i	a underlain bu Turca	ria Hazaltan Guaun	
	nhe su property i volcanics and sediment in the northwest part rhyolite clast, calcit the andesite unit. It and dips 25 to 60 degr Near the contact breccia, a showing of 20 to 30 per cent, ver Samples from this show 0.044 grams per tonne About 350 metres contains minor sphaler matrix and veinlets. and 0.9 per cent lead	s underlain by Jurass s. A maroon, amygdal of the property. A g e cemented breccia oc appears to strike no ees west with tops to of these two units, i pyrite is exposed. I y fine grained, proba- ing have assayed up t silver (Assessment Report 18 Grab samples assayed (Assessment Report 18	loidal andesite unit occurs grey, andesite and ccurs to the southeast of orth-northeast to northeast o the east. in a fine grained bed of th It consists of a matrix wit ably syngenetic, pyrite. to 0.6 per cent zinc and eport 18177). outcrop of coarse breccia iated with the calcite up to 2.9 per cent zinc 3177).	e h
BIBLIOGRAPHY				
	EMPR EXPL *1988-C173 EMPR ASS RPT *18177 EMPR MAP 69-1 EMPR FIELDWORK 1988, p EMPR OF 1987-1 GSC OF 351	p. 195-208		

GSC BULL 270

DATE CODED: 1989/09/04 DATE REVISED: 1989/09/11 CODED BY: LLD REVISED BY: LLD

MINFILE NUMBER:	<u>093L 304</u>			NATIONA	AL MINERAL INVENTORY:	
NAME(S):	<u>SUNSET</u> , SUN					
STATUS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L06E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 28 03 N 127 12 12 W 1615 Metres Within 500M Centre of Sun claim, no Sunsets Creek.	ear an old adit ald	ong the south side o	of	NORTHING: EASTING:	6037024 616441
COMMODITIES:	Copper	Silver	Gold			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE:	Bornite Chalcoj Quartz Carbor Malachite Azurite Silicific'n	oyrite Pyrite ate Carbonate	Copper Oxida	Tetrahedrite	•	
MINERALIZATION AGE:	Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvolcanic C	u-Ag-Au (As-Sb)	)	D03	Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton		<u>FORMATION</u> Telkwa		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesite Breccia Andesite Rhyolite Tuff					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional		RELATIONSHIP:	PHYSIOC	GRAPHIC AREA: Nechako GRADE: Greense	o Plateau chist
INVENTORY	0					
ORE ZONE:	ADIT		REPC	NTON: N		
COMMENTS: REFERENCE:	CATEGORY: Assa SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper Sample from a stringer Assessment Report 17	//analysis  in an old adit. 977.	<u>GRADE</u> 41.4850 C 0.5700 F	YEAR: 1988 Grams per tonne Per cent		
CAPSULE GEOLOGY						
	The propert comprised mainly minor flows. Be degrees west. M the property and headwaters of Su Alteration prehnite in the and unrelated to Mineralizat Andesite hosts containing vary bornite, chalcop often vuggy and	y is underl of well be dding strik inor rhyoli a large gr nsets Creek occurs as m bedded tuff the minera ion occurs uartz and m ng amounts yrite, pyri contains su	ain by Lower dded red and es north to n tic tuff occu anitic stock oderately str s. This alte lization. in outcrop so inor carbonat of malachite, te and native bangular to a	Jurassic Ha: green andes: orthwest and rs in a smallies to the ong, patchy ration apper uth of Sunse a stringe azurite, tc copper. Th ngular andes	<pre>zeiton group rocks ite tuffs and dips 25 to 40 ll cirque east of northeast of the epidote and ars to be regional ets Creek. ers and veins etrahedrite, he veining is site breccia</pre>	

with drusy quartz in open spaces. Veins and stringers are discon-tinuous and generally randomly oriented. The largest vein found was 0.35 metres wide and approximately 12 metres in length. Veining dominantly occurs as stringers, 1 to 4 centimetres in width, which anastomose and rapidly pinch out. An old adit is located on the south side of Sunsets Creek at approximately 1,615 metres elevation. An irregular mineralized

quartz stringer, 10 to 15 centimetres in width, striking 017 degrees and dipping 53 degrees southeast, extends for 3 to 4 mteres above the tunnel entrance. A sample from this stringer (JR88-29) assayed 0.57 per cent copper and 41.485 grams per tonne silver. Near the adit , a grab sample (JR88-30) from a small pile of ore assayed 16.53 per cent copper, 2163 grams per tonne silver and 4.25 grams per tonne gold. Directly above the adit a 0.35 metre wide vein, striking 028 degrees and dipping 58 degrees southeast, outcrops at 1737 metres elevation. A sample fron this vein (JR88-24) assayed 0.92 per cent copper and 33.256 grams per tonne silver (Assessment Report 17977).

#### BIBLIOGRAPHY

EMPR AR 1967-97-100; 1968-128 EMPR GEM 1970-151 EMPR EXPL 1980-341,324; 1983-440; \*1988-C169 EMPR ASS RPT 1605, 1922, \*8444, 8264, 11903, \*17977 EMPR MAP 69-1 GSC OF 351

DATE CODED:	1989/09/04
DATE REVISED:	1989/09/08

CODED BY: LLD REVISED BY: LLD

NAME(S): TATSI, ALEC STATUS: Showing REGIONS: British Columbia NES MORI 0021 0EEE	Ominaca
STATUS: Showing MINING DIVISION: REGIONS: British Columbia	Ominaca
REGIONS: British Columbia	Ommeca
	09 (NAD 83)
LATITUDE: 54 20 51 N NORTHING:	6022926
LONGITUDE: 127 43 57 W EASTING: ELEVATION: 1859 Metres	582388
LOCATION ACCURACY: Within 500M COMMENTS: Location of mineralization (Assessment Report 17971, Figure 5).	
COMMODITIES: Gold Silver Copper Lead	Zinc
MINERALS	
Significant. Gold Silver Bonnie Tetranednie Galena Chalcopyrite Sphalerite Pyrite	
ASSOCIATED: Quartz Carbonate Hematite Malachite Azurite	
MINERALIZATION AGE:	
DEPOSIT	
CHARACTER: Stockwork Vein CLASSIFICATION: Epigenetic Igneous-contact	
TYPE: 105 Polymetallic veins Ag-Pb-Zn±Au L01 Subvolcanic Cu-Ag-Au (	As-Sb)
HOST ROCK DOMINANT HOSTROCK: Volcanic	
STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMO	)RPHIC/OTHER
Jurassic Topley Intrusions	
LITHOLOGY: Tuff	
Hornblende Granodiorite	
Diorite Sill	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	
INVENTORY	
ORE ZONE: SAMPLE REPORT ON: N	
CATEGORY: Assay/analysis YEAR: 1988	
COMMODITY GRADE	
COMMENTS: Composite chip sample from the discovery zone. REFERENCE: Assessment Report 17971.	
The Tatsi property is located about 65 kilometres west of	
on the property. The Snowflake showing (093L 056) may occur on the	
The property was originally staked in 1949 but there is no record of any work. The property was re-staked in 1987 and an	
exploration program was completed. In 1991, sampling was completed during a 1 day visit to the property.	
The property is underlain by maroon, red and purple massive bedded volcanics of the Lower Jurassic Hazelton Group. Telkwa	
Formation. Immediately to the northwest, a large stock of Jurassic Topley Intrusions cut the volcanic rocks. Dioritic dikes or sills	
intrude the volcanics in the area of the main showing, with sharp	
migmatific confacts.	
migmatitic contacts. The Main Zone contains bornite, native silver, native gold, chalcopyrite, tetrahedrite, galena and trace pyrite in a relatively	
migmatitic contacts. The Main Zone contains bornite, native silver, native gold, chalcopyrite, tetrahedrite, galena and trace pyrite in a relatively falt (15 degrees) easterly-dipping bedding plane vein. The vein is up to 1 metre thick and is hosted by a bleached fine-grained tuff	

PAGE: 521 REPORT: RGEN0100

## CAPSULE GEOLOGY

been traced intermittently for about 100 metres. Channel samples taken by the operator yielded high-grade values (for example, 16.5 grams per tonne gold and 1,158 grams per tone silver) (Property File -Visit Report by Tom Schroeter July, 1995). The Discovery Zone is located in the west-central part of the

The Discovery Zone is located in the west-central part of the claim, about 1 kilometre west of the Main Zone. Galena, chalcopyrite, sphalerite, pyrite, specular hematite, malachite and azurite are hosted by intermediate to acidic pyroclastic volcanic rocks in close contact with a coarse-grained hornblende granodiorite. It is represented by an intermittent alignment in a shear zone of quartz and quartz-carbonate veins and stringers, in areas of quartz and carbonate altered rock. The zone has been traced over a strike length in excess of 200 metres and over widths up to 4 metres. Northward the exposures terminate in steep cliffs, and southward, the zone pinches-out in diorite. A composite chip sample across a 2 metre section of the structure, comprised of quartz veins in bleached, ankeritic altered rock, assayed up to 9.19 grams per tonne gold. Silver from grab samples assayed up to 356.2 grams per tonne (Assessment Report 17971).

To the immediate east of the Discovery Zone, a quartz veinstockwork system is exposed for 200 metres. Of seven grab samples, one sample assayed 0.37 grams per tonne gold, 12 grams per tonne silver associated with minor sphalerite and galena (Assessment Report 17971).

To the east, near the central part of the claims, two flat-lying quartz veins up to 40 centimetres wide are exposed. Values to 2365.6 grams per tonne silver and 0.885 grams per tonne gold are associated with chalcopyrite and a sulphosalt. For both the stockwork system and the flat-lying vein system, their extension to the north is not known (Assessment Report 17971).

In 1995, with Explore B.C. Program support, Golden Hemlock Explorations Ltd. carried out a substantial program of geological and geophysical surveys, prospecting, trenching and 1820 metres of diamond drilling in 15 holes, mostly on the Main and Discovery zones. This work showed the Main zone mineralization is mostly part of a simple vein system which strikes easterly and dips 15-20 degrees to the south. The Discovery zone consists of several parallel veins and a 500 by 200 metre breccia zone believed to be of hydrothermal origin which may have potential for bulk mining (Explore B.C. Program 95/96 - M77).

#### BIBLIOGRAPHY

EMPR EXPL \*1988-C168 EMPR ASS RPT \*17971, 21721 EMPR PF (\*Visit Report by Tom Schroeter, July, 1995) EMPR MAP 69-1 EMPR Explore B.C. Program 95/96 - M77 GSC BULL 270 GSC OF 351 GSC P 44-23

DATE CODED: 1989/09/05 DATE REVISED: 1996/11/08 CODED BY: LLD REVISED BY: GSB

MINFILE NUMBER:	<u>093L 306</u>		NA	TIONAL MINE	ERAL INVENTORY	:
NAME(S):	<u>CART</u> , LIME					
STATUS: REGIONS: NTS MAP:	Showing British Columbia 0931 16W				MINING DIVISION:	Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 51 31 N 126 18 26 W 1103 Metres Within 5 KM Sample Site 4261 (Industr	ial Mineral File (Equity Silv	er Mines, Map)).		NORTHING: EASTING:	: 6082380 : 672837
COMMODITIES:	Limestone					
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Calcite Permian					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Stratiform Sedimentary R09 Limestone 4000	Massive Evaporite Metres	Industrial Min. STRIKE/DIP:	153/45N	TREND/PLL	JNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATIC Undefined	ON Formation		IGNEOUS/METAN	IORPHIC/OTHER
LITHOLOGY:	Limestone Volcanic					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		Pł	IYSIOGRAPH	IC AREA: Nechak	o Plateau
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON: N			
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Chip <u>COMMODITY</u> Limestone Average of 7 chip sample Industrial Mineral File - Ec	nalysis <u>GRADE</u> 52.570 es. Grade given for CaO. juity Silver Mines, 1989.	YEAR: 1	988		
CAPSULE GEOLOGY	Dermiere line			1		
	trending north-nor The limeston with volcanics of 153 degrees and di Seven chip si a strike length of per cent MgO, 0.02 (Industrial Miner The deposit of during a search for mine.	rthwest, 6 kilomet e is faulted to th the Upper Triassi ips 45 degrees nor amples taken acros f 500 metres avera 24 per cent Fe203 al File - Equity S was sampled in 198 or limestone for a	r 4 kilometr res west of e east, brin c Takla Grou thwest. s widths of ged 52.57 pe and 3.05 per ilver Mines 8 by Equity cid neutrali	Granisle. ging it i p. Beddi 5 to 7. 5 r cent Cas cent ins Ltd., 198 Silver Mi zation in	n contact ng strikes metres over 0, 0.25 olubles 9). nes Ltd. their nearby	7
BIBLIOGRAPHY	FM OF 2001-02					
	EMPR MAP 69-1 EMPR OF 1996-29 EMPR PF (Equity S: GSC MAP 671A GSC OF 351 EMPR BULL 110	ilver Mines Ltd.,	1989, Map an	d Letter)		
DATE CODED: DATE REVISED:	1989/10/20 / /	CODED BY: REVISED BY	PSF ?:			FIELD CHECK: N FIELD CHECK:

MINFILE NUMBER:	<u>093L 307</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>CHRIS</u>			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L09E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 44 42 N 126 13 00 W 1021 Metres Within 500M Centre of Chris claim (Indu Mines Map).	strial Mineral File - Equity Silver	NORTHING: EASTING:	6069970 679150
COMMODITIES:	Limestone			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Calcite Lower Jurassic			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary R09 Limestone	Massive Evaporite Indus	strial Min.	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION Telkwa	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Limestone Volcanic			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	o Plateau
INVENTORY				
ORE ZONE:	SAMPLE	REPC	RT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Limestone Average of 5 grab sample Industrial Mineral File - Equ	nalysis <u>GRADE</u> 77.8700 F s. Grade given for CaCo3. uity Silver Mines Ltd., 1989.	YEAR: 1989 Per cent	
CAPSULE GEOLOGY				
	Limestone out The deposit is hos rocks. Five grab 77.87 per cent CaC 16.72 per cent ins Mines Ltd., 1989). The property during a search fo mine.	crops 8.5 kilometres s ted by Lower Jurassic samples of limestone f O3, 0.74 per cent MgCO olubles (Industrial Mi was sampled in 1988 by r limestone for acid n	outhwest of Topley Landing. Telkwa Formation volcanic rom the deposit averaged 3, 0.244 per cent iron and neral File - Equity Silver Equity Silver Mines Ltd. eutralization in their nearby	
BIBLIOGRAPHY	EM OF 2001-03 EMPR MAP 69-1 EMPR PF (Equity Si GSC MAP 671A GSC OF 351 EMPR BULL 110	lver Mines Ltd, 1989,	Assay Certificates)	
DATE CODED: DATE REVISED:	1989/10/18 / /	CODED BY: PSF REVISED BY:	F	TIELD CHECK: N TIELD CHECK:

MINFILE NUMBER:	<u>093L 308</u>		NA	ATIONAL MINERAL INVENTORY	:
NAME(S):	CALCITE, FULTON LAKE	E			
STATUS:	Showing British Columbia			MINING DIVISION	: Omineca
NTS MAP: BC MAP	093L16W			UTM ZONE	: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 49 00 N 126 17 24 W 853 Metres Within 1 KM Centre of Calcite claim gro	oup (claim map (	092L16E).	NORTHING EASTING	: 6077757 : 674122
COMMODITIES:	Limestone				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Celestite Upper Triassic				
DEPOSIT	0				
CHARACTER: CLASSIFICATION: TVDE:	Stratiform Sedimentary	Massive Evaporite	Industrial Min.		
DIMENSION:	1000 x 0500	Metres	STRIKE/DIP:	TREND/PLU	JNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	<u>GROUP</u> Takla		FORMATION Undefined Formation	IGNEOUS/METAM	<u>IORPHIC/OTHER</u>
LITHOLOGY:	Limestone				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		Pł	HYSIOGRAPHIC AREA: Nechak	o Plateau
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N	l	
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Limestone Grade given for CaO. Industrial Mineral File - W	nalysis  estgarde, Ed, 19	YEAR: 1 GRADE 52.7400 Per cent 88.	988	
CAPSULE GEOLOGY					
	Limestone of by 1000 metre area east of Topley Lan A grab sampli 2.43 per cent SiO per cent MnO2, 0. Na2O and 0.04 per Westgarde, 1988). The property during a search for mine.	the Upper of a on the non- ding. e contained 2, 0.50 per 04 per cent cent TiO2 was sample or limeston	Triassic Takla Grou rth side of Fulton 52.74 per cent CaC cent Al2O3, 0.42 p P2O5, 0.12 per cen (Industrial Mineral d in 1988 by Equity e for acid neutrali	up outcrops over a 500 Lake, 10 kilometres ), 0.46 per cent MgO, oer cent Fe203, 0.08 ut K20, 0.01 per cent File - Report by E. Silver Mines Ltd. zation in their nearby	Ŷ
BIBLIOGRAPHY	TV 07 0001 00				
	EM OF 2001-03 EMPR MAP 69-1 EMPR OF 1996-29 EMPR PF (*Westgarv (1989): Assays GSC MAP 671A GSC OF 351 EMPR BULL 110	de, Ed (198 )	8): Report; Equity	Silver Mines Ltd.	
DATE CODED: DATE REVISED:	1989/10/18 1995/03/07	C R	ODED BY: PSF EVISED BY: GSB		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 309</u>		NATIONAL MI	NERAL INVENTORY:	
NAME(S):	FIRE LOOKOUT				
STATUS: REGIONS	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093L03W			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 09 04 N 127 29 50 W 1630 Metres Within 500M Located 6.0 kilometres north of Morice	e Lake.		NORTHING: EASTING:	6001378 598146
COMMODITIES:	Copper Silver	G	old	Molybdenum	
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Carbonate Limonite Hem Carbonate Unknown	atite			
	Voin				
CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Epigenetic Hydrotherm L01 Subvolcanic Cu-Ag-Au (As-S Regular Faulted 0005 x 0002 Metres General bedding orientation with whice	nal b) ch body is conform	STRIKE/DIP: 269/82N nable.	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Lapilli Tuff Fine Grained Basalt Gossan				
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATIONSHIP:	PHYSIOGRAM Pre-mineralization Syn-mineralization	GRADE: Zeolite	Plateau
INVENTORY			2		
ORE ZONE:	SAMPLE	RE	PORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab		YEAR: 1991		
COMMENTS: REFERENCE:	COMMODITY Silver Gold Copper Molybdenum Assay from Energy, Mines and Petrol Open File 1991-1.	<u>GRADE</u> 46.3000 0.5100 0.6770 0.0026 eum Resources L	Grams per tonne Grams per tonne Per cent Per cent aboratory.		
CAPSULE GEOLOGY	Surface and peruadive	malachito d	taining porgists	in a small	
	gossanous zone which appea Lower Jurassic Telkwa Form The marcon to red lap centimetre scale; oriented and a prominent joint patt exists. The gossanous zone ap with bedding. Minor fine- is also present and has be stained. Contact relation were not exposed but are b veining was noted during f	irs to be bed nation of the pilli tuffs ( at 081 degr ern (272 deg pears to be grained, aug en variably is between th believed to b field examina	ding conformable Hazelton Group. LJTc) are well be ees by 61 degrees rees by 60 degrees sub-parallel to c ite-bearing basa carbonatized and e lapilli tuffs a be faulted. No sition.	within the edded (2 to 10 s southeast) es north) conformable lt of unit lJTb limonite and basalts ignificant	
BIBLIOGRAPHY	EMPR FIELDWORK 1990; 1991	(Desjardins	et al)		

EMPR OF 1991-1; 1994-14 EMPR ASS RPT 22133

DATE CODED: 1990/09/12 DATE REVISED: / /

CODED BY: RLA REVISED BY:

MINFILE NUMBER:	<u>093L 310</u>	NATIONA	AL MINERAL INVENTORY:
NAME(S):	ZAP SOUTH		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093L12E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 04 N 127 41 47 W 885 Metres Within 500M		NORTHING: 6047477 EASTING: 584282
COMMODITIES:	Copper Iron		
MINERALS			
SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Specularite Unknown		
	Dodiform Shoor		
CLASSIFICATION:	Hydrothermal		
IYPE:	L01 Subvolcanic Cu-Ag-Au (As-Sb)	K01	Cuskarn
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Triassic-Jurassic	GROUP Hazelton	FORMATION Unnamed/Unknown Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Tuff Flow Breccia Rhyolite Andesite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIO	GRAPHIC AREA: Hazelton Ranges
CAPSULE GEOLOGY	Pods and shears contain T., 1991)	n chalcopyrite and specu	larite (Richards,
BIBLIOGRAPHY	EMPR ASS RPT 2129 EMPR MAP 69-1 GSC MAP 278A GSC P 44-23 GSC OF 351 GSC BULL 270 Richards, T. (1991) *in pres	35	
DATE CODED: DATE REVISED:	1993/12/06 0 1993/12/06 1	CODED BY: DEJ REVISED BY: DEJ	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093L 311</u>		NATIONA	AL MINERAL INVENTORY:	
NAME(S):	ZAP NORTH				
STATUS:	Showing			MINING DIVISION: Omineca	
NTS MAP:	093L12E			UTM ZONE: 09 (NAD 8	83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 34 N 127 42 47 W 1410 Metres Within 500M Located north of Top Lake	e, 345 metres west of cam	o on the road.	NORTHING: 6048385 EASTING: 583187	
COMMODITIES:	Gold	Silver			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Marcasite Chlorite Epidote Chloritic Unknown	Epidote			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I02 Intrusion-related A	Epigenetic Au pyrrhotite veins	105	Polymetallic veins Ag-Pb-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic	<u>GROUP</u> Hazelton	<u>FORMATIO</u> Unnamed/L	N Inknown Formation	IGNEOUS/METAMORPHIC/OTh	HER
LITHOLOGY:	Tuff Flow Breccia Rhyolite Andesite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIO	GRAPHIC AREA: Hazelton Ranges	
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Gold	nalysis <u>GRADE</u> 34.6200 2.4000	YEAR: 1969 Grams per tonne Grams per tonne		
	Assessment Report 2129.				
CAPSULE GEOLOGY	Gold and silv quartz vein contai epidote alteration	rer values occur in ning 5 per cent ma is associated wit	samples from a rcasite and pyr h the vein (Ric	60 centimetre ite. Chlorite and hards, T., 1991).	
BIBLIOGRAPHY	EMPR ASS RPT 2129 EMPR MAP 69-1 GSC MAP 278A GSC P 44-23 GSC OF 351 GSC BULL 270 Richards, T. (1991	) *in press			
DATE CODED: DATE REVISED:	1993/12/06 1993/12/06	CODED BY: REVISED BY:	DEJ DEJ	FIELD CHECK FIELD CHECK	K: N K: N

MINFILE NUMBER:	<u>093L 312</u>	NATIONAL MINER	RAL INVENTORY:
NAME(S):	ZAP WEST		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L12E	r	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 34 18 N 127 43 21 W 1380 Metres Within 500M Located about 930 metres west of can	np, on the road.	NORTHING: 6047879 EASTING: 582586
COMMODITIES:	Lead		
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Specularite Galena Chlorite Epidote Chloritic Epidote Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn±A	u	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic	GROUP Hazelton	FORMATION I	GNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Tuff Flow Breccia Rhyolite Andesite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC	CAREA: Hazelton Ranges
CAPSULE GEOLOGY	Pyrite, specularite ar centimetre wide vein with o T., 1991)	nd galena occur in a northwest Chlorite and epidote alteration	trending 60 (Richards,
BIBLIOGRAPHY	EMPR ASS RPT 2129 EMPR MAP 69-1 GSC MAP 278A GSC P 44-23 GSC OF 351 GSC BULL 270 Richards, T. (1991) *in pre	255	
DATE CODED: DATE REVISED:	1993/12/06 1993/12/06	CODED BY: DEJ REVISED BY: DEJ	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER: 093L 313

NATIONAL MINERAL INVENTORY:

NAME(S)	DINA, DINA 1-3, GOOSLY		
STATUS REGIONS NTS MAP:	Showing British Columbia 093L01W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY COMMENTS	54 09 00 N 126 15 06 W Metres : Within 500M : Location #511 (Richards, 1991).		NORTHING: 6003701 EASTING: 679482
COMMODITIES	Copper Silver		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Pyrite Tetrahedrite C Unknown	Chalcopyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Breccia Disser Hydrothermal Epiger L01 Subvolcanic Cu-Ag-Au (.	minated netic As-Sb)	
HOST ROCK DOMINANT HOSTROCK	: Volcanic		
STRATIGRAPHIC AGE Upper Cretaceous Lower Cretaceous	<u>GROUP</u> Kasalka Skeena	FORMATION Goosly Lake Unnamed/Unknown Forma	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY	: Lapilli Tuff Breccia Argillite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	F	PHYSIOGRAPHIC AREA: Skeena Ranges
CAPSULE GEOLOGY			
	The Dina showing i Houston. The area of the cl Silver Mines Ltd. and w Mines Ltd. In 1970, Si geophysical surveys and staked in 1980 by Silve Resources Ltd. Mutual The property is un sediments of the Upper Group) and the Lower Cr Mineralization cor disseminated in lapilli bedding planes in argil	Is located about 33 kilo laims was originally sta were subsequently option ilver Standard carried o d diamond drilling. The er Standard and then wer Resources drilled 6 hol nderlain by steeply dipp Cretaceous Goosly Lake retaceous Skeena Group. nsists of pyrite, tetrah i tuff and breccia and a llite.	metres southeast of ked in 1969 by Dorita hed to Silver Standard out geochemical and c Dina 1-3 claims were re optioned to Mutual es that year. Ding volcanics and Formation (Kasalka hedrite and chalcopyrite lso concentrated along
BIBLIOGRAPHY	EMPR AR *9075 EMPR MAP 11 EMPR FIELDWORK 1992, pr GSC P 71-1A, 72-1A, 79- GSC BULL 270 Richards, T. (1991) *ir Placer Dome File	p. 475-481 -1A n press	
DATE CODED: DATE REVISED:	1993/06/25 1993/07/02	CODED BY: DEJ REVISED BY: DEJ	FIELD CHECK: Y FIELD CHECK: N

MINFILE NUMBER:	<u>093L 314</u>	NATION	IAL MINERAL INVENTORY:
NAME(S):	SIMON		
STATUS: REGIONS: NTS MAD:	Showing British Columbia		MINING DIVISION: Omineca
BC MAP:	54 20 20 N		
LONGITUDE:	127 34 06 W		EASTING: 593072
LOCATION ACCURACY: COMMENTS:	Within 500M Location #542, (Richards, 1991).		
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Magnetite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Podiform Skarn K01 Cu skarn	K03	Fe skarn
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIC	DGRAPHIC AREA: Skeena Ranges
CAPSULE GEOLOGY	At the Simon showing ch associated with a limestone Jurassic Telkwa Formation (F	nalcopyrite and magneti lens of the Upper Tria Mazelton Group).	te pods are ssic to Lower
BIBLIOGRAPHY	Richards, T. (1991) *in pres	s	

DATE CODED: 1993/06/25	CODED BY: DEJ	FIELD CHECK: Y
DATE REVISED: 1993/07/02	REVISED BY: DEJ	FIELD CHECK: N

MINFILE NUMBER:	<u>093L 315</u>			NA	TIONAL MINE	RAL INVENTORY:	
NAME(S):	GOLD DUST, GOLDDUST,	GOLD DUST I-	I				
STATUS:	Showing				l	VINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093L16E					UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 45 40 N 126 11 06 W Metres Within 500M Location #588 (Richards, 7	1991).				Northing: Easting:	6071844 681115
COMMODITIES:	Copper	Molybdenum	Go	old	Silv	ver	
MINERALS		- <b>)</b>					
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Molybder Quartz Unknown	nite Pyrite					
	Discominated	Main					
CLASSIFICATION: TYPE:	Porphyry 102 Intrusion-related A	Hydrothermal U pyrrhotite vei	ns	I	_04 Porphy	ry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE	<u>GROUP</u> Stubini		FORMATION	nown Format	ion	GNEOUS/METAMO	ORPHIC/OTHER
Triassic-Jurassic	Otalini		ormanica/orma			Fopley Intrusions	
LITHOLOGY:	Granite Porphyry Dike Phyllitic Schist Chloritic Schist Sericite Schist Andesite Greenstone Argillaceous Siltstone Granodiorite Quartz Monzonite						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PF	IYSIOGRAPHIC	CAREA: Nechako	Plateau
INVENTORY							
ORE ZONE:	VEIN		RE	PORT ON: N			
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Highest values from samp Assessment Report 16874	nalysis  les of veins in s 4.	<u>GRADE</u> 2.2000 0.0100 0.4730 schist.	YEAR: 19 Grams per Grams per Per cent	288 tonne tonne		
CAPSULE GEOLOGY							
	The Gold Dust Smithers. Copper and mo prospectors in Tac Canada Petroleum C 500 metres of diam the claims. In 19 geochemical survey (owner) and Nick C rock sampling in 1 The area is u Early Jurassic Top sedimentary rocks sericite schists,	showing is lybdenum m hek Creek o. Ltd. co ond drillin 82, Dancer over part arter condr 987. nderlain by ley Intrus of the Stul massive and	s located a ineralizat arried out ng in 3 ho Energy an of the Go ucted prosp y granitic ions and Uj hini Group desite (gro	about 65 ion was d e 1960's. geochemi les on th d Resourc ld Dust I pecting, rocks of pper Tria . These eenstone)	kilometres iscovered In 1973, stry, geop e northeas es Ltd. co claim. G geological the Late ssic volca comprise c and argil	east of by Amoco hysics and t part of mpleted a erard Auger mapping and Triassic to nic and hlorite and laceous	

siltstones. Granitic rocks comprise granodiorite and quartz monzonite. Porphyry dikes intrude granitic rocks.

Pyrite, chalcopyrite and molybdenite mineralization occurs as disseminations and in west-northwest trending fractures in granitic rocks in Tachek Creek. Mineralization appears more widespread marginal to the younger porphyry dikes. Samples from granitic rocks contained low copper values (0.126-0.124 per cent), molybdenum values up to 0.17 per cent and a single value of 1.2 grams per tonne gold (Assessment report 16874). Schists north of the highway contain numerous quartz veins up to 2 metres in width. The veins generally occupy planes of schistosity. Samples contained up to 2.2 grams per tonne silver, 0.005 to 0.01 grams per tonne gold and up to 0.473 per cent copper (Assessment Report 16874).

#### BIBLIOGRAPHY

EM OF 2001-03 EMPR ASS RPT \*16874 EMPR BULL 64 EMPR GEM 1969 pp. 115-117 EMPR MAP 12 EMPR OF 1996-29 Placer Dome File Richards, T. (1991) \*in press EMPR BULL 110

DATE CODED: 1993/06/25 DATE REVISED: 1993/07/02 CODED BY: DEJ REVISED BY: DEJ

MINFILE NUMBER:	<u>093L 316</u>				l	NATIONAL MINERAL INV	ENTORY:	
NAME(S):	SILVER KING LAK	<u>E</u>						
STATUS:	Showing					MINING I	DIVISION:	Omineca
NTS MAP:	093L15W					ហ	M ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 55 01 N 126 55 03 W 1965 Metres Within 5 KM At the head of Silve Silver King mine (09	er Lake basin 93L 201) (Fie	, 2 kilom Idwork 1	etres northwes 991 p. 96).	t of the	NC E	Orthing: Easting:	6087535 633480
COMMODITIES:	Lead	Coppe	er	Sil	ver	Gold		Zinc
MINERALS								
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Cha Quartz Limonite Pyr Oxidation Unknown	alcopyrite ite Pyrite	Pyrite					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic I05 Polymetallio	Hydro c veins Ag-Pb	othermal o-Zn±Au					
HOST ROCK DOMINANT HOSTROCK:	Volcanic							
STRATIGRAPHIC AGE	<u>GROUP</u> Kasalka		-	FORMATION Unnamed/Unki	nown Form	IGNEOU:	S/METAMO	ORPHIC/OTHER
LITHOLOGY:	Feldspar Porphyritio Mylonite Schist	c Andesite						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine					PHYSIOGRAPHIC AREA:	Skeena I	Ranges
INVENTORY								
ORE ZONE:	SAMPLE			RE	PORT ON:	Ν		
COMMENTS: REFERENCE:	CATEGORY: As SAMPLE TYPE: G COMMODITY Silver Gold Copper Lead Zinc Sample from the ve Fieldwork 1991, pa	ssay/analysis irab ein. Also 0.00 loe 98.	;  13 per ce	GRADE 16.0000 0.0110 0.0564 1.5900 0.0370 ent cadmium.	YEAR: Grams po Grams po Per cent Per cent Per cent	1991 er tonne er tonne		
	, pu							
	The Silv. King Lake bas (093L 201). potential stu The area Kasalka Group lenticular zo rocks strike extensive pyr The show exposed for 2 The vein cons blebs of gale:	er King La in about 2 The showin dies by th is under: . Hostroon nes within east and c itic and 2 ing consis metres a ists of vi na, chalco	ake sh 2 kilo ng was he B.C lain b cks ar n othe dip so limoni sts of long s uggy c opyrit	owing is lo metres nor discovered . Geologic y volcanic e myloniti rwise mass. uth, genera te stained a quartz trike in for rystalline e and pyri	ocated a thwest of al Surve rocks of c to sch ive volo ally par rocks. vein, 3 eldspar quartz te, 1 m:	at the head of Sil of the Silver King 91 during mineral ey Branch. of the Upper Creta histose and form canic rocks. Foli- rallel to the regi- centimetres wide porphyritic andes and contains irre- illimetre to seven	lver g mine aceous iated ionally site. egular ral	

A sample of the vein assayed 0.011 grams per tonne gold, 16 grams per tonne silver, 0.0564 per cent copper, 1.59 per cent lead, 0.037 per cent zinc and 0.0013 per cent cadmium (Fieldwork 1991 p. 98).

EMPR FIELDWORK 1986, pp.201-222; \*1991, pp. 93-101 EMPR OF 1988-20 EMPR MAP 69-1 GSC MAP 278A; 671A; 971A GSC OF 351 GSC BULL 270 GSC P 40-18

DATE CODED: 1993/06/25 DATE REVISED: 1993/06/25 CODED BY: DEJ REVISED BY: DEJ

MINFILE NUMBER:	<u>093L 317</u>			NATIONAL	MINERAL INVENTORY:	
NAME(S):	<u>RHYOLITE</u>					
STATUS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L15W				UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 54 20 N 126 49 15 W 1423 Metres Within 500M Located near the headwat of the Cronin mine (093I 12 Lorraine prospect (093L 12)	ers of Cronin Creek 27) and 1.5 ilometre 29).	, about 2 kilometre s northwest of the	es south	NORTHING: EASTING:	6086456 639714
COMMODITIES:	Gold	Silver	Copper		Zinc	
		A recencie vite	Chalaanuwita	Cross sule rit	_	
	Sphalerite Gold	Arsenopynte	Chalcopyrite	Specularite	Ð	
MINERALIZATION AGE:	Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic J04 Sulphide manto Au	Stockwork Hydrothermal	Massive	105	Disseminated Polymetallic veins Ag-Pb	-Zn±Au
DIMENSION: COMMENTS:	25 Veins are up to 15 cenitme metre area.	Metres etres wide and are e	STRIKE/D exposed over a 25	IP: square	, TREND/PLUN	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
<u>STRATIGRAPHIC AGE</u> Jurassic	<u>GROUP</u> Bowser Lake	<u>FORI</u> Ashn	MATION nan		IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Rhyolite Rhyolite Dike Argillite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine			PHYSIOGI	RAPHIC AREA: Skeena F	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON	N: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY	alysis GR		R: 1991		
	Silver Gold	86	.0000 Grams .2000 Grams	per tonne per tonne		
COMMENTS: REFERENCE:	Highest assays from samp Fieldwork 1991, page 98.	oles of veins.				
CAPSULE GEOLOGY						
	The Rhyolite Creek, about 2 kil kilometres northwe The showing w the B.C. Geologica re-examined during Geological Survey The area is u Jurassic Ashman Fo dikes. The showing c adjacent to rhyoli consist mainly of	showing is loc ometres south st of the Lorr as discovered l Survey Branc mineral poter Branch. nderlain by se rmation (Bowse onsists of sul te dikes that pyrrhotite and	ated near th of the Croni aine prospec in 1987 duri th. In 1991, ttial studies ediments of t er Lake Group phide veins cut black ar pyrite, wit	e headwa n mine () ng region the show in the show in the show in the show in the show he Middle ) intrude and stocl gillite. h lesser	ters of Cronin 0931 127) and 1.5 129). nal mapping by wing was area by the B.C. e to Upper ed by rhyolite kworks within and The sulphides arsenopyrite,	

consist mainly of pyrrhotite and pyrite, with lesser arsenopyrite, chalcopyrite and specularite, minor sphalerite and microscopic native gold. Sulphides form massive banded veins up to 15 centimetres wide that are spatially associated with rhyolite. Disseminations and stockworks of sulphides occur within rhyolite. The mineralization is exposed over an area of approximately 25 square metres. Samples of sulphide veins assayed up to 13.2 grams per tonne

gold and 86 grams per tonne silver with appreciable zinc and copper values (Fieldwork 1991, p. 98). The mineralization at the Lorraine prospect and the Cronin mine is closely associated with rhyolite intrusions. The Rhyolite veins are different mineralogically and texturally and are possibly manto-style veins.

#### BIBLIOGRAPHY

EMPR FIELDWORK 1986, pp. 201-222; \*1991, pp. 93-101 EMPR OF 1988-20 EMPR MAP 69-1 GSC MAP 278A; 671A; 971A GSC OF 351 GSC BULL 270 GSC P 40-18

DATE CODED: 1993/06/25 DATE REVISED: / / CODED BY: DEJ REVISED BY:

MINFILE NUMBER: 093L 318 NATIONAL MINERAL INVENTORY: NAME(S): LITTLE JOE LAKE SOUTH STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093L15W BC MAP: UTM ZONE: 09 (NAD 83) LATITUDE: 54 52 02 N NORTHING: 6082212 LONGITUDE: 126 48 39 W ELEVATION: 1707 Metres EASTING: 640488 LOCATION ACCURACY: Within 500M COMMENTS: Centre of sampled area located on a prominent north-facing cliff, 1.2 kilometres south of the Silver Pick prospect (093L 125). COMMODITIES: Lead Silver Zinc Copper MINERALS SIGNIFICANT: Galena Sphalerite Tetrahedrite Boulangerite Chalcopyrite Specularite **Þ**yrite ASSOCIATED: Quartz ALTERATION: Limonite Ankerite MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Vein CLASSIFICATION: Epigenetic Hydrothermal TYPE: 105 DIMENSION: 250 Polymetallic veins Ag-Pb-Zn±Au STRIKE/DIP: Metres TREND/PLUNGE: COMMENTS: Veins occur along the ridge for more than 250 metres. HOST ROCK DOMINANT HOSTROCK: Metavolcanic STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER Upper Cretaceous Kasalka Undefined Formation LITHOLOGY: Phyllite Porphyritic Andesite Tuff Schist **GEOLOGICAL SETTING TECTONIC BELT:** Intermontane PHYSIOGRAPHIC AREA: Skeena Ranges TERRANE: Stikine

#### CAPSULE GEOLOGY

The Little Joe Lake South showing is located on a prominent north-facing cliff, 1.2 kilometres south of the Silver Pick prospect (093L 125).

The area is underlain by volcanic rocks of the Upper Cretaceous Kasalka Group.

Sulphide bearing quartz-ankerite veins are exposed along the ridge escarpment for more than 250 metres within massive to foliated porphyritic andesite and tuff of the Upper Cretaceous Kasalka Group. The foliated rocks strike northwest and dip steeply to moderately southwest or northeast. Within the area of extensive quartz veining, the host rocks are schists and phyllites speckled with fine-grained ankerite (or limonite after ankerite). In contrast to similar vein deposits nearby, rhyolite and other intrusions are not in evidence.

ankerite (or limonite after ankerite). In contrast to similar vein deposits nearby, rhyolite and other intrusions are not in evidence. The quartz veins are generally 2 to 10 centimetres wide and are exposed along strike for an average of 3 to 5 metres along the face of the escarpment. The thickest and most sulphide-rich vein is 25 centimetres wide and is exposed intermittently for 20 metres. Vein quartz is massive and milky white to slightly banded or blotchy with respect to the distribution of sulphides and ankerite (or pockets of limonite after ankerite). Cockscomb quartz and vuggy textures are present but not common. Ankerite (and limonite) veinlets and slices of ankeritized wallrock subparallel to the vein walls give an impression of poorly development ribbon texture.

Metallic minerals within the veins include: galena, sphalerite, tetrahedrite, boulangerite, chalcopyrite, specularite and pyrite, and occur as irregular concentrations several millimetres to 2 centimetres in size. The vein assemblages are similar to those at the Cronin mine (093L 127), but the abundance of metallic minerals within the veins is much less than at Cronin.

Aside from a generally pervasive ankeritic component to the host phyllite, alteration adjacent o the veins is negligible; small

PAGE: 539 REPORT: RGEN0100

## CAPSULE GEOLOGY

amounts of chlorite (+/- sericite) are present along or close to the vein margins, but seem to be part of the vein rather than a product of wallrock alteration.

The quartz veins have variable morphology, and their relationships with the host phyllites indicate that there are several generations of veins, each related to intervals of progressive structural deformation. Veins that comprise the west part of the Little Joe Lake South showing are almost all concordant with host phyllite and are variably deformed. The thickest and most sulphide-rich vein is also approximately concordant within the phyllite, but is internally drag folded and probably thickened. Fold structures within the vein, defined by the alignment of acicular boulangerite, probably formed during shearing and dilation along foliation.

Other veins that closely follow the foliation of the host rocks are planar to slightly warped. They contain irregular clots of sphalerite and galena, and have irregular margins, but are generally not internally deformed. These veins were probably emplaced during the latest stages of shearing and dilation along the foliation. Veins that comprise the east part of the prospect are largely

discordant to foliation. Many are flat to gently north-dipping and occur in regularly spaced vein sets within the phyllites. The veins, which are generally undeformed and have sharp contacts, occupy planar dilations perpendicular to the foliation of the host rocks. Blebs of galena and sphalerite, one to two centimetres in diametre, are common within veins. Many of which are less than 5 centimetres wide. Veins in similar structural settings are slightly warped or folded and the host phyllites deformed. Drag-folding in the phyllites suggests down-dip, or normal movement along fractures (now occupied by quartz veins); movement was probably synchronous with vein emplacement.

veins); movement was probably synchronous with vein emplacement. Quartz veins also occupy crescent-shaped fractures where slip along foliation has induced shear folding and accompanying dilation perpendicular to the foliation direction. Veins that occupy these dilation zones are irregular in width and continuity, but are commonly widest in the fold crests. Quartz concentrations of this type, which reach widths of up to 50 centimetres, are riddled with irregular blebs and veinlets of sphalerite, galena and chalcopyrite. The largest vein contains up to 104 grams per tonne silver and 8.25 per cent lead, whereas other veins contain up to 26 grams per tonne silver (Fieldwork 1991, page 99).

#### BIBLIOGRAPHY

EMPR FIELDWORK 1986, pp. 201-222; \*1991, pp. 93-101 EMPR OF 1988-20 EMPR MAP 69-1 GSC MAP 278A; 671A; 971A GSC OF 351 GSC BULL 270 GSC P 40-18

DATE CODED: 1993/06/25 DATE REVISED: / / CODED BY: DEJ REVISED BY:

MINFILE NUMBER: 093 NAME(S): URI STATUS: Sho REGIONS: Briti NTS MAP: 093 BC MAP: LATITUDE: 54 LONGITUDE: 127 ELEVATION: 176 LOCATION ACCURACY: With COMMENTS: Sar 50 I	<u>3L 319</u> <u>RN 4</u> nowing itish Columbia 3L05E 4 23 57 N 7 33 20 W 68 Metres itinin 500M	NATIONAL MINERAL	INVENTORY: NG DIVISION: Omineca	
NAME(S): UR STATUS: Sho REGIONS: Briti NTS MAP: 093 BC MAP: LATITUDE: 54 LONGITUDE: 54 LONGITUDE: 127 ELEVATION: 176 LOCATION ACCURACY: With COMMENTS: Sar 50 I	RN 4 nowing itish Columbia 3L05E 4 23 57 N 7 33 20 W 68 Metres ithin 500M	MINI	NG DIVISION: Omineca	
STATUS: Sho REGIONS: Briti NTS MAP: 093 BC MAP: LATITUDE: 54 LONGITUDE: 127 ELEVATION: 176 LOCATION ACCURACY: Witi COMMENTS: Sar 50 I	nowing itish Columbia 3L05E 4 23 57 N 7 33 20 W 68 Metres ithin 500M	MINI	NG DIVISION: Omineca	
BC MAP: BC MAP: LATITUDE: 54 LONGITUDE: 127 ELEVATION: 176 LOCATION ACCURACY: With COMMENTS: Sar 50 I	4 23 57 N 7 33 20 W 68 Metres thin 500M			
(As	ample location area located 4 kilome kilometres south-southwest of the ssessment Report 19487).	tres east of Burnie Lake, about community of Smithers	NORTHING: 6028896 EASTING: 593771	
COMMODITIES: Cor	opper Silver			
MINERALS SIGNIFICANT: Mal ALTERATION: Mal ALTERATION TYPE: Oxi MINERALIZATION AGE:	alachite Azurite Chalco alachite Azurite kidation	ppyrite Pyrite		
DEPOSIT CHARACTER: Sto CLASSIFICATION: Hyc TYPE: L01	ockwork ⁄drothermal Epigenetic 1 Subvolcanic Cu-Ag-Au (As-S	b)		
HOST ROCK DOMINANT HOSTROCK: Vol-	olcanic			
STRATIGRAPHIC AGE GR		FORMATION IGNE	OUS/METAMORPHIC/OTHER	
LITHOLOGY: Silic Vol	iceous Volcanic Rock olcanic			
GEOLOGICAL SETTING TECTONIC BELT: Inte TERRANE: Stik	ermontane kine	PHYSIOGRAPHIC AR	EA: Hazelton Ranges	
INVENTORY				
ORE ZONE: SAM	MPLE	REPORT ON: N		
CA SAM <u>CO</u>	ATEGORY: Assay/analysis MPLE TYPE: Chip DMMODITY	YEAR: 1989 GRADE		
Silv Cop COMMENTS: We out REFERENCE: Ass	ver ppper eighted average of 10 bedrock chip tcrop approximately 32 metres long ssessment Report 19487, page 4.	26.7000 Grams per tonne 0.3500 Per cent samples from a semi-continuous		
CAPSULE GEOLOGY For azi of 32 si	The Urn 4 showing is cained siliceous volcanic ormation (Hazelton Group) curite with occasional ch 10 samples collected fr 2 metres long was 0.35 pe lver (Assessment Report	hosted by a pink coloured, very fi rock of the Lower Jurassic Telkwa . Fracture surfaces contain malac alcopyrite and pyrite. A weighted om a semi-continuous outcrop appro r cent copper and 26.7 grams per t 19487, page 4).	ne hite and average ximately onne	
BIBLIOGRAPHY GSC GSC EMI EMI EMI Pl;	SC OF 351 SC BULL 270 IPR MAP 69-1 IPR OF 1994-14 IPR ASS RPT *19487 .acer Dome File			
DATE CODED: 198 DATE REVISED: 199	85/07/24 95/02/22	CODED BY: GSB REVISED BY: GO	FIELD CHECK: N FIELD CHECK: N	
MINFILE NUMBER:	<u>093L 320</u>		NAT	IONAL MINERAL INVENTORY:
---	---	---	--	---
NAME(S):	ANT 1, LEFTY 1, LEFTY			
STATUS:	Prospect			MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093L06W			UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 23 25 N 127 28 30 W 1432 Metres Within 500M Drillhole collar location ab kilometres south-southwe Report 21925).	bout 2 kilometres w est of the commun	est of Starr Creek, 48 ity of Smithers (Assessme	NORTHING: 6028017 EASTING: 599022
COMMODITIES:	Copper	Silver	Zinc	Gold
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Chalcop Quartz Quartz Sericite Sericitic	yrite Sphalerite Malachite Silicific'n	e Bornite Azurite Oxidation	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L01 Subvolcanic Cu-/	Breccia Epigenetic Ag-Au (As-Sb)	Disseminated	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	<u>FC</u>	RMATION	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Andesite Andesitic Ash Tuff Andesitic Lithic Crystal Tr Rhyolite K-Feldspar Quartz Porph Ash Lapilli Rhyolite Plagioclase Feldspar Porp	uff yritic Rhyolite ohyry Sill		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		РНҮ	SIOGRAPHIC AREA: Hazelton Ranges
INVENTORY				
ORE ZONE:	DRILLHOLE		REPORT ON: N	
COMMENTS:	CATEGORY: Assay/a SAMPLE TYPE: Drill Con <u>COMMODITY</u> Silver Gold Copper Zinc An average of a drill inter zone (shear?) between 2	rsection of a strong	YEAR: 199 A4.0000 Grams per to 0.3200 Grams per to 0.6500 Per cent 1.0500 Per cent Jub precciated es.	00 onne onne
REFERENCE:	Assessment Report 2192	25, page 12.		
CAPSULE GEOLOGY	The Lefty pro	operty is dom	inantly underlain	by a northeasterly
	striking sequence Lower Jurassic Te Formation has been lithic-crystal tu quartz porphyriti are generally weak	of andesitic lkwa Formatio n locally sub ff, and rhyol c rhyolite wi kly fractured	to rhyolitic volc n (Hazelton Group) divided into andes ite flow units com th minor ash-lapil and propylitized.	anic rocks of the . The Telkwa itic ash tuff and prising k-spar and li tuff. The rocks Quartz veinlets and

patches occur locally. The volcanic strata are intruded by a fine to medium grained, grey-pink plagioclase-feldspar porphyry sill approximately 1400 metres long by 400 metres wide. In the eastern half of the Ant 1 claim, a northeasterly trending

In the eastern half of the Ant 1 claim, a northeasterly trending zone of weak to strong quartz-sericite alteration crosscuts andesitic ash tuff and rhyolite flow units. The zone is exposed in scattered

outcrops over an area approximately 1000 by 200 metres. Outcrops are strongly fractured to locally weakly brecciated and contain numerous gouge zones. Malachite, azurite, tetrahedrite, chalcopyrite, sphalerite and bornite occur as fracture fillings, in quartz veins, disseminations and in quartz breccia over an undetermined width within the alteration zone. A 1990 drill intersection of a strongly brecciated zone (shear?) with quartz-chalcopyrite-tetrahedrite-sphalerite, between 20.1 and 23.6 metres, averaged 0.65 per cent copper, 44 grams per tonne silver, 0.32 gram per tonne gold and 1.05 per cent zinc (Assessment Report 21925, page 12).

#### BIBLIOGRAPHY

GSC OF 351 GSC BULL 270 EMPR MAP 69-1 EMPR OF 1990-5; 1994-14 EMPR ASS RPT 17868, 20741, \*21925 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1995/02/22 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093L 321</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	JEWELRY BOX, EMERSON			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093L06E		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 22 44 N 127 03 27 W 1615 Metres Within 500M Showing located east of a small south of Emerson Creek, 50 kilo Smithers (Assessment Report 2	unnamed lake about 5 kilometres metres south of the community of 22638).	NORTHING: EASTING:	6027417 626163
COMMODITIES:	Copper Gold			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Quartz Carbonate Quartz Carbonate Carbonate Propy	Epidote /litic Silicific'n		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Stock Porphyry L02 Porphyry-related Au	kwork		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Telkwa	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Andesite Andesite Breccia Andesite Flow Felsite Dike			
	Intermontana			Ranges
METAMORPHIC TYPE:	Stikine Contact Regional	Plutonic Rocks RELATIONSHIP: Syn-mine	aralization GRADE: Greensc Hornfels	hist
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY	s YEAR: GRADE	1992	
REFERENCE:	Gold Copper Assessment Report 22638, pag	2.3000 Grams p 1.9000 Per cent e 5.	ber tonne t	
CAPSULE GEOLOGY				
	The occurrence ar andesitic to rhyolitic Telkwa Formation (Haze a large granitic to po volcanics are silicifi trending fault structu At the Jewelry Bo epidote-quartz alterat contolled pyrite. Lig	ea is underlain by mode flows and pyroclastics lton Group). These roc orphyritic body; the adj ed and pyritic. Three tres cut across the prop s showing, massive ande ion with local dissemin the coloured northeast t	rately southwest dipping of the Lower Jurassic ks have been intruded by acent and overlying major north-northeast erty. sitic flows exhibit ated and fracture rending, steeply	

contolled pyrite. Light coloured northeast trending, steeply
northwest dipping felsite dikes cut the andesite. The dikes are up
to 3 metres wide and generally contain minor disseminated pyrite and
may locally exhibit silicification and iron carbonate alteration.
 Zones of quartz-iron carbonate alteration are generally along or
within major fault zones or associated splays. A sample from a
quartz-iron carbonate altered indesite breccia mineralized with
purite and locally cableonwrite analyzed 1.9 por cent carbonate 2.2

pyrite and locally chalcopyrite analysed 1.9 per cent copper and 2.3 grams per tonne gold (Assessment Report 22638, page 5).

### BIBLIOGRAPHY

EMPR ASS RPT 18002, 19293, 20391, 21888, \*22638 EMPR MAP 69-1 EMPR OF 1990-5; 1994-14 GCS OF 351 GSC BULL 270 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1995/02/23 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093L 322</u>	NATION	AL MINERAL INVENTORY:		
NAME(S):	RIDGE, EMERSON				
STATUS:	Showing British Columbia		MINING DIVISION: Omineca		
NTS MAP:	093L06E		UTM ZONE: 09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 23 21 N 127 02 56 W 1798 Metres Within 500M Showing located south of a small u south of Emerson Creek, 50 kilome Smithers (Assessment Report 226	innamed lake about 5 kilometres etres south of the community of i38).	NORTHING: 6028576 EASTING: 626691		
COMMODITIES:	Gold Silver				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Quartz Quartz Silicific'n				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Porphyry L02 Porphyry-related Au				
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER		
LITHOLOGY:	Andesite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact Regional	PHYSIO Plutonic Rocks RELATIONSHIP: Syn-mineralization	GRAPHIC AREA: Hazelton Ranges GRADE: Greenschist Hornfels		
ORE ZONE:	SAMPLE	REPORTION: N			
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold	GRADE 25.5000 Grams per tonne 7.6000 Grams per tonne			
REFERENCE:	Assessment Report 22638, page 5	5.			
CAPSULE GEOLOGY	The occurrence area is underlain by moderately southwest dipping andesitic to rhyolitic flows and pyroclastics of the Lower Jurassic Telkwa Formation (Hazelton Group). These rocks have been intruded by a large granitic to porphyritic body; the adjacent and overlying volcanics are silicified and pyritic. Three major north-northeast trending fault structures cut across the property. The Ridge showing is exposed on the side of a fault depression and is characterized by quartz-pyrite vein mineralization and silicification of andesitic wallrock. The exposed portion of the vein is approximately 1 metre wide. Grab samples from the vein analysed up to 7.6 grams per tonne gold and 25.5 grams per tonne silver (Assessment Report 20391, page 4).				
BIBLIOGRAPHY	EMPR ASS RPT 18002, 1929 EMPR MAP 69-1 EMPR OF 1990-5; 1994-14 GCS OF 351 GSC BULL 270	93, *20391, 21888, 22638			

# BIBLIOGRAPHY

Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1995/02/23 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	093L 323 NATIONAL MINERAL INVENTORY:					Y:	
NAME(S):	<u>Limonite</u> , Be Many Bear,	EAR, LIMONITE ( RIDGE	CREEK,				
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columb 093L12W	ia				MINING DIVISION UTM ZONE	I: Omineca E: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 33 21 N 127 48 27 V 1265 Metres Within 500M Drillhole collar creeks in Telk of Smithers (A	N N located on the wa Pass, about ssessment Re	divide between t 48 kilometres s port 23016).	Many Bear ar southwest of t	nd Limonite he community	NORTHING	9: 6046021 9: 577121
COMMODITIES:	Copper						
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION:	Pyrite Sericite Specularite Sericite	Limonite Quartz Corundum Quartz	Chalcopyrite Andalusite Rutile Andalusite	Pyrite Pyrite	Lazulite Lazulite		
ALTERATION TYPE: MINERALIZATION AGE:	Argillic	Alu	unitic	Leac	hing	Oxidation	Chloritic
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal L01 Subvo	Ep Dicanic Cu-Ag-A	igenetic Au (As-Sb)				
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	<u>GROUP</u> Hazelton		<u>FO</u> F Tell	RMATION kwa		IGNEOUS/META	MORPHIC/OTHER
LITHOLOGY:	Altered Rock Andesite Rhyolite Dacite Biotite Granod Andesite Diori	iorite te Dike					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		Plutonic F	Rocks	PHYSIO	GRAPHIC AREA: Hazelto	on Ranges
CAPSULE GEOLOGY	The E lesser amo Formation locally by stock. Hy ubiquitous zones of a The z alteration creeks, in by large	Bear occurr ounts of rh (Hazelton andesite drothermal s chloritiz dvanced ar cones of ad crop out Telkwa Pa exotic limo	ence area i yolite and Group). Th and diorite alteration ation of th gillic alte vanced argi near the di ss. The al nite deposi	s underla dacite of e volcani dikes an is wides e volcani ration an llic alte vide betw teration ts believ	in by green the Lower c assemblag d by a biot pread and i c rocks, tw d aluminous ration and een Limonit zones are f ed to have	andesite with Jurassic Telkwa e is intruded ite granodiorite n addition to o large parallel alteration occur aluminous e and Many Bear lanked downslope their origins fro	m

by large exotic limonite deposits believed to have their origins from oxidizing, blind sulphide deposits. The pyritic aluminous alteration zone (Many Bear zone) occurs on the slopes above Many Bear Creek and is exposed in the walls of small drainages in two localities. The zone was intersected in drilling in 1992. It strikes about 050 degrees and is in excess of 1000 metres in length and 150 metres in width. The hostrock is completely replaced by sericite, quartz, andalusite, pyrite (5-40 per cent) and lazulite with lesser specularite, corundum, rutile and trace chalcopyrite.

Zones of advanced argillic alteration occur along the south slope of the ridge which forms the divide between Limonite Creek and Many Bear Creek. The zones strike easterly to northeasterly and are only intermittently exposed. The exposures occur over a length of more than 500 metres. The rocks are strongly foliated and composed mostly of sericite with some clay and contain quartz veining. Pyrite content is low.

In 1994, Limonite Creek Limited Partnership re-mapped the prospect area, conducted an induced polarization survey and drilled 9 diamond drill holes for a total of 1163 metres. In 1996, Telkwa Gold Corp. drilled 3 diamond drill holes, for a total of 863 metres, on the Ridge zone.

# BIBLIOGRAPHY

EMPR ASS RPT 20370, 21739, \*23016 EMPR MAP 69-1 EMPR OF 1994-14 EMPR PF (\*Thompson, W.D. (1997): Exploration of the High Sulfidation Epithermal Prospects, Limonite Creek Area; Telkwa Gold Corp.) GSC BULL 270 GSC MAP 971A GSC OF 351 Placer Dome File WWW http://www.infomine.com/index/properties/BEAR.html

DATE CODED: 1985/07/24 DATE REVISED: 1995/02/24 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093L 324</u>			NATIONA	L MINERAL INVENTO	RY:
NAME(S):	<u>ZYMO</u> , RED, RED 1-2					
STATUS: REGIONS:	Showing British Columbia				MINING DIVISIO	DN: Omineca
NTS MAP: BC MAP:	093L13W				UTM ZON	NE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 50 07 N 127 56 37 W 823 Metres Within 500M Sample location on the no River, about 48 kilometres (Assessment Report 2172	rth bank of Mulwa west of the comr 23).	in Creek to 2 munity of Sm	Zymoetz lithers	NORTHI EASTIN	NG: 6076973 NG: 567851
COMMODITIES:	Lead	Zinc	Si	ver	Gold	Copper
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Galena Exact mineralogy not repo Quartz Calcite	Pyrite orted. Anhydrite	Sphaler	ite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Porphyry L03 Alkalic porphyry C	Stockwork Hydrothermal Cu-Au	Di Ep	sseminated igenetic 105	Polymetallic veins Ag	J-Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FC FC Ki	<u>ORMATION</u> tsuns Creek		IGNEOUS/MET	AMORPHIC/OTHER
LITHOLOGY:	Meta Sediment/Sedimenta Granodiorite	ry				
HOSTROCK COMMENTS:	Intrusive stock is Bulkley	Diorite or Nemika	intrusion.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	Plutonic REL	c Rocks ATIONSHIP:	PHYSIOC	GRAPHIC AREA: Haze GRADE:	lton Ranges
INVENTORY						
ORE ZONE:	VEINLETS		RE	PORT ON: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Gold Copper	nalysis (	<u>GRADE</u> 270.0000 2.7000 0.2600	YEAR: 1991 Grams per tonne Grams per tonne Per cent		
COMMENTS: REFERENCE:	Lead Zinc Highest values. Assessment Report 21723	3, page 6.	13.3000 5.3000	Per cent Per cent		
CAPSULE GEOLOGY						

The Zymo, formerly the Red property is located on the contact between Lower Cretaceous Kitsuns Creek Formation metasedimentary rocks of the Skeena Group and a Cretaceous granodiorite stock. Grab samples, taken in 1991, of narrow (1-5 centimetres) quartz-calcite veinlets mineralized with massive galena and minor pyrite yielded up to 2.7 grams per tonne gold, 270 grams per tonne silver, 0.26 per cent copper, 13.3 per cent lead and 5.3 per cent zinc (Assessment Report 21723, page 6). Skeena Resources Ltd. held the property at that time.

A quartz rich stock intrudes the Kitsuns Creek sedimentary rocks. It is tentatively identified as a Bulkley diorite,or more recently,as a Nanika Intrusion. In drill sections it is seen to altered to sericite albite clay and sericite chlorite alteration. Two types of breccia are seen in core,; a heterolithic 'collapse' breccia, 75 m. thick, which overlies the diorite, and some breccia pipes 20 metres or so occur within massive diorite. Veining of quartz, and quartz carbonate are throughout; and less common, milky white to purple anhydrite veins occur with shallow dips.

Mineralization in the quartz diorite is mainly pyrite, disseminated, in fractures and veins, and in some zones with an excess of 10 per cent pyrite up to 75 metres across. Local extensive gossans are developed at surface. Chalcopyrite +/- bornite+/- galena+/sphalerite are found in quartz, quartz carbonate and anhydrite veins (EMPR Exploration 1999, pp. 59-63). Between 1996 and 1999, L. Hewitt and R. Day conducted geochemical sampling and geological mapping. Freeport McMoran Gold Co. drilled 6 holes totalling 1600 metres in 1999.

#### BIBLIOGRAPHY

EM EXPL 1999-1-11, 19-31, 59-63 EM INF CIRC 2000-1, pp. 16, 17 EMPR ASS RPT \*21723, 24924, 25421, 25820 EMPR OF 1994-14 GSC BULL 270 GSC OF 351

DATE CODED: 1988/08/24 DATE REVISED: 1995/02/28 CODED BY: LLD REVISED BY: GO

MINFILE NUMBER:	<u>093L 325</u>	Ν	NATIONAL MINERAL INVENTORY:	
NAME(S):	BABS			
STATUS:	Prospect British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093L16E 093K13W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 51 13 N 126 00 08 W 945 Metres Within 500M Drillhole NB94-10, located o Wilkinson and Wright bays, a of Smithers (Assessment Re	on the northeast of Babine Lake betwee about 76 kilometres east of the commur eport 23536).	NORTHING: EASTING: nity	6082619 692431
COMMODITIES:	Copper G	Gold		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Sericite Clay Sericitic O	Malachite Dxidation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L04 Porphyry Cu ± Mo ±	<u>-</u> Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Eocene Lower Jurassic Eocene	GROUP Unnamed/Unknown Group	FORMATION Unnamed/Unknown Forma	ation Topley Intrusions Babine Intrusions	ORPHIC/OTHER
LITHOLOGY:	Quartz Phyric Tuff Felsic Pyroclastic Biotite Feldspar Porphyry Dil Biotite Feldspar Porphyry Monzonite Fine Grained Intrusive Rock	ike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	F	PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	DRILLHOLE	REPORT ON:	Ν	
COMMENTS	CATEGORY: Assay/ana SAMPLE TYPE: Drill Core COMMODITY Copper Over 77 3 metres	Alysis YEAR: GRADE 0.1900 Per cent	1994	
REFERENCE:	Property File - Property desc	cription by D. MacIntyre, 1995.		
CAPSULE GEOLOGY	The Babs prope	rty is located on the north	neast side of Babine	
	Lake, between Wilkin the community of Sm: 93L16 and 93K13. Th staked to cover a so subangular biotite for typical of the Eocen the Bell (093M 001) ranging from 10 to 1 within an area of 19 was done by Equity H 1994.	nson and Wright bays, about ithers. It straddles the b he property, which has very outheast-trending train of feldspar porphyry boulders. ne Babine intrusions which and Granisle (093L 146) mi 150 centimetres in diameter 50 metres by 300 metres. L Exploration in 1992 and by	2 76 kilometres east of border between NTS maps / little outcrop, was well mineralized, . The boulders are are the hostrocks at nes. Over 80 boulders r have been located Jimited diamond drilling Noranda in 1993 and	

A large angular block of biotite feldspar porphyry with a chalcopyrite-pyrite stockwork was located by prospector and property owner Ralph Keefe in a new clearcut at the southeast limit of the boulder train. A sample from this block assayed 10,491 parts per million copper and 411 parts per billion gold (Property File -

PAGE: 552 REPORT: RGEN0100

### CAPSULE GEOLOGY

Property description by MacIntyre, 1995). Many of the boulders are strongly magnetic, have intense stockwork veining or crackle breccia textures and appear to contain secondary biotite. The boulders are very similar to ore grade material from the Granisle mine which is 14 kilometres to the northwest and up ice from the Babs boulder train. This prompted earlier workers to believe the boulders were transported by ice from Granisle. However, subsequent drilling has shown that low grade copper mineralization occurs in sericite-clay altered quartz phyric tuffs that underlie the boulder train and this suggests the boulders may be locally derived. Although the source of the boulders has not yet been located, a small northeast-trending dikelet of dark grey biotite feldspar porphyry was found cutting pink, pyritic, Early Jurassic Topley intrusions monzonite in a small drainage ditch near the junction of the Nose Bay and Pats haulage roads.

The Babs boulder train occurs within a northwest-trending belt of altered quartz phyric pyroclastic rocks that is completely surrounded by pink, fine to medium grained Topley intrusive rock. Although the contact with the Topley intrusions is not exposed, it is most likely a fault. The felsic pyroclastics are probably Eocene in age and part of the Babine igneous suite based on lithologic similarity to quartz phyric rocks on the Newman Peninsula. The only outcrop near the Babs boulder train is in a stripped

The only outcrop near the Babs boulder train is in a stripped area that parallels the main access road. Here, over 100 metres of pervasive, sericite-clay altered quartz phyric tuffs containing minor disseminated pyrite, chalcopyrite and malachite are exposed. Similar rocks occur as large angular blocks or subcrop within the area of the boulder train. Similar rocks were also intersected in drilling done by Equity in 1992 and Noranda in 1994. The best intersection was Noranda hole NB94-10 which was drilled just north of the stripped area and intersected 0.19 per cent copper over 77.3 metres (MacIntyre, 1995).

#### BIBLIOGRAPHY

EMPR ASS RPT 22788, 23261, 23536 EMPR FIELDWORK \*1995, pp. 11-35; 1998, pp. 33-68 EMPR OF 1996-29; 1999-11 EMPR PF (\*Property description by D. MacIntyre, 1995) GSC BULL 270 GSC MAP 631A; 671A; 907A; 1424A GSC MEM 252 GSC OF 351; 2593 GSC P 90-1F, pp. 115-120; 91-1A, pp. 7-13 Placer Dome File EMPR BULL 110

DATE CODED: 1995/11/08 DATE REVISED: 1995/11/08 CODED BY: DM REVISED BY: GO

MINFILE NUMBER:	<u>093L 326</u>		1	NATIONAL MINERAL INVENTORY:	
NAME(S):	COPPER STAR, CHISHOL	M LAKE, STAR,			
STATUS: REGIONS: NTS MAP: BC MAP:	Prospect British Columbia 093L03W			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 13 45 N 127 16 04 W 860 Metres Within 500M Located 45 kilometres sou of Smithers. Location is fo holes on Star claim.	thwest of Houston and r centre of Imperial Met	60 kilometres so als 1998 drill	NOR I HING: EASTING:	6010404 612916
COMMODITIES:	Copper	Molybdenum			
MINERALS					
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Clay Argillic	Chalcocite	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Disseminated Porphyry L04 Porphyry Cu ± Mo Regular	Vein ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMA	TION	IGNEOUS/METAMO	DRPHIC/OTHER
Lower Jurassic Lower Cretaceous	Hazelton Skeena	Telkwa Unname	d/Unknown Form	ation	
LITHOLOGY:	Granodiorite Quartz Monzonite Volcanic Rock				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Regional	RELATION	I SHIP:	PHYSIOGRAPHIC AREA: Nechako GRADE: Zeolite	Plateau
INVENTORY					
ORE ZONE:	DRILLHOLE		REPORT ON:	N	
	CATEGORY: Assay/ar SAMPLE TYPE: Drill Core COMMODITY	nalysis <u>GRADI</u>	YEAR:	1998	
COMMENTS: REFERENCE:	Copper Best intercept - from a 1.8 Assessment Report 25922	0.490 metre interval. 2.	00 Per cent		
CAPSULE GEOLOGY					
	The Copper St outcrop, and there unknown. Governme by lower Cretaceou faulted contact wi	ar property occu fore, details of nt mapping indic s Skeena Group v th volcanics of	rs in an are the geology ates that th olcanic and the Lower Ju	a with very little r are still largely he property is underlain sedimentary rocks, in rrassic Telkwa Formation	

(Hazelton Group). To the north, plugs of the Early Jurassic Topley suite are noted. In 1998, Imperial Metals optioned the Star claims near Chisholm Lake 45 kilometres southwest of Houston from prospectors Ed and Gerry Westgarde and then staked a block of 200 units as the CL claims. Disseminated and stockwork chalcopyrite, with very little pyrite, case in relatively freeh angular granediorite boulders on a new

occurs in relatively fresh, angular granodiorite boulders on a new logging road. Texturally and mineralogically the boulders appear similar to rocks of the Late Cretaceous Bulkley intrusive suite. Work on the property in 1998 identified a previously unmapped

quartz monzonite stock of unknown dimension and similar in nature to the mineralized boulders. The eastern edge of the stock is observed in a recent road cut, but it can not be followed to the north, south or east due to overburden cover. Subsequent shallow drilling has

PAGE: 554 REPORT: RGEN0100

# CAPSULE GEOLOGY

identified at least a one-kilometer dimension to the intrusive stock. Alteration observed in the volcanics east of the intrusive includes moderately strong hornfelsing, with patches of sericite-clay alteration. Float boulders of this rock-type are commonly found with up to 5 per cent disseminated pyrite content. Intrusive rocks, both mineralized and unmineralized, appear relatively fresh with only minor degradation of feldspar minerals to clay. Copper and copper/molybdenum mineralization is observed as both disseminated and fracture related sulfides, hosted in quartz monzonite. Molybdenite is only observed to date, as fracture related mineralization. Imperial Metals drilled a 2-kilometre fence of percussion holes

Imperial Metals drilled a 2-kilometre fence of percussion holes in an area of subdued relief with mineralized boulders and sparse outcrop. Highest grade copper intersections were obtained 900 metres west of the original discovery, suggesting the mineralized boulders may have been glacially transported from a nearby source (P. McAndless, pers. comm.).

McAndless, pers. comm.). The 1998 drilling results were considered encouraging at the time. Sulphide mineralization, albeit sparse (best intercept returned 0.49% copper over 1.8 Metres), was encountered in at least three holes (Assessment Report 25922). Given the grade (in excess of 0.5% copper) and extent of mineralized boulders, the question remained as to the whereabouts and extent of the source of that mineralization. Imperial elected to drop their option in 1999.

Ed and Gerry Westgard later found another bedrock copper occurrence 1.5 kilometres from the area targeted by Imperial Metals that prompted Hunter Dickinson Group to acquire the claims and expand the search area (D. Johnson, pers. comm.).

Misty Mountain Gold (a Hunter Dickenson group company) advanced the prospect during 2000 by the establishment of 67 line kilometres of survey grid and subsequent induced polarization geophysics together with the collection of 817 soil samples. Five large induced polarization anomalies (one kilometre or more in length) have been defined which demonstrate chargeability values that are typical of porphyry mineralized systems and indicate widespread sulphide mineralization outward from extremely limited bedrock exposures, all of which are copper bearing. Results of soil sampling also indicate a broad distribution of copper mineralization. The limited outcrops of bedrock that occur on the property all contain copper mineralization with a wide range of values. Chalcopyrite is the dominant copper sulphide with minor bornite and chalcocite noted.

In August 2001, it was announced that Doublestar Resources and Gold-Ore Resources were entering into an earn-in agreement with Misty Mountain Gold on the Copper Star porphyry copper discovery. Under the agreement, Doublestar and Gold-Ore would conduct 3000 metres of diamond drilling to earn 25 per cent each in the prospect. Misty is acquiring an underlying option to purchase 100 per cent of the property from the initial discoverers, Edward Westgarde, Gerald Westgarde and Douglas Stumpf as part of its reorganization involving Taseko Mines.

# BIBLIOGRAPHY

EM EXPL \*1998, p.26; \*2000-6; 2001-1-9
EMPR ASS RPT \*25922
EMPR OF 1991-1; 1994-14
PR REL Misty Mountain Gold, \*August 22, 2001
WWW http://www.hdgold.com/mglfl.htm; http://www.infomine.com/

DATE CODED: 2001/08/31 DATE REVISED: 2001/08/31 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>093L 327</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>SILVER STREAK</u> , SILVER SLEEPER, E MAKO, AIVEN	RIC,		
STATUS:	Prospect		MINING DIVISION:	Omineca
REGIONS. NTS MAP: BC MAP	093L02E		UTM ZONE:	09 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	54 11 40 N 126 45 29 W 840 Metres Within 500M		NORTHING: EASTING:	6007483 646258
COMMODITIES:	Silver Copper	Lead	Zinc	
	<b>T</b> ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (			
SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Tetrahedrite Galena Sphal Pyrite Calcite Quartz	erite Chalcopyrite	Pyrite	
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Disseminate Hydrothermal Volcanogen	d ic		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Cretaceous	<u>GROUP</u> Kasalka	FORMATION Unnamed/Unknown For	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Ash Tuff Lapilli Tuff Argillite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	TRENCH	REPORT ON	: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Copper Lead Zinc	YEAR <u>GRADE</u> 191.0000 Grams 0.2600 Per cen 0.3000 Per cen 0.1500 Per cen	: 2002 per tonne it it	
COMMENTS: REFERENCE:	16.7 metre chip sample from a trench. Press Release, Tenajon Resource Cor	o., November 25, 2003.		
CAPSULE GEOLOGY	The Silver Streak pros south-southwest of Houston kilometres southward from H travelling eastward 5 kilor The prospect is on the nort In 1989, sampling acro and 338 grams per tonne sil concentrated along a northw values over a 150-metre str section assaying 258 grams followed by a 12.36-metre s silver with 0.27 per cent of polarization survey over 20 (ASS RPT 20651). Tenajon H and took a continuous 16.7 of 191 grams per tonne silve lead and 0.15 per cent zind 25, 2002). Cretaceous Kasalka Gro Cretaceous Skeena Group, Ki sedimentary rocks underlie	spect is located 2 and can be accessed louston on the Morris theres on the Carris the side of the road assa trench average ver over 33 metres ver trend, encount rike length. Result per tonne silver, section averaging 3 copper. Equity Silv 4 kilometres of a cesources Corp. exc metre chip sample ver, 0.26 per cent c (PR REL Tenajon F oup calc-alkaline v tsuns Creek Format the claims. Disset	4 kilometres ed by traveling 30 ice Lake road and then ier Forest Service Road. d. ged 1.99 per cent copper s. Subsequent drilling, tered anomalous silver ts included an 8.78-metre 0.49 per cent copper, 38.3 grams per tonne ver contracted an induced cut line in August 1990 cavated a trench in 2002, which returned an assay copper, 0.30 per cent Resources Corp., November hyolitic volcanic rocks, volcanic rocks and Lower tion coarse clastic minated pyrite, possible	

tetrahedrite, galena, sphalerite and trace chalcopyrite occur in a porous lapilli tuff unit that is approximately 9 metres thick and is overlain by argillite. The tuff contains extensive carbonate alteration and lesser silicification and is cut by northwest trending quartz-carbonate veins.

# BIBLIOGRAPHY

EMPR ASS RPT 20651 EMPR PF Placer Dome: Miscellaneous File, Box 57 GSC OF 351 PR REL Tenajon Resources Corp., Nov.25, 2002; Jan.28, 2003 WWW http://www.northair.com/tenajon/projects.html

DATE CODED: 2003/03/03 DATE REVISED: / / CODED BY: ICLW REVISED BY:

MINFILE NUMBER:	093M 001 NATIONAL MINERAL INVENTORY: 093M1 Cu9					ORY: 093M1 Cu9
NAME(S):	<b>Bell</b> , Bell Copper, Ne Babine, Kraft	WMAŊ				
STATUS:	Past Producer	0	pen Pit		MINING DIVIS	SION: Omineca
REGIONS: NTS MAP: RC MAD	093M01E 093L16E				UTM ZC	ONE: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 00 10 N 126 13 55 W 777 Metres Within 500M Centre of the open pit on Lake.	Newman Penins	ula at the north en	d of Babine	NORTH EAST	HING: 6098605 TNG: 677033
COMMODITIES:	Copper Molybdenum	Silver	Gold		Zinc	Lead
MINERALS						
SIGNIFICANT: COMMENTS:	Chalcopyrite Chalcoc Sphalerite Molybder Rare molybdenite.	ite Bornite lite	Electrum	Galena		
ALTERATION:	Biotite Chlorite	Sericite Malachite	Carbonate	Gypsum		
ALTERATION TYPE:	Potassic Argillic Eccepe	Silicific'n	Sericiti	с	Propylitic	Oxidation
ISOTOPIC AGE:	51.0 Ma	DATING METHO	DD: Potassium/Ar	gon	MATERIAL DATED:	Biotite
DEPOSIT CHARACTER: CLASSIFICATION: TYDE	Stockwork Porphyry	Vein Hydrothermal	Dissen	ninated		
DIMENSION: COMMENTS:	$90 \times 60$ The age of mineralization Supergene enrichment ac contained in a 90 by 60-m	Metres is from the age dds younger min hetre flat-lying, bl	STRI of intrusion (Bulleti eralization. Better anket-like deposit.	KE/DIP: n 64). grades are	TRENE	)/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	ļ	ORMATION		IGNEOUS/ME	TAMORPHIC/OTHER
Jurassic	Skeena Hazelton	<u>.</u>	Jndefined Formatic Telkwa	n	Dobino Intrus	iono
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	51.0 Ma Potassium/Argon Biotite				Babine mirus	IONS
LITHOLOGY:	Biotite Feldspar Porphyry Fine Grained Greywacke Siltstone Andesite Tuff					
HOSTROCK COMMENTS:	The orebody is primarily The age date is from Bu	(75 per cent) ho letin 64.	osted within the int	rusion.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Intermontane Stikine Intrusions associated wit	n the Skeena Ar	ch.	PHYSIC	GRAPHIC AREA: Neo	chako Plateau
INVENTORY						
ORE ZONE:	TOTAL		REPOR	TON: Y		
	CATEGORY: Unclass QUANTITY: 71752 COMMODITY	ified 2960 Tonnes	Y GRADE	'EAR: 1990		
	Gold		0.4800 Gra	ams per tonne ams per tonne		
COMMENTS: REFERENCE:	Reserves in the present of Noranda Inc. Annual Rep	pen pit and in th ort 1990.	e Extension zone.	rcent		

The Bell copper deposit is located on Newman Peninsula on the north end of Babine Lake. Two other large porphyry-type deposits, the Granisle (093L 146) and Morrison (093M 007), also occur in the area.

The area was initially explored in 1913 for veins with lead and zinc mineralization. Reconnaissance geophysics and anomalous copper, in a soil geochemical survey in 1962, led Noranda Exploration Company to an area 800 metres northeast of the old adits. By 1967, mineable reserves of 42 million tonnes of ore had been defined grading 0.50 per cent copper, 0.35 gram per tonne gold and 1.0 gram per tonne silver, within an overall geological ore reserve of 116 million tonnes grading 0.48 per cent copper, 0.35 gram per tonne gold, 1.0 gram per tonne silver and less than 0.005 per cent molybdenum (Canadian Institute of Mining and Metallurgy Special Volume 15). Production began in 1972, and by December 31, 1990 approximately 71 million tonnes of ore had been processed.

The Bell mine is a porphyry copper deposit hosted primarily in a biotite-feldspar porphyry stock of the Eocene Babine Intrusions. The stock is crosscut by the northwest trending Newman fault which juxtaposes the two groups that host the intrusion. These groups are the Lower Jurassic Telkwa Formation (Hazelton Group) and the Lower Cretaceous Skeena Group. Telkwa Formation rocks are primarily fine-grained tuffs and andesites and the younger Skeena Group rocks are mostly fine-grained greywackes. The deposit overlaps onto both of these assemblages. The mineralization has been dated at 51.0 million years (Bulletin 64).

Chalcopyrite and lesser bornite occur as disseminations in the rock matrix, in irregular quartz lenses and in a stockwork of 3 to 6millimetre quartz veinlets which cut the feldspar porphyries and the siltstones. Molybdenite is rare, and occurs in the feldspar porphyry in the northern part of the mineralized zone. Gold occurs as electrum associated with the copper mineralization. Specular hematite and magnetite are common in quartz veinlets and hairline fractures. There is also significant supergene enrichment with chalcocite coating chalcopyrite. A supergene chalcocite zone capped the deposit and extended to depths of 50 to 70 metres. Some gypsum together with copper-iron sulphate minerals and iron oxides were also present (Open File 1991-15).

The ore zone has pervasive potassic (mainly biotitization) alteration with a surrounding concentric halo of chlorite and sericite-carbonate alteration (propylitic and argillic) which corresponds to the two kilometre pyrite halo which surrounds the deposit. A late quartz-sericite-pyrite-chalcopyrite alteration has been superimposed on part of the earlier biotite-chalcopyrite ore at the western part of the orebody. A number of late-stage breccia pipes cut the central part of the ore zone near the Newman fault and alteration associated with their intrusion has apparently depleted the copper grades in the area of the pipes. Veinlets of gypsum are present in the upper part of the orebody. Anhydrite is a significant component in the biotite-chalcopyrite zone but is not present in other alteration facies. Monominerallic veinlets of anhydrite are rare (Open File 1991-15).

The copper mineralization occurs in a crescent-shaped zone along the western contact of the porphyry plug. Better grades of copper mineralization are contained in a 60 by 90-metre thick flat-lying, blanket-like deposit which is connected to a central pipe-like zone, centred on the western contact of the intrusive. The pipe-like zone of copper mineralization is 150 metres in diameter and extends to a depth of at least 750 metres.

Reserves in the present open pit and in the Extension zone are 71,752,960 tonnes grading 0.23 gram per tonne gold, 0.46 per cent copper and 0.48 gram per tonne silver (Noranda Inc. Annual Report 1990).

Noranda reports that the mine will be closed in June 1992 due to depleted ore reserves (Northern Miner - March 16, 1992). Total production from 1972 to 1992 was 77,146,088 tonnes yielding 38,319,730 grams of silver, 12,885,964 grams of gold and 304,795,539 kilograms copper.

#### BIBLIOGRAPHY

EM OF 2001-03 EMPR AR 1913-114; 1940-44,78; 1965-99; 1966-99; 1967-105; 1968-134 EMPR ASS RPT 15711, \*16754, 16992 EMPR BC METAL MM00003 EMPR BULL \*64 EMPR ENG INSP Annual Report 1989, 1990 EMPR EXPL 1986-A49; 1987-B58-B65 EMPR GEM 1969-114; 1970-170; 1971-185; 1972-426; 1973-352; 1974-266 EMPR IR 1984-2, pp. 99, 101; 1984-3, pp. 105, 1984-4, p. 121

### BIBLIOGRAPHY

EMPR MAP 65, 1989; 69-1 EMPR MIN STATS 1985 1985, pp. 47, 49; 1987, pp. 36, 38, 65, 66; 1990, pp. 27, 30, 33, 68, 69, 70; 1980-1992, pp. 4,7,11; 1980-1993, pp. 16, 21 EMPR MINING Vol. 1 1975-1980; 1981-1985; 1986-1987; 1988 EMPR OF 1992-1; 1992-3; 1997-10; 1998-8-F, pp. 1-60; 1998-8-K, pp. 1 - 22EMPR PF (Richards, T.A. (unknown): General Geology, Bell Copper Mine; Northcote, K. (1978): Notes on the Bell Mine; Carter, N.C. (1967): Geology of the Northern Babine Lake Area; Plan of workings Newman Group, 1940; Claim Map 093L/16E; Sketches from A. Sutherland-Brown's files; Article R, Noranda Mines Ltd. "Mineral Industries in Western Canada", CIM congress, 1974; Malott, M.L. (1991): Tour notes of the Bell Mine; Hings, D.L. (1965): Report on Geomag "A" Test Survey over Noranda Newman Property; Owens, D.R. (1974): Mineralogical Examination of Porphyry Copper ore from the Bell Copper Deposit; Map of the Newman Property Geology, Hunting Survey Corp. Ltd., c. 1964; Color air photos, 1966; Bell, A.M. (1970): The Newman Project; Plan Drill hole locations, North Newman, date and source unknown; Newspaper article, date and source unknown; Newman sections, surface plan, drill hole locations, copper contours, drilling 1966-67, Mag survey, E.M. survey, source and date unknown) EMR CANMET IR #17, 1974 EMR CORPFILE (Noranda Mines Ltd.) EMR RES FILE (Newman Mine) GSC MAP 40-18A; 671A; 971A GSC OF 2322 GSC P 40-18-12 CIM BULL January, 1986, pp. 89-92 CIM Special Volume \*15, pp. 245-263; \*46, pp. 247-255, 256-289 CMH 1972-1986 CMJ September, 1986 GCNL #56, 1979; #89, 1985 N MINER Oct., 1972; Mar., 1977; Feb. 16, Oct., 1978; Apr., 1982; July 18, 1985; Jan. 6, 1986; March, 1989; July 8, Sept. 9, 1991; March 16, 1992 1992 16 W MINER Nov. 1970; March 1977; April, May 1979; Jan. 1980; Oct. 1982; Nov. 1983 Cuddy, A.S. (1980): \*M.Sc. Thesis EMPR OF 1998-10 EMPR BULL 110 DATE CODED: 1985/07/24 DATE REVISED: 1991/10/31 CODED BY: GSB REVISED BY: RHM FIELD CHECK N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 002</u>		NATIONAL MINERAL INVENTORY:	093M1 Pb1	
NAME(S):	<u>MAG</u> , STHUF				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP:	093M01E 093L16E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 00 10 N 126 08 06 W 1000 Metres Within 5 KM Location from National Mineral Invent	ory card 093M01 PB1.	NORTHING: EASTING:	6098855 683231	
COMMODITIES:	Lead Zinc	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Chal Calcite Pyrite Unknown	copyrite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn=	-Au			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Nilkitkwa	IGNEOUS/METAM	ORPHIC/OTHER	
Jurassic Eocene	Hazelton	Telkwa	Babine Intrusions		
LITHOLOGY:	Argillite Greywacke Andesitic Tuff Andesitic Breccia Biotite Feldspar Porphyry Dike				
HOSTROCK COMMENTS:	Isotopic age date is from Geological Mineralized veins are hosted in pyri	Survey of Canada Open File tic sedimentary rocks.	9 2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	o Plateau	
CAPSULE GEOLOGY	The Mag occurrence is located 4 kilometres north of Hawthorne Bay on the east side of Babine Lake. The area is underlain by andesitic tuffs and breccias of the Lower to Middle Jurassic Telkwa Formation (Hazelton Group). These have been intruded by the northeast extension of the biotite-feldspar porphyry dike of the Eocene Babine Intrusions which occurs at the Granisle mine (092L 145) immediately to the south. Interbedded argillites and greywackes of the Lower to Middle Jurassic Nilkitkwa Formation (Hazelton Group) are exposed in a creek in the area. These sediments strike north and dip to the west at moderate angles. Calcite veins, up to 30 centimetres in width, occur in a west-trending fracture zone cutting pyritic sedimentary rocks. The veins are mineralized with sphalerite, galena, pyrite and chalcopyrite.				
BIBLIOGRAPHY	EM OF 2001-03 EMPR AR *1965-103; 1968-1 EMPR MAP 69-1 (#213) EMPR OF 1997-10 GSC OF 2322 EMPR BULL 110	34			
DATE CODED: DATE REVISED:	1985/07/24 1991/10/06	CODED BY: GSB REVISED BY: RHM	F	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 003</u>		NATIONAL MINERAL INVENTORY:	093M1 Cu6		
NAME(S):	<u>SNOOPY</u>					
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca		
NTS MAP:	093M01E		UTM ZONE:	09 (NAD 83)		
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 03 26 N 126 10 04 W 1200 Metres Within 1 KM Location is from Minister of Mines A	Annual Report 1968, page 130.	NORTHING: EASTING:	6104825 680890		
COMMODITIES:	Copper					
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown					
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Unknown					
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic	GROUP	FORMATION	IGNEOUS/METAM Topley Intrusions	ORPHIC/OTHER		
LITHOLOGY:	Quartz Diorite Diorite					
HOSTROCK COMMENTS:	Topley Intrusions are Triassic to E	Early Jurassic in age.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	) Plateau		
CAPSULE GEOLOGY	GY The Snoopy showing is located 1.6 kilometres northwest of Nizik Lake, 7.5 kilometres northeast of the Bell mine (093M 001). The documented location of this copper showing appears to be near an outcrop of the Triassic to Early Jurassic Topley Intrusions which are dioritic to quartz dioritic in composition. There is no other information available.					
BIBLIOGRAPHY	EM OF 2001-03 EMPR AR *1968-130 EMPR MAP 69-1 (#214) EMPR OF 1997-10 GSC OF 2322 EMPR BULL 110					
DATE CODED: DATE REVISED:	1985/07/24 1991/11/07	CODED BY: GSB REVISED BY: RHM	F	FIELD CHECK: N		

MINFILE NUMBER:	<u>093M 004</u>			NATIONAL MINERAL INVENTORY: 093M1 Cu4
NAME(S):	<u>OLD FORT</u> , OFF, DDT, RAID, BAD NEWS			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M01W			MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 04 24 N 126 20 04 W 1100 Metres Within 500M Location is from Bulletin 6	64, page 144.		NORTHING: 6106199 EASTING: 670179
COMMODITIES:	Copper	Molybdenum		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION ALTERATION TYPE: MINERALIZATION AGE: ISOTOPIC AGE:	Chalcopyrite Molybde Magnetite Pyrite K-Feldspar Biotite Argillic Eocene 49 +/- 2 Ma	enite Bornite Pyrrhotite Potassic DATING METHOD:	Potassium/Argon	MATERIAL DATED: Biotite
DEPOSIT			-	
CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Stockwork Porphyry L04 Porphyry Cu ± Ma The isotopic age date is fi porphyry (Bulletin 64, spe	Disseminated $b \pm Au$ rom a mineralized sa cimen NC 67-1).	mple of biotite-felds	bar
HOST ROCK DOMINANT HOSTROCK	: Plutonic			
STRATIGRAPHIC AGE	GROUP Hazelton	FOR Und	MATION efined Formation	IGNEOUS/METAMORPHIC/OTHER
Eocene ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	49 +/- 2 Ma Potassium/Argon Biotite			Babine Intrusions
LITHOLOGY	Quartz Diorite Porphyry Dike Hornblende Biotite Feldsp Quartz Monzonite Argillaceous Siltstone Andesitic Tuff Andesitic Breccia	ar Porphyry		
HOSTROCK COMMENTS:	Isotopic age date is from	Bulletin 46, page 89	, specimen NC 67-1.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic R	locks	PHYSIOGRAPHIC AREA: Nechako Plateau
INVENTORY				
ORE ZONE:	SAMPLE		REPORT ON:	Ν
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Chip <u>COMMODITY</u> Copper Molybdenum The samples were taken quartz diorite. Assessment Report 8312	nalysis <u>GR</u> C O over a width of 61 m	YEAR: ADE 2100 Per cent .0240 Per cent netres from trench #3	1980  3 in
CAPSULE GEOLOGY	The Old Fort Fort Mountain at t An elliptical small plug of quar feldspar porphyry intrusions. The s and intrudes horn Hazelton Group.	showing is loo the north end l stock of qua rtz monzonite a all of which l stock is appro felsed argilla Andesitic tuff	cated on the so of the main part rtz diorite ha and dikes of h oelong to the ximately 600 by ceous siltstom s and breccias	outheast slope of Old rt of Babine Lake. s been intruded by a ornblende-biotite- Eocene Babine y 1000 metres in size es of the Jurassic , also of the Jurassic

Chalcopyrite and minor bornite and molybdenite are found in fractures and disseminated in both quartz diorite and porphyry dikes adjacent to the western margin of the inner quartz monzonite body. Samples taken over a length of 61 metres from trench #3 in quartz diorite, west of the small quartz monzonite plug, averaged 0.21 per cent copper and 0.024 per cent molybdenum (Assessment Report 8312, page 4). Magnetite is associated with some of the copper mineralization. Pyrite and pyrrhotite are widely disseminated in all of the intrusive rocks as well as in the hornfelsed sedimentary rocks. Potassium/Argon dating of a mineralized sample of biotite feldspar porphyry yielded an age of 49 million years. The Newman fault, an important ore control at several of the mines in the area, traverses the property to the northeast.

### BIBLIOGRAPHY

EM OF 2001-03 EMPR AR 1965-103; \*1966-93 EMPR ASS RPT 3260, 4486, 5058, \*8312, 10696, 12647 EMPR BULL \*64, p. 144 EMPR GEM 1971-186; 1972-428; 1973-353; 1974-267 EMPR MAP 69-1 (#215) EMPR OF 1997-10 GSC OF 2322 EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/07 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 005</u>		NATIONAL MINERAL INVENTORY:	093M1 Cu7
NAME(S):	JAKE			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M01E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 00 N 126 11 36 W 1200 Metres Within 5 KM Location from Minister of Mines An	inual Report 1968, page 131.	NORTHING: EASTING:	6116933 678769
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Malachite Oxidation Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Jurassic	Hazelton	Undefined Formation		
LITHOLOGY:	Andesite Rhyolite Flow Tuff Tuffaceous Mudstone			
HOSTROCK COMMENTS:	Host rocks belong to the informall Hazelton Group.	ly named Saddle Hill volcanics o	of the	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako	) Plateau
CAPSULE GEOLOGY				
	The Jake showing is end of Hatchery Arm, Bab The area is underla and tuffs interbedded wi belong to the Jurassic S of the Hazelton Group (G 2322). Minor pyrite, chalc stratified volcanic rock 131).	s located 5 kilometres pine Lake. Ain by reddish andesit th subaerial tuffaceo Saddle Hill volcanics, Geological Survey of C copyrite and malachite ts (Minister of Mines	northeast of the north ic to rhyolitic flows us mudstones. These an informal subdivision anada Open File Map occur in fractures in Annual Report 1968, page	
BIBLIOGRAPHY	EV 0E 0001 00			
	EM OF 2001-03 EMPR AR *1968-131 EMPR MAP 69-1 (#216) EMPR OF 1997-10 GSC OF 2322 EMPR BULL 110			
DATE CODED: DATE REVISED:	1985/07/24 1991/11/08	CODED BY: GSB REVISED BY: RHM	F	FIELD CHECK: N

MINFILE NUMBER:	<u>093M 006</u>			l	NATIONAL MIN	IERAL INVENTORY:	093M1 Cu5
NAME(S):	HEARNE HILL, KOFIT, BL/ CHAPMAN, PETER BLAND	AND, )					
STATUS:	Developed Prospect					MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	British Columbia 093M01W					UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 59 N 126 17 10 W 1200 Metres Within 500M Anomaly #1 (Assessment	Report 1102).				NORTHING: EASTING:	6118523 672790
COMMODITIES:	Copper	Molybdenum	C	Gold	\$	Silver	
MINERALS SIGNIFICANT:	Chalcopyrite Bornite	Molybdenit	te Pyrit	e			
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Calcite Silica Biotite Silicific'n Eocene	Sericite Biotite	Pyrite S	Sericitic	F	Pyrite	
DEPOSIT		<b>_</b> .	_				
CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mc	Breccia b ± Au	L	Disseminated	3		
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE	GROUP	<u>F</u> C	<u>ORMATION</u>			IGNEOUS/METAMO	ORPHIC/OTHER
Jurassic Jurassic-Cretaceous Eocene Jurassic	Hazelton Bowser Lake	As As	elkwa shman			Babine Intrusions Topley Intrusions	
LITHOLOGY:	Biotite Feldspar Porphyry Brecciated Pipe Hybrid Diorite Andesite Tuff Dolomite Epiclastic Rock Greywacke Argillite Conglomerate						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonio	c Rocks		PHYSIOGRAPI	HIC AREA: Nechako	Plateau
INVENTORY							
ORE ZONE:	HEARNE HILL		R	EPORT ON:	Y		
	CATEGORY: Inferred QUANTITY: 9470 COMMODITY Copper	00 Tonnes	GRADE 0.4080	YEAR:	1998		
COMMENTS: REFERENCE:	Gold Bland and Chapman zone Booker Gold Explorations	es; 0.3 per cent co Limited, Press Re	0.1830 opper cutof elease, July	Grams p f. 7, 1998.	er tonne		
ORE ZONE:	HEARNE HILL		R	EPORT ON:	Υ		
	CATEGORY: Indicated QUANTITY: 42300 COMMODITY Copper	1 000 Tonnes	GRADE 0.6000	YEAR:	1998		
COMMENTS: REFERENCE:	Gold Bland and Chapman zone Booker Gold Explorations	es; 0.3 per cent co Limited, Press Re	0.1860 opper cutof elease, July	Grams p f. 7, 1998.	er tonne		

### INVENTORY

ORE ZONE:	CHAPMAN	RI	EPORT ON: Y	
	CATEGORY: Indicated QUANTITY: 143000 Tonnes COMMODITY	GRADE	YEAR: 1992	
	Gold	0.8000	Grams per tonne	
COMMENTS: REFERENCE:	Cutoff of 0.75 per cent copper. CIM Special Volume 46, page 300.			
ORE ZONE:	MAIN	RI	EPORT ON: Y	
	CATEGORY: Inferred QUANTITY: 60000000 Tonnes COMMODITY	GRADE	YEAR: 1993	
COMMENTS:	Gold Using a cutoff grade of 0.1 per cent copp estimated to contain an indicated resource	0.1000 0.1000 per. The breco ce of 143,000	Grams per tonne cia pipe is tonnes grading	
REFERENCE:	grade of 0.75 per cent copper and 0.8 grams per GIM Special Volume 46, page 300.	tonne gold us	ing a cuton	
CAPSULE GEOLOGY				
	The Kofit showing is lo east of the south end of Mor northeast of Smithers. The property is underla flows, tuffs and epiclastic Jurassic Telkwa Formation (H contact with greywacke, argi Cretaceous Ashman Formation guartz dioritic stock of the	cated 1 ki rison Lake in by nort sedimentar azelton Gr llite and (Bowser La Triassic	llometre south a, approximatel thwest-trending ty rocks of the coup). These a conglomerate o ake Group). A to Early Juras	of Hearne Hill, y 70 kilometres massive andesite Lower to Middle re in fault f the Jurassic to small dioritic to sic Topley

quartz dioritic stock of the Triassic to Early Jurassic Topley Intrusions has intruded the layered rocks and is in turn intruded by a small biotite feldspar porphyry plug and associated northeasttrending dike swarm of the Eocene Babine Intrusions.

The volcanic rocks are locally strongly silicified and termed "hybrid diorite". Biotitization is associated with the best copper mineralization, and sericite-pyrite alteration is found peripheral to the copper mineralization. Porphyry copper-style, fracturecontrolled and disseminated chalcopyrite, bornite and minor molybdenite mineralization, estimated to average 0.2 per cent copper (Assessment Report 20084), is found in highly fractured "hybrid diorite" and in the porphyry plug. A breccia pipe, approximately 50 by 60 metres in size, cuts the porphyry copper mineralization and is mineralized with chalcopyrite. One drill hole in the breccia pipe assayed 2.75 per cent copper across 22.9 metres (Assessment Report 20084).

Previous drill indicated and inferred reserves in the main breccia body (Chapman breccia zone) located within a large, low-grade porphyry system are 180,000 tonnes grading 1.7 per cent copper (Information Circular 1994-1, page 18).

The level of sampling information at Hearne Hill as of December 31, 1992 was much lower than for the Morrison deposit and rigorous resource calculations were not appropriate. The resource estimates for stockwork mineralization at Hearne Hill were performed by first calculating 12.5 metre bench composites from the diamond drill area. The diamond drill composites were then kriged and contoured, and volumes calculated within each contour to a depth of approximately 100 metres. Resource estimates for breccia mineralization were calculated by constructing polygons on-section to the confines of the breccia pipe. As of December 31, 1992, the inferred resource for the Hearne

As of December 31, 1992, the inferred resource for the Hearne Hill porphyry deposit was estimated to be 60 million tonnes at an average grade of 0.16 per cent copper and 0.1 gram per tonne gold using a cutoff grade of 0.10 per cent copper. The breccia pipe (Chapman) within the Hearne Hill porphyry deposit, to a depth of 100 metres, was estimated to contain an indicated resource of 143 000 tonnes at an average grade of 1.73 per cent copper and 0.8 gram per tonne gold using a cutoff grade of 0.75 per cent copper (CIM Special Volume 46, page 300).

Booker Gold Exploration Ltd. 1996 program was reported to prove that the porphyry system on the Hearne Hill property is of larger dimensions than previously inferred and contains at least three copper-gold volcanic breccia zones with grades of 0.4 to 5 per cent copper and 0.1 to 3 grams per tonne gold (1997 Cordilleran Roundup Abstracts, page 35). Drilling approximately 200 metres to the

northwest of the Chapman zone located a new zone called the Peter Bland zone. This zone is estimated to be 500 metres in length, 200 metres in width and at least 460 metres in depth. This new zone is reported to be lithologically identical to the Chapman zone and the two may connect at depth. The Bland and Chapman zones contain an indicated resource of 4,230,000 tonnes grading 0.6 per cent copper and 0.186 grams per tonne gold, at a 0.3 per cent copper cutoff; and an inferred resource of 947,000 tonnes grading 0.408 per cent copper and 0.183 grams per tonne gold, at a 0.3 per cent copper cutoff (Booker Gold Explorations Limited, Press Release, July 7, 1998).

# BIBLIOGRAPHY

EM EXPL 1996-B6; 1997-13; 1999-19-31 EM OF 2001-03 EMPR AR 1966-99, \*1967-105, 1968-134 EMPR ASS RPT 1102, 1255, 1611, \*1854, 2047, 9298, \*20084 EMPR BULL 64 EMPR GEM 1969-113 EMPR INF CIRC 1993-13; \*1997-1, p. 24; 1998-1, pp. 17, 20; 1999-1, pp. 8, 11 EMPR MAP 69-1 (#217) EMPR OF 1994-1; 1997-10 EMPR PF (Line-cutting maps, 1967; Canadian Superior Exploration, Geological Map, from Assessment Report 1854, 1968; Property description (1994), Booker Gold Explorations Limited; 1997 Cordilleran Roundup abstract; Booker Gold Explorations Limited Website (Dec. 1997, Apr. 1998): Company Summary, 5 p.) EMR MP CORPFILE (Trojan Consolidated Mines Ltd., Buttle Lake Mining Co. Ltd., Canadian Superior Exploration Ltd.) GSC OF 2322 CIM Spec. Vol. 46, pp. 247-255, 290-303 GCNL #205(Oct.24), #212(Nov.4), #237(Dec.9), 1992; #48(Mar.10), #80(Apr.25),#102(May 28), #131(July 9), #145(Jul.29), #156 (Aug.14), #162(Aug.22), #166(Aug.28), #175(Sept.11), #191(Oct.3), #249(Dec.30), 1997 N MINER May 4, 1998 PR REL Booker Gold Explorations Limited, July 7, 1998; Pacific Booker Minerals Inc., June 14, Aug.7, 2002 WWW http://www.pacificbooker.com Placer Dome File EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1997/05/05 CODED BY: GSB REVISED BY: GJP

MINFILE N	UMBER:	<u>093M 007</u>			NATIONAL MINE	RAL INVENTORY	: 093M1 Cu2
NA	AME(S):	MORRISON, ELLEN					
S		Developed Prospect				MINING DIVISION:	Omineca
NI	IS MAP:	093M01W				UTM ZONE:	09 (NAD 83)
LA LONG ELEV LOCATION ACCI COM	TITUDE: GITUDE: /ATION: URACY: IMENTS:	55 11 40 N 126 18 55 W 823 Metres Within 500M Centre of deposit, 1.25 kil south end, 2 kilometres w kilometres north of Housto Metallurgy Special Volume	ometres east of Mor est of the summit of n (Canadian Institut e 15, 1976).	rison Lake near th Hearne Hill and 9 e of Mining and	ne O	NORTHING EASTING	: 6119718 : 670884
COMMO	ODITIES:	Copper Zinc	Silver	Gold	Μ	olybdenum	Lead
SIGNI	FICANT:	Chalcopyrite Pyrite Sphalerite Geocronit	Bornite Boulangerite	Molybdenite	Galena		
ASSOC		Quartz Biotite Arsenopyrite Carbona	Pyrite P ate Apatite	Pyrrhotite Ma	rcasite		
ALTER	RATION:	Also tourmaline. Biotite Chlorite Epidote Gypsum	Carbonate Malachite	Clay Se	ericite		
	MENTS: NTYPE:	Also brochantite.	Chloritic	Carbonate	e Ar	gillic	
MINERALIZATION AGE: ISOTOPIC AGE:	IC AGE:	52.1 Ma	DATING METHOD:	Potassium/Argor	n MATER	IAL DATED: Biot	ite
DEPOSIT							
CLASSIFIC CLASSIFIC DIME COM	ACTER: CATION: TYPE: SHAPE: DDIFIER: ENSION: IMENTS:	Stockwork Porphyry L04 Porphyry Cu ± Mc Cylindrical Faulted 900 x 300 Dimensions of the Morriso	Disseminated Hydrothermal b ± Au Metres on deposit. Age date	STRIKE/I from Bulletin 64.	DIP:	TREND/PLU	JNGE:
HOST ROCK DOMINANT HOS	STROCK:	Plutonic					
STRATIGRAPHIC	AGE	GROUP Bowser Lake	<u>FOR</u>	MATION		IGNEOUS/METAN	IORPHIC/OTHER
Eocene ISOTOP DATING M MATERIAL	PIC AGE: ETHOD: DATED:	52 Ma Potassium/Argon Biotite	7.011			Babine Intrusions	
LITHO	OLOGY:	Biotite Hornblende Plagioo Siltstone Silty Argillite Conglomerate Greywacke Porphyry Dike Rhyodacite Dike Andesitic Dike	lase Porphyry				
HOSTROCK COM	MENTS:	Age date from Geologica Lake Group is Middle Ju	al Survey of Canada rassic to Lower Cret	Open File 720. T taceous in age.	he Bowser		
GEOLOGICAL SE TECTONI TE	e <b>tting</b> IC Belt: IRRANE:	Intermontane Plutonic Rocks	Bowser L	ake	PHYSIOGRAPH	IC AREA: Nechak	o Plateau
INVENTORY							

ORE ZONE:	MORRISON		RE	PORT ON: Y
	CATEGORY: QUANTITY: <u>COMMODITY</u> Gold	Combined 190000000 Tonnes	<u>GRADE</u> 0.2100	YEAR: 1993
	Copper	forrad racouroca to a da	0.4000	Per cent
COIVIIVIEINTS:	cutoff grade of (	).30 per cent copper.	put of 500 met	es using a
REFERENCE:	CIM Special Volu	ume 46, page 300.		
ORE ZONE:	MORRISON		RE	PORT ON: Y
	Category: Quantity: Commodity	Inferred 86000000 Tonnes	GRADE	YEAR: 1976
	Silver Gold Copper		3.4000 0.3400 0.4200	Grams per tonne Grams per tonne Per cent
COMMENTS: REFERENCE:	Geological reso CIM Special Volu	urce; cutoff grade of 0.3 ume 15 (1976), page 264	3 per cent copp 4.	er.
ORE ZONE:	MORRISON		RE	PORT ON: Y
	CATEGORY: QUANTITY: COMMODITY	Indicated 123200000 Tonnes	GRADE	YEAR: 1998
	Gold		0.2030	Grams per tonne
COMMENTS:	Copper cutoff of	0.3 per cent.	0.0000	

REFERENCE: Booker Gold Explorations Limited. Press Release. July 7, 1998.

### **CAPSULE GEOLOGY**

The Morrison deposit is located 21 kilometres north of the Bell mine (093M 001), north Babine Lake, 86 kilometres east of Hazelton. Siltstone, silty argillite, and minor conglomerate of the Middle to Upper Jurassic Ashman Formation (Bowser Lake Group) are host to small Eocene Babine Intrusions, including biotite-hornblendeplagioclase porphyry plugs, sills and dikes.

In this area, the Ashman Formation sedimentary rocks are intruded by a multiphase Eocene biotite-hornblende-plagioclase porphyry plug. The sediments are massive and strongly altered so bedding is not visible. Where observed, bedding generally strikes north to northwest and dips steeply. The siltstones and argillites are very fine to medium-grained and their overall appearance and mineralogy depend largely on their location in the alteration zones. Fawn or medium grey colours and clastic textures are characteristic of rocks which have considerable introduced carbonate at the outer portions of the property. The rocks become darker greyish green and fawn, indurated, chlorite-carbonate-rich greywackes and argillites as the copper zone is approached and in the copper zone these are dark grey and jet-black biotitized. Conglomerates are evident at a few localities distant from the porphyry plug. Throughout the entire property, the sediments are cut by abundant biotite-hornblendeplagicclase porphyry dikes and sills. Light tan coloured, medium to fine-grained rhyodacite dikes with aplitic textures occur locally. Post-mineral andesitic dikes have been encountered in drill holes.

The Morrison is a strongly zoned, annular porphyry copper deposit that is largely within the multiphase porphyry plug. The main porphyry pluton is a faulted plug, with nearly vertical contacts, which occupies a northwest oriented elliptical area of 900 by 150 to 300 metres. Before faulting, the plug was roughly circular in section, with a diameter of approximately 500 metres. Numerous offshoots of the plug, many of which are north trending dikes or sills, occur throughout the host sedimentary rocks. The offshoots, most with sharp contacts, vary in width from less than 1 metre to greater than 500 metres. The plug contains a large number of phases whose presence is indicated by the abundance of phenocrysts and of groundmass grain sizes. Some of these variations occur over distances of only a few metres. Part of this variation in appearance is due to superimposed hydrothermal alteration.

The Morrison deposit occupies the central part of a major graben that is a component of the regional northwest trending block-fault system of this area. The western bounding fault is believed to be along Morrison Lake, and the eastern fault is about 800 metres east of the property. The most prominent structure at Morrison is the north-northwest trending Morrison fault, which bisects the porphyry plug and copper zone. The fault is apparently vertical and has a right-hand throw of approximately 300 metres. The vertical

displacement, although unknown, is believed to be considerable. Rather than a single break, the fault is a linear zone of parallel shears and fractures. The zone averages about 25 metres in width, but ranges from 50 metres in the central portion to only a few metres at the extremities.

Along its entire length, the Morrison fault is marked by intense clay-carbonate alteration and well-defined zones of carbonatecemented gouge and breccia. North-northwest trending streaks and patches of clay-carbonate alteration found elsewhere in the intrusive plug and surrounding rocks are believed to have developed along minor shears and fractures that formed along contacts and bedding planes during movements on the fault.

The Morrison copper zone is a vertical annular cylinder that conforms to the shape of the porphyry plug and is disrupted by the Morrison fault which bisects the zone along its low-grade core. The copper zone is defined by external and internal boundaries that mark the limits of rock which consistently grades greater than 0.3 per cent copper. In most places, the external boundary is relatively sharp and copper grades decline outward to less than 0.1 per cent within about 40 metres. The low grade core averages between 0.15 and 0.2 per cent copper. Between the internal and external 0.3 per cent isopleths, copper increases fairly regularly to form a higher grade annulus. In the annulus, which is 15 to 150 metres wide, copper exceeds 0.5 per cent. Maximum grades over appreciable widths are about 0.7 per cent copper. Along the Morrison fault is a linear zone, 5 to 20 metres wide, in which downgrading to about 0.2 to 0.25 per cent copper has occurred. This is due to mixing and dilution of sheared rock during fault movements and to leaching by late hydrothermal solutions and possibly by groundwater. In the In the high grade annulus, molybdenum averages approximately 0.01 per cent and gold and silver 0.3 gram per tonne and 3 grams per tonne respectively. Spotty occurrences of galena and sphalerite, in carbonate-cemented brecciated veins within and near the fault and in smaller parallel shears, contribute to relatively high, but uncommercial values of lead and zinc.

Chalcopyrite and pyrite are the main sulphides. Locally, minor to moderate amounts of bornite contribute significantly to copper grades. However, most of the high-grade sections owe their copper content solely to chalcopyrite. All rocks contain anomalous quantities of pyrite (greater than 1 per cent) but the most pronounced concentrations (5-15 per cent by volume) occur in three segments that surround the copper zone. Most of the chalcopyrite occurs along thin seams and veinlets with or without quartz, and is distributed chiefly in fracture stockworks, but about 20 to 30 per cent of the mineral is disseminated in the porphyry plug matrix and in peripheral sedimentary rocks. Very minor molybdenite occurs in some chalcopyrite-pyrite seams and as minute disseminated flakes. Pyrrhotite and marcasite occur only in minor amounts. Pyrrhotite occurs almost exclusively in the pyrite halo. Marcasite is most commonly associated with pyrite, arsenopyrite, galena, sphalerite, geocronite, and boulangerite. These minerals occur with quartz and carbonate in small vuggy veinlets and pockets in minor faults and in the clay-carbonate altered rocks of the Morrison fault zone. Locally, exposed copper minerals are altered to malachite, brochantite, and small amounts of an unidentified pale blue copper silicate. Some iron-bearing sulphides are altered to iron oxides and minor jarosite.

Detailed polished section studies indicate that pyrite and chalcopyrite have a well-defined zonal relationship. Although pyrite predominates in the pyrite halo, the 0.3 per cent copper isopleth precisely marks a change in pyrite:chalcopyrite ratios; chalcopyrite consistently exceeds pyrite inside this boundary. Although the absolute abundance of pyrite decreases toward the centre of the deposit, disseminated grains persist throughout the copper zone and in the low grade core. These studies have also shown that magnetite and minor bornite are present in the low grade core and the copper zone (that is, the area enclosed by the 0.3 per cent copper isopleth).

Hydrothermal alteration is characterized by biotite-chlorite zoning. Biotitization is directly related to copper grades; chloritization is strongest in peripheral, pyritized rocks. The deposit is within a centrally located biotite zone; the intensity decreases outward. Surrounding the biotite zone is a chloritecarbonate zone. Intense clay-carbonate alteration is associated predominantly with the Morrison fault and related shears and is superimposed on the earlier biotitic and chloritic alteration. Minor epidote is found in all parts of the property, but is most common in the outer chlorite-carbonate zone. A potassium-argon age date from hydrothermal biotite from the mineralized zone returned 52.1 Ma

PAGE: 571 REPORT: RGEN0100

# CAPSULE GEOLOGY

(Bulletin 64, page 142).

Minor amounts of well-crystallized chlorite occur in the biotite zone, mainly as veinlets and crystal clusters. Finer, less strongly crystallized chlorite is common in the weak outer part of the zone. Abundant chlorite, occurring mainly as pseudomorphs after hornblende, and sericite characterizes the chlorite-carbonate zone. The biotite:chlorite ratio increases as the copper zone is approached, and the crystallinity of both minerals also increases. Potassium feldspar is evident in very minor amounts in the inner, greater than 0.3 per cent copper, portion of the copper zone; gypsum also occurs locally. Disseminated fine-grained apatite is anomalously abundant in the porphyry plug and in some large dikes. Very minor amounts of tourmaline were observed in thin sections of the intrusive and sedimentary rocks near the western edge of the mineralized zone.

The Morrison deposit, and its concentric sulphide-silicate alteration zones, was formed during a single hydrothermal episode that followed the emplacement and crystallization of most of the phases of the biotite-hornblende-plagioclase porphyry plug (Canadian Institute of Mining and Metallurgy Special Volume 15). Geological resources, published in 1976, reserves are 86 million

Coordination of the sources, published in 1976, reserves are 86 million tonnes grading 0.42 per cent copper (cutoff at 0.3 per cent copper), 0.34 grams per tonne gold and 3.4 grams per tonne silver (CIM Special Volume 15 (1976), page 264).

Indicated and inferred resources for the Morrison deposit as of December 31, 1993 total 190 million tonnes grading 0.40 per cent copper and 0.21 grams per tonne gold to a depth of 300 metres using a cutoff grade of 0.30 percent copper. An open pit resource developed on the basis of a 0.75:1 waste to ore strip ratio and the same cutoff grade is estimated at 58 million tonnes grading 0.41 per cent copper and 0.21 grams per tonne gold (CIM Special Volume 46, page 300).

and 0.21 grams per tonne gold (CIM Special Volume 46, page 300). The Morrison deposit is owned by Noranda Mining and Exploration Inc. and Booker Gold Explorations Ltd. See also Hearne Hill (093M 006).

A drill indicated resource for the Morrison was reported in July 1998 as 123,200,000 tonnes grading 0.38 per cent copper and 0.203 grams per tonne gold, at a 0.3 per cent copper cutoff (Booker Gold Explorations Limited, Press Release, July 7, 1998). A 1999 diamond drill-hole ended at 307 metres in depth (the

A 1999 diamond drill-hole ended at 307 metres in depth (the drills maximum capability) still in rock mineralized with chalcopyrite and bornite. The hole was deepened in 2000 to 466.56 metres. The grade, consistent throughout the hole, averages 0.7 per cent copper and 0.4 gram per tonne gold (George Cross Newsletter #100, May 3, 2000). Mineralization is open to depth. In 2001, Pacific Booker Minerals Inc. continued diamond drilling to drill off the Morrison deposit.

### BIBLIOGRAPHY

EM EXPL 1999-19-31; 2000-1-8; 2001-1-9 EMPR AR 1965-104; 1966-99-102; 1967-106,107; 1968-135 EMPR ASS RPT 1102, 1611, 9298, 20919 EMPR BULL 64, pp. 142,143; 110 EMPR GEM 1970-170,171; 1973-354 EMPR INF CIRC 1998-1, pp. 17, 20; 1999-1, pp. 8, 11 EMPR MAP 1; 65, 1989 EMPR OF 1992-1; 1992-3; 1997-10; 1998-8-F, pp. 1-60; 1998-8-K, pp. 1-22; 1998-10; 2001-03 EMPR PF (Morrison Lake property map, Noranda Exploration Co. Ltd., 1968; CIM Special Volume \*15, pp. 264-273, 1976; Booker Gold Explorations Limited Website (Nov. 1999): Company Summary, 4 p.) EMR MIN BULL MR 223 B.C. 241 GSC BULL 270 GSC MAP 971A GSC OF 215; 720; 2322 CIM Feb. 1974, pp. 110-133 CIM SPECIAL VOLUME \*15, 1976, pp. 264-273; 46, pp. 247-255, 290-303 GCNL #205(Oct.24), #212(Nov.4), #236(Dec.9), #249(Dec.30), 1997; #29(Feb.11), #32(Feb.16), #37(Feb.23), #131(July 9), 1998; #71, (Apr.4), #85(May3), #111(June 9),#116(June 16), #141(Jul.24), #146(Jul.31), #170(Sept.6),#176(Sept.14),#183(Sept.25), #205(oct.26), #238(Dec.13), 2000 N MINER May 4, 1998; Dec.2, 2002 PR REL Booker Gold Explorations Limited, Oct.21, 1997; Jul.7, 1998; Nov.2, Dec.7, 1999; Apr.5, May 2,23, Jun.6,14,27, 2000; Pacific Booker Minerals Inc., Sept.16, 2002 STOCKWATCH Oct.2, 201 WWW http://www.pacificbooker.com

DATE CODED: 1985/07/24 DATE REVISED: 1990/09/06

MINFILE NUMBER:	<u>093M 008</u>		NATIONAL MINERAL INVENTORY:	093M1 Cu3
NAME(S):	WOLF, BEE, WOLF 1-3, SADDLE HILL, MORRISON LAKE			
STATUS:	Prospect		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093M01W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 55 N 126 22 02 W 800 Metres Within 500M Drill hole (Assessment Report 8779).		NORTHING: EASTING:	6121909 667491
COMMODITIES:	Copper Molybdenu	m		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Pyrite Chalcopyrite Molyb Eocene	denite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Smithers	IGNEOUS/METAMO	ORPHIC/OTHER
Jurassic Eocene	Bowser Lake	Ashman	Babine Intrusions	
LITHOLOGY:	Hornblende Biotite Feldspar Porphyry Quartz Monzonite Granodiorite Siltstone Graphitic Siltstone Tuff			
HOSTROCK COMMENTS:	The Bowser Lake Group is Middle J	urassic to Lower Cretaceou	s in age.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks S	tikine	PHYSIOGRAPHIC AREA: Nechako	Plateau
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY Copper	YEAR: GRADE 4.2000 Per cent	1980	
REFERENCE:	A 1.2-metre sample from a drill hole in Assessment Report 8779.	n biotite feidspar porphyry.		
CAPSULE GEOLOGY				
	20 kilometres north-northe property has been explored claims. The Morrison depo A granodiorite stock hornblende biotite feldspa cuts grey, locally graphit Jurassic Ashman Formation trending block fault separ volcaniclastic sandstones Formation (Hazelton Group) Newman fault, associated w to the northeast of the cl At least nine copper have been documented. Cha grains and films on fractu by molybdenite. Minor mal A drill hole in bioti	ast of Smithers Lan since 1965 when it sit (093M 007) occ containing phases o r porphyry of the E ic siltstones of th (Bowser Lake Group) ates Ashman Formati and tuffs of the Ju on the east side o oith mineralization aims parallel to th occurrences, hosted lcopyrite occurs as re surfaces and is achite and iron-oxi te feldspar porphyr	ding (Babine Lake). The was staked as the Bee urs to the southeast. f quartz monzonite and ocene Babine Intrusions e Middle to Upper . A north-northwest on rocks from rassic Smithers f the property. The in the area, occurs just e baseline. in quartz monzonite, disseminations and as occasionally accompanied des have been noted. y intersected 1.2	

### BIBLIOGRAPHY

EM OF 2001-03 EMPR AR \*1966-99, 1967-107, 1968-136 EMPR ASS RPT 761, 1102, 1240, 1808, 1854, 2047, 5941, \*8176, \*8779 EMPR GEM 1969-113, 1976-E153 EMPR MAP 69-1 (#219) EMPR OF 1997-10 EMR MP CORPFILE (The Buttle Lake Mining Company Ltd.) GSC OF 2322 MINING IN CANADA October 1967, p. 44 EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/13 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 009</u>			NATIONAL MIN	ERAL INVENTORY:	093M1 Cu1
NAME(S):	DOROTHY					
STATUS:	Developed Prospect				MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M01E 093M08E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 52 N 126 10 05 W 950 Metres Within 1 KM Mineralized porphyry (Geo	logical Survey of (	Canada Open File 2:	322).	NORTHING: EASTING:	6126021 680012
COMMODITIES:	Copper	Molybdenum	Zinc	L	ead	
MINERALS						
SIGNIFICANT:	Chalcopyrite Bornite Covellite	Molybdenite	Galena	Sphalerite		
COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	If covellite and sphalerite a Quartz Pyrite Pyrite Pyrite Eocene	are present, it occu Pyrrhotite	ırs in minor amounts K-Feldspar	5.		
	Charleman					
CLASSIFICATION: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Porphyry L04 Porphyry Cu ± Mo Cylindrical Fractured 540 x 300 Deposit is elliptical in shap	± Au Metres e.	STRIKE/D	IP:	TREND/PLUN	NGE:
HOST ROCK						
DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	<u>FO</u>	RMATION	rmation	IGNEOUS/METAMO	ORPHIC/OTHER
Eocene	TIAZEROT	On		maion	Babine Intrusions	
LITHOLOGY:	Biotite Feldspar Porphyry Andesitic Tuff Diorite					
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Biotite Feldspar Porphyry Andesitic Tuff Diorite					
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	Biotite Feldspar Porphyry Andesitic Tuff Diorite					
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Biotite Feldspar Porphyry Andesitic Tuff Diorite		REPORT ON	V: Y		
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Biotite Feldspar Porphyry Andesitic Tuff Diorite DOROTHY CATEGORY: Inferred QUANTITY: 40819: COMMODITY Copper Molybdenum Inferred to 100 metano	500 Tonnes <u>G</u>	REPORT ON YEAR 0.2500 Per cer 0.0100 Per cer	V: Y R: 1971 nt		
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	Biotite Feldspar Porphyry Andesitic Tuff Diorite DOROTHY CATEGORY: Inferred QUANTITY: 40819: <u>COMMODITY</u> Copper Molybdenum Inferred to 160 metres. CIM Special Volume 15 (15)	500 Tonnes <u>G</u> 976), Table 1, No.9	REPORT ON YEAR 0.2500 Per cei 0.0100 Per cei 3.	۷: Y R: 1971 nt		
LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	Biotite Feldspar Porphyry Andesitic Tuff Diorite DOROTHY CATEGORY: Inferred QUANTITY: 40819: COMMODITY Copper Molybdenum Inferred to 160 metres. CIM Special Volume 15 (19 The Dorothy p end of Nakinilerak Bell mine (093M 0 and has been confu southeast. Reserv on the property si	500 Tonnes G 076), Table 1, No.9 rospect is lo Lake, appros 01). The pro- o1). The pro- sed with Amoo es were outl: nce then.	REPORT ON YEAR 0.2500 Per cer 0.0100 Per cer 3. 0 cated 5 kilom kimately 20 ki operty was sta co's Haut and ined in 1976 a	Y: Y A: 1971 nt nt etres east of lometres nor ked original BI claim gru nd no work h	of the south theast of the lly in 1965 oups to the has been done	

A blotite feldspar porphyry circular plug or dike, 1300 metres in diameter, of the Eocene Babine Intrusions is cut by north and east striking fractures. The porphyry occurs at the contact between dioritic rocks and volcanic rocks. The main rock types in the area are andesitic tuff, possibly of the Jurassic Hazelton Group, and dioritic intrusive rocks.

The fractures contain quartz and disseminations and stringers of pyrite, some chalcopyrite and minor bornite, covellite, pyrrhotite, molybdenite, sphalerite and galena. Potash feldspar rims some of the veins. The deposit is elliptical in shape and is 540 by 300 metres

in size. Drilling outlined a large area with copper grades slightly greater than 0.2 per cent with no significant higher grade core as in the Morrison deposit (093M 007). The copper zone is surrounded by an annular pyrite halo. Inferred reserves to 160 metres are 40,819,500 tonnes grading 0.25 per cent copper and 0.01 per cent molybdenum (Canadian Institute of Mining Special Volume 15 (1976), Table 1, No.93).

#### BIBLIOGRAPHY

EM OF 2001-03 EMPR AR 1965-104, \*1966-95 EMPR ASS RPT 2959, 2960 EMPR GEM 1970-169, 1971-184, 1974-267 EMPR MAP 69-1 (#220) EMPR OF 1997-10 EMPR PF (Ducanex Resources, Map, 1970) EMR MIN BULL MR 223 B.C. 239 GSC OF 2322 CIM BULL \*Feb. 1974, p. 125 CIM SPECIAL VOLUME 15, 1976 Chevron File EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/14 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 010</u>	NATIONAL N	/INERAL INVENTORY: 093M8 Cu1
NAME(S):	NAK, NAKINILERAK LAKE, DA, SNO, WENDY, BEAR, AX		
STATUS:	Prospect		MINING DIVISION: Omineca
REGIONS: NTS MAP:	093M08E		UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 17 10 N 126 14 17 W 1100 Metres Within 500M Location is from Figure 13, Minister of M The property is located approximately 3 Nakinilerak Lake and is accessible via h overgrown foot trail connecting to the e hauling road.	<i>I</i> lines Annual Report 1966. Relicopter or on an Ind of the Nakinilevak	NORTHING: 6130106 EASTING: 675394
COMMODITIES:	Copper Gold		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Pyrite Quartz Tourmalin Silica Pyrite Sericite Silicific'n Pyrite Eocene	ne Magnetite Kaolinite Sericitic	Argillic
DEPOSIT		4	
CLASSIFICATION: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Porphyry L04 Porphyry Cu $\pm$ Mo $\pm$ Au 60 x 60 Metres Mineralized stockwork exposed over 60	STRIKE/DIP: 0 metre square area.	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	: Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic Eocene	Hazelton	Теїкwa	Babine Intrusions
LITHOLOGY:	Hornblende Biotite Feldspar Porphyry Quartz Diorite Andesitic Tuff Andesitic Breccia Argillite Conglomerate		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine Plu	PHYSIOGR/	APHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	DRILLHOLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 1997 <u>GRADE</u>	
	Copper Gold	2.6140 Per cent 0.1430 Grams per tonne	
COMMENTS: REFERENCE:	12.5-metre intersection. Drillhole DDH N Fieldwork 1997, p. 2-14.	N96-58.	
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 1966 <u>GRADE</u>	
	Copper	0.3500 Per cent	

REFERENCE: Minister of Mines Annual Report 1966, page 97.
### INVENTORY

ORE ZONE:	SOUTH			RE	PORT ON: Y	
	CATEGORY: QUANTITY: COMMODITY	Inferred 54000000 To	nnes	GRADE	YEAR: 1997	
	Copper			0.1700	Per cent	
REFERENCE:	Fieldwork 1997,	p. 2-14.		0.2540	Grams per tonne	
ORE ZONE:	NORTH			RE	PORT ON: Y	
	CATEGORY:	Inferred			YEAR: 1997	
	COMMODITY	217000000 10	onnes	GRADE		
	Copper			0.1870	Per cent	
	Guiu			0.0390	Gianns per tonne	

REFERENCE: Fieldwork 1997, p. 2-14.

#### CAPSULE GEOLOGY

The Nakinilerak showing is located three kilometres east of Nakinilerak Lake, approximately 85 kilometres northeast of Smithers. North to northwest striking, east dipping, andesitic tuffs, breccias and grey to black argillites of the Jurassic Telkwa Formation (Hazelton Group) are intruded by granodioritic biotite-feldspar-porphyry stocks, sills, and dikes of the Eocene Babine Intrusions. Conglomerates, possibly correlative with the Cretaceous Sustut Group are exposed on the west side of the property near Nakinilerak Lake.

Propylitized andesite is intruded by a hornblende-biotitefeldspar porphyry and quartz diorite stock, approximately 600 metres in diameter, and a 100-metre wide hornblende-biotite-feldspar porphyry sill.

The western side of the quartz diorite stock is cut by a north trending, high angle fault that is coincident with a prominent lineament. Drill holes intersected this, and other parallel faults which are mineralized.

Alteration at Nak is comprised of an early prograde potassic alteration, overprinted by a late stage retrograde phyllic to argillic alteration.

The potassic alteration is characterized by the presence of veinlets of biotite and k-feldspar, accompanied by magnetite, quartz, chalcopyrite, pyrite, bornite and rare molybdenite in hornfelsed sedimentary rocks along southern quartz diorite stock.

Advanced argillic alteration is peripheral to, and superposed upon, the potassic zone. This zone includes pervasive feldspar, destructive clay, quartz, tourmaline alteration and veins with quartz and tourmaline with or without chalcopyrite, pyrite, magnetite and sericite.

Carbonate pyrite chalcopyrite bornite veins with phyllic alteration cut nearby hornfelsed volcanic and sedimentary rocks.

Chalcopyrite, pyrite and minor bornite mineralization occurs as disseminations and in 3 to 4 millimetre wide quartz veinlets. The mineralization occurs in the sill and stock over an exposed area approximately 60 metres square (Minister of Mines Annual Report 1966, page 95). Alteration consists of silicification, pyritization, sericitization and kaolinization.

In 1995, with Explore B.C. Program support, Hera Resources Inc. completed 8007.3 metres of surface diamond drilling in 43 holes. Drilling to date has identified a large Babine-type intrusive system with two zones of copper-gold mineralization in biotite feldspar porphyry and hosting volcanic rocks. Grades are approximately 0.19 per cent copper and 1.3 to 6.8 grams per tonne gold (Explore B.C. Program 95/96 - M120).

In 1996, Hera completed about 5200 metres of drilling in 27 holes. Encouraging results included the discovery of high-grade copper mineralization associated with a strongly tourmalinized structure.

#### BIBLIOGRAPHY

EM OF 2001-03 EMPR AR 1964-53; \*1966-95; 1967-103; 1968-131 EMPR ASS RPT 1198, 3311, 23358, 23848, 24273 EMPR BULL 64, 110 EMPR Explore B.C. Program 95/96 - M120 EMPR FIELDWORK 1997, p. 2-12-2-15 EMPR GEM 1969-112; 1970-176; 1971-192 EMPR INF CIRC 1997-1, p. 25

### BIBLIOGRAPHY

EMPR MAP 69-1 (#221) EMPR PF (Drillhole location map, Noranda Exploration, date unknown) GSC OF 2322 CIM BULL \*Feb. 1974, pp. 126-127 WWW http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 2003/02/24 CODED BY: GSB REVISED BY: MPS

MINFILE NUMBER:	<u>093M 011</u>			NA	TIONAL MINERAL INVENTORY	: 093M8 Cu3
NAME(S):	TRAIL PEAK, CAVZ,	TRAIL				
STATUS:	Showing				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093M08W				UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 44 N 126 19 44 W 1300 Metres Within 500M Eastern copper showi	ng (Assessmer	it Report 19557).		NORTHING EASTING	: 6143910 : 669089
COMMODITIES:	Silver	Zinc	C	opper	Lead	
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Tourma K-Feldspar Potassic Unknown	e Sphal aline Magr	erite Galena netite	Tetra	ahedrite	
DEPOSIT						
CHARACTER: CLASSIFICATION:	Stockwork Porphyry	vein Ma i Au	D	sseminated	05 Dolymotollia voina Ag D	h 7n · Au
		INO ± Au		II.	US FOIYITIELAIIIC VEITIS AG-F	D-ZII±Au
DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP Bowsor Lako		FORMATION		IGNEOUS/METAN	IORPHIC/OTHER
Eocene	40 Mo		Asiman		Babine Intrusions	
DATING METHOD: MATERIAL DATED: Upper Cretaceous	Potassium/Argon Biotite				Bulkley Intrusions	;
LITHOLOGY:	Biotite Feldspar Porph Hornblende Feldspar F Granodiorite Quartz Diorite Andesitic Crystal Lithic Pyritic Siltstone Sandstone	yry Sorphyry C Tuff				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	В	owser Lake	PH	YSIOGRAPHIC AREA: Nechak	o Plateau
INVENTORY						
ORE ZONE:	SAMPLE		RE	PORT ON: N		
	CATEGORY: Assa SAMPLE TYPE: Grab <u>COMMODITY</u> Silver	y/analysis	<u>GRADE</u> 547.3000	YEAR: 19 Grams per t	ago tonne	
COMMENTS:	Sample from a 10-cen	timetre wide ve	n containing spha	llerite, galena		
REFERENCE:	Assessment Report 1	9557.				
CAPSULE GEOLOGY						
	The Trail Trail Peak, 90 The area i andesitic cryst. Formation (Bows granodiorite an Bulkley Intrusi and biotite hor: Intrusions date rocks have been and all rock ty	Peak showin kilometres s underlain al lithic t er Lake Gro d diorite p ons, and no nblende fel d at 49 mil folded int pes have be	g is located northeast of by pyritic uff of the M up). The be lugs and dik rthwest-stri dspar porphy lion years ( o a syncline en displaced	on the s Smithers siltstone dded rock es of the king dike ry of the Bulletin in the v by north	outheast slope of , sandstone and Upper Jurassic Ashman s are intruded by Late Cretaceous s of biotite feldspar Eocene Babine 64). The sedimentary icinity of Trail Peak west and northeast	

Two copper showings occur near a prominent east-northeast

MINFILE NUMBER: 093M 011

trending block fault. In the eastern showing, chalcopyrite occurs in quartz veins approximately 1 centimetre in width and spaced at 5 to 15 centimetres in fractured hornblende feldspar porphyry. Tourmaline and pyrite also occur in the veins which have an alteration envelope where plagioclase is altered to K-feldspar.

The second showing, in biotite feldspar porphyry, is located 600 metres to the west and contains chalcopyrite and pyrite disseminated on fracture planes and in 5-millimetre wide quartz veins which also contain magnetite. Malachite staining and tourmaline are common. Drilling obtained copper values of approximately 0.15 per cent copper (Assessment Report 5706). A 10-centimetre wide, northwest striking, quartz vein in the southern part of the property contains sphalerite, galena and tetrahedrite. A sample from this vein, hosted in shaly siltstone, assayed 3.1 per cent zinc and 547.3 grams per tonne silver (Assessment Report 19557).

# BIBLIOGRAPHY

EM OF 2001-03 EMPR AR 1966-135, 286, 1968-135 EMPR ASS RPT 1672, 5706, \*19557 EMPR BULL 64 EMPR GEM 1969-110, 1973-359, 1975-E148 EMPR MAP 69-1 (#222) EMPR PF (Whole rock analyses, Trail Peak area, 1984) GSC OF 2322 WWW http://www.infomine.com/ EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/22 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 012</u>	NATIONAL MIN	IERAL INVENTORY:	093M7 Cu1		
NAME(S):	FRENCH, RO, RO 25					
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca		
NTS MAP: BC MAP:	093M07W		UTM ZONE:	09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 25 42 N 126 52 52 W 1250 Metres Within 1 KM Ro 25 claim (Assessment Report 3871).		NORTHING: EASTING:	6144500 634084		
COMMODITIES:	Copper					
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Porphyry L04 Porphyry Cu ± Mo ± Au					
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER		
Upper Cretaceous	Skeelia	Rilsuns Creek	Bulkley Intrusions			
LITHOLOGY:	Feldspar Porphyry Clastic Sediment/Sedimentary					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPI	HIC AREA: Skeena	Ranges		
CAPSULE GEOLOGY						
	The French showing is l side of the French Peak Mour	located, on the Ro 25 claim, Itain Range, approximately 5	on the north 0 kilometres			
	<pre>east of Hazelton. Lower Cretaceous clastic sedimentary rocks of the Kitsuns Creek Formation (Skeena Group) are intruded by an altered feldspar porphyry plug, approximately 1.5 kilometres in diameter. The plug, of the Late Cretaceous Bulkley Intrusions, has hornfelsed the sedimentary rocks. An extensive pyrite halo is developed and minor chalcopyrite has been recognized (Geology, Exploration and Mining 1973, page 358).</pre>					
BIBLIOGRAPHY						
	EMPR ASS RPT *3871 EMPR GEM 1973-358 EMPR MAP 69-1 (#223) EMPR PF (French Claim Group GSC OF 2322	map, date and source unknown	n)			
DATE CODED: DATE REVISED:	1985/07/24 C 1991/11/21 F	CODED BY: GSB REVISED BY: RHM	F	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>093M 013</u>					NATIONA	AL MINERAL INVENTOR	Y:
NAME(S):	<b>RED</b> , FOSS, SL AG, ZAK	JE,						
STATUS:	Showing						MINING DIVISIO	N: Omineca
REGIONS: NTS MAP: BC MAP	British Columbi 093M07W	а					UTM ZON	E: 09 (NAD 83)
	55 24 13 N	l					NORTHIN	G: 6141722
ELEVATION: LOCATION ACCURACY: COMMENTS:	1160 Metres Within 500M Main showing	v (Assessment R	eport 11700).					3. 033200
COMMODITIES:	Silver	Gol	d	Co	opper		Zinc	Lead
	Chalasayurita	Cabalarita	Colona	Durrita		lhuite		
	Arsenopyrite	Sphalente	Galena	Pyrite	51	IDNITE		
ASSOCIATED: MINERALIZATION AGE:	Quartz Unknown	Siderite	lourmaline					
DEPOSIT		5						
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic L01 Subvol	Dis Icanic Cu-Ag-A	seminated u (As-Sb)			105	Polymetallic veins Ag-	Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Sedimentary							
STRATIGRAPHIC AGE	GROUP		FC	RMATION			IGNEOUS/META	MORPHIC/OTHER
Lower Cretaceous Upper Cretaceous	Skeena		Kit	suns Creek			Bulkley Intrusior	IS
LITHOLOGY:	Argillite Quartzite Feldspar Porpl Dike	nyry						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assen	nblage				PHYSIOC	GRAPHIC AREA: Skeen	a Ranges
INVENTORY								
ORE ZONE:	SAMPLE			RE	PORT ON:	Ν		
	CATEGORY: SAMPLE TYPE COMMODITY Silver Gold Copper	Assay/analy: Channel	sis <u> </u>	GRADE 282.5000 4.9000 0.1300	YEAR: Grams p Grams p Per cent	1980 er tonne er tonne		
COMMENTS: REFERENCE:	Zinc Sample across Property File -	0.6 metre. Canadian Supe	rior Exploratio	0.3200 0.8800 n, 1980.	Per cent			
CAPSULE GEOLOGY								
	EOLOGY The Red showing is located in the bed of Hepworth Creek, which drains the north side of French Peak mountain range, 50 kilometres east of Hazelton. The area is underlain by argillites and quartzites of the Lower Cretaceous Kitsuns Creek Formation (Skeena Group). These are intruded by feldspar porphyry dikes and a plug of the Late Cretaceous Bulkley Intrusions. Bedding attitudes are variable, however in the area of the main showing, strikes are northwest with dips approximately 55 degrees southwest. A semi-concordant vein, up to 1 metre in width, carrying pyrite, sphalerite, chalcopyrite, galena, stibnite and arsenopyrite outcrops in the bed of Hepworth Creek. Gangue minerals include guartz,							

sphalerite, chalcopyrite, galena, stibuite and arsenopyrite outcrops in the bed of Hepworth Creek. Gangue minerals include quartz, siderite and tourmaline. Some disseminated mineralization is also evident. A channel sample across 0.6 centimetre of the vein assayed 0.13 per cent copper, 0.32 per cent lead, 0.88 per cent zinc, 282.5 grams per tonne silver and 4.9 grams per tonne gold (Property File -Canadian Superior Exploration Ltd., 1980).

### BIBLIOGRAPHY

EMPR ASS RPT 5188, \*11700, \*19776, 22896 EMPR GEM 1973-359 EMPR MAP 69-1 (#224) EMPR PF (Report on Assay results and sample plan, Canadian Superior Exploration Ltd., 1980; Claim map 93M/7W) EMPR OF 1994-14 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/21 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 014</u>			NATIONAL M	INERAL INVENTORY:	093M7 Cu2
NAME(S):	<u>SNOW</u> , SUSKWA, FOG, RCM-1					
STATUS:	Showing British Columbia				MINING DIVISION:	Omineca
REGIONS. NTS MAP: BC MAP	093M07W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 47 N 126 54 07 W 1580 Metres Within 500M Main trench (Assessment	Report 14583).			NORTHING: EASTING:	6137197 632984
COMMODITIES:	Copper	Molybdenum	Lead		Zinc	Silver
	Chalcopyrite Molybde	nite Sphalarite	Tetrahedrite	Galena		
ASSOCIATED:	Pyrite Quartz	Sericite	Pyrite	Galeria		
ALTERATION TYPE: MINERALIZATION AGE:	Argillic Unknown	Sericitic	Pyrite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mc	Disseminated				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
	<u>GROUP</u> Skeena	FOR	MATION		IGNEOUS/METAM	ORPHIC/OTHER
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	71 Ma Potassium/Argon Biotite	THOU THOU	in order		Bulkley Intrusions	
LITHOLOGY:	Granodiorite Feldspar Por Shale Mudstone Conglomerate	phyry				
HOSTROCK COMMENTS:	Isotopic age date is from	Geological Survey	of Canada Open File	e 2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks			PHYSIOGRA	PHIC AREA: Skeena I	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON:	N		
	CATEGORY: Assay/a SAMPLE TYPE: Drill Core COMMODITY Copper	nalysis e <u>GR</u> 0	YEAR: ADE .2000 Per cent	1971 t		
COMMENTS: REFERENCE:	Best intersection, across Geology, Exploration and	36.5 metres. Mining 1971, page 1	91.			
CAPSULE GEOLOGY						
	The Snow show the southwest flar Suskwa Pass.	ing is located hk of the Frend	l 50 kilometre ch Peak mounta	es east of in range,	Hazelton, on north of the	
	A Late Cretat intrusion of the B and conglomerates (Skeena Group). B gave a date of 71 File 2322).	Bulkley Intrus: of the Lower ( Potassium/argon million years	cons has intru Cretaceous Kit dating of bi (Geological S	ded shale suns Cree otite fro Survey of	ar porphyry s, mudstones k Formation m the intrusion Canada Open	
	File 2322). Pyritization and fracturing is widespread in all rock types. Argillic alteration is well developed, with secondary sericite, quartz and K-feldspar. Chalcopyrite, molybdenite, sphalerite, tetrahedrite and galena occur disseminated and in fractures. The best intersection obtained in a diamond drill program was 36.5 metres grading 0.2 per cent copper (Geology, Exploration and Mining 1971, page 191).					

### BIBLIOGRAPHY

EMPR AR 1968-113 EMPR GEM \*1971-191 EMPR MAP 69-1, (#225) EMPR ASS RPT \*14583, 15252, 13923 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/21 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 015</u>			NATIC	NAL MINERAL INVENTORY:	093M7 Ag2
NAME(S):	<u>French Peak</u> , ute, Rio, Hematite					
STATUS: REGIONS	Developed Prospect British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M07W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 19 58 N 126 47 12 W 1378 Metres Within 500M Open cuts on the Ute vein Babine lakes, 1.5 kilometre kilometres north of Housto	system, 10 kil es north of Tse on (Assessmer	lometres west ezakwa Creek a ht Report 1914	of Nilkitkwa and and 100 2).	NORTHING: EASTING:	6134054 640397
COMMODITIES:	Silver	Copper	G	old	Lead	Zinc
MINERALS		<b>e</b>				
SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS:	Tetrahedrite Galena   Quartz Carbonate   Silica Clay   Manganese staining	Chalcor Siderite Sericite	oyrite Spha Hematit Hematite	alerite Pyrite te Chalced Carbonate	eny	
ALTERATION TYPE: MINERALIZATION AGE:	Silicific'n Unknown	Argillic	S	ericitic	Oxidation	Carbonate
DEPOSIT CHARACTER	Shear	Vein	C	oncordant		
CLASSIFICATION: TYPE: SHAPE:	Epigenetic L01 Subvolcanic Cu-A Tabular	Hydrothermal g-Au (As-Sb)	Ū	105	Polymetallic veins Ag-Pl	o-Zn±Au
MODIFIER: DIMENSION: COMMENTS:	Faulted 457 x 1 Ute vein system.	Metres		STRIKE/DIP:	TREND/PLU	INGE:
HOST ROCK DOMINANT HOSTROCK	Volcanic					
STRATIGRAPHIC AGE	<u>GROUP</u> Kasalka		FORMATION Undefined For	rmation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Andesitic Tuff Dacitic Tuff Rhyolite Tuff Andesite Rhyolite Dacite Rhyolitic Flow Andesite Flow Rhyodacite					
HOSTROCK COMMENTS:	Host rocks belong to the known as the French Pe	informal subdi ak volcanics.	vision of the Ka	asalka Group		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage			PHYS	IOGRAPHIC AREA: Nechako	o Plateau
INVENTORY						
ORE ZONE:	FRENCH PEAK		RE	EPORT ON: Y		
	CATEGORY: Unclassi QUANTITY: 263 COMMODITY Silver Gold Copper Lead CIM Special Volume 37, pc	fied 0 Tonnes	GRADE 411.0000 2.4000 5.0000 14.0000	YEAR: 1983 Grams per ton Grams per ton Per cent Per cent	ne ne	
		.go 100.				
CAPSULE GEOLOGY	The French Pe French Peak Mounta Hazelton. Regionally, d subaqueous tuffs a Survey of Canada O	ak deposit in, north acite, and nd flows c pen File 2	s are loca of the Sus lesite and of the Fren 2322), an i	ated on the s skwa Pass, 5 rhyolite su ach Peak vol nformal sub	southeast side of 7 kilometres east of baerial to canics (Geological division of the	2

Upper Cretaceous Kasalka Group have been subjected to complex block faulting and some low angle faulting.

The French Peak occurrence area is predominantly underlain by bedded purple andesitic to dacitic lapilli, lithic and crystal tuffs. The southern portions of the property are underlain by andesite and rhyolite flows and tuffs, and rhyodacite. Generally, bedding strikes east-northeast with moderate (10-30 degree) northwest dips. The property covers an area of intersecting north-northwest and east striking faults.

Mineralization consists of steep and low angle quartz-carbonate (siderite) veins and shear zones hosting tetrahedrite, argentiferous galena, chalcopyrite, sphalerite and pyrite. The Ute vein system, containing coarse-grained galena and tetrahedrite, is located in shear zones in the bedded volcanic rocks. The main vein strikes east and dips steeply north to vertical. The vein system, apparently related to a major fault, has been exposed over a strike length of 457 metres and is of variable width. The system varies from a simple unmineralized break to broadly sheared areas, 1.5 to 4.5-metres wide, containing several veins and sulphide stringers with disseminated mineralization between them. Massive tetrahedrite, galena and chalcopyrite with disseminated pyrite was confirmed at depth along the vein structure which lies in a subaerial to subaqueous sequence of rhyolitic and andesitic flows and tuffs. Mineralized vein sections vary in width from less than 2 centimetres up to 1 metre. Rhyolitic rocks, in general, display considerable carbonate and sericite alteration and the matrix is highly clouded with hematitic(?) particles.

The Rio vein system, located 122 metres south of the Ute vein system, consists of massive, banded chalcopyrite, tetrahedrite and system, consists of massive, balance could the vein system is pyrite within a bedded rhyolite tuff unit. The vein system is essentially conformable with the tuff beds but appears to be the vein strikes northeast and dips moderately northwest towards the Ute vein system.

The mineralized vein systems are surrounded by an alteration zone, from 1 to more than 30 metres in width, which consist of bleaching, manganese staining, silicification and clay alteration.

The Hematite zone, located 1100 metres southeast of the Rio and Ute vein systems, comprises a strong hematite-pyrite-clay-altered zone containing several banded siderite-pyrite-quartz-chalcedony stringer veins within an andesitic tuff. Minor chalcopyrite-pyrite-tetrahedrite occurs. Drill core assayed 1.38 grams per tonne gold and 12.7 grams per tonne silver (Assessment Report 13834). Small amounts of selected ore from opencuts was shipped from the property in 1964-65 and 1974. An adit was collared in the fall of 1976.

Unclassified reserves are 2630 tonnes grading 411.0 grams per tonne silver, 14 per cent lead, 5 per cent copper, and 2.4 grams per tonne gold (CIM Special Volume 37, page 185).

# BIBLIOGRAPHY

EMPR AR 1956-29; 1964-50,51 EMPR ASS RPT 6014, 7239, 8165, 9488, 13266, 13834, 15243, \*16824, \*18215, \*19142, 21619, 21698 EMPR EXPL 1976-E156,E157; 1979-232; 1981-49; 1985-C326,C327 EMPR FIELDWORK 1974, p. 82; 2000, pp. 253-268 EMPR GEM 1974-272 EMPR GEOLOGY \*1976, p. 106 EMPR MAP 1; 65, 1989; 69-1 (#226) EMPR PF (Memorandum on Production at the French Peak property, 1976; Schroeter, T. (1976): Monthly Report; Statement of Material Facts, Silverado Mines Ltd. July 8, 1987) EMR MIN BULL MR 223 B.C. 246 EMR MP CORPFILE (Renniks Resources Ltd.) GSC BULL 270 GSC MAP 971A GSC OF 215; 720; 2322 GCNL #84,#98,#103,#110,#115,#119,#122,#123,#127, 1976; Mar. 22, 1977 DATE CODED: 1985/07/24

DATE REVISED: 1990/08/31

CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093M 016</u>		NATIONAL MINERAL INVENTORY:	093M7 Mo1		
NAME(S):	DAISY, GYPSY, NETALZUL					
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca		
NTS MAP: BC MAP:	093M06E		UTM ZONE:	09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 17 54 N 127 00 22 W 1633 Metres Within 500M Sample #1 (Assessment Report 3	969).	NORTHING: EASTING:	6129802 626589		
COMMODITIES:	Molybdenum Copper	r				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcopyrite Quartz Silica Biotite Silicific'n Biotite Unknown					
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Stockwork Disserr Porphyry Hydrotl L05 Porphyry Mo (Low F- type	ninated nermal Epigenetic e)				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER		
Upper Cretaceous Upper Cretaceous	Kasalka	Undefined Formation	Bulkley Intrusions			
LITHOLOGY:	Quartz Monzonite Granodiorite Dacite Sandstone Siltstone Shale					
HOSTROCK COMMENTS:	Volcanics are informally named	the Suskwa volcanics.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Skeena	Ranges		
CAPSULE GEOLOGY						
	The Daisy molybdenum occurrence is located on the northwest portion of Netalzul Mountain, 43 kilometres east of Hazelton. The mineralization is hosted in the contact area of a granodioritic to quartz monzonitic plug of the Late Cretaceous Bulkley Intrusions. The plug intrudes dacitic volcanic rocks of the Upper Cretaceous Suskwa volcanics, an informal subdivision of the Kasalka Group, and clastic sediments of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. Sparse molybdenite and chalcopyrite are associated with a northeast trending set of fractures which dip 60 degrees north. The zone is 200 to 250 metres wide and is confined to the quartz monzonite. Molybdenite is disseminated in the granitic host rocks and also occurs as coatings and fracture fillings associated with quartz stringers (Assessment Report 3969). Local silicification and biotitization are evident, but not well developed					
BIBLIOGRAPHY						
	EMPR ASS RPT 2663, 2962 EMPR GEM 1970-174, 1971 EMPR MAP 69-1 EMPR PF (Twin Peaks Min EMR MP CORPFILE (Twin P GSC OF 2322	, 3047, *3969, 13924, -187, 1972-431 es Ltd., Prospectus, c eaks Mines Ltd.)	15186 January 18, 1971)			
DATE CODED: DATE REVISED:	1985/07/24 1991/08/14	CODED BY: GSB REVISED BY: RHM	F	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>093M 017</u>			NATIONAL MI	NERAL INVE	NTORY: 093M7 Ag1
NAME(S):	HIGGINS, GOAT ROCK, N	IAT				
STATUS:	Showing British Columbia				MINING DI	VISION: Omineca
NTS MAP:	093M07W				UTN	1 ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: LOCATION ACCURACY: COMMENTS:	55 18 26 N 126 59 35 W 1600 Metres Within 1 KM Location of showings (Ge	ological Survey of Ca	anada Memoir 223	3)	NOF EA	RTHING: 6130814 ISTING: 627389
	Silver	Gold	l ead	<i>,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Zinc	Copper
						Coppo.
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Quartz Unknown	Tetrahedrite	Chalcopyrite	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal I05 Polymetallic veins Attitude of sulphide vein.	Epigenetic Ag-Pb-Zn±Au	STRIKE/D	IP: 060/60E	TRE	:ND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE	GROUP		MATION mod/Unknown For	motion	IGNEOUS/	METAMORPHIC/OTHER
Upper Cretaceous	Dowsel Lake	Unna		malion	Bulkley Int	rusions
LITHOLOGY:	Hornfels Granodiorite Argillite Shale Siltstone Sandstone Conglomerate Coal Carbonaceous Sediment/S	Sedimentary				
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Bowser Lake Contact	RELATIO	ONSHIP:	PHYSIOGRAF	GRADE: I	Skeena Ranges Hornfels
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON	I: N		
	CATEGORY: Assay/an SAMPLE TYPE: Grab COMMODITY Silver	nalysis <u> </u>	YEAR ADE 4.0000 Grams	2: 1954 per tonne		
COMMENTS: REFERENCE:	Gold Grab sample containing 2 Geological Survey of Cana	3. 6 per cent sulphides. ada Memoir 223, pag	4000 Grams e 46.	per tonne		
CAPSULE GEOLOGY						
	The Higgins s Mountain, 42 kilom The host rock Middle Jurassic to of sandstone, shal coal and carbonace Cretaceous Bulkley showing. The showings width, and several The sulphide vein the granodiorite s dips 60 degrees so tetrahedrite. Within the gr	showings are lo netres east of ts are hornfels o Lower Cretace e, conglomerat cous sediments. r Intrusions oc consist of a s quartz veins, is hosted by h stock. This ve butheast, conta	cated on the Hazelton. ed clastic so ous Bowser L e, siltstone A granodic curs a short ulphide vein 60 centimet ornfelsed se in, which st ins pyrite, e of the more	north side edimentary ake Group. , argillite rite plug c distance s , 10 centim res to 2 me diments 150 rikes 060 c sphalerite, e significa	e of Netal rocks of These co and mino of the Lat south of t netres in tres wide metres a galena a ant quarts	tzul the onsist or ce che from nd and

veins is exposed in a 3 metre pit. This vein, 1.2 metres wide, strikes 075 degrees and dips 60 degrees southeast. Mineralization consists of sphalerite, galena, pyrite and chalcopyrite. A sample assayed 3.4 grams per tonne gold and 1924 grams per tonne silver (Geological Survey of Canada Memoir 223, page 46). Several other quartz veins occur within the granodiorite on the property.

### BIBLIOGRAPHY

EM EXPL 1999-80-84 EMPR AR 1917-106 EMPR BULL 10-71 EMPR GEOLOGY 1975-P72 EMPR MAP 69-1 (#228) GSC MAP 971A GSC MEM \*223-46 GSC OF 2322 GSC P 44-24

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/14 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 018</u>		NATIONAL MINERAL INVENTORY:	:	
NAME(S):	<u>NETALZUL</u> , GYPSY				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M07W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 17 48 N 126 55 42 W 2000 Metres Within 5 KM No information, other than the location, #229). This occurrence was previousl no documentation to support this.	is available (Map 69-1, y called the Gypsy but ther	NORTHING: EASTING:	6129760 631532	
COMMODITIES:	Silver				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Unknown				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	<u>GROUP</u> Bowser Lake	FORMATION Trout Creek	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Sediment/Sedimentary Conglomerate Sandstone Siltstone Shale Coal				
HOSTROCK COMMENTS:	The host rock is not known.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Skeena	Ranges	
CAPSULE GEOLOGY	OGY The Netalzul showing is shown on Map 69-1 as an unnamed silver occurrence (#229) located on the northeast side of Netalzul Mountain, 48 kilometres east of Hazelton. This occurrence was previously called the Gypsy, but there is no documentation to support this. The area is underlain by the Upper Jurassic Trout Creek Formation (Bowser Lake Group) which comprises conglomerate, sandstone, siltstone, shale and coal. No other information is available.				
BIBLIOGRAPHY	EM EXPL 1999-80-84 EMPR MAP 69-1 (#229) GSC OF 2322				
DATE CODED: DATE REVISED:	1985/07/24 1991/08/26	CODED BY: GSB REVISED BY: RHM	ļ	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 019</u>	NATIONA	L MINERAL INVENTORY:			
NAME(S):	COPPER					
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca			
NTS MAP: BC MAP:	093M07W					
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 17 12 N 126 47 50 W 1500 Metres Within 5 KM Occurrence #230, located south of th	he Tsezakwa River (Map 69-1).	EASTING: 639890			
COMMODITIES:	Copper					
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown					
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Unknown					
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER			
Jurassic Eocene	Hazelton	Unnamed/Unknown Formation	Babine Intrusions			
LITHOLOGY:	Volcanic Sediment/Sedimentary Intrusive					
HOSTROCK COMMENTS:	The specific host rock of the minera	alization is not known.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOC	GRAPHIC AREA: Nechako Plateau			
CAPSULE GEOLOGY	A copper showing is reported (Map 69-1, #230) on the eastern slope of Netalzul Mountain, 54 kilometres east of Hazelton. The area is underlain by Upper Cretaceous volcanic rocks of the Kasalka Group, informally called the French Peak volcanics (Geological Survey of Canada Open File 2322), in fault contact with sedimentary strata of the Jurassic Hazelton Group and the Middle Jurassic to Lower Cretaceous Bowser Lake Group. Eocene Babine Intrusions also occur in the area. No information is available on the copper showing					
BIBLIOGRAPHY	EMPR MAP *69-1 (#230) GSC OF 2322					
DATE CODED: DATE REVISED:	1985/07/24 1991/11/15	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N			

MINFILE NUMBER:	<u>093M 020</u>	NATIONAL	MINERAL INVENTORY:	093M2 Cu2	
NAME(S):	WASP, KATE				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M02E		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 03 18 N 126 39 46 W 900 Metres Within 500M Location is from Assessment Report 30	647.	NORTHING: EASTING:	6103408 649290	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo ± Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER	
Eocene			Babine Intrusions		
LITHOLOGY:	Biotite Feldspar Porphyry Volcanic				
HOSTROCK COMMENTS:	Volcanic rocks belong to the informall	y named Saddle Hill volcanics.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGR	APHIC AREA: Nechako	Plateau	
CAPSULE GEOLOGY					
	The Wasp showing is located 49 kilometres northeast of Smithers and 10 kilometres west of Smithers Landing on Babine Lake. The area is underlain by the Jurassic Saddle Hill volcanics, an informal subdivision of the Hazelton Group. The volcanic rocks are intruded by biotite feldspar porphyry of the Eocene Babine Intrusions. Pyrite and traces of chalcopyrite are reported from diamond drill holes in porphyry and hornfelsic fragmental volcanic rock (Minister of Mines Annual Report 1968, page 132)				
BIBLIOGRAPHY	EM OF 2001-03 EMPR AR 1968-132 EMPR ASS RPT *3647, 3869 EMPR GEM 1971-187, 1972-428 EMPR GEOL 69-1 (#231) GSC OF *2322	3			
DATE CODED: DATE REVISED:	1985/07/24 1991/11/13	CODED BY: GSB REVISED BY: RHM	F	TIELD CHECK: N TIELD CHECK: N	

MINFILE NUMBER:	<u>093M 021</u>	NATIONAL	MINERAL INVENTORY: 093M3 Ag1
NAME(S):	VIRGINIA SILVER, TETRA, MORICETOW	N	
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093M03W	Underground	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 01 56 N 127 16 19 W 549 Metres Within 500M Southern adit located in a canyon of Cau of Bulkley River, 4.25 kilometres east of kilometres north of Smithers (Minister of	usqua Creek, 2 kilometres east Moricetown and 22 Mines Annual Report 1968).	NORTHING: 6099742 EASTING: 610447
COMMODITIES:	Silver Lead	Zinc	Gold
MINERALS			
SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Tetrahed Pyrargyrite Trace bournonite, polybasite and pyrarg Quartz Ankerite Pyrite Ferrodolomite Clay Carbonate Argillic Unknown	drite Bournonite Polybasite yrite. Arsenopyrite	
DEPOSIT		Discontinuted	
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Epigenetic Hydrothermal 105 Polymetallic veins Ag-Pb-Zn±Au Shear-like vein zone strikes 020 to 040 d east.	STRIKE/DIP: 030/15E	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Volcanic Sandstone Shale Pebble Conglomerate Latite Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGR	APHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	VIRGINIA SILVER	REPORT ON: Y	
REFERENCE:	CATEGORY: Unclassified QUANTITY: 20000 Tonnes <u>COMMODITY</u> Silver Gold Lead Zinc CIM Special Volume 37, page 185.	YEAR: 1983 <u>GRADE</u> 2948.4000 Grams per tonne 1.1900 Grams per tonne 4.4000 Per cent 2.2000 Per cent	
CAPSULE GEOLOGY			
	The Virginia Silver dep River, 5 kilometres east of The Kitsuns Creek Forma Group, in this vicinity, is volcanic sandstones intercal conglomerate member. The se anticline-syncline pair stri east. The eastern limb of t strikes 020 degrees and dips	posit is located east of t Moricetown. Ation of the Lower Cretace dominated by dense, dark Lated with lesser black sh edimentary rocks are compr tking 020 degrees and over the syncline is cut by a f s 65 degrees west, in effe	he Bulkley ous Skeena greenish grey ale and a pebble essed into an turned to the ault that ct parallel to

the fold axial planes. The fault has a small displacement of 12 to 15 metres. Two latite dikes cut the sediments and follow the bedding in the parts of the folds where the orientations are similar. The main mineralization is contained in a shear-like vein zone

that, although quite irregular locally, maintains a fairly regular

PAGE: 595 REPORT: RGEN0100

# CAPSULE GEOLOGY

attitude overall. It strikes 020 to 040 degrees and dips approximately 15 degrees east. The main vein/shear varies locally from a small series of thin veinlets that horsetail into the bedding, to a discrete mass 1.2 metres wide or more with minor mineralization extending into the walls as veinlets or as disseminations. The vein consists of partially replaced wallrock with variable amounts of quartz, ankerite and sulphide minerals in bands, blebs and disseminated grains. The sulphides in decreasing abundance are sphalerite, galena, pyrite, tetrahedrite, arsenopyrite and traces of bournonite, polybasite and pyrargyrite. In general, sphalerite occurs with galena, in part veining the sphalerite, in discrete bands. Pyrite and arsenopyrite occur as discrete crystals but commonly in separate bands of concentration. Tetrahedrite occurs with galena, in some quartz-rich areas as a minor matrix to separate quartz crystals, and as transecting late veinlets. The silver minerals are associated with the tetrahedrite, in part with exsolution textures. Minor thin parallel carbonate veinlets cut all other mineralization. Minor mineralization is also contained in a steep fault (mentioned previously) and in a small steep shear that strikes north on the western limb of the anticline.

Alteration in the vicinity of the veins consists of porphyroblastic ferrodolomite and a variable amount of kaolinization of feldspars. It is most intense in the immediate vicinity of the vein/shear zone and most noticeable in a latite dike which locally occurs in the zone.

Past development consisted of two adits, drifting and a raise. Some ore was shipped in 1975-76. A 50 ton-per-day mill was installed in 1980; approximately 90 tonnes of ore was reportedly processed before the mill froze in December 1981, and was not reopened. Unclassified reserves are 20,000 tonnes grading 2948.4 grams per tonne silver, 1.19 grams per tonne gold, 4.4 per cent lead and 2.2 per cent zinc (CIM Special Volume 37, page 185).

#### BIBLIOGRAPHY

DATE CODED: 1985/07/24 DATE REVISED: 1990/09/07 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093M 022</u>	NATIONA	L MINERAL INVENTORY:	093M3 Mo3
NAME(S):	LUNO CREEK MO #2			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M03W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 08 42 N 127 18 18 W 1000 Metres Within 5 KM Occurrence #233 (Map 69-1).		NORTHING: EASTING:	6112239 608030
COMMODITIES:	Molybdenum			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM Bulkley Intrusions	ORPHIC/OTHER
LITHOLOGY:	Quartz Monzonite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOC	GRAPHIC AREA: Skeena	Ranges
CAPSULE GEOLOGY	The Luno Creek Mo #2 oc which shows a molybdenite oc Cretaceous Bulkley Intrusion	currence is located from currence in quartz monzo us.	n Map 69-1 (#233) onite of the Late	
BIBLIOGRAPHY	EMPR MAP 69-1 (#233) GSC OF 2322			

DATE CODED:	1985/07/24	CODED BY:	GSB	FIELD CHE	CK:	Ν
DATE REVISED:	1991/08/26	REVISED BY:	RHM	FIELD CHE	CK:	Ν

MINFILE NUMBER:	<u>093M 023</u>	NATIONAL MINE	ERAL INVENTORY:	093M3 Mo2
NAME(S):	LUNO CREEK MO #1			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M03W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 36 N 127 20 18 W 700 Metres Within 5 KM Occurrence #234 (Map 69-1).		NORTHING: EASTING:	6113856 605866
COMMODITIES:	Molybdenum			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	<u>GROUP</u>	FORMATION	IGNEOUS/METAMO Bulkley Intrusions	DRPHIC/OTHER
LITHOLOGY:	Quartz Monzonite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPH	IC AREA: Skeena F	Ranges
CAPSULE GEOLOGY	The Luno Creek Mo #1 sho which shows a molybdenite occ Cretaceous Bulkley Intrusions No other information is	wing is located from Map 69 surrence in quartz monzonite available.	-1 (#234) of the Late	
BIBLIOGRAPHY	EMPR MAP 69-1 (#234) GSC OF 2322			

DATE CODED:     1985/07/24     CODED BY:     GSB       DATE REVISED:     1991/08/26     REVISED BY:     RHM	FIELD CHECK: N FIELD CHECK: N
---	----------------------------------

MINFILE NUMBER:	<u>093M 024</u>		NATION	AL MINERAL INVENTORY:	
NAME(S):	MO				
STATUS: REGIONS: NTS MAP: BC MAP: LATITUDE: LONGTUDE:	Showing British Columbia 093M05W 55 18 27 N 127 45 54 W			MINING DIVISION: UTM ZONE: NORTHING: EASTING:	Omineca 09 (NAD 83) 6129705 578394
ELEVATION: LOCATION ACCURACY: COMMENTS:	1220 Metres Within 500M Location of the "Discovery	<sup>v</sup> Show" (Assessment Re	port 13184).	LACTING.	570004
COMMODITIES:	Gold Arsenic	Silver	Zinc	Lead	Copper
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Arsenopyrite Sphalerit Quartz Unknown	e Chalcopyrite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polymetallic veins	Disseminated Epigenetic Ag-Pb-Zn±Au	Igneous-contact		
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATIC Kitsuns Cr	DN eek	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Granodiorite Sandstone Siltstone Shale				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	Plutonic Rocks	PHYSIO	GRAPHIC AREA: Nass De	epression
INVENTORY					
URE ZONE:	SAMPLE		REPORT ON: N		
ORE ZONE:	SAMPLE CATEGORY: Assay/an SAMPLE TYPE: Grab COMMODITY Silver	alysis GRADE	REPORT ON: N YEAR: 1984		
	SAMPLE CATEGORY: Assay/an SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Lead Zinc	alysis <u>GRADE</u> 126.700 9.9000 1.2000 1.4000	REPORT ON: N YEAR: 1984 O Grams per tonne Grams per tonne Per cent Per cent		
COMMENTS: REFERENCE:	SAMPLE CATEGORY: Assay/an SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Lead Zinc Sample from 2.5-centimetr Assessment Report 13184	alysis <u>GRADE</u> 126.700 9.9000 1.2000 1.4000 re wide quartz vein.	REPORT ON: N YEAR: 1984 O Grams per tonne Grams per tonne Per cent Per cent		
COMMENTS: REFERENCE: CAPSULE GEOLOGY	SAMPLE CATEGORY: Assay/an SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Lead Zinc Sample from 2.5-centimetr Assessment Report 13184 The Mo showing on the west slope of The area is und the Late Cretaceous siltstone and shale (Skeena Group). Several small sphalerite and arso mineralized veins of granodiorite with s disseminated minera A sample from arsenopyrite and sp grams per tonne si per cent arsenic (J	alysis <u>GRADE</u> 126.700 9.9000 1.2000 1.2000 1.4000 re wide quartz vein. der lain by a small s Bulkley Intrusic e of the Lower Cross quartz veins carrist e of the Lower Cross quartz veins carrist e of the Lower Cross a 2.5 centimetre phalerite assayed lver, 1.4 per cent Assessment Report	REPORT ON: N YEAR: 1984 O Grams per tonne Grams per tonne Per cent Per cent Per cent in. intrusive gram ons, which cuts etaceous Kitsuns cying disseminat en found on the p red contact zone The host rock wide quartz vei: 9.9 grams per t czinc, 1.2 per 13184).	west of Hazelton odiorite body, of sandstone, Creek Formation ed chalcopyrite, Mo claim. The of the s also carry n carrying onne gold, 126.7 cent lead and 2.4	

# BIBLIOGRAPHY

GSC OF 2322 (#222)

DATE CODED: 1985/08/30 DATE REVISED: 1991/09/16 CODED BY: AFW REVISED BY: RHM

MINFILE NUMBER:	<u>093M 025</u>	NATIONAL MINI	ERAL INVENTORY:	
NAME(S):	MOUNT SEATON, LUNO CREEK, WOL	_F		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M03E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 22 N 127 13 39 W 1900 Metres Within 1 KM Showing (Assessment Report 9755).		NORTHING: 6115452 EASTING: 612890	
COMMODITIES:	Molybdenum			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Pyrite K-Feldspar Sericit K-Feldspar Pyrite Sericite Potassic Argillic Unknown	e Quartz Biotite e Clay Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Vein Hydrothermal Porphyry L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
Upper Cretaceous	Dowser Lake	officined/officiowith officiation	Bulkley Intrusions	
LITHOLOGY:	Granodiorite Feldspar Porphyry Dike Hornfels Clastic Sediment/Sedimentary			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	PHYSIOGRAPH RELATIONSHIP:	IIC AREA: Skeena Ranges GRADE: Hornfels	
CAPSULE GEOLOGY				
	The Mount Seaton showing is located on the northeastern portion of Mount Seaton, 30 kilometres east-southeast of Hazelton. The mineralization is hosted within the Blunt Mountain Stock, a Late Cretaceous granodiorite stock of the Bulkley Intrusions. A pyrite halo is present in the Middle Jurassic to Lower Cretaceous Bowser Lake Group rocks, which are locally hornfelsed and are mainly clastic sedimentary rocks. The molybdenite mineralization occurs in granodioritic rocks and is associated with an early K-feldspar alteration and a later sericite-clay alteration. Molybdenite occurs as traces on fractures, in quartz-K-feldspar veinlets and in quartz veins along prominent east-trending fractures with K-feldspar alteration. The mineralization shows a spatial relationship to a swarm of feldspar porphyry dikes at the southeast edge of the stock.			
BIBLIOGRAPHY	EMPR EXPL 1975-E146, 1976- EMPR GEM 1970-172; 1971-18 EMPR ASS RPT 2529, 3360, 4 EMPR MAP 69-1 GSC OF 2322	E154 8; 1973-355 429, 5994, 8716, *9755		
DATE CODED: DATE REVISED:	1985/07/24 1991/08/16	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 026</u>		NATIONAL MINERAL INVENTORY:	093M3 Cu1
NAME(S):	<u>BLUNT</u> , MARY, GYPSY			
STATUS: REGIONS: NTS MAP	Showing British Columbia	Open Pit	MINING DIVISION:	Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 18 N 127 12 12 W 1700 Metres Within 500M Mineralized areas (Assess	sment Report 3360).	NORTHING: EASTING:	6117222 614385
COMMODITIES:	Copper	Molybdenum		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Molybder Pyrite Biotite Pyrite Potassic Unknown	nite K-Feldspar Pyrite Biotite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L04 Porphyry Cu ± Mo	Stockwork ± Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Bowsor Lako	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Upper Cretaceous	Bowser Lake	Unnamed/Unknown FUI	Bulkley Intrusions	
LITHOLOGY:	Granodiorite Hornfels Sediment/Sedimentary Greywacke Shale			
HOSTROCK COMMENTS:	The host rock is the Blun	t Mountain stock.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Overlap Assemblage RELATIONSHIP:	PHYSIOGRAPHIC AREA: Skeena F GRADE: Hornfels	Ranges
CAPSULE GEOLOGY The Blunt Mountain copper-molybdenum showings are located north of the saddle between Blunt Mountain and Mount Seaton at the headwaters of Luno and Blunt creeks. The showings are hosted within the Blunt Mountain stock of the Late Cretaceous Bulkley Intrusions. A pyrite halo is strongly developed within the Middle Jurassic to Lower Cretaceous Bowser Lake Group hornfelsed sedimentary rocks. The mineralization occurs in a northeast-trending zone, approximately 2 kilometres in length, which probably extends as far as the Mount Seaton occurrence (093M 025). The chalcopyrite mineralization is associated with potassic alteration, with hornblende altered to biotite. Molybdenite is commonly associated with the copper mineralization.				
BIBLIOGRAPHY	EMPR ASS RPT 2529, EMPR MAP 69-1 (#23 EMPR GEM 1970-172, EMPR EXPL 1975-E14 EMPR PF (Twin Peak GSC OF 2322	*3360, 4429, 5994 5) 1971-188, 1973-355 6, 1976-E154 Mines Ltd., Prospectus, Ja	anuary, 1971)	
DATE CODED: DATE REVISED:	1991/08/26	REVISED BY: RHM	F	IELD CHECK: N

MINFILE NUMBER:	<u>093M 027</u>		NA	ATIONAL MINERAL INVENTO	RY: 093M3 Ag2
NAME(S):	<b>Max</b> , Martin, Mg, Bon 1-3, Martin 1-6, Mg	i 1-14			
STATUS:	Prospect			MINING DIVISIO	N: Omineca
NTS MAP:	093M06E 093M03E			UTM ZOM	NE: 09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 20 N 127 10 33 W 800 Metres Within 500M Location from Figure 2, As	ssessment Report 1	18572.	NORTHIN EASTIN	IG: 6126601 IG: 615891
COMMODITIES:	Silver	Gold	Lead	Zinc	Antimony
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Pyrite Quartz Argillic Unknown	Jamesonite Siderite	Arsenopyrite		
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Epigenetic 105 Polymetallic veins	Discordant Replacement	Massive	Breccia	
SHAPE: DIMENSION:	Tabular		STRIKE/DIP:	025/80W TREND/F	PLUNGE:
HOST ROCK DOMINANT HOSTROCK	Metasedimentary				
STRATIGRAPHIC AGE	GROUP	<u>FOF</u>	RMATION	IGNEOUS/MET	AMORPHIC/OTHER
Jurassic-Cretaceous Upper Cretaceous	Bowser Lake	Unc	lefined Formation	Bulkley Intrusic	ons
LITHOLOGY:	Hornfels Diorite Biotite Feldspar Porphyry I Sandstone Siltstone Conglomerate Black Shale Tonalite	Dike			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Bowser Lake Contact	RELAT	Pł FIONSHIP:	HYSIOGRAPHIC AREA: Skee GRADE: Horn	na Ranges fels
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Drill Core COMMODITY	nalysis Gł	YEAR: 1	988	
COMMENTS: REFERENCE:	Silver Gold Sample from a 0.5 metre d Assessment Report 18572	12 Irill intersection. 2.	48.0000 Grams per 1.1300 Grams per	tonne tonne	
CAPSULE GEOLOGY					
	The Max prope Mountain, 32 kilom The property conglomerate of th Group. These have Cretaceous Bulkley developed for 300 sedimentary rocks altered. The intrusive	rty is locate etres east of is underlain e Middle Jura been intrude Intrusions. metres or mor are highly fr is 1 kilomet	d on the northea Hazelton. by sandstone, si ssic to Lower Cr d by a circular A contact metam e around the int actured and, loc re in diameter a	st slope of Blunt ltstone and etaceous Bowser Lake stock of the Upper horphic hornfels has rusive. The cally, hydrothermally and dioritic to	

tonalitic in composition. It has sharp vertical contacts and is composed of fine grained plagioclase, hornblende, biotite and minor quartz.

The Bowser Lake Group sediments generally strike northwest and

dip west. A distinctive black shale-siltstone forms part of the assemblage, with conglomerate at higher elevations. Dikes of greenish hornblende biotite quartz feldspar porphyry are commonly found as highly altered material associated with the mineralization.

Six main areas of silver-gold mineralization have been outlined in trenches and in drill holes. Mineralization consists of galena, sphalerite, jamesonite and pyrite in a gangue of quartz and manganiferous siderite, found mainly in altered Bowser Lake Group sediments adjacent to the diorite intrusions. The mineralization is generally fracture-controlled although some is "massive" and bedding controlled.

The Upper Showings (Spine, Arseno, Broken Bit and Bell) strike north to northeast, dipping steeply southwest. The Spine Zone contains some of the higher gold values with one sample assaying 22.7 grams per tonne gold across 15 centimetres in a chip sample (Assessment Report 18572).

Four zones (Creek, Main Trench, Knoll View and Holden) comprise the Creek Area where the mineralization trends northeast, dipping 25 to 30 degrees southeast.

A third area of mineralization is represented by the Bjorn and Dud Cap showings where mineralization is hosted in fractures and breccia.

Three other mineralized areas are called the Lower Creek Zone, East Zone and the Junction Show. One of the higher drill intersections was in hole 88-17, where 0.5 metre assayed 1.13 grams per tonne gold and 1248.0 grams per tonne silver (Assessment Report 18572).

#### BIBLIOGRAPHY

EM EXPL 1999-80-84 EMPR AR 1968-113 EMPR ASS RPT 2495, 6431, 6998, 14072, 18064, \*18572 EMPR EXPL 1977-E201; 1978-224 EMPR FIELDWORK 1978, p.102 EMPR GEM 1970-174 EMPR MAP 69-1 (#238) EMPR PF (Report by United Pacific Gold Ltd., c. 1987; Accura Resources Inc., Prospectus, 1988) GSC OF 2322 (#27) GCNL #242, 1977; #4,#9,#25,#138, 1978

DATE CODED: 1985/07/24 DATE REVISED: 1992/01/03 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 028</u>		NATIONAL MINERAL INVENTORY:	093M6 Cu3
NAME(S):	KING, SASKWA 1, SASK TEE, DENN, DENISON, DENISON CREEK, SUSKW	KWA 1-2, VA		
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093M06E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 22 47 N 127 08 22 W 1600 Metres Within 500M Location of grab sample, cent copper (Assessment	on Saskwa 1 claim, which assayed 0.68 t Report 9118, Geological Map).	NORTHING: EASTING: 8 per	6138623 617883
COMMODITIES:	Copper	Molybdenum		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Pyrite K-Feldspar Kaolinite Potassic Unknown	Molybdenite e Argillic		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo	o ± Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
	GROUP	FORMATION		ORPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	61 Ma Potassium/Argon Hornblende			
LITHOLOGY:	Quartz Diorite Clastic Sediment/Sedimer Diorite Granodiorite Granite	ntary		
HOSTROCK COMMENTS:	Isotopic age date is from	n Geological Survey of Canada Open File	2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Skeena I	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Copper Molybdenum	analysis YEAR: <u>GRADE</u> 0.6800 Per cent 0.0050 Per cent	1980	
COMMENTS:	Sample of granodiorite fr claim.	rom the southwest portion of the Saskwa	a 1	
REFERENCE:	Assessment Report 9118	3.		
CAPSULE GEOLOGY	The King showing is located on the Saskwa 1 claim, 38 kilometres east-northeast of Hazelton on the west side of Mount Thoen. The property is underlain by a stock of the Late Cretaceous Bulkley Intrusions which intrude Middle Jurassic to Lower Cretaceous Bowser Lake clastic sedimentary rocks. The intrusive rocks are coarse-grained and range from diorite through granodiorite to granite in composition. Aplite dikes are common in the stock. Fracture-controlled chalcopyrite mineralization is very extensive on the property, occurring over an area 1500 metres east-west and 800 metres north-south. Molybdenite mineralization is more localized and is found in fractures, with or without quartz, cutting the chalcopyrite mineralization. Pyrite is associated with the chalcopyrite, but is not abundant.			

Weak K-feldspar alteration is associated with the mineralization, and kaolinization is associated with some of the molybdenite mineralization. Magnetite is found in the intrusive rocks away from the mineralized areas. A sample of granodiorite assayed 0.68 per cent copper and 0.005 per cent molybdenum (Assessment Report 9118).

#### BIBLIOGRAPHY

EMPR AR 1968-112 EMPR GEM 1974-271, 1975-E148 EMPR ASS RPT 793, 1590, 5278, \*5626, \*9118 EMPR MAP 69-1 (#239) GSC MAP 971A GSC P 44-24 GSC OF 2322 (#213)

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/20 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 029</u>			NATIONAL MINE	RAL INVENTORY:	093M6,7 Cu2
NAME(S):	BERGSTEN					
STATUS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP:	093M07W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 23 37 N 126 59 48 W 1550 Metres Within 1 KM Location is from Minister of Mines	s Annual Report 1	929, page C16	0.	NORTHING: EASTING:	6140420 626884
COMMODITIES:	Lead Zinc		Silver			
MINERALS						
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite , Rhodonite Unknown	Arsenopyrite	Pyrite (	Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Shear Epigenetic Hydro 105 Polymetallic veins Ag-Pb	r othermal o-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
	GROUP Bowser Lake		ION d Formation		IGNEOUS/METAMO	ORPHIC/OTHER
Upper Cretaceous	Dowsei Lake	Undenne	u i onnation		Bulkley Intrusions	
LITHOLOGY:	Quartzite Granodiorite Sandstone Siltstone Shale Argillite Conglomerate Coal Carbonaceous Rock					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Bowser Lake Contact	Plutonic Rocks RELATIONS	s SHIP:	PHYSIOGRAPHI	C AREA: Skeena F GRADE:	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON:	: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Lead Zinc Selected samples. Also, 0.7 grat Minister of Mines Annual Report	GRADE 288.00 4.800 5.500 m per tonne gold.	YEAR: 00 Grams p 0 Per cen 0 Per cen	: 1929 per tonne t t		
		1020, page 0101				
	Three different mi on the east side of The Hazelton. The host rocks in Middle Jurassic to Lowe Lake Group includes san conglomerate and minor dikes, stocks and plugs cut the sedimentary roc One occurrence is mineralized with galene width of 30 centimetres northwest.	ineral occurs oen Mountain, the area are er Cretaceous ndstone, silt coal and cas s of the Uppe cks. described as a, sphalerite s. The vein	rences occu , 46 kilome e clastic s Bowser La stone, sha rbonaceous er Cretaceo s a shear-z e, arsenopy strikes 05	ar in the Ben etres east-no sedimentary r ake Group. T ale, argillit units. Grau bus Bulkley T cone 2 metres write and pyr 50 degrees an	rgsten basin ortheast of rocks of the The Bowser te, nodioritic Intrusions s in width, rite across a nd dips	

A second occurrence is located on the west side of the basin, where, across a width of six metres, three "seams" of galena and sphalerite in a gangue of rhodonite cut quartzite. Selected samples

assayed 0.7 gram per tonne gold, 288.0 grams per tonne silver, 4.8 per cent lead and 5.5 per cent zinc (Minister of Mines Annual Report 1929). The mineralization strikes 040 degrees and dips southeast. The third area is located on the east wall of the basin where minor chalcopyrite mineralization is present in several spots in granodiorite cutting quartzite.

### BIBLIOGRAPHY

 EMPF	AR	1929	9-C160
GSC	OF	2322	

DATE CODED: 1991/08/22 DATE REVISED: 1991/08/23 CODED BY: RHM REVISED BY: RHM

MINFILE NUMBER:	<u>093M 030</u>	NATI	ONAL MINERAL INVENTORY:
NAME(S):	O.K. COPPER		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093M06E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 23 06 N 127 01 06 W 1900 Metres Within 500M Location from Minister of Mines Annual	Report 1929, page C160.	NORTHING: 6139422 EASTING: 625539
COMMODITIES:	Copper Gold	Silver	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo ± Au	105	Polymetallic veins Ag-Pb-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions
LITHOLOGY:	Granodiorite Sediment/Sedimentary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHY	SIOGRAPHIC AREA: Skeena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Rock <u>COMMODITY</u> Silver Gold Copper A 60-centimetre sample from the "best Minister of Mines Annual Report, 1929,	YEAR: 1929 <u>GRADE</u> 377.2000 Grams per tor 10.3000 Grams per tor 2.1000 Per cent "showing. page C160.	9 nne
CAPSULE GEOLOGY	The O K company should	an one leasted year th	a summit of Mount
	The O.K. Copper Shown The showings occur in Late Cretaceous Bulkley Int rocks of the Middle Jurassi "Copper pyrites" and "coppe A 60-centimetre sample grams per tonne silver, 10. copper (Minister of Mines P No other information in	Igs are located hear the northeast of Hazelton. A small "tongue" of g crusions which has intr to Lower Cretaceous er-stain" are reported. e from the "best" showi 3 grams per tonne gold Annual Report 1929, pag Ls available.	granodiorite of the ruded sedimentary Bowser Lake Group. Ing assayed 377.20 d and 2.1 per cent ge C160).
BIBLIOGRAPHY	EMPR AR *1929-C160 GSC OF 2322		
DATE CODED: DATE REVISED:	1985/07/24 1991/08/22	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	093M 031 NATIONAL MINERAL INVENTORY: 093M6,7 Ag5			
NAME(S):	<u>O.K.</u> , O.K. SILVER			
STATUS:	Prospect		MINING DIVISION: Omineca	
REGIONS: NTS MAP:	093M06E		UTM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 23 02 N 127 01 07 W 1850 Metres Within 500M Location of adit (Assessment Report 87	11).	NORTHING: 6139298 EASTING: 625525	
COMMODITIES:	Silver Lead	Zinc	Gold	
MINERALS				
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Tetraheo Pyrite Quartz Carbonate Unknown	Irite		
DEPOSIT	Main			
CHARACTER: CLASSIFICATION:	Epigenetic Hydrothermal			
DIMENSION:	105 Polymetallic veins Ag-Pb-Zn±Au	STRIKE/DIP: 040/25W	TREND/PLUNGE:	
COMMENTS:	Attitude of bedding-parallel vein.			
DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
Jurassic-Cretaceous	Bowser Lake	Undefined Formation	Bulklow Intruciona	
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	63 Ma Potassium/Argon Biotite		Buikley Intrusions	
LITHOLOGY:	Tuffaceous Sandstone Argillite Granodiorite Clastic Sediment/Sedimentary Granodiorite Dike Granodiorite Sill			
HOSTROCK COMMENTS:	Isotopic age date is from Geological Survey of Canada Open File 2322.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPHIC AREA: Skeena Ranges		
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Rock <u>COMMODITY</u> Silver Gold Lead A 25-centimetre wide sample of vein abo	YEAR: 1921 <u>GRADE</u> 2743.2000 Grams per tonne 0.7000 Grams per tonne 36.0000 Per cent ove the adit.		
REFERENCE:	Minister of Mines Annual Report, 1921, p	age 100.		
CAPSULE GEOLOGY	The OK prespect is le	acted on the couth flank (	of Theory	
	The U.K. prospect is located on the south flank of Thoen Mountain and has been tested by several trenches and a 13-metre long adit.			
	The host rocks are Middle Jurassic to Lower Cretaceous Bowser Lake Group tuffaceous sandstones and other clastic sedimentary rocks. These are intruded by dikes and sills of granodiorite related to the Mount Thoen stock which is located to the northwest. The Mount Thoen stock is one of the Late Cretaceous Bulkley Intrusions. Mineralization consists of narrow veins containing galena, sphalerite, tetrahedrite and pyrite in a gangue of quartz and			

carbonate. A 25-centimetre wide sample from a vein above the adit assayed 2743.2 grams per tonne silver, 36 per cent lead and 0.7 gram per tonne gold (Minister of Mines Annual Report 1921, page 100). The vein ranges up to 60 centimetres in width. Other veins in the area

are 5 to 15 centimetres in width. The mineralization exposed in the adit is highly oxidized and no fresh sulphides remain. The veins are parallel to bedding which strikes 040 degrees and dips 25 degrees northwest into the mountain.

### BIBLIOGRAPHY

EMPR AR \*1921-99, 1929-160 EMPR ASS RPT 8711, 13502 GSC MEM 223-21 GSC MAP 971A GSC P 44-24 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/20 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 032</u>	NATIONAL MINERAL INVENTORY: 093M6 Ag4		
NAME(S):	TRUE FISSURE, THOEN, THOEN 2, THOEN 1-8			
STATUS:	Prospect		MINING DIVISION: Omineca	
NTS MAP:	093M06E		UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 22 15 N 127 02 02 W 1600 Metres Within 500M Adit (Assessment Report 11558).		NORTHING: 6137818 EASTING: 624598	
COMMODITIES:	Silver Lead	Zinc	Gold	
MINERALS				
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Tetraheo Pyrite Quartz Carbonate Unknown	drite Chalcopyrite		
	Voin			
CLASSIFICATION:	Epigenetic			
SHAPE:	Tabular			
COMMENTS:	Vein exposed on Thoen 4 claim.	STRIKE/DIP: 060/60	IKEND/PLUNGE:	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Jurassic-Cretaceous	GROUP Bowser Lake	FORMATION Unnamed/Unknown Formation	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Argillaceous Siltstone Sandstone Tuff Greywacke Chert Limestone Volcanic Conglomerate			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOG	RAPHIC AREA: Skeena Ranges	
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Rock <u>COMMODITY</u> Silver Gold Lead Zinc	YEAR: 1983 <u>GRADE</u> 1155.6000 Grams per tonne 0.6856 Grams per tonne 2.6600 Per cent 7.5000 Per cent		
COMMENTS:	Weighted average of samples from the v	western part of the vein over an		
REFERENCE:	Assessment Report 13091.			
CAPSULE GEOLOGY				
	east-northeast of Hazelton, property is developed by two trenches. The area is underlain b Bowser Lake Group sandstones and dip 40 degrees west. No strata are intruded by granc an apophysis of the Late Cre metamorphic hornfels is deve The True Fissure vein s dips 60 degrees southeast.	on the south side of Mou oshort adits and several by Middle Jurassic to Low and siltstones which st orthwest of the vein, the odioritic rocks of the Mo taceous Bulkley Intrusio cloped around the intrusi trikes at 060 to 080 deg It is intermittently exp	nt Thoen. The shallow er Cretaceous rike 170 degrees sedimentary unt Thoen stock, ns. A contact ve. rees azimuth and osed over a	

length of 600 metres and a vertical distance of 300 metres. It ranges in thickness from 0.33 to 0.88 metres and forms a lens 100 to

200 metres in length within the shear zone. Mineralization consists of galena, sphalerite, pyrite, chalcopyrite, arsenopyrite and tetrahedrite in a gangue of quartz and carbonate. The vein has been exposed on the Thoen 4 claim over a 130 metre strike length and a 60 metre vertical extent in a cliff, with an average width of 0.50 metres. The weighted average of samples taken from the western part of the vein over an average width of 0.50 metres is 1155.6 grams per tonne silver, 0.6856 gram per tonne gold, 7.5 per cent zinc and 2.66

#### BIBLIOGRAPHY

EMPR AR \*1921-98, 1922-98, 1927-133, 1929-159 EMPR MAP 69-1 (#243) EMPR ASS RPT 8338, 11558, \*13091 GSC MEM 223-21,83 GSC MAP 971A, 44-24 EMPR OF 1998-10

per cent lead (Assessment Report 13091).

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/20 CODED BY: GSB REVISED BY: RHM
MINFILE NUMBER:	<u>093M 033</u>		NATIONAL MINERAL INVENTORY:			
NAME(S):	NATLAN, NATLAN	11				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M06W			MINING DIVISION UTM ZONE	: Omineca : 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 25 20 N 127 17 26 W 1700 Metres Within 500M Natlan 11 claim.			NORTHING EASTING	: 6143107 : 608194	
COMMODITIES:	Molybdenum	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Py Quartz K-Feldspar Py Potassic Unknown	rite Chalcopyrite rite Pyrite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Porphyry L04 Porphyry Cu	Stockwork u ± Mo ± Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP Bowser Lake	FOR		IGNEOUS/METAN	IORPHIC/OTHER	
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	64 Ma Potassium/Argon Hornblende			Bulkley Intrusions	3	
LITHOLOGY:	Monzonite Quartz Monzonite Siltstone Greywacke Argillite					
HOSTROCK COMMENTS:	Isotopic age date is	s from Geological Survey o	of Canada Open File	2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Overlap A RELAT	ssemblage IONSHIP:	PHYSIOGRAPHIC AREA: Skeena GRADE: Hornfel	Ranges s	
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON:	Ν		
COMMENTS: REFERENCE:	CATEGORY: As SAMPLE TYPE: Ch COMMODITY Copper Molybdenum Highest assay from Assessment Report	ssay/analysis hip <u>GR</u> 0 0 281 chip samples. t 5465.	YEAR: ADE 0.0700 Per cent 0.1650 Per cent	1974		
CAPSULE GEOLOGY						
	The Natlan showing is located 27 kilometres northeast of Hazelton on the northern portion of Natlan Peak mountain range. The area is underlain by a monzonite to quartz monzonite stock of the Late Cretaceous Bulkley Intrusions. The stock intrudes Middle Jurassic to Lower Cretaceous Bowser Lake greywackes, siltstones and argillites. The sedimentary rocks have been hornfelsed and pyritized near the margins of the intrusive. Molybdenite and minor chalcopyrite are developed in the intrusive, particularly near the eastern contact area. Quartz veining is common and K-feldspar alteration is developed in some of the mineralized areas. Of 281 rock chip samples, the highest molybdenum and copper analyses were 0.1650 per cent and 0.07 per cent, respectively (Assessment Report 5465).					

EMPR GEM 1974-271 EMPR ASS RPT \*5465 EMPR MAP 69-1 (#244) GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/29 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 034</u>	NATIONAL MINERAL INVENTOR	RY: 093M6 Zn1		
NAME(S):	JACK OF HEARTS, JACK OF SPADES,	ACE			
STATUS:	Showing British Columbia	MINING DIVISIC	N: Omineca		
NTS MAP: BC MAP	093M06W	UTM ZON	IE: 09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 10 N 127 16 21 W 1500 Metres Within 1 KM Occurrence reported to occur on Twent modern maps, but is thought to be north Occurrence #242 from Geological Surve located in the same area.	NORTHIN EASTIN east of Eighteen Mile Creek. ey of Canada Open File 2322 is	IG: 6140971 IG: 609390		
COMMODITIES:	Zinc Lead				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Quartz Ankerite Silica Silicific'n Unknown				
DEPOSIT CHARACTER:	Concordant				
CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Unknown 105 Polymetallic veins Ag-Pb-Zn±Au Attitude of bedding.	J STRIKE/DIP: 030/50W TREND/P	LUNGE:		
HOST ROCK DOMINANT HOSTROCK	: Sedimentary				
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION IGNEOUS/MET/	MORPHIC/OTHER		
LITHOLOGY:	Altered Sediment/Sedimentary Sandstone Argillite Greywacke				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPHIC AREA: Skeer	na Ranges		
CAPSULE GEOLOGY					
	The Jack of Hearts occurrence is described as being located on Twenty Mile Mountain, which does not occur on modern maps but should be northeast of Eighteen Mile Creek, 25 kilometres east of Hazelton. Geological Survey of Canada Open File 2322 shows an occurrence (#242) in this same area, on the southeast side of Natlan Peak. These are likely the same showing. Lithologies in the area comprise argillites and greywackes of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. A diorite to granodiorite plug of the Late Cretaceous Bulkley Intrusions outcrops west of the reported location of the occurrence. The occurrence is described as a 45-centimetre seam of sphalerite, with thin bands of greyish white magnesian ankerite and minor galena. The seam occurs in a quartz gangue and appears to follow a bedding plane in altered sedimentary rocks. The sedimentary rocks strike 030 degrees, dipping 50 degrees northwest. The footwall consists of rusty argillite and the hangingwall of hard silicified sandstone.				
BIBLIOGRAPHY	GSC OF 2322 (#242) GSC ANN RPT *1909, p. 65.				
DATE CODED: DATE REVISED:	1985/07/24 1991/08/29	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>093M 035</u>		NATIONAL MINERAL INVENTOR	Y: 093M6 Cu4	
NAME(S):	<u>ACE 9</u> , ACE, NAT				
STATUS:	Showing British Columbia		MINING DIVISIO	N: Omineca	
NTS MAP:	093M06W		UTM ZON	E: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 02 N 127 17 12 W 1800 Metres Within 500M Ace 9 claim (Assessment Report 1	066).	NORTHIN EASTIN	G: 6140702 G: 608499	
COMMODITIES:	Copper Molybde	num Antimony			
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Molybdenite Stibnite occurrence is in the same Pyrite Unknown	Stibnite area.			
DEPOSIT	Discoursing to d				
CLASSIFICATION: TYPE:	Disseminated Porphyry L04 Porphyry Cu ± Mo ± Au		105 Polymetallic veins Ag-	Pb-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Bowsor Lako	FORMATION	IGNEOUS/META	MORPHIC/OTHER	
Upper Cretaceous	64 Mo	Ondenned Formation	Bulkley Intrusion	ns	
DATING METHOD: MATERIAL DATED:	Potassium/Argon Hornblende				
LITHOLOGY:	Diorite Quartz Porphyry Sill Granodiorite Argillite Greywacke				
HOSTROCK COMMENTS:	Isotopic age date is from Geologic	al Survey of Canada Open File	e 2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Overlap Assemblage RELATIONSHIP:	PHYSIOGRAPHIC AREA: Skeen GRADE: Hornfe	na Ranges els	
CAPSULE GEOLOGY	SEOLOGY The Ace 9 showing is centred on a mountain peak, 1 kilometre south of Natlan Peak and 27 kilometres northeast of Hazelton. Widespread, low-grade, chalcopyrite and less abundant molybdenite mineralization occurs in the contact area between a diorite stock of the Late Cretaceous Bulkley Intrusions and Middle Jurassic to Lower Cretaceous Bowser Lake Group argillites and greywackes. The diorite also intrudes the sedimentary rocks as sills up to 30 metres wide. Quartz porphyry and granodiorite also occur in the area. Pyritization is prominent in several rock types. Two occurrences are reported on the Ace claims a galena- sphalerite (Ace 5 showing, 093M 037) showing to the southwest and a stibnite showing located in the Ace 9 vicinity.				
BIBLIOGRAPHY	EMPR GEM 1971-189 EMPR ASS RPT *1066 EMPR MAP 69-1 (#246) GSC OF 2322				
DATE CODED: DATE REVISED:	1985/07/24 1991/08/28	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 036</u>	NA	TIONAL MINERAL INVENTORY:		
NAME(S):	BABINE RANGE				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093M06W		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 23 12 N 127 19 18 W 2000 Metres Within 500M Occurrence #247, located in the Babine	Range (Map 69-1).	NORTHING: EASTING:	6139102 606320	
COMMODITIES:	Silver Lead	Zinc			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown 105 Polymetallic veins Ag-Pb-Zn±Ar	ı			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER	
Jurassic-Cretaceous Upper Cretaceous	Bowser Lake	Undefined Formation	Bulkley Intrusions		
LITHOLOGY:	Sediment/Sedimentary Granodiorite				
HOSTROCK COMMENTS:	The host rocks of the mineralization a	re not known.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PH	YSIOGRAPHIC AREA: Skeena F	Ranges	
CAPSULE GEOLOGY The Babine Range showing, is located on the southern peak of the Natlan Peak mountain range, 26 kilometres northeast of Hazelton. The area is underlain by Middle Jurassic to Lower Cretaceous Bowser Lake Group sedimentary rocks intruded by granodiorite of the Late Cretaceous Bulkley Intrusions. Pyrite is common near the margin of the intrusion. Although details of the mineralization and setting are not known, silver-lead-zinc mineralization is reported. BIBLIOGRAPHY					
	LMFR MAP "09-1 (#24/)		-		
DATE CODED: DATE REVISED:	1985/07/24 1991/08/28	REVISED BY: RHM	F	IELD CHECK: N	

CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 037</u>			NATIONAL MINE	RAL INVENTORY:	093M6 Zn1
NAME(S):	ACE 5, ACE, JACK OF HE JACK OF SPADES	ARTS,				
STATUS:	Showing British Columbia				MINING DIVISION:	Omineca
REGIONS. NTS MAP: BC MAP	093M06W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 23 56 N 127 17 47 W 1800 Metres Within 500M Galena-sphalerite minerali Report 1066).	ization on the A	Ace 5 claim (Assessme	nt	NORTHING: EASTING:	6140501 607888
COMMODITIES:	Silver	Lead	Zinc			
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite No description is available Quartz Ankerite Silicific'n Unknown					
	Voin	Concordant				
CLASSIFICATION: TYPE:	Hydrothermal 105 Polymetallic veins	Ag-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	<u>GROUP</u> Bowser Lake		FORMATION Unnamed/Unknown Fo	ormation	IGNEOUS/METAMO Bulkley Intrusions	ORPHIC/OTHER
LITHOLOGY:	Granodiorite Argillite Greywacke					
HOSTROCK COMMENTS:	Specific host rock is not	known.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	Pluto	onic Rocks	PHYSIOGRAPH	IC AREA: Skeena F	Ranges
CAPSULE GEOLOGY	The Ace 5 showing is located on the southern peak of the Natlan Peak mountain range, 27 kilometres northeast of Hazelton. Although details of the occurrence are not known, silver-lead- zinc mineralization is reportedly present at this location (#248 on Map 69-1). Galena-sphalerite mineralization is also reported in this area from earlier assessment work (Assessment Report 1066). This occurrence is possibly the Jack of Hearts showing (093M 034) which is reported to occur on Twenty Mile Mountain. Although there is no Twenty Mile Mountain on modern maps, the location is thought to be east of Eighteen Mile Creek, 25 kilometres east of Hazelton. The area is underlain by Middle Jurassic to Lower Cretaceous Bowser Lake Group greywackes and argillites intruded by granodiorite of the Late Cretaceous Bulkley Intrusions. The area is locally highly pyritic, with widespread but low-grade chalcopyrite and uncommon molybdenite. According to the Minister of Mines Annual Report for 1909, 45 centimetres of sphalerite, seamed with thin bands of greyish white magnesian ankerite and minor galena, occur in quartz gangue which appears to follow a bedding plane in altered sedimentary rocks. The sedimentary rocks strike 030 degrees, dipping 50 degrees northwest. The footwall consists of rusty argillite and the hangingwall of hard silicified sandstone.					
BIBLIOGRAPHY	EMPR MAP 69-1 (#24 EMPR ASS RPT *1066 GSC SUM RPT *1909,	8) p. 65				

GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/28 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M_038</u>	I	NATIONAL MINERAL INVENTORY:	093M5 Au1
NAME(S):	<u>SILVERTON,</u> PINENUT, RAVEN			
STATUS: REGIONS:	Past Producer British Columbia	Underground		Omineca
NTS MAP: BC MAP:	093M05E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 25 24 N 127 30 59 W 1525 Metres Within 500M Showings (Assessment Report 17290).		Northing: Easting:	6142902 593899
COMMODITIES:	Gold Silver Molybdenum	Zinc	Lead	Arsenic
MINERALS				
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Arsenopyrite Sphalerite Tetraheo Quartz Pyrite Pyrrhotite Unknown	drite Galena	Molybdenite	
	Voin			
CLASSIFICATION: TYPE:	Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn±Au		L04 Porphyry Cu ± Mo ± Au	
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP F	ORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Upper Cretaceous	Bowsei Lake	Indefined Formation	Bulkley Intrusions	
LITHOLOGY:	Granodiorite Granite Argillite Siltstone Sandstone			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks Overla	p Assemblage	PHYSIOGRAPHIC AREA: Skeena F	Ranges
METAMORPHIC TYPE:	Contact REL	ATIONSHIP:	GRADE: Hornfels	
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis	YEAR:	1987	
		GRADE		
	Arsenic	21.2000 Grams po 21.2000 Per cent	ertonne	
COMMENTS: REFERENCE:	Highest assay was from a vein, 10 centim Assessment Report 17290.	etres wide.	er tonne	
CAPSULE GEOLOGY				
	The Silverton past produ Sidina Mountain, 21 kilometre	cer is located or s north-northeast	h the south side of t of Hazelton.	
	A series of narrow, gold by a small granodiorite plug	-silver bearing of and adjacent horr	quartz veins are hosted	
	molybdenite-pyrite pink felds	ypaenite minerali par veinlets in t	ization is present in the intrusive. A rusty	
	hornfels, with well-developed the sediments adjacent to the	pyrite-pyrrhotit intrusive.	te pods, is developed in	
	The host rock is primari grained intrusive stock of gr	ly a small (500 r anite to granodio	metres long), medium prite composition of the	
	Late Cretaceous Bulkley Intru	sions. The grani	itic rocks intrude	

variably hornfelsed clastic sediments of the Middle Jurassic to Lower Cretaceous Bowser Lake Group, which include argillite, siltstone and sandstone. The layered rocks are folded into a north-south trending syncline in the area of the showings.

The gold-silver mineralization is found in several quartz-arsenopyrite-pyrite-sphalerite-galena-tetrahedrite veins up to 0.30 metre in width. The highest assay was from a 10 centimetre wide sample which

assayed 30.2 grams per tonne gold, 78.2 grams per tonne silver and 21.2 per cent arsenic; grab samples assayed as high as 8.36 per cent zinc (Assessment Report 17290). In 1981, 143 tonnes produced 250,655 grams of silver, 415 grams of gold, 9,168 kilograms of lead and 13,066 kilograms of zinc.

## BIBLIOGRAPHY

EMPR AR 1911-98 EMPR MAP 69-1 (#249) EMPR ASS RPT \*16601, \*17290 GSC MEM 223, p. 7 GSC P 44-24 GSC MAP 971A, 44-24 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/09 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 039</u>	NATIONAL MI	NERAL INVENTORY: 093M5,6 Ag3
NAME(S):	BARBER BILL, BILL, BILL 1-2, BILL 13-15, SILVER I, TUNNEL, ADIT, CABLE		
STATUS:	Prospect British Columbia		MINING DIVISION: Omineca
NTS MAP:	093M06W 093M05E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 32 N 127 30 03 W 1260 Metres Within 500M Location from Assessment Report 10477.		NORTHING: 6135752 EASTING: 595038
COMMODITIES:	Silver Gold Arsenic	Lead	Zinc Antimony
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Jamesonite Sphalerite Arsenop Pyrite Quartz Unknown	vyrite Galena	
	Vain		
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein     Epigenetic       Hydrothermal     Epigenetic       I05     Polymetallic veins Ag-Pb-Zn±Au       182     x       Tunnel vein.     Metres	STRIKE/DIP: 030/25E	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	GROUP F Bowser Lake U	ORMATION Indefined Formation	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions
LITHOLOGY:	Greywacke Argillite Tuff Granodiorite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAF	PHIC AREA: Skeena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CALEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Arsenic Gold Lead Antimony Zinc Channel sample across 60 centimetres. Geological Survey of Canada Memoir 223,	YEAR: 1940           GRADE           510.6000         Grams per tonne           8.1500         Per cent           1.5000         Grams per tonne           5.6700         Per cent           2.2200         Per cent           12.5000         Per cent           page 8.         Per cent	
CAPSULE GEOLOGY			
	The Barber Bill property between the Sunrise (093M 04 properties, 14 kilometres nor veins were discovered in 1910 The property is underlai greywacke, of the Middle Jura Group, which is intruded by a the Late Cretaceous Bulkley I There are 3 main veins w Adit and Cable veins. The sh	is located on Nine Mile M 3) and Silver Cup (093M ( theast of Hazelton. The H n by clastic sedimentary n ssic to Lower Cretaceous H stock of coarse-grained of ntrusions. hich comprise this prospect owings are explored by set	Mountain 940) Barber Bill Bowser Lake granodiorite of st: the Tunnel, yeral trenches

and a 14-metre long adit. The Tunnel vein is located at 1241 metres elevation on the Bill 14-15 claims. The vein strikes 030 degrees and dips 18 to 30 degrees east, parallel to the bedding in the tuffaceous host rocks. It

ranges from 10 to 120 centimetres in thickness and carries fine grained jamesonite, sphalerite, galena and arsenopyrite along with, sparse vein-quartz and pyrite. The vein has been exposed for 182 metres. A 60-centimetre wide channel sample taken by Kindle assayed 1.5 grams per tonne gold, 510.6 grams per tonne silver, 5.67 per cent lead, 12.5 per cent zinc, 2.22 per cent antimony and 8.15 per cent arsenic (Geological Survey of Canada Memoir 223, page 8). A chip sample across 1 metre, taken 106 metres north of the portal, assayed 437.07 grams per tonne silver, 3.75 per cent lead and 3.10 per cent zinc (Property File - Newman, W.R. (1968): Geology of the Barber Bill Property).

The Adit vein is located at 939 metres elevation on Mineral Lease 57. The vein strikes slightly east of north and dips flatly to the east. A sample taken 15 metres north of the adit over a 57 centimetre wide vein in grey slaty greywacke and argillite assayed 164.5 grams per tonne silver and 2.97 per cent lead and 0.15 per cent The Cable vein is located at 1453 metres elevation on the Bill 4

The Cable vein is located at 1453 metres elevation on the Bill 4 claim. The vein has been traced for about 85 metres. Cross faulting has displaced the vein less than a metre (several feet). The vein strikes roughly east-west and dips 16 to 45 degrees southeast. The lowest assay was from a sample across 1.2 metres width and 3 metres length which assayed 106.27 grams per tonne silver, 1.8 per cent lead and 4.5 per cent zinc (Property File - Newman, W.R. (1968): Geology of the Barber Bill Property).

#### BIBLIOGRAPHY

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/12 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M_040</u>	NATIONAL M	INERAL INVENTORY:	093M5 Ag1	
NAME(S):	<u>SILVER CUP</u> , SILVER DOLLAR, DUKE, DUCHESS				
STATUS:	Past Producer	Underground	MINING DIVISION:	Omineca	
REGIONS: NTS MAP: BC MAP	093M05E		UTM ZONE:	09 (NAD 83)	
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 04 N 127 30 58 W 1400 Metres Within 500M Main adit (Geological Survey of Canada Memoir 2	23).	NORTHING: EASTING:	6134866 594088	
COMMODITIES:	Silver Lead	Zinc	Gold	Antimony	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Jamesonite Quartz Pyrite Carbonate Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydrothermal I05 Polymetallic veins Ag-Pb-Zn±Au Vein.	Strike/DIP: 030/75E	TREND/PLU	NGE:	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	GROUP FORMAT Bowser Lake Undefine	TON ed Formation	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Tuffaceous Sandstone Argillite Granodiorite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRA	PHIC AREA: Skeena I	Ranges	
CAPSULE GEOLOGY	LOGY The Silver Cup vein is located on the rim of Silver Cup Basin, 14 kilometres northeast of Hazelton. The property was staked by 1909 and had been developed by 4 adits when it shut down in 1929. The Barber Bill property (093M 039) is adjacent to the Silver Cup. The property is underlain by locally tuffaceous sandstones with interbedded argillites of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. The sedimentary strata are intruded by a stock of granodiorite of the Late Cretaceous Bulkley Intrusions which outcrops approximately 300 metres east of the property. Dikes and apophyses of granodiorite related to the stock are common in the mine workings. The vein has been developed by several adits and consists of a fault-controlled structure located in the axis of an anticline. It has been followed more than 150 metres in the main adit. The vein strikes 030 degrees, dipping 75 degrees southeast. It branches in places, and pinches and swells, ranging from 10 to 60 centimetres in thickness. The main sulphide minerals are galena, sphalerite, jamesonite and pyrite in a gangue of quartz and minor carbonate. From 1914 to 1979, 5870 tonnes produced 3,547,176 grams of silver, 560 grams of gold, 230,419, kilograms of lead and 126,961				
BIBLIOGRAPHY	<pre>EMPR AR 1909-84, 1910-86, 1911-79, 1927-130, 1928-152, 1929-156, 1 EMPR MAP 69-1 (#251) EMPR PF (See 093M 039 - Barber Bi Resident Engineer, 1937; 2 x Pl 1927; Notes on Silver Cup for D Projection, 1929; Silver Cup mi Camp, 1928) GSC SUM RPT 1909-65, 1910-97 GSC MEM 110-34, *223-64</pre>	105, 1914-201, 1918- 937-A35, 1950-96 ll Report, 1968; Rep ans of Tunnels at Si ouglas Lay, 1928; Lo ne workings, 1929; S	117, 1925-134, ort by the lver Cup Mine, ngitudinal ilver Cup Mine		

GSC MAP 971A, 1731, 44-24 GSC OF 2322 EMR MP CORPFILE (Silver Cup (Hazelton) Mining Company Ltd., Omineca Mining and Milling Company Ltd.) EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/13 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 041</u>	NATIONAL MIN	ERAL INVENTORY: 093M5 Ag2		
NAME(S):	POLE STAR				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 20 49 N 127 30 58 W 1600 Metres Within 500M Location from Assessment Report 10	477.	NORTHING: 6134403 EASTING: 594098		
COMMODITIES:	Lead Zinc	Silver			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Galena Sphalerite Arser Unknown	nopyrite Tetrahedrite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal Epigenetic I05 Polymetallic veins Ag-Pb-Zn± 30 Metres Main vein has been exposed for abou	Au STRIKE/DIP: 330/15W It 30 metres.	TREND/PLUNGE:		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP Bowger Lake	FORMATION	IGNEOUS/METAMORPHIC/OTHER		
Upper Cretaceous	Bowser Lake	Undenned Formation	Bulkley Intrusions		
LITHOLOGY:	Greywacke Sandstone Argillite Granodiorite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAP	HC AREA: Skeena Ranges		
CAPSULE GEOLOGY					
	The Pole Star showing is located between the Silver Cup mine (093M 040) and Nine Mile Mountain peak, 14 kilometres northeast of Hazelton. The main vein is exposed for about 30 metres along the face of the bluff. It ranges from 15 to 60 centimetres in thickness and strikes 330 degrees, dipping 15 degrees southwest. It has been prospected by a short adit and a trench. Galena and sphalerite and lesser tetrahedrite and arsenopyrite have been identified. The host rocks are interbedded greywacke, sandstone and argillites, of the Middle Jurassic to Lower Cretaceous Bowser Lake Group, which strike 210 degrees and dip 15 degrees east.				
BIBLIOGRAPHY	EMPR MAP 69-1 (#252) EMPR ASS RPT 10477 GSC MEM 110; *223-11 GSC P 44-24 GSC MAP 971A, 44-24 GSC OF 2322 1985/07/24	CODED BY: GSB			
DATE REVISED:	1991/09/13	REVISED BY: RHM	FIELD CHECK: N		

MINFILE NUMBER:	<u>093M 042</u>	NATIONAL MI	NERAL INVENTORY: 093M6 Ag2
NAME(S):	<u>SLOCAN,</u> ALPHA, VAN, KOOTENAY, LEAD KING (EMPIRE)		
STATUS: REGIONS: NTS MAP	Prospect British Columbia 093M06W		MINING DIVISION: Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 20 29 N 127 29 11 W 1650 Metres Within 500M Middle Slocan showings (Assessment Rep	port 10477).	NORTHING: 6133825 EASTING: 595996
COMMODITIES:	Silver Lead	Zinc	Antimony
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Jamesonite Pyrite Quartz Carbonate Unknown	9	
DEPOSIT			
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn±Au Tabular		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP F	ORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic-Oretaceous Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Hornblende	ndefined Formation	Bulkley Intrusions
LITHOLOGY:	Sandstone Tuff Siltstone Shale Argillite Coal Granodiorite		
HOSTROCK COMMENTS:	Isotopic age date is from Geological Surve	ey of Canada Open File 2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAF	HIC AREA: Skeena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Lead Antimony Across 10 centimetres of the Slocan West	YEAR: 1940 GRADE 204.4000 Grams per tonne 12.3200 Per cent 4.9500 Per cent t showing.	
RÉFERENCÉ:	Geological Survey of Canada Memoir 233,	page 19.	
CAPSULE GEOLOGY	The Slocan veins are loc Mountain Peak, 15 kilometres The property is underlais and minor coal of the Middle Group. A 3 by 1 kilometre st the Late Cretaceous Bulkley Is showings. There are four mineral s Slocan, East Slocan, Middle S sulphide-rich veins with a qu carbonate gangue. Jamesonit main sulphide minerals. The average approximately 10 cent	ated on the east side of N northeast of Hazelton. n by sandstone, siltstone, Jurassic to Lower Cretaceo ock of coarse-grained gran ntrusions, outcrops north howings on the Slocan prop locan and Kootenay. They artz and in some cases a g e, sphalerite, galena and veins are generally shallo imetres in thickness, rare	ine Mile shale, tuff us Bowser Lake odiorite, of of the erty: West are all narrow uartz- pyrite are the w-dipping and ly reaching 50

centimetres in thickness. A representative grab sample, taken by Kindle in 1940, from the Kootenay vein assayed 337.8 grams per tonne silver, trace gold, 22.98 per cent lead and 14.57 per cent zinc (Geological Survey of Canada Memoir 223). Another sample taken from the 7 to 15 centimetre wide West Slocan occurrence assayed 204.4 grams per tonne silver, trace gold, 12.32 per cent lead and 4.95 per cent antimony across 10 centimetres (Geological Survey of Canada Memoir 223).

#### BIBLIOGRAPHY

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/11 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 043</u>			NATIONAL MINE	RAL INVENTORY:	093M6 Ag1
NAME(S):	SUNRISE (L. 595), SUNR SUNSET (L. 594), NOON ETHEL FR (L. 599)	ISE SILVER, ETHEL ( DAY (L. 596), HIDDEI	L. 593), N TREASURE (L. 5	97),		
STATUS: REGIONS: NTS MAP: PC MAP:	Past Producer British Columbia 093M06W		Undergroun	d	MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 04 N 127 29 27 W 1463 Metres Within 500M Main crosscut adit on Lot Mile Mountain, 8 kilometro Canada Memoir 223).	595, 750 metres nor es north of Hazelton (	th of the summit of Geological Survey	f Nine v of	NORTHING: EASTING: :	6134901 595690
COMMODITIES:	Silver Antimony	Lead	Zinc	G	old	Copper
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Jamesonite Sphaler Tetrahedrite Quartz Pyrite Quartz Sericite Argillic Unknown	ite Galena Arsenopyrite Pyrite C Silicific'n	Cosalite Chlorite Sericitic	Argentite		
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic I05 Polymetallic veins 304 x 213 x 3 Sunrise main structure.	Stockwork Hydrothermal s Ag-Pb-Zn±Au Metres	STRIKE/D	NP:	TREND/PLUN	IGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	<u>FOR</u>	MATION	<u> </u>	IGNEOUS/METAMC	RPHIC/OTHER
Jurassic-Cretaceous Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	Bowser Lake 72 Ma Potassium/Argon Homblende	Unde	efined Formation		Bulkley Intrusions	
LITHOLOGY:	Granodiorite Sandstone Siltstone Shale					
HOSTROCK COMMENTS:	Age date from Geologic	al Survey of Canada	Open File 720.			
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane			PHYSIOGRAPH	IC AREA: Skeena R	anges
TERRANE: METAMORPHIC TYPE:	Plutonic Rocks Contact	Bowser L RELAT	ake ONSHIP:		GRADE: Hornfels	-
CAPSULE GEOLOGY	The Sunrise of kilometres northe. The Nine Mile sandstone, siltst Cretaceous Bowser dipping synclines less than 45 degre coarse-grained gra Intrusions, intrue mountain. A pota returned an age of 2322). Sedimentar intrusive contact granodiorite and fracture systems. Mineralized of coarsely crystall moderately dipping locally exposed f Branching vein st	deposit is loca ast of Hazelton e Mountain area one and shale of Lake Group. The and anticlines ees. A 3 by 1 anodiorite, of des the sequend fy rocks are of s. Numerous qu the surrounding quartz veins at ine granodiorit g structures (1 or long distand ructures are co	ated on Nine a is underlai of the Middle The sediments s whose limbs kilometre we the Late Cre te along the date from h gical Survey ten hornfels artz veins o g sediments a the Sunrise te and genera to 50 degr pes, and pinc pumon. The S	Mile Mountai: n by interber Jurassic to form broad usually dip sterly elong taceous Bulk north side o cornblende fr of Canada Op ed adjacent ccur in both nd are relat occurrence lly are host ees). The v h and swell unrise main	n, 16 dded Lower moderately at angles of ated stock of ley f the om the stock en File to the the ed to occur in ed in eins are greatly. structure is	

a zone 213 metres wide and 304 metres long. This zone lies between elevations of 1432 and 1584 metres with its north boundary approximately 152 metres south of the sedimentary contact. A system of network mineralized veins and veinlets occur in zones adjacent to the main structure and measures from 10 centimetres to 3 metres wide.

There are two main intersecting sets of veins on the Sunrise property. One set strikes northeast and dips from 30 to 50 degrees southeast. The other set strikes east and dips from 10 to 40 degrees south. The veins range from 30 to 152 metres in length and from 7 centimetres to 1.76 metres in width. Many of the veins contain irregularly distributed sulphides which in order of abundance are: jamesonite, sphalerite, galena, cosalite, pyrite, arsenopyrite, argentite and tetrahedrite. Twelve veins have been partially exposed.

Local shearing and faulting, evidenced by numerous chloritic slips and slickensides, is common in the areas of mineralized vein concentrations. The veins in the granodiorite are generally enveloped by zones of phyllic (sericitic) alteration characterized by the abundance of quartz, sericite and disseminated pyrite. Silicified zones around veins are common.

Past development included opencuts, drifting, crosscutting and rous adits. Crude ore from surface and underground workings were numerous adits. shipped. A portable mill also processed small amounts in 1979 and 1980.

#### **BIBLIOGRAPHY**

EMPR AR 1909-K84; 1910-K86,K87; 1911-K79,K104,K105; 1914-K204; 1915-K76,K448; 1918-K117; 1919-N102; 1920-N86; 1922-N98; 1923-A106; 1924-B94; 1925-A134; 1926-A126; 1927-C131; 1950-A83,A97,A98; 1968-111 EMPR ASS RPT \*10477, 10766 EMPR GEM 1969-99; 1970-175; 1971-189,190; 1972-430; 1973-357; 1974-270,271 EMPR MAP 1; 65, 1989; 69-1 (#254) EMPR MINING Vol. 1 1975-1980 EMPR OF 1992-1 EMPR PF (Location map of Sunrise group; Preliminary assay plan of main vein, 1966; Prospectus, Sunrise Silver Mines Ltd., May 1966; Read, W.S. (1967): Progress Report on Sunrise Silver Mines Ltd.; Wilson, H.S. (1966): Report on the Hazelton Sunrise Mines property) EMR MP CORPFILE (Trans Pacific Ventures Ltd.; Sunrise Metals Corporation) GSC BULL 270 GSC MAP 971A; 44-24 GSC MEM 110, pp. 34,35; \*223, pp. 11-16 GSC OF 720; 2322 GSC P 44-24 GSC SUM RPT 1909, p. 66; 1910, p. 98 GCNL #188, 1977; #19,#22, 1978; #19, 1982 N MINER Feb. 4, 1982 NW PROSP Mar/Apr 1982 Falconbridge File DATE CODED: 1985/07/24

DATE REVISED: 1990/09/11

CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093M 044</u>			NATIONA	L MINERAL INVENTORY	: 093M6 Ag2
NAME(S):	<b>Lead King</b> , Empire, Lea Slocan, Alpha , Van	DSIL,				
STATUS:	Prospect				MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093M06W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE:	55 20 53 N 127 29 00 W				NORTHING: EASTING:	6134571 596173
ELEVATION: LOCATION ACCURACY: COMMENTS:	1410 Metres Within 500M Decline (Assessment Rer	oort 10477).				
COMMODITIES:	Silver	Lead	Zinc		Antimony	Arsenic
MINERALS						
SIGNIFICANT:	Sphalerite Galena Tetrahedrite Arsenop	Jamesonite yrite Pyrite	Cosalite	Argentite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Sericite Silica Sericitic Unknown	Silicific'n				
	Main	Chaor				
CHARACTER: CLASSIFICATION:	Vein Hydrothermal	Snear Epigenetic				
DIMENSION: COMMENTS:	400 x 150 Veins occur over a length	Metres of 400 metres and a	STRI	KE/DIP: metres.	TREND/PLL	JNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
	GROUP Bowser Lake	FORM	ATION ned Formatic	00	IGNEOUS/METAM	IORPHIC/OTHER
	72 Mo	Under			Bulkley Intrusions	
DATING METHOD: MATERIAL DATED:	Potassium/Argon Hornblende					
LITHOLOGY:	Coarse Grained Granodio	rite				
HOSTROCK COMMENTS:	Isotopic age date is from	Geological Survey of	Canada Ope	en File 2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Overlap Ass	semblage	PHYSIOG	GRAPHIC AREA: Skeena	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPOR	TON: N		
	CATEGORY: Assay/a	nalysis	Y	'EAR: 1940		
	COMMODITY Silver	GRAI	DE			
	Arsenic	2.4	300 Gr	r cent		
	Lead Antimony	6.4 2.6	700 Pe 300 Pe	r cent r cent		
COMMENTS: REFERENCE:	A 0.45-metre wide channe Geological Survey of Cana	17.1 el sample from the sha ada Memoir 223, page	1100 Pe aft. 17.	r cent		
CAPSULE GEOLOGY						
	The Lead King 15 kilometres nort from the Sunrise p consists of a shaf cuts. In the peri grams per tonne si Inventory Card 93M The property	g group of claim cheast of Hazelt property (093M 0 ct and an adit w od between 1909 llver and 698.5 4/6 Ag2). is underlain by	ns is loc. on. It 43). Pr ith stri to 1914 kilogram	ated on Nin is east of evious work pping along , 7.2 tonne s of lead ( grained gra	ne Mile Mountain, and along strike ton the property y veins and open es produced 22,076 National Mineral anodiorite of the	5

The property is underlain by coarse grained granodiorite of the Late Cretaceous Bulkley Intrusions, which intrude hornfelsed clastic sediments of the Middle Jurassic to Lower Cretaceous Bowser Lake Group.

Group. The veins are hosted in fracture zones in the granodiorite, which is effected by phyllic alteration and silicification in the

	<pre>vicinity of the veins. There are two sets of veins, one set strikes north, dipping between 25 and 45 degrees east and the second set strikes east, dipping between 10 and 35 degrees south. The veins average 30 centimetres in thickness, and range from 10 centimetres to 1 metre in thickness. Commonly there are several subparallel veins arranged in an en echelon or sheeted arrangement. The veins commonly pinch and swell and are often faulted. The veins occur over a length of 400 metres and a width of 150 metres and are mineralized with galena, sphalerite, jamesonite, arsenopyrite, cosalite and pyrite in a quartz gangue. A representative sample, taken by Kindle, assayed trace gold, 313.8 grams per tonne silver, 6.47 per cent lead, 17.11 per cent zinc, 2.63 per cent antimony and 2.43 per cent arsenic (Geological Survey of Canada Memoir 223, page 17).</pre>
BIBLIOGRAPHY	<pre>EMPR AR 1910-86, 1911-79,104, 1912-113, 1914-205, 1918-117, 1923-106     *1950-83,97, 1951-109 EMPR GEM 1972-430, 1973-357, 1974-270 EMPR MINING 1975 EMPR ASS RPT 10477 EMPR MAP 69-1 (#255) EMPR PF (*Wilson, H.S. (1966): Report on Property of Sunrise Silver     Mines Ltd.) GSC P 44-24 GSC SUM RPT 1909-66 GSC MAP 971A, 44-24 GSC MEM *223-16,51 GSC OF 2322 EMR MP CORPFILE (Sunrise Silver Mines Ltd.)</pre>

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/12 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 045</u>		I	IATIONAL MINERAL INVENTORY:
NAME(S):	CUP, SECOND VEIN, BAR	BER BILL (SOUTH)		
STATUS: REGIONS: NTS MAP: BC MAP:	Prospect British Columbia 093M05E 093M06W			MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 00 N 127 30 18 W 1420 Metres Within 500M Locations from Assessme	ent Reports 8706 and 10	)477.	NORTHING: 6134758 EASTING: 594795
COMMODITIES:	Silver	Lead	Zinc	Antimony
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Quartz Pyrite Unknown	Jamesonite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal I05 Polymetallic veins 80 Vein is exposed over 80 n width.	Epigenetic Ag-Pb-Zn±Au Metres netres and ranges from	STRIKE/DIP 25 to 60 centime	TREND/PLUNGE: tres in
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Jurassic-Cretaceous	GROUP Bowser Lake	FORMA Undefine	TION ed Formation	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Hornblende			Bulkley Intrusions
LITHOLOGY:	Tuffaceous Sandstone Argillite Granodiorite			
HOSTROCK COMMENTS:	Isotopic age date is from	Geological Survey of C	anada Open File	2322.
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	Plutonic Rock	S	PHYSIOGRAPHIC AREA: Skeena Ranges
INVENTORY				
ORE ZONE:	SAMPLE		REPORT ON:	Ν
DEFEDENCE	CATEGORY: Assay/at SAMPLE TYPE: Grab COMMODITY Silver Lead Zinc	nalysis <u>GRADI</u> 602.8( 7.08( 15.30	YEAR: 2000 Grams po 200 Per cent 200 Per cent	1980 er tonne
	Assessment Report 8706			
CAPSULE GEOLOGY	The Cup or Se Basin, 14 kilometr The vein is 1 sandstones and arg Bowser Lake Group Intrusions. The v exposed over a len 60 centimetres. T displaced by fault The vein is m pyrite in a gangue tonne silver, 7.08 Report 8706).	econd Vein is loc res northeast of ocated at the co gillites of the M and granodiorite rein strikes east ugth of 80 metress the vein branches s. ineralized with e of quartz. A g g per cent lead,	ated on the Hazelton. ntact betwee iddle Jurass of the Late , dipping sh and ranges , pinches an galena, spha rab sample a 15.3 per cer	east rim of Silver Cup n hornfelsed tuffaceous ic to Lower Cretaceous Cretaceous Bulkley allowly south. It is in thickness from 25 to d swells, and is lerite, jamesonite and ssayed 602.8 grams per t zinc (Assessment
BIBLIOGRAPHY	EMPR ASS RPT *8706 GSC MEM 110; 223	5, 10477		

GSC OF 2322

DATE CODED: 1991/09/13 DATE REVISED: 1991/09/13 CODED BY: RHM REVISED BY: RHM

MINFILE NUMBER:	<u>093M 046</u>		NATIONAL MINERAL INVENTORY:	093M6 Ag3
NAME(S):	SILVER PICK, VAN, SILVER LE/ SILVER TRUST	AF,		
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP:	British Columbia 093M06W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 20 47 N 127 28 08 W 1400 Metres Within 500M Inclined shaft (Assessment Repo	ort 10477).	Northing: Easting:	6134406 597093
COMMODITIES:	Lead Zinc	Antimony		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite S Quartz Unknown	Stibnite Jamesonite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Hydrothermal Epiger 105 Polymetallic veins Ag-Pb Tabular	netic o-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Boweer Lake	FORMATION	IGNEOUS/METAMO	DRPHIC/OTHER
Upper Cretaceous	Dowsei Lake	Ondenned i offiation	Bulkley Intrusions	
LITHOLOGY:	Sandstone Argillite Shale Tuff Granodiorite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Skeena F	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY	GRADE	1940	
COMMENTS:	A 25-centimetre channel sample	from vein exposed in 15 metre de	eep	
REFERENCE:	Geological Survey of Canada Me	emoir 223.		
CAPSULE GEOLOGY				
BIBLIOGR▲PHY	Hazelton, on the east a underlain by sandstone Jurassic to Lower Creta stock of coarse-grained Intrusions, outcrops of Several narrow fis width, outcrop on the p varying amounts of gale sample, taken by Kindle inclined shaft, assayed (Geological Survey of G	side of Nine Mile Mounta side of Nine Mile Mounta , shale, tuff and argill aceous Bowser Lake Group d granodiorite, of the 1 n part of the property. ssure veins, ranging up property. Most have a of ena, sphalerite, stibnit e, from a vein exposed i d 5.07 per cent lead act Canada Memoir 223, page	ain. The property is lite of the Middle p. A 3 by 1 kilometre Late Cretaceous Bulkley to 50 centimetres in quartz gangue, with te and jamesonite. A in a 15 metre deep ross 25 centimetres 20).	
DIDLIVUKAFNI	EMPR AR 1909-84, 1914-3	205, 1950-97		
	EMPR MAP 69-1 (#257) EMPR EXPL 1978-224 EMPR ASS RPT *10477 GSC SUM RPT 1910-98	5 557, IV/4-27U		

GSC MEM 110; \*223, p. 19 GSC P 44-24 GSC MAP 971A, 44-24, 1731 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/12 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 047</u>				NATIONAL M	INERAL INVENTORY:	093M5 Ag5
NAME(S):	AMERICAN BO JANELLE	<u>OY</u> , AMERICAN S	STANDARD, CINE	DY LOU,			
STATUS:	Past Producer		Open Pi	t		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093M05E	la				UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY:	55 18 55 N 127 34 18 V 870 Metres Within 500M	V V		·		NORTHING: EASTING:	6130805 590647
	Main shaft (Ge	eological Survey	of Canada Memo	ir 223, page 2).			0
COMMODITIES:	Silver	Lead	2	ZINC		Gold	Copper
MINERALS SIGNIFICANT:	Galena	Sphalerite	Arsenopyrite	Pyrite	Chalcopyrite		
ASSOCIATED: MINERALIZATION AGE:	Tetrahedrite Quartz Unknown	Carbonate	Pyrite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polym	Epig etallic veins Ag-F	enetic ²b-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary						
STRATIGRAPHIC AGE	GROUP		FORM	ATION		IGNEOUS/METAMO	ORPHIC/OTHER
Jurassic-Cretaceous Eocene	Bowser Lake		Undefi	ned Formation		Babine Intrusions	
LITHOLOGY:	Calcareous Tu Argillite Granodiorite	ıff					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Asser	nblage			PHYSIOGRA	PHIC AREA: Skeena I	Ranges
CAPSULE GEOLOGY							
	The American Boy property is located 10 kilometres northeast of Hazelton, on the west flank of Nine Mile Mountain. The property is underlain by clastic sedimentary rocks (mainly calcareous tuff and argillite) of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. The strata strike north, dipping approximately 15 degrees west. Granodiorite, of the Eocene Babine Intrusions, intrudes the sedimentary rocks in the area. Six quartz veins, comprising high grade lenses totalling more than 212 metres long, crosscut the tuffs and argillites on the property. Veins 1 to 4 strike north, dipping 40 to 70 degrees east. Veins 5 and 6 strike northeast, dipping 80 degrees southeast. The veins range in thickness from 10 to 120 centimetres and consist of quartz with stringers of carbonate and irregular patches and banded seams of sulphide minerals. The sulphide minerals in order of abundance are: galena, sphalerite, arsenopyrite, pyrite, chalcopyrite and tetrahedrite (Geological Survey of Canada Memoir 223, Assesment Report 8847). The weighted average of 18 samples from the number 1 vein was 1069.54 grams per tonne silver across 0.48 metre (George Cross Newsletter #3, 1984). The weighted average of samples from a section of the number 4 vein, exposed on surface, was 946.13 grams per tonne						

silver and 5.38 grams per tonne gold (George Cross Newsletter #41, 1984). Samples from the number 6 vein assayed between 6.856 and 14,671.8 grams per tonne silver (George Cross Newsletter #41, 1984). In the period between 1913 and 1955, 348 tonnes produced 495,097 grams of silver, 528 grams of gold, 38,232 kilograms of lead and 10,543 kilograms of zinc.

## BIBLIOGRAPHY

EMPR ASS RPT 6789, 8847, 9121, 10457, 11165, \*12665, 15124, 15393
EMPR AR 1911-79,107, 1912-111, 1913-106, \*1914-171,197, 1915-76,
1916-89, 1917-104, 1918-117, 1923-107, 1927-131, \*1950-83,95,
1951-109, 1952-86, 1967-84, 1968-112

EMPR GEM 1970-173 EMPR EXPL 1977-E200, 1978-E223 EMPR MAP 69-1 (#258) EMPR PF (Lay, D. (1937): Report on American Boy, includes black and white photo; Kintana Resources Ltd., Statement of Material Facts, Dec. 1990) GSC SUM RPT 1912-102 GSC MEM 110-32, \*223-23 GSC MAP 971A, 1731, 44-24 GSC OF 2232 EMR MP CORPFILE (Viking Gold Mines Ltd., American Standard Mines Ltd.) GCNL #121,#186, 1983; #3,#13,#41, 1984 V STOCKWATCH October 6, 1989

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/26 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 048</u>	NATION	AL MINERAL INVENTORY: 093M5 Ag9
NAME(S):	<u>SURPRISE</u> , SILVER STANDARD		
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093M05E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 19 07 N 127 37 17 W 460 Metres Within 500M Main adit portal (Minister of Mines Annu	al Report 1950, page A87).	NORTHING: 6131113 EASTING: 587485
COMMODITIES:	Silver Lead	Zinc	Gold
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Quartz Carbonate Pyrite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn±Au	1	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous Eocene	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Babine Intrusions
LITHOLOGY:	Tuffaceous Sandstone Greywacke Argillite Granodiorite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIO	GRAPHIC AREA: Skeena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Gold Lead	YEAR: 1950 GRADE 98.8000 Grams per tonne 0.3000 Grams per tonne 1.5000 Per cent	
COMMENTS: REFERENCE:	Zinc Sample from a 10-centimetre wide vein Minister of Mines Annual Report 1950, p	1.8000 Per cent from the northern adit. bage A95.	
CAPSULE GEOLOGY	The Cumpuise property	adiaina tha Gilman Otand	
	049) property to the north north-northeast of Hazelton The property is underl and greywacke interbedded w Middle Jurassic to Lower Cr generally dip gently eastwa north-trending anticline. Intrusions locally intrude Three northeasterly st crosscut. They are up to 1 quartz, white carbonate and Although there are some ste to the bedding in the host vein from the northern adit grams per tonne silver, 1.5 (Minister of Mines Annual R	and is located 8 kilomet and is located 8 kilomet in by massive grey tuff ith dark, thinly bedded etaceous Bowser Lake Gro rd, and are located on t Granodioritic rocks of t the sedimentary rocks. riking veins are exposed 5 centimetres in width a pyrite with minor galen eply-dipping veins, most rocks. A sample from a assayed 0.3 gram per to per cent lead and 1.8 p eport 1950, page A95).	are when to solve the terms accous sandstone argillite of the up. The strata he east limb of a he Eocene Babine in the main and composed of a and sphalerite. are subparallel 10-centimetre wide nne gold, 98.8 er cent zinc
BIBLIOGRAPHY	EMPR AR 1903-52, 1912-112, 1918-472, *1950-95	1913-106, 1915-76, 1916	-89, 1917-107,

EMPR MAP 69-1 (#259) EMPR EXPL 1978-223, 1979-231 EMPR PF (Claim Map 93M/5E) GSC MEM \*223-83 GSC MAP 971A, 44-24 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/24 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 049</u>	NATIONAL M	IINERAL INVENTORY: 093M5 Ag6
NAME(S):	SILVER STANDARD (L. 2262), SI	LVER STANDARD MINE, STANDARD (L. 226	1)
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093M05E	Underground	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 19 01 N 127 37 47 W 396 Metres Within 500M Adit (1300 Level) near the bounda northern slopes of Mount Glen, 7.5 (Geological Survey of Canada Met	ary of Lots 2261 and 2262, on the 5 kilometres north of Hazelton moir 223).	NORTHING: 6130917 EASTING: 586959
COMMODITIES:	Silver Gold Cadmium	Lead	Zinc Copper
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Pyrite Ars Tetrahedrite Chalcopyrite Jamesonite Freibergite Very minor cosalite, pyrargyrite, s freibergite. Quartz Calcite Sidu Carbonate Silica Ca Carbonate Silicific Unknown	senopyrite Galena Pyrrhotite Cosalite Pyrargyrite Scheelite cheelite, jamesonite and erite licite Chlorite n	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Vein Epigenetic Hydroth 105 Polymetallic veins Ag-Pb- Tabular Faulted Folded 304 x 182 Metres Dimensions of the largest vein, the strike between 60 and 70 degrees	nermal Zn±Au STRIKE/DIP: e number 6. The veins generally s.	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous Eocene	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Babine Intrusions
LITHOLOGY:	Tuffaceous Sandstone Greywacke Argiilite Quartz Porphyry Quartz Porphyry Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	PHYSIOGRA	PHIC AREA: Skeena Ranges
CAPSULE GEOLOGY	The Silver Standar Glen, 8 kilometres north The Mount Glen are chiefly sandy, argillac Jurassic to Lower Creta sediments are small gran Folding appears to have ages. The more conspic whose axes are often on broad, open, northwest with its axis on Mount ( Standard mine. The dom be due to an intersection intrusive. The known in the two trends. The ore deposits of	d mine is located on the north heast of Hazelton. a is underlain by a series of s eous and tuffaceous, belonging ceous Bowser Lake Group. Cutti nitic bodies of the Eocene Babi two main trends, which may be uous is a series of northeast t ly a hundred metres apart. The trending anticline, 9 to 11 kil Glen, 1.6 kilometres northeast al outline of the sediments on on of these folds, or to an und ntrusive bodies show alignments f the Silver Standard mine are	side of Mount ediments, to the Middle ng the ne Intrusions. of different rending folds re is also a ometres across, of the Silver Mount Glen may erlying parallel to in a 243-metre

The ore deposits of the Silver Standard mine are in a 243-metre thick stratigraphic section of the Bowser Lake Group. The section is composed predominantly of medium to fine-grained tuffaceous sandstones with minor beds of coarse-grained greywacke, and finer grained dark argillite. The tuffaceous sandstones are generally in

PAGE: 642 REPORT: RGEN0100

## CAPSULE GEOLOGY

beds from 0.3 to 2 metres thick and the argillite beds are 1 to 10 centimetres thick. The overlying rocks contain more greywacke and argillite and lesser tuff, with some evidence of plant remains. In the underlying strata the rocks are mainly argillite and greywacke. Parallel to the folding on the southwest, outcrops of quartz porphyry indicate an elongated intrusive body approximately 487 by 91 metres. The mine drifts and drill holes have only intersected northeast trending dikes of this porphyry.

The largest fold in the vicinity of the mine is the northwest striking dome or anticline. Since its axis lies to the northeast, the general dip of the beds in the mine area is southwest at low to moderate angles. A smaller, sharper anticline trending 005 degrees cuts through the mine above the number 7 vein. Cutting across the productive sections of the numbers 4 to 8 veins is a gentle anticline or monocline striking 300 degrees; this is parallel to the major dome and to the quartz porphyry body.

A fault zone striking north and dipping 40 degrees west has been traced for 609 metres in the mine area. The fault zone is up to 15 metres wide and consists of a series of fault planes. It is a postvein structure and has a normal dip movement of approximately 76 metres. A complimentary set of small normal faults, striking north and dipping steeply east, offset number 7 and 8 veins. They are post-vein structure but pre-ore.

Quartz veins occupy northeast trending faults or fissures. A series of parallel veins, striking northeast and dipping southeast, are numbered from 0 to 12, starting in the northwest. They lie within a zone trending 110 degrees. The distance between the number 0 and 12 veins is approximately 1600 metres. Their dips range from 35 to 80 degrees but are generally 60 to 70 degrees. The vein walls are commonly free, with gouge or ribboned rock on their margins. There has been minor movement before, during and after mineralization; slickensides and offsets of bedding indicate both horizontal and downdip displacements. In the central part of the mine area there is very little offset of the ore shoots by cross faulting, though number 1, 7 and 8 veins are displaced up to 6 metres by an east dipping normal fault. Several cross-veins, dipping northeast, have been found between the number 8 and 12 veins. The productive veins are near the centre of a domed area on the west limb of the anticline and are nearly normal to the attitude of the beds. No major veins have been found on the east limb of the anticline.

The veins consist mainly of milky white quartz that is generally massive and fractured, massive white calcite and buff siderite. Vein widths vary from a centimetre to as much as 3.6 metres, but average 0.3 to 0.9 metres wide. Splits in the veins are common. The average width of the ore shoots range from 0.3 to 0.6 metres. Sulphide minerals present in the veins in approximate order of abundance are: sphalerite, pyrite, arsenopyrite, galena, pyrrhotite, tetrahedrite and chalcopyrite. A minor amount of a lead bismuth mineral, probably cosalite, occurs in vein 8, and a small particle of pyragyrite was reported in vein 7; scheelite is present in the number 1 vein. Some jamesonite and freibergite have also been reported in the veins. The sulphides are as a rule, massive and occur in pockets and irregular veinlets which tend to be parallel to the vein walls, and are either near one wall of the vein or where the quartz is fractured. The veins contain many wallrock inclusions, some of which are irregular and angular and others, thin slabs oriented parallel to the vein walls. Generally, the inclusions are within 0.6 metre of the veins and are partly replaced by pyrite and arsenopyrite.

and are partly replaced by pyrite and arsenopyrite. In all the veins, except number 6 vein, the known ore shoots extend within 60 to 152 metres of the surface. The larger number 6 vein is mineralized to 304 metres below the surface. Each vein is enclosed in an alteration zone in which the

Each vein is enclosed in an alteration zone in which the tuffaceous sandstone is bleached from an original grey colour to a light cream or tan due to the introduction of ankeritic carbonate, silica and possibly feldspar. Beyond these zones the rock becomes greenish and calcareous, forming an outer halo impregnated with calcite and chlorite.

Past work included extensive underground development. Historic production from number 1, 4, 6, and 7 veins provided most of the ore. More than sixty per cent of the production was from the number 6 vein which had an ore shoot 182 metres long and extended 304 metres downdip.

#### BIBLIOGRAPHY

EMPR MAP 1; 65, 1989 EMPR PF (Correspondence and Report by Resident Engineer, 1935; Reports on geology and mineralization, 1935; \*Canadian Institute of Mining 1957, Structural Geology of Canadian Ore Deposits, Vol. II, pp. 20-27; Monthly Report, T. Schroeter, 1975)

EMPR AR 1911-K81,K99,K100; 1912-K112,K116,K117; 1913-K105; 1914-K171, K194-K197; 1915-K76; 1916-K119-K121,K437,K438; 1917-F106,F107; 1918-K115-K117; 1919-N101; 1920-N84; 1921-G97; 1922-N98; 1938-C3, C49; 1947-A97,A98; 1948-A77-A80; 1949-A82; \*1950-A82-A95; 1951-A109; 1952-A85-A87; 1953-A92,A93; 1954-A85,A86; 1955-22; 1956-23-25; 1957-9,10; 1958-9,10; 1960-13; 1962-15,16; 1967-84; 1968-111 EMPR GEM 1969-98,99; 1970-481; 1971-28; 1973-357 EMPR OF 1992-1 EMPR ASS RPT 107 EMPR MINING Vol. 1 1975-1980; 1981-1985 GSC SUM RPT 1912, pp. 103,105,106 GSC MAP 971A; 44-24 GSC OF 720; 2322 GSC BULL 270 GSC MEM \*110, pp. 27-32; \*223, pp. 28-35 EMR MP CORFFILE (Silver Standard Mining Company Limited; Canadian Cadillac Gold Mines Limited; Omineca Base Metals, Limited; Silver Standard Mines Limited) CANMET IR 2740; 785, p. 151 CIM VOLUME II, 1957, pp. 20-27 W MINER Aug. 1978 EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1990/09/14 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093M 050</u>	NA	ATIONAL MINERAL INVENTORY:	093M5 Ag8
NAME(S):	BABINE (L. 1538)			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05E		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 39 N 127 33 12 W 600 Metres Within 500M Lot 1538 (Geological Survey of Canada	Memoir 223).	NORTHING: EASTING:	6126626 591898
COMMODITIES:	Silver Lead	Zinc	Copper	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Chalcoj Quartz Unknown	pyrite Pyrrhotite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal Epigenetic I05 Polymetallic veins Ag-Pb-Zn±Au Main vein.	I STRIKE/DIP:	050/65S TREND/PLUN	IGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION		RPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	55 Ma Potassium/Argon Biotite			
LITHOLOGY:	Granodiorite			
HOSTROCK COMMENTS:	Isotopic age date is from Geological Su	rvey of Canada Open File 2	322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Pł	HYSIOGRAPHIC AREA: Skeena R	langes
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel <u>COMMODITY</u> Silver Lead A 38-centimetre wide channel sample. Geological Survey of Canada Memoir 2	YEAR: 1: <u>GRADE</u> 77.8000 Grams per 2.6500 Per cent 23. page 35	940 tonne	
		.o, pugo oo.		
	The Babine property is Mountain, 8 kilometres east prospected by two adits, app trenches. The property is underla stock of coarse grained grey Intrusions. Potassium/argon an age of 55 million years 2322). The main occurrence is 050 degrees and dips 65 degrey sphalerite, galena and minoo 38-centimetre wide channel tonne silver, 2.65 per cent Canada Memoir 223). The se east, contains pyrrhotite argangue.	located on the nort of Hazelton. The p proximately 150 metr in by a small (1500 y granodiorite of th h dating of biotite (Geological Survey of a 38-centimetre wid ress southwest. The r chalcopyrite in a sample assayed trace lead and nil zinc ( cond occurrence, loc hd base metal sulphi	h side of Four Mile property has been es apart, and several metres in diameter) the Eocene Babine in the stock indicates of Canada Open File the vein which strikes e vein carries banded gangue of quartz. A e gold, 77.8 grams per Geological Survey of tated 150 metres to the des in a quartz	
BIBLIOGRAPHY	EMPR AR 1909-84, 1911-101,1 EMPR MAP 69-1 (#261)	02, 1950-98		

GSC MEM \*223, p. 35 GSC MAP 1731, 44-24, 971A GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/19 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 051</u>		N	ATIONAL MINERAL INVENTORY	: 093M5 Ag7
NAME(S):	MOHAWK (L. 5048), MOHAW OMINECA, MAID OF ERIN	/K FR. (L. 5053), ERIE	Ξ,		
STATUS:	Past Producer		Underground	MINING DIVISION:	Omineca
NTS MAP: BC: MAP	093M05E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 32 N 127 33 35 W 610 Metres Within 500M Adit portal (Assessment Repo	rt 7955).		NORTHING EASTING	: 6126401 : 591497
COMMODITIES:	Silver Lea	ad	Zinc	Gold	Antimony
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Jamesonite Sphalerite Tungsten has also been repor Quartz Siderite Unknown	Galena T ted. Pyrite	Fetrahedrite F	Pyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hyc I05 Polymetallic veins Ag- 135 x 1 Met Veins.	drothermal Pb-Zn±Au tres	STRIKE/DIP:	065/45S TREND/PLU	JNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	FORMATI	ON	IGNEOUS/METAN	IORPHIC/OTHER
Jurassic-Cretaceous Eocene ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	55 Ma Potassium/Argon Biotite	Undefined	d Formation	Babine Intrusions	
LITHOLOGY:	Sandstone Tuff Granodiorite Biotite Aplite Dike				
HOSTROCK COMMENTS:	Isotopic age date is from Geo	ological Survey of Ca	nada Open File 2	322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	Plutonic Rocks	Ρ	HYSIOGRAPHIC AREA: Skeena	Ranges
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N	١	
	CATEGORY: Assay/analys SAMPLE TYPE: Grab COMMODITY	sis <u>GRADE</u>	YEAR: 1	928	
COMMENTS: REFERENCE:	Gold Lead Antimony Zinc High grade sample contained Property File - Hagen, E.A., 19	23.310 23.310 14.100 4.8000 8.8000 11,387.82 grams per 28.	0 Grams per 0 Grams per 0 Per cent 0 Per cent 0 Per cent tonne silver.	r tonne	
CAPSULE GEOLOGY	The Malazzia		the summit	- F. Bourn Mile Mounts'	
	8 kilometres east of adit at the 610 metre sorted and shipped be explored by numerous first staked in 1911 The property is	Hazelton. The elevel and a setween 1913 and trenches and t and was shut of underlain by i	the summit of property has small tonnage l 1929. The two short sha lown in 1929 Intensely alt	as been developed by an e of ore was hand property has also been afts. The property was	1 1 5

Sandstone of the Middle Jurassic to Lower Cretaceous Bowser Lake Group which is intruded by a small (1500 metres in diameter) stock of coarse grained grey granodiorite of the Eocene Babine Intrusions. Potassium/argon dating of biotite in the stock indicates an age of 55 million years (Geological Survey of Canada Open File 2322). A few

small dikes of biotite aplite are exposed in the main adit. The veins are fault-controlled, commonly at the contact between the granodiorite and the sediments or within the sediments. They generally narrow significantly in the granodiorite within a few metres of the contact with the sediments. The main workings occur within a tongue-like body, of the altered sedimentary rocks, which extends eastward into the granodiorite. Three veins exposed in the main workings strike approximately 065 degrees, dipping between 30 and 65 degrees southeast. A fourth vein, located 250 metres northwest of the main vein exposure, also strikes approximately 065 degrees, dipping 60 degrees southeast. The veins range from 10 to 120 centimetres in width and are up to 135 metres in length. The gangue minerals are banded quartz and siderite with sparse sulphides. The ore shoots are small, rich and contain the following sulphide minerals in order of decreasing abundance: jamesonite, sphalerite, pyrite, galena and tetrahedrite. Tungsten is also reported to have been found in the mine.

One rich sample assayed 11,387.82 grams per tonne silver, 23.31 grams per tonne gold, 14.1 per cent lead, 8.8 per cent zinc, 8 per cent copper and 4.8 per cent antimony (Property File - Hagen, E.A., 1928).

#### BIBLIOGRAPHY

MINFILE NUMBER:	<u>093M 052</u>		NATIONAL MINERAL INVENTORY:	093M5 Pb1
NAME(S):	COMET (L. 3578), CENTRE STAR, IF	RON MASK (L. 3577)		
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093M05E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 03 N 127 32 57 W 370 Metres Within 500M Location of main adit portal on Lot 35 Memoir 223, page 39).	578 (Geological Survey of Ca	NORTHING: EASTING: nada	6125518 592186
COMMODITIES:	Silver Lead	Zinc	Antimony	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Jamesonite Sphalerite Ga Quartz Pyrite Siderite Unknown	lena e		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn:	e ±Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Eocene			Babine Intrusions	
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	55 Ma Potassium/Argon Biotite			
LITHOLOGY:	Coarse Grained Granodiorite Tuff Sandstone			
HOSTROCK COMMENTS:	Isotopic age date is from Geological	l Survey of Canada Open File	2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	Plutonic Rocks	PHYSIOGRAPHIC AREA: Skeena	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Lead Antimony Zinc A 25-centimetre channel sample. Als Geological Survey of Canada Mampi	YEAR: <u>GRADE</u> 297.6000 Grams p 1.2200 Per cent 0.4700 Per cent 2.2900 Per cent so, 0.3 grams per tonne gold. r 223 page 40	1940 per tonne	
	Geological Survey of Canada Memor	1 223, page 40.		
	The Comet showing is Mountain, 8 kilometres ea explored by a 45-metre lo two shorter adits and sev The property is unde sandstone of the Middle J Group, which is intruded of coarse grained grey gr Potassium/argon dating of million years (Geological The grey granodiorit	located on the sout st of Hazelton. The ng adit at the 370 m eral small trenches. rlain by intensely a urassic to Lower Cre by a small (1500 met anodiorite of the Eo biotite in the stoc Survey of Canada Op e and, to a lesser e	h side of Four Mile property has been etre level, as well as ltered tuff and taceous Bowser Lake res in diameter) stock cene Babine Intrusions. k indicates an age of 55 en File 2322). xtent, the sedimentary e-bearing guartz veins	

rocks, are host to a number of narrow sulphide-bearing quartz veins on the property. The veins occupy fracture zones and contain variable amounts of jamesonite, sphalerite, galena and pyrite. Some veins are rich in siderite. The veins strike between 345 degrees and 080 degrees, dip 15 to 60 degrees east or southeast and range up to 25 centimetres in thickness. One 25-centimetre sample assayed 0.3
gram per tonne gold, 297.6 grams per tonne silver, 1.22 per cent lead, 2.29 per cent zinc and 0.47 per cent antimony (Geological Survey of Canada Memoir 223, page 40).

## BIBLIOGRAPHY

EMPR AR 1916-119, 1920-87, \*1928-158, 1929-159, 1950-83,99 EMPR MAP 69-1 (#263) EMPR PF (Sketch of claims, date and source unknown) GSC MAP 971A, 44-24, 1731 GSC MEM \*223-39 GSC OF 2322 EMR MRD COMM FILE p. 173 EMR MP CORPFILE (Mohawk Mining Co. Ltd.)

DATE CODED:1985/07/24CODED BY:GSBFIELD CHECK:DATE REVISED:1991/09/20REVISED BY:RHMFIELD CHECK:	DATE CODED: 1985/07/24	CODED BY: GSB	FIELD CHECK: N
	DATE REVISED: 1991/09/20	REVISED BY: RHM	FIELD CHECK: N

MINFILE NUMBER:	<u>093M 053</u>		Ν	NATIONAL MI	NERAL INVENTORY:	093M4 Cu3
NAME(S):	DALEY WEST, INGENICA					
STATUS:	Prospect British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M04E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 22 N 127 33 48 W 610 Metres Within 500M Adit (Bulletin 43, figure 2).				NORTHING: EASTING:	6120524 591388
COMMODITIES:	Copper Zinc	Gold Tungsten	Silver		Molybdenum	Lead
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Arsenop Sphalerite Scheelite Quartz Calcite Unknown	yrite Pyrite P Molybdenite	yrrhotite G	Galena		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	Vein Hydrothermal I05 Polymetallic veins Tabular 100 x 1 Vein.	Disseminated Epigenetic Ag-Pb-Zn±Au Metres	STRIKE/DIP:	L04 Por 020/65N	ohyry Cu ± Mo ± Au TREND/PLUI	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
	GROUP	FORMATIC	N		IGNEOUS/METAM	ORPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite					
LITHOLOGY:	Quartz Porphyritic Monzor Quartz Monzonite	nite				
HOSTROCK COMMENTS:	Isotopic age date is from Hosted in the Rocher De	Geological Survey of Car boule stock.	nada Open File :	2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		F	PHYSIOGRAF	HIC AREA: Hazelton	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON:	N		
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Channel COMMODITY Silver Gold Copper A 38-centimetre channel s Geological Survey of Cana	nalysis GRADE 47.0000 1.4000 1.9200 ample at the face in the n ada Memoir 223.	YEAR: O Grams pe O Grams pe O Per cent nain (upper) adi	1940 er tonne er tonne t.		
CAPSULE GEOLOGY						
	The Daley Wes Hazelton, on the e The showings monzonite phase of Cretaceous Bulkley dated at 72 millio Survey of Canada O Two adits hav degrees, dipping 6 several trenches o averages 15 centim places. The vein	t property is loc ast side of Missi are within the fir the Rocher Debou Intrusions. Bio n years by potass pen File 2322). e been driven on 5 degrees northwe ver a vertical di etres in thicknes carries pyrite, a	ated 3 kilo on Creek. ne-grained le stock wh tite, from ium/argon d a quartz ve st. The ve stance of m s, reaching rsenopyrite	to porphy ich is pa the stock lating (Ge in that s in is exp ore than close to c, pyrrhot	utheast of New ritic quartz rt of the Late , has been ological trikes 020 osed in 100 metres and 1 metre in ite and	

chalcopyrite with minor scheelite, sphalerite, galena and calcite. A 38-centimetre wide channel sample, taken from the face of the main adit, assayed 1.4 grams per tonne gold, 47.0 grams per tonne silver

and 1.92 per cent copper (Geological Survey of Canada Memoir 223). Recently, chalcopyrite and molybdenite have been found in porphyritic quartz monzonite in widely scattered narrow quartz veins north, east and west of the old workings.

### BIBLIOGRAPHY

EMPR AR 1912-114, 1916-116 EMPR BULL \*43-27,52 EMPR MAP 69-1 (#264) EMPR ASS RPT 8937 GSC MEM 110-25, \*223-39 GSC MAP 971A, 1731, 44-24 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/27 CODED BY: GSB REVISED BY: RHM

## MINFILE NUMBER: 093M 054

#### NAME(S): LONE STAR

STATUS: Showing REGIONS: British Columbia

NTS MAP: 093M04E BC MAP:

LATITUDE: 55 10 09 N LONGITUDE: 127 31 34 W ELEVATION: 1200 Metres

COMMENTS: Location from figure 2, Bulletin 43.

# NATIONAL MINERAL INVENTORY:

MINING DIVISION: Omineca

UTM ZONE: 09 (NAD 83)

NORTHING: 6114608 EASTING: 593882

MINERALS SIGNIFICANT: Pyrrhotite MINERALIZATION AGE: Unknown

LOCATION ACCURACY: Within 500M

COMMODITIES: Iron

### DEPOSIT

CHARACTER: Vein CLASSIFICATION: Epigenetic TYPE: \* Unknown

## HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous

<u>GROUP</u> Bowser Lake FORMATION Undefined Formation IGNEOUS/METAMORPHIC/OTHER

**Bulkley Intrusions** 

PHYSIOGRAPHIC AREA: Hazelton Ranges

LITHOLOGY: Greywacke Slate

Argillite Porphyritic Diorite Porphyritic Granodiorite

### **GEOLOGICAL SETTING**

TECTONIC BELT: Intermontane TERRANE: Bowser Lake

## CAPSULE GEOLOGY

The Lone Star showing is located on the west bank of Pangea Creek, a tributary of Mudflat Creek on the northeast side of the Rocher Deboule Mountain Range, 10 kilometres south-southeast of South Hazelton.

A pyrrhotite vein, up to 10 centimetres wide and less than 8 metres long, cuts greywacke, slate and argillite of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. The vein has previously been explored by an adit which is now caved. Dikes of porphyritic diorite intrude the sedimentary rocks in the area. Late Cretaceous porphyritic granodiorite of the Rocher Deboule stock intrude the Bowser Lake Group, 1.5 kilometres to the west. A north-trending block fault, the Pangea Fault, separates the sedimentary rocks from andesitic flows, breccias, tuffs and volcaniclastic sediments of the Upper Cretaceous Brian Boru Formation, Kasalka Group.

### BIBLIOGRAPHY

EMPR BULL \*43-54 EMPR MAP 69-1 (#265) EMPR ASS RPT 7903 GSC MEM 223-52 GSC P 44-24 GSC MAP 971A, 44-24

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/25 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 055</u>		NATIONAL MINERAL INVENTORY:		
NAME(S):	SILVERTIP GLACIER				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca	
BC MAP:	093M04E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 08 N 127 34 57 W 1600 Metres Within 1 KM Occurrence #266, near th 69-1).	e northeast end of the Silvertip Glacier (	NORTHING: EASTING: Map	6114502 590291	
COMMODITIES:	Molybdenum	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo	→ ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER	
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite		Duikley indusions		
LITHOLOGY:	Porphyritic Granodiorite				
HOSTROCK COMMENTS:	Isotopic age date is from	Geological Survey of Canada Open File	2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Hazeltor	n Ranges	
CAPSULE GEOLOGY A molybdenum-copper occurrence is shown on Map 69-1 at the headwaters of Mudflat Creek on the east side of the Rocher Deboule Mountain Range, 9 kilometres south of South Hazelton. The area is within the Rocher Deboule stock an Late Cretaceous porphyritic granodiorite body which is one of the Bulkley Intrusions. The Rocher Deboule stock has been dated at 72 million years through potassium/argon dating of biotite (Geological Survey of Canada Open File 2322).					
BIBLIOGRAPHY	EMPR BULL 43 EMPR MAP *69-1 (#2 GSC OF 2322	266)			
DATE CODED: DATE REVISED:	1985/07/24 1991/10/25	CODED BY: GSB REVISED BY: RHM	F	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 056</u>				NATIO	NAL MINEF	RAL INVENTORY:	093M4 W2
NAME(S):	<u>BLUE LAKE,</u> CRO, MOLY B	WOLFRAM,						
STATUS:	Showing					I	MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093M04E						UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 58 N 127 34 17 W 1650 Metres Within 500M Location from figure	e 2, Bulletin 43					NORTHING: EASTING:	6114208 591005
COMMODITIES:	Tungsten Copper	Gold		Molybd	enum	Ura	anium	Silver
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Scheelite Ch Uraninite Fer Quartz Unknown	alcopyrite I rberite	Volybdenite	Pyrite	letrahe	edrite		
DEPOSIT								
CHARACTER: CLASSIFICATION:	Vein Hydrothermal	Epigene	etic					
TYPE: DIMENSION: COMMENTS:	I12 W veins No. 1 vein.			STRI	(E/DIP: 10	5/65E	TREND/PLUI	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic							
STRATIGRAPHIC AGE	GROUP Bowser Lake		FORMAT	<u>ION</u>	n	<u> </u>	GNEOUS/METAMO	DRPHIC/OTHER
	72 Ma		Undenne	or offiaid	// 1	I	Bulkley Intrusions	
DATING METHOD: MATERIAL DATED:	Potassium/Argon Biotite							
LITHOLOGY:	Porphyritic Granodi Hornfels Argillite	iorite						
HOSTROCK COMMENTS:	Host rocks are fro Survey of Canada	om the Rocher I a Open File 232	Deboule stock, a 2.	ge date fro	om Geologic	al		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane				PHYSI	IOGRAPHIC	CAREA: Hazelton	Ranges
TERRANE: METAMORPHIC TYPE:	Plutonic Rocks Contact		Bowser Lake RELATION	SHIP:		(	GRADE: Hornfels	5
INVENTORY								
ORE ZONE:	SAMPLE			REPOR	TON: N			
	CATEGORY: A	.ssay/analysis		Y	EAR: 1954			
	SAMPLE TYPE: G COMMODITY	irab	GRADE	<u> </u>		_		
	Gold Molybdenum		2.740 0.060	00 Gra	ams per tonr r cent	ne		
	Uranium Tungsten		0.003	80 Pei 00 Pei	r cent r cent			
REFERENCE:	Geological Survey	of Canada Men	noir 223 (Rev).					
CAPSULE GEOLOGY	The Blue	Lake prop	erty is loc	ated nea	ar the he	ead of M	udflat Creek	
	on the northe kilometres so Several granodiorite Bulkley Intru argillites fr Group rocks, The more	ast side o uth of Sou mineralize of the Lat sions. Th om the Mid the main b easterly,	f the Roche th Hazelton d quartz ve e Cretaceou e intrusion dle Jurassi ody of whic or No. 1 v	r Debou ins occu s Rochen contain c to Low h outcro ein, stu	le Mounta ur in por c Deboule ns a few wer Creta ops to th cikes 105	rphyriti stock rafts o aceous B ae east. degree	e, 9 c of the f hornfelsic owser Lake s and dips	
	tetrahedrite width. Less tha	and minor	chalcopyrit s distant.	the No.	ing up to	g up to 25 cen strikes	10 per cent timetres in 155 degrees.	

dipping 70 degrees southwest. It contains chalcopyrite, pyrite, molybdenite, tetrahedrite, scheelite, and likely uraninite. A grab sample assayed 0.85 per cent molybdenum, 1.0 per cent WO3 and 0.004 per cent equivalent uranium (Geological Survey of Canada Memoir 223 Rev.).

The No. 3 vein is located six hundred metres to the northwest. It strikes 165 degrees and dips 75 degrees west. It is a quartz vein with scheelite, molybdenite, chalcopyrite, and ferberite. A grab sample assayed 2.74 grams per tonne gold, 11.31 per cent WO3, 0.06 per cent molybdenum, and 0.003 per cent equivalent uranium (Geological Survey of Canada Memoir 223 Rev.). Another vein, 90 metres below the No. 3 vein, is exposed for 23

Another vein, 90 metres below the No. 3 vein, is exposed for 23 metres. It is up to 3 metres wide, strikes northwest and dips 60 degrees northeast. It contains milky white quartz and tetrahedrite and a sample assayed 0.7 gram per tonne gold and 1900 grams per tonne silver ((Geological Survey of Canada Memoir 223 Rev.).

### BIBLIOGRAPHY

EMPR BULL \*43, pp. 49-50 EMPR MAP 22-54; 69-1 EMPR ASS RPT 7903 EMPR EXPL 1980-348 EMPR OF 1990-32 GSC OF 551; 720; 2322 GSC MEM \*223 (Rev.), pp. 32-34 GSC EC GEOL \*No. 17, pp. 56-58; No. 20, pp. 236-237 GSC MAP 44-24 W MINER July, 1948

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/24 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 057</u>			NATIONAL MI	NERAL INVENTORY:	093M4 W3
NAME(S):	BLACK PRINCE (L. 2411 Black Bear, Eriksen, I	), CRO, CARIBOO, ERIKSEN 1-7				
STATUS:	Prospect				MINING DIVISION:	Omineca
NTS MAP:	093M04E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 19 N 127 33 40 W 1500 Metres Within 500M Lower adit (Bulletin 43).				NORTHING: EASTING:	6114870 591646
COMMODITIES:	Gold Copper	Silver Molybdenum	Lead Tin		Tungsten	Uranium
			••••			
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Ferberite Cassiterite Uraninite Quartz Erythrite Oxidation Unknown	Chalcopyrite Wolframite	Molybdenite Bornite	Scheelite		
	Voin	Massivo				
CLASSIFICATION: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Hydrothermal Hydrothermal I12 W veins Regular Sheared 300 x 200 x 2 Main vein shear.	Epigenetic Metres	STRIKE/D	IP: 150/65W	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORI		rmation	IGNEOUS/METAMO	DRPHIC/OTHER
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite	Unite		IIIIauon	Bulkley Intrusions	
LITHOLOGY:	Porphyritic Granodiorite Siltstone Argillite					
HOSTROCK COMMENTS:	The Rocher Deboule sto Open File 720.	ck age date is from C	Geological Survey	of Canada		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Bowser La	ake	PHYSIOGRAF	PHIC AREA: Hazelton	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPORT OF	N: N		
	CATEGORY: Assay/a SAMPLE TYPE: Channel COMMODITY Gold	nalysis 	YEAF ADE 0000 Grams	R: 1953		
COMMENTS: REFERENCE:	Tin Uranium Tungsten A 7.6-centimetre wide cha Geological Survey of Can	annel sample. ada Memoir 223 (195	8000 Per ce 0330 Per ce 8800 Per ce 53), page 31.	nt nt		
CAPSULE GEOLOGY	The Black Pri Rocher Deboule Mou kilometres south of Siltstone and Cretaceous Bowser Rocher Deboule sto quartz veins occur porphyritic granoo	Ince veins are intain Range at of South Hazelt argillite of Lake Group are ock of the Bulk in the stock diorite.	located on t the headwat on. the Middle J intruded by ley Intrusio which consis	he northeas ers of Mudf urassic to the Late ( ns. Severa ts of inter	at side of the lat creek, 8 Upper Cretaceous 1 parallel usely jointed	

The Main Fracture Zone strikes 150 degrees and dips 65 degrees southwest and measures 300 metres in length, is up to 2.4 metres wide, and extends over 200 metres in vertical extent. The fracture zone contains quartz veins with various amounts of scheelite, pyrite, chalcopyrite, molybdenite, wolframite, ferberite, and erythrite. A sample from the lower adit over 0.6 metre assayed 0.82 per cent WO3, 0.36 per cent copper, 0.10 per cent molybdenum, and 6.9 grams per tonne silver (Bulletin 43).

A parallel quartz vein, 250 metres east of the main vein, strikes 150 degrees and dips 65 degrees southwest. The vein contains areas of massive chalcopyrite and scheelite and lesser pyrite, bornite, cassiterite and uraninite. A 7.6-centimetre sample assayed 2.37 per cent W03, 0.8 per cent tin, 1.0 gram per tonne gold, and 0.033 per cent equivalent uranium (Geological Survey of Canada Memoir 223 Rev.).

Assessment Report 7903 mentions an intermediate vein, 150 metres east of the main vein which strikes 160 degrees and dips 70 degrees southwest. A 59-centimetre sample assayed 0.02 per cent WO3, 0.34 per cent molybdenite, 1.15 per cent copper, and 3.4 grams per tonne silver (Assessment Report 7903).

In 1915, 19 tonnes reportedly produced 120,338 grams of silver and 619 kilograms of lead.

### BIBLIOGRAPHY

EMPR AR 1913-107; 1914-205; 1916-117,118; 1918-113
EMPR BULL 9, p. 81; 10, pp. 47-51; 10 (Rev.), pp. 67-71; \*43,
 pp. 48-49
EMPR MAP 22-54; 69-1
EMR MP CORPFILE (New Privateer Mine Limited)
EMPR PF (Sketch Map of the Black Prince Group of Claims and Assays,
 1951)
EMPR ASS RPT \*7903
EMPR ASS RPT \*7903
EMPR EXPL 1980-348
EMPR OF 1990-32
GSC MEM 110, pp. 25-26; 223, pp. 47-48; \*223 (Rev.), pp. 30-32
GSC MEM 110, pp. 45-46
GSC EC GEOL No. 17, pp. 54-56; No. 20, pp. 235-236
GSC MAP 44-24; 971A; 1731

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/24

CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER: 093M 058 NATIONAL MINERAL INVENTORY: NAME(S): PORPHYRY CREEK NORTH STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093M04E BC MAP: UTM ZONE: 09 (NAD 83) LATITUDE: 55 09 25 N LONGITUDE: 127 33 42 W ELEVATION: 1675 Metres NORTHING: 6113200 EASTING: 591645 LOCATION ACCURACY: Within 500M COMMENTS: Occurrence #269, located north of Porphyry Creek near the Silvertip Glacier (Map 69-1). COMMODITIES: Molybdenum MINERALS SIGNIFICANT: Molybdenite MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Unknown CLASSIFICATION: Unknown TYPE: L05 Porphyry Mo (Low F- type) HOST ROCK DOMINANT HOSTROCK: Plutonic IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions STRATIGRAPHIC AGE GROUP **FORMATION** Upper Cretaceous ISOTOPIC AGE: 72 Ma DATING METHOD: Potassium/Argon MATERIAL DATED: Biotite LITHOLOGY: Porphyritic Granodiorite HOSTROCK COMMENTS: Isotopic age date is from Geological Survey of Canada Open File 2322. **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Hazelton Ranges **TERRANE:** Plutonic Rocks CAPSULE GEOLOGY A molybdenum occurrence is reported on Map 69-1 at this location, 10 kilometres south of New Hazelton, on the east side of the Rocher Deboule Mountain Range. The area of the occurrence is within the Rocher Deboule stock, a porphyritic granodiorite plug of Late Cretaceous age, which is one of the Bulkley Intrusions. No other information is available. BIBLIOGRAPHY EMPR BULL 43 EMPR MAP \*69-1 (#269) GSC OF 2322 DATE CODED: 1985/07/24 DATE REVISED: 1991/10/24 CODED BY: GSB REVISED BY: RHM FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 059</u>	NATIONAL M	IINERAL INVENTORY:			
NAME(S):	BALSAM					
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca		
NTS MAP: BC MAP:	093M04E		UTM ZONE:	09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 03 N 127 34 45 W 1800 Metres Within 5 KM Occurrence #270 (Map 69-1).		Northing: Easting:	6112498 590544		
COMMODITIES:	Copper					
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo ± Au					
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE Jurassic-Cretaceous	GROUP Bowser Lake	FORMATION Unnamed/Unknown Formation	IGNEOUS/METAM	ORPHIC/OTHER		
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite					
LITHOLOGY:	Porphyritic Granodiorite Clastic Sediment/Sedimentary					
HOSTROCK COMMENTS:	Age date from Geological Survey of	Canada Open File 2322.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake P	PHYSIOGRA Iutonic Rocks	PHIC AREA: Hazeltor	n Ranges		
CAPSULE GEOLOGY						
	The Balsam showing is located in the Rocher Deboule Mountain Range approximately 11 kilometres south of South Hazelton. The area is underlain by clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group and the Rocher Deboule stock, a porphyritic granodiorite intrusive body which is one of the Late Cretaceous Bulkley Intrusions. A potassium/argon date on biotite from the stock yielded a date of 72 million years (Geological Survey of Canada Open File 2322). The occurrence is shown on Map 69-1 as a copper occurrence, however no other information is available.					
BIBLIOGRAPHY	EMPR BULL 43 EMPR MAP *69-1 (#270) GSC OF 2322					
DATE CODED: DATE REVISED:	1985/07/24 1991/10/24	CODED BY: GSB REVISED BY: RHM	F	TIELD CHECK: N TIELD CHECK: N		

MINFILE NUMBER:	<u>093M_060</u>	NATIONAL MINE	ERAL INVENTORY:		
NAME(S):	<u>TINA</u>				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093M04E		UTM ZONE:	09 (NAD 83)	
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 04 N 127 33 31 W 1600 Metres Within 1 KM Occurrence #271 (Map 69-1).		NORTHING: EASTING:	6110701 591892	
COMMODITIES:	Molybdenum				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L05 Porphyry Mo (Low F- type)				
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER	
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite		Bulkley Intrusions		
LITHOLOGY:	Porphyritic Granodiorite				
HOSTROCK COMMENTS:	Isotopic age date is from Geological S	urvey of Canada Open File 2322.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPH	IC AREA: Hazelton	Ranges	
CAPSULE GEOLOGY The Tina molybdenum occurrence, shown on Map 69-1, is located near the headwaters of Boulder Creek, 13 kilometres south of New Hazelton. The area is underlain by porphyritic granodiorite of the Brian Boru stock. The stock has been dated at 72 million years (Geological Survey of Canada Open file 2322) and is one of the Late Cretaceous Bulkley Intrusions. No other information is available.					
BIBLIOGRAPHY	EMPR BULL 43 EMPR MAP *69-1 (#271) GSC OF 2322				
DATE CODED: DATE REVISED:	1985/07/24 1991/10/11	CODED BY: GSB REVISED BY: RHM	F	IELD CHECK: N IELD CHECK: N	

MINFILE NUMBER:	<u>093M 061</u>			1	NATIONAL MINERA	AL INVENTORY:	093M4 Ag4
NAME(S):	<u>SULTANA</u> , SNOWSHOE, L LITTLE WONDER, SILVER DELORES, ELGIN	AST CHANCE, TIP, MUGWUMP,					
STATUS: REGIONS	Prospect British Columbia				M	NING DIVISION:	Omineca
NTS MAP: BC MAP	093M04E					UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 06 00 N 127 31 12 W 1580 Metres Within 1 KM Location from Assessmen	t Report 2855.				Northing: Easting:	6106920 594434
COMMODITIES:	Silver	Copper	Мо	lybdenum	Gold		
MINERALS							
SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Molybder Low gold, lead and zinc va Quartz Pyrite Unknown	hite Tetrahedrit alues from assays c	e of samples				
DEPOSIT CHARACTER	Vein						
CLASSIFICATION:	Epigenetic I05 Polymetallic veins	Porphyry Ag-Pb-Zn+Au			104 Porphyry	γ Cu + Mo + Au	
DIMENSION: COMMENTS:	20 x 7 Dimensions of mineralized	Metres outcrop. Attitude o	s of zone.	STRIKE/DIP:	070/45E	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE	GROUP	FOR	MATION		<u> </u>	NEOUS/METAM	DRPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite				Ы		
LITHOLOGY:	Porphyritic Granodiorite Pegmatite Dike Aplite Dike Andesite Dike Granite Dike						
HOSTROCK COMMENTS:	Isotopic age date is from	Geological Survey o	of Canada	Open File	2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks			I	PHYSIOGRAPHIC /	AREA: Hazelton	Ranges
INVENTORY							
ORE ZONE:	TRENCH		REF	PORT ON:	N		
	CATEGORY: Assay/ar SAMPLE TYPE: Chip COMMODITY Silver Cold	nalysis <u> </u>	ADE 8.6300	YEAR: Grams pe	1988 er tonne		
COMMENTS	Copper Sample from trench E acro	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	.2800	Per cent			
REFERENCE	0.06 per cent lead.	#187 September 28	3 1989				
			, 1000.				
	GY The Sultana prospect is located on the southeast side of the Rocher Deboule Range near the headwaters of Boulder Creek, 16 kilometres south of New Hazelton. The host rocks are porphyritic granodiorite of the Late Cretaceous Rocher Deboule stock which has been dated at 72 million years (Geological Survey of Canada Open File 2322) and which is part of the Bulkley Intrusions. Dikes of pegmatite, aplite, andesite and granite intrude the porphyritic granodiorite. The mineralized outcrop is 20 metres long and up to 7 metres wide. The outcrop consists of fractured granodiorite hosting pyrite, tetrahedrite, molybdenite and chalcopyrite with some quartz gangue. The zone strikes 070 degrees, dipping 45 degrees southeast.						

A 12-metre sample from trench F assayed 698.62 grams per tonne silver, 0.55 grams per tonne gold and 2.28 per cent copper (George Cross Newsletter #187, September 28, 1989). An area of chalcopyrite-molybdenite mineralization occurs peripheral to the silver showing, and is associated with a north-south trending fracture system with steep dips both east and west.

### BIBLIOGRAPHY

EMPR BULL \*43-68 EMPR ASS RPT 92, 2855 EMPR GEM 1969-85, 1970-173, 1971-188, 1973-356 EMPR GEM 1969-85, 1970-173, 1971-188, 1973-356 EMPR AR 1921-100, 1922-99, 1923-107, 1967-85 EMPR PF (Key Largo Resources Ltd. Prospectus, 1989; Sketch plan of main mineralized zone and Plan of Silver Tip Group, Sultana Silver Mines Ltd., 1967; Tidsbury, A.D. (1967): Progress Report and Preliminary Report for the Silver Tip Mineral Claims) GSC MAP 971A, 44-24 GSC MEM 223-77 GSC SUM RPT 1910-97 GSC OF 2322 V STOCKWATCH December 14, 1989 GCNL #187,#213, 1989

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/10

EMPR MAP 69-1 (#272)

CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M_062</u>	NATIONAL MINI	ERAL INVENTORY:		
NAME(S):	BIG THING				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP:	093M04E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 05 28 N 127 33 03 W 1600 Metres Within 500M Occurrence #273 (Map 69-1).		NORTHING: EASTING:	6105890 592487	
COMMODITIES:	Molybdenum Copper				
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Molybdenite Chalcopyrite Assumed significant minerals. Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo ± Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER	
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite		Buikley Intrusions		
LITHOLOGY:	Porphyritic Granodiorite				
HOSTROCK COMMENTS:	Isotopic age date is from Geological Mineralization is hosted in the Roche	Survey of Canada Open file 2322. r Deboule stock.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:					
CAPSULE GEOLOGY					
	The Big Thing showing is located at the headwaters of Corya Creek, 17 kilometres south of New Hazelton. The area of the showing is within porphyritic granodiorite of the Late Cretaceous Rocher Deboule stock which is part of the Bulkley Intrusions. A molybdenum-copper occurrence is reported on Map 69-1. No other information is available.				
BIBLIOGRAPHY	EMPR BULL 43 EMPR MAP *69-1 (#273) GSC OF 2322				
DATE CODED: DATE REVISED:	1985/07/24 1991/10/10	CODED BY: GSB REVISED BY: RHM	F	TIELD CHECK: N	

MINFILE NUMBER:	<u>093M 063</u>	Ν	ATIONAL MINERAL INVENTORY:	093M4 Cu7
NAME(S):	<u>MT</u>			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
BC MAP:	093M04E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 04 55 N 127 32 25 W 2000 Metres Within 1 KM Location from Assessment	t Report 1134 and Bulletin 43.	NORTHING: EASTING:	6104884 593182
COMMODITIES:	Copper	Molybdenum		
MINERALS				
SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Molybder Possibly weathered sphale Pyrite Unknown	nite erite or tetrahedrite.		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Epigenetic L04 Porphyry Cu ± Mo	± Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	<u>GROUP</u> Kasalka	FORMATION Brian Boru	IGNEOUS/METAMO	ORPHIC/OTHER
Upper Cretaceous	72 Ma		Bulkley Intrusions	
DATING METHOD: MATERIAL DATED:	Potassium/Argon Biotite			
LITHOLOGY:	Andesitic Flow Dacitic Flow Breccia Granodiorite			
HOSTROCK COMMENTS:	Isotopic age date is from The intrusive is the Roche	Geological Survey of Canada Open File 2 er Deboule stock.	2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	P Overlap Assemblage	HYSIOGRAPHIC AREA: Hazelton	Ranges
CAPSULE GEOLOGY				
	The MT showin kilometres south o Widespread di the southern conta intrudes andesitic Cretaceous Brian B and chalcopyrite a are associated wit	gs are located at the headwar f New Hazelton. sseminated pyrite mineraliza ct of the Rocher Deboule gran and dacitic flows and brecc oru Formation (Kasalka Group nd possibly weathered sphale: h the pyrite.	ters of Corya Creek, 19 tion is associated with nodiorite stock which ias of the Upper ). Minor molybdenite rite (or tetrahedrite)	
BIBLIOGRAPHY		1000		
	EMPR ASS RPT *1134 EMPR AR 1967-85 EMPR MAP 69-1 (#27 EMPR EXPL 1978-E22 EMPR BULL 43 GSC OF 2322	, *6894 4) 2		
DATE CODED: DATE REVISED:	1985/07/24 1991/10/10	CODED BY: GSB REVISED BY: RHM	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 064</u>	NATIONAL MINERA	LINVENTORY: 093M4 Zn2
NAME(S):	BRIAN BORU (L. 607, 608), JONES, SOUT KILLARNEY	H OXIDATION,	
STATUS:	Showing	M	NING DIVISION: Omineca
REGIONS: NTS MAP: BC MAP	093M04E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 05 20 N 127 36 04 W 1600 Metres Within 500M Location of Lot 608.		NORTHING: 6105577 EASTING: 589284
COMMODITIES:	Silver Zinc	Lead	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Chalcopyri Quartz Pyrite Pyrrhotite Unknown	ite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic I05 Polymetallic veins Ag-Pb-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	GROUP F Kasalka B 72 Ma Potassium/Argon Biotite	ORMATION IG rian Boru	NEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Skeena R	led Rose	
LITHOLOGY:	Sandstone Argillite Volcanic		
HOSTROCK COMMENTS:	Isotopic age date is from Geological Surve	ey of Canada Open File 2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPHIC /	AREA: Hazelton Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Lead Zinc A 15-centimetre channel sample. Geological Survey of Canada Memoir 223	YEAR: 1954 <u>GRADE</u> 220.5000 Grams per tonne 1.8400 Per cent 11.2700 Per cent (1954), page 35.	
CAPSULE GEOLOGY			
	The Brian Boru showing 1 Deboule Range, 18 kilometres The property is underlai (interbedded sandstones and a Rose Formation (Skeena Group) the Upper Cretaceous Brian Bo sedimentary rocks strike nort: The property consists of to 30 centimetres in width, c pyrite pyrrhotite and chalcop are all near the contact betw Boru Formation. They general northwest. A 15-centimetre c assayed trace gold, 220.5 gra 11.27 per cent zinc (Geologic In addition to the showi	s located on the west side of south of New Hazelton. n by clastic sedimentary rock, rgillites) of the Lower Cretar which are overlain by volcan ru Formation of the Kasalka G h and dip 35 degrees east. several showings comprising ontaining black sphalerite, ga yrite in a gangue of quartz. een the Red Rose Formation and ly strike northeast, dipping hannel sample taken from one ms per tonne silver, 1.84 per al Survey of Canada Memoir 22 ngs on the main Brian Boru pro	the Rocher s ceous Red ic rocks of roup. The veins, up alena, The veins d the Brian to the vein cent lead, 3).

In addition to the showings on the main Brian Boru property, Assessment Report 14632 refers to two other mineralized areas. These are the Jones and South Oxidation showings between the Brian Boru

area and the Killarney area (093M 114). The precise location of the Jones and South Oxidation showings is not known.

## BIBLIOGRAPHY

EMPR AR 1914-191, 1917-451, 1926-127 EMPR BULL 43-50 EMPR MAP 69-1 (#275) EMPR PF (Schroeter, T., Monthly Report, May, 1979) EMPR ASS RPT 14632 GSC MEM \*223-34, 110-19 GSC MAP 971A, 1731, 44-24 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/11 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 065</u>	NATIONAL MINI	ERAL INVENTORY:		
NAME(S):	JUPITER				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca	
BC MAP:	093M04E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 06 41 N 127 34 47 W 1830 Metres Within 500M Occurrence #276 (Map 69-1).		NORTHING: EASTING:	6108108 590598	
COMMODITIES:	Molybdenum Copper				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo ± Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER	
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite		Bulkley Intrusions		
LITHOLOGY:	Porphyritic Granodiorite				
HOSTROCK COMMENTS:	Isotopic age date is from Geological	Survey of Canada Open File 2322.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPH	IIC AREA: Hazeltor	n Ranges	
CAPSULE GEOLOGY The Jupiter molybdenum-copper occurrence is located 15 kilometres south of New Hazelton in the Rocher Deboule Range. The area is underlain by porphyritic granodiorite of the Late Cretaceous Rocher Deboule stock which is one of the Bulkley Intrusions. The stock has been dated at 72 million years from potassium/argon dating of biotite (Geological Survey of Canada Open File 2322). A molybdenum-copper occurrence is shown on Map 69-1 but no other information is available. BIBLIOGRAPHY					
	GSC OF 2322				
DATE CODED: DATE REVISED:	1985/07/24 1991/10/09	CODED BY: GSB REVISED BY: RHM	F	TELD CHECK: N	

MINFILE NUMBER:	<u>093M 066</u>		٢	NATIONAL MINE	RAL INVENTORY:	093M4 Ag3
NAME(S):	BRUNSWICK, BILL, KASLC BALSAM, BETTY, NO. 4, BILL 1-14	D,				
STATUS: REGIONS:	Prospect British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093M04E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 07 47 N 127 36 07 W 1400 Metres Within 500M Adit (Bulletin 43, figure 2).				NORTHING: EASTING:	6110119 589140
COMMODITIES:	Silver	Zinc	Lead	G	old	Copper
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Quartz Pyrite Unknown	Tetrahedrite	Chalcopyrite			
	Vein					
CLASSIFICATION: TYPE:	Hydrothermal	Epigenetic Ag-Pb-Zn±Au				
DIMENSION: COMMENTS:	Vein.	5	STRIKE/DIP:	060/55N	TREND/PLUM	NGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP	FORM	ATION		IGNEOUS/METAMO	RPHIC/OTHER
Upper Cretaceous	Bowser Lake	Unden			Bulkley Intrusions	
LITHOLOGY:	Greywacke Argillite Feldspar Porphyry Dike Diorite Porphyritic Granodiorite					
GEOLOGICAL SETTING	I		-			Denera
METAMORPHIC TYPE:	Bowser Lake Contact	RELATIO	r NSHIP:	- TI SIUGRAPH	GRADE: Hornfels	Ranges
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON:	N		
	CATEGORY: Assay/an SAMPLE TYPE: Chip	alysis	YEAR:	1954		
	Silver Gold	<u> </u>	.4000 Grams pe 000 Grams pe	er tonne er tonne		
	Copper Lead	1.9 17.2	100 Per cent 2700 Per cent			
COMMENTS: REFERENCE:	Zinc Composite sample from ba Geological Survey of Cana	28.4 ags of "selected ore". da Memoir 223 (1954	000 Per cent ), page 35.			
CAPSULE GEOLOGY						
	The Brunswick near the head of Re The Red Rose occurr the northwest. The were two adits deve The claims are	prospect is lo ed Rose Creek, rence (093M 06 e property was eloped. e underlain by	cated on Roch 13 kilometres 7) is located originally lo hornfelsed ar	south of 1 about 120 cated in 1 gillites an	Mountain New Hazelton. 0 metres to 912 and there nd greywackes	

of the Middle Jurassic to Lower Cretaceous Bowser Lake Group which are intruded by dikes of feldspar porphyry, a small diorite plug and the Rocher Deboule porphyritic granodiorite stock, one kilometre to the east. The Rocher Deboule stock is part of the Late Cretaceous Bulkley Intrusions and has been dated at 72 million years (Geological Survey of Canada Open file 2322).

The vein mineralization is mainly quartz carrying sphalerite, galena, chalcopyrite, tetrahedrite and pyrite. It is believed that

BIBLIOGRAPHY

there are 2 vein systems present, as illustrated by the lower adit vein and the lower adit fault vein. The adits follow a complex post-ore faulted vein-silicified shear system which contains significant silver, lead, zinc and copper. The vein in the lower adit is up to 1.8 metres wide, strikes 060 degrees and dips 55 to 80 degrees northwest. It is mineralized with arsenopyrite and pyrite and carries low silver values. The upper adit vein is faulted and 0.45 metre wide. A sample (#9476) from the upper adit assayed 3.65 per cent lead, 4.05 per cent zinc, 1 288.93 grams per tonne silver and 0.446 gram per tonne gold (Property File - Cochrane, D.R. , 1973). A composite sample taken from thirty bags of selected ore from the upper adit assayed 1.0 gram per tonne gold, 3802.4 grams per tonne silver, 1.91 per cent copper, 17.27 per cent lead and 28.4 per cent zinc (Geological Survey of Canada Memoir 223).

D.R. (1973): Geological and Geophysical Report on the Bill claims) GSC MAP 971A, 44-24 GSC MEM \*223-35

EMR MP CORPFILE (Consolidated Skeena Mines Ltd.)

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/07

GSC OF 2322

CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 067</u>			NATIONAL MI	INERAL INVENTORY:	093M4 W1
NAME(S):	RED ROSE, WOLFRAMI TUNGSTEN (L. 3041-30	re (l. 3045), tungs 43)	TEN (L. 3044),			
STATUS:	Past Producer		Undergrou	und	MINING DIVISION:	Omineca
NTS MAP:	093M04E				UTM ZONE:	09 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 20 N 127 36 06 W 1800 Metres Within 500M Level 600 shaft, on the t 11 kilometres south of H	northwest slope of th azelton.	e Rocher Deboul	e Range,	NORTHING: EASTING:	6111140 589137
COMMODITIES:	Tungsten Uranium	Copper	Gold		Silver	Molybdenum
MINERALS		<b>.</b>				
SIGNIFICANT:	Scheelite Ferberite Pyrrhotite	e Chalcopyrite	Molybdenite	Uraninite		
ASSOCIATED:	Quartz Feldspar Tourmaline Apatite	Biotite	Hornblende	Ankerite		
MINERALIZATION AGE:	Unknown					
DEPOSIT CHARACTER:	Vein	Shear				
CLASSIFICATION:	Hydrothermal	Epigenetic				
SHAPE: MODIFIER	Regular					
DIMENSION:	335 x 120 x 3	Metres	STRIKE	/DIP: 145/65W	TREND/PLU	NGE:
LIOST BOCK	Red Rose silear.					
DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP Bowser Lake	FO	RMATION defined Formation		IGNEOUS/METAMO	ORPHIC/OTHER
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite				Bulkley Intrusions	
LITHOLOGY:	Diorite Dike Granodiorite Diorite Siltstone Argillite					
HOSTROCK COMMENTS:	The Rocher Deboule s Open File 720.	ock age date is from	Geological Surve	ey of Canada		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane			PHYSIOGRAF	PHIC AREA: Hazelton	Ranges
TERRANE: METAMORPHIC TYPE:	Stikine Contact	Plutonic RELA	Rocks TIONSHIP:		GRADE: Hornfels	<u> </u>
INVENTORY						
ORE ZONE:	RED ROSE		REPORT	ON: Y		
	CATEGORY: Indicate QUANTITY: 13	ed 606 Tonnes	YE/	AR: 1960		
	Copper	<u>6</u>	0.3000 Per c	cent		
COMMENTS: REFERENCE:	Probable reserves abov Bulletin 43, page 59.	e the 335 metre leve	1.1800 Per d I.	ent		
CAPSULE GEOLOGY						
	The Red Rose Rocher Deboule Ra	e mine is locat ange, 11 kilome	etres south c	orthwest slop of Hazelton.	pe of the	
	Siltstone ar Cretaceous Bowser	nd argillite of Lake Group an	E the Middle re intruded b	Jurassic to by the Late (	Lower Cretaceous	
	Rocher Deboule gr sediments are hor by northeast tree	anodiorite storn rnfelsed by emp nding diorite o	ock of the Bu placement of likes which a	lkley Intrus the stock ar are older tha	sions. The nd are intruded an the stock.	

PAGE: 671 REPORT: RGEN0100

## CAPSULE GEOLOGY

Bedding in the sediments strikes 015 degrees and dips 30 to 50 degrees west. The Chicago Creek fault, striking 010 degrees and dipping 70 degrees west, cuts all rocks and is a normal fault with a dip-slip of 600 to 900 metres.

The Red Rose vein-occupied shear is a small 145 degree striking, 65 degree west dipping fault, mainly hosted in a diorite dike. The vein is 1.2 to 2.8 metres wide, 60 to 120 metres along strike, and at least 335 metres down dip. It is pegmatitic and contains largely quartz with lesser amounts of feldspar, biotite, hornblende, ankerite, tourmaline, apatite, scheelite, ferberite, chalcopyrite, pyrrhotite, molybdenite and uraninite. Extensive lenses of chalcopyrite occur in the hanging wall shear. The biggest concentrations of radioactive material are erratically distributed with molybdenite in the wallrocks.

The vein has been developed and mined above the 1100 level and little is known below this level. Between 1942 and 1954, 103,424 tonnes produced 1,002,839 kilograms of tungsten. It is estimated that there are 13,600 tonnes of ore at a grade of approximately 1.9 per cent WO3 above the 1100 level (Bulletin 43). A 75-centimetre sample taken in 1914 assayed 28.8 grams per tonne gold, 110 grams per tonne silver and 3.9 per cent copper (Minister of Mines Annual Report 1914). A radioactive sample from the mine assayed 0.35 per cent equivalent uranium (Geological Survey of Canada Economic Geology 16). Probable reserves above the 335 metre level are 13,606 tonnes grading 1.18 per cent tungsten (1.5 per cent WO3). Conversion to tungsten using the factor 1.2611.

#### BIBLIOGRAPHY

EMPR AR 1914-190,191; 1915-76; 1916-89,106,113,114; 1923-106; 1926-126; 1941-80; 1942-78; 1943-78; 1951-111,112; 1952-92,93; \*1954-86-95 EMPR ASS RPT 16012 EMPR BULL 10, pp. 39-47; \*10 (Rev.), pp. 60-67; \*43, pp. 54-59 EMPR MAP 22; 53; 58; 65, 1989; 69-1 (#278) EMPR OF 1990-32; 1992-1 EMPR PF (Davis, A.W. (1939, 1941): Report on the Red Rose Group; Sketch Long Section of Red Rose vein shear, date and source unknown; Stevenson, J.S. (1946): Geology of the Red Rose Tungsten Mine, includes photos; Dolmage, V. (1952): The Red Rose Tungsten Mine; Sutherland Brown, A. (1955): Red Rose Tungsten Mine; Miscellaneous Correspondence, 1939-1941; Drill hole logs by R.G. McEachern, date unknown; Photos, 1952; Projection in plane of vein with assays, Western Uranium Cobalt Mines Ltd., date unknown; Red Rose Ore Reserves in Plane of Vein, 1954; Map of Geology of the Red Rose Mine, A. Sutherland-Brown, 1954; Map of Geology of the area adjacent to the Red Rose Mine; Plan of Red Rose Mine, J.S. Stevenson; Level Sketches by A. Sutherland-Brown; Plan of Red Rose Mine, source and date unknown; Surface Geology Map and Sketches of the Red Rose Mine, Stevenson, 1943; MEIP proposal by J. Ball, May 23, 1987) EMR MIN BULL MR 223 B.C. 243 EMR MP CORPFILE (Western Tungsten Copper Mines Limited) GSC EC GEOL 4, p. 69; 16, p. 42; 16 (2nd Ed.), p. 236; 17, pp. 51-54 GSC MAP 971A; 44-24; 1731 GSC MAP 9110, pp. 18-19; \*223, pp. 56-58; \*223 (Rev.), pp. 55-57 GSC OF 551; 720; 2322 GSC SUM RPT 1924 Part A, pp. 44-45 CIM Jubilee Vol. 1948 (Red Rose Mine); Transactions Vol. LIII (1950), p. 285 N MINER Aug.18, 1997 WWW http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/04 CODED BY: GSB REVISED BY: LDJ

MINFILE NUMBER:	<u>093M 068</u>	I	NATIONAL MINER	AL INVENTORY	: 093M4 Cu6
NAME(S):	<u>ARMAGOSA,</u> SPAULDING, KO				
STATUS:	Showing British Columbia		Μ	IINING DIVISION:	Omineca
NTS MAP: BC MAP	093M04E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 56 N 127 38 29 W 1350 Metres Within 500M Location from surface plan in Assessm	nent Report 11513.		NORTHING: EASTING:	6112202 586583
COMMODITIES:	Copper Tungsten				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Magnetite Sche Unknown	eelite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic M01 Flood Basalt-Associated Ni-Cu		I12 W veins		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION Undefined Formation	<u>IC</u>	GNEOUS/METAM	ORPHIC/OTHER
Upper Cretaceous	Donion Lako	endenned i ennaden	В	ulkley Intrusions	i
LITHOLOGY:	Greywacke Argillite Porphyritic Granodiorite				
GEOLOGICAL SETTING					_
TECTONIC BELT: TERRANE:	Intermontane Bowser Lake		PHYSIOGRAPHIC	AREA: Hazelton	n Ranges
METAMORPHIC TYPE:	Contact	RELATIONSHIP:	G	RADE: Hornfels	6
CAPSULE GEOLOGY	The Armagosa property Deboule Mountain, south of is 10 kilometres south of for The host rocks are how Middle Jurassic to Lower C: intruded by the Rocher Debo granodiorite body which is the sedimentary rocks strill northeast. The property hosts see southeast dipping fracture containing chalcopyrite and explored by two adits and showings, towards the Great carrying scheelite. These degrees west and are general	is located on the y the Great Ohio prop the town of South Ha rnfelsed greywacke a oule stock, a Late ( one of the Bulkley kes 330 degrees, dip veral narrow, northe zones, some of whic d magnetite. The sh a short shaft. Nort t Ohio property, are veins strike 030 de ally less than 30 ce	vestern flank perty (093M azelton. and argillite ce Group. Th Cretaceous po Intrusions. oping 30 degr east-striking ch are vein-f nowings have chwest of the e several sma egrees, dippi entimetres th	of Rocher 069). It of the ese are rphyritic Bedding ir ees (, steeply illed, been main ll veins ng 60 ick.	1
BIBLIOGRAPHY					
	EMPR AR 1916-90 EMPR BULL 43-47 EMPR MAP 69-1 (#279) EMPR ASS RPT *11513 GSC MEM *223-77 GSC MAP 971A, 44-24 GSC OF 2322				
DATE CODED: DATE REVISED:	1985/07/24 1991/10/07	CODED BY: GSB REVISED BY: RHM		1	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 069</u>		NATIONAL MINERAL IN	IVENTORY: 093M4 Pb1
NAME(S):	GREAT OHIO (L. 702), PILOT (	L.704)		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M04E		MINING	G DIVISION: Omineca JTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 09 N 127 38 11 W 1300 Metres Within 500M Lot 702.		ŗ	NORTHING: 6112610 EASTING: 586894
COMMODITIES:	Copper Gold	Lead	Zinc	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Pyrite Quartz Hornblende Unknown	Chalcopyrite Arsenopyrit	e Pyrrhotite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal Epige 105 Polymetallic veins Ag-P Main vein.	enetic b-Zn±Au STRIKI	e/dip: 050/70N	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous ISOTOPIC AGE: DATING METHOD:	GROUP Bowser Lake 72 Ma Potassium/Argon	FORMATION Undefined Formation	I <u>GNEC</u> Bulkle	US/METAMORPHIC/OTHER y Intrusions
LITHOLOGY:	Porphyritic Granodiorite Hornfels Argillite Sandstone			
HOSTROCK COMMENTS:	Isotopic age date is from Geolo	ogical Survey of Canada Oper	n File 2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Bowser Lake	PHYSIOGRAPHIC ARE.	A: Hazelton Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT	ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysi SAMPLE TYPE: Channel <u>COMMODITY</u> Gold Copper A 13-centimetre channel sample Geological Survey of Canada M	is YE <u>GRADE</u> 0.2000 Grai 0.6200 Per e. lemoir 223 (1954) page 45.	AR: 1954 ms per tonne cent	
CAPSULE GEOLOGY	0 2			
	The Great Ohio pr Rocher Deboule Range, located south of the F The property is u Rocher Deboule stock w Intrusions. The stock Survey of Canada Open sedimentary rocks of t Lake Group. The main vein str parallel to the granod to 120 centimetres in chalcopyrite, galena, pyrite. Two parallel hornblende and chalcop material from one of t	coperty is located on 10 kilometres south Rocher Deboule mine ( underlain by porphyri which is one of the L that been dated at 7 File 2322). The sto the Middle Jurassic t cikes 050 degrees, di diorite-sediment cont width and is mineral sphalerite, pyrhoti subsidiary structure pyrite. A 13-centime these assayed 0.2 gra	the west side of t of South Hazelton. 093M 071). tic granodiorite of ate Cretaceous Bulk 2 million years (Ge ck intrudes hornfel o Lower Cretaceous pping 70 degrees no act. The quartz ve ized with scattered te, arsenopyrite an s contain quartz, tre wide sample of m per tonne gold an	he It is the ley ological sed Bowser rthwest, in is up minor d typical d 0.62

per cent copper (Geological Survey of Canada Memoir 223).

# BIBLIOGRAPHY

EMPR AR 1914-189, 1916-109, 1917-102, 1918-113, 1920-87, 1921-97 EMPR BULL 43-53 EMPR MAP 69-1 (#281) EMR MP CORPFILE (Delta Copper Co. Ltd.) GSC MAP 971A, 44-24, 1731 GSC MEM 223-55; \*223 (1954)-45; 110-14 GSC OF 2322

DATE CODED:	1985/07/24	CODED BY: C	GSB	FIELD CHECK: N
DATE REVISED:	1991/10/04	REVISED BY: F	RHM	FIELD CHECK: N

MINFILE NUMBER:	<u>093M 070</u>	NATIONAL M	INERAL INVENTORY: 093M4 Cu2
NAME(S):	HIGHLAND BOY (L.1000), DELTA COPPER BALMORAL (L.1002), HAPPY JACK (L.100 ZIG ZAG FR. (L.1005)	R, GOLDEN FLEECE (L.1001), 03), SILVER TIP (L.1004),	
STATUS: REGIONS	Past Producer British Columbia	Underground	MINING DIVISION: Omineca
NTS MAP: BC MAP	093M04E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 50 N 127 36 56 W 1900 Metres Within 500M Adit.		NORTHING: 6113904 EASTING: 588197
COMMODITIES:	Copper Silver Tin	Gold	Uranium Tungsten
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Scheelite Quartz Hornblende Speculari Unknown	Cassiterite Uraninite te Magnetite	
	Vain		
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Epigenetic M01 Flood Basalt-Associated Ni-Cu Regular Sheared	l13 Sn	veins and greisens
DIMENSION: COMMENTS:	Veins strike east-west and dip steeply nor	STRIKE/DIP: 090/70N	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP F	ORMATION	IGNEOUS/METAMORPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite		Buikiey Intrusions
LITHOLOGY:	Porphyritic Granodiorite		
HOSTROCK COMMENTS:	Mineralization is hosted in the Rocher Det from Geological Survey of Canada Open	boule stock, the age date is File 720.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRA	PHIC AREA: Hazelton Ranges
INVENTORY			
ORE ZONE:	VEIN	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Gold Copper Tin Uranium Tungsten A 15-centimetre sample. Geological Survey of Canada Memoir 223	YEAR: 1954 <u>GRADE</u> 15.1000 Grams per tonne 0.7000 Grams per tonne 4.9700 Per cent 0.9000 Per cent 0.0150 Per cent 0.7200 Per cent (Rev).	
CAPSULE GEOLOGY	The Highler d Der we	the located on the set of	ride of the
	The Highland Boy propert Rocher Deboule Range, 9 kilom Two continuous subparall diorite of the Rocher Deboule Intrusions. These are likely Rocher Deboule mine (093M 07 cuts the granodiorite and ter The veins strike east-we Highland Boy vein shear is up	y is located on the west etres south of South Haze el veins occur in porphyr stock of the Late Cretac continuations of the vei 1) to the west. The Chic minates the veins on the st and dip steeply north. to 2 metres wide and is	side of the lton. itic grano- eous Bulkley n shears at the ago Creek fault east. The upper or mineralized

with chalcopyrite, pyrite, specular hematite, magnetite, scheelite, cassiterite, and uraninite. A 15-centimetre sample assayed 0.7 gram

per tonne gold, 15.1 grams per tonne silver, 4.97 per cent copper, 0.90 per cent tin, 0.72 per cent WO3 and 0.015 per cent equivalent uranium (Geological Survey of Canada Memoir 223 (Rev.)). In 1917, 68 tonnes produced 1,089 grams of silver, 124 grams of gold and 4,760 kilograms of copper.

### BIBLIOGRAPHY

EMPR AR 1912-114; 1913-107; 1914-189-190; 1916-109-113; 1917-102-103; 1918-113; 1920-87; 1921-97; 1923-106 EMPR ASS RPT 16565, 16714 EMPR BULL \*43, pp. 53-54 EMPR MAP 22-53; 69-1 (#281) EMPR OF 1990-32 EMR MP CORPFILE (Delta Copper Co. Ltd.) GSC EC GEOL No. 16, p. 41; No. 16 (2nd Edit.), p. 231 GSC MAP 44-24; 971A; 1731; 1732 GSC MEM \*110, pp. 14-18; \*223, pp. 48-50; \*223 (Rev.), pp. 47-49 GSC OF 551; 720; 2322 CIM TRANS Vol. LIII, 1950, p. 285

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/05 CODED BY: GSB REVISED BY: LDJ

MINFILE NUMBER:	<u>093M 071</u>				NATIONAL	MINERAL INVENTORY	093M4 Cu1
NAME(S):	ROCHER DEBOULE	JUNIPER (L.24	00)				
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093M04E			Undergro	ound	MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 35 N 127 38 36 W 1450 Metres Within 500M The No. 2 vein, on th Mountain, 11 kilomet	e northeastern res south of Ha	portion of azelton.	Rocher Deboul	e	NORTHING: EASTING:	6113405 586436
COMMODITIES:	Copper Lead	Silver Uranium		Gold Molybde	enum	Tungsten Cobalt	Zinc
MINERALS	он <u>к</u> т.			0 I I V	0.1		
COMMENTS:	Chalcopyrite Let Cobaltite Saffle Possibly chalcocite.	ranedrite S prite Glau	codot	Apatite	Galena Uraninite Magnetite		
COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Arsenopyrite Pyr Also pyrite. Limonite Mala Oxidation Unknown	rrhotite C chite Ery	rthrite	Siderite	magnetite		
DEPOSIT							
CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polymetallic	Shear Epigenet veins Ag-Pb-Zi	ic n±Au		l12	W veins	
SHAPE: MODIFIER: DIMENSION: COMMENTS:	Tabular Sheared 700 x 2 Veins.	Metres	-30)	STRIKI	E/DIP: 075/50	N TREND/PLL	INGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE	GROUP Bowser Lake		<u>FOR</u> Unde	MATION	<u></u>	IGNEOUS/METAM	ORPHIC/OTHER
			onac		•	Bulkley Intrusions	
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite						
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY:	72 Ma Potassium/Argon Biotite Porphyritic Granodio Quartz Monzonite Dil Diorite Dike Porphyritic Andesite Siltstone Greywacke	rite ke Dike					
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY:	72 Ma Potassium/Argon Biotite Porphyritic Granodio Quartz Monzonite Dil Diorite Dike Porphyritic Andesite Siltstone Greywacke Mineralization is hos from Geological Sur	rite ke Dike sted in the Roc rvey of Canada	her Deboul Open File	le stock, the age 720.	e date is		
Under Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	72 Ma Potassium/Argon Biotite Porphyritic Granodio Quartz Monzonite Dil Diorite Dike Porphyritic Andesite Siltstone Greywacke Mineralization is hos from Geological Sur Intermontane Plutonic Rocks Contact	rite ke Dike sted in the Roc rvey of Canada	her Deboul Open File Bowser La RELATI	le stock, the age 720. ake ONSHIP:	e date is PHYSIOGI	RAPHIC AREA: Hazeltor GRADE: Hornfels	n Ranges
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY	72 Ma Potassium/Argon Biotite Porphyritic Granodio Quartz Monzonite Dil Diorite Dike Porphyritic Andesite Siltstone Greywacke Mineralization is hos from Geological Sur Intermontane Plutonic Rocks Contact	rite ke Dike sted in the Roc rvey of Canada	her Deboul Open File Bowser La RELATI	le stock, the age 720. ake ONSHIP:	e date is PHYSIOGI	RAPHIC AREA: Hazelto GRADE: Hornfels	n Ranges
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	72 Ma Potassium/Argon Biotite Porphyritic Granodio Quartz Monzonite Dil Diorite Dike Porphyritic Andesite Siltstone Greywacke Mineralization is hos from Geological Sun Intermontane Plutonic Rocks Contact	rite ke Dike sted in the Roc rvey of Canada	her Deboul Open File Bowser L RELATI	le stock, the age 720. ake ONSHIP: REPORT	e date is PHYSIOGI	RAPHIC AREA: Hazeltor GRADE: Hornfels	n Ranges
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	72 Ma Potassium/Argon Biotite Porphyritic Granodio Quartz Monzonite Dil Diorite Dike Porphyritic Andesite Siltstone Greywacke Mineralization is hos from Geological Sur Intermontane Plutonic Rocks Contact ROCHER DEBOULE CATEGORY: Cor QUANTITY: COMMODITY	rite ke Dike sted in the Roc rvey of Canada mbined 54000 Tonne	her Deboul Open File Bowser La RELATI	le stock, the age 720. ake ONSHIP: REPORT YE ADE	e date is PHYSIOGI ON: Y AR: 1990	RAPHIC AREA: Hazeltor GRADE: Hornfels	n Ranges
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	72 Ma Potassium/Argon Biotite Porphyritic Granodio Quartz Monzonite Dil Diorite Dike Porphyritic Andesite Siltstone Greywacke Mineralization is hos from Geological Sur Intermontane Plutonic Rocks Contact ROCHER DEBOULE CATEGORY: Cor QUANTITY: COMMODITY Silver Gold Copper Probable/possible re George Cross News	rite ke Dike sted in the Roc rvey of Canada 54000 Tonne 54000 Tonne	her Deboul Open File Bowser Li RELATI SS <u>GR</u> 20 3 2 November 2	le stock, the age 720. ake ONSHIP: REPORT YE ADE 7.4000 Gra .5000 Gra .7000 Per 26, 1990	e date is PHYSIOGI ON: Y EAR: 1990 ms per tonne ms per tonne cent	RAPHIC AREA: Hazelto GRADE: Hornfels	n Ranges

The Rocher Deboule mine is located on the northeastern portion

PAGE: 678 REPORT: RGEN0100

## CAPSULE GEOLOGY

of Rocher Deboule Mountain, 11 kilometres south of Hazelton. The Rocher Deboule and Victoria mines (093M 072) were discovered before World War 1. From 1915 to 1954, 123,395 tonnes produced 2,653,086 grams of silver, 157,226 grams of gold, 2,840,966 kilograms of copper, 341 kilograms of lead, 34,692 kilograms of tungsten and 3,274 kilograms of zinc.

Hornfelsic greywackes and siltstones of the Jurassic to Lower Cretaceous Bowser Lake Group are intruded by the Rocher Deboule porphyritic granodiorite stock of the Late Cretaceous Bulkley Intrusions. Dikes are not abundant but consist of fine-grained quartz monzonite, fine-grained diorite and porphyritic andesite. There are five main vein structures which are numbered from 1 to 5, the No. 2 vein being the most important. The veins occur over a 750 metre width, within parallel structures which generally strike 075 degrees and dip 35 to 65 degrees north. The veins are 0.5 to 2.4-metres wide and up to 700 metres long.

Three distinct stages of mineralization are apparent. The first stage is pegmatitic and includes hornblende, quartz, feldspar, apatite, magnetite, scheelite, molybdenite and uraninite. The second and main stages includes chalcopyrite, glassy quartz, arsenopyrite, cobaltite, safflorite, glaucodot and pyrhotite. The third stage includes milky quartz, siderite, calcite, tetrahedrite, sphalerite, galena, pyrite and possibly chalcocite. Secondary minerals include malachite, erythrite and limonite.

In 1991, the indicated ore reserve of the No. 2 vein was estimated at 37,000 tonnes grading 11.66 grams per tonne gold equivalent; the No. 4 vein has indicated reserves of 17,000 tonnes of the same grade respectively (Open File 1992-1). A radioactive sample over 38 centimetres from the No. 2 vein assayed 0.019 per cent equivalent uranium (Geological Survey of Canada Memoir 223 (Rev.)). A sample taken in 1949, assayed 0.21 per cent equivalent uranium (Geological Survey of Canada Economic Geology 16, 1952). The No. 2 Porphyry zone is a bulk tonnage target estimated to be

The No. 2 Porphyry zone is a bulk tonnage target estimated to be 757 metres long, 605 metres deep and an average of 12 metres wide. Samples from a trench on the quartz stockwork in this zone assayed up to 30.5 grams per tonne gold and 0.35 per cent cobalt over 2.4 metres (George Cross Newsletter #228, November 26, 1990).

Total indicated (probable/possible) reserves at Rocher Deboule are 54,000 tonnes grading 2.70 per cent copper, 207.4 grams per tonne silver and 3.5 grams per tonne gold or 11.66 grams per tonne gold equivalent (George Cross Newsletter #228, November 26, 1990).

#### BIBLIOGRAPHY

EMPR AR 1910-86,88; 1911-80,96-98; 1912-113,114; 1913-107,422; 1914-172,184-187; 1915-77,369; 1916-89,106-109,436; 1917-101,102; 1918-111,112; 1919-23; 1920-87; 1928-158,159; 1929-155,429; 1918-111,112; 1919-23; 1920-87; 1928-158,159; 1929-155,429; 1930-138,139; 1950-100; 1951-110,111; \*1952-86-92 EMPR ASS RPT 16575, \*16714 EMPR BULL 10 (Rev.), p. 71; \*43, pp. 59-67; 64, p. 117 EMPR MAP 22; 53; 58; 65, 1989; 69-1 EMPR OF 1990-32; 1992-1; 1992-3 EMPR OF (Kohanowski, N.N. (1951): Report on the Geological Status of the Rocher Deboule Property; Assay Plan 1952; 2 Department of Mines Inspection, Plan of Assays taken, 1952; Plan with rough notes, date and author unknown; Plan and projection of MoS2 Vein; Stope elevations projected on plane of No. 4 vein, 1917; 2 Sketch maps of workings, unknown date and author; Plan of Underground Workings, 1918; Profile along 1201 crosscut, 1952; Plan of Workings, 1951,1952; 2 Assay Plan No. 2 vein, 1952; Geological Plan of the 1200 level, 1951; Plan of the No. 4 vein; Plan of workings on the No. 2 vein, 1951; Black and white photos, 1952, 1954; Geological Sketches and stereonets, date and author unknown; Sections across Rocher Deboule Mountains; Plan, date and author unknown; Hill, Legg and Helmsworth, (c. 1952): Report on Western Uranium Cobalt Mines Ltd.; Comments on Report on Western Uranium Cobalt Mines Ltd. by S. Holland, 1952; Miscellaneous correspondence, 1952) EMR MIN BULL MR 223 B.C. 244 EMR MP CORPFILE (Aurimont Mines Limited; Western Tungsten Copper Mines Ltd.; War Eagle Resources Ltd.; Hazelton Copper Mines, Limited) GSC EC GEOL 16, p. 42; 16 (2nd Ed.), p. 236; \*17, pp. 46-51; 20, p. 237 GSC MAP 44-24; 971A; 1731; 1732 GSC MEM \*110, pp. 7-14; \*223, pp. 50-55; \*223 (Rev.), pp. 57-63 GSC OF 551; 720; \*2322 CANMET IR 2871; 2946 CIM Transactions (1950), Vol.LIII, p. 285 GCNL #176, 1988; \*#228, 1990; #77,#96,#112,#143, 1991

## BIBLIOGRAPHY

Place	er I	Dome	File
EMPR	OF	1998	8-10

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/05 CODED BY: GSB REVISED BY: LDJ

MINFILE NUMBER:	<u>093M 072</u>		NATIONAL M	INERAL INVENTORY: 09	93M4 Co1
NAME(S):	VICTORIA (L. 3303), HAZEI Aurimont	TON VIEW (L.3299), NEW I	HAZELTON GOLD,		
STATUS:	Past Producer	Und	lerground	MINING DIVISION: O	mineca
REGIONS. NTS MAP: RC MAD	093M04E			UTM ZONE: 09	9 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 20 N 127 39 06 W 1680 Metres Within 500M The No. 1 adit, on the northw kilometres south of Hazelton	vest side of Rocher Deboule	Mountain, 10	NORTHING: 6 EASTING: 58	114786 85878
COMMODITIES:	Gold Co Uranium Ad	obalt Silversenic Co	ver pper	Molybdenum Zinc	Nickel
MINERALS					
SIGNIFICANT:	Cobaltite Arsenopyrite Pyrite Sphalerite Safflorite	Molybdenite Uran Allanite Galena	inite Autunite Tetrahedrite		
ASSOCIATED:	Actinolite Quartz	Feldspar Apatite	Sphene		
ALTERATION TYPE: MINERALIZATION AGE:	Quartz-Carb. Se Unknown	ericitic			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Vein Si Hydrothermal Ei 105 Polymetallic veins Ag Regular Sheared 450 x 300 x 1 M No. 1 vein: 0.5 metre wide.	near bigenetic g-Pb-Zn±Au etres S	Strike/DIP: 085/60N	TREND/PLUNG	æ:
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION Undefined Form	mation	IGNEOUS/METAMOR	PHIC/OTHER
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite			Bulkley Intrusions	
LITHOLOGY:	Porphyritic Granodiorite Diorite Dike Feldspar Porphyry Dike Greywacke Siltstone Hornfels				
HOSTROCK COMMENTS:	Mineralization is hosted in t Geological Survey of Canac	he Rocher Deboule stock, a la Open File 2322.	ge date is from		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Bowser Lake RELATIONSHIP:	PHYSIOGRA	PHIC AREA: Hazelton R GRADE: Hornfels	anges
INVENTORY					
ORE ZONE:	VICTORIA	REF	PORT ON: Y		
	CATEGORY: Unclassifie QUANTITY: 1000 COMMODITY Silver Gold Cobatt	d Tonnes <u>GRADE</u> 2.8400 42.5500 2.0000	YEAR: 1983 Grams per tonne Grams per tonne Per cont		
REFERENCE:	CIM Special Volume 37, page	2.0000			
CAPSULE GEOLOGY	The Wistowis	opertu in lesstel	n the newtherest	aido of Docho-	
	Deboule Mountain, 8 and 1940, 51 tonnes of gold and 785 kild	kilometres south of produced 7 710 kilo ograms of cobalt.	South Hazelton ograms of arsenio	. Between 1926 c, 7 341 grams	

PAGE: 681 REPORT: RGEN0100

## CAPSULE GEOLOGY

Hornfelsic greywackes and siltstones of the Middle Jurassic to Lower Cretaceous Bowser Lake Group are intruded by the Rocher Deboule porphyritic granodiorite stock of the Late Cretaceous Bulkley Intrusions. The stock is cut by vein/dike systems which follow east trending fractures.

The Victoria deposit consists of three parallel vein structures, 200 to 300 metres apart, which strike 085 degrees and dip 60 degrees north, and a small cross-vein which strikes northward and dips 50 degrees east.

The No. 1 vein follows a dark grey, fine-grained diorite dike and averages 0.5 metre wide, is up to 450 metres along strike, and is 300 metres in vertical extent. It is open to the east and at depth. The No. 2 vein follows a feldspar porphyry dike and is 10 metres wide and up to 800 metres long. The No. 3 vein is up to 723 metres long and is intersected by a cross-vein containing galena, sphalerite, tetrahedrite, arsenopyrite, safflorite and pyrite.

The vein material consists of an assemblage of gold-bearing cobalt-nickel sulpharsenides with minor molybdenite in a gangue of actinolite with glassy quartz and feldspar. Additional minerals include uraninite, apatite, sphene, allanite, erythrite, cobaltite and possibly autunite.

A 10-centimetre sample taken in 1940 assayed 270 grams per tonne gold, 37.7 grams per tonne silver, 5.9 per cent cobalt, 0.81 per cent molybdenum, 2.8 per cent nickel and 0.64 per cent equivalent uranium (Bulletin 43). Samples taken in 1950 on the No. 1 and No. 2 veins assayed 47.3 grams per tonne gold, 0.90 per cent cobalt, and 0.16 per cent equivalent uranium across 0.85 metre, and 143.3 grams per tonne gold, 2.05 per cent cobalt and 0.59 per cent equivalent uranium from a veinlet sample, respectively (Geological Survey of Canada Economic Geology 16). A 1983 sample on the No. 2 vein assayed 23.32 grams per tonne gold and 0.0063 per cent arsenic over 0.5 metre (Assessment Report 11019).

Unclassified reserves at Victoria are 1000 tonnes grading 2.84 grams per tonne silver, 42.55 grams per tonne gold and 2 per cent cobalt (CIM Special Volume 37, page 186).

#### BIBLIOGRAPHY

EMPR AR 1916-114,115; 1917-103,104,372; 1918-112,113; 1925-134; 1926-126; 1927-132; 1928-159; 1948-80-82; \*1949-82-93; 1950-99; 1952-89,92 EMPR ASS RPT 7779, \*8336, 10368, \*11019, 11513, 16565, 16714 EMPR BULL 9, p. 82; \*43, pp. 69-73 EMPR FXPL 1975-146-147; 1976-155; 1978-223; 1979-230; 1980-348,349; 1981-273; 1982-314,315; 1983-447 EMPR FIELDWORK 1978, pp. 102,103 EMPR MAP 22; 53; 58; 65, 1989 EMPR OF 1990-32; 1992-1 EMPR PF (Lay, D. (1937): Report on Aurimont Mines Ltd.; Geology and Assay Plan of accessible workings on No. 1 vein, source and date unknown; Sketches of adits, source and date unknown) EMR CANMET IR 493, pp. 71-73; 509, pp. 121-126; 542, pp. 56-58; 592, pp. 40-43 EMR MIN BULL MR 223 B.C. 245 EMR MP CORPFILE (Rocher Deboule Mountain Mines Ltd.; New Hazelton Gold Cobalt Mines Ltd.; Western Tungsten Copper Mines Ltd.) GSC EC GEOL 4, pp. 48-49; 16, pp. 42-43; 16 (2nd Ed.), p. 236; 20, p. 238 GSC MAP 44-24; 971A; 1731 GSC MEM \*110, pp. 20-23; 223, pp. 44-46; \*223 (Rev.), pp. 84-89 GSC OF 551; 720; \*2322 GSC P 44-24; 51-10, p. 43 CIM Transactions 1950 Vol. LIII, pp. 282,285 ECON GEOL \*VOL.46 (1951), pp. 353-366 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/04 CODED BY: GSB REVISED BY: LDJ

MINFILE NUMBER:	<u>093M 073</u>	Ν	IATIONAL MINERAL INVENTORY:	093M4 Cu5
NAME(S):	<b>CAP</b> , COMEAU, LOUDEL, GOLDEN WONDER, HUCKLEBERRY,	MANDON		
STATUS:	Past Producer	Underground	MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093M04E		UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 22 N 127 41 21 W 600 Metres Within 500M Location from Assessment Report 83	323.	NORTHING: EASTING:	6114802 583489
COMMODITIES:	Copper Silver	Gold	Zinc	
MINERALS				
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Arsenopyrite S Quartz Calcite Pyrite Unknown	phalerite Siderite		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Shear Hydrothermal Epigenetic M01 Flood Basalt-Associated Ni-C 100 x 1 Metres Altered and fractured zone.	u Strike/DIP:	I05 Polymetallic veins Ag-Pb- 070/75N TREND/PLUN	Zn±Au IGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMC	RPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	Kasaika 72 Ma Potassium/Argon Biotite	Brian Boru		
LITHOLOGY:	Tuff Porphyritic Flow Breccia			
HOSTROCK COMMENTS:	Isotopic age date is from Geological	Survey of Canada Open File 2	2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	F	PHYSIOGRAPHIC AREA: Hazelton	Ranges
CAPSULE GEOLOGY	The Cap showing is 1. on the west slope of Roch The host rocks are p tuffs of the Upper Cretac which has been dated at 7 Survey of Canada Open Fil- area, dipping 20 to 30 de The showing is an al degrees, dipping 70 to 80 width from 15 to 120 cent siderite, calcite, chalcop traced for 100 metres on explored by two short adi Ladysmith smelter in 1917 of gold and 1,531 kilogram some distance east of the vein, is up to 1 metre in chalcopyrite.	bocated 8 kilometres s er Deboule. Drphyritic flows, bre eous Brian Boru Forma 2 million years in th 2 2322). The strata grees southeast. tered and fractured z degrees northwest. imetres, containing p pyrite and arsenopyri surface by several tr ts and shafts. A 26 , produced 7,838 gram ms of copper. A subs main vein. It strik width and contains p	outh of South Hazelton, ccias and fine grained tion (Kasalka Group) e area (Geological strike northeast in the one which strikes 070 The zone ranges in yrite, quartz, te. The zone has been enches and has been tonne shipment, to the s of silver, 93 grams idiary vein is located es parallel to the main yrite, sphalerite and	
BIBLIOGRAPHY	EMPR ASS RPT 3463, *8323, EMPR AR 1914-200, 1916-11 EMPR GEM 1970-173, 1971-1 EMPR BULL 43-51 EMPR MAP 69-1 (#284) EMPR EXPL 1979-230 GSC MEM 110-22, 223-36 GSC MAP 971A, 44-24, 1731	8705 5, 1918-113, 1923-106 89, 1972-430	, 1929-155	

## BIBLIOGRAPHY

GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/03 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 074</u>		NATIONA	L MINERAL INVENTORY:	093M4 Ag2
NAME(S):	GOLDEN WONDER (L. 33	<u>322)</u> , LOUDEL, SHAMROCK			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M04E			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 30 N 127 43 01 W 340 Metres Within 500M Shaft.			NORTHING: EASTING:	6115017 581715
COMMODITIES:	Gold Tungsten	Copper	Silver	Uranium	Cobalt
MINERALS SIGNIFICANT:	Chalcopyrite Pyrrhoti	te Pyrite Arse	nopyrite Scheelite		
ASSOCIATED: MINERALIZATION AGE:	Quartz Calcite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER	Vein Hydrothermal M01 Flood Basalt-Asso Regular Sheared	Massive Epigenetic ociated Ni-Cu	105	Polymetallic veins Ag-Pb	o-Zn±Au
DIMENSION:	150 x 1	Metres	STRIKE/DIP: 095/80	ON TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Cretaceous	<u>GROUP</u> Skeena	FORMATIO	N Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Pyritic Argillite Siltstone Hornfels Feldspar Porphyry Dike				
LITHOLOGY: HOSTROCK COMMENTS:	Pyritic Argillite Siltstone Hornfels Feldspar Porphyry Dike Hosted by the informally Canada Open File 2322)	named Kitsumkalum shale	(Geological Survey of		
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Pyritic Argillite Siltstone Hornfels Feldspar Porphyry Dike Hosted by the informally Canada Open File 2322) Intermontane Bowser Lake Contact	named Kitsumkalum shale RELATIONSHI	(Geological Survey of PHYSIOG P:	RAPHIC AREA: Nass De GRADE: Hornfels	pression
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY	Pyritic Argillite Siltstone Hornfels Feldspar Porphyry Dike Hosted by the informally Canada Open File 2322) Intermontane Bowser Lake Contact	named Kitsumkalum shale RELATIONSHI	(Geological Survey of PHYSIOG P:	RAPHIC AREA: Nass De GRADE: Hornfels	pression
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	Pyritic Argillite Siltstone Hornfels Feldspar Porphyry Dike Hosted by the informally Canada Open File 2322) Intermontane Bowser Lake Contact SAMPLE	named Kitsumkalum shale RELATIONSHI	(Geological Survey of PHYSIOG P: REPORT ON: N	RAPHIC AREA: Nass De GRADE: Hornfels	pression
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE:	Pyritic Argillite Siltstone Hornfels Feldspar Porphyry Dike Hosted by the informally Canada Open File 2322) Intermontane Bowser Lake Contact SAMPLE CATEGORY: Assay/a SAMPLE TYPE: Chip COMMODITY Silver Gold Cobalt Copper	named Kitsumkalum shale RELATIONSHI nalysis <u>GRADE</u> 21.6000 5.5500 0.1300 1.2100	(Geological Survey of PHYSIOG P: REPORT ON: N YEAR: 1980 Grams per tonne Grams per tonne Per cent Per cent	RAPHIC AREA: Nass De GRADE: Hornfels	pression
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	Pyritic Argillite Siltstone Hornfels Feldspar Porphyry Dike Hosted by the informally Canada Open File 2322) Intermontane Bowser Lake Contact SAMPLE CATEGORY: Assay/a SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Gold Cobalt Copper A 60-centimetre sample. Assessment Report 8521	named Kitsumkalum shale RELATIONSHI nalysis <u>GRADE</u> 21.6000 5.5500 0.1300 1.2100	(Geological Survey of PHYSIOG P: REPORT ON: N YEAR: 1980 Grams per tonne Grams per tonne Per cent Per cent	RAPHIC AREA: Nass De GRADE: Hornfels	pression

South Hazelton, west of the Rocher Deboule Mountain Range. Mineralized fractures occur in pyritic argillite and siltstone of the Lower Cretaceous Kitsumkalum shale, an informal subdivision of the Skeena Group (Geological Survey of Canada Open File 2322). The rocks strike 020 degrees and dip 75 degrees west and are hornfelsed due to the Rocher Deboule stock, of the Late Cretaceous Bulkley Intrusions, to the east.

Intrusions, to the east. The main vein strikes 095 degrees, dipping 80 degrees north. It is associated with a feldspar porphyry dike, within black argillite. The vein is up to 1.2 metres wide and 150 metres long, consisting of quartz, calcite, chalcopyrite, pyrrhotite, pyrite, arsenopyrite, scheelite, and probably uraninite.

A sample of ore from near the shaft assayed 3.4 grams per tonne
gold, 188 grams per tonne silver, 2.97 per cent copper, and 0.15 per cent tin (Geological Survey of Canada, Memoir 223 (Rev.)). A 60-centimetre sample of the vein, taken in 1980, assayed 21.6 grams per tonne silver, 5.55 grams per tonne gold, 1.21 per cent copper, and 0.13 per cent cobalt (Assessment Report 8521). A radioactive sample assayed 0.07 per cent equivalent uranium (Geological Survey of Canada, Economic Geology #16, 1952). A second mineralized shear zone is located 300 metres to the northeast.

#### BIBLIOGRAPHY

EMPR AR 1917-107; 1918-113,472 EMPR BULL 43, p. 52 EMPR MAP 22-#54; 69-1 (#285) EMPR EXPL 1980-349 EMPR GEM 1970-173; 1971-189 EMPR ASS RPT 324, 3463, \*8521 EMPR OF 1990-32 GSC OF 551; 720; 2322 GSC MAP 44-24; 971A; 1731 GSC EC GEOL No. 16, p. 41; No. 16 (2nd Edit.) p. 232 GSC MEM 110, p. 24; 223, pp. 42-43; \*223 (Rev.) pp. 44-45 EMR MP CORPFILE (Chapparal Mines Ltd.)

DATE CODED: 1985/07/24 DATE REVISED: 1987/08/05 CODED BY: GSB REVISED BY: LDJ

MINFILE NUMBER:	<u>093M 075</u>	I	NATIONAL MINERAL INVENTORY	Y: 093M4 Cu4
NAME(S):	<u>THREE HILLS,</u> STRIKE, RIDGE			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION	I: Omineca
NTS MAP:	093M04E		UTM ZONE	:: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 14 N 127 43 59 W 335 Metres Within 500M Location from Figure 2, Bulletin 43.		NORTHING	3: 6114503 3: 580698
COMMODITIES:	Copper			
MINERALS				
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Quartz Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: DIMENSION	Stockwork Hydrothermal Epigenetic L04 Porphyry Cu ± Mo ± Au	פדסועב/חוס		
COMMENTS:	Joints, containing stringers of quartz and	d chalcopyrite.	. 002/0010 INLIND/FE	UNGL.
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAN	MORPHIC/OTHER
Lower Cretaceous Unknown	Skeena	Undefined Formation	Unnamed/Unkno	own Informal
LITHOLOGY:	Argillite Feldspar Porphyry			
HOSTROCK COMMENTS:	The host rock is the informally named K	itsumkalum shale.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Nass D	Depression
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Copper A 3-metre chip sample.	YEAR: GRADE 0.6100 Per cent	1960	
	Bulletin 43, page 69.			
CAPSULE GEOLOGY	The Three Hills propert	v is located 8 ki	lometres south of South	
	Hazelton, on the west side of metres east of Highway 16. The property is underla Cretaceous Kitsumkalum shale Group, and feldspar porphyry 40 degrees northwest. Joint degrees and dip 60 degrees r chalcopyrite. A 3-metre chip sample f assayed 0.61 per cent copper 43, page 69).	f Rocher Deboule M in by hornfelsed a , an informal subc . The rocks stril s, which strike be north, contain str: from one of the bet , trace silver and	Mountain, about 600 argillite of the Lower division of the Skeena ke 035 degrees and dip etween 075 and 090 ingers of quartz and tter-looking trenches d trace gold (Bulletin	
BIBLIOGRAPHY				
	EMPR MAP 69-1 (#286) EMPR ASS RPT 324 EMPR BULL *43-69 EMPR AR 1955-24, 1956-25 GSC MAP 971A GSC OF 2322			
DATE CODED: DATE REVISED:	1985/07/24 C 1991/10/03 F	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 076</u>	NATIONAL M	INERAL INVENTORY: 093M5 Zn1
NAME(S):	SILVER BELL		
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093M05E	Underground	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 20 08 N 127 41 31 W 275 Metres Within 500M Location from Geological Survey of Car	nada Memoir 223, page 7.	NORTHING: 6132912 EASTING: 582972
COMMODITIES:	Gold Silver	Zinc	Lead
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Pyrite Quartz Carbonate Unknown	Arsenopyrite Chalcopyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION:	Vein Epigenetic I05 Polymetallic veins Ag-Pb-Zn±A Tabular	u STRIKE/DIP: 090/75S	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Granodiorite Dike Argillite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRA	PHIC AREA: Nass Depression
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel <u>COMMODITY</u> Silver Gold Lead Zinc A 10-centimetre wide channel sample Geological Survey of Canada Memoir 2	YEAR: 1940 <u>GRADE</u> 98.8000 Grams per tonne 3.3000 Grams per tonne 3.8800 Per cent 3.9500 Per cent from face of open-cut. 23, page 7.	
CAPSULE GEOLOGY			
	The Silver Bell prosp road, approximately 700 met River, 9 kilometres north of The host rock is a rus intrudes argillaceous sedim Formation (Skeena Group). striking 030 degrees. A qu centimetres in width, carri pyrite, sphalerite and gale chalcopyrite. The vein str A 10-centimetre wide of gold, 98.8 grams per tonne cent zinc (Geological Survet tonnes produced 34,213 gram Other quartz veins in sulphides.	pect is located on the west is ires south of the mouth of the f Hazelton. ty weathering granodiorite of hearts of the Lower Cretaceou The granodiorite dike is 15 hartz vein, ranging from 7 the es up to 25 per cent sulphi- ena, with minor arsenopyrite thes west, dipping 75 degree thannel sample assayed 3.3 g silver 3.88 per cent lead at ey of Memoir 223, page 7). ts of silver and 6,350 kilog the area do not contain approximation	side of the he Kispiox dike which s Kitsuns Creek metres wide, o 15 des, mainly and es south. rams per tonne nd 3.95 per In 1915, 9 rams of lead. reciable
BIBLIOGRAPHY	EMPR MAP 69-1 (#287) EMPR AR 1909-84, 1911-79, 1 GSC MAP 971A GSC P 44-24, 36-20	914-172,204, 1916-515, 1933	-97

GSC	MEM	*223-7
GSC	OF 2	232

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/29 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 077</u>	NATIONAL MINER	AL INVENTORY: 093M5 Ag4	
NAME(S):	FORTUNE HILL			
STATUS:	Showing	٨	/INING DIVISION: Omineca	
REGIONS: NTS MAP:	093M05E		UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 25 25 N 127 36 35 W 325 Metres Within 1 KM The location is deduced from the description in G Canada Memoir 223.	eological Survey of	NORTHING: 6142811 EASTING: 587992	
COMMODITIES:	Copper Zinc	Silver		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Sphalerite Pyrite Siderite Unknown	Pyrrhotite Arsenopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	Stratiform Replacement J01 Polymetallic manto Ag-Pb-Zn Tabular 90 x 1 Metres Attitude of bedding. Dimensions of mineralized z	STRIKE/DIP: 360/30W	TREND/PLUNGE:	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP FORMA Skeena Kitsuns	<u>.TION K</u> Creek	GNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Calcareous Sandstone Argillite Chert			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPHIC	AREA: Nass Depression	
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> <u>GRAE</u> Silver 11.0 Copper 0.15 Zinc 0.90 A 0.6-metre wide chip sample from a pit. Also, C gold. Geological Survey of Canada Memoir 223, page	YEAR: 1940 <u>E</u> 000 Grams per tonne 00 Per cent 00 Per cent 17 gram per tonne 7.		
CAPSULE GEOLOGY				
	The Fortune Hill prospect is located on the west bank of the Skeena River, on the east side of a 150 metre high hill, approximately 10 kilometres north of the mouth of the Kispiox River. The host rocks are sandstones, argillites and cherts of the Lower Cretaceous Kitsuns Creek Formation (Skeena Group) which strike north, dipping 30 degrees west. The mineralization of interest is a 0.6 to 1.5 metre wide "replacement zone" of sulphide minerals which occurs in a bed of carbonate-rich sandstone. The carbonate, which is believed to be siderite, increases in abundance near the sulphide mineralization. The sulphide minerals include pyrrhotite, arsenopyrite, chalcopyrite, pyrite and sphalerite. It was exposed in four open cuts over a length of 90 metres along the side of the hill. A 0.6-metre wide chip sample assayed 0.17 grams per tonne gold, 11.0 grams per tonne silver, nil lead, 0.9 per cent zinc and 0.15 per cent copper (Geological Survey of Canada Memoir 223).			

EMPR MAP 69-1 (#288)

EMPR AR 1933-97 GSC MAP 971A, 44-24 GSC P 36-20-75, 44-24 GSC MEM \*223-6 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/30 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 078</u>	NATIO	NAL MINERAL INVENTORY:
NAME(S):	TENAS		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 26 16 N 127 37 59 W 680 Metres Within 1 KM Occurrence #289 (Map 69-1).		NORTHING: 6144358 EASTING: 586484
COMMODITIES:	Molybdenum		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L05 Porphyry Mo (Low F- type)		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	GROUP Bowser Lake	FORMATION Unnamed/Unknown Formation	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions
LITHOLOGY:	Clastic Sediment/Sedimentary Granodiorite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSI Plutonic Rocks	OGRAPHIC AREA: Nass Depression
CAPSULE GEOLOGY	The Tenas molybdeni Geological Survey of Can. The area of the occ Lower Cretaceous Bowser contact with a small plu Bulkley Intrusions. No other information	te occurrence is shown on ada Open File 2322. urrence is underlain by Mi Lake Group clastic sedimen g of the Late Cretaceous g n is available.	Map 69-1 and ddle Jurassic to tary rocks near the ranodioritic
BIBLIOGRAPHY	EMPR MAP *69-1 (#289) GSC OF 2322		
DATE CODED: DATE REVISED:	1985/07/24 1991/09/09	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 079</u>			NATIONAL MI	NERAL INVENTORY:	093M12 Mo1
NAME(S):	<u>LAURA</u> , BEAR, MIKE					
STATUS: REGIONS: NTS MAP	Showing British Columbia				MINING DIVISION:	Omineca
BC MAP:	55 32 45 N				NORTHING:	6156387
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	127 37 46 W 1300 Metres Within 500M Centre of Laura stock (Asse	essment Report 70	71).		EASTING:	586475
COMMODITIES:	Molybdenum C	Copper	Zinc		Antimony	Tungsten
			0:"			
SIGNIFICANT:	Arsenopyrite Molybdenit	te Sphalerite	Stibnite	Jamesonite		
ASSOCIATED:	Quartz Pyrite Amphibole	Pyrrhotite (	Carbonate	Feldspar		
MINERALIZATION AGE:	Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork V Porphyry L05 Porphyry Mo (Low F	′ein <sup>=</sup> - type)				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORM	MATION		IGNEOUS/METAMO	RPHIC/OTHER
	82 Ma	Onde			Bulkley Intrusions	
DATING METHOD: MATERIAL DATED:	Potassium/Argon Biotite					
LITHOLOGY:	Granodiorite Hornfels Sandstone Siltstone Dike					
HOSTROCK COMMENTS:	Isotopic age date is from G	eological Survey o	f Canada Open F	-ile 2322.		
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE:	Bowser Lake	Plutonic R	ocks	PHYSIOGRAF	HIC AREA: Skeena F	kanges
METAMORPHIC TYPE:	Contact	RELATI	UNSHIP:		GRADE: Hornfeis	
CAPSULE GEOLOGY						
	The Laura property is located near the head of Sterritt Creek 32 kilometres north of Hazelton. The Laura stock, a two-phase subcircular granodioritic plug of the Late Cretaceous Bulkley Intrusions, cuts sandstones and siltstones of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. Peripheral inward-dipping dikes, related to the earlier phase of the stock, suggest a ring dike or funnel shape for the intrusive complex as a whole (Assessment Report 7071) which has hornfelsed the Bowser Lake Group sedimentary rocks. A potassium/argon date on biotite yielded a date of 82 million years (Geological Survey of Canada Open File 2322). Low-grade molybdenum, copper and tungsten mineralization is widespread in the granodiorite and locally in the hornfelsed sedimentary rocks adjacent to the stock. The best grades are in the margins of the stock. Four stages of mineralization are evident. An early disseminated and fracture-controlled pyrite mineralization with minor chalcopyrite and amphibole was succeeded by a quartz vein stockwork carrying pyrite, chalcopyrite and molybdenite. The third phase consists of hairline quartz veins with pyrite, pyrrhotite, molybdenite and chalcopyrite and finally, widely-spaced late vuggy flat-lying quartz-carbonate-feldspar veins carrying pyrite, arsenopyrite, sphalerite, chalcopyrite and locally jamesonite and stibnite.					

EMPR MAP 69-1 (#290) EMPR AR \*1968-113,116 EMPR GEM 1970-177 EMPR EXPL 1978-E225, 1979-233 EMPR ASS RPT \*7071, 7462, 7894 EMPR PF (Sutherland-Brown, A. (1968): Report on Laura Mines Ltd.; Geology Map, MacDonald Consultants Ltd., 1968; Drill hole locations, c. 1968) GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/12/11 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 080</u>		Ν	IATIONAL MI	NERAL INVENTORY:	093M11 Mo1
NAME(S):	MOUNT THOMLINSON, N RED CANYON	AT THOMLINSON, MOLLY,				
STATUS:	Developed Prospect				MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	British Columbia 093M11W				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 14 N 127 29 25 W 1920 Metres Within 500M Trenches in the centre of of the summit of Mount Th River, 36 kilometres north	the mineralized zone, 4.75 omlinson and 7 kilometres of Hazelton (Assessment	i kilometres nor south of Babin Report 10188).	th e	NORTHING: EASTING:	6161174 595155
COMMODITIES:	Molybdenum	Copper	Tungsten			
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION:	Molybdenite Quartz Silica Molashita Azurita	yrite Pyrite Sc Pyrrhotite Chlorite Sericite	heelite Limonite			
ALTERATION TYPE: MINERALIZATION AGE:	Silicific'n Unknown	Argillic	Propylitic		Sericitic	Oxidation
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stockwork Porphyry L05 Porphyry Mo (Lov Tabular Fractured	Disseminated Hydrothermal v F- type) Sheared				
DIMENSION: COMMENTS:	900 x 100 Mineralized zone.	Metres	STRIKE/DIP:	030/60W	TREND/PLUM	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMATIC	<u>DN</u>		IGNEOUS/METAMO	ORPHIC/OTHER
Jurassic-Cretaceous Eocene	Bowser Lake	Undefined	Formation		Babine Intrusions	
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	54 Ma Potassium/Argon Biotite					
LITHOLOGY:	Quartz Monzonite Porphy Argillaceous Siltstone Argillite Hornfels Schist Aplite Dike	ry				
HOSTROCK COMMENTS:	Age date from Geologica	al Survey of Canada Open	File 2322.			
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Bowser Lake RELATIONSH	F IIP:	PHYSIOGRAF	HIC AREA: Skeena F GRADE: Hornfels	Ranges
INVENTORY						
ORE ZONE:	MOUNT THOMLINSON		REPORT ON:	Y		
	CATEGORY: Combine QUANTITY: 40820 COMMODITY	d 0000 Tonnes <u>GRADE</u>	YEAR:	1965		
COMMENTS:	Molybdenum Measured, indicated and	0.0710 inferred reserves. Grade	Per cent given was 0.12	per		
REFERENCE:	cent MoS2; conversion to CIM Special Volume 15 (1	Mo using the factor 1.668 976), Table 3, page 422.	1.	- F		
CAPSULE GEOLOGY						
	The Mount Tho Mount Thomlinson M Peak, 40 kilometre Massive black	mlinson property i Mountain Range, 5 k as north of Hazelto argillaceous silt	is located cilometres on. cstones and	on the nonorth of	orth side of Thomlinson es of the	
	midule Jurassic to	Lower Cretaceous	bowser Lak	e group f	ave been	

PAGE: 695 REPORT: RGEN0100

### CAPSULE GEOLOGY

leucocratic quartz monzonite porphyry of the Eocene Babine Intrusions. Near the contact, the sedimentary rocks have been deformed and metamorphosed to medium or dark grey schists in a zone 91 to 152 metres wide. Stock contacts are sharp and biotite, muscovite, cordierite and andalusite have been formed in the contact aureole. The margins of the stock are foliated parallel to the contact and to the schistosity in the intruded rocks up to 100 metres from the contact. Much of the stock is a coarse-grained porphyry with potassium feldspar phenocrysts up to 5 centimetres long. In many areas, the stock is cut by narrow (2-10 centimetres) aplite dikes. These dikes occur in swarms and occupy well-defined fractures. A potassium-argon age date from biotite from the stock resulted in an age of 54 Ma (Geological Survey of Canada Open File 2322).

Molybdenite, chalcopyrite and pyrite are associated with a system of quartz vein stockworks within the intrusive, along the contact hornfelsed zone with the argillaceous rocks. The quartz stockwork is best developed along this stock contact and post-dates the aplite dikes. The mineralized zone trends north-northeast (030 degrees) along the margin of the stock, and dips 58-65 degrees west. It is tabular and up to 100 metres wide. Molybdenite is most common as fine flakes in quartz veinlets and as smears along fracture planes. Locally it occurs as coarse flakes in quartz veins. Weathering of mineralization has been considerable, and in many areas extends from 60 to 91 metres below the surface. Limonite, ferrimolybdite, malachite and to a lesser extent, azurite, are the principal secondary minerals. Chalcopyrite, malachite and azurite also occur along fractures and veins. Although chalcopyrite is found in the same general areas as molybdenite, the two sulphides occur independently of each other. Pyrite (1-5 per cent) is found as disseminations, fracture-fillings and patchy crystalline concentrations in the intrusive and adjacent argillites. Minor amounts of magnetite, scheelite and pyrrhotite are also evident. The better grade rock lies several metres from the contact within the intrusive rock. In general the mineralization extends farther into the intrusive than into sediments, and in many places the amount of mineralization drops off sharply at the contact. Although mineralization has been found over a strike length of

Although mineralization has been found over a strike length of 900 metres, the width and grades vary considerably. The zone becomes more complex and less well-defined to the northeast with narrow sections of mineralized rock separated by relatively barren rock. Deposition of sulphides appears to have been largely controlled by this northwest dipping zone of fracturing and shearing.

Alteration within and close to the mineralized zone comprises substantial silicification with argillic and chloritic assemblages and sericitic overprinting.

Measured, indicated and inferred reserves are 40.82 million tonnes grading 0.071 per cent molybdenum (0.12 per cent MoS2)(CIM Special Volume 15 (1976), Table 3, page 422). Conversion to Mo using the factor 1.6681.

#### BIBLIOGRAPHY

EMPR MAP 1; 65, 1989 EMPR ASS RPT \*7916, 9002, \*9787, 10188 EMPR BULL \*64, pp. 123,124,126 EMPR AR 1928-C159; 1929-C161; 1963-24,25; \*1964-48-50; 1965-73 EMPR EXPL 1975-E150; 1979-232,233 EMPR OF 1992-1 GSC MAP 971A; 44-24 GSC OF 720; \*2322 GSC BULL 270 EMR MP CORPFILE (The Buttle Lake Mining Company Limited) CIM Special Volume 15 (1976), Table 3, p. 422 EMR MIN BULL MR 223 B.C. 247

DATE CODED: 1985/07/24 DATE REVISED: 1990/09/04 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093M 081</u>		NATIONAL MINERAL	_ INVENTORY:
NAME(S):	<u>Golden Girl</u> , Verl, Janze			
STATUS: REGIONS	Prospect British Columbia		MIN	NING DIVISION: Omineca
NTS MAP: BC MAP:	093M12E			UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 17 N 127 34 59 W 1400 Metres Within 500M Vein 10 (Assessment Report 1729)	1, Figure 4).		NORTHING: 6170417 EASTING: 589117
COMMODITIES:	Silver Gold	Molybden	um Zinc	Lead
MINERALS				
SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Molybdenite Sphalerite C Quartz Pyrite Seric Unknown Unknown	}alena Arsenopyrite ite Feldspar	Tetrahedrite	
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Stockwo Hydrothermal Epigenet 105 Polymetallic veins Ag-Pb-Z Tabular	rκ ic n±Au	L05 Porphyry	Mo (Low F- type)
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGN	EOUS/METAMORPHIC/OTHER
Upper Cretaceous	Dowser Lake	Ondenned Formation	Bul	kley Intrusions
LITHOLOGY:	Granodiorite Argillite Siltstone Sandstone Hornfels			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Bowser Lake RELATIONSHIP:	PHYSIOGRAPHIC A GR	REA: Skeena Ranges ADE: Hornfels
INVENTORY				
ORE ZONE:	SAMPLE	REPORT O	N: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY	YEAI <u>GRADE</u>	R: 1988	
COMMENTS: REFERENCE:	Silver Gold A 20-centimetre sample width. Assessment Report 17291.	3182.1000 Grams 1.0000 Grams	s per tonne s per tonne	
CAPSULE GEOLOGY				
	The Golden Girl pro abandoned village of Kis An east-northeast t Cretaceous Bulkley Intru size, cuts argillites, s Jurassic to Lower Cretac evident in the sedimenta Two types of minera	spect is located 3 k gegas, 46 kilometres rending granodioriti sions, approximately iltstones and sandst eous Bowser Lake Gro ry rocks next to the lization are present	cilometres south s north of Hazel ic plug of the L y 300 by 1000 me cones of the Mid oup. Hornfelsin e intrusive.	of the ton. ate tres in dle g is y.

Two types of mineralization are present on the property. Molybdenite and molybdenite-pyrite-pink feldspar fracture coatings are found in the granitic rocks (Assessment Report 17291). The second type of metallic mineralization consists of quartz-galenapyrite-sphalerite-arsenopyrite-tetrahedrite veins with sporadic sericite and molybdenite. The veins range up to 1 metre in width and generally trend northwest, dipping moderately to the northeast. The mineralization is mainly confined to the intrusive rocks, but extends into the Bowser Lake Group rocks as well. More than 17 veins have been mapped.

Two of the higher grade samples assayed 1.0 gram per tonne gold and 3182.1 grams per tonne silver across 20 centimetres and 6.0 grams

per tonne gold and 104.6 grams per tonne silver across 37 centimetres (Assessment Report 17291).

# BIBLIOGRAPHY

EMPR MAP 69-1 (#292) EMPR ASS RPT \*17291, 17525 GSC OF 2322 (#81,#239)

DATE CODED: 1985/07/24 DATE REVISED: 1991/12/13 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 082</u>		NATIONAL MINERAL INVENTORY	: 093M14 Mo1
NAME(S):	<b>GOATHEAD</b> , FOG, FROST, OLE, MOLLY BLUE			
STATUS: REGIONS	Prospect British Columbia		MINING DIVISION	Omineca
NTS MAP: BC MAP	093M14W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 45 24 N 127 25 45 W 1800 Metres Within 500M Mineralization (Assessment Report 1	0290, figure 5).	NORTHING EASTING	: 6180115 : 598580
COMMODITIES:	Molybdenum Copper	Tungsten		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcopyrite So Pyrite Pyrrhotite Quartz Quartz K-Feldspar Serio Silicific'n Potassic Unknown	cheelite cite Garnet E Skarn	Epidote Argillic	Sericitic
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Dissemina Porphyry Skarn L05 Porphyry Mo (Low F- type)	ted		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER
Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	51 Ma Potassium/Argon Biotite		Bulkley Intrusions	5
LITHOLOGY:	Porphyritic Granodiorite Hornfels Argillite Siltstone Carbonate Aplite Granodiorite Dike Dike			
HOSTROCK COMMENTS:	Age date from Geological Survey of	Canada Open File 2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Skeena GRADE: Hornfel:	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT OF	N: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY Molybdenum Sample across 33-metre width in drill Assessment Report 10290.	YEAF <u>GRADE</u> 0.1930 Per ce hole K-1-81.	R: 1981	
CAPSULE GEOLOGY				
	The Goathead molybder small glacier on the south Goathead Creek, 57 kilomet was discovered in 1969. The area is underlain Bowser Lake Group clastic argillites and siltstones molybdenum mineralization east-west trending stock, stock, of the Late Cretace texture and granodioritic has been dated by potassin	num prospect is loc n side of the cirqu tres north of Hazel n by Middle Jurassi sedimentary rocks with minor carbona occurs within and 1500 metres long b eous Bulkley Intrus in composition. B um/argon techniques	cated at the toe of the ne at the headwaters of ton. The mineralization to Lower Cretaceous which consist of ate layers. The peripheral to an elongate by 600 metres wide. The sions, is porphyritic in Biotite in the intrusion s at 51 million years	2

(Geological Survey of Canada Open File 2322). Dikes of granodiorite, aplite and diorite cut the stock and sedimentary rocks. Molybdenite, chalcopyrite and pyrite occur in a weakly developed quartz vein stockwork and disseminated in altered areas within the granodiorite (Assessment Report 10290). Pyrite, pyrrhotite, and minor scheelite, chalcopyrite and molybdenite occur in hornfels near the eastern contact. Scheelite also occurs in sparse veins and along fractures in fresh argillite, and in garnet-epidote skarn in calcareous beds near the granodiorite contacts. Locally, an intense quartz vein stockwork is developed with K-feldspar alteration, silicification and a late argillic alteration. The best drill intersection was 33 metres grading 0.193 per cent molybdenite in drill hole K-1-81 (Assessment Report 10290).

#### BIBLIOGRAPHY

EMPR ASS RPT 6723, 9382, \*10290 EMPR AR 1966-81 EMPR EXPL 1978-226, 1979-233 EMPR MAP 69-1 (#293) EMPR FIELDWORK 1977-P68 EMPR PF (Sicinitine Mines Ltd., Report on the Fog Group of Claims, 1969) GSC OF 2322 THE FINANCIAL EXAMINER Jan. 6, 1968 p. 9

DATE CODED: 1985/07/24 DATE REVISED: 1991/12/05 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 083</u>		NATIONAL MINERAL IN	VENTORY:	
NAME(S):	<u>ICEFIELDS</u>				
STATUS: REGIONS: NTS MAP: PC MAP:	Showing British Columbia 093M14W		MINING	G DIVISION: JTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 49 13 N 127 24 21 W 1500 Metres Within 1 KM Occurrence #294, located near th Peak (Map 69-1).	e icefields north of Kisgegas	٢	NORTHING: EASTING:	6187227 599881
COMMODITIES:	Molybdenum				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L05 Porphyry Mo (Low F- type	3)			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEO Bulkley	US/METAMC	RPHIC/OTHER
LITHOLOGY:	Granodiorite Clastic Sediment/Sedimentary Hornfels				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	Plutonic Rocks	PHYSIOGRAPHIC ARE/	A: Skeena R	anges
CAPSULE GEOLOGY	A molybdenum showing, shown on Map 69-1, is located 4.5 kilometres northeast of Kisgegas Peak, 65 kilometres north of Hazelton. The area of the showing is underlain by the Middle Jurassic to Lower Cretaceous Bowser Lake Group which consists mainly of clastic sedimentary rocks. A small plug of the Late Cretaceous Bulkley Intrusions is shown adjacent to the occurrence. No other information is available.				
BIBLIOGRAPHY	EMPR MAP *69-1 (#294) GSC OF 2322				
DATE CODED:	1985/07/24	CODED BY: GSB		FI	ELD CHECK: N

DATE REVISED: 1991/12/05

REVISED BY: RHM

FIELD CHECK: N

MINFILE NUMBER:	<u>093M 084</u>		NATIONAL MINERAL INVENTORY:	093M14 Mo3	
NAME(S):	ICE, ICE 1-10, ICE 34-55				
STATUS:	Showing		MINING DIVISION:	Omineca	
REGIONS: NTS MAP: BC MAD:	093M14W		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 50 34 N 127 20 57 W 1700 Metres Within 500M Location from Assessment Repo	ort 2070.	NORTHING: EASTING:	6189814 603371	
COMMODITIES:	Molybdenum Coppe	er Lead	Silver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcopyrite Pyrite Pyrrhotite Qu Sericite Sericitic Unknown	Galena uartz			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Disse Porphyry L05 Porphyry Mo (Low F- typ	minated pe)			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION	IGNEOUS/METAMO	RPHIC/OTHER	
Upper Cretaceous	Dowsei Lake	Undenned i Unitation	Bulkley Intrusions		
LITHOLOGY:	Quartz Diorite Argillite Hornfels Pebble Conglomerate				
	Intermontane		PHYSIOGRAPHIC AREA: Skeena F	ances	
TERRANE: METAMORPHIC TYPE:	Plutonic Rocks Contact	RELATIONSHIP:	GRADE: Hornfels		
CAPSULE GEOLOGY	The Ice property is located 70 kilometres northeast of Hazelton in the Atna Range. The area is underlain by argillite, hornfels and pebble conglomerate of the Middle Jurassic to Lower Cretaceous Bowser Lake Group intruded by quartz diorite of the Late Cretaceous Bulkley Intrusions. Pyrrhotite and less commonly chalcopyrite are found disseminated through much of the intrusion. Chalcopyrite and molybdenite are also found in hair-line fractures in the quartz diorite, commonly associated with sericitic alteration (Assessment Report 2070). Quartz veins, up to 10 centimetres wide, contain galena. The best surface exposures are on the Ice 38 and 39 claims. On the southeast corner of the Ice 38 claim, several quartz veins occur along a shear zone and contain small amounts of lead and silver.				
BIBLIOGRAPHY	EMPR MAP 69-1 (#295) EMPR ASS RPT *2070 EMPR GEM 1969-101 EMPR AR 1968-116				
	EMPR PF (Sicinitine Mi: GSC OF 2322	nes Ltd., Report on the	e Ice Claims, 1970)		

MINFILE NUMBER: 093M 085

NAME(S): <u>CUMO</u>, IKE

NATIONAL MINERAL INVENTORY: 093M14 Cu1

# STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093M14W BC MAP: UTM ZONE: 09 (NAD 83) LATITUDE: 55 52 14 N LONGITUDE: 127 29 02 W ELEVATION: 1200 Metres NORTHING: 6192712 EASTING: 594868 LOCATION ACCURACY: Within 1 KM COMMENTS: Location from Minister of Mines Annual Report 1967. COMMODITIES: Molybdenum Copper MINERALS SIGNIFICANT: Chalcopyrite ASSOCIATED: Pyrite Molybdenite Quartz MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Vein Stockwo CLASSIFICATION: Porphyry TYPE: L05 Porphyry Mo (Low F- type) Stockwork HOST ROCK DOMINANT HOSTROCK: Plutonic STRATIGRAPHIC AGE Jurassic-Cretaceous <u>GROUP</u> Bowser Lake FORMATION IGNEOUS/METAMORPHIC/OTHER Undefined Formation Upper Cretaceous **Bulkley Intrusions** LITHOLOGY: Granodiorite Granite Dike Aplite Dike Pegmatite Dike Clastic Sediment/Sedimentary **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Skeena Ranges TERRANE: Plutonic Rocks Bowser Lake CAPSULE GEOLOGY The Cumo showing is located in the Atna Range, 7 kilometres south of Shedin Peak, 70 kilometres north of Hazelton. Middle Jurassic to Lower Cretaceous Bowser Lake Group clastic Middle Jurassic to Lower Cretaceous Bowser Lake Group Clastic sedimentary rocks are intruded by a stock of granodiorite of the Late Cretaceous Bulkley Intrusions, which in turn is cut by dikes of fine-grained granite, pale aplite and pegmatite. The mineralization, which occurs near the contact of the granodiorite, consists of pyrite, chalcopyrite and molybdenite in widely scattered quartz veinlets and veins ranging from less than a centimetre to more than 60 centimetres wide. The largest veins strike northeast and dip 15 to 20 degrees southeast. The mineralization extends over an area of approximately 100 by a few hundred metres. Alteration is not intense and grades of mineralization are low. BIBLIOGRAPHY EMPR MAP 69-1 (#296) EMPR AR \*1967-86, 1968-117 GSC OF 2322 DATE CODED: 1985/07/24 CODED BY: GSB FIELD CHECK: N REVISED BY: RHM DATE REVISED: 1991/12/06 FIELD CHECK: N

MINFILE NUMBER:	<u>093M 086</u>	Ν	IATIONAL MINERAL INVENTORY	: 093M14 Mo4	
NAME(S):	<u>РЕАК</u> , РЕАК 1-22				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093M14W		UTM ZONE:	: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 56 00 N 127 26 01 W 1800 Metres Within 1 KM Location from Map 69-1 (#297).		NORTHING EASTING	: 6199768 : 597856	
COMMODITIES:	Molybdenum				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Disseminate Hydrothermal Epigenetic L05 Porphyry Mo (Low F- type)	d			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER	
Upper Cretaceous	Dowser Lake	Undenned Formation	Bulkley Intrusions	3	
LITHOLOGY:	Granodiorite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks Bo	F wser Lake	PHYSIOGRAPHIC AREA: Skeena	Ranges	
CAPSULE GEOLOGY					
	The Peak molybdenum showings are located on the southeast side of Shedin Peak, in the Atna Range, 75 kilometres north of Hazelton. The area is underlain by a plug of the, mainly granodioritic, Late Cretaceous Bulkley Intrusions which intrude clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. Little information is available on the property, other than that molybdenite occurs in fractures, quartz veins and disseminated in granodiorite (Minister of Mines Annual Report 1968).				
BIBLIOGRAPHY	EMPR AR *1968-117 EMPR MAP 69-1 (#297) GSC OF 2322				
DATE CODED: DATE REVISED:	1985/07/24 1991/12/06	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 087</u>	NATION	AL MINERAL INVENTORY:	
NAME(S):	ATNA SILVER			
STATUS:	Showing		MINING DIVISION: Omineca	
NTS MAP:	093M14W		UTM ZONE: 09 (NAD 83)	
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 56 45 N 127 24 20 W 1600 Metres Within 1 KM Occurrence #298 (Map 69-1).		NORTHING: 6201199 EASTING: 599576	
COMMODITIES:	Silver Lead	Zinc		
MINERALS SIGNIFICANT: MINERALIZATION AGE: DEPOSIT	Unknown Unknown			
CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown 105 Polymetallic veins Ag-Pb-Zn±Au	l		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	ł
Upper Cretaceous	Bowser Lake	Undefined Formation	Bulkley Intrusions	
LITHOLOGY:	Clastic Sediment/Sedimentary Granodiorite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	PHYSIO	GRAPHIC AREA: Skeena Ranges	
CAPSULE GEOLOGY				
	A silver-lead-zinc sho approximately 4 kilometres of Hazelton. The area is underlain b Jurassic to Lower Cretaceou Cretaceous Bulkley Intrusio composition. No other information i	wing (#298, on Map 69-1) east of Shedin Peak, 80 y clastic sedimentary rc s Bowser Lake Group intr ns which are mainly gran s available.	is located kilometres north cks of the Middle uded by the Late odioritic in	
BIBLIOGRAPHY				
	EMPR MAP *69-1 (#298) GSC OF 2322 GCNL #86, 1988 Placer Dome File			
DATE CODED: DATE REVISED:	1985/07/24 1991/12/06	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N	1 1

MINFILE NUMBER:	<u>093M 088</u>	N	ATIONAL MINERAL INVENTORY	: 093M14 Mo2
NAME(S):	<b>COB</b> , ATNA , JAN, PAT, MAD			
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	093M14W		UTM ZONE:	: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 57 47 N 127 24 06 W 1500 Metres Within 1 KM Occurrence #299 (Map 69-1).		NORTHING EASTING	: 6203121 : 599775
COMMODITIES:	Molybdenum Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L05 Porphyry Mo (Low F- type)			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER
Upper Cretaceous	Bomoor Lano		Bulkley Intrusions	3
LITHOLOGY:	Granodiorite Clastic Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake Plu	P tonic Rocks	HYSIOGRAPHIC AREA: Skeena	Ranges
CAPSULE GEOLOGY				
	A molybdenum-copper sh approximately 6 kilometres north of Hazelton. The area is underlain Jurassic to Lower Cretaceou Cretaceous Bulkley Intrusio composition. No other information i	owing (#299 on Map on northeast of Shedin by clastic sedimenta s Bowser Lake Group ns which are mainly s available.	69-1) is located Peak, 80 kilometres ary rocks of the Middle intruded by the Late granodioritic in	e
BIBLIOGRAPHY				
	EMPR AR 1967-85, 1968-116 EMPR GEM 1969-101 EMPR MAP *69-1 (#299) EMR MP CORPFILE (Canadian S GSC OF 2322 Placer Dome File	uperior Exploration	Ltd.)	
DATE CODED: DATE REVISED:	1985/07/24 1991/12/06	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 089</u>		NATIONAL MINERAL INVENTORY	Y: 093M14 Mo2
NAME(S):	ATNA			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION	I: Omineca
NTS MAP: BC MAP:	093M14W		UTM ZONE	E: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 57 32 N 127 26 25 W 1667 Metres Within 1 KM Occurrence #300 (Map 69-1).		NORTHING EASTING	6: 6202602 6: 597375
COMMODITIES:	Molybdenum Copper			
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
	Linknown			
CLASSIFICATION: TYPE:	Unknown L05 Porphyry Mo (Low F- type)			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/META	MORPHIC/OTHER
Jurassic-Cretaceous Upper Cretaceous	Bowser Lake	Undefined Formation	Bulkley Intrusion	S
LITHOLOGY:	Granodiorite Clastic Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks Br	owser Lake	PHYSIOGRAPHIC AREA: Skeena	a Ranges
CAPSULE GEOLOGY				
	A molybdenum-copper s approximately 3 kilometres north of Hazelton. The area is underlain Jurassic to Lower Cretaceo Cretaceous Bulkley Intrusi composition. No other information	howing (#300 on Mag northeast of Shedi by clastic sedimer us Bowser Lake Grou ons which are maini is available.	o 69-1) is located in Peak, 67 kilometres ntary rocks of the Middl up intruded by the Late ly granodioritic in	e
BIBLIOGRAPHY				
	EMPR AR 1967-85, 1968-116 EMPR MAP *69-1 (#300) EMR MP CORPFILE (Canadian GSC OF 2322 GCNL #86, 1988 Placer Dome File	Superior Exploratio	on Ltd.)	
DATE CODED: DATE REVISED:	1985/07/24 1991/12/06	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 090</u>	NATI	ONAL MINERAL INVE	NTORY:
NAME(S):	<u>JAN 1</u>			
STATUS: REGIONS	Showing British Columbia		MINING D	VISION: Omineca
NTS MAP: BC MAP	093M14W		UTN	1 ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 57 24 N 127 28 49 W 2200 Metres Within 1 KM Occurrence #301 (Map 69-	-1).	NOF E4	RTHING: 6202300 ASTING: 594884
COMMODITIES:	Copper I	Molybdenum		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo :	± Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FURMATION	IGNEOUS/	METAMORPHIC/OTHER
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	GROUP Bowser Lake	Undefined Formation	<u>IGNEOUS</u> Bulkley In	trusions
Jurassic-Cretaceous Upper Cretaceous LITHOLOGY:	GROUP Bowser Lake Clastic Sediment/Sedimenta Granodiorite	Undefined Formation	I <u>GNEOUS</u> Bulkley In	METAMORPHIC/OTHER
Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE	GROUP Bowser Lake Clastic Sediment/Sedimenta Granodiorite	ary PHY:	I <u>GNEOUS</u> Bulkley In SIOGRAPHIC AREA: 3	METAMORPHIC/OTHER trusions Skeena Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Clastic Sediment/Sedimenta Granodiorite Intermontane Bowser Lake Contact	ary PHYS RELATIONSHIP:	<u>IGNEOUS</u> Bulkley In SIOGRAPHIC AREA: S GRADE: 1	<u>METAMORPHIC/OTHER</u> trusions Skeena Ranges Hornfels
Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Clastic Sediment/Sedimenta Granodiorite Intermontane Bowser Lake Contact A copper-molyk approximately 2 kil	PHYS RELATIONSHIP: bdenum showing (#301 on Map 69- lometres north of Shedin Peak,	IGNEOUS Bulkley In SIOGRAPHIC AREA: S GRADE: I 78 kilometres n	<u>METAMORPHIC/OTHER</u> trusions Skeena Ranges Hornfels
Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Clastic Sediment/Sedimenta Granodiorite Intermontane Bowser Lake Contact A copper-molyk approximately 2 kill of Hazelton. The area is ur Jurassic to Lower C Cretaceous Bulkley composition. No other infor	PHYS Undefined Formation ary RELATIONSHIP: bdenum showing (#301 on Map 69- lometres north of Shedin Peak, nderlain by clastic sedimentary Cretaceous Bowser Lake Group in Intrusions which are mainly gr rmation is available.	<u>IGNEOUS</u> Bulkley In SIOGRAPHIC AREA: 3 GRADE: 1 78 kilometres n 78 kilometres n rocks of the N truded by the 1 anodioritic in	<u>METAMORPHIC/OTHER</u> trusions Skeena Ranges Hornfels horth Middle Late
Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY BIBLIOGRAPHY	Clastic Sediment/Sedimenta Granodiorite Intermontane Bowser Lake Contact A copper-molyk approximately 2 kil of Hazelton. The area is ur Jurassic to Lower C Cretaceous Bulkley composition. No other infor EMPR MAP *69-1 (#30 GSC OF 2322	PHYS ary PHYS RELATIONSHIP: bdenum showing (#301 on Map 69- lometres north of Shedin Peak, nderlain by clastic sedimentary Cretaceous Bowser Lake Group in Intrusions which are mainly gr rmation is available. 01)	SIOGRAPHIC AREA: S GRADE: I 78 kilometres n 78 rocks of the n truded by the n canodioritic in	<u>INE IAMORPHICOTHER</u> trusions Skeena Ranges Hornfels horth Middle Late

MINFILE NUMBER:	<u>093M 091</u>		NATIONAL MINERAL INVE	NTORY:
NAME(S):	<u>JAN 2</u>			
STATUS: REGIONS:	Showing British Columbia		MINING D	IVISION: Omineca
NTS MAP: BC MAP:	093M14W		UTN	M ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 58 39 N 127 29 27 W 2000 Metres Within 1 KM Occurrence #302 (Map 69	-1).	NOI E/	RTHING: 6204603 ASTING: 594174
COMMODITIES:	Copper	Molybdenum		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo	± Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS	METAMORPHIC/OTHER
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS Bulkley In	METAMORPHIC/OTHER
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY:	<u>GROUP</u> Bowser Lake Clastic Sediment/Sediment Granodiorite	EVALUATION Undefined Formation ary	IGNEOUS Bulkley In	METAMORPHIC/OTHER
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Bowser Lake Clastic Sediment/Sediment Granodiorite Intermontane Bowser Lake	EVERYTICN EVERYTICS Ary	IGNEOUS Bulkley In PHYSIOGRAPHIC AREA:	METAMORPHIC/OTHER atrusions Skeena Ranges
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	GROUP Bowser Lake Clastic Sediment/Sediment Granodiorite Intermontane Bowser Lake Contact	ary RELATIONSHIP:	IGNEOUS Buikley In PHYSIOGRAPHIC AREA: GRADE:	<u>METAMORPHIC/OTHER</u> trusions Skeena Ranges Hornfels
STRATIGRAPHIC AGE Jurassic-Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	GROUP Bowser Lake Clastic Sediment/Sediment Granodiorite Intermontane Bowser Lake Contact	Ary RELATIONSHIP:	IGNEOUS Buikley In PHYSIOGRAPHIC AREA: GRADE:	<u>METAMORPHIC/OTHER</u> trusions Skeena Ranges Hornfels
STRATIGRAPHIC AGE Jurassic-Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	GROUP Bowser Lake Clastic Sediment/Sediment Granodiorite Intermontane Bowser Lake Contact A copper-molyl approximately 4.5 In north of Hazelton. The area is un Jurassic to Lower of Cretaceous Bulkley composition. No other infor	FORMATION Undefined Formation ary RELATIONSHIP: bdenum showing (#302 on Map kilometres north of Shedin nderlain by clastic sedimer Cretaceous Bowser Lake Grou Intrusions which are main rmation is available.	IGNEOUS Bulkley In PHYSIOGRAPHIC AREA: GRADE: 0 69-1) is located Peak, 82 kilometres htary rocks of the I up intruded by the 3 ly granodioritic in	METAMORPHIC/OTHER Attrusions Skeena Ranges Hornfels s Middle Late
STRATIGRAPHIC AGE Jurassic-Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY BIBLIOGRAPHY	GROUP Bowser Lake Clastic Sediment/Sediment Granodiorite Intermontane Bowser Lake Contact A copper-molyl approximately 4.5 In north of Hazelton. The area is un Jurassic to Lower ( Cretaceous Bulkley composition. No other infor EMPR MAP *69-1 (#30) GSC OF 2322	FORMATION Undefined Formation ary RELATIONSHIP: bdenum showing (#302 on Mag kilometres north of Shedin nderlain by clastic sedimer Cretaceous Bowser Lake Grou Intrusions which are main rmation is available.	IGNEOUS Bulkley In PHYSIOGRAPHIC AREA: GRADE: 0 69-1) is located Peak, 82 kilometres htary rocks of the l up intruded by the ly granodioritic in	METAMORPHIC/OTHER atrusions Skeena Ranges Hornfels s Middle Late

MINFILE NUMBER:	<u>093M 092</u>		NATION	AL MINERAL INVENTORY:	093M14 Cu2
NAME(S):	<u>SHEL</u>				
STATUS: REGIONS: NTS MAD	Showing British Columbia			MINING DIVISION:	Omineca
LATITUDE:	55 57 12 N 127_04_37 W			NORTHING: EASTING:	6202556 620073
ELEVATION: LOCATION ACCURACY: COMMENTS:	1667 Metres Within 500M Location from Assessmen	t Report 2084.			
COMMODITIES:	Copper	Molybdenum			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Molybde Quartz Pyrrhotite Sericite Kaolinite Sericitic Unknown	nite Pyrite Carbonate Argillic	Magnetite Chlorite Leucoxene Carbonate	Chloritic	Propylitic
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo	± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE Lower Cretaceous Upper Cretaceous	<u>GROUP</u> Skeena	<u> </u>	RMATION suns Creek	<u>IGNEOUS/METAM</u> Bulkley Intrusions	ORPHIC/OTHER
LITHOLOGY:	Granite Porphyry Granite Porphyry Dike Aplite Dike Hornfels Fine Grained Tuff Argillite Greywacke				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	RELA	PHYSIO TIONSHIP:	GRAPHIC AREA: Skeena I GRADE: Hornfels	Ranges
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Chip <u>COMMODITY</u> Copper Molybdenum	nalysis <u>G</u>	YEAR: 1969 RADE 0.0200 Per cent 0.0240 Per cent		
COMMENTS: REFERENCE:	A 15.2-metre chip sample Assessment Report 2084.	from the granite p	orphyry intrusion.		
CAPSULE GEOLOGY					
	The Shel prop kilometres northea Onerka Lake. The property steeply-dipping, f	erty is locat st of Hazelto is underlair ine grained t	ed in the Sicintine on, 3 kilometres sout by northwest-striki uffs, argillites, gr	Range, 88 h-southeast of ng, evwackes and	
	hornfels of the Lo Group) cut by nume granite porphyry i Late Cretaceous Bu Bulkley Intrusions of the property. Pyrrhotite, p	wer Cretaceou rous granite ntrusion, all lkley Intrusi underlies mu yrite, magnet	as Kitsuns Creek Form porphyry and aplite l of which are probab ions. A granodiorite ach of the Sicintine tite, molybdenite and	ation (Skeena dikes and a larger ly related to the batholith of the Range, northwest chalcopyrite are	
	associated with th in fractures in ho found with molybde A 15.2 metre chip 0.02 per cent copp	e granite por rnfels near t nite and quar sample from t er and 0.024	rpnyry intrusion. Ch che granite porphyry ctz in the granite po che granite porphyry per cent molybdenum	alcopyrite occurs dikes and is also rphyry intrusion. intrusion assayed (Assessment Report	

2084). Plagioclase is partially altered to sericite, kaolinite and carbonate. Biotite and hornblende are usually altered to chlorite and leucoxene.

### BIBLIOGRAPHY

EMPR MAP 69-1 (#303) EMPR ASS RPT \*2084, 5348, 6849, 8075, 8452 EMPR GEM 1969-101, 1974-273 EMPR EXPL 1978-226, 1979-234 GSC OF 2322 V STOCKWATCH August 17, 1989

DATE CODED: 1985/07/24 DATE REVISED: 1991/12/04 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 093</u>			NATIONAL MINEF	RAL INVENTORY:	093M10 Cu1
NAME(S):	MOUNT HORETZKY, BRIA	N, ADD				
STATUS:	Showing British Columbia			1	MINING DIVISION:	Omineca
NTS MAP:	093M10W				UTM ZONE:	09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 38 39 N 126 50 04 W 1500 Metres Within 500M Showings (Assessment Re	port 3870, Geok	ogy Map).		NORTHING: EASTING:	6168604 636288
COMMODITIES:	Copper	Nolybdenum				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Molybdeni Pyrite Chlorite Chloritic Unknown	te				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork [ Porphyry L04 Porphyry Cu ± Mo :	Disseminated ± Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP Bowser Lake	<u>FC</u> Ur	RMATION	<u>I</u>	GNEOUS/METAM	ORPHIC/OTHER
Eocene ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	50 Ma Potassium/Argon Biotite			E	Babine Intrusions	
LITHOLOGY:	Diorite Plagioclase Porphyry Dike Hornfels Shale Mudstone Sandstone Andesite					
HOSTROCK COMMENTS:	Isotopic age date is from G	Seological Surve	y of Canada Open File	2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Bowser REL	Lake ATIONSHIP:	Physiographic (	CAREA: Nechako GRADE: Hornfels	Plateau
CAPSULE GEOLOGY	Mount Horetzky The copper-molybden the mountain at app The area is un Bowser Lake Group s have been hornfelse 2000 by 1000 metres dikes ranging in wi are steeply-dipping The intrusive bodie have been dated by Survey of Canada Op A major zone c hornfels-diorite co alteration is prese evident. Pyrite is guantities of up to	r is located uum showings roximately derlain by hales, muds d by a hete in size, a dth from 30 and most s s are part potassium/a en File 232 of mineraliz ontact and i int, with lo the most c 5 per cent	68 kilometres m are located on the 1460-metre of Middle Jurassic tones, sandstom- rogeneous diori nd related plag centimetres to trike 135 degree of the Eocene B rgon methods on 2) at 50 Ma on 1 ation exists ad n associated dil cal chloritizat ommon sulphide in hornfels. d	northeast of the southwe elevation. to Lower Cr es and andes te stock, ap ioclase biot 15 metres. es, some 050 abine Intrus hornblende biotite and jacent to th kes. Minor ion of hornb and is prese iorite and m	Hazelton. st side of etaceous ites which proximately ite porphyry The dikes degrees. ions and (Geological 57 Ma. e hydrothermal lende nt in orphyry	

quantities of up to 5 per cent in hornfels, diorite and porphyry dikes (Assessment Report 3870). Chalcopyrite is also found in the intrusive rocks and hornfels, as disseminated grains or in fractures. Molybdenite is rare, occurring in quartz stockworked hornfels with pyrite and chalcopyrite or by itself in dry fractures or in quartz veinlets. The mineralization is best developed in the upper part of the intrusion, within 1 to 60 metres of the roof.

EMPR PF (Richards, T. (1967): Report on Mt. Horetsky; Richards, T. (1968): UBC Report and map; MacDonald Consultants, Geology Map, 1968)
EMPR AR 1967-101
EMPR GEM 1971-194, 1972-433, 1973-360
EMPR MAP 69-1 (#304)
EMPR ASS RPT 1576, 1841, 2465, 3840, \*3870, 3967, 4621, 4925
GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/28 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 094</u>			NATIONAL MINERAL INVENTORY:	
NAME(S):	DODKO				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M05E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 15 59 N 127 32 40 W 250 Metres Within 500M Location from Assessment Rep	port 8198.		NORTHING: EASTING:	6125401 592488
COMMODITIES:	Molybdenum Cop	per	Zinc	Antimony	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcopyrite Quartz Silica Sericite Silicific'n Seric Unknown	Jamesonite	Sphalerite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epig L04 Porphyry Cu ± Mo ± Au	Jenetic J			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATIO	N	IGNEOUS/METAM	ORPHIC/OTHER
Unknown	Bowser Lake	Undefined	-ormation	Unnamed/Unknov	vn Informal
LITHOLOGY:	Granodiorite Dike Clastic Sediment/Sedimentary				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	Plutonic Rocks		PHYSIOGRAPHIC AREA: Skeena	Ranges
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON:	N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analys SAMPLE TYPE: Chip COMMODITY Molybdenum A 15-metre chip sample from a Assessment Report 8198.	is <u>GRADE</u> 0.0400 dit.	YEAR: Per cen	1980 t	
CAPSULE GEOLOGY BIBLIOGRAPHY	The Dodko claims River, 9 kilometres e. Middle Jurassic the Bowser Lake Group age which contains mo guartz-sericite alter grab sample from a 2-1 cent molybdenite (Ass sample from the adit a Report 8198). Chalcop reported to be presen EMPR ASS RPT *8198 GSC OF 2322 (#219)	are located on ast of Hazelton to Lower Cretac are intruded k lybdenite in qu ation is associ metre wide mine essment Report assayed 0.04 pe pyrite, jameson t in the sedime	the nort eous clas y a granc artz vein ralized a 8198). A r cent mc ite and s ntary roc	The bank of the Bulkley stic sedimentary rocks of diorite dike of unknown as. Some bleaching and the mineralization. A rrea assayed 1.17 per 15-metre wide chip hybdenite (Assessment sphalerite are also bks in the area.	
DATE CODED: DATE REVISED:	1991/09/20 1991/12/30	CODED BY: REVISED BY:	RHM RHM	F	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 095</u>	Ν	JATIONAL MINERAL INVENTORY:	
NAME(S):	SEATON, BOULDER CREEK			
STATUS: REGIONS:	Prospect British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M03W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 06 18 N 127 20 59 W 365 Metres Within 500M Location of the main (#1) seam 223).	(Geological Survey of Canada Mem	NORTHING: EASTING: oir	6107720 605285
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Eocene			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Mas Sedimentary Foss A04 Bituminous coal Irregular Folded Beds strike northwest-southeas	sive sil Fuel st and dip up to 30 degrees northea	ıst.	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION Undefined Formation		<u> DRPHIC/OTHER</u>
LITHOLOGY:	Shale Sandstone Coal			
HOSTROCK COMMENTS:	The host rocks are informally sediments (Geological Survey	designated as Eocene Moricetown of Canada Open File 2322).		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	F	PHYSIOGRAPHIC AREA: Nechako	Plateau
CAPSULE GEOLOGY				
	The Seaton coal p Bulkley River, 400 met kilometres southeast of The area is under sediments (Geological northwest and dip up to Ten or eleven coa 152 metre section into seam (No. 1) is 1.37 m A sample of clean coal 17.7 per cent volatile per cent ash. The No cent moisture, 21.2 per carbon, and 16.8 per this 0.71 metre is coa cent moisture, 19.5 per carbon, and 35.7 per con	prospect is located on the tres south of Seaton, app of Hazelton. rlain by the informally n Survey of Canada Open Fi to approximately 30 degree al seams (0.3 to 1.1 metr erbedded with shale and s metres thick and is split 1 from this seam contains e matter, 36.7 per cent f . 2 seam is 0.43 metre the er cent volatile matter, cent ash. The No. 3 seam al. A sample from this s er cent volatile matter, cent ash.	e west bank of the roximately 27 amed Eocene Moricetown le 2322), which strike es northeast. es thick) occur in a andstone. The main by bands of bone coal. 1.8 per cent moisture, ixed carbon, and 43.8 ick and contains 3 per 59 per cent fixed is 0.9 metre thick, of eam contains 1.4 per 43.4 per cent fixed	
BIBLIOGRAPHY				
	EMPR P *1986-5, p. 18 EMPR AR 1916-121-122; GSC BULL *270 GSC P *73-31 GSC MEM 223 GSC OF 2322 (Occurrent	1927-161-162 ce M)		
DATE CODED: DATE REVISED:	1985/07/24 1991/12/16	CODED BY: GSB REVISED BY: RHM	F F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 096</u>	NATIONA	L MINERAL INVENTORY:
NAME(S):	PINK CADILLAC, RED CADILLAC		
STATUS:	Showing		MINING DIVISION: Omineca
NTS MAP:	093M05E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 06 N 127 32 20 W 250 Metres Within 500M Location from Assessment Report 119	900.	NORTHING: 6125625 EASTING: 592837
COMMODITIES:	Silver Gold	Antimony	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Miargyrite Berthierite Arsen Quartz Unknown	opyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic H04 Epithermal Au-Ag-Cu: high sul	phidation	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous Unknown	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
LITHOLOGY:	Sandstone Siltstone Shale Tuff Hornfels Granodiorite Dike		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage Pl	utonic Rocks	GRAPHIC AREA: Skeena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Antimony Sample from a quartz vein assayed 30 Assessment Report 11900.	YEAR: 1983 <u>GRADE</u> 9999.9999 Grams per tonne 2.5000 Grams per tonne 3.1000 Per cent 0 000 grams per tonne silver.	
CAPSULE GEOLOGY	The Diple Codiller ale	ima out leasted on the new	the book of the
	Bulkley River, 9 kilometre Middle Jurassic to Lo the Bowser Lake Group are age. A quartz vein, carry mineral miargyrite, yielde per tonne silver, 3.1 per (Assessment Report 11900). was found in a nearby vein disseminated in granodiori	Ims are located on the nor s east of Hazelton. wer Cretaceous clastic sed intruded by granodiorite of ing the rare silver antimo d a grab sample which assa cent antimony and 2.5 gram Berthierite, an iron ant . Arsenopyrite is common te dikes in the area.	th bank of the dimentary rocks of dikes of unknown ony sulphide ayed 30 000 grams ms per tonne gold imony sulphide, ly found
BIBLIOGRAPHY	EMPR ASS RPT *11900 GSC OF *2322 (#214)		
DATE CODED: DATE REVISED:	1991/09/20 1991/09/20	CODED BY: RHM REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 097</u>	NA	TIONAL MINERAL INVENTORY:		
NAME(S):	<u>KISPIOX</u> , KISPIOX RIVER F				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP:	093M05E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 22 18 N 127 41 43 W 250 Metres Within 1 KM Location F (Geological Survey of C	Canada Open File 2322).	NORTHING: EASTING:	6136926 582685	
COMMODITIES:	Coal				
MINERALS SIGNIFICANT: MINERALIZATION AGE	Coal Lower Cretaceous				
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Massive Sedimentary Fossil F A04 Bituminous coal Irregular Folded Faulted	e Tuel			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek		ORPHIC/OTHER	
LITHOLOGY:	Shale Greywacke Conglomerate Coal				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	Pł	IYSIOGRAPHIC AREA: Nass De	pression	
CAPSULE GEOLOGY					
	The Kispiox coal occurrence (F) is located on the Kispiox River, approximately 2 kilometres north of the village of Kispiox (Geological Survey of Canada Memoir 223, figure 1 and Open File 2322). The heat rocks are folded and deformed shalos, grouwingkes and				
	conglomerates of the Low Group).	wer Cretaceous Kitsuns C	reek Formation (Skeena		
BIBLIOGRAPHY	EMPR P 1986-5, p. 18 GSC MEM *69, pp. 163-16 GSC SUM RPT *1909, p. 6 GSC BULL *270 GSC P 73-31 GSC OF 2322 (Occurrence	7; *223, pp. 93-95 7; *1911, p. 90 F)			
DATE CODED: DATE REVISED:	1985/07/24 1991/12/19	CODED BY: GSB REVISED BY: RHM	FI	IELD CHECK: N IELD CHECK: N	

MINFILE NUMBER:	<u>093M 098</u>		NATIONAL MI	NERAL INVENTORY:	
NAME(S):	CHINA CREEK				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M03W			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 42 N 127 23 15 W 370 Metres Within 500M Location from Assessment Report 138	12		NORTHING: EASTING:	6115823 602687
COMMODITIES:	Copper Lead	Zin	C	Gold	Silver
SIGNIFICANT: COMMENTS: ASSOCIATED:	Pyrite Chalcopyrite Galena Assays of samples were low in gold a Graphite	Sphalerit nd silver.	ie		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chlorite Calcite Sericite Propylitic Argillic Unknown	Clay Ox	Limonite idation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Hydrothermal Epigenetic H04 Epithermal Au-Ag-Cu: high sulp Tabular	Epi	ithermal		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	<u>GROUP</u> Kasalka	<u>FORMATION</u> Brian Boru		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Rhyolite Rhyolitic Tuff Porphyritic Dacite Andesite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAF	HIC AREA: Nechako	o Plateau
CAPSULE GEOLOGY					
The China Creek alteration zone is located on the west bank of the Bulkley River, 20 kilometres southeast of Hazelton. The area is underlain by rhyolite, rhyolitic tuff, porphyritic dacite and andesite of the Upper Cretaceous Brian Boru Formation (Kasalka Group) A strongly clay-altered, limonitic fracture zone cutting volcanic rocks contains carbon (possibly graphite) with minor chalcopyrite, galena and sphalerite. The zone is 39 metres wide and could reflect an epithermal system. Assays of samples from the alteration zone were very low in gold and silver.					
BIBLIOGRAPHY	EMPR ASS RPT *13812 GSC OF 2322				
DATE CODED:	1991/08/16		N/		

MINFILE NUMBER:	093M 099 NATIONAL MINERAL INVENTORY:			
NAME(S):	SKILOKIS, BLUNT MOUNTAIN, BET. LOKIS, BETA 3, LOKIS 1-3, LOKI, LOKI 1-10	А,		
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093M03E 093M03W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 21 N 127 15 05 W 1500 Metres Within 500M Diamond drill hole 86-1 (Assessmer	nt Report 16273).	NORTHING: 6122800 EASTING: 611184	
COMMODITIES:	Silver Gold Antimony	Lead	Zinc Copper	
SIGNIFICANT:	Arsenopyrite Pyrrhotite Py	yrite Galena Sphalerite		
COMMENTS: ASSOCIATED:	Fibrous sulphosalt and possibly tett Quartz Chlorite Grun Tourmaline Mannetite A	rahedrite was also observed. erite Calcite Ankerite		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Clay Silica Argillic Silicific'n Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION:	१: Vein ३: Epigenetic Hydrothermal ३: I05 Polymetallic veins Ag-Pb-Zn±Au ३: Tabular ४: STRIKE/DIP: 020/70W TREND/PLUNGE:			
COMMENTS:	Six showings have been discovered Attitude of veins.	d over a 3 kilometre strike length.		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY:	GROUP Bowser Lake Quartz Diorite Feldspar Porphyry Dike Siltstone Sandstone Hornfels	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Bowser Lake Quartz Diorite Feldspar Porphyry Dike Siltstone Sandstone Hornfels Intermontane Plutonic Rocks	FORMATION Undefined Formation PHYSIOC Bowser Lake	GRAPHIC AREA: Skeena Ranges	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	GROUP Bowser Lake Quartz Diorite Feldspar Porphyry Dike Siltstone Sandstone Hornfels Intermontane Plutonic Rocks	FORMATION Undefined Formation PHYSIOC Bowser Lake	GRAPHIC AREA: Skeena Ranges	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Bowser Lake Quartz Diorite Feldspar Porphyry Dike Siltstone Sandstone Hornfels Intermontane Plutonic Rocks BETA	FORMATION Undefined Formation PHYSIOC Bowser Lake REPORT ON: N	GRAPHIC AREA: Skeena Ranges	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Bowser Lake Quartz Diorite Feldspar Porphyry Dike Siltstone Sandstone Hornfels Intermontane Plutonic Rocks BETA CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core <u>COMMODITY</u> Silver Gold	FORMATION Undefined Formation PHYSIOC Bowser Lake REPORT ON: N YEAR: 1986 GRADE 829.0000 Grams per tonne 2.4000 Grams per tonne	GRAPHIC AREA: Skeena Ranges	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	GROUP Bowser Lake Quartz Diorite Feldspar Porphyry Dike Siltstone Sandstone Hornfels Intermontane Plutonic Rocks BETA CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core <u>COMMODITY</u> Silver Gold A 30-centimetre core sample Assessment Report 16273.	FORMATION Undefined Formation PHYSIOC Bowser Lake REPORT ON: N YEAR: 1986 <u>GRADE</u> 829.0000 Grams per tonne 2.4000 Grams per tonne	GRAPHIC AREA: Skeena Ranges	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	GROUP Bowser Lake Quartz Diorite Feldspar Porphyry Dike Siltstone Sandstone Hornfels Intermontane Plutonic Rocks BETA CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY Silver Gold A 30-centimetre core sample Assessment Report 16273.	FORMATION Undefined Formation PHYSIOC Bowser Lake REPORT ON: N YEAR: 1986 GRADE 829.0000 Grams per tonne 2.4000 Grams per tonne	GRAPHIC AREA: Skeena Ranges	
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	GROUP Bowser Lake Quartz Diorite Feldspar Porphyry Dike Siltstone Sandstone Hornfels Intermontane Plutonic Rocks BETA CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core <u>COMMODITY</u> Silver Gold A 30-centimetre core sample Assessment Report 16273. The Skilokis veins a Mountain, 27 kilometres a The area is underlat Jurassic to Lower Cretace a monzonitic to dioritic Intrusions, which is in to dikes. The pluton and hornid developed northeast-trend	FORMATION Undefined Formation PHYSIOC Bowser Lake REPORT ON: N YEAR: 1986 GRADE 829.0000 Grams per tonne 2.4000 Grams per tonne 2.4000 Grams per tonne are located on the northwest east of Hazelton. in by clastic sediments of t eous Bowser Lake Group which pluton of the Late Cretaced turn cut by intermediate fel felsed sedimentary rocks are ding sheeted joints which are	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions GRAPHIC AREA: Skeena Ranges CRAPHIC AREA: Skeena Ranges	

such that they change laterally to predominantly quartz-arsenopyrite veins. Sulphides observed are pyrite, galena, sphalerite, pyrhotite, stibnite, chalcopyrite and possibly tetrahedrite. The veins strike 020 degrees, dipping 70 degrees west. Over a strike length of 3 kilometres, at least six showings have been discovered, although several of the showings could be exposures of the same vein system, some are probably parallel or en echelon structures. From the southwest, the showings and veins have been named: Clay Creek, Old Post, PS, New Mound, Mound, Ferri Creek, Ridge and Lost. Chip samples yielded results as high as 3.3 grams per tonne gold and 268 grams per tonne silver across 1.2 metres (Assessment Report 16273). Six diamond drill holes have been completed on the showings and although core recovery was very poor, one hole yielded 2.4 grams per tonne gold and 829 grams per tonne silver across 30 centimetres (Hole 86-1, Assessment Report 16273).

#### BIBLIOGRAPHY

EM EXPL 1999-80-84 EMPR ASS RPT 13832, 14543, 15246, \*16273, \*17135, 20566, 21748 EMPR PF (Atna Resources Ltd., Statement of Material Facts, 1987) GSC OF \*2322 (#232) GCNL #194,#197, 1986 N MINER Oct. 26, 1986 V STOCKWATCH Sept. 8, Nov. 13, 1987

DATE CODED: 1988/01/06 DATE REVISED: 1991/08/15 CODED BY: GJP REVISED BY: RHM

MINFILE NUMBER:	093M 100 NATIONAL MINERAL INVENTORY:			
NAME(S):	KNOLL			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M06E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 15 26 N 127 07 57 W 730 Metres Within 500M Centre of claim block (Assessment Repor	t 13960).	NORTHING: 6125005 EASTING: 618688	
COMMODITIES:	Silver Zinc	Lead		
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Pyrite Pyrite Pyrite Middle Cretaceous			
	Discominated			
CLASSIFICATION: TYPE:	Unknown 105 Polymetallic veins Ag-Pb-Zn±Au	н	EPITHERMAL	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	<u>GROUP</u> IKasalka	FORMATION Brian Boru	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Rhyolite Andesite Felsite Porphyry Flow			
HOSTROCK COMMENTS:	New correlation suggests part of Skeena Group (Rocky Ridge volcanics) (BC EMPR GEXP 1999, pages 79-84).			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIO	GRAPHIC AREA: Skeena Ranges	
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Sample not described. Assessment Report 13960.	YEAR: 1985 GRADE 80.0000 Grams per tonne		
CAPSULE GEOLOGY	The Knoll claims are loc	nated 34 kilometres eas	t of Hazelton on	
	<pre>the east side of Harold Price Creek. The claims are underlain by a knob of Upper Cretaceous Brian Boru Formation (Kasalka Group) volcanic rocks ranging from rhyolite to andesite in composition. Rhyolitic rocks consist of fine grained, massive but highly fractured felsite, porphyry and flow banded units. Local flow banding suggests the knob may be a volcanic dome complex. The volcanic rocks occur east of a prominent block fault which underlies Harold Price Creek. The volcanic rocks are altered and pyritized with local disseminated and fracture-controlled sphalerite and galena. One grab(?) sample assayed 80.0 grams per tonne silver (Assessment Report 13960). Mineralization at the Knoll claims is mainly disseminations and veinlets of pyrite, sphalerite, and galena set in rhyolite breccia and lapilli tuff. Hand specimens of pyritic rhyolite from Harald Price Creek and not tested by drilling return high levels of lead, zinc and arsenic, and locally in silver and cadmium. Gold and silver values are anomalous, but modest. Seven drill holes tested an IP anomaly. They passed through fracture controlled veins filled with pyrite, pyrrhotite, and arsenopyrite with quartz and calcite. Several of the holes drilled in the south east part of the property</pre>			

MINFILE NUMBER: 093M 100
went through the Rhyolite dome into black argillies. (The regional geologist suggests the rocks are of mid Cretaceous Age and correlative with the Rocky Ridge Formation (of the Skeena Group) and thus have Eskay deposit styles potential). Mineralization was discovered by Ethier in 1983, and in 1988 Goldpac Investments optioned the property and performed geological, magnetic and induced polarization surveys followed by diamond drilling. In 1999 Ethier completed a soil survey supported by PAP (BC EMPR Exploration 1999, pages 79-84).

### BIBLIOGRAPHY

EM EXPL 1999-80-84 EMPR ASS RPT \*13960 EMPR FIELDWORK 2000, pp. 253-268 GSC OF 2322 (#234)

DATE CODED: 1991/08/19 DATE REVISED: 1991/12/30 CODED BY: RHM REVISED BY: RHM

MINFILE NUMBER:	<u>093M 101</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	NEW			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M03E		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 03 29 N 127 13 12 W 1150 Metres Within 500M Centre of claim block (Ass	essment Report 14605).	NORTHING: EASTING:	6102700 613693
COMMODITIES:	Zinc	Antimony		
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Sulphantir Sphalerite and antimony s Quartz Calcite Limonite Oxidation Unknown	nonide ulphides only observed in float.		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal 105 Polymetallic veins	Epigenetic Ag-Pb-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Polymictic Conglomerate Grit Syenite Dike			
HOSTROCK COMMENTS:	Syenite dikes of unknow	n age.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Nechako	Plateau
CAPSULE GEOLOGY	The New showi The property the Lower Cretaceo cut by syenite dik block the conglome intense honeycomb- and antimony sulph	ng is located 8 kilometres is underlain by polymictic us Kitsuns Creek Formation es of unknown age. In the rate is intensely altered t like network of quartz-calc ides have been identified i	east of Moricetown. conglomerate and grit of (Skeena Group) which is centre of the claim to limonite and cut by an tite veins. Sphalerite n float.	
BIBLIOGRAPHY	EMPR ASS RPT *1460 GSC OF 2232 (#231)	5		
DATE CODED: DATE REVISED:	1991/08/15 1991/12/30	CODED BY: RHM REVISED BY: RHM	F F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 102</u>	NAT	IONAL MINERAL INVENTC	DRY:
NAME(S):	SIDINA CREEK, SARGENT, SILVER PR	RINCE		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05E		MINING DIVISI UTM ZC	ON: Omineca NE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 26 33 N 127 33 53 W 700 Metres Within 500M Showing (Assessment Report 12507	).	NORTHI EASTI	NG: 6144971 NG: 590796
COMMODITIES:	Silver Gold Arsenic Mercury	Zinc	Lead	Copper
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Unknown I05 Polymetallic veins Ag-Pb-Zn±	Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/MET	TAMORPHIC/OTHER
Jurassic-Cretaceous	Bowser Lake Clastic Sediment/Sedimentary Sandstone Siltstone Shale Conglomerate	Unnamed/Unknown Formation	n	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHY	SIOGRAPHIC AREA: Skee	ena Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
Comments: Reference: Capsule Geology	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Arsenic Gold Copper Lead Zinc Grab sample taken from narrow vein f cent mercury. Assessment Report 12507, sample 12 The Sidina Creek show Sidina Creek, two kilometre approximately 19 kilometre Bedrock in the area i	YEAR: 198 <u>GRADE</u> 1628.8000 Grams per to 2.5000 Per cent 2.5000 Grams per to 0.3150 Per cent 6.1200 Per cent 6.6500 Per cent mineralization. Also, 0.026 per 2842. ring is located on the serves east of the old Salu ses east of the old Salu se morth of Hazelton.	3 mne nne south tributary of mon River road,	
BIBLIOGRAPHY	Cretaceous Bowser Lake Gro composed of sandstone, sil and volcanic conglomerate. A narrow, shallowly d vein) occurs in the steep several old trench-like de about 1 kilometre to the s A grab sample from th tonne silver, 2.5 grams pe cent zinc, 0.315 per cent cent mercury (Sample 12842) EMPR ASS RPT *12507	s mapped as Middle Jur, oup clastic sedimentary tstone, shale and epic. lipping, lead-zinc-silve rock-walled canyon of epressions on the Silve outh. le Sargent vein assayed er tonne gold, 6.12 per copper, 2.5 per cent a: 2, Assessment Report 12	rocks, which are lastic feldspathic er vein (the Sarges the creek. There r Prince #4 claim 1628.8 grams per cent lead, 6.65 p rsenic and 0.026 p 507).	nt are er er

GSC OF 2322 (#217)

DATE CODED: 1991/09/10 DATE REVISED: 1991/09/10 CODED BY: RHM REVISED BY: RHM

MINFILE NUMBER:	<u>093M 103</u>	NATIONAL MINERAL INVENTOR	Y: 093M5 Mrl1
NAME(S):	ROBINSON LAKE		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05E	MINING DIVISIO UTM ZON	N: Omineca E: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 19 15 N 127 35 12 W 472 Metres Within 1 KM The south end of Robinson Lake (Nation 093M/05E - First edition).	NORTHIN EASTIN	G: 6131404 G: 589683
COMMODITIES:	Marl		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Carbonate Recent		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Stratiform Unconsolida Sedimentary Evaporite B07 Bog Fe, Mn, U, Cu, Au 580 x 274 x 2 Metres The deposit, 580 by 274 by 1.8 metres the lake bottom.	ted Industrial Min. STRIKE/DIP: TREND/PI , occurs as a flat lying layer on	LUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION IGNEOUS/META	MORPHIC/OTHER
LITHOLOGY:	Marl		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	PHYSIOGRAPHIC AREA: Hazelt	on Ranges
CAPSULE GEOLOGY	A marl deposit occurs of Hazelton. The lake is 5 with depths rarely exceedin The deposit is compris at least 1.8 metres thick. organic detritus, is found outlet. The deposit here i American Standard Mine deposit in 1950.	in Robinson Lake, 9 kilometres northeast 80 metres long and up to 274 metres wide g 1.5 metres. ed of a layer of soft, white to grey mar. The purest marl, free of contamination l at the south end of the lake near its s at least 3.7 metres thick. s Ltd. applied for a lease over this	L ÞÝ
BIBLIOGRAPHY	EMPR ASS RPT 12665 GSC MEM *223, p. 139		
DATE CODED: DATE REVISED:	1985/07/24 1989/12/18	CODED BY: GSB REVISED BY: PSF	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 104</u>	NATIONAL M	IINERAL INVENTORY:	
NAME(S):	SKEENA RIVER WEST PLACER			
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093M04W		UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 05 17 N 127 59 24 W 300 Metres Within 1 KM Placer gold location from the original M (1971) in the Property File.	ineral Deposit Inventory card	NORTHING: EASTING: :	6105056 564465
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMC	RPHIC/OTHER
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRA	PHIC AREA: Nass Dep	pression
CAPSULE GEOLOGY	A placer gold occurrer other information is availa	nce has been reported at thi uble.	s location. No	
BIBLIOGRAPHY	EMPR PF (*Mineral Deposit ] GSC OF 2322	Inventory, original card, 19	71)	
DATE CODED: DATE REVISED:	1985/07/24 1991/09/27	CODED BY: GSB REVISED BY: RHM	FI FI	ELD CHECK: N ELD CHECK: N

MINFILE NUMBER:	<u>093M 105</u>	NATIONAL MIN	IERAL INVENTORY:
NAME(S):	ANDIMAUL EAST PLACER		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093M04W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 06 12 N 127 54 00 W 333 Metres Within 1 KM Placer gold location from the original Mi (1971) in the Property File.	ineral Deposit Inventory card	NORTHING: 6106843 EASTING: 570183
COMMODITIES:	Gold		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAP	HIC AREA: Nass Depression
CAPSULE GEOLOGY	A placer gold occurrer other information is availa	nce has been reported at this ble.	location. No
BIBLIOGRAPHY	EMPR PF (*Mineral Deposit I GSC OF 2322	inventory, original card, 197	1)
DATE CODED: DATE REVISED:	1985/07/24 1991/09/27	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 106</u>	Ν	IATIONAL MINERAL INVENTORY:	
NAME(S):	SKEENA RIVER PLACER, SKEENA CRC	SSING, NASH		
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MΔP	093M04W		UTM ZONE:	09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 04 48 N 127 50 06 W 300 Metres Within 1 KM Placer gold location from the original Mir (1971) in the Property File.	neral Deposit Inventory card	NORTHING: EASTING:	6104314 574373
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	F	PHYSIOGRAPHIC AREA: Nass De	pression
CAPSULE GEOLOGY	A placer gold occurren Production is reported to ha in the period 1921 to 1925. No other information is	ce has been reporte ave been 137.12 gra s available.	d at this location. ms (4 ounces) of gold	
BIBLIOGRAPHY	EMPR PF (Mineral Deposit Inv EMPR BULL *28 (#71) GSC OF 2322	ventory, original c	ard, 1971)	
DATE CODED: DATE REVISED:	1985/07/24 1991/09/27	CODED BY: GSB REVISED BY: RHM	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 107</u>	NAT	IONAL MINERAL INVENTORY:	
NAME(S):	NORTH SKEENA CROSSING PLACER			
STATUS:	Showing British Columbia		MINING DIVISION: (	Omineca
NTS MAP: BC MAP	093M04W		UTM ZONE: (	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 06 N 127 47 24 W 360 Metres Within 1 KM Placer gold location from the original Mi (1971) in the Property File.	neral Deposit Inventory card	NORTHING: 6 EASTING: 5	5110483 577140
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHY	/SIOGRAPHIC AREA: Nass Dep	pression
CAPSULE GEOLOGY	A placer gold occurren other information is availa	ce has been reported ble.	at this location. No	
BIBLIOGRAPHY	EMPR PF (*Mineral Deposit I GSC OF 2322	nventory, original ca	rd, 1971)	
DATE CODED: DATE REVISED:	1985/07/24 1991/09/27	CODED BY: GSB REVISED BY: RHM	FI	ELD CHECK: N ELD CHECK: N

MINFILE NUMBER:	<u>093M 108</u>	NATIONAL MIN	ERAL INVENTORY:
NAME(S):	CARNABY PLACER		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093M04E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 24 N 127 44 36 W 300 Metres Within 1 KM Placer gold location from the original Mi (1971) in the Property File.	ineral Deposit Inventory card	NORTHING: 6114801 EASTING: 580038
COMMODITIES:	Gold		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPH	IIC AREA: Nass Depression
CAPSULE GEOLOGY	A placer gold occurrer other information is availa	nce has been reported at this able.	location. No
BIBLIOGRAPHY	EMPR PF (*Mineral Deposit I GSC OF 2322	Inventory, original card, 1971	)
DATE CODED: DATE REVISED:	1985/07/24 1991/09/27	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 109</u>	NATIONAL MIN	ERAL INVENTORY:
NAME(S):	SKEENA NORTH PLACER		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP:	093M04E		UTM ZONE: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 54 N 127 42 54 W 300 Metres Within 1 KM Placer gold location from the original M (1971) in the Property File.	ineral Deposit Inventory card	NORTHING: 6119470 EASTING: 581757
COMMODITIES:	Gold		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPH	IIC AREA: Nass Depression
CAPSULE GEOLOGY	A placer gold occurrer other information is availa	nce has been reported at this able.	location. No
BIBLIOGRAPHY	EMPR PF (*Mineral Deposit ] GSC OF 2322	Inventory, original card, 1971	)
DATE CODED: DATE REVISED:	1985/07/24 1991/09/27	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 110</u>	NATIONAL MIN	IERAL INVENTORY:
NAME(S):	HAZELTON PLACER		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093M04E		UTM ZONE: 09 (NAD 83)
LOTITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 18 N 127 40 00 W 300 Metres Within 1 KM Placer gold location from the original M (1971) in the Property File.	ineral Deposit Inventory card	NORTHING: 6122124 EASTING: 584782
COMMODITIES:	Gold		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAP	HIC AREA: Nass Depression
CAPSULE GEOLOGY	A placer gold occurrer other information is availa	nce has been reported at this able.	location. No
BIBLIOGRAPHY	EMPR PF (*Mineral Deposit ] GSC OF 2322	inventory, original card, 197	1)
DATE CODED: DATE REVISED:	1985/07/24 1991/09/27	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 111</u>		NATIONAL MINERAL INVENTORY: 09	93M16 Cu1
NAME(S):	<u>Kaza Copper</u> , Fire, Flame, Blue, Log, Burn, Brado			
STATUS: REGIONS	Prospect British Columbia		MINING DIVISION: O	mineca
NTS MAP: BC MAP:	093M16W		UTM ZONE: 09	9 (NAD 83)
LATTTUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 58 43 N 126 20 06 W 1180 Metres Within 500M Main showing area (Assessment	Report 4477, Figure 3).	NORTHING: 62 EASTING: 66	206905 66280
COMMODITIES:	Copper Gold	Silver		
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite S Pyrite Magnetite Qu Hornblende Epidote d Skarn Unknown	Sphalerite Pyrite uartz Orthoclase Garnet Calcite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Podifor Skarn K01 Cu skarn Tabular	rm Massive	Disseminated	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMOR	PHIC/OTHER
Eocene	Hazellon	Теккиа	Kastberg Intrusions	
LITHOLOGY:	Basalt Andesite Flow Tuff Breccia Limestone Felsic Dike Siltstone Sandstone Chert Pebble Conglomerate			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Nechako P	lateau
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY Silver	YEAR: GRADE 120,0000 Grams p	1969 per tonne	
COMMENTS: REFERENCE:	Gold Copper A 1.2-metre intersection. Energy, Mines and Resources CO	14.4000 Grams p 1.1700 Per cen RPFILE - Kaza Copper Limited.	per tonne	
CAPSULE GEOLOGY	The Kere Correspondence	agreet is leasted 115	bilometres newtheest of	
	Hazelton, on a small hi kilometres south of Kaz showings and the Fred d The property is un of the Hazelton Group, breccias and tuffs and siltstones sandstones	ll on the east side of a Lake. There is some eposit (094D 032) to t derlain by the Lower J which consists of basa and overlying sedimenta	Lion Creek, 6 confusion between these he north. urassic Telkwa Formation lt and andesite flows, ry unit consisting of omerates Limestone	

siltstones, sandstones and chert pebble conglomerates. Limestone lenses and pods occur between some of the flows. Steeply-dipping, north-trending felsic dikes of the Eocene Kastberg Intrusions are common in the area of the showings.

The main mineralized showings are north-trending, steeplydipping linear zones of hornblende-rich skarn, which contain pyrite, chalcopyrite, bornite, sphalerite and magnetite. Sulphide content ranges from 5 per cent to nearly massive sulphides. The two main zones range up to a few metres in width and a hundred metres or more in length. Patchy exposures of an epidote-calcite skarn containing pyrite and chalcopyrite and minor pink garnet are also found. Minor amounts of chalcopyrite and bornite are present in quartz-orthoclaseepidote veinlets and also disseminated in a limestone lens near the main showing.

A chip sample across one of the best exposed parts of the main skarn showing assayed 0.88 per cent copper, 15.43 grams per tonne gold and 12.7 grams per tonne silver across 4.0 metres (Assessment Report 4477, page 7). Drill hole number 9 intersected 1.2 metres assaying 1.17 per cent copper, 14.4 grams per tonne gold and 120.0 grams per tonne silver (Energy, Mines and Resources CORPFILE - Kaza Copper Limited).

### BIBLIOGRAPHY

DATE CODED: 1985/07/24 DATE REVISED: 1991/12/02 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 112</u>		NATIONAL MINERAL INVENTORY	: 093M11 Au1
NAME(S):	BABINE RIVER			
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093M11W		UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 59 N 127 28 21 W 400 Metres Within 1 KM Location from Minister of Mines Annual	Report 1925, page 121.	NORTHING	6170008 596082
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION Undefined Formation	IGNEOUS/METAN	IORPHIC/OTHER
LITHOLOGY:	Alluvium Unconsolidated Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake		PHYSIOGRAPHIC AREA: Skeena	Ranges
CAPSULE GEOLOGY	Placer gold was discov of the abandoned village of (Minister of Mines Annual R Some coarse flakes of enough gold to cover wages	ered on the Babine Kisgegas, 50 kilo eport 1925, page 1 gold were recovere using a rocker.	River 8 kilometres east metres north of Hazelton 21). d, but there was not	1
BIBLIOGRAPHY	EMPR AR *1925-121 GSC OF 2322			
DATE CODED: DATE REVISED:	1985/07/24 1991/12/13	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 113</u>		NATIONA	L MINERAL INVENTORY: 093M4 Ag1
NAME(S):	HECLA (BLUEBIRD)			
STATUS:	Showing			MINING DIVISION: Omineca
NTS MAP: BC MAD	093M04E			UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 55 N 127 34 48 W 1200 Metres Within 1 KM Location from Geological Su	urvey of Canada Memoir 223 (1953), pa	age 46.	NORTHING: 6117813 EASTING: 590383
COMMODITIES:	Copper S	Silver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Silicific'n Unknown			
DEPOSIT		<b>.</b>		
CHARACTER: CLASSIFICATION: TYPE:	Vein S Hydrothermal E L04 Porphyry Cu ± Mo ±	Stockwork Epigenetic ± Au	L01	Subvolcanic Cu-Ag-Au (As-Sb)
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
	GROUP	FORMATION		IGNEOUS/METAMORPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	72 Ma Potassium/Argon Biotite			Buikley indusions
LITHOLOGY:	Aplite Dike Pegmatite Dike Porphyritic Granodiorite			
HOSTROCK COMMENTS:	Isotopic age date is from G	Geological Survey of Canada Open File	9 2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOG	RAPHIC AREA: Hazelton Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/ana SAMPLE TYPE: Grab COMMODITY Silver Copper Grab sample from drift on m Geological Survey of Canad	alysis YEAR: <u>GRADE</u> 18.2000 Grams p 0.3900 Per cent nineralized pegmatite dike. da Memoir 223 (1953), page 46.	1953 Der tonne	
CAPSULE GEOLOGY				
	The Hecla (Blu the Rocher Deboule Creek, 5.5 kilometr A 2.7-metre wi cutting porphyritic silicified and cut chalcopyrite. A gr the mineralized peg gold and 18.2 grams Memoir 223). A gra mineralized zone in 34.3 grams per tonn Canada Memoir 223). The Rocher Deb Intrusions and pota of 72 million years	Mountain Range, at the head Mountain Range, at the head res south of New Hazelton. Ide aplite dike and a 1.8-mu c granodiorite of the Roches by narrow quartz veinlets rab sample from a drift whi gmatite dike assayed 0.39 per s per tonne silver (Geologic ab sample taken to sample the n the aplite dike assayed 0 he silver and trace gold (Geo coule stock is one of the La assium/argon dating of biot.	on the dwaters actre wi er Debou carryin ch was oer cent cal Sur he 1.2 .22 per ceologic ate Cre ite has ada Ope	north slope of of Mission de pegmatite dike le stock are g pyrite and driven to explore copper, trace vey of Canada metre wide cent copper, al Survey of taceous Bulkley yielded a date n File 2322).
BIBLIOGRAPHY	EMPR AR 1918-115 EMPR BULL 43			

GSC	MEM	*223-	46
GSC	MAP	971A,	44-24
GSC	OF 2	2322	

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/25 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 114</u>			NATIONAL MINERAL INVENTORY:	093M4 Zn1
NAME(S):	<u>KILLARNEY</u>				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M04E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 04 24 N 127 37 58 W 1300 Metres Within 1 KM Adit (Assessment Report	13340).		NORTHING: EASTING:	6103806 587297
COMMODITIES:	Silver	Zinc	Lead	Tin	
	On hala sita O a la sa				
ASSOCIATED:	Quartz Pyrite	Pyrrhotite			
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Silica Pyrite Unknown	Silicific'n			
DEPOSIT	Main				
CLASSIFICATION: TYPE:	vein Hydrothermal 105 Polymetallic veins	Epigenetic Ag-Pb-Zn±Au			
HOST ROCK DOMINANT HOSTROCK	: Volcanic				
STRATIGRAPHIC AGE	GROUP		FORMATION Brian Baru	IGNEOUS/METAMO	DRPHIC/OTHER
ISOTOPIC AGE:	70 Ma Potassium/Argon		Bhan Boru		
MATERIAL DATED: Lower Cretaceous	Biotite Skeena		Red Rose		
LITHOLOGY:	Tuff				
	Aplite Dike Agglomerate Pyroclastic Volcanic Sandstone Argillite				
HOSTROCK COMMENTS:	Isotopic age date is from	Geological Su	rvey of Canada Open File	e 2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage			PHYSIOGRAPHIC AREA: Hazelton	Ranges
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON	: N	
	CATEGORY: Assay/a	nalysis	YEAR	: 1984	
	COMMODITY Silver		GRADE	ner tonne	
	Lead Tin		0.1900 Per cen 0.1100 Per cen	t t	
COMMENTS:	Zinc Average of several samp	les of mineraliz	1.0400 Per cen ation in the area. Also, (	t ).01	
REFERENCE:	per cent copper and trace Assessment Report 1334	e gold. 0.			
CAPSULE GEOLOGY					
	The Killarney branch of Brian Bo Range, 19 kilometr The showings pyroclastics of th Group). Potassiun million years (Geo important north-st volcanic rocks fro argillites) of the Group).	y showing i pru Creek, ces south c are hosted he Upper Cr n/argon dat plogical Su criking blo om clastic e Lower Cre	Is located on the on the west side of South Hazelton. I in fractured and retaceous Brian Bo ting of biotite yi urvey of Canada Op ock fault, the Cap sedimentary rocks etaceous Red Rose	west side of the south of the Rocher Deboule i bleached acid oru Formation (Kasalka telded a date of 70 oen File 2322). An o Fault, separates the s (sandstones and Formation (Skeena	

At the showings, the bed of Brian Boru Creek is formed of fragments of altered rock heavily impregnated with pyrite and a little pyrrhotite, sphalerite and galena. A heavily pyritized zone, approximately 3 metres in width, outcrops in an open cut some tens of metres west of the creek. Some tens of metres south of a clearing an adit has been driven along a zone containing pyrite, sphalerite and galena. This zone occurs along the margins of an aplite dike which has intruded tuffaceous host rocks. The average of several samples taken from mineralization in the area was 19.9 grams per tonne silver, 1.04 per cent zinc, 0.19 per cent lead, 0.01 per cent copper, 0.11 per cent tin, and trace gold (Assessment Report 13340).

### BIBLIOGRAPHY

EMPR AR 1926-128 EMPR BULL 43 EMPR ASS RPT 8332, 9587, 12712, \*13340, 14632, 16455 GSC MEM \*223(1954)-50 GSC MAP 971A, 44-24 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/10/11 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 115</u>		NATIONAL MINERAL INVENTORY	/: 093M4 Zn3
NAME(S):	BLACK PILOT, MACDONALD, LEROI, TRUE BLUE, SUMMIT, KATHERINE			
STATUS: REGIONS: NTS MAP	Showing British Columbia 093M04E		MINING DIVISION UTM ZONE	l: Omineca :: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 10 N 127 32 56 W 1190 Metres Within 1 KM Location from Geological Survey of Ca	nada Memoir 223 (1954), p	NORTHING EASTING page 53.	6112754 592469
COMMODITIES:	Zinc			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Pyrite Barite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Stratiform Epigenetic I05 Polymetallic veins Ag-Pb-Zn±A	Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	<u>GROUP</u> Kasalka	FORMATION Brian Boru	IGNEOUS/METAN	MORPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: Jurassic-Cretaceous	72 Ma Potassium/Argon Biotite Bowser Lake	Undefined Formation		
LITHOLOGY:	Andesite Argillite Greywacke			
HOSTROCK COMMENTS:	Isotopic age date is from Geological S	Survey of Canada Open File	2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake Ov	verlap Assemblage	PHYSIOGRAPHIC AREA: Hazelto	on Ranges
CAPSULE GEOLOGY				
	The Black Pilot property is located on the east side of the Rocher Deboule Range, 10 kilometres south of New Hazelton. Middle Jurassic to Lower Cretaceous Bowser Lake Group clastic sedimentary rocks are overlain by andesitic flows of the Upper Cretaceous Brian Boru Formation (Kasalka Group). The Rocher Deboule granodiorite stock, of the Late Cretaceous Bulkley Intrusions, is located 400 metres west of the showings. The Katherine showing is located on the south side of Porphyry Creek at 1190 metres elevation, and consists of a 2-metre wide vein containing barite and minor sphalerite cutting andesite. On the north side of Porphyry Creek, at 1550 metres elevation, pyritic beds of greywacke and argillite have been prospected by several open cuts and an inclined shaft. On the divide between Mudflat Creek and Porphyry Creek, a pyrite vein at the contact between a lamprophyre dike and argillites has been explored in an 8-metre long adit.			
BIBLIOGRAPHY	EMPR AR 1918-114: 1926-126	; 1930-139		
	EMPR BULL 43 GSC MEM *223(1954)-53 GSC OF 2322	, 1,20 137		
DATE CODED: DATE REVISED:	1991/10/17 1992/01/20	CODED BY: RHM REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 116</u>	NATIONAL MINERAL INVEN	ORY: 093M6 Au1
NAME(S):	BABINE		
STATUS:	Showing	MINING DIVI	SION: Omineca
NTS MAP:	093M06E	UTM 2	ONE: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 22 14 N 127 04 25 W 1760 Metres Within 1 KM Location from Minister of Mines Annua	NORT EAS al Report 1921, page 100.	HING: 6137717 TING: 622082
COMMODITIES:	Gold Silver		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Arsenopyrite Quartz Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Hydrothermal Epigenetic I01 Au-quartz veins	I05 Polymetallic veins STRIKE/DIP: 065/65W TREN	Ag-Pb-Zn±Au D/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous	<u>GROUP</u> Bowser Lake	FORMATION IGNEOUS/M Unnamed/Unknown Formation	ETAMORPHIC/OTHER
LITHOLOGY:	Quartzite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPHIC AREA: Sk	eena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 1921 GRADE	
	Silver Gold	34.2800 Grams per tonne 8.3600 Grams per tonne	
COMMENTS:	Samples averaged up to 20.05 grams tonne silver.	per tonne gold and 102.84 grams per	
REFERENCE:	Minister of Mines Annual Report 1921,	, page 100.	
CAPSULE GEOLOGY	The Debine aboving is	legated 42 kilometrog cost pertheset o	£
	Hazelton, on the south sid The showing consists carrying arsenopyrite and 1920). The vein strikes 0 The host rocks are Middle Group quartzites. Average samples repor per tonne gold (\$5 to \$12 tonne silver (Minister of	le of Thoen Mountain. of a small vein, 15 to 20 centimetres w quartz (Minister of Mines Annual Report 65 degrees, dipping 65 degrees northwes Jurassic to Lower Cretaceous Bowser Lak redly contained from 8.36 to 20.05 gram per ton) and 34.28 to 102.84 grams per Mines Annual Report 1921, page 100).	ide, t. e
BIBLIOGRAPHY	EMPR AR *1921-100 EMPR MAP 69-1 GSC MAP 971A GSC P 44-24		
DATE CODED: DATE REVISED:	1985/07/24 1991/08/22	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 117</u>	NATIONAL MINERAL INVENTORY: 093M15 Cu1
NAME(S):	DRIFTWOOD, SKUTSIL KNOB	
STATUS:	Developed Prospect	MINING DIVISION: Omineca
NTS MAP: BC MAP	093M15E	UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 50 22 N 126 36 24 W 1700 Metres Within 500M Diamond drill hole DR-9 (Assessment Report 5478, Drill Plan).	NORTHING: 6190801 EASTING: 649869
COMMODITIES:	Copper Silver	
MINERALS		
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Bornite Chalcopyrite Chalcocite Tetrahedrite Calcite Zeolite Unknown	
	Stratabound	
CLASSIFICATION: TYPE:	Hydrothermal Epigenetic D03 Volcanic redbed Cu	
HOST ROCK DOMINANT HOSTROCK:	Volcanic	
STRATIGRAPHIC AGE	GROUP FORMATION Telkwa	IGNEOUS/METAMORPHIC/OTHER
Jurassic	Hazelton Nilkitkwa	
LITHOLOGY:	Flow Tuff Breccia Limestone Mudstone Sandstone Agglomerate	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHIC AREA: Skeena Ranges
INVENTORY		
ORE ZONE:	MAIN REPORT ON:	Y
	CATEGORY: Inferred YEAR: QUANTITY: 900000 Tonnes COMMODITY GRADE Silver 48,0000 Grams to	1990 Der tonne
REFERENCE:	Copper 2.0000 Per cent Assessment Report 19978.	t
CAPSULE GEOLOGY		
	The Drittwood property is located 94 kil Hazelton, approximately 1 kilometre northeast The property is underlain by gently-dipp calc-alkaline volcanic flows, tuffs and brecc agglomerates, sandstones, mudstones and limes Jurassic Telkwa and the Lower to Middle Juras formations, both of the Hazelton Group. A sy strikes approximately 330 degrees, dipping st crosscuts the volcanic host rocks and is one copper mineralization. Bornite is the chief associated with calcite and zeolites filling in the volcanic rocks. Chalcocite, chalcopyr less common ore minerals. The best drill intersection was 25.0 met cent copper and 50.4 grams per tonne silver ( 900 000 tonnes grading 2 per cent copper and silver (Assessment Report 19978, page 1).	cometres northeast of s of Skutsil Knob. bing, subaerial, tias, with interbedded stones of the Lower sic Nilkitkwa rstem of fracturing which eeeply southwest, of the controls on the ore mineral which occurs amygdules and fractures bite and tetrahedrite are tres grading 2.54 per Assessment Report 19978, o contain approximately 48 grams per tonne

EMPR AR 1930-148

EMPR GEM 1973-361, 1974-274 EMPR ASS RPT 4967, 5478, \*19978 GSC OF 2322 EMR MP CORPFILE (Cominco Ltd. Annual Report 1929, p. 185; 1930, p. 30) EMPR OF 1998-10

DATE CODED: 1985/07/24 DATE REVISED: 1991/12/03 CODED BY: GSB REVISED BY: RHM

\_

MINFILE NUMBER:	<u>093M 118</u>		NATIONAL MINERAL INVENTORY	Y: 093M9,10 Cu1
NAME(S):	RAINBOW, DRONE, ANKHNX			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M09W		MINING DIVISION UTM ZONE	I: Omineca E: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 38 34 N 126 28 31 W 1800 Metres Within 1 KM Location from Minister of Mines Annua	al Report, 1930, page 148.	NORTHING EASTING	6169214 6: 658892
COMMODITIES:	Copper Silver			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Bornite Chalcopyrite Chalc Unknown	cocite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Stratabound Disseminate Epigenetic D03 Volcanic redbed Cu 11 x 9 Metres Mineralized zone.	ed STRIKE/DI	P: TREND/PL	UNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION Nilkitkwa	IGNEOUS/META	MORPHIC/OTHER
LITHOLOGY:	Amygdaloidal Lava Flow Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHIC AREA: Skeena	a Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON	: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY	YEAR	: 1930	
COMMENTS: REFERENCE:	Silver Copper A 9.4-metre chip sample. Minister of Mines Annual Report, 1930	34.3000 Grams 2.1000 Per cen , page 148.	per tonne t	
CAPSULE GEOLOGY BIBLIOGRAPHY	The Rainbow showings Centre Peak, 100 kilometre The property is under interbedded tuffs of the A Nilkitkwa Formation (Hazel dipping 50 to 60 degrees s and chalcopyrite occur in volcanic rocks. Copper mi joint planes. In the floo found in some interbedded metres in width, and a chi cent copper, 34.3 grams pe Mines Annual Report 1930, EMPR GEM 1971-193, 1973-36 EMPR AR 1929-185, *1930-14 GSC OF 2322	are located 4 kilon s east of Hazelton. lain by amygdaloida nkwell Member of th ton Group). The ro outhwest. Stratabo and disseminated in neralization is als r of the basin, min tuffs. The mineral p sample across 9.4 r tonne silver and page 148). 0 8	metres southwest of al lava flows and be Lower to Middle ocks strike northwest, bund bornite, chalcocite h amygdules in the so found in fractures an hor chalcopyrite has bee lized zone is 9.4 to 10. 4 metres assayed 2.1 per trace gold (Minister of	d n 6
DATE CODED: DATE REVISED:	GCNL #74, 1973 1985/07/24 1991/11/27	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 119</u>	1	NATIONAL MINERAL INVENTORY: 093M5 Pb2
NAME(S):	NATIONAL EX, BONNIE GROUP, GROUF JOE, HAZELTON, ACE, STAR, SUN, RIB	Р D,	
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 23 N 127 38 55 W 380 Metres Within 500M Northern Ex trench (Assessment Report	8906).	NORTHING: 6129719 EASTING: 585784
COMMODITIES:	Silver Copper	Lead	Zinc
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Chalcopyrite Sphale Quartz Pyrite Carbonate Unknown	rite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Eocene	Dowsei Lake	Underlined Formation	Babine Intrusions
LITHOLOGY:	Tuffaceous Sandstone Greywacke Argillite Granodiorite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Skeena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON:	Ν
	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Copper Lead	YEAR: <u>GRADE</u> 223.2000 Grams per 0.6600 Per cent 1.7500 Per cent	1981 er tonne
COMMENTS: REFERENCE:	Zinc Channel sample, 25-centimetres wide. Assessment Report 8906.	1.0600 Per cent	
CAPSULE GEOLOGY			
	The National Ex propert Hazelton on the west side of Standard mine (093M 049) wh The property is underla (tuffaceous sandstone, greyw Jurassic to Lower Cretaceous granodiorite of the Eocene E Three northwest strikin southwest have been reported 20 to 30 metres apart and ca galena, sphalerite and chalc assayed 223.2 grams per tonn cent zinc and 0.66 per cent	y is located 6 kil Mount Glen. It a ich is located to in by clastic sedi acke and argillite Bowser Lake Group Sabine Intrusions. g veins which dip I on the property. mry quartz, carbor copyrite. A 25-cer te silver, 1.75 per copper (Assessment	The veins are spaced ntimetre wide sample to contract the spaced the veins are spaced the term of the sample to cont lead, 1.06 per the result of the spaced the term of the spaced the term of the term of the term to cont lead, 1.06 per to Report 8906).
BIBLIOGRAPHY	EMPR ASS RPT 58, *8906 GSC MEM *223(1954)-53		

GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/24 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 120</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	KITSEGUECLA			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M04W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 06 20 N 127 47 41 W 275 Metres Within 1 KM Location from Geological	Survey of Canada Open File 2322.	NORTHING: EASTING:	6107201 576895
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A04 Bituminous coal	Massive Fossil Fuel		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Feldspathic Sandstone Volcanic Sandstone Siltstone Shale Polymictic Volcaniclastic ( Carbonaceous Sediment/ Coal	Conglomerate Sedimentary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Nass De	pression
CAPSULE GEOLOGY	The Kitsegued southwest of Hazel The area is Formation (Skeena siltstone, shale, carbonaceous sedin Narrow carbo impure ashy coal (	la coal occurrence is loca ton, south of Highway 16. underlain by Lower Cretace Group) feldspathic and vo polymictic volcaniclastic ents (Geological Survey of naceous seams occur in sai Geological Survey of Canad	ated 18 kilometres eous Kitsuns Creek lcanic sandstone, conglomerate and f Canada Open File 2322). ndstone which contain da Memoir 69, page 159).	
BIBLIOGRAPHY	GSC OF *2322 GSC MEM 69			
DATE CODED: DATE REVISED:	1991/12/17 / /	CODED BY: RHM REVISED BY:	F F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 121</u>	NATIONAL MINI	ERAL INVENTORY:	093M1 Cu8
NAME(S):	<u>MAST</u> , TAK			
STATUS: REGIONS: NTS MAD:	Showing British Columbia		MINING DIVISION:	Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 39 N 126 09 15 W 920 Metres Within 5 KM Location from Geological Survey of Ca	inada Open File 2322.	NORTHING: EASTING:	6123801 680986
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Silica Silicific'n Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Unknown L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Lower Jurassic	Hazelton	Telkwa		
Lower Jurassic Eocene	Hazelton	Telkwa	Babine Intrusions	
Lower Jurassic Eocene LITHOLOGY:	Hazelton Diorite Andesitic Volcanic	Telkwa	Babine Intrusions	
Lower Jurassic Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Hazelton Diorite Andesitic Volcanic Intermontane Plutonic Rocks St	Telkwa PHYSIOGRAPH ikine	Babine Intrusions	Plateau
Lower Jurassic Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Hazelton Hazelton Diorite Andesitic Volcanic Intermontane Plutonic Rocks The Mast showing is l Nakinilerak Lake, northeas The area is underlain Jurassic Telkwa Formation bodies of the Eocene Babin. Disseminated pyrite w in silicified andesitic vo (Geology, Exploration and I	Telkwa PHYSIOGRAPH ikine bcated 4.5 kilometres southeas t of Babine Lake. by andesitic volcanic rocks o (Hazelton Group), cut by small e Intrusions. ith minor chalcopyrite is repo lcanic rocks and small diorite Mining 1971, page 185).	Babine Intrusions HIC AREA: Nechako	Plateau
Lower Jurassic Eocene LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Hazelton Hazelton Diorite Andesitic Volcanic Intermontane Plutonic Rocks The Mast showing is l- Nakinilerak Lake, northeas The area is underlain Jurassic Telkwa Formation bodies of the Eocene Babin Disseminated pyrite w in silicified andesitic vo (Geology, Exploration and the EM OF 2001-03 EMPR GEM *1971-185 EMPR OF 1997-10 GSC OF 2322 EMPR BULL 110	Telkwa PHYSIOGRAPH ikine ocated 4.5 kilometres southeas t of Babine Lake. by andesitic volcanic rocks o (Hazelton Group), cut by small e Intrusions. ith minor chalcopyrite is repo lcanic rocks and small diorite Mining 1971, page 185).	Babine Intrusions HIC AREA: Nechako	Plateau

MINFILE NUMBER:	<u>093M 122</u>			NATIONAL MINERAL INVENTORY	/: 093M11 Cu1
NAME(S):	THOMLINSON CREEK				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M11W			MINING DIVISION UTM ZONE	l: Omineca :: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 34 02 N 127 18 12 W 790 Metres Within 500M Diamond drill hole DDH To	C-81-6 (Assessment Repo	ort 9787).	NORTHING EASTING	6159221 606991
COMMODITIES:	Copper	Molybdenum	Tungsten		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Molybde Pyrite Pyrrhotite Kaolinite Sericite Silicific'n Unknown	nite Scheelite Chlorite Silica Chloritic	Argillic	Sericitic	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo	o ± Au			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Jurassic-Cretaceous Eocene	GROUP Bowser Lake	<u>FORMATI</u> Unnamed	<u>ON</u> /Unknown Forn	nation IGNEOUS/METAI Babine Intrusion	MORPHIC/OTHERs
LITHOLOGY:	Carbonaceous Sandstone Siltstone Shale Conglomerate Granodiorite Quartz Monzonite Biotite Hornblende Quartz Hornfels Porphyry	Diorite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Bowser Lake Contact	Plutonic Rocks RELATIONS	HIP:	PHYSIOGRAPHIC AREA: Skeena GRADE: Hornfe	a Ranges Is
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Drill Core COMMODITY Copper Molybdenum A 72-metre core length fro Assessment Report 9787	nalysis <u>GRADE</u> 0.1000 0.0300 m diamond drill hole DDH	YEAR: ) Per cent ) Per cent ITC-81-6.	1981	
CAPSULE GEOLOGY	The Thomlins	on Creek copper-m	olvbdenum	property is located 11	
	hild international file kilometres east of Hazelton. The claims ar shale and conglome Bowser Lake Group the Eocene Babine monzonite and biot The intrusive long. It is exter pyrite and chalcop scheelite. Minera to 300 metres in w porphyry and quart quartz diorite.	Mount Thomlinson re underlain by ca erate of the Middl intruded by a sma Intrusions which the hornblende qu body is 600 metr sively fractured byrite as well as ulization also ext yidth adjacent to zz porphyry dike r Silicification, to	rbonaceous e Jurassic ll multi-p include gr artz diori es wide an and minera less commo ends into the intrus ocks intru gether wit	etres north-northeast of sandstone, siltstone, to Lower Cretaceous hase intrusive body of anodiorite, quartz te. d at least 4 kilometres lized with pyrrhotite, n molybdenite and the hornfels which is u ive. Biotite feldspar de the hornfels and h later kaolinitic,	f

chloritic and sericitic alteration, are characteristic of the property. Drill Hole DDH TC-81-6 returned an assay of 0.10 per cent copper and 0.03 per cent molybdenum over 72 metres.

### BIBLIOGRAPHY

EMPR GEM 1971-195, 1972-433, 1973-361 EMPR ASS RPT 3012, 3662, 3968, 4698, 4715, 8541, \*9787 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/12/10 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 123</u>		NATIONAL M	IINERAL INVENTORY:	
NAME(S):	<u>ELLEN</u> , NETALZUL, BANA , LETT				
STATUS:	Prospect			MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP:	093M06E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION:	55 18 00 N 127 01 13 W 1600 Metres			NORTHING: EASTING:	6129961 625684
COMMENTS:	Centre of the Ellen claim (Asse	essment Report 15186).			
COMMODITIES:	Silver Gold	d (	Copper	Molybdenum	Lead
MINERALS SIGNIFICANT:	Pyrite Tetrahedrite Arsenopyrite	Chalcopyrite Galer	na Molybdenite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Sericite Chlorite ( Argillic Proj Unknown	Carbonate Biotite pylitic	Hornblende		
	Voin				
CLASSIFICATION: TYPE:	Hydrothermal Epic 105 Polymetallic veins Ag-1	genetic Pb-Zn±Au	L05 Pc	prphyry Mo_(Low F- typ	e)
DIMENSION: COMMENTS:	One metre wide quartz vein in	granodiorite.	STRIKE/DIP: 025/70E	TREND/PLUM	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Bowgor Lako	FORMATION	rmation	IGNEOUS/METAMO	RPHIC/OTHER
Upper Cretaceous	Dowser Lake	Undenned FC	ormation	Bulkley Intrusions	
LITHOLOGY:	Granodiorite Hornfels Siltstone Sandstone Greywacke Aplite Dike				
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Bowser Lake Contact	RELATIONSHIP	PHYSIOGRA :	PHIC AREA: Skeena F GRADE: Hornfels	Ranges
INVENTORY					
ORE ZONE:	SAMPLE	R	EPORT ON: N		
	CATEGORY: Assay/analys SAMPLE_TYPE: Chip	sis	YEAR: 1985		
	<u>COMMODITY</u> Silver	<u> </u>	Grams per tonne		
COMMENTS: REFERENCE:	Gold A 81-centimetre wide sample Assessment Report 15186.	1.0000 of a 1.0 metre wide qua	Grams per tonne rtz vein.		
CAPSULE GEOLOGY					
	The Ellen proper the northwest portion The property is Cretaceous Bowser Lak intruded by granodior which have hornfelsed Aplite dikes cut all Numerous veins, pyrite, tetrahedrite, Quartz veins carrying	ty is located 42 of Netalzul Mou underlain by hor e Group siltston ite of the Late the Bowser Lake rock types. sheeted veins an chalcopyrite an galena and arse	kilometres east ntain. nfelsed Middle Ju es, sandstones an Cretaceous Bulkle rocks near the c d stockworks cont d galena cut the nopyrite are comm	of Hazelton, on rassic to Lower d greywackes y Intrusions ontacts. aining quartz, granitic rocks. on in the	

Quartz veins carrying galena and arsenopyrite are common in the metasedimentary rocks. The veins are generally lenticular and discontinuous. Argillic and propylitic alteration is evident in granitic rocks adjacent to some of the veins. Sericite and chlorite are developed after biotite and hornblende and iron carbonate is

commonly associated with some veins. A 1-metre wide quartz vein cutting granodiorite strikes 025 degrees and dips 70 degrees southeast. This vein assayed 1.0 gram per tonne gold and 340.5 grams per tonne silver across 81 centimetres (Assessment Report 15186). Grab samples assay up to 2614.7 grams per tonne silver and 3.150 grams per tonne gold (Assessment Report 15186). Quartz veins carrying pyrite and molybdenite are common throughout the intrusive.

#### BIBLIOGRAPHY

E	М	ЕX	PL	19	999-	-80	- 8	4		
Ε	ΜP	R	AS	S F	RPT	13	92	4,	*15	186
E	ΜP	R	ΕХ	РL	198	35-	C3	25		
G	SC	0	F	100	)0,	23	22	(#	241	)

DATE CODED: 1991/08/15 DATE REVISED: 1992/01/03 CODED BY: RHM REVISED BY: RHM

MINFILE NUMBER:	<u>093M 124</u>	NATIONAL MINE	VATIONAL MINERAL INVENTORY:			
NAME(S):	<u>SUSKWA</u> , HOT, HOT 6					
STATUS:	Showing British Columbia		MINING DIVISION: Omineca			
NTS MAP:	093M06E		UTM ZONE: 09 (NAD 83)			
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 25 N 127 02 36 W 1677 Metres Within 500M Location from Assessment Repor	t 3970.	NORTHING: 6141819 EASTING: 623887			
COMMODITIES:	Copper Molybd	lenum				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Molybdenite Pyrite Pyrrhotite Biotite Sericite Chlo Potassic Sericite Unknown	Bornite rite Epidote c Propylitic				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo ± Au					
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER			
Jurassic-Cretaceous Upper Cretaceous	Bowser Lake	Unnamed/Unknown Formation	Bulkley Intrusions			
LITHOLOGY:	Hornfels Quartz Biotite Feldspar Porphyry Quartz Diorite Argillite Quartzite Clastic Sediment/Sedimentary					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPH	PHYSIOGRAPHIC AREA: Skeena Ranges			
CAPSULE GEOLOGY	Y The Suskwa property is located on the north side of Mount Thoen on a steep ridge. The area is underlain by hornfelsed clastic sediments of the					

The area is underlain by hornfelsed clastic sediments of the Middle Jurassic to Lower Cretaceous Bowser Lake Group which are intruded by dikes of quartz biotite feldspar porphyry immediately east of the Mount Thoen stock. The quartz dioritic stock is an apophysis of the Late Cretaceous Bulkley Intrusions.

The copper and molybdenum mineralization is related genetically to an intrusive porphyry which occurs as dikes in hornfelsed Bowser Lake Group sediments and as a small intrusive unit. This small unit measures 300 by 3 to 50 metres in width next to the Mount Thoen stock. Bowser Lake sediments are heavily pyritized and hornfelsed to argillites and quartzites in the contact aureole next to the Mount Thoen stock.

Mineralization is in the form of chalcopyrite and molybdenite and rare bornite associated with pyrite and pyrrhotite associated with a east to northeast trending fracture system. The mineralization is associated with a potassic alteration zone marked by the presence of biotite. Sericitic and propylitic alteration zones have also been mapped as zones around the mineralization.

#### BIBLIOGRAPHY

EMPR GEM 1972-431, 1973-358, 1974-272 EMPR ASS RPT \*3970, 4699, 5149 EMPR PF (Notes, unknown source and date; Geology maps, copies from Assessment Report 3970, 1972) Chevron File

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/22 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 125</u>		NATIONAL MINERAL INVENTORY:	093M13 Mo1		
NAME(S):	<u>FOG</u> , PEAK					
STATUS:	Prospect		MINING DIVISION:	Omineca		
NTS MAP:	093M14W 093M13E		UTM ZONE:	09 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 54 56 N 127 28 44 W 2000 Metres Within 500M Vein on the Peak claim, pi the north (093M 086) (As	robably not the same as the Peak showi sessment Report 7116).	NORTHING: EASTING: ing to	6197727 595071		
COMMODITIES:	Molybdenum	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Molybde Quartz Pyrite Unknown	nite				
DEPOSIT						
CHARACTER: CLASSIFICATION:	Vein Porphyry	Stockwork				
DIMENSION: COMMENTS:	130 x 4 Mineralization occurs over	Metres STRIKE/DIF r a 3.9 metre width and 130 metre lengt	P: TREND/PLU h.	TREND/PLUNGE:		
HOST ROCK DOMINANT HOSTROCK:	: Plutonic					
STRATIGRAPHIC AGE	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAM	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions		
Upper Cretaceous			Bulkley Intrusions			
LITHOLOGY:	Granodiorite Felsite Hornfels Calc-silicate Skarn Siltstone Felsite Dike					
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Plutonic Rocks Contact	Bowser Lake RELATIONSHIP:	GRADE: Hornfels			
INVENTORY						
ORE ZONE:	SAMPLE	REPORT ON:	: N			
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Chip <u>COMMODITY</u> Copper Molybdenum Average of 5 chip sample of 130 metres taken from Assessment Report 7116	nalysis YEAR: <u>GRADE</u> 0.1100 Per cent 0.2700 Per cent 0.2700 Per cent s across a width of 3.9 metres and a le the northwest corner of the Peak claim.	t 1978 t t ength			
CAPSULE GEOLOGY						
	The Fog prospect is located 2.5 kilometres south of Shedin Peak in the Atna Range, 71 kilometres north of Hazelton. A granodiorite plug of the Late Cretaceous Bulkley Intrusions, measuring approximately 2.5 by 4.5 kilometres in size, intrudes siltstones of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. Hornfels and calc-silicate skarn is developed in the contact area of the intrusion. Low-grade porphyry-type copper-molybdenum mineralization is present in the stock in east-west trending narrow quartz veins over an area of 500 by 100 metres. Grades are about 0.05 per cent copper and 0.008 per cent molybdenum (Assessment Report 7116). Five hundred metres east of the stock, on the Peak claim, a complex quartz vein system in a felsite dike contains copper and molybdenum mineralization over a width of 3.9 metres and a length of 130 metres. The average of five chip samples taken from the vein was					

0.27 per cent molybdenum and 0.11 per cent copper (Assessment Report

7116). Pyrite, chalcopyrite and molybdenite are also present in the hornfelsed area adjacent to the stock.

## BIBLIOGRAPHY

EMPR ASS RPT \*7116 EMPR GEM 1969-100, 1971-191 EMPR EXPL \*1978-E225 EMPR MAP 69-1 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/12/06 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 126</u>			NATIONAL MINERAL INVENTORY:		
NAME(S):	KISGEGAS					
STATUS:	Showing			MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093M14W			UTM ZONE:	09 (NAD 83)	
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 48 19 N 127 26 41 W 1800 Metres Within 500M Sample 51517 (Assessment Re	eport 17542, Sample	Location Map)	NORTHING: EASTING:	6185502 597482	
COMMODITIES:	Silver Gold Molybdenum	b	Copper	Lead	Zinc	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Quartz Pyrite ( Unknown	Chalcopyrite M Calcite Siderite	olybdenite e			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Stor Hydrothermal Epic 105 Polymetallic veins Ag-F Tabular	ckwork jenetic Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	<u>GROUP</u> Bowser Lake	FORMATIC	<u>DN</u> Formation		ORPHIC/OTHER	
Upper Cretaceous				Bulkley Intrusions		
LITHOLOGY:	Granodiorite Dike Granodiorite Sill Granodiorite Siltstone Sandstone					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:						
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON:	Ν		
COMMENTS: REFERENCE:	CATEGORY: Assay/analys SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Lead Zinc Sample from one quartz vein. Assessment Report 17542.	sis <u>GRADE</u> 1840.000 0.4000 0.3400 1.9000 0.0680	YEAR: O Grams p Grams p Per cent Per cent Per cent	1987 er tonne er tonne		
CAPSULE GEOLOGY	The Kisgegas sho	wing is located	d 60 kilom	etres north of Hazelton,		
	<pre>1.6 kilometres northeast of Kisgegas Peak. The area is underlain by siltstones and sandstones of the Middle Jurassic to Lower Cretaceous Bowser Lake Group intruded by granodiorite dikes and sills of the Late Cretaceous Bulkley Intrusions. Several granodiorite plugs, also of the Bulkley Intrusions, outcrop within a few hundred metres of the showings. The showings consist of quartz vein stockworks and veins ranging up to 1.3 metres in width hosted within, or close to, the granodiorite dikes. They carry variable amounts of calcite and siderite, as well as pyrite, galena, sphalerite, chalcopyrite and rarely molybdenite. A grab sample from one quartz vein assayed 0.3400 per cent copper, 1.9000 per cent lead, 0.0680 per cent zinc, 1840.0 grams per tonne silver and 0.40 gram per tonne gold (Assessment Report 17542).</pre>					
EMPR ASS RPT \*17542 GSC OF 2322

DATE CODED: 1991/12/05 DATE REVISED: 1992/02/11 CODED BY: RHM REVISED BY: DEJ

MINFILE NUMBER:	<u>093M 127</u>	NATIC	)NAL MINERAL INVENTORY	:	
NAME(S):	<b>BAB</b> , BAB 131				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M01E		MINING DIVISION UTM ZONE	: Omineca : 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 13 N 126 14 32 W 800 Metres Within 500M Bab 131 claim (Assessment Report 42)	50).	NORTHING EASTING	: 6113503 : 675786	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Sericite Biotite Sericitic Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Shear Vein Hydrothermal Epigenetic L04 Porphyry Cu ± Mo ± Au	D03	3 Volcanic redbed Cu		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic Eocene	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAM Babine Intrusions	<u>IORPHIC/OTHER</u>	
LITHOLOGY:	Tuff Volcanic Breccia Hornblende Biotite Feldspar Porphyry				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYS	ilographic area: Nechak	o Plateau	
CAPSULE GEOLOGY					
	The Bab showing is located approximately 2 kilometres east of the north end of Babine Lake, on the Bab 131 claim. Lithologies in the area comprise green, maroon and purple tuff and volcanic breccia of the Lower Jurassic Telkwa Formation (Hazelton Group). Hornblende biotite feldspar porphyries of the Eocene Babine Intrusions are present in the area. Pyrite, chalcopyrite, sericite and secondary biotite are reported to occur in a narrow northwest-trending shear in fresh rock.				
BIBLIOGRAPHY	TM 07 0001 02				
	EM OF 2001-03 EMPR ASS RPT *4250, 4249, 4 EMPR BULL 64, 110 EMPR FIELDWORK 2000, pp. 25 EMPR GEM 1972-425, 1973-352 EMPR OF 1997-10 EMPR PF (Geophysical and Ge claims, 1967) GSC OF 2322 (#127, #229) WWW http://www.infomine.com	426 3-268 ochemical surveys on t //index/properties/CUB_	he Dot and Lorry 100,_200_&_300.html		
DATE CODED: DATE REVISED:	1985/07/24 1991/11/13	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	093M 128 NATIONAL MINERAL INVENTORY:			
NAME(S):	BULKLEY RIVER PLACER, IEL, IEL NO	RTH		
STATUS: REGIONS: NTS MAP	Showing British Columbia		MINING DIVISION: Omineca	
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 00 N 127 26 00 W 300 Metres Within 1 KM Placer gold location from the original Mi (1971) in the Property File.	ineral Deposit Inventory card	NORTHING: 6120022 EASTING: 599672	
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAF	HIC AREA: Nechako Plateau	
CAPSULE GEOLOGY	A placer gold occurrer other information is availa	ice has been reported at this ble.	location. No	
BIBLIOGRAPHY	EMPR PF (*Mineral Deposit I GSC OF 2322	nventory, original card, 197	1)	
DATE CODED: DATE REVISED:	1985/07/24 1991/08/27	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 129</u>	NATIONA	L MINERAL INVENTORY:
NAME(S):	IEL, IEL SOUTH, BULKLEY RIVER		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093M03W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 30 N 127 24 36 W 300 Metres Within 1 KM Placer gold location from the original Mi (1971) in the Property File.	neral Deposit Inventory card	NORTHING: 6119128 EASTING: 601178
COMMODITIES:	Gold		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Quaternary	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Unconsolidated Sediment/Sedimentary Alluvium		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOG	RAPHIC AREA: Nechako Plateau
CAPSULE GEOLOGY	A placer gold occurren other information is availa	ce has been reported at t ble.	his location. No
BIBLIOGRAPHY	EMPR PF (*Mineral Deposit I GSC OF 2322	nventory, original card,	1971)
DATE CODED: DATE REVISED:	1985/07/24 1991/08/27	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 130</u>		NATIONAL MINERAL INVENTORY:	093M3 Pb1	
NAME(S):	<u>orbi</u> , Head, Yellow				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093M03W		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 51 N 127 22 24 W 500 Metres Within 500M Zinc anomaly on the north portio Report 14525).	n of the Head claim (Assessmen	NORTHING: EASTING: t	6116122 603582	
COMMODITIES:	Zinc Lead				
MINERALS SIGNIFICANT: COMMENTS: ALTERATION:	Pyrite "Insignificant" silver, gold and co Silica	opper from assays.			
ALTERATION TYPE: MINERALIZATION AGE:	Argillic Silicifi Unknown	ic'n			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown 105 Polymetallic veins Ag-Pb	o-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER	
Upper Cretaceous Upper Cretaceous	Kasalka	Brian Boru	Bulkley Intrusions		
LITHOLOGY:	Rhyolite Breccia Tuff Granodiorite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Overlap Assemblage Contact	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Skeena I GRADE:	Ranges	
INVENTORY					
ORE ZONE:	SAMPLE	REPORT ON	: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY	GRADE	. 1985		
COMMENTS: REFERENCE:	Zinc Best intersection, across 1.5 me Assessment Report 14525.	0.1200 Per cen 0.7800 Per cen etres.	t		
CAPSULE GEOLOGY					
	The Orbi showing is located on the east side of the Bulkley River, 22 kilometres southeast of Hazelton. The property is underlain by altered Upper Cretaceous Brian Boru Formation (Kasalka Group) felsic volcanic rocks intruded by granodiorite of the Late Cretaceous Bulkley Intrusions. Argillically and siliceously altered rhyolite is cut by zones of breccia. Drilling by Utah Mining and Construction tested an induced polarization anomaly caused by pyrite in altered rhyolite. The best intersection was 1.5 metres grading 0.78 percent zinc and 0.12 percent lead, with insignificant silver, gold and copper (Assessment Report 14525). Soil geochemical surveys by Colossal Energy Corporation obtained zinc values up to 1676 parts per million (Assessment Report 14525).				
BIBLIOGRAPHY	EMDD MAD CO 1				
	EMPR MAP 09-1 EMPR ASS RPT 2463, 1264 EMPR GEM 1970-172	46, *14525			

EMPR AR 1967-85, 1968-112

GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/08/14 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M_131</u>		NATIONAL MINERAL INVENTORY:	O93M5 Col2
NAME(S):	CEDAR CREEK, HAZELTON CREEK			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M05W		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 15 48 N 127 45 31 W 460 Metres Within 5 KM Coal occurrence H (Geological Survey	/ of Canada Open File 2322)	NORTHING: EASTING:	6124798 578887
COMMODITIES:	Coal			
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Fossil Fuel A04 Bituminous coal			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Carbonaceous Shale Coal			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Nass De	epression
CAPSULE GEOLOGY				
	The Cedar (Hazelton) Creek coal property is located on the south side of Hazelton Creek, a small creek which flows into the Skeena River from the west, just above Hazelton. Sandstones, shales and carbonaceous shales of the Lower Cretaceous Kitsuns Creek Formation (Skeena Group) are exposed in a ridge of low hills along the south bank of Cedar Creek. The strata strike north, dipping gently west. Most of the several coal seams are narrow, however, one seam reaches 120 centimetres in width. This seam is in a crumpled area and is faulted on both sides. The coal is soft and crumbly and locally altered to graphite. An analysis yielded 79.8 per cent fixed carbon, 10.0 per cent V.C.M., 1.2 per cent moisture and 9.0 per cent ash (Minister of Mines Annual Report			
BIBLIOGRAPHY				
	EMPR AR *1922-N114 EMPR P 1985-5, p.18 GSC MEM *223(1954)-18,131 GSC OF 2322			
DATE CODED: DATE REVISED:	1985/07/24 1991/10/28	CODED BY: GSB REVISED BY: RHM	F	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 132</u>	NATIONA	AL MINERAL INVENTORY:	
NAME(S):	SHARP CREEK			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M03W		MINING DIVISION: Omineca	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 12 N 127 22 13 W 360 Metres Within 500M Location from Geological S	Survey of Canada Open File 2322.	NORTHING: 6111212 EASTING: 603891	
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Eocene			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A04 Bituminous coal	Massive Fossil Fuel		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Paleocene	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Sandstone Conglomerate Siltstone Shale Epiclastic Volcanic Sedime Coal	ent/Sedimentary		
HOSTROCK COMMENTS:	The host rocks are inforn sediments (Geological Su	nally designated as Paleocene Moricetown Irvey of Canada Open File 2322).		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIO	GRAPHIC AREA: Nechako Plateau	
CAPSULE GEOLOGY	The Sharp Creek coal showing (occurrence K on Geological Survey of Canada Open File 2322) is located 20 kilometres southeast of Hazelton in the Seaton coal basin (Minister of Mines Annual Report 1927, page 161). The area is underlain by the Paleocene Moricetown sediments which consist of sandstone, conglomerate, siltstone, shale, coal and epiclastic volcanic sediments. No other information is available.			
BIBLIOGRAPHY	EMPR AR 1916-121-1 GSC MEM 223 GSC OF *2322	22; *1927-161-162		
DATE CODED: DATE REVISED:	1991/12/17 / /	CODED BY: RHM REVISED BY:	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 133</u>	NATIONAL MIN	IERAL INVENTORY:	
NAME(S):	BULKLEY RIVER COAL			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: On	ineca
BC MAP: LATITUDE:	55 07 40 N		NORTHING: 61	(NAD 83)
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	127 22 09 W 360 Metres Within 500M Location from Geological Survey of C	anada Open File 2322.	EASTING: 603	3985
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Eocene			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Fossil Fue A04 Bituminous coal	I		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Paleocene	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORF	HIC/OTHER
LITHOLOGY:	Sandstone Conglomerate Siltstone Shale Epiclastic Volcanic Sediment/Sedimer Coal	ntary		
HOSTROCK COMMENTS:	The host rocks are informally design sediments (Geological Survey of Ca	nated the Paleocene Moricetown nada Open File 2322).		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAP	HIC AREA: Nechako Pla	teau
CAPSULE GEOLOGY	The Bulkley River coa Survey of Canada Open File of Hazelton in the Seaton 1927, page 161). The area is underlain consist of sandstone, cong epiclastic volcanic sedime No other information	al occurrence (occurrence L on e 2322) is located 21 kilometr coal basin (Minister of Mines n by Eocene Moricetown sedimen glomerate, siltstone, shale, c ents. is available on the occurrenc	Geological es southeast Annual Report ts which oal and e.	
BIBLIOGRAPHY	EMPR AR 1916-121-122; *192 EMPR PF (Atna Resources Lt 1987) GSC MEM 223 GSC OF *2322	27-161-162 cd., Statement of Material Fac	ts, Oct. 19,	
DATE CODED: DATE REVISED:	1991/12/17 1991/12/17	CODED BY: RHM REVISED BY: RHM	FIELD	) CHECK: N ) CHECK: N

MINFILE NUMBER: 093M 134

NATIONAL MINERAL INVENTORY: 093M10 Cu2

### NAME(S): PHI, AMIE STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093M10E BC MAP: UTM ZONE: 09 (NAD 83) LATITUDE: 55 37 32 N LONGITUDE: 126 41 56 W ELEVATION: 920 Metres NORTHING: 6166808 EASTING: 644886 LOCATION ACCURACY: Within 1 KM COMMENTS: Centre of Amie claim block (Assessment Report 5078). COMMODITIES: Copper MINERALS SIGNIFICANT: Chalcopyrite ALTERATION: Chlorite ALTERATION TYPE: Chloritic Carbonate Carbonate MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Disseminated CLASSIFICATION: Porphyry TYPE: L04 Porphyry Cu ± Mo ± Au HOST ROCK DOMINANT HOSTROCK: Plutonic STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER Skeena Lower Cretaceous Kitsuns Creek Focene Babine Intrusions LITHOLOGY: Biotite Feldspar Porphyry Dike Sill Shale Sandstone Coal **GEOLOGICAL SETTING TECTONIC BELT:** Intermontane PHYSIOGRAPHIC AREA: Nechako Plateau TERRANE: Plutonic Rocks **Overlap Assemblage** CAPSULE GEOLOGY The Phi showing is located on the east side of the Nilkitwa River, 76 kilometres east of Hazelton. The property is underlain by locally graphitic shales and sandstones with thin coal seams of the Lower Cretaceous Kitsuns Creek Formation (Skeena Group). These are intruded by dikes or sills of pyritized biotite feldspar porphyry, probably of the Eocene Babine Intrusions. "Occasional" chalcopyrite is present in the porphyries, which also show local chloritization and carbonatization of biotite phenocrysts. BIBLIOGRAPHY EMPR GEM 1970-176, 1971-193, 1974-273, 1975-E149 EMPR ASS RPT 2493, 2494, 2723, \*5078 GSC OF 2322 DATE CODED: 1985/07/24 DATE REVISED: 1991/11/27 CODED BY: GSB REVISED BY: RHM FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>UY3M 135</u>		NATIONA	LIMINERAL INVENTOR'	r: 0931012 Cu1	
NAME(S):	<u>BIG JOE</u> , J-C					
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M02E			MINING DIVISION UTM ZONE	I: Omineca E: 09 (NAD 83	3)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 01 51 N 126 34 19 W 900 Metres Within 500M Centre of J-C claim block (Assessment	Report 4098).		NORTHING EASTING	G: 6100918 G: 655184	
COMMODITIES:	Copper					
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Pyrite Carbonate Sericite Sericitic Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Discordant Hydrothermal Epigenetic L04 Porphyry Cu ± Mo ± Au		D03	Volcanic redbed Cu		
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Undefined Formation		IGNEOUS/METAI	MORPHIC/OTHE	<u>=R</u>
LITHOLOGY:	Porphyritic Volcanic					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIO	GRAPHIC AREA: Nechal	ko Plateau	
CAPSULE GEOLOGY	The Big Joe claims wer Smithers Landing (Babine La Hazelton. The area is underlain Saddle Hill volcanics, an i Jurassic Hazelton Group (Ge One showing contains k filled fractures cutting py located 1100 metres to the sericitized porphyritic roc Report 4098).	te located 4.5 kild ke), 74 kilometres by porphyritic vol nformal subdivisio cological Survey of pornite and chalcop ritized volcanic 1 northwest, contain the which could be s	ometres s east-s on of th f Canada pyrite s rocks. ns chalo subvolca	southwest of southeast of tocks of the he Lower to Middl a Open File 2322) in carbonate A second showing copyrite in anic (Assessment	e	
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT *4098 EMPR GEM 1970-171, 1973-354 GSC OF 2322	L				
DATE CODED: DATE REVISED:	1985/07/24 1991/11/13	CODED BY: GSB REVISED BY: RHM			FIELD CHECK: FIELD CHECK:	N N

MINFILE NUMBER:	<u>093M 136</u>		NATIONAL MINERAL INVENTORY:	093M5 Cu1
NAME(S):	<u>SAL</u> , AARON			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M05E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 29 32 N 127 35 19 W 950 Metres Within 500M Centre of claim block (Assessment R	eport 2828).	NORTHING: EASTING:	6150473 589173
COMMODITIES:	Copper Molybdenu	m		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Molybdenite Py Quartz Unknown	rite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry Hydrotherr L04 Porphyry Cu ± Mo ± Au	nal Epigenetic		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
	GROUP Bowser Lake	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Julassic-Cielaceous	DOWSEI LAKE	Ondenned Formation		
Upper Cretaceous			Bulkley Intrusions	
Upper Cretaceous	Porphyritic Granodiorite Hornfels Pyritic Siltstone		Bulkley Intrusions	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Porphyritic Granodiorite Hornfels Pyritic Siltstone Intermontane Overlap Assemblage	lutonic Rocks	PHYSIOGRAPHIC AREA: Skeena F	Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Porphyritic Granodiorite Hornfels Pyritic Siltstone Intermontane Overlap Assemblage P The Sal showing is lo four kilometres east of th Minor molybdenite and in a small porphyritic gra Bulkley Intrusions. The o siltstones of the Middle of Group.	lutonic Rocks he mouth of Sediesh I chalcopyrite miner unodiorite plug of t granodiorite intrude Turassic to Lower Cr	PHYSIOGRAPHIC AREA: Skeena F S north of Hazelton, and Creek. alization has been found the Late Cretaceous es hornfelsed pyritic retaceous Bowser Lake	Ranges
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Porphyritic Granodiorite Hornfels Pyritic Siltstone Intermontane Overlap Assemblage F The Sal showing is lo four kilometres east of th Minor molybdenite and in a small porphyritic gra Bulkley Intrusions. The g siltstones of the Middle of Group. EMPR ASS RPT *2828, 8162 EMPR GEM 1970-174 GSC OF 2322	lutonic Rocks he mouth of Sediesh l chalcopyrite miner unodiorite plug of t furansdiorite intrude furassic to Lower Cr	PHYSIOGRAPHIC AREA: Skeena F s north of Hazelton, and Creek. alization has been found the Late Cretaceous es hornfelsed pyritic retaceous Bowser Lake	Ranges

MINFILE NUMBER:	<u>093M 137</u>			NATIONAL MI	NERAL INVENTORY:	
NAME(S):	BEAR HILL					
STATUS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093M08E				UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 37 N 126 01 46 W 850 Metres Within 500M Main showing (Assessme	ent Report 9892	, Figure 2).		NORTHING: EASTING:	6138901 688286
COMMODITIES:	Copper	Silver	Barite		Zinc	Lead
	Chalappyrita Parnita	Colona	Sphalarita	Totrobodrito		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cuprite Chalcocite Barite Silica Pyrolusite Silicific'n Unknown	Malachite Oxidation	Sphalente	retraneunte		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Hydrothermal D03 Volcanic redbed C	Disseminated Epigenetic Cu	Stratabour	nd		
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP		FORMATION	rmation	IGNEOUS/METAMO	ORPHIC/OTHER
Cretaceous	Sustut		Tango Creek	Jimauon		
LITHOLOGY:	Dacitic Flow Basaltic Flow Volcaniclastic Conglomerate Sandstone					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage			PHYSIOGRAF	PHIC AREA: Nechako	Plateau
INVENTORY						
ORE ZONE:	SAMPLE		REPORT O	N: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Barite Copper A 5-metre chip sample. G Assessment Report 1079	nalysis  Grade is for bariu 1.	YEAF <u>GRADE</u> 117.0000 Grams 5.4000 Per ce 0.7300 Per ce um.	R: 1982 s per tonne ent ent		
	The Bear Hill northwest arm of T Lithologies of of the Cretaceous downfaulted blocks basaltic porphyrit volcaniclastic roc Copper, lead contained in chalc commonly associate chalcocite have be Malachite and pyro mineralization occ	property Takla Lake, on the prop Tango Cree s of Eocene cic flow ro bks. and zinc m copyrite, b d with bar een identif plusite are curs in the	is located 5 kil 104 kilometres erty include con k Formation (Sus Ootsa Lake Grou cks and coarse t ineralization wi ornite, galena a ite. Tetrahedri ied in thin and common on weath volcanic rocks	lometres nor east of Haz nglomerate a stut Group) up subaerial to fine frag ith apprecia and sphaleri ite, cuprite polished se hered outcroc as irregula	th of the melton. and sandstone and dacitic to mental ble silver is te, which are and ctions. ps. The r clots,	

lenses and gash and tension crack fillings over a width of 1 to 5
metres.
 One of the higher-grade samples assayed 0.73 per cent copper,
117 grams per tonne silver and 5.4 per cent barium across 5 metres
(Assessment Report 10791). Pyrite is conspicuously absent from the

#### CAPSULE GEOLOGY

showing.

# BIBLIOGRAPHY

EM OF 2001-03 EMPR ASS RPT \*9892, 10790, \*10791 GSC OF 2322 (#206) EMPR BULL 110

DATE CODED: 1991/11/22 DATE REVISED: 1992/02/11 CODED BY: RHM REVISED BY: DEJ

MINFILE NUMBER:	<u>093M 138</u>	N	IATIONAL MINERAL INVENTORY:	093M6 Cu1
NAME(S):	COPPER BASIN			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP:	093M06E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 23 36 N 127 02 44 W 1725 Metres Within 500M Location is from Minister of Mines A	Annual Report 1929, page C161.	NORTHING: EASTING:	6140301 623788
COMMODITIES:	Copper Gold	Silver		
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Jurassic-Cretaceous Upper Cretaceous	Bowser Lake	Unnamed/Unknown Forma	ation Bulkley Intrusions	
LITHOLOGY:	Granodiorite Clastic Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	F Overlap Assemblage	PHYSIOGRAPHIC AREA: Skeena F	Ranges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: 1	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Rock <u>COMMODITY</u> Silver Gold Copper Sample, 60-centimetres wide, from Minister of Mines Annual Report 19	YEAR: <u>GRADE</u> 48.0000 Grams pe 1.7000 Grams pe 7.1000 Per cent a granodiorite dike. 929, page C161.	1929 r tonne r tonne	
CAPSULE GEOLOGY				
	The Copper Basin sh northwest of Thoen Peak. The area is underla Jurassic to Lower Cretac granodioritic rocks of t (Geological Survey of Ca The showings are de mineralization in fractu sedimentary rocks. The there are several showin as poor. One 60-centimetre s mineralized zone, assaye gold and 48.0 grams per 1929, page Cl61).	nowings are located in the by clastic sediment seous Bowser Lake Group the Late Cretaceous Bul unada Open File 2322). escribed as disseminate tre zones in a granodio fracturing trends 045 ogs, continuity of mine sample, taken from a 1. ed 7.1 per cent copper, tonne silver (Minister	a cirque 2 kilometres ary rocks of the Middle , intruded by kley Intrusions d chalcopyrite rite dike cutting degrees. Although ralization is reported 5 metre wide 1.7 grams per tonne of Mines Annual Report	
BIBLIOGRAPHY	EMPR AR *1929-C160 GSC MAP 971A, 44-24 GSC OF 2322			
DATE CODED: DATE REVISED:	1985/07/24 1991/08/23	CODED BY: GSB REVISED BY: RHM	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 139</u>			NATIONAL MINER	AL INVENTORY:	
NAME(S):	SKEENA CROSSING					
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M04W			Ν	INING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 04 56 N 127 52 14 W 275 Metres Within 1 KM Location from Geological	Survey of Cana	ida Open File 2322.		NORTHING: EASTING:	6104524 572099
COMMODITIES:	Coal					
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A04 Bituminous coal	Massive Fossil Fuel				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena		FORMATION Kitsuns Creek	<u> </u>	GNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Feldspathic Sandstone Volcanic Sandstone Siltstone Shale Polymictic Volcaniclastic ( Carbonaceous Sediment/ Coal	Conglomerate Sedimentary				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage			PHYSIOGRAPHIC	AREA: Nass De	pression
CAPSULE GEOLOGY	The Skeena Cr southwest of Hazel The area is u Formation (Skeena siltstone, shale, carbonaceous sedim Geological Su 30-centimetre laye	cossing coa ton, south inderlain b Group) fel polymictic ments. urvey of Ca er of impur	l occurrence is of Highway 16. by Lower Cretaced dspathic and voi volcaniclastic nada Memoir 69 e coal in crushe	located 22 kil ous Kitsuns Cre lcanic sandstor conglomerate a (page 158) refe ed, deformed ro	lometres eek he, and ers to a ocks.	
BIBLIOGRAPHY	GSC OF 2322 GSC MEM *69, p.158	3				
DATE CODED: DATE REVISED:	1991/12/17 1991/12/17	C R	CODED BY: RHM REVISED BY: RHM		F F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 140</u>	NA	ATIONAL MINERAL INVENTORY:	
NAME(S):	CREEK			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M03E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 07 N 127 13 29 W 1300 Metres Within 5 KM Occurrence #140, near an unnamed cl of Blunt Mountain (Map 69-1).	reek below the western slope	NORTHING: EASTING: IS	6122410 612890
COMMODITIES:	Molybdenum			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L05 Porphyry Mo (Low F- type)			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMC Bulkley Intrusions	DRPHIC/OTHER
LITHOLOGY:	Quartz Monzonite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Pł	HYSIOGRAPHIC AREA: Skeena F	Ranges
CAPSULE GEOLOGY	A molybdenite occurren the western slopes of Blunt quartz monzonite of the Lat 69-1).	ce is reported near Mountain. The show e Cretaceous Bulkley	an unnamed creek below ring is hosted in r Intrusions (Map	
BIBLIOGRAPHY	EM EXPL 1999-80-84 EMPR MAP *69-1 (#140) GSC OF 2322			
DATE CODED: DATE REVISED:	1985/07/24 1991/08/26	CODED BY: GSB REVISED BY: RHM	FI	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 141</u>	NATIONAL MINE	RAL INVENTORY:
NAME(S):	KOT		
STATUS:	Showing		MINING DIVISION: Omineca
NTS MAP:	093M15W		UTM ZONE: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 48 58 N 126 50 51 W 1600 Metres Within 500M Location from Figure 4, Assessment Report 17	7794.	NORTHING: 6187710 EASTING: 634872
COMMODITIES:	Zinc Lead		
	On the state of th		
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Pyrite Calcite Chlorite Unknown		
	Staaloverk		
CLASSIFICATION: CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn±Au Tabular 25 Metres Zone of stockwork veining.	STRIKE/DIP: 130/90	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
<u>STRATIGRAPHIC AGE</u> Jurassic Jurassic	GROUP FORI Hazelton Nilkit	<u>MATION</u> kwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Greywacke Sandstone Siltstone Felsic Lapilli Tuff Fine Grained Tuff Gabbro		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPHI	C AREA: Skeena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY GRA	YEAR: 1986	
COMMENTS: REFERENCE:	Lead 0. Zinc 7. Mineralized sample. Assessment Report 14943.	.4200 Per cent .6000 Per cent	
CAPSULE GEOLOGY			
	The Kot property is located Kotsine Mountain, 82 kilometres A package of thin-bedded fi sedimentary rocks (greywacke, sa intercalated felsic lapilli and Jurassic Nilkitwa Formation (Haz A thick sill of coarse-grained d intrudes the sedimentary rocks. A vertically-dipping, 25-me stockwork veining strikes 130 de of calcite, chlorite, pyrite, sp lens was 25 centimetres wide. One mineralized grab sample per cent lead (Assessment Report	<pre>1 4 kilometres west-northy northwest of Hazelton. .ne clastic and locally tu undstone and siltstone) ar ash fall tuff of the Lowe zelton Group) underlie the liabasic gabbro of Jurassi etre wide weakly-mineraliz grees. It contains lense bhalerite and galena. The e assayed 7.6 per cent zin z 14943).</pre>	west of uffaceous nd er to Middle e property. ic age zed zone of es and veins e thickest nc and 0.42
BIBLIOGRAPHY	EMPR ASS RPT *14943, 17794		

GSC OF 2322

DATE CODED: 1991/12/04 DATE REVISED: / / CODED BY: RHM REVISED BY:

MINFILE NUMBER:	<u>093M 142</u>		NATIONAL MINERAL INVENTORY:	093M8 Cu2
NAME(S):	LYNN			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M08E		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 10 N 126 12 48 W 1300 Metres Within 1 KM Location is from Map 1A, Assess	sment Report 3531.	NORTHING: EASTING:	6132023 676890
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Eocene			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Lower Jurassic Eocene	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAM Babine Intrusions	ORPHIC/OTHER
LITHOLOGY:	Biotite Feldspar Porphyry Volcanic Breccia			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako	Plateau
CAPSULE GEOLOGY	The Lynn showing i end of Nakinilerak Lake A hydrothermally a dike swarm, of the Ecce of the Lower Jurassic i The stock is mine an intrusive breccia ze volcanic rocks around i	is located 6.5 kilomet e or 85 kilometres nor altered biotite feldsp ene Babine Intrusions Telkwa Formation (Haze ralized with chalcopyr one. A pyrite halo is the stock.	res north of the south theast of Smithers. ar porphyry stock, or cuts mafic volcanic rocks lton Group). ite near the contact with developed in the	
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT 3531 EMPR BULL 64 EMPR GEM 1971-192, 1973 GSC OF 2322 EMPR BULL 110	2-432, *1973-359		
DATE CODED: DATE REVISED:	1985/07/24 1991/11/15	CODED BY: GSB REVISED BY: RHM	F	TIELD CHECK: N TIELD CHECK: N

MINFILE NUMBER:	<u>093M 143</u>	NATIONAL MIN	ERAL INVENTORY	<u>/:</u>
NAME(S):	CARR			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M16E		MINING DIVISION UTM ZONE	: Omineca : 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 52 10 N 126 04 54 W 1525 Metres Within 1 KM Location from Assessment Report 3769	).	NORTHING EASTING	: 6195400 : 682594
COMMODITIES:	Copper Molybdenum			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Molybdenite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAN	/ORPHIC/OTHER
Upper Jurassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	145 Ma Potassium/Argon Biotite	Тектиа	Francois Lake In	trusive Suite
LITHOLOGY:	Hornblende Diorite Volcanic			
HOSTROCK COMMENTS:	Isotopic age date is from Geological Su	urvey of Canada Open File 2322.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAPH	HC AREA: Omined	a Mountains
CAPSULE GEOLOGY BIBLIOGRAPHY	The Carr showing is loo peaks five kilometres west of east-northeast of Hazelton. A Late Jurassic hornbld Intrusive Suite intrudes voi Formation (Hazelton Group). dated by potassium/argon met Survey of Canada Open File 2 Chalcopyrite and molybo (Assessment Report 3769). EMPR GEM 1972-434 EMPR ASS RPT *3769 EMPR BULL 64 GSC OF 2322	cated in a saddle between two of Iklaki Peak, 120 kilometre ende diorite plug of the Frar lcanic rocks of the Lower Jun Biotite from the intrusive thods at 145 million years (G 2322). denite mineralization has bee	) mountain 25 acois Lake cassic Telkwa has been Geological 20 reported	
DATE CODED: DATE REVISED:	1985/07/24 1991/11/29	CODED BY: GSB REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 144</u>		NATIONAL MINERAL INVEN	ITORY: 093M1 Cu2
NAME(S):	FORT, ELDEN			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M01W		MINING DI\ UTM	/ISION: Omineca ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 05 20 N 126 25 50 W 1200 Metres Within 500M Location is from Plate 1, Assess	ment Report 4591.	NOR EA:	THING: 6107699 STING: 663981
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Middle Jurassic Jurassic-Cretaceous	<u>GROUP</u> Hazelton Bowser Lake	<u>FORMATION</u> Smithers Ashman	IGNEOUS/	
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	52 Ma Potassium/Argon Biotite		Babine intr	USIONS
LITHOLOGY:	Biotite Feldspar Porphyry Hornfels Conglomerate Greywacke Shale Siltstone Andesite			
HOSTROCK COMMENTS:	lsotopic age date is from Bulleti Kitsumkalum shale (Skeena Gr	in 64. Rocks of the informally national of the informally nation occur in the area.	med	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Stikine Contact	Plutonic Rocks RELATIONSHIP:	Physiographic area: N Grade: H	lechako Plateau Iornfels
CAPSULE GEOLOGY	The Fort showing	is located on the west	side of Old Fort	
	Mountain, 4 kilometres east-southeast of Haze The area is under informal subdivision o Jurassic to Lower Cret. the Middle Jurassic Sm been intruded by the E monzonite, biotite fell feldspar porphyry and conglomerate, greywack adjacent to the Babine intercalated with some northwest-trending blo Sulphide minerali chalcopyrite, occurs as biotite feldspar porphy	north of Babine Lake, lton. rlain by rocks of the I f the Lower Cretaceous aceous Ashman Formation ithers Formation (Haze ocene Babine Intrusions dspar porphyry, hornble diorite. The main sed e, shale and siltstone Intrusions. Andesitic of the sedimentary st ck faults traverse the zation, consisting of p djacent to and within the yry.	82 kilometres Kitsumkalum shale, a Skeena Group, the M n (Bowser Lake Group lton Group). These s which comprise ende feldspar porphy imentary lithologies which are hornfelse c volcanic rocks are rata. Numerous area. pyrite and minor the small plugs of	n iddle ) and have ry, are d
BIBLIOGRAPHY	EM OF 2001-03 EMPR AR 1966-92; 1968- EMPR ASS RPT 2608, *45 EMPR GEM 1973-353 EMPR MAP 12	130 91		

EMPR OF 1997-10 EMPR PF (Eastfield Resources Ltd. Corporate Summary, February 1998) GSC OF 2322 Placer Dome File WWW http://www.infomine.com/index/properties/FORT\_PROJECT.html Placer Dome File EMPR BULL 110

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/11 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 145</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	HOL, HOL 3, HOL 5		
STATUS: REGIONS: NTS MAP	Showing British Columbia		MINING DIVISION: Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 03 21 N 126 44 50 W 900 Metres Within 500M Claim boundary between H	Hol 3 and Hol 5 (Assessment Report	NORTHING: 6103324 EASTING: 643894
COMMODITIES:	Copper	Molybdenum	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Molybder Pyrrhotite Magnetite K-Feldspar Epidote Propylitic Eocene	nite Quartz Pyrite Hematite Oxidation Potassic	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L04 Porphyry Cu ± Mo	± Au	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Jurassic Cretaceous Eocene	GROUP Hazelton Skeena	FORMATION Undefined Formation Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Babine Intrusions
LITHOLOGY:	Quartz Monzonite Biotite Feldspar Porphyry I Granodiorite Rhyolite Tuff Rhyolite Breccia Rhyolite Flow Siltstone Hornfels Shale	Dike	
HOSTROCK COMMENTS:	The Hazelton Group unit and the Skeena Group un	is the informally named Saddle Hill v iit is the Kitsumkalum shale.	olcanics
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Stikine RELATIONSHIP:	PHYSIOGRAPHIC AREA: Nechako Plateau GRADE: Hornfels
CAPSULE GEOLOGY	The Hol showi Landing, or 2 kilo Quartz monzon porphyry, both of rhyolite tuffs, fr volcanics, an info Hazelton Group (Ge Hornfelsed shales Lower Cretaceous S Chalcopyrite fractures with qua rocks and to a les of molybdenite occ and specular hemat	ng is located 14 kilometr metres southwest of the s ite, or granodiorite, and the Eocene Babine Intrusi agmental rocks and flows rmal division of the Lowe ological Survey of Canada of the Kitsumkalum shale, keena Group, also outcrop and pyrrhotite occur in, rtz, K-feldspar and epido ser extent the Hazelton O ur with the chalcopyrite ite also fill fractures a	res west of Smithers south end of Holland Lake. d dikes of biotite feldspar ons, cut hornfelsed of the Saddle Hill er to Middle Jurassic a Open File 2322). an informal division of o in the area. and disseminated within, ote cutting the intrusive Group rocks. Trace amounts mineralization, magnetite and pyrite is rare.
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT *4488 EMPR GEM 1973-355, GSC OF 2322 Placer Dome File	1974-268	
DATE CODED: DATE REVISED:	1985/07/24 1991/11/14	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 146</u>	NATION	AL MINERAL INVENTORY:
NAME(S):	LION		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M16E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 54 17 N 126 05 19 W 1190 Metres Within 500M Showing number 1 (Assessmen	nt Report 4725).	NORTHING: 6199306 EASTING: 681994
COMMODITIES:	Copper Silver	r	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Carbonate Silica Silicific'n Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Stockwork Epigenetic L04 Porphyry Cu ± Mo ± Au 1 Metre Fractured, siliceous zone, 1.2 m	L01 es STRIKE/DIP: netres wide.	Subvolcanic Cu-Ag-Au (As-Sb) TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	: Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic Unknown Upper Jurassic	Hazelton	Telkwa	Unnamed/Unknown Informal Unnamed/Unknown Informal
LITHOLOGY	Andesite Tuff Volcanic Breccia Agglomerate Mudstone Argillite Black Pyritic Limestone Quartz Porphyry Hornblende Feldspar Porphyry Biotite Hornblende Diorite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIO	GRAPHIC AREA: Omineca Mountains
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
REFERENCE	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Copper Assessment Report 4725	s YEAR: 1973 <u>GRADE</u> 18.9000 Grams per tonne 3.2100 Per cent	
	A35635ment Report 4725.		
	The Lion showing 6 kilometres northeast of Hazelton. The property is u agglomerate interbedde black pyritic limeston (Hazelton Group). The by red and grey conglo Cretaceous Sustut Grou small plugs of quartz and a large plug of bi	is located on a tributary to of Iklaki Peak, 120 kilometr anderlain by andesite, tuff, b d with silty mudstone, argill e of the Lower Jurassic Telkw Telkwa Formation is stratigr merate, agglomerate and minor ap. The Telkwa Formation rock and hornblende feldspar porph otite hornblende diorite of L	Ominicetla Creek, es east-northeast preccia and ite and minor a Formation sphically overlain siltstone of the sare intruded by pyry of unknown age ate Jurassic age.

The number 1 showing is a fractured, siliceous zone, approximately 1.2 metres wide containing chalcopyrite. An area of

# CAPSULE GEOLOGY

fracturing, containing pyrite and iron carbonate, is present around the showing area (Assessment Report 4725). A selected sample assayed 3.21 per cent copper, 18.9 grams per tonne silver and trace gold (Assessment Report 4725). Two other showings containing fracture-controlled pyrite and chalcopyrite are present on the property.

### BIBLIOGRAPHY

EMPR GEM 1973-362 EMPR ASS RPT \*4725 EMPR BULL 64 GSC OF 2322 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1991/11/29 CODED BY: GSB REVISED BY: RHM

\_\_\_\_

MINFILE NUMBER:	<u>093M 147</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	<b>BURN</b> , BURN 14, KISPIOX, WAG, WET		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAP	British Columbia 093M05W		UTM ZONE: 09 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 22 48 N 127 45 46 W 970 Metres Within 500M Centre of Burn 14 claim (Assessm	nent Report 5891)	NORTHING: 6137775 EASTING: 578391
COMMODITIES:	Molybdenum Copper		
	Malubdanita Chalconvrita	Durita Durrhatita	
ASSOCIATED: MINERALIZATION AGE:	Quartz Unknown	rynie rynnoule	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Vein Hydrothermal Epigene L05 Porphyry Mo (Low F- type	etic 9)	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Cretaceous Upper Cretaceous	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions
LITHOLOGY:	Granodiorite Biotite Feldspar Porphyry Dike Argillite Shale Sandstone		
	Intermontane		PHYSIOGRAPHIC AREA: Nass Depression
METAMORPHIC TYPE:	Plutonic Rocks Contact	Overlap Assemblage RELATIONSHIP:	GRADE: Hornfels
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON	: N
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY Makedonum	YEAR GRADE	: 1980 *
COMMENTS:	Drill hole BBC-80-6 between 27 at 8562).	nd 144 metres depth (Assessm	ent Report
REFERENCE:	Assessment Report 8562.		
CAPSULE GEOLOGY	The Burn chewing i	a located on the couth	aide of Data Crock
	The Burn showing in approximately 14 kilome The property is um plug of the Late Cretace sediments of the Lower ( Group). The sedimentary argillites, sandstones a of north-trending bioti the granodiorite plug. The sedimentary roo mineralized with pyrite molybdenite. The bioti mineralized with pyrite most interesting mineral in all of the outcrops of stockworks. In drill hole BBC- from 27 to 144 metres a and a second zone from 1	s located on the soutr tres north-northwest of derlain by a 300 by 60 eous Bulkley Intrusion Cretaceous Kitsuns Cre y rocks strike north a and shales. The sedin te feldspar porphyry of cks are hornfelsed nea , pyrrhotite, minor ch te feldspar porphyry of and minor chalcopyrit lization is molybdenit of the granodiorite pl 80-6, two mineralized section assayed 0.088 207 to 231 metres aven Report 8562).	In side of Date Creek, of Hazelton. Of metre granodiorite hs which intrudes clastic eek Formation (Skeena and are mainly ments are cut by a series dikes, mainly south of ar the granodiorite and halcopyrite and dikes are also te and molybdenite. The te which has been found bug, in veins and zones were intersected: 3 per cent molybdenite raged 0.082 per cent

EMPR GEM 1975-E147, 1976-E155 EMPR ASS RPT 4433, 5891, 6892, 7864, \*8562, 8935 GSC OF 2322

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/17 CODED BY: GSB REVISED BY: RHM

MINFILE NUMBER:	<u>093M 148</u>		NATIO	NAL MINERAL INVENTORY:	
NAME(S):	<u>NAT,</u> ACE, NAT A				
STATUS:	Showing			MINING DIVISION:	Omineca
NTS MAP:	093M06E 093M07W			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 48 N 127 00 00 W 967 Metres Within 1 KM Location of showings (Geo E156).	blogy, Explorat	ion and Mining 1976, page	NORTHING: EASTING:	6127773 627036
COMMODITIES:	Copper	Tungsten	Lead	Zinc	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Galena Sphalerite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal L04 Porphyry Cu ± Mc	Vein Epigenetic ± Au	105	Polymetallic veins Ag-Pt	o-Zn±Au
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP Kasalka		FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Upper Cretaceous	- Auguna		ondenned Formation	Bulkley Intrusions	
LITHOLOGY:	Granodiorite Greenstone				
HOSTROCK COMMENTS:	The Kasalka Group unit i	s the informall	y named Cronin volcanics.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSI	OGRAPHIC AREA: Skeena	Ranges
CAPSULE GEOLOGY	The Nat showi Mountain, 45 kilom Copper and tu	ngs are lo etres east ngsten are	ocated on the west side of Hazelton. found disseminated in	of Netalzul granodiorite of	
BIBLIOGRAPHY	<pre>the Late Cretaceou Mining 1976, page On Nat A, the vein in "greenston of the Upper Creta Open File 2322). EM EXPL 1999-80-84 EMPR GEM *1976-E15 GSC OF 2322</pre>	s Bulkley E156). re is a 10 e" of the ceous Kasa 6	Intrusions (Geology, E )-centimetre wide galen Cronin volcanics, an i llka Group (Geological	xploration and a and sphalerite nformal subdivision Survey of Canada	

MINFILE NUMBER:	<u>093M 149</u>	NA	TIONAL MINERAL INVENTORY:	
NAME(S):	DATE			
STATUS:	Showing British Columbia		MINING DIVISION: Omineca	
NTS MAP:	093M05W		UTM ZONE: 09 (NAD 83)	
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 22 17 N 127 53 16 W 1500 Metres Within 500M Centre of the Date claim group (Asse	essment Report 9684, 11560).	NORTHING: 6136683 EASTING: 570487	
COMMODITIES:	Copper Molybden	um		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite Chalcopyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Porphyry L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
Upper Cretaceous	Bowser Lake	Underlined Formation	Bulkley Intrusions	
LITHOLOGY:	Granodiorite Granodiorite Dike Clastic Sediment/Sedimentary Volcanic			
GEOLOGICAL SETTING	Intermentene			
METAMORPHIC TYPE:	Overlap Assemblage Contact Kispiox Mountain is part of the Kispio	Plutonic Rocks RELATIONSHIP:	GRADE: Hornfels	
		x Range.		
CAPSULE GEOLOGY	The Date showing is Mountain, 19 kilometres n Minor molybdenite an with dikes and apophyses Bulkley Intrusions. Thes volcanic rocks of the Mid Group.	located on the southeas orthwest of Hazelton. d chalcopyrite mineral of granodiorite of the e intrude hornfelsed c dle Jurassic to Lower (	st flank of Kispiox ization is associated Late Cretaceous lastic sedimentary and Cretaceous Bowser Lake	
BIBLIOGRAPHY	EMPR ASS RPT *9684, *1156 GSC OF 2322	0		
DATE CODED: DATE REVISED:	1985/07/24 1991/09/17	CODED BY: GSB REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 150</u>	NA	ATIONAL MINERAL INVE	NTORY:
NAME(S):	SEELEY LAKE			
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093M04E		MINING D	IVISION: Omineca M ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 26 N 127 42 04 W Metres Within 1 KM Located approximately 5 k	ilometres southwest of South Hazelton.	NO	RTHING: 6116766 ASTING: 582691
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary A05 Anthracite Irregular Folded The structure consists of a folds with strata dipping up northwest.	Massive Fossil Fuel a number of northeast-southwest trending o to approximately 65 degrees southeast a	) and	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Skeepa	FORMATION Red Rose		METAMORPHIC/OTHER
LITHOLOGY:	Mudstone Sandstone Conglomerate Coal Granite			
GEOLOGICAL SETTING				
METAMORPHIC TYPE: COMMENTS:	Overlap Assemblage Contact Coal is of anthracite to me	Pr RELATIONSHIP: ta-anthracite rank.	IYSIOGRAPHIC AREA: GRADE:	Nass Depression Anthracite
CAPSULE GEOLOGY				
	The Seeley La kilometres southwe Up to 6 coal Red Rose Formation sandstone. The co seams up to 1.5 me mudstone partings, to be limnic in or channels. The sea thickness and late metamorphism by a The structure trending folds wit Southeast and nort faults occur to th	ke coal occurrence is located st of South Hazelton. seams have been identified in (Skeena Group) interbedded w al is anthracite to meta-anth tres thick. Aggregate interv can be up to 12 metres thick igin, having formed in freshw ms are therefore likely to va ral extent. The high rank is granitic intrusion in close p in the area consists of a nu h strata dipping up to approx hwest a number of major north e southeast and east of the l	approximately 5 the Lower Creta ith mudstone and racite and occur als, including The coal is t ater swamps and ry considerably due to thermal roximity to the mber of northeas imately 65 degre northwest trend icence area.	ceous s in hought in area. t es. ing
BIBLIOGRAPHY	EMPR FIELDWORK *19 EMPR BULL *43, p. EMPR P 1986-5, p. GSC P 73-31	83, pp. 81-90; *1984, pp. 215 78; *270 19	-218	
DATE CODED: DATE REVISED:	1986/04/30 1991/10/25	CODED BY: EVFK REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 151</u>				NATIONA	L MINERAL INVENTOR	:Y:
NAME(S):	FIREWEED, M EAST ZONE, 1 JAN ZONE, 16	N SHOWING WEST ZONE 600 ZONE, 3	, SPHALERITE SH , SOUTH ZONE, 200 ZONE	OWING,			
STATUS: REGIONS: NTS MAD:	Developed Pr British Columb	ospect bia				MINING DIVISIO	N: Omineca
BC MAP:	55 00 42 I	NI					E. 09 (NAD 63)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 00 43 1 126 26 02 884 Metres Within 500M West zone, 2. (McKendrick I (Exploration ir	5 kilometres Island), 54 k British Colu	s south of the sout ilometres northea imbia 1988, page	h shore of Bab st of the town c B128).	ine Lake f Smithers	EASTIN	G: 664083
COMMODITIES:	Silver		Lead	Zinc		Copper	Gold
	Durito	Durrhotito	Sphalarita	Galona	Chalconvrito		
	Tetrahedrite	Durrhotito	Marcasito	Quartz	Carbonato		
	Sericite	Ankorito	Soricito	Chlorite	Kaolinite		
ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Locally heavy Argillic Unknown	manganese	e coating; some irc	on staining.	Raoinnite		
DEPOSIT CHARACTER	Breccia		Stratiform	Disse	minated	Vein	
CLASSIFICATION:	Hydrothermal	nentary exha	Syngenetic	Disc	G07	Subaqueous hot sprin	
SHAPE: DIMENSION	Cylindrical		Motros	STE			IUNGE:
COMMENTS:	West zone.		Metres	011			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary						
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena		<u>FC</u> Ki	ORMATION tsuns Creek		IGNEOUS/META	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Cretaceous Jurassic Unknown	<u>GROUP</u> Skeena Hazelton		FC Ki Ur	DRMATION tsuns Creek ndefined Forma	tion	IGNEOUS/META Unnamed/Unkn	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Cretaceous Jurassic Unknown LITHOLOGY:	GROUP Skeena Hazelton Sandstone Siltstone Latite Dike Quartz Latite Feldspar Porr Andesite Tuff Dacite Tuff Lapilli Tuff	Dike hyritic Latite	Sill	DRMATION tsuns Creek ndefined Forma	tion	<u>IGNEOUS/META</u> Unnamed/Unkn	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Cretaceous Jurassic Unknown LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Skeena Hazelton Sandstone Mudstone Siltstone Latite Dike Quartz Latite Feldspar Porr Andesite Tuff Dacite Tuff Lapilli Tuff Intermontane Overlap Asse	Dike hyritic Latite	Sill	DRMATION tsuns Creek ndefined Forma	tion PHYSIOG	IGNEOUS/META Unnamed/Unkn SRAPHIC AREA: Necha	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Cretaceous Jurassic Unknown LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	GROUP Skeena Hazelton Sandstone Siltstone Latite Dike Quartz Latite Feldspar Porp Andesite Tuff Dacite Tuff Lapilli Tuff	Dike phyritic Latite mblage	e Sill Stikine	DRMATION tsuns Creek ndefined Forma	tion PHYSIOG	IGNEOUS/META Unnamed/Unkn	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Cretaceous Jurassic Unknown LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	GROUP Skeena Hazelton Sandstone Mudstone Siltstone Latite Dike Quartz Latite Feldspar Porp Andesite Tuff Dacite Tuff Lapilli Tuff Intermontane Overlap Asse WEST	Dike hyritic Latite mblage	e Sill	DRMATION tsuns Creek ndefined Forma	tion PHYSIOG IRT ON: Y	IGNEOUS/META Unnamed/Unkn	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Cretaceous Jurassic Unknown LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS:	GROUP Skeena Hazelton Sandstone Mudstone Siltstone Latite Dike Quartz Latite Feldspar Porp Andesite Tuff Dacite Tuff Lapilli Tuff Intermontane Overlap Asse WEST CATEGORY: QUANTITY: COMMODITY Silver Lead Zinc Cutoff grade i	Dike phyritic Latite mblage Indicated 5805	Sill Stikine	DRMATION tsuns Creek ndefined Forma REPC 341.7700 C 1.3400 F 2.2200 F er at an average	tion PHYSIOG RT ON: Y YEAR: 1989 Grams per tonne Per cent e width of	IGNEOUS/META Unnamed/Unkn	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Cretaceous Jurassic Unknown LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	GROUP Skeena Hazelton Sandstone Mudstone Siltstone Latite Dike Quartz Latite Feldspar Porr Andesite Tuff Dacite Tuff Lapilli Tuff Intermontane Overlap Asse WEST CATEGORY: QUANTITY: COMMODITY Silver Lead Zinc Cutoff grade i 4.75 metres. George Cross	Dike phyritic Latite mblage Indicated 5805 s 171.4 grat	Sill Stikine 144 Tonnes	DRMATION tsuns Creek ndefined Forma REPC 341.7700 C 1.3400 F 2.2200 F er at an average	tion PHYSIOG RT ON: Y YEAR: 1989 Grams per tonne Per cent Per cent e width of	IGNEOUS/META Unnamed/Unkn	MORPHIC/OTHER
STRATIGRAPHIC AGE Lower Cretaceous Jurassic Unknown LITHOLOGY: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	GROUP Skeena Hazelton Sandstone Mudstone Siltstone Latite Dike Quartz Latite Feldspar Porp Andesite Tuff Dacite Tuff Lapilli Tuff Intermontane Overlap Asse WEST CATEGORY: QUANTITY: COMMODITY Silver Lead Zinc Cutoff grade i 4.75 metres. George Cross	Dike phyritic Latite mblage Indicated 5805 s 171.4 grat s News Lette	Sill Stikine 544 Tonnes ms per tonne silve er No.66, 1989.	DRMATION tsuns Creek ndefined Forma REPC 341.7700 C 1.3400 F 2.2200 F er at an average	tion PHYSIOG RT ON: Y YEAR: 1989 Grams per tonne Per cent Per cent e width of	IGNEOUS/META Unnamed/Unkn	MORPHIC/OTHER

PAGE: 789 REPORT: RGEN0100

### CAPSULE GEOLOGY

In the occurrence area, Upper Triassic to Lower Jurassic Takla Group volcanic rocks, predominantly augite-feldspar flows, outcrop along the west shore of Babine Lake south of the west arm. Maroon to green tuffs, sandstones, siltstones and shales of the Lower to Middle Jurassic Hazelton Group are exposed north, east and west of Babine Lake. Middle Jurassic to Upper Cretaceous marine to nonmarine clastic sediments, the Bowser Lake and Skeena groups (Kitsuns Creek Formation), are found adjacent to the Hazelton Group on the north shore and east and west of Babine Lake. Eocene Babine Intrusive plugs outcrop northwest and southeast of the property (Geological Survey of Canada Open File 2322).

An extensive blanket of glaciolacustrine-lacustrine clay, as thick as 40 metres, covers 95 per cent of the Fireweed property area. The oldest rocks known on the property are Hazelton Group volcanics. The volcanics are commonly fine-grained, maroon to green andesitic to dacitic tuffs and lapilli tuffs. Interbedded mudstones, siltstones and sandstones of a thick deltaic sequence, appears to underlie much of the area and are thought to belong to the Kitsuns Creek Formation of the Lower Cretaceous Skeena Group. The sediments commonly strike 070 to 080 degrees and dip subvertically. Locally the strike varies to 020-030 degrees at the discovery outcrop, the MN showing. Several diamond-drill holes have intersected sills of strongly altered feldspar porphyritic latite.

Skeena Group sediments are dominantly encountered in diamond drilling. The sediments are dark and medium to light grey and vary from mudstone and siltstone to fine and coarse-grained sandstone. Bedding can be massive, of variable thickness, changing gradually or abruptly to finely laminated. Bedding features such as rip-up clasts, load casts and crossbedding are common. The beds are cut by numerous faults, many of them strongly graphitic. Drilling indicates Skeena Group sediments are in fault contact with Hazelton Group volcanic rocks. Strongly sericitized and carbonatized latite dikes cut the sediments.

Mineralization generally occurs in one of three forms: 1) breccia zones are fractured or brecciated sediments infilled with fine to coarse-grained massive pyrite-pyrrhotite and lesser amounts of sphalerite, chalcopyrite and galena 2) disseminated sulphides occur as fine to very fine grains which are lithologically controlled within coarser grained sandstones, pyrite, marcasite, sphalerite, galena and minor tetrahedrite are usually found interstitial to the sand grains and 3) massive sulphides, which are fine-grained, commonly banded, containing rounded quartz-eyes and fine sedimentary fragments, occur as distinct bands within fine-grained sediments. The massive sulphides generally contain alternating bands of pyrite/ pyrrhotite and sphalerite/galena. They are associated with the breccia zones and are commonly sandwiched between altered quartz latite dikes.

Alteration in the sediments occurs in the groundmass and appears associated with the porous, coarse sandstones. Common secondary minerals are quartz, ankerite, sericite, chlorite and kaolinite.

Three main zones have been identified by geophysics (magnetics, induced polarization) and are named the West, East and South zones. Three other zones identified are the 1600, 3200 and Jan zones.

The West zone is defined by an east trending horseshoe-shaped induced polarization conductor. The original outcrop discoveries, the MN and the Sphalerite showings, lie at the westerly end of each of the prongs of the horseshoe. Drilling has defined a mineralized area 300 metres long which is open along strike and depth. Mineralization has been found in Skeena Group sediments to 200 metres depth. The bulk of the mineralization is hosted by a coarse sandstone, in two parallel southwest plunging shoots, which are 30 to 60 metres wide combined.

Indicated reserves for the West zone are 584,500 tonnes grading 341.77 grams per tonne silver, 2.22 per cent zinc and 1.34 per cent lead or, at a higher cutoff, 399,124 tonnes grading 456.2 grams per tonne silver, 1.62 per cent lead and 2.7 per cent zinc (George Cross News Letter No.66, 1989). A flat lying, funnel-shaped feeder zone near the eastern limits

A flat lying, funnel-shaped feeder zone near the eastern limits of the West zone covers an area 90 by 90 metres and extends to a depth of 75 metres, but does not outcrop. Sandstone and mudstone interfinger throughout this area. Pyrrhotite, pyrite, sphalerite and chalcopyrite occur as massive sulphide mineralization associated with breccia and veins which cement mudstone and sandstone fragments that are millimetres to several metres in size. These zones of mineralization grade into unbrecciated or weakly veined areas. The sulphide content is variable and there are two distinct generations of veining. One contains massive sphalerite, the other massive pyrite and pyrhotite. The breccia veins cut sericitized latite dikes. The feeder zone also contains minor gold and copper values.

#### CAPSULE GEOLOGY

A selected assay grades 124.1 grams per tonne silver, 7.25 per cent zinc, 3.32 per cent lead, 0.13 per cent copper and 0.8 grams per tonne gold across 6.2 metres (Exploration in British Columbia 1988, page B130).

The MN showing is hosted in fine to medium-grained sandstone with heavy manganese coating lying in the massive beds which dip subvertically with a local strike of 030 degrees. The sandstone is quartz-carbonate-sericite cemented. Minor pyrite, sphalerite and galena are associated with increased manganese content. Diamonddrill hole intersections returned assays of up to 68.6 grams per tonne silver, 3.5 per cent zinc, 0.6 per cent copper, 2 per cent lead and anomalous gold (George Cross Newsletter #37, 1988).

The Sphalerite showing is 300 metres to the north of the MN showing. Outcrop is characterized by a strong, rusty yellow stain with sphalerite stringers crosscutting mudstone and sandstone.

The East zone has a strike length of at least 500 metres and a 40 metre thickness containing sulphide-cemented breccia and veining. This zone is 2.4 kilometres east along strike from the West zone. Mineralization is in the form of pyrite and pyrrhotite with lesser sphalerite and chalcopyrite. A diamond drill hole intersection across 2.98 metres assayed 22.62 grams per tonne silver, 2.97 per cent zinc, 0.27 per cent copper and 0.47 grams per tonne gold (George Cross Newsletter #85, 1989).

The 1600 zone is 500 metres west of the MN showing (south prong of the horseshoe-shaped West zone) and consists of a number of parallel sulphide horizons up to 2 metres wide with a strike length of 600 metres.

The Jan zone is 1 kilometre west-northwest of the MN showing (north prong of the horseshoe-shaped West zone). The 3200 zone is 1 kilometre east of the West zone and the South zone is 500 metres south-southeast of the 3200 zone.

#### BIBLIOGRAPHY

EM OF 2001-03
EMPR ASS RPT \*17774, 18501, 21353, 21879
EMPR BULL 110
EMPR EXPL \*1988-A34,B127-B131,C175;; 1999-1-11
EMPR FIELDWORK 2000, pp. 253-268
EMPR MAP 1; 65, 1989
EMPR OF 1992-1; 1992-3; 1997-10; 1998-10
EMR MIN BULL MR 223 B.C. 240
GSC MAP 971A
GSC OF 720; 351; 215; \*2322 (#230)
GCNL #37,#153,#155,#163,#167,#222,#243, 1988; #4,#9,#19,#26,#56,
 \*#66,#75,#85, 1989; #32, #181, 1991
N MINER Aug. 22, 1988; Feb. 6, Mar. 6, 27, 1989; Oct. 21, 1991
NW PROSP Jan/Feb, 1989; May/June, 1989
PR REL Canadian United Minerals, Jan. 19, 1988
V STOCKWATCH Jan. 19, 1988; April 19, 1989
WWW http://www.infomine.com/
Placer Dome File

DATE CODED: 1989/04/11 DATE REVISED: 1992/01/10 CODED BY: GO REVISED BY: RHM

MINFILE NUMBER:	093M 152 NATIONAL MINERAL INVENTORY:		
NAME(S):	IRON MASK (L. 3577), TOPSEY		
STATUS: REGIONS	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093M05E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 19 N 127 33 07 W 610 Metres Within 500M Location of Iron Mask Crown Grant (Lot	3577).	NORTHING: 6126009 EASTING: 591999
COMMODITIES:	Silver Zinc	Lead	Copper
MINERALS			
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Pyrite Quartz Siderite Unknown	Chalcopyrite Tetrahedrite	
	Vicin		
CHARACTER: CLASSIFICATION:	Hydrothermal Epigenetic		
DIMENSION:	The second secon	STRIKE/DIP: 015/42E	TREND/PLUNGE:
	rwo semi-parallel issure veins.		
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
Eocene	55 Ma		Babine Intrusions
DATING METHOD: MATERIAL DATED:	Potassium/Argon Biotite		
LITHOLOGY:	Granodiorite		
HOSTROCK COMMENTS:	Isotopic age date is from Geological Su	rvey of Canada Open File 2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane PHYSIOGRAPHIC AREA: Skeena Ranges Plutonic Rocks Overlap Assemblage		
INVENTORY			
ORE ZONE:	SAMPLE REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab	YEAR: 1980	
	Silver	336.7000 Grams per tonne	
	Zinc A 5 to 8 continentro wide view	5.4000 Per cent	
REFERENCE:	Assessment Report 8672.		
CAPSULE GEOLOGY			
	<pre>The Iron Mask showing is located on the south side of Four Mile Mountain, 8 kilometres east of Hazelton. It lies between the Comet (093M 052) and the Mohawk (093M 051) Crown granted claims.    The property is underlain by a small (1500 metres diameter) stock of coarse grained grey granodiorite of the Eocene Babine Intrusions. The stock intrudes clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. Potassium/argon dating of the stock indicates an age of 55 million years (Geological Survey of Canada Open File 2322).    The main showing area consists of two semi-parallel fissure- veins which strike 015 degrees, dipping 42 degrees east. The veins carry galena, sphalerite, pyrite and minor chalcopyrite and tetrahedrite in a gangue of quartz and siderite. A grab sample from a 5 to 8 centimetre wide vein assayed 336.7 grams per tonne silver, 0.94 per cent lead and 5.4 per cent zinc (Assessment Report 8672). A second showing area is located 200 metres to the east.</pre>		

GSC	MEM	223
GSC	OF	2322

DATE CODED: 1991/09/20 DATE REVISED: 1992/02/11 CODED BY: RHM REVISED BY: DEJ
MINFILE NUMBER:	<u>093M 153</u>	NA	TIONAL MINERAL INVENTORY:
NAME(S):	KISPIOX VALLEY		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 28 42 N 127 47 57 W 340 Metres Within 1 KM Occurrence Q (Geological Survey of C	Canada Open File 2322).	NORTHING: 6148677 EASTING: 575897
COMMODITIES:	Marl		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Carbonate Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Stratiform Sedimentary Evaporite B07 Bog Fe, Mn, U, Cu, Au	Industrial Min.	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Marl		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	РН	YSIOGRAPHIC AREA: Nass Depression
CAPSULE GEOLOGY	The Kispiox Valley ma 2.5 kilometres upstream fr of Hazelton (occurrence Q 2322). There is no other inf	rl occurrence is loca om the Kispiox River, on Geological Survey o ormation available on	ted on McCully Creek, 27 kilometres north of Canada Open File the occurrence.
BIBLIOGRAPHY	GSC OF *2322		

DATE CODED:         1991/12/20         CODED BY:         I           DATE REVISED:         1991/12/20         REVISED BY:         I	RHM FIELD CHECK: N RHM FIELD CHECK: N
---	--

MINFILE NUMBER:	<u>093M 154</u>	NATIONAL MINERA	L INVENTORY:
NAME(S):	JONES, GAM		
STATUS: REGIONS:	Showing British Columbia	Mil	NING DIVISION: Omineca
NTS MAP: BC MAP:	093M04E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 03 50 N 127 36 24 W 1600 Metres Within 500M Location from Assessment Report 95	87.	NORTHING: 6102788 EASTING: 588985
COMMODITIES:	Copper Zinc		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Chalcopyrite Arsenopyrite Pyrite Magr Unknown	netite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn±	Au	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Upper Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	GROUP Kasalka 72 Ma Potassium/Argon Biotite	FORMATION IGN Brian Boru	JEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Brecciated Andesite		
HOSTROCK COMMENTS:	Isotopic age date is from Geological	Survey of Canada Open File 2322.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPHIC A	REA: Hazelton Ranges
CAPSULE GEOLOGY BIBLIOGRAPHY	The Jones showing is Killarney showing (093M J Range, 19 kilometres south The showings are host of the Upper Cretaceous Br Potassium/argon dating of (Geological Survey of Cana Mineralization consis magnetite, sphalerite, cha are hosted in brecciated a underlying conglomerate me Rose Formation, Skeena Gro	located 1.5 kilometres east of the 14) on the west side of the Roche of New Hazelton. The sed in brecciated andesitic volcar tian Boru Formation (Kasalka Group biotite gave a date of 70 million ada Open File 2322). Sts of irregular veinlets of pyrit alcopyrite and arsenopyrite. The andesite just east of the contact maber of the older, Lower Cretaced oup (Assessment Report 9587).	r Deboule r Deboule nic rocks ). years :e- veinlets with the bus Red
	EMPR ASS RPT *9587 EMPR BULL 43 GSC OF 2322		
DATE CODED: DATE REVISED:	1991/09/16 / /	CODED BY: RHM REVISED BY:	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 155</u>	NATIONAL M	INERAL INVENTORY:
NAME(S):	CANADIAN QUEEN, BLACK PRINCE		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093M05E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 54 N 127 36 54 W 580 Metres Within 500M Location from Assessment Report 1765	57.	NORTHING: 6130719 EASTING: 587898
COMMODITIES:	Silver Gold	Lead	Zinc
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Pyrite Galena Sphalerit Quartz Unknown	e	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal Epigenetic I05 Polymetallic veins Ag-Pb-Zn±A Black Prince vein.	u STRIKE/DIP: 055/60S	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous Eocene	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Babine Intrusions
LITHOLOGY:	Tuffaceous Sandstone Greywacke Argillite Granodiorite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRA	PHIC AREA: Skeena Ranges
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Gold Lead Zinc Channel sample across 0.46 metre, tak Geological Survey of Canada Memoir 2	YEAR: 1940 <u>GRADE</u> 255.7000 Grams per tonne 1.3700 Grams per tonne 1.0700 Per cent 1.1200 Per cent ten 15 metres south of the shaft. 23, page 34.	
CAPSULE GEOLOGY	<b>c</b>		
	The Canadian Queen cla northeast of Hazelton on th adjoin the Silver Standard west. The Black Prince vei Silver Standard mine strike The property is underl (tuffaceous sandstone, grey Jurassic to Lower Cretaceou the area by granodiorite of The Black Prince vein 055 degrees and dips 60 deg with approvimately 3 per ce	im and fraction are located e northeast flank of Mount mine (093M 049) which is 1 n, which was partially mine s onto the Canadian Queen p ain by clastic sedimentary wacke and argillite) of the s Bowser Lake Group, which the Eocene Babine Intrusio is approximately 0.5 metre rees southeast. It is comp	<pre>8 kilometres Glen. They ocated to the d from the roperty. rocks Middle is intruded in ns. wide, strikes osed of quartz sphalerite</pre>

055 degrees and dips 60 degrees southeast. It is composed of quartz with approximately 3 per cent sulphides, mainly pyrite, sphalerite and galena. A 46-centimetre channel sample taken 15 metres south of the shaft, assayed 255.7 grams per tonne silver, 1.37 grams per tonne gold, 1.07 per cent lead and 1.12 per cent zinc (Geological Survey of Canada Memoir 223, page 34). Recent work (Assessment Report 17657) suggests that there are three more veins present on the claims.

### BIBLIOGRAPHY

EMPR AR 1915-K76, 1950-A87, 1955-22 EMPR ASS RPT 9121, 10488, 12240, 13769, 15121, \*17657 GSC MEM \*223, p.34 GSC OF 2322

DATE CODED: 1991/09/23 DATE REVISED: / / CODED BY: RHM REVISED BY:

MINFILE NUMBER:	<u>093M 156</u>			NATIONAL MINERAL INVENTORY:	
NAME(S):	Bonnie, Marwill, Bon				
STATUS: REGIONS	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP	093M05E			UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 52 N 127 38 20 W 380 Metres Within 500M Location from Assessmen	nt Report 14135.		NORTHING: EASTING:	6130627 586383
COMMODITIES:	Silver	Gold	Lead	Zinc	
MINERALS					
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Quartz Siderite Unknown	e Tetrahedrite Pyrite	Arsenopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal 105 Polymetallic veins	Epigenetic s Ag-Pb-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Jurassic-Cretaceous Eocene	<u>GROUP</u> Bowser Lake	FORM Undefi	ATION ned Formation	IGNEOUS/METAM Babine Intrusions	ORPHIC/OTHER
LITHOLOGY:	Tuffaceous Sandstone Greywacke Argillite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage			PHYSIOGRAPHIC AREA: Skeena	Ranges
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON:	Ν	
	CATEGORY: Assay/a SAMPLE TYPE: Drill Core COMMODITY Silver Gold	nalysis 9	YEAR: DE 0000 Grams p 3000 Grams p 700 Bor cont	1985 Der tonne Der tonne	
	Zinc	0.0 4.0	800 Per cent	L L	
REFERENCE:	0.05 per cent copper. Assessment Report 1413	5.	BON-85-2. Also,		
CAPSULE GEOLOGY					
	The Bonnie of Hazelton immediate The property (tuffaceous sandst Jurassic to Lower by granodiorite of Diamond drill quartz vein withir grams per tonne si lead, 4.08 per cer 14135). Galena, s pyrite are present	ccurrence is loc by west of the is underlain by cone, greywacke Cretaceous Bows the Eocene Bak hole BON-85-2 h which a 11.7-c ilver, 10.3 gram nt zinc and 0.05 sphalerite, tetr	ated 8 kilom Silver Stand clastic sed and argillit ser Lake Grou bine Intrusic intersected sentimetre se s per tonne o per cent co cahedrite, ar	Netres north-northeast of lard mine (093M 049). limentary rocks .e) of the Middle p. These are intruded nns. a 32-centimetre wide cction assayed 347.0 gold, 8.07 per cent pper (Assessment Report senopyrite, siderite and	
BIBLIOGRAPHY					
	EMPR ASS RPT *1413 EMPR OF 1994-14 GSC MEM 223 GSC OF 2322	35, 18725, 19861	., 21261		
DATE CODED: DATE REVISED:	1991/09/24 1991/09/24	CODED REVISEI	BY: RHM ) BY: RHM	F	TIELD CHECK: N

MINFILE NUMBER:	<u>093M 157</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	TWO MILE CREEK			
STATUS:	Showing British Columbia		MINING DIVISION: (	Omineca
NTS MAP:	093M05E		UTM ZONE: (	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 19 06 N 127 35 18 W 480 Metres Within 500M Location from figure 2, As	sessment Report 10457.	NORTHING: ( EASTING: (	6131124 589583
COMMODITIES:	Lead	Zinc		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Quartz Unknown	Arsenopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polymetallic veins	Epigenetic Ag-Pb-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Jurassic-Cretaceous	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Arkose Clastic Sediment/Sediment	tary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Skeena R	anges
CAPSULE GEOLOGY	The Two Mile of Hazelton, appro The area is u Jurassic to Lower A quartz vein arsenopyrite has b	Creek occurrence is located ximately 400 metres south o nderlain by clastic sedimen Cretaceous Bowser Lake Grou cutting arkose and carryin een reported (Assessment Re	9 kilometres northeast f Robinson Lake. tary rocks of the Middle p. g sphalerite, galena and port 10457).	
BIBLIOGRAPHY	EMPR ASS RPT 10457 GSC OF 2322			
DATE CODED: DATE REVISED:	1991/09/25 / /	CODED BY: RHM REVISED BY:	FIE FIE	ELD CHECK: N ELD CHECK: N

MINFILE NUMBER:	<u>093M 158</u>		NA	ATIONAL MINERAL INVENTO	RY:
NAME(S):	<u>Bardon</u> , andimaul				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M04W			MINING DIVISIO UTM ZON	DN: Omineca NE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 06 19 N 127 58 02 W 400 Metres Within 500M Location from Assessmen	t report 15260.		NORTHIN EASTIN	NG: 6106994 NG: 565891
COMMODITIES:	Silver	Gold	Lead	Zinc	
MINERALS					
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Quartz Unknown	Arsenopyrite	Pyrite		
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal 105 Polymetallic veins	Epigenetic Ag-Pb-Zn±Au	STRIKE/DIP:	072/60N TREND/F	PLUNGE:
	Qualiz veins.				
DOMINANT HOSTROCK:	Metasedimentary				
STRATIGRAPHIC AGE	GROUP Bowser Lake	<u>FORM</u> / Undefir	ATION ned Formation	IGNEOUS/MET	AMORPHIC/OTHER
Eocene				Babine Intrusio	ons
LITHOLOGY:	Meta Siltstone Meta Greywacke Granite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		Pł	HYSIOGRAPHIC AREA: Nass	Depression
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N	I	
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY	nalysis <u> </u>	YEAR: 19	986	
	Gold	352.8 0.7(	000 Grams per	tonne	
COMMENTS: REFERENCE:	Highest values from grabs zinc, arsenic and antimony Assessment Report 15260	samples. Also, 1 per o y. ).	cent or more lead,		
CAPSULE GEOLOGY					
	The Bardon gr Skeena River, 30 k The host roc Cretaceous Bowser meta-greywackes), related to the Eoc Two 1-metre w sphalerite and gal the 1920s or 1930s north. Grab samples gram per tonne gol antimony (Assessme	oup of claims i ilometres south ks are metamorp Lake Group clas intruded by med ene Babine Intr ide quartz vein ena are exposed . The veins st assayed up to 3 d and 1.0 per c nt Report 15260	s located on t west of Hazelt hosed Middle J tic sediments ium grained gr usions. s carrying pyr in old trench rike 072 degre 52.5 grams per ent or more le ).	The north side of the form. Surassic to Lower (meta-siltstones and rey granite probably site, arsenopyrite, nes probably dating t es and dip 60 degree tonne silver, 0.7 ead, zinc, arsenic ar	
BIBLIOGRAPHY	EMPR ASS RPT *1526 GSC OF 2322 (#223)	0			
DATE CODED: DATE REVISED:	1991/09/26 1991/12/30	CODED E REVISED	BY: RHM BY: RHM		FIELD CHECK: N FIELD CHECK: N

#### NAME(S): NEWMAN NORTH

STATUS: Showing REGIONS: British Columbia NTS MAP: 093M01W BC MAP: LATITUDE: 55 02 00 N LONGITUDE: 126 15 54 W ELEVATION: 715 Metres LOCATION ACCURACY: Within 500M COMMENTS: Location from Assessment Report 16754.

COMMODITIES: Copper

#### MINERALS

SIGNIFICANT:	Chalcopyrite
COMMENTS:	Chalcopyrite assumed.
MINERALIZATION AGE:	Unknown

#### DEPOSIT

CHARACTER:	Stockwork
CLASSIFICATION:	Porphyry
TYPE:	L04 Porphyry Cu ± Mo ± Au

#### HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE<br/>Lower JurassicGROUP<br/>HazeltonFORMATION<br/>TelkwaCretaceousSkeenaUndefined FormationEoceneSkeenaUndefined Formation

LITHOLOGY: Unknown

#### **GEOLOGICAL SETTING**

TECTONIC BELT: Intermontane TERRANE: Stikine

#### CAPSULE GEOLOGY

The Newman North showing is located on a point at the west side of Newman Peninsula, 4 kilometres northwest of the Bell mine (093M 001).

The area is underlain by rocks of the Lower Jurassic Telkwa Formation (Hazelton Group) and the Lower Cretaceous Skeena Group. The mineralization is probably genetically related to the Eocene Babine Intrusions.

The showing was discovered and drilled at the same time as the Bell deposit, and although no mineable reserves were developed, one drill hole did encounter grades of between 0.3 and 0.5 per cent copper (Assessment Report 16754). The showing occurs on or near the Newman fault, an important ore control of the deposits in the area.

#### BIBLIOGRAPHY

EM OF 2001-03 EMPR ASS RPT \*16754 EMPR BULL \*64 EMPR OF 1997-10 GSC OF 2322 CIM BULL (1974), Vol. 67, no. 742, pp. 110-133. EMPR BULL 110

DATE CODED: 1991/10/31 DATE REVISED: 1992/02/10 CODED BY: RHM REVISED BY: DEJ FIELD CHECK: N FIELD CHECK: N

MINING DIVISION: Omineca

NATIONAL MINERAL INVENTORY:

UTM ZONE: 09 (NAD 83)

NORTHING: 6101920 EASTING: 674786

IGNEOUS/METAMORPHIC/OTHER

Babine Intrusions

PHYSIOGRAPHIC AREA: Nechako Plateau

MINFILE NUMBER:	<u>093M 160</u>	NAT	FIONAL MINERAL INVENTORY:
NAME(S):	<b>Sparrowhawk</b> , Ben		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M01E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 04 03 N 126 11 37 W 1000 Metres Within 500M Location is from Assessme	ent Report 20415.	NORTHING: 6105902 EASTING: 679194
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Quartz Magnetite Chlorite Carbonate Chloritic Unknown	Carbonate	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Porphyry L04 Porphyry Cu ± Mo	Stockwork ± Au D	03 Volcanic redbed Cu
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic Eocene Jurassic	Hazelton	Telkwa	Babine Intrusions Topley Intrusions
LITHOLOGY:	Vesicular Basalt Rhyolite Greywacke Argillite Siltstone Quartz Monzonite Biotite Feldspar Porphyry		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PH	YSIOGRAPHIC AREA: Nechako Plateau
CAPSULE GEOLOGY	The Sparrowha Bell mine (093M 0 West of the n the Lower Jurassic the Middle Jurassi and siltstones of Group (Geological monzonite of the J porphyry of the Eo Widespread chlorit property. Minor chalcop veins in altered v in a 10-centimetre	wk property is located 7 kilom 01) on the east side of Babine orth-trending Morrison fault, Telkwa Formation are succeede c Smithers Formation (both of the Middle Jurassic to Lower C Survey of Canada Open File 232 urassic Topley Intrusions and cene Babine Intrusions outcrop e and carbonate alteration is yrite has been found associate esicular basalt and chalcopyri wide quartz vein cutting rhyc	metres north of the a Lake. the volcanic rocks of ad by greywackes of the Hazelton Group) Cretaceous Bowser Lake 22). Pink quartz biotite feldspar o on the property. evident on the ad with magnetite te and bornite occur olite.
		······································	
	EM OF 2001-03 EMPR ASS RPT 2524, EMPR BULL 64 EMPR OF 1997-10 GSC OF 2322 EMPR BULL 110	3261, 4250, *20415	
DATE CODED: DATE REVISED:	1991/11/07 / /	CODED BY: RHM REVISED BY:	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 161</u>	NATIONA	AL MINERAL INVENTORY:
NAME(S):	KISPIOX RIVER CLAY		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093M05E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 27 45 N 127 44 34 W 280 Metres Within 1 KM Occurrence R (Geological Survey of Car	nada Open File 2322).	NORTHING: 6146978 EASTING: 579493
COMMODITIES:	Clay		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Clay Unknown		
	Linean a slidetad Ctuatifarm		
CLASSIFICATION: TYPE:	Sedimentary Industrial Min. B06 Fireclay	E07	Sedimentary kaolin
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Clay		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIO	GRAPHIC AREA: Nass Depression
CAPSULE GEOLOGY	The Kispiox River clay the Kispiox River, 24 kilome Geological Survey of Canada No other information is	occurrence is located of tres north of Hazelton Open File 2322). a available on the occur	n the west bank of (occurrence R on rence.
BIBLIOGRAPHY	GSC OF *2322		
	000 01 0000		

DATE CODED: 1991/12	2/20 CODED BY:	RHM F	FIELD CHECK: N
DATE REVISED: 1992/02	2/11 REVISED BY	: DEJ F	FIELD CHECK: N

MINFILE NUMBER:	<u>093M 162</u>	NATIONAL	MINERAL INVENTORY:
NAME(S):	COPPER 1-4, COPPER, DANNY BOY, DANNY BOY 1-3, PAP		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093M01E		UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 05 07 N 126 04 02 W 800 Metres Within 500M Location is from Assessment Report 16	5785.	NORTHING: 6108211 EASTING: 687179
COMMODITIES:	Silver Lead	Zinc	Copper
MINERALS			
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Graphite Clay Oxidation Argillic Unknown		
DEPOSIT	Main		
CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Vein Epigenetic 105 Polymetallic veins Ag-Pb-Zn±A 13 Metres	u STRIKE/DIP:	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Unnamed/Unknown Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Pelitic Sediment/Sedimentary Arenaceous Sediment/Sedimentary Limestone Shale Quartzite Andesitic Tuff		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGR	APHIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Lead	YEAR: 1987 GRADE 713.7000 Grams per tonne 23.0000 Per cent	
COMMENTS:	Zinc Highest assay from samples. Sample t	13.5000 Per cent aken across 10 centimetres of	
REFERENCE:	vein and 5 centimetres of wallrock. Le Property File - Gold Canyon Resources	ss than 0.1 grams per tonne Au. Inc., Prospectus, 1987.	
CAPSULE GEOLOGY			
	The Copper 1-4 claims the Bell Copper mine (093M of Natowite Lake. The show The area is underlain comprising limestone, shale Jurassic Hazelton Group (po An east-northeast stri been exposed for 13 metres pelitic and arenaceous sedi and sphalerite in pods, vei gouge zone. The gouge zone rocks contain some graphite clay development. The best assay from sa vein and 5 centimetres of w silver, 23 per cent lead an	are is located 14 kilometr 001), approximately 2.5 k ing was discovered in 1986 by sedimentary and volcani , quartzite and andesitic ssibly of the Smithers For king silver-lead-zinc fiss along strike in a gravel p ments. Mineralization con nlets and stringers within , 10 to 20 centimetres wid . The wallrock exhibits o mpling, taken across 10 ce allrock, assayed 713.7 gra d 13.5 per cent zinc (Prop	es northeast of ilometres west c rocks tuff of the mation). ure vein has it hosted in sists of galena a crush and e, and the host xidation and ntimetres of ms per tonne erty File - Gold

### CAPSULE GEOLOGY

Canyon Resources Inc., Prospectus, 1987).

### BIBLIOGRAPHY

EM OF 2001-03 EMPR ASS RPT \*16785, 16292 EMPR BULL 64 EMPR OF 1997-10 EMPR PF (Gold Canyon Resources Inc., Prospectus, June, 1987) GSC OF 2322 (#228) EMPR BULL 110

DATE CODED: 1991/11/07 DATE REVISED: 1992/03/06 CODED BY: RHM REVISED BY: DEJ

MINFILE NUMBER:	<u>093M 163</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	FRIDAY GREEN, FRIDAY 11 FR., FR GREEN	DAY,		
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093M08E		UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 19 47 N 126 12 41 W 1200 Metres Within 500M Friday 11 claim fraction which is the Friday claims (Assessment Report 3	approximate center of the 878, Map 1).	NORTHING: EASTING:	6135025 676893
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Eocene	Bowser Lake	Ashman	Babine Intrusions	
LITHOLOGY:	Biotite Feldspar Porphyry Mudstone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Contact	Bowser Lake RELATIONSHIP:	PHYSIOGRAPHIC AREA: Nechako GRADE: Hornfels	) Plateau
CAPSULE GEOLOGY				
	The Friday Green sho fraction, 90 kilometres e northeast of Nakinilerak Gently dipping mudst Formation (Bowser Lake Gr porphyry of the Eocene Ba Minor disseminated o feldspar porphyry which h (Assessment Report 3683). in the hornfelsed mudston	wing is located on t ast of Hazelton, app lake. ones of the Middle t oup) are intruded by bine Intrusions. halcopyrite has beer as locally hornfelse Local fracture-cor es.	the Friday 11 claim proximately 6 kilometres to Upper Jurassic Ashman biotite feldspar a found in the biotite ed the mudstones atrolled pyrite is found	
BIBLIOGRAPHY	EM OF 2001-03 EMPR ASS RPT *3683, 3878 GSC OF 2322 EMPR BULL 110			
DATE CODED: DATE REVISED:	1991/11/25 1992/02/11	CODED BY: RHM REVISED BY: DEJ	F	TELD CHECK: N TELD CHECK: N

NATIONAL MINERAL INVENTORY:

## NAME(S): FRIDAY RED, FRIDAY 29, FRIDAY, RED STATUS: Showing MINING DIVISION: Omineca REGIONS: British Columbia NTS MAP: 093M08E UTM ZONE: 09 (NAD 83) BC MAP: LATITUDE: 55 20 55 N LONGITUDE: 126 10 54 W ELEVATION: 1000 Metres LOCATION ACCURACY: Within 1 KM NORTHING: 6137202 EASTING: 678693 COMMENTS: Friday 29 claim (Assessment Report 3878, Map 1). COMMODITIES: Copper MINERALS SIGNIFICANT: Chalcopyrite ASSOCIATED: Unknown MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Disseminated CLASSIFICATION: Unknown TYPE: D03 Volcanic redbed Cu HOST ROCK DOMINANT HOSTROCK: Volcanic STRATIGRAPHIC AGE <u>GRO</u>UP FORMATION IGNEOUS/METAMORPHIC/OTHER Lower Jurassic Hazelton Telkwa Focene Babine Intrusions LITHOLOGY: Amygdaloidal Volcanic Volcanic Flow Tuff Tuff Breccia Mudstone Feldspar Porphyry Dike **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Nechako Plateau TERRANE: Stikine Plutonic Rocks CAPSULE GEOLOGY The Friday Red showing is located on the Friday 29 claim, 90 kilometres east of Hazelton and 8 kilometres northeast of Nakinilerak Lake. Gently dipping green volcanic flows, tuffs, tuff-breccia and minor intercalated mudstones of the Lower Jurassic Telkwa Formation (Hazelton Group) are intruded by a highly magnetic feldspar porphyry dike, possibly related to the Eocene Babine Intrusions. Very minor amounts of chalcopyrite are disseminated in the matrix of an amygdaloidal unit of the volcanic rocks. BIBLIOGRAPHY EM OF 2001-03 EMPR ASS RPT 3683, \*3878 EMPR BULL 110 GSC OF 2322 DATE CODED: 1991/11/25 DATE REVISED: 1992/01/08 CODED BY: RHM REVISED BY: RHM FIELD CHECK: N FIELD CHECK: N

NAME(S): BOUCHER CREEK A

NATIONAL MINERAL INVENTORY:

## STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093M09W BC MAP: UTM ZONE: 09 (NAD 83) LATITUDE: 55 34 16 N LONGITUDE: 126 29 11 W ELEVATION: 1600 Metres LOCATION ACCURACY: Within 500M NORTHING: 6161215 EASTING: 658482 COMMENTS: Location from Coal Assessment Report 721, Figure 5. COMMODITIES: Coal MINERALS SIGNIFICANT: Coal MINERALIZATION AGE: Upper Jurassic DEPOSIT CHARACTER: Stratiform CLASSIFICATION: Sedimentary Massive Fossil Fuel TYPE: A04 Bituminous coal HOST ROCK DOMINANT HOSTROCK: Sedimentary FORMATION STRATIGRAPHIC AGE GROUP IGNEOUS/METAMORPHIC/OTHER Bowser Lake Upper Jurassic Trout Creek LITHOLOGY: Shale Carbonaceous Shale Sandstone Siltstone Conglomerate Coal **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Skeena Ranges **TERRANE:** Bowser Lake CAPSULE GEOLOGY The Boucher Creek coal occurrences are located on the west side of the Bait Range (Skeena Mountains), 84 kilometres east-northeast of Hazelton. The coal is hosted in the Upper Jurassic Trout Creek Formation, The coal is nosted in the Upper Jurassic Trout Creek Formation, Bowser Lake Group. The strata are folded into an open, southeast plunging syncline. The Trout Creek Formation (Coal Assessment Report 721) consists of a lower shoreline marine unit, approximately 70 metres thick, overlain by a carbonaceous shale unit approximately 30 metres thick, a coquinal siltstone unit, approximately 5 metres thick, and a sandstone-conglomerate unit, approximately 100 metres thick. The coal occurs in the upper two units. A 1-metre thick sample contained 2.77 per cent moisture, 68.65 per cent ash, 8.86 per cent volatile matter, 19.72 per cent fixed carbon and 0.25 per cent sulphur (Sample B, Coal Assessment Report 721). BIBLIOGRAPHY EMPR COAL ASS RPT \*721 GSC OF 2322 (Occurrence A) CODED BY: RHM REVISED BY: FIELD CHECK: N FIELD CHECK: N DATE CODED: 1991/12/16 DATE REVISED: / /

NATIONAL MINERAL INVENTORY:

## NAME(S): BOUCHER CREEK CENTRAL STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093M09W BC MAP: UTM ZONE: 09 (NAD 83) LATITUDE: 55 32 38 N LONGITUDE: 126 28 20 W ELEVATION: 1100 Metres NORTHING: 6158219 EASTING: 659485 LOCATION ACCURACY: Within 500M COMMENTS: Location from Coal Assessment Report 721, Figure 5. COMMODITIES: Coal MINERALS SIGNIFICANT: Coal MINERALIZATION AGE: Upper Jurassic DEPOSIT CHARACTER: Stratiform CLASSIFICATION: Sedimentary Massive Fossil Fuel TYPE: A04 Bituminous coal HOST ROCK DOMINANT HOSTROCK: Sedimentary STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER Upper Jurassic Bowser Lake Trout Creek LITHOLOGY: Shale Carbonaceous Shale Sandstone Siltstone Conglomerate Coal **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Skeena Ranges **TERRANE:** Bowser Lake CAPSULE GEOLOGY The Boucher Creek coal occurrences are located on the west side of the Bait Range (Skeena Mountains), 84 kilometres east-northeast of Hazelton. The coal is hosted in the Upper Jurassic Trout Creek Formation, The coal is nosted in the Upper Jurassic Trout Creek Formation, Bowser Lake Group. The strata are folded into an open, southeast plunging syncline. The Trout Creek Formation (Coal Assessment Report 721) consists of a lower shoreline marine unit, approximately 70 metres thick, overlain by a carbonaceous shale unit approximately 30 metres thick, a coquinal siltstone unit, approximately 5 metres thick, and a sandstone-conglomerate unit, approximately 100 metres thick. The coal occurs in the upper two units. Two samples representing in excess of one metre of oxidized coal contained 3.74 and 2.86 per cent moisture, 61.16 and 51.07 per cent ash, 14.51 and 19.39 per cent volatile matter, 20.59 and 26.68 per cent fixed carbon and 0.30 and 0.23 per cent sulphur, respectively (Samples BC 1 and 2, Coal Assessment Report 721). BIBLIOGRAPHY EMPR COAL ASS RPT \*721 GSC OF 2322 (Occurrences A and B) DATE CODED: 1991/12/16 DATE REVISED: 1991/12/17 CODED BY: RHM REVISED BY: RHM FIELD CHECK: N FIFLD CHECK N

NATIONAL MINERAL INVENTORY:

# NAME(S): BOUCHER CREEK B STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093M09W BC MAP: UTM ZONE: 09 (NAD 83) LATITUDE: 55 31 01 N LONGITUDE: 126 28 26 W ELEVATION: 1340 Metres LOCATION ACCURACY: Within 500M NORTHING: 6155218 EASTING: 659489 COMMENTS: Location from Coal Assessment Report 721, Figure 5. COMMODITIES: Coal MINERALS SIGNIFICANT: Coal MINERALIZATION AGE: Upper Jurassic DEPOSIT CHARACTER: Stratiform CLASSIFICATION: Sedimentary Massive Fossil Fuel TYPE: A04 Bituminous coal HOST ROCK DOMINANT HOSTROCK: Sedimentary FORMATION STRATIGRAPHIC AGE GROUP IGNEOUS/METAMORPHIC/OTHER Bowser Lake Upper Jurassic Trout Creek LITHOLOGY: Shale Carbonaceous Shale Sandstone Siltstone Conglomerate Coal **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Skeena Ranges **TERRANE:** Bowser Lake CAPSULE GEOLOGY The Boucher Creek coal occurrences are located on the west side of the Bait Range (Skeena Mountains), 84 kilometres northeast of Hazelton. The coal is hosted in the Upper Jurassic Trout Creek Formation, Bowser Lake Group. The strata are folded into an open, southeast plunging syncline. The Trout Creek Formation consists of a lower shoreline marine unit, approximately 70 metres thick, overlain by a carbonaceous shale unit approximately 30 metres thick, a coquinal siltstone unit, approximately 5 metres thick, and a sandstoneconglomerate unit, approximately 100 metres thick (Coal Assessment Report 721). The coal is contained in the upper two units. A 8 to 30-centimetre thick seam contained 70.37 per cent ash, 4.32 per cent volatile matter, 23.91 per cent fixed carbon and 0.10 per cent sulphur (Sample H, Coal Assessment Report 721). BIBLIOGRAPHY EMPR COAL ASS RPT \*721 GSC OF 2322 (Occurrence B) DATE CODED: 1991/12/16 DATE REVISED: 1991/12/17 CODED BY: RHM REVISED BY: RHM FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 168</u>	NATIONAL MINERA	L INVENTORY:
NAME(S):	KISPIOX C		
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093M05E	M	NING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 25 09 N 127 42 11 W 250 Metres Within 1 KM Location C (Geological Survey of Canada	a Open File 2322).	NORTHING: 6142203 EASTING: 582094
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Fossil Fuel A04 Bituminous coal		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION IG Kitsuns Creek	NEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Shale Greywacke Conglomerate Coal		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPHIC /	AREA: Nass Depression
CAPSULE GEOLOGY	The Kispiox C coal occu Kispiox River, approximately Skeena River. Host rocks are folded a conglomerates of the Lower C Group. A 90-centimetre coal se faulted anticline, and a sec observed on the east bank, s described as being badly dis junction with the Skeena Riv	arrence is located on the west located on the junction of the second shales, greywackes are account with the second secon	oank of the on with the and ion, Skeena imb of a rence was are a to the
BIBLIOGRAPHY			
	EMPR P 1986-5, p. 18 GSC MEM *69, pp. 163-167; *2 GSC SUM RPT 1909, p. 67; *19 GSC BULL *270 GSC P 73-31 GSC OF 2322	23, pp. 93-95 11, p. 89-90; 1912, p. 101	
DATE CODED: DATE REVISED:	1991/12/19 0 1991/12/20 F	CODED BY: RHM REVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 169</u>	Ν	IATIONAL MINERAL INVENTORY:	
NAME(S):	BIG SLIDE			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093M05E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 26 10 N 127 36 16 W 250 Metres Within 1 KM Location is from Geologica	al Survey of Canada Memoir 223 (1954).	NORTHING: EASTING:	6144209 588298
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A04 Bituminous coal	Massive Fossil Fuel		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Shale Greywacke Conglomerate Coal			
Geological Setting Tectonic Belt: Terrane:	Intermontane Overlap Assemblage	F	'HYSIOGRAPHIC AREA: Nass De	pression
CAPSULE GEOLOGY	The Big Slide Skeena River appro Kispiox. A 100-me Host rocks ar conglomerates of t Group. Three analyse 90-centimetres of per cent, fixed ca from 10.33 to 20.4 (Geological Survey	e coal occurrence is located eximately 11 kilometres north the slide scarp has exposed e folded and deformed shales he Lower Cretaceous Kitsuns es were completed on three se bituminous coal. Ash ranges orbon from 51.26 to 68.34 per .3 per cent and moisture from of Canada Summary Report 19	on the west bank of the of the village of several coal seams. , greywackes and Creek Formation, Skeena ams representing 60 to from 18.24 to 27.24 cent, volatile matter 1.07 to 2.10 per cent 11, page 90).	
BIBLIOGRAPHY	EMPR P 1986-5, p. GSC MEM *69, pp. 1 GSC SUM RPT 1909, GSC BULL *270 GSC P 73-31	18 63-167; *223, pp. 93-95 p. 67; *1911, p. 89-90; *191	2, p. 101	
DATE CODED: DATE REVISED:	1991/12/19 1991/12/19	CODED BY: RHM REVISED BY: RHM	F F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M_170</u>	NATIONAL MINERAL	- INVENTORY:
NAME(S):	<u>SKEENA D</u>		
STATUS:	Showing British Columbia	MIN	IING DIVISION: Omineca
NTS MAP: BC MΔP	093M05E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 11 N 127 36 43 W 250 Metres Within 1 KM Location D (Geological Survey of Canada	Open File 2322).	NORTHING: 6140521 EASTING: 587897
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT	Ctratiform Magaina		
CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Fossil Fuel A04 Bituminous coal		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP		IEOUS/METAMORPHIC/OTHER
	Skeena	Kitsuns Creek	
LITHOLOGY:	Greywacke Conglomerate		
	Coal		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Coal Intermontane Overlap Assemblage	PHYSIOGRAPHIC A	REA: Nass Depression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Coal Intermontane Overlap Assemblage	PHYSIOGRAPHIC A	REA: Nass Depression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Coal Intermontane Overlap Assemblage The Skeena D coal occur Skeena River, 8 kilometres a The host rocks are fold conglomerates of the Lower C Group. Two seams, generally 0. structurally thickened local contains 7.6 per cent moistu volatile matter and 42.5 per Canada Memoir 223 (1954), pa	PHYSIOGRAPHIC A rence is located on the west ba bove the junction with Kispiox ed and deformed shales, greywac retaceous Kitsuns Creek Formati 2 metres to 0.3 metres thick bu ly, are present. A representat re, 30.9 per cent ash, 19.0 per cent fixed carbon (Geological ge 133).	REA: Nass Depression nk of the Village. kes and on, Skeena t ive sample cent Survey of
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Coal Intermontane Overlap Assemblage The Skeena D coal occur Skeena River, 8 kilometres a The host rocks are fold conglomerates of the Lower C Group. Two seams, generally 0. structurally thickened local contains 7.6 per cent moistu volatile matter and 42.5 per Canada Memoir 223 (1954), pa	PHYSIOGRAPHIC A bove the junction with Kispiox ed and deformed shales, greywac retaceous Kitsuns Creek Formati 2 metres to 0.3 metres thick bu ly, are present. A representat re, 30.9 per cent ash, 19.0 per cent fixed carbon (Geological ge 133).	REA: Nass Depression nk of the Village. kes and on, Skeena t ive sample cent Survey of
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Coal Intermontane Overlap Assemblage The Skeena D coal occur Skeena River, 8 kilometres a The host rocks are fold conglomerates of the Lower C Group. Two seams, generally 0. structurally thickened local contains 7.6 per cent moistu volatile matter and 42.5 per Canada Memoir 223 (1954), pa EMPR P 1986-5, p. 18 GSC MEM 69, pp. 163-167; *22 GSC BULL *270 GSC P 73-31 GSC OF 2322	PHYSIOGRAPHIC A rence is located on the west ba bove the junction with Kispiox ed and deformed shales, greywac retaceous Kitsuns Creek Formati 2 metres to 0.3 metres thick bu ly, are present. A representat re, 30.9 per cent ash, 19.0 per cent fixed carbon (Geological ge 133). 3, pp. 93-95	REA: Nass Depression nk of the Village. kes and on, Skeena t ive sample cent Survey of
GEOLOGICAL SETTING TECTONIC BELT: TERRANE CAPSULE GEOLOGY BIBLIOGRAPHY	Coal Intermontane Overlap Assemblage The Skeena D coal occur Skeena River, 8 kilometres a The host rocks are fold conglomerates of the Lower C Group. Two seams, generally 0. structurally thickened local contains 7.6 per cent moistu volatile matter and 42.5 per Canada Memoir 223 (1954), pa EMPR P 1986-5, p. 18 GSC MEM 69, pp. 163-167; *22 GSC P 73-31 GSC OF 2322 1991/12/19 C	PHYSIOGRAPHIC A rence is located on the west ba bove the junction with Kispiox ed and deformed shales, greywac retaceous Kitsuns Creek Formati 2 metres to 0.3 metres thick bu ly, are present. A representat re, 30.9 per cent ash, 19.0 per cent fixed carbon (Geological ge 133). 3, pp. 93-95 ODED BY: RHM EVISED BY: RHM	REA: Nass Depression nk of the Village. kes and on, Skeena t ive sample cent Survey of FIELD CHECK: N FIELD CHECK: N
GEOLOGICAL SETTING TECTONIC BELT: TERRANE CAPSULE GEOLOGY BIBLIOGRAPHY DATE CODED: DATE REVISED:	Coal Intermontane Overlap Assemblage The Skeena D coal occur Skeena River, 8 kilometres a The host rocks are fold conglomerates of the Lower C Group. Two seams, generally 0. structurally thickened local contains 7.6 per cent moistu volatile matter and 42.5 per Canada Memoir 223 (1954), pa EMPR P 1986-5, p. 18 GSC MEM 69, pp. 163-167; *22 GSC P 73-31 GSC OF 2322 1991/12/19 C	PHYSIOGRAPHIC A rence is located on the west ba bove the junction with Kispiox ed and deformed shales, greywac retaceous Kitsuns Creek Formati 2 metres to 0.3 metres thick bu ly, are present. A representat re, 30.9 per cent ash, 19.0 per cent fixed carbon (Geological ge 133). 3, pp. 93-95 ODED BY: RHM EVISED BY: RHM	REA: Nass Depression nk of the Village. kes and on, Skeena t ive sample cent Survey of FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 171</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>SKEENA</u>			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05E		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 41 N 127 40 24 W 250 Metres Within 1 KM Location from Geological 90.	Survey of Canada Summary Report 191	NORTHING: EASTING: 1, page	6135809 584098
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A04 Bituminous coal	Massive Fossil Fuel		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Shale Greywacke Conglomerate Coal			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Nass De	epression
CAPSULE GEOLOGY	The Skeena co of the Skeena Rive Kispiox River.	pal occurrence is reported t er, 2.4 kilometres above the	o occur on the west side junction with the	2
	The host rock conglomerates of t	as are folded and deformed s the Lower Cretaceous Kitsuns	hales, greywackes and Creek Formation, Skeena	L
	Analysis of a cent volatile matt ash (Geological Su	a specimen yielded 1.65 per ter, 50.2 per cent fixed car arvey of Canada Summary Repo	cent moisture, 22.86 per bon and 25.47 per cent rt 1911).	
BIBLIOGRAPHY	EMPR P 1986-5, p. GSC MEM *69, pp. 1 GSC SUM RPT 1909, GSC BULL *270 GSC P 73-31 GSC OF 2322	18 .63-167; *223, pp. 93-95 p. 67; *1911, p. 89-90; 191	2, p. 101	
DATE CODED: DATE REVISED:	1991/12/19 1991/12/19	CODED BY: RHM REVISED BY: RHM	F	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 172</u>	NATIONAL MINE	RAL INVENTORY:
NAME(S):	<u>SHEGUNIA</u>		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
BC MAP:	093M05E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 22 32 N 127 38 57 W 250 Metres Within 1 KM Location E (Geological Survey of Canada	Open File 2322).	NORTHING: 6137415 EASTING: 585599
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Fossil Fuel A04 Bituminous coal		
HOST ROCK DOMINANT HOSTROCK	: Sedimentary		
STRATIGRAPHIC AGE	GROUP Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY	Shale Greywacke Conglomerate Coal		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage	PHYSIOGRAPH	C AREA: Nass Depression
CAPSULE GEOLOGY			
	The Shegunia coal occur: Skeena River, 3 to 5 kilomet: River (Geological Survey of 1909).	rence is located on the east res above the junction with Canada Memoir 223 and Summary	bank of the the Shegunia 7 Report
	The host rocks are fold conglomerates of the Lower C: Group	ed and deformed shales, greyv retaceous Kitsuns Creek Forma	wackes and ation, Skeena
	Three coal seams are ex in thickness. Analysis of t 20.92 to 21.62 per cent ash, 18.76 to 20.63 per cent vola moisture (Geological Survey	posed which range from 0.6 to he two thickest seams are as 57.29 to 58.20 per cent fixe tile matter and 1.18 to 1.42 of Canada Summary Report 1909	o 1.6 metres follows: ed carbon, per cent 0).
BIBLIOGRAPHY	EMPR P 1986-5, p. 18 GSC MEM *69, pp. 163-167; *2 GSC SUM RPT *1909, p. 67; 19 GSC BULL *270 GSC P 73-31 GSC OF 2322	23, pp. 93-95 11, p. 89; 1912, p. 101	
DATE CODED: DATE REVISED:	1991/12/19 C 1991/12/19 R	ODED BY: RHM EVISED BY: RHM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 173</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>SHEGUNIA G</u>			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
BC MAP:	093M05E		UTM ZONE:	09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 20 49 N 127 39 41 W 250 Metres Within 1 KM Location G (Geological Surv	vey of Canada Open File 2322).	NORTHING: EASTING:	6134216 584886
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Stratiform M Sedimentary F A04 Bituminous coal	/lassive ossil Fuel		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek		ORPHIC/OTHER
LITHOLOGY:	Shale Greywacke Conglomerate Coal			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Nass De	pression
CAPSULE GEOLOGY				
	The Shegunia G kilometre east of t The host rocks conglomerates of th Group.	occurrence is located on he junction with the Skeen are folded and deformed s e Lower Cretaceous Kitsuns	the Shegunia River 1 a River. hales, greywackes and Greek Formation, Skeena	
	No other infor	mation is available on the	e occurrence.	
BIBLIOGRAPHY	GSC MEM *223, pp. 9 GSC OF 2322	3-95		
DATE CODED: DATE REVISED:	1991/12/19 1991/12/19	CODED BY: RHM REVISED BY: RHM	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 174</u>		NATION	AL MINERAL INVENTORY:	
NAME(S):	SEDIESH CREEK SLATE				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M12E			MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 30 30 N 127 37 39 W 460 Metres Within 1 KM Industrial mineral occurrer File 2322).	nce S (Geological Survey c	of Canada Open	Northing: Easting:	6152216 586680
COMMODITIES:	Slate	Shale			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Lower Cretaceous				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary R01 Cement shale	Massive Metamorphic	Industrial Min. R02	Expanding shale	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	FORMATIO	N	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Slate Sandstone Siltstone Shale Polymictic Conglomerate Coal Carbonaceous Sediment/S	Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIO	GRAPHIC AREA: Skeena	Ranges
CAPSULE GEOLOGY	The Sediesh the 460 metre elev kilometres north o The area is u Formation (Skeena shale, polymictic No other info	Creek Slate occurr ation on the south f Hazelton. nderlain by the Lo Group) which consi conglomerate, coal ormation is availab	ence is located side of Sedies wer Cretaceous sts of sandston and carbonaceo le on the occur	at approximately h Creek, 29 Kitsuns Creek e, siltstone, us sediments. rence.	
BIBLIOGRAPHY	GSC OF *2322				
DATE CODED: DATE REVISED:	1991/12/23 1992/01/21	CODED BY: REVISED BY:	RHM RHM	F	FIELD CHECK: N

MINFILE NUMBER:	<u>093M 175</u>	NATION	IAL MINERAL INVENTORY:
NAME(S):	BAIT RANGE		
STATUS: REGIONS	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093M09W		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 33 13 N 126 25 15 W 1460 Metres Within 1 KM Occurrence #201, located Canada Open File 2322).	in the Bait Range (Geological Survey of	NORTHING: 6159420 EASTING: 662686
COMMODITIES:	Lead	Zinc	
	Linka even		
MINERALIZATION AGE:	Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polymetallic veins	Epigenetic Ag-Pb-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Nilkitkwa	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Tuffaceous Argillite Shale Siltstone Greywacke Tuff Breccia Limestone Conglomerate		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSK	OGRAPHIC AREA: Skeena Ranges
CAPSULE GEOLOGY			
	An unnamed Pk 86 kilometres east	D-Zn occurrence (#201) is located t of Hazelton (Geological Survey (	in the Bait Range, of Canada Open File
	The area is u Formation, Hazelto marine tuffaceous lapilli tuff, ash- minor limestone, o The showing i occurrence. No ot	anderlain by the Lower to Middle on Group. The Nilkitkwa Formatic argillite, shale, siltstone, gre flow rhyodacite tuff, basaltic t conglomerate and sharpstone congl s shown as being a vein or a fra ther information is available.	Jurassic Nilkitkwa n consists of ywacke, ash and uff and breccia, omerate. cture-controlled
BIBLIOGRAPHY	GSC OF *2322 (#201	.)	
DATE CODED: DATE REVISED:	1991/12/23 1992/02/11	CODED BY: RHM REVISED BY: DEJ	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 176</u>	NATIONAL MIN	IERAL INVENTORY:	
NAME(S):	MOUNT TEEGEE			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M09W		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 32 10 N 126 16 40 W 1880 Metres Within 1 KM Occurrence #203, located on Mount Te Open File 2322).	egee (Geological Survey of Canada	NORTHING: 6157818 EASTING: 671784	
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Unknown			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAMORPHIC/OTHER	_
LITHOLOGY:	Andesite Basalt Dacite Rhyolite Tuff Flow Breccia Volcaniclastic Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAP	HIC AREA: Skeena Ranges	
CAPSULE GEOLOGY				
	An unnamed copper occu 94 kilometres east of Hazel 2322). The showing is hosted Telkwa Formation, Hazelton andesitic calc-alkaline vol and rhyolite flows, breccia volcaniclastic sediments. No other information i	urrence (#203) is located on M ton (Geological Survey of Car in volcanic rocks of the Lowe Group. Lithologies are subma canics, including basalt, and , lapilli and ash tuff, and : s available.	Mount Teegee, nada Open File er Jurassic arine desite, dacite intercalated	
BIBLIOGRAPHY	GSC OF *2322 (#203)			
DATE CODED: DATE REVISED:	1991/12/23 1992/02/11	CODED BY: RHM REVISED BY: DEJ	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 177</u>			NATIONAL MINERAL INVENTORY:	
NAME(S):	WILLO, WILLO 1, SHEGUN	IA			
STATUS:	Showing			MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093M05E			UTM ZONE:	09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 20 51 N 127 37 47 W 300 Metres Within 500M Willo 1 claim (Assessment	Report 8199).		NORTHING: EASTING:	6134317 586893
COMMODITIES:	Silver	Copper	Lead	Zinc	
MINERALS					
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Pyrite Pyrrhotite Unknown	Chalcopyrite	Arsenopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein S Hydrothermal I 105 Polymetallic veins /	Stockwork Epigenetic Ag-Pb-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
	<u>GROUP</u> Skeena	FORM	ATION S Creek	IGNEOUS/METAM	ORPHIC/OTHER
Eocene	Okoona	TROUM		Babine Intrusions	
LITHOLOGY:	Granite Porphyry Siltstone Sandstone Carbonaceous Shale				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Overlap Ass	semblage	PHYSIOGRAPHIC AREA: Nass De	pression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	Intermontane Plutonic Rocks	Overlap Ass	semblage	PHYSIOGRAPHIC AREA: Nass De	pression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Intermontane Plutonic Rocks SAMPLE	Overlap Ass	semblage REPORT ON	PHYSIOGRAPHIC AREA: Nass De	pression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Intermontane Plutonic Rocks SAMPLE CATEGORY: Assay/an: SAMPLE TYPE: Chip COMMODITY	Overlap Ass alysis GRAI	semblage REPORT ON YEAR DE	PHYSIOGRAPHIC AREA: Nass De : N : 1980	pression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Intermontane Plutonic Rocks SAMPLE CATEGORY: Assay/an: SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Copper Lead Zinc	Overlap Ass alysis 	semblage REPORT ON YEAR DE D000 Grams 200 Per cen 200 Per cen 200 Per cen 200 Per cen	PHYSIOGRAPHIC AREA: Nass De : N : 1980 per tonne t	pression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS:	Intermontane Plutonic Rocks SAMPLE CATEGORY: Assay/an: SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Copper Lead Zinc A 5-centimetre wide chip s: A since purchastic and minor	Overlap Ass alysis <u>GRAI</u> 11.0 0.2 0.5 0.1 ample from a 7.5 cer	semblage REPORT ON YEAR 0000 Grams 200 Per cen 200 Per cen 600 Per cen 600 Per cen 600 Per cen	PHYSIOGRAPHIC AREA: Nass De N 1980 per tonne t t t t t t	pression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE:	Intermontane Plutonic Rocks SAMPLE CATEGORY: Assay/and SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Copper Lead Zinc A 5-centimetre wide chip sa pyrite, pyrrhotite and minor Assessment Report 8199.	Overlap Ass alysis <u>GRAI</u> 11.0 0.2 0.5 ample from a 7.5 cer chalcopyrite, galena	semblage REPORT ON YEAR 0000 Grams 200 Per cen 200 Per cen 100 Per cen 100 Per cen 100 Per cen 100 Per cen 110 Per cen 110 Per cen	PHYSIOGRAPHIC AREA: Nass De N 1980 Per tonne t t t n with	pression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	Intermontane Plutonic Rocks SAMPLE CATEGORY: Assay/an SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Copper Lead Zinc A 5-centimetre wide chip sa pyrite, pyrrhotite and minor Assessment Report 8199.	Overlap Ass alysis <u>GRAI 11.0</u> 0.2 0.5 0.1 ample from a 7.5 cer chalcopyrite, galena	REPORT ON YEAR DE 200 Grams 200 Per cen 200 Per cen 600 Per cen 600 Per cen 600 Per cen and sphalerite.	PHYSIOGRAPHIC AREA: Nass De N 1980 Per tonne t t t n with	pression
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	Intermontane Plutonic Rocks SAMPLE CATEGORY: Assay/an SAMPLE TYPE: Chip <u>COMMODITY</u> Silver Copper Lead Zinc A 5-centimetre wide chip sa pyrite, pyrrhotite and minor Assessment Report 8199. The Willo occu kilometres north of The host rock porphyry which appe (Geological Survey cuts siltstone, sar Cretaceous Kitsuns Narrow fractur pyrhotite, pyrite and arsenopyrite. A 5-centimetre per tonne gold, 11 per cent lead and (	Overlap Ass alysis <u>GRAI</u> 11.0 0.2 0.5 0.1 ample from a 7.5 cer chalcopyrite, galena f Hazelton. is a north-tre ears to be one of Canada Open dstone and car Creek formatic re zones, up to and very minor e wide sample c grams per tonm 0.16 per cent z	REPORT ON YEAR DOO Grams 200 Per cen 200 Per cen 200 Per cen 200 Per cen and sphalerite. ted on Shegu nding sill-: of the Eocen File 2322) bonaceous sh n (Skeena Gr 15 centimet chalcopyrit f one vein a e silver, 0 inc (Assesst	PHYSIOGRAPHIC AREA: Nass De N 1980 Pertonne t t t t t t t t t t t t t	pression

DATE CODED: 1991/12/23 DATE REVISED: 1991/12/30 CODED BY: RHM REVISED BY: RHM

MINFILE NUMBER:	<u>093M 178</u>	NATIONAL MI	NERAL INVENTORY:
NAME(S):	COLLINS LAKE		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M05E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 18 N 127 35 07 W 400 Metres Within 1 KM Occurrence #218, located south of Colli Canada Open File 2322).	ns Lake (Geological Survey of	NORTHING: 6135208 EASTING: 589694
COMMODITIES:	Lead Zinc		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Unknown 105 Polymetallic veins Ag-Pb-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Conglomerate Sandstone Siltstone Shale Argillite Coal Carbonaceous Sediment/Sedimentary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	PHYSIOGRAF	PHIC AREA: Skeena Ranges
CAPSULE GEOLOGY	An unnamed lead-zinc of Collins Lake, 13 kilometres of Canada Open File 2322). The area is underlain H Bowser Lake Group which cons feldspathic and volcanic con and argillite with minor coa No other information is	ccurrence (#218) is located northeast of Hazelton (Geol by the Middle Jurassic to Lo sists of interbedded, epicla nglomerate, sandstone, silts al and carbonaceous units. s available.	south of ogical Survey ower Cretaceous stic stone, shale
BIBLIOGRAPHY	GSC OF *2322 (#218)		
DATE CODED: DATE REVISED:	1991/12/30 1992/02/11	CODED BY: RHM REVISED BY: DEJ	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 179</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	SIX MILE CREEK			
STATUS:	Showing British Columbia		MINING DIVISION: Omineca	
NTS MAP:	093M05E		UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 15 N 127 32 00 W 250 Metres Within 1 KM Occurrence #221, located near Six Canada Open File 2322).	Mile Creek (Geological Surve	NORTHING: 6125910 EASTING: 593184 y of	
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Unknown			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Jurassic-Cretaceous Lower Cretaceous	<u>GROUP</u> Bowser Lake Skeena	FORMATION Undefined Formation Kitsuns Creek	IGNEOUS/METAMORPHIC/OTHER	<u> </u>
LITHOLOGY:	Sandstone Shale Siltstone Conglomerate Coal Carbonaceous Sediment/Sediment	ary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	Overlap Assemblage	PHYSIOGRAPHIC AREA: Skeena Ranges	
CAPSULE GEOLOGY	An unnamed copper occurrence (#221) is located near Six Mile Creek, 9 kilometres east of Hazelton (Geological Survey of Canada Open File 2322). The area is underlain by clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group and the Lower Cretaceous Kitsuns Creek Formation, Skeena Group. The units are in fault contact and consist of sandstone, conglomerate, siltstone shale, coal and carbonaceous sediments. No other information is available on the occurrence.			
BIBLIOGRAPHY	GSC OF *2322 (#221)			
DATE CODED: DATE REVISED:	1991/12/30 1992/02/11	CODED BY: RHM REVISED BY: DEJ	FIELD CHECK: 1 FIELD CHECK: 1	N N

MINFILE NUMBER:	<u>093M 180</u>			NATIONAL MINE	RAL INVENTORY:		
NAME(S):	<b>BLUNT MOUNTAIN</b>						
STATUS: REGIONS	Showing British Columbia				MINING DIVISION:	Omineca	
NTS MAP: BC MAP:	093M03W				UTM ZONE:	09 (NAD 83	3)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 48 N 127 17 45 W 1900 Metres Within 1 KM Occurrence #233, located Canada Open File 2322).	on Blunt Moun	itain (Geological Surve	y of	Northing: Easting:	6121710 608383	
COMMODITIES:	Silver	Lead	Zinc				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown						
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal 105 Polymetallic veins	Epigenetic Ag-Pb-Zn±Au					
HOST ROCK DOMINANT HOSTROCK:	Sedimentary						
STRATIGRAPHIC AGE Jurassic-Cretaceous	<u>GROUP</u> Bowser Lake		FORMATION Undefined Formation		IGNEOUS/METAM	ORPHIC/OTHE	<u>=R</u>
LITHOLOGY:	Sandstone Siltstone Argillite Shale Conglomerate Coal Carbonaceous Sediment/S	Sedimentary					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake			PHYSIOGRAPHI	IC AREA: Skeena	Ranges	
CAPSULE GEOLOGY							
	An unnamed si northwest side of (Geological Survey The showing is fracture-controlle Cretaceous Bowser sediments includin conglomerate and m No other info	lver-lead- Blunt Moun of Canada documente d occurren Lake Group g sandston inor coal rmation is	<pre>zinc occurrence tain, 24 kilomet Open File 2322 d as a silver-10 ce hosted in Mic rocks. These c e, siltstone, sh and carbonaceous available.</pre>	(#233) 15 loo cres east of H ). ead-zinc vein ddle Jurassic consist of ep: nale, argillit s units.	cated on the Hazelton or to Lower iclastic te,		
BIBLIOGRAPHY	GSC OF *2322 (#233 WWW http://www.inf	) omine.com/					
DATE CODED: DATE REVISED:	1991/12/31 1992/02/11	C R	ODED BY: RHM EVISED BY: DEJ		F	TIELD CHECK: TIELD CHECK:	N N

MINFILE NUMBER:	093M 181		NATIONAL MINERAL INVENTORY	:
NAME(S):	SHENISMIKE			
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093M11W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 15 N 127 28 32 W 460 Metres Within 1 KM Occurrence #236, near Shenismike Cr (Geological Survey of Canada Open F	reek north of the Babine Riv ile 2322).	NORTHING EASTING	: 6170499 : 595879
COMMODITIES:	Lead Zinc			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic 105 Polymetallic veins Ag-Pb-Zn±/	Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Jurassic-Cretaceous	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAV	IORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Shale Argillite Conglomerate Coal Carbonaceous Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake		PHYSIOGRAPHIC AREA: Skeena	Ranges
CAPSULE GEOLOGY	A lead-zinc showing ( River, 50 kilometres north Open File 2322). The showing is docume: occurrence hosted in Middl Group sedimentary rocks. including sandstone, shale minor coal and carbonaceou No other information	#236) is located n of Hazelton (Geolo nted as a vein or f e Jurassic to Lower These consist of ep , siltstone, argill s units. is available.	Forth of the Babine ogical Survey of Canada racture-related Cretaceous Bowser Lake Diclastic sediments ite, conglomerate and	
BIBLIOGRAPHY	GSC OF *2322 (#236)			
DATE CODED: DATE REVISED:	1991/12/31 1992/02/11	CODED BY: RHM REVISED BY: DEJ		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 182</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	SHEGISTIC			
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093M12E		UTM ZONE:	09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 30 N 127 36 58 W 850 Metres Within 1 KM Occurrence #240 (Geological Survey o	f Canada Open File 2322)	NORTHING: EASTING:	6168922 587067
COMMODITIES:	Silver Lead	Zinc	Antimony	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic I05 Polymetallic veins Ag-Pb-Zn±A	u		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Jurassic-Cretaceous	GROUP Bowser Lake	FORMATION Undefined Formation		ORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Siltstone Argillite Conglomerate Coal Carbonaceous Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake		PHYSIOGRAPHIC AREA: Skeena I	Ranges
CAPSULE GEOLOGY	The Shegistic showing 43 kilometres north of Haze File 2322). The showing is documen silver-lead-zinc-antimony o Lower Cretaceous Bowser Lak mainly of epiclastic sedime siltstone, argillite, congl No other information i	(#240) is located lton (Geological S ted as a vein or f ccurrence hosted i e Group sedimentar ntary rocks includ omerate, coal and s available on the	near Shegistic Creek, Survey of Canada Open Fracture-related In the Middle Jurassic to Ty rocks. These consist ling sandstone, shale, carbonaceous units.	
BIBLIOGRAPHY	GSC OF *2322 (#240)			
DATE CODED: DATE REVISED:	1991/12/31 1992/02/11	CODED BY: RHM REVISED BY: DEJ	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 183</u>	NATIO	VAL MINERAL INVENTORY:	
NAME(S):	SHEDIN CREEK WEST			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION: Omineca	
NTS MAP: BC MAP:	093M12E		UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 31 N 127 37 20 W 425 Metres Within 1 KM Occurrence #238, located west of Canada Open File 2322).	of Shedin Creek (Geological Survey of	NORTHING: 6174510 EASTING: 586571	
COMMODITIES:	Silver Lead	Zinc		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epiger 105 Polymetallic veins Ag-Pb	netic -Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Jurassic-Cretaceous	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Sandstone Siltstone Shale Argillite Conglomerate Coal Carbonaceous Sediment/Sedime	entary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	PHYSI	OGRAPHIC AREA: Skeena Ranges	
CAPSULE GEOLOGY	A silver-lead-zinc occurrence is shown on Geological Survey of Canada Open File 2322 as being located on the north side of the Babine River, approximately 1 kilometre west of Shedin Creek, 51 kilometres north of Hazelton. The area is underlain by the Middle Jurassic to Lower Cretaceous Bowser Lake Group, which is composed predominantly of epiclastic sedimentary rocks and includes sandstone, shale, siltstone, argillite, conglomerate, coal and carbonaceous units. The showing is documented as a vein or fracture-controlled occurrence. No other information is available.			
BIBLIOGRAPHY	GSC OF *2322 (#238)			
DATE CODED: DATE REVISED:	1992/01/02 1992/02/11	CODED BY: RHM REVISED BY: DEJ	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 184</u>	NATION	AL MINERAL INVENTORY:
NAME(S):	SHEDIN CREEK EAST		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093M12E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 42 40 N 127 35 42 W 425 Metres Within 1 KM Occurrence #237, located eas Canada Open File 2322).	t of Shedin Creek (Geological Survey of	NORTHING: 6174822 EASTING: 588276
COMMODITIES:	Silver Lea	ad Zinc	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epiq I05 Polymetallic veins Ag-	genetic Pb-Zn±Au	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Jurassic-Cretaceous	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Siltstone Argillite Conglomerate Coal Carbonaceous Sediment/Sedir	mentary	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	PHYSIC	GRAPHIC AREA: Skeena Ranges
CAPSULE GEOLOGY	A silver-lead-zi Canada Open File 2322 Babine River, approxi kilometres north of H The area is unde Bowser Lake Group sed epiclastic sedimentar siltstone, argillite, The showing is d occurrence. No other	nc occurrence is shown on Geol as being located on the north mately 1 kilometre east of She Jazelton. Thain by the Middle Jurassic t dimentary rocks. These predomi cy rocks and includes sandstone conglomerate, coal and carbon documented as a vein or fracture information is available on t	ogical Survey of side of the din Creek, 52 o Lower Cretaceous nantly comprise s, shale, aceous units. e-controlled he occurrence.
BIBLIOGRAPHY	GSC OF *2322 (#237)		
DATE CODED:	1992/01/02	CODED BY: RHM	FIELD CHECK: N
DATE REVISED:	1992/02/11	REVISED BY: DEJ	FIELD CHECK: N

MINFILE NUMBER:	<u>093M 185</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	MOUNT THOEN RANGE			
STATUS:	Showing British Columbia		MINING DIVISION: Omineca	
NTS MAP: BC MAP	093M06E		UTM ZONE: 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 22 36 N 127 11 07 W 1700 Metres Within 1 KM Occurrence #243, located o (Geological Survey of Canad	on the west side of the Mount Thoen R da Open File 2322).	NORTHING: 6138207 EASTING: 614988 ange	
COMMODITIES:	Lead Z	linc		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal E 105 Polymetallic veins A	pigenetic g-Pb-Zn±Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Bowser Lake	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
Upper Cretaceous	Dowser Lake	ondenned Formation	Bulkley Intrusions	
LITHOLOGY:	Granodiorite Clastic Sediment/Sedimenta	ry		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	Plutonic Rocks	PHYSIOGRAPHIC AREA: Skeena Ranges	
CAPSULE GEOLOGY				
	A lead-zinc occurrence (#243) is shown on Geological Survey of Canada Open File 2322 as being located on the west side of the Mount Thoen Mountain Range, 35 kilometres east-northeast of Hazelton. The deposit is shown as a vein or fracture-related occurrence hosted in Late Cretaceous Bulkley Intrusions which are mainly granodiorite in composition. Biotite from the Mount Thoen Intrusion has been dated at 63 million years (Geological Survey of Canada Open File 2322). The intruded rocks are clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group.			
BIBLIOGRAPHY	GSC OF *2322 (#243)			

DATE CODED: 1992/01/06 DATE REVISED: 1992/02/11 CODED BY: RHM REVISED BY: DEJ

MINFILE NUMBER:	<u>093M 186</u>		NATIONAL MINERAL INVENTORY	:	
NAME(S):	CHICAGO CREEK				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093M04E		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 32 N 127 41 34 W 425 Metres Within 1 KM Occurrence #244, located southwe (Geological Survey of Canada Ope	est of New Hazelton near Chic n File 2322).	NORTHING EASTING	6118816 583184	
COMMODITIES:	Silver Lead	Zinc			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenei 105 Polymetallic veins Ag-Pb-Z	tic n±Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
	GROUP Bowser Lake	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER	
Upper Cretaceous	Dowser Lake	Chacinear official	Bulkley Intrusions	i	
LITHOLOGY:	Granodiorite Sandstone Siltstone Conglomerate Argillite Shale Coal Carbonaceous Sediment/Sediment	ary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Bowser Lake	PHYSIOGRAPHIC AREA: Nass D	epression	
CAPSULE GEOLOGY					
	An unnamed silver-lead-zinc occurrence (#244) is shown on Geological Survey of Canada Open File 2322 as being located four kilometres southwest of New Hazelton near Chicago Creek. The showing is documented as being a vein or fracture-related occurrence hosted in a small stock of the Late Cretaceous Bulkley Intrusions and in Upper Jurassic to Lower Cretaceous Bowser Lake Group sedimentary rocks. The Bulkley Intrusions are mainly granodiorite in composition, and the Bowser Lake Group sedimentary rocks are mainly sandstone, siltstone, shale, conglomerate and argillite and minor coal and carbonaceous units. No other information is available on the occurrence.				
BIBLIOGRAPHY	GSC OF *2322 (#244)				
DATE CODED: DATE REVISED:	1992/01/06 1992/02/11	CODED BY: RHM REVISED BY: DEJ	}	FIELD CHECK: N FIELD CHECK: N	
MINFILE NUMBER:	<u>093M 187</u>		NATIONAL MINERAL INVENTORY:		
--	---	--	--	----------------------------------	
NAME(S):	BURDICK CREEK				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093M04W		UTM ZONE:	09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 45 N 127 52 07 W 600 Metres Within 1 KM Occurrence #245, located Canada Open File 2322).	on Burdick Creek (Geological Survey o	NORTHING: EASTING: f	6119022 571989	
COMMODITIES:	Lead	Zinc			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polymetallic veins	Epigenetic Ag-Pb-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	<u>GROUP</u> Skeena	FORMATION Kitsuns Creek	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Sandstone Siltstone Shale Conglomerate Coal Carbonaceous Sediment/S	Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Nass De	pression	
CAPSULE GEOLOGY	An unnamed le Survey of Canada O twelve kilometres The showing i occurrence hosted Skeena Group. The siltstone, shale, No other info	ad-zinc occurrence (#245) i pen File 2322 as being loca southwest of Hazelton. s documented as a vein or f in the Lower Cretaceous Kit Kitsuns Creek Formation co conglomerate, coal and carb rmation is available on the	s shown on Geological ted on Burdick Creek, racture-related suns Creek Formation, nsists of sandstone, onaceous sediments. occurrence.		
BIBLIOGRAPHY	GSC OF *2322 (#245	)			
DATE CODED: DATE REVISED:	1992/01/06 1992/02/11	CODED BY: RHM REVISED BY: DEJ	F	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093M 188</u>		NATIONAL MINERAL INVENTO	RY:
NAME(S):	SICINTINE RANGE 1			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M14W		MINING DIVISIO UTM ZOI	DN: Omineca NE: 09 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 58 17 N 127 17 32 W 1000 Metres Within 1 KM Occurrence #246, located in the Sicintii Canada Open File 2322).	ne Range (Geological Surv	NORTHI EASTIN	NG: 6204212 NG: 606583
COMMODITIES:	Molybdenum			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Porphyry L05 Porphyry Mo (Low F- type)			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/MET	AMORPHIC/OTHER
Upper Cretaceous	DOWSEI LAKE	Undenned Formation	Bulkley Intrusio	ons
LITHOLOGY:	Granodiorite Sandstone Siltstone Shale Argillite Conglomerate Coal Carbonaceous Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks Bo	wser Lake	PHYSIOGRAPHIC AREA: Skee	na Ranges
CAPSULE GEOLOGY BIBLIOGRAPHY	A molybdenum occurrence (#246) is shown on Geological Survey of Canada Open File 2322 as being located in the Sicintine Range, 84 kilometres north-northeast of Hazelton. The showing is documented as a porphyry-type occurrence hosted in Late Cretaceous Bulkley Intrusions which are mainly granodiorite in composition. The Bulkley Intrusions intrude clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. These are mainly sandstone, siltstone, shale, conglomerate, argillite and minor coal and carbonaceous units. No other information is available on the occurrence.			
	GSC OF *2322 (#246)			
DATE CODED: DATE REVISED:	1992/01/06 1992/01/06	CODED BY: RHM REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 189</u>		NATIONAL MINERAL INVENTOR	Y:
NAME(S):	SICINTINE RANGE 2			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION	N: Omineca
NTS MAP: BC MAP:	093M14W 093M14E			=: 09 (NAD 83)
LATITODE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 57 26 N 127 15 11 W 1900 Metres Within 1 KM Occurrence #247, located in the Sici Canada Open File 2322).	intine Range (Geological Surv	vey of	5: 609067
COMMODITIES:	Molybdenum			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Porphyry L05 Porphyry Mo (Low F- type)			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Jurassic-Cretaceous Upper Cretaceous	<u>GROUP</u> Bowser Lake	FORMATION Undefined Formation	IGNEOUS/META Bulkley Intrusion	MORPHIC/OTHER
LITHOLOGY:	Granodiorite Sandstone Siltstone Shale Conglomerate Argillite Coal Carbonaceous Sediment/Sedimenta	ry		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Bowser Lake	PHYSIOGRAPHIC AREA: Skeen	a Ranges
CAPSULE GEOLOGY				
	A molybdenum occurrence (#247) is shown on Geological Survey of Canada Open File 2322 as being located in the Sicintine Range, 83 kilometres north-northeast of Hazelton. The showing is documented as a porphyry-type occurrence hosted in Late Cretaceous Bulkley Intrusions which are mainly granodiorite in composition. The Bulkley Intrusions intrude clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. These comprise mainly sandstone, siltstone, shale, conglomerate, argillite with minor coal and carbonaceous units. No other information is available on the occurrence.			
BIBLIOGRAPHY	GSC OF *2322 (#247)			
DATE CODED: DATE REVISED:	1992/01/06 1992/01/06	CODED BY: RHM REVISED BY: RHM		FIELD CHECK: N FIELD CHECK: N

NAME(S): SICINTINE RANGE 3   STATUS: Showing   REGIONS: British Columbia   NTS MAP: 093M14E   BC MAP: 093M14E   LATTIDE: 55 56 20 N   LONGITUDE: 127 13 07 W   ELEVATION: 1550 Metres   LOCATION ACCURACY: Within 1 KM   COMMENTS: Occurrence #248, located in the Sicintine Range (Geological Survey of Canada Open File 2322).   COMMODITIES: Molybdenum   MINERALS SIGNIFICANT:   SIGNIFICANT: Unknown   MINERALIZATION AGE: Unknown   MINERALIZATION AGE: Unknown   MINERALIZATION AGE: Unknown   MINERALIZATION AGE: Unknown	L MINERAL INVENTORY:		
STATUS: Showing MINING DIVISION: Omineca   REGIONS: British Columbia UTM ZONE: 09 (NAD 83)   BC MAP: LATITUDE: 55 56 20 N NORTHING: 6200711   LONGITUDE: 127 13 07 W ELEVATION: 1550 Metres NORTHING: 6211270   LOCATION ACCURACY: Within 1 KM Coccurrence #248, located in the Sicintine Range (Geological Survey of Canada Open File 2322). Otherward VENC VENC VENC VENC   COMMODITIES: Molybdenum MINIRERALS SIGNIFICANT: Unknown Venc <td></td>			
BC MAP: LATITUDE: 55 56 20 N LONGITUDE: 127 13 07 W ELEVATION: 1550 Metres LOCATION ACCURACY: Within 1 KM COMMENTS: Occurrence #248, located in the Sicintine Range (Geological Survey of Canada Open File 2322). COMMODITIES: Molybdenum MINERALS SIGNIFICANT: Unknown MINERALIZATION AGE: Unknown CLARACTER: Unknown CLASSIFICATION: Porphyry TYPE: L05 = Bornbury Mo (Low E- type)	MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)		
COMMODITIES: Molybdenum MINERALS SIGNIFICANT: Unknown MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Unknown CLASSIFICATION: Porphyry TVPE: L05 = Porphyry Mo (I ow E- type)	NORTHING: 6200711 EASTING: 611270		
MINERALS SIGNIFICANT: Unknown MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Unknown CLASSIFICATION: Porphyry TYPE: L05 — Porphyry Mo (Low E- type)			
DEPOSIT CHARACTER: Unknown CLASSIFICATION: Porphyry TYPE: L05 — Porphyry Mo (Low E- type)			
HOST ROCK DOMINANT HOSTROCK: Plutonic			
STRATIGRAPHIC AGE Jurassic-Cretaceous   GROUP   FORMATION   IGNEOUS/METAMORPHIC/OTHER     Upper Cretaceous   Bowser Lake   Undefined Formation   Bulkley Intrusions	IGNEOUS/METAMORPHIC/OTHER Bulkley Intrusions		
LITHOLOGY: Granodiorite Sandstone Siltstone Shale Conglomerate Argillite Coal Coal Coal Coal			
GEOLOGICAL SETTING PHYSIOGRAPHIC AREA: Skeena Ranges   TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Skeena Ranges   TERRANE: Plutonic Rocks Bowser Lake	SRAPHIC AREA: Skeena Ranges		
CAPSULE GEOLOGY A molybdenum occurrence (#248) is shown on Geological Survey of Canada Open File 2322 as being located in the Sicintine Range, 82 kilometres north-northeast of Hazelton. The showing is documented as a porphyry-type occurrence hosted in Late Cretaceous Bulkley Intrusions which are mainly granodiorite in composition. The Bulkley Intrusions intrude clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. These comprise mainly sandstone, siltstone, shale, conglomerate, argillite with minor coal and carbonaceous units. No other information is available on the occurrence. BIBLIOGRAPHY GSC OF *2322 (#248)	A molybdenum occurrence (#248) is shown on Geological Survey of Canada Open File 2322 as being located in the Sicintine Range, 82 kilometres north-northeast of Hazelton. The showing is documented as a porphyry-type occurrence hosted in Late Cretaceous Bulkley Intrusions which are mainly granodiorite in composition. The Bulkley Intrusions intrude clastic sedimentary rocks of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. These comprise mainly sandstone, siltstone, shale, conglomerate, argillite with minor coal and carbonaceous units. No other information is available on the occurrence. GSC OF *2322 (#248)		
DATE CODED: 1992/01/06 CODED BY: RHM FIELD CHECK: N DATE REVISED: 1992/02/11 REVISED BY: DEJ FIELD CHECK: N	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>093M 191</u>			NATIONAL MINERAL INVENTORY	<b>/</b> :
NAME(S):	SICINTINE RANGE 4				
STATUS: REGIONS: NTS MAP: BC MAP:	Showing British Columbia 093M14E			MINING DIVISION UTM ZONE	I: Omineca E: 09 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 53 15 N 127 12 18 W 1500 Metres Within 1 KM Occurrence #249, located Canada Open File 2322).	in the Sicintine	Range (Geological Surv	NORTHING EASTING	6: 6195015 6: 612268
COMMODITIES:	Lead	Zinc			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal I05 Polymetallic veins	Epigenetic Ag-Pb-Zn±Au			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP Bowser Lake		FORMATION Undefined Formation	IGNEOUS/METAN	MORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Shale Conglomerate Argillite Coal Carbonaceous Sediment/S	Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake			PHYSIOGRAPHIC AREA: Skeena	a Ranges
CAPSULE GEOLOGY					
	An unnamed le Survey of Canada C Range, 77 kilometr The showing i occurrence hosted Lake Group. The E sediments includin conglomerate with No other info	ad-zinc oc pen File 2 es north-n s documente in the Mide owser Lake g sandston minor coal rmation is	currence (#249) i 322 as being loca ortheast of Hazel ed as a vein or f dle Jurassic to L Group is compose e, shale, siltsto and carbonaceous available on the	s shown on Geological ted in the Sicintine ton. racture-controlled ower Cretaceous Bowser d mainly of clastic one, argillite and units. coccurrence.	
BIBLIOGRAPHY	GSC OF *2322 (#249	)			
DATE CODED: DATE REVISED:	1992/01/06 1992/02/11	C R	ODED BY: RHM EVISED BY: DEJ		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093M 192</u>	NATIC	ONAL MINERAL INVENTORY:	
NAME(S):	FIFTEEN MILE CREEK COAL			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M06W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 47 N 127 23 35 W 920 Metres Within 1 KM Unnamed coal occurrence, located on F Survey of Canada Open File 2322).	Fifteen Mile Creek (Geological	NORTHING: EASTING:	6130805 601987
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Jurassic-Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Fossil Fuel A04 Bituminous coal			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
	GROUP Bowser Lake	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Conglomerate Siltstone Argillite Carbonaceous Sediment/Sedimentary Coal			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	PHYS	IOGRAPHIC AREA: Skeena I	Ranges
CAPSULE GEOLOGY	An unnamed coal occurr Canada Open File 2322 on Fi east-northeast of Hazelton. The area is underlain sedimentary strata of the M Lake Group. The Bowser Lak conglomerate, siltstone, ar units. No other information i	ence is shown on Geolog fteen Mile Creek, 20 k by moderately-dipping, diddle Jurassic to Lowe Group consists of sa gillite with minor coa s available on the occu	gical Survey of ilometres folded clastic r Cretaceous Bowser ndstone, shale, l and carbonaceous urrence.	
BIBLIOGRAPHY	GSC OF *2322			
DATE CODED: DATE REVISED:	1992/01/06 1992/01/21	CODED BY: RHM REVISED BY: RHM	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093M 193</u>	Ν	IATIONAL MINERAL INVENTORY:		
NAME(S):	EIGHTEEN MILE CREEK COAL				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093M06W		MINING DIVISION: UTM ZONE:	Omineca 09 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 17 42 N 127 19 28 W 920 Metres Within 1 KM Unnamed coal occurrence east of Eigh east of Hazelton (Geological Survey of	teen Mile Creek, 23 kilometre Canada Open File 2322).	NORTHING: EASTING: s	6128899 606390	
COMMODITIES:	Coal				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Jurassic-Cretaceous				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Fossil Fuel A04 Bituminous coal				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Jurassic-Cretaceous	GROUP Bowser Lake	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Sandstone Shale Conglomerate Siltstone Argillite Carbonaceous Sediment/Sedimentary Coal				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Bowser Lake	F	HYSIOGRAPHIC AREA: Skeena	Ranges	
CAPSULE GEOLOGY	An unnamed coal occurrence is shown on Geological Survey of Canada Open File 2322 as being located east of Eighteen Mile Creek, 23 kilometres east-northeast of Hazelton. The area is underlain by moderately-dipping, folded clastic sedimentary strata of the Middle Jurassic to Lower Cretaceous Bowser Lake Group. The Bowser Lake Group consists of sandstone, shale, conglomerate, siltstone, argillite with minor coal and carbonaceous units.				
BIBLIOGRAPHY	GSC OF *2322				
DATE CODED: DATE REVISED:	1992/01/06 1992/02/11	CODED BY: RHM REVISED BY: DEJ	F	FIELD CHECK: N FIELD CHECK: N	

\_

MINFILE NUMBER:	<u>093M 194</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	STERITT CREEK COAL		
STATUS: REGIONS: NTS MAP: BC MAP	Showing British Columbia 093M12E		MINING DIVISION: Omineca UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 30 54 N 127 39 44 W 370 Metres Within 1 KM Unnamed coal occurrenc of Canada Open File 2322	e north of Sterritt Creek (Geological Sur 2).	NORTHING: 6152915 EASTING: 584473 vey
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A04 Bituminous coal	Massive Fossil Fuel	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Carbonaceous Sediment/ Sandstone Shale Siltstone Conglomerate Coal	Sedimentary	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Overlap Assemblage		PHYSIOGRAPHIC AREA: Nass Depression
CAPSULE GEOLOGY	An unnamed co Canada Open File 2 kilometres north o The area is u sedimentary strata (Skeena Group). 7 and siltstone with No other info	cal occurrence is shown on G 2322 as being located north of Hazelton. underlain by moderately east a of the Lower Cretaceous Ki The strata consist of sandst h minor coal and carbonaceou ormation is available on the	Geological Survey of of Sterritt Creek, 29 t-dipping clastic itsuns Creek Formation tone, shale, conglomerate us units. e occurrence.

# BIBLIOGRAPHY

GSC OF \*2322 DATE CODED: 1991/02/06 DATE REVISED: 1992/02/11

CODED BY: RHM REVISED BY: DEJ

MINFILE NUMBER:	<u>093M 195</u>	NATIONAL MIN	NERAL INVENTORY:
NAME(S):	<u>MR</u> , TORK		
STATUS:	Prospect British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093M02E		UTM ZONE: 09 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 19 N 126 40 59 W 1062 Metres Within 500M Area of drilling west of Babine Lake, abou community of Hazelton (Assessment Rep	ut 64 kilometres east of the ort 22462).	NORTHING: 6118229 EASTING: 647501
COMMODITIES:	Copper Silver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcocite Bornite Silver Calcite Quartz Carbonate Malachite Azurite Carbonate Oxidation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Disseminated Hydrothermal Epigenetic I06 Cu±Ag quartz veins 300 x 50 Metres Zone of copper-silver mineralization.	STRIKE/DIP:	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Hazelton	FORMATION Smithers	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Feldspathic Fossiliferous Sandstone		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYSIOGRAP	HIC AREA: Nechako Plateau
INVENTORY			
ORE ZONE:	DRILLHOLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core <u>COMMODITY</u> Silver Copper Over 33 metres. P. Wojdak, personal communication, 1995	YEAR: 1995 GRADE 35.0000 Grams per tonne 0.1900 Per cent	
CAPSULE GEOLOGY		Debender in 1000 summerte	
	prospector grant. A zone of long and up to 50 metres wide trenching and drilling (14 ho Hostrocks are feldspath identified as Smithers Format Jurassic Hazelton Group, that mineralized with finely disse of native silver. Mineralize and azurite; primary mineralize reclaimed trenches were re-op The most distinctive fea alteration. Vugs in the frac calcite and chalcedonic quart the hostrocks, but is interpri moderate northwest dip of the drill and trench intercepts are personal communication, 1995 Drillhole intercepts are 0.43 per cent copper, 74 gran trench versus 0.19 per cent c	copper-silver mineralizati e exposed in a clear-cut, w ples) by Equity Silver Mine ic and fossiliferous sandst tion of the Upper Triassic- t is fractured, carbonate a eminated chalcocite, bornit ation is evidenced by secon ization is so difficult to pened by Equity to extend s ature is dull brown (iron-) cture zone are partially fi tz. The zone strikes north reted to dip steeply compar e strata. Difficulty in co may be due to later faults ). e lower grade than trench a ms per tonne silver over 16 copper, 35 grams per tonne le) suggesting surface enri	on 300 metres as explored by s in 1991-92. one, Middle ltered and e and traces dary malachite recognize that ampling. carbonate lled with east, as do ed to the rrelating (P. Wojdak, ssays (e.g. .5 metres in a silver over 33 chment. One

high grade drill intercept (3.65 per cent copper and 195.7 grams per tonne silver over 2.84 metres) merits more work. Mineralization is extensive but unusual and generally low grade.

#### BIBLIOGRAPHY

H	EMPR	AS	s	RPT	*22462
(	GSC	OF	23	22	

DATE CODED: 1995/08/17 DATE REVISED: / / CODED BY: GO REVISED BY:

MINFILE NUMBER:	<u>093N 001</u>	NATIONAL MINE	RAL INVENTORY: 093N13 Cu1
NAME(S):	MISTY, FORE, KAY		
STATUS: REGIONS:	Developed Prospect British Columbia		MINING DIVISION: Omineca
BC MAP: I ATITUDE:	55 54 57 N		NORTHING: 6199567
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	125 30 49 W 1600 Metres Within 500M The location is for the centre of drill activity established the Misty copper reserves (as Assessment Report 21307). Located appr northwest of Takla Landing.	/ where El Paso Mining s shown on Figure 7, roximately 56 kilometres north-	EASTING: 342910
COMMODITIES:	Copper		
	Chalcopyrite Pyrite Bornite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Magnetite Quartz Chlorite K-Feldspar Malachite Chloritic Potassic Unknown	Oxidation	
DEPOSIT CHARACTER	Disseminated Vein	Stockwork	
CLASSIFICATION: TYPE: SHAPE:	Porphyry Hydrothermal L03 Alkalic porphyry Cu-Au Tabular	Epigenetic	
MODIFIER: DIMENSION: COMMENTS:	Fractured Faulted 500 x 170 x 11 Metres Dimensions and trend are for the mineraliz El Paso Mining and Milling Company.	STRIKE/DIP: ed fault zone outlined by	TREND/PLUNGE: 135/
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP F	ORMATION	IGNEOUS/METAMORPHIC/OTHER
Middle Jurassic			Duckling Creek Syenite Complex
LITHOLOGY:	Hornblende Biotite Gneiss Hornblende Monzonite Syenite Dike Orthoclase Vein Syenite Pegmatite Dike Pegmatite		
HOSTROCK COMMENTS:	The Duckling Creek Syenite Complex is on to Early Cretaceous Hogem Intrusive Con	ne phase of the Late Triassic nplex.	
GEOLOGICAL SETTING TECTONIC BELT	Intermontane	PHYSIOGRAPHI	C AREA: Omineca Mountains
TERRANE: METAMORPHIC TYPE:	Plutonic Rocks Quesr Regional REI	nel LATIONSHIP:	GRADE: Greenschist
INVENTORY	-		
ORE ZONE:	MISTY	REPORT ON: Y	
	CATEGORY: Inferred QUANTITY: 3000000 Tonnes COMMODITY	YEAR: 1973	
COMMENTS: REFERENCE:	Copper Possible reserves. CIM Special Volume 15 (1976), Table 1, No	0.6000 Per cent b. 95.	
CAPSULE GEOLOGY			2
	The Misty occurrence is (Omineca Mountains) near the approximately 56 kilometres n area was originally acquired it was not until 1960 that ex In the early 1970s, El Paso M geological mapping, geochemic and rotary drilling which suc	situated within the Swannell headwaters of Duckling Creek orth-northeast of Takla Land by Kennco Explorations Ltd. tensive surface exploration ining and Milling Company ca al and geophysical surveys a cessfully outlined a signifi	Kanges ing. The in 1948, but occurred. mrried out and diamond cant zone of

copper mineralization. The ground surrounding this zone is currently controlled by Aranlee Resources Ltd.

The area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have been emplaced into volcanic rocks of the Middle Triassic to Lower Jurassic Takla Group, east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. Peto (1971) recognized 17 distinct plutonic varieties on the basis of mineralogical, textural and field relation criteria. Garnett (1978) subdivided the southern Hogem batholith into three distinct phases. Phase I rocks, chemically divided into the Hogem granodiorite and the Hogem basic suite, yield potassium/argon dates ranging from 176-212 Ma (Late Triassic to Middle Jurassic). Rocks forming Phase II Duckling Creek and Chuchi syenite complexes yield potassium/argon dates within the limits 162-182 Ma (Middle Jurassic). Dates from Phase III granite range from 108-126 Ma (Early Cretaceous).

Mineral occurrences comprising the Misty developed prospect occur within strongly foliated rocks of the Duckling Creek Syenite Complex. The complex is elongated in a northwesterly direction and contains both intrusive and migmatized rock units showing considerable compositional diversity. Three main rock types are recognized on the property: hornblende monzonite, syenite and pegmatite. These rock types show much variation in texture and are gradational from one to the other. The hornblende monzonite unit is the most common lithology, texturally grading from medium grained to pegmatitic and displaying moderate to intense foliation. The development of gneissic banding is very common. In some areas the monzonite shows evidence of magma cumulate differentiation with the development of mafic and ultramafic fractions. The syenite varies from fine grained to pegmatitic in texture and generally occurs as dikes crosscutting the hornblende monzonite. The pegmatite unit consists of feldspar (85 per cent) and hornblende (15 per cent) and predominantly occurs as dikes cutting the two other lithologies.

predominantly occurs as dikes cutting the two other lithologies. Disseminated chalcopyrite, pyrite and minor bornite occur in small amounts throughout most of the foliated rocks. The best mineralization appears to occur in the more intensely foliated rocks showing chlorite and potassium feldspar alteration together with fracturing and faulting.

The preliminary copper inventory outlined by El Paso Mining and Milling Company between 1970 and 1973 occurs within a northwesterly trending fault zone cutting a strongly chloritized, potassium feldspar-altered, hornblende biotite gneiss phase within the hornblende monzonite. The mineralized zone is 500 metres long, averages 11 metres wide and extends to a depth of at least 170 metres. Mineralization comprises disseminated sulphide phases, principally chalcopyrite and pyrite, with veinlets of chalcopyrite and pyrite common along the contact margins of crosscutting syenite dikes and orthoclase veins. The best mineralized sections within the hornblende biotite gneiss are associated with these dikes and veins, as well as potassium feldspar and chlorite alteration and strong foliation, faulting and fracturing. These more intensely altered and mineralized sections show an enriched magnetite content relative to the less altered, less foliated surrounding rock. Possible reserves are 3 million tonnes grading 0.6 per cent copper (CIM Special Volume 15 (1976), Table 1, No.95).

Recent work in the area has outlined two areas of significant mineralization differing from that outlined by El Paso. Three and one half kilometres north of El Paso's Misty deposit, malachite-stained syenite boulders were found to be anomalous in gold and silver, the best sample (BM 505514) assaying 6.83 grams per tonne gold, 243.09 grams per tonne silver and 18.6 per cent copper (Assessment Report 21307, page 13). Two kilometres to the northwest at the Perretts Cliff showing (093N 220), a polymetallic vein was recently discovered assaying high in gold and silver.

#### BIBLIOGRAPHY

EM GEOFILE 2003-6 EMPR AR 1949-A98-A102; 1961-116; 1962-134 EMPR ASS RPT 334, 440, 2778, \*20004, \*21307 EMPR BULL 70 EMPR GEM 1970-184; 1971-203-210,218; 1972-454; 1973-369,370 EMPR OF 1992-1 EMPR (PRELIM) MAP 9 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMR MIN BULL MR 223 B.C. 255 EMR MP CORFFILE (Fort Reliance Minerals Limited) GSC MAP 844A; 907A; 971A; 1424A

FIELD CHECK: N FIELD CHECK: N

#### BIBLIOGRAPHY

	GSC MEM 252, pp. 98-103	
	GSC P 42-7; 45-6	
	CIM Special Volume 15 (1976)	, Table 1, #95; Vol. 67, No. 749, pp.
	101-106	
	GCNL #190(Oct.1), 1990	
	Harivel, C. (1972): Unpublis	hed B.Sc. Thesis on the Duckling Creek
	area of the Hogem Batholi	th, University of British Columbia
	1095/07/24	
DATE PEVISED	1903/07/24	
DATE REVIOLD.	1000/00/20	

MINFILE NUMBER:	<u>093N 002</u>			NATIONAL MIN	ERAL INVENTO	DRY: 093N14 Cu2
NAME(S):	LORRAINE, LORREX, BLUI UPPER MAIN, LOWER MAIN ECKLAND, WEBER, NORTH JAJAY	E RIDGE, N, BISHOP, H CIRQUE,				
STATUS:	Developed Prospect				MINING DIVIS	ION: Omineca
NTS MAP:	093N14W				UTM ZC	NE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 55 40 N 125 26 27 W 1768 Metres Within 500M Centre of mineralized zone Duckling Creek and 60 kilo 70, Figure 15).	e, 4.5 kilometres no metres northeast o	orth of the west forl f Takla Landing (Bu	< of illetin	NORTH EASTI	ING: 6200733 ING: 347504
COMMODITIES:	Copper	Gold	Silver			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS:	Chalcopyrite Bornite Magnetite Epidote Biotite Chlorite Magnetite Malachite Also limonite and cuprite.	Pyrite Aegirine K-Feldspar Azurite	Chalcocite Augite N Sericite Ep	Covellite lepheline idote		
ALTERATION TYPE: MINERALIZATION AGE:	Potassic Middle Jurassic	Sericitic	Propylitic	(	Dxidation	
ISOTOPIC AGE:	175 +/- 5 Ma	DATING METHOD:	Potassium/Argon	MATER	RIAL DATED:	Biotite pyroxenite
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Disseminated Porphyry L03 Alkalic porphyry C Tabular Faulted 900 x 240 x 70 Date is for pyroxenite and a intrusion and a maximum for	Stockwork Hydrothermal u-Au Metres should be consider or the sulphide min.	Vein STRIKE/D ed a minimum for t eralization. Deposi	S NP: he t	ihear TREND	/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic			, 10).		
STRATIGRAPHIC AGE Middle Jurassic	<u>GROUP</u>	<u>FO</u> F	RMATION		IGNEOUS/ME Duckling Cree	TAMORPHIC/OTHER k Syenite Complex
DATING METHOD: MATERIAL DATED: Mesozoic	Potassium/Argon Biotite pyroxenite				Hogem Intrus	ve Complex
LITHOLOGY:	Syenite Migmatite Syenite Granite Dike Monzonite Pyroxenite Diorite Syenite Feldspar Porphyry Meta Volcanic				Ū	
HOSTROCK COMMENTS:	Mineralization is in phase	I monzodiorite of D	uckling Creek Com	plex.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Quesnel		PHYSIOGRAPH	IIC AREA: Omi	neca Mountains
INVENTORY						
ORE ZONE:	LORRAINE		REPORT O	N: Y		
COMMENTS: REFERENCE:	CATEGORY: Indicated QUANTITY: 319000 COMMODITY Silver Gold Copper Likely indicated. T. Schroeter, personal corr	000 Tonnes <u>GF</u> ( ( ) nmunication, 1998.	YEAF ADE 4.7000 Grams 0.1700 Grams 0.6600 Per ce	R: 1998 per tonne per tonne nt		

#### INVENTORY

ORE ZONE:	UPPER MAIN		REI	PORT ON: Y
	CATEGORY: QUANTITY:	Inferred 4500000 Tonnes		YEAR: 1973
			GRADE	
	Gold		0.3400	Grams per tonne
	Possible reserv	es using a 0.4 per cer	0.7500 ot conner cutoff a	rade
REFERENCE:	Canadian Mining	g and Metallurgy Specia	al Volume 15, pag	e 397.
ORE ZONE:	LOWER MAIN		REI	PORT ON: Y
	CATEGORY:	Inferred		YEAR: 1973
		5500000 Tonnes		
	Gold		0 1000	Grams per tonne
	Copper		0.6000	Per cent
COMMENTS:	Possible reserv	es, using a 0.4 per cer	nt copper cutoff gi	rade.
			1	007

REFERENCE: Canadian Mining and Metallurgy Special Volume 15, page 397.

#### CAPSULE GEOLOGY

The Lorraine developed prospect is situated in the Swannell Ranges (Omineca Mountains) near the headwaters of Duckling Creek. Malachite mineralization coating several fault-line cliffs near the base of what now is known as the Upper zone was apparently known to local natives for many years before being shown to prospectors during the first World War.

The area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have been emplaced into volcanic rocks of the Middle Triassic-Lower Jurassic Takla Group, east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. Garnett (1978) subdivided the southern Hogem batholith into three distinct phases: I) Late Triassic-Middle Jurassic Hogem granodiorite and Hogem basic suite, II) Middle Jurassic Duckling Creek and Chuchi Syenite complexes and III) Early Cretaceous granite. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70).

The deposit is hosted within rocks assigned to the Middle Jurassic Duckling Creek Syenite Complex, although rocks representing all three intrusive phases are present in the area. The complex forms a northwesterly trending, roughly elliptical body approximately 5 kilometres wide and 32 kilometres long. Rocks in the complex vary considerably in texture, mafic content and specific mineralogy, but have been subdivided into two main divisions: 1) pink holofelsic syenite, varying in texture from aplitic to pegmatitic and 2) pink, fine to medium-grained syenite migmatite. Copper mineralization (with or without gold), consisting predominantly of disseminated chalcopyrite and bornite, occurs in the mafic-rich portions of foliated syenite migmatite adjacent to the northeast contact of the complex with Phase I monzonite.

The Lorraine deposit consists of two fault-bound mineralized zones (greater than 0.25 per cent copper), referred to as the Upper Main and Lower Main zones. The Upper zone is well exposed and deeply weathered, whereas the Lower zone is concealed and relatively unweathered. The Upper zone consists of one continuous mineralized body; the Lower zone comprises several smaller bodies. Both zones occur in distinctly orange-coloured, foliated syenite migmatite that contains metasomatized relicts of pyroxenite, diorite, monzonite and finely banded, possibly metavolcanic basement rocks. Aplitic to pegmatitic leucocratic syenite and syenite feldspar porphyry form dikes and sills which are younger than the syenite migmatite. Aplitic to pegmatitic leucocratic granite dikes occur throughout the Upper zone. The dikes parallel well-developed, northeasterly trending, nearly vertical fractures and were emplaced after the period of sulphide enrichment.

A potassium-argon age determination using potassiumfeldspathized biotite pyroxenite from the Lower zone yielded an age of 175 +/- 5 Ma (Bulletin 70, Appendix 1). This is considered to indicate the minimum age of the synitic intrusion and the maximum age of the sulphide mineralization (Canadian Institute of Mining and Metallurgy Special Volume 15).

The mineralized zones parallel the westerly trend of the foliated migmatite. Erratic mineralized lenses in the Lower zone are controlled by steeply dipping foliation. However, in overall shape, the zones have the appearance of slabs with moderate westerly dips.

PAGE: 844 REPORT: RGEN0100

## CAPSULE GEOLOGY

Thus, the mineralized zones appear to form lenticular bodies that plunge gently west. Taken as one deposit, the Lorraine has a total length of about 900 metres, an average surficial width of about 240 metres and an average thickness (depth) of about 70 metres (measured from figures 1,3 and 4, Canadian Institute of Mining and Metallurgy, Special Volume 15, pages 398-399).

In the Upper zone, significant copper mineralization appears to be confined to a narrow slab enclosed by relatively unmineralized syenite migmatite. Although the Upper zone has been isolated from the Lower zone by faulting, sulphide deposition in both zones seems to be related to migmatite emplacement.

Three steeply dipping fracture patterns can be distinguished in the general region. The most prominent pattern strikes approximately 285 degrees and is the youngest fracture system. It cuts northeast trending dikes and fractures. The northeast fracture system strikes from 050 to 075 degrees and is the next most prominent set. A third fracture set strikes north.

Numerous faults disrupt and segregate mineralized segments within the Lower zone. Local faults appear to be related to a major north-trending lineament west of the deposit. Although most mineralization is disseminated, primary sulphides are found less commonly on fractures, and some faults are loci for high-grade zones. However, the major fracture patterns cut the mineralization and offset the youngest dikes.

The best mineralized sections contain disseminated chalcopyrite and bornite, although sulphide-bearing veinlets and fracture-fillings are also present. The Lower zone consists entirely of primary sulphides, erratically distributed in mafic-rich lenses in the syenite migmatite. Within individual lenses, there is a mineral zonation from an outer rim of chalcopyrite with minor pyrite, through a zone of chalcopyrite with minor bornite into a core of bornite with minor chalcopyrite. Magnetite is common in veinlets and stringers and as an accessory mineral throughout the zone.

Although the Upper zone has similar primary sulphide content, mineralization is more homogeneous and the syenite migmatite has less mafic streaking. In addition, the Upper zone is highly oxidized and malachite, azurite, chalcocite, covellite, cuprite and limonite have been recognized.

In 2002 new mapping has divided the Duckling Creek Complex (DCC) into two distinct phases, and in doing so has reassigned mafic portions previously thought to be old, to phase one of the younger DCC. Phase one consists of feldspathic biotite pyroxenites, mela syenites, and the host for the mineralization, the monzo-syenite. Alkaline minerals such as pseudoleucite, nepheline, melanite, aegerine, augite are noted. Phase two is mainly leucocratic syenites and megacrystic porphyries dikes. The alteration includes strong potassic calc silicate assemblages followed by minor propylitic or sericitic alteration. Scarce, younger, potash feldspar and quartz veins cut rock. The mineralization in the main zone consists of disseminated copper sulphides and minor veinlets. The minerals are chalcopyrite and bornite and minor pyrite. Abundant secondary minerals may include magnetite and hematite, as well as the typical copper alteration minerals. The minor net textured sulphides are thought to have formed as a result of infiltration (EMPR Geofile 2003-6).

In both zones, the copper mineralization (from 0.25 to 2.0 per cent) is associated with high biotite and chlorite content, potash feldspathization, pervasive sericitization, and the presence of accessory epidote and magnetite.

The first claims on Lorraine Mountain were made by prospectors in 1931. Consolidated Mining and Smelting Company Limited acquired the property in 1943 but allowed the claims to lapse in 1947. Later in 1947, a predecessor to Kennecott staked the property. By 1949 they had mapped the surface of the Main Zone and completed five diamond drill holes. In 1961, the property was enlarged and geochemical and geophysical surveys were completed along with two diamond drill holes. Granby Mining Corporation then optioned the property from 1970 to 1973. They also enlarged the property and conducted soil and rock sampling, trenching, mapping, 3992 metres of diamond drilling and 2,470 metres of percussion drilling on the Main Zone. Further work and more drilling was completed in 1990 and 1993 by Kennecott after the property had been dormant for 15 years. This work discovered the Bishop Zone (093N 066). Lysander, in 1994, drilled a total of 1,221.4 metres in ten holes. Seven holes were drilled on Bishop Zone and three holes in the western part of Upper Zone.

Subsequent to the 1994 drilling, five adjacent Boot-Steele claims of 20 units each were optioned in order to protect both the southeastern extension of the Bishop Zone and other prospects near

PAGE: 845 REPORT: RGEN0100

#### CAPSULE GEOLOGY

the presently known Lorraine deposits. The Boot 6 claim was later added in the Boot-Steele option. Recognizing the importance of the Jajay Ring structure led to Lysander's optioning the Dorothy and Steelhead properties and staking the PAL claims in 1996 in order to protect the area of the Jajay Ring.

Indicated potential (possible) reserves based on work by Kennco Explorations and Granby Mining Company through 1976 for the Upper zone are 4.5 million tonnes grading 0.75 per cent copper and 0.34 gram per tonne gold. Similar reserves for the Lower zone are 5.5 million tonnes grading 0.6 per cent copper and 0.10 gram per tonne gold. A 0.4 per cent copper cutoff grade was used for both calculations (Canadian Institute of Mining and Metallurgy Special Volume 15, page 397).

Volume 15, page 397). In 1995, with Explore B.C. Program support, Lysander Gold Corporation diamond drilled 26 holes totalling 3843.53 metres. Twenty-three holes totalling 2903 metres were drilled on the Upper Main zone and proved that the mineralization is more extensive and extends deeper than previously recognized. Two holes were drilled on the Bishop zone but intersected only barren pyroxenite, confirming the previously held view that the Bishop zone has been displaced by faulting near the property boundary. One hole was drilled on Jeno Ridge near showings of high grade copper and precious metals indicating that these showings contain significant amounts of precious metals and copper. Overall, the highlights of the 1995 program are the proof that mineralization in the Upper Main zone occurs as steeply dipping irregular masses with considerable vertical extent, not as a gently west-dipping slab as previously held. The program also indicated that mineralized talus below the Upper Main zone contains important amounts of copper. Several other zones such as Eckland, Weber, North Cirque and others remain to be drill tested (Explore B.C. Program 95/96 - M86).

A modest drilling program of 10 holes in 1996 tested extensions of the Upper main zone at depth, the southward extension of the Bishop zone by 300 metres, the potential for higher grades gold mineralization in the Eckland zone and the North Cirque zone. Hole 96-44 assayed 1.49 per cent copper over 32.2 metres, open to depth (1997 Cordilleran Roundup Abstracts, page 39). Three holes were drilled in 1997. Hole 97-47 cut a 64-metre section averaging 0.58 per cent copper and 0.24 grams per tonne gold (Exploration in BC 1997, page 28).

Additional geochemical surveys also occurred in 1997, 1999 and 2000. Resources, likely indicated, for Lorraine are 31.0 million tonnes grading 0.66 per cent copper, 0.17 grams per tonne gold and 4.7 grams per tonne silver (T. Schroeter, personal communication, 1998).

In October 2000, Eastfield Resources Ltd. announced its agreement to option the Lorraine-Jajay property from Lysander. Easfield has the potential to earn a 75 per cent interest in the property. In the late fall of 2000, Eastfield had completed and initial diamond drilling program on the MacKenzie zone, ll kilometres south of the Lorraine deposits. Eastfield Resources continued drilling in 2001 which has further extended the Lower Main and Upper Main zones.

Drillhole 2001-60 intercepted 133 metres grading 0.76 per cent copper and 0.48 gram per tonne gold. Drilling in early 2002 resulted in a 51 metre intercept in drillhole 2002-62 of 0.89 per cent copper and 0.61 gram per tonne gold (Press Release, June 18, 2002).

#### BIBLIOGRAPHY

EM EXPL 1997-28; 2001-11-21; 2002-13-28 EM GEOFILE 2002-5; 2003-6 EMPR AR 1931-A76; 1949-A98-A102; 1961-116; 1962-134; 1963-130 EMPR ASS RPT 377, 429, 506, 4850, 20608, 23249, 23324, 24030, 24233, 24358, 25088, 25978, 26239 EMPR BULL \*70, pp. 42-49 EMPR Explore B.C. Program 95/96 - M86 EMPR GEM 1970-184; 1971-203-210,215-217; 1972-455,456; \*1973-370-378 EMPR INF CIRC 1993-13; 1997-1, p. 26; 2001-1, p. 11 EMPR MAP 9, 65 (1989) EMPR OF 1992-1; 1992-3; 1994-1; 1998-8-F, pp. 1-60; 1998-8-G, pp. 1-30; 1998-10 EMPR PF (Koo, J.H. (1968): Geology and Mineralization on the Lorraine Property, Unpub. M.Sc. Thesis, University of British Columbia; Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File); 1997 Cordilleran Roundup abstract; Canstock.com Website (Sept. 1998): Lorraine and Boot-Steele Copper-Gold Properties, Lysander Gold Corporation, 4 p.) EMR MP CORPFILE (Granby Mining Corporation)

#### BIBLIOGRAPHY

GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, p. 183 GSC P 42-7; 45-6 CIM Special Volume \*15, 1976, pp. 397-401; Vol. 61, No. 679, p. 1330; Vol. 67, No. 749, pp. 101-106 GCNL #183(Sept.23), #223(Nov.20), 1997 MIN REV Winter 1996/97, pp. 32,33 N MINER Sept.25, 1995; May 4, 1998; Sept.3, Dec.2, 2002 PR REL Lysander Gold Corporation, Sept.14, 1995; Nov.7, 1996; June 18, 2002; Eastfield Resources Ltd., June 18, July 3, 2002; Eastfield Resources Ltd., Aug.12, Sept.16, Dec.19, 2002 STOCKWATCH Oct.1, 2001 WWW http://www.eastfieldgroup.com/eastfield/etfhome.html; http://www.infomine.com/ Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia

DATE CODED: 2000/03/27 DATE REVISED: 2000/03/27 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 003</u>			١	NATIONAL MINE	RAL INVENTORY:	093N14 Cu4
NAME(S):	<u>Jeno,</u> BM, JAJAY						
STATUS:	Prospect					MINING DIVISION:	Omineca
NTS MAP:	093N14W					UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 54 24 N 125 25 14 W 1895 Metres Within 500M Location is a pod of mass about 2.5 kilometres sout 002) and 59 kilometres no 21992, Figure 4).	sive bornite on a h-southeast of th ortheast of Takla	north-facing one Lorraine oc Landing (Asso	cliff face, ccurrence (( sessment Re	093N eport	NORTHING: EASTING:	6198339 348688
COMMODITIES:	Copper	Gold	Sil	lver	Pa	alladium	Platinum
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Malachite Garnet Oxidation Unknown						
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Podiform Hydrothermal L03 Alkalic porphyry 0 The mineralized pods are to a 10 to 15 metre strike I	Shear Epigenetic Cu-Au up to 15 centime ength.	Pc etres thick and	orphyry d are restric	ted		
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE Middle Jurassic Mesozoic	GROUP	<u>F</u>	ORMATION			IGNEOUS/METAM Duckling Creek Sy Hogem Intrusive C	ORPHIC/OTHER enite Complex omplex
LITHOLOGY:	Megacrystic Syenite Mafic Syenite Monzonite						
HOSTROCK COMMENTS:	The Duckling Creek Syer to Early Cretaceous Hog	nite Complex is o em Intrusive Con	ne phase of th nplex.	he Late Tria	assic		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks			F	PHYSIOGRAPH	IC AREA: Omineca	Mountains
INVENTORY							
ORE ZONE:	SAMPLE		RE	PORT ON:	N		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Palladium Grab sample 114301. Assessment Report 21993	nalysis  2, page 21.	GRADE 276.0000 14.4000 10.0000 1.8650	YEAR: Grams pe Grams pe Per cent Grams pe	1991 er tonne er tonne er tonne		
CAPSULE GEOLOGY	The Jone estimate	rrongo ia -	1+110+0-2	n the De	abling are	ok oros sf	
	The Jeno occu the Swannell Range south-southeast of kilometres northea The area is u the Late Triassic have been emplaced	(Omineca the Lorrai ast of Takla anderlain by to Early Cr	Mountains ne occurre Landing. mesozona etaceous l	n the Du ), appro ence (09 1 pluton Hogem In	Diskiing Cre Dimately 2 D3N 002) an Dic rocks a Dirusive Co Middle Tri	ek area OI .5 kilometres d 59 ssigned to mplex which assic to	

have been emplaced into volcanic rocks of the Middle Triassic to Lower Jurassic Takla Group, east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70).

In the immediate area of the occurrence, medium-grained, strongly foliated, mafic syenite is in contact with light grey

PAGE: 848 REPORT: RGEN0100

## CAPSULE GEOLOGY

coloured megacrystic syenite comprising up to 8 centimetres long, variably foliated potassium feldspar phenocrysts in a medium-grained groundmass. These rocks likely belong to the Middle Jurassic Duckling Creek Syenite Complex, one phase of the Hogem Intrusive Complex.

Early reports (circa 1949) describe the occurrence as comprising chalcopyrite, bornite and malachite hosted by fine-grained, pink syenite or monzonite exposed in a northwesterly trending outcrop 30 metres long by up to 8 metres wide. A chip sample across 2.1 metres reportedly assayed 3.24 per cent copper (Assessment Report 21992, page 10).

Recent reports describe copper-rich pods up to 15 centimetres thick occurring in a vertically dipping east-west fracture near the contact of the mafic and megacrystic syenite units. The pods contain semimassive bornite, lesser chalcopyrite and abundant malachite stains and appear to be restricted to a 10 to 15-metre strike length.

One grab sample from the outcrop assayed 14.4 grams per tonne gold, 276 grams per tonne silver, 1.865 grams per tonne palladium and nearly 10 per cent copper (Assessment Report 21992, page 21). Better results were obtained from local float samples. Values of up to 0.58 gram per gonne platinum are reported from bornite-rich breccia (www.eastfield/group.com).

The BM (Jeno) zone was explored by Lysander Minerals Corp. in 1999 as part of the Jajay property which includes the Lorraine (093N 002). Eastfield Resources Ltd. optioned the Jajay in late 2000.

Petrographic studies indicate that garnet and pyroxene with interstitial bornite and exsolved chalcopyrite, as well as fresh biotite clinopyroxenite with interstial sulphides (Bornite and chalcopyrite) magnetite and apatite both suggests a orthomagmatic origin for the sulphides. One sample, not located, is said to carry 19 grams per tonne gold, 680 ppb, and 3.460 ppm Palladium (Geofile 2002-2).

#### BIBLIOGRAPHY

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/21 CODED BY: GSB REVISED BY: DMN

\_

MINFILE NUMBER:	<u>093N 004</u>	NATIONA	L MINERAL INVENTORY:
NAME(S):	<u>JO 30</u>		
STATUS:	Showing		MINING DIVISION: Omineca
NTS MAP:	093N12E		UTM ZONE: 10 (NAD 83)
LONGTUDE: LONGTUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 01 N 125 43 20 W 1710 Metres Within 500M Location is sample RE-0072, near about 25 kilometres northeast of T 12547, Figure 5).	the headwaters of Quartzite Creek akla Landing (Assessment Report	NORTHING: 6170518 EASTING: 328714
COMMODITIES:	Gold Copper		
MINERALS			
SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Psilomelane Black manganese oxide mineral m Oxidation Unknown	ay be psilomelane.	
DEPOSIT			
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Skarn K04 Au skarn		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Unknown	Cache Creek	Undernied Formation	Unnamed/Unknown Informal
LITHOLOGY:	Phyllite Cherty Argillite Andesite Flow Andesite Tuff Limestone Felsite Aplite		
GEOLOGICAL SETTING			
TECTONIC BELT: TERRANE:	Intermontane Cache Creek	PHYSIOG Plutonic Rocks	SRAPHIC AREA: Omineca Mountains
METAMORPHIC TYPE:	Regional	RELATIONSHIP:	GRADE: Greenschist
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY	YEAR: 1983 <u>GRADE</u>	
COMMENTS: REFERENCE:	Gold Grab sample (RE-0072) of mineral Assessment Report 12547, page	2.8500 Grams per tonne lized skarn. 7.	
CAPSULE GEOLOGY			
	The Jo 30 occurrent Quartzite Creek, approxi Landing. The showing wa exploration program carr The upper Quartzita phyllite, cherty argill limestone all assigned to Complex. These units st steep westerly dips. Be subparallel and both lar Evidence suggests that to metamorphism. Locally, small, off weathering felsitic and emplaced into the Cache	ce is situated near the headw imately 25 kilometres northea as located in 1983 during a r ried out in the Vital Range. e Creek area is underlain by ite, andesitic flows and tuff to the Carboniferous to Juras trike north to northwest, wit edding and foliation are para rge and small-scale folds are the rocks have undergone gree ten lenticular masses of grey white to pink aplitic intrus Creek Complex members.	vaters of ast of Takla regional intercalated , and minor ssic Cache Creek th predominantly allel to e widespread. enschist facies y, rusty sions have been

Minor skarn(?) mineralization developed around one such intrusion was observed to host chalcopyrite, pyrite and manganese oxide (psilomelane?) as well as quartz veinlets. A grab sample (RE-0072) of this material assayed 2.85 grams per tonne gold (Assessment Report 12547). Two other samples of similar mineralization yielded only background precious metals.

#### BIBLIOGRAPHY

EMPR ASS RPT \*12547, 14791 EMPR EXPL 1983-465; 1986-C373 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED: 1992/09/23 DATE REVISED: 1993/03/03 CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 005</u>		NATIONAL MINERAL INVENTORY: 093N	14 Cu6
NAME(S):	<b>ATO</b> , RONDAH, DUCK, DUKE, RHONDA, DOREL, JAJAY			
STATUS:	Developed Prospect		MINING DIVISION: Omin	eca
NTS MAP:	093N14W		UTM ZONE: 10 (1	NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 54 48 N 125 17 30 W 1555 Metres Within 500M Location is for diamond-drill ho Rhondah Creek, about 20 kilon kilometres west-northwest of 0 21000, Figures 2 & 3).	ole P-70-1, near the headwaters of netres northeast of Old Hogem and Germansen Landing (Assessment	NORTHING: 61988 EASTING: 35676 40 Report	307 58
COMMODITIES:	Copper			
MINERALS				
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite K-Feldspar Pyrite Potassic Unknown	Bornite Magnetite Amphibole Biotite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Dise Porphyry Hyd L03 Alkalic porphyry Cu-Ar	seminated drothermal u		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Undefined Formation	IGNEOUS/METAMORPHI	C/OTHER
Middle Jurassic Mesozoic			Duckling Creek Syenite C Hogem Intrusive Comple	Complex x
LITHOLOGY:	Monzonite Dike Pyroxene Porphyry Diorite Monzodiorite Monzonite Syenite Mafic Intermediate Volcanic Flo Crystal Ash Tuff Limestone Dolomite	ow		
HOSTROCK COMMENTS:	The Duckling Creek Syenite C to Early Cretaceous Hogem Ir	Complex is one phase of the Late Tr ntrusive Complex.	iassic	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Quesnel	PHYSIOGRAPHIC AREA: Omineca Moun	itains
INVENTORY				
ORE ZONE:	DRILLHOLE	REPORT ON	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analys SAMPLE TYPE: Drill Core <u>COMMODITY</u> Copper Sample across a 54.9-metre in Assessment Report 21912, pa	sis YEAR: <u>GRADE</u> 0.5100 Per cen terval from diamond-drill hole P-70- age 2.	1970  1.	
CAPSULE GEOLOGY				
	The Ato occurren Mountains), approxima kilometres west-north began in 1962 when hi Creek, a small north- The Rhondah Cree plutonic rocks assign Hogem Intrusive Compl	nce is situated in the Sw ately 20 kilometres north nwest of Germansen Landir igh-grade copper float wa flowing tributary to Was ek area straddles the cor hed to the Late Triassic lex and volcanic and sedi	annell Ranges (Omineca east of Old Hogem and 40 g. Interest in the area s discovered in Rhondah i Creek. tact between mesozonal to Early Cretaceous mentary rocks of the	

Middle Triassic-Lower Jurassic Takla Group. The plutonic rocks form

an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70).

The Hogem Intrusive Complex is represented here by diorite, monzodiorite, monzonite and syenite, the latter belonging to the Middle Jurassic Duckling Creek Syenite Complex. The emplacement of this late magmatic alkalic phase appears to have resulted in a strong metasomatic overprint on the older intrusions. The syenite also appears to be spatially and genetically associated with sulphide mineralization in the area. Takla Group rocks include basic to intermediate volcanic flows with associated crystal and ash tuffs, limestone, dolomite and chert. These rocks are cut by dikes in the area of the contact and occur as xenoliths within the intrusive complex.

Porphyry copper mineralization is confined to a contact zone marked by coincident geochemical and magnetic anomalies, potassium feldspar-rich dikes and stringers and syenitic fracture fillings crosscutting both the intrusion and volcanic hostrocks near the headwaters of Rhondah Creek. The mineralization is in the form of fracture-hosted veinlets and associated disseminations of chalcopyrite, bornite, pyrite and magnetite. Pervasive potassium feldspathization is evident around the contact. A pyritic halo also occurs on the volcanic side of the contact, structurally above the copper mineralization.

Five holes (P-70-1 to 5) drilled to test coincident geochemical/geophysical anomalies in the area of the original discovery intersected copper mineralization predominantly occurring in a feldspathized monzonite dike cutting altered Takla Group pyroxene porphyry. Pyrite, chalcopyrite and minor bornite were reported to be spatially associated with mafic alteration minerals (amphibole and biotite) and potassium feldspar-enriched zones. Pyrite and magnetite with rare chalcopyrite were also noted in the altered volcanics adjacent to the dike. The best results were from a 54.9-metre wide interval in hole P-70-1 which assayed 0.51 per cent copper (Assessment Report 21912, page 2). Subsequent percussion drilling and trenching in the area intersected only low-grade copper mineralization.

Measured geological reserves have been reported at 9,072,000 tonnes at 0.7 per cent copper (1971) but could not be confirmed (Energy, Mines and Resources Mineral Bulletin MR 223).

#### BIBLIOGRAPHY

EMPR ASS RPT 378, 430, 532, 3861, 16830, 19449, 21000, \*21912 EMPR AR 1961-116; 1962-134; 1963-129 EMPR GEM 1970-185; \*1971-203-210,213; 1971-213; 1972-455 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR MAP 9 EMR MP CORPFILE (Tyee Lake Resources Ltd.) GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 CIM Special Vol. 15 (1976) Map B, #337; Vol. 67, No. 749, pp. 101-106 GCNL NOV 4,1971 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia EMR MIN BULL MR 223 B.C. 257

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/27 CODED BY: GSB REVISED BY: DMN

MINEILE NI IMBER:		NATIONAL MINERAL INVENTORY
NAME(S):	KC KWANIKA VALLEAU	
STATUS:	Showing	MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093N11E	UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 31 08 N 125 08 36 W 1350 Metres Within 500M Location is sample 359284H on the b approximately 51 kilometres east of Ta southwest of Germansen Landing (As	NORTHING: 6154622 EASTING: 364680 akla Landing and 40 kilometres ssessment Report 19868, Figure 13).
COMMODITIES:	Copper	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Quartz Malachite Limonite Oxidation Unknown	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au Quartz vein.	STRIKE/DIP: 162/45W TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	: Plutonic	
STRATIGRAPHIC AGE Mesozoic	GROUP	FORMATION IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Hornblende Diorite Hornblende Gabbro Pyroxenite Diorite Hornblendite Quartz Monzonite Monzodiorite	
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Com to Early Cretaceous.	plex range in age fron Late Triassic
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIOGRAPHIC AREA: Omineca Mountains
INVENTORY		
ORE ZONE:	SAMPLE	REPORT ON: N
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Conper	YEAR: 1990 GRADE 0.0530 Percent
COMMENTS: REFERENCE:	Sample of pyrite and chalcopyrite-be Assessment Report 19868, page 11.	aring quartz veins.
CAPSULE GEOLOGY	The KC showing occurs phases of the Late Triassi Complex. The older phase the Valleau Creek Complex hornblende gabbro, pyroxer porphyritic diorite and ho the south near Valleau Cre suggests a strong structur Late Triassic to Early Jur and quartz monzonite of th	s at the contact between two intrusive .c to Early Cretaceous Hogem Intrusive is a composite mafic body referred to as (Open Files 1993-3, 4). It is comprised of nite, hornblende diorite, fine grained to ornblendite. Its strong linear nature to eek with a coincident aeromagnetic high ral control on emplacement and is probably cassic in age. Early Jurassic monzodiorite he Hogem Intrusive Complex cuts the Valleau

Creek Complex at its northern extension. A 30-centimetre wide rusty quartz vein striking 162 degrees and dipping 45 degrees southwest, occurs in fractured hornblende diorite. A rock sample collected in 1992 (Open File 1993-4) yielded no

anomalous values. Previous assessment work reports pyrite and chalcopyrite-bearing quartz veins and stringers at the same locality that assayed 530 ppm copper and 107 ppm zinc (Assessment Report 19868, page 11). The diorite is locally limonitic and malachite stained. The area was assessed by Noranda Exploration in the early 1970s (see San, 093N 102) and by Westmin Mines in 1990.

## BIBLIOGRAPHY

EMPR ASS RPT 3856, 3857, \*19868, 20897 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR FIELDWORK 1992, pp. 87-107 EMPR OF 1993-3; \*4 GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Placer Dome File

DATE CODED: 1992/11/05 DATE REVISED: 1993/02/26 CODED BY: DMN REVISED BY: KBE

MINFILE NUMBER:	<u>093N 007</u>		NATIONAL MINERAL INVENTORY:	093N14 Cu7
NAME(S):	<b>DOROTHY</b> , ELDOR, DUCKLING N ELIZABETH, JAJAY	IO. 4 GROUP,		
STATUS:	Prospect		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093N14W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 53 07 N 125 20 15 W 1350 Metres Within 500M Location is a copper showing, 75 42 kilometres west-northwest of 20938, Figure 3).	i0 metres east of Duckling Cre Germansen Landing (Assessi	NORTHING: EASTING: wek and ment Report	6195781 353799
COMMODITIES:	Copper Molyb	denum Zinc	Lead	Gold
MINERALS				
SIGNIFICANT:	Pyrite Chalcopyrite E Molybdenite Sphalerite	Bornite Covellite F	Pyrrhotite	
COMMENTS:	Onlý minor bornite, covellite, pyrr	hotite, molybdenite, sphalerite	and	
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Magnetite Epidote Si Chlorite Epidote Si Chloritic Epidot Unknown	lica æ Silicific'n		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Stock Porphyry Hydro L03 Alkalic porphyry Cu-Au	work thermal		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Mesozoic	Tania	Undenned i Unnation	Hogem Intrusive C	omplex
LITHOLOGY:	Microdiorite Diorite Quartz Diorite Pyroxenite Quartz Plagioclase Dike Feldspar Porphyry Dike Basaltic Andesitic Tuff Basaltic Andesitic Volcanic Brec Pegmatite	cia		
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive to Early Cretaceous.	Complex range in age from Lat	te Triassic	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Quesnel	PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY				
	The Dorothy occurs the Swannell Ranges (Or northeast of Old Hogem Landing. The area firs copper-bearing float wa Creek. The area is under the Late Triassic to Ea have been emplaced into Lower Jurassic Takla Ga plutonic rocks form an Lake, north to the Mesi batholith and the intru associated with graben Late Triassic to I and basic suite dominat intrusions vary composi although pyroxenite out intrude volcanics assis	rence is situated in j aineca Mountains), app and 41 kilometres we st became of interest as discovered on the si- lain by mesozonal plur arly Cretaceous Hogem by volcanic rocks of the roup, east of the Pin elongate batholith, ilinka River. The st ided Takla Group is or development (Bulleti Sarly Jurassic rocks te in the area of the itionally from diorit tcrops are quite wide gned to the Takla Group dark green tuff and	the Duckling Creek area of proximately 15 kilometres st-northwest of Germansen in the late 1940s when slopes east of Duckling tonic rocks assigned to Intrusive Complex which he Middle Triassic to chi fault zone. The extending from Chuchi ructural setting of the ne of vertical tectonics n 70). of the Hogem granodiorite Dorothy occurrence. The e to quartz diorite, spread. These rocks up to the east and south.	

PAGE: 856 REPORT: RGEN0100

## CAPSULE GEOLOGY

basaltic to andesitic composition, interbedded with flow rocks and commonly cut by pyroxenite and feldspar porphyry dikes. The occurrence is exposed at an elevation of approximately 1350 metroes in a carice of orgat workst tronchos located unbill from the

metres in a series of east-west trenches located uphill from the mineralized float. The host microdiorite is a finely crystalline dark grey to green, somewhat foliated unit characterized by weak chlorite and epidote alteration and abundant accessory magnetite. It appears to have been hornfelsed as a result of later intrusive activity, resulting in a fine biotitic foliation. Gneissosity striking 080 to 090 degrees and dipping steeply south has also been noted in a few outcrops. Finely disseminated pyrite and chalcopyrite locally comprise over 10 per cent of the rock. The zone extends 500 metres north and 200 metres east-west.

A 91-metre wide quartz plagioclase dike also strikes northerly across the area. The dike varies from aplitic near its margins to medium grained towards the centre and reportedly hosts minor disseminated pyrite. Narrow stringers of pegmatite cut both the dike and diorite in outcrops to the north.

Dioritic talus and bedrock exposed in early trenches reportedly hosted irregularly disseminated grains, blebs and small stringers of chalcopyrite and pyrite with minor bornite, covellite, pyrrhotite, molybdenite, sphalerite and galena. The chalcopyrite reportedly occurred sparsely in the more pyritic, quartz-rich diorite. Drilling determined that the copper mineralization occurred in irregularly silicified areas within the diorite, and that they had little continuity in either strike or dip. The average grade of a few drill sections as much as 15 metres long reportedly varied from 0.5 to 1.0 per cent copper (Geology, Exploration and Mining in British Columbia 1971, page 215).

The nearby Elizabeth showing (093N 074) was examined by Lysander Minerals Corp. in 1999 as part of its Jajay property. Eastfield Resources Ltd. optioned the Jajay property in 2001. See Lorraine (093N 002) for details.

#### BIBLIOGRAPHY

EM GEOFILE 2003-6 EMPR AR 1949-A98-A102; 1951-118; 1961-116; 1962-134 EMPR ASS RPT 73, 366, 432, 511, 513, 3855, \*20938 EMPR BULL 70 EMPR GEM \*1971-203-210,214; 1972-455 EMPR OF 1992-1 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File); Page, J.W. (1999): Reconnaissance Report on the Jajay Property, Lysander Minerals Corp. (in Lorraine - 093N 002)) EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Special Vol. 15 (1976), Map B, #374; Vol. 67, No. 749, pp. 101-106 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia WWW http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/22 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 008</u>			NATION	AL MINERAL INVENTORY: 093	3N11 Hg1
NAME(S):	<b>Bralorne takla</b> , bra Sb	LORNE TAKLA ME	RCURY MINE,	TAKLA MERCU	RY,	
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N11W		Underg	ground	MINING DIVISION: Or UTM ZONE: 10	nineca (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 34 07 N 125 23 26 W 1087 Metres Within 500M Location is for the "B" sho West Kwanika creeks, nor kilometres east-northeast Canada Memoir 252, page	wings, near the di thwest of several of Takla Landing ( 157).	vide between small unname Geological Sur	Silver and d lakes, 37 vey of	NORTHING: 616 EASTING: 349	60663 9266
COMMODITIES:	Mercury					
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Cinnabar Calcite Carbonate Unknown	Pyrite	Quartz	Clay		
DEPOSIT		<b>•</b> • • •				
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Breccia Epigenetic E01 Almaden Hg Irregular	Stockwork Hydrothermal	Disse Repla	eminated acement 108	Silica-Hg carbonate	
MODIFIER: DIMENSION: COMMENTS:	Fractured 152 x 76 x 6 Orebody at "B" showings.	Metres	STR	RIKE/DIP:	TREND/PLUNGE	Ξ:
HOST ROCK DOMINANT HOSTROCK	: Sedimentary					
STRATIGRAPHIC AGE Paleozoic-Mesozoic Mesozoic	GROUP Cache Creek	<u> </u>	RMATION defined Format	tion	<u>IGNEOUS/METAMORF</u> Hogem Intrusive Comp	PHIC/OTHER
LITHOLOGY:	Limestone Argillite Slate Chert Schist					
HOSTROCK COMMENTS:	Cache Creek Complex ro Intrusive Complex has be	ocks are Carbonac een dated as Late	eous to Jurass Triassic to Ear	sic while the Ho ly Cretaceous.	gem	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Cache Creek Regional	Plutonic RELA	Rocks TIONSHIP:	PHYSIC	GRAPHIC AREA: Omineca Mo GRADE: Greenschist	ountains t
CAPSULE GEOLOGY						
The Bralorne Takla mercury mine is situated near the divide between Silver and West Kwanika creeks, approximately 37 kilometres east-northeast of Takla Landing. Cinnabar mineralization was first located in the area by Bralorne Mines, Limited in July 1942. Exploration culminated with over 1800 metres of diamond drilling that winter. The area is underlain by interbedded limestone, argillite, slate, chert and derived schist assigned to the Carboniferous to Jurassic Cache Creek Complex. Dark grey, massive limestone is the most common member outcropping in the vicinity of the mine. The argillaceous and siliceous strata strike 330 degrees, dip 60 to 80 degrees to the southwest, and occur predominantly in a band 183 metres wide. The Pinchi fault zone traverses the area from north to south and is marked by widespread brecciation of the sediments. East of the fault zone, Late Triassic to Early Cretaceous Hogem Intrusive Complex rocks dominate and intrude Middle Triassic to Lower Jurassic Takla Group volcanic rocks. Numerous subsidiary faults are evident in limestone, both on the surface and underground. Their attitudes are variable, but the dominant faults strike northwest to northeast and dip steeply west. Fault displacements are unknown. Along and near the faults, the limestone has been brecciated across zones 0.3 to 6 metres or more in width. The breccia fragments are cemented with buff-coloured						

ankeritic carbonate. Solution cavities, up to a metre wide, are common and partly to completely filled with coarsely crystalline calcite. Gouge seams up to 0.6 metre wide and slickensided surfaces mark many of the faults. More than one period of movement is evident, and some of the faults carry veinlets of calcite. Two areas of cinnabar mineralization, the "A" and "B" showings,

Two areas of cinnabar mineralization, the "A" and "B" showings, are situated approximately 304 metres apart and occur in brecciated limestone. The intervening area is mostly drift covered. The "B" showing has been developed by underground workings where mercury was recovered from an orebody approximately 152 by 76 by 6 metres. Cinnabar is found in brecciated limestone near faults and

Cinnabar is found in preclated limestone near faults and fractures. The best ore is found closest to the faults. The cinnabar occurs as veinlets, blebs and individual grains filling minute fissures, and in places forms the breccia cement. It is also evident in solution cavities and as coatings on cleavage planes and the faces of calcite crystals. Limestone wallrock has been partly replaced by cinnabar, especially where it is finely fractured. Minor pyrite is also evident. Coarsely crystalline, pre-cinnabar calcite occurs along fault planes and fills solution cavities while veinlets of post-cinnabar calcite intersect the ore. Very little quartz has been observed in the ore and, apart from a few crystals in open cavities, most is fine grained. The "B" showings occur along or in the vicinity of two major

The "B" showings occur along or in the vicinity of two major parallel faults, approximately 36 metres apart. While both strike 015 degrees, one dips 65 degrees northwest and the other nearly vertically. The faults are marked by as much as 3 metres of gouge, clay and breccia. On both faults, the hangingwalls have apparently moved north and down relative to the footwall rocks. Many branching faults and fractures are subsidiary to the major faults; the more pronounced strike is approximately 345 degrees. As fracture intensity decreases away from the faults, cinnabar mineralization also decreases. The resultant orebodies are very irregular in outline.

Two sets of faults have also been recognized at the "A" showings. These strike approximately 030 degrees and 300 degrees respectively. The northwest-striking fault dips approximately 55 degrees southwest and hosts the principal cinnabar mineralization. All the faults are marked by intensely brecciated limestone. Production from the "B" showings orebodies started in November

Production from the "B" showings orebodies started in November 1943 and continued to September 1944, when mining ceased. During nine months of operation, 59,914 kilograms of mercury were recovered from 10,206 tonnes of milled ore from the two largest orebodies (Geological Survey of Canada Memoir 252, page 157).

#### BIBLIOGRAPHY

EMPR AR 1942-A76; 1943-A76, A77; 1944-A75 EMPR BULL 70 EMPR MAP 65 (1989) EMPR OF 1992-1; 2000-33 EMR MP CORPFILE (Bralorne Pioneer Mines Ltd.) GSC MAP 844A; 907A; 971A; 1424A GSC MEM \*252, pp. 157-160 GSC P 42-7; 44-5; 45-6; 74-1B, pp. 31-42

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/30 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093N 009</u>	NATIONAL M	INERAL INVENTORY: 093N11 Ag1
NAME(S):	LUSTDUST, TAKLA SILVER, KAY, A.G., KENO		
STATUS:	Developed Prospect	Underground	MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAP	093N11W		UTM ZONE: 10 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 33 57 N 125 24 52 W 1425 Metres Within 500M Location is for an adit on a ridge between Silv creeks, 1.5 kilometres west of the Bralorne Ta 008), 35 kilometres east-northeast from Takla Report 7059, Figure 7).	er and West Kwanika kla mercury mine (093N Landing (Assessment	NORTHING: 6160406 EASTING: 347749
COMMODITIES:	Silver Zinc Copper	Lead	Gold Antimony
MINERALS			
SIGNIFICANT: ASSOCIATED:	SphaleritePyriteArsenopyriteAndoriteTetrahedriteTennantiteTwinniteZinkeniteGalenaQuartzCarbonateCalcite	Stibnite Jamesonite Chalcopyrite Miargyrite Realgar Dolomite Garnet	
COMMENTS: ALTERATION:	Also beudantite. Limonite Calc-Silicate Covellite	Valentinite Scorodite	
ALTERATION TYPE: MINERALIZATION AGE:	Beudantite Anglesite Oxidation Unknown		
DEPOSIT			
CHARACTER: CLASSIFICATION: TYPE:	Vein Podiform Replacement Hydrothermal J01 Polymetallic manto Ag-Pb-Zn	Shear Epigenetic I05 Po	Skarn lymetallic veins Ag-Pb-Zn±Au
SHAPE: MODIFIER: DIMENSION: COMMENTS:	Faulted Sheared 76 x 61 x 1 Metres No. 1 zone orebody; 1.5 metres wide.	STRIKE/DIP:	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary		
STRATIGRAPHIC AGE Paleozoic-Mesozoic Mesozoic	GROUP FOR Cache Creek Unde	MATION Efined Formation	IGNEOUS/METAMORPHIC/OTHER Glover Stock
LITHOLOGY:	Limestone Marble Phyllite Argillite Chert Chloritic Schist Feldspar Porphyry Dike Greywacke Mafic Tuff Quartz Monzonite		
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Carbonifero U-Pb dating of zircons yielded an Eocene ag	us to Jurassic. Preliminary e between 51-52 million yrs	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Cache Creek Plutonic R Regional RELATI	PHYSIOGRA ocks IONSHIP:	PHIC AREA: Omineca Mountains GRADE: Greenschist
INVENTORY			
ORE ZONE:	NO. 4	REPORT ON: Y	
	CATEGORY: Indicated QUANTITY: 74110 Tonnes <u>COMMODITY</u> <u>GR</u> Silver 27 Gold 3	YEAR: 1968 ADE 7.7000 Grams per tonne .2000 Grams per tonne	
REFERENCE:	Zinc 6 Northern Miner - February 12, 1970.	.6000 Per cent	

#### INVENTORY

ORE ZONE:	NO. 3		RE	PORT ON: Y
	CATEGORY: QUANTITY:	Indicated 233124 Tonnes		YEAR: 1968
COMMENTS: REFERENCE:	COMMODITY Silver Gold Zinc Before dilution. Northern Miner -	February 12, 1970.	GRADE 63.1000 2.4000 1.5000	Grams per tonne Grams per tonne Per cent
ORE ZONE:	NO. 1		RE	PORT ON: Y
	CATEGORY: QUANTITY: COMMODITY	Indicated 19684 Tonnes	GRADE	YEAR: 1968
COMMENTS:	Gold Indicated reserv	es for three combined or	4.4500 e shoots.	Grams per tonne

REFERENCE: Property File - Campbell, 1968.

#### CAPSULE GEOLOGY

The Lustdust occurrence is situated on a ridge west of the divide between Silver and West Kwanika creeks, approximately 35 kilometres east-northeast of Takla Landing. The showings were originally staked as the Kay group of claims in 1944. In 1992, Alpha Gold Corp. conducted trenching and drilled 2500 metres in 10 holes. The area is underlain by Carboniferous-Jurassic Cache Creek

Complex (Group) rocks comprised of an interbedded sequence of highly deformed chert, phyllite, argillite, local greywacke beds and discontinuous bodies of limestone and metavolcanic rock. To the east, the Pinchi fault zone separates Cache Creek rocks from the Late Triassic to Early Cretaceous Hogem Intrusive Complex. In the immediate area of the developed prospect, Cache Creek Complex rocks consisting of massive limestone (marble) and

In the immediate area of the developed prospect, Cache Creek Complex rocks consisting of massive limestone (marble) and interbedded argillite, phyllite, chert and several chloritic schist horizons predominate. The rocks are isoclinally folded, sheared and faulted, and are intruded by feldspar porphyry dikes striking subparallel to bedding. Irregular monzonitic plugs also occur locally. Foliation (and bedding, where observed) generally strikes north-northwest and dips moderately to steeply west. The foliation is interpreted to be an axial plane feature developed in relation to isoclinal folding overturned to the east. The dominant structural features are north-northwest striking faults and shear zones that are subparallel to foliation. Most of the known mineralization is on or closely related to fault and shear zones and in structures that branch off or trend parallel to the main fractures/shears. Feldspar porphyry dikes commonly occupy the faults and shears and are locally mineralized. A number of cross faults are evident and predominantly strike 050 to 060 degrees.

Mineralization at the Lustdust property occurs in quartzcarbonate veins in and along steeply dipping fault/shear zones which strike parallel, or at a very low angle to foliation (No. 1 and 2 zones). Sulphide mineralization also occurs in gossan zones adjacent to faults (No. 3 zone) and as massive lenses within an interbedded sequence of limestone and metasediments (No. 4 zone).

In the No. 1 and 2 zones, quartz-carbonate vein-like bodies ranging from 0.9 to 3 metres wide, but averaging 1.5 to 2.1 metres wide, occur in a steep fault along a limestone-chloritic schist contact. Gangue mineralogy includes altered wallrock and gouge. The principal sulphides are sphalerite, pyrite, arsenopyrite, stibnite and jamesonite. The veining also extends into the wallrocks, well removed from the main mineralization. Surface sampling, drilling and underground development suggest that the dimensions of the No. 1 zone orebody are 76 by 61 by 1.5 metres. Indicated reserves for three combined ore shoots (Portal, Middle and North) are 19,684 tonnes grading 802.15 grams per tonne silver, 2 per cent lead and 4.45 grams per tonne gold (Property File - Campbell, 1968).

The No. 2 zone is 244 metres north of the No. 1 zone and has been exposed by trenches spaced over 61 metres of strike length. Samples have assayed from 102.84 to 685.6 grams per tonne silver, 3 to 12 per cent lead and 1 to 3 per cent zinc across widths of 0.6 to 1.8 metres (Property File - Campbell, 1968).

Two extensive, complex fault/shear zones (No. 3 and 4 zones) lie 800 metres north-northwest of the No. 1 zone. Both zones are expressed on the surface as dark maroon and orange earthy gossan (limonite). The No. 3 zone is 670 metres north-northwest of the No. 1 zone and is a lens-shaped area of gossan, 122 by 30 metres, which

PAGE: 861 REPORT: RGEN0100

## CAPSULE GEOLOGY

lies along the footwall side of a steeply west-dipping fault. Drilling has indicated that the primary sulphides are pyrite and arsenopyrite with minor sphalerite and galena. The zone appears to have developed on a limestone-chloritic schist contact. Drilling has indicated that the No. 3 zone extends at least 48 metres in depth and dips 60 degrees west. Sludge samples from drilling assayed 3.4 to 6.8 grams per tonne gold, 34.28 to 171.4 grams per tonne silver and up to 4 per cent zinc (Property File - Campbell, 1968, page 14). Drilling and trenching resulted in an inferred reserve of about 907,000 tonnes, mostly as oxide material. No overall grade was reported.

The No. 4 zone is 548 metres northwest of the No. 3 zone and consists of a wide zone of branching lenses of strongly oxidized sulphides. The predominant sulphide is arsenopyrite, with subsidiary pyrite, chalcopyrite and sphalerite. Lenses of almost massive sulphide occur as a number of layers within a discrete zone consisting of interbedded limestone, chloritic schist and phyllite which has been subjected to complex faulting. Some mineralization has limestone on both the hangingwall and footwall. The massive lenses range up to 3 metres in width. Drilling indicates that the mineralization extends to a depth of at least 160 metres. The zone strikes 340 degrees and dips 75 degrees west and is 40 to 110 metres wide. Drill core samples across 1.51 metres assayed 0.12 per cent copper, 0.54 per cent lead, 5.62 per cent zinc, 9.94 grams per tonne silver and 0.2 gram per tonne gold (Assessment Report 7759). Surface and underground samples were sent for metallurgical

Surface and underground samples were sent for metallurgical testing in 1969. The underground sample (unaltered) consisted of massive aggregates and disseminations of sulphides and lead antimonides in a largely siliceous and carbonaceous rock. The surface trench sample was highly oxidized and contained more lead antimonides and secondary minerals. Microscopic examination of the underground sample indicated the major minerals present are arsenopyrite and pyrite, with lesser amounts of sphalerite and jamesonite, and minor amounts of andorite, argentiferous tetrahedrite, miargyrite, realgar, stibnite and chalcopyrite. The gangue minerals consist of quartz and calcite with minor amounts of dolomite (Property File - CANMET Investigation Report 70-64, pages 2-3).

The trench sample contains principally pyrite and arsenopyrite with lesser amounts of jamesonite, sphalerite, twinnite and zinkenite. Argentiferous tetrahedrite, tennantite, andorite and chalcopyrite occurs in minor amounts. Secondary minerals include anglesite, covellite, valentinite, scorodite and beudantite(?). Other gangue minerals include quartz, traces of dolomite and an amorphous phase.

Head analyses of the underground sample yielded 623.89 grams per tonne silver, 2.35 per cent lead, 2.38 per cent zinc, 1.95 per cent antimony and 5.82 grams per tonne gold. Head analyses of the surface trench sample yielded 2207.63 grams per tonne silver, 10.37 per cent lead, 0.76 per cent zinc, 7.65 per cent antimony and 6.17 grams per tonne gold (Property File - CANMET Investigation Report 70-64).

The No. 1 zone has indicated reserves for three combined ore shoots of 19,684 tonnes grading 4.45 grams per tonne gold (Property File - Campbell, 1968). The No. 3 zone is reported to contain an indicated reserve of 233,124 tonnes, before dilution, grading 2.40 grams per tonne gold, 63.1 grams per tonne silver, and 1.5 per cent zinc (Northern Miner - February 12, 1970). The No. 4 zone contains an indicated 74,110 tonnes grading 3.2 grams per tonne gold, 27.7 grams per tonne silver and 6.6 per cent zinc (Northern Miner -February 12, 1970).

Teck Exploration Ltd., under option from Alpha Gold Corp., drilled 16 holes totalling 3063 metres in 1997. The stratigraphic sequence is cut by a series of felsic sills that are spatially related to alteration and mineralization. Feldspar megacrystic dikes and sills also cut stratigraphy and are related to a small monzonite plug that is poorly exposed in the northwest corner of the property. Zones of hornfels, calcsilicate skarn and garnetite have developed within the thermal aureole of the stock. Mineralization ranges from proximal skarns to central mantos to distal sulphosalt veins. Drilling targeted the manto and skarn styles of mineralization that were traced by trenching in 1996. Emplacement of the massive sulphides were controlled by karsting, and in part by folding. Fold hinges are structurally thickened and are promising exploration drilling targets. The massive sulphide mineralization in the nose of a fold on the 4b zone ranges from 6.6 to 20.4 metres in true thickness. Blackjack comprises 70-80 per cent of the massive sulphide layers, with pyrite typically averaging 5-10 per cent. Garnetite skarn had not been identified or evaluated before last

Garnetite skarn had not been identified or evaluated before last year and is a significant exploration target. Each of the two drill

holes that tested the zone intersected approximately 120 metres of garnetite and calcsilicate skarn. However the interval averaged approximately 100 ppb gold. Sulphide content of the garnetite and calc-silicate skarn is variable, but probably averages about 3 per cent. Narrow bands of massive to semimassive sphalerite-pyrite occur within the garnetite. Drilling of skarn mineralization north of Canyon Creek, and closer to the intrusion, may proceed in 1998. In 2000, Alpha Gold drilled 28 holes totalling more than 3000 metres.

Alpha Gold Corp. drilled 19 NQ bore holes totalling 7790 metres between July 8 and September 6, 2002. This work determined that gold-copper mineralization is associated with skarn developed in calcareous mafic tuffaceous rocks and limestone proximal to the Eocene Glover Stock, and to high-sulphide replacement bodies forming at, near, a limestone-siliceous phyllite contact. The skarn has a strike length exceeding 500 metres and has been drill tested to depths exceeding 400 metres subsurface. It varies in width from 3 metres to greater than 110 metres. Gold-copper mineralized zones occur both along the limbs, and in the core, of a north-northwest-plunging synform-antiform couple. This structure has been drill tested over a strike length exceeding 300 metres (Press Release, Alpha Gold Corp., September 6, 2002). Significant drill results from the first two drillholes of 2002 are reported. Drillhole DDH 2-01 intersected a 97-metre wide andradite-chlorite skarn body containing several mineralized zones. The highest-grade mineralization is associated with a chalcopyrite-magnetite-chlorite retrograde skarn. Over a drill indicated width of 18.75 metres (531.25 metres to 550.0 metres), 0.95 grams per tonne gold, 17.1 grams per tonne silver and 1.62 per cent copper was cored. Drillhole DDH 2-02 intersected a 114 metre wide skarn body containing a 1-metre (drill indicated width, 510.5 to 511.5 metres) massive sulphide replacement zone developed at the contact between a retrograde skarn zone and limestone and assayed 61.3 grams per tonne gold, 181 grams per tonne silver and 0.87 per cent copper (Droag Polocae Alpha Cold Carp Sentember (2002) (Press Release, Alpha Gold Corp., September 6, 2002). The ninth drillhole in the 2002 exploration program intersected

The ninth drillhole in the 2002 exploration program intersected 9.7 metres grading 36.7 grams per tonne gold, 182.64 grams per tonne silver and 2.89 per cent copper. The 2002 exploration program demonstrated that significant copper-gold mineralization zones occur within skarn assemblages and that grade increases with depth. Exceptional precious metal values are associated with massive sulphide replacement bodies near the footwall of the skarn front (Press Release, Alpha Gold Corp., October 22, 2002).

#### BIBLIOGRAPHY

EM EXPL 1998-33-45; 1999-13-24; 2000-9-23; 2001-11-21; 2002-13-28 EMPR AR 1945-A64; 1953-94; 1954-A96; 1960-14,15; 1964-53; 1965-105; 1968-148 EMPR ASS RPT \*7059, 7509, 7759, 8669, 9937, 21965, 22309 EMPR EXPL 1978-E228; 1979-237,238; 1980-360-361; 1981-160; 1996-C12; 1997-28-29 EMPR FIELDWORK 2001, pp. 257-280, 281-302 EMPR GEM 1970-180 EMPR INF CIRC 1998-1, p. 28 EMPR MAP 65 (1989) EMPR MER 1992, p. 16 EMPR OF 1998-10; 2000-33; 2002-9 EMPR PF (\*CANMET Investigation Report 70-64; \*Campbell, D.D. (1966, 1968): Summary Geological Report, Takla Silver Mines Ltd.) EMR MIN BULL MR 223 B.C. 253 EMR MP CORPFILE (Bralorne Pioneer Mines Limited; Takla Silver Mines, Limited; Anchor Mines Ltd.; Pioneer Metals Corporation) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 172-173 GSC P 42-7; 45-6; 74-1A; 74-1B, pp. 31-42 GCNL #39,#122, 1985; #195(Oct.9), 1991; #146,#172, 1992; #177(Sept.15), #192(Oct.6), 2000 N MINER May 4, 1998 PR REL Alpha Gold Corp., Sept.6, Oct.22, 2002 STOCKWATCH Oct.1, 2001 WWW http://www.infomine.com/; www.alphagold.bc.ca/ Chevron File Placer Dome File

CODED BY: GSB REVISED BY: GO

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/30

MINFILE NUMBER:	<u>093N 010</u>	NATIONA	L MINERAL INVENTORY: 093N15 Zn1
NAME(S):	<b>JEMIMA</b> , BVD 1-4, B, VERNON		
STATUS:	Prospect		MINING DIVISION: Omineca
NTS MAP:	093N15W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 57 28 N 124 46 39 W 1375 Metres Within 500M The Jemima occurrence is located of the Otter Lakes and approximate Germansen Landing (Open File 199	approximately 400 metres southwest ely 19 kilometres north-northwest of 90-17).	NORTHING: 6202807 EASTING: 389027
COMMODITIES:	Zinc Lead	Silver	Germanium
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Dolomite Barite Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Podiform Stratabo Replacement J01 Polymetallic manto Ag-Pb-Z Irregular	pund In	
HOST ROCK DOMINANT HOSTROCK	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Middle Devonian Devonian-Mississipp.	Otter Lakes Big Creek	Undefined Formation Undefined Formation	
LITHOLOGY:	Arenaceous Dolomite Dolomite Slate Argillite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Omineca Cassiar Regional	PHYSIOG RELATIONSHIP: Syn-mineralization	RAPHIC AREA: Omineca Mountains GRADE: Greenschist
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Germanium Lead Zinc A grab sample from the Jemima are Evoleration in Britich Columbia 1000	YEAR: 1989 <u>GRADE</u> 115.0000 Grams per tonne 0.2200 Per cent 0.6700 Per cent 14.7000 Per cent 2a. 2a.	
	Exploration in British Columbia 1988	9, page 195.	
CAPSULE GEOLUGI	The Jemima occurren southwest of the Otter L northwest of Germansen L has similar regional geo 114). Sulphide mineraliza shaped pods within arena Lakes Group. This carbo geological contact betwe Devonian-Lower Mississip Group. Mineralization i grab sample analysed 115 14.7 per cent zinc and 0 British Columbia 1989, p	ce is located approximately akes and approximately 19 ki anding (Open File 1990-17). logy to that of the Biddy oc tion occurs as discontinuous ceous dolomite and dolomite nate replacement showing is en slates and argillites of pian Big Creek Group and the s in the form of sphalerite grams per tonne silver, 0.6 .22 per cent germanium (Expl age 195). A chip sample ove	400 metres lometres north- This occurrence currence (093N e and irregular- of the Otter near the the Upper e Otter Lakes and galena. A 7 per cent lead, oration in er 4 metres

#### BIBLIOGRAPHY

EMPR BULL \*91 EMPR EXPL \*1989, pp. 193-196 EMPR FIELDWORK \*1989, pp. 101-114; 1988, pp. 209-220 EMPR OF \*1990-17; 1989-12 EMPR ASS RPT 6597, \*7748, 16946, 19266, 20492 EMPR EXPL 1977-E203; 1979-283 GSC P 41-5; 42-2; 45-9; 75-33 GSC MEM 252 GSC MAP 876A; 1424A; 5249G

DATE CODED:	1985/07/24
DATE REVISED:	1992/07/07

CODED BY: GSB REVISED BY: DMM
MINFILE NUMBER:	<u>093N 011</u>		NATIONAL I	MINERAL INVENTORY:	093N15 Cu1
NAME(S):	<u>NINA</u>				
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093N15W			MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 56 37 N 124 48 32 W 1750 Metres Within 500M The Nina occurrence is located Nina Lake, and about 18 kilom (Open File 1990-17).	l approximately 4.5 kilome etres northwest of Germa	etres north of nsen Landing	NORTHING: EASTING:	6201281 387026
COMMODITIES:	Gold Silve	er Co	pper	Zinc	
MINERALS					
SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Sphalerite Pyrite Silica Epidote F An epidote-silica alteration pos Silicific'n Epic Unknown	Tennantite Pyrite Pyrite Malachite tdates an earlier silica alt lote O	Azurite eration. kidation		
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Podiform She Volcanogenic Epiç G05 Cyprus massive sulphi Irregular Sheared The mineralized shears strike	ar Ma jenetic Ma de Cu (Zn) northwest.	assive esothermal	Disseminated	
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Gabbro Gabbro Sill Chert Siliceous Argillite Basalt Pyroxene Porphyry Basalt Tuff Argillite				
HOSTROCK COMMENTS:	The hostrock is predominantly 91).	Mount Howell Formation	gabbros (Bulletin		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Slide Mountain Regional	RELATIONSHIP:	PHYSIOGR.	APHIC AREA: Omineca GRADE: Greensc	Mountains hist
INVENTORY					
ORE ZONE:	SAMPLE	RE	PORT ON: N		
	CATEGORY: Assay/analys SAMPLE TYPE: Grab COMMODITY Silver Gold	sis <u> </u>	YEAR: 1988 Grams per tonne Grams per tonne		
REFERENCE:	A grab sample from one of the Assessment Report 17940.	mineralized snears.			
ORE ZONE:	SHEAR	RE	PORT ON: N		
	CATEGORY: Assay/analys SAMPLE TYPE: Grab COMMODITY Silver Gold	sis 	YEAR: 1988 Grams per tonne		
COMMENTS:	Copper A grab sample from one of the	14.9100 mineralized shear zones	Per cent		

REFERENCE: Assessment Report 17940.

The Nina occurrence is located approximately 4.5 kilometres north of Nina Lake and approximately 18 kilometres northwest of Germansen Landing (Open File 1990-17). This occurrence was first reported by Armstrong and Thurber, 1945. The regional geology is similar to that of the Biddy occurrence (093N 114).

The Slide Mountain Terrane is represented by Upper Paleozoic oceanic rocks of the Nina Creek Group. The Pennsylvanian to Permian Nina Creek Group consists of a lower argillite-dominated sedimentary package assigned to the Mount Howell Formation and an upper pillowed to massive basalt-dominated sequence assigned to the Pillow Ridge Formation (Bulletin 91). The Mount Howell Formation is the hostrock and, in this area, is comprised of grey-green, fine-grained, pyroxene porphyritic basalts intercalated with laminated, cherty, pale green tuffs, dark grey argillites and gabbro sills. The sedimentary units are of variable thickness and strike northwesterly, dipping to the south.

The predominant hostrocks are the fine-grained gabbro sills and the argillites. These rocks are silicified and brecciated near the northwest-striking shears.

The shears are characterized by being heavily oxidized and appear as red-brown streaks within the green to grey sediments and volcanics on the slopes of the surrounding mountains. The shears are of variable widths.

Massive sulphide mineralization occurs as podiform lenses within the shears. The sulphides consist of massive pyrite with variable chalcopyrite and minor sphalerite. Gold and silver concentrations vary and, based on geochemistry, the silver mineralization is in the form of argentiferous tennantite. The country rocks contain disseminated pyrite and epidote alteration is associated with the silicification (although not as pervasive).

silicification (although not as pervasive). The Main shear zone is 2 to 20 metres in width, striking northerly and dipping steeply to the west. Lenses of massive sulphides and silicified fault breccias are localized within it. A grab sample from one of the mineralized shears analysed 0.60 gram per tonne gold, 20.2 grams per tonne silver and 14.91 per cent copper and another sample analysed 6.90 grams per tonne gold and 146.5 grams per tonne silver (Assessment Report 17940).

#### BIBLIOGRAPHY

EMPR ASS RPT 13977, 16471, \*17940
EMPR BULL \*91
EMPR FIELDWORK 1988, pp. 209-220; \*1989, pp. 101-114
EMPR OF \*1990-17; 1989-12; 1999-2
EMPR PF (in 093N 011, Seguro Resources Ltd, 1987 Prospectus, Report
 on the Nina I Mineral Claim (20 units) by Tully, D.W.)
GSC MAP 971A; 907A; 876A; 1424A; 5249G
GSC MEM 252-183
GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/07 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 012</u>			NATIONAL MI	NERAL INVENTORY:	093N9 Cb1
NAME(S):	LONNIE, GRANITE CREEK					
STATUS:	Developed Prospect				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N09W				UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 47 N 124 22 47 W 1128 Metres Within 500M Centre of drilling on a carb of Granite Creek, 2.5 kilom kilometres north of Fort St trail, which leads up to the just south of Granite Creek	ponatite zone, 250 r hetres north of Mans . James (Assessme zone from the Man K	netres south and son Lakes, 140 ent Report 7515). Ison Creek road, b	east A cat oegins	NORTHING: EASTING:	6171297 413243
COMMODITIES:	Niobium Rare Earths	Zirconium	Titanium		Uranium	Thorium
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE:	Pyrochlore Columbite Apatite Magnetite Aegirine Microcline Arfvedsonite Sodic amphibole. Fanitic	e Zircon Pyrite Plagioclase	llmenite Pyrrhotite Calcite	Ilmenorutile Quartz		
MINERALIZATION AGE: ISOTOPIC AGE:	Mississippian 339 Ma	DATING METHOD:	Zircon	MAT	ERIAL DATED: Zirco	on
DEPOSIT		•				
CHARACTER: CLASSIFICATION: TYPE: SHAPE: DMENSION:	Podiform Magmatic N01 Carbonatite-hosted Tabular	Concordant Hydrothermal d deposits	Dissemina Industrial	ated Min.		
COMMENTS:	Carbonatite zone.	wetres	STRIKE/	DIP: 120/605	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic					
STRATIGRAPHIC AGE	GROUP	FOR	RMATION		IGNEOUS/METAM	ORPHIC/OTHER
Proterozoic	Ingenika	Und	lefined Formation		Wolverine Comple	Y
Devonian-Mississipp. ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	350-370 Ma Uranium/Lead Zircon				Unnamed/Unknow	n Informal
LITHOLOGY:	Carbonatite Aegirine Sovite Biotite Sovite Monzodiorite Monzonite Syenite Nepheline Syenite Fenite Psammitic Schist Pelitic Schist					
HOSTROCK COMMENTS:	Carbonatite is emplaced Date from R. Parrish (Op	in metamorphosed en File 1987-17).	rocks of the Ingen	ika Group.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Omineca Cassiar Regional Lower amphibolite facies.	Slide Mou RELAT	untain TONSHIP:	PHYSIOGRAI	PHIC AREA: Manson GRADE: Amphibo	Upland lite

INVENTORY

### ORE ZONE: LONNIE

REPORT ON: Y

	CATEGORY: QUANTITY:	Inferred 272000 Ton	nes		YEAR:	1991
	COMMODITY			GRADE		
	Niobium			0.2000	Per cent	
IENTS:	Possible reserve	es; up to 15 per c	ent zircor	1.		

REFERENCE: Z.D. Hora, personal communication, 1991.

#### CAPSULE GEOLOGY

COMM

Syenite, monzonite and carbonatite occur together in single, northwest striking sill-like horizons within uppermost Proterozoic metasedimentary rocks of the Wolverine Complex (Ingenika Group). The Ingenika Group is represented by quartzites and garnet-biotitemuscovite schists. These rocks have been metamorphosed to amphibolite grade. To the west lie rocks of the upper Paleozoic Nina Creek Group. Both intrusive rocks and hostrocks have been deformed and metamorphosed to lower amphibolite facies. The hostrocks comprise psammitic to semipelitic mica schists, micaceous quartzites and marble which strikes southeast (150 to 170 degrees) and dips steeply to the southwest (70 to 80 degrees on average). The various rock units within each intrusive zone are distributed in interfingering lenses. Alkali metasomatism (fenitization) can be detected for a few tens of metres beyond the intrusions. Preliminary uranium/lead systematics suggest that the Lonnie carbonatite was emplaced in Late Devonian to Early Mississippian times; interpreted zircon ages of 350 +/- 10 Ma and 370 +/- 20 Ma were obtained (Open File 1987-17).

Two varieties of carbonatites are present within the Lonnie complex. One is aegirine sovite in which the principal components are calcite, microcline, perthite and aegirine; the other is biotite sovite, comprising calcite, biotite and usually plagioclase. Both the biotite and aegirine sovites are variably foliated and contain apatite (up to 20 per cent), magnetite and pyrochlore as accessory minerals. The biotite sovite may also contain zircon locally; columbite, ilmenorutile and ilmenite have also been reported. The aegirine sovite occurs along the southwestern margin of the complex, the biotite sovite along the northwestern margin. The biotite sovite is variably mylonitized, with the most intense shearing near the contact with the country rocks. Enrichment in zircon, pyrochlore, columbite, pyrite and pyrrhotite has been noted near the contacts of the sovites with syenites.

Feldspathic intrusive rocks, monzodiorite, monzonites and syenites, outcrop as lenticular masses separating the carbonatite units. All phases contain accessory muscovite, biotite, calcite and apatite. Nepheline syenite is also locally present and contains significant amounts of zircon.

Pods and layers of fenite occur within the Lonnie intrusive complex. The fenite is medium to dark green in colour and rusty weathering. It consists of aegirine and sodic amphibole with microcline, plagioclase and calcite in varying amounts. Trace constituents include pyrochlore, magnetite and zircon.

constituents include pyrochlore, magnetite and zircon. The host psammitic and semipelitic schists are recognizably fenitized for a few tens of metres beyond the intrusive contacts. Microcline, plagioclase and quartz are major constituents, with aegirine and arfvedsonite disseminated throughout, presumably replacing the original mafic silicate minerals. Biotite is present in trace amounts only. Calcite, apatite, magnetite and zircon may be present and coarse-grained arfvedsonite, magnetite and feldspar segregations may be developed locally.

The Lonnie carbonatite zone has been traced by surface trenching for a length of approximately 650 metres with widths up to 50 metres. It strikes 120 degrees and dips approximately 60 degrees southwest. A zone in the centre of the property averages 0.3 per cent niobium (Nb205) across a width of 7.6 metres and a length of 240 metres (Open File 1987-17). The presence of uranian pyrochlore has been determined from x-ray work by R.M. Thompson (Minister of Mines Annual Report 1954, page A97). A recent spectrometer survey of the area revealed thorium to be the radioactive element (F. Ferri, personal communication, 1990). Inferred (possible) reserves at Lonnie are 272,000 tonnes

Inferred (possible) reserves at Lonnie are 272,000 tonnes grading 0.2 per cent niobium and up to 15 per cent zircon (Z.D. Hora, personal communication, 1991).

# BIBLIOGRAPHY

EMPR ASS RPT 7515, 10729 EMPR AR \*1954-A96,A97; \*1955-29,30 EMPR GEM 1970-181 EMPR EXPL 1977-E202; 1979-237 EMPR MAP 22; 65, 1989

EMPR OF \*1987-17, pp. 37-41; 1988-12; 1990-32; 1992-1; 1992-9 EMPR FIELDWORK 1987, pp. 169-180 EMPR BULL \*91 GSC EC GEOL 16 (Rev.), p. 233; 18, pp. 29,31; 29, pp. 71,134 GSC P 41-5; 42-2; 45-9 GSC BULL 239, pp. 119-121 GSC OF 551 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33 EMR MP CORPFILE (Moly Mite Mines Inc.; Golden Slipper Resources Inc.) EMR MIN BULL MR 223 B.C. 251 GCNL #131, 1982 Halleran, A.A.D. (1980): \*Petrology, Mineralogy and Origin of the Niobium-bearing Lonnie Carbonatite Complex of the Manson Creek Area, British Columbia, Unpub. B.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/07 CODED BY: GSB REVISED BY: GO

MINFILE NUMBER:	<u>093N 013</u>		NATIONAL MINE	RAL INVENTORY:	093N4 Cu1
NAME(S):	ADDA				
STATUS: REGIONS	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N04W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 10 N 125 59 16 W 695 Metres Within 5 KM Location is for chalcopyrite northwest arm of Takla Lak kilometres south of Takla La 1930, page A149).	e seams exposed on the west ke, just above the lakeshore, a anding (Minister of Mines Ann	side of the about 29 ual Report	NORTHING: EASTING:	6123283 309951
COMMODITIES:	Copper	Silver			
SIGNIFICANT: ASSOCIATED: COMMENTS: MINERALIZATION AGE:	Chalcopyrite Calcite Calcite occurs in separate Unknown	narrow seams.			
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Hydrothermal	Epigenetic			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMO	ORPHIC/OTHER
Lower Jurassic	Hazelton	Telkwa		Topley Intrusions	
LITHOLOGY:	Andesite Andesitic Basaltic Volcanic Sediment/Sedimentary Intrusive	;			
HOSTROCK COMMENTS:	The Telkwa/Nilkitkwa form	nations are undifferentiated in	this area.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOGRAPHI	C AREA: Nechako	Plateau
INVENTORY					
ORE ZONE:	SAMPLE	REF	PORT ON: N		
	CATEGORY: Assay/an SAMPLE TYPE: Grab COMMODITY	alysis <u>GRADE</u>	YEAR: 1930		
COMMENTS: REFERENCE:	Copper Sample of selected chalcop Minister of Mines Annual R	10.6000 pyrite mineralization. eport 1930, page 149.	Per cent		
CAPSULE GEOLOGY					
	The Adda occur northwest arm of Ta Takla Landing. The area is ur minor sediments ass Telkwa/Nilkitkwa fo Hazelton Group, wes Jurassic Topley int the Hazelton Group A few veins of some narrow calcite lakeshore. Selecte per tonne silver ar of Mines Annual Rep No recent info	rrence is situated or akla Lake, approximat derlain by andesitic signed to the Lower J ormations of the Uppe st of a large pluton trusions. The north-s rocks from Cretaceou f chalcopyrite, 5 to e seams were observed ad portions of the ch ad 10.6 per cent copp port 1930, page 149).	the west side of ely 29 kilometres to basaltic volca urassic undivided of Triassic-Middle of the Late Triassic triking Takla fau sediments to the 7.6 centimetres in in andesite just alcopyrite assayed per, with trace goin his occurrence is	the south of anics and Jurassic sic-Early It separates e west. h width, and above the d 5.49 grams Id (Minister available.	

EMPR AR \*1930-A149 EMPR OF 2000-19

GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC OF 3071 GSC P 42-7; 45-6

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/09 CODED BY: GSB REVISED BY: DMN

.\_\_

MINFILE NUMBER:	<u>093N 014</u>	NATIONAL MINERAL INVENTORY: 093N11 Hg4
NAME(S):	BRALORNE BB, MERC	
STATUS: REGIONS: NTS MAD	Showing British Columbia	MINING DIVISION: Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 57 N 125 28 09 W 850 Metres Within 1 KM Location is for Silver Creek, just north of its confluence with Vital Creek, about 41 kilometres northeast of Takla Landing and 18 kilometres north of the Bralorne Takla mercury mine (093N 008) (National Mineral Inventory).	NORTHING: 6177216 EASTING: 344893
COMMODITIES:	Mercury	
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Carbonate Dolomite Carbonate Unknown	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Epigenetic Hydrothermal E01 Almaden Hg	108 Silica-Hg carbonate
HOST ROCK DOMINANT HOSTROCK:	Sedimentary	
STRATIGRAPHIC AGE Paleozoic-Mesozoic Triassic-Jurassic Paleozoic-Mesozoic Mesozoic	GROUPFORMATIONCache CreekUndefined FormationTaklaUndefined Formation	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal Hogem Intrusive Complex
LITHOLOGY:	Limestone Volcanic Granodiorite Carbonatized Serpentine Sill Ultramafic	
HOSTROCK COMMENTS:	Cache Creek Complex rocks range from Carboniferous to Juras	ssic.
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek Plutonic Rocks	PHYSIOGRAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY	The Bralorne BB occurrence is situated on orth of the mouth of Vital Creek, approximate northeast of Takla Landing and 18 kilometres Takla mercury mine (093N 008). The showing we The area is underlain by interbedded see volcanics assigned to the Carboniferous to Ju Complex, which in this area strike north-nort east. These rocks are in contact with west of minor sediments of the Middle Triassic to Low along a north-northeast trending section of the Further east, the Takla Group rocks have beer granodiorite of the Late Triassic to Early Ch Complex. Mississippian to Triassic ultramafied Ultramafites, formerly assigned to the Middle Triassic Trembleur intrusions, occur locally. The occurrence is described as consisting hosted within limestone and a carbonatized se approximately 23 metres wide, which follows to limestone in the area has been dolomitized and the subsidiary faults with various orientations (Canada Memoir 252, page 154). Extensive surface work undertaken in the program of geological mapping, geochemical sa diamond drilling in three holes carried out is a deposit of economic significance.	on Silver Creek, just tely 41 kilometres north of the Bralorne was discovered in 1940. diments and minor urassic Cache Creek thwest and dip to the dipping volcanics and wer Jurassic Takla Group the Pinchi fault zone. A intruded by retaceous Hogem Intrusive ic rocks of the Oceanic e Permian to Late . A thick mantle of cinity of Silver Creek. Ang of traces of cinnabar erpentine sill the fault contact. The ad brecciated by numerous (Geological Survey of e early 1940s and a ampling and 183 metres of in 1965 failed to outline

No recent information concerning this occurrence is available.

EMPR AR 1965-106 EMPR PF (Miscellaneous map - Northern Omineca Mercury belt) GSC MEM \*252, p. 154 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 44-5, p. 13, 45-6

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/23 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 015</u>		NA	ATIONAL MINERAL INVEI	NTORY: 093N11 Hg3
NAME(S):	<u>SNELL</u> , AMY				
STATUS:	Showing British Columbia			MINING DI	VISION: Omineca
NTS MAP:	093N11W			UTM	1 ZONE: 10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 43 14 N 125 27 12 W 895 Metres Within 500M Location is the confluence kilometres northeast of Ta Bralorne Takla mercury mi	e of Silver and Snell cree kla Landing and 13 kilom ine (093N 008).	ks, about 39 hetres north of the	NOF EA	RTHING: 6177706 STING: 345906
COMMODITIES:	Mercury	Antimony			
MINERALS					
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Stibnite Quartz Carbonate Quartz-Carb. Unknown	Mariposite			
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Stratabound Hydrothermal E01 Almaden Hg Bladed	Epigenetic	Replacement	108 Silica-Hg carbon	ate
MODIFIER: DIMENSION: COMMENTS:	Faulted 12 x 2 Mineralization is faulted of concentrated in a siliceous	Metres f at a depth of 3.66 metr s paystreak 10 to 15 cen	STRIKE/DIP: es and is timetres wide.	TRE	ND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Paleozoic-Mesozoic Triassic-Jurassic	<u>GROUP</u> Cache Creek Takla	<u>FORMAT</u> Undefine Undefine	ION d Formation d Formation	IGNEOUS/	METAMORPHIC/OTHER
	Ohanta Lineactore			riogen m	
LITHOLOGY:	Cherty Limestone Dolomitic Limestone Argillite Chert Tuff Schist Andesite Sandstone Serpentinite Granodiorite				
HOSTROCK COMMENTS:	Cache Creek Complex ro	ocks are Carboniferous t	o Jurassic.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	Quesnel	Pł	HYSIOGRAPHIC AREA: (	Omineca Mountains
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N	I	
	CATEGORY: Assay/a SAMPLE TYPE: Drill Core COMMODITY Mercury	GRADE	YEAR: 1	944	
COMMENTS:	Grade is average assay o	f samples from the west	tern orebody take	n prior	
REFERENCE:	Geological Survey of Cana	ada Memoir 252, page 15	56.		
CAPSULE GEOLOGY					
	The Snell occ Kenny and Silver of Takla Landing and mine (093N 008). intermittently exp The area is u chert, tuff and so	urrence is locate reeks, approximat 13 kilometres nor The showing was c lored up until th nderlain by inter hist assigned to	ed just north tely 39 kilom th of the Br discovered in he early 1970 rbedded limes the Carbonif	n of the confluence netres northeast of alorne Takla merce n 1941 and os. stone, argillite, ferous to Jurassio	ce of of cury

Cache Creek Complex, which in this area strike north and dip steeply to the east. These rocks are in contact with west-dipping andesite and sandstone of the Middle Triassic to Lower Jurassic Takla Group along a north-northwest trending section of the Pinchi fault zone. Further east, the Takla Group rocks have been intruded by granodiorite of the Late Triassic to Early Cretaceous Hogem Intrusive Complex. A thick mantle of drift overlies most of these rocks in the vicinity of Silver Creek.

Mineralization in the form of cinnabar and minor stibnite occurs in cherty limestone in several locations, one along Silver Creek at the mouth of Snell Creek and another approximately 180 metres to the east (Assessment Report 11977, Figure 4). The former occurrence is approximately 12 metres long by nearly 2 metres wide and reportedly assayed 2 to 3 kilograms per tonne mercury. Drill results, however, suggest that the mineralization is faulted off at a depth of only 3.66 metres and that most of it is concentrated in a siliceous paystreak 10 to 15 centimetres wide (Geological Survey of Canada Memoir 252, page 156). Another "low-grade" drill intercept was obtained on Silver Creek. The cinnabar here was hosted by cherty limestone and carbonate-quartz-mariposite rock at the contact between the limestone and altered serpentinite.

Hydraulic stripping along a creek parallel to and approximately 300 metres north of Snell Creek later exposed lenses of cinnabar in dolomitic limestone along and immediately west of the Pinchi fault zone. Boulders of "rich cinnabar ore" up to 60 centimetres in diameter were also reported to occur in rusty Tertiary gravels in the area.

## BIBLIOGRAPHY

EMPR ASS RPT 11977 EMPR AR 1944-75; 1958-11; 1959-18; 1960-14; 1965-106 EMPR GEM 1970-184 EMR MRB COMMODITY FILE MR-Hg-301.00 British Columbia EMPR PF (Miscellaneous drill hole maps) GSC MEM \*252, pp. 154-156 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 44-5A; 45-6; 74-1A; 74-1B, pp. 31-42

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/22 CODED BY: GSB REVISED BY: DMN

\_\_\_\_

MINFILE NUMBER:	<u>093N 016</u>			NATIONAL M	INERAL INVENTORY:	093N5 Cr1
NAME(S):	MITCHELL RANGE,	CYPRUS, MONA				
STATUS:	Showing				MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093N05E				UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 23 15 N 125 35 06 W 1900 Metres Within 500M Location is for a chro east-southeast of Klo east-southeast of Ta 844A).	omite occurrence in the owkut Peak, approxima kla Landing (Geologica	Mitchell Range itely 26 kilometres al Survey of Canada I	Мар	NORTHING: EASTING:	6140954 336258
COMMODITIES:	Gold	Chromium				
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION:	Chromite Quartz Carbo Serpentine Qua Talo Malact	onate Magnesite artz Carbonate	Tremolite Mariposite	Actinolite Magnesite		
ALTERATION TYPE: MINERALIZATION AGE:	Serpentin'zn Unknown	Silicific'n	Quartz-Ca	rb.	Oxidation	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Vein Hydrothermal M03 Podiform chr Chromite is likely of i mineralization is prot	Shear Epigenetic omite magmatic origin, while pably hydrothermal.	Disseminat Magmatic quartz-carbonate she	ted ear	Industrial Min.	
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	<u>FC</u>	ORMATION		IGNEOUS/METAMO	ORPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Creek	U	ndefined Formation		Oceanic Ultramafi	tes
LITHOLOGY:	Peridotite Pyroxenite					
HOSTROCK COMMENTS:	Cache Creek Comp Oceanic Ultramafite	olex rocks are Carbonif es are Mississippian to	ferous to Jurassic wh Triassic.	ile the		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cache	Creek	PHYSIOGRA	PHIC AREA: Omineca	Mountains
INVENTORY						
ORE ZONE:	SAMPLE		REPORT OF	N: N		
	CATEGORY: Ass SAMPLE TYPE: Roo COMMODITY Gold	say/analysis ck	YEAF GRADE 0.3450 Grams	R: 1987		
COMMENTS:	Sample of shear-hos	sted, malachite-stained	l, quartz-carbonate			
REFERENCE:	Assessment Report	16095, page 6.				
CAPSULE GEOLOGY		-11		- 1 2 2 1-11		
	The Mitch east-southeast Range. Althou Corporation as by Imperial Me geochemistry w 16095). Effor proved unsucce The occur ultramafic roc sediments assi a large pluton The ultramafic	of Klowkut Peak gh the area was the Mona claim, tals Corporation as carried out of ts to relocate t ssful. rence is reporte ks in fault cont gned to the Cach of the Late Tri rocks consist o	cance is situat c at the northe originally sta , the only reco n in 1987, when on its Cyprus c the chromite oc edly hosted wit tact with Carbo ne Creek Comple iassic-Early Ju of dark black-c	eu 3.3 Kli ern end of ked by the orded exploi laims (Asse currence a hin a penda niferous to ex, near the rassic Top	the Mitchell Magnum ration was done of essment Report t this time ant of o Jurassic e north end of ley intrusions. ariably	

serpentinized/silicified peridotite hosting pods and lenses of coarse-grained altered pyroxenite (with tremolite-actinolite).

Locally, rusty weathering exposures of quartz-carbonate-talc +/mariposite hosting anastomosing quartz and magnesite veins have been observed. Detailed descriptions of the Mitchell Range occurrence are lacking. It is probable that it is similar to numerous other chromite occurrences which have been documented within ultramafic rocks underlying the Mitchell Range (Fieldwork 1982-1, pages 234-243). These occurrences comprise small disseminated, aggregate (greater than 75 per cent) and massive chromite nodules and layers which are predominantly hosted by allochthonous, serpentinized harzburgite, formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions, and now termed Mississippian to Triassic Oceanic Ultramafites. For regional geology details, please refer to the Simpson, Bob and Irish occurrences (093N 033, 34, 35). A sample of malachite-stained, quartz-carbonate mineralization

A sample of malachite-stained, quartz-carbonate mineralization filling a shear zone approximately 750 metres north of the chromite occurrence's reported location assayed 0.345 grams per tonne gold (Assessment Report 16095, page 6).

### BIBLIOGRAPHY

EMPR ASS RPT \*16095 EMPR EXPL 1987-C313 EMPR FIELDWORK 1982-1, pp. 234-243 EMPR Unpublished Chromite Bulletin, Stevenson, J.S. (1941) EMPR OF 2000-19 EMPR PF (Whittaker, P. (1983): Unpublished Thesis "Chromite in Alpine Type Peridotites"; Carleton University, 339 pp. (refer to 093N General File)) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 135,189 GSC OF 3071 GSC P 42-7; 45-6; 82-1A, pp. 239-245 Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/15 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 017</u>	NATIONAL MINERAL INVENTORY: 093N11 Hg7
NAME(S):	BRON, HOUSTON SOUTH	
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N11W	MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 33 08 N 125 22 40 W 1030 Metres Within 500M Location is the site of diamond drilling undertaken in 1970, about kilometres east-northeast of Takla Landing (Geology, Exploration Mining in British Columbia 1970, Figure 19).	NORTHING: 6158812 EASTING: 350009
COMMODITIES:	Mercury	
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Dolomite Carbonate Unknown	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Disseminated Epigenetic Hydrothermal Replaceme E01 Almaden Hg Cinnabar also occurs as films on slip surfaces.	ent I08 Silica-Hg carbonate
HOST ROCK DOMINANT HOSTROCK:	Sedimentary	
<u>STRATIGRAPHIC AGE</u> Paleozoic-Mesozoic	GROUP         FORMATION           Cache Creek         Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone Argillaceous Schist Chloritic Schist Slaty Siltstone	
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Carboniferous to Jurassic.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	PHYSIOGRAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY	The Bron occurrence is situated near th and West Kwanika creeks, south of the Bralor (093N 008), approximately 38 kilometres east Landing. The area is underlain by a north-northw west-dipping sequence of interbedded limesto Chloritic schist assigned to the Carbonifero Creek Complex. These rocks occur within and zone, a major structural feature traversing south. Grey, massive limestone is the most in the area of the occurrence, and it is inv dolomitized. North-northwest striking, stee and rusty coloured, slaty siltstone were obs with limestone locally. Early reports (1944) describe a zone of three metres wide on the west fork of Kwanik reportedly occurred as minute crystals in br film on slip planes. Diamond drilling under failed to intersect significant mineralizati deep overburden overlying the area. No recent information concerning this o	The divide between Silver The Takla mercury mine -northeast of Takla rest striking, steeply one and argillaceous and ous to Jurassic Cache west of the Pinchi fault the area from north to common rock type observed rariably brecciated and/or ply west-dipping schist terved to be interbedded c cinnabar mineralization ta Creek. The cinnabar recciated limestone and as taken in 1970, however, on, partly due to the beccurrence is available.
BIBLIOGRAPHY	EMPR AR 1968-148 EMPR ASS RPT 1755 EMPR GEM 1969-105; 1970-182 EMPR OF 2000-33 EMPR PF (Miscellaneous claim map) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, p. 160	

GSC P 42-7; \*44-5, p. 10; 45-6

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/01 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 018</u>		NATIC	NAL MINERAL INVENTORY: 093N11 Hg2
NAME(S):	DAN			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N11W			MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LOCATION ACCURACY: LOCATION ACCURACY: COMMENTS:	55 30 35 N 125 20 37 W 1050 Metres Within 500M Location are trenches exc kilometres east of Takla La	avated in the early 194 anding (Assessment Re	i0s, about 40 eport 19373, Figure 1).	NORTHING: 6154011 EASTING: 352004
COMMODITIES:	Mercury	Chromium	Platinum	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Chromite Quartz Carbonate Quartz Carbonate Quartz-Carb. Unknown	Mariposite Mariposite Silicific'n	Chalcedony Silica	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Epigenetic E01 Almaden Hg M03 Podiform chromite	Vein Hydrothermal	Massive Magmatic 108	Industrial Min. Silica-Hg carbonate
DIMENSION: COMMENTS:	1 Chromite pod.	Metres	STRIKE/DIP:	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Cache Creek	FORMA	TION ed Formation	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic		Chachin		Oceanic Ultramafites
LITHOLOGY:	Ultramafic Serpentinite Limestone			
HOSTROCK COMMENTS:	Cache Creek Complex ro Oceanic Ultramafites are	ocks are Carboniferous Mississippian to Trias	to Jurassic while the sic.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cache Creek	PHYS	IOGRAPHIC AREA: Omineca Mountains
INVENTORY				
ORE ZONE:	SAMPLE		REPORT ON: N	
	CATEGORY: Assay/ar SAMPLE TYPE: Rock COMMODITY Chromium	nalysis <u>GRAD</u> 0.16	YEAR: 1989 E 65 Per cent	_
COMMENTS: REFERENCE:	Platinum Sample SW-89-MR-11. Assessment Report 19373	0.15 3, page 4.	80 Grams per ton	ne
ORE ZONE:	SOUTHWEST		REPORT ON: N	
	CATEGORY: Assay/ar SAMPLE TYPE: Rock COMMODITY	nalysis <u>GRAD</u>	YEAR: 1989 E	_
COMMENTS:	Mercury Sample 89-NAT-1 of silicifi	0.03 ied ultramafics hosting	disseminated	
REFERENCE:	Assessment Report 19373	3, page 4.		
CAPSULE GEOLOGY	The Dan occur	rence is situate	d 2 kilometres	south of the
	confluence of Kwan kilometres east of The area is u and volcanic rocks Complex. To the e	ika and West Kwa Takla Landing. nderlain by Cark (and derived so ast, a narrow, 1	anika creeks, app poniferous to Jun chist) assigned t linear band of u	proximately 40 cassic sedimentary to the Cache Creek ltramafic rocks,

formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions, and now termed Mississippian to Triassic Oceanic Ultramafites, occurs along the trace of the Pinchi fault zone, which separates the Cache Creek rocks from the Late Triassic to Early Cretaceous Hogem Intrusive Complex.

Early reports describe a 1-metre wide mineralized zone hosted by quartz-carbonate-mariposite rock exposed in a trench. Within the zone, bright red cinnabar was said to be concentrated within a 7.6 centimetre width with associated chalcedonic quartz.

Recent exploration in the area has determined that the Dan occurrence comprises several areas of related mineralization. Cinnabar, as disseminations and in chalcedonic veinlets, is reported to be hosted by quartz-carbonate-mariposite altered ultramafic rocks exposed in a series of trenches to the north. Both the ultramafics and the host limestone have been intensely silicified. Approximately 340 metres to the south, a 1-metre wide pod of massive chromite has been exposed in serpentinite.

Assays from samples of the cinnabar mineralization ranged up to 0.0308 per cent mercury while samples from the chrome showing assayed 0.1665 per cent chromium, 0.0149 per cent nickel and 0.158 grams per tonne platinum (Assessment Report 19373, page 4).

#### BIBLIOGRAPHY

EM GEOFILE 2000-2; 2000-5 EMPR AR 1965-105; 1966-119 EMPR ASS RPT \*19373 EMPR PF (Miscellaneous claim map) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, p. 161 GSC P 42-7; \*44-5, pp. 10-11; 45-6

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/01 CODED BY: GSB REVISED BY: DMN

NAME(S):       BOWNEGA:       TRUMP, VICTORY,         STATUS:       Showing       MINING DIVISION:       Omineca         NISIMAP       GSMOBW       UTM ZONE:       10 (NAT         BCMAPE       LUTM ZONE:       10 (NAT         LOCATION       AGSNOBW       Disab Columbia       UTM ZONE:       10 (NAT         LOCATION       AGSNOBW       Disab Columbia       UTM ZONE:       10 (NAT         LOCATION       AGSNOBW       Disab Columetres       S33292       EASTING:       333292         LOCATION       AGSNOBW       Arsenic       Pirite       S33292       EASTING:       333292         LOCATION       AGSNOBW       Arsenic       Pirite       Sassociation       Sa	MINFILE NUMBER:	<u>093N 019</u>		NATIONAL MI	NERAL INVENTORY:	093N6 Hg1
STATUS:       Shawing       MINING DIVISION:       Omineca         PEGIONS:       Builtish Columbia       UTM ZONE:       10       (NAL         NORTHER       Statish Columbia       UTM ZONE:       10       (NAL         BC MAP       Statish Columbia       Northink:       Statish Columbia       Statish Columbia         LATTUDE:       55       29 01 N       Northink:       Statish Columbia       Statish Columbia <td< td=""><td>NAME(S):</td><td>KWANIKA, TRUMP, VICTO BOWLEG</td><td>DRY,</td><td></td><td></td><td></td></td<>	NAME(S):	KWANIKA, TRUMP, VICTO BOWLEG	DRY,			
UTM ZONE: 10 (NAL BC MAP BC MA	STATUS:	Showing British Columbia			MINING DIVISION:	Omineca
LATTIODE 55 29 01 N LATTIODE 55 29 01 N ELEVATION 330 Metres LOCATION ACCURACY. Which 1 KM COMMENTS: Location is a cinnabar occurrence on Kwanika Creek, 7.2 kilometres advoe its mouth, about 6 kilometres north of the outlet of Tsayta Lake and 40 kilometres east of Takla Landing (Geological Survey of Canada Memoir 252, page 163). COMMODTIES: Mercury Arsenic MINERALS SIGNIFICANT: Cinnabar Realgar Arsenic Pyrite ALTERATION Dolomite ALTERATION TYPE: Coll Almaden Hg DOLOMITE MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Disseminated Vein CLASSIFICATION: Epigenetic Hydrothermal TYPE: E01 Almaden Hg DOLINIER STRATIGRAPHIC AGE GROUP CIASSIFICATION: Sedimentary STRATIGRAPHIC AGE GROUP LITHOLOGY: Argillite Limestone Grandoine Sillene Hydrothermation Mesozoic LITHOLOGY: Argillite Limestone TECTONIC ELT: Intermontane Cache Creek Complex to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING TERRANE: Quesnet Complex is dated as Late Triassic to Early Cretaceous. GEOLOGICAL SETTING THE KWANIKA occurrence is situated on Kwanika Creek, 6 Kilometres anoth of the outlet of Tsayta Lake and approximately 40 Kilometres east of Takla Landing.	NTS MAP: BC MAP:	093N06W			UTM ZONE:	10 (NAD 83)
COMMODITIES:       Mercury       Arsenic         MINERALS ASSOCIATED:       Cinnabar ALTERATION ALTERATION:       Realgar Notation       Arsenic       Pyrite         ASSOCIATED:       Colomite ALTERATION:       Realgar Notation       Arsenic       Pyrite         ALTERATION:       Dolomite Character       Realgar       Arsenic       Pyrite         DepOsit MINERALIZATION AGE:       Unknown       Io8       Silica-Hg carbonate         DEPOSIT CLARACTER:       Disseminated Undefined Hg       Vein Hydrothermal       Io8       Silica-Hg carbonate         MOST ROCK DOMINANT HOSTROCK:       Sedimentary       Io8       Silica-Hg carbonate       Io8         Paleozoic-Messozic       GROUP       FORMATION Takla       Indefined Formation Undefined Formation       Io8       Io9         LITHOLOGY:       Argilite Limestone Granodiorite Sil Carbonatized Serpentinite       Io8       Silica-Hg carbonate       Hogem Intrusive Complex         HOSTROCK COMMENT:       Cache Creek       Complex rocks are Carboniferous to Jurassic while the Hogem Intrusive Complex is dated as Late Triassic to Early Cretaceous.       FMSIOGRAPHIC AREA: Omineca Mountain TERNANE       PhysiOGRAPHIC AREA: Omineca Mountain TERNANE         CAPSULE GEOLOGY       The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres north of Takla Landing.	LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 29 01 N 125 19 18 W 930 Metres Within 1 KM Location is a cinnabar occ above its mouth, about 6 I Lake and 40 kilometres ea Canada Memoir 252, page	currence on Kwanika Creek, 7.2 kilomet kilometres north of the outlet of Tsayta ast of Takla Landing (Geological Survey e 163).	tres v of	NORTHING: EASTING:	6151059 353292
MINERALS ASSOCIATE: Dolomite ALTERATION TYPE: Carbonate MINERALIZATION AGE: Unknown       Realgar       Arsenic       Pyrite         DEPOSIT CLASSIFICATION: Epigenetic TYPE: E01       Disseminated Mineralization TYPE       Vein Hydrothermal       08       Silica-Hg carbonate         DOMING CLASSIFICATION: Epigenetic TYPE: E01       Minaden Hg       108       Silica-Hg carbonate         HOST ROCK DOMINANT HOSTROCK: Sedimentary       108       Silica-Hg carbonate         STRATIGRAPHIC AGE Triassic-Jurassic       GROUP       FORMATION Undefined Formation Cache Creek       IGNEOUSMETAMORPHIC/OF Hogem Intrusive Complex         LITHOLOGY: Argillite Limestone Granodiorite Sili Carbonatized Serpentinite       Undefined Formation Undefined Formation       IGNEOUSMETAMORPHIC/OF Hogem Intrusive Complex         HOSTROCK COMMENTS: Cache Creek Complex rocks are Carboniferous to Jurassic to Early Cretaceous.       Hogem Intrusive Complex is dated as Late Triassic to Early Cretaceous.         GEOLOGICAL SETTING TECTONIC BELT: Intermontane TERRANE: Quesnel       Cache Creek       PHYSIOGRAPHIC AREA: Omineca Mountain Cache Creek         CAPSULE GEOLOGY       The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres east of Takla Landing.	COMMODITIES:	Mercury	Arsenic			
DEPOSIT       CHARACTER       Disseminated       Vein         CLASSIFICATION:       Epigenetic       Hydrothermal         TYPE:       E01       Almaden Hg       108       Silica-Hg carbonate         HOST ROCK       DOMINANT HOSTROCK:       Sedimentary       Image: Sedimentary       Image: Sedimentary         STRATIGRAPHIC AGE       GROUP       FORMATION       Image: Sedimentary       Image: Sedimentary         STRATIGRAPHIC AGE       GROUP       Takla       Undefined Formation       Hogem Intrusive Complex         Paleozoic       Cache Creek       Undefined Formation       Hogem Intrusive Complex         LITHOLOGY:       Argillite       Cache Creek Complex rocks are Carboniferous to Jurassic while the Hogem Intrusive Complex is dated as Late Triassic to Early Cretaceous.       Geological Setting         GEOLOGICAL SETTING       Intermontane       Cache Creek       PHYSIOGRAPHIC AREA: Omineca Mountair         TECTONIC BELT:       Intermontane       Cache Creek       PHYSIOGRAPHIC AREA: Omineca Mountair         TECRANE:       Quesnel       Cache Creek       PHYSIOGRAPHIC AREA: Omineca Mountair         TECTONIC BELT:       Intermontane       Cache Creek       PHYSIOGRAPHIC AREA: Omineca Mountair         TERRANE:       Quesnel       Cache Creek is situated on Kwanika Creek, 6 kilometres east of Takala Landing.	MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Realgar Dolomite Dolomite Carbonate Unknown	Arsenic Pyrite			
HOST ROCK DOMINANT HOSTROCK: Sedimentary         STRATIGRAPHIC AGE Triassic-Jurassic Paleozoic-Mesozoic Mesozoic       GROUP Takla Cache Creek       FORMATION Undefined Formation Undefined Formation Undefined Formation       IGNEOUS/METAMORPHIC/O Hogem Intrusive Complex         LITHOLOGY:       Argillite Limestone Granodiorite Sill Carbonatized Serpentinite       FORMATION Undefined Formation Undefined Formation       Hogem Intrusive Complex         HOSTROCK COMMENTS:       Cache Creek Complex rocks are Carboniferous to Jurassic while the Hogem Intrusive Complex is dated as Late Triassic to Early Cretaceous.       FORMATION         GEOLOGICAL SETTING TECTONIC BELT:       Intermontane Quesnel       PHYSIOGRAPHIC AREA: Omineca Mountain TERRANE:         CAPSULE GEOLOGY       The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres east of Takla Landing.	DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Epigenetic E01 Almaden Hg	Vein Hydrothermal	108 Silio	a-Hg carbonate	
STRATIGRAPHIC AGE Triassic-Jurassic Paleozoic-Mesozoic       GROUP Takla       FORMATION Undefined Formation Undefined Formation       IGNEOUS/METAMORPHIC/O Hogen         LITHOLOGY: Mesozoic       Argillite Limestone Granodiorite Sill Carbonatized Serpentinite       Hogem Intrusive Complex       Hogem Intrusive Complex         HOSTROCK COMMENTS:       Cache Creek Complex rocks are Carboniferous to Jurassic while the Hogem Intrusive Complex is dated as Late Triassic to Early Cretaceous.       PHYSIOGRAPHIC AREA: Omineca Mountair         GEOLOGICAL SETTING TECTONIC BELT: TERRANE:       Intermontane Quesnel       PHYSIOGRAPHIC AREA: Omineca Mountair         CAPSULE GEOLOGY       The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres east of Takla Landing.	HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
Paleozoic-Mesozoic       Cache Creek       Undefined Formation       Hogem Intrusive Complex         LITHOLOGY:       Argillite Limestone Granodiorite Sill Carbonatized Serpentinite       Hostrock complex       Hogem Intrusive Complex         HOSTROCK COMMENTS:       Cache Creek Complex rocks are Carboniferous to Jurassic while the Hogem Intrusive Complex is dated as Late Triassic to Early Cretaceous.       Hostrock Complex         GEOLOGICAL SETTING TECTONIC BELT:       Intermontane Quesnel       PHYSIOGRAPHIC AREA: Omineca Mountain Cache Creek         CAPSULE GEOLOGY       The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres east of Takla Landing.	STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Undefined Formation		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:       Argillite Limestone Granodiorite Sill Carbonatized Serpentinite         HOSTROCK COMMENTS:       Cache Creek Complex rocks are Carboniferous to Jurassic while the Hogem Intrusive Complex is dated as Late Triassic to Early Cretaceous.         GEOLOGICAL SETTING TECTONIC BELT:       Intermontane Quesnel       PHYSIOGRAPHIC AREA: Omineca Mountain Cache Creek         CAPSULE GEOLOGY       The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres east of Takla Landing.	Paleozoic-Mesozoic Mesozoic	Cache Creek	Undefined Formation		Hogem Intrusive Co	omplex
HOSTROCK COMMENTS:       Cache Creek Complex rocks are Carboniferous to Jurassic while the Hogem Intrusive Complex is dated as Late Triassic to Early Cretaceous.         GEOLOGICAL SETTING TECTONIC BELT:       Intermontane Quesnel       PHYSIOGRAPHIC AREA: Omineca Mountain Cache Creek         CAPSULE GEOLOGY       The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres east of Takla Landing.	LITHOLOGY:	Argillite Limestone Granodiorite Sill Carbonatized Serpentinite	9			
GEOLOGICAL SETTING TECTONIC BELT:       Intermontane Quesnel       PHYSIOGRAPHIC AREA: Omineca Mountain Cache Creek         CAPSULE GEOLOGY       The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres east of Takla Landing.	HOSTROCK COMMENTS:	Cache Creek Complex re Hogem Intrusive Comple	ocks are Carboniferous to Jurassic whil ex is dated as Late Triassic to Early Cref	le the taceous.		
CAPSULE GEOLOGY The Kwanika occurrence is situated on Kwanika Creek, 6 kilometres north of the outlet of Tsayta Lake and approximately 40 kilometres east of Takla Landing.	GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Cache Creek	PHYSIOGRAF	PHIC AREA: Omineca	Mountains
The showing is hosted by Middle Triassic to Lower Jurassic Takla Group argillite immediately east of the Late Triassic to Early Cretaceous Hogem Intrusive Complex and west of limestone assigned to the Carboniferous to Jurassic Cache Creek Complex. The Pinchi fault zone forms the contact between the two sedimentary units, traversing the area from north to south. Mineralization consists of minor cinnabar occurring in a 0.65-centimetre wide dolomitic stringer cutting argillite adjacent to a narrow, north striking, steeply dipping granodiorite sill. Approximately 800 metres further upstream, similar stringers host realgar, native arsenic and pyrite (Geological Survey of Canada Paper 44-5, page 11). On the east side of a "pond" believed to be approximately 800 metres southwest of the Kwanika occurrence, a 2.44-metre wide boulder of carbonatized serpentine and limestone reportedly hosted "commercial quantities" of cinnabar. Diamond drilling in the vicinity also intersected carbonatized serpentine carrying "a few specks" of cinnabar. Mineralization on the Victory and Bowleg groups of claims, to the south and west of the Kwanika occurrence respectively, was not located.	CAPSULE GEOLOGY	The Kwanika o kilometres north o kilometres east of The showing i Group argillite in Cretaceous Hogem I the Carboniferous zone forms the cor the area from nort Mineralizatio 0.65-centimetre wi a narrow, north st Approximately 800 realgar, native ar 44-5, page 11). On the east s metres southwest o of carbonatized se "commercial quanti vicinity also inte specks" of cinnaba Mineralizatio the south and west located. Although rece unavailable, exploi	boccurrence is situated on Kw of the outlet of Tsayta Lake Takla Landing. Is hosted by Middle Triassic mmediately east of the Late Intrusive Complex and west of to Jurassic Cache Creek Con thact between the two sedime th to south. On consists of minor cinnaba ide dolomitic stringer cutti triking, steeply dipping gra metres further upstream, si resenic and pyrite (Geologica side of a "pond" believed to of the Kwanika occurrence, a erpentine and limestone repo- ties" of cinnabar. Diamono east of the Kwanika occurrence ar. On on the Victory and Bowleg to f the Kwanika occurrence ent information concerning to pration has been carried out	wanika Cree and appro- to Lower Triassic to f limestor mplex. The entary unit ar occurrin ing argilli anodiorite imilar stri al Survey of be appropa a 2.44-metr ortedly hos d drilling ntine carry g groups of respective these occur	ek, 6 Durassic Takla O Early e assigned to Pinchi fault s, traversing ag in a te adjacent to sill. ngers host f Canada Paper cimately 800 re wide boulder ted in the ring "a few claims, to ely, was not rences is rea as part of	D. 00284 040
Although recent information concerning these occurrences is		unavailable, explo	pration has been carried out	t in the ar	ea as part of MINFILE NUMBER	२: <u>093N 019</u>

a detailed assessment of the Kwanika Creek occurrence (see 093N 073).

## BIBLIOGRAPHY

GSC MEM \*252, pp. 161-163 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 44-5; 45-6 GSC OF 3071 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/05 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 020</u>	NATIONAL MINERAL INVENTORY: (	093N6 Hg2
NAME(S):	INDATA LAKE MERCURY, SUNRISE, NEAL, OMAC, PAM		
STATUS: REGIONS	Showing British Columbia	MINING DIVISION: (	Omineca
NTS MAP: BC MAP:	093N06E	UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 18 39 N 125 14 29 W 875 Metres Within 500M Location is for diamond-drill holes 8 and 9 on the east sl Indata Lake, about 49 kilometres southeast of Takla Land (Assessment Report 1236, Figure 201-18).	NORTHING: ( EASTING: 3 hore of ding	6131670 357745
COMMODITIES:	Mercury		
MINERALS SIGNIFICANT: ALTERATION: COMMENTS: ALTERATION ACE:	Cinnabar Quartz Magnesite Calcite Ankerite Carbonate The green mica mineral is believed to be mariposite. Quartz-Carb.	Mariposite	
MINERALIZATION AGE.	UIKIUWI		
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Breccia Ve Epigenetic Hydrothermal Re E01 Almaden Hg	ein eplacement I08 Silica-Hg carbonate	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Paleozoic-Mesozoic Triassic-Jurassic Paleozoic-Mesozoic	GROUPFORMATIONCache CreekUndefined ForrTaklaUndefined Forr	mation mation Oceanic Ultramafite	RPHIC/OTHER
LITHOLOGY:	Limestone Serpentine Sill Chert Andesitic Volcanic Ultramafic		
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Carboniferous to Jura Oceanic Ultramafites are Mississippian to Triassic.	assic while the	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek Plutonic Rocks	PHYSIOGRAPHIC AREA: Omineca	Mountains
INVENTORY			
ORE ZONE:	SAMPLE RE	PORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> <u>GRADE</u> Mercury <u>0.0840</u> Sample across 1.52 metres taken near drillhole 2. Assessment Report 1236, page 3.	YEAR: 1967 Per cent	
CAPSULE GEOLOGY			
	The Indata Lake Mercury occurrence of Indata Lake near its outlet, approx of Takla Landing. The area was explore during the Second World War and again The area is underlain by sediments to Jurassic Cache Creek Complex in com volcanics of the Middle Triassic to Low a north-northwesterly trending portion Locally, ultramafic masses formerly as Late Triassic Trembleur intrusions and Triassic Oceanic Ultramafites, have be In the area of the occurrence, mas Serpentine. On the east shore of Indat	e is situated on the east shore imately 49 kilometres southeast ed for its mercury potential in the late 1960s. s assigned to the Carboniferous tact to the east with andesitic wer Jurassic Takla Group along of the Pinchi fault zone. signed to the Middle Permian to now termed Mississippian to en emplaced in these rocks. ssive blue-grey coloured Cache all dikes and sills of ta Lake, a brecciated fault	

zone, 3 to 6 metres wide, cuts the limestone. This zone strikes north, dips at 70 degrees to the west and has been traced 300 metres north from the lakeshore to where it becomes masked by overburden. A series of northeast-striking crossfaults appear to have offset the zone by up to 3 metres. At the north end, it follows the contact between a serpentine dike and limestone for 53 metres. Along the zone, the limestone has been altered to a buff-coloured carbonate and the serpentine dike has been brecciated and altered to a reddish buff-coloured ankeritic carbonate with local irregular chert fragments and green mica (mariposite?). Stringers of magnesite and quartz up to 5 centimetres wide cut the altered dike. Most of the cinnabar mineralization occurs as widely scattered grains within the chert fragments, either in the dike or in the fault breccia, along calcite-filled fractures or within the interclastic matrix. A 1.52-metre wide sample across the breccia zone near

diamond-drill hole 2 assayed 0.84 kilogram mercury per tonne (0.084 per cent) (Assessment Report 1236, page 3). Traces of cinnabar in cemented volcanic breccia with minor mariposite, showed up in only one of seven holes drilled along the structure.

#### BIBLIOGRAPHY

EMPR ASS RPT 1236, 12433 EMPR EXPL 1983-455 EMPR OF 2000-19 EMR MP CORPFILE (Ajax Mercury Mines Ltd.) EMR MRB COMMODITY FILE MR-Hg-301.00 British Columbia GSC MAP 844A; 907A; 971A; 1424A GSC MEM \*252, pp. 164-165 GSC OF 3071 GSC P 42-7; 42-11, 44-5, p. 12; 45-6

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/07 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 021</u>	NATIONAL MINERAL INVENTORY: 093N3,6 Hg1
NAME(S):	TCHENTLO	
STATUS: REGIONS: NTS MAP	Showing British Columbia 093N03W 093N03E	MINING DIVISION: Omineca
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 53 N 125 15 37 W 930 Metres Within 500M Location is for a roadcut exposing altered limestone from which r samples were obtained, west of the north end of Tchentlo Lake, a 52 kilometres southeast of Takla Landing (Assessment Report 11) Figure 2).	NORTHING: 6124724 EASTING: 356320 rock about 882,
COMMODITIES:	Mercury Gold	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Quartz Carbonate Quartz-Carb. Unknown	
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Replacement Hydrothermal	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary	
STRATIGRAPHIC AGE Paleozoic-Mesozoic	GROUP FORMATION Cache Creek Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone Argillite Greywacke	
	-	
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Carboniferous to Jurassic.	
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Cache Creek Complex rocks are Carboniferous to Jurassic. Intermontane Cache Creek Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako Lowland
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	Cache Creek Complex rocks are Carboniferous to Jurassic. Intermontane Cache Creek Plutonic Rocks	PHYSIOGRAPHIC AREA: Nechako Lowland
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Cache Creek Complex rocks are Carboniferous to Jurassic. Intermontane Cache Creek Plutonic Rocks SAMPLE REPORT ON:	PHYSIOGRAPHIC AREA: Nechako Lowland
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: DEFENDENCE:	Cache Creek Complex rocks are Carboniferous to Jurassic. Intermontane Cache Creek Plutonic Rocks SAMPLE REPORT ON: CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY Gold 0.1400 Grams p Sample CR-WT7 from a roadcut exposing altered limestone. Assassment Placent 11822 Eigure 2	PHYSIOGRAPHIC AREA: Nechako Lowland N 1983 Deer tonne
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	Cache Creek Complex rocks are Carboniferous to Jurassic. Intermontane Cache Creek Plutonic Rocks SAMPLE REPORT ON: CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY Gold 0.1400 Grams p Sample CR-WT7 from a roadcut exposing altered limestone. Assessment Report 11882, Figure 2.	PHYSIOGRAPHIC AREA: Nechako Lowland N 1983 Der tonne
HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS: REFERENCE: CAPSULE GEOLOGY	Cache Creek Complex rocks are Carboniferous to Jurassic. Intermontane Cache Creek Plutonic Rocks SAMPLE SAMPLE CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY Gold O.1400 Gramsp Sample CR-WT7 from a roadcut exposing altered limestone. Assessment Report 11882, Figure 2. The Tchentlo occurrence is situated west Tchentlo Lake, approximately 52 kilometres so Landing. The area was explored for its mercu Second World War. The area west of Tchentlo Lake is underl assigned to the Carbonaceous to Jurassic Cach the north-northwesterly striking Pinchi fault limestone predominates in the area, although on small knolls flanking the lake and was exp trenches. Several large boulders and small pieces serpentine hosting cinnabar were reported in 1940s. Stripping failed to located the bedro ineralization. Altered limestone has been exposed in a kilometres west of the lake. A sample taken only as a "quartz-carbonate rock" assayed 0.0 Another sample assayed 0.140 grams per tonne arsenic (Assessment Report 11882, Figure 2).	PHYSIOGRAPHIC AREA: Nechako Lowland N 1983 Deer tonne

EMPR EXPL 1983-454 EMPR OF 2000-19 GSC MAP 844A; 907A; 971A; 1424A GSC MEM \*252, p. 166 GSC OF 3071 GSC P 42-7; 42-11, p. 18; 45-6

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/07 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	093N 022 NATIONAL MINERAL INVENTORY: 093N10 Ag1				093N10 Ag1	
NAME(S):	BLACK HAWK, BLACKHAWK					
STATUS:	Prospect British Columbia	Unde	erground	MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093N10E			UTM ZONE:	10 (NAD 83)	
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 38 38 N 124 32 32 W 1235 Metres Within 500M The Blackhawk occurrenc southwest of Manson Cre	e is located approximately 5 kil ek.	lometres	NORTHING: EASTING:	6167525 402937	
COMMODITIES:	Silver	Lead Zine	с (	Copper		
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Quartz Pyrite Silica Silicific'n Unknown	Chalcopyrite Pyrrhotite				
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic 105 Polymetallic veins	Stockwork Hydrothermal Ag-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
<u>STRATIGRAPHIC AGE</u> Triassic	<u>GROUP</u> Takla	FORMATION Slate Creek		IGNEOUS/METAMO	ORPHIC/OTHER	
LITHOLOGY:	Siliceous Phyllite Meta Siltstone Meta Greywacke					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Contact Regional	RELATIONSHIP:	PHYSIOGRAPI	HIC AREA: Omineca GRADE: Greensc	Mountains hist	
ORE ZONE:	ADIT	KEP	ORTON: N			
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Rock <u>COMMODITY</u> Silver Lead Zinc A 1.5-metre rock sample t adit vein. Minister of Mines Annual F	Alysis <u>GRADE</u> 1398.8000 3.0000 3.0000 aken across a highly mineralize Report 1938, pages C10-C11.	YEAR: 1949 Grams per tonne Per cent Per cent ed area of the			
CAPSULE GEOLOGY						
	The Blackhawk occurrence is centred on an old adit located approximately 5 kilometres southwest of the settlement of Manson Creek and is accessed by a cat trail beginning at an old road on the southeast side of the Manson River. This occurrence is hosted in the Middle to Upper Triassic Slate Creek Formation (Takla Group). The hostrocks are silicified phyllites, metasiltstones and metagreywackes. The rocks surrounding the veins are predominantly purple to dark green, silicified and fine-grained metasiltstones. Where observed, bedding is contorted or masked by small quartz veinlets. Pervasive silicification obliterates most of the sedimentary structures. These rocks are approximately 2.5 kilometres north of the Cretaceous Germansen batholith and are near the outer edge of the intrusion's metamorphic					

aureole. Three kilometres to the northeast lies the right-lateral, northwest-striking Manson fault zone of probable Late Cretaceous to

Tertiary age. This occurrence is composed of a minimum of 9 veins ranging in width between 0.5 and 3 metres. The veins are roughly subparallel and strike north-northeast (approximately perpendicular to the

batholith contact) and dip steeply to the southwest. These milky, translucent quartz veins occur within a 200-metre wide quartz "stockwork" zone. The sulphides occur as both massive and disseminated and include argentiferous galena, sphalerite, pyrrhotite, pyrite and minor amounts of chalcopyrite. Where massive, the most prevalent sulphide is pyrrhotite with some sphalerite. The main zone of interest is 30 metres wide and surrounds the main vein and the adit vein. The adit is 5.48 metres in length on a bearing of 203 degrees. It follows a well mineralized quartz vein 0.48 metre in width that dips steeply to the northeast. Mineralization in this zone consists of blebs of galena and pyrrhotite which can be up to 25 centimetres in width. A mineralized 1.6-metre zone yielded 1398.8 grams per tonne silver, 3.0 per cent lead, 3.0 per cent zinc and trace gold (Minister of Mines Annual Report 1938, pages C10-11).

#### BIBLIOGRAPHY

EMPR AR 1929-185; 1931-76; \*1938-C10 EMPR BULL 1, p. 57 EMPR FIELDWORK 1987, pp. 169-180; 1988, pp. 209-220 EMPR ASS RPT 8956, \*19501 EMPR OF 1989-12 EMPR BULL \*91 GSC MEM \*252, p. 173 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33 GSC PROG RPT 1879, 1880, p. B110

DATE CODED: 1985/07/24 DATE REVISED: 1992/08/28 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 023</u>		NA	ATIONAL MINI	ERAL INVENTORY:
NAME(S):	FAIRVIEW				
STATUS: REGIONS	Prospect British Columbia				MINING DIVISION: Omineca
NTS MAP: BC MAP:	093N09W 093N10E				UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 34 N 124 29 54 W 950 Metres Within 500M The Fairview occurrence northwest of the settleme prep.).	is located approxim Int of Manson Creek	ately 0.5 kilometre (Ferri and Melville, in		NORTHING: 6171050 EASTING: 405776
COMMODITIES:	Gold	Silver	Copper		
		drite Cald			
ALTERATION ALTERATION ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Tetrane Quartz Pyrite Azurite Malachite Oxidation Unknown	arite Gold Ankerite Silicific'n	Mariposite Quartz-Carb.		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Vein Hydrothermal I05 Polymetallic vein Tabular Sheared	Mesothermal s Ag-Pb-Zn±Au Faulted			
DIMENSION: COMMENTS:	48 x 3 Quartz vein.	Metres	STRIKE/DIP:	155/85E	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	: Volcanic				
	GROUP	<u>FOI</u>	RMATION		IGNEOUS/METAMORPHIC/OTHER
PennsylvanPermian	Idrid	Sia	le Cleek		Manson Lakes Ultramafites
LITHOLOGY:	Mafic Volcanic Graphitic Argillite Serpentinite Gabbro				
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Slide Mountain Regional	Quesnel RELA	PF TIONSHIP:	HYSIOGRAPH	IC AREA: Manson Upland GRADE:
INVENTORY					
ORE ZONE:	VEIN		REPORT ON: N		
COMMENTS:	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver Gold The highest values of silv	analysis <u>G</u> ver and gold obtaine	YEAR: 19 RADE 35.7300 Grams per 7.8000 Grams per of from the Fairview veir	986 tonne tonne n	
REFERENCE:	(from two different samp Assessment Reports 166	les). 02, 20279; Ferri and	d Melville, Bulletin in pre	p.	
CAPSULE GEOLOGY					
	The Fairview northwest of the occurrence lies w fault zone which, Lower Jurassic Ta Manson Lakes Ultr This occurre 1 to 3 metres in It is found withi Middle to Upper T types within the	occurrence is settlement of ithin the nort in the immedi kla Group rock amafites. nce is a north thickness with n rocks of the fault zone are	s located approxi Manson Creek. R Hwest striking, ate area, separa from the Pennsy west-striking qu a known strike Manson Lakes Ul Creek Formation e serpentinite, m	mately 0. egionally right-lat tes Middl 'lvanian t artz vein length of tramafite (Takla Gr afic volc	5 kilometre , this eral Manson e Triassic- o Permian ranging from 48 metres. s and the oup). Rock anics, gabbro

and graphitic argillite. The vein is massive, white and contains disseminated blebs of

pyrite, chalcopyrite and tetrahedrite with related malachite and azurite staining. The vein has a strike of 155 degrees and dips 85 degrees to the east. Smaller quartz veins strike perpendicular to this into the country rock. Free gold has been reported from this vein. Mafic volcanics found on each side of the vein are highly carbonatized, silicified and sheared in the vicinity of the vein with the production of large ankerite porphyroblasts and associated mariposite. Highly altered wallrocks contain high concentrations of gold and silver.

The highest gold value obtained from this vein was 17.8 grams per tonne (Assessment Reports 16602, 20279) and silver values range up to 85.73 grams per tonne (Assessment Report 16602).

### BIBLIOGRAPHY

EMPR AR 1933-113; 1938-C12 EMPR ASS RPT 4246, 8956, 10746, \*16602, \*18012, \*20279 EMPR BULL \*91 EMPR EXPL 1980-360; 1982-319; 2002-13-28 EMPR FIELDWORK 1987, pp. 169-180; 1988, pp. 209-220 EMPR GEM 1973-368 EMPR OF 1988-12b; 1989-12 GSC MAP 876A; 907A; 971A; 1586G; 5249G GSC MEM 252, pp. 131,180 GSC P 41-5; 45-9; 75-33 Chevron File

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/17 CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	093N 024 NATIONAL MINERAL INVENTORY: 093N10 Au1					
NAME(S):	MOTHERLODE, FLAGSTAFF, GERMANSEN BEND, VIDI, FLAG					
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca		
NTS MAP: BC MAP	093N10E		UTM ZONE:	10 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 09 N 124 36 02 W 845 Metres Within 500M The Motherlode occurrence is I River and the vein occurs on b Report 3956).	located on the big bend in the Ger both sides of the river (Assessme	NORTHING: EASTING: mansen nt	6174130 399416		
COMMODITIES:	Gold Silve	er Copper				
	Tatasha diita Ohalaan wita					
ALTERATION : ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Pyrite Ankerite Mariposite Carbonate Qua Unknown	Sericite Quartz artz-Carb.				
DEPOSIT	Main					
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Vein Epigenetic Hyd I01 Au-quartz veins Tabular Sheared	Irothermal Mesotherm	al			
DIMENSION: COMMENTS:	Quartz vein.	STRIKE/D	IP: 120/70W TREND/PLUN	IGE:		
HOST ROCK DOMINANT HOSTROCK	Metasedimentary					
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Slate Creek		RPHIC/OTHER		
LITHOLOGY:	Phyllite Mariposite Ankerite Quartz Schist Ankeritic Phyllite Carbonatized Mafic Rock Carbonatized Ultramafic Rock					
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Manson I GRADE: Greenscl	Jpland hist		
INVENTORY						
ORE ZONE:	VEIN	REPORT ON	J: N			
REFERENCE	CATEGORY: Assay/analys SAMPLE TYPE: Grab COMMODITY Silver Gold Assessment Report 8956	sis YEAR 	Per tonne per tonne			
	The Motherlode occurrence is located just upstream from the big bend in the Germansen River and is found on both sides of the river (Assessment Report 3956). This occurrence is composed of sulphide (tetrahedrite, chalcopyrite and pyrite)-bearing quartz veins found within phyllites of the Middle to Upper Triassic Slate Creek Formation (part of the Middle Triassic to Lower Jurassic Takla Group). The veins are up to 1 metre in width and strike 120 degrees, dipping 70 degrees to the west. These veins cut across the dominant northwest striking and steeply dipping foliation. The rocks around the veins vary from weakly carbonatized phyllites, containing ankerite porphyroblasts, to mariposite-ankerite-quartz-sericite schists. These rocks are cut by shear zones parallel to the foliation, and close to the showing are in fault contact with carbonatized mafic and ultramafic rocks. These					

rocks lie within the right-lateral Manson fault zone of probable Cretaceous to Tertiary age. Grab samples assayed 1.68 grams per tonne gold and 267.67 grams per tonne silver (Assessment Report 8956).

#### BIBLIOGRAPHY

EMPR AR 1931-76; 1938-C12 EMPR BULL 1, p. 57; 91 EMPR OF 1989-12 EMPR FIELDWORK 1988, p. 219 EMPR ASS RPT \*8956, 9944 GSC MEM 252, p. 178 GSC F 41-5; 45-9; 75-33 GSC MAP 876A; 907A; 971A; 1586G; 5249G

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/14 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 025</u>			NATIONAL MI	NERAL INVENTORY: 093N10,15 Au2		
NAME(S):	FARRELL, FARRELL G	ROUP, P.E.M.					
STATUS: REGIONS:	Showing British Columbia				MINING DIVISION: Omineca		
BC MAP:	65 44 52 N						
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55       44       52       N       NORTHING: 6179267         124       40       01       W       EASTING: 395366         810       Metres       Within 500M       EASTING: 500M         The Farrell occurrence is located on the east side of the Germansen River, 5 kilometres upstream from the mouth of the river. The access is by an old road which connects to the main road, approximately 3 kilometres to the southeast. There is mention of veining on the west       Kilometres						
COMMODITIES:	Gold	Silver	Copper				
MINERALS							
SIGNIFICANT: ASSOCIATED:	Gold Tetrahee Quartz Pyrite	drite Chalcopyrite	9				
ALTERATION:	Quartz Carbon Chlorite Malachi	ate Mariposite te Azurite	Talc	Ankerite			
ALTERATION TYPE: MINERALIZATION AGE:	Quartz-Carb. Unknown	Carbonate	Oxidatio	n			
DEPOSIT CHARACTER:	Vein	Hydrothermal	Mesothe	rmal			
TYPE: SHAPE:	101 Au-quartz vein Tabular	S	Mesoure	IIIa			
MODIFIER: DIMENSION: COMMENTS:	Faulted 3 Quartz vein.	Metres	STRIKE	/DIP: 012/56W	TREND/PLUNGE:		
HOST ROCK DOMINANT HOSTROCK: Volcanic							
STRATIGRAPHIC AGE	GROUP	<u> </u>	RMATION		IGNEOUS/METAMORPHIC/OTHER		
Upper Paleozoic PennsylvanPermian	Cooper Ridge	Un	defined Formation		Manson Lakes Ultramafites		
LITHOLOGY:	Basalt Phyllite						
	Serpentinized Ultramaf	с					
GEOLOGICAL SETTING							
TERRANE: METAMORPHIC TYPE:	Slide Mountain Regional	RELA	TIONSHIP:	PHISOGRAP	GRADE: Greenschist		
INVENTORY							
ORE ZONE:	ROCK		REPORT	ON: N			
	CATEGORY: Assa SAMPLE TYPE: Chip	ı/analysis		AR: 1983			
	Silver	<u>_</u>	0.6200 Grar 5.7300 Grar	ns per tonne			
COMMENTS:	A wallrock (silicified an sample also contained Assessment Report 12	d carbonitized basalt trace copper. 130	) over 1 metre. Th	nis			
ORE ZONE:	VEIN	100.	REPORT	ON' N			
ONE ZONE.	CATEGORY: Assa	//analysis	YF	AR: 1983			
	SAMPLE TYPE: Chip		RADE				
	Silver Gold		16.8000 Grar 29.6000 Grar	ns per tonne ns per tonne			
COMMENTS: REFERENCE:	Copper A chip sample over a 1 Assessment Report 12	-metre interval from t 130.	0.5900 Per of the v	cent ein.			

PAGE: 895 REPORT: RGEN0100

#### CAPSULE GEOLOGY

The Farrell occurrence is located approximately 5 kilometres upstream from the mouth of the Germansen River. The mineralization occurs on both sides of the river with the most significant showing being on the east side, about 30 metres above the river. This occurrence is hosted in rocks belonging to the Pennsylvanian to Permian Nina Creek Group and the Manson Lakes Ultramafites as well as shales of the Mississippian to Permian Cooper Ridge Group. These rocks are within the right-lateral Manson fault zone of probable Cretaceous to Tertiary age.

The occurrence was originally described as 3 zones of silicified and carbonatized volcanics distributed on each side of the river, containing quartz veins rich in tetrahedrite, chalcopyrite and gold.

These veins were re-examined in the early 1980s with the most effort put on the larger vein on the east side of the river. This quartz vein is approximately 6 metres wide, striking 012 degrees and dipping 56 degrees to the west. This attitude is roughly perpendicular to the attitude of the enclosing phyllite. It has an exposed length of 3 metres with the north end cut by a northweststriking fault. It is found within sheared and altered (quartzcarbonate) basalts and is in close proximity to serpentinized ultramafics. The basalts and ultramafics may be altered to mariposite-talc-ankerite-chlorite schists. The vein carries mineralization in the form of tetrahedrite, free gold, chalcopyrite, malachite, azurite and pyrite.

A 1-metre chip sample from the centre of the vein analysed 29.6 grams per tonne gold, 16.8 grams per tonne silver and 0.59 per cent copper. A 1-metre chip taken from the altered basalt analysed 5.73 grams per tonne gold, 0.62 gram per tonne silver and trace amounts of copper (Assessment Report 12130).

## BIBLIOGRAPHY

EMPR AR 1931-76; 1938-C13 EMPR BULL 1, (1932), p. 58; 91 EMPR ASS RPT 8957, \*12130, 12362, 17901, 19211, 20854 EMPR OF 1989-12; 1990-17 EMPR FIELDWORK \*1988, pp. 209-220; 1989, pp. 101-114 GSC MEM 252, p. 178 GSC P 41-5; 45-9; 75-33 GSC MAP 876A; 907A; 971A; 1586G; 5249G

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/14

CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	<u>093N 026</u>			NATIONAL M	IINERAL INVE	NTORY: 093N15 Cu2
NAME(S):	<u>SUNSET</u>					
STATUS:	Prospect				MINING E	NVISION: Omineca
NTS MAP:	093N15E				UTI	M ZONE: 10 (NAD 83)
LOCITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 45 52 N 124 40 42 W 800 Metres Within 500M The Sunset occurrence is kilometres south of Germa between Germansen Rive placer operation) (Open F	located on the ansen Landing, r and Plughat ( ile 1989-12).	adit, approxima just south of th Creek (near a la	ately 3 e junction irge open pit of a	NO E	RTHING: 6181139 ASTING: 394696
COMMODITIES:	Copper	Lead	Zir	IC	Silver	Mercury
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Galena Quartz Pyrite Pyrite Malachite Pyrite Unknown	Sphaler Oxidation	ite			
DEPOSIT CHARACTER	Vein					
CLASSIFICATION:	Epigenetic	Hydrothermal				
DIMENSION: COMMENTS:	37 x 4 Quartz vein.	Metres	S	STRIKE/DIP:	TR	END/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE	GROUP		FORMATION	nation	<b>IGNEOUS</b>	METAMORPHIC/OTHER
LITHOLOGY:	Quartzitic/Quartzose Argillite Quartzitic/Quartzose Phyllite Argillite Slate Phyllite					
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Cassiar Regional	R	FI ATIONSHIP:	PHYSIOGRA	GRADE:	Greenschist
INVENTORY						
ORE ZONE:	VEIN		REI	PORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper Lead Zinc Grab sample from mineral Open File 1989-12.	nalysis  ized vein (Samı	GRADE 52.0000 1.6000 0.0337 0.0690 ble No. FFE88-3	YEAR: 1988 Grams per tonne Per cent Per cent Per cent 34-4-4).		
CAPSULE GEOLOGY				an an adit arrest	0111100-07	
	kilometres south of Germansen Landing, just south of the junction between Germansen River and Plughat Creek (near a large open pit of a placer operation) (Open File 1989-12).					

This occurrence is hosted by the Mississippian to Permian Cooper Ridge Group. The Cooper Ridge Group in this area has been included as the uppermost sequence of rocks belonging to the Cassiar Terrane (Bulletin, in preparation). The Cooper Ridge Group is composed predominantly of grey to dark grey or black, rusty weathering, thin bedded, wavy to platy argillites. The argillites may grade into slates or phyllites with cleavage becoming the dominant planar fabric (Bulletin, in preparation). At this location, the Cooper Ridge Group is found within the right-lateral Manson fault zone, a northwest-

striking fault of probable Cretaceous to Tertiary age (Bulletin, in preparation).

The entrance to the adit is now near the southwest part of an old placer pit which has exposed numerous quartz veins. These veins vary from 10 centimetres to 4 metres in width and are fairly continuous. Two sets of quartz veining have been observed with one set being linear and concordant with foliation, which strikes 105 to 128 degrees and dips steeply to the southwest. The other set is discordant, fractured, exhibits pinching and swelling, and strikes between 020 and 045 degrees. The concordant veins contain chalcopyrite, galena, sphalerite and pyrite.

The vein within the adit is 3 to 3.65 metres in width, striking northwest for a distance of 37 metres. This vein contains pyrite, chalcopyrite and some malachite staining. An assay of vein material yielded trace gold, 21 grams per tonne silver and 1 per cent copper (Bulletin 1, page 59). A grab sample from one of the veins from the pit analysed 0.066 gram per tonne gold, 52 grams per tonne silver, 1.60 per cent copper, 0.0337 per cent lead, 0.0690 per cent zinc and 8 grams per tonne mercury (Open File 1989-12). This sample was taken from a concordant vein and is bounded by Cooper Ridge Group quartz-rich phyllites and argillites.

#### BIBLIOGRAPHY

EMPR AR 1938-C13
EMPR BULL 1 (1932), p. 59; 91
EMPR FIELDWORK 1989, pp. 101-114; \*1988, pp. 209-220; 1987, pp.
169-180
EMPR OF 1990-17; \*1989-12; 1988-12
GSC P 41-5; 42-2; 45-9; 75-33
GSC MEM 252
GSC MAP 876A; 907A; 5249G

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/09 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 027</u>			NATIONAL MINERAL INVENTORY:		
NAME(S):	ASP, A.G., BOULDER CREEK					
STATUS:	Prospect British Columbia			MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093N09W			UTM ZONE:	10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 59 N 124 22 08 W 925 Metres Within 500M The ASP occurrence is located about 1 kilometre upstream from	d on the north bank m the mouth.	of Boulder Cree	NORTHING: EASTING: k	6162381 413748	
COMMODITIES:	Lead Silv Molybdenum	er	Gold	Zinc	Copper	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Sphalerite Quartz Pyrite Unknown	Chalcopyrite	Molybdenite			
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	vein Hydrothermal Epiç I01 Au-quartz veins Tabular	genetic				
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE Proterozoic-Paleoz.	<u>GROUP</u> Boulder Creek	FORMA Undefin	TION ed Formation	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Quartz Chlorite Muscovite Sch	ist				
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE:	Omineca PHYSIOGRAPHIC AREA: Manson Upland Kootenay					
COMMENTS:	Near Germansen batholith.	RELATION	13MIP:	GRADE: Greenso	chist	
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON:	Ν		
	CATEGORY: Assay/analys SAMPLE TYPE: Grab	Sis	YEAR:	1988		
	Silver	<u>GRAD</u> 150.0	COCCONTRACTOR 000 Grams p	per tonne		
REFERENCE:	Open File 1988-12.	4.00				
ORE ZONE:	VEIN		REPORT ON:	Ν		
	CATEGORY: Assay/analysis YEAR: 1982 SAMPLE TYPE: Grab COMMODITY GRADE					
	Silver Copper	15.30	00 Grams p 00 Per cent	per tonne		
	Lead Zinc	0.61 0.40	00 Per cent 00 Per cent			
COMMENTS: REFERENCE:	Trace amounts of molybdenite are observed in the area. Assessment Report 1659.					
CAPSULE GEOLOGY						
	The ASP occurrence is located on the north bank of Boulder Creek about 1 kilometre upstream from the mouth. The showing is composed of a series of quartz veins containing galena and pyrite with minor sphalerite and chalcopyrite and trace amounts of molybdenite. These veins range in thickness from 0.3 to					

galena and pyrite with minor sphalerite and chalcopyrite and trace amounts of molybdenite. These veins range in thickness from 0.3 to 4.9 metres and strike northwest, hosted within quartz-chloritemuscovite schists of the Proterozoic to Paleozoic(?) Boulder Creek Group. These veins are located within the Manson fault zone, a northwest striking right-lateral fault of Cretaceous to Tertiary age. The Germansen batholith intrudes the area approximately 2 kilometres to the west.

Grab samples from the ASP claim assayed 15.3 grams per tonne silver, 0.61 per cent lead, 0.02 per cent copper and 0.4 per cent zinc (Assessment Report 1659). Another grab sample from one of these veins analysed 150.0 grams per tonne silver and 4.0 per cent lead (Open File 1988-12).

### BIBLIOGRAPHY

EMPR AR 1927-C158; 1938-C9 EMPR ASS RPT \*1659, 10702 EMPR FIELDWORK 1987, pp. 169-180 EMPR OF \*1988-12 EMPR BULL \*91 GSC MEM 252, p. 180 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33 GSC PROG RPT 1879-80, p. 110B

DATE CODED: 1985/07/24 DATE REVISED: 1992/08/24 CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	<u>093N 028</u>	NATIC	NAL MINERAL INVENTORY	093N9 Ag2
NAME(S):	BERTHOLD, ELSIE			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N09W		MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 40 N 124 21 46 W 930 Metres Within 500M The Berthold occurrence is located on th Lake, 0.5 kilometre southwest of the mou	ne west side of lower Manson th of Boulder Creek.	NORTHING: EASTING:	6161787 414122
COMMODITIES:	Lead Silver			
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Pyrite Argentiferous galena. Quartz Silica Silicific'n Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Vein Hydrothermal Mesothermal I05 Polymetallic veins Ag-Pb-Zn±Au Tabular Sheared			
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary			
STRATIGRAPHIC AGE Proterozoic-Paleoz. Cretaceous	GROUP Boulder Creek	FORMATION Undefined Formation	IGNEOUS/METAM Germansen Batho	ORPHIC/OTHER
LITHOLOGY:	Quartz Chlorite Muscovite Schist Carbonaceous Argillite Hornblende Trachyte Dike			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Omineca Kootenay	PHYS	IOGRAPHIC AREA: Manson	Upland
INVENTORY				
ORE ZONE:	VEIN	REPORT ON: N		
REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Lead Assessment Report 1659.	YEAR: 1968 GRADE 6.2200 Grams per tonr 13.1800 Per cent	_ ne	
CAPSULE GEOLOGY				
	The Berthold occurrence Lake, 0.5 kilometre southwes Regionally, this occurr argillites of the Proterozoi which is assigned to the per	is located on west si t of the mouth of Boul ence is hosted within c to Paleozoic(?) Boul icratonic Kootenay Ter	de of lower Manson lder Creek. schists and lder Creek Group rrane. This	

which is assigned to the perioratonic Kootenay Terrane. This enigmatic package of metamorphosed, fine-grained clastic rocks and impure carbonates is exposed within the northwest striking right-lateral Manson fault zone, in fault contact with the Slide Mountain and Quesnel terranes. To the west, rocks belonging to the Quesnel Terrane are intruded by the Cretaceous Germansen batholith. This occurrence is a 3-metre wide galena and pyrite-bearing quartz vein found between quartz-chlorite-muscovite schists and black carbonaceous argillites of the Boulder Creek Group. The surrounding rocks appear sheared and are silicified. The quartz vein strikes 160 degrees and dips steeply northeast. A hornblende trachyte dike locally intrudes these rocks. A grab sample from this vein assayed 6.22 grams per tonne silver, 13.18 per cent lead, 0.03 per cent copper, and 0.01 per cent zinc (Assessment Report 1659).
EMPR ASS RPT \*1659, \*7445 EMPR FIELDWORK 1987, pp. 169-180; 1991, pp. 119-126 EMPR BULL 91 GSC MEM 252-180 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33 Chevron File

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/31 CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	<u>093N 029</u>		NATIONAL MINERAL INVENTORY:	093N10 Au3		
NAME(S):	ERICKSON (GERM)					
STATUS: REGIONS: NTS MAP	Showing British Columbia		MINING DIVISION:	Omineca		
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 19 N 124 51 12 W 1500 Metres Within 500M The occurrence is located east of Olsen Creek, abou 22 kilometres west of Mar	d at the headwaters of a small creek jus It 2.5 kilometres south of Germansen La Ison Creek.	NORTHING: EASTING: ake and	6169271 383392		
COMMODITIES:	Gold	Silver Copper				
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Vein Epigenetic I05 Polymetallic veins Irregular Sheared	Hydrothermal Ag-Pb-Zn±Au				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Slate Creek		ORPHIC/OTHER		
Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	106 +/- 4 Ma Potassium/Argon Biotite		Germansen Batho	lith		
LITHOLOGY:	Argillite Granodiorite Aplite Dike					
HOSTROCK COMMENTS:	The age of the Germans approximately 20 kilome	en batholith is from sample GM87-12-4 tres to the west (Bulletin 91).	which is			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Contact	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Manson GRADE: Hornfels	Upland		
CAPSULE GEOLOGY	The Erickson kilometres south c	(Germ) occurrence is locate of Germansen Lake, 22 kilome	ed approximately 2.5 etres west of Manson			
BIBLIOGRAPHY	Creek. This occurrence is hosted within argillites belonging to the Middle-Upper Triassic Slate Creek Formation of the Middle Triassic to Lower Jurassic Takla Group. These argillites are intruded by the Cretaceous Germansen batholith approximately 120 metres to the south. The argillites are sheared and intensely hornfelsed near the granodiorite. Near the occurrence, aplite dikes up to 10 metres in width, also intrude the argillites. The showing consists of two lenticular quartz veins, 20 and 40 centimetres wide, within the sheared basal argillites. The veins are mineralized with pyrite and chalcopyrite, and contain anomalous amounts of gold and silver.					
	EMPR ASS RPT 14523 EMPR GEM 174-280 EMPR OF 1989-12 EMPR BULL 70; *91 EMPR FIELDWORK 198 119-126 GSC MEM 252, p. 18 GSC MAP 876A; 907A	8 87, pp. 169-180; 1988, pp. 2 81 A; 971A; 1424A; 5249G	209-220; 1991, pp.			

GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/31 CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	<u>093N 030</u>				NATIONAL MINE	RAL INVE	NTORY:	093N9 W1
NAME(S):	<b>Kathy</b> , GLO, TROY, BILLY, TAIT TUNGSTEN							
STATUS:	Showing					MINING D	IVISION:	Omineca
REGIONS: NTS MAP: BC MAD:	British Columbia 093N09W					UTI	I ZONE:	10 (NAD 83)
LATITUDE:	55 39 28 N					NÖ	RTHING:	6168980
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	124 28 35 W 1040 Metres Within 500M The Kathy occurrence is I of the settlement of Mans	ocated appro on Creek, just	ximately 2 kilom t north of Lost Cr	etres south eek.	neast	E/	ASTING:	407113
COMMODITIES:	Lead	Silver	Τι	ungsten				
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Scheelite Low concentrations of ga Quartz Pyrite Quartz Silicific'n Unknown	lena and sche	eelite.					
DEPOSIT								
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Hydrothermal I01 Au-quartz veins Irregular	Shear Epigenetic						
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary							
STRATIGRAPHIC AGE	GROUP		FORMATION			<b>IGNEOUS</b>	METAMC	ORPHIC/OTHER
Proterozoic-Paleoz.	Boulder Creek		Underined For	mation				
LITHOLOGY:	Phyllite Arenaceous Limestone Sandstone Quartzite Siltstone Argillite Marble Amphibolite							
GEOLOGICAL SETTING								
TECTONIC BELT:	Intermontane Slide Mountain				PHYSIOGRAPH	IC AREA:	Manson	Upland
METAMORPHIC TYPE:	Regional		RELATIONSHIP:			GRADE:	Greensc	hist
INVENTORY								
ORE ZONE:	ROCK		RE	PORT ON:	Ν			
	CATEGORY: Assay/a SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Lead	nalysis	<u>GRADE</u> 4.6000 0.1068	YEAR: Grams p Per cent	1981 er tonne			
REFERENCE:	Assessment Report 9572							
CAPSULE GEOLOGY	The Kathy occ	urrence i	s located a	pproxim	atelv 2 kil	ometres		
	The Kathy occurrence is located approximately 2 kilometres southeast of the settlement of Manson Creek, just north of Lost Creek. Regionally, this showing occurs within the Proterozoic to Paleozoic(?) Boulder Creek Group. Here, the Boulder Creek Group lies as a fault-bounded sliver within the Manson fault zone. The Boulder Creek Group consists of a series of sandstones, impure quartzites, siltstones, argillites, marbles and minor amphibolite. Immediately							

north of this occurrence lies rocks belonging to the Upper Paleozoic or younger Wolf Ridge Gabbro, the Pennsylvanian to Permian Nina Creek Group and pericratonic rocks of North American affinity. Mineralization is contained within a number of lenticular quartz veins that range from 15 to 17 centimetres wide and consists of

# CAPSULE GEOLOGY

galena, scheelite and pyrite. The quartz veins occur in hydrothermally altered phyllites and arenaceous limestones. The veins are controlled by a fault that is related to the Manson fault zone. The occurrence of scheelite within these veins possibly indicate that they may be genetically related to the Germansen batholith. A rock sample taken in 1981 assayed 0.1068 per cent lead, 0.0258 per cent zinc, 4.6 grams per tonne silver, and 0.0222 per cent copper (Assessment Report 9572).

### BIBLIOGRAPHY

EMPR AR 1924-113; 1962-16 EMPR GEM 1970-182; 1977-E202 EMPR ASS RPT 7519, 8814, \*9572 EMPR EXPL 1979-236 EMPR BULL \*91 EMPR FIELDWORK 1987, pp. 169-180 GSC MEM 252 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33 W MINER Jan. 1953 p. 46

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/27 CODED BY: GSB REVISED BY: DMM

# MINFILE NUMBER: 093N 031

### NAME(S): BLACKBURN

# NATIONAL MINERAL INVENTORY: 093N8 Ag1

STATUS:	Showing	MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N08E 093N08W	UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 39 N 124 14 47 W 1100 Metres Within 500M The showing is reported to be located 10 kilometres up Gaffney Creek	NORTHING: EASTING:	6141217 421089
	from the Manson road. The above coordinates are taken from the Blackburn occurrence plot as shown on Preliminary Map 45-9 (Geological Survey of Canada Paper 45-9).		

COMMODITIES: Silver

#### MINERALS

SIGNIFICANT: Unknown MINERALIZATION AGE:

#### DEPOSIT

CHARACTER: Vein CLASSIFICATION: Hydrothermal

Epigenetic

#### HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP Pennsylvan.-Permian GROUP Nina Creek

LITHOLOGY: Cherty Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Omineca TERRANE: Slide Mountain

PHYSIOGRAPHIC AREA: Manson Upland

IGNEOUS/METAMORPHIC/OTHER

### CAPSULE GEOLOGY

At the Blackburn showing, a pyritic fracture zone, up to 4 metres wide, in grey, cherty limestone is reported "to contain several ounces of silver a ton" (Geological Survey of Canada Paper 45-9, page 18). Formerly part of the Carboniferous to Cretaceous Cache Creek Complex, the stratigraphy in this area has recently been reassigned to the Pennsylvanian to Permian Nina Creek Group (also formerly part of the Slide Mountain Group) (Ferri and Melville, bulletin in preparation).

FORMATION

Unnamed/Unknown Formation

### BIBLIOGRAPHY

EMPR Bulletin in preparation, Geology Between Nina Lake and Osilinka River, B.C., Geology by F. Ferri and D. Melville EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118 EMPR OF 1988-12a; 1991-3; 1992-4 GSC MAP 876A; 907A; 971A; 1586G GSC MEM \*252, p. 181 GSC OF 2842 GSC P \*41-5; 42-2; \*45-9, p.18 WWW http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 1993/03/02 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 032</u>					NATIONAL	MINERAL INVENTORY: 093N7 Cu1
NAME(S):	<u>KLAWLI</u> , TEA, KOHS GOLD	E COPPER,					
STATUS:	Prospect						MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAP:	British Columbia 093N07W						UTM ZONE: 10 (NAD 83)
LATITUDE:	55 17 29 N						NORTHING: 6128665
ELEVATION: LOCATION ACCURACY:	1050 Metres Within 500M	flowing trib	utony to i	tha Klawli Biya	-		
COMMODITIES:	Copper	Gold		Sih	ver		
MINERALS							
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrrhotite Chalc Quartz Carbo Silicific'n	opyrite nate Carbo	Pyrite Chlorite onate	Malachit Pro	te opylitic	Azurite	Oxidation
DEPOSIT							
CHARACTER: CLASSIFICATION:	Disseminated Porphyry	Shear Hydro	r othermal				
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE			_	FORMATION			IGNEOUS/METAMORPHIC/OTHER
ISOTOPIC AGE:	Lower Jurassic			Chuchi Lake			
DATING METHOD: MATERIAL DATED:	Fossil Ammonites						
LITHOLOGY:	Altered Volcanic Plagioclase Hornblend Feldspar Porphyritic F Massive Volcanic	de Porphyri Flow	tic Flow				
HOSTROCK COMMENTS:	The fossil date refer Formation is Fieldwo	ence for the ork 1991, pa	e informa age 109.	Illy named Chu	chi Lak	e	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel					PHYSIOGR	APHIC AREA: Manson Upland
INVENTORY							
ORE ZONE:	SAMPLE			REF	PORT O	N: N	
	CATEGORY: Ass SAMPLE TYPE: Grat COMMODITY Silver	ay/analysis o	-	<u>GRADE</u> 1225.0000	YEA	R: 1991 s per tonne	
	Gold Copper			23.3000 9.3000	Grams Per ce	s per tonne	
COMMENTS: REFERENCE:	Values are from diffe Assessment Report 2	rent sample 2099.	es.				
CAPSULE GEOLOGY							
	The Klawli the east side of trenches and ac been known sind Company of Cana explored sporad Corporation, Tr	occurre of the K lits on the the 11 da sunk lically a to-Butle	ence 1 lawli 1 the so 920s w sever since e Explo	ies on a we River. The uth side of hen the Cor al shafts of then by the oration Lin	est-fl e loca the nsolic on the Queb nited	lowing tri ality is f creek. T dated Mini e property pec Gold M , Phelps-D	butary creek on or a series of 'he showings have ng and Smelting '. It has been lining bodge

Corporation, Eric Shaede and most recently by Noranda Exploration Company Limited. The region is underlain by maroon and green plagioclase +/hornblende porphyritic volcanic flows of the Lower Jurassic Chuchi Lake Formation of the Middle Triassic to Lower Jurassic Takla Group. Early Jurassic rocks of the Hogem Intrusive Complex outcrop to the south and west. The volcanics are variably bleached and altered; areas of carbonate +/- quartz and propylitic alteration occur. In the trenches, the host volcanics are intensely altered and have zones containing disseminated pyrite, chalcopyrite, malachite and azurite.

# CAPSULE GEOLOGY

Although the rocks appear sheared and fractured, discrete shear zones and fabrics are not recognized. It appears that the gold mineralization is shear-zone hosted and is associated with pyrrhotite rather than pyrite or chalcopyrite (Faulkner, 1991). The best assays recorded on the property range from 1.24 to 23.3 grams per tonne gold, 16.1 to 1225 grams per tonne silver and 2.4 to 9.3 per cent copper (Assessment Report 22099). The mineralization is interpreted to be a series of high-grade veins related to a buried porphyry system (Assessment Report 22099).

### BIBLIOGRAPHY

EMPR ASS RPT 3865, 12908, 14579, \*16865, 19406, \*21279, \*22099 EMPR GEM 1967-119, 1971-201 EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118; \*1992, pp. 87-107 EMPR OF 1991-3; 1992-4; 1993-3 GSC MEM 252, p. 184 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A, 1424A; 1586G GSC OF 2842

DATE CODED: 1985/07/24 DATE REVISED: 1993/03/10 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N 033</u>		I	NATIONAL MI	NERAL INVENTORY: 093N4	Cr1
NAME(S):	SIMPSON, ALLOY, X12-X14					
STATUS:	Prospect British Columbia				MINING DIVISION: Omine	са
NTS MAP: BC MAP	093N04E				UTM ZONE: 10 (N	AD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 53 N 125 30 21 W 2000 Metres Within 500M Location is for occurrence X14 on approximately 5 kilometres south-s kilometres southeast of Takla Land	the southwest flank southeast of Nesabu ding (Fieldwork 82-1	of Chrome It Peaks and Figure 1).	Peak, 40	NORTHING: 612340 EASTING: 34064	04 7
COMMODITIES:	Chromium					
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Olivine Serpentine Talc Alteration dikes of albitite-rodingite Serpentin'zn Rodingit Unknown	e have been observe tiz'n	ed locally.			
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Massive Layerec Magmatic Industria M03 Podiform chromite	d sal Min.	Stratabound		Disseminated	
SHAPE: DIMENSION: COMMENSION:	Irregular	om 012 to 155 door	STRIKE/DIP		TREND/PLUNGE: 0	12/
		011 012 to 155 degi	665.			
HOST ROCK DOMINANT HOSTROCK:	: Metaplutonic					
STRATIGRAPHIC AGE	GROUP	FORMATION			IGNEOUS/METAMORPHIC	OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Greek	Undefined Fo	ormation		Oceanic Ultramafites	
LITHOLOGY:	Serpentinized Harzburgite Dunite Gabbro Dike Orthopyroxenite Limestone Dolomite Siltstone Shaly Siltstone					
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Oceanic Ultramafites are Mississ	Carboniferous to Juippian to Triassic.	urassic while	the		
GEOLOGICAL SETTING	Intermontane			PHYSIOGRAF	PHIC AREA: Omineca Mount	ains
TERRANE: METAMORPHIC TYPE:	Plutonic Rocks Regional	Cache Creek RELATIONSHIP	: Post-mine	alization	GRADE: Greenschist	
INVENTORY						
ORE ZONE:	SAMPLE	R	REPORT ON:	N		
COMMENTS: REFERENCE	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Chromium From a composite chip sample of a Geological Survey of Canada Mem	<u>GRADE</u> 31.3000 all the chromite nodu poir 252 page 189	YEAR: Per cent ules.	1942		
CAPSULE GLOLOGT	The Simpson occurre Takla Lake, near the sum Peak. It comprises occu (Fieldwork 1982-1, Table occurrences located in t 35, 36, 37, 38, 39, 40). Simpson and associates i	ence is situat muit of a moun arrences X12-X e 1) and is on the southern p . The showing in 1941, but n	ed in the tain know 14 as out e of nume art of the was origon o work was	Mitchell m locally clined by crous smal ne range ( ginally st as recorde	Range east of as Chrome Whittaker I chromite see 093N 034, aked by Hunter ed and the	

The Chrome Peak area is underlain by allochthonous serpentinized

PAGE: 910 REPORT: RGEN0100

# CAPSULE GEOLOGY

ultramafics, formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions, and now termed Mississippian to Triassic Oceanic Ultramafites. These rocks host local pre-tectonic orthopyroxenite veins, both pre and post-tectonic gabbro dikes and "alteration dikes" of albitite-rodingite. The massif is bound by north-northeast and east-trending lineaments and is both surrounded by and hosts xenoliths of sedimentary rocks assigned to the Carboniferous to Jurassic Cache Creek Complex. Late Triassic-Early Jurassic Topley intrusions have been emplaced into the Cache Creek Complex rocks immediately west and north of the allochthon. The allochthon comprises widely serpentinized, tectonized

The allochthon comprises widely serpentinized, tectonized harzburgite with minor dunite. The harzburgite is a mottled black-green to black-brown colour on fresh surfaces and is generally intensely foliated. It weathers to a deep brown colour with pale, silvery brown talcose patches. The dunite comprises fine to medium-grained anhedral olivine occurring in contorted, irregularlyshaped patches that reflect the internal deformation of the harzburgite. Xenoliths up to 1 square kilometre in area commonly occur in the southern part of the massif and consist of limestone, dolostone, siltstone with chert laminae and shaly siltstone. Smaller xenoliths occur to the north.

Fine to medium-grained chromite is common as disseminations throughout the ultramafic rocks, varying from trace to two per cent by volume. Harzburgite, however, hosts all but one of the layered and nodular aggregate and massive chromite occurrences in the area, including the Simpson (Fieldwork 1982-1, page 237). At the Simpson occurrence, numerous small aggregate (greater

At the Simpson occurrence, numerous small aggregate (greater than 75 per cent) and massive chromite nodules lying parallel to a gently dipping fracture plane are exposed southwest of Chrome Peak. The nodules range from 3 by 8, to 40 by 15 centimetres in area and are believed to have limited vertical extent (Geological Survey of Canada Memoir 252, page 189). Two other aggregate chromite nodules also occur to the north. Much of the chromite was reported to be clean and bright.

Chemical analysis of a composite chip sample collected from all the nodules by C.S. Lord in 1942 gave the following results (Geological Survey of Canada Memoir 252, page 189):

5	-		
	Cr203	45.7 %	
	Cr	31.3 %	
	Fe	15.55 %	
	Cr:Fe	2.01:1	

### BIBLIOGRAPHY

EMPR FIELDWORK \*1982-1, pp. 234-243
EMPR Unpublished Chromite Bulletin, Stevenson, J.S. (1941)
EMPR PF (\*Whittaker, P. (1983): Unpublished Ph.D. Thesis; "Chromite in Alpine Type Peridotites", Carleton University, 339 pp. (refer to 093N General File))
GSC P 42-7; 45-6; 82-1A, pp. 239-245
GSC MEM \*252, pp. 135,189
GSC MAP 844A; 907A; 971A; 1008A; 1424A
GSC OF 3071
EMR MP COMM FILE MR-Cr-301.00 British Columbia
Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/13 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 034</u>			NATIONAL MINI	ERAL INVEN	ITORY: 0	93N4,6 Cr1
NAME(S):	<u>BOB</u> , X4-X7						
STATUS:	Prospect Britich Columbia				MINING DIV	/ISION: C	)mineca
NTS MAP:	093N03W 093N04E 093N06W				UTM	ZONE: 1	0 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 50 N 125 30 11 W 1825 Metres Within 500M Location is for occurrence X6 nor kilometres southeast of Nesabut I Takla Landing (Fieldwork 82-1, Fi	th of Chrome Peak, Peaks and 40 kilom igure 1).	approximate etres southea	ely 4 ast of	NOR EAS	THING: 6 STING: 3	125159 40887
COMMODITIES:	Chromium						
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Olivine Serpentine Talc Alteration dikes of albitite-rodingi Serpentin'zn Roding Unknown	te have been obser jitiz'n	ved locally.				
DEPOSIT							
CHARACTER: CLASSIFICATION: TYPE:	Layered Stratal Magmatic Industr M03 Podiform chromite	oound ial Min.	Massive	D	visseminated		
DIMENSION: COMMENTS:	Trend is for a 2 metre long by 2 c	entimetre thick chro	STRIKE/DIF mite layer.	D:	TRE	ND/PLUNC	GE: 155/45
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic						
STRATIGRAPHIC AGE	GROUP	FORMATIO	N		IGNEOUS/N	<u>/IETAMOF</u>	RPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Creek	Undefined H	-ormation		Oceanic UI	tramafites	5
LITHOLOGY:	Serpentinized Harzburgite Dunite Gabbro Dike Orthopyroxenite Limestone Dolomite Siltstone Shaly Siltstone						
HOSTROCK COMMENTS:	Cache Creek Complex rocks an Oceanic Ultramafites are Missis	e Carboniferous to sippian to Triassic.	Jurassic while	e the			
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane			PHYSIOGRAPH	IIC AREA: C	) mineca M	lountains
TERRANE: METAMORPHIC TYPE:	Plutonic Rocks Regional	Cache Creek RELATIONSHI	P: Post-mine	eralization	GRADE: G	reenschi	st
INVENTORY							
ORE ZONE:	SAMPLE		REPORT ON:	Ν			
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Chromium Value is an average of two comp mineralization. Geological Survey of Canada Me	<u>GRADE</u> 20.5000 osite grab samples moir 252, page 190	YEAR: Per cent of chromite	1942 t			
	The Bob occurrence Takla Lake, north of th Peak. It comprises occ (Fieldwork 1982-1, Tabl occurrences located in 033, 35, 36, 37, 38, 39 The Chrome Peak ar ultramafics, formerly a	e is situated te summit of a currences X4-X .e 1) and is o the southern 0, 40) rea is underla cssigned to th	in the Mi mountain 7 as outl ne of num part of t in by all e Middle	tchell Rang known loca ined by Whi erous small he range (s ochthonous Permian to	e east o lly as C ttaker chromit ee 093N serpenti: Late Tri	f hrome e nized assic	

PAGE: 912 REPORT: RGEN0100

# CAPSULE GEOLOGY

Trembleur intrusions, and now termed Mississippian to Triassic Oceanic Ultramafites. These rocks host local pre-tectonic orthopyroxenite veins, both pre and post-tectonic gabbro dikes and "alteration dikes" of albitite-rodingite. The massif is bound by north-northeast and east-trending lineaments and is both surrounded by and hosts xenoliths of sedimentary rocks assigned to the Carboniferous to Jurassic Cache Creek Complex. Late Triassic-Early Jurassic Topley intrusions have been emplaced into the Cache Creek Complex rocks immediately west and north of the allochthon.

The allochthon comprises widely serpentinized, tectonized harzburgite with minor dunite. The harzburgite is a mottled black-green to black-brown colour on fresh surfaces and is generally intensely foliated. It weathers to a deep brown colour with pale, silvery brown talcose patches. The dunite comprises fine to medium-grained anhedral olivine occurring in contorted, irregularlyshaped patches that reflect the internal deformation of the harzburgite. Xenoliths up to one square kilometre in area commonly occur in the southern part of the massif and consist of limestone, dolostone, siltstone with chert laminae and shaly siltstone. Smaller xenoliths occur to the north.

Fine to medium-grained chromite is common as disseminations throughout the ultramafic rocks, varying from trace to two per cent by volume. Harzburgite, however, hosts all but one of the layered and nodular aggregate and massive chromite occurrences in the area, including the Bob (Fieldwork 1982-1, page 237).

including the Bob (Fieldwork 1982-1, page 237). At the Bob occurrence, numerous small aggregate (greater than 75 per cent) and massive chromite nodules and aggregate chromite layers are hosted by serpentinized harzburgite or, in one case, by dunite. The nodules range up to 0.5 metre in diameter while the largest layer is 2 metres long by 2 centimetres thick. This layer strikes 155 degrees and dips at 45 degrees to the southwest.

Chemical analysis of two composite chip samples collected from two areas by C.S. Lord in 1942 gave the following results (Geological Survey of Canada Memoir 252, page 190):

Sample	#1	#2	
Cr203	28.6 %	31.2 %	
Cr	19.6 %	21.4 %	
Fe	17.1 %	14.5 %	
Cr:Fe	1.15:1	1.48:1	

#### BIBLIOGRAPHY

EMPR FIELDWORK \*1982-1, pp. 234-243
EMPR Unpublished Chromite Bulletin, Stevenson, J.S. (1941)
EMPR OF 2000-19
EMPR PF (\*Whittaker, P. (1983): Unpublished Ph.D. Thesis; "Chromite in Alpine Type Peridotites", Carleton University, 339 pp. (refer to 093N General File))
EMR MP COMM FILE MR-Cr-301.00 British Columbia
GSC MAP 844A; 907A; 971A; 1008A; 1424A
GSC MEM \*252, pp. 135,189-190
GSC OF 3071
GSC P 42-7; 45-6; 72-53, p. 80; 82-1A, pp. 239-245
Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/13

#### CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 035</u>			NATIONAL MIN	ERAL INVE	NTORY: 0	93N6 Cr1
NAME(S):	IRISH, X1-X2						
STATUS:	Prospect				MINING D	NVISION: C	Omineca
NTS MAP:	093N06W				UTI	M ZONE: 1	0 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 48 N 125 27 31 W 1650 Metres Within 500M Location is for occurrence X1, Nesabut Peaks and 40 kilome 82-1, Figure 1).	approximately 5 kilome tres southeast of Takla L	tres east of anding (Fie	ldwork	NO	RTHING: 6 ASTING: 3	128705 43840
COMMODITIES:	Chromium						
MINERALS							
SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Olivine Serpentine Talc Alteration dikes of albitite-rodii Serpentin'zn Rod Unknown	ngite have been observe Jingitiz'n	ed locally.				
DEPOSIT							
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Layered Stra Magmatic Inde M03 Podiform chromite Irregular	atabound E ustrial Min.		d N	lassive		
DIMENSION: COMMENTS:	10 x 3 Met Trend is for one recently desc Dimensions are the average for descriptions.	rres ribed aggregate chromite or the largest chromite le	STRIKE/DIF e nodule. ns, from ea	: rly	IR	END/PLUNG	GE: 027/
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic						
STRATIGRAPHIC AGE	GROUP	FORMATION			<b>IGNEOUS</b>	METAMOR	RPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Creek	Undefined Fo	ormation		Oceanic	Ultramafite	s
LITHOLOGY:	Serpentinized Harzburgite Dunite Gabbro Dike Orthopyroxenite Limestone Dolomite Siltstone Slaty Siltstone						
HOSTROCK COMMENTS:	Cache Creek Comples rocks Oceanic Ultramafites are Mis	are Carboniferous to Ju sissippian to Triassic.	rassic while	e the			
GEOLOGICAL SETTING	Intermentene					Ominaga	lountaina
METAMORPHIC TYPE:	Plutonic Rocks Regional	Cache Creek RELATIONSHIP:	Post-mine	ralization	GRADE:	Greensch	ist
INVENTORY							
ORE ZONE:	SAMPLE	R	EPORT ON:	Ν			
	CATEGORY: Assay/analy: SAMPLE TYPE: Channel COMMODITY	sis <u>GRADE</u>	YEAR:	1942			
COMMENTS: REFERENCE:	Chromium Average of 17 channel sample from several chromite lenses. Geological Survey of Canada I	24.3000 es across an average of Memoir 252, page 190.	Per cent 1.68 metre	s taken			
CAPSULE GEOLOGY							
	The Irish occurr Mitchell Range, appro 40 kilometres southea X1-X2 as outlined by largest of numerous of 093N 033, 34, 36, 37,	rence is situated oximately 5 kilom ast of Takla Land Whittaker (Field chromite occurrent 38, 39, 40).	at the etres ea ing. It work 198 ces loca	south end c st of Nesbu comprises 2-1, Table ted in the	of the t Peaks occurre 1) and range (	and nces is the see	

PAGE: 914 REPORT: RGEN0100

# CAPSULE GEOLOGY

The area is underlain by allochthonous serpentinized ultramafics, formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions, and now termed Mississippian to Triassic Oceanic Ultramafites. These rocks host local pre-tectonic orthopyroxenite veins, both pre and post-tectonic gabbro dikes and "alteration dikes" of albitite-rodingite. The massif is bound by north-northeast and east-trending lineaments and is both surrounded by and hosts xenoliths of sedimentary rocks assigned to the Carboniferous to Jurassic Cache Creek Complex. Late Triassic-Early Jurassic Topley intrusions have been emplaced into the Cache Creek Complex rocks immediately west and north of the allochthon.

The allochthon comprises widely serpentinized, tectonized harzburgite with minor dunite. The harzburgite is a mottled black-green to black-brown colour on fresh surfaces and is generally intensely foliated. It weathers to a deep brown colour with pale, silvery brown talcose patches. The dunite comprises fine to medium-grained anhedral olivine occurring in contorted, irregularlyshaped patches that reflect the internal deformation of the harzburgite. Xenoliths up to one square kilometre in area commonly occur in the southern part of the massif and consist of limestone, dolostone, siltstone with chert laminae and shaly siltstone. Smaller xenoliths occur to the north.

Fine to medium-grained chromite is common as disseminations throughout the ultramafic rocks, varying from trace to two per cent by volume. Harzburgite, however, hosts all but one of the layered and nodular aggregate and massive chromite occurrences in the area, including the Irish (Fieldwork 1982-1, page 237).

Early reports describe mineralization at the Irish occurrence as comprising several irregular lenses of chromite hosted by serpentinized harzburgite distributed over a strike length of 20.7 metres along a line trending 154 degrees. The largest of these lenses was reported to be 9.9 metres long and averages 2.7 metres wide and the total area of exposed chromite was estimated to be approximately 36 square metres (Geological Survey of Canada Memoir 252, page 190). Recent work carried out in the area, however, identified only two aggregate (greater than 75 per cent) chromite nodules, the largest of these being 8 by 4 centimetres (Fieldwork 1982-1, Table 1). This nodule reportedly trends 027 degrees. Average assay values from 17 channel samples reportedly taken from several lenses across an average width of 1.68 metres are as follows (Geological Survey of Canada Memoir 252, page 190):

Cr203	35.6 %
Cr	24.3 %
Fe	10.7 %
Cr:Fe	2.30:1

### BIBLIOGRAPHY

EMPR FIELDWORK \*1982-1, pp. 234-243 EMPR Unpublished Chromite Bulletin, Stevenson, J.S. (1941) EMPR OF 2000-19 EMPR PF (\*Whittaker, P. (1983): Unpublished Ph.D. Thesis; "Chromite in Alpine Type Peridotites", Carleton University, 339 pp. (refer to 093N General File)) EMR MP COMM FILE MR-Cr-301.00 British Columbia GSC MAP 844A; 907A; 971A; 1008A; 1424A GSC MEM \*252, pp. 135,190 GSC OF 3071 GSC P 42-7; 45-6; 82-1A, pp. 239-245 Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/13 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 036</u>	NATIONAL N	MINERAL INVENTORY: 093N6 Cr3
NAME(S):	HOGEM RANGES - X3		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093N06W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 00 N 125 27 45 W 1750 Metres Within 500M Location is for occurrence X Nesabut Peaks and 40 kilor 82-1, Figure 1).	K3, approximately 5 kilometres east of netres southeast of Takla Landing (Fieldwork	NORTHING: 6127230 EASTING: 343541
COMMODITIES:	Chromium		
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Serpentine Serpentin'zn Unknown		
DEPOSIT CHARACTER	Disseminated	Stratabound	
CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	Magmatic In M03 Podiform chromite Irregular 3 N The dimension and attitude chromite.	Adustrial Min. Aetres STRIKE/DIP: 145/45N are for the schlieren hosting disseminated	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Creek	Underined Formation	Oceanic Ultramafites
LITHOLOGY:	Serpentinized Harzburgite Sediment/Sedimentary		
HOSTROCK COMMENTS:	Cache Creek Complex roc Oceanic Ultramafites are N	ks are Carboniferous to Jurassic while the Mississippian to Triassic.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGR/ Cache Creek	APHIC AREA: Omineca Mountains
CAPSULE GEOLOGY			
	The Hogem Range, the Mitchell Range, Landing. It compri (Fieldwork 1982-1, occurrences located 033, 34, 35, 37, 38 The occurrence than 75 per cent) a hosted by allochtho to the Middle Permi termed Mississippia intrusion is bound and is both surroun assigned to the Car additional regional and Irish occurrenc This occurrenc nodules, ranging fr diameter, and disse within serpentinize dip at 45 degrees t by 300 centimetres. throughout the ultr	es (AS) occurrence is situated at a approximately 40 kilometres southe ses occurrence X3 as outlined by WH Table 1) and is one of numerous sma in the southern part of the range , 39, 40). s comprise small disseminated, aggind massive chromite nodules and lay nous, serpentinized harzburgite, for an to Late Triassic Trembleur intro n to Triassic Oceanic Ultramafites by north-northeast and east-trendin ded by and hosts xenoliths of sedir boniferous to Jurassic Cache Creek geology details, please refer to the es (093N 033, 34, 35). e is described as three aggregate of om 3 by 4 centimetres to 7 centimet minated chromite (50 per cent) in s d harzburgite. The schlieren stril o the northeast and are exposed over Accessory chromite is also widely amafic rocks, varying up to two per page 240).	east of Takla hittaker all chromite (see 093N regate (greater yers which are prmerly assigned usions, and now . The ng lineaments mentary rocks Complex. For the Simpson, Bob chromite tres in schlieren, all ke 145 degrees, er an area of 15 y disseminated r cent by volume

No economic evaluation of this occurrence is known to have taken place.

MARKIN EMPR FIELDWORK \*1982-1, pp. 234-243 EMPR Unpublished Chromite Bulletin, Stevenson, J.S. (1941) EMPR OF 2000-19 EMPR PF (\*Whittaker, P. (1983): Unpublished Ph.D. Thesis; "Chromite in Alpine Type Peridotites", Carleton University, 339 pp. (refer to 093N General File)) GSC MAP 844A; 907A; 971A; 1008A; 1424A GSC MEM 252, pp. 135,189 GSC OF 3071 GSC P 42-7; 45-6; \*82-1A, pp. 239-245 Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984 DATE CODED: 1985/07/24 DATE REVISED: 1992/10/14 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 037</u>		NATIONAL MINERAL INVENTORY:	093N6 Cr2	
NAME(S):	HOGEM RANGES				
STATUS: REGIONS: NTS MAP	Showing British Columbia		MINING DIVISION:	Omineca	
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 15 24 N 125 28 48 W 1875 Metres Within 500M Location is for a chromite occu Chrome Peak, approximately 4 (Geological Survey of Canada	urrence 3 kilometres northeast of 0 kilometres southeast of Takla Lan Map 844A).	NORTHING: EASTING:	6126157 342390	
COMMODITIES:	Chromium				
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Serpentine Serpentin'zn Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Stra Magmatic Indu M03 Podiform chromite	atabound ustrial Min.			
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic				
<u>STRATIGRAPHIC AGE</u> Paleozoic-Mesozoic Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Formation	IGNEOUS/METAM Oceanic Ultramaf	ORPHIC/OTHER	
LITHOLOGY:	Serpentinized Harzburgite Sediment/Sedimentary				
HOSTROCK COMMENTS:	Cache Creek Complex rocks Oceanic Ultramafites are Mis	are Carboniferous to Jurassic while sissippian to Triassic.	e the		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cache Creek	PHYSIOGRAPHIC AREA: Omineca	a Mountains	
CAPSULE GEOLOGY The Hogem Ranges occurrence is situated at the south end of the Mitchell Range, approximately 40 kilometres southeast of Takla Landing. It is one of numerous small chromite occurrences located in the range (see 093N 033, 34, 35, 36, 38, 39, 40). The occurrences comprise small disseminated, aggregate (greater than 75 per cent) and massive chromite nodules and layers which are hosted by allochthonous, serpentinized harzburgite, formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions, and now termed Mississippian to Triassic Oceanic Ultramafites. The intrusion is bound by north-northeast and east-trending lineaments and is both surrounded by and hosts xenoliths of sedimentary rocks assigned to the Carboniferous to Jurassic Cache Creek Complex. For additional regional geology details, please refer to the Simpson, Bob and Irish occurrences (093N 033, 34, 35). No recent information concerning this occurrence is available, but it was likely mapped by Whittaker as one of the seventeen occurrences he located in the area (Fieldwork 1982-1, Table 1, Figure					
BIBLIOGRAPHY	EMPR FIELDWORK 1982-1 EMPR Unpublished Chro EMPR OF 2000-19 EMPR PF (Whittaker, P Alpine Type Perido 093N General File) GSC MAP *844A; 907A; GSC MEM 252, pp. 135, GSC OF 3071 GSC P 42-7; 45-6; 82-	, pp. 234-243 mite Bulletin, Stevenson . (1983): Unpublished Ph tites", Carleton Univers ) 971A; 1008A; 1424A 189 1A, pp. 239-245	1, J.S. (1941) 1.D. Thesis; "Chromite ir Sity, 339 pp. (refer to	ı	

Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/14 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 038</u>			NATIONAL MINE	ERAL INVENTORY:	
NAME(S):	<u>X9</u> , X8, X17					
STATUS: REGIONS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N03W				UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 30 N 125 29 01 W 1650 Metres Within 500M Location is for occurrenc Peak, 40 kilometres sout Figure 1).	e X9, 1.5 kilometre heast of Takla Land	s northeast of Chrom ding (Fieldwork 82-1,	е	NORTHING: EASTING:	6124497 342101
COMMODITIES:	Chromium					
MINERALS						
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Serpentine Serpentin'zn Unknown					
DEPOSIT	<b>D</b>					
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Magmatic M03 Podiform chromit	Layered Industrial Min. e	Massive	S	tratabound	
DIMENSION: COMMENTS:	2 Dimension and attitude a	Metres are for the largest m	STRIKE/DII assive chromite layer	P: 151/66N	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK	: Metaplutonic					
STRATIGRAPHIC AGE	GROUP	<u> </u>	ORMATION		IGNEOUS/METAMO	ORPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Creek	Ur	ndefined Formation		Oceanic Ultramafit	es
LITHOLOGY:	Serpentinized Harzburgit Sediment/Sedimentary	te				
HOSTROCK COMMENTS:	Cache Creek Complex Oceanic Ultramafites a	rocks are Carbonif re Mississippian to	erous to Jurassic whil Triassic.	e the		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cache	Creek	PHYSIOGRAPH	IC AREA: Omineca	Mountains
CAPSULE GEOLOGY						
	The X9 occur Range, approximat comprises occurree (Fieldwork 1982-1 chromite occurren 37, 39, 40). The occurren than 75 per cent) hosted by allocht to the Middle Per termed Mississipp is bound by north surrounded by and the Carboniferous regional geology occurrences (093N This occurre chromite layers a serpentinized har concerning each ( 	rence is situ ely 40 kilome nces X8, X9 a, Table 1) wh ces located i ces comprise and massive honous, serpe mian to Late ian to Triass -northeast an hosts xenoli to Jurassic details, plea 033, 34, 35) nce is descri nd two aggreg zburgite. Th Fieldwork 198  Form layer layer layer	ated at the sou tres southeast nd X17 as outhin ich are three of n the range (se small dissemina chromite nodule ntinized harzbu Triassic Tremblic Oceanic Ultr d east-trending ths of sediment Cache Creek Com se refer to the bed as two mass ate chromite no the following tak 2-1, Table 1): 	ath end of t of Takla La ined by Whit of numerous ee 093N 033, ated, aggreg es and layer argite, form leur intrusi camafites. g lineaments cary rocks a aplex. For e Simpson, B sive and one odules hoste ole details Frend 122/33N 151/66NE 103/47N	he Mitchell nding. It taker small 34, 35, 36, ate (greater s which are erly assigned ons, and now The intrusion and is both ssigned to additional ob and Irish aggregate d by information 	
		nodule	aggregate	-	4x4 cms	

Accessory chromite is also widely disseminated throughout the ultramafic rocks, varying up to two per cent by volume (Fieldwork

# CAPSULE GEOLOGY

1982-1, page 240). No economic evaluation of this occurrence is known to have taken place. BIBLIOGRAPHY EMPR FIELDWORK \*1982-1, pp. 234-243 EMPR Unpublished Chromite Bulletin, Stevenson, J.S. (1941) EMPR OF 2000-19 EMPR PF (\*Whittaker, P. (1983): Unpublished Ph.D. Thesis; "Chromite in Alpine Type Peridotites", Carleton University, 339 pp. (refer to 093N General File)) GSC MAP 844A; 907A; 971A; 1008A; 1424A GSC MEM 252, pp. 135,189 GSC OF 3071 GSC P 42-7; 45-6; \*82-1A, pp. 239-245 Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984 DATE CODED: 1985/07/24 DATE REVISED: 1992/10/14 CODED BY: GSB FIE REVISED BY: DMN

MINFILE NUMBER:	<u>093N 039</u>			NATIONAL M	INERAL INVENTORY:
NAME(S):	<u><b>X16</b></u> , X15				
STATUS:	Showing British Columbia				MINING DIVISION: Omineca
NTS MAP: BC MAP:	093N04E				UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 30 N 125 31 06 W 1900 Metres Within 500M Location is for occurre Peak, 40 kilometres so Figure 1).	nce X16, 1.5 kil utheast of Takla	ometres southwest of a Landing (Fieldwork 82	Chrome 2-1,	NORTHING: 6122722 EASTING: 339827
COMMODITIES:	Chromium				
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Serpentine Serpentin'zn Unknown				
DEPOSIT	Massive	Lavered	Dissem	inated	Stratabound
CLASSIFICATION:	Magmatic M03 Podiform chron	Industrial Mi	in.	inatoa	Ondiabound
DIMENSION: COMMENTS:	3 Dimension and attitude layer.	Metres are for the larg	STRIK est disseminated chror	Œ/DIP: 015/90 nite	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	: Metaplutonic				
STRATIGRAPHIC AGE	GROUP		FORMATION	n	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic			ondenned Formatio	11	Oceanic Ultramafites
LITHOLOGY:	Serpentinized Harzbur Sediment/Sedimentary	gite			
HOSTROCK COMMENTS:	Cache Creek Comple Oceanic Ultramafites	x rocks are Car are Mississippia	boniferous to Jurassic an to Triassic.	while the	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Ca	ache Creek	PHYSIOGRA	PHIC AREA: Omineca Mountains
CAPSULE GEOLOGY					
	The X16 occurrence is situated at the south end of the Mitchell Range, approximately 40 kilometres southeast of Takla Landing. It comprises occurrences X16 and X15 as outlined by Whittaker (Fieldwork 1982-1, Table 1) which are two of numerous small chromite occurrences located in the range (see 093N 033, 34, 35, 36, 37, 38, 40). The occurrences comprise small disseminated, aggregate (greater than 75 per cent) and massive chromite nodules and layers which are hosted by allochthonous, serpentinized harzburgite, formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions, and now termed Mississippian to Triassic Oceanic Ultramafites. The intrusion is bound by north-northeast and east-trending lineaments and is both surrounded by and hosts xenoliths of sedimentary rocks assigned to the Carboniferous to Jurassic Cache Creek Complex. For additional regional geology details, please refer to the Simpson, Bob and Irish occurrences (093N 033, 34, 35). This occurrence is described as one aggregate chromite nodule and two disseminated chromite layers hosted by serpentinized harzburgite. The following table details information concerning each (Fieldwork 1982-1, Table 1):				
	Occurrence X15 X16	rorm nodule layer	Texture aggregate disseminated	1'rend 015/90	Dimensions 10x4 cms 300x2-25 cms
	Accessory of ultramafic rocks	layer hromite is , varying	disseminated also widely dis up to two per ce	022/66E sseminated the ent by volume	100x3 cms roughout the (Fieldwork

1982-1, page 240). No economic evaluation of this occurrence is known to have taken place.

MARKIN EMPR FIELDWORK \*1982-1, pp. 234-243 EMPR Unpublished Chromite Bulletin, Stevenson, J.S. (1941) EMPR OF 2000-19 EMPR PF (\*Whittaker, P. (1983): Unpublished Ph.D. Thesis; "Chromite in Alpine Type Peridotites", Carleton University, 339 pp. (refer to 093N General File)) GSC MAP 844A; 907A; 971A; 1008A; 1424A GSC MEM 252, pp. 135,189 GSC OF 3071 GSC P 42-7; 45-6; \*82-1A, pp. 239-245 Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984 DATE CODED: 1985/07/24 DATE REVISED: 1992/10/14 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 040</u>			NATIONAL MINERAL INVENTORY:	093N4 Cr2
NAME(S):	LEO CREEK, HOGEM RANG	GES			
STATUS: REGIONS	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N04E			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 08 N 125 33 06 W 1500 Metres Within 1 KM Location is a chromite occu about 47 kilometres south-s Survey of Canada Map 844	urrence near the hea southeast of Takla La 4A).	adwaters of Leo C anding (Geologica	NORTHING: EASTING: I I	6116557 337479
COMMODITIES:	Chromium				
	Chromito				
MINERALIZATION AGE:	Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Magmatic M03 Podiform chromite	Massive Industrial Min.	Layered	Stratabound	
HOST ROCK DOMINANT HOSTROCK:	: Metaplutonic				
STRATIGRAPHIC AGE	GROUP Cache Creek	FORM	ATION	IGNEOUS/METAMO	ORPHIC/OTHER
Paleozoic-Mesozoic Upper Jurassic				Oceanic Ultramafit Topley Intrusions	tes
LITHOLOGY:	Serpentinized Ultramafic Sediment/Sedimentary				
HOSTROCK COMMENTS:	Cache Creek Complex ro Oceanic Ultramafites are	cks are Carboniferou Mississippian to Tria	ıs to Jurassic whil ssic.	e the	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cache Cree	ek	PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY					
	The Leo Creek occurrence is situated at the extreme south end of the Mitchell Range, approximately 47 kilometres south-southeast of Takla Landing. It is one of numerous small chromite occurrences associated with ultramafic rocks located in the range (see 093N 033, 34, 35, 36, 37, 38, 39). The occurrences comprise small disseminated, aggregate (greater than 75 per cent) and massive chromite nodules and layers which are hosted by allochthonous, serpentinized harzburgite, formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions, and now termed Mississippian to Triassic Oceanic Ultramafites. In the area of the occurrence, a large pluton of the Late Triassic-Early Jurassic Topley intrusions has been emplaced in Cache Creek Complex sediments. At the southern end of the pluton, a small mass of serpentinized ultramafic rocks reportedly hosts chromite mineralization. It is probable that this mineralization is similar to that in the Chrome Peak area to the north (see 093N 033, 34, 35, 36, 37, 38, 39). No recent information concerning this occurrence is available and no economic evaluation is known to have taken place.				
BIBLIOGRAPHY	EMPR FIELDWORK 1983	2-1. 00 234-24	13		
	EMPR Prelabooks 1982 EMPR Unpublished Ch EMPR OF 2000-19 EMPR PF (Whittaker, Alpine Type Peri 093N General Fil GSC MAP *844A; 9077 GSC MEM 252, pp. 13 GSC OF 3071 GSC P 42-7; 45-6; 8	<pre>L 1, pp. 234-24 promite Bullet: , P. (1983): Up idotites", Car le)) A; 971A; 1008A 35,189 32-1A, pp. 239-</pre>	in, Stevensor npublished Ph leton Univers : 1424A -245	n, J.S. (1941) n.D. Thesis; "Chromite in sity, 339 pp. (refer to	

Canadian Mineralogist Vol. 22, Pt. 1, Feb.1984

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/14 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 041</u>			NATIONAL MINERAL INVENTORY:	093N2 W1
NAME(S):	CHUCHI TUNGSTE	EN			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N02W			MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 03 41 N 124 48 42 W 1075 Metres Within 500M The showing locati Tchentlo Lake (Ge Preliminary Map 45	ion, about 15 kilometr ological Survey of Ca 5-9).	es south of the east end c nada Paper 45-9, with	NORTHING: EASTING:	6103123 384294
COMMODITIES:	Tungsten	Molybdenum	Copper	Silver	Gold
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Scheelite Po Silica Silicific'n	owellite Molybde	nite Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Unknown I12 W veins				
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic Unknown	<u>GROUP</u> Takla		FORMATION Unnamed/Unknown Form	nation IGNEOUS/METAM Unnamed/Unknov	ORPHIC/OTHER
LITHOLOGY:	Andesite Granitic Rock				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel			PHYSIOGRAPHIC AREA: Nechak	o Lowland
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON:	Ν	
	CATEGORY: A SAMPLE TYPE: G COMMODITY Silver	lssay/analysis Brab	YEAR: GRADE 24.0000 Grams p	1945 per tonne	
COMMENTS: REFERENCE:	Molybdenum Tungsten Tungsten grade is Geological Survey	for WO3 and molybde of Canada Paper 45-9	0.0150 Per cent 0.0750 Per cent enum grade is for MoS2. 9, page 19.		
CAPSULE GEOLOGY	At the C occurs in a f Lower Jurassi Scheelite, pc throughout th silicified an 0.015 per cen Paper 45-9, p	Chuchi Tungsten Fracture zone wi owellite, molybo ne fracture zone desite. Two gr tt MoS2, trace o page 15 and 19).	showing, dissemin thin andesite of at the contact of denite and chalcop e, at least 3.65 m cab samples averag gold, and 24 grams	ated mineralization the Middle Triassic to a small granitic stock. yrite is disseminated etres in width, in ed 0.075 per cent WO3, per tonne silver (GSC	
BIBLIOGRAPHY	EMPR FIELDWOR EMPR OF 1991- GSC MEM *252, GSC P *45-9, GSC PRELIMINA GSC MAP 876A, GSC OF 2842	RK 1990, pp. 89- 3; 1992-4; 1993 pp. 193 pp. 15,19 RY MAP *45-9 907A, 971A, 14	-110; 1991, pp. 10 3-3 424A, 1586G	3-118; 1992, pp. 87-107	
DATE CODED: DATE REVISED:	1985/07/24 1993/02/19	( F	CODED BY: GSB REVISED BY: GJP	F	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 042</u>	NATIONAL MINERAL IN	/ENTORY: 093N6 Mn1
NAME(S):	INDATA LAKE MANGANESE		
STATUS: REGIONS	Showing British Columbia	MINING	DIVISION: Omineca
NTS MAP: BC MAP:	093N06W	U	TM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 17 55 N 125 15 51 W 1100 Metres Within 1 KM Location is 1.6 kilometres west of the s about 49 kilometres southeast of Takla Canada Memoir 252, page 195 and Ma	N outh end of Indata Lake, Landing (Geological Survey of o 844A).	ORTHING: 6130357 EASTING: 356255
COMMODITIES:	Manganese		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Braunite Psilomelane Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Industrial Min. J03 Mn veins and replacements 18 Metres The vein varies from several to 61 cent traced for 18.3 metres.	STRIKE/DIP: T imetres wide and has been	REND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION IGNEOU Undefined Formation	JS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone		
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Carb	oniferous to Jurassic.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	PHYSIOGRAPHIC AREA	x: Omineca Mountains
CAPSULE GEOLOGY	The Indata Lake Mangan west of the south end of In southeast of Takla Landing. The area is underlain to Jurassic Cache Creek Com traverses the area in a nor A vein of braunite (ma (manganese oxide) reportedl Cache Creek Complex. The s centimetres in width and ha (Geological Survey of Canad	ese occurrence is situated 1.6 kild data Lake, approximately 49 kilomet by sediments assigned to the Carbon plex west of the Pinchi fault zone, th-northwesterly direction. nganese silicate) and psilomelane y occurs in limestone assigned to t eam is said to vary from several to s been traced for over 18 metres a Memoir 252, page 195).	metres res which the 61
BIBLIUGKAPHY	GSC MEM *252, p. 195 GSC MAP 844a; 907a: 971a: 1	4245	
	GSC P 42-7; *42-11, p. 11; GSC OF 3071 Placer Dome File	45-6	
DATE CODED: DATE REVISED:	1985/07/24 1992/10/07	CODED BY: GSB REVISED BY: DMN	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 043</u>			NATIONAL MINI	ERAL INVENTORY: (	093N6 Au1
NAME(S):	KWANIKA CREEK					
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N06W	C	0pen Pit		MINING DIVISION: 0	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 26 12 N 125 18 25 W 890 Metres Within 1 KM Location at the downstre Creek from which placer of Canada Memoir 252, p	am end of a 3.2 gold has been d age 143).	kilometre stretch of Kwa iscovered (Geological S	anika urvey	NORTHING: ( EASTING: 3	6145805 354049
COMMODITIES:	Gold	Mercury	Silver	Ji	ade/Nephrite	Gemstones
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Gold Cinnabar Arquerite, a natural amal the gravels along Kwanik Quaternary	Jade gam of silver and a Creek.	d mercury also occurs in	I		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers	Industrial Min.		Q01 Jade		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE Triassic-Jurassic Paleozoic-Mesozoic Quaternary Mesozoic	<u>GROUP</u> Takla Cache Creek		FORMATION Undefined Formation Undefined Formation		IGNEOUS/METAMO Glacial/Fluvial Grav Hogem Intrusive Co	RPHIC/OTHER els implex
LITHOLOGY:	Glacial Fluvial Gravel Argillite Greywacke Limestone					
HOSTROCK COMMENTS:	Cache Creek Comlex se together with Takla Gro	ediments are Car up rocks, underli	rboniferous to Jurassic a e the Kwanika Creek ba	nd, sin.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Cach	e Creek	PHYSIOGRAPH	IIC AREA: Omineca	Mountains
CAPSULE GEOLOGY					_	
	Kwanika Cree outlet of Tsayta : Takla Landing. A approximately 3.2 intermittently be The creek in direction, by the greywacke assigned Group on the east limestone to the various phases of Intrusive Complex Kwanika Cree which has cut thr Fairly coarse pla beginning in 1940 from the gravels. Company held 19 1 totalling 47.6 me additional 12 hol. The only oth when approximatel boulders ranging (Minister of Mine Aside from g silver, and cinna?	k flows sout Lake, approx 3.2-kilomet kilometres tween 1940 a this area pinchi faul d to the Mic from Carbor west. The f the Late Tr in the vici k flows in v ough nearly cer gold has when approx Between 19 eases on the tres. In 19 es totalling er productic y 4 tonnes c from 0.181 t s Annual Rep old, arqueri bar can repo	therly into the N kimately 40 kilom tre stretch of th up from its mout and 1963. is traversed, in lt zone, which se ddle Triassic to hiferous to Juras former sediments riassic to Early inity. what appears to b 8 metres of glac s been recovered kimately 3438 gra 947-1948, Yuba Co e creek and drill 955, Martin Mine g 73.2 metres wit on reported in th of quality jade w to 7.26 tonnes, d port 1963, page 1 ite, a natural am ortedly be panned	ation River etres east- ecreek, be h, was work a north-nor parates arg Lower Juras sic Cache C have been i Cretaceous e a postgla ial debris from this c ms was repo nsolidated ed two test Limited dri h unknown r e area occu as obtained iscovered i 51). algam of me	near the southeast of ginning ed thwesterly illite and sic Takla treek Complex ntruded by Hogem cial channel into bedrock. hannel, rtedly won Gold Dredging holes lled an esults. rred in 1963, from seven n the creek rcury and reek.	

EMPR AR 1947-191; 1948-174; 1949-240; 1951-202; 1955-83; 1963-151 EMPR BULL 28, p. 43 GSC OF 3071 GSC MEM \*252, p. 143 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 42-11; 44-5; 45-6 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/06 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 044</u>		NAT	IONAL MINERAL INVENTORY:	093N11 Au2
NAME(S):	VITAL CREEK				
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N11W	Open Pit	Underground	MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 41 57 N 125 29 42 W 1050 Metres Within 500M Location is an old hydrau 2.5 kilometres upstream f 41 kilometres northeast of	ic scar on the north sid rom its confluence with Takla Landing.	e of Vital Creek, Silver Creek, about	NORTHING: EASTING:	6175419 343204
COMMODITIES:	Gold	Silver	Mercury		
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Gold Arquerite, a native amalg gold-bearing gravels alon	am of silver and mercur g Vital Creek.	y, also occurs in the		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au	.PGE-Sn-Ti-diam-mag-g	jar-zir		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	FORMA	TION ed Formation	IGNEOUS/METAM	ORPHIC/OTHER
Quaternary	Cache Creek	Ondenin	euromation	Glacial/Fluvial Gra	vels
LITHOLOGY:	Glacial Fluvial Gravel Phyllite Limestone Tuff				
HOSTROCK COMMENTS:	Cache Creek Complex r underlie the Vital Creek	ocks range from Carboi drainage basin.	niferous to Jurassic a	nd	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PH	SIOGRAPHIC AREA: Omineca	a Mountains
CAPSULE GEOLOGY	Vital Creek is Creek approximate Exploration of originally discove drift diggings, fo Between 1922 and 1 were driven along preglacial channel hydraulicking, whi facilities. Subset without much succe 141-142). The creek dra striking, east-dip Carboniferous to limestone and tuff numerous barren-lo to a metre in widd Recorded gold between 1876 and 1 total of 143,122 of recoveries came fi kilometres above to extremely coarse, recovered from the Arquerite, a fairly abundant in	lows northeaster y 41 kilometres on the creek date bilowed later by 934, two adits, the bedrock/sedi- in 1935, drif- ch too was soon equent to this, a sess (Geological S ains an area under oping metasedimer furassic Cache Ch are the most co ooking, locally n th. d production from 900, and 26,031 grams of gold (Bu com the present- the mouth of the well-worn flakes a preglacial char native amalgam of the gold-bearin	cly from the Vi northeast of T es back to 1869 rict. Initial ground sluicin 285 and 42 met international due a 27-metre shaf Survey of Canad erlain by a nor tary/volcanic reek Complex. ommon members. rusty, white que a Vital Creek w grams between alletin 28, pag lay channel bel creek. Later, s which lay alco nel upstream f of silver and m ag gravels of V	tal Range into Silver Takla Landing. when gold was work was by means of g and hydraulicking. res long respectively n order to follow the bandoned in favor of to lack of dumping t was sunk to bedrock a Memoir 252, pages th-northwest suite assigned to the Here, phyllite, These rocks host artz veins varying up as 117,091 grams, 1926 and 1940; a re 46). Early ow a waterfall, 3 gold in the form of ng bedrock was rom this point. Hercury, is also tital Creek.	

EMPR AR 1875-16; 1879-244; 1897-511,515; 1898-983; 1899-611; 1900-748; 1901-974; 1902-128; 1903-72; 1904-53; 1907-76; 1913-109; 1923-119; 1924-108; 1926-151; 1927-160; 1928-181; 1929-206; 1932-87; 1933-105-106; 1934-G51; 1935-C28,G48; 1936-C39; 1937-C34; 1938-C54; 1940-90 EMPR ASS RPT 11881, 11978, 12546, 14547, 17623 EMPR BULL 1, p. 35; 28, pp. 7, 43, 46 EMPR EXPL 1983-459,462; 1985-C334 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM \*252, pp. 141-142 GSC P 74-1B, pp. 31-42

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/22 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 045</u>	Ν	IATIONAL MINERAL INVENT	ORY: 093N12 Au1
NAME(S):	QUARTZITE (QUARTZ) CREEK			
STATUS: REGIONS: NTS MAP	Past Producer British Columbia 093N12E	Open Pit	MINING DIVIS	SION: Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 43 09 N 125 39 37 W 1052 Metres Within 500M Location is the north end of an 800 met approximately 2.4 kilometres up from its which was worked in the 1930s, about Landing (Minister of Mines Annual Repo	re stretch of Quartzite Cree s confluence with Fall River, 36 kilometres northeast of ort 1933, page A107).	NORTH EAST k, Takla	IING: 6178031 ING: 332905
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers Q01 Jade		C04 Paleoplacer U-Au-F	GE-Sn-Ti-diam-mag-gar-zir
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Formation	IGNEOUS/ME	TAMORPHIC/OTHER
Quaternary			Glacial/Fluvia	al Gravels
LITHOLOGY:	Glacial Fluvial Gravel Phyllite			
HOSTROCK COMMENTS:	The Cache Creek Complex rocks rang underlie the Quartzite Creek basin.	e from Carboniferous to Ju	assic and	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	F	PHYSIOGRAPHIC AREA: Or	ineca Mountains
CAPSULE GEOLOGY	Quartzite (Quartz) Creek flows northerly from the Vital Range into Fall River approximately 36 kilometres northeast of Takla Landing. The placer leases extended upstream for 800 metres from a point 2.4 kilometres from its confluence with Fall River and, in part, encompassed a steep-walled canyon. The earliest recorded work on the creek appears to have taken place in the late 1800s. Further work was again referenced in the 1913 Minister of Mines Annual Report, although it was not until the 1930s that any production was recorded. The creek drains an area underlain by schistose sediments assigned to the Carboniferous to Jurassic Cache Creek Complex, which in this area is dominated by quartz-rich phyllite. These sediments host numerous barren-looking, locally rusty, white quartz veins varying up to a metre in width. A preglacial channel is reported to be buried in the right(?) bank of the creek, except at a point approximately 600 metres above the canyon, where it is exposed in the left(?) bank. Placer mining efforts were directed at both pre and postglacial gravels. Boulders of both rhodonite and jade were also reportedly discovered in the placer diggings along the creek (see 093N 188). Recorded production between 1931 and 1945 totalled 13,530 grams (Bulletin 28, page 45).			
BIBLIOGRAPHY	EMPR AR 1913-109; 1933-107-	108; 1935-C39 13972, 14791		
	EMPR BULL 28, p. 45 EMPR EXPL 1983-465-466; 198 EMPR OF 2000-33 GSC MEM *252, pp. 142-143	5-C338; 1986-C373		
			MINFILE N	JMBER: 093N 045

GSC P 74-1B, pp. 31-42

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/21 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 046</u>		NA	TIONAL MINERAL INVENTORY: 093N12 Au3
NAME(S):	HARRISON CREEK			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N12E	Open Pit	Underground	MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 37 32 N 125 38 46 W 1100 Metres Within 500M Location are the main work from its confluence with Ke of Takla Landing (Geologic	ings on Harrison Creek anny Creek, about 26 ki al Survey of Canada Me	, 1.2 kilometres up lometres northeas emoir 252, page 14	NORTHING: 6167582 EASTING: 333397 0).
COMMODITIES:	Gold	Mercury	Silver	
MINERALS SIGNIFICANT: COMMENTS:	Gold Arquerite, a natural amalga	am of mercury and silve	r, is reported to	
MINERALIZATION AGE:	Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-F	PGE-Sn-Ti-diam-mag-ga	ar-zir	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Cache Creek	FORMAT	ION d Formation	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Cache Creek	Undenne	uronnalion	Glacial/Fluvial Gravels
LITHOLOGY:	Glacial Fluvial Gravel Schistose Argillite Slate Chert Andesite Flow Andesite Tuff			
HOSTROCK COMMENTS:	Cache Creek Complex ro the Harrison Creek basin.	cks are Carboniferous t	o Jurassic and und	erlie
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PF	YSIOGRAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY	Harrison Creek into Kenny Creek ay Landing. Explorat: record of work bein construction of a c driven by a man nar The creek dra: striking, steeply of Carboniferous to Ju numerous barren-loo to a metre in width Early work con 1.6 kilometres in level. In 1934, an of the channel. A was said to have in "encouraging values arquerite, a natura (Minister of Mines Humphrey Creek was although it is unce three separate worl bedrock and the or: further 120 metres however, appear to creek were made as	c flows south-sou oproximately 26 l ion on the creek ng carried out pr lam across the cr med Bodine. ins an area under chert and andesif urassic Cache Crr oking, locally ru n. ncentrated on a p length buried in n adit was driver winze sunk to be ntersected the eas s in coarse gold al amalgam of mer Annual Report 193 proposed in 1930 ertain whether in kings were being iginal Gibbon dr: (Property File have ceased by f	atheastward f kilometres no dates back t rior to 1930 reek and a no rlain by a no of interbedd tic flows and ek Complex. usty, white q preglacial ch the right(?) n for 44 metr edrock from t ast rim of th " and a 46.66 rcury and sil 935, page C28 5 to facilita t was ever co developed, i ift, which wa - Holland, 19 1942, althoug 1980s.	rom the Vital Range rtheast of Takla o 1870, but the only relates to the w inaccessible adit rth-northwest ed schistose tuffs assigned to the These rocks host uartz veins varying up annel approximately bank, below creek es into the lower end he face of this adit e channel, from which gram nugget of ver, were obtained ). A flume from te hydraulicking, nstructed. By 1938, ncluding two shafts to s now advanced a 38). Operations, h attempts to mine the

MINFILE NUMBER: 093N 046

# CAPSULE GEOLOGY

grams of gold (Geological Survey of Canada Memoir 252, page 141). Records of production resulting from work undertaken sporadically into the 1980s are not available.

# BIBLIOGRAPHY

EMPR AR \*1935-C28; 1936-C39; 1937-C34; 1938-C53; 1940-A90
EMPR ASS RPT 12294
EMPR BULL 28, pp. 43-44
EMPR EXPL 1983-463
EMPR OF 2000-33
EMPR PF (\*Holland, S.S. (1938): Report on Harrison Creek Ventures
Limited including miscellaneous maps; Anon. (1937): Preliminary
Report on Harrison Creek Ventures, Ltd.
GSC MAP 844A; 907A; 971A; 1424A
GSC MEM \*252, pp. 140
GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED: 19	85/07/24	CODED BY:	GSB	FIELD CHECK	: N
DATE REVISED: 19	992/09/28	REVISED BY:	DMN	FIELD CHECK	: Y

MINFILE NUMBER:	<u>093N 047</u>	1	NATIONAL MINERAL INVENTORY:	093N12 Au2
NAME(S):	TOM CREEK			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N12E	Open Pit Underground	MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 36 04 N 125 39 03 W 1045 Metres Within 500M Location is the downstream end of plac 24 kilometres northeast of Takla Landin Memoir 252, page 139).	er workings on Tom Creek g (Geological Survey of Ca	NORTHING: EASTING: nada	6164874 332996
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-PGE-Sn-Ti-di	am-mag-gar-zir		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Paleozoic-Mesozoic Quaternary	GROUP Cache Creek	FORMATION Undefined Formation	IGNEOUS/METAMC Glacial/Fluvial Grav	DRPHIC/OTHER
LITHOLOGY:	Glacial Fluvial Gravel Phyllite Andesitic Tuff Limestone			
HOSTROCK COMMENTS:	Cache Creek Complex rocks range fro underlie the Tom Creek basin.	om Carboniferous to Jurass	ic and	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	1	PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY	Tom Creek drains the n Kenny Creek approximately 2 Placer gold was initially d after it was discovered on the northeast. The creek drains an ar striking, steeply dipping s tuff and minor limestone as Cache Creek Complex. These locally rusty, white quartz The creek was worked p upstream from a point 1.6 k Creek. Gold was originally flume, but by 1935, tunnell Limited later used a large operations ceased in 1940. Recorded production fr of gold (Geological Survey Production of 74,710 grams (Bulletin 28, page 46). It	orth slopes of Mour 4 kilometres northe iscovered in the cr Vital Creek (093N C ea underlain by a r equence of interbed signed to the Carbo rocks host numerou veins varying up t rofitably from 1899 ilometres from its recovered by means ing was employed. steam shovel, which om Tom Creek up unt of Canada Memoir 25 of gold up to 1945 is not known which	At Tom and flows into teast of Takla Landing. teek in 1889, 20 years (44), 15 kilometres to north-northwest aded phyllite, andesitic oniferous to Jurassic as barren-looking, to a metre in width. Tom 2004 starting confluence with Kenny s of a deep bedrock Tom Creek Placers, n was left after (11 1949 is 50,512 grams (2, page 139). is also reported figure is correct.	
BIBLIOGRAPHY	<pre>EMPR AR 1897-515; 1898-983; 1902-129; 1903-2,71; 190 1924-109; 1927-160; 1929 1936-C39; 1937-C34; 1938 EMPR ASS RPT 12251, 13887 EMPR BULL 1, p. 35; 28, pp. EMPR EXPL 1983-466; 1985-C3 EMPR OF 2000-33 GSC AR 1894, Vol. VII, Pt.</pre>	1899-635; 1900-745 4-53; 1907-76; 1908 -206; 1932-87; 1933 -C53; 1939-105; 194 43,46 37 C, p. 12	5,750; 1901-974; -65; 1909-113; 8-106; 1935-C28,C38; 0-90	

GSC MAP 844A; 907A; 971A; 1424A GSC MEM \*252, pp. 140 GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED:	1985/07/24
DATE REVISED:	1992/09/28

CODED BY: GSB REVISED BY: DMN
MINFILE NUMBER:	<u>093N 048</u>		NATIONAL MINERAL INVENTORY	: 093N12 Au4
NAME(S):	ALICE CREEK			
STATUS: REGIONS:	Past Producer British Columbia	Open Pit	MINING DIVISION:	Omineca
NTS MAP: BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 38 36 N 125 35 24 W 1075 Metres Within 1 KM Location is on Alice Creek, 1.6 kilometr Byrnes Lake, about 30 kilometres north	res up from its outlet into neast of Takla Landing.	UTM ZONE: NORTHING: EASTING:	10 (NAD 83) 6169427 337003
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-PGE-Sn-Ti-d	iam-mag-gar-zir		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Paleozoic-Mesozoic Quaternary	GROUP Cache Creek	FORMATION Undefined Formation	IGNEOUS/METAM Glacial/Fluvial Gra	I <u>ORPHIC/OTHER</u> avels
LITHOLOGY:	Glacial Fluvial Gravel Phyllite Andesitic Tuff Limestone			
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Cart the Alice Creek drainage basin.	coniferous to Jurassic and u	Inderlie	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOGRAPHIC AREA: Ominec	a Mountains
CAPSULE GEOLOGY	Alice Creek flows sout Lake approximately 30 kilom Exploration in the area dat on Vital Creek (093N 044), information is available de The creek drains an ar striking, variably dipping andesitic tuff and minor li Jurassic Cache Creek Comple barren-looking, locally rus metre in width. All that is known abou it occurred at the same tim 049), approximately 1.5 kil Recorded production fr of gold (Bulletin 28, pages resulting from work underta available.	theastward from the metres northeast of tes back to 1869, wi 9 kilometres to the escribing development rea underlain by a r sequence of interb imestone assigned to ex. These rocks how sty, white quartz we at work carried out me (1936-1945) as the lometres to the nor com Alice Creek (19) s 43 and 44). Reco- aken sporadically in	Vital Range into Byrnes Takla Landing. hen gold was discovered e northeast. Little nt on Alice Creek. north-northwest edded phyllite, o the Carboniferous to st numerous eins varying up to a on Alice Creek is that hat on Kelly Creek (093M theast. 36-1945) is 2520 grams rds of production nto the 1980s are not	3
BIBLIOGRAPHY	EMPR ASS RPT 12543, 14790 EMPR BULL *28, pp. 43-44 EMPR EXPL 1983-463; 1986-C3 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1 GSC MEM 252 CSC P 74-1A; 74-1B pp. 31-	372-C373 1424A -42		
DATE CODED: DATE REVISED:	1985/07/24 1992/09/29	CODED BY: GSB REVISED BY: DMN		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 049</u>		NATIONAL MINERAL INVENTORY:	093N12 Au4
NAME(S):	KELLY CREEK			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N12E	Open Pit	MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 18 N 125 34 52 W 1120 Metres Within 500M Location is the site of the original disc approximately 2.4 kilometres up from i about 32 kilometres northeast of Takla Annual Report 1933, page 107).	overy on Kelly Creek, ts outlet into Byrnes Lake, Landing (Minister of Mines	NORTHING: EASTING: :	6170704 337611
COMMODITIES:	Gold Silver	Mercury		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-PGE-Sn-Ti-c	Jiam-mag-gar-zir		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Formation		RPHIC/OTHER
Quaternary			Glacial/Fluvial Grav	vels
LITHOLOGY:	Glacial Fluvial Gravel Phyllite Andesitic Tuff Limestone			
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Car the Kelly Creek drainage basin.	boniferous to Jurassic and u	nderlie	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY BIBLIOGRAPHY	Kelly Creek flows sou Lake, approximately 32 kil gold was originally found from its outlet into Byrne discovered on Vital Creek Work was apparently carrie Creek (093N 048) to the so around this site have surv The creek drains an a striking, variably dipping andesitic tuff and minor l Jurassic Cache Creek Compl barren-looking, locally ru metre in width. The postglacial water glacial material masking t bedrock, concentrating the Production records fo creek is believed to have reported to be fairly coar page A107). Arquerite, a natural area, was also reported to	thward from the Vita ometres northeast of at a point approxima s Lake in 1933, 64 y (093N 044), 7 kilomd d out at the same t uthwest. Several of ived to today. rea underlain by a n sequence of interba imestone assigned to ex. These rocks how sty, white quartz vo s of the creek appar he west side of the gold and facilitat; r Kelly Creek are un been worked up untif se (Minister of Mine amalgam of mercury a	al Range into Byrnes f Takla Landing. Placer ately 2.4 kilometres up years after gold was etres to the northeast. ime as that on Alice ld buildings and trails north-northwest edded phyllite, o the Carboniferous to st numerous eins varying up to a cently cut down through valley almost to ing its extraction. navailable, but the l 1940 and the gold was es Annual Report 1933, and silver common in the d from the creek.	
	EMPR AR *1933-107 EMPR ASS RPT 12543, 14790, EMPR BULL 28 EMPR EXPL 1983-463; 1986-C EMPR OF 2000-33	16341 372-C373		

GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, p. 140 GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/29 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 050</u>			NATIONAL MINE	RAL INVENTORY:	093N11 Au3
NAME(S):	SILVER-KENNY CREEK					
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N11W	Open Pit		l	MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 31 N 125 27 57 W 945 Metres Within 500M Location is on Kenny Creek 4747, where production of period 1980-1982 (Assessm	t near the southeast 12,441 grams of gold nent Report 11625, F	corner of placer I d was reported fo igure 5).	ease or the	NORTHING: EASTING:	6170842 344876
COMMODITIES:	Gold	Nercury	Silver			
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Gold Cinnabar Arquerite, a native amalgan boulders occur in gravels al Quaternary	n of mercury and silvo ong Silver Creek.	er, and cinnabar			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-P	GE-Sn-Ti-diam-mag-	gar-zir			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP	FORMA			IGNEOUS/METAMO	ORPHIC/OTHER
Paleozoic-Mesozoic Triassic-Jurassic Quaternary	Takla	Undefir	ned Formation ned Formation		Glacial/Fluvial Gra	vels
LITHOLOGY:	Glacial Fluvial Gravel Phyllite Tuff Andesite Sandstone					
HOSTROCK COMMENTS:	Cache Creek Complex roc the Silver-Kenny Creek are	ks are Carboniferous ea.	to Jurassic and	underlie		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek			PHYSIOGRAPHIC	CAREA: Omineca	Mountains
CAPSULE GEOLOGY						
	Kenny Creek fl approximately 39 ki originally discover both creeks was not undertaken to test has continued spora The area is un dipping metasedimen to Jurassic Cache C zone. Here, phylli rocks host numerous varying up to a met sandstone assigned Formation have been The creeks hav both sides. Concen shallow preglacial Combined produ reported to be 19,9 Memoir 252, page 14 approximately 1 ki1 is reported to have 1979-1982 (Assessme continued up to the Nuggets of arq and boulders of cin been found in Silve (Geological Survey	ows easterly i lometres north ed on Silver C reported unti Silver Creek i derlain by a n tary/volcanic reek Complex, a te and tuff ar barren-lookin re in width. to the Middle mapped. e fairly wide trations of pl gravels on or ction from Ken 68 grams of go 1). Recent pr ometre up from totalled 22,3 nt Report 1162 present. uerite, a nati- nabar up to 60 r Creek near i of Canada Memo	nto Silver C east of Takl reek in 1868 l the 1930s. n 1935 and a recently. orth-northwe suite assign along and we e the most c g, locally r East of the Triassic to valleys with acer gold we immediately ny and Silve ld (Geologic oduction fro its conflue 95 grams gol 5, page 3). ve amalgam o centimetres ts confluence ir 252, page	reek at a po a Landing. , but produc Drilling w gain in 1954 st striking, ed to the Ca st of the Pi ommon member usty, white fault zone, Lower Jurass high gravel re apparentl overlying be r creeks to al Survey of m Kenny Cree nce with Sil d for the pe Sporadic wo f silver and in diameter e with Kenny 141).	<pre>int Gold was tion from as , and work steeply rboniferous nchi fault s. These quartz veins andesite and ic Takla banks on y found in drock. 1949 is Canada k, ver Creek, riod rk has mercury, have also Creek</pre>	

EMPR AR 1924-109,111; 1932-87; 1936-C39; 1940-90; 1954-A169 EMPR ASS RPT 11625 EMPR BULL 1, p. 35; 28, pp. 43,45-46 EMPR EXPL 1983-460 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM \*252, pp. 140-141 GSC P 74-1B, pp. 31-42

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/28 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER: 093N 051

#### NAME(S): TWIN CREEK STATUS: Past Producer REGIONS: British Columbia Open Pit MINING DIVISION: Omineca NTS MAP: 093N11E UTM ZONE: 10 (NAD 83) BC MAP: NORTHING: 6164470 EASTING: 363356 LATITUDE: 55 36 25 N LONGITUDE: 125 10 09 W ELEVATION: 1125 Metres LOCATION ACCURACY: Within 500M COMMENTS: Location is along Twin Creek, 750 metres north of its confluence with Kwanika Creek; Twin Creek flows southeast into the headwater area of Kwanika Creek about 15 kilometres southwest of the west end of Germansen Lake. Workings continue upstream is 1.5 kilometres. COMMODITIES: Gold MINERALS SIGNIFICANT: Gold MINERALIZATION AGE: Quaternary DEPOSIT CHARACTER: Unconsolidated CLASSIFICATION: Placer TYPE: C04 Paleoplacer U-Au-PGE-Sn-Ti-diam-mag-gar-zir HOST ROCK DOMINANT HOSTROCK: Sedimentary STRATIGRAPHIC AGE <u>GROUP</u> Takla FORMATION IGNEOUS/METAMORPHIC/OTHER Lower Jurassic Twin Creek Upper Triassic Takla Plughat Mountain Quaternary Glacial/Fluvial Gravels LITHOLOGY: Glacial Fluvial Gravel Augite Olivine Porphyritic Basalt

Plagioclase Augite Hornblende Tuff Breccia

PHYSIOGRAPHIC AREA: Omineca Mountains

NATIONAL MINERAL INVENTORY: 093N11 Au4

# **GEOLOGICAL SETTING** TERRANE: Quesnel

**TECTONIC BELT:** Intermontane

## CAPSULE GEOLOGY

Twin Creek flows southeast into the headwater area of Kwanika Creek approximately 15 kilometres southwest of the west end of The Twin Creek locality corresponds to the Germansen Lake. occurrence of placer gold in Twin Creek. The region is underlain by the Middle Triassic-Lower Jurassic Takla Group. The contact between the Middle Triassic-Lower Jurassic Takla Group. The contact between the Upper Triassic Plughat Mountain Formation (Takla Group) and the Lower Jurassic Twin Creek Formation (Takla Group) occurs 500 metres upstream from the occurrence locality (Open File 1993-4). A maroon, augite olivine porphyritic basalt marks the Triassic volcanic package in the immediate area. It is unconformably overlain by probable Jurassic-age heterolithic plagioclase, augite and hornblende-bearing porphyritic lapilli tuffs and breccia. The Plughat Mountain Formation is correlative to the Witch Lake Formation (Takla Group) of the Nation Lakes area and the Twin Creek Formation is correlative to the more felsic Chuchi Lake Formation (Takla Group).

Four kilometres to the west of the placer showing, maroon quartz feldspar porphyritic volcanics of the Twin Creek Formation are intruded by an early phase of the Late Triassic-Early Cretaceous Hogem Intrusive Complex.

The earliest work reported on the creek occurred in 1946 when Winifred Tait prepared the Martin leases for hydraulicking. By 1948, a small hydraulic plant had been installed and operations had commenced. In early 1949, gravels from a pit on the creek were being washed with a 10-centimetre diameter monitor. However, bedrock was never reached and results were reported as disappointing.

Production figures for the creek are unknown, but are thought to be small. Today, remnants of a sluicing system several kilometres long follows the east side of Twin Creek. An old cabin and more recent placer excavations are apparent at the Takla Landing-Manson Creek road crossing of Twin Creek.

EMPR AR 1946-196; 1947-191; 1948-174; \*1949-240 EMPR BULL 28, p. 43 EMPR OF 1993-3 EMPR FIELDWORK 1992, pp. 87-107 GSC MEM 252, p. 154 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 42-11; 44-5; 45-6

DATE CODED:	1985/07/24
DATE REVISED:	1993/02/19

CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER: 093N 052

NATIONAL MINERAL INVENTORY: 093N11 Au1

### NAME(S): TWENTY MILE CREEK STATUS: Past Producer REGIONS: British Columbia Open Pit MINING DIVISION: Omineca NTS MAP: 093N11E UTM ZONE: 10 (NAD 83) BC MAP: LATITUDE: 55 40 15 N LONGITUDE: 125 05 21 W ELEVATION: 1080 Metres NORTHING: 6171424 EASTING: 368609 LOCATION ACCURACY: Within 500M COMMENTS: Location is a point where the Manson Creek-Takla Landing road crosses Twenty Mile Creek, approximately 14.5 kilometres upstream from its outlet into the Omineca River. COMMODITIES: Gold MINERALS SIGNIFICANT: Gold MINERALIZATION AGE: Quaternary DEPOSIT CHARACTER: Unconsolidated CLASSIFICATION: Placer TYPE: C01 Surficial placers HOST ROCK DOMINANT HOSTROCK: Sedimentary <u>GROUP</u> Takla **FORMATION** IGNEOUS/METAMORPHIC/OTHER STRATIGRAPHIC AGE Upper Triassic Plughat Mountain Quaternary Glacial/Fluvial Gravels LITHOLOGY: Glacial Fluvial Gravel Augite Porphyritic Basalt Augite Plagioclase Porphyritic Basalt Wacke Argillite **GEOLOGICAL SETTING** TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Omineca Mountains TERRANE: Quesnel CAPSULE GEOLOGY

Twenty Mile Creek is situated west of Germansen Lake and flows north into the Omineca River at a point 21 kilometres west of Germansen Landing. Placer operations were largely confined to a stretch of the creek approximately 14.5 kilometres upstream from this point.

The area is underlain by the Upper Triassic Plughat Mountain Formation of the Middle Triassic-Lower Jurassic Takla Group. The closest bedrock outcrops are of green porphyritic basaltic volcanic rocks with large augite phenocrysts and minor plagioclase. Minor wacke and argillite also occurs. Several north striking fault strands crosscut altered volcanics at Twenty Mile Lakes, 1.5 kilometres north of the occurrence locality. Lower Jurassic Takla volcanics of the Twin Creek Formation and intrusive rocks of the Late Triassic-Early Cretaceous Hogem Intrusive Complex outcrop 8 and 12 kilometres to west respectively.

The placer workings were reported to be on extensive gravel flats, where gold was found within a metre of the surface. Boulder clay around the many large boulders along the creek was found to contain coarse and flaky gold, which appeared to have been concentrated in postglacial time.

The earliest recorded activity in the area occurred in 1901, but it was not until 1948 that serious testing of the creek was undertaken. A 7.62-centimetre interval between 15.49 and 15.57 metres in hole 5, one of seven drilled that year, analysed 103 milligrams of gold (Property File - Overburden drill logs). Sporadic activity on the creek continued into the 1960s.

Production of 2084 grams of gold for the period 1941-45 is listed in Table XXVII of Bulletin 28. Presently, small placer workings occur continuously for 1 kilometre south of and 5 kilometres north of the road crossing. The source of the placer gold is unknown.

EMPR AR 1901-975; 1947-191; 1948-174; 1955-83; 1965-251 EMPR BULL 28, pp. 43,46 EMPR OF 1993-4 EMPR FIELDWORK 1992, pp. 87-107 EMPR PF (Overburden drill logs-1948; sketch of placer leases) GSC MEM \*252, p. 143 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/23 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N 053</u>	NATIONAL MINE	RAL INVENTORY: 093N7 Au2
NAME(S):	VALLEAU CREEK		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093N07W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 28 42 N 124 55 15 W 1200 Metres Within 500M Located on a south-flowing tributary at the Creek.	headwaters of Valleau	NORTHING: 6149699 EASTING: 378601
COMMODITIES:	Gold		
MINERALS SIGNIFICANT: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Gold Quartz Carbonate Sericite Quartz-carbonate-sericite and possibly ma in the surrounding rocks. Quartz-Carb. Quaternary	Mariposite riposite alteration occurs	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Upper Triassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: Quaternary	GROUP For Takla In Upper Triassic Fossil Conodonts	ORMATION Izana Lake	IGNEOUS/METAMORPHIC/OTHER Glacial/Fluvial Gravels
LITHOLOGY:	Glacial Fluvial Gravel Volcanic Siltstone Volcanic Sandstone Lapilli Tuff Listwanite		
HOSTROCK COMMENTS:	The region is underlain by the informally na The source of placer gold is unknown. For	amed Inzana Lake Formation. ossil date - Fieldwork 1991.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIOGRAPHI	C AREA: Omineca Mountains
CAPSULE GEOLOGY			
	Multiple, small (1 metre) gravels on the western bank of headwaters of Valleau Creek. volcanic sediments and tuffs of Formation (informal name) of t quartz-carbonate-sericite alte northwest-trending zone. Mind anomalous arsenic values sugge (see Tsay, 093N 214). The irregular and wiry na local source (Assessment Report described in other tributary of 21228).	) pits are visible in glacia f a south-flowing tributary The underlying rocks are for of the Upper Triassic Inzana the Takla Group. Moderate the eration affects the rocks in or green mica (mariposite?) est a possible listwanite as ature of the placer gold may rt 21700). Placer gold is a creeks in the area (Assessme	al-fluvial at the oliated a Lake to intense h a regional and ssociation y indicate a also ent Report
BIBLIOGRAPHY			
	EMPR ASS RPT 15634, 19859, *22 EMPR FIELDWORK 1990, pp. 89-12 EMPR OF 1991-3; 1992-4; 1993-3 EMPR BULL 28, p. 45 GSC MEM 252, p. 144 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A, 1586 GSC OF 2842	1700 10; 1991, pp. 103-118; *1992 3 5G	2, pp. 87-107

Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1993/03/11 CODED BY: GSB REVISED BY: KBE

### MINFILE NUMBER: 093N 054 NATIONAL MINERAL INVENTORY: 093N10,15 Au4 NAME(S): GERMANSEN RIVER NORTH, GERMANSEN PITS STATUS: Past Producer REGIONS: British Columbia Open Pit MINING DIVISION: Omineca NTS MAP: 093N15E BC MAP: UTM ZONE: 10 (NAD 83) NORTHING: 6181362 EASTING: 394405 LATITUDE: 55 45 59 N LONGITUDE: 124 40 59 W ELEVATION: 825 Metres LOCATION ACCURACY: Within 500M COMMENTS: The Germansen River North placer occurrence is located approximately 2.5 kilometres from the mouth of the Germansen River. The location is centred on the northern pit, near the old Germansen town site on the west side of the Germansen River. COMMODITIES: Gold MINERALS SIGNIFICANT: Gold MINERALIZATION AGE: Quaternary DEPOSIT CHARACTER: Unconsolidated CLASSIFICATION: Placer TYPE: C04 Paleopla SHAPE: Tabular Paleoplacer U-Au-PGE-Sn-Ti-diam-mag-gar-zir HOST ROCK DOMINANT HOSTROCK: Sedimentary <u>GROUP</u> FORMATION IGNEOUS/METAMORPHIC/OTHER STRATIGRAPHIC AGE Upper Paleozoic Cooper Ridge Undefined Formation Quaternarv Glacial/Fluvial Gravels LITHOLOGY: Boulder Clay Gravel Phyllite Araillite Felsic Tuff Silt

#### GEOLOGICAL SETTING TECTONIC BELT: Omineca

TERRANE: Cassiar

PHYSIOGRAPHIC AREA: Omineca Mountains

### CAPSULE GEOLOGY

The Germansen River North Occurrence is located approximately 2.5 kilometres from the mouth of Germansen River. It is located near the old Germansen townsite and occurs on the west side of the Germansen River, straddling Plughat Creek. The main road passes within 30 metres of the pits and approximately 50 metres to the west, a serviceable airfield is found. This occurrence is restricted to the pits where mining is still active.

a serviceable airfield is found. This occurrence is restricted to the pits where mining is still active. Placer gold was first discovered on the Germansen River in 1870. The northwest trending part of the river (from its mouth to the big bend area) has been the area most explored and placer mined. During the early 1940s, there were at least seven pits which were mined by hydraulic operations (hydraulicking). Today, there are only two large pits. The active one lies on the north side of Plughat Creek and the inactive one lies to the south of the creek. In the southern pit, there is an adit at the southern end which is believed to be part of the Sunset occurrence (093N 026). During the 1988 summer field season, a large operation in the northern pit operated 24 hours a day.

The auriferous gravels are approximately 4.5 metres thick and lie on rock benches which are 15 metres above the river. The gold is concentrated near the bedrock which in this area is represented by phyllites, argillites and felsic tuffs belonging to the Mississippian(?) to Lower Permian Cooper Ridge Group.

The overburden at this occurrence varies from approximately 30 to 42 metres in thickness. The glacial overburden consists of boulder clay, silt and gravel.

Prior to 1950, reported gold production for the entire Germansen River varies from 515,851 grams (Bulletin 28, page 43) to 750,776 grams (Geological Survey of Canada, Memoir 252, page 145). See Germansen River South (093N 055).

Angel Jade Mines process (between 50,000 and 80,000) yards of gravel annually on their operation.

### BIBLIOGRAPHY

EMPR AR 1874, p. 8; 1897, p. 516; 1899, p. 634; 1901, p. 974; 1902, p. 128; 1913, p. 114; 1927, p. 158; 1932, p.87; 1933, p. 111, 1935, p. C38; \*1936, pp. C3-8; 1937, p. C34; 1938, p. C53; 1939, p. 105; 1940, p. 90; 1941, p. 84; 1942, p. 84; 1946, p. 196; 1947, p. 190; 1948, p. 174; 1949, p. 240; 1951, p. 202; 1952, p. 236; 1953, p. 174; 1954, p. 168; 1955, p. 83; 1956, p. 139, 1959, p. 146; 1960, p. 121; 1961, p. 129; 1966, p. 255
EMPR FIELDWORK 1989, pp. 101-114
EMPR FF (Holland, S.S. (1937) Geological Report on the Placer Holdings of Germansen Ventures, Ltd., Germansen Creek - Omineca District, B.C.; accompanied geophysical reports and maps (circa 1940)
GSC MAP 876A; 907A; 5249G
GSC MEM \*252, pp. 144-146
GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/24 CODED BY: GSB REVISED BY: DMM

# MINFILE NUMBER: 093N 055

# NATIONAL MINERAL INVENTORY: 093N10,15 Au4

NAME(S):	GERMANSEN RIVER SOUTH, SLATE C	REEK			
STATUS:	Past Producer British Columbia	Open Pit	Ν	IINING DIVISION:	Omineca
NTS MAP: BC MAP	093N10E			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 35 N 124 36 20 W 880 Metres Within 500M The Germansen River South placer oc side of the Germansen River (just north approximately 8 kilometres northwest fr Creek.	currence is located on the e of the big bend), rom the settlement of Manse	ast on	NORTHING: EASTING:	6174941 399121
COMMODITIES:	Gold				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-PGE-Sn-Ti-di	am-mag-gar-zir			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	FORMATION	<u> </u>	GNEOUS/METAMC	RPHIC/OTHER
Quaternary	Idkid	Undenned Formation	G	ilacial/Fluvial Grav	vels
LITHOLOGY:	Gravel Sand Boulder Clay Argillite Slate				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	I	PHYSIOGRAPHIC	AREA: Omineca	Mountains

### CAPSULE GEOLOGY

The Germansen River South occurrence is located on the east bank of the Germansen River (just north of the big bend) approximately 8 kilometres northwest of the settlement of Manson Creek. This occurrence encompasses all the workings along the Germansen River except for the Germansen pits (093N 054). Placer gold was first discovered on the Germansen River in 1870.

Placer gold was first discovered on the Germansen River in 1870. The northwest trending part of the River (from its mouth to the big bend area) has been the area most explored and placer mined. Numerous workings have occurred along the Germansen River and have a long and productive history. Travelling along the main road, cliff faces and pits expose thick volumes of unconsolidated material. These topographic features are the result of past placer mining practices. During the 1930s to the early 1940s, the hydraulic method of placer mining was the most common.

of placer mining was the most common. Just north of the big bend area, the bedrock is cut by the Manson fault zone, and consists of slices of Pennsylvanian to Permian Manson Lakes Ultramafites, the Mississippian to Permian Cooper Ridge Group and rocks belonging to the Middle Triassic to Lower Jurassic Takla Group. The most predominant rocks to the southwest of the fault zone are argillites and slates belonging to the Takla Group.

fault zone are argillites and slates belonging to the Takla Group. Placer deposits can be found on low-lying benches and in the bed of the river, on rock benches that lie approximately 10 metres above the river, and in deeply buried channels below the river level. Most of the workings are related to the rock benches that lie above the river. These rock benches are overlain by auriferous fine and coarse gravels and sand which are somewhat cemented. The semi-cemented gravels and boulder clay. The gravels lower and near to the top of the semi-cemented gravel and sand are also auriferous. The gold is mainly coarse, nuggety and somewhat flat.

During the 1988 field season, a sluice box operation mined material from a low-lying bench near the river, just north of the big

	bend in the Germansen River Prior to 1950, reporte River varies from 515,851 of grams (Geological Survey of this gold recovery was achi between 1931 and 1945. Angel Jade Mines is pr potential in the area.	ed gold production for the entire Germanse grams (Bulletin 28, page 43) to 750,776 Canada, Memoir 252, page 145). Most of eved between the years 1876 and 1890, and cocessing gravel and investigating bedrock	en 1	
BIBLIOGRAPHY				
	<pre>EMPR AR 1874, p. 8; 1897, p p. 128; 1913, p. 114; *1 1935, p. C38; *1936, pp 105; 1940, p. 90; 1941, 190; 1948, p. 174; 1949, p. 174; 1954, p. 168; 19 1960, p. 121; 1961, p. 1 EMPR BULL 28, p. 43; 91 EMPR FIELDWORK 1989, pp. 10 EMPR PF (*Holland, S. S. (1 Holdings of Germansen Ve District, B. C.; accompa 1940) GSC MAP 876A; 907A; 5249G GSC MEM *252, pp. 144-146 GSC P 41-5; 42-2; 45-9; 75-</pre>	<ul> <li>516; 1899, p. 634; 1901, p. 974; 1902, 927, pp. 158-159; 1932, p.87; 1933, p. 17 C3-8; 1937, p. C34; 1938, p. C53; 1939, p. 84; 1942, p. 84; 1946, p. 196; 1947, p. p. 240; 1951, p. 202; 1952, p. 236; 1955 955, p. 83; 1956, p. 139, 1959, p. 146; 29; 1966, p. 255</li> <li>11-114</li> <li>937) Geological Report on the Placer entures, Ltd., Germansen Creek - Omineca unied geophysical reports and maps (circa</li> </ul>	11, p. 3,	
DATE CODED: DATE REVISED:	1985/07/24 1992/11/24	CODED BY: GSB REVISED BY: DMM	FIELD CHECK: FIELD CHECK:	N N

MINFILE NUMBER:	<u>093N 056</u>		NATIONAL MINERAL INVENTORY:	093N10 Au5
NAME(S):	SLATE CREEK			
STATUS: REGIONS	Past Producer British Columbia	Open Pit	MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N10E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 14 N 124 32 21 W 980 Metres Within 500M The Slate Creek placer occurrence is le Creek pond, approximately 3 kilometre Manson Creek. The location is centred large open pit from a past placer opera	ocated to the east of the SI s west of the settlement of I on a barren, gravel-lain tion.	NORTHING: EASTING: ate	6170488 403195
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-PGE-Sn-Ti-d	iam-mag-gar-zir		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic Quaternary	<u>GROUP</u> Takla	FORMATION Undefined Formation	IGNEOUS/METAM Glacial/Fluvial Gra	ORPHIC/OTHER
LITHOLOGY:	Gravel Slate Argillite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOGRAPHIC AREA: Manson	Upland

### CAPSULE GEOLOGY

The Slate Creek placer occurrence is located along Slate Creek and encompasses all placer occurrences occurring along this drainage. The plotted location is centred on the remnants of a past placer (now Cominco) during the 1930s. The Slate Creek Valley runs east-west from the settlement of

Manson Creek to the Germansen River. The valley is V-shaped, widening to the west and opens into a swampy, wide and flat area.

The valley is filled with glacial debris. The bedrock consists of slates and argillites belonging to the Middle Triassic to Lower Jurassic Takla Group. The Manson fault zone lies approximately three kilometres to the northeast of the valley. A thrust fault runs through the valley. Placer gold was first discovered on Slate Creek in 1871 with

most of the early work attributed to small individual operations. These operations were mainly concerned with the bedrock benches bordering the stream. During the 1900s to the early 1920s, Kildare Mines Limited opened three pits which were between 9 and 18 metres deep using hydraulic methods. Consolidated Mining and Smelting Company held the ground between 1929 and 1943 and during this time operated a dragline-scraper plant. These early placer mines where hampered by tightly-packed gravels above the bedrock. Since the 1940s, Slate Creek has been worked intermittently by individual workers. One operation, which is located approximately two kilometres west of the settlement of Manson Creek along the main road, has operated during the 1987, 1988 and 1989 field seasons and is believed to be still active. Lloyd Worthing ran a placer operation in 2002.

The auriferous gravels occur near the bedrock and overburden thickens to the west. The platy nature of the bedrock is believed to have a natural riffling effect, concentrating the gold in the cracks and crevices of the slates and argillites.

Past production varies from 100,340 grams as reported by Holland, 1950 (Bulletin 28, page 46) to 148,550 grams as reported by

Armstrong, 1949 (Geological Survey of Canada, Memoir 252, page 148). According to Holland, almost all of the production came between 1931 and 1935. BIBLIOGRAPHY EMPR AR 1901, p. 972; 1903, p. 71; 1913, p. 109; 1924, p. 109; 1929, p. 205; 1933, pp. 109-114; 1935, p. C38; 1936, p. C39; 1938, p. C53; 1949, p. 239; 1965, p. 251 EMPR BULL \*28, p. 43; 1, p. 80; 91 EMPR FIELDWORK 1989, pp. 101-114 EMPR OF 1989-12 GSC MEM \*252, pp. 147-148 GSC SUM RPT \*1933, pp. 9-29 GSC P 41-5; 42-2; 45-9; 75-33 GSC MAP 876A; 907A; 5249G GCNL #140(Jul.21),#170(Sept.2), 1977 DATE CODED: 1985/07/24 DATE REVISED: 1992/11/24 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 057</u>		NATIONAL MINERAL INVENTORY:	093N9,10 Au1
NAME(S):	<u>KILDARE GULCH</u> , KILDARE CREEK			
STATUS: REGIONS:	Past Producer British Columbia	Open Pit	MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N10E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 37 24 N 124 33 41 W 1090 Metres Within 500M The Kildare Gulch occurrence is locate informally named tributary (Kildare Cree (Geological Survey of Canada Memoir	d near the mouth of an ek) of the Manson River 252, page 148).	NORTHING: EASTING:	6165265 401679
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-PGE-Sn-Ti-d	iam-mag-gar-zir		
HOST ROCK DOMINANT HOSTROCK	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO Glacial/Fluvial Gra	DRPHIC/OTHER
	Gravel			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOGRAPHIC AREA: Manson	Upland
CAPSULE GEOLOGY				
	The Kildare Gulch place an informally named tributa This occurrence lies near t which continues south to Ba Very little informatic Most of the placer gold occ Gold has been reported from company had operated a hydr profitably. No record of gold proc	er occurrence is l rry (Kildare Creek) the old road into t on exists on placer trus along the bank h Kildare Creek and caulic lift on Kild duction exists for	ocated near the mouth of along the Manson River. he Manson River area hen onto Fort St. James. along this tributary. s of the Manson River. previous to 1949, a lare Creek, but not this creek.	
BIBLIOGRAPHY	EMPR BULL *28, p. 43; 91 EMPR FIELDWORK 1989, pp. 10 EMPR OF 1989-12 GSC MEM *252, p. 149 GSC SUM RPT 1933, pp. 9-29 GSC P 41-5; 42-2; 45-9; 75- GSC MAP 876A; 907A; 5249G	91-114		
DATE CODED: DATE REVISED:	1985/07/24 1992/11/24	CODED BY: GSB REVISED BY: DMM	F F	IELD CHECK: N IELD CHECK: N

# MINFILE NUMBER: 093N 058 NATIONAL MINERAL INVENTORY: 093N9,10 Au1 NAME(S): BLACKJACK GULCH, UPPER MANSON RIVER STATUS: Past Producer REGIONS: British Columbia Open Pit MINING DIVISION: Omineca NTS MAP: 093N10E 093N09W UTM ZONE: 10 (NAD 83) BC MAP: LATITUDE: 55 35 54 N LONGITUDE: 124 31 26 W ELEVATION: 1125 Metres NORTHING: 6162430 EASTING: 403979 LOCATION ACCURACY: Within 500M COMMENTS: The Blackjack Gulch placer occurrence is the upper part of the Manson River, upstream from the informally named Kildare Creek. It is located approximately 9 kilometres south-southwest of the settlement of Manson Creek (Geological Survey of Canada, Memoir 252, page 148). COMMODITIES: Gold MINERALS SIGNIFICANT: Gold MINERALIZATION AGE: Quaternary DEPOSIT CHARACTER: Unconsolidated CLASSIFICATION: Placer TYPE: C04 Paleoplacer U-Au-PGE-Sn-Ti-diam-mag-gar-zir HOST ROCK DOMINANT HOSTROCK: Sedimentary IGNEOUS/METAMORPHIC/OTHER Glacial/Fluvial Gravels **FORMATION** Quaternary TRATIGRAPHIC AGE GROUP LITHOLOGY: Gravel GEOLOGICAL SETTING TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Manson Upland TERRANE: Quesnel CAPSULE GEOLOGY The Blackjack Gulch placer occurrence is located along the Manson River approximately 9 kilometres south-southwest of the settlement of Manson Creek. This location of this placer drainage is ambiguous in historic literature and for this occurrence is considered to be the upper parts of the Manson River and all the tributaries above the informally named Kildare Creek (093N 057). Gold was first discovered along the Manson River in 1871. The old road which was the original route into this area lies approximately 4 kilometres to the west of the plotted location. A rough road still follows the Manson River on the east side of the Α river. The entire length of Blackjack Gulch (upper Manson River) is ted to have been worked with fair results. The workings are reported to have been worked with fair results. continuous along a narrow zone that weaves in and out of the present channel and appears to indicate a zone of continuous auriferous gravels. Gold production from Blackjack Gulch is recorded for the years between 1881 and 1890, totalling 16701 grams; and the years between 1926 and 1945, totalling 9206 grams (Bulletin 28, page 43,44). The total recorded production is 25907 grams of gold. BIBLIOGRAPHY EMPR BULL \*28, p. 43; 91 EMPR FIELDWORK 1989, pp. 101-114 EMPR OF 1989-12 GSC MEM \*252, p. 149 GSC SUM RPT 1933, pp. 9-29 GSC P 41-5; 42-2; 45-9; 75-33 GSC MAP 876A; 907A; 5249G DATE CODED: 1985/07/24 CODED BY: GSB FIELD CHECK: N DATE REVISED: 1992/11/24 REVISED BY: DMM FIELD CHECK: N

MINFILE NUMBER:	<u>093N 059</u>			NATIONAL MINER/	AL INVENTORY:	
NAME(S):	PERRETTS CLIFF, MISTY					
STATUS:	Showing			Μ	INING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093N13E				UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 55 47 N 125 32 33 W 1800 Metres Within 500M Location is sample MD-90-R Misty claim group, approxim Takla Landing (Assessment	R07 from the Perretts C ately 56 kilometres nor Report 21307, Figure 5	liff showing on th-northwest c 7).	the f	NORTHING: EASTING:	6201178 341162
COMMODITIES:	Gold S	Silver	Lead	Zinc		Copper
MINERALS						
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Pyrite Chalcopyrite Quartz Unknown	Pyrrhotite Ga	lena			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein S Hydrothermal E L04 Porphyry Cu ± Mo ±	Shear ipigenetic - Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMATI	ON		NEOUS/METAM	ORPHIC/OTHER
Mesozoic LITHOLOGY:	Hornblende Biotite Gneiss Gneissic Hornblende Monzo	onite		H	ogem Intrusive C	omplex
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Plutonic Rocks Regional	Quesnel RELATIONS	HIP:	PHYSIOGRAPHIC	AREA: Omineca RADE: Greensc	a Mountains
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON	: N		
	CATEGORY: Assay/ana SAMPLE TYPE: Grab COMMODITY	Ilysis GRADE	YEAR	: 1989		
	Gold Copper Lead	1566.86 25.850 0.3800 6.7000	00 Grams 0 Grams ) Per cen ) Per cen	per tonne per tonne it t		
COMMENTS:	Grab sample of mineralized	quartz veining from the	Perretts Cliff	it.		
REFERENCE:	Assessment Report 20004,	page iii; Certificates of	Assay, Appe	ndix V.		
CAPSULE GEOLOGY	The area of th plutonic rocks assis Hogem Intrusive Com of the Middle Trias Pinchi fault zone. gneissic hornblende At the Perrett the northwest of th rusty-weathering gn chalcopyrite, pyrrh mineralization assa tonne silver, 6.7 p copper (Assessment 2 Appendix V). Follow	e Perretts Cliff gned to the Late plex which have sic to Lower Jur Rocks in the sh monzonite and h s Cliff showing, e Misty deposit eiss hosts vein otite and galena yed 25.85 grams er cent lead, 1. Report 20004, pa w-up chip sampli	showing : Triassic been empla assic Tak owing area ornblende approxima (093N 001 quartz min . One gra per tonne 22 per cen ge iii; Ca ng results	is underlain b to Early Cret aced into volc la Group, east biotite gneis ately two kilo ), a shear cut heralized with ab sample of t gold, 1566.86 ht zinc and 0. ertificates of s were signifi	y mesozonal aceous anic rocks of the scribed as s. metres to ting pyrite, his grams per 38 per cent Assay, cantly	

EMPR ASS RPT 334, 440, 2778, \*20004, \*21307 EMPR GEM 1970-184; 1971-203-210,218; 1972-454; 1973-369,370

EMPR AR 1949-A98-A102; 1961-116; 1962-134 EMPR (PRELIM) MAP 9 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 EMR MP CORPFILE (Fort Reliance Minerals Limited) GCNL #190(Oct.1), 1990 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Vol. 67, No. 749, pp. 101-106 CIM Special Volume 15 (1976), Table 1, #95

DATE CODED: 1985/07/24 DATE REVISED: 1993/03/23 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 060</u>		NATIONA	AL MINERAL INVENTORY:	093N9 Au2
NAME(S):	LOST CREEK				
STATUS: REGIONS:	Past Producer British Columbia	Open Pit Undergro	ound	MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N09W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 44 N 124 27 45 W 940 Metres Within 500M The Lost Creek placer occurrence is for tributary of the Manson River. The plo where an old ditch intersects the creek southeast of the settlement of Manson	ound on Lost Creek wi tted location correspor , about 2.5 kilometres Creek.	hich is a nds to	NORTHING: EASTING:	6169457 407997
COMMODITIES:	Gold				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers		C04	Paleoplacer U-Au-PGE-S	n-Ti-diam-mag-gar-zir
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP Takla	FORMATION Slate Creek		IGNEOUS/METAM	DRPHIC/OTHER
Quaternary	Tunia			Glacial/Fluvial Gra	vels
LITHOLOGY:	Gravel Slate Argillite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOC	GRAPHIC AREA: Manson	Upland
CAPSULE GEOLOGY					
	The Lost Creek placer a tributary of the Manson H 2.5 kilometres southeast of occurrence location is near This occurrence lies n is predominantly slates and Slate Creek Formation of th Group. Gold was discovered on 1897 placer operations on J postglacial deposits in the 1930s, Lost Creek was mined underground methods which of 1930s, Lost Creek Placer Go operation on Lost Creek. Reported gold product: is 11,384 grams; 3017 grams grams between 1936 and 1949	deposit is loca River. This occ E the settlement c an old ditch c hear the Manson d argillites of he Middle Triass h the Manson Riv Lost creek were e creek bed. Du d by both a hydr consisted of fou old Limited ran ion by Holland, s recovered betw 5.	ted on Los currence l: of Manson on Lost Cre fault zone the Middle sic to Lowe ver in 187: mainly con tring the caulic open a shovel a 1950 (Bull veen 1881 a	st Creek which is ies approximately n Creek. The eek. e and the bedrock e-Upper Triassic er Jurassic Takla 1 and from 1871 to ncerned with the 1900s to the ration and by In the late and dragline letin 28, page 45) and 1885; and 8367	
BIBLIOGRAPHY	<pre>EMPR AR 1901, p. 973; 1973 p. 104; 1940, p. 89; 194 EMPR BULL *28, p. 43; 1, p EMPR FIELDWORK 1988, pp. 16 EMPR OF 1988-12 GSC MEM *252, pp. 147-148 GSC SUM RPT *1933, pp. 9-22 GSC P 41-5; 42-2; 45-9; 75- GSC MAP 876A; 907A; 5249G GCNL #140(Jul.21),#170(Sept Prospector July 1979 p. 9</pre>	, p. 9731; 1937, 41, p. 84 . 80; 91 59-180 -33 c.2), 1977	р. С35;	1938, p. C53; 1939	
DATE CODED: DATE REVISED:	1905/07/24 1992/11/29	REVISED BY: DMM		F	IELD CHECK: N

MINFILE NUMBER:	<u>093N 061</u>		N	ATIONAL MINERAL INVENTOR	XY: 093N9,10 Au1
NAME(S):	MANSON RIVER, MANSON CREEK, S	SKELETON CR	EEK		
STATUS: REGIONS:	Past Producer British Columbia	Open Pit	Underground	MINING DIVISIO	N: Omineca
NTS MAP: BC MAP:	093N10E 093N09W				E: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 13 N 124 32 21 W 990 Metres Within 500M The Manson River placer occurrence along the Manson River (near the old Creek). This occurrence covers that which stretches from the informally n and continues downstream to approx Manson Lakes.	e is located on I settlement sit t section of the amed Kildare kimately 1 kilor	an old placer sit e of Manson 9 Manson River Creek (093N 057 netre above the	NOR I HIN EASTIN 7)	G: 403153
COMMODITIES:	Gold				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Quaternary				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C04 Paleoplacer U-Au-PGE-Sn-Ti	-diam-mag-ga	r-zir	C01 Surficial placers	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
<u>STRATIGRAPHIC AGE</u> Unknown Quaternary	GROUP Unnamed/Unknown Group	FORMATI Unnamed	ON /Unknown Forma	tion Glacial/Fluvial C	MORPHIC/OTHER
LITHOLOGY:	Gravel Ultramafic Slate Argillite Sandstone Quartz Wacke Limestone				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel (	Cassiar	P	HYSIOGRAPHIC AREA: Manso	on Upland
CAPSULE GEOLOGY			ongo de l		
	site along the Manson Rive Creek). This occurrence which stretches from the and continues downstream Manson Lakes. The underlying bedroc rock types which belong to terranes. The variance o which is associated with between Germansen Landing along this structure are argillites, sandstones an Placer gold was firs gave rise to the Manson C this drainage system has bedrock is covered by gla postglacial gravels. The directly on the bedrock at the interest has been the present level of the rive underground, dredging, sh during the late 1980s con only operated during the	<pre>cer (near t covers tha informally to approxi k along th o the Cass f bedrock all the pl and Manso ultramafic d quartz w t discover reek place occurred c cial mater auriferou nd the pos surroundi r. Past m ovel and d sisted of summer mon fine to</pre>	he old sett he old sett t section o named Kild mately 1 ki is section iar, Slide 1 is due to t acer occurr n Creek. T s, listwani ackes. ed on the M. r gold camp ontinuously ial which i s gravels a tglacial gr ng bedrock ining methor ragline and moderate to ths. Gold	lement site of Manson f the Manson River are Creek (093N 057) lometre above the of the river includes Mountain and Quesnel he Manson fault zone ences in the area he rock types found tic rocks, slates, anson River in 1871 a. . Placer mining alon since that time. Th s in turn covered by re those that lie avels. The majority benches above the ds included hydraulic sluicing. Operation small operations whi found by these	nd g e of s, s ch

flat in shape. Jim Thomas ran a placer operation in 2002. Placer gold production from the Manson River as recorded by Holland, 1950 (Bulletin 28) is mainly for the periods between 1874

and 1910, and between 1931 and 1945. The total amount recovered is reported to be 358,032 grams.

# BIBLIOGRAPHY

EMPR AR 1936, p.C12
EMPR BULL \*28, p. 43; 1, p. 80; 91
EMPR FIELDWORK 1988, pp. 169-180
EMPR OF 1988-12
EMPR PF Dundas, T. R. B., 1976, Report on a Hammer Seismic Refraction Survey Manson Creek Area, British Columbia, Cominco Report
GSC MAP 876A; 907A; 5249G
GSC MEM \*252, pp. 147-148
GSC P 41-5; 42-2; 45-9; 75-33
GSC SUM RPT 1933, pp. 9-29
Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/20 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 062</u>	NATIONAL	MINERAL INVENTORY: 093N14 Cu3
NAME(S):	TIMBER, DUCKLING, DUCK, AL, FRONT, LING, JAJAY		
STATUS: REGIONS: NTS MAD	Prospect British Columbia		MINING DIVISION: Omineca
BC MAP:	093N14W		
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 49 51 N 125 19 21 W 1245 Metres Within 500M Location is for the Timber showing kilometres northeast of Old Hogem Landing (Assessment Report 1024	l, east of Duckling Creek, about 11 n and 39 kilometres west of Germansen 41, Sheet A).	EASTING: 354533
COMMODITIES:	Copper Gold	Silver	
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Epidote K-Feldspar Ca Epidote Potassio Unknown	alcite Malachite c Oxidation	
	Maaaiya	instad Shoor	
CLASSIFICATION:	Epigenetic Hydroth	iermal Porphyry	
DIMENSION: COMMENTS:	3 Metres Dimension is the width of the semin trench from the east.	STRIKE/DIP: massive sulphide zone in the third	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Triassic-Jurassic Mesozoic	<u>GROUP</u> Takla	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Basalt Monzonite Syenite Hybrid Rock Syenite Porphyry Dike Pyroxene Porphyry Dike		
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Co Early Cretaceous.	omplex range from Late Triassic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIOGF Plutonic Rocks	RAPHIC AREA: Omineca Mountains
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Gold	YEAR: 1987 GRADE 64.5000 Grams per tonne 2.3850 Grams per tonne 0.4400 Det sout	
COMMENTS: REFERENCE:	Best assay of five samples taken f Assessment Report 16831, Append	from the trenched area in 1987. dix I, sample LNG-87-78R.	
CAPSULE GEOLOGY	The Timber showing	is situated in the Duckling (	Treek area of the
	Swannell Ranges (Omineca northeast of Old Hogem a The area is underla Group volcanics which ha mesozonal plutonic rocks Cretaceous Hogem Intrusi elongate batholith, exte Mesilinka River. The st intruded Takla Group is	a Mountains), approximately 11 and 39 kilometres west of Gern ain by Middle Triassic-Lower 3 ave been intruded to the north s assigned to the Late Triassi ive Complex. The plutonic roc ending from Chuchi Lake, north cructural setting of the bath one of vertical tectonics ass	A set alea of the hansen Landing. Jurassic Takla h and west by Lc to Early cks form an h to the blith and the sociated with

PAGE: 962 REPORT: RGEN0100

# CAPSULE GEOLOGY

graben development (Bulletin 70).

Takla Group rocks in the area of the occurrence are predominantly basaltic in composition and host abundant, although erratically distributed epidote (with or without pyrite) as veinlets, stringers, pods and patchy replacements. These rocks are cut by numerous pyroxene porphyry "feeder" dikes which are pre-Hogem in age. Hogem complex intrusions range in composition from monzonite through syenite and are potassically altered, locally hosting up to 50 per cent pink feldspar as veins and envelopes several centimetres wide around fractures. Dikes of fine to medium-grained syenite porphyry cut the volcanic rocks in the area. Near the contact, a dark hybrid rock of uncertain composition has been mapped. It is, however, almost certainly related to the emplacement of the intrusions

almost certainly related to the emplacement of the intrusions. The Timber showing is exposed in a series of connected trenches on a west-facing slope above Duckling Creek. In the third trench from the east, a 3-metre wide zone of semimassive sulphides comprising up to 50 percent (average 20 per cent) pyrite and chalcopyrite is hosted by basalt. The basalt also hosts calcite, epidote and some "argillic material". Malachite occurs locally as fracture coatings near the massive mineralization. Two metres to the east, a 2-metre wide zone containing 10 per cent pyrite with minor chalcopyrite is exposed. Like the Discovery showing (093N 089) to the east, the mineralization appears to be structurally controlled along an east-striking shear zone, but is discontinuous along strike and at depth.

The best sample from a 1981 evaluation of the showing assayed greater than 1 per cent copper, 0.36 gram per tonne gold and 25.0 grams per tonne silver across 2 metres (Assessment Report 10241, page 7) while more recently, a grab sample from the area of the trenches analysed 0.44 per cent copper, 64.5 grams per tonne silver and 2.385 grams per tonne gold (Assessment Report 16831, Appendix I, sample LNG-87-78R).

### BIBLIOGRAPHY

EMPR ASS RPT 3536, 3537, \*10241, 16831, 19448 EMPR GEM 1970-185; \*1971-203-211 EMPR EXPL 1981-241 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 EMR MP CORPFILE (Donna Mines Ltd.; Fortune Channel Mines Ltd.) GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/28 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 063</u>		NATIONAL MINE	RAL INVENTORY:	093N10 Ag2
NAME(S):	DISCOVERY BAR				
STATUS:	Showing			MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093N10E			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 00 N 124 30 46 W 970 Metres Within 500M The Discovery Bar occur southwest of the settlem	rence is located approximat ent of Manson Creek, along	ely 2 kilometres the Manson River.	NORTHING: EASTING:	6170019 404845
COMMODITIES:	Silver	Lead	Zinc		
MINERALS					
SIGNIFICANT: ASSOCIATED:	Galena Sphalerit	e			
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Carbonat Quartz-Carb. Unknown	e			
DEPOSIT CHARACTER	Vein				
CLASSIFICATION: SHAPE: MODIFIER:	Hydrothermal Irregular Faulted	Epigenetic	Mesothermal		
HOST ROCK DOMINANT HOSTROCK	Metasedimentary				
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATIO	N	IGNEOUS/METAMO	ORPHIC/OTHER
PennsylvanPermian	Tana			Manson Lakes Ultr	ramafites
LITHOLOGY:	Calcareous Graphitic Phy Listwanite Altered Ultramafic	yllite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Regional	Slide Mountain RELATIONSHI	PHYSIOGRAPH	C AREA: Manson GRADE: Greensc	Upland hist
INVENTORY					
ORE ZONE:	VEIN		REPORT ON: N		
	CATEGORY: Assay/a SAMPLE TYPE: Grab	analysis GRADE	YEAR: 1949		
	Silver Lead	41.1000	Grams per tonne Per cent		
REFERENCE:	Zinc Geological Survey of Car	0.4900 nada, Memoir 252, page 131	Per cent		
CAPSULE GEOLOGY					
	The Discover kilometres southw Discovery Bar.	y Bar occurrence is est of Manson Creek	located approximate, , along the Manson R	ly 2 iver near	
	The general right-lateral fau This fault dissec Quesnel terranes.	area is within the lt of probable Late ts rocks belonging	Manson fault zone, a Cretaceous to Tertia to the Slide Mountain	ary age. n and	
	This occurre fault zone which Upper Triassic Sl from quartz-carbo the Pennsylvanian northeast. This occurre	nce is hosted near separates black phy ate Creek Formation nate altered ultram to Permian Manson nce consists of num	one of the splays of llites belonging to f (Takla Group), to tl afics (listwanite) be Lakes Ultramafites, f erous parallel string	the Manson the Middle to te southwest, elonging to to the gers 6 to 12	
	centimetres wide graphitic phyllit metres wide. Qua sparsely minerali	that occur (in part es. These stringer rtz veins and strin zed with galena, py	) en echelon within o s occur in a zone tha gers in the general a rite and sphalerite.	calcareous at is 3.65 area are	

A grab sample analysed 1.58 per cent lead, 41.1 grams per tonne

silver and 0.49 per cent zinc (Geological Survey of Canada, Memoir 252-131).

# BIBLIOGRAPHY

EMPR OF 1989-12 EMPR FIELDWORK 1987, pp. 169-180; 1988, pp. 209-220 EMPR BULL 91 GSC MEM \*252, pp. 131,150 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED:	1985/07/24	CODED BY: GSB	FIELD CHECK: N
DATE REVISED:	1992/09/26	REVISED BY: DMM	FIELD CHECK: Y
DATE REVISED:	1992/09/26	REVISED BY: DMM	FIELD CHECK: Y

MINFILE NUMBER:	<u>093N 064</u>		NATIONAL MINERAL INVENTORY: 093N11 Gem	า2
NAME(S):	VITAL			
STATUS: REGIONS:	Past Producer British Columbia	Open Pit	MINING DIVISION: Omineca	
NTS MAP: BC MAP	093N11W		UTM ZONE: 10 (NAD 83	3)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 06 N 125 28 40 W 950 Metres Within 500M Location is described as be crossing Vital Creek, about (Minister of Mines Annual F	eing 0.8 kilometre upstream from the br t 41 kilometres northeast of Takla Landi Report 1963, page 151).	NORTHING: 6175659 EASTING: 344296 ng	
COMMODITIES:	Jade/Nephrite	Gemstones		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Nephrite Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer Q01 Jade	Industrial Min.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Paleozoic-Mesozoic	<u>GROUP</u> Cache Creek	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHE	<u>=R</u>
LITHOLOGY:	Glacial Fluvial Gravel Phyllite Limestone Tuff			
HOSTROCK COMMENTS:	Cache Creek Complex ro underlie the Vital Creek d	cks range from Carboniferous to Juras rainage basin.	sic and	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOGRAPHIC AREA: Omineca Mountains	
CAPSULE GEOLOGY BIBLIOGRAPHY	Vital Creek f Creek approximatel The creek dra striking, east-dip Carboniferous to J limestone and tuff numerous barren-loo to a metre in widtl In 1963, three 363 kilograms, were approximately 0.8 J No recent info	lows northeasterly from the y 41 kilometres northeast o ins an area underlain by a ping metasedimentary/volcan urassic Cache Creek Complex are the most common member oking, locally rusty, white h. e nephrite jade boulders, w e reportedly recovered from kilometre upstream from the ormation pertaining to this	Vital Range into Silver f Takla Landing. north-northwest ic suite assigned to the . Here, phyllite, s. These rocks host quartz veins varying up eighing 2267, 907 and a point on Vital Creek bridge. occurrence is available.	
	EMPR AR *1963-151 EMPR OF 2000-33			
	GSC MAP 844A; 907A GSC MEM 252 GSC P 74-1A; 74-1B	; 971A; 1424A , pp. 31-42		
DATE CODED: DATE REVISED:	1992/09/22 1992/09/29	CODED BY: DMN REVISED BY: DMN	FIELD CHECK: FIELD CHECK:	Y Y

MINFILE NUMBER:	<u>093N 065</u>	NATION	VAL MINERAL INVENTORY:
NAME(S):	MARIPOSITE		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N13E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LOCATION ACCURACY: LOCATION ACCURACY: COMMENTS:	55 52 37 N 125 42 47 W 880 Metres Within 1 KM Location from Geologica Creek about 48 kilometre	l Survey of Canada Map 844A, on Mariposite s north-northeast of Takla Landing.	NORTHING: 6195711 EASTING: 330279
COMMODITIES:	Mercury		
MINERALS SIGNIFICANT: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Host serpentinite is desc generally results in the d mariposite or talc-carbor Quartz-Carb. Unknown	ribed as carbonatized which, in this area, evelopment of either carbonate-quartz- ate assemblages.	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal E01 Almaden Hg	Epigenetic I08	Silica-Hg carbonate
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Paleozoic-Mesozoic Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Formation	<u>IGNEOUS/METAMORPHIC/OTHER</u> Oceanic Ultramafites
LITHOLOGY:	Carbonatized Serpentinit	e	
HOSTROCK COMMENTS:	Mineralization is descril serpentinite which has	ped as being hosted by carbonatized intruded Cache Creek sediments.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIC Cache Creek	OGRAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY BIBLIOGRAPHY	The Mariposi drains into the O north-northeast o Although sed Jurassic Cache Cr is reported to be serpentinite, for Triassic Trembleu Triassic Oceanic Mineralizati hosted by carbona (Geological Surve Although no available, it is related to the Pi 80, 142, 143, 146 EMPR OF 2000-33 GSC MAP 844A; 907	te occurrence is situated on Marij mineca River approximately 48 kild f Takla Landing. imentary rocks assigned to the Car eek Complex predominate in the ar- associated with a small sill(?) of merly assigned to the Middle Perm r intrusions and now termed Missis Ultramafites. on is reported to consist of crys tized serpentinite outcropping in y of Canada Memoir 252, page 171) recent information pertaining to likely similar to numerous other r nchi fault zone (093N 008, 14, 17 , 182).	posite Creek, which ometres rboniferous to ea, the occurrence of altered ian to Late ssippian to tals of cinnabar Mariposite Creek this occurrence is mercury occurrences , 18, 19, 20, 21,
	GSC MAP 844A; 907 GSC MEM *252, p. GSC P 42-7; 44-5,	A; 971A; 1424A 171 p. 13; 45-6; 74-1A; 74-1B, pp. 3	1-42
DATE CODED: DATE REVISED:	1992/09/18 1993/03/03	CODED BY: DMN REVISED BY: DMN	FIELD CHECK: N FIELD CHECK: N

\_\_\_\_

MINFILE NUMBER:	<u>093N 066</u>	NATIONAL MIN	ERAL INVENTORY:
NAME(S):	<b>BISHOP</b> , STEELE, LORRAINE, GK, JAJAY		
STATUS:	Prospect		MINING DIVISION: Omineca
REGIONS: NTS MAP: PC MAP:	British Columbia 093N14W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 55 12 N 125 25 21 W 1700 Metres Within 500M Location is for Bishop zone on Lorraine, northwest of Cliff Lake, about 60 kilomet Landing (Assessment Report 24030, Fig	GK and Steele claims tres northeast of Takla gure 4).	NORTHING: 6199827 EASTING: 348619
COMMODITIES:	Copper Gold		
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Pyrite Bornite is rare. Malachite Oxidation Unknown		
DEPOSIT			
CHARACTER: CLASSIFICATION:	Disseminated Stratabound Hydrothermal Epigenetic	Porphyry	
TYPE: DIMENSION: COMMENTS:	L03 Alkalic porphyry Cu-Au Strike is for the syenite subcrop (dike?).	STRIKE/DIP: 160/	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	: Plutonic		
<u>STRATIGRAPHIC AGE</u> Middle Jurassic Mesozoic	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Duckling Creek Syenite Complex Hogem Intrusive Complex
LITHOLOGY:	Syenite Quartz Monzonite Pyroxenite Syenite Dike		
HOSTROCK COMMENTS:	The Duckling Creek Syenite Complex is Late Triassic to Early Cretaceous Hoge	s a Middle Jurassic phase of the mintrusive Complex.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPH	IIC AREA: Omineca Mountains
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Gold Copper Chip sample across eight metres. Assessment Report 21992, page 20.	YEAR: 1991 GRADE 0.3300 Grams per tonne 0.7000 Per cent	
CAPSULE GEOLOGY			
	The Bishop occurrence is the Swannell Ranges (Omineca southeast of the Lorraine pr northeast of Takla Landing. The area is underlain b the Late Triassic to Early ( have been emplaced into volc Jurassic Takla Group, east rocks form an elongate batho	is situated in the Duckling C a Mountains), approximately 1 cospect (093N 002) and 60 kil by mesozonal plutonic rocks a Cretaceous Hogem Intrusive Cc canic rocks of the Middle Tri of the Pinchi fault zone. The blith, extending from Chuchi	Treek area of 5 kilometres cometres assigned to mplex which cassic-Lower ne plutonic Lake, north

to the Mesilinka River. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70). In the immediate area of the occurrence, buff grey-coloured, equigranular, fine to medium-grained syenite is exposed as abundant

angular subcrop boulders and massive ledges up to 8 metres across. The rocks, which likely belong to the Middle Jurassic Duckling Creek Syenite Complex, a phase of the Hogem Intrusive Complex, are weakly foliated and are not strongly altered. Outcrops of quartz monzonite and pyroxenite have also been mapped in the area.

The syenite is well mineralized with fine-grained chalcopyrite and rare bornite that is uniformly distributed in the exposed rocks. Malachite is common along fractures and minor pyrite has also been observed. This mineralization is either hosted within a syenite dike striking 160 degrees (as outcrop suggests) or controlled by the east-southeast foliation, as is the case at the Lorraine deposit to the northwest.

In 1991, Kennecott Canada Inc. resumed management of the Lorraine property (093N 002) and embarked on a 12-hole (2,392 metres) diamond drill program with 9 holes in the Bishop zone (then known as the Lorraine Extension). Kennecott followed with detailed rock sampling of the zone in 1993. In 1994, Lysander Gold Corporation optioned the Lorraine property from Kennecott. On the Bishop zone, they drilled 7 holes in 1994, 2 holes in 1995, an unspecified number in 1996, and 3 holes in 1999. Additional geochemical surveys occurred in 1997, 1999 and 2000.

The Bishop zone appears to be about 450 metres long - by less than 200 metres in width. Grades are reported to be similar to those of the Lorraine deposit.

Eastfield Resources Ltd. announced in October 2000 an agreement to option the Lorraine-Jajay property with a potential to gain ownership of 75 per cent of the property. Eastfield commenced drilling on the MacKenzie zone to the south in Fall 2000

drilling on the MacKenzie zone to the south in Fall 2000. Chip samples collected in 1991 on the adjacent Steele claim by BP Resources yielded up to 0.71 per cent copper and 0.33 gram per tonne gold across 8 metres (Assessment Report 21992, page 20). Two holes drilled to test the showing, however, failed to intersect significant mineralization at depth. The mineralization on the Steele is the southeast extension of the Bishop zone on the Lorraine claims.

### BIBLIOGRAPHY

EM GEOFILE 2002-5; 2003-6 EMPR AR 1949-A98-A102 EMPR ASS RPT 20130, 21971, 21979, \*21992, 20608, 23249, 23324, 24030, 24233, 24358, 25088, 25978, 26239 EMPR BULL 70 EMPR GEM 1971-203-210 EMPR FF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC F 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 WWW www.eastfieldgroup.com/eastfield/etfhome.html Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia

DATE CODED: 1992/10/22 DATE REVISED: 1993/03/08 CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 067</u>			NATIONAL MI	NERAL INVENTORY:	093N11 Cu2
NAME(S):	<b>TAK</b> , BOB, GAV, SLOPE, CIRQUE, CHEM, SLIDE, TOM, TAIT					
STATUS: REGIONS: NTS MAP	Prospect British Columbia				MINING DIVISION:	Omineca
LOCATION ACCURACY: COMMENTS:	55 42 13 N 125 14 46 W 2000 Metres Within 500M Location is sample 10129 Southwest of Germansen	on Goat Ridge,	about 35 kilon	netres west-	NORTHING: EASTING:	6175379 358858
COMMODITIES:	Copper	Gold	Sil	lver		
			-			
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrit Quartz Epidote Malachite Epidote Unknown	e Bornite Azurite Oxidation	Pc	otassic		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal L03 Alkalic porphyry (	Shear Porphyry Cu-Au	Ve	ein	Podiform	
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE Lower Jurassic Upper Triassic Mesozoic	<u>GROUP</u> Takla Takla		<u>FORMATION</u> Twin Creek Plughat Mounta	ain	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Hybrid Intrusive Rock Plagioclase Hornblende A Heterolithic Lapilli Tuff Diorite Monzodiorite Andesite Hybrid Volcanic Rock Hybrid Sub Volcanic Rock	ugite Tuff				
HOSTROCK COMMENTS:	Phases of the Hogem Int Early Jurassic.	rusive Complex	range from La	ate Triassic to		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Contact	Pluto RE	nic Rocks ELATIONSHIP:	PHYSIOGRA	PHIC AREA: Omineca GRADE: Greenso	a Mountains chist
INVENTORY						
ORE ZONE:	SAMPLE		RE	PORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Sample (10129) is a mala 5 per cent semimassive cl Assessment Report 2083	nalysis  chite/azurite sta halcopyrite from 8, Appendix 2.	GRADE 40.5000 1.8000 1.5300 ined hybrid int the Goat Ridg	YEAR: 1991 Grams per tonne Grams per tonne Per cent rusion with ge area.		
CAPSULE GEOLOGY	,					
	The Tak occur basin, on what is kilometres west-so originally discove per cent copper, 3 gold were reported The prospect Lower Jurassic Twi	rence is s known local outhwest of ered here in 7.7 grams p l (Assessment occurs at n. Creek Fo:	ituated on lly as Goa Germansen n 1966 and per tonne nt Report the contac rmation of	the western rim t Ridge, approxim Landing. Minera samples assaying silver and 0.69 g 816, Assay Certin t between volcans the Middle Trias	of a cirque mately 35 alization was g up to 4.31 gram per tonne ficate). ic rocks of the ssic-Lower	

Jurassic Takla Group, and dioritic and monzodioritic phases of probable Early Jurassic age of the Late Triassic-Early Cretaceous Hogem Intrusive Complex. The contact is a complex hybrid zone of intrusive, subvolcanic and volcanic rocks. Volcanic textures are difficult to discern due to contact metamorphism; many volcanic fragments occur as ghost outlines and clots of epidote suggesting resorption and metasomatic alteration with intrusive phases.

The ridge 1 kilometre east of Goat Ridge is underlain by subhorizontal plagioclase, hornblende and augite-bearing heterolithic lapilli tuffs typical of the lower part of the Twin Creek Formation. The Upper Triassic Plughat Mountain Formation (Takla Group) outcrops just below the Twin Creek Formation at an elevation of 1700 metres. A small plug of leucocratic syenite outcrops 2 kilometres east of the occurrence and quartz feldspar porphyry dikes intrude the northern part of Goat Ridge. Four kilometres northeast of the occurrence, a spectacular cliff-forming limestone reef is perched on the side of Eaglenest Mountain within augite phyric basaltic flows and agglomerates of the Plughat Mountain Formation.

Traces of finely disseminated pyrite are ubiquitous in the volcanic rocks and are marked by the development of gossans on Goat Ridge. Chalcopyrite mineralization (up to 5 per cent by volume) appears to occur within fractures/faults cutting intrusive bodies and as disseminations, stringers and fillings within a few metres of such structures. Minor bornite has also been observed. Silver and gold exhibit a strong association with the sulphides.

A grab sample (10129) of epidotized, malachite/azurite stained hybrid intrusive rock hosting up to 5 per cent chalcopyrite in semimassive pods from a showing on Goat Ridge assayed 1.53 per cent copper, 1.80 grams per tonne gold and 40.5 grams per tonne silver. A second grab (10126) of potassically altered andesite hosting quartz stringers on the east rim of the basin assayed 2.15 per cent copper, 0.16 gram per tonne gold and 25.2 grams per tonne silver. This sample contained 5 per cent disseminated and stringer chalcopyrite and 5 per cent pyrite as fracture fillings (Assessment Report 20838, Appendix 2).

#### BIBLIOGRAPHY

EMPR ASS RFT 816, 15652, 20512,\*20838 EMPR EXPL 1987-314-315 EMPR GEM 1969-106; 1972-451 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR OF 1993-4 EMPR FIELDWORK 1992, pp. 87-107 GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/23 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N 068</u>	NATIONAL	MINERAL INVENTORY: 093N3 Mo1
NAME(S):	<mark>Falcon</mark> , Bal, HI, A		
STATUS:	Prospect		MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAP	British Columbia 093N03E		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 16 N 125 05 41 W 920 Metres Within 500M Location are the southwestern trenches approximately 500 metres north of Tcher southeast of Takla Landing (Assessmen	within the "Pyrite Zone", htlo Lake, about 64 kilometres t Report 20272, Figure 5).	NORTHING: 6119544 EASTING: 366696
COMMODITIES:	Copper Molybdenum	Lead	
MINERALS			
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Molybde Quartz Epidote K-Feldspar Jarosite Potassic Oxidation Unknown	nite Galena Hematite	
DEPOSIT	<b>.</b>		
CHARACTER: CLASSIFICATION:	Hydrothermal Porphyry	Disseminated	
TYPE: DIMENSION: COMMENTS:	L03 Alkalic porphyry Cu-Au 400 x 350 Metres A zone of pyritized hornblende/syenodic	STRIKE/DIP:	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	: Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Hornblende Diorite Syeno Diorite Monzonite Diorite Gabbro		
HOSTROCK COMMENTS:	Rocks are part of the Hogem basic suit Jurassic phase of the complex.	e, a Late Triassic to Early	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGI	RAPHIC AREA: Nechako Lowland
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY	YEAR: 1990 <u>GRADE</u>	
	Copper Molybdenum	0.4440 Per cent 0.0131 Per cent	
COMMENTS:	Sample 414115 from the westernmost to Report 20825. Figure 5).	rench in the zone (Assessment	
REFERENCE:	Assessment Report 20272, Appendix A		
CAPSULE GEOLOGY			
	The Falcon occurrence of Ranges (Omineca Mountains) r approximately 64 kilometres explored for copper and moly undergoing re-evaluation as Mount Milligan deposit (093N The area is underlain b the Late Triassic to Early (0) have been emplaced into volc Jurassic Takla Group, east Lorraine occurrence (093N 00)	As situated just south of hear the shores of Tchent southeast of Takla Landin bedenum between 1969 and a result of interest gene 194), 65 kilometres to mesozonal plutonic rool Cretaceous Hogem Intrusive canic rocks of the Middle of the Pinchi fault zone.	the Swannell lo Lake, ng. The area was 1970, and is now erated by the the east. ks assigned to e Complex which Triassic-Lower Refer to the eological

description of the complex. Of the three phases comprising the Hogem Intrusive Complex, only

rocks of the Late Triassic to Lower Jurassic Hogem basic suite underlie the area of the occurrence. These rocks include syenodiorite, monzonite, diorite and gabbro, whose mafic minerals possess a strong alignment parallel to the Pinchi fault zone to the west. In addition, a variable, but well-developed joint pattern parallel to the major structure presumed to underlie Tchentlo Lake, is evident in the area. A 350 by 400-metre zone of pyritized hornblende syenodiorite

A 350 by 400-metre zone of pyritized hornblende syenodiorite occurs north of the lake. Within this zone, a quartz-potassium feldspar-epidote-pyrite stockwork system has developed. The potassically altered intrusive rocks host massive pyrite veins and disseminations comprising up to 15 per cent of the rock and are locally gossanous (jarosite and/or hematite). Minor chalcopyrite, molybdenite and galena have also been noted within quartz stockwork veins.

Three of the better chip samples taken from trenches exposing this mineralization in the southwest part of the zone assayed as follows (Assessment Reports 20272, Figure 5 and 20272, Appendix A):

Sample #	Copper (ppm)	Molybdenum	(mqq)	Tungsten (ppm)
414105	947	- 832		250
414114	645	416		680
414115	4440	131		330
Scatt	ered occurrences o	of disseminated	chalcop	yrite, pyrite and
magnetite	occur in altered s	yeno/monzodiori	lte to t	he north of the
trenches.		-		

### BIBLIOGRAPHY

EMPR ASS RPT 1947, 2010, 2321, 2617, 2729, 20272, \*20825 EMPR GEM 1969-107; 1970-179 EMPR PF (Sinclair, A.J. (1971): Report on BAL, TC, PJ, HI and J Group of Claims for Tchentlo Lake Mines Ltd; claim map; prospectus for Nation Lake Mines Limited; Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR BULL 70 EMR MP CORPFILE (Nation Lake Mines Limited) GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/12

CODED BY: GSB REVISED BY: DMN
MINFILE NUMBER:	<u>093N 069</u>		r	NATIONAL MINERAL INVENTORY:	
NAME(S):	<b>FAL</b> , FALCON, PJ, OVB				
STATUS:	Showing			MINING DIVISION:	Omineca
NTS MAP:	093N03E			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 30 N 125 04 11 W 925 Metres Within 500M Location are old trenches on into Tchentlo Lake, about 65	the south bank of a cre- kilometres southeast of T	ek flowing so akla Landing	NORTHING: EASTING: uth	6119929 368300
COMMODITIES:	Copper Zir	nc	Lead	Silver	Arsenic
MINERALS					
SIGNIFICANT: COMMENTS:	Magnetite Pyrite Various unspecified oxide mi sulphides and magnetite.	Chalcopyrite nerals (gossan) apparer	tly cement th	le	
ALTERATION TYPE: MINERALIZATION AGE:	Oxidation Unknown				
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal Ep L03 Alkalic porphyry Cu-/	bigenetic Au	Industrial Min		
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION	1	IGNEOUS/METAMO	ORPHIC/OTHER
	Cabbra			riogent initiasive co	omplex
LITHOLOGT.	Ultramafic Rock Gossan				
HOSTROCK COMMENTS:	Rocks are part of the Hogen Jurassic phase of the comp	n basic suite, a Late Tria lex.	ssic to Early		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		I	PHYSIOGRAPHIC AREA: Nechako	Lowland
INVENTORY					
ORE ZONE:	SAMPLE	I	REPORT ON:	Ν	
COMMENTS:	CATEGORY: Assay/analy SAMPLE TYPE: Rock COMMODITY Silver Arsenic Copper Lead Zinc Sample of gossanous materia magnetite.	ysis <u>GRADE</u> 10.0000 1.0260 0.4363 0.1457 0.4935 al hosting pyrite, chalcop	YEAR: Grams pe Per cent Per cent Per cent Per cent yrite and sample F89	1990 er tonne	
	Assessment report 20272, p	age to and Appendix A,	заттріе гоя-	·IN-1.	
CAPSULE GEOLOGY	The Fal occurre (Omineca Mountains) 65 kilometres southe copper and molybdenu re-evaluation as a r deposit (093N 194),	nce is situated near the shores of ast of Takla Lanc m between 1969 an esult of interest 65 kilometres to	just south of Tchent] ling. The nd 1970, a generate the east.	n of the Swannell Ranges to Lake, approximately e area was explored for and is now undergoing ed by the Mount Milligan	

The area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have been emplaced into volcanic rocks of the Middle Triassic to Lower Jurassic Takla Group, east of the Pinchi fault zone. Refer to the Lorraine occurrence (093N 002) for additional information regarding regional geology and the Falcon occurrence (093N 068) for local geology details. The Fal occurrence comprises magnetite-rich gabbro and

The Fal occurrence comprises magnetite-rich gabbro and

ultramafic rubble apparently blasted from now overgrown trenches on the south side of a south-flowing creek entering Tchentlo Lake near its middle. These rocks reportedly host up to two per cent chalcopyrite, although only magnetite is evident in the blasted material. A sample of boxwork pyrite mineralization hosted by a bleached intrusive rock taken from the trenches reportedly assayed 1146 ppm copper and 5.3 grams per tonne silver (Assessment Report 20272, page 10 and Appendix A, sample F89-R-8). A second sample of gossanous material hosting 1-centimetre round pyrite, chalcopyrite and magnetite crystals, taken approximately 300 metres downstream, assayed 4363 parts ppm copper, 1457 ppm lead, 4935 ppm zinc, 103 ppm nickel, 10,262 ppm arsenic and 10.0 grams per tonne silver (Assessment Report 20272, page 10 and Appendix A, sample F89-R-8).

#### BIBLIOGRAPHY

EMPR ASS RPT 2729, 10077, 10904, 20272, \*20825 EMPR GEM 1970-179 EMPR PF (Sinclair, A.J. (1971): Report on BAL, TC, PJ, HI and J Group of Claims for Tchentlo Lake Mines Ltd; claim map; prospectus for Nation Lake Mines Limited (all refer to 093N 068); Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR BULL 70 EMPR BULL 70 EMR MP CORPFILE (Nation Lake Mines Limited) GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/12 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 070</u>	NATION	IAL MINERAL INVENTORY:			
NAME(S):	DIP, NATION COPPER, BON, CHUCHI LAKE					
STATUS:	Showing		MINING DIVISION: Omineca			
REGIONS: NTS MAP: BC MAP	British Columbia 093N02W		UTM ZONE: 10 (NAD 83)			
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 01 N 124 46 32 W 975 Metres Within 500M Drill location, located about 3 kilometre end of Tchentlo Lake (Property File - d	es south-southeast of the east Irill hole location map, 1964).	NORTHING: 6114808 EASTING: 386899			
COMMODITIES:	Copper Iron	Magnetite	Gold			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Magnetite Epidote Calcite Chlorite Chloritic					
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Massive Industrial Min. L03 Alkalic porphyry Cu-Au					
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex			
LITHOLOGY:	Peridotite Quartz Diorite Syenite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel Pl	PHYSIC lutonic Rocks	OGRAPHIC AREA: Nechako Lowland			
INVENTORY						
ORE ZONE:	DRILLHOLE	REPORT ON: N				
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core <u>COMMODITY</u> Gold Copper Iron From a 2.13-metre drill intersection. Property File - Certificate of Assay 19	YEAR: 1964 <u>GRADE</u> 0.3400 Grams per tonne 0.1600 Per cent 21.8800 Per cent				
	In 1964, Asbestos Corporation Limited put down three holes on their Dip claims (Property File - Stevenson, 1965). Petrographic analysis of drill core showed the intersected rock to consist of quartz diorite, syenite and peridotite (Property File - Carswell, 1964). The peridotite is strongly chloritized and veined by epidote and calcite, and consists of about one third magnetite. The quartz diorite is also strongly chloritized and altered. A 2.13-metre drill intersection assayed 0.16 per cent copper, 21.88 per cent magnetite and 0.34 gram per tonne gold (Property File - Vertical Cross Section, 1964; Certificate of Assay, 1964). The area is underlain by the southeastern end of the Late Triassic to Early Cretaceous Hogem Intrusive Complex. In this region, the Hogem complex rocks are determined to be Early Jurassic (Fieldwork 1991; Open File 1992-4).					
BIBLIOGRAPHY	EMPR ASS RPT 1056, 1994, 3 EMPR PF *(Carswell, H.J. ( for Asbestos Corporatio	337, 338, 13510, 19810, 2 1964): Report on Examinat n, 1964; Four maps showir	21124 tion of Seven Rocks, ng claims, drill			
	sites and cross-section	, 1963-1964; Corresponder	nce discussing work			

done on the property in 1964, Stevenson, W.G., Asbestos Corporation Limited, 1965) EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118 EMPR OF 1991-3; 1992-4 EMPR BULL 70 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A GSC OF 2842

DATE CODED: 1985/07/24 DATE REVISED: 1993/03/05 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 071</u>		NA	TIONAL MINERAL INVENTORY:	093N3 Cu1,6,7
NAME(S):	HEATH #3, HEATH, NS, CAT				
STATUS:	Showing			MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093N06E 093N03E			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 01 N 125 08 54 W 1110 Metres Within 500M Location is for a narrow ep the Heath #1 occurrence (( Takla Landing (Assessmer	bidote-chalcop 093N 072), abo nt Report 2055:	yrite veinlet southeast of out 57 kilometres southeast o 2, Figure 7).	NORTHING: EASTING: Df	6126601 363499
COMMODITIES:	Copper	Silver	Gold		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Magnetite Epidote Propylitic Unknown	Bornite Calcite Potassic	Hematite Carbonate		
DEPOSIT		<b>.</b>			
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal L03 Alkalic porphyry C	Stockwork Epigenetic u-Au	Vein Porphyry		
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE Mesozoic	GROUP		FORMATION	IGNEOUS/METAM	<u>ORPHIC/OTHER</u> omplex
LITHOLOGY:	Diorite Clinopyroxene Gabbro Pyroxenite Hornblendite Feldspar Porphyry Dike Diabase Dike Andesite Porphyritic Dike Granodiorite Dike Granodiorite				
HOSTROCK COMMENTS:	Rocks underlying the area Hogem basic suite and H	a belong to the ogem granodic	Late Triassic-Early Jurassic rite phase of the complex.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PH	YSIOGRAPHIC AREA: Omineca	Mountains
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/an SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Sample (89-D-232-A) of a veinlet. Assessment Report 20552	5 to 20-cenitm	YEAR: 19 <u>GRADE</u> 761.1000 Grams per t 0.8600 Grams per t 2.1200 Per cent etre wide epidote-chalcopyri endix I.	89 onne ite	
		, pago 11, 1 pp			
	The Heath #3 showing is situated between Mount Nation and the west end of Tchentlo Lake, approximately 57 kilometres southeast of Takla Landing. Copper mineralization was originally discovered to the northwest at the Heath #1 prospect (093N 072) in 1968, as a result of anomalies outlined by a regional geochemistry survey. The area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have been emplaced into volcanic rocks of the Middle Triassic-Lower Jurassic Takla Group, east of the Pinchi fault zone. Of the three phases comprising the Hogem Intrusive Complex, only rocks of the Late Triassic to Lower Jurassic Hogem granodiorite and Hogem basic suite				

underlie the Mount Nation area. Diorite is the most abundant rock type, hosting irregular bodies of coarse-grained clinopyroxene gabbro, pyroxenite and hornblendite and local feldspar porphyry, diabase, granodiorite and andesite porphyry dikes. Granodiorite has also been mapped to the east. These rocks are disrupted along several subordinate faults paralleling the Pinchi fault zone to the east and have undergone widespread propylitic and potassic and local carbonate alteration. Widely distributed disseminations, stringers and fracture fillings consisting of chalcopyrite, pyrite, epidote, calcite, magnetite, hematite and bornite occur in diorite exposed in the area. A sample of one, 15-centimetre wide epidote-chalcopyrite vein exposed south of a small creek assayed 2.12 per cent copper, 761.1 grams per tonne silver and 0.86 gram per tonne gold (Assessment Report 20552, page 14). BIBLIOGRAPHY EMPR ASS RPT 1965, 2799, 3200, 3201, 4672, \*20552, 21948 EMPR GEM 1969-106; 1970-180; 1971-199; 1973-366 EMR MP CORPFILES (Nation Lake Mines Limited) EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/10 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 072</u>			N	ATIONAL M	NERAL INVENTO	RY: 093N3 Cu1,6,7
NAME(S):	HEATH #1, HEATH, NS, CAT						
STATUS:	Prospect					MINING DIVISIO	ON: Omineca
NTS MAP:	093N06E 093N03E					UTM ZO	NE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 16 15 N 125 09 46 W 1105 Metres Within 500M Location is Trench Locality southeast of Takla Landin	/ A, east of Lisa g (Assessment	a Lake, about Report 20552	56 kilometres 2, Figure 7).		NORTHI EASTI	NG: 6127062 NG: 362595
COMMODITIES:	Copper	Silver	G	iold		Lead	Zinc
ASSOCIATED: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Magnetite Pyrite Magnetite Quartz Propylitic Unknown	Galena Calcite Potassic	Sphale	rite arbonate			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Porphyry L03 Alkalic porphyry C	Disseminated Hydrothermal Cu-Au	S	tockwork			
SHAPE: DIMENSION: COMMENTS:	Tabular 40 x 2 A magnetite-chalcopyrite	Metres vein at Trench	Locality A.	STRIKE/DIP:	135/60N	TREND/	PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE	GROUP		FORMATION			IGNEOUS/MET Hogem Intrusiv	AMORPHIC/OTHER
LITHOLOGY:	Diorite Clinopyroxene Gabbro Pyroxenite Hornblendite Feldspar Porphyry Dike Diabase Dike Andesite Porphyritic Dike Granodiorite Dike Granodiorite						
HOSTROCK COMMENTS:	Rocks underlying the are Hogem basic suite and H	a belong to the logem granodic	Late Triassicorite phase of t	-Early Jurass he complex.	ic		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks			PI	HYSIOGRAI	PHIC AREA: Omir	neca Mountains
INVENTORY							
ORE ZONE:	TRENCH		RE	EPORT ON: N	l		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Lead Zinc	nalysis	GRADE 1419.4000 4.9700 0.7600 4.0600 0.8200	YEAR: 1 Grams per Grams per Per cent Per cent Per cent	989 tonne tonne		
COMMENTS:	Sample (89-T-104-A) of ca	arbonatized dio	rite impregnat	ed with galer	na,		
REFERENCE:	Assessment Report 20552	2, page 13, App	endix I.				
CAPSULE GEOLOGY	The Heath #1 west end of Tchent Takla Landing. Co in 1968, as a resu survey. The area is u the Late Triassic	prospect i lo Lake, a pper miner lt of anom nderlain b to Early C	s situated pproximate alization alies outl y mesozona retaceous	l between ely 56 kil was origi ined by a al plutoni Hogem Int	Mount Na lometres nally di a regiona lc rocks crusive (	ation and the southeast of iscovered her al geochemist assigned to Complex which	e f re try n

have been emplaced into volcanic rocks of the Middle Triassic to Lower Jurassic Takla Group, east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70). Refer to the Lorraine occurrence (093N 002) for a detailed regional geology description.

Of the three phases comprising the Hogem Intrusive Complex, only rocks of the Late Triassic to Lower Jurassic Hogem granodiorite and Hogem basic suite underlie the area. Diorite is the most abundant rock type, hosting irregular bodies of coarse-grained clinopyroxene gabbro, pyroxenite and hornblendite and local feldspar porphyry, diabase, granodiorite and andesite porphyry dikes. Granodiorite has also been mapped to the east. These rocks are disrupted along several subordinate faults paralleling the Pinchi fault zone to the east and have undergone widespread propylitic and potassic and local carbonate alteration.

The original discovery, now exposed at Trench Locality A, comprises a magnetite-chalcopyrite vein exposed over a strike length of 40 metres. The vein, which varies from 0.2 to 2.2 metres wide, strikes 135 degrees and dips 45 to 60 degrees to the northeast. A core zone of nearly massive chalcopyrite reaches a thickness of 40 centimetres. Diffuse chalcopyrite mineralization extends into the diorite wallrocks, which are strongly propylitized and carry abundant magnetite.

Approximately 350 metres to the north-northeast, at Trench Locality B, two narrow magnetite-chalcopyrite-pyrite veins are exposed in diorite. The first strikes 110 degrees and averages 25 centimetres wide, while the second strikes 105 degrees and averages 15 centimetres wide.

At Trench Locality C, a further 200 metres to the north, four trenches expose a magnetite-chalcopyrite-pyrite vein over a strike length of 40 metres. The vein averages 35 centimetres thick and strikes 150 degrees. The host diorite is carbonate altered (up to two metres from the vein) and is mineralized with disseminations and stockwork veinlets of galena, sphalerite, pyrite and chalcopyrite with quartz and calcite.

A grab sample of veining from Trench Locality A assayed 18.88 per cent copper, 230.4 grams per tonne silver and 1.54 grams per tonne gold (Assessment Report 20552, page 12, sample 89-T-99-A). A 20-centimetre wide sample of veining from Trench Locality B assayed 7.46 per cent copper, 28.8 grams per tonne silver and 0.82 gram per tonne gold (Assessment Report 20552, page 12, sample 89-D-279-A). Grab samples of wallrock mineralization at Trench Locality C assayed up to 0.76 per cent copper, 1419.4 grams per tonne silver, 4.97 grams per tonne gold, 4.06 per cent lead and 0.82 per cent zinc. (Assessment Report 20552, page 13, sample 89-T-104-A).

#### BIBLIOGRAPHY

EMPR ASS RPT 1965, 2799, 3200, 3201, 4672, \*20552, 21948 EMPR GEM 1969-106; 1970-180; 1971-199; 1973-366 EMPR MP CORPFILES (Nation Lake Mines Limited) EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED:	1985/07/24	
DATE REVISED:	1992/11/10	

CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 073</u>				NATIONA	AL MINERAL INVENTORY	: 093N11 Cu1
NAME(S):	<u>Swan</u> , Boon Kwanika Cri	<i>I</i> I, FRANKIE, EEK, KWAH					
STATUS:	Developed Pr	ospect				MINING DIVISION	: Omineca
REGIONS: NTS MAP:	093N11W	Dia				UTM ZONE	: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 30 27 1 125 20 00 V 960 Metres Within 500M Location is for 50 kilometres North zone ge	N W r the North zone south-southwe eology map).	e, along the e st of German	ast bank of Kwa sen Landing (Pr	anika Creek, roperty File -	NORTHING EASTING	: 6153741 : 352645
COMMODITIES:	Copper	Go	old	Moly	/bdenum		
MINERALS							
SIGNIFICANT: ASSOCIATED:	Pyrite Quartz	Chalcopyrite Carbonate	Bornite	Molybdenit	e		
ALTERATION:	Chlorite Carbonate	Epidote Malachite	K-Feldspar Azurite	Quartz	Hematite		
ALTERATION TYPE:	Chloritic	Po	otassic	Epid	ote	Silicific'n	Argillic
MINERALIZATION AGE:	Unknown						
DEPOSIT							
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Disseminated Porphyry L04 Porph Bladed Fractured	St hyry Cu ± Mo ± /	ockwork Au				
DIMENSION: COMMENTS:	488 x 305 Copper depos	Me sit.	etres	ST	RIKE/DIP:	TREND/PLU	JNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
STRATIGRAPHIC AGE	GROUP		F			IGNEOUS/METAN	10RPHIC/0THER
Mesozoic	Takia		l	Jnaennea Forma	ation	Hogem Intrusive	Complex
LITHOLOGY:	Hybrid Quartz Quartz Monzo Granite Argillite Mudstone Siltstone Greywacke Aphanitic Dike Feldspar Porp	: Monzonite onite e ohyry Dike					
HOSTROCK COMMENTS:	The Hogem Cretaceous.	Intrusive Compl	ex has been	dated as Late Tr	riassic to Early		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	S	Quesr	nel	PHYSIOC	GRAPHIC AREA: Ominec	a Mountains
INVENTORY							
ORE ZONE:	MAIN			REPO	ORT ON: Y		
	CATEGORY: QUANTITY: <u>COMMODITY</u> Copper	Inferred 3600000	0 Tonnes	GRADE 0.2000	YEAR: 1974 Per cent		
COMMENTS: REFERENCE:	Geological re CIM Special V	serves. ′olume 15 (1976	6), Table 1, No	o.97.			
CAPSULE GEOLOGY	The S	Swan develo	ped prosp	ect is situ	ated on Kwan	nika Creek, 2 a Creek and	

kilometres south of its confluence with West Kwanika Creek, 2 approximately 40 kilometres east of Takla Landing. The area was first recognized as having copper (with or without molybdenum) potential in 1964, when Hogan Mines Ltd. (later Bow River Resources

PAGE: 982 REPORT: RGEN0100

## CAPSULE GEOLOGY

Ltd.) optioned the Boom and Frankie groups of claims. Regionally, the area is underlain by Middle Triassic to Lower Jurassic Takla Group sediments intruded by various phases of the Late Triassic to Early Cretaceous Hogem Intrusive Complex. Carboniferous to Jurassic Cache Creek Complex rocks occur to the west. The proximity of the north-striking Pinchi fault zone is evidenced by the presence of numerous fractures, shears and faults. Although a thick mantle of glacial drift covers the Kwanika

Although a thick mantle of glacial drift covers the Kwanika Creek valley, two generally altered phases of the Hogem Intrusive Complex appear to host the majority of the mineralization. The oldest phase is Early Jurassic in age and has been classified by Garnett (1978) as a hybrid quartz-bearing monzonite. The rocks are leucocratic, varying in colour from a mottled pink to green, medium grained to aphanitic (where strongly chlorite altered) and weakly to strongly fractured. They have undergone extensive alteration, including potassic, chloritic, epidotization, argillic and silicification. In addition, hematite commonly occurs on fracture surfaces (in association with chlorite and epidote alteration). Quartz and/or carbonate veinlets are present throughout the phase, the former generally associated with potassic alteration.

The younger phase is Early Cretaceous in age and has been classified as ranging in composition from quartz monzonite to granite. The rocks are orange to pink in colour, leucocratic, medium grained and weakly to intensely fractured and faulted. They are locally cut by dark green-black aphanitic dikes and rare feldspar porphyry dikes. Plagioclase feldspars have been commonly altered to sericite in areas of fracturing. Hematite is present as patchy stains on fracture surfaces, but is also locally pervasive. This phase has been observed in contact with and intruding Takla Group rocks as well as intruding the hybrid quartz-bearing monzonite phase.

Takla Group rocks predominantly comprise argillite with interbedded black mudstone and brown siltstone. These sediments strike from north to northwest and dip steeply to the east or west. A slaty cleavage parallel to bedding has developed within these rocks. Greywacke and greywacke/volcaniclastic members are also present in the area. The greywacke members vary from siltstone to sandstone, are massive and usually exhibit a weak limonitic stain. Angular shards within the greywacke/volcaniclastic members distinguish them from the greywackes.

The area surrounding the Swan prospect is structurally complex, the Pinchi fault zone being the most prominent feature. Its proximity to Kwanika Creek has resulted in strong to intense fracturing, faulting and brecciation. Fracturing within any single outcrop usually shows several orientations and these display complex crosscutting relationships. Northeast-striking faults appear to be the best developed in the area. Pyrite (with or without chalcopyrite) stringers, quartz veinlets, calcite, potassium feldspar, hematite, chlorite and epidote commonly occur within fractures.

The most common mineral present is pyrite which occurs as disseminated grains, blebby masses up to 10 centimetres across in shears and as fracture fillings in the hybrid quartz-bearing monzonite and quartz monzonite to granite phases. Pyrite as large blebs, 2 to 3-millimetre wide stringers and disseminations forming up to 20 per cent of the outcrop also occurs in rusty gossanous zones associated with intense shearing. Chalcopyrite is most often associated with pervasive chlorite alteration in the hybrid quartz-bearing monzonite phase. Here, it occurs as disseminated fine grains with pyrite and local bornite. Chalcopyrite also occurs in the quartz monzonite to granite phase as blebs up to 5 millimetres in size (with malachite and rarely azurite), as halos and on fracture surfaces. Molybdenite is rare in the hybrid quartz-bearing monzonite and quartz monzonite to granite phases. It has, however, been observed in the hybrid quartz-bearing monzonite as blebs in quartz veins. In the quartz monzonite to granite phase, it is associated with chalcopyrite and argillic alteration, occurring as disseminated grains. A gold assay value of 1.081 grams per tonne was obtained from a sample of silicified, limonitic hybrid quartz-bearing monzonite hosting 5 per cent pyrite/chalcopyrite (Assessment report 19373, page 11).

Intermittent exploration work from 1965 to 1974 on the South and North zones has resulted in the definition of a low-grade copper deposit within an area of 488 by 305 metres. The North zone, where inferred reserves of 36 million tonnes grading 0.2 per cent copper have been outlined, has received the most intensive work to date (Canadian Institute of Mining and Metallurgy Special Volume 15 (1976), Table 1, #97).

EMPR ASS RPT 4577, 4773, 4826, 5266, 19131, 21648 EMPR AR 1965-105,106; 1966-119; 1967-119 EMPR GEM 1969-105,106; 1970-180,181; \*1972-440-447; 1973-365; 1974-276 EMPR BULL \*70, pp. 53-62 EMPR OF 1992-1 EMPR PF (Pentland, W.S. (1967): Report on Hogan Mines Ltd., Kwanika Creek Property for Canex Aerial Exploration Ltd.; Seraphim, R.H. (1971): Report on the Kwanika Creek Prospect of Hogan Mines Ltd.; various diamond drill-hole sections and logs, claim, location and geology/geophysics maps) EMR MP CORPFILE (Canex Aerial Exploration Ltd.; Great Plains Development Company of Canada, Ltd.; Bow River Resources Ltd.) GSC MEM 252 GSC MAR 844A; 907A; 971A; 1424A GSC P 42-7; 42-11; 44-5; 45-6 GCNL Dec.9, 1975; #85(May 3), 1989; #26(Feb.6),#58(Mar.22), #130(Jul.8),#139(Jul.19), 1991 CIM Vol. 67, No. 749, pp. 101-106 CIM Special Volume 15 (1976), Table 1, #97 N MINER Jul.10, 1989; Oct.14, 1996 W MINER Jun., 1970 EMR MIN BULL MR 223 B.C. 252 Placer Dome File CODED BY: GSB REVISED BY: DMN DATE CODED: 1985/07/24 FIELD CHECK: N DATE REVISED: 1992/10/05 FIELD CHECK: N

MINFILE NUMBER:	<u>093N 074</u>	NATIONAL MINERAL INVENTORY:	093N14 Cu1		
NAME(S):	<u>ELIZABETH</u> , DOROTHY, ELDOR, JAJAY				
STATUS:	Showing British Columbia	MINING DIVISION:	Omineca		
NTS MAP: BC MAP	093N14W	UTM ZONE:	10 (NAD 83)		
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 52 33 N 125 19 41 W 1500 Metres Within 500M Location is a copper showing on the east side of Duckling Creek southeast of the Dorothy occurrence (093N 007), about 15 kilom northeast of Old Hogem and 40 kilometres west-northwest of Ge Landing (Assessment Report 73, Plate No. 1).	NORTHING: ( EASTING: : etres ermansen	6194710 354354		
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Azurite Cuprite Chrysocolla All significant minerals are actually alteration minerals, forming as a result of the oxidation of primary sulphides, likely chalcopyrite and bornite in this case. Malachite Azurite Cuprite Chrysocolla Oxidation Unknown	s K-Feldspar			
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE:	Breccia Shear Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE Mesozoic	GROUP FORMATION	IGNEOUS/METAMO Hogem Intrusive Co	RPHIC/OTHER mplex		
LITHOLOGY:	Granite Gabbro Pegmatite Dike				
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Complex range from Late Triass Early Cretaceous. Lithologies show a compostional range of r	sic to ocks.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPHIC AREA: Omineca	Mountains		
INVENTORY					
ORE ZONE:	SAMPLE REPORT ON	ł: N			
REFERENCE:	CATEGORY: Assay/analysis YEAR SAMPLE TYPE: Grab COMMODITY <u>GRADE</u> Copper Page, J.W. (1999): Reconnaissance Report, Lysander Minerals I	t: 1999 nttd.			
CAPSULE GEOLOGY	The Elizabeth occurrence is situated in	the Duckling Creek area			
	of the Summell Ranges (Omineca Mountains), approximately 15 kilometres northeast of Old Hogem and 40 kilometres west-northwest of Germansen Landing. The area first became of interest in the late 1940s when copper-bearing float was discovered on the slopes east of Duckling Creek, near the eventual site of the Dorothy occurrence (093N 007). Both occurrences have been explored intermittently up to the present. The area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have been emplaced into volcanic rocks of the Middle Triassic-Lower Jurassic Takla Group, east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70). Heterogeneous intrusive rocks varying compositionally from				

granite to gabbro occur in the area of the Elizabeth occurrence. These rocks are cut by pegmatitic stringers and by two sets of steeply dipping faults, the first striking northerly and the second striking east-northeasterly. Secondary mineralization consisting of malachite, azurite, cuprite and chrysocolla cement breccia fragments of highly altered intrusive rock at the intersection of these two faults. Similar copper mineralization occurs within a network of tiny fractures and seams in potassium feldspar-enriched wallrock adjacent to the faults. Trenches reveal a lack of continuity to mineralization at depth and along strike of the faults (Geology, Exploration and Mining in British Columbia 1971, page 215).

Lysander Minerals Corp. owned the showing in 1999 as part of its Jajay property. They describe the breccia matrix as consisting of bornite, chalcocite, and malachite, making up 40 per cent of the rock. A sample of the rock yielded 22.16 per cent copper and low precious metal content (Page, 1999 (Property File). Less than 1 kilometre to the east of the Elizabeth breccia, road cuts expose a grey syenite that is pervasively altered and contains minor amounts of pyrite and chalcopyrite. One sample yielded 0.6 per cent copper (Page, 1999).

#### BIBLIOGRAPHY

EM GEOFILE 2003-6 EMPR AR \*1949-A98-A102; 1962-134 EMPR ASS RPT 73, 432, 511, 513, 20938, \*26239 EMPR BULL 70 EMPR GEM \*1971-203-210,215 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File); Page, J.W. (1999): 1999 Reconnaissance Report on the Jajay Property, Lysander Minerals Corp. (see Lorraine - 093N 002)) EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek Area of the Hogem Batholith, University of British Columbia

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/22 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 075</u>			NATIONAL N	/INERAL INVE	ENTORY: 093N15 Zn1
NAME(S):	W. VERNON, BVD 32, VERNON	N				
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093N15W				MINING E UTI	NVISION: Omineca M ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 56 10 N 124 45 31 W 1100 Metres Within 500M The W. Vernon occurrence is lo the west of the northwest end kilometres north-northwest of C	ocated appr of Echo Lat Germansen	roximately 1 ki ke and is appr Landing (Ope	lometre to oximately 17 n File 1990-17).	NO E	RTHING: 6200366 ASTING: 390145
COMMODITIES:	Zinc Lea	d	Sil	ver	Barite	
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Silver is in form of argentiferou Barite Unknown	ıs galena.				
DEPOSIT	Discourie stad	! -	0	atabas sal	Manaka	
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Disseminated Breck Replacement Indu E12 Mississippi Valley-type Irregular	ccia istrial Min. Pb-Zn	Sti	atabound	Massive	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
<u>STRATIGRAPHIC AGE</u> Middle Devonian Silurian-Devonian	<u>GROUP</u> Otter Lakes Echo Lake	E	ORMATION Jndefined Forr Jndefined Forr	nation nation	<u>IGNEOUS</u>	METAMORPHIC/OTHER
LITHOLOGY:	Fine Grained Dolomite Arenaceous Dolomite Dolomitic Breccia Shale					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE	Omineca Cassiar			PHYSIOGR/	APHIC AREA:	Omineca Mountains
METAMORPHIC TYPE:	Regional	RE	LATIONSHIP:		GRADE:	Greenschist
INVENTORY						
ORE ZONE:	SAMPLE		REI	PORT ON: N		
	CATEGORY: Assay/analys SAMPLE TYPE: Grab COMMODITY Silver	sis	GRADE 61.2200	YEAR: 1988		
COMMENTS: REFERENCE:	Zinc Zinc is given as a range from 5 Assessment Report 16946.	5 to 7 per ce	7.0000 ent.	Per cent		
CAPSULE GEOLOGY						
	The W. Vernon occurrence is located approximately 1 kilometre to the west of the northwest end of Echo Lake and is approximately 17 kilometres north-northwest of Germansen Landing (Open File 1990-17). This occurrence has similar regional geology to that of the Biddy occurrence (093N 114). Sphalerite occurs as disseminated grains in fine-grained dolomite and/or breccia matrix in arenaceous dolomite. Galena primarily occurs massively with barite in small localized shear zones with varying amounts of sphalerite. Silver, in the form of argentiferous galena, is generally very low grade. The hostrocks are primarily dolomites and dolomitic breccias of the Middle Devonian Otter Lakes Group with lesser mineralization found within dolomites and arenaceous dolomites of the Silurian to Lower Devonian Echo Lake Group. Mineralization is typically found in the uppermost parts of the Otter Lakes Group, near the contact with the overlying shales of the Devonian to Mississippian Big Creek Group. A grab sample from this area analysed 61.22 grams per tonne silver and 5 to 7 per cent zinc (Assessment Report 16946).					

EMPR BULL \*91 EMPR EXPL \*1989, pp. 193-196 EMPR FIELDWORK \*1989, pp. 101-114; 1988, pp. 209-220 EMPR GEM 1973-380 EMPR AR 1952-99,106 EMPR OF \*1990-17; 1989-12 EMPR ASS RPT 1653, \*4815, \*16946, 19266, \*20492 GSC P 41-5; 42-2; 45-9; 75-33 GSC MEM 252 GSC MAP 876A; 1424A; 5249G

DATE CODED:	1985/07/24
DATE REVISED:	1992/07/07

CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 076</u>			NATIONAL MINERAL	INVENTORY:	093N15 Zn1
NAME(S):	VERNON, B.V.D. 33, ZONE	ĒE				
STATUS:	Showing British Columbia			MIN	ING DIVISION:	Omineca
NTS MAP: BC MAP	093N15E 093N15W				UTM ZONE:	10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 56 33 N 124 45 03 W 1100 Metres Within 500M The Vernon occurrence is of the northwest end of Ec north-northwest of German	located approximately ho Lake and is approx nsen Landing (Open F	/ 1 kilometre nor imately 17 kilom ile 1990-17).	thwest etres	NORTHING: EASTING:	6201064 390649
COMMODITIES:	Zinc	Lead	Silver	Germa	nium	
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Silver is in the form of arge Barite Quartz Unknown	entiferous galena. Calcite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Disseminated Sedimentary E12 Mississippi Valley- Irregular	Breccia Industrial Min. type Pb-Zn	Massive	Shear		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP	FORMA	TION	IGN	EOUS/METAMO	ORPHIC/OTHER
Silurian-Devonian	Echo Lake	Undefir	ed Formation			
LITHOLOGY:	Fine Grained Limestone Arenaceous Dolomite Dolomite Dolomitic Breccia					
GEOLOGICAL SETTING						••
TECTONIC BELT: TERRANE:	Omineca Cassiar Bagianal				REA: Omineca	Mountains
	Regional	RELATION		GRA	DE. Gleenso	11151
	SAMDI E			• N		
ORE ZONE.		alveie		• 1080		
COMMENTS	SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Germanium Lead Zinc A grab sample from a tren Evoloration in British Colum	GRAL 84.0 0.13 5.20 ch. abia 1989, page 195	000 Grams 000 Per cen 000 Per cen 000 Per cen	per tonne tt t		
		noia 1909, page 195.				
CAPSULE GEOLOGY The Vernon occurrence is located approximately 1 kilometre northwest of the northwest end of Echo Lake and is approximately 17 kilometres north-northwest of Germansen Landing (Open File 1990-17). This occurrence has similar regional geology to that of the Biddy occurrence (093N 114). Sphalerite occurs as disseminated grains in fine-grained dolomite and as breccia cement within arenaceous dolomite. Galena primarily occurs massively with barite in small localized shear zones with varying amounts of sphalerite. Silver, in the form of argentiferous galena, is generally very low grade. Minor quartz, calcite, and barite are associated with the sulphides. The hostrocks						

are primarily dolomites and dolomitic breccias of the Middle Devonian Otter Lakes Group and arenaceous dolomites of the Echo Lake Group (Silurian to Lower Devonian). The mineralization at this locality may be related to a northeast-striking normal fault. A grab sample from this area

analysed 84 grams per tonne silver, 5.2 per cent lead, 8.7 per cent zinc and 0.13 per cent germanium (Exploration in British Columbia 1989, page 195).

## BIBLIOGRAPHY

EMPR BULL \*91 EMPR EXPL \*1989, pp. 193-196 EMPR FIELDWORK \*1989, pp. 101-114; 1988, pp. 209-220 EMPR OF \*1990-17; 1989-12 EMPR GEM 1973-380 EMPR AR 1952-99,106 EMPR ASS RPT 1653, 4815, 16946, 19266, 20492 GSC P 41-5; 42-2; 45-9; 75-33 GSC MEM 252 GSC MAP 876A; 1424A; 5249G

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/07 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 077</u>	1	JATIONAL MINERAL INVENTORY:		
NAME(S):	NORTH KWANIKA				
STATUS:	Showing British Columbia		MINING DIVISION: Omineca		
REGIONS. NTS MAP: BC MAP	093N06E		UTM ZONE: 10 (NAD 83)		
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 28 40 N 125 13 57 W 1725 Metres Within 1 KM Location is near the headwaters Halobia, about 46 kilometres east (1971): Report on the Hogem Pro Figure 4 - 093N General File).	of a south-flowing tributary to of Takla Landing Creek (Peto, P. ject for Amoco Mining, page 61 ar	NORTHING: 6150225 EASTING: 358905		
COMMODITIES:	Copper				
MINERALS					
SIGNIFICANT: COMMENTS: ALTERATION ALTERATION TYPE: MINERALIZATION AGE:	Bornite Chalcopyrite Bornite occurs as nodular segreg Malachite Oxidation Unknown	gations.			
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal Porph L03 Alkalic porphyry Cu-Au	yry			
HOST ROCK DOMINANT HOSTROCK	: Plutonic				
STRATIGRAPHIC AGE Mesozoic	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex		
LITHOLOGY:	: Leucocratic Quartz Monzonite Syeno Diorite Monzonite Melanocratic Diorite Porphyritic Quartz Monzonite Granodiorite				
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Early Cretaceous.	Complex range from Late Triassic	to		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	F	PHYSIOGRAPHIC AREA: Omineca Mountains		
CAPSULE GEOLOGY					
	The North Kwanika occurrence is situated in the Kwanika Range near the headwaters of a south-flowing tributary to Halobia Creek, approximately 46 kilometres east of Takla Landing. The area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have intruded volcanic and sedimentary rocks of the Middle Triassic to Lower Jurassic Takla Group east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The principle rock type in the area of the occurrence is leucocratic quartz monzonite. A northwesterly trending intrusive contact between syenodiorite to monzonite and melanocratic diorite occurs nearby, and porphyritic quartz monzonite to granodiorite is in contact with syenodiorite to monzonite on the north side of the divide, near a small tarn. A north-striking fault cuts these rocks to the east. Mineralization, in the form of segregated nodules of bornite, disseminated chalcopyrite and associated malachite, is scattered and sparse, but reportedly extends north across the divide (Property File - Peto, 1971). No recent information concerning this occurrence is available.				
BIBLIOGRAPHY					
	EMPR BULL 70 EMPR PF (*Peto, P. (197 Mining, p. 61 and Fi	71): Report on the Hogen Squre 4 (refer to 093N G	Project for Amoco eneral File))		

GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1992/11/05 DATE REVISED: 1992/11/09

CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 078</u>			NATIONAL	MINERAL INVENTORY:	
NAME(S):	<u>GKO</u>					
STATUS:	Showing				MINING DIVISION:	Omineca
NTS MAP:	093N10W				UTM ZONE:	10 (NAD 83)
LATITUDE:	55 44 11 N				NORTHING:	6178210
LONGITUDE: ELEVATION:	124 48 04 W 1490 Metres				EASTING:	386912
COMMENTS:	The GKO occurrence is lo of Plughat Mountain, near (Assessment Report 2092	cated approx the headwat 23).	imately 1.5 kilon ers of Goodasar	netres southeast ny Creek		
COMMODITIES:	Copper	Silver				
MINERALS		<b>D</b>				
ASSOCIATED:	Quartz Malachit	e Pyrite	<b>)</b>			
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Silica Malachite Silicific'n Unknown	Oxidation				
	Vain	Shoor				
CHARACTER: CLASSIFICATION: SHAPE: MODIFIER:	Porphyry Irregular Fractured	Hydrotherma	al			
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	GROUP		FORMATION	-1-	IGNEOUS/METAM	ORPHIC/OTHER
Opper Triassic			Plugnat Mount	an		
LITHOLOGY:	Siliceous Lapilli Tuff					
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE:	Intermontane Quesnel			PHYSIOGR	APHIC AREA: Omineca	a Mountains
METAMORPHIC TYPE:	Regional		RELATIONSHIP:		GRADE: Greenso	chist
INVENTORY						
ORE ZONE:	SAMPLE		RE	PORT ON: N		
	CATEGORY: Assay/a	nalysis		YEAR: 1991		
	COMMODITY		GRADE			
	Silver Copper	_	44.9000 1.2220	Grams per tonne Per cent		
REFERENCE:	Assessment Report 2092	3.				
CAPSULE GEOLOGY	The GKO occur	rence is	located app	rovimately 1 5	kilometres	
	southeast of Plugh	at Mounta	in, near th	e headwaters of	Goodasany	
	This occurrer	ice is hos	ted in the	Upper Triassic	Plughat Mountain	
	The Plughat Mounta	in Format	ion is a th	ick sequence of	augite-bearing,	

mafic to intermediate(?), calcalkaline to alkaline pyroclastic rocks, massive flows and lesser epiclastic rocks. In this area, the Plughat Mountain Formation is the upper volcanic sequence of the Takla Group. The lower, sediment-dominated sequence of rocks, are part of the Middle-Upper Triassic Slate Creek Formation (Takla Group). To the northeast, the Takla Group is in fault contact (the Manson fault zone) with the Pennsylvanian to Permian Nina Creek Group. To the south, the Takla Group has been intruded by the Cretaceous Germansen batholith, a multiphase granitic to granodiorite intrusion. Mineralization occurs in a 1-metre wide shear zone, consisting

Mineralization occurs in a 1-metre wide shear zone, consisting of fractured siliceous lapilli tuffs of the Plughat Mountain Formation. A small quartz vein, less than 3 centimetres, occurs in the middle of the shear zone. The quartz vein is vuggy and sparsely mineralized. Fractures within the lapilli tuff are filled with malachite and the rock itself contains trace amounts of disseminated pyrite and chalcopyrite. A grab sample of the sheared, siliceous

lapilli tuff analysed 44.1 grams per tonne silver and 1.2223 per cent copper (Assessment Report 20923). Minor amounts of molybdenum has also been reported (16 ppm).

## BIBLIOGRAPHY

EMPR ASS RPT \*20923 EMPR OF 1989-12 EMPR FIELDWORK 1988, pp. 209-220 EMPR BULL \*91 GSC MEM 251 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED:1985/07/24CODED BY:GSBFIELD CHECDATE REVISED:1992/09/27REVISED BY:DMMFIELD CHEC	K: N K: N
--	--------------

MINFILE NUMBER:	<u>093N 079</u>			١	NATIONAL MINE	RAL INVENTORY:	093N2 Cu2
NAME(S):	<u>JEAN</u> , JW, A, B, C, N						
STATUS:	Prospect					MINING DIVISION:	Omineca
REGIONS. NTS MAP: BC MAP	093N02W					UTM ZONE:	10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 06 18 N 124 57 22 W 1025 Metres Within 500M Area of percussion dr Map 2). This showing 093N 083) which was documented evidence is located about 10 kil	Illing on the also includ deleted as of mineraliz ometres sou	JW claims ( es the Jean an indepen- ation can be th of Tchent	Assessment Report 5 occurrence (formerly dent occurrence beca e found. The property to Lake.	5343, / ause no y	NORTHING: EASTING:	6108223 375206
COMMODITIES:	Copper	Molybd	enum	Silver			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION:	Chalcopyrite Moly Quartz Pyrite K-Feldspar Mala	bdenite chite ł	Bornite Iematite	Pyrite			
ALTERATION TYPE: MINERALIZATION AGE:	Potassic	Oxidatio	on	Propylitic			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L04 Porphyry Cu <del>:</del>	Stockw Epigene Mo ± Au	vork etic	Porphyry			
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
	<u>GROUP</u> Takla		FOR Wite	MATION b Lake		IGNEOUS/METAMO	ORPHIC/OTHER
Lower Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	131 +/- 4 Ma Potassium/Argon Hornblende		Viite			Unnamed/Unknow	n Informal
LITHOLOGY:	Granodiorite Quartz Diorite Pyroxene Porphyry Andesite Syenite Dike Plagioclase Syenite Pike Granite Dike Granite Dike Syenite	orphyry Dike					
LITHOLOGY: HOSTROCK COMMENTS:	Granodiorite Quartz Diorite Pyroxene Porphyry Andesite Syenite Dike Plagioclase Syenite Pic Aplitic Syenite Dike Granite Dike Syenite The isotopic date is f	orphyry Dike rom J.A Gar	nett (Bulleti	n 70).			
LITHOLOGY: HOSTROCK COMMENTS: <b>GEOLOGICAL SETTING</b> TECTONIC BELT: TERRANE:	Granodiorite Quartz Diorite Pyroxene Porphyry Andesite Syenite Dike Plagioclase Syenite Pike Granite Dike Syenite Dike Syenite The isotopic date is f Intermontane Quesnel	orphyry Dike rom J.A Gar	nett (Bulletii Plutonic R	n 70). Focks	PHYSIOGRAPHI	C AREA: Nechako	Lowland
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	Granodiorite Quartz Diorite Pyroxene Porphyry Andesite Syenite Dike Plagioclase Syenite Dike Granite Dike Syenite The isotopic date is f Intermontane Quesnel	orphyry Dike rom J.A Gar	nett (Bulleti Plutonic R	n 70). Iocks	PHYSIOGRAPHI	C AREA: Nechako	Lowland
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Granodiorite Quartz Diorite Pyroxene Porphyry Andesite Syenite Dike Plagioclase Syenite Pic Aplitic Syenite Dike Granite Dike Syenite The isotopic date is f Intermontane Quesnel	orphyry Dike rom J.A Gar	nett (Bulleti Plutonic R	n 70). Rocks REPORT ON:	PHYSIOGRAPHI Y	C AREA: Nechako	Lowland
LITHOLOGY: HOSTROCK COMMENTS: GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: COMMENTS:	Granodiorite Quartz Diorite Pyroxene Porphyry Andesite Syenite Dike Plagioclase Syenite Pic Aplitic Syenite Dike Granite Dike Syenite The isotopic date is f Intermontane Quesnel JEAN CATEGORY: Infer QUANTITY: 27 COMMODITY Copper Molybdenum "Probable resource" in tonnes of 0.11 per cet in the C zone (resource	rom J.A Gar rom J.A Gar 2000000 Too	nett (Bulletii Plutonic R nnes <u>GR</u> 0 B zone. A f 0.017 per 1 likely from	n 70). cocks REPORT ON: YEAR: 3000 Per cent 0150 Per cent urther 27,000,000 cent molybdenum oo 1970's drilling).	PHYSIOGRAPHI Y 1997 	C AREA: Nechako	Lowland

#### INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

Per cent

YEAR: 1995

	CATEGORY: SAMPLE TYPE:	Assay/analysis Drill Core		
			<u>GR/</u>	
	Copper		0.:	2020
ITS	Over 35.7 metre	S.		

COMMEN REFERENCE: Explore B.C. Program 95/96 - M26.

#### CAPSULE GEOLOGY

The JW (Jean) area is underlain by a mainly granodiorite-quartz diorite stock (the Jean Marie stock) which has intruded rocks of the Middle Triassic to Lower Jurassic Takla Group. Mineralized zones occur along the contact of the stock with dark grey aphanitic andesites and pyroxene porphyries, probably of the Upper Triassic Witch Lake Formation (Takla Group). A sample of the granodiorite yield two potassium/argon dates: 1) 136 +/- 4 Ma (biotite) and; 2) 131 +/- 4 Ma (hornblende) (Bulletin 70, page 63). These Early Cretaceous intrusive rocks are cut by numerous dikes ranging in composition from plagioclase syenite porphyry through aplitic syenite to red granite.

Copper and molybdenum are reported to occur in three zones on the JW and Jean claims. The three zones are reported to grade from 0.3 to 0.4 per cent copper equivalent (Canadian Institute of Mining and Metallurgy, Volume 15, Table 1, Deposit No. 98). The zones are 150 by 500 metres to 260 by 800 metres in area.

Chalcopyrite and molybdenite with hematite occur along potash feldspathized fractures in granodiorite and quartz diorite. Chalcopyrite is reported to occur as replacements of hornblende in syenite dikes, and also along with pyrite in quartz veins and fractures cutting granodiorite and syenites. Malachite is common within fault zones along which granite and syenite dikes have cut the main intrusion and the volcanic rocks. The volcanic rocks exhibit blocky fracturing generally more pervasive than the fracture density in the crosscutting intrusive rocks, and chalcopyrite is locally significant along hairline fractures and smeared along small faults in the andesites within the altered contact zone. Bornite also occurs on the property.

The property was first staked in 1969 by the NBC syndicate. During the next several years numerous geochemical and geophysical surveys were conducted and over 4000 metres of diamond and percussion drilling were completed.

Work done in 1995 by International Focus Resources Inc., with support from the Explore B.C. Program, included 27 kilometres of grid lines, 29.4 kilometres of IP survey and 838.4 metres of diamond drilling in 5 holes. The IP survey defined a 4 by 2 kilometre anomaly that warrants drill testing, while the diamond drilling significantly upgraded copper values from earlier percussion drilling. The best hole was 95-2 with 28.2 metres grading 0.61 per cent copper and 35.7 metres grading 0.562 per cent copper in the provident drilled P grade (Frederic P C) percent copper in the previously drilled B zone (Explore B.C. Program 95/96 - M26). Continental Energy Corporation (formerly Continental Copper

Corp.) drilled a 186-metre interval graded 0.38 per cent copper and 0.009 per cent molybdenum (Exploration in BC 1997, page 29) in 1997. The company reports a "probable resource" of 27,000,000 tonnes of 0.3 per cent copper and 0.015 per cent molybdenum in the A and B zones and a further 27,000,000 tonnes of 0.11 per cent copper and 0.017 per cent molybdenum in the C zone (resource calculation likely from 1970's drilling) (GCNL #230(Dec.1), 1997).

#### BIBLIOGRAPHY

EMPR ASS RPT 2241, 2242, 2626, 3899, 4774, 5343, 5590, 5633, 5737, 6332, 6948, 7530, 9320, 11572, 20333 EMPR BULL \*70, pp. 62 EMPR EXPL 1975-E150; \*1977-E201; 1978-E227; 1979-234 EMPR Explore B.C. Program 95/96 - M26 EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118 EMPR GEM 1970-178; 1971-1981; 1972-436; 1973-365; \*1974-275 EMPR OF 1991-3; 1992-4 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842 GSC P 41-5; 42-2; 45-9 CIM Special Vol. 15, Table 1, #98 CIM BULL VOL 67, No. 749, 1974-101 GCNL #157(Aug.15), #183(Sept.23), #213(Nov.5), #233(Nov.20),

\*#230(Dec.1), 1997

DATE CODED: 1985/07/24 DATE REVISED: 1996/10/29 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 080</u>			NATIONAL MINERAL INVENTORY:	
NAME(S):	INDATA NO.5, INDA 1				
STATUS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N06E			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 48 N 125 13 37 W 925 Metres Within 500M Location is a breccia zon kilometres southeast of T Memoir 252, Figure 12).	e within the old Ir akla Landing (Ge	ndata No.5 claim, about eological Survey of Cana	NORTHING: EASTING: 50 ada	6131919 358670
COMMODITIES:	Mercury				
MINERALS					
SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Carbonate Carbonate Unknown				
DEPOSIT		<b>.</b> .			
CHARACTER: CLASSIFICATION:	Disseminated Epigenetic	Breccia Hydrothermal	Replacemen	ıt	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	<u>I</u>	ORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Paleozoic-Mesozoic Triassic-Jurassic	Cache Creek Takla	l	Jndefined Formation Jndefined Formation		
LITHOLOGY:	Limestone Chert Arglilite Andesitic Flow Andesitic Tuff Andesitic Breccia Andesite				
HOSTROCK COMMENTS:	Cache Creek Complex	rocks are Carbor	iferous to Jurassic.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	Quesi	nel	PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY					
	The Indata N outlet of Indata Landing. The are Second World War. The area is to Jurassic Cache and breccia of th along a north-nor zone. In the area chert and argilli fault zone. Appr cinnabar were rep been carbonatized fault. Stripping significant quant Efforts to r disappointing res	o.5 occurren Lake, approx a was explor underlain by Creek Compl e Middle Tri thwesterly t of the occur te are in cc oximately 1 ortedly obse and breccia , trenching ities of min eassess the ults (Assess	the is situated 2 cimately 50 kilom red for its mercu r sediments assigner in contact wi assic to Lower J rrending portion rrence, Cache Cre ontact along vari kilometre east o reved in chert an ted along a nort and diamond dril peralization. occurrence in 19 ment Report 1243	k kilometres north of the metres southeast of Takla rry potential during the med to the Carbonaceous th andesitic flows, tuff urassic Takla Group of the Pinchi fault ek limestone, ribbon ous splays of the main of the lake, "specks" of id argillite which had h-northwest striking ling failed to outline 84 met with 3, page 3).	
BIBLIOGRAPHY		-			
	EMPR ASS RPT 1243 EMPR EXPL 1983-45 EMPR OF 2000-19 GSC MAP 844A; 907 GSC MEM *252, pp. GSC OF 3071	3 5 A; 971A; 142 164-166	24A		

GSC P 42-7; 42-11; 44-5, p. 12; 45-6

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/07 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 081</u>			NATIONAL	MINERAL INVENTOR	Y: 093N2 Cu3
NAME(S):	<u>CAMP</u> , FOE					
STATUS: REGIONS: NTS MAP: BC MAP:	Prospect British Columbia 093N02E				MINING DIVISIO UTM ZON	N: Omineca E: 10 (NAD 83)
LOCITION LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 04 57 N 124 35 06 W 1040 Metres Within 500M The showing is located 2 Witch Lake (Open File 199	kilometres east of 92-4).	f the southwest e	end of	NORTHIN EASTIN	G: 6105120 G: 398822
COMMODITIES:	Copper	Magnetite				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION:	Pyrite Pyrrhotite Magnetite Epidote Chlorite	Chalcopyrite Biotite	Malachite Carbonate	Magnetite Malachite		
COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Secondary biotite. Propylitic	Biotite	Potass	ic	Carbonate	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L04 Porphyry Cu ± Mo	Hydrothermal b ± Au	Industr	ial Min.		
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	<u>FC</u> In:	ORMATION zana Lake		IGNEOUS/META	MORPHIC/OTHER
LITHOLOGY:	Augite Hornblende Porphy Andesite Hornfels Fine Grained Siliceous Tu Siltstone Augite Porphyry Agglome Hornblende Porphyry Dike Latite Syenite Graphitic Sediment/Sedim	yry ff rate entary				
HOSTROCK COMMENTS:	Informal formation name	is Inzana Lake.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Contact	REL	ATIONSHIP:	PHYSIOGF	APHIC AREA: Necha GRADE: Hornfo	ako Lowland els
INVENTORY						
ORE ZONE:	DRILLHOLE		REPOR	TON: N		
	CATEGORY: Assay/a SAMPLE TYPE: Drill Core COMMODITY Copper	nalysis <u> </u>	Y <u>GRADE</u> 0.1800 Pe	r cent		
REFERENCE:	Assessment Report 2129	val. 5, page 10.				
CAPSULE GEOLOGY	The Camp pros an area of hornfel Hornfelsed fine-gr Triassic Inzana La hornblende porphyr 080). Drillholes hornfelsed volcani latitic compositic Pervasive chl potassic alteratic biotite. Carbonat Pyrite, pyrrh	spect is loca sing and alt tained dust t take Formation cy dikes simi also interse cs and augit on. orite and ep on is indicat ce alteration notite and ch	ted near th eration (Fi uffs and si (Takla Gro lar to thos cted syenit e/hornblend idote alter ed by very is widespr alcopyrite	e centre of eldwork 1991 ltstones of up) are intr e on the Tas e, graphitic e porphyry c ation is obs fine-grained ead. occur as dis	the Camp halo, , page 115). the Upper uded by property (093 sediments, of andesitic to erved and interstitial seminations an	ĸ

MINFILE NUMBER: 093N 081

malachite is present on some fracture surfaces. In drillhole 91-2, augite porphyry, hornfels and andesite are all copper-bearing from 25.30 metres to the end of the hole at 152.70 metres, a total of 127.40 metres. This interval averages 0.18 per cent (1823 parts per million) copper and 0.033 gram per tonne (33 parts per billion) gold (Assessment Report 21295, page 10). Another drillhole intersected altered volcanics with up to 25 per cent magnetite.

## BIBLIOGRAPHY

EMPR ASS RPT 3127, 3462, 17973, 20199, \*21295 EMPR GEM 1970-177; 1971-195 EMPR FIELDWORK 1991, pp. 103-118 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC OF 2842

DATE CODED:	1985/07/24	CODED BY:	GSB	FIELD CHECK:	N
DATE REVISED:	1993/02/11	REVISED BT:	GJP	FIELD CHECK:	Ť

MINFILE NUMBER:	<u>093N 082</u>			NATIONAL	MINERAL INVENTOR	Y: 093N11 Au5,Cu3
NAME(S):	TAKLA-RAINBOW, T	TWIN				
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093N11W				MINING DIVISION UTM ZONE	I: Omineca E: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 44 N 125 18 18 W 1610 Metres Within 500M Location is the centre Creek, 52 kilometres Figure 4).	e of the West zone, r west of Manson Cree	near the headwater ek (Assessment Re	rs of Twin eport 17013,	NORTHING	6170896 6: 355005
COMMODITIES:	Gold	Silver	Copper		Lead	Zinc
MINERALS SIGNIFICANT: ASSOCIATED:	Pyrite Chalco Quartz Carbo	pyrite Gold onate Sericite	Galena Chlorite	Sphalerite Pyrrhotite		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Magnetite Hem Sericite Chlorit Sericitic Silicific'n Unknown	atite te Epidote Chloritic	K-Feldspar Epidote		Potassic	Carbonate
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Shear Porphyry L04 Porphyry Cu Bladed Sheared	Disseminated Hydrothermal ± Mo ± Au	Vein Epigene	etic		
DIMÈNSION: COMMENTS:	289 x 140 x 10 West zone.	0 Metres	STRIK	æ/dip:	TREND/PL	UNGE:
HOST ROCK DOMINANT HOSTROCK	Volcanic					
STRATIGRAPHIC AGE	GROUP	<u>F</u>	ORMATION		IGNEOUS/METAI	MORPHIC/OTHER
Lower Jurassic Mesozoic	lakia		I win Creek		Hogem Intrusive	Complex
LITHOLOGY:	Porphyritic Andesite Andesite Basalt Flow Volcanic Breccia Lapilli Tuff Orthoclase Megacrys Diorite Porphyry Syenite Diorite Granodiorite	stic Granite Dike				
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE:	Intermontane Quesnel	Pluton	ic Rocks	PHYSIOGR	APHIC AREA: Omine	ca Mountains
INVENTORY						
ORE ZONE:	TAKLA RAINBOW		REPORT	ON: Y		
	CATEGORY: Infe QUANTITY: <u>COMMODITY</u> Gold	rred 199580 Tonnes	YE <u>GRADE</u> 13.7100 Gra	EAR: 1987		
COMMENTS:	Reserves are uncut,	undiluted and calcula	ited using a 3.43 gr	ams per		
REFERENCE:	Assessment Report 1	17013, page 27.	ming width.			
CAPSULE GEOLOGY						
	The Takla- Ranges (Omineca approximately 5 became of inter easterly trendi by an embayment Triassic-Early	-Rainbow develo a Mountains) ne 52 kilometres w cest in 1970, w ing zone of cha t of volcanic r Cretaceous Hog	pped prospect ar the headwa vest of Manson when the N.B.C lcopyrite-pyr ocks along th yem Intrusive	is situated aters of Twi Creek. Th Syndicate cite mineral he east cont Complex.	In the Swannel n Creek, e area first staked an ization hosted act of the Late	1

PAGE: 1002 REPORT: RGEN0100

## CAPSULE GEOLOGY

The northwest-trending tongue of volcanic rocks belongs to the Lower Jurassic Twin Creek Formation of the Middle Triassic-Lower Jurassic Takla Group. It is intruded by Early Jurassic granodiorite and quartz monzonite phases and an Early Cretaceous granite phase of the Hogem Intrusive Complex. The original nature of these rocks is commonly obscured by intense hydrothermal alteration. Most of the strongly altered volcanic rocks in the area are geochemically anomalous in gold and silver.

The principal rock type exposed in the area is massive to porphyritic, fine-grained andesite assigned to the Takla Group. Minor amounts of chloritized basalt flows, coarse volcanic breccia and lapilli tuffs are also present. The andesite has been moderately to intensely chloritized and comprises blocky grains of plagioclase cemented by a network matrix of intergranular, fine-grained chlorite. The plagioclase grains are strongly altered to fine-grained sericite with lesser chlorite and carbonate. The rock is cut by veinlets of carbonate (dolomite/ankerite/calcite) and epidote is concentrated in rather diffuse, vein-like zones of microbrecciation. Minor pockets of potassium feldspar appear spatially related to some of the altered fracture zones. The volcanics are upward facing and dip gently (approximately 15 degrees) to the southwest.

The dominant structural features affecting these rocks are northwest-striking faults. The regional-scale Twin Creek fault passes through the Takla-Rainbow property (Open File 1993-4). Stratigraphic offsets suggest a southwest-side-down normal motion on the fault. Drilling has indicated that at least three, subvertically dipping fault structures exist and that zones of related brecciation in the volcanics and intrusions reach 23 metres wide. Closely-spaced subparallel systems of sheeted microfractures in the porphyritic volcanics also seem to be the locus of carbonate and epidote alteration. A second, northeasterly striking fault system is also present in the area.

Mineralization occurs in three closely-spaced zones: the West, East and South. Within these zones, mineralization occurs in one or more parallel, steeply dipping, northwest-striking shears within or adjacent to intrusive rocks. The majority of the testing to date has been carried out in the West zone, which underlies the upper reaches of Twin Creek.

At the West zone, mineralization is spatially and probably genetically related to the emplacement of a northwest striking intrusive body confined to the contact between Takla Group volcanics to the south and a dioritic boarder phase of the Hogem Intrusive Complex to the north. The presence of abundant orthoclase megacrystic granite dikes, many of them sheared, within the Twin Creek fault suggests syn-plutonic, probably Cretaceous-aged motion and mineralization (Fieldwork 1992, page 87). The zone, which consists of up to five parallel, subvertical

The zone, which consists of up to five parallel, subvertical gold-bearing structures, measures 289 metres along strike by 100 metres wide and extends to a depth of 140 metres. It occurs within a strong pyritic halo measuring over 1000 metres in length and 150 metres in width. The most common type of mineralization intersected in drillholes is in the form of narrow quartz fillings along fractures ranging up to several decimetres in width, and as disseminations of sulphides and native gold in both porphyries and volcanics. Mineral association in the zone is represented by pyrite, chalcopyrite, quartz, native gold, carbonates, sericite, chlorite and minor pyrrhotite, magnetite, galena, sphalerite, and specular hematite. This mineralization is confined to zones marked by microshearing, intense fracturing, pyritization, carbonatization and silicification. Gold is in its native form and gold-pyrite and gold-chalcopyrite associations are common.

gold-chalcopyrite associations are common. The East zone measures 183 metres along strike, is 130 metres wide and extends 140 metres below surface. The zone contains two or more parallel subvertical gold-bearing structures. To the west, the zone is bound by weak mineralization and the eastern boundary is undefined.

The South zone is largely untested and measures approximately 275 metres along strike. The zone is bound by weak mineralization on the west side and seems to be cut off to the east. A 2.99-metre wide mineralized drill intersection grading 5.83 grams per tonne was made at a depth of 180 metres in 1987 (Assessment Report 17013, page 26).

Total undiluted, uncut, drill indicated (inferred) reserves of 199,580 tonnes grading 13.71 grams per tonne gold have been outlined at the West and East zones (Assessment Report 17013, page 27). This figure was calculated using a 3.43 grams per tonne cutoff grade and a minimum mining width of 1.22 metres.

The ridge south of the Twin Creek fault is underlain by a strong quartz-kaolinite-pyrite alteration zone, capped by a discontinuous, horizontal alunite-quartz zone up to 5 metres thick that extends over

BIBLIOGRAPHY

500 metres. It 1992, page 105). It represents an unexplored epithermal target (Fieldwork EMPR ASS RPT 2501, 12162, 13171, 14103, 15319, 15487, \*16759, \*17013, 20511 EMPR BULL 70 EMPR EXPL 1983-461; 1984-339-340; 1985-C336-C337; 1986-A22; 1987-A18, B65-B67, C315 EMPR FIELDWORK 1992, pp. 87-107 EMPR GEM 1970-182; 1971-203; 1972-453 EMPR MAP 65 (1989) EMPR OF 1992-1; 1992-2; 1993-4 EMPR OF 1992-1; 1992-2; 1993-4 EMPR PF (Cathedral Gold Corporation 1988 Annual Report (refer to Patterson - 103J 017); GCNL #155, 1986; Cathedral Gold Corporation News Release, June 23, 1989; Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMR MIN BULL MR 223 B.C. 254 EMP MC CORPETIE (Cathedral Cold Corporation: Boument Recourses 1) EMR MIN BOLL MR 223 B.C. 234 EMR MP CORPFILE (Cathedral Gold Corporation; Reymont Resources Ltd.) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 GCNL #155,#243, 1986; #70,#111,#147,#158,#181, 1988; #3(Jan.4), #97(May 18),#104(May 30),#183(Sept.21),#193(Oct.4), 1990; #63(Mar.30), 1992 N MINER June 25, 1990; Jan.27, 1992 WWW http://www.infomine.com/ Placer Dome File DATE CODED: 1985/07/24 DATE REVISED: 1993/02/23 CODED BY: GSB REVISED BY: KBE FIELD CHECK: N FIELD CHECK: Y

MINFILE NUMBER:	<u>093N 083</u>		I	NATIONAL MINERAL INVENTORY:	
NAME(S):	CREEK, SKOOK 4				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N02E			MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 39 N 124 32 08 W 1050 Metres Within 500M Showing location on an un claim, just north of Chuchi The zone is located at grid	named east-flowing c Lake (Assessment Re coordinates BL110N, s	reek on the Skook port 21820, Figur 90E - 92E.	NORTHING: EASTING: e 6).	6119329 402293
COMMODITIES:	Copper	Gold			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite K-Feldspar Epidote Propylitic	Chlorite Potassic			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L03 Alkalic porphyry C	Disseminated Epigenetic u-Au			
HOST ROCK DOMINANT HOSTROCK:	: Plutonic				
STRATIGRAPHIC AGE Lower Jurassic Lower Jurassic	<u>GROUP</u> Takla	<u>FORM</u> Chuchi	TION Lake	IGNEOUS/METAM Hogem Intrusive C	ORPHIC/OTHER Complex
LITHOLOGY:	Plagioclase Porphyritic Mor Andesite Latite Siltstone	nzonite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic Roc	ks	PHYSIOGRAPHIC AREA: Nechako	o Lowland
INVENTORY					
ORE ZONE:	DRILLHOLE		REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Drill Core <u>COMMODITY</u> Gold Copper From an 8-metre drill inters Assessment Report 21820	alysis <u>GRAD</u> 0.71 1.27 section. 0, page 33.	YEAR: 00 Grams p 00 Per cent	1991 er tonne	
CAPSULE GEOLOGY					
	The area nort end of the Hogem I main phases rangin Recent mapping nor indicates that the Jurassic monzonite and sedimentary ro new informal divis Group (Fieldwork 1 At the Creek	h of Chuchi Lako ntrusive Comple: g in age from La th of Chuchi Lal intrusions in and syenite. cks of the Lowe: ion of the Midd 990 and 1991). showing, narrow	e is underla: x which compared the Triassic (Open File this area con These rocks h r Jurassic Ch le Triassic t , high-grade	in by the southeastern rises at least three to Early Cretaceous. e 1992-4), however, mprise mainly Early have intruded volcanic nuchi Lake Formation, a to Lower Jurassic Takla chalcopyrite veinlets	

and minor disseminated pyrite occur in moderately to strongly epidotized and potassically altered fine-grained volcanics (latite) and plagioclase porphyritic monzonite.

One drillhole intersection yielded 1.27 per cent copper and 0.71 gram per tonne gold over 8 metres (Assessment Report 21820, page 33). This drillhole cut monzonite and strongly potassium feldspar and chlorite/epidote-altered andesite and siltstone. Anomalous amounts of silver were also reported from chip samples.

EMPR ASS PRT 18073, 21108, \*21820 EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118 EMPR OF 1991-3; 1992-4 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A GSC OF 2842

DATE CODED: 1993/02/17 DATE REVISED: / /

CODED BY: GJP REVISED BY:

MINFILE NUMBER:	<u>093N 084</u>			NATIONA	L MINERAL INVENTORY:	093N2 Cu9
NAME(S):	<u>Moss</u> , pu					
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093N02E				MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 14 N 124 31 52 W 1025 Metres Within 500M Located between Chuchi a	and Witch lakes on t	he Chuchi claims		NORTHING: EASTING:	6111132 402396
COMMODITIES:	Copper	Gold	Lead			
	Durrhotito Durito	Magnotito	Chalconvrita	Maraaaita		
COMMENTS: ALTERATION:	Galena Bornite Galena and bornite observ Epidote Sericite	ved in thin section. Carbonate	Chlorite	Albite		
COMMENTS:	Garnet Actinolite Wollastonite, sphene, diop	Clinozoisite oside, biotite and pot	assium feldspar,			
ALTERATION TYPE: MINERALIZATION AGE:	Imonite and goethite altera	ation is also present. Skarn	Potassic		Carbonate	Oxidation
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L03 Alkalic porphyry C	Skarn Cu-Au		K01	Cu skarn	
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORI Witch	MATION Lake		IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Altered Rock Augite Plagioclase Porphy Monzonite Intrusive Brecc Plagioclase Hornblende Po Monzonite Dike	rritic Andesite ia orphyry Monzonite				
HOSTROCK COMMENTS:	Informal formation name	is Witch Lake.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMOBULC TYPE:	Intermontane Quesnel			PHYSIOG	RAPHIC AREA: Nechako	b Lowland
	Regional				GIADE. Zeolite	
ORE ZONE.	TRENCH		REPORT O	N. N		
COMMENTS: REFERENCE:	CATEGORY: Assay/al SAMPLE TYPE: Chip <u>COMMODITY</u> Gold Copper This grade was obtained f Assessment Report 21986	nalysis <u>GR</u> 1 0 from a 56-metre tren 8, page 11.	YEA ADE .6000 Grams .1200 Per ce ch interval.	R: 1991 s per tonne ent		
CAPSULE GEOLOGY	The Moss pros Formation of the T intruded by coeval plagioclase hornbl breccias. The prospect mineralization rel Witch lakes, the C 114,115) (refer al weathering has pro over the occurrence to 3 metres. Rock augite (plus/minus series of monzonit assemblage consist	spect is hosted Cakla Group. Control of the second cakla Group end cakla Group end control of the second caked to a large Chuchi-Witch all so to the Witch control of the second cakes. Alter the second second cakes. Alter the second second cakes. Alter	d within the on the Chu cl equivalents of monzonites a area of stron ger porphyry teration hal ch occurrence developed lin thickness fu in trenches porphyritic ration consi c, sericite,	Upper Tr laims, th consistin and monzo ng altera system b lo (Field e, 093N 1 monite an rom less are vari andesite ists of a carbonat	iassic Witch Lake ese rocks are g of crowded nite intrusive tion and etween Chuchi and work 1991, pages 64). Surface d goethite cap than 1 metre up ably altered s intruded by a propylitic e, chlorite	

plus/minus albite; and a skarn assemblage consisting of garnet, actinolite, clinozoisite, wollastonite, sphene and diopside. Secondary biotite and weak potassium feldspar alteration is minor and occurs locally. In stronger zones of alteration, the original textures of the rock are destroyed.

Mineralization consists primarily of disseminated pyrite, pyrrhotite, magnetite and localized chalcopyrite. Minor occurrences of marcasite, galena and bornite have been seen in thin section. The strongest zones of mineralization contain 10 to 15 per cent pyrrhotite as blebby aggregates with the other sulphides. Gold mineralization is reported to be associated with stronger zones of

alteration and in particular, zones of better-developed skarn. Trench sampling has outlined a zone grading 1.6 grams per tonne gold and 0.12 per cent copper over 56 metres east-west in Trench I; and 1.1 grams per tonne gold and 0.016 per cent copper over 34 metres north-south in Trench II (Assessment Report 21988, page 11). Nine diamond-drill holes were drilled in 1991 in and around the Moss prospect. The best intersection obtained was 0.064 gram per tonne (64 parts per billion) gold and 0.035 per cent (347 parts per million) copper (Assessment Report 21988, page 17).

#### BIBLIOGRAPHY

EMPR GEM 1972-435; 1973-363; 1974-276 EMPR ASS RPT 3853, 4589, 5145, 7887, \*19720, \*20899, \*21988 EMPR FIELDWORK 1990, p. 89-110; \*1991, pp. 103-118 EMPR OF MAP 1991-3; 1992-4 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/17 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N 085</u>	ERAL INVENTORY: 093N7 Cu2	
NAME(S):	<u>APLITE CREEK,</u> AHDATAY, LUC, CUL, PHIL 2		
STATUS:	Prospect		MINING DIVISION: Omineca
REGIONS: NTS MAP: BC MAD	British Columbia 093N07W		UTM ZONE: 10 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 19 25 N 124 52 46 W 1215 Metres Within 500M Located approximately 4.75 kilometres east- end of Ahdatay Lake, along Aplite Creek.	southeast of the southern	NORTHING: 6132412 EASTING: 380752
COMMODITIES:	Copper Gold		
ASSOCIATED:	Quartz Carbonate	Enidata Hamatita	
	Malachite Azurite Limonite		
MINERALIZATION AGE:	Polassic Propyillic	Oxidation	
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Disseminated Porphyry Hydrothermal		
DIMENSION: COMMENTS:	There are two prominent fracture trends, 34	STRIKE/DIP: 5 and 060 degrees.	TREND/PLUNGE: 345/
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP FO	RMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic			Unnamed/Unknown Informal
LITHOLOGY:	Diorite Gabbro Intrusive Breccia Augite Hornblende Porphyritic Monzodiorite Aplite Dike Monzonite Dike		
HOSTROCK COMMENTS:	The intrusive body is informally called the A Complex (Fieldwork 1992); it may be a pha	plite Creek Intrusive se of the Hogem complex.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIOGRAPH	IC AREA: Manson Upland
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core <u>COMMODITY</u> <u>G</u> old	YEAR: 1990 RADE 6.4000 Grams per tonne	
COMMENTS: REFERENCE:	Copper From a 6-metre drill interval. Assessment Report 20943.	0.0980 Per cent	
CAPSULE GEOLOGY			
	The Aplite Creek prospect Aplite Creek Intrusive Complex the larger Late Triassic to Eas The Aplite Creek complex is con diorite and gabbro, augite (hos intrusive breccia and aplite an age is assumed for the complex Chuchi Lake Formation of the Ta The area was first explored	is hosted within the Earl (informal name); a possib rly Cretaceous Hogem Intru mposed of equigranular and rnblende) porphyritic monz nd monzonite dikes. An Ea since it intrudes the Low akla Group. ed for copper-molybdenum p	y Jurassic le phase of sive Complex. porphyritic odiorite, rly Jurassic er Jurassic orphyry

Mines, Noranda and Pechiney Development. Since 1983, BP-Selco and BP have re-examined the region for alkaline copper-gold porphyry targets. The most recent work (1990) on the prospect involved 6
	diamond-drill holes. Rocks of the Aplite Cr zones trending northwest (3 Deeply incised gullies with the subvertical fractu- linears. Moderate to inter envelopes up to 20 to 25 mg (potassium feldspar, biotit Mineralization consist chalcopyrite in anastomosir centimetres thick. Sulphic country rocks, locally up t Various amounts of malachit associated with the sulphic recorded in drill core was 0.098 per cent copper (Asse	The seek Intrusive Complex are cut by fractures (45 degrees) or northeast (060 degrees). In good outcrop exposures are coincident are zones and form prominent topographic use propylitic and potassic alteration etres thick occur around the fractures te, chlorite and epidote). This of disseminated pyrite, pyrrhotite and and quartz-carbonate veins up to 4 des are also present in the matrix of the to 100 metres away from the fractures. The best assay intersection de minerals. The best assay intersection for metres of 6.4 grams per tonne gold and essment Report 20943).	2
BIBLIOGRAPHY	EMPR ASS RPT 2450, 3865, 39 *13342, 20876, *20943 EMPR FIELDWORK 1990, pp. 89 EMPR GEM 1970-181, 1972-449 EMPR OF 1991-3; 1992-4; *19 GSC MAP 876A; 907A; 971A; 1 GSC MEM 252 GSC OF 2842 GSC P 41-5; 42-2; 45-9 WWW http://www.infomine.com	962, 4430, 4431, 4653, 5148, 5212, 12149, 9-110; 1991, pp. 103-118; *1992, pp. 87-10 993-3 424A; 1586G	)7
DATE CODED: DATE REVISED:	1985/07/24 1993/03/11	CODED BY: GSB REVISED BY: KBE	FIELD CHECK: N FIELD CHECK: Y

\_\_\_\_

MINFILE NUMBER:	<u>093N 086</u>		NATIONAL MINERAL INV	/ENTORY:	
NAME(S):	PACQ				
STATUS:	Showing		MINING	DIVISION: Omineca	
NTS MAP:	093N10W		U	TM ZONE: 10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 26 N 124 54 09 W 1475 Metres Within 500M The occurrence is located north 3.5 kilometres northeast from th (Assessment Report 21803).	of Germansen Lake, ap he bridge at the Germans	N proximately sen Narrows	ORTHING: 6175135 EASTING: 380458	
COMMODITIES:	Copper Silve	r Zir	Gold		
MINERALS					
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Quartz Carbonate Carbonate Unknown				
DEPOSIT					
CLASSIFICATION: SHAPE:	Disseminated Vein Porphyry Hydro Irregular	othermal			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	<u>FORMATION</u> Plughat Mounta	in IGNEOL	JS/METAMORPHIC/OTHER	
LITHOLOGY:	Basaltic Volcanic				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA GRADE:	: Omineca Mountains : Greenschist	
INVENTORY					
ORE ZONE:	SAMPLE	REF	PORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysi SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Copper Zinc A grab sample from an altered a (sample 86226). Assessment Report 21803.	s <u>GRADE</u> 18.8000 0.7600 0.0480 0.1578 area marked by quartz-su	YEAR: 1991 Grams per tonne Grams per tonne Per cent Per cent Jphide veinlets		
CAPSULE GEOLOGY					
	The Pacq occurrence is located north of Germansen Lake, approximately 3.5 kilometres northeast from the bridge at the Germansen Narrows (Assessment Report 21803). This occurrence is hosted in the Plughat Mountain Formation, part of the Middle Triassic to Lower Jurassic Takla Group. The Plughat Mountain Formation is a thick sequence of augite-bearing, mafic to intermediate(?), calcalkaline to alkaline pyroclastic rocks, massive flows and lesser epiclastic rocks. In this area, the Plughat Mountain Formation is the upper volcanic sequence of the Takla Group. The lower, sediment-dominated sequence of rocks, are part of the Middle-Upper Triassic Slate Creek Formation (Takla Group). To the northeast, the Takla Group is in fault contact (the Manson fault zone) with the Pennsylvanian to Permian Nina Creek Group. To the south, the Takla Group has been intruded by the Cretaceous Germansen batholith, a multiphase granitic to granodiorite intrusion. Mineralization consists of disseminated pyrite and chalcopyrite occurring within anastomosing quartz-sulphide veinlets hosted by carbonate-altered basaltic rocks 50 metres wide A grab sample				

analysed 18.8 grams per tonne silver, 0.0482 per cent copper, 0.1578 per cent zinc, 0.0694 per cent lead and 0.760 gram per tonne gold (Assessment Report 21803).

# BIBLIOGRAPHY

EMPR GEM 1972-451 EMPR ASS RPT \*21803 EMPR OF 1989-12 EMPR FIELDWORK 1988, pp. 209-220 EMPR BULL \*91 GSC MEM 251 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED:1985/07/24CODED BY:GSBFIELD CHECK:NDATE REVISED:1992/09/27REVISED BY:DMMFIELD CHECK:N	DATE CODED:	1985/07/24	CODED BY:	GSB	FIELD CHECK: N
	DATE REVISED:	1992/09/27	REVISED BY:	DMM	FIELD CHECK: N

MINFILE NUMBER:	<u>093N 087</u>	NATIONAL MI	NERAL INVENTORY: 093N9 Ba1		
NAME(S):	OMINECA QUEEN, DISCOVERY				
STATUS:	Prospect		MINING DIVISION: Omineca		
NTS MAP:	093N09E		UTM ZONE: 10 (NAD 83)		
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 31 28 N 124 06 36 W 850 Metres Within 500M The occurrence is located on Barite Cre	about 4.5 kilometres	NORTHING: 6153713 EASTING: 429926		
	northeast of lower Gaffney Creek bridg trail up the creek, the condition of whic	ge. Access is via an old cat h is unknown.			
COMMODITIES:	Barite Silver	Lead	Zinc		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Barite Galena Sphalerit Quartz Unknown	e Tetrahedrite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Layered Sedimentary Exhalative E17 Sediment-hosted barite Tabular Faulted	Replacement	Industrial Min.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP Big Creek	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER		
LITHOLOGY:	Graphitic Slate Argillite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Cassiar Regional	PHYSIOGRAF RELATIONSHIP: Post-mineralization	PHIC AREA: Manson Upland GRADE: Greenschist		
INVENTORY					
ORE ZONE:	SAMPLE	REPORT ON: N			
	CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY	YEAR: 1974			
COMMENTS: REFERENCE:	Bante Grade given is for BaO, across 5 metre Geology, Mining and Exploration in Britis	63.1500 Per cent es (sample 4). sh Columbia, page 374.			
CAPSULE GEOLOGY					
	This barite occurrence is situated 800 metres upstream from the mouth of Barite Creek, immediately south of the Manson River and 4.5 kilometres northeast of the lower Gaffney Creek bridge. The occurrence was discovered and staked in 1966. The Omineca Queen occurrence is found in both sides of the creek and consists of 3 to 7-metre thick sequences of layered barite found with graphitic slates and argillites of the Upper(?) Devonian to Lower Permian Big Creek Group, formerly the Cooper Ridge Group. Layering within the barite is produced by impurities such as quartz and organic matter. The barite is faulted and folded and strikes northwest with a vertical attitude. Although these barite bands appear to replace quartz-rich layers, they also indicate that the deposit may have formed as a sedimentary exhalative. Minor amounts of galena, sphalerite and tetrahedrite are known to exist. A sample cut across 5 metres plus 3 metres of exposed barite 120 metres east of a gully yielded 63.15 per cent BaO (Geology, Exploration and Mining in British Columbia, page 374).				
BIBLIUGKAPHY	EM FIELDWORK, pp. 127-147 EMPR ASS RPT *2636 EMPR BULL *91, pp. 23,58				

EMPR FIELDWORK \*1987, pp. 169-180 EMPR GEM 1970-490, \*1974-373 EMPR OF 1988-12 GSC MAP 876A; 971A; 1424A; 5249G GSC MEM 252 GSC P 41-5; 42-2; 45-9; 75-33 EMPR OF 2000-22

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/29 CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	<u>093N 088</u>	NATIONAL MINERAL I	NVENTORY: 093N9 Au3
NAME(S):	BOULDER CREEK		
STATUS: REGIONS:	Past Producer British Columbia	Open Pit MININ	NG DIVISION: Omineca
NTS MAP: BC MAP:	093N09W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 54 N 124 21 39 W 875 Metres Within 1 KM The Boulder Creek placer occurrence is Boulder Creek, west of the middle lake kilometres southeast of the present loc settlement. No mention is made of how has occurred.	s located along the banks of the Manson Lakes, about 12 ation of the Manson Creek far up the creek placer mining	NORTHING: 6162217 EASTING: 414253
COMMODITIES:	Gold Tungsten		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gold Scheelite Quaternary		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Quaternary	GROUP	FORMATION IGNE	OUS/METAMORPHIC/OTHER al/Fluvial Gravels
LITHOLOGY:	Sand Gravel		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Omineca Kootenay	PHYSIOGRAPHIC ARE	EA: Manson Upland
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Omineca Kootenay	PHYSIOGRAPHIC ARE	EA: Manson Upland
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Omineca Kootenay The Boulder Creek plac west of the middle lake of kilometres southeast of the settlement. Vehicle access Manson Lakes as the crossin connecting the upper and lo Manson Lakes. Boulder Creek drains u sedimentary rocks and grani to Permian Manson Lakes Ult Group, the Middle Triassic Cretaceous Germansen bathol The creek is reported production for the period of (Bulletin 28, page 44). The it contains many large, clo tonnes. In the 1960s, scheelit This discovery shifted the for tungsten during the ear	PHYSIOGRAPHIC ARE er occurrence is located on Boulde the Manson Lakes. It is approxima present location of the Manson Cr is controlled by the water levels g is located near a narrow channel wer portions of the middle lake of ltramafic rocks, metamorphosed sec tic rocks belonging to the Pennsy? ramafites, the Proterozoic Boulder to Lower Jurassic Takla Group and ith, respectively. to be rich in coarse gold with a re f 1936 to 1940 being 3421 grams of e wash is apparently difficult to sely-packed boulders weighing up to e was discovered in the placer con focus from placer exploration to the	EA: Manson Upland er Creek, ately 12 reek s of the 1 f the diments, lvanian r Creek the recorded f gold work as to 27.2 ncentrate. the search
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Omineca Kootenay The Boulder Creek place west of the middle lake of kilometres southeast of the settlement. Vehicle access Manson Lakes as the crossin connecting the upper and lo Manson Lakes. Boulder Creek drains u sedimentary rocks and grani to Permian Manson Lakes Ult Group, the Middle Triassic Cretaceous Germansen bathol The creek is reported production for the period of (Bulletin 28, page 44). Th it contains many large, clo tonnes. In the 1960s, scheelit This discovery shifted the for tungsten during the ear	PHYSIOGRAPHIC ARE er occurrence is located on Boulde the Manson Lakes. It is approxime present location of the Manson Cr is controlled by the water levels g is located near a narrow channel wer portions of the middle lake of ltramafic rocks, metamorphosed sec tic rocks belonging to the Pennsy ramafites, the Proterozoic Boulder to Lower Jurassic Takla Group and ith, respectively. to be rich in coarse gold with a n f 1936 to 1940 being 3421 grams of e wash is apparently difficult to sely-packed boulders weighing up to e was discovered in the placer con focus from placer exploration to the ly 1970s.	EA: Manson Upland er Creek, ately 12 reek s of the f the diments, lvanian r Creek the recorded f gold work as to 27.2 ncentrate. the search
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Omineca Kootenay The Boulder Creek place west of the middle lake of kilometres southeast of the settlement. Vehicle access Manson Lakes as the crossin connecting the upper and lo Manson Lakes. Boulder Creek drains us sedimentary rocks and grani to Permian Manson Lakes Ult Group, the Middle Triassic Cretaceous Germansen bathol The creek is reported production for the period of (Bulletin 28, page 44). The it contains many large, clo tonnes. In the 1960s, scheelit This discovery shifted the for tungsten during the ear EMPR AR *1900-750; 1935-C39 EMPR BULL *28, pp. 43,44; 1 EMPR FIELDWORK 1987, pp. 16 EMPR OF 1988-12; 1999-3 GSC MAP 876A; 907A; 971A; 1 GSC MEM 252 GSC P 41-5; 42-2; 45-9; 75- GSC SUM RPT 1933, pp. 9-29 1985/07/24	PHYSIOGRAPHIC ARE er occurrence is located on Boulde the Manson Lakes. It is approxima present location of the Manson Ci is controlled by the water levels g is located near a narrow channel wer portions of the middle lake of ltramafic rocks, metamorphosed sec tic rocks belonging to the Pennsy ramafites, the Proterozoic Boulder to Lower Jurassic Takla Group and ith, respectively. to be rich in coarse gold with a p f 1936 to 1940 being 3421 grams of e wash is apparently difficult to sely-packed boulders weighing up t e was discovered in the placer con focus from placer exploration to to ly 1970s. ; 1941-84 , p. 80; 91 9-180 424A; 5249G 33 CODED BY: GSB	EA: Manson Upland er Creek, ately 12 reek s of the 1 f the diments, lvanian r Creek the recorded f gold work as to 27.2 ncentrate. the search

MINFILE NUMBER:	<u>093N 089</u>			NATIONAL MINE	RAL INVENTORY:	093N14 Cu3
NAME(S):	DISCOVERY, DUCKLING, I AL, FRONT, LING, JAJAY	DUCK,				
STATUS: REGIONS	Prospect British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N14W				UTM ZONE:	10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 49 41 N 125 18 09 W 1475 Metres Within 500M Location is for the Discove 12 kilometres northeast of Germansen Landing (Asse	ery showing, east of Duc Old Hogem and 38 kilon sssment Report 16831, f	kling Creek, ab netres west of Figure 3).	out	Northing: Easting:	6189341 355776
COMMODITIES:	Copper	Gold	Silver			
MINERALS						
SIGNIFICANT: COMMENTS:	Pyrite Bornite Bornite and covellite are do thought to be very fine gra	Covellite Chalc escribed as minor and c ined and occurs in asso	copyrite halcopyrite is ociation with pyr	rite.		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrrhotite Epidote Malachite Epidote Unknown	K-Feldspar Potassic	Oxidation			
DEPOSIT	Discoursis a ta d	NA	Ohaan			
CHARACTER: CLASSIFICATION:	Porphyry	Hydrothermal	Snear			
DIMENSION: COMMENTS:	L03 Alkalic porphyry C 12 x 3 Dimensions are maximums	u-Au Metres s for the mineralized she	STRIKE/DIP ar zone.	<u>.</u>	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK	Volcanic					
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic Mesozoic	<u>GROUP</u> Takla	<u>FORMAT</u> Undefine	ION d Formation		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Basalt Monzonite Syenite Hybrid Rock Syenite Porphyry Dike Pyroxene Porphyry Dike					
HOSTROCK COMMENTS:	Phases of the Hogem Inti Early Cretaceous.	rusive Complex range fro	om Late Triassio	c to		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic Rocks		PHYSIOGRAPH	C AREA: Omineca	Mountains
INVENTORY						
ORE ZONE:	SHOWING		REPORT ON:	Ν		
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Copper Assay described as best of Geology, Exploration and M	nalysis <u>GRADE</u> 12.540 of Discovery shear zone Aining in British Columbia	YEAR: 00 Per cent samples. a 1971, page 21	1970		
CAPSULE GEOLOGY						
	The Discovery of the Swannell Ra kilometres northea Landing. The area is u Group volcanics wh southeast by mesoz to Early Cretaceou an elongate bathol Mesilinka River.	occurrence is singes (Omineca Mou st of Old Hogem a nderlain by Middl ich have been int onal plutonic roo s Hogem Intrusive ith, extending fr The structural se	tuated in intains), a and 38 kilo te Triassic truded to t cks assigne complex. com Chuchi etting of t	the Duckling pproximately metres west -Lower Jura he north, w d to the La The pluton Lake, north he batholit	g Creek area y 12 of Germansen ssic Takla est and te Triassic ic rocks form to the b and the	

intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70).

Takla Group rocks in the area of the occurrence are predominantly basaltic in composition and host abundant, although erratically distributed epidote (with or without pyrite) as veinlets, stringers, pods and patchy replacements. These rocks are cut by numerous pyroxene porphyry "feeder" dikes which are pre-Hogem in age. Hogem complex intrusions range in composition from monzonite through syenite and are potassically altered, locally hosting up to 50 per cent pink feldspar as veins and envelopes several centimetres wide around fractures. Dikes of fine to medium-grained syenite porphyry cut the volcanic rocks in the area. Near the contact, a dark hybrid rock of uncertain composition has been mapped. It is, however, almost certainly related to the emplacement of the intrusions.

Mineralization is exposed in three trenches over a strike length of 12 metres. Here, disseminated and massive sulphides are hosted within a highly epidotized east-trending shear zone cutting basalt. In the easternmost trench, the zone varies up to 1 metre wide and contains patches of massive pyrite. In the next trench, five metres to the west, the highly fractured zone is still 1 metre wide, but hosts approximately 25 per cent pyrite with minor bornite and covellite. A further seven metres west, poddy, pyritized zones up to 2.7 metres wide are exposed. Malachite can be observed locally as fracture coatings within a few metres of this mineralization and pyrrhotite was noted locally. Although reports differ, very fine-grained chalcopyrite is thought to occur in association with the pyrite.

The best assay obtained from samples of this mineralization was 12.54 per cent copper across 1.22 metres (Geology, Exploration and Mining in British Columbia 1971, page 211). Another sample across 2.44 metres reportedly assayed 2.7 per cent copper, 24 grams per tonne silver and 0.34 gram per tonne gold (Assessment Report 10241, page 1). Three chip/grab samples taken during a more recent evaluation all analysed greater than 1 per cent copper and up to 0.52 gram per tonne gold and 50.0 grams per tonne silver. Three holes drilled in 1970 to test the zone determined that it is discontinuous at depth and along strike.

#### BIBLIOGRAPHY

EMPR ASS RPT 3536, 3537, \*10241, 16831, 19448 EMPR GEM 1970-185; \*1971-203-211 EMPR EXPL 1981-241 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 EMR MP CORPFILE (Donna Mines Ltd.; Fortune Channel Mines Ltd.) GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Special Vol. 15 (1976), Map B, #375; Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/28 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 090</u>	NATIC	NAL MINERAL INVENTORY:	093N4 Cu2	
NAME(S):	LUCY				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093N04W		UTM ZONE:	10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 07 12 N 125 56 30 W 1145 Metres Within 5 KM Location is the approximate ce claims, about 40 kilometres sou Annual Report 1968, page 148	entre of the now lapsed Lucy 1-24 uth of Takla Landing (Minister of Mines ).	NORTHING: EASTING:	6112097 312416	
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Pyrite Chalcopyrite Quartz Unknown				
DEPOSIT CHARACTER: CLASSIFICATION:	Vein She Hydrothermal Epig	ar Jenetic			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Hazelton	<u>FORMATION</u> Telkwa	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Intermediate Volcanic Andesitic Basaltic Volcanic Sediment/Sedimentary				
HOSTROCK COMMENTS:	The Telkwa/Nilkitkwa formation	ons are undifferentiated in this area.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine	PHYS	IOGRAPHIC AREA: Nechako	Plateau	
CAPSULE GEOLOGY	The Lucy occurrence is situated northeast of Natowite Lake, approximately 40 kilometres south of Takla Landing. The area was explored in 1968 when a program of geological mapping and soil geochemistry was carried out over the Lucy claims. The area is underlain by andesitic to basaltic volcanics and minor sediments assigned to the undivided Lower Jurassic Telkwa/Nilkitkwa formations of the Hazelton Group southwest of a large pluton of the Late Triassic-Early Jurassic Topley intrusions. The north-striking Takla fault separates the Hazelton Group rocks from Cretaceous sediments to the west. Minor pyrite and chalcopyrite were reportedly found in small quartz veins and shears in intermediate volcanic rocks.				
BIBLIOGRAPHY	EMPR AR *1968-148 EMPR OF 2000-19 GSC MAP 844A; 907A; 9 GSC MEM 252 GSC OF 3071 GSC P 42-7; 45-6	71A; 1424A			
DATE CODED: DATE REVISED:	1985/07/24 1992/10/09	CODED BY: GSB REVISED BY: DMN	F	TELD CHECK: N TELD CHECK: N	

MINFILE NUMBER:	<u>093N 091</u>			NATIONAL N	/INERAL INVENTORY:	093N2 Cu4
NAME(S):	EAGLE, NIGHTHAWK, SH NIGHT HAWK, RT, NATIO	K, N COPPER				
STATUS:	Prospect				MINING DIVISION:	Omineca
REGIONS. NTS MAP: BC MAP	093N02W				UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 03 N 124 51 46 W 1400 Metres Within 500M The Nighthawk showings kilometres west-southwe	s, 3 kilometres south sst from the east end	of Tchentlo Lake, I of the lake (Asso	, about 5 essment	NORTHING: EASTING:	6116869 381395
COMMODITIES:	Copper	Gold	Silver		Iron	Magnetite
MINERALS						Ū
SIGNIFICANT: ALTERATION:	Chalcopyrite Pyrite Chlorite Magnetite Clav	Magnetite Epidote	Carbonate	Quartz		
ALTERATION TYPE: MINERALIZATION AGE:	Propylitic	Argillic	Silicific'n		Biotite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L03 Alkalic porphyry	Stockwork Hydrothermal Cu-Au	Vein Industrial	Min.	Shear	
HOST ROCK DOMINANT HOSTROCK	: Plutonic					
STRATIGRAPHIC AGE Upper Triassic Lower Jurassic	<u>GROUP</u> Takla	FOR Witc	MATION h Lake		IGNEOUS/METAM Hogem Intrusive C	ORPHIC/OTHER
LITHOLOGY:	Diorite Granodiorite Gabbro Monzonite Augite Porphyry Tuff					
HOSTROCK COMMENTS:	The Takla volcanic rock Witch Lake Formation.	s are assumed to be	of the informally	named		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic F	Rocks	PHYSIOGR/	APHIC AREA: Nechako	b Lowland
INVENTORY						
ORE ZONE:	DRILLHOLE		REPORT (	DN: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Drill Cor <u>COMMODITY</u> Silver Gold Copper From a 27.28-metre drill i Assessment Report 2176	analysis e <u>GF</u> 3 0 0 nterval. 52, page 8.	YEA 8.8500 Gram 0.3200 Gram 0.8700 Per c	AR: 1991 hs per tonne hs per tonne ent		
CAPSULE GEOLOGY	The Nighthaw 5 kilometres west underlain by the Cretaceous Hogem to the east and n monzonite and sye Triassic to Lower Exploration Limit	k prospect is -southwest of southeastern e: Intrusive Comp ortheast, as c nite phases; ti Jurassic Takl ed, however, h	located sout its eastern nd of the La lex, which h onsisting pr hese intrude a Group (Ope as mapped th	h of Tchent end. This te Triassic as been rec imarily of rocks of t n File 1992 e intrusive	clo Lake, about area is to Early cently mapped, Early Jurassic the Middle 2-4). Noranda a rock in the	

Nighthawk area as mainly diorite with lesser areas of granodiorite and gabbro. South of the intrusive contact the rocks have been identified as augite porphyries and volcanic tuffs, probably of the Upper Triassic Witch Lake Formation, Takla Group. The intrusive rocks are moderately fractured with the principle

shear zones striking northwest. The two dominant fracture orientations are: 1) 150 degrees strike with 65 degrees east dip, and 2) 050 degrees strike with 40 degrees west dip. The main copper mineralization is associated with the northwest-striking shear zones with the three main showings (Vector (093N 092), Mid (093N 139), and Nighthawk) forming a roughly linear feature.

The showings, located the near the highest point of land in the area, consist of disseminated to semimassive pockets and stockwork veinlets of chalcopyrite and pyrite in altered diorite. Alteration includes chlorite, magnetite and epidote and is associated with strong copper mineralization.

In 1991, Noranda drilled two holes into the Nighthawk zone. These holes intersected diorite containing zones of strong fracturing, and strong alteration consisting of chlorite and carbonate plus/minus quartz and clay and containing abundant pyrite (2 to 3 per cent) and chalcopyrite (2 to 4 per cent). A 27.28-metre drill interval (from 5.07 to 32.35 metres) averaged 0.87 per cent copper, 0.32 gram per tonne gold and 3.85 grams per tonne silver (Assessment Report 21762, page 8). In the 1960s, West Coast Mining and Exploration put down a drillhole in the vicinity of the Nighthawk occurrence and intersected 21 metres of massive magnetite (Assessment Report 1056, page 1).

#### BIBLIOGRAPHY

EMPR ASS RPT 851, \*1056, 1599, 3337, 3338, 19239, \*20245, \*20406, \*21762, \*21799 EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118 EMPR OF 1991-3; 1992-4 EMPR GEM 1969-107, 1971-197 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC OF 2842 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1993/03/04 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 092</u>				NA	ATIONAL	MINERAL INVENT	ORY:
NAME(S):	<u>VECTOR</u> , EAG SAB, SK, RT	GLE, NATION	I COPPER,					
STATUS:	Prospect						MINING DIVIS	ION: Omineca
REGIONS: NTS MAP:	British Columbi 093N02W	ia					UTM ZC	DNE: 10 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 06 N 124 53 19 V 975 Metres Within 500M The Vector pro	N V Dispect, loca	ted less than 1	kilometre sou	th of Tchentlo	D	NORTH EAST	IING: 6118860 ING: 379803
	21762, Figure	1).	i the east end o	i the lake (AS	sessment Re	pon		
COMMODITIES:	Copper		Gold	S	ilver			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Magnetite Albite Propylitic	Chalcopyrite Chlorite	e Magnetite	Quartz	Carbor	nate		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L03 Alkalic	: porphyry C	Vein Hydrothermal Cu-Au	D E	isseminated pigenetic		Shear	
HOST ROCK DOMINANT HOSTROCK:	: Plutonic							
STRATIGRAPHIC AGE	GROUP			FORMATION			IGNEOUS/ME	TAMORPHIC/OTHER
Upper Triassic Lower Jurassic	Takla			Witch Lake			Hogem Intrus	ive Complex
LITHOLOGY:	Diorite Granodiorite Gabbro Monzonite Augite Porphy Tuff	ry						
HOSTROCK COMMENTS:	The Takla vo are assumed	lcanic rocks to be of the	south of the Ho Witch Lake Fo	ogem complex rmation (inform	<pre>c intrusive roc nal name).</pre>	ks		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		Pluto	nic Rocks	Pł	HYSIOGR	APHIC AREA: Neo	chako Lowland
INVENTORY								
ORE ZONE:	DRILLHOLE			RI	EPORT ON: N	1		
COMMENTS	CATEGORY: SAMPLE TYPE COMMODITY Silver Gold Copper From a 17.90-1	Assay/ar	terval.	GRADE 4.1100 0.4700 0.8200	YEAR: 1 Grams per Grams per Per cent	991 tonne tonne		
	Assessment R	eport 21762	2, page 10.					
CAPSULE GEOLOGY	The V kilometres southeaste Intrusive northeast, syenite ph Jurassic T Limited, h mainly dio	Yector pr west of ern end o Complex, as cons ases; th 'akla Gro lowever, orite wit	ospect occi its easter f the Late which has isting prin ese intrud up (Open F has mapped h lesser ar	urs south rn end. 7 Triassic been rece marily of e rocks of ile 1992-4 the intru reas of qu	of Tchent Chis area to Early ently mapp Early Jur the Midd b). Norar isive rock anodiorit	tlo Lak is und Cretac ped, to cassic dle Tri nda Exp c in th ce and	e, about 7 erlain by the eous Hogem the east and monzonite and assic to Lowe loration e Vector area gabbro. Sout	e l er Las

of the intrusive contact the rocks have been identified as augite porphyries and volcanic tuffs, probably of the Upper Triassic Witch Lake Formation, Takla Group. The intrusive rocks are moderately fractured with the principle

PAGE: 1021 REPORT: RGEN0100

# CAPSULE GEOLOGY

shear zones striking northwest. The two dominant fracture orientations are: 1) 150 degrees strike with 65 degrees east dip, and 2) 050 degrees strike with 40 degrees west dip. The main copper mineralization is associated with the northwest-striking shear zones with the three main showings (Vector, Mid (093N 139), and Nighthawk (093N 091)) forming a roughly linear feature.

The showings can be traced in outcrop for up to 350 metres along a creek. This zone is strongly to intensely propylitically altered throughout most of its strike length. The altered zones invariably contains 2 to 3 per cent pyrite and 2 to 5 per cent chalcopyrite. Mineralization occurs most commonly as fracture filling veinlets (1 to 8 millimetres wide) surrounded by an albite-chlorite-magnetite alteration halo with pervasive finely disseminated sulphides. Some sulphides occur with massive magnetite in what appears to be a brecciated zone in intrusive rock.

In 1991, Noranda drilled two holes into the Vector zone. These holes intersected diorite containing zones of strong fracturing, and strong alteration consisting of chlorite plus/minus quartz and carbonate with abundant pyrite and chalcopyrite. A 17.90-metre drill interval (from 18.50 to 36.40 metres) averaged 0.82 per cent copper, 0.47 gram per tonne gold and 4.11 grams per tonne silver (Assessment Report 21762, page 10).

#### BIBLIOGRAPHY

EMPR ASS RPT 851, 1056, 1599, 3337, 3338, 19239, \*20245, \*20406, \*21762, \*21799 EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118 EMPR OF 1991-3; 1992-4 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC OF 2842 Placer Dome File WWW http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 1993/03/04 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 093</u>	NATIONAL MINI	ERAL INVENTORY: 093N13 Cu2
NAME(S):	<b>TAM</b> , REM, HAM, BOUNDARY, MIDWAY, CREEK, SAM, CIRQUE, FAULT, SLIDE		
STATUS:	Developed Prospect		MINING DIVISION: Omineca
REGIONS: NTS MAP:	093N13E 093N14W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 58 19 N 125 30 14 W 1450 Metres Within 500M Location is for the Boundary deposit, 1.5 I Creek and approximately 61 kilometres no Landing (Assessment Report 20914, Figu	kilometres south of Haha orth-northwest of Takla ıre 5).	NORTHING: 6205787 EASTING: 343743
COMMODITIES:	Copper Silver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Quartz Biotite K-Feldspar K-Feldspar Biotite Sericite Potassic Argillic Unknown	Magnetite Malachite	
DEPOSIT	Discoursing to d	Mala	
CLASSIFICATION: TYPE:	Disseminated Stockwork Porphyry Hydrothermal L03 Alkalic porphyry Cu-Au	vein	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Triassic-Jurassic Mesozoic Middle Jurassic	<u>GROUP</u> Takla	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex Duckling Creek Syenite Complex
LITHOLOGY:	Leucocratic Syenite Mesocratic Syenite Greenschist Greenstone Mica Schist Volcaniclastic Quartz Monzonite Monzodiorite Monzonite Syeno Diorite		
HOSTROCK COMMENTS:	The Duckling Creek Syenite Complex is to Early Cretaceous Hogem Intrusive Con	one phase of the Late Triassic mplex.	
	Intermontane	PHYSIOGRAPH	IIC AREA: Omineca Mountains
METAMORPHIC TYPE:	Quesnel Plutor Regional RE	nic Rocks ELATIONSHIP:	GRADE: Greenschist
INVENTORY			
ORE ZONE:	BOUNDARY	REPORT ON: Y	
COMMENTS: REFERENCE:	CATEGORY: Inferred QUANTITY: 7200000 Tonnes <u>COMMODITY</u> Silver Copper Possible reserves. Dyson, 1974	YEAR: 1974 GRADE 4.1100 Grams per tonne 0.5500 Per cent	
CAPSULE GEOLOGY			
	The Tam developed prospec (Omineca Mountains), approximand 61 kilometres north-north showing, now known as the Cimbasin overlooking Haha Creek The area is underlain by	ect is situated in the Swann mately 22 kilometres north o heast of Takla Landing. The cque, was discovered in a no in the late 1940s. y mesozonal plutonic rocks a	ell Ranges f Old Hogem original rth-facing ssigned to

PAGE: 1023 REPORT: RGEN0100

# CAPSULE GEOLOGY

the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have been emplaced into volcanic rocks of the Middle Triassic to Lower Jurassic Takla Group, east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. Garnett (1978) subdivided the southern Hogem batholith into three distinct phases: I) Late Triassic to Middle Jurassic Hogem granodiorite and Hogem basic suite, II) Middle Jurassic Duckling Creek and Chuchi Syenite complexes and III) Early Cretaceous granite. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70).

Three rock units predominate in the area of the occurrences. The first comprises mottled grey-pink-red, medium to coarse-grained equigranular to porphyritic, massive to foliated, strongly magnetic mesocratic syenite. The second unit consists of pink, brown and/or orange-coloured, medium to very coarse-grained, massive to weakly foliated, weakly magnetic leucocratic syenite. Both these units form part of the Duckling Creek Syenite Complex. Pendants(?) comprising an assemblage of foliated border facies or epizonal roof rocks including greenstone, greenschist, mica schist (paragneiss) and deformed volcaniclastics (Takla Group?) also occur within these intrusions. In addition to these rocks, Phase I monzodiorite/ syenodiorite and quartz monzonite tentatively grouped with Phase III granites have also been mapped in the area (Assessment Report 20914).

Several localized areas of copper mineralization, including the Boundary, Creek, Ridge and Midway prospects, have been observed to occur within pendant rocks (foliates) adjacent to a leucosyenite plug. Others, like the Cirque and Fault prospects, occur entirely within intrusive rocks.

The Boundary deposit is located at the intrusive contact between a northwest-trending, vertically-dipping septum of foliates and a leucosyenite plug with associated dikes. Remnants of altered mesocratic syenite intrude and are preserved within the foliates. Copper mineralization occurs both as fine-grained disseminations and as fracture fillings (quartz +/- pyrite, quartz +/- chalcopyrite, biotite +/- chalcopyrite, potassium feldspar +/- chalcopyrite, magnetite +/- chalcopyrite and chalcopyrite +/- pyrite veins, veinlets, stringers and discontinuous seams). Some mineralized fractures show reddish potassium feldspar +/- pyrite +/- sericite alteration envelopes. Quartz vein stockwork is poorly developed. Chalcopyrite to pyrite ratios are very high near the core of the deposit, but an outer pyrite halo is either weak or poorly preserved. No propylitic alteration assemblages were observed within or marginal to the deposit, but the strongest copper mineralization is clearly coincident with strong potassic (secondary potassium feldspar and biotite) alteration. Gold values are generally erratic and low in comparison to other porphyry copper-gold deposits (Assessment Report 20914, page 7).

The Creek showing, 500 metres south of the Boundary deposit, consists largely of disseminated fine-grained blebs of chalcopyrite within schistose to gneissic monzonite. The Ridge showing, a further 350 meters to the south, consists of malachite-stained, highly fractured schistose monzonite. The Cirque showing, 500 metres southwest of the Ridge, consists of disseminated chalcopyrite in magnetite-rich biotite syenite intruded by leucosyenite dikes. The Fault showing, a further 0.5 kilometre south of the Cirque showing, consists of disseminated chalcopyrite and bornite in iron-stained foliated monzonite exposed in a prominent northwesterly trending lineament. The Midway showing, 650 metres southeast of the Boundary deposit, consists of sparsely disseminated chalcopyrite in dark, fine, grey foliated monzonite. Malachite mineralization hosted by greenschist and local mesosyenite-hosted drusy quartz veins carrying disseminated bornite have also been outlined within and northwest of the Slide grid, north of Haha River.

Faults, where observed in drill core, are postmineral and accompanied by strong argillic alteration. It is speculated that a strong northwest-trending zone truncates the deposit to the southeast with possible right-lateral displacement to the northwest. Interpolation between surface lineaments and the location of faults observed in drill core suggests that the deposit is almost entirely enclosed within a down-faulted block or the keel-shaped protuberance of a roof pendant engulfed by the intrusions (Assessment Report 20914).

Work carried out to 1974 resulted in the definition of inferred (possible) reserves for the Boundary deposit of 7.2 million tonnes grading 0.55 per cent copper and 4.11 grams per tonne silver (Dyson, 1974).

EM GEOFILE 2003-6 EMPR ASS RPT 2522, 2523, 3217, 4273, 4676, 4737, 5130, 5309, 5602, 5649, 5751, 5804, 5957, 5993, 20439, \*20914 EMPR BULL 70, pp. 49-52 EMPR EXPL 1975-E151-E152; 1976-E170 EMPR GEM 1971-217; 1972-454; 1973-378-379; 1974-281-284 EMPR (PRELIM) MAP 9 EMPR OF 1992-1; 1998-10 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMR MP CORPFILE (Union Miniere Explorations and Mining Corporation Limited) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-1 GSC P 42-7, 45-0 CIM Vol. 67, No. 749, pp. 101-106 GCNL #164(Aug.24),#201(Oct.17), 1990 N MINER July 2, 1990 Dyson, C. (1974): Report on a Preliminary Feasibility and Financial Analysis of the Boundary Deposit, Tam Property for Union Miniere Explorations and Mining Corporation Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia Placer Dome File DATE CODED: 1985/07/24

DATE REVISED: 1992/10/19

CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 094</u>			NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>CHENT,</u> HILLTOP				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Omineca
LATITUDE: LONGITUDE: LOCATION ACCURACY: COMMENTS:	55 13 22 N 124 37 15 W 1500 Metres Within 500M The Hilltop zone, located a	bout 5 kilometr	es north of Chuchi Lake	NORTHING: EASTING:	6120780 396898
COMMODITIES:	Copper	Lead	Zinc	21004).	
		Calana	Cabalarita		
COMMENTS:	Trace galena and sphaleri	Galena te.	Sphaierite		
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Silica Malachite	Quartz Potassic	Fluorite Oxidation		
DEPOSIT	Chaplework	Main			
CLASSIFICATION: TYPE:	Hydrothermal L03 Alkalic porphyry C	vein Epigenetic Su-Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP		FORMATION	IGNEOUS/METAMO Hogem Intrusive C	<u>DRPHIC/OTHER</u> omplex
LITHOLOGY:	Monzonite Syenite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Pluto	nic Rocks	PHYSIOGRAPHIC AREA: Nechako	) Lowland
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON:	: N	
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY	nalysis	YEAR:	1991	
REFERENCE:	Assessment Report 21994	4.	0.5700 Percen	[	
CAPSULE GEOLOGY					
	to occur within a Tse (Chuchi) Mount Early Jurassic sye by Early Jurassic Cretaceous Hogem I southeastern end o and sedimentary ro Group. The mineraliz potassically alter and quartz veins w sphalerite and flu centimetres wide. the hematitic vein hematite. The ext be up to 400 by 20 cent copper (Asses	ain. The ain. The nite body monzonite, ntrusive C f the Hoger cks of the ed structu ed and bre- ith subord orite. Soi The coppe: s, which of ent of the 0 metres i: sment Report	intrusion on the area around the m (the Chuchi syeni all part of the omplex. These in m complex, which Middle Triassic re comprises a si cciated stockwork inate malachite s me magnetite veir r mineralization n fresh surfaces system is obscur n area. One rock rt 21994).	southwest flank of Lhole iountain is mapped as an .te) and is encompassed Late Triassic to Early itrusions form the has intruded volcanic to Lower Jurassic Takla .licified and c of magnetite, hematite staining, trace galena, is are up to 10 appears to be related to occurs as specular red by overburden but may c sample yielded 0.57 per	
BIBLIOGRAPHY	EMPR ASS PRT 3409, EMPR FIELDWORK 199 EMPR OF 1991-3; 19 GSC P 41-5; 42-2;	3410, *21 0, pp. 89- 92-4 45-9	994 110; 1991, pp. 10	13-118	

GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842

DATE CODED: 1993/02/19 DATE REVISED: / / CODED BY: GJP REVISED BY:

### MINFILE NUMBER: 093N 095

NAME(S): LOOP, TRN

# NATIONAL MINERAL INVENTORY: 093N11 Cu4

STATUS:	Showing	MINING DIVISION:	Omineca
REGIONS: NTS MAP	British Columbia	LITM ZONE	10 (NAD 83)
BC MAP:		NODTUNIO	
LATITUDE: LONGITUDE: FLEVATION	55 39 43 N 125 15 55 W 1860 Metres	EASTING:	6170782 357502
LOCATION ACCURACY:	Within 500M Location on a ridge top between Twin Creek and Twenty Mile Creek		
	drainages, about 17 kilometres southeast of Old Hogem.		
COMMODITIES:	Copper		
MINERALS			
SIGNIFICANT:	Chalcopyrite		
	Magnetite		
ALTERATION.	Silicific'n		
MINERALIZATION AGE:	Unknown		

DE	POSIT	

M

CHARACTER: Disseminated CLASSIFICATION: Hydrothermal Shear Porphyry

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE <u>GROUP</u> Takla Lower Jurassic

**TECTONIC BELT: Intermontane** 

TERRANE: Quesnel

FORMATION Twin Creek

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Plagioclase Porphyritic Flow Plagioclase Hornblende Augite Tuff Heterolithic Lapilli Tuff Aphanitic Volcanic

PHYSIOGRAPHIC AREA: Omineca Mountains

# CAPSULE GEOLOGY

**GEOLOGICAL SETTING** 

The Loop occurrence was initially located approximately 2 kilometres east of the present locality based on an early assessment report (3269). Re-evaluation of the report showed that the Loop property was below tree line where there was scarce outcrop. The property was thought to be underlain by Middle Triassic-Lower Jurassic Takla Group volcanic rocks. The copper mineralization described as disseminated blebs of chalcopyrite associated with calcareous quartz stringers and malachite-stained fractures occurs in multiple lithologies in the cirque headwall outside of the property area.

Reconnaissance geological mapping in the region (Open File 1993-4) identified a 2-metre wide zone, striking 030 degrees, in a grey, fine-grained, plagioclase porphyritic flow of the Lower Jurassic Twin Creek Formation of the Takla Group. The zone contains multiple stringers of silicified, bleached and possibly sheared rock containing chalcopyrite, malachite and magnetite. Disseminated malachite also occurs along fractures. A grab sample analysed 1.25 per cent copper and 0.030 grams per tonne gold. This mineralization is also described in Assessment Report 15319 as the TRN grid, part of the Takla-Rainbow occurrence (093N 082). Although it is not known with certainty if this copper showing represents the exact showing(s) described in the original assessment report (3269), it is of similar character. Assessment report 20968 reports minor disseminated chalcopyrite and malachite in several other areas in the cirque region. These very small mineralized spots should be included with the Loop showing.

The mineralization in the cirque may be related to the Takla-Rainbow prospect located 2.5 kilometres west of the Loop. Twin Creek Formation volcanic rocks in the area of the occurrence consist of plagioclase, hornblende, and augite-bearing heterolithic lapilli tuff and breccia and aphanitic volcanics.

EMPR ASS RPT \*3269, 3859, \*15319, 20968 EMPR OF 1993-4 EMPR FIELDWORK 1992, pp. 87-107 EMPR GEM 1971-202-203; 1972-451 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/24 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N 096</u>			NATIONAL N	/INERAL INVENTORY:	093N1 Cu1
NAME(S):	<b>TAYLOR</b> , MITZI, BUZ, TAY, AL					
STATUS:	Showing				MINING DIVISION:	Omineca
REGIONS. NTS MAP: RC MAD	093N01W				UTM ZONE:	10 (NAD 83)
LOTITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 07 01 N 124 25 20 W 1000 Metres Within 500M The showing is located 3 on a northeast-flowing tr Report 19926, Drawing 3	kilometres south c ibutary of Wittsichi	of the outlet of W ca Creek (Asses	itch Lake ssment	NORTHING: EASTING:	6108729 409291
COMMODITIES:	Copper	Gold				
MINERALS						
SIGNIFICANT: ALTERATION:	Pyrrhotite Pyrite Chlorite Garnet Epidote	Chalcopyrite Biotite	Tourmaline	Amphibole		
ALTERATION TYPE:	Skarn	Chloritic	Biotite		Tourmalinz'n	Potassic
MINERALIZATION AGE:	Topyino					
DEPOSIT		<b>B</b>				
CHARACTER: CLASSIFICATION:	Podiform Skarn	Disseminated Porphyry				
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
<u>STRATIGRAPHIC AGE</u> Upper Triassic	<u>GROUP</u> Takla	<u>FC</u> W	ORMATION itch Lake		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Plagioclase Augite Porph Diorite Dike Gabbro Dike	yritic Latite				
HOSTROCK COMMENTS:	Witch Lake Formation na probably coeval equival	ame informal at this ents of the Takla G	s time. The intrus Group.	sions are		
GEOLOGICAL SETTING						a Lawland
TECTONIC BELT: TERRANE:	Quesnel			PHI SIUGR/		o Lowiand
METAMORPHIC TYPE: COMMENTS:	Regional Zeolite to pumpellyite-pre	REL/ hnite grade metam	ATIONSHIP: orphism.		GRADE: Zeolite	
INVENTORY						
ORE ZONE:	SAMPLE		REPOR	ton: N		
	CATEGORY: Assay/a	analysis	Y	'EAR: 1990		
	COMMODITY Grab		GRADE			
	Gold Copper		4.9000 Gr 1.5900 Pe	ams per tonne er cent		
REFERENCE:	Assessment Report 1918	34.				
CAPSULE GEOLOGY	The Taylor g	howing is fou	nd on the M	itzi alaim a	coup and is	
	The Taylor's located in a nort kilometres south The showing porphyritic latit Formation of the Intrusive rocks o (Assessment Repor An outcrop, including seconda tourmaline, garne pyrrhotite occurs of 1.59 per cent obtained from gra Also in this assemblages and c pyrite and traces	nowing is fou heast-flowing of the outlet is hosted in es assigned t Middle Triass t 19184). less than 20 ry biotite, c t skarning an with fine-gr copper and 4. b samples (As vicinity, pr hloritic-rich of chalcopyr	nd on the M tributary of Witch L trachytic p o the Upper ic to Lower laims inclu metres long hlorite, se d white ble ained pyrit 9 grams per sessment Re opylitic an zones occu ite occur i	of Wittsichio ake. lagioclase au Triassic Wit Jurassic Tał de diorite ar , shows diven condary amphi aching. Up t e and chalcog tonne gold f port 19184). d potassic al r. Dissemina n the volcan	Coup and 15 (a Creek, 3) Igite (ch Lake (ch Lake (ch Lake) (ch Lake) (	

sulphide content varying directly with the intensity of alteration. Drilling in 1990 failed to intersect significant mineralization (Assessment Report 22179).

### BIBLIOGRAPHY

EMPR ASS RPT 3406, \*17793, \*19184, \*20383, \*21288, \*22179 EMPR FIELDWORK \*1990, pp. 89-110 EMPR OF 1991-3 EMPR GEM 1971-195 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A GSC OF 2842 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/09 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 097</u>		NATIONAL MINERAL INVENTORY:	093N14 Cu9
NAME(S):	KIP, STEELHEAD, PAL 48, JAJAY, STL, PIK, STEELE CREEK			
STATUS:	Showing		MINING DIVISION:	Omineca
NTS MAP:	093N14W		UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 58 34 N 125 24 05 W 1875 Metres Within 500M Location is the approximate centre of a g occurrences on a ridge near the headwa kilometres north of Old Hogem and 65 kilo Landing (Assessment Penort 33/1) Plate	roup of small copper ters of Steele Creek, abo metres northeast of Takl	NORTHING: EASTING: put 24 a	6206024 350155
	Coppor			
	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz K-Feldspar K-Feldspar Malachite Potassic Biotite Oxidation Unknown	Albitic	Chloritic	Epidote
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Disseminated Hydrothermal Porphyry L03 Alkalic porphyry Cu-Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u> Middle Jurassic Mesozoic	GROUP	FORMATION	IGNEOUS/METAM Duckling Creek Sy Hogem Intrusive C	ORPHIC/OTHER enite Complex complex
LITHOLOGY:	Monzodiorite Leucocratic Ortho Syenite			
HOSTROCK COMMENTS:	The Duckling Creek Syenite Complex is to Early Cretaceous Hogem Intrusive Co	one phase of the Late Tr mplex.	iassic	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Omineca	ı Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Copper Sample AJ-3. Assessment Report 21420, Appendix 1.	YEAR: GRADE 1.6950 Per cent	1991	
CAPSULE GEOLOGY	The Kin occurrence is s	ituated in the Du	chling Greek area of the	
	Swannell Ranges (Omineca Mou north of Old Hogem and 65 ki. The Duckling Creek area assigned to the Late Triassic Complex which have been empli Triassic-Lower Jurassic Takla The plutonic rocks form an en- Lake, north to the Mesilinka batholith and the intruded Tri associated with graben develo The Steele Creek area is monzodioritic border phases of leucocratic, orthosyenite in Creek Syenite Complex have bo from fine grained to megapor	ntains), approxim lometres northeas is underlain by c to Early Cretac aced into volcani a Group, east of longate batholith River. The stru akla Group is one opment (Bulletin s underlain by qu of the Hogem Intr trusions of the M een emplaced. Th phyritic orthosye	ately 24 kilometres t of Takla Landing. mesozonal plutonic rocks eous Hogem Intrusive c rocks of the Upper the Pinchi fault zone. , extending from Chuchi ctural setting of the of vertical tectonics 70). artz-deficient, usive Complex into which iddle Jurassic Duckling e small intrusions range nite and represent the	

latest stage of the intrusive event, having resulted in widespread potassium metasomatism. These rocks display variable potassic, biotite, albitic, chloritic and epidote alteration.

Copper sulphide mineralization, occurring in quartz veins and as minute disseminations along intergranular boundaries in the hostrock, is believed to be a late-stage event, spatially related to quartz and potassium feldspar veining. Quartz flooding occurs principally in syenite megaporphyry, where milky comb and drusy veins up to 30 centimetres wide have been observed. Blebs of chalcopyrite occur rarely within the veins or in the adjacent wallrocks. Elsewhere, chalcopyrite abundance appears to increase with the degree of potassium feldspathization. These zones are evident in the field by "sheet staining" of malachite on vertical faces. Pyrite, as fracture coatings, is generally restricted to monzonitic rocks which impart a reddish hue upon weathering and does not bear any spatial relationship to chalcopyrite mineralization.

relationship to chalcopyrite mineralization. Results from over 200 rock samples taken from approximately 35 minor copper occurrences located on the ridge surrounding Steele Creek in the early 1970s ranged from 90 ppm to 0.06 per cent copper and up to 0.044 per cent zinc (Assessment Report 3341, page 23). Samples taken in 1991 ranged up to 1.695 per cent copper, with background gold values (Assessment Report 21420, Appendix 1, Sample AJ-3).

Lysander Minerals Corp. collected talus fines and rock samples from the showing in 1999. The Steelhead and Pal 48 claims that cover the showings are part of the Jajay property, which was optioned to Eastfield Resources Ltd. in 2000.

# BIBLIOGRAPHY

EM GEOFILE 2003-6 EMPR ASS RPT \*3341, 4476, \*21420, 21429, 24239 EMPR BULL 70 EMPR GEM 1971-203-210,218; 1972-457-458 EMPR FF (\* Pearse, T. (1971): Geology and Geochemistry, Steele Creek Property for Noranda Exploration Company Ltd.; Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File); Page, J.W. (1999): 1999 Reconnaissance on the Jajay property, Lysander Minerals Corp. (in Lorraine - 093N 002)) EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/26 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 098</u>	NATIONAL M	MINERAL INVENTORY: 093N6 Cu1
NAME(S):	<u>B</u> , ROT, ROTTACKER CREEK		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N06E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 20 38 N 125 10 28 W 1065 Metres Within 500M Location are pit/trenches on Rottacker C east-southeast of Takla Landing (Asses IL-67-3).	Creek, about 53 kilometres ssment Report 1064, Plate	NORTHING: 6135213 EASTING: 362108
COMMODITIES:	Copper Silver		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Calcite Malachite Hematite Silica Silicific'n Potassic Unknown	Oxidation	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE	Vein Disseminated Hydrothermal Porphyry L03 Alkalic porphyry Cu-Au	3	
DIMENSION: COMMENTS:	Attitude is for major fault zone.	Strike/Dip: 156/63N	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Mesozoic	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Quartz Monzonite Granodiorite		
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Comple Early Cretaceous.	ex range from Late Triassic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGR/	APHIC AREA: Omineca Mountains
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Silver Copper Sample is a rough, 3-metre wide chip a Assessment Paport 3407, page 6	YEAR: 1971 <u>GRADE</u> 4.4600 Grams per tonne 0.1400 Per cent cross the major fault zone.	
CAPSULE GEOLOGY	Assessment Report 5407, page 0.		
	The B occurrence is si Mountains) on a west-southw approximately 53 kilometres The area is underlain the Late Triassic to Early have intruded predominantly to Lower Jurassic Takla Gro to the northwest. The plut extending from Chuchi Lake, In the area of the occ monzonite/granodiorite cut exposed in a 15-metre wide Chalcopyrite, pyrite and he stringers and as disseminat and adjacent to a major fau 63 degrees to the northeast zone appears to have been p is also evident in quartz m	tuated in the Swannell Rangest flowing tributary to Re east-southeast of Takla La by mesozonal plutonic rocks Cretaceous Hogem Intrusive sedimentary rocks of the M up and Lower Cretaceous US onic rocks form an elongate north to the Mesilinka Riv urrence, sheared and silic by several directions of fa pit just north of the creek matite occur with quartz an ions along fractures and jo lt zone striking 156 degree . The quartz monzonite ad otassically altered. Malaconzonite exposed on either	ges (Omineca ottacker Creek, anding. s assigned to Complex which Middle Triassic lika Formation e batholith, yer. ified quartz aulting is c. nd calcite in pints parallel es and dipping jacent to the chite staining side of the

creek. A vertically dipping, 5-centimetre wide quartz vein with pyritic margins is exposed for approximately 6 metres west of the fault zone. A 3-metre wide, rough chip sample across the zone assayed 0.14 per cent copper and 4.46 grams per tonne silver (Assessment Report 3407, page 6). No recent information concerning this

# BIBLIOGRAPHY

EMPR ASS RPT \*1064, 2938, 3407 EMPR AR 1967-118 EMPR GEM 1971-200 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/09

occurrence is available.

CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 099</u>	NATIONAL MINE	ERAL INVENTORY: 093N2 Cu6
NAME(S):	<u>TOP</u> , POT, ANOM		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N02E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 59 N 124 39 59 W 920 Metres Within 500M Small showings concentrated near the (Assessment Report 3409, Map 1).	north shore of Chuchi Lake	NORTHING: 6116429 EASTING: 393895
COMMODITIES:	Copper Molybdenun	1	
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Molybo Chalcopyrite and pyrite; molybdenite in Epidote Epidote	enite previous report.	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Vein Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au Chalcopyrite along fractures.		
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
		FORMATION	
Lower Jurassic	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
Lower Jurassic	GROUP Coarse Grained Equigranular Monzonit	<u>FORMATION</u>	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	GROUP Coarse Grained Equigranular Monzonit Intermontane Quesnel	PHYSIOGRAPH	IC AREA: Nechako Lowland
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY	Coarse Grained Equigranular Monzonit Intermontane Quesnel The Top showing includ chalcopyrite, pyrite and po in coarse-grained, equigrar Intrusive Complex. In the consists chiefly of epidote	FORMATION PHYSIOGRAPH les several small occurrences pssibly molybdenite along frac ular Early Jurassic monzonite vicinity of the mineralizatio	IC AREA: Nechako Lowland of ture surfaces of the Hogem n, alteration
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: CAPSULE GEOLOGY BIBLIOGRAPHY	Coarse Grained Equigranular Monzonit Intermontane Quesnel The Top showing includ chalcopyrite, pyrite and poin coarse-grained, equigran Intrusive Complex. In the consists chiefly of epidote EMPR GEM 1971-196 EMPR ASS RPT *3409, 3410, 2 EMPR FIELDWORK 1990, pp. 89 EMPR OF 1991-3; *1992-4 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1 GSC MEM 252 GSC OF 2842	PHYSIOGRAPH es several small occurrences bissibly molybdenite along frac ular Early Jurassic monzonite vicinity of the mineralizatio e. 21070 -110; *1991, pp. 103-118 424A	OF ture surfaces of the Hogem n, alteration

MINFILE NUMBER:	<u>093N 100</u>		NATIONAL MINERAL INVENTORY: (	093N14 Cu12
NAME(S):	<u>ST</u> , JAJAY			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N14W		MINING DIVISION: ( UTM ZONE: /	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 51 14 N 125 18 07 W 1555 Metres Within 1 KM Location is the common corn kilometres west-northwest o 3461, Figure 2).	ner of the ST 64 to 67 claims, about 3 f Germansen Landing (Assessment	NORTHING: 6 EASTING: 3 Report	6192214 355906
COMMODITIES:	Copper M	lolybdenum		
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Unknown Copper-molybdenum mineral Unknown	lization.		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Shear Hydrothermal Po L03 Alkalic porphyry Cu-	orphyry Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Triassic-Jurassic Mesozoic	<u>GROUP</u> Takla	FORMATION Undefined Formation	IGNEOUS/METAMO Hogem Intrusive Co	RPHIC/OTHER
LITHOLOGY:	Monzonite Gabbro Hornfelsed Volcanic			
HOSTROCK COMMENTS:	Phases of the Hogem Intrus Early Cretaceous.	sive Complex range from Late Triass	ic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Quesnel	PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY	The ST occurren Swannell Ranges (Omi (Duckling) showing ( west-northwest of Ge the early 1970s by F The area is und Group volcanics whic mesozonal plutonic r Cretaceous Hogem Int elongate batholith, Mesilinka River. Th intruded Takla Group graben development ( Copper and moly shear zone filling w intrusion and either Complex or hornfelse Mining in British Co No recent infor	nce is situated in the Du ineca Mountains), north o (093N 089) and approximate ermansen Landing. The ST Passport Mines Ltd. derlain by Middle Triassi ch have been intruded to crocks assigned to the Late trusive Complex. The plu extending from Chuchi Late trusive Complex. The pl	ckling Creek area of the f the Discovery ely 38 kilometres claims were evaluated in c to Lower Jurassic Takla the north and west by e Triassic to Early tonic rocks form an ke, north to the the batholith and the ponics associated with reported to occur as a ween a monzonite of the Hogem Intrusive (Geology, Exploration and ccurrence is available.	
BIBLIOGRAPHY	EMPR ASS RPT 3461 EMPR GEM *1971-203-2 EMPR BULL 70 EMPR PF (Chisholm, F for Passport Mine Project for Amoco EMPR (PRELIM) MAP 9 EMR MP CORPFILE (For GSC MEM 252, pp. 98- GSC MAP 844A; 907A;	211,214 E.O. (1971): A Geochemica es Ltd.; Peto, P. (1971): o Mining (refer to 093N G ctune Channel Mines Ltd.) -103 971A; 1424A	l Report on the ST Claims Report on the Hogem eneral File))	

GSC P 42-7; 45-6 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/28 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 101</u>			NATIONAL MINE	RAL INVENTORY:	093N2,7 Cu7
NAME(S):	<u>COL</u> , CHUCHI					
STATUS: REGIONS:	Developed Prospect British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N02W 093N02E 093	N07W 093N07E			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 57 N 124 45 33 W 1150 Metres Within 500M Located 5 kilometres nort kilometre east of the Klaw James (Assessment Rep	th of the west end of Ch /li River, 108 kilometres ort 18123).	nuchi Lake and 1 north of Fort St.		NORTHING: EASTING:	6123930 388173
COMMODITIES:	Copper	Gold				
SIGNIFICANT: ASSOCIATED:	Chalcopyrite Bornite K-Feldspar Quartz Chlorite	Magnetite	Tremolite	Actinolite		
ALTERATION:	K-Feldspar Quartz Chlorite Malachite	Magnetite	Tremolite	Actinolite		
ALTERATION TYPE: MINERALIZATION AGE:	Potassic	Oxidation				
	Stockwork	Discominated				
CLASSIFICATION: TYPE: SHAPE:	Porphyry L03 Alkalic porphyry Irregular	Hydrothermal Cu-Au				
MODIFIER: DIMENSION:	Fractured	Metres	STRIKE/DI	P: 140/90	TREND/PLU	NGE:
COMMENTS:	Predominant fractures co	ntaining mineralization;	steep dips.			
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMA			IGNEOUS/METAMO	RPHIC/OTHER
Mesozoic	Iana	Chuchi	Lake		Hogem Intrusive Co	omplex
LITHOLOGY:	Hornblende Monzonite Syenite Aplite Pegmatite Volcanic Flow Plagioclase Porphyry Flow	N				
HOSTROCK COMMENTS:	Informally named Chuch	i Lake Formation of the	Takla Group.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel			PHYSIOGRAPH	IC AREA: Manson I	Jpland
INVENTORY						
ORE ZONE:	A		REPORT ON	: Y		
	CATEGORY: Indicate QUANTITY: 1814 COMMODITY Copper	d 200 Tonnes 	YEAR	: 1973 .t		
COMMENTS:	Drill indicated. The coppedata.	er grade is only approxi	mate due to flaw	ved		
REFERENCE:	Prospectus, Kookaburra (	Gold Inc. Jan.27, 1989 -	Jenkins, May 30	), 1988.		
CAPSULE GEOLOGY	The Col property the area by early of island-arc aff: southern end of the Complex. Two alte western half of the Lake, 093N 159), a 1991). The Col depose the contact with	erty lies within Mesozoic Takla ( inity and related the Late Triassic eration haloes a he Chuchi halo n and the Col halo sit is hosted wi volcanic flows o	the Quesnel Group volcar d intrusions -Early Creta re developed orth of Chuc west of Chu thin alkalir f the Lower	l Terrane renic and sedi s, situated a aceous Hogem d within the chi Lake (se uchi Mountai ne intrusive Jurassic Ch	presented in mentary rocks near the Intrusive complex: the e Chuchi n (Fieldwork rocks near uchi Lake	

Formation (informal name) of the Middle Triassic to Lower Jurassic Takla Group. Medium to coarse-grained hornblende monzonite and lesser pink, fine to medium-grained syenite with aplite and pegmatite are the main intrusive phases.

Copper mineralization comprising chalcopyrite, bornite and malachite are concentrated along steep parallel fractures striking 140 degrees that have 1 to 4 centimetre salmon-pink potassium feldspar-rich alteration envelopes around them. These zones may also contain quartz, minor magnetite and hairline seams of tremolite/ actinolite plus chlorite. Some outcrops are so heavily striped with alteration zones that they take on a gneissic appearance. While some of these zones appear to be late magmatic syenitic injections into the monzonite, most appear to be the result of metasomatic potassic alteration of the monzonite. A later crosscutting set of steep fractures strikes 050 degrees, but contains only minor mineralization.

Indicated reserves are 1,814,200 tonnes grading 0.6 per cent copper (Prospectus, Kookaburra Gold Inc. January 27, 1989 - D.M. Jenkins, May 30, 1988). Trenching in 1987 yielded average grades of 2.2 grams per tonne gold and 3.16 per cent copper over a 3.7-metre interval (Assessment Report 18123).

Extensive copper staining (malachite and chalcopyrite) occurs on a cliff exposure 1.75 kilometres east-northeast of the main showing. At this locality grey and maroon plagioclase porphyry flows of the Chuchi Lake Formation are contact metamorphosed by the Hogem complex and host the disseminated mineralization.

#### BIBLIOGRAPHY

EMPR ASS RPT 2714, 2933, 3383, 3384, \*15423, \*18123, \*19748 EMPR BULL 70 EMPR FIELDWORK 1990, pp. 89-110; \*1991, pp. 115; 1992, pp. 87-107 EMPR GEM 1970-178; 1971-197; 1972-436 EMPR OF 1991-3; 1992-4; 1998-8-G, pp. 1-30 EMPR PF (Kookaburra Gold Corp. Information folder, 1991) EMR MIN BULL MR 223 B.C. 250 GSC MAP 876A; 907A; 971A; 1424A GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842 GSC OF 2842 GSC P 41-5; 42-2; 45-9 CIM Special Vol. 15 (1976), Table 1, #96 GCNL #73(Apr.17),#214(Nov.7), 1989; #128 (July 4), #162(Aug.22) 1991 N MINER Jul.10, 1989

DATE CODED: 1985/07/24 DATE REVISED: 1991/09/17 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N 102</u>		NATIONAL MINERAL INVENTORY:	093N6 Cu2
NAME(S):	<u><b>San</b>,</u> Nik, kwanika			
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093N06E 093N11E		UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 29 07 N 125 10 02 W 1600 Metres Within 1 KM Location is a mineralized San 23 and 24 claims, at	l outcrop on the common boundary betw out 50 kilometres east of Takla Landing	NORTHING: EASTING: reen the	6150929 363056
	(Assessment Report 385	oo, Figure SB).		
COMMODITIES:	Copper	Molybdenum		
MINERALS SIGNIFICANT: COMMENTS:	Chalcopyrite Molybd Earlier reports describe c	enite chalcopyrite and molybdenite mineralizat	ion	
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	K-Feldspar Potassic Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION:	Unknown Hydrothermal	Porphyry		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic Mesozoic	<u>GROUP</u> Takla	FORMATION Undefined Formation	IGNEOUS/METAMO Hogem Intrusive C	DRPHIC/OTHER
LITHOLOGY:	Monzonite Leucocratic Granite Syeno Diorite Pyroxenite Basalt Porphyritic Andesite			
HOSTROCK COMMENTS:	Phases of the Hogem Ir Early Cretaceous.	ntrusive Complex range from Late Triass	ic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Quesnel	PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY				
	The San occu headwaters of Val Takla Landing. T early 1970s. The area is the Late Triassic have intruded vol to Lower Jurassic an elongate batho Mesilinka River. intruded Takla Gr graben developmen The principl Valleau Creek are pyroxenite of the porphyritic andes Although ext mineralized outcr now lapsed San 23 The copper(?) min feldspathized mon (Geology, Explora Although the spec mention chalcopyr near their contac copper-molybdenum this outcrop.	rrence is situated in the K leau Creek, approximately 5 the area was assessed by Nora underlain by mesozonal plute to Early Cretaceous Hogem canic and sedimentary rocks Takla Group to the east. lith, extending from Chuchi The structural setting of oup is one of vertical tector t (Bulletin 70). e rock types underlying the medium to coarse-grained sy Hogem Intrusive Complex and ite. ensive overburden masks much op was discovered along the and 24 claims (Assessment P eralization is reportedly h zonite near a contact with tion and Mining in British ific minerals are not descri ite and molybdenite associa t with Takla Group volcanics asoil anomaly outlined in the	wanika Range near the 0 kilometres east of anda Exploration in the onic rocks assigned to Intrusive Complex which of the Middle Triassic The plutonic rocks form Lake, north to the the batholith and the onics associated with headwater area of yenodiorite and d Takla Group basalt and h of the area, a small common boundary of the Report 3856, Figure 5B). osted by potassium leucocratic granitic rock Columbia 1972, page 449). ibed, earlier reports ted with granitic rocks s. A significant he area was attributed to	

No recent information concerning this occurrence is available.

# BIBLIOGRAPHY

EMPR ASS RPT \*3856, 3857, 19868, 20897 EMPR GEM 1971-199; 1972-448 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR FIELDWORK 1992, pp. 87-107 GSC OF 3071 GSC OF 3071 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/03 CODED BY: GSB REVISED BY: DMN

\_\_\_

MINFILE NUMBER:	<u>093N 103</u>		NATIONAL MINERAL INVENTORY	: 093N6 Cu3
NAME(S):	<u>KW</u>			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N06E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 27 00 N 125 12 23 W 1432 Metres Within 1 KM Location is approximately 9 kilo kilometres southwest of Germa Mining in British Columbia 1971	metres east of Tsayta Lake, about nsen Landing (Geology, Exploratio , page 200).	NORTHING: EASTING: 49 n and	6147082 360457
COMMODITIES:	Copper Moly	bdenum		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown	Molybdenite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Porp L03 Alkalic porphyry Cu-Au	hyry		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Monzonite Pyroxenitic Lamprophyre Dike Syenitic K-Feldspar Dike			
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Early Cretaceous.	e Complex range from Late Triassic	to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Ominec	a Mountains
CAPSULE GEOLOGY				
BIBLIOGRAPHY	The KW occurrence headwaters of Halobia Tsayta Lake and 49 ki The area is under the Late Triassic to I have intruded volcani Triassic to Lower Jura The plutonic rocks for Lake, north to the Mes The only reference pyrite and molybdenitt monzonite cut by pyror potassium feldspar di Columbia 1971, page 20 No recent informa EMPR GEM *1971-200 EMPR BULL 70	e is situated in the Kwan Creek, approximately 9 Idometres southwest of Gen clain by mesozonal plutoo Carly Cretaceous Hogem In to and sedimentary rocks of assic Takla Group east of the an elongate batholith silinka River. The to the occurrence dest the mineralization on fract contic lamprophyre dikes (Geology, Exploration 00).	hika Range near the cilometres east of rmansen Landing. hic rocks assigned to htrusive Complex which of the Upper f the Pinchi fault zone. , extending from Chuchi cribes chalcopyrite, ture surfaces in s and small syenitic h and Mining in British currence is available.	
	EMPR BULL /U EMPR PF (Peto, P. (19' Mining (refer to 0' GSC MEM 252 GSC MAP 844A; 907A; 9' GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749,	71): Report on the Hogem 93N General File)) 71A; 1424A pp. 101-106	Project for Amoco	
DATE CODED: DATE REVISED:	1985/07/24 1992/11/05	CODED BY: GSB REVISED BY: DMN		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER NAME(S) STATUS REGIONS NTS MAP BC MAP	093N_104 SRM, CIR, KLAW			NATIONAL MI	NERAL INVENTORY:	093N2 Cu8
NAME(S) STATUS REGIONS NTS MAP BC MAP	: <u>SRM</u> , CIR, KLAW					
STATUS REGIONS NTS MAP BC MAP	Prospect					
NTS MAP	Pritich Columbia				MINING DIVISION:	Omineca
	093N02E 093N01W				UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE ELEVATION: LOCATION ACCURACY COMMENTS	55 14 01 N 124 31 21 W 1150 Metres Within 500M Located on the SRM sho of Chuchi Lake (Open File	wing, 5 kilometres north ə 1992-4).	n from the north s	shore	NORTHING: EASTING:	6121845 403179
COMMODITIES	: Copper	Gold				
MINERALS SIGNIFICANT: COMMENTS ASSOCIATED: ALTERATION ALTERATION TYPE MINERALIZATION AGE	Chalcopyrite Malachi Mineralization found only Chalcedony Quartz Silica Chlorite Silicific'n	te Pyrite in float and drill core. Carbonate Chloritic	Pyrrhotite			
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER	Vein Porphyry L03 Alkalic porphyry Tabular Fractured	Breccia Hydrothermal Cu-Au	Disseminate Epigenetic	ed		
DIMENSION COMMENTS	15 x 2 Attitude and dimensions	Metres of siliceous breccia veir	STRIKE/DI 1.	P: 162/90	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK	: Plutonic					
STRATIGRAPHIC AGE	GROUP	FORM/	ATION		IGNEOUS/METAMO	ORPHIC/OTHER
Lower Jurassic	Takla	Chuchi	Lake			
MATERIAL DATED: Lower Jurassic	Ammonite				Hogem Intrusive Co	omplex
LITHOLOGY	: Medium Grained Equigrar Gabbro Pyroxenite Augite Plagioclase Porph Augite Plagioclase Porph	nular Diorite yritic Agglomerate yritic Flow				
HOSTROCK COMMENTS:	Informal formation name (Geological Fieldwork 19	e is Chuchi Lake. Fossi 991, page 109).	l age is lower Jui	assic		
GEOLOGICAL SETTING TECTONIC BELT TERRANE	Intermontane Quesnel			PHYSIOGRAP	HIC AREA: Manson I	Jpland
INVENTORY						
ORE ZONE	DRILLHOLE		REPORT ON	: N		
	CATEGORY: Assay/a SAMPLE TYPE: Drill Cor COMMODITY	nalysis e GRAE	YEAR	: 1989		
	Gold	0.97	700 Grams	per tonne t		
COMMENTS REFERENCE	From a 5-metre drill interv Assessment Report 2180	al. )7, page 14.				
CAPSULE GEOLOGY						
	The SRM (Klaw straddling the con porphyritic flows Formation (Takla of Intrusive Complex The SRM show quartz breccia ve	w) occurrence co ntact between gr and agglomerate Group) and Early ing consists of in exposed over	vers several een and marc s of the Low Jurassic ro an orange-we a 15-metre a	l small min oon augite ver Jurassi ocks of the eathering c area. The	eral showings plagioclase c Chuchi Lake Hogem halcedonic vein is	

quartz breccia vein exposed over a 15-metre area. The vein is approximately 2 metres wide and strikes 162 degrees. Silicified and chloritized float in a gully 30 metres east of this contains chalcopyrite, pyrite and malachite. One kilometre due south of the

vein, disseminated chalcopyrite occurs in small swarms of quartz veinlets that crosscut equigranular, medium grained salt and pepper diorite and heterogeneous pyroxenite/gabbro of the Hogem Intrusive Complex. The vein swarms have an average width of 4 metres and strike 110 to 115 degrees.

BP Resources reports that in 1989, Noranda completed 29 diamond-drill holes totalling 2962 metres on the Klaw 3, 8 and 9 claims, 6 of which are documented in Assessment Report 20134 and their locations known (Assessment Report 21807). One of the best intersections graded about 0.7 per cent copper and 0.97 gram per tonne gold over 5 metres (95-100 metres) (Assessment Report 21807, page 14,19). This 5-metre section consisted of gabbro-diorite, locally pegmatitic, containing fault gouge, strong iron oxide staining and broken quartz-carbonate-chalcopyrite veins. The location of this drillhole is not documented.

Approximately 250 metres northeast of the breccia vein showing, disseminated chalcopyrite, pyrite and pyrrhotite hosted in augite plagioclase porphyritic volcanics have been documented from the diamond drilling program. The best value obtained was 0.39 per cent copper over 3.5 metres (Assessment Report 20314). The GG occurrence (093N 209), located about 2 kilometres to the

south, is also on the Klaw 9 claim and may be of related interest.

#### BIBLIOGRAPHY

EMPR GEM 1971-196 EMPR ASS RPT \*3720, 18392, \*20314, \*21807 EMPR FIELDWORK 1990, pp. 89-110; \*1991, pp. 103-118 EMPR OF 1991-3; \*1992-4 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/18 CODED BY: GSB REVISED BY: GJP
MINFILE NUMBER:	<u>093N 105</u>		NATIONAL MINERAL INVENTORY: 093N1	4 Cu13
NAME(S):	<b>FOX</b> , JAJAY			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N14W		MINING DIVISION: Omine UTM ZONE: 10 (N	eca IAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 55 25 N 125 19 47 W 1650 Metres Within 500M Location is a copper showing eas Creek, approximately 20 kilometre 43 kilometres west-northwest of C 3860, Figure 3).	st of the north fork of Duckling is north-northeast of Old Hogem Germansen Landing (Assessme	NORTHING: 62000 EASTING: 35442 and ent Report	30 9
COMMODITIES:	: Copper			
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Bo Chalcopyrite and bornite mineraliz K-Feldspar Malachite Potassic Unknown	ornite ation described as minor.		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Unknown Hydrothermal Porphy L03 Alkalic porphyry Cu-Au	٧ry		
HOST ROCK DOMINANT HOSTROCK	: Plutonic			
STRATIGRAPHIC AGE Middle Jurassic Mesozoic	GROUP	FORMATION	IGNEOUS/METAMORPHIC Duckling Creek Syenite C Hogern Intrusive Complex	C/OTHER omplex
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	175 +/- 5 Ma Potassium/Argon Biotite			
LITHOLOGY	: Diorite Monzonite Porphyritic Syenite Dike			
HOSTROCK COMMENTS:	The Duckling Creek Syenite Com Early Cretaceous Hogem Intrusiv	nplex is one phase of the Late T ve Complex. Date by Garnett (1	riassic- 978).	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Omineca Mount	ains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: GRADE	1972	
COMMENTS: REFERENCE:	Copper Sample identified only as Sample I Assessment Report 3860, page 3	1.5500 Per cen No. 2.	t.	
CAPSULE GEOLOGY	<b>m</b> 1 <b>–</b>			
	The Fox occurrence Swannell Ranges (Ominec: of the Lorraine occurren Takla Landing. The Duckling Creek assigned to the Late Tr. Complex which have been Triassic to Lower Juras: The plutonic rocks form Lake, north to the Mesi bathelith and the interv	is situated in the Du a Mountains), approxim nce (093N 002) and 64 area is underlain by iassic to Early Cretac emplaced into volcani sic Takla Group, east an elongate batholith linka River. The stru	ckling Creek area of the ately 7 kilometres west kilometres northeast of mesozonal plutonic rocks eous Hogem Intrusive c rocks of the Upper of the Pinchi fault zone. , extending from Chuchi ctural setting of the	

batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70). Mapping carried out in the area of the Fox occurrence in the early 1970s determined that coarse-grained, magnetite-rich diorite and fine-grained, foliated monzonite predominate in the area.

Scattered dikes and irregular lenses(?) of light-coloured, fine to coarse-grained (porphyritic) syenite, possibly related to the Middle Jurassic Duckling Creek Syenite Complex, were also described. Widespread mineralization including malachite and pyrite with local chalcopyrite and bornite was reported to be associated with the syenite dikes, feldspar fracture filling and zones of potassium feldspar enrichment of the host intrusions. Two samples believed to be taken from showings exposed on a north-trending ridge east of the north fork of Duckling Creek assayed 1.38 and 1.55 per cent copper, respectively (Assessment Report 3860 page 3). No recent information concerning this occurrence is available.

#### BIBLIOGRAPHY

EM GEOFILE 2003-6 EMPR ASS RPT \*3860, 21429 EMPR BULL 70 EMPR GEM 1971-203-210; 1972-456 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File); Nevin A.E. (1971): Report on the Fox 1-42 and 43-44 Fr. Claims for Acano Explorations Ltd. (N.P.L.)) EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia DATE CODED: 1985/07/24 CODED BY: GSB DATE REVISED: 1992/10/26 FIELD CHECK: N REVISED BY: DMN

FIELD CHECK: N

MINFILE NUMBER:	<u>093N_106</u>	N	ATIONAL MINERAL INVENTORY:	093N11 Cu5
NAME(S):	HOOEY, GROUNDHOG			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N11W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 37 04 N 125 17 46 W 1530 Metres Within 1 KM Location is the approximate centre of the headwaters of Groundhog Creek, about Creek (Assessment Report 3858).	Hooey claims near the 52 kilometres west of Man	NORTHING: EASTING: son	6165932 355400
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Epidote Epidote Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Unknown Hydrothermal Porphyry L03 Alkalic porphyry Cu-Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Mesozoic	Такіа	Underined Formation	Hogem Intrusive C	omplex
LITHOLOGY:	Orthoclase Megacrystic Granite Monzonite Syenite Quartz Monzonite			
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Complex Early Cretaceous.	crange from Late Triassic t	ю	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Р	HYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY		_		
	ne exact location of t certainty. It is based on a in epidotized monzonite to q Mining in British Columbia 1 plotted just south of a smal Creek in the central part of Assessment reports for the a the Groundhog property but b equigranular, leucocratic sy Recent geological mappi Hooey showing occurs very ne predominantly monzonite phas orthoclase megacrystic grani Triassic-Early Cretaceous Ho located approximately 2 kilo contact and 5 kilometres sou 082).	1971 report that uartz monzonite (G 971, page 203). T 1 lake at the head the Hooey claims rea (3268, 3858) d riefly describe me enodiorite on ridg ng (Open File 1993 ar the contact bet e, and Early Creta tic and syenitic p gem Intrusive Comp metres west of the th of the Takla-Ra	documents chalcopyrite eology, Exploration and he Hooey showing is waters of Groundhog or Groundhog property. ocument no outcrop on dium-grained, e tops in the vicinity. -4) suggests that the ween an Early Jurassic ceous more felsic, hases of the Late lex. The area is Hogem-Takla Group inbow occurrence (093N	
BIBLIOGRAPHY	· ·			
	EMPR ASS RPT 3268, 3858 EMPR GEM *1971-202; 1972-453 EMPR BULL 70 EMPR PF (Peto, P. (1971): Re Mining (refer to 093N Gen EMPR OF 1993-3 EMPR FIELDWORK 1992, pp. 87- GSC MAP 844A; 907A; 971A; 14 GSC P 42-7; 45-6	port on the Hogem ( eral File)) 107 24A	Project for Amoco	

CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/24 CODED BY: GSB REVISED BY: KBE

\_\_\_

MINFILE NUMBER:	<u>093N 107</u>		NATIONAI	L MINERAL INVENTORY: 093N11 Mo1
NAME(S):	<u>BURN,</u> SNAG, SIBERIA			
STATUS:	Showing			MINING DIVISION: Omineca
NTS MAP:	093N11E 093N06E			UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 30 14 N 125 13 43 W 1500 Metres Within 500M Location is the middle of a kilometres east of Takla L	a trench west of Burn Creek, anding (Assessment Report∃	about 46 7432, Figure 3).	NORTHING: 6153123 EASTING: 359244
COMMODITIES:	Molybdenum	Copper		
	Pyrite Molybdenite			
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Silica Epidote Silicific'n Unknown	Chlorite Pyrite Propylitic	Magnetite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L03 Alkalic porphyry (	Porphyry Cu-Au		
HOST ROCK DOMINANT HOSTROCK	: Plutonic			
STRATIGRAPHIC AGE Mesozoic	GROUP	FORMATION		IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Monzonite Alaskite Dike Leucocratic Granite Quartz Syenite Hornblende Diorite Quartz Monzonite Alaskite			
HOSTROCK COMMENTS:	Phases of the Hogem Int Early Cretaceous.	trusive Complex range from L	ate Triassic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOG	RAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY	The Burn occu Creek, approximate exploration was un stream sediment an The area is u the Late Triassic have intruded volce to Lower Jurassic The plutonic rocks Lake, north to the Burn Creek is and alaskite which Cretaceous phase of and quartz monzoni percussion-drill h 1993-4) interpret Burn property to h Early reports molybdenite and ch in a northeast-floc kilometres upstread work outlined a no scattered molybdem	irrence is situated i 1/y 46 kilometres eas idertaken between 197 10malies outlined on Inderlain by mesozona to Early Cretaceous 2anic and sedimentary Takla Group approxim 5 form an elongate ba 6 Mesilinka River. 5 underlain by leucoo 1, according to Garne 10 fthe Hogem Intrusiv 10 the Hogem Intrusiv 10 the Hogem Intrusiv 10 the Hogem Intrusiv 10 the Mozonites and o 10 cording to Garne 10 the monzonites and o 10 cording the Sandary 10 cording the theory of the south 10 mits outlet in 10 mits outlet in 10 mits outlet in 10 mits in fractures and 10 mits of the south 10 mits of the south 10 mits outlet in 10	in the Kwanika st of Takla Lan 71 and 1979 as Burn Creek. al plutonic roc Hogem Intrusivy y rocks of the mately 4 kilome atholith, exten cratic granite, ett (1978), rep ye Complex. Ho ected in trench ng by Nelson et granodiorites u Jurassic age. of pyrite with ures cutting mo Burn Creek app nto Kwanika Cre ilicified monzo a in local quar	Range on Burn ding. Extensive a result of ks assigned to e Complex which Middle Triassic tres to the east. ding from Chuchi quartz syenite resent an Early rnblende diorite es and in al (Open File nderlying the .very minor nzonite exposed roximately 6 ek. Follow-up nite hosting tz veins. The ocal epidote.

significant mineralization, the best hole (79-2) averaging only
0.00118 per cent molybdenum and 0.00119 per cent copper over its
83.3-metre length (Assessment Report 7898, page 5).
Locally coarse molybdenum mineralization(?) associated with an
alaskite dike was also observed near the centre of the property.
This showing, however, was thought to be of little economic
significance.

### BIBLIOGRAPHY

EMPR OF 1993-4
EMPR FIELDWORK 1992, pp. 87-107
EMPR ASS RPT 5619, \*7432, 7898, 7926
EMPR GEM 1971-202; 1972-452; 1973-369
EMPR EXPL 1975-E151; 1976-E157-158; 1979-235-236; 1980-358-359
EMPR BULL 70
EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco
 Mining (refer to 093N General File))
GSC MEM 252
GSC MAP 844A; 907A; 971A; 1424A
GSC P 42-7; 45-6
GSC OF 3071
CIM Special Vol. 15 (1976), Map B, #370; Vol. 67, No. 749, pp. 101-106
Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/25 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N_108</u>	NATIONAL MIN	ERAL INVENTORY	093N5 Cu1
NAME(S):	BOL			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N05W		UTM ZONE:	10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	125 57 19 W 970 Metres Within 1 KM Location is the centre of an intrusive plu kilometres south of Takla Landing (Minis 1967, page 119).	ig, approximately 5 ter of Mines Annual Report	EASTING:	312909
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Unknown Hydrothermal Porphyry L04 Porphyry Cu ± Mo ± Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Triassic-Jurassic Upper Jurassic	lakia	Undefined Formation	Topley Intrusions	
LITHOLOGY:	Granodiorite Diorite Quartz Monzonite Andesitic Basaltic Volcanic Sediment/Sedimentary			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks Stik	PHYSIOGRAPH	HIC AREA: Takla Tı	rench
CAPSULE GEOLOGY				
	The Bol occurrence is a approximately 8 kilometres a explored between 1966 and 1 geophysical surveys were can reportedly drilled to test of The area is underlain 1 minor sediments of the Midd east of the north-striking of granodiorite, diorite and/or Triassic-Early Jurassic Top these rocks. Chalcopyrite mineraliz intrusions. No recent infor available.	situated on the west side of south of Takla Landing. The 967 when geological, geochemi rried out. A short, EX-sized the showing. by andesitic to basaltic vold le Triassic to Lower Jurassic Takla fault. An elongate plu r quartz monzonite assigned t ley intrusions has been empla ation is reported to occur wi rmation concerning this occur	Takla Lake, area was ical and d hole was canics and c Takla Group g of to the Late aced into thin the crence is	
BIBLIOGRAPHY				
	EMPR AR 1966-119; 1967-119 EMPR OF 2000-19 EMR MP CORPFILE (Magnum Cons GSC MAP 844A; 907A; 971A; 1 GSC MEM 252 GSC OF 3071 GSC P 42-7; 45-6	solidated Mining Co. Ltd.) 424A		
DATE CODED: DATE REVISED:	1985/07/24 1992/10/09	CODED BY: GSB REVISED BY: DMN	ł	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 109</u>		NATIONA	AL MINERAL INVENTORY:
NAME(S):	<u>WILLY 2</u> , JAJAY			
STATUS:	Showing British Columbia			MINING DIVISION: Omineca
NTS MAP: BC MAP	093N14W			UTM ZONE: 10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 53 22 N 125 18 21 W 1845 Metres Within 500M Location is sample 74934 Willy 2 and 4 claims, abou Landing (Assessment Rep	near the common leg It 39 kilometres west- port, Figure 7a).	al corner post of the northwest of Germansen	NORTHING: 6196178 EASTING: 355794
COMMODITIES:	Copper	Gold	Silver	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite K-Feldspar Quartz Epidote K-Feldspa Epidote Unknown	Pyrrhotite r Malachite Oxidation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Stockwork Hydrothermal L03 Alkalic porphyry 0 150 Dimension is mineralized o	Disseminated Porphyry Cu-Au Metres outcrop length.	STRIKE/DIP:	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u> Mesozoic	GROUP	FORM	IATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Quartz Monzodiorite			
HOSTROCK COMMENTS:	Phases of the Hogem Int Early Cretaceous.	rusive Complex range	e from Late Triassic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIO	GRAPHIC AREA: Omineca Mountains
INVENTORY				
ORE ZONE:	SAMPLE		REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/at SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Sample was a composite Assessment Report 21428	nalysis <u>GRA</u> 8.5 0.5 1.3 grab of mineralized ir 8, page 21.	YEAR: 1991 DE 0000 Grams per tonne 0600 Grams per tonne 8000 Per cent trusion.	
CAPSULE GEOLOGY				
	The Willy 2 c (Omineca Mountains approximately 39 k The area is u the Late Triassic their contact with Triassic to Lower elongate batholith Mesilinka River. intruded Takla Gro graben development Mineralizatic	ccurrence is s ) on the ridge illometres west to Early Creta volcanic and Jurassic Takla , extending fr The structural oup is one of v (Bulletin 70) m at the Willy	ituated in the Swan immediately east or -northwest of German sozonal plutonic rod ceous Hogem Intrusiv sedimentary rocks or Group. The pluton om Chuchi Lake, nor setting of the bath ertical tectonics as 2 occurrence comprise	nell Ranges f Duckling Creek, nsen Landing. cks assigned to ve Complex west of f the Upper ic rocks form an th to the holith and the ssociated with ises stockwork

Mineralization at the Willy 2 occurrence comprises stockwork potassium feldspar veinlets varying from 2 millimetres to 20 centimetres wide hosted by epidote-rich quartz monzodiorite. Sparsely distributed fractures also contain thin quartz veinlets with chalcopyrite, pyrrhotite and conspicuous malachite over an outcrop distance of 150 metres. Some chalcopyrite is also disseminated in the wallrocks.

A composite grab sample (74934) of mineralized intrusion assayed 0.506 gram per tonne gold, 8.9 grams per tonne silver and 1.3 per cent copper (Assessment Report 21428, page 21).

#### BIBLIOGRAPHY

EMPR ASS RPT \*21428
EMPR GEM 1971-203-210
EMPR BULL 70
EMPR BULL 70
EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco
Mining (refer to 093N General File))
EMPR (PRELIM) MAP 9
GSC MEM 252, pp. 98-103
GSC MAM 252, pp. 98-103
GSC MAP 844A; 907A; 971A; 1424A
GSC P 42-7; 45-6
Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek
area of the Hogem Batholith, University of British Columbia
CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1992/10/29 DATE REVISED: 1993/03/10 CODED BY: DMN REVISED BY: DMN

\_\_\_\_

MINFILE NUMBER:	<u>093N 110</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	SOURCE			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N12W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 36 45 N 125 45 37 W 1745 Metres Within 500M Location is for a quartz vein with northeast of Takla Landing (Ass	h visible gold, about 20 kilometres sessment Report 20077, Figure 3).	NORTHING: EASTING:	6166410 326153
COMMODITIES:	Gold Silve	r		
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Gold An unidentified dull, steel-grey, Quartz Carbonate Malachite Carbonate Quar Unknown	metallic mineral was also observed Quartz Ankerite N rtz-Carb. Oxidation	d. Mariposite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epigenetic Hydro I01 Au-quartz veins 100 Metre Vein subcrop is 25 centimetres on the surface.	othermal es STRIKE/DIP wide and has been traced for 100	P: 090/ TREND/PLUI metres	NGE:
HOST ROCK DOMINANT HOSTROCK:	: Volcanic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Creek	Undefined Formation	Oceanic Ultramafit	ies
LITHOLOGY:	Andesite Phyllite Serpentinite Andesitic Flow			
HOSTROCK COMMENTS:	The hostrock is described only Creek Complex andesite in this	y as volcanic, but is most probably s area.	Cache	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	Plutonic Rocks	PHYSIOGRAPHIC AREA: Omineca	Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysi SAMPLE TYPE: Grab COMMODITY Silver Gold Results from grab sample 89-G gold. Assessment Report 20077, pag	is YEAR: <u>GRADE</u> 89.8000 Grams p 7.2700 Grams p 7.25-A of quartz vein subcrop with ge 4.	1989 er tonne visible	
CAPSULE GEOLOGY				
	The Source occurr Mount Bodine, approxim It is the first confir Vital Range. The showing occur formerly assigned to t intrusions now termed and phyllite and andes Jurassic Cache Creek C black coloured, massiv	rence is situated 4 kilou mately 20 kilometres nor- rmed discovery of visible the Middle Permian to La Mississippian to Triass sitic flows assigned to Complex. The ultramafic re and widely sheared.	metres east-northeast of theast of Takla Landing. e gold in quartz in the between serpentinite, te Triassic Trembleur ic Oceanic Ultramafites, the Carboniferous to rocks are dark green to Local quartz-carbonate	

alteration has resulted in tabular zones of rusty weathering quartz-ankerite-mariposite mineralization (Assessment Report 12548). The Cache Creek rocks strike predominantly north, dip to the east and

host local felsitic and aplitic intrusions. At the Source occurrence, very fine grained visible gold occurs in a narrow (25-centimetre wide), east-striking trending quartz vein subcrop that has been traced for 100 metres on the surface. The host volcanic rock exhibits strong to intense carbonate alteration. The gold occupies late, discontinuous microfractures and is commonly associated with an equally fine grained, dull, steel-grey metallic mineral with attendant malachite. One assay result obtained from samples of the quartz was 8.16 grams per tonne gold. Another sample assayed 7.27 grams per tonne gold and 89.8 grams per tonne silver (Assessment Report 20077, page 4).

## BIBLIOGRAPHY

EMPR ASS RPT 12548, 14554, \*20077 EMPR EXPL 1983-464; 1985-C337 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED: 1992/09/24 DATE REVISED: 1993/03/10 CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 111</u>		NATIO	NAL MINERAL INVENTORY:	093N7 Au1
NAME(S):	VALLEY GIRL, KLAWLI R	VER NORTH			
STATUS: REGIONS: NTS MAP	Showing British Columbia			MINING DIVISION:	Omineca
LOCATION ACCURACY: COMMENTS:	55 28 18 N 124 57 00 W 1250 Metres Within 1 KM The location is for the cen Report 15634).	tre of the Valley G	irl claims (Assessment	NORTHING: EASTING:	6149008 376737
COMMODITIES:	Gold	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Gold Pyrite Quartz Carbonate	Chalcopyrite Magnetite			
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Hydrothermal	Shear Epigenetic	Disseminated Placer	Unconsolidated	
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Upper Triassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: Lower Jurassic	<u>GROUP</u> Takla Upper Triassic Fossil Conodonts	FO Inz	RMATION ana Lake	IGNEOUS/METAMC	DRPHIC/OTHER
LITHOLOGY:	Crystal Tuff Lapilli Tuff Volcanic Siltstone Medium Grained Equigrant Gabbro Basalt	ılar Monzonite			
HOSTROCK COMMENTS:	The fossil date for the info is from Geological Fieldw	ormally named Inza ork 1991, page 10	ana Lake Formation is 17.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYS	OGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY	The Valley Gi Creek. The MINFIL centre of the Vall covers the area of Map 45-9. Minor m anomalies have bee Historically, quartz-carbonate v in one (GSC Paper quartz-carbonate v kilometres northwe trending 340 and 3 disseminated pyrit basalt and placer area (see Valleau The region is volcanic sediments Lake Formation of of coarse-grained, probably associate Intrusive Complex,	rl showing of E coordinates ey Girl clain the original ineralization n documented the showing eins up to 19 45-9, page 19 st of the Val 60 degrees an e, chalcopyr: gold has been Creek, 093N ( underlain by (siltstone) the Takla Gro equigranular d with the La which in the	ccurs at the headwat s for this occurrence n group (Assessment l showing as shown of and multiple gold in the claim area. was described as nu 5 centimetres wide v 5). An 8-centimetre rved in 1992 but occ lley Girl location. re associated with v ite and magnetite has a documented in seve 053). y variably foliated and tuffs of the Up pup. These are intr re monzonite and gabh ate Triassic to Early is area is Early Jun	ers of Valleau represents the Report 15634) which on GSC Preliminary and copper soil merous which minor free gold wide fractured curs approximately 2 Pyritic shears reining. Minor we been noted in eral creeks in the and hornfelsed oper Triassic Inzana ruded by minor plugs oro that are y Cretaceous Hogem cassic.	
BIBLIOGRAPHY	EMPR ASS RPT *1563 EMPR FIELDWORK 199 EMPR OF 1991-3; 19 GSC MEM 252	4, 19450, 198 0, pp. 89-110 92-4; *1993-3	859, 20178, *21700, 0; 1991, pp. 103-118 3	8; *1992, pp. 87-107	

GSC P 41-5; 42-2; \*45-9, p. 15 GSC MAP 876A; 907A; 971A; 1424A; 1586G; 1595G GSC OF 2842 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1993/03/11 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N 112</u>	NATIONAL MINERAL INVENTORY:	
NAME(S):	ROTTACKER CREEK		
STATUS: REGIONS:	Showing British Columbia	MINING DIVISION:	Omineca
LATITUDE: LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 10 N 125 11 41 W 1585 Metres Within 1 KM Location is approximately 3 kilometres north of the lake near the	NORTHING: EASTING:	6141805 361029
	east-southeast of Takla Landing (Peto, P. (1971): Report on the Hogem Project for Amoco Mining, pages 59-60 and Figure 4 - 093 General File).	BN	
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS:	Chalcopyrite Malachite Quartz Feldspar Chlorite Limonite Hematite Malachite Malachite is thought to have been deposited as a result of superg enrichment.	gene	
MINERALIZATION AGE:	Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Porphyry L03 Alkalic porphyry Cu-Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Mesozoic	GROUP FORMATION	IGNEOUS/METAMO Hogem Intrusive Co	DRPHIC/OTHER omplex
LITHOLOGY:	Syeno Diorite Monzonite		
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Complex range from Late Triassi Early Cretaceous.	ic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY	The Rottacker Creek occurrence is situat south of Halobia Creek, approximately 49 kild Takla Landing. It was discovered in 1971 dur exploration program carried out by Amoco Mini The area is underlain by mesozonal pluto the Late Triassic to Early Cretaceous Hogem I have intruded volcanic and sedimentary rocks Triassic-Lower Jurassic Takla Group east of t The plutonic rocks form an elongate batholith Lake, north to the Mesilinka River. At the Rottacker Creek occurrence, chalo mineralization occurs along a narrow, northwe zone between leucocratic and mafic-rich syenc of the Hogem Intrusive Complex. Chlorite alt units is extensive and limonite/hematite stai Malachite is the most abundant mineral and te fracture and joint faces and as encrustations appears to have been deposited as a result of Chalcopyrite occurs along quartz-alkali felds within the more mafic phase. No recent information concerning this oc	ted in the Kwanika Range ometres east-southeast of ring a regional ing. onic rocks assigned to Intrusive Complex which of the Upper the Pinchi fault zone. 1, extending from Chuchi copyrite-malachite esterly trending contact odiorite-monzonite phases teration within these ining is common. ends to occur along s in fault gouge. It is supergene enrichment. spar fracture fillings	
BIBLIOGRAPHY	EMPR ASS RPT 21734 EMPR BULL 70 EMPR PF (*Peto, P. (1971): Report on the Hoge Mining, pp. 59-60 and Figure 4 (refer to 0	em Project for Amoco )93N General File))	

GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1992/11/09 DATE REVISED: 1992/11/09

CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 113</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	NATION MOUNTAIN		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N06E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 17 08 N 125 08 09 W 1675 Metres Within 5 KM Location is on the west flank of Mo southeast of Takla Landing (Peto, F Project for Amoco Mining, page 59	unt Nation, about 57 kilometre: P. (1971): Report on the Hoge and Figure 4 - 093N General F	NORTHING: 6128647 EASTING: 364357 n n
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Chalcopyrite also occurs as crysta Chlorite Epidote Propylitic Unknown	al aggregates.	
	Discominated		
CLASSIFICATION: TYPE:	Magmatic L03 Alkalic porphyry Cu-Au		
HOST ROCK DOMINANT HOSTROCK:	: Plutonic		
STRATIGRAPHIC AGE Mesozoic	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Gabbro Syeno Gabbro Syeno Diorite		
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Co Early Cretaceous.	omplex range from Late Triass	c to
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY	The Nation Mountain Mount Nation, approximat The area was assessed as carried out by Amoco Min The Mount Nation ar assigned to the Late Tri Complex which have intru Middle Triassic to Lower fault zone. The plutoni from Chuchi Lake, north At an elevation of medium-grained crystal a mafic clots and as disse gabbroic body. The gabb (development of chlorite syenogabbro and syenodic sparse, low grade and is No recent informati although its discovery p claims by Amoco Canada P occurrence (093N 173) for	a occurrence is situat ely 57 kilometres sou a part of a regional e ing in 1971. ea is underlain by me assic to Early Cretac ded volcanic and sedi c Jurassic Takla Group c rocks form an elong to the Mesilinka Rive 1675 metres, chalcopy ggregates situated wi eminated grains along pro shows pervasive pr e and epidote) and gra orite. The chalcopyri to thought to be of mag on concerning this oc probably resulted in to etroleum in 1973. Re	ed on the west flank of theast of Takla Landing. xploration program sozonal plutonic rocks eous Hogem Intrusive mentary rocks of the east of the Pinchi ate batholith, extending r. rite is exposed as thin and contiguous to fracture faces within a opylitization des laterally into te mineralization is matic origin. currence is available, he staking of the Tyger fer to the Tyger
BIBLIOGRAPHY	EMPR BULL 70 EMPR PF (*Peto, P. (1971 Mining, p. 59 and Fig GSC MEM 252 GSC MAP 844A; 907A; 971A GSC P 42-7; 45-6 GSC OF 3071	): Report on the Hoge gure 4 (refer to 093N A; 1424A	m Project for Amoco General File))

CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1992/11/09 DATE REVISED: 1993/03/10 CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 114</u>			NATIONAL M	INERAL INVEN	TORY:
NAME(S):	<b>BIDDY</b> , RAE, OMI, NICA					
STATUS:	Prospect				MINING DI	/ISION: Omineca
REGIONS: NTS MAP: BC MAD	British Columbia 093N15W				UTM	ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 58 04 N 124 48 12 W 1475 Metres Within 500M The occurrence is located of Nina Lake (Open File 19	l approximately 7 kilo 990-17).	ometres north-nor	theast	NOR EA:	THING: 6203961 STING: 387443
COMMODITIES:	Zinc	Lead	Silver		Germanium	
MINERALS SIGNIFICANT: COMMENTS:	Sphalerite Galena The silver is found as arge contained within the spha	entiferous galena and lerite.	d the germanium i	s		
ASSOCIATED: MINERALIZATION AGE: ISOTOPIC AGE:	Barite Pyrite Cambrian	DATING METHOD:	Lead/Lead	MAT	ERIAL DATED:	Galena
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Podiform Replacement E14 Sedimentary exha Irregular Faulted The lead has a Cambrian hosted in younger strata (	Massive Hydrothermal alative Zn-Pb-Ag shale curve model a Ferri and Melville, in	Dissemina ge, even though it prep.).	is	Breccia	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP	FOR	MATION		IGNEOUS/N	NETAMORPHIC/OTHER
Silurian-Devonian	Echo Lake	Unde	efined Formation			
LITHOLOGY:	Dolomitic Breccia Arenaceous Dolomite Shale Limestone Dolomite Sandy Dolomite Quartzite Argiilite Sandstone					
GEOLOGICAL SETTING TECTONIC BELT:	Omineca			PHYSIOGRA	PHIC AREA: C	mineca Mountains
TERRANE: METAMORPHIC TYPE:	Cassiar Regional	RELATI	ONSHIP:		GRADE: G	reenschist
INVENTORY						
ORE ZONE:	DRILLHOLE		REPORT O	N: N		
	CATEGORY: Assay/a SAMPLE TYPE: Drill Core COMMODITY	nalysis • <u>GR</u> 1	YEAF	R: 1990		
COMMENTS:	Zinc A 2-metre drill interval fror	1 n a drillhole in the Bi	.3000 Per ce ddy area.	nt		

REFERENCE: Assessment Report 20492.

## INVENTORY

ORE ZONE: SAMPLE	RI	EPORT ON: N
CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	GRADE	YEAR: 1988
Silver Germanium	28.0000 0.1200	Grams per tonne Per cent
Zinc COMMENTS: A grab sample from the Biddy area.	4.1100	Per cent

REFERENCE: Exploration in British Columbia 1989, page 195.

#### CAPSULE GEOLOGY

The Biddy occurrence is located near the headwaters of Big Creek, approximately 7 kilometres north-northeast of Nina Lake and approximately 3 kilometres south-southwest of Razorback Mountain. It lies within 1 kilometre to the west of the Otter Lakes, near an old exploration gravel road that connects to the Germansen Landing road south of Nina Lake.

Regionally, the general area is divided by a major, layer parallel, thrust fault that separates para-autochthonous North American rocks of the Cassiar Terrane from rocks belonging to the Intermontane Superterrane represented by the Slide Mountain and Quesnel terranes (Ferri and Melville, in prep). This fault boundary roughly corresponds to the Omineca-Intermontane belts boundary. This regional stratigraphy forms part of a southwest-dipping homoclinal sequence that is cut by a series of northwest-striking normal faults to the north of the Biddy occurrence and northeast-striking normal faults to the south. With the exception of the easternmost portions of the pericratonic strata, all other rocks have been weakly metamorphosed up to chlorite grade (Ferri and Melville, in prep. and Exploration in British Columbia 1989, pages 193-196).

The Cassiar Terrane is represented by a Proterozoic to Mississippian carbonate and siliciclastic miogeoclinal wedge. These sequences of miogeoclinal rocks include the Proterozoic Ingenika Group, the Lower Cambrian Atan Group, the Cambrian (?) to Ordovician Razorback Mountain Group, the Silurian to Lower Devonian Echo Lake Group, the Middle Devonian Otter Lakes Group, the Upper (?) Devonian to Mississippian Big Creek Group and the Mississippian to Permian Cooper Ridge Group (Ferri and Melville, in prep.).

The Slide Mountain Terrane is represented by Upper Paleozoic oceanic rocks of the Nina Creek Group. The Pennsylvanian to Permian Nina Creek Group consists of a lower argillite-dominated sedimentary package and an upper pillowed to massive basalt-dominated sequence. Rocks belonging to the Quesnel Terrane lie to the west of the Nina Creek Group, across the Manson fault zone, and are represented by the Middle Triassic to Lower Jurassic Takla Group.

The Biddy occurrence is hosted within the Middle Devonian Otter Lakes Group and the Silurian to Lower Devonian Echo Lake Group. The Otter Lakes Group is characterized by approximately 150 to 200 metres of grey to black limestones and dolostones that are direct correlatives of the carbonates of the McDame Group in the Cassiar area (Ferri and Melville, in prep.). The Echo Lake Group is a thick succession of approximately 100 metres of limestone, dolomite, sandy dolomite and minor quartzite. It is divided into two units with the lower unit consisting primarily of carbonate and the upper unit, sandy dolomites and quartzites. Overlying these two groups is the Upper (?) Devonian to Lower Mississippian Big Creek Group that is approximately a 500 metre thick succession of blue-grey to dark grey shales, argillites and minor sandstones.

Mineralization is stratabound within a stratigraphic interval from the Otter Lakes-Big Creek contact downwards to the uppermost sandy dolomites of the Echo Lake Group. The sulphides occur as semimassive irregular-shaped pods in solution breccias (dolomitic breccias), as massive sulphides in localized shear zones and as disseminated blebs in arenaceous dolomites. Where brecciated, the mineralization is found towards the top of the Otter Lakes Group, near the Big Creek shale contact. The sulphides within the breccias may replace clasts, matrix or a combination of both suggesting multiphase fluid influx and deposition (Exploration in British Columbia 1989, pages 193-196). Mineralization consists of sphalerite and galena with associated barite and minor pyrite. Lead-lead dates from the galena have a Cambrian shale curve model age (Ferri and Melville, in prep.). The sphalerite is on average 0.05 per cent germanium (Assessment Report 16946). A grab sample from this occurrence analysed 4.11 per cent zinc, 28 grams per tonne silver and 0.120 per cent germanium (Exploration in British Columbia 1989, page 195). One of the best drillhole intersections analysed 1.3 per cent zinc and 1 per cent lead over a 2-metre interval (Assessment Report

20492).

# BIBLIOGRAPHY

EMPR BULL \*91 EMPR EXPL \*1989, pp. 193-196 EMPR FIELDWORK 1988, pp. 209-220; \*1989, pp. 101-114 EMPR OF \*1990-17; 1989-12 EMPR ASS RPT \*16946, 19266, \*20492 GSC P 41-5; 42-2; 45-9; 75-33 GSC MEM 252 GSC MAP 876A; 1424A; 5249G

DATE CODED:	1985/07/24
DATE REVISED:	1992/07/03

CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 115</u>	NATIO	NAL MINERAL INVENTORY: 093N10 Asb1
NAME(S):	GERMANSEN RIVER		
STATUS: REGIONS	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093N10E		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 44 36 N 124 40 05 W 828 Metres Within 500M The occurrence is located on the Ge kilometres from its mouth and 1 kilom Landing road.	rmansen River approximately 10 hetre east of the Germansen	NORTHING: 6178774 EASTING: 395284
COMMODITIES:	Asbestos Nickel		
MINERALS			
SIGNIFICANT: MINERALIZATION AGE:	Chrysotile Asbestos Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Epigenetic Hydrother M06 Ultramafic-hosted asbestos	mal Industrial Min.	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Triassic PennsylvanPermian	Iakia	Slate Creek	Manson Lakes Ultramafites
LITHOLOGY:	Serpentinite Ultramafic Sediment/Sedimentary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Slide Mountain Regional	PHYSI RELATIONSHIP: Syn-mineralizatio Post-mineralizatio	OGRAPHIC AREA: Manson Upland on GRADE: Greenschist on
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Nickel Two samples, within 250 metres, fro Open File 1989-12 samples FEF88-	YEAR: 1988 <u>GRADE</u> 0.2500 Per cent m ultramafics (serpentinite). 10-9-1 and DME88-8-2-1	-
	The Germansen River approximately 10 kilometr This occurrence is h Pennsylvanian-Permian Man altered and are predomina ultramafic package is fou lateral Manson fault zone age. To the immediate so sediments of the Middle t (Takla Group). To the no bounded rocks of North Am Permian Cooper Ridge Grou Big Creek Group. This occurrence was Canada Paper 45-9 as a lo chrysotile occurs as thin serpentinite. Two grab s cent nickel (Open File 19	occurrence is located on es from its mouth. osted within a fault-boun son Lakes Ultramafites. ntly serpentinite. This nd within the northwest s of probable Late Cretace uthwest, across a fault b o Upper Triassic Slate Cr rth of this ultramafic pa erican affinity; the Miss p and the Upper(?) Devoni originally described in G w-grade chrysotile asbest discontinuous veinlets r amples near this location 89-12, samples FFE88-10-9	Germansen River ded slice of the The ultramafics are fault-bounded triking, right- ous to Tertiary oundary, lies eek Formation ckage, lies fault- issippian to an to Mississippian eological Survey of os showing. The unning through the yielded 0.25 per -1 and DME88-2-1).
BIBLIOGRAPHY	EMPR ASS RPT 1938, 12130, EMPR AR 1924-111; 1927-15	12362 8; 1936-C3,39; 1938-C7	

EMPR OF \*1989-12; 1995-25 EMPR FIELDWORK 1988, pp. 209-220 EMPR BULL \*91 GSC MEM 252 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P \*41-5, pp. 8,15; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24 DATE REVISED: 1992/08/28 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 116</u>		NATIONAL MINERAL INVENTOR	Y: 093N10 Ni1
NAME(S):	AH HOO CREEK			
STATUS:	Showing British Columbia		MINING DIVISIO	N: Omineca
NTS MAP: BC MAP	093N10E		UTM ZON	E: 10 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 43 28 N 124 38 09 W 851 Metres Within 1 KM Near confluence of Ah Hoo Creek and	Germansen River.	NORTHIN	G: 6176624 G: 397257
COMMODITIES:	Nickel			
MINERALS SIGNIFICANT: ALTERATION TYPE: MINERALIZATION AGE:	Pyrrhotite Pentlandite Serpentin'zn Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Magmatic M02 Tholeiitic intrusion-hosted Ni-Cu	ı		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE PennsylvanPermian	GROUP	FORMATION	IGNEOUS/META Manson Lakes U	MORPHIC/OTHER
LITHOLOGY:	Ultramafic Serpentinite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Slide Mountain		PHYSIOGRAPHIC AREA: Mansc	on Upland
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON	: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Nickel A grab sample of serpentinite, sample I Open File 1989-12.	YEAR <u>GRADE</u> 0.1900 Per cer DME88-2-1-1.	: 1988 nt	
CAPSULE GEOLOGY				
	The Ah Hoo Creek occur Hoo Creek and the Germanser This occurrence is hos Manson Lakes Ultramafites. pyrrhotite and occurs in se near the Manson fault zone cent nickel (Open File 1989 gold have been reported in	rrence is located of A River. Sted within the Per Mineralization cor repentinized ultran A serpentinite a -12). Pentlandit this general area	hear the confluence of A rmian to Pennsylvanian onsists of disseminated mafic bodies within and sample assayed 0.19 per e and trace amounts of	Ah
BIBLIOGRAPHY	EMPR OF *1989-12 EMPR FIELDWORK 1988, pp. 20 EMPR AR 1936-C6 EMPR ASS RPT 12130, 12362 EMPR BULL *91 GSC MEM 252 GSC MAP 876A; 907A; 971A; 1 GSC P 41-5; 42-2; 45-9; 75-	99-220 424A; 5249G 33		
	1985/07/24			

MINFILE NUMBER:	<u>093N 117</u>	Ν	IATIONAL MINERAL INVENTORY:	093N9 Pb1
NAME(S):	LOST CREEK LEAD			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N09W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 51 N 124 27 32 W 1070 Metres Within 1 KM The occurrence is located approximat creeks by the description of pre-1938 Reports 1928, page 181 and 1938, page	ely between Lost and Skeleto adit (Minister of Mines Annua ge C10).	NORTHING: EASTING: al	6169668 408228
COMMODITIES:	Lead			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Pyrite Quartz Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Hydrothermal Epigenetic			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Slate Creek	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Altered Limestone Altered Argillite			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Regional	F RELATIONSHIP:	HYSIOGRAPHIC AREA: Manson GRADE: Greenso	Upland chist
CAPSULE GEOLOGY	The Lost Creek Lead o Lost and Skeleton creeks, located on an old descript references of this occurre Reports (1938 and 1928). quartz veins, 15 to 75 cen hydrothermally altered ban argillites of the Middle t (Takla Group). These gale northwest and dip steeply. east of the AJM occurrence located, this occurrence i striking Manson fault zone	ccurrence is located just south of the Ma ion of a pre-1938 ad nce is from two Mini It is described as a timetres in width, o ds of grey to black o Upper Triassic Sla na and pyrite-bearin It is found less t (093N 136) and may s within the right-1	approximately between nson River. It is it. The only ster of Mines Annual number of lenticular ccurring within fissile limestones and te Creek Formation g veins strike han a kilometre to the be the same one. Where ateral, northwest-	
BIBLIOGRAPHY DATE CODED: DATE REVISED:	EMPR AR *1928-181, *1938-C EMPR BULL *91 EMPR OF 1988-12 EMPR FIELDWORK 1987, pp. 1 GSC MEM 252 GSC MAP 876A; 907A; 971A; GSC P 41-5; 42-2; 45-9; 75 1985/07/24 1992/08/27	10 69-180 1424A; 5249G -33 CODED BY: GSB REVISED BY: DMM	F	FIELD CHECK: N
			ľ	

MINFILE NUMBER:	<u>093N 118</u>		NATIONAL MINERAL INVENTORY: (	093N9 Mo1
NAME(S):	BLACKJACK EAST			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: (	Omineca
BC MAP:			UTM ZONE: 1	10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 34 46 N 124 28 34 W 1150 Metres Within 500M The Blackjack East occurrence is cent between the Manson River and Boulde kilometres north of Mount Gillis. The a follows the Manson River and connect (Assessment Report 1161).	tred on the trenches located er Creek, approximately 8.5 access is by a cat trail that ts to the Takla Landing road	NOR I HING: 6 EASTING: 4	100263 106945
COMMODITIES:	Molybdenum Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Molybdenite Chalcopyrite Quartz Pyrite Pyrrhotii Unknown	te		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Hydrothermal Porphyry L05 Porphyry Mo (Low F- type) Irregular			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION Plughat Mountain	IGNEOUS/METAMO	RPHIC/OTHER
Cretaceous ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	106 +/- 4 Ma Potassium/Argon Biotite	Flughat Mountain	Germansen Batholi	th
LITHOLOGY:	Granodiorite Hornfels Quartz Monzonite Aplite			
HOSTROCK COMMENTS:	The bulk of the mineralization is in the minor amounts within the Takla Group	e Germansen batholith with p.		
GEOLOGICAL SETTING	Intermentane			laland
METAMORPHIC TYPE:	Quesnel Contact	RELATIONSHIP:	GRADE: Hornfels	planu
CAPSULE GEOLOGY				
	The Blackjack Central the Manson River, 8 kilome is by cat trail up Manson Landing at Slate Creek (As Molybdenite is found quartz veins within granod aplite of the Cretaceous G located at the contact of Plughat Mountain Formation molybdenite-bearing quartz rocks. Associated with so pyrrhotite and chalcopyrit	trenches are found tres northeast of M River which connect sessment Report 116 in veinlets as diss- iorite, quartz monz- ermansen batholith. an outlier of hornf- rocks (Takla Group veins are found wi me of the molybdeni e.	near the headwaters of ount Gillis. The access s with a road to Takla 1). eminated in massive onite and possibly, This showing is elsed Upper Triassic ). Lesser thin these hornfelsed te showings are pyrite,	
BIBLIOGRAPHY	EMPR ASS RPT 1161, 2185, 2 EMPR AR 1965, pp. 106-108 EMPR BULL 70; *91 EMPR FIELDWORK *1987, pp. EMPR OF 1988-12 GSC MEM 252 GSC MAP 876A; 971A; 1424A;	689, 13752 169-180; 1991, pp. 5249G	119-126	

GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/29 CODED BY: GSB REVISED BY: FF

# MINFILE NUMBER: 093N 119 NATIONAL MINERAL INVENTORY: 093N9 Mo2 NAME(S): BLACKJACK CENTRAL, BLACKJACK SOUTH STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093N09W BC MAP: UTM ZONE: 10 (NAD 83) LATITUDE: 55 33 48 N NORTHING: 6158469 LONGITUDE: 124 28 30 W ELEVATION: 1200 Metres EASTING: 406977 LOCATION ACCURACY: Within 500M COMMENTS: The Blackjack Central trenches are found near the headwaters of the Manson River, 5 kilometres northeast of Mount Gillis. The access is by cat trail up Manson River which connects with a road to Takla Landing at Slate Creek (Assessment Report 1161). COMMODITIES: Molybdenum MINERALS SIGNIFICANT: Molybdenite ASSOCIATED: Quartz ALTERATION TYPE: Biotite Pyrite Calcite MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Vein Shear CLASSIFICATION: Hydrothermal TYPE: L05 Porph Epigenetic Porphyry Mo (Low F- type) SHAPE: Irregular MODIFIER: Sheared HOST ROCK DOMINANT HOSTROCK: Metamorphic <u>GROUP</u> Takla FORMATION Plughat Mountain IGNEOUS/METAMORPHIC/OTHER TRATIGRAPHIC AGE Upper Triassic Cretaceous Germansen Batholith ISOTOPIC AGE: 106 +/- 4 Ma DATING METHOD: Potassium/Argon MATERIAL DATED: Biotite LITHOLOGY: Biotite Hornblende Hornfels HOSTROCK COMMENTS: The date was obtained from sample GM87-12-4 which is located approximately 5 kilometres to the southeast of the occurrence. **GEOLOGICAL SETTING** TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Manson Upland TERRANE: Quesnel METAMORPHIC TYPE: Contact **RELATIONSHIP:** GRADE: Hornfels COMMENTS: Outlier or roof pendant of Takla Group sediments within the batholith. CAPSULE GEOLOGY The Blackjack Central showing is located on the trenched area approximately 5 kilometres northeast of Mount Gillis, near the headwaters of the Manson River. This showing is one of several headwaters of the Manson River. This showing is one of sector found along the headwaters of the Manson River. Three molybdenite-bearing quartz veins are found within a biotite and hornblende(?) hornfels. This hornfels is part of an outlier of the Upper Triassic Plughat Mountain Formation (Takla Group) found within the Cretaceous Germansen batholith. These hornfels have a northwest-trending fabric and are cut by several shear zones. To the south of the main showing is a 15-centimetre wide sheared quartz-calcite vein which is brecciated and contains molybdenite on fracture surfaces. Pyrite is also associated with the molybdenite. BIBLIOGRAPHY EMPR AR 1965, pp. 106-108 EMPR ASS RPT \*1161 EMPR BULL 70; \*91 EMPR FIELDWORK \*1987, pp. 169-180; 1991, pp. 119-126 EMPR OF 1988-12 GSC MEM 252 GSC MAP 876A; 971A; 1424A; 5249G

GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/29 CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	<u>093N 120</u>	I	NATIONAL MINEF	RAL INVENTORY:	093N10 Mo1	
NAME(S):	BLACKJACK WEST, WESTERN SHOWING, W					
STATUS: REGIONS:	Showing British Columbia		r	MINING DIVISION:	Omineca	
NIS MAP: BC MAP:	093N10E 093N09W			UTM ZONE:	10 (NAD 83)	
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 34 01 N 124 30 07 W 1195 Metres Within 500M The Blackjack West showing is loc tributary of the Manson River, appr creek level (Assessment Report 21	ated on the west bank of a we oximately 10 to 12 metres abov 85).	stern /e	EASTING:	405286	
COMMODITIES:	Molybdenum					
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Molybdenite Quartz Unknown					
	Voin					
CLASSIFICATION: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Hydrothermal Epigenet L05 Porphyry Mo (Low F- type) Tabular Fractured		400/005			
DIMENSION: COMMENTS:	The strike and dip is the orientation cleavage and the foliation in the plu	of the intrusive contact, the itonic rocks.	: 130/60E	IREND/PLU	NGE:	
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FORMATION		GNEOUS/METAMO	ORPHIC/OTHER	
Cretaceous-Tertiary ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	106 +/- 4 Ma Potassium/Argon Biotite		(	Germansen Batho	lith	
LITHOLOGY:	Granitic Rock Hornfelsed Slaty Rock Granite Hornfels					
	Intermentana				Inland	
METAMORPHIC TYPE:	Quesnel Contact	RELATIONSHIP:	rhi siografhic	GRADE: Hornfels	Opiano	
CAPSULE GEOLOGY						
	The Blackjack West occurrence is located on the west bank of a western tributary of the Manson River, approximately 10 to 12 metres above the creek level (Assessment Report 2185). This occurrence has similar regional geology to that of the Jordi occurrence (093N 133). This showing occurs at the contact between granitic rocks of the Cretaceous Germansen batholith and hornfelsed slaty rocks of the Middle Triassic to Lower Jurassic Takla Group. The plutonic rocks are foliated with the foliation being parallel to the contact as well as the cleavage of the hornfelsed slaty rocks. The strike is 130 degrees and dips 60 degrees to the northeast. Molybdenite with or without quartz occurs in joints at this contact. The molybdenite seems to be present over a width of about 0.63 metre (Assessment Report 2185).					
BIBLIOGRAPHY		_				
	EMPR AR 1965, pp. 106-10 EMPR GEM 1970-182 EMPR ASS RPT *2185, 2689 EMPR BULL 70; 91 EMPR FIELDWORK 1987, pp. 119-126 GSC MEM 252 CSC MAD 8766: 9712: 1424	7 169-180; 1988, pp. 2) A: 52496	09-220; 1991	, pp.		

GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/31 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 121</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	<u>GILLIS</u>		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N07E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 25 30 N 124 34 54 W 1000 Metres Within 500M Mineralized outcrop near t (Assessment Report 1984	he centre of the Gillis 1-4 claim group 4, Figure 4).	NORTHING: 6143224 EASTING: 399900
COMMODITIES:	Copper	Nickel	
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Pyrrhotite Malachite Oxidation	Pentlandite Chalcopyrite Serpentin'zn	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Magmatic M02 Tholeiitic intrusion-	hosted Ni-Cu	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Germansen Batholith
LITHOLOGY:	Pyroxenite Gabbro Granite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Quesnel	PHYSIOGRAPHIC AREA: Manson Upland
CAPSULE GEOLOGY			
	The Gillis oc Cretaceous Germans granite (Fieldwork southwest, the bat rocks of the Upper Weakly serpen batholith are repo pyrite, pyrrhotite 19844). Malachite	currence is underlain by the en batholith which is compo- 1991, page 113). About 4 1 holith is in contact with se Triassic Inzana Lake Forma- tinized bodies of pyroxenite rted to contain from 1 to 5 , pentlandite and chalcopyr- also occurs.	e middle to Late sed of coarse-grained kilometres to the edimentary and volcanic tion, Takla Group. e and gabbro within the per cent disseminated ite (Assessment Report
BIBLIOGRAPHY	EMPR ASS RPT *1984 EMPR FIELDWORK 199 EMPR OF 1991-3; 19 GSC P 41-5; 42-2; GSC MAP 876A; 907A GSC MEM 252 GSC OF 2842 Placer Dome File	4 0, pp. 89-110; 1991, pp. 10 92-4 45-9 ; 971A; 1424A	3-118, 119-126
DATE CODED: DATE REVISED:	1993/02/25 1993/02/25	CODED BY: GJP REVISED BY: GJP	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 122</u>		NATIONAL MINERAL INVENTORY	:
NAME(S):	<u>gun</u> , Bid, Mar, Pit			
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093N02W 093N07W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 31 N 124 48 37 W 1000 Metres Within 1 KM The given location coordinates are Mar and Pit claims (Assessment Re reported mineralization on the claim	for the centre of the Gun, Bid, port 3460). The location of group is not known.	NORTHING: EASTING:	6123209 384904
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Malachite Silica Chlorite Malac Silicific'n Chloritic	hite Oxidation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal L03 Alkalic porphyry Cu-Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION		ORPHIC/OTHER
	Outra a dia site		Hogen initiasive C	Jompiex
LITHOLOGY	Syenite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic Rocks	PHYSIOGRAPHIC AREA: Manson	Upland
CAPSULE GEOLOGY	_			
	The Gun property was surveys were conducted ( granodiorite and syenite Hogem Intrusive Complex locally. Malachite stai	s worked in 1971; soi Assessment Report 346 of the Late Triassic is slightly silicified ning occurs in one loo	l magnetometer and IP 0). Early Jurassic to Early Cretaceous d and chloritized cation.	
BIBLIOGRAPHY	TNDD CDN +1071 100			
	EMPR GEM ^19/1-198 EMPR ASS RPT *3460 EMPR FIELDWORK 1990, pp. EMPR OF 1991-3; 1992-4; GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A GSC OF 2842	89-110; 1991, pp. 10 1993-3 ; 1424A	3-118; 1992, pp. 87-107	
DATE CODED: DATE REVISED:	1985/07/24 1993/03/10	CODED BY: GSB REVISED BY: GJP		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 123</u>		NAT	FIONAL MINERAL INVENTORY:	
NAME(S):	<b>SNOWSHOE</b>				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 42 N 124 06 00 W 1200 Metres Within 500M The area of diamond-drill	hole activity, about 5	kilometres due south	NORTHING: EASTING:	6111479 429890
COMMODITIES:	Copper	Molybdenum			
MINERALS SIGNIFICANT:	Pvrite Pvrrhotite	Chalcopyrite	Molvbdenite		
COMMENTS: ASSOCIATED: ALTERATION:	Trace chalcopyrite and m Magnetite Carbonate	olybdenite.	Enidote Biotite		
ALTERATION TYPE: MINERALIZATION AGE:	Malachite Carbonate	Sericitic	Propylitic	Potassic	Oxidation
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry L03 Alkalic porphyry	Hydrothermal Cu-Au			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	<u>FOR</u> Witcl	MATION h Lake		DRPHIC/OTHER
LITHOLOGY:	Latite Latite Tuff Latite Pyroclastic Monzodiorite Calcareous Argillite Carbonaceous Argillite Monzodiorite Dike Monzodiorite Sill Syeno Monzonite Dike Syeno Monzonite Sill				
HOSTROCK COMMENTS:	The monzonitic dikes and sills are coeval equivalent intrusion of the Takla Group.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane PHYSIOGRAPHIC AREA: Nechako Lowland Quesnel				
CAPSULE GEOLOGY	The Snowshoe occurrence area is underlain mainly by a moderately east-dipping series of calcareous and carbonaceous argillites, latitic fragmentals, and calcareous latitic tuffs of the Upper Triassic Witch Lake Formation of the Middle Triassic to Lower Jurassic Takla Group. The strata has been intruded by minor intrusions consisting of medium-grained subporphyritic monzodiorite to medium-grained hornblende plagioclase porphyritic synomonzonite dikes and sills. In this region, these intrusions are considered to be coeval equivalents of the Takla Group and are therefore constrained by the same Middle Triassic to Early Jurassic age. Results of a diamond drilling program in 1990 indicate variable amounts of predominantly pyrite mineralization, some pyrrhotite locally, and traces of chalcopyrite, molybdenite, malachite and magnetite. Alteration minerals include carbonate, sericite, chlorite, epidote and biotite (potassic).				
BIBLIOGRAPHY	EMPR ASS RPT 1992 EMPR FIELDWORK 19 EMPR OF 1991-3; 1 GSC P 41-5; 42-2;	1, *21078 90, pp. 89-110 992-3 45-9			

GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842

DATE CODED: 1993/02/08 DATE REVISED: / / CODED BY: GJP REVISED BY:

MINFILE NUMBER:	<u>093N 124</u>		NATIONAL MINERAL INVENTORY: 0931	N11 Pb1
NAME(S):	PINCHI FAULT			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N11W		MINING DIVISION: Omi UTM ZONE: 10	neca (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 34 56 N 125 24 44 W 1250 Metres Within 1 KM Location as shown on Geo kilometres east-northeast o	logical Survey of Canada Map f Takla Landing.	NORTHING: 6162 EASTING: 3479 p 907A, about 37	2225 952
COMMODITIES:	Lead	Silver		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Unknown			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
<u>STRATIGRAPHIC AGE</u> Paleozoic-Mesozoic	<u>GROUP</u> Cache Creek	FORMATION Undefined Form	IGNEOUS/METAMORPH mation	HC/OTHER
LITHOLOGY:	Limestone Sediment/Sedimentary			
HOSTROCK COMMENTS:	Cache Creek Complex ro	cks are Carboniferous to Juras	assic.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOGRAPHIC AREA: Omineca Mou	untains
CAPSULE GEOLOGY	The Pinchi Fau Mineral Inventory 1 occurrence (093N 00 Takla Landing. It Survey of Canada Ma have yet to be loca The area is un west-dipping sequer Carboniferous to Ju the occurrence, mot predominates and is mineralization. Th fault zone, a major through the Omineca Creek.	alt occurrence, as re listings, is situated 09), approximately 37 is shown as a lead-s ap 907A, but descript ated. nderlain by a north-n nce of interbedded se urassic Cache Creek C ttled grey, massive, s the most probable h nese rocks have been c regional structure a district and, in th	eferred to in the National d just north of the Lustdust 7 kilometres east-northeast of silver occurrence on Geological tions of this mineralization northwest striking, steeply ediments assigned to the Complex. Immediately south of crystalline limestone nost to the lead-silver disrupted along the Pinchi that strikes northwesterly his area, parallels Silver	
BIBLIOGRAPHY	EMPR OF 2000-33 GSC MAP 844A; *9077 GSC MEM 252 GSC P 74-1A; 74-1B, 1985/07/24	A; 971A; 1424A , pp. 31-42 <u>CODED BY:</u> GSE		CHECK: N
DATE REVISED:	1992/09/29	REVISED BY: DMM	IN FIELD	CHECK: N

MINFILE NUMBER:	<u>093N 125</u>	NA	TIONAL MINERAL INVENTORY:		
NAME(S):	WEST KWANIKA CREEK				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N11W		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 33 26 N 125 25 16 W 1250 Metres Within 5 KM Location from Geological Su	urvey of Canada Map 971A.	NORTHING: 6159463 EASTING: 347295		
COMMODITIES:	Gold S	ilver			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown				
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Unknown				
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary				
STRATIGRAPHIC AGE Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER		
LITHOLOGY:	Limestone Phyllite Argillite Chert Schist				
HOSTROCK COMMENTS:	Cache Creek Complex roc the West Kwanika Creek a	ks are Carboniferous to Jurassic and und- rea.	erlie		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	PH	YSIOGRAPHIC AREA: Omineca Mountains		
CAPSULE GEOLOGY	This gold-silv Canada Maps 907A an underlain by sedime Cache Creek Complex argillite, chert an Although no de possible that it ma without gold) miner quartz-carbonate ve north.	er occurrence is shown on Ged d 971A. The West Kwanika Cre nts assigned to the Carbonife and consists of interbedded d schist. scriptions of this occurrence y be related to the silver-le alization developed in fault- ins at the Lustdust occurrence	blogical Survey of eek occurrence area is erous to Jurassic limestone, phyllite, e are available, it is ead-zinc (with or -controlled, ce (093N 009) to the		
BIBLIOGRAPHY	EMPR OF 2000-33 GSC MAP 844A; *907A GSC MEM 252 GSC P 42-7; 45-6; 7	; *971A; 1424A 4-1A; 74-1B, pp. 31-42			
DATE CODED: DATE REVISED:	1985/07/24 1992/09/30	CODED BY: GSB REVISED BY: DMN	FIELD CHECK: N FIELD CHECK: N		
MINFILE NUMBER:	<u>093N 126</u>		NATIONAL MINE	ERAL INVENTORY:	
--	--	---	---	---	----------------------------
NAME(S):	<u>MYRINDA</u>				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N12W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 44 40 N 125 46 24 W 948 Metres Within 500M Location is for a nephrite jade of River forestry access road, abo Takla Landing (Assessment Re	putcrop on the north side of the but 31 kilometres east-northeas port 15273, Index Map #4).	Fall st of	NORTHING: EASTING:	6181121 325919
COMMODITIES:	Jade/Nephrite Gem	nstones			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Nephrite Serpentine Serpentin'zn Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Podiform Replacement Meta Q01 Jade	amorphic Industrial	l Min.		
HOST ROCK DOMINANT HOSTROCK	Metaplutonic				
STRATIGRAPHIC AGE Paleozoic-Mesozoic Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Formation		IGNEOUS/METAM	<u>ORPHIC/OTHER</u> tes
LITHOLOGY:	Serpentinite Andesitic Tuff Andesitic Flow Schist Phyllite Cherty Argillite Limestone Andesite Ultramafic				
HOSTROCK COMMENTS:	Nephrite is described as occu contact with country rocks (like	rring where underlying serpent ely Cache Creek Complex merr	tinite is in nbers).		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	Plutonic Rocks	PHYSIOGRAPH	IC AREA: Omineca	Mountains
CAPSULE GEOLOGY	The Myrinda occu: Akus and Kelly lakes, Takla Landing. The Fall River a: sedimentary members o Complex. In the area flows and tuff, schiss limestone and general Locally serpentinized Middle Permian to Lat Mississippian to Tria Creek Complex rocks t 74-1, Part A, page 32 The showing is e: forestry access road a jade occurring where o "country rock" (likely drilling undertaken in was of very low quali and of limited thickne Additional occurrences	rrence is situated on approximately 31 kild rea is underlain by in f the Carboniferous to of the showing, these t, phyllite, cherty ar ly strike north to nor ultramafic rocks form e Triassic Trembleur i ssic Oceanic Ultramafi o the west (Geological ). xposed on the north si and consists of a 24-m underlying serpentinit y Cache Creek Complex n three, 1-metre holes ty, being badly fractu ess (Assessment Report s of jade were located r potential.	Fall River, m ometres north- ntercalated vo o Jurassic Cac e members incl rgillite, and rthwest with s merly assigned intrusions and ites, intrude l Survey of Ca ide of the Fal metre long len te is in conta members). Di s determined t ured, a blue-g t 15273, page d in the area	idway between northeast of lcanic and he Creek ude andesitic minor teep dips. to the now termed the Cache nada Paper l River s of nephrite ct with amond hat the jade rey colour 3). which were	

## BIBLIOGRAPHY

EMPR ASS RPT \*15273 EMPR EXPL 1986-C375 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED: 1992/09/24 DATE REVISED: 1993/03/11 CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 127</u>			NATIONAL MIN	IERAL INVENTORY:	
NAME(S):	<u>JO 49</u>					
STATUS: REGIONS	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N12E				UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 36 48 N 125 44 49 W 1785 Metres Within 500M Location is sample RE- Landing (Assessment I	0038, about 20 kilon Report 12548, Figure	netres northeast o	of Takla	NORTHING: EASTING:	6166470 326997
COMMODITIES:	Gold	Silver				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION:	Sulphide Quartz Pyrite Quartz Ankerite Actinolite Tremoli	Pyrrhotite e Mariposite	Magnetite Talc	Chrysotile		
ALTERATION TYPE: MINERALIZATION AGE:	Quartz-Carb. Unknown	Serpentin'zn				
DEPOSIT CHARACTER: CLASSIFICATION: COMMENTS:	Unknown Unknown The style of the minera described.	lization at the main s	showing is poorly			
HOST ROCK DOMINANT HOSTROCK	: Volcanic					
STRATIGRAPHIC AGE Paleozoic-Mesozoic Paleozoic-Mesozoic Unknown	GROUP Cache Creek	<u>F(</u> U	ORMATION ndefined Formation	on	IGNEOUS/METAM Oceanic Ultramafi Unnamed/Unknov	ORPHIC/OTHER tes vn Informal
LITHOLOGY:	Andesite Flow Cherty Phyllite Felsite Aplite Serpentinite Andesite					
HOSTROCK COMMENTS:	Cache Creek Comple Oceanic Ultramafites	x rocks are Carbonit are Mississippian to	ferous to Jurassio Triassic.	c while the		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Cache Creek Regional	Plutoni REL	c Rocks ATIONSHIP:	PHYSIOGRAPI	HIC AREA: Omineca GRADE: Greenso	a Mountains chist
INVENTORY						
ORE ZONE:	SAMPLE		REPOR	TON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay SAMPLE TYPE: Rock COMMODITY Silver Gold Grab sample (RE-0038 Assessment Report 12	//analysis 	Y GRADE 17.0000 Gr 4.0000 Gr d by an andesite	YEAR: 1983 ams per tonne ams per tonne e flow.		
CAPSULE GEOLOGY						
	The Jo 49 c Creek, approxima showing was loca carried out in t The upper H phyllite and and Jurassic Cache C and dip to the e subparallel and Evidence suggest metamorphism.	ccurrence is a tely 20 kilome ted in 1983 du he Vital Range umphrey Creek esitic flows a reek Complex. ast. Bedding both large and s that the roo	situated nea etres northe uring a regi e. area is und assigned to These rock and foliati d small-scal cks have und	r the headwates ast of Takla La onal exploration erlain by loca the Carboniferon s strike predom on are paralle e folds are wid ergone greensch	rs of Humphrey anding. The on program lly cherty ous to ninantly north l to despread. hist facies	

In contact with the Cache Creek Complex rocks immediately west

of the showing is serpentinite, formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions and now termed Mississippian to Triassic Oceanic Ultramafites. This dark green to black-coloured unit is massive, sheared and hosts talc and chrysotile veinlets together with coarsely crystalline actinolite and tremolite. Local quartz-carbonate alteration of the serpentinite has resulted in tabular zones of quartz-ankerite-mariposite mineralization hosting variable amounts of pyrite, pyrrhotite and magnetite. Locally, small, often lenticular masses of grey, rusty

Locally, small, often lenticular masses of grey, rusty weathering felsitic and white to pink aplitic intrusions have been emplaced into the Cache Creek Complex members. In many cases, these intrusions were seen only as subcrop and as angular float trains.

The Jo 49 showing is described only as comprising sulphides(?) hosted within an andesite flow. One grab sample (RE-0038) from this showing assayed 4.0 grams per tonne gold and 17.0 grams per tonne silver (Assessment Report 12548, page 7). Attempts to reproduce this result proved unsuccessful (Assessment Report 14554). Another sample (RE-0184) taken of quartz stringers hosted by a felsite intrusion 150 metres south of sample RE-038 analysed 2.5 grams per tonne gold (Assessment Report 12548).

#### BIBLIOGRAPHY

EMPR ASS RPT \*12548, 14554 EMPR EXPL 1983-464; 1985-C337 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED: 1992/09/24 DATE REVISED: 1993/03/11 CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 128</u>	NATIONAL MINE	ERAL INVENTORY:	
NAME(S):	<u>WASI RIDGE</u> , WILLY, BLONDIE, JAJAY			
STATUS:	Showing		MINING DIVISION: Omineca	
REGIONS: NTS MAP:	British Columbia 093N14E		UTM ZONE: 10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 52 15 N 125 14 11 W 1755 Metres Within 500M Location is sample 74921, about 35 kilometres v Germansen Landing (Assessment Report 21428	vest-northwest of , Figure 7a).	NORTHING: 6193965 EASTING: 360070	
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrrhotite Pyrite Chalcopyrite Chalcopyrite is described as minor. Epidote Calcite Quartz Epidote Unknown			
	Discominated Shoot			
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Hydrothermal Porphyry L03 Alkalic porphyry Cu-Au 50 Metres Dimension is length of the mineralized outcrop.	STRIKE/DIP:	TREND/PLUNGE:	
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP FORMA	ATION	IGNEOUS/METAMORPHIC/OTHER	
Mesozoic			Hogem Intrusive Complex	
LITHOLOGY:	Cherty Tuff Monzonite			
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Complex range Early Cretaceous.	from Late Triassic to		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel Plutonic Rock	PHYSIOGRAPH	IC AREA: Omineca Mountains	
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY GRAD	YEAR: 1991		
COMMENTS:	Copper 0.08 Sample of cherty tuff hosting less than 1 per cer	378 Per cent nt pyrrhotite and		
REFERENCE:	Assessment Report 21428, page 22, Appendix 2	2.		
CAPSULE GEOLOGY				
	The Wasi Ridge occurrence is situated at the south end of the ridge separating Wasi and Discovery creeks, approximately 35 kilometres west-northwest of Germansen Landing. The area was evaluated in 1991 by Golden Rule Resources. The ridge is underlain by a thick succession of volcaniclastic/ pyroclastic rocks assigned to the Upper Triassic Willy George sequence of the Takla Group which have been intruded by various phases of the Late Triassic to Early Cretaceous Hogem Intrusive Complex. To the west, these mesozonal plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. At the occurrence, disseminated and fracture controlled sulphide mineralization, averaging less than 1 per cent by volume, is hosted by very fine grained, siliceous, cherty, bedded tuff at and near the contact with monzonitic intrusions. Pyrhotite is the dominant sulphide, followed by pyrite and minor chalcopyrite. Epidote alteration with attendant calcite and rarer quartz veining is common			

throughout these rocks. The best assay, 0.0878 per cent copper, came from a grab sample of cherty tuff carrying disseminated pyrrhotite with minor pyrite exposed for 50 metres along the ridge (Assessment Report 21428, page 22).

Several other small copper showings occur along Wasi Ridge at sample localities 74920 and 74922, however, they have lower copper values associated with them. These copper showings and many of the others (shown in maps of Assessment Report 21428) are related to the Takla Group-Hogem Intrusive Complex contact.

#### BIBLIOGRAPHY

EMPR ASS RPT \*21428 EMPR OF 1993-5 EMPR FIELDWORK 1992, pp. 87-107 EMPR GEM 1971-203-210 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1992/10/29 DATE REVISED: 1993/02/26 CODED BY: DMN REVISED BY: KBE

MINFILE NUMBER:	<u>093N 129</u>			NATIONAL	MINERAL INVENTORY:
NAME(S):	<u><b>X11</b></u> , X10				
STATUS:	Showing British Columbia				MINING DIVISION: Omineca
NTS MAP: BC MAP	093N03W				UTM ZONE: 10 (NAD 83)
LOCATION ACCURACY: LOCATION ACCURACY: COMMENTS:	55 14 19 N 125 30 02 W 1750 Metres Within 500M Location is for occurre 40 kilometres southea	nce X11, 0.5 kilon st of Takla Landin	netre north of Chrom g (Fieldwork 82-1, Fi	e Peak, igure 1).	NORTHING: 6124195 EASTING: 341011
COMMODITIES:	Chromium				
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Serpentine Serpentin'zn Unknown				
DEPOSIT CHARACTER: CLASSIFICATION:	Massive Magmatic	Disseminated Industrial Min	l Stratab	bound	
TYPE: DIMENSION: COMMENTS:	M03 Podiform chror 1 x 1 The largest nodule is ' a massive chromite co	nite Metres 100 by 130 centim re surrounded by	STRI netres in area and co a disseminated chro	KE/DIP: Insists of mite rim.	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic				
STRATIGRAPHIC AGE	GROUP		FORMATION		IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Creek		Undefined Formatio	n	Oceanic Ultramafites
LITHOLOGY:	Serpentinized Harzbur Sediment/Sedimentary	gite			
HOSTROCK COMMENTS:	Cache Creek Comple Oceanic Ultramafites	ex rocks are Carb are Mississippiar	oniferous to Jurassic to Triassic.	while the	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cac	che Creek	PHYSIOGR	APHIC AREA: Omineca Mountains
CAPSULE GEOLOGY					
	The XII oc Range, approxim comprises occur 1982-1, Table 1 located in the The occurr than 75 per cen hosted by alloc to the Middle Pet termed Mississij is bound by nor surrounded by at the Carboniferor regional geolog occurrences (09 This occur one massive chr disseminated ch The following ta 1982-1, Table 1  Occurrence X10	currence is a ately 40 kild rences X10 and range (see 0 ences compri- t) and massi- nthonous, see ermian to La opian to Tri- th-northeast nd hosts xen us to Jurass. y details, p 3N 033, 34, rence is desc omite nodule comite rim, a able details ):  Form nodule	situated at the ometres souther nd X11 as outh two of numerour 93N 033, 34, 3 se small disser ve chromite now rpentinized har te Triassic Tre assic Oceanic to and east-trend oliths of sedin ic Cache Creek lease refer to 35). cribed as four and one massiva information con- Texture massive	e south end ast of Takla ined by Whit s small chro 5, 36, 37, 3 minated, agg dules and la rzburgite, f embleur intr Ultramafites ding lineame mentary rock Complex. F the Simpson aggregate C ve chromite serpentinize oncerning ea 	DI THE MITCHEII Landing. It taker (Fieldwork mite occurrences 8, 39, 40). regate (greater yers which are ormerly assigned usions, and now . The intrusion nts and is both s assigned to or additional , Bob and Irish hromite nodules, nodule with a d harzburgite. ch (Fieldwork 
	x10 (cont) x11	nodule nodule nodule nodule nodule	aggregate aggregate aggregate aggregate massive/	- - - -	10x2 cms 5x2 cms 4x1 cms 12x12 cms 130x100 cms

disseminated Accessory chromite is also widely disseminated throughout the

ultramafic rocks, varying up to two per cent by volume (Fieldwork 1982-1, page 240). No economic evaluation of this occurrence is known to have taken place. BIBLIOGRAPHY EMPR FIELDWORK \*1982-1, pp. 234-243 EMPR Unpublished Chromite Bulletin, Stevenson, J.S. (1941) EMPR OF 2000-19 EMPR OF 2000-19 EMPR PF (\*Whittaker, P. (1983): Unpublished Ph.D. Thesis; "Chromite in Alpine Type Peridotites", Carleton University, 339 pp. (refer to 093N General File)) GSC MAP 844A; 907A; 971A; 1008A; 1424A GSC MEM 252, pp. 135,189 GSC OF 3071 GSC P 42-7; 45-6; \*82-1A, pp. 239-245 Canadian Mineralogist Vol. 22, Pt. 1, Feb 1984

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/14 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N_130</u>	NA	ATIONAL MINERAL INVENTORY	:
NAME(S):	JEA			
STATUS: REGIONS: NTS MAP: PO MAP:	Showing British Columbia 093N10E		MINING DIVISION: UTM ZONE:	: Omineca : 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 29 N 124 35 55 W 875 Metres Within 1 KM The occurrence is located the big bend (from west fl kilometres northwest of M	on the Germansen River, 500 metres we owing to north flowing), approximately 8 anson Creek.	NORTHING EASTING	: 6174746 : 399553
COMMODITIES:	Gold	Silver		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Tetrahedrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Epigenetic	Hydrothermal		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Upper Paleozoic PennsylvanPermian	GROUP Cooper Ridge	FORMATION Undefined Formation	IGNEOUS/METAM Manson Lakes U	IORPHIC/OTHER
LITHOLOGY:	Altered Ultramafic Argillite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Slide Mountain Regional	PH RELATIONSHIP:	HYSIOGRAPHIC AREA: Manson GRADE: Greens	l Upland chist
CAPSULE GEOLOGY	The JEA occur River, approximate Manson Creek. This occurren Canada Paper 41-5 fair gold and silv and altered ultram Group and the Penn These rocks have b striking Manson fa There are no general area and t Motherlode and Fla tetrahedrite and i	rence is located near the big ly 8 kilometres northwest of ce is only described in the G as a quartz vein with tetrahe er values. This showing is l afics of the Mississippian to sylvanian to Permian Manson I een dissected by the right-la ult zone of probable Cretaced other tetrahedrite-bearing ve his occurrence may be an earl gstaff showing (093N 024) whi s in the immediate area.	g bend of the Germanser the settlement of Geological Survey of drite which assayed ocated in argillites o Permian Cooper Ridge takes Ultramafites. teral, northwest- ous to Tertiary age. Fins known in the ty reference to the ch contains	n
BIBLIOGRAPHY	EMPR OF 1989-12 EMPR FIELDWORK 198 EMPR BULL *91 GSC MEM 252 GSC MAP 876A; 907A GSC P *41-5; 42-2;	8, pp. 209-220 ; 971A; 1424A; 5249G 45-9; 75-33		
DATE CODED: DATE REVISED:	1985/07/24 1992/08/27	CODED BY: GSB REVISED BY: FF		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 131</u>	NATIONAL MIN	ERAL INVENTORY:
NAME(S):	WEBB		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093N01W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 06 48 N 124 20 03 W 950 Metres Within 500M Area of mineralized drillholes, about of the eastern end of Chuchi Lake ( Figure 4).	t 6 kilometres south-southeast Assessment Report 21495,	NORTHING: 6108216 EASTING: 414899
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Pyrrhotite Chalo Chlorite Epidote K-Fe Propylitic Potassic	copyrite Idspar	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Vein Porphyry Hydrothe L04 Porphyry Cu ± Mo ± Au	rmal	
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE	GROUP	FORMATION Chuchi Laka	IGNEOUS/METAMORPHIC/OTHER
Triassic-Jurassic	Tania	Giucii Lake	Unnamed/Unknown Informal
LITHOLOGY:	Andesite Andesitic Fragmental Tuff Andesitic Crystal Tuff Sediment/Sedimentary Quartz Monzonite Feldspar Porphyry Dike		
HOSTROCK COMMENTS:	The monzonite intrusions are prob	ably coeval with the Takla Group.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIOGRAPH	IC AREA: Nechako Lowland
INVENTORY			
ORE ZONE:	DRILLHOLE	REPORT ON: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY Copper From a 15-metre drill interval. Assessment Report 21495.	YEAR: 1991 GRADE 0.1300 Per cent	
CAPSULE GEOLOGY	The area of the Webb sediments interlayered wi	o occurrence is underlain by dan ith light to dark green andesite	k green and

sediments interlayered with light to dark green andesite and andesitic fragmental and crystal tuffs of the Middle Triassic to Lower Jurassic Takla Group, possibly the Lower Jurassic Chuchi Lake Formation. This package is crosscut by quartz monzonite and feldspar porphyry dikes. A quartz monzonite stock, thought to be coeval with the Takla volcanics intrudes the strata to the west. The area is covered, for the most part, by a thick blanket of overburden. Several diamond-drill holes were completed in 1990. Within the drilled area, chlorite and epidote alteration is prevalent and minor secondary potassium feldspar was noted locally. Mineralization consists of pyrite, pyrrhotite and minor chalcopyrite as disseminations and fracture fillings. One drillhole intersection yielded 0.13 per cent copper over 15 metres (from 164 to 179 metres drill depth); a 3-metre section of this 15-metre interval yielded 0.34 per cent copper (Assessment Report 21495).

#### BIBLIOGRAPHY

EMPR ASS RPT 20228, \*21495 EMPR FIELDWORK 1990, pp. 89-110 EMPR OF 1991-3; 1992-3 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842

DATE CODED: 1993/02/02 DATE REVISED: 1993/03/18 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>093N 132</u>	NATIONAL	MINERAL INVENTORY:	
NAME(S):	<u>SEM</u>			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N09W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 40 57 N 124 23 14 W 1025 Metres Within 500M The SEM occurrence is located 2.5 kilo of Granite Creek, at the main fork in Gr along a trail.	metres upstream from the mouth anite Creek and is found	NORTHING: EASTING:	6171616 412777
COMMODITIES:	Gold Silver			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Pyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Mesothermal			
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary			
STRATIGRAPHIC AGE Proterozoic	<u>GROUP</u> Ingenika	FORMATION Stelkuz	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Quartzite			
GEOLOGICAL SETTING				
TECTONIC BELT:	Omineca Cassiar	PHYSIOGR	APHIC AREA: Manson	Upland
METAMORPHIC TYPE:	Regional	RELATIONSHIP:	GRADE: Greenso	chist
CAPSULE GEOLOGY	The SEM occurrence is mouth of Granite Creek, at found along a trail. Very little is known a Geological Survey of Canada described as disseminated p silver assays. These quart Formation of the Ingenika ( metamorphism.	located 2.5 kilometres ups the main fork in Granite C about this showing save its a Papers 41-5 and 42-2. It pyrite in quartzite with lo zzites are part of the Prot Group and are at upper gree	tream from the reek and is mention in was originally w gold and erozoic Stelkuz nschist grade of	
BIBLIOGRAPHY	EMPR BULL *91 EMPR OF 1988-12 EMPR FIELDWORK 1987, pp. 10 GSC MEM 252, p. 181 GSC MAP 876A; 907A; 971A; 2 GSC P *41-5; *42-2; 45-9; 7	59-180 1424A; 5249G 75-33		
DATE CODED: DATE REVISED:	1985/07/24 1992/07/31	CODED BY: GSB REVISED BY: FF	F	TIELD CHECK: N

MINFILE NUMBER:	<u>093N 133</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	JORDI			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N09W		UTM ZONE:	10 (NAD 83)
LOCATION ACCURACY: COMMENTS:	55 31 09 N 124 24 15 W 1625 Metres Within 500M The occurrence is located 2 kilometr (Assessment Report 9860).	res northeast of Mount Gillis	NORTHING: EASTING:	6153462 411344
COMMODITIES:	Molybdenum			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Feldspar Quartz Mus Oxidation Unknown	scovite Apatite S	Sphene	
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Vein Porphyry Hydrothe L05 Porphyry Mo (Low F- type) Irregular	rmal		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u>	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Triassic-Jurassic Cretaceous	lakla	Slate Creek	Germansen Batho	blith
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	106 +/- 4 Ma Potassium/Argon Biotite			
LITHOLOGY:	Biotite Monzonite Granite Hornfelsed Argillite Diorite Granodiorite Feldspar Porphyry Dike			
HOSTROCK COMMENTS:	The date was obtained from samp approximately 2 kilometres to the	le GM87-12-4 which is locate west of the occurrence.	ed	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Intermontane Quesnel Contact Contact of Germansen batholith wit	RELATIONSHIP: h a raft of hornfelsed argillite	PHYSIOGRAPHIC AREA: Manson GRADE: Hornfels	Upland
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON	l: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Molybdenum	YEAR <u>GRADE</u> 0.2680 Per cer	: 1981 nt	
REFERENCE:	Assessment Report 9860.			
CAPSULE GEOLOGY	The Jordi occurrence	a is located approxim	mately 2 kilometres	
	northeast of Mount Gillis Report 9860). Regionally, this occ batholith, a middle-Late Small rafts of hornfelsed Group, are common in the Molybdenite is found by biotite monzonite of t near the contact between the Slate Creek Formation hornfelsed argillite which	s, on a steep, north currence is hosted w: Cretaceous multiphas d Middle-Upper Triass the Middle Triassic area. d in a feldspar-quar the Germansen bathol the intrusions and f n. It occurs just bach	-facing slope (Assessment ithin the Germansen se granitic intrusion. sic Slate Creek Formation to Lower Jurassic Takla tz-muscovite vein hosted ith. This vein occurs the basal argillites of elow a large raft of d. Other phases of the	

batholith include diorite and granodiorite. Cutting both the batholith and country rocks are dikes of light coloured feldspar porphyry up to 20 metres wide. The mineralized veins vary in size from 5 centimetres to 3 metres wide and contain feldspar, quartz, muscovite, apatite and sphene. A sample in 1981 analysed 0.268 per cent molybdenum and a trace of zinc (Assessment Report 9860).

## BIBLIOGRAPHY

EMPR ASS RPT 8117, \*9860 EMPR EXPL 1981-138 EMPR BULL 70; \*91 EMPR FIELDWORK \*1987, pp. 169-180; 1991, pp. 119-126 EMPR OF 1988-12 GSC MEM 252 GSC MAP 876A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/28 CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	<u>093N 134</u>	Ν	ATIONAL MINERAL INVENTORY:		
NAME(S):	GAM				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N09W		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 19 N 124 23 49 W 950 Metres Within 500M The occurrence is located or upstream from its mouth and Manson Creek road.	n Granite Creek approximately 1 kilomet d several hundred metres north from the	NORTHING: 6170453 EASTING: 412142		
COMMODITIES:	Gold S	ilver			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE: DEPOSIT CHARACTER: CLASSIFICATION:	Pyrite Quartz Unknown Vein Mesothermal				
SHAPE: HOST ROCK DOMINANT HOSTROCK:	Tabular Metasedimentary				
STRATIGRAPHIC AGE Proterozoic	<u>GROUP</u> Ingenika	FORMATION Stelkuz	IGNEOUS/METAMORPHIC/OTHER		
LITHOLOGY:	Unknown				
GEOLOGICAL SETTING TECTONIC BELT:	Omineca	Р	HYSIOGRAPHIC AREA: Manson Upland		
TERRANE: METAMORPHIC TYPE:	Cassiar Regional	RELATIONSHIP:	GRADE: Greenschist		
CAPSULE GEOLOGY					
	The GAM occurrence is located on Granite Creek approximately 1 kilometre upstream from its mouth and several hundred metres north from the Manson Creek road. This occurrence is only made reference to in Geological Survey of Canada Open Papers 41-5 and 42-2, where it is described as a quartz vein containing pyrite with low gold and silver values. Very little else is known about it. It is situated in the upper parts of the Proterozoic Ingenika Group (Stelkuz Formation) and is found in close proximity to the Manson fault zone, a Cretaceous to Tertiary right-lateral, northwest-striking fault.				
BIBLIOGRAPHY	EMPR BULL *91 EMPR OF 1988-12 EMPR FIELDWORK 1987 GSC MEM 252, p. 181 GSC MAP 876A; 907A; GSC P 41-5; *42-2;	, pp. 169-180 971A; 1424A; 5249G 45-9; 75-33			
DATE CODED: DATE REVISED:	1985/07/24 1992/07/31	CODED BY: GSB REVISED BY: FF	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>093N 135</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	NRS			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N09W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 19 N 124 29 41 W 960 Metres Within 500M The occurrence is located just west Creek.	of the settlement of Manson	Northing: Easting:	6170582 405993
COMMODITIES:	Chromium			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Chromite Serpentinite Serpentin'zn Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Podiform Dissemina Magmatic Industrial M03 Podiform chromite	ated Min.		
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
PennsylvanPermian			Manson Lakes Ult	ramafites
LITHOLOGY:	Serpentinized Ultramafic			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Slide Mountain Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Manson GRADE: Greenso	Upland hist
CAPSULE GEOLOGY				
	The NRS chromite occ settlement of Manson Cree It was first noted b containing chromite. It Pennsylvanian-Permian Man within the Manson fault z to Tertiary age.	currence is located j k. by Lang (1941) as a s is found within ultr ison Lakes Ultramafit cone, a right-lateral	ust to the west of the erpentinized zone amafic rocks of the es. These rocks lie fault of Cretaceous	
BIBLIOGRAPHY	EMPR BULL 91 EMPR FIELDWORK 1987, pp. EMPR OF 1988-12 GSC MEM 252 GSC MAP 876A; 971A; 1424A GSC P *41-5; *42-2; 45-9;	169-180 ; 5249G 75-33		
DATE CODED: DATE REVISED:	1985/07/24 1992/08/28	CODED BY: GSB REVISED BY: FF	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093N 136</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	AJM		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N09W		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 39 30 N 124 28 06 W 975 Metres Within 1 KM The occurrence is located a of Manson Creek, approxim of Lost Creek.	approximately 2.5 kilometres southeas ately 1.5 kilometres upstream from the	NORTHING: 6169032 EASTING: 407621 st e mouth
COMMODITIES:	Lead (	Gold Silver	
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Galena Pyrite Quartz Unknown		
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Mesothermal		
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary		
STRATIGRAPHIC AGE		FORMATION	IGNEOUS/METAMORPHIC/OTHER
		Slale Creek	
LITHOLOGY	Argillite		
	Intermentane		
METAMORPHIC TYPE:	Quesnel Regional	RELATIONSHIP:	GRADE: Greenschist
CAPSULE GEOLOGY			
	The AJM occurr 1.5 kilometres upst The only refer of Canada Paper 41- galena and pyrite w are given. It is f Creek Lead occurrem Where located, Triassic Slate Cree within the right-la	rence is located along Lost ream from its mouth. rence to this showing comes 5. It is described as qua with low gold and silver co found less than a kilometre (093N 117) and may be to this occurrence is hosted k Formation argillites (Ta ateral, northwest-striking	Creek, approximately s from Geological Survey artz veins containing oncentrations. No values e to the west of the Lost the same one. d by the Middle to Upper akla Group) which is Manson fault zone.
BIBLIOGRAPHY	EMPR BULL *91 EMPR OF 1988-12 EMPR FIELDWORK 1987 GSC MEM 252 GSC MAP 876A; 907A; GSC P *41-5; 42-2;	', pp. 169-180 971A; 1424A; 5249G 45-9; 75-33	
DATE CODED: DATE REVISED:	1985/07/24 1992/08/27	CODED BY: GSB REVISED BY: FF	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 137</u>		NATIONAL M	INERAL INVENTORY:	
NAME(S):	BOLD 1, STROH, SPANER	ł			
STATUS:	Prospect			MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N09W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 36 24 N 124 23 06 W 1025 Metres Within 500M The occurrence is located of lower Manson Lakes. T which leaves the Manson	1.5 kilometres west of The access is provided creek road between the	the North end by an old gravel road e Manson Lakes.	NORTHING: EASTING:	6163174 412748
COMMODITIES:	Lead	Silver	Molybdenum	Zinc	Copper
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Galena is the most abunda Quartz Carbonate Silica Silicific'n Unknown	Molybdenite ant. Pyrite	Chalcopyrite		
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Hydrothermal				
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary				
STRATIGRAPHIC AGE Proterozoic-Paleoz.	GROUP Boulder Creek	FORMAT Unname	FION d/Unknown Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Schist Mariposite Talc Ankerite S Limestone	chist			
GEOLOGICAL SETTING TECTONIC BELT:	Omineca		PHYSIOGRA	PHIC AREA: Manson	Upland
TERRANE: METAMORPHIC TYPE: COMMENTS:	Kootenay Contact Near the Germansen bath	RELATION	SHIP:	GRADE: Greenso	chist
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N		
COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Copper Lead Zinc A sample of rubble near th Assessment Report 6941.	nalysis <u>GRADE</u> 152.00 0.010 21.50 5.820 ne showing (proximal flo	YEAR: 1982 COO Grams per tonne O Per cent O Per cent O Per cent O Per cent O Per cent O Per cent		
CAPSULE GEOLOGY					
	The Bold 1 oc North end of lower gravel road which Lakes. Regionally, t limestones of the which is assigned enigmatic package impure carbonates right-lateral Mans Mountain and Quesn	currence is loca Manson Lakes. leaves the Manso his occurrence i Proterozoic to P to the pericrato of metamorphosed is exposed withi on fault zone, i el terranes. To	ted 1.5 kilometres w The access is provid n creek road between s hosted within schi aleozoic(?) Boulder nic Kootenay Terrane , fine-grained clast n the northwest-stri n fault contact with the west, rocks bel	est of the ed by an old the Manson sts and Creek Group . This ic rocks and king the Slide onging to the on behelith	

Quesnel Terrane are intruded by the Cretaceous Germansen batholith. This occurrence consists of a series of quartz-carbonate veins mineralized with galena, chalcopyrite, sphalerite, molybdenite and pyrite. The veins cut the rocks belonging to the Boulder Creek Group which are in contact with altered ultramafic rocks (maripositetalc-ankerite schists). They can be up to 1 metre thick, contain

significant pyrite and are associated with a pervasive silica
alteration.
 A sample of rubble near the showing assayed 152 grams per tonne
silver, 0.01 per cent copper, 21.5 per cent lead and 5.82 per cent
zinc (Assessment Report 6941).

## BIBLIOGRAPHY

EMPR PF (Prospectus by J.H. Montgomery on Boulder Creek Prospect) EMPR ASS RPT 1659, 3864, 4611, \*6941, \*10702 EMPR EXPL 1978-E228; 1982-320 EMPR FIELDWORK 1987, pp. 169-180 EMPR OF 1991-17 EMPR BULL \*91 GSC MEM 252 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

 DATE CODED:
 1985/07/24
 CODED BY:
 GSB
 FIELD CHECK:
 N

 DATE REVISED:
 1992/07/31
 REVISED BY:
 FF
 FIELD CHECK:
 Y

MINFILE NUMBER:	<u>093N 138</u>	NATIONAL MI	JERAL INVENTORY: 093N C	Cu1
NAME(S):	D			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N02E		MINING DIVISION: Omined UTM ZONE: 10 (N	ca AD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 09 30 N 124 41 59 W 950 Metres Within 1 KM The copper showings, jus about 2 kilometres south of Jean Marie Creek (Assess	t south of the D claims (1972) are located of Chuchi Lake and 2 kilometres west of sment Report 3852).	NORTHING: 611372 EASTING: 391705	29
COMMODITIES:	Copper	Iron		
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Chalcopyrite Pyrite Trace chalcopyrite.			
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Unknown	Industrial Min.		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Upper Triassic Lower Jurassic	<u>GROUP</u> Takla	FORMATION Inzana Lake	IGNEOUS/METAMORPHIC/ Hogem Intrusive Complex	OTHER
LITHOLOGY:	Andesite Basalt Gabbro Pyroxenite Monzonite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIOGRAP	HIC AREA: Nechako Lowlar	nd
CAPSULE GEOLOGY	The D showing This area is under to Early Cretaceou Early Jurassic mor volcanic and sedim Formation, Takla G Andesite-basa rocks immediately mineralization was the contact are py (Assessment Report An iron showi of these copper sh Creek in Chuchi La 45-9, Paper 45-9). showing.	g occurs south of Chuchi Lake near its clain by the southeastern end of the L as Hogem Intrusive Complex, here consi izonite phase. The monzonite is in co hentary rocks of the Upper Triassic In Froup (Open File 1992-4). Alt plus coarser gabbro-pyroxenite com south of the west-trending intrusive s observed in the monzonite but the ro vritic and contain traces of chalcopyr : 3851, page 6). Ing occurs about 2 kilometres to the e howings, just southwest of the mouth o tke (Geological Survey of Canada Preli No other information is available o	western end. ate Triassic sting of an ntact with zana Lake prise the contact. No cks south of ite ast-northeast f Jean Marie minary Map n this iron	
BIBLIOGRAPHY DATE CODED:	EMPR ASS RPT *3851 EMPR FIELDWORK 199 EMPR OF 1991-3; 19 GSC MEM 252 GSC P 41-5; 42-2; GSC MAP 876A; 9077 GSC OF 2842 1993/03/02	., 3852 90, pp. 89-110; 1991, pp. 103-118 992-4 *45-9 A; 971A; 1424A CODED BY: GJP	FIELD CF	ECK: N
DATE REVISED:	1993/03/23	REVISED BY: GJP	FIELD CH	ECK: N

MINFILE NUMBER:	<u>093N 139</u>		NATIONAL MINE	ERAL INVENTORY:
NAME(S):	<u>MID</u> , EAGLE			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N02W			MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 41 N 124 52 50 W 1200 Metres Within 500M The Mid showings, located a 6 kilometres west of the eas 21762, Figure 1).	about 2 kilometres south c tt end of the lake (Assess	f Tchentlo Lake, ment Report	NORTHING: 6118074 EASTING: 380294
COMMODITIES:	Copper G	old	Silver	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Magnetite Chlorite Propylitic C	hloritic		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Shear V Hydrothermal E L03 Alkalic porphyry Cu-	ein pigenetic Au	Porphyry	
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic	lakia	WITCH Lake		Hogem Intrusive Complex
LITHOLOGY:	Diorite Granodiorite Gabbro Monzonite Augite Porphyry Tuff			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic Rocks	PHYSIOGRAPH	IC AREA: Nechako Lowland
	SAMDI E	ſ		
REFERENCE:	CATEGORY: Assay/anal SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Assessment Report 20245. s	lysis <u> </u>	YEAR: 1989 Grams per tonne Grams per tonne Per cent	
CAPSULE GEOLOGY	-,	,		
	The Mid showing kilometres west of a southeastern end of	g occurs south of its eastern end. the Late Triassic	Tchentlo Lake, abou This area is underl to Early Cretaceou	t 6 ain by the s Hogem

kilometres west of its eastern end. This area is underlain by the southeastern end of the Late Triassic to Early Cretaceous Hogem Intrusive Complex, which has been recently mapped, to the east and northeast, as consisting primarily of Early Jurassic monzonite and synite phases; these intrude rocks of the Middle Triassic to Lower Jurassic Takla Group (Open File 1992-4). Noranda Exploration Limited, however, has mapped the intrusive rock in the Mid area as mainly diorite with lesser areas of granodiorite and gabbro. South of the intrusive contact the rocks have been identified as augite porphyries and volcanic tuffs, probably of the Upper Triassic Witch Lake Formation, Takla Group.

The intrusive rocks are moderately fractured with the principle shear zones striking northwest. The two dominant fracture orientations are: 1) 150 degrees strike with 65 degrees east dip, and 2) 050 degrees strike with 40 degrees west dip. The main copper mineralization is associated with the northwest-striking shear zones

with the three main showings (Vector (093N 092), Mid and Nighthawk (093N 091)) forming a roughly linear feature. The Mid zone is located in an area of very strong propylitic alteration. The showing is interpreted to be a shear zone approximately 2 metres wide that contains 15 to 20 per cent pyrite and chalcopyrite in a strong chloritic alteration zone. In the vicinity, two massive magnetite veins that contain chalcopyrite also occur. A sample taken at the Mid showings yielded 3.9 per cent copper, 1.6 grams per tonne gold and 9.1 grams per tonne silver (Assessment Report 20245, analysis sheet - sample 108335). Refer also to Assessment Report 20406, Drawing 5 for additional details.

#### BIBLIOGRAPHY

DATE CODED: 1993/03/04 DATE REVISED: / / CODED BY: GJP REVISED BY:

MINFILE NUMBER:	<u>093N 140</u>	NATIONAL MINERAL INVENTORY:				
NAME(S):	<u>SKOOK</u> , CL II, SOUTH					
STATUS: REGIONS: NTS MAP	Prospect British Columbia 093N02F				MINING [	DIVISION: Omineca
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 00 N 124 31 42 W 940 Metres Within 500M The location is for the CL II on the north shore of Chuc	l zone, located on t chi Lake (Assessm	he Skook clain ent Report 218	n group 320, Figure 6).	NCE	NECHE: 10 (1012-00) RTHING: 6118113 ASTING: 402726
COMMODITIES:	Gold	Silver	Coppe	er	Zinc	Lead
MINERALS						
SIGNIFICANT:	Pyrite Sphalerite Pyrrhotite	Chalcopyrite	Galena	Bornite		
ASSOCIATED: ALTERATION:	Quartz Chlorite K-Feldspar Biotite Calcite	Pyrite Tourmaline	Sericite	Epidote		
COMMENTS: ALTERATION TYPE:	Garnet is also present. Chloritic Silicific'n	Tourmalinz'n	Propy	litic	Skarn	Potassic
MINERALIZATION AGE:						
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Epithermal L03 Alkalic porphyry C Rough strike of one-metre vein.	Disseminated Porphyry cu-Au Metres wide zone contain	Hydro STR ing a mineraliz	thermal IKE/DIP: 090/90 ed quartz	Epigenetic TR	REND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
STRATIGRAPHIC AGE Lower Jurassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	<u>GROUP</u> Takla Early Jurassic Fossil Ammonite	FOI Chu	RMATION uchi Lake		<u>IGNEOUS</u>	S/METAMORPHIC/OTHER
Lower Jurassic					Hogem li	ntrusive Complex
LITHOLOGY:	Siliceous Tuff Andesite Hornfels Porphyritic Monzonite					
HOSTROCK COMMENTS:	Informal formation is Chu (Geological Fieldwork 19	chi Lake. Fossil aç 91, page 109).	ge is Early Jura	issic		
	Intermontane			PHYSIOGRA	PHIC AREA	Nechako I owland
METAMORPHIC TYPE: COMMENTS:	Quesnel Contact Contact metamorphism due	RELA <sup>-</sup> e to proximity to Ho	TIONSHIP: ogem Intrusive	Complex.	GRADE:	Greenschist
INVENTORY						
ORE ZONE:	SAMPLE		REPOR	rt on: N		
	CATEGORY: Assay/ar SAMPLE TYPE: Chip COMMODITY Silver Gold	nalysis <u>Gi</u>	RADE 11.7000 G 0.0220 G	YEAR: 1991 rams per tonne rams per tonne		
COMMENTS: REFERENCE:	Copper Zinc From a 1-metre chip samp Assessment Report 21820	le at the South zon ).	0.4900 P 0.5000 P ie.	er cent er cent		

## INVENTORY

ORE ZONE: VEIN

#### REPORT ON: N

## YEAR: 1988

CATEGORY: Assay/analysis SAMPLE TYPE: Grab		YEAR: 1988
COMMODITY	GRADE	
Silver	16.6000	Grams per tonne
Gold	13.4000	Grams per tonne
Zinc	2.3000	Per cent
A grap sample from the CL II zone		

Zinc COMMENTS: A grab sample from the CL I REFERENCE: Assessment Report 18073. II zone.

#### CAPSULE GEOLOGY

The Skook alteration system contains several small showings and occurs primarily within a Lower Jurassic (late Pliensbachian) sedimentary marker unit of the Chuchi Lake Formation near its contact with Early Jurassic intrusive rocks of the Hogem Intrusive Complex (Fieldwork 1991, page 115). The complex, the southeastern end of which outcrops on the north and south shores of Chuchi Lake, comprises at least three main phases ranging in age from Late Triassic to Early Cretaceous.

The CL II zone is the area of most intense alteration and highest density of crowded porphyry monzonite intrusions. It is exposed in an east-trending gully in a logging cut. The sediments are bleached and hornfelsed; alteration minerals include potassium feldspar, chlorite, pyrite, sericite, epidote, biotite, calcite and minor tourmaline (Assessment Report 18073). These rocks contain disseminated pyrite, pyrrhotite and minor chalcopyrite and bornite. White-weathering siliceous tuffs with limy nodules are baked and have developed weak skarn alteration minerals such as garnet and chlorite. A polymetallic quartz vein contains sphalerite, galena and chalcopyrite. The best assay results from grab samples from this locality are 13.4 grams per tonne gold, 16.6 grams per tonne silver and 2.3 per cent zinc (Assessment Report 18073).

The South zone lies 250 metres south-southwest of this vein and consists of a silicified zone in volcanics that contains quartz, calcite, pyrite and chalcopyrite. A 1-metre chip sample of a 20-centimetre wide quartz vein that cuts strongly silicified andesite yielded 0.49 per cent copper, 0.0045 per cent lead, 0.50 per cent zinc, 11.7 grams per tonne silver and 0.022 gram per tonne gold (Assessment Report 21820).

## BIBLIOGRAPHY

EM EXPL 2002-13-28 EMPR ASS PRT \*18073, 21108, \*21820 EMPR FIELDWORK 1990, pp. 89-110; \*1991, pp. 103-118 EMPR OF 1991-3; 1992-4 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842 GSC P 41-5; 42-2; 45-9

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/16

CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 141</u>	NATIONAL M	INERAL INVENTORY: 093N1 Pb1
NAME(S):	<b>WIT</b> , WAG, CHUCHI GROUP, SKOOK		
STATUS: REGIONS: NTS MAP: BC MAP	Developed Prospect British Columbia 093N01W		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 12 52 N 124 26 57 W 960 Metres Within 500M Located approximately 4 kilometres northwest Nation River from Chuchi Lake (Assessment Re Open File 1991-3).	of the outflow of the port 21820, Figure 6;	NORTHING: 6119613 EASTING: 407797
COMMODITIES:	Zinc Lead	Silver	Gold
MINERALS			
ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcedony Quartz Calcite Celadonite Limonite Oxidation	Barite Albite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Breccia Epithermal Hydrothermal H05 Epithermal Au-Ag: low sulphidation	Disseminated Epigenetic	
HOST ROCK DOMINANT HOSTROCK:	Metavolcanic		
STRATIGRAPHIC AGE Lower Jurassic Lower Jurassic	GROUP FORM Takla Chuch	ATION i Lake	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Plagioclase Porphyry Flow Plagioclase Porphyry Agglomerate Polymictic Breccia Lahar Syenite Dike Monzonite Syenite		
HOSTROCK COMMENTS:	Chuchi Lake Formation name is informal at pre	sent time.	
GEOLOGICAL SETTING	Intermentene		DUC ADEA: Nachaka Lawland
METAMORPHIC TYPE: COMMENTS:	Regional         RELATIC           Zeolite to prehnite-pumpellyite grade metamorph	INSHIP: ism.	GRADE: Zeolite
INVENTORY			
ORE ZONE:	WIT	REPORT ON: Y	
COMMENTS: REFERENCE:	CATEGORY: Inferred QUANTITY: 20000 Tonnes <u>COMMODITY</u> <u>GRA</u> Lead <u>4.7</u> Zinc 2.3 Combined lead-zinc is 7 per cent. The ratio of a known and is here arbitrarily split 3:1 based on Assessment Report 9705.	YEAR: 1965 DE 000 Per cent 000 Per cent tinc to lead is not drill assays.	
CAPSULE GEOLOGY		1 4 1-1	
	The Wit prospect is located shore of Chuchi Lake and is acces the Fort St. James-Germansen logg Nation River crossing. The area north of Chuchi Lak Chuchi Lake Formation, a subaeria Middle Triassic to Lower Jurassic progressively underlain by subman porphyry flows of the Upper Trias Group) and volcanically derived e	1.4 kilometres north sed by a forestry roa- ging road, 5 kilometre te is underlain by the al volcanic package be trakla Group. The for the augite +/- plagio ssic Witch Lake Format epiclastic sediments o	of the north d that joins s north of the Lower Jurassic longing to the rmation is clase volcanic ion (Takla f the Upper

PAGE: 1106 REPORT: RGEN0100

## CAPSULE GEOLOGY

Triassic Inzana Lake Formation (Takla Group). The base of the sequence is the Upper Triassic Rainbow Creek Formation (Takla Group) consisting of fine-grained slates and sediments derived, in part, from a continental source. A few kilometres to the west, the southeast contact of the Late Triassic to Early Cretaceous Hogem Intrusive Complex outcrops, comprising mainly Early Jurassic monzonite and syenite. The hostrocks of the mineralization are maroon and green

The hostrocks of the mineralization are maroon and green plagioclase volcanic porphyry flows and agglomerates and matrixsupported polymictic breccias and lahars of the Chuchi Lake Formation. The volcanics are in places scoriaceous and amygdaloidal and have calcite, albite and celadonite vesicle infillings. Sulphides are also found disseminated in the hostrocks and in fracture fillings. A syenite dike, 9 metres thick, intrudes the volcanics.

The main showing is an irregular epithermal vein (5 metres wide by 20 metres vertical) of banded white and grey quartz and chalcedony that is exposed in and around a trench. Results of two drillholes in 1991 indicate that the vein system dips almost vertically and has a true width of 31 metres. The vein hosts small pods and disseminations of galena and sphalerite with possible argentite and tetrahedrite. The surface showing seems to be the top of a larger epithermal system. Barite lenses and stockworks as well as strongly oxidized and limonitic zones have also been documented.

Banded chalcedony and quartz with calcite, pyrite and trace galena occurs 150 metres east of the main vein outcrop. One drill intersection from 1991 (Assessment Report 21820)

yielded 2.5 per cent zinc and 0.9 per cent lead. Another 2-metre section analysed 0.5 per cent zinc, 0.15 per cent lead and 97 grams per tonne silver. Gold values from the 1991 program were low, mostly between 0.2 and 0.6 gram per tonne, except for one value of 1.3 grams per tonne over 2 metres.

Previous work on the property (Assessment Reports 9705, 18073 and Open File 1992-1) has delineated a calculated orebody of 20,000 tonnes grading 7 per cent combined lead-zinc (Assessment Report 9705).

#### BIBLIOGRAPHY

EMPR AR 1965-108; 1967-118; 1968-147 EMPR GEM 1969-108 EMPR ASS RPT 1119, 1660, \*9705, 18073, 21355, \*21820 EMPR FIELDWORK \*1990, pp. 89-110; 1991, pp. 103-118 EMPR OF 1991-3; 1992-1; 1992-4 EMPR EXPL 1981-96 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A; 1594G GSC MEM 252 GSC OF 2842 EMR MP CORPFILE (Vanmetals Exploration Ltd.) EMR MIN BULL MR 223 B.C. 249

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/17 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>093N 142</u>		NATIONAL	MINERAL INVENTORY:	093N11 Hg5
NAME(S):	HOUSTON NORTH, LIL				
STATUS:	Showing			MINING DIVISION:	Omineca
NTS MAP:	093N11W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 36 N 125 24 39 W 1150 Metres Within 500M Location is a mercury oc and Dream creeks, abou (Geology, Exploration and 19).	currence south of the conflue t 37 kilometres east-northeast d Mining in British Columbia 19	nce of Silver of Takla Landing 70, Figure	NORTHING: ( EASTING: 3	6163458 348083
COMMODITIES:	Mercury				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Calcite Dolomite Carbonate Unknown				
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Epigenetic	Breccia Hydrothermal F	eplacement		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Fo	rmation	IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Limestone Argillaceous Schist Chloritic Schist				
HOSTROCK COMMENTS:	Cache Creek Complex	rocks are Carboniferous to Ju	rassic.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOG	RAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY					
	The Houston of Silver and Dre mine (093N 008), Landing. The area is west-dipping sequ chloritic schist Creek Complex. T zone, a major str south. Grey, mas area of the occur dolomitized. Early report brecciated limest however, determin metres. In the e disseminated grai brecciated limest area. The extent No recent in	North occurrence is a am creeks and north of approximately 37 kild underlain by a north ence of interbedded hese rocks occur with uctural feature trave sive limestone is the rence, and it is inve s (1944) describe cin one outcrop 3 metres ed that the deposit p arly 1970s, cinnabar ns and blebs in secon one was exposed in a of this mineralizat: formation concerning	situated south of of the Bralorne ometres east-non- northwest stril- limestone and au- oniferous to Jun- nin and west of ersing the area e only rock type ariably brecciat in diameter. I pinched out at a mineralization dary calcite vu small creek in ion is not known this occurrence	of the confluence Takla mercury Takla mercury ctheast of Takla king, steeply cgillaceous and cassic Cache the Pinchi fault from north to e observed in the ted and/or zation in a Diamond drilling, a depth of 4.57 occurring as ugs within the general 1. e is available.	
BIBLIOGRAPHY		-			
	EMPR AR 1968-148 EMPR ASS RPT 1755 EMPR GEM 1969-105 EMPR OF 2000-33 GSC MAP 844A; 907 GSC MEM 252, p. 1 GSC P 42-7; *44-5	; 1970-182 A; 971A; 1424A 60 , p. 10; 45-6; 74-1A CODED BY: 6	; 74-1B, pp. 31- SB	- 4 2	ELD CHECK- N
DATE REVISED:	1992/09/29	REVISED BY: D	MN	FI	ELD CHECK: N

MINFILE NUMBER:	<u>093N 143</u>		NATIONAL MINERAL INVENTORY	: 093N3 Hg2
NAME(S):	TAKATOOT LAKE			
STATUS:	Showing British Columbia		MINING DIVISION	: Omineca
NTS MAP: BC MAP	093N03E		UTM ZONE	: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 07 02 N 125 07 40 W 910 Metres Within 500M Location is a mercury occurrence about 66 kilometres southeast of T Canada Map 884A).	800 metres east of Takatoot La akla Landing (Geological Surve	NORTHING EASTING ake, ey of	: 6109903 : 364297
COMMODITIES:	Mercury Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Chalcopyrite Carbonate Carbonate Carbonate Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Unknown Epigenetic Hydroth	nermal		
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER
l riassic-Jurassic Paleozoic-Mesozoic Paleozoic-Mesozoic	Takla Cache Creek	Undefined Formation Undefined Formation	Oceanic Ultrama	fites
LITHOLOGY:	Serpentinite Sediment/Sedimentary Volcanic			
HOSTROCK COMMENTS:	The Oceanic Ultramafites are Mis	ssissippian to Triassic.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cache Creek	PHYSIOGRAPHIC AREA: Nechak	to Lowland
CAPSULE GEOLOGY				
BIBLIOGRAPHY	The Takatoot Lake of Takatoot Lake, approxima The area is underla to Jurassic Cache Creek Middle Triassic to Lower northwesterly trending s ultramafic masses, forme Triassic Trembleur intro Triassic Oceanic Ultrama Early reports descr carbonatized serpentine An examination of t the cinnabar showing, a outcrop (Assessment Repo	occurrence is situated ately 66 kilometres so ain by sediments assig Complex in contact wi r Jurassic Takla Group section of the Pinchi erly assigned to the N usions and now termed afites, have been empl ribe cinnabar minerali within the Pinchi fau the area in 1983 was u lthough minor chalcopy ort 11698, page 1).	d 800 metres east of butheast Takla Landing. gned to the Carboniferou ith volcanics of the o along a north- fault zone. Locally, Middle Permian to Late Mississippian to Laced within these rocks ization hosted by alt zone. unsuccessful in locating yrite was noted in	s
	EMPR ASS RPT 11698 EMPR EXPL 1983-454			
	GSC OF 3071 GSC MEM *252, p. 171 GSC MAP 844A; 907A; 971A GSC P 42-7; 42-11; 45-6	A; 1424A		
DATE CODED: DATE REVISED:	1985/07/24 1992/10/08	CODED BY: GSB REVISED BY: DMN		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 144</u>			NATIONAL MIN	ERAL INVENTORY:
NAME(S):	DAVE				
STATUS: REGIONS: NTS MAP: PC MAP:	Showing British Columbia 093N10E				MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LOCATION ACCURACY: LOCATION ACCURACY: COMMENTS:	55 44 22 N 124 36 14 W 1260 Metres Within 500M The occurrence is Germansen Land	s located approximat	ely 7 kilometres southeas acing slope.	t of	NORTHING: 6178246 EASTING: 399302
COMMODITIES:	Silver	Copper	Antimony		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Quartz Py Malachite A Silicific'n Unknown	yrite Calcite Azurite Silica Oxidation			
DEPOSIT CHARACTER: CLASSIFICATION: DIMENSION: COMMENTS:	Vein Hydrothermal Quartz veins.	Epigenetic	STRIKE/	DIP: 020/90	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
<u>STRATIGRAPHIC AGE</u> Devonian-Mississipp. Jurassic	GROUP Big Creek		FORMATION Undefined Formation		IGNEOUS/METAMORPHIC/OTHER Wolf Ridge Gabbro
LITHOLOGY:	Siliceous Gabbro Argillite Phyllite Siltstone				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Slide Mountain Regional		RELATIONSHIP:	PHYSIOGRAPH	IIC AREA: Manson Upland GRADE: Greenschist
INVENTORY					
ORE ZONE:	SAMPLE		REPORT O	N: N	
REFERENCE:	CATEGORY: SAMPLE TYPE: COMMODITY Silver Copper Antimony Open File 1989-12	Assay/analysis Grab 2, sample DME88-2-4	YEA <u>GRADE</u> 128.0000 Grams 0.7800 Per ce 0.3200 Per ce I-5.	R: 1988 s per tonne ent ent	
CAPSULE GEOLOGY					
	The Dav southeast of small knoll This oc zone, just n argillites, Mississippia the Jurassic This oc white quartz veins are ho intrusion.	e occurrence i Germansen Lan west of Jackfi currence lies orth of a nort phyllites and n Big Creek Gr or older Wolf currence consi veins contain sted by silici The veins pred	s located approxim ding, on a southwe sh Creek. in close proximity hwest-striking sp siltstones of the oup on the south f Ridge Gabbro. sts of malachite a fied gabbros of th ominantly strike (	mately 7 kild est-facing sl y to the Mans lay separatin Upper(?) Dev from altered and azurite s and minor pyr he Wolf Ridge 020 degrees a	metres ope of a son fault g silicified onian to gabbros of stained, milky tite. The Gabbro and dip

intrusion. The veins predominantly strike 020 degrees and dip vertically. They range from 1 to 12 centimetres in width with the larger veins containing the mineralization. The mineralized veins are typically offset by small (0.5 centimetre) calcite stringers. A grab sample from a mineralized quartz vein yielded 0.164 gram per tonne gold, 128.0 grams per tonne silver, 0.78 per cent copper, 0.064 per cent zinc, 0.048 per cent arsenic and 0.32 per cent

antimony (Open File 1989-12, Sample DME88-2-4-5).

## BIBLIOGRAPHY

EMPR OF \*1989-12 EMPR FIELDWORK 1988, pp. 209-220 EMPR BULL \*91 GSC MEM 252 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED:	1988/11/25
DATE REVISED:	1992/08/26

CODED BY: DMM REVISED BY: DMM

MINFILE NUMBER:	<u>093N 145</u>			NA	TIONAL MI	NERAL INVENTORY	:
NAME(S):	DOG CREEK						
STATUS: REGIONS	Showing British Columbia					MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N10W					UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 31 N 124 57 01 W 1120 Metres Within 500M The occurrence is located Dog Creek, south of the v	l approximately 1 kilo vest end of Germans	ometre from sen Lake.	the mouth c	of	NORTHING: EASTING:	: 6171664 : 377356
COMMODITIES:	Silver	Copper	Anti	mony		Zinc	
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Tetrahedrite Chalcop Quartz Limonite Silica Limonite Silicific'n Unknown	yrite Malachite Pyrite Oxidation					
	Vein	Shear					
CLASSIFICATION: SHAPE: DIMENSION:	Hydrothermal Irregular	Epigenetic	ST	RIKE/DIP:	080/90	TREND/PLL	JNGE:
COMMENTS:	Limonitic shear.						
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP	FOR	MATION			IGNEOUS/METAN	IORPHIC/OTHER
Triassic-Jurassic Cretaceous	lakla	Plug	hat Mountai	n		Germansen Bath	olith
LITHOLOGY:	Siliceous Calcareous And Limestone Dolomitic Limestone Porphyritic Hornblende Ba Gossan	lesite asaltic Andesite					
	Intermentane			рц			Upland
METAMORPHIC TYPE:	Quesnel Contact	RELAT	IONSHIP:	FN	I SIOGRAF	GRADE: Zeolite	Opiano
INVENTORY							
ORE ZONE:	SAMPLE		REP	ORT ON: N			
	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Silver Copper Antimony Zinc	nalysis <u>GR</u> 45 0 0 0 0 0	ADE 0.0000 0.5300 0.2400 0.1100	YEAR: 19 Grams per t Per cent Per cent Per cent Per cent	188 ionne		
COMMENTS: REFERENCE:	Grab sample DME88-26-6 Open File 1989-12 (Shee	6-1 from a quartz vei t 2 of 2).	n.				
CAPSULE GEOLOGY	The Deer Greet			d	imatal	1 kilometre	
	from the mouth of The location is ce	Dog Creek, sou	uth of the state	he west e d quartz	end of G vein an	ermansen Lake. d includes a	

The location is centred on a mineralized quartz vein and includes a hand-trenched gossan zone found approximately 400 metres to the south, on the east bank of the creek. Regionally, this occurrence lies within the Middle Triassic to Lower Jurassic Takla Group, a volcanic and sedimentary assemblage. To the east, across the Manson fault zone, Upper Paleozoic oceanic rocks of the Nina Creek Group dominate. To the south the Takla Group is intruded by the Cretaceous Germansen batholith. Locally, the area is underlain by volcanics and sediments of the Upper Triassic Plughat Mountain Formation (Takla Group). Tinnecha Hill, to the southeast of the occurrence, is mainly porphyritic hornblende basaltic andesite. Volcanics directly surrounding the

occurrence are silicified andesites which are slightly calcareous and weakly metamorphosed by the Germansen batholith. Minor amounts of recrystallized dark grey to black limestone (in part dolomitic) are found just to the south of the trenched gossan zone. This occurrence includes a 1.5-metre hand trench that follows a 1.3-metre wide zone of gossan (in part silicified) found approximately 400 metres to the south of the mineralized quartz vein. The gossan zone is a 1.3 metre wide, limonitic shear that is made up of malachite-stained quartz pods and oxidized fault gouge. It strikes 080 degrees and dips vertically. The quartz vein is parallel to the shear, is malachite stained and contains pyrite with trace amounts of chalcopyrite and tetrahedrite. It is less than 0.5 metre in width and a grab sample of this vein analysed 450 grams per tonne silver, 0.53 per cent copper, 0.11 per cent zinc, 0.098 per cent lead, 0.24 per cent antimony with trace amounts of gold (0.026 grams per tonne) (Open File 1989-12, sample DME88-26-6-1).

#### BIBLIOGRAPHY

	EMPR OF 1989-12 EMPR FIELDWORK 1988, pp. 20 EMPR BULL *91 GSC MEM 252, p. 180 GSC MAP 876A; 907A; 971A; 2	09-220; 1991, pp. 119-126 1424A; 5249G
DATE CODED:	GSC P 41-5; 42-2; 45-9; 75- 1988/11/25 1992/08/26	- 3 3 CODED BY: DMM REVISED BY: DMM

MINFILE NUMBER:	<u>093N 146</u>		NATIONAL MINERAL INVENTORY:	093N3 Hg3	
NAME(S):	TCHENTLO LAKE				
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP	093N03E 093N06E		UTM ZONE:	10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 14 53 N 125 11 35 W 875 Metres Within 500M Location is for a mercury occurrence e Tchentlo Lake, about 55 kilometres sou (Geological Survey of Canada Map 844	east of the north end of theast of Takla Landing IA).	NORTHING: EASTING:	6124588 360592	
COMMODITIES:	Mercury				
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Silica Silicific'n Unknown				
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Epigenetic Hydrotherma	al			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Paleozoic-Mesozoic Triassic-Jurassic	<u>GROUP</u> Cache Creek Takla	FORMATION Undefined Formation Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Limestone Volcanic				
HOSTROCK COMMENTS:	Cache Creek Complex rocks are Cark	ooniferous to Jurassic.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOGRAPHIC AREA: Nechak	o Lowland	
CAPSULE GEOLOGY					
	The Tchentlo Lake occurrence is situated east of the north end of Tchentlo Lake, approximately 55 kilometres southeast of Takla Landing. The area was explored for its mercury potential during the Second World War. The area is predominantly underlain by limestone assigned to the Carbonaceous to Jurassic Cache Creek Complex in contact with volcanics of the Middle Triassic to Lower Jurassic Takla Group along a north-northwesterly trending section of the Pinchi fault zone. Early reports describe a few "specks" of cinnabar mineralization hosted by silicified limestone approximately 800 metres east of the lake. No recent information concerning this occurrence is available.				
BIBLIOGRAPHY	EMPR OF 2000-19				
	GSC MAP 844A; 907A; 971A; 1 GSC MEM *252, p. 171 GSC OF 3071 GSC P 42-7; 42-11; 45-6	424A			
DATE CODED: DATE REVISED:	1985/07/24 1992/10/08	CODED BY: GSB REVISED BY: DMN	F	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>093N 147</u>	NATIONAL MIN	ERAL INVENTORY	: 093N15 Cu3
NAME(S):	<u>RLA</u>			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N15W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 46 28 N 124 50 17 W 1075 Metres Within 1 KM Nine kilometres west-southwest of Ger branch of Evans Creek.	mansen Landing, on the east	NORTHING: EASTING:	: 6182506 : 384705
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Hydrothermal Epigenetic			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Slate Creek	IGNEOUS/METAM	IORPHIC/OTHER
Cretaceous			Germansen Batho	olith
LITHOLOGY:	Argillite Siltstone Volcanic			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Regional			
	rogonal	RELATIONSHIP:	GRADE: Zeolite	
CAPSULE GEOLOGY	The RLA occurrence is southwest of Germansen Land (Bulletin-in preparation). Regionally, this occur Lower Jurassic Takla Group are intruded to the south b Little is known of thi within argillites and silts Formation (Takla Group) nea lowermost Takla argillites	RELATIONSHIP: located approximately 9 kilom ing, on an east branch of Eva rence lies within the Middle rocks of the Quesnel Terrane. by the Cretaceous Germansen ba s showing. Chalcopyrite and tone of the Upper Triassic SI r a probable thrust fault pla atop Takla volcanics.	GRADE: Zeolite netres west- ns Creek Triassic- These rocks tholith. pyrite occur ate Creek cing	5
CAPSULE GEOLOGY BIBLIOGRAPHY	The RLA occurrence is southwest of Germansen Land (Bulletin-in preparation). Regionally, this occur Lower Jurassic Takla Group are intruded to the south b Little is known of thi within argillites and silts Formation (Takla Group) nea lowermost Takla argillites EMPR BULL *91 EMPR FIELDWORK *1988, pp. 2 EMPR OF *1989-12 GSC P 41-5; 42-2; 45-9; 75- GSC MEM 252 GSC MAP 876A; 971A; 5249G 1985/07/24	RELATIONSHIP: located approximately 9 kilom ling, on an east branch of Eva rence lies within the Middle rocks of the Quesnel Terrane. by the Cretaceous Germansen ba s showing. Chalcopyrite and tone of the Upper Triassic SI r a probable thrust fault pla atop Takla volcanics.	GRADE: Zeolite etres west- ns Creek Triassic- These rocks tholith. pyrite occur ate Creek cing	FIELD CHECK: N

#### MINFILE NUMBER: 093N 148 NATIONAL MINERAL INVENTORY: 093N9 Pb3 NAME(S): BLACKJACK MOUNTAIN, BOULDER CREEK STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093N09W BC MAP: UTM ZONE: 10 (NAD 83) LATITUDE: 55 37 44 N NORTHING: 6165709 LONGITUDE: 124 26 00 W ELEVATION: 1150 Metres EASTING: 409755 LOCATION ACCURACY: Within 1 KM COMMENTS: The Blackjack Mountain occurrence is located 1 kilometre due west of Skeleton Mountain and approximately 6 kilometres southeast of Manson Creek. A small trail is found in the valley, 300 metres west of the occurrence. COMMODITIES: Lead MINERALS SIGNIFICANT: Galena COMMENTS: The showing is only known as a lead occurrence and it is assumed that galena is the source. MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Unknown CLASSIFICATION: Unknown HOST ROCK DOMINANT HOSTROCK: Metasedimentary GROUP Boulder Creek FORMATION IGNEOUS/METAMORPHIC/OTHER STRATIGRAPHIC AGE Proterozoic-Paleoz. Unnamed/Unknown Formation LITHOLOGY: Phyllite Argillite **GEOLOGICAL SETTING** TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Manson Upland TERRANE: Kootenay METAMORPHIC TYPE: Regional **RELATIONSHIP:** GRADE: Greenschist CAPSULE GEOLOGY The Blackjack Mountain occurrence is located 1 kilometre due west of Skeleton Mountain and approximately 6 kilometres southeast of Manson Creek. A small trail is found in the valley, 300 metres west of the occurrence. Very little is known about this occurrence except its location and commodity. The showing is found within phyllites and argillites of the Proterozoic to Paleozoic(?) Boulder Creek Group and along the right-lateral Manson fault zone. This showing is found 4 kilometres northwest (along strike) of lead-silver showings (093N 027, 28, 137) on Boulder Creek and is assumed to be genetically related. BIBLIOGRAPHY EMPR BULL \*91 EMPR OF 1988-12 EMPR FIELDWORK 1987, pp. 169-180 GSC MEM 252, p. 181 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33 DATE CODED: 1985/07/24 DATE REVISED: 1992/07/31 CODED BY: GSB REVISED BY: FF FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 149</u>	NATIC	ONAL MINERAL INVENTORY:	093N7 Gyp1	
NAME(S):	MOOSMOOS				
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca	
NTS MAP: BC MAP:	093N07E			10 (NAD 83)	
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	124 34 51 W 1333 Metres Within 500M A gypsum occurrence, plotted near the tributary of Moosmoos River (Geologica	east side of a north-flowing I Survey of Canada Map 876A).	EASTING:	399791	
COMMODITIES:	Gypsum				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Gypsum				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Industrial Min. F02 Bedded gypsum				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Inzana Lake	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Volcanic Sandstone Siltstone Cherty Tuff Mudstone Argillite Lapilli Tuff Augite Porphyry Tuff				
HOSTROCK COMMENTS:	The listed rock types are general types only. The actual hostrocks are not reported.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYS	OGRAPHIC AREA: Manson	Upland	
CAPSULE GEOLOGY					
	A gypsum occurrence, shown on Geological Survey of Canada Map 876A, is plotted next to a north-flowing tributary of Moosmoos River. The area has recently been mapped as rocks of the Upper Triassic Inzana Lake Formation, Takla Group (Open File 1992-4). The formation consists of volcanic sandstone, siltstone, cherty tuff, mudstone, argillite, lapilli tuff and augite porphyry tuff. No further information is available on the Moosmoos showing.				
BIBLIOGRAPHY	EMPR FIELDWORK 1990, pp. 89 EMPR OF 1991-3; 1992-4 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP *876A; 907A; 971A; GSC OF 2842	-110; 1991, pp. 103-11 1424A	8		
DATE CODED: DATE REVISED:	1985/07/24 1993/03/02	CODED BY: GSB REVISED BY: GJP	F	IELD CHECK: N IELD CHECK: N	
MINFILE NUMBER:	<u>093N 150</u>	NATIC	DNAL MINERAL INVENTORY:		
--	---	---	--	--------------------------------	
NAME(S):	DISCOVERY CREEK				
STATUS:	Showing		MINING DIVISION:	Omineca	
NTS MAP:	093N14E		UTM ZONE:	10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 50 37 N 125 07 14 W 880 Metres Within 500M Location is a coal occurrer of its confluence with the 0	ice on Discovery Creek, 6 kilometres north Dmineca River.	NORTHING: EASTING:	6190708 367223	
COMMODITIES:	Coal				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Eocene				
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Sedimentary A04 Bituminous coal The best seam is describe	Stratiform Fossil Fuel d as 76 centimetres thick.			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION Uslika	IGNEOUS/METAMO	ORPHIC/OTHER	
LITHOLOGY:	Coal Conglomerate Arkosic Sandstone Siltstone Mudstone				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYS	SIOGRAPHIC AREA: Omineca	Mountains	
CAPSULE GEOLOGY	The Discovery of Discovery Creek with the Omineca R centimetres thick with grey and blac mudstone. The str to the southwest. A palynology (Geological Survey suggests that the Formation and may The coal occu structure which is 1993). The fault Harper Ranch terra sediments and Cret structure links wi zone of compressio Another 10-ce upstream. The eco low.	Creek coal occurrence is locat approximately 6 kilometres nor iver. The bituminous grade coa and contains minor sandy layers conglomerate, arkosic sandsto atigraphy strikes 135 degrees a sample from the coal yielded an of Canada Fossil Report AS-93- coal is part of the Cretaceous- coal is part of the Cretaceous- coal is preserved in a fault- part of the Discovery Creek fa zone broadly separates rocks of nes and also involves slivers o aceous-Tertiary sediments and v th the Manson fault zone to the a. ntimetre thick coal seam is doc nomic potential of the occurren	ed on the east bank th of its confluence l bed is 76 . It is interbedded ne, siltstone and nd dips 80 degrees Eocene age 01). This age Tertiary Uslika roup. bounded graben ult zone (Fieldwork the Quesnel and f Lower Jurassic olcanics. The south through a umented 150 metres ce is thought to be		
BIBLIOGRAPHY					
	EMPR OF 1993-5 EMPR FIELDWORK 199 GSC Fossil Report GSC MEM *252, pp. GSC MAP 844A; *907 GSC P 42-7; 45-6	2, pp. 87-107 AS-93-01 55,135,196 A; 971A; 1424A			
DATE CODED: DATE REVISED:	1985/07/24 1993/02/17	CODED BY: GSB REVISED BY: KBE	F F	IELD CHECK: N IELD CHECK: Y	

MINFILE NUMBER:	<u>093N 151</u>	NATIONAL MINI	ERAL INVENTORY: 093N14 Cu14
NAME(S):	<u>TED,</u> JAJAY		
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca
LOCATION ACCURACY:	55 55 30 N 125 24 33 W 1750 Metres Within 500M Location is a copper showing on the cree south of a small lake, about 61 kilometres (Assessment Report 4151, Figure 2).	st of an east-west ridge, northeast of Takla Landing	NORTHING: 6200354 EASTING: 349471
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Bornite Chalcopyrite K-Feldspar Pyrite Magnetite Malachite Oxidation Potassic Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Shear Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
<u>STRATIGRAPHIC AGE</u> Mesozoic Middle Jurassic	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex Duckling Creek Syenite Complex
LITHOLOGY:	Monzonite Diorite Pyroxenite Pegmatite Syenite		
HOSTROCK COMMENTS:	The Duckling Creek Syenite Complex is Late Triassic to Early Cretaceous Hogen	a Middle Jurassic phase of the n Intrusive Complex.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPH	IC AREA: Omineca Mountains
CAPSULE GEOLOGY	The Ted occurrence is so Swannell Ranges (Omineca Mour of the Lorraine occurrence (O Takla Landing. The area is underlain by the Late Triassic to Early Cr have been emplaced into volca Jurassic Takla Group, east of rocks form an elongate bathot to the Mesilinka River. The the intruded Takla Group is of graben development (Bulletin Mapping carried out in the several intrusive phases of the monzonite, pyroxenite, pegmat likely belongs to the Middle The more mafic phases also he Several copper showings located on a ridge east of the consists predominantly of mat	ituated in the Duckling Cree ntains), approximately 2 kil D93N 002) and 61 kilometres y mesozonal plutonic rocks a retaceous Hogem Intrusive Co anic rocks of the Middle Tri f the Pinchi fault zone. Th lith, extending from Chuchi structural setting of the b one of vertical tectonics as 70). the area in the early 1970s the Hogem complex including tite and syenite. The latte Jurassic Duckling Creek Sye ost accessory magnetite. hosted within monzonite hav ne Lorraine occurrence. Min lachite with bornite and cha sium feldspar filling. This	k area of the ometres east northeast of ssigned to mplex which assic-Lower e plutonic Lake, north atholith and sociated with identified diorite, r rock unit nite Complex. e been eralization lcopyrite in
	shear zones containing potass mineralization, together with below these showings. Minor	sium feldspar filling. This n abundant pyrite also occur amounts of copper mineraliz	s in float ation have

also been found in association with a pegmatite. No recent information concerning this occurrence is available.

MINFILE NUMBER: 093N 151

EMPR ASS RPT \*4151, 4152, 21992 EMPR AR 1949-A98-A102 EMPR GEM 1971-203-210; 1972-456 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/21 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 152</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<b>SMOKE COPPER</b> , LIN 24			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N11W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 24 N 125 18 17 W 1225 Metres Within 500M Location is pyrite/chalcop flowing creek within the Li east-northeast of Takla La	yrite mineralization exposed in an eas n 24 claim, about 43 kilometres anding (Assessment Report 3997, Plai	NORTHING: EASTING: sterly te l).	6162860 354756
COMMODITIES:	Copper	Molybdenum		
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown	Molybdenite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Hydrothermal L03 Alkalic porphyry (	Epigenetic Cu-Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	<u>DRPHIC/OTHER</u>
	Manaaita		hogen initiality of	UNPICA
LITHOLOGY.	Granite Alaskite Gabbro			
HOSTROCK COMMENTS:	Phases of the Hogem In Early Cretaceous.	trusive Complex range from Late Trias	ssic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic Rocks	PHYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY				
	The Smoke Cop the Swannell Range east-northeast of Anglo-Bomarc Mines potential. The area is u gabbroic phases of Intrusive Complex, the Middle Triassi fault zone. The p from Chuchi Lake, Chalcopyrite outcrop in an east prominent knoll, e (093N 008) (Assess chalcopyrite and p the same creek, ap lake (Assessment F No recent inf	oper occurrence is situated es (Omineca Mountains), app Takla Landing. It was dis s Ltd., who thought it held underlain by monzonite, gra the Late Triassic to Ear which have been emplaced c to Lower Jurassic Takla blutonic rocks form an elon north to the Mesilinka Riv and molybdenite mineraliza -flowing creek draining th ast-northeast of the Brald sment Report 5373, page 3) byrite mineralization hoste proximately 1.5 kilometres eeport 3997, Plate I).	d at the southern end of proximately 43 kilometres scovered in 1974 by d little economic anite, alaskite and ly Cretaceous Hogem into volcanic rocks of Group east of the Pinchi ngate batholith, extending ver. ation reportedly occur in he north slopes of a orne Takla mercury mine . Earlier reports depict ed by monzonite exposed in s east of a small Z-shaped occurrence is available.	
BIBLIOGRAPHY	EMPR OF 1993-4 EMPR FIELDWORK 199 EMPR ASS RPT *3997 EMPR GEM 1972-452; EMPR BULL 70 EMPR PF (Peto, P. Mining (refer t EMR MP CORPFILE (A GSC MEM 252 GSC MAP 844A; 907A GSC P 42-7; 45-6	22, pp. 87-107 7, *5372, 5495 1974-280; 1977-E202 (1971): Report on the Hoge to 093N General File)) anglo Bomarc Mines Ltd.) A; 971A; 1424A	em Project for Amoco	

Saunders, C.R. (1974): Report on the Smoke Property for Dolmage Campbell and Associates Ltd. CIM Vol. 67, No. 749, pp. 101-106

DATE CODED:	1992/11/03
DATE REVISED:	1992/11/03

CODED BY: DMN REVISED BY: DMN

\_\_\_\_

MINFILE NUMBER:	<u>093N 153</u>		NATIONAL MINERAL INVENTORY:	093N10 Cu1
NAME(S):	<u>GERM</u> , GUS, GKO			
STATUS: REGIONS: NTS MAP	Showing British Columbia		MINING DIVISION:	Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 59 N 124 52 26 W 1065 Metres Within 500M The occurrence is located approx from the campsite where Paquette occurrence lies approximately 15 Landing (Assessment Report 209	kimately 2.5 kilometres northwes e Creek enters Germansen Lake kilometres southwest of Germa 223).	st insen	6176106 382283
COMMODITIES:	Copper Silver			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Silica Silicific'n Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Porphyry Hydroth	hermal		
HOST ROCK DOMINANT HOSTROCK	: Volcanic			
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Plughat Mountain		ORPHIC/OTHER
LITHOLOGY:	Altered Lapillistone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Omineca GRADE: Greensc	Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	N	
REEDENICE	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Silver Copper Assessment Report 20923	YEAR: <u>GRADE</u> 3.1000 Grams p 0.0208 Per cent	1991 Der tonne t	
	A363511611 Report 20020.			
	The Germ occurrence northwest from the camp Lake. The occurrence 1 Germansen Landing. This occurrence is Formation, part of the 1 The Plughat Mountain For mafic to intermediate(? massive flows and lesse: Mountain Formation is t The lower, sediment-dom Middle-Upper Slate Cree the Takla Group is in f. Pennsylvanian to Permia: Group has been intruded multiphase granitic to Mineralization con occurring within altere Formation. The pyrite	e is located approxima site where Paquette Cr ies approximately 15 k hosted in the Upper T Middle Triassic to Low rmation is a thick seq ), calcalkaline to alk r epiclastic rocks. I he upper volcanic sequ inated sequence of roc k Formation (Takla Gro ault contact (the Mans n Nina Creek Group. T by the Cretaceous Ger granodiorite intrusion sists of disseminated d lapillistones of the can make up to five pe	tely 2.5 kilometres eek enters Germansen ilometres southwest of 'riassic Plughat Mountain er Jurassic Takla Group. uence of augite-bearing, aline pyroclastic rocks, in this area, the Plughat ence of the Takla Group. Eks are part of the oup). To the northeast, son fault zone) with the 'o the south, the Takla mansen batholith, a pyrite and chalcopyrite e Plughat Mountain er cent of the pale grey yeed 3.1 grams per toppe	

silver, 0.0208 per cent copper, 0.0220 per cent zinc and 0.0138 per cent lead (Assessment Report 20923). Trace amounts of chalcopyrite are also found approximately 550

metres to the northeast of this showing. Pyrite also occurs with the chalcopyrite and these sulphides are found disseminated within altered volcanics.

### BIBLIOGRAPHY

EMPR GEM 1972-451 EMPR ASS RPT \*20923, 21803 EMPR OF 1989-12 EMPR FIELDWORK 1988, pp. 209-220 EMPR BULL \*91 GSC MEM 251 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1985/07/24CODED BY:GSBFIELD CHECK:DATE REVISED: 1992/09/27REVISED BY:DMMFIELD CHECK:	DATE CODED	D: 1985/07/24 C	CODED BY: GSB F	FIELD CHECK: N
	DATE REVISED	D: 1992/09/27 F	REVISED BY: DMM F	FIELD CHECK: N

### MINFILE NUMBER: 093N 154 NATIONAL MINERAL INVENTORY: 093N6 Cu4 NAME(S): LO STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093N06E BC MAP: UTM ZONE: 10 (NAD 83) NORTHING: 6144192 EASTING: 363831 LATITUDE: 55 25 30 N LONGITUDE: 125 09 06 W ELEVATION: 1370 Metres LOCATION ACCURACY: Within 5 KM COMMENTS: Location is the approximate centre of the now lapsed Lo claims, near the headwaters of Halobia Creek, about 51 kilometres east-southeast of Takla Landing (Geology, Exploration and Mining in British Columbia 1972, page 448). COMMODITIES: Copper MINERALS SIGNIFICANT: Chalcopyrite MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Vein CLASSIFICATION: Hydrothermal Disseminated Porphyry TYPE: LÓ3 Alkalic porphyry Cu-Au HOST ROCK DOMINANT HOSTROCK: Plutonic IGNEOUS/METAMORPHIC/OTHER STRATIGRAPHIC AGE GROUP FORMATION Mesozoic Hogem Intrusive Complex LITHOLOGY: Syeno Diorite HOSTROCK COMMENTS: Phases of the Hogem Intrusive Complex range from Late Triassic to Early Cretaceous. **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Omineca Mountains TERRANE: Plutonic Rocks CAPSULE GEOLOGY The Lo occurrence is situated in the Kwanika Range near the headwaters of Halobia Creek, approximately 51 kilometres east-southeast of Takla Landing. The area was the subject of a program of soil geochemistry undertaken by Noranda Exploration in 1972. The Halobia Creek area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have intruded volcanic and sedimentary rocks of the Middle Triassic to Lower Jurassic Takla Group east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The only reference to the Lo occurrence describes chalcopyrite (Geology, The plutonic rocks form an elongate batholith, extending mineralized fractures and disseminations in syenodiorite (Geology, Exploration and Mining in British Columbia 1972, page 448). No recent information concerning this occurrence is available. BIBLIOGRAPHY EMPR GEM \*1972-448 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106 DATE CODED: 1985/07/24 FIELD CHECK: N CODED BY: GSB DATE REVISED: 1992/11/09 REVISED BY: DMN FIELD CHECK: N

\_\_\_

MINFILE NUMBER:	<u>093N 155</u>	N/	TIONAL MINERAL INVENTORY: 093N14 Cu15
NAME(S):	<u>GK</u> , COL, JAJAY		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093N14W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 56 33 N 125 26 06 W 1905 Metres Within 500M Location is a copper showing on corner of the GK 17 claim, about 2 61 kilometres northeast of Takla L page 8, Plate 1).	the crest of a ridge in the northeas 20 kilometres north of Old Hogem a .anding (Assessment Report 3995,	NORTHING: 6202358 EASTING: 347926 it nd
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite Quartz K-Feldspar Malachite Potassic Oxidati Unknown	ion	
DEPOSIT	<b>_</b>		
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Vein Hydrothermal Epigen L03 Alkalic porphyry Cu-Au	etic	
HOST ROCK DOMINANT HOSTROCK:	: Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: Massaic	175 +/- 5 Ma Potassium/Argon Biotite		Hogom Intrucivo Complex
	Quarte Manzadiarita		hogen mildsive complex
	Monzonite Porphyritic Pegmatitic Syenite Pyroxenite Dike Ultramafic Dike		
HOSTROCK COMMENTS:	Date by Garnett (Bulletin 70, App Intrusive Complex range from La	pendix I). Rocks of the Hogem ate Triassic to Early Cretaceous.	
GEOLOGICAL SETTING			
TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Pł	HYSIOGRAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY	<b>T</b> 1 <b>GV</b>		
	Mountains), approximate kilometres northeast of The area is underl the Late Triassic to Ea have been emplaced into Jurassic Takla Group, e rocks form an elongate to the Mesilinka River. the intruded Takla Grou graben development (Bul Mapping carried ou two major rock units: 1 Complex and 2) Duckling phase of the first unit quartz-bearing monzodio rocks include porphyrit pyroxenite. All of the feldspathized by fluids emplacement of the syen 35).	<pre>1y 20 kilometres north c Takla Landing. ain by mesozonal plutoni rly Cretaceous Hogem Int volcanic rocks of the M ast of the Pinchi fault batholith, extending frc The structural setting p is one of vertical tec letin 70). t in the area in the ear ) granitoid rocks of the Creek Syenite Complex, . The most common grani rite and monzonite, whil ic to pegmatitic syenite se rocks have reportedly which preceded and accc ite complex (Assessment</pre>	f Old Hogem and 61 c rocks assigned to rusive Complex which Giddle Triassic-Lower zone. The plutonic m Chuchi Lake, north of the batholith and tonics associated with ly 1970s identified Hogem Intrusive a Middle Jurassic toid rocks are e the Duckling Creek and holomafic been potassium mpanied the Report 3610, page

A copper showing associated with dike emplacement has been located on the ridge immediately north of the Lorraine occurrence

(093N 002). The mineralization occurs over a width of 61 metres, but can be traced for only 53 metres across the ridge before becoming obscured by talus. Malachite and chalcopyrite are hosted, not only by the underlying intrusive rocks, but also within small quartz veins. The grade of this mineralization has been visually estimated at 0.3 per cent copper (Assessment Report 3995, page 8). Small, glassy quartz veins are common throughout the map area, cutting all rock types. One unusually large vein, traced for over 41 metres along strike and averaging 60 centimetres wide, is exposed approximately 700 metres south-southwest of the ridge showing (Assessment Report 3995, Plate 1). This vein reportedly hosts malachite as well as a lens of massive chalcopyrite. Other showings in the area include ultrabasic dikes hosting significant chalcopyrite and malachite mineralization over an area 36 by 15 metres further south on the same ridge, and fractures hosting

by 15 metres further south on the same ridge, and fractures hosting up to 2.5 centimetres of bornite mineralization east of the Lorraine occurrence.

No recent information concerning this occurrence is available.

### BIBLIOGRAPHY

EMPR ASS RPT 3610, \*3995, 21429 EMPR AR 1949-A98-A102 EMPR GEM 1971-203-210; 1972-457 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/21 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 156</u>	1	IATIONAL MINERAL INVENTORY: 093N13 Gem1
NAME(S):	JADE AND OGDEN CREEP	<b>(S</b> , ED, TT	
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N13W	Open Pit	MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 50 04 N 125 48 42 W 1342 Metres Within 1 KM Location is the confluence production from placer leas kilometres north-northeast	e of Ogden and Jade creeks, where initia ases is reported to have occurred, about cof Takla Landing.	NORTHING: 6191230 EASTING: 323920
COMMODITIES:	Jade/Nephrite	Gemstones	
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Nephrite Nephrite Serpentine Serpentin'zn Unknown	9	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Unconsolidated Placer Q01 Jade No detailed descriptions c available.	Massive Metamorphic Industrial Min of the bedrock source of nephrite jade are	
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic		
STRATIGRAPHIC AGE Paleozoic-Mesozoic Recent Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER Glacial/Fluvial Gravels Oceanic Ultramafites
LITHOLOGY:	Glacial Fluvial Gravel Serpentinite Meta Sediment/Sedimenta Granitic Rock	ry	
HOSTROCK COMMENTS:	Cache Creek Complex re Oceanic Ultramafites are	ocks are Carboniferous to Jurassic while Mississippian to Triassic.	the
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cache Creek	PHYSIOGRAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY	The Jade and southwest of Mount of Takla Landing. Nephrite jade 1967 and by 1969, confluence of Ogde Creek. The area is u rocks assigned to into which Late Tr sill-like serpenti Permian to Late Tr Mississippian to T Initial produ Ltd. shipped approv Vancouver. The for an 18-tonne "jade" pavilion at the Os In addition t group of mineral of serpentinite bedroo This occurren discoveries made i	Ogden Creeks occurrence is a Ogden, approximately 40 kil was initially discovered or 15 placer leases had been st in Creek and a tributary know Inderlain by variably metamor the Carboniferous to Jurassi riassic-Early Jurassic Topley nite bodies, formerly assign riassic Trembleur intrusions riassic Oceanic Ultramafites totion occurred in 1968 when wimately 51 tonnes of nephri Ollowing year, Kuan-Yin Jade boulder for exhibition in t taka Exposition. In the placer leases, Norther claims and reportedly mined 4 ock source in 1970. The is one of numerous placer in the Mount Ogden area (see	ituated 4 kilometres ometres north-northeast Mount Ogden in aked near the n locally as Jade phosed sedimentary c Cache Creek Complex intrusions and local ed to the Middle and now termed , have been emplaced. Northern Jadex Co. te boulders to North Industries Ltd. shipped he British Columbia n Jadex acquired the Ed 5 tonnes of jade from a and in-situ jade 093N 157, 165).
BIBLIOGRAPHY	EMPR CORPFILE (*Nc	orthern Jadex Co. Ltd., Kuan-	Yin Jade

Industries Ltd.) EMPR GEM 1969-389; 1970-498 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 74-1B, pp. 31-42

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/21 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 157</u>		NATIONAL	MINERAL INVENTORY: 093N13 Gem2
NAME(S):	LEE, CONTINENTAL JADE NEW WORLD JADE	, JADE WEST,		
STATUS:	Past Producer	Open Pir	t	MINING DIVISION: Omineca
REGIONS. NTS MAP: ΒC ΜΔΡ	093N13W			UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 50 34 N 125 49 51 W 1525 Metres Within 500M Location is a jade occurre and 3 claims, about 70 kil (Assessment Report 522	nce near the common ometres west-northwe 1).	boundary of the Lee 2 st of Germansen Landing	NORTHING: 6192206 EASTING: 322758
COMMODITIES:	Jade/Nephrite	Gemstones		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Nephrite Talc Serpentine Serpentine Talc Serpentin'zn Unknown	Rodingitiz'n		
DEPOSIT CHARACTER:	Massive	Inconsolidated		
CLASSIFICATION: TYPE:	Metamorphic Q01 Jade	Placer	Industrial Min.	
DIMENSION: COMMENTS:	45 x 3 Jade zone.	Metres	STRIKE/DIP:	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic			
STRATIGRAPHIC AGE	GROUP	<u>FORM</u>	ATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic		Undelli		Oceanic Ultramafites
LITHOLOGY:	Serpentinite Talc Schist Rodingite Argillite Chert Limestone Greenstone			
HOSTROCK COMMENTS:	Cache Creek Complex r Oceanic Ultramafites are	ocks are Carboniferous Mississippian to Trias	s to Jurassic while the ssic.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Cache Cree	PHYSIOGF	RAPHIC AREA: Omineca Mountains
CAPSULE GEOLOGY				
	Ogden, approximate Landing. Initial were made between 1969 that in-situ occurrences eventu 156, 165). The region is belt of argillite, Carboniferous to J have been intruded assigned to the Mi and now termed Mis Nephrite jade metres, along the rocks. Part of th together with the Jade was prod in the early 1970s deposit. Most of deposit and from k Production for 197	rence is situat ely 70 kilometre discoveries of the years 1967 nephrite was di aally located in s underlain by a chert, limesto Jurassic Cache C (?) by sill-lik ddle Permian to sissippian to T e occurs in a zo contact between he zone consists jade, is up to luced by Teegee s, during the ea this production plocks and bould 1 is estimated card). Product	ed on the southwest s west-northwest of "placer" jade boulde and 1969, but it was scovered. It is one the Ogden Mountain northwest-trending, ne and greenstone of reek Complex. Local e bodies of serpenti Late Triassic Tremk riassic Oceanic Ultr ne, exposed over a 1 serpentinite and ot of talc schist and 3 metres wide. Explorations and New rly stage of develop came from loose par ers in the vicinity at 90 to 140 tonnes	Slopes of Mount Germansen ers in the area s not until late e of many area (see 093N , fault-bound the lly, these rocks inite formerly bleur intrusions ramafites. Length of 45 ther Cache Creek rodingite, which w World Jade Ltd. oment of the rts of the of outcrop. (National 000 kilograms.

MINFILE NUMBER: 093N 157

# CAPSULE GEOLOGY

all of which was marketed in China (Mining in British Columbia 1988, page 87).

### BIBLIOGRAPHY

EMPR ASS RPT 4523, 5221, 5963, 6068, 9594, 16737 EMPR GEM 1971-463; 1974-380 EMPR MINING 1975-1980, p. 45; 1981-1985, p. 61; 1986-1987, p. 87; 1988, p. 87 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P \*72-53, p. 45,48; 74-1B, pp. 31-42

DATE CODED: 1985/07/24	CODED BY: GSB	FIELD CHECK: N
DATE REVISED: 1992/09/21	REVISED BY: PSF	FIELD CHECK: N

MINFILE NUMBER:	<u>093N 158</u>	NATIONAL MINI	ERAL INVENTORY: 093N15 Zn1	
NAME(S):	<u>CRIN</u> , CRY			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: Omineca	
NTS MAP: BC MAP:	093N15W		UTM ZONE: 10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 59 51 N 124 48 47 W 1325 Metres Within 500M The occurrence is centred kilometres west of Razorba north-northwest of Germa	l on a trenched area, located approximately 3 ack Mountain and approximately 24 kilometres nsen Landing (Open File 1990-17).	NORTHING: 6207285 EASTING: 386923	
COMMODITIES:	Lead	Zinc		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Sphalerite Galena Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: SHAPE:	Massive Replacement Irregular	Disseminated Hydrothermal		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
Middle Devonian Devonian-Mississipp.	Otter Lakes Big Creek	Undefined Formation Undefined Formation		
LITHOLOGY:	Dolomite Shale			
GEOLOGICAL SETTING TECTONIC BELT:	Omineca	PHYSIOGRAPH	IIC AREA: Omineca Mountains	
TERRANE: METAMORPHIC TYPE:	Cassiar Regional	RELATIONSHIP: Syn-mineralization	GRADE: Greenschist	
CAPSULE GEOLOGY				
	The Crin occurrence is centred on a trenched area, located approximately 3 kilometres west of Razorback Mountain and approximately 24 kilometres north-northwest of Germansen Landing (Open File 1990-17). This occurrence has similar regional geology to that of the Biddy occurrence (093N 114). This occurrence is found in the upper part of the Middle Devonian Otter Lakes Group, near the contact with the overlying Upper Devonian-Lower Mississippian Big Creek Group shales. Massive to disseminated sphalerite and galena occur in the Otter Lakes Group dolomites. The showings are relatively poorly exposed and poorly documented.			
BIBLIOGRAPHY	EMPR PF (Location EMPR BULL *91 EMPR EXPL 1989, pp EMPR FIELDWORK 198 EMPR OF 1989-12; * EMPR ASS RPT 4815, GSC P 41-5; 42-2; GSC MEM 252 GSC MAP 876A; 971A	<pre>map and trench locations, Cominco, 197 . 193-196 8, pp. 209-220; *1989, pp. 101-114 1990-17 5729 45-9; 75-33 ; 1424A; 5249G</pre>	6)	

DATE CODED:         1985/07/24         CODED BY:         GSB           DATE REVISED:         1992/07/07         REVISED BY:         FF	FIELD CHECK: N FIELD CHECK: Y
--	----------------------------------

MINFILE NUMBER:	<u>093N 159</u>		NATIONAL MINERAL INVEN	TORY: 093N7 Cu4
NAME(S):	CHUCHI LAKE, CHUCHI, I KLA, DINGLE	KLAW,		
STATUS:	Developed Prospect		MINING DIV	ISION: Omineca
NTS MAP: BC MAP	093N07E		UTM	ZONE: 10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 15 47 N 124 32 43 W 1500 Metres Within 500M Located south of Klawdet of Chuchi Lake and 90 kil Report 20018).	elle Creek, approximately 6 kilometres n ometres north of Fort St. James (Assess	NORT EAS north sment	THING: 6125153 STING: 401803
COMMODITIES:	Copper	Gold		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrrhotite Pyrite K-Feldspar Magnetit K-Feldspar Magnetit Potassic	Chalcopyrite e Biotite Epidote Propylitic		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Porphyry L03 Alkalic porphyry (	Disseminated Shear Hydrothermal Cu-Au		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Chuchi Lake	IGNEOUS/M	IETAMORPHIC/OTHER
Triassic-Jurassic			Unnamed/L	Jnknown Informal
LITHOLOGY:	Plagioclase Porphyry Mor Sandstone Siltstone Tuff Lapilli Tuff Agglomerate Hornfels	nzonite		
HOSTROCK COMMENTS:	Informally named Chuch	Lake Formation of the Takla Group.		
GEOLOGICAL SETTING TECTONIC BELT:	Intermontane		PHYSIOGRAPHIC AREA: M	anson Upland
TERRANE: METAMORPHIC TYPE:	Quesnel Regional Contact	RELATIONSHIP:	GRADE: G	reenschist ornfels
INVENTORY				
ORE ZONE:	MAIN	REPORT ON:	: Y	
COMMENTS: REFERENCE:	CATEGORY: Inferred QUANTITY: 50000 COMMODITY Gold Copper A rough estimate of the g 0.40 per cent copper and Digger Resources Inc, Ne	YEAR: 0000 Tonnes <u>GRADE</u> 0.2100 Grams p 0.2100 Per ceni eological resource, grading between 0.2 0.21 and 0.44 gram per tonne gold. ews Release, October 17, 1991.	: 1991 per tonne t 21 and	
CAPSULE GEOLOGY				
	The Chuchi La is represented in sedimentary rocks the region, four h copper-gold system most prominent is The Chuchi La of an extensive zo stockwork and diss Resources Chuchi I system, and Rio Al	ake property lies within the the area by Early Mesozoic of island-arc affinity and haloes of pervasive alterati as are associated with syn-T the Chuchi/Klaw halo. Ake occurrence is located at one (6 square kilometres) of seminated mineralization. I take property, the apparent gom's Klaw property which o	e Quesnel Terrane wh: Takla Group volcanic related intrusions. Ion and related porph Takla intrusions. The the approximate cent porphyry-style tt includes both BP centre of the porphy occurs on the fringes	ich c and In hyry ne htre yry s of

PAGE: 1133 REPORT: RGEN0100

### CAPSULE GEOLOGY

the alteration halo approximately 1.25 kilometres to the north. The system is bounded to the east by a north-trending fault, and to the north by the fault in Klawdetelle Creek. Within it, crowded plagioclase porphyry monzonite stocks intrude the sedimentary horizon in the Lower Jurassic Chuchi Lake Formation (informal name) of the Middle Triassic to Lower Jurassic Takla Group, and blossom out into sill swarms. The sedimentary unit is of Pliensbachian age (Fieldwork 1991). In many instances in drill core, hornfelsed sedimentary rocks show soft-sediment deformation, and are intimately intercalated with monzonite. The fine-grained, well-bedded sandstones, siltstones and tuffs grade downwards into massive coarse lapilli tuffs and agglomerates. In many cases, intrusive clasts form a large percentage of the fragmental material. Crowded plagioclase porphyry clasts with small blocky plagioclase crystals less than 2 millimetres across are common, and identical to the later porphyries that intrude the sediments. Clasts with pink secondary potassium feldspar, magnetite and epidote are also present.

In light of the geological evidence that sedimentation, intrusion and porphyry-style copper-gold mineralization were roughly coeval, the Early Jurassic (Pliensbachian) fossil ages of the sedimentary horizon would also date the Chuchi porphyry system (Fieldwork 1991).

Both the monzonite and the sediments at Chuchi Lake are extensively altered. Secondary potassium feldspar occurs in pink veinlets in the monzonite with magnetite, pyrite and chalcopyrite. The sedimentary rocks show a strong biotite hornfels overprint, with subsequent mottling by potassic and propylitic alteration. Hairline veinlets with bleached selvages and magnetite veinlets and disseminations are also characteristic of alteration.

Copper-gold mineralization is accompanied by pervasive potassic and propylitic alteration and abundant secondary magnetite. The best grades fall within a northeast-trending zone that crosses the monzonite stock. This system was drilled extensively by BP Resources in 1990-1991. The gold mineralization appears to be shear-zone hosted and is associated with pyrrhotite rather than pyrite or chalcopyrite (Faulkner, 1991). A rough estimate of the geological resource at Chuchi Lake is 50

A rough estimate of the geological resource at Chuchi Lake is 50 million tonnes with grades between 0.21 and 0.40 per cent copper and 0.21 and 0.44 gram per tonne gold (Digger Resources Inc., News Release, October 17, 1991).

#### BIBLIOGRAPHY

EMPR ASS RPT 4099, 13325, 14381, 18282, 18392, 19582, 19024, 19719, 20018, 20612, 20865, 21113 EMPR BULL 70 EMPR FIELDWORK \*1991, pp. 113-114 EMPR GEM 1972-450 EMPR OF 1992-1; 1992-3; 1992-4 EMPR PF (Chuchi Cu-Au Porphyry Project description) GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842 GCNL #206(Oct.26),#237(Dec.11), 1989; #141(Jul.23),#198(Oct.12), #219(Nov.13), 1990; #117(June 18),#148(Aug.1),#153(Aug.9), #181(Sept.19), 1991; #95(May 18), 1993 N MINER Feb.5, 1990; Apr.1, Sept.16, 1991 PR REL Digger Resources, October 17, 1991 WWW http://www.infomine.com/

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/25 CODED BY: GSB REVISED BY: KBE

\_\_\_\_

MINFILE NUMBER:	<u>093N 160</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>HAL 4</u>			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N06E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 24 N 125 10 47 W 1700 Metres Within 500M Location is sample H91R05, abou Takla Landing (Assessment Rep	ut 50 kilometres east-southeast ort 21734, Figure 4).	NORTHING: EASTING:	6142208 361992
COMMODITIES:	Copper Silver			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcocite Epidote Chlorite Lir Propylitic Oxidat Unknown	nonite Malachite tion		
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Vein Hydrothermal Epiger L03 Alkalic porphyry Cu-Au 1 Metres Width is for copper mineralization	netic s STRIKE/D n at the eastern zone.	IP: TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	: Plutonic			
STRATIGRAPHIC AGE Mesozoic	GROUP	FORMATION	IGNEOUS/METAM Hogem Intrusive C	ORPHIC/OTHER Complex
LITHOLOGY:	Granodiorite Monzodiorite Granite Dike Aplite Dike Gossan			
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Early Cretaceous.	Complex range from Late Triass	sic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Omineca	a Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON	J: N	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY Silver Copper Sample of locally derived limonitie malachite mineralization. Assessment Report 21734, Appe	YEAF <u>GRADE</u> 11.5000 Grams 1.6000 Per ce c talus hosting chalcocite and ndix II, sample H91R07.	t: 1991 per tonne nt	
CAPSULE GEOLOGY		•		
	The Hal 4 occurrent Halobia Creek, approxim Landing. The area is under the Late Triassic to Ea have intruded volcanic Triassic-Lower Jurassic The plutonic rocks form Lake, north to the Mesi The Hal 4 occurrent coloured, medium to fin coloured, medium to coa granite/aplite dikes ha contact. These rocks h	nce is situated in the mately 50 kilometres e lain by mesozonal plut arly Cretaceous Hogem and sedimentary rocks to Takla Group east of a an elongate batholit linka River. nce is situated in an ne-grained granodiorit arse-grained monzodior ave been observed in m have been propylitized ote common.	Kwanika Range south of ast-southeast of Takla onic rocks assigned to Intrusive Complex which of the Middle the Pinchi fault zone. h, extending from Chuchi area underlain by light e in contact with darker ite to the west. Local onzodiorite west of this , with chlorite and	
	Two areas of limor	nitic, weathered grano	diorite(?) talus hosting	

chalcocite in fractures with attendant malachite staining occur on the ridge south of Halobia Creek. The eastern gossan is 4 metres wide, with copper mineralization restricted to a 1-metre wide zone, while malachite staining at the western gossan occurs across a 5 to 6-metre width. Given its location on the ridge top, the talus is believed to have been derived locally. Samples (H91R05 and 7) from the eastern and western gossans assayed 1.60 per cent copper and 11.5 grams per tonne silver and 1.04 per cent copper and 20.8 grams per tonne silver respectively (Assessment Report 21734, Appendix II).

#### BIBLIOGRAPHY

EMPR ASS RPT \*21734 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1992/11/05 DATE REVISED: 1993/03/15 CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N_161</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	ERICKSON			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N06E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 29 23 N 125 08 41 W 1700 Metres Within 500M Location is sample A4465, a (Assessment Report 20338)	about 51 kilometres east of Takla Landi , Figure 4).	NORTHING: EASTING:	6151380 364493
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Magnetite Quartz Epidote Chlorite Limonite Chloritic C Unknown	Dxidation		
DEPOSIT CHARACTER: CLASSIFICATION: COMMENTS:	Vein Hydrothermal E Vein is three centimetres wi	pigenetic de.		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE Mesozoic	GROUP	FORMATION	IGNEOUS/METAMO Hogem Intrusive C	ORPHIC/OTHER omplex
LITHOLOGY:	Leucocratic Granodiorite			
HOSTROCK COMMENTS:	Phases of the Hogem Intru Early Cretaceous.	sive Complex range from Late Triassic	c to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Omineca	Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/ana SAMPLE TYPE: Grab COMMODITY Copper Sample (A4465) of a quartz Assessment Report 20338,	Ilysis YEAR: <u>GRADE</u> -epidote vein hosting pyrite and magne Appendix II.	1990 etite.	
CAPSULE GEOLOGY				
	The Erickson o the headwaters of V Takla Landing. The early 1970s (see Sa The area is un the Late Triassic t have intruded volca Triassic-Lower Jura plutonic rocks form Lake, north to the The only outcr occurrence comprise leucocratic granodi quartz-epidote vein contains 2 per cent 0.235 per cent copp Report 20338, Appen quartz-epidote-pota chalcopyrite float	ccurrence is situated in t. alleau Creek, approximately area was assessed by Nora n, 093N 102) and by Placer derlain by mesozonal pluto: o Early Cretaceous Hogem I nic and sedimentary rocks ssic Takla Group immediate an elongate batholith, ex Mesilinka River. ops observed in the area o generally unaltered, medi orite. A 3-centimetre wid was noted in one chloriti pyrite and 1 per cent mag er and 2.7 grams per tonne dix II, sample A4465). Qu ssium feldspar and quartz-j also occurs in the area.	ne Kwanika Range near y 51 kilometres east of nda Exploration in the Dome in 1990. nic rocks assigned to ntrusive Complex which of the Middle ly to the east. The tending from Chuchi f the Erickson um to coarse-grained, e, limonitic, zed outcrop. This vein netite blebs and assayed silver (Assessment artz-magnetite, pyrite-magnetite-	

EMPR ASS RPT 3856, 3857, \*20338 EMPR BULL 70

EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1992/11/05 DATE REVISED: 1993/03/15 CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 162</u>			NATIONAL MINE	ERAL INVENTORY:	093N7 Cu3
NAME(S):	LSD					
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N07E 093N02E				MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 15 15 N 124 35 12 W 1690 Metres Within 500M Located south of Klawda	telle Creek (Assessi	ment Report 386	2).	Northing: Easting:	6124223 399150
COMMODITIES:	Copper	Lead	Molybde	num		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite	Galena	Magnetite	Molybdenite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L03 Alkalic porphyry	Epigenetic Cu-Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
STRATIGRAPHIC AGE	GROUP	FOF	RMATION		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	LITHOLOGY: Medium Grained Equigranular Quartz Syenite Coarse Grained Hornblende Monzonite Pegmatite Aplite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel			PHYSIOGRAPH	IC AREA: Manson	Upland
CAPSULE GEOLOGY						
	The LSD show Late Triassic to coarse-grained ho equigranular quar aplite phases occ Fractures in chalcopyrite and magnetite and mol	ing is underla Early Cretaceo rnblende monzo tz syenite (Ch ur. the intrusive pyrite. Previ ybdenite along	in by two Ea us Hogem In nite and the uchi syenite rocks conta ous reports weakly alte	arly Jurassic trusive Comple e later medium e). Minor peg ain small occu document mino ered fractures	phases of the x; -grained matite and rrences of r galena,	
BIBLIOGRAPHY						
	EMPR GEM 1971-196 EMPR ASS RPT 3218 EMPR FIELDWORK 19 EMPR OF 1991-3; 1 GSC MEM 252 GSC P 41-5; 42-2; GSC MAP 876A; 907 GSC OF 2842 CIM Special Volum	; 1972-436; 19 , *3863, *3862 90, pp. 89-110 992-4 45-9 A; 971A; 1424A e 15, Map B, T	73-363 ; 1991, pp. able 2	103-118		
DATE CODED: DATE REVISED:	1985/07/24 1993/02/25	CODE REVIS	D BY: GSB ED BY: KBE		F	IELD CHECK: N IELD CHECK: Y

MINFILE NUMBER:	<u>093N 163</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	MILLIGAN 6, NATION RIVER		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N01E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 21 N 124 06 44 W 1350 Metres Within 500M Location of mineralized rock s of Mount Milligan peak (Asses	ample taken about 300 metres north sment Report 20227, Figure 19).	NORTHING: 6116406 EASTING: 429189
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Pyrite Magnetite Trace chalcopyrite.	Chalcopyrite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry Hyc L03 Alkalic porphyry Cu-A	drothermal u	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Mount Milligan Intrus. Complex
LITHOLOGY:	Plagioclase Porphyritic Monzo	nite	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOGRAPHIC AREA: Nechako Lowland
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON:	Ν
	CATEGORY: Assay/analy: SAMPLE TYPE: Grab COMMODITY	sis YEAR: GRADE	1990
REFERENCE:	Assessment Report 20227, sa	imple BB-17555.	
CAPSULE GEOLOGY	The Milligen 6	about 200 y	notrog northwast of
	Mount Milligan peak w parts per million) co underlain by the Mour at least two separate rock is described as biotitic, plagioclase of disseminated pyrit (Assessment Report 20	where a rock sample yield opper (Assessment Report 2 it Milligan Intrusive Comp Early Jurassic intrusive a medium-grained, massive porphyritic monzonite. c, magnetite and traces ( 227, Appendix A (II), page	sd 0.14 per cent (1409 20227). The area is plex which consists of phases. The sampled e, equigranular, Mineralization consists of chalcopyrite ge 14, sample BB-17555).
BIBLIOGRAPHY	דאהם אפפ ההיי 100 <i>ב</i> ס א	* 2 0 2 2 7	
	EMPR ASS RF1 19208, EMPR FIELDWORK 1990, EMPR OF 1991-3; 1992- GSC P 41-5; 42-2; 45- GSC MAP 876A; 907A; 9 GSC MEM 252 GSC OF 2842 Placer Dome File	pp. 89-110 -3 -9 971A; 1424A	
DATE CODED: DATE REVISED:	1993/02/01 / /	CODED BY: GJP REVISED BY:	FIELD CHECK: N FIELD CHECK: N

#### MINFILE NUMBER: 093N 164 NATIONAL MINERAL INVENTORY: 093N2 Cu10 NAME(S): WITCH, CHU, DP 14 STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093N02E BC MAP: UTM ZONE: 10 (NAD 83) LATITUDE: 55 08 58 N NORTHING: 6112482 LONGITUDE: 124 31 28 W ELEVATION: 1050 Metres EASTING: 402850 LOCATION ACCURACY: Within 500M COMMENTS: Located in the central area of the Chuchi-Witch alteration halo, between Chuchi and Witch lakes (Open File 1991-3; 1992-4). COMMODITIES: Copper MINERALS SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite ALTERATION: Epidote Diopside K-Feldspar Biotite Garnet ALTERATION TYPE: Propylitic Potassic Skarn MINERALIZATION AGE: DEPOSIT CHARACTER: Disseminated CLASSIFICATION: Porphyry Hvdrothermal TYPE: L03 Álkalic porphyry Cu-Au SHAPE: Irregular MODIFIER: Fractured HOST ROCK DOMINANT HOSTROCK: Volcanic <u>GROUP</u> Takla FORMATION STRATIGRAPHIC AGE IGNEOUS/METAMORPHIC/OTHER Upper Triassic Witch Lake Lower Jurassic Hogem Intrusive Complex LITHOLOGY: Augite Porphyry Flow Augite Porphyry Crystal Tuff Fragmental Augite Porphyry Altered Volcanic Limy Tuffaceous Sediment/Sedimentary Plagioclase Porphyritic Monzonite Monzonite Intrusive Breccia Coarse Grained Equigranular Monzonite Svenite K-Feldspar Pegmatite **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Nechako Lowland TERRANE: Quesnel CAPSULE GEOLOGY The Witch occurrence locality encompasses a large (3 by 5 kilometres) irregular alteration system between Witch and Chuchi lakes. It is referred to as the Chuchi-Witch halo and is characterized by widespread blotite hornfelsing and patchy, but often strong potassic and propylitic alteration (Fieldwork 1991, pages 114,115). Pyrite and pyrrhotite are abundant and minor chalcopyrite occurs in several places. Epidote-garnet-diopside skarn exists in limy tuffaceous sediments. Volcanic rocks of the Upper Triassic Witch Lake Formation (Takla Group), including augite porphyry flows and fragmentals, aphanitic volcanics and minor tuffs are intruded by coeval Takla Group intrusive equivalents consisting of crowded plagioclase porphyritic monzonite and monzonite intrusive breccias. These intrusive rocks are probably responsible for the porphyry-style alteration and mineralization. This region is also intruded by several Early Jurassic(?) phases of the Late Triassic to Early Cretaceous Hogem Intrusive Complex including coarse-grained equigranular monzonite, sericite-bearing potassium feldspar pegmatite and coarse-grained syenite. The strongest area of mineralization in this system is the Moss showing (093N 084). In 1995, with Explore B.C. Program support, Artina Resources conducted a late season induced polarization survey and diamond Ltd. drilled 301.5 metres in 3 holes on the Composite stock anomaly. This

program was inconclusive and did not test the anomaly completely

(Explore B.C. Program 95/96 - M51).

# BIBLIOGRAPHY

EMPR GEM 1972-344,435; 1973-364 EMPR ASS RPT 3851, 3852, 4244, 7887, \*19720, \*20899, 21988 EMPR FIELDWORK \*1990, pp. 89-110; \*1991, pp. 103-118 EMPR OF \*1991-3; \*1992-4 EMPR Explore B.C. Program 95/96 - M51 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC OF 2842

> CODED BY: GSB REVISED BY: VAP

DATE CODED: 1985/07/24 DATE REVISED: 1996/11/04

MINFILE NUMBER:	<u>093N 165</u>		I	NATIONAL MINER	AL INVENTORY:	093N13 Gem3
NAME(S):	OGDEN MOUNTAIN, WIF VOLCANIC RIDGE, CONT FAR NORTH, RALF, LCF, LF, VANCOUVER	RE-SAW, NEW JAE INENTAL JADE, J/	DE, ADE WEST,			
STATUS:	Past Producer	Op	pen Pit	Μ	INING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093N13W				UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 50 45 N 125 50 41 W 1500 Metres Within 500M Location is the Volcanic on the southwest slopes north-northeast of Takla	Ridge showing, n of Mount Ogden, i Landing (Assessn	ortheast of Squawkbird about 40 kilometres hent Report 4523, Figur	Lake e G2).	NORTHING: EASTING:	6192581 321902
COMMODITIES:	Jade/Nephrite	Gemstones				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Nephrite Garnet Diopside Talc Serpentin'zn Unknown	Sericite	Chlorite			
DEPOSIT		Manakar				
CLASSIFICATION: TYPE:	Placer Q01 Jade	Replacement	Metamorphic	Indu	strial Min.	
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic					
STRATIGRAPHIC AGE	GROUP	<u>F</u>	ORMATION	<u>IC</u>	NEOUS/METAM	ORPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic Upper Jurassic	Cache Creek	L	Indefined Formation	O	ceanic Ultramafi opley Intrusions	tes
LITHOLOGY:	Serpentinite Phyllite Argillaceous Quartzite Greenstone Granodiorite Sill					
HOSTROCK COMMENTS:	Cache Creek Complex Oceanic Ultramafites ar	rocks are Carboni e Mississippian to	ferous to Jurassic while Triassic.	the		
	Intermontane				AREA: Omineca	Mountains
METAMORPHIC TYPE:	Plutonic Rocks Regional	Cache REL	Creek ATIONSHIP:	G	RADE: Greenso	hist
INVENTORY						
ORE ZONE:	VOLCANIC RIDGE		REPORT ON:	Y		
COMMENTS: REFERENCE:	CATEGORY: Indicate QUANTITY: 36 COMMODITY Jade/Nephrite Reserves are for jade of Assessment Report 167	d 3 Tonnes  'moderate quality' 37	YEAR: <u>GRADE</u> 99.0000 Per cent and are estimated.	1987		
ORF ZONE:	OGDEN MOUNTAIN		REPORT ON:	Y		
	CATEGORY: Indicate QUANTITY: 10 COMMODITY Jade/Nephrite	d 99 Tonnes	YEAR: <u>GRADE</u> 99.0000 Per cent	1987		
COMMENTS: REFERENCE:	Estimated reserves comp Assessment Report 1673	orise two boulders 37.	s uncovered north of the	e camp.		
CAPSULE GEOLOGY					_	

The Ogden Mountain occurrences are situated on the southwest slopes of Mount Ogden, approximately 40 kilometres north-northeast of Takla Landing. Nephrite boulders were initially discovered in the

area in the late 1960s and efforts to locate their source(s) eventually resulted in the discovery of numerous in-situ nephrite showings (see 093N 156, 157).

Variably metamorphosed sedimentary and volcanic rocks of the Carboniferous to Jurassic Cache Creek Complex are intruded by sill-like serpentinite bodies formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions and now termed Mississippian to Triassic Oceanic Ultramafites, and rocks of the Late Triassic-Early Jurassic Topley intrusions, 7 kilometres west of the Pinchi fault.

The nephrite occurrences in the Mount Ogden area occur within a belt of ultramafic rocks and serpentinite melange informally referred to as the Cache Creek Ultramafic unit.

The ultramafic unit is mainly serpentinite and serpentinecarbonate-talc schist with abundant "knocker" of green show, amphibolite and metasedimentary rocks.

The eastern margine of the ultramafic unit is an east-dipping thrust fault. The western rocks are clastic sedimentary unit of the Sitlika assemblage.

An elongate stock of coarse-grained 2 mica granite cuts through the ultramafic unit. The contact between the two is a contact metamorphic zone. Locally garnetite, marble and nephrite and nephrite schist form at the contact. Nephrite also occurs along the tectonic contacts.

Discontinuous nephrite (tremolitic amphibole) bands and lenses occur at the contact of serpentinite and metasedimentary rocks. Colluvial boulders of nephrite are also widely distributed on the property. Nephrite also occurs as a steeply dipping vein-like zone at the contact of serpentinite and a leucocratic phase of a granodiorite sill. Accessory garnet, diopside, sericite, chlorite, and calcsilicates are associated with the nephrite zones.

and calcsilicates are associated with the nephrite zones. The original Wire-Saw zone, from which 272 tonnes of nephrite has been mined, occurs at a serpentinite/metasediment contact. A large lens of nephrite occurs approximately 5 metres below the original lens. This lens, estimated to contain 36 tonnes of nephrite, is for the most part strongly laminated or fractured and only 4.5 tonnes was marketable. A pit above this zone intersected low-grade nephrite boulders and a large lens striking northeast into a hill. Four hundred metres southeast along the strike of the serpentinite/metasediment contact, trenching has exposed five boulders of low-grade nephrite. At the Volcanic Ridge zone, along a serpentinite/volcanic

At the Volcanic Ridge zone, along a serpentinite/volcanic contact, a large lens of nephrite measuring 8 by 7 by 2.5 metres is estimated to contain approximately 363 tonnes of "moderate quality" material.

At the New Jade zone, a steeply dipping band of high quality nephrite, 25 centimetres wide, occurs at the contact of serpentinite and a leucocratic granodiorite sill-like intrusion. Indicated reserves are 374 tonnes, but only 10 per cent of this amount may eventually be recovered due to the narrowness and steep dip of the zones (Assessment Report 16737).

Numerous boulders of black nephrite have also been located in the area. North of the camp, two such boulders represent indicated reserves of 108 tonnes (Assessment Report 16737).

Total production of nephrite to 1992 from the Mount Ogden occurrences is estimated to be 1441 tonnes (Mining in British Columbia 1975-1980, 1981-1985, 1988; Kirk Makepeace (Jade West), personal communication, 1993 (production for 1989 to 1992)). In 1992, Jade West Resources Ltd. conducted trenching and 500 metres of percussion drilling (Information Circular 1993-1).

### BIBLIOGRAPHY

EM FIELDWORK 1999, pp. 339-348 EMPR AR 1961-119-126 EMPR ASS RPT \*4523, 5221, 5963, 6068, 9594, \*16737 EMPR EXPL 1976-E203-E204 EMPR GEM 1971-463; 1973-547 EMPR INF CIRC 1993-1, p. 16 EMPR MAP 65 (1989) EMPR MINING 1975-1980 Vol. I, p. 45; 1981-1985, p. 61; 1986-1987, pp. 87-88; 1988, p. 87 EMPR OF 1992-1; 1992-9; 1994-1; 2000-33 EMPR PF (Price, B.J. (1977): Drilling Report on Placer Leases; Various memoranda-Far North Jade Ltd.; Fraser, Marilyn (Summer/ Fall 2000): Vol. 4, No. 2 5 pages) EMR MP CORPFILE (New World Jade Ltd.) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 42-7; 44-5; 45-6; 72-53, p. 48; 74-1B, pp. 31-42; 78-19 ឃឃឃ

WWW http://www.canadianrockhound.com Fraser, J.R. (1972): Nephrite in British Columbia, Unpublished M.Sc. Thesis, University of British Columbia

DATE CODED:	1985/07/24
DATE REVISED:	2003/03/04

CODED BY: GSB REVISED BY: MPS

MINFILE NUMBER:	<u>093N 166</u>	NA	TIONAL MINERAL INVENTORY:	093N13 Cu17
NAME(S):	<u>PIK</u> , JAJAY			
STATUS: REGIONS: NTS MAP	Showing British Columbia 093N14W		MINING DIVISION:	Omineca
BC MAP: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 56 39 N 125 27 40 W 1500 Metres Within 1 KM Location is the approximate centre of the n about 20 kilometres north of Old Hogem an Takla Landing (Assessment Report 4522, I	ow lapsed Pik claim group d 60 kilometres northeast Drawing No. 1).	NORTHING: EASTING: of	6202601 346302
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Bornite K-Feldspar Potassic			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u> Mesozoic Middle Jurassic	<u>GROUP</u> <u>F</u>	ORMATION	IGNEOUS/METAMC Hogem Intrusive Co Duckling Creek Sys	ORPHIC/OTHER complex enite Complex
LITHOLOGY:	Leucocratic Syenite Monzodiorite Pyroxenite			
HOSTROCK COMMENTS:	The Duckling Creek Syenite Complex is o to Early Cretaceous Hogem Intrusive Corr	ne phase of the Late Trias	sic	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	Pŀ	IYSIOGRAPHIC AREA: Omineca	Mountains
CAPSULE GEOLOGY	The Pik occurrence is si Mountains), approximately 20 kilometres northeast of Takla The area is underlain by the Late Triassic to Early Cr have been emplaced into volca Jurassic Takla Group, east of rocks form an elongate bathol to the Mesilinka River. The the intruded Takla Group is of graben development (Bulletin Reports from the early 1 by three, silica-deficient in syenite, 2) monzodiorite and as being pegmatitic and megap Creek Syenite Complex, a Midd Complex. The oldest unit, th mesocratic and potash-enriched the least abundant rock type, pods in association with syen potassium feldspathization by the emplacement of the syenit Chalcopyrite and bornite outcrop, occurring as rare di the monzodiorite and syenite R	cuated in the Swan cilometres north o Landing. mesozonal plutoni etaceous Hogem Int nic rocks of the M the Pinchi fault ith, extending fro structural setting ne of vertical tec 70). 970s indicate that trusive rock units 3) pyroxenite. Th orphyritic and bel le Jurassic phase e monzodiorite, is 1. Holomafic feld occurs in small, ite. All of these fluids which prec e complex. were the only sul sseminated intergr units, generally i eport 4522, page 4	nell Ranges (Omineca f Old Hogem and 60 c rocks assigned to rusive Complex which iddle Triassic-Lower zone. The plutonic m Chuchi Lake, north of the batholith and tonics associated with the area is underlain : 1) leucocratic e syenite is described onging to the Duckling of the Hogem Intrusive medium-grained, spathic pyroxenite, irregularly-shaped rocks have undergone eded and accompanied phides observed in anular blebs within n close proximity to ).	

No recent information concerning this occurrence is available.

### BIBLIOGRAPHY

EMPR AR 1949-A98-A102 EMPR ASS RPT \*4522 EMPR BULL 70 EMPR GEM 1971-203-210; 1972-458 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/21 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 167</u>		NATIONAL MINERAL INVENTORY	: 093N6 Cu5
NAME(S):	<u>HAL</u> , HALOBIA			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N06E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 26 49 N 125 10 12 W 1600 Metres Within 5 KM Location is a coincident copper-molybe anomaly within the Hal 10 claim, about Landing (Assessment Report 3774, D	denum-zinc soil geochemica t 50 kilometres east of Takla rawing No. 1 and 2).	NORTHING EASTING	6146670 362747
COMMODITIES:	Copper Molybdenur	m		
SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Unknown Hydrothermal L03 Alkalic porphyry Cu-Au Minor copper and molybdenum minera	lization(?).		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u> Mesozoic	GROUP	FORMATION	IGNEOUS/METAM Hogem Intrusive (	ORPHIC/OTHER Complex
LITHOLOGY:	Leucocratic Granite Mafic Diorite Quartz Monzonite			
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Comp Early Cretaceous.	blex range from Late Triassic	c to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Ominec	a Mountains
CAPSULE GEOLOGY	The Hal occurrence is headwaters of Halobia Cree Takla Landing. The area is underlain the Late Triassic to Early have intruded volcanic and Triassic-Lower Jurassic Ta The plutonic rocks form an Lake, north to the Mesilin underlying the headwater a coarse-grained granite and Although initial repo mineralization had been ob molybdenum mineralization( between diorite and quartz in 1972 (Geology, Explorat page 448). This work incl polarization and magnetic No recent information	situated in the Kw k, approximately 50 by mesozonal pluto Cretaceous Hogem I sedimentary rocks kla Group east of t elongate batholith ka River. The prin rea of Halobia Cree mafic-rich diorite rts state that no s served in outcrop, ?) was apparently u monzonite, as a re ion and Mining in B uded geological map geophysics and surf concerning this oc	anika Range near the kilometres east of nic rocks assigned to ntrusive Complex which of the Middle he Pinchi fault zone. , extending from Chuchi ciple rock types k are leucocratic ignificant sulphide minor copper and ncovered along a contact sult of work carried out ritish Columbia 1972, ping, induced ace diamond drilling. currence is available.	-
BIBLIOGRAPHY	EMPR ASS RPT *3774, 8988, EMPR GEM 1971-199; *1972-4 EMPR BULL 70 EMPR PF (Peto, P. (1971): Mining (refer to 093N G GSC MEM 252 GSC MAP 844A; 907A; 971A; GSC P 42-7; 45-6 GSC OF 3071	21734 88 Report on the Hogem eneral File)) 1424A	Project for Amoco	

CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/06 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 168</u>		NATIONAL MINERAL INVENTORY	′: 093N11 Cu6
NAME(S):	<u>LIN 18</u>			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION	: Omineca
NTS MAP: BC MAP:	093N11W		UTM ZONE	: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 34 45 N 125 17 49 W 1175 Metres Within 500M Location is chalcopyrite/molybde the now lapsed Lin 18 claim, abo Takla Landing (Assessment Rep	enite mineralization exposed with but 43 kilometres east-northeast ort 3997, Plate I).	NORTHING EASTING of	: 6161638 : 355206
COMMODITIES:	Copper Molyb	odenum		
MINERALS	Obelessuite Mahahalasite			
SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Molybdenum mineralization not s	specified.		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epige L03 Alkalic porphyry Cu-Au	netic		
HOST ROCK DOMINANT HOSTROCK:	: Plutonic			
STRATIGRAPHIC AGE Mesozoic	GROUP	FORMATION	IGNEOUS/METAM Hogem Intrusive (	<u>IORPHIC/OTHER</u> Complex
LITHOLOGY:	Monzonite Granite Alaskite			
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Early Cretaceous.	Complex range from Late Triass	ic to	
GEOLOGICAL SETTING	Intermentano			o Mountaina
TERRANE:	Quesnel	Plutonic Rocks		a mountains
CAPSULE GEOLOGY	The Lin 18 occurre	ence is situated at the	e southern end of the	
	Swannell Ranges (Omine east-northeast of Takla Syndicate. The area is under assigned to the Late T Complex, which have be Triassic to Lower Juras The plutonic rocks for Lake, north to the Mes Chalcopyrite and to in minor fractures cut I, page 4). Although s geochemical values from in copper and molybden No recent informat	ca Mountains), approxim a Landing. It was eval riassic to Early Cretage en emplaced into volcan ssic Takla Group east of m an elongate batholith ilinka River. molybdenum mineralizat ting monzonite (Assessi rock samples do not app m soil samples around fum. tion concerning this of	mately 43 kilometres luated in 1972 by the Luc nite and alaskite ceous Hogem Intrusive nic rocks of the Middle of the Pinchi fault zone n, extending from Chuchi ion(?) reportedly occur ment Report 3997, Plate pear to have been taken, the area were anomalous ccurrence is available.	с
BIBLIOGRAPHY	FMDR OF 1993-4			
	EMPR FIELDWORK 1992, p) EMPR ASS RPT *3997 EMPR GEM 1972-452 EMPR BULL 70 EMPR PF (Peto, P. (197) Mining (refer to 09) GSC MEM 252 GSC MAP 844A; 907A; 97 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, p	p. 87-107 1): Report on the Hoger 3N General File)) 1A; 1424A pp. 101-106	n Project for Amoco	
DATE CODED: DATE REVISED:	1985/07/24 1992/11/03	CODED BY: GSB REVISED BY: DMN		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 169</u>		NATIONAL MINERAL INVENTOR'	Y: 093N7 Mo1
NAME(S):	SOONER			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N07W		MINING DIVISION	I: Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 19 12 N 124 54 18 W 1150 Metres Within 1 KM Approximately 4 kilometres southeast o Exploration and Mining in British Columb	f Ahdatay Lake (Geology, ia 1973).	NORTHING	6132054 6: 379120
COMMODITIES:	Molybdenum			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE Lower Jurassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: Lower Jurassic	<u>GROUP</u> Takla Lower Jurassic Fossil Ammonites	FORMATION Chuchi Lake	IGNEOUS/METAI	MORPHIC/OTHER
LITHOLOGY:	Alaskite Volcanic		J	·
HOSTROCK COMMENTS:	The fossil age date is from Fieldwork 1	991, page 109.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOGRAPHIC AREA: Manso	n Upland
CAPSULE GEOLOGY				
	The Sooner showing is a veinlets of alaskite cuttin and Mining in British Colum largely underlain by float from the nearby Late Triass Complex, Early Jurassic in Creek Intrusive Complex (in the Lower Jurassic Chuchi L Volcanics noted at the show The Sooner showing is the the nearby Aplite Creek pro	described as molyb g Takla volcanics bia 1973, page 367 of intrusive mater ic to Early Cretac this region, and t formal names). Ne ake Formation of t ing may be part of not well documente spect (093N 085).	Adenite in fractures and (Geology, Exploration ). The region is ial probably derived ecous Hogem Intrusive the Early Jurassic Aplit arby volcanics belong t the Takla Group. the same formation. and may be related to	e o
BIBLIOGRAPHY	EMPR ASS RPT 3962, 4431 EMPR GEM 1972-449, 1973-367 EMPR FIELDWORK 1990, pp. 89 EMPR OF 1991-3; 1992-4; 199 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A, 1 GSC OF 2842	-110; 1991, pp. 10 3-3 424A	3-118; *1992, pp. 87-10	7
DATE CODED: DATE REVISED:	1985/07/24 1993/03/11	CODED BY: GSB REVISED BY: KBE		FIELD CHECK: N FIELD CHECK: Y

MINFILE NUMBER:	<u>093N 170</u>		Ν	IATIONAL MINERAL INVE	NTORY: 093N15 Pb1
NAME(S):	<u>OSI</u>				
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N15W			MINING D	IVISION: Omineca M ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 59 43 N 124 46 20 W 1600 Metres Within 500M The occurrence is located Mountain, approximately 2 (Open File 1990-17).	d on the west-facing 3 kilometres north c	) slope of Razorback f Germansen Landing	NO E	RTHING: 6206971 ASTING: 389463
COMMODITIES:	Lead	Zinc			
MINERALS SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE:	Galena Sphalerite The lead from the galena i (Ferri and Melville, in prep Siderite Hematite Silica Siderite Silicific'n	n this area has a Ca aration). Quartz Hematite Oxidation	mbrian shale model a	ge	
MINERALIZATION AGE: ISOTOPIC AGE:	Cambrian	DATING METHOD:	Lead/Lead	MATERIAL DATE	D: Galena
DEPOSIT CHARACTER: CLASSIFICATION: SHAPE:	Disseminated Hydrothermal Irregular	Stockwork Epigenetic	Vein		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Silurian-Devonian	<u>GROUP</u> Echo Lake	<u>FOR</u> Und	MATION efined Formation	IGNEOUS	METAMORPHIC/OTHER
LITHOLOGY:	Dolomite Limestone Limestone Breccia				
GEOLOGICAL SETTING TECTONIC BELT:	Omineca		F	PHYSIOGRAPHIC AREA:	Omineca Mountains
METAMORPHIC TYPE:	Regional	RELAT	IONSHIP:	GRADE:	Greenschist
CAPSULE GEOLOGY	The Ori error		tod on the wort	own glong of Dogo	
BIBLIOGRAPHY	<pre>Mountain, approximately 23 kilometres north of Germansen Landing (Open File 1990-17). This occurrence has regional geology similar to that of the Biddy occurrence (refer to 093N 114 for the regional geology and a more detailed stratigraphic description of the Echo Lake Group). Disseminated galena and sphalerite occur within the Siluro-Devonian Echo Lake Group. The mineralization is found in stockworks that are iron-bearing (siderite, hematite). Galena also occurs within quartz veins that cut the Echo Lake carbonates. The carbonates in this area consist of white to grey, coarse dolomite, limestone and limestone breccia. The strata can be thin to thickly bedded or massive and may be partially silicified.</pre>				
	EMPR ASS RPT 4955, EMPR GEM 1973-380; GSC P 41-5; 42-2; GSC MEM 252 GSC MAP 876A; 1424	5454 1974-284 45-9; 75-33 A; 5249G			
DATE CODED: DATE REVISED:	1985/07/24 1992/07/06	CODE REVIS	D BY: GSB ED BY: DMM		FIELD CHECK: N FIELD CHECK: Y

MINFILE NUMBER:	093N 171 NATIONAL MINERAL INVENTORY: 093N13 Cu3		
NAME(S):	HAWK, HAW WEST, HAW EAST, HAW SOUTH, DEN		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP	093N13E		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 58 54 N 125 42 01 W 1833 Metres Within 500M Location is for sample 55003, about 29 kilon Hogem and 59 kilometres north-northeast o Report 21713, page 10).	metres northwest of Old f Takla Landing (Assessment	NORTHING: 6207331 EASTING: 331533
COMMODITIES:	Copper		
	Chalcopyrite Parnite Dyrite	Chalasaita Cald	
ASSOCIATED:	Quartz Pine Bonnie Pyne Quartz Biotito Biotito		
ALTERATION ALTERATION TYPE: MINERALIZATION AGE:	Oxidation Chloritic Jurassic	Epidote	Biotite
DEPOSIT CHARACTER	Disseminated Vein		
CLASSIFICATION: TYPE:	Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au	Porphyry I02	Intrusion-related Au pyrrhotite veins
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP FC Takla Ur	ORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic ISOTOPIC AGE:	192.3 + 21/-4.8 Ma		Hogem Intrusive Complex
DATING METHOD: MATERIAL DATED:	Uranium/Lead Zircon		
LITHOLOGY:	Leucocratic Granite Quartz Syenite Alaskite Pyroxenite Biotite Pyroxenite Syenitic Migmatite Leucocratic Syenite Gneiss		
HOSTROCK COMMENTS:	The rocks comprising this phase of the Hogem Intrusive Complex have been dated as Lower Jurassic.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:			
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY	YEAR: 1991	
COMMENTS: REFERENCE:	Sample (55003) was a chip across a 46-ce stained quartz vein. Assessment Report 21713, page 10.	ntimetre wide malachite-	
CAPSULE GEOLOGY			
	The Hawk occurrence is situated in the Swannell Ranges (Omineca Mountains), approximately 29 kilometres northwest of Old Hogem and 59 kilometres north-northeast of Takla Landing. The area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have been emplaced into volcanic rocks of the Middle Triassic to Lower Jurassic Takla Group, east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The structural setting of the		
batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70).

Garnett (1978) shows the area as being underlain by leucocratic granite, quartz syenite and alaskite, which together represent a Cretaceous phase of the Hogem Intrusive Complex. Recent reports also describe pyroxenite and biotite pyroxenite cumulate lenses and pendants within these rocks, as well as widespread chlorite, epidote and local biotite alteration (Assessment Report 21713, pages 8, 9).

The age of the leucotonalite host to the Hawk veins, and which cuts the Duckling Creek has been determined to be Lower Jurassic (192 Ma) and has a significant inherited component (678+253/-234 Ma) (personal communication J. Nelson, 2003, data from Friedman, 2003).

The age of the mineralization has lead isotope ratios most consistent with a middle Jurassic age (EM Fieldwork 2002, pages 97-113).

Veins are quartz rich and pyrite, chalcopyrite, galena and sphalerite bearing with occassional blebs of tungsten minerals. Occassional visible gold is noted. Anomalous Bi. Silver and Bi are present in anomalous quantities but no Bi mineral has yet been identified.

Early work defined three zones of veins, these have been extended and splays have been recognized. They may be reactivated secondary structures associated with the Pinchi Fault just to the west (EMPR Fieldwork 2002, pages 97-113). Old reports describe chalcopyrite, bornite and pyrite occurring

Old reports describe chalcopyrite, bornite and pyrite occurring as disseminated grains within several gneiss lenses enveloped by Duckling Creek Syenite Complex rocks. More recently, sulphide mineralization comprising chalcopyrite and pyrite occurring as disseminations and fracture-fillings, has been reported within foliated syenite migmatite and leucocratic syenite. Malachite staining and local chalcocite was also observed on fracture surfaces. One chip sample (55003) of a 46-centimetre wide quartz vein with malachite staining assayed 2.13 per cent copper, while a selective grab (55908) of vuggy quartz vein float hosting 1 to 2 per cent galena analysed 14.47 grams per tonne gold and 11 grams per tonne silver (Assessment report 21713, page 10).

#### BIBLIOGRAPHY

EMPR ASS RPT \*21713 EMPR BULL 70 EM FIELDWORK 2002, pp. 97-113 EMPR GEM 1971-203-210; 1973-369 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/20 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 172</u>				NATIONAL MINE	RAL INVENTORY	: 093N15 Zn2
NAME(S):	<u>SHEILA,</u> ECHO						
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N15E					MINING DIVISION UTM ZONE	: Omineca : 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 55 24 N 124 42 07 W 1075 Metres Within 500M The occurrence is located of the southeast end of Ec north of Germansen Landi	approximately ho Lake and is ng (Open File 1	350 metres s approximately 990-17).	outheast / 15 kilome	tres	NORTHING EASTING	: 6198855 : 393649
COMMODITIES:	Zinc	Lead					
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Galena Pyrite Barite Unknown						
DEPOSIT							
CHARACTER: CLASSIFICATION: SHAPE:	Disseminated Replacement Irregular	Vein Hydrothermal	В	reccia			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary						
STRATIGRAPHIC AGE Middle Devonian Devonian-Mississipp.	<u>GROUP</u> Otter Lakes Big Creek		FORMATION Undefined For Undefined For	rmation rmation		IGNEOUS/METAN	<u>IORPHIC/OTHER</u>
LITHOLOGY:	Dolomite Dolomitic Breccia Shale						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: INVENTORY	Omineca Cassiar Regional	RE	ELATIONSHIP:		PHYSIOGRAPHI	C AREA: Ominec GRADE: Greens	a Mountains schist
	SAMPLE		RF		N		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY	nalysis	GRADE	YEAR:	1973		
COMMENTS: REFERENCE:	Zinc A high-grade sample. Assessment Report 4899.		12.4500	Per cent			
ORE ZONE:	ROCK		RE	EPORT ON:	Ν		
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY	nalysis	GRADE	YEAR:	1974		
	Lead Zinc		0.4000 8.3500	Per cent Per cent			
REFERENCE:	Assessment Report 5453.						
CAPSULE GEOLOGY	The Sheila oc southeast of the s	currence is outheast en	s located	approxi Lake a	mately 350 m nd is approx	netres ximately 15	

southeast of the southeast end of Echo Lake and is approximately 1 kilometres north of Germansen Landing (Open File 1990-17). This occurrence has regional geology similar to that of the Biddy occurrence (093N 114).

occurrence (093N 114). Mineralization occurs within dolomites of the Middle Devonian Otter Lakes Group. This mineralization occurs just below the contact of the Otter Lakes Group with the Upper Devonian-Lower Mississippian Big Creek Group shales. Mineralization is primarily sphalerite with lesser barite and galena. Mineralization is found as: (i) very fine grained aggregates of sphalerite and pyrite up to 1 centimetre long within grey, fine-grained dolomite, (ii) sphalerite in a dolomite vein cutting (i) above and, (iii) coarse galena, sphalerite and

barite in-filling a dolomitic breccia. A high-grade sample from this occurrence analysed 12.45 per cent zinc (Assessment Report 4899) and another sample analysed 8.35 per cent zinc and 0.4 per cent lead (Assessment Report 5453).

#### BIBLIOGRAPHY

EMPR BULL \*91 EMPR EXPL \*1989, pp. 193-196 EMPR FIELDWORK 1988, pp. 209-220; \*1989, pp. 101-114 EMPR OF 1989-12; \*1990-17 EMPR ASS RPT \*4899, \*5453 EMPR 1973-380; 1974-285 GSC P 41-5; 42-2; 45-9; 75-33 GSC MEM 252 GSC MAP 876A; 1424A; 5249G

DATE CODED: 1985/07/24 DATE REVISED: 1992/07/07 CODED BY: GSB REVISED BY: DMM

MINFILE NUMBER:	<u>093N 173</u>		NATIONAL MINERAL INVENTORY:	: 093N6 Cu6
NAME(S):	TYGER			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION:	Omineca
BC MAP:	65 18 00 N			10 (NAD 63)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	125 08 06 W 1600 Metres Within 5 KM Location is for the now lapsed Tyger cla Nation, about 56 kilometres southeast o Exploration and Mining 1973 in British Co	aims, northwest of Mount f Takla Landing (Geology, blumbia page 366).	EASTING:	364459
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Chalcopyrite Chalcopyrite occurs as coatings on fra Unknown	ctures.		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Shear Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au			
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u> Mesozoic	GROUP	FORMATION	IGNEOUS/METAM Hogem Intrusive C	<u>ORPHIC/OTHER</u> Complex
LITHOLOGY:	Hornblendite Diorite Granodiorite Quartz Monzonite			
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Comple Early Cretaceous.	ex range from Late Triassion	c to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Omineca	a Mountains
CAPSULE GEOLOGY			nowth flowles of Mount	
	Nation, approximately 56 ki area was mapped and geochem out by Amoco Canada Petrole The Mount Nation area assigned to the Late Triass Complex which have intruded Middle Triassic-Lower Juras zone. The plutonic rocks f Chuchi Lake, north to the M The only reference to chalcopyrite occurring as c hornblendite and dioritic p have been intruded by grano Exploration and Mining in B This occurrence may be (093N 113), discovered in to 1971.	lometres southeast ical and geophysic um in 1973. is underlain by me ic to Early Cretac volcanic and sedi sic Takla Group ea orm an elongate ba esilinka River. the Tyger occurren patings on widely- hases of the Hogem diorite-quartz mon ritish Columbia 19 related to the Na he same general ar	of Takla Landing. The al surveys were carried sozonal plutonic rocks eous Hogem Intrusive mentary rocks of the st of the Pinchi fault tholith, extending from ce describes spaced fractures cutting Intrusive Complex which zonite bodies (Geology, 73, page 366). tion Mountain occurrence ea by Amoco Mining in	3 2 2
BIBLIOGRAPHY	EMPR GEM *1973-366			
	EMPR BULL 70 EMPR PF (Peto, P. (1971): R Mining (refer to 093N Ge GSC MEM 252 GSC MAP 844A; 907A; 971A; 1 GSC P 42-7; 45-6 GSC OF 3071 CIM Vol. 67, No. 749, pp. 1	eport on the Hogem neral File)) 424A 01-106	Project for Amoco	
DATE CODED: DATE REVISED:	1985/07/24 1992/11/09	CODED BY: GSB REVISED BY: DMN		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER: 093N 173

\_\_\_\_

NAME(S):       JIKGIL ERENT, WOLVERINE         REGORDS       Bittle/Columbia       UTM ZONE: 10 (MAD 30)         NUMBERGORDS       Distribution       UTM ZONE: 10 (MAD 30)         LOCATION:       124: 24: 54 N       NORTHINE; SITTISTS         LOCATION:       Tranches (Assessment Report 10729): Easily accessed by a foot trail       DESTING: 411103         LOCATION:       Tranches (Assessment Report 10729): Easily accessed by a foot trail       Desting 31 the south and of Wolverine Lakes, approximately 7:         NINERALZ:       Northing 31 the south and of Wolverine Lakes, approximately 7:       Itanium       Lanthanum         MINERALZ:       Commentary Bitte South Bitte Biofite       Feldspar       Apatte         MINERALZ:       Commentary Bitte South Bitte Biofite       Feldspar       Apatte         MINERALZ:       Commentary Bitte South Bitte Biofite       Feldspar       Apatte         MINERALZ:       Souther Mannow       Concordant       Itanium       Itanium         MINERALZ:       Souther Mannow       Concordant       Itanium       Itanium         DONENSION:       Trade (C	MINFILE NUMBER:	<u>093N 174</u>	NAT	IONAL MINERAL INVENTORY: 093N9 Cb2	
STATUS     Prospect     MINING DIVISION: Cominacia       NTR MAP     063N399W     UTM 20NE: 10 (MAD 83)       NORTHING:     124: 24: 24: 14 W     NORTHING: 137575       LOCATION:     130: 00 Metres     SATURC: 6175175       LOCATION:     130: 00 Metres     NORTHING: 137575       LOCATION:     130: 00 Metres     NORTHING: 137575       LOCATION:     130: 00 Metres     Terroritoric (SATURC: 6175175       MINERALS     Kinometres north-northeast of Manson Creek.     Terroritoric (SATURC: 6175175       MINERALS     Dodom     Bodite     Feldspar     Apatite       MINERALS     Common     Prochore     Zircon     Apatite       MINERALS     Common     Concordant     Metres       SUPERATION TYPE     Controlition is metasomatic (carbonatite).     STRIKE/DP: 14070W     TRENDPLUNCE:       DEPOSIT     Controlition is metasomatic (carbonatite).     Undefined Formation     Unnamed/Unknown Information       DOMINIANT HOSTROCK     Metres     Controlition is metasomatic (carbonatite).     Unnamed/Unknown Information       DEPOSIT     Controlition Social casification is metasomatic (carbonatite).     Unnamed/Unknown Information     Unnamed/Unknown Information       Diversition Social casification is metasomatic (carbonatite).     STRIKE/DP: 14070W     TRENDPLUNCE:       EPORTOCK     Controlition Soci	NAME(S):	VIRGIL, BRENT, WOLVERINE			
HECKINS British Coumbia HECKINS British Coumbia LATTUDE 55 42 51 N LOKATION E 124 24 54 W LOKATION E 124 24 54 W LOCATION E EXVITO: 1420 54 44 W LOCATION E EXVITO: 1420 54 54 W LOCATION E Combine (Assessment Report 10729). Easily accessed by a foot trail beginning at the south and of Wolverine Lakes, approximately 7 Kilometics north-northeast of Manano Creek. COMMODITES Nobult MINERALS SSCORTE: Columbia Brite Prochiore Zircon ALTERATOR VICE Unknown DEPOSIT CLASSITICATION AGE: Unknown DEPOSIT CLASSITICATION HORE Unknown DEPOSIT CLASSITICATION HORE Unknown DEPOSIT CLASSITICATION HORE I Concordant INVERTION AGE: Unknown DEPOSIT CLASSITICATION HORE Concordant INVERTION AGE: Unknown DEPOSIT STRIKEDIP: 140/70W TRENDPLUNGE: COMMONT DEPOSIT STRIKEDIP: 140/70W TRENDPLUNGE: DOMINANT HOSTROCK Metasedimentary STRIKEDARHIC AGE PROUP STRIKEDARHIC AGE MATERIAL DATE: Zircon LITHOLOGY: Carbonatite Symmia Soft Carbonatite Strating Soft Car	STATUS:	Prospect		MINING DIVISION: Omineca	
LOCATION ACCURACY, Within SOM     LOCATION ACCURACY, Within SOM     COMMONT E: 124,24 54 W     LOCATION ACCURACY, Within SOM     COMMENTS Trenches (Assessment Report 10729). Easily accessed by a foot trail     beginning at the sould end of Molenne Lakes, approximately 7     Miometres north-northeast of Maneon Creek.     Minereal.2015     COMMONTE: Noblem     Zirconium     Rare Earths     Trainum     Uranium     Lanthanum     MINERALE     COMMONTE: Noblem     Zirconium	REGIONS: NTS MAP:	British Columbia 093N09W		UTM ZONE: 10 (NAD 83)	
COMMODITIES       Neckum       Zincontum       Titanium       Uranium       Lanthanum         MINERALS       SIGNIFICANT:       Columbite       Pyrochlore       Zincon       Apatite         ALTERATION TYPE       Fendice       Pyrochlore       Peldspar       Apatite       Perdetspar       Apatite         MINERALATERATION TYPE       Fendice       Pyrochlore       Peldspar       Apatite       Peldspar       Apatite         DEPOSIT       CLASSIFICATION       Mennown       Concordant       Industrial Min.       Notastial Min.       Signification       Metressite       Signification       Metressite       Signification       Metressite       Signification       Metressite       Signification       Metressite       Signification       Metressite	LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 51 N 124 24 54 W 1400 Metres Within 500M Trenches (Assessment Report 10729) beginning at the south end of Wolverin kilometres north-northeast of Manson (	. Easily accessed by a foot trai e Lakes, approximately 7 Creek.	NORTHING: 6175175 EASTING: 411103	
MIRERALS ASSOCIATE SATERATION TYPE: Fondia MINERALIZATION AGE       Pyrochlore Edibite       Ziroon Apatite         DEFOSIT CLASSIFICATOR WEIGHT MINERALIZATION AGE       Podiform Monand Manadia Data SHAPE Tabular       Concordant Industrial Min. Classification is metasomatic (carbonatite).       STRIKEDIP: 140/70W       TRENDPLUNGE:         HOGT ROCK DOMMENTS       Defosit Metasedimentary       STRIKEDIP: 140/70W       TRENDPLUNGE:         HOGT ROCK DOMMENTS       Metasedimentary       STRIKEDIP: 140/70W       TRENDPLUNGE:         HOGT ROCK DOMMENTS       Metasedimentary       Undefined Formation       Unnamed/Unknown Informal         ISTOTOPIC AGE Synthe records       GOOLD Synthe Synthe Control       COLP Innamed/Unknown Informal       Unnamed/Unknown Informal         LITHOLOGY Carbonatite Biotice Sonite Control       Control       Carbonatite Biotice Sonite Carbonatite emplaced within rocks of the Ingenika Group. Dates from TECTOR SUBJOR       RELATIONSHIP: Post-mineralization       GRADE: Amphibolite         METANORPHICY PERSIST       Carbonatite emplaced within rocks of the Ingenika Group. Dates from TERRANE Carbonatite Biotice Sonite Carbonatite Sonite Carbonatite Romania Control       RELATIONSHIP: Post-mineralization       GRADE: Amphibolite         NEXTROPY       Cassaria Control       Control       RELATIONSHIP: Post-mineralization       GRADE: Amphibolite         NEWENTORY       CATEGORY: Assay/analysis COMMENT       Cassay/analysis COMMENT       YEAR: 1982<	COMMODITIES:	Niobium Zirconium Neodymium Rare Earths	Titanium	Uranium Lanthanu	ım
SIGNIFICANT: Columbite Protoching Zircon ALTERATION TYPE Rotic MINERALIZATION AGE UNKnown DEPOSIT CLARACTER: Podiform Concordant Industrial Min. TYPE, NOT Carbonatite-hosted deposits SHAPE: Tabular DIMENSION 120 x 40 Metres SHAPE: Tabular DIMENSION 120 x 410 Metres SHAPE: Tabular DIMENSION 140 X TEADGRAPHIC AGE Synnife Carbonatite Synnife Carbonatite Synnife Carbonatite Synnife Carbonatite Synnife Carbonatite Sencific Schist Garnet Biotte Muscovite Schist HOSTROCK COMMENTS: Carbonatite emplaced within rocks of the Ingenika Group. Dates from R. Parish (Open File 1987-17). GEOLOGICAL SETTING METAMORPHIC TYPE: Regional RELATIONSHIP: Post-mineralization GRADE: Amphibolite NVENTORY ORE ZONE SAMPLE REPORT ON: N CATEGORY: Assay/analysis VEAR: 1982 CATEGORY: Assay/analysis VEAR: 1982 CATEGORY: Assay/analysis VEAR: 1982 CATEGORY: Assay/analysis VEAR: 1982 CATEGORY: Assay are 0.19 per cent DIMOP Per cent Continue. 0.1800 Per cent Content. 0.1800 Per ce	MINERALS				
DEPOSIT       CHARACTER: Podiform Concordant Industrial Min. CLASSIFICATION: Magmatic Industrial Min. TYPE: Not Carbonattie-hosted deposits SHAPE: Tabular       Industrial Min. Industrial Min. SHAPE: Tabular         HOST ROCK DOMINSING: 120 x 40 Metres SHAPE: Tabular       STRIKEDIP: 140/70W       TRENDPLUNCE:         HOST ROCK DOMINSING: 120 x 40 Metres SHAPE: Tabular       EORMATION       GREOUSMETAMORPHICOTHER         DOMINSING: 120 x 40 Metres DOMINSING: 120 x 40 Metres DOMINSING: 120 x 40 Metres COMMENTS: Deposit classification is metasomatic (carbonatite).       GREOUSMETAMORPHICOTHER         STRATIGRAPHIC AGE Proterozoic Dovinian-Mississipp SOTOPIC AGE 30 Ma, 370 Ma DATING RETHOL Uranium/Lead MATERIAL DATED: Zircon       Concordant Ingenika       Unnamed/Unknown Informal         LITHOLOGY: Carbonatite Bointe Sovite Fenile Quartz Homblende Gneiss Quartz Homblende Gneiss Quartz Homblende Gneiss Quartz Homblende Gneiss Quart Homblende Gneiss Quartz Homblende Gneiss Quartz Homblende Gneiss Quartz Homblende Gneiss Quartz Homblende Gneiss Quartz Homblende Gneiss Quartz Homblende Gneiss Quart Homblende Gneiss Quart Homblende Gneiss Quartz Homblende Gneiss Quart Homblende Gneiss Qua	SIGNIFICANT: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Columbite Pyrochlore Zircc Calcite Biotite Feldspar Fenitic Unknown	n Apatite		
HOST ROCK DOMINANT HOSTROCK: Metasedimentary         STRATIGRAPHIC AGE Proterozio: Botorian-Mississipp Devonian-Mississipp SOTOPC AGE Data DATING METHOD: Uranium/Lead MATERAL DATED: Zircon       GNE/UP Ingenika       IGNE/US/METAMORPHIC/OTHER Unnamed/Unknown Informal         LITHOLOGY: Syenite Synite Sympthe Sovite Ferite Outarz Homblende Gneiss Quarzz Garaet Biotite Muscovite Schist Garaet Biotite Muscovite Schist METAMORPHIC AREA: Manson Upland TERRAPIC Gasiar Commod Commo	DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: DIMENSION: COMMENTS:	PodiformConcordantMagmaticIndustrial MiN01Carbonatite-hosted depositsTabular120x120x40Deposit classification is metasomatic (metasomatic for the second sec	n. STRIKE/DIP: 1 carbonatite).	40/70W TREND/PLUNGE:	
STRATIGRAPHIC AGE Proterozoic       GROUP Ingenika       FORMATION Undefined Formation       IGNEOUSMETAMORPHICOTHER         Undefined Formation       Unnamed/Unknown Informal       Unnamed/Unknown Informal       Unnamed/Unknown Informal         DATING METHOD:       Uranium/Lead       WatterName       Unnamed/Unknown Informal       Unnamed/Unknown Informal         LITHOLOGY:       Carbonatite Syenite Syenite Ouartz Homblende Gneiss Quartztie Brotite Sovite Fenite Quartz Homblende Gneiss Quartz Homblende Gneiss GRADE       PHYSIOGRAPHIC AREA: Manson Upland GRADE         METAMORPHIC TYPE       ORE ZONE       SAMPLE       REPORT ON: N       CATEGORY: Assay/analysis SAMPLE TYPE: Chip QUAMMODITY	HOST ROCK DOMINANT HOSTROCK	: Metasedimentary			
Proteinode Angenitation Unnamed/Unknown Informal Devonian-Mississipp So Ma, 370 Ma DATING METHOD Iranium/Lead MATERIAL DATED: Zircon LITHOLOGY: Carbonatite Syenitic Carbonatite Biotite Sovite Carbonatite Sovite Fenite Quartz Homblende Gneiss Quartzite Sericitic Schist Garnet Biotite Muscovite Schist HOSTROCK COMMENTS: Carbonatite emplaced within rocks of the Ingenika Group. Dates from R. Parrish (Open File 1987-17). GEOLOGICAL SETTING TERRANE: Cassiar METAMORPHIC TYPE: Regional RELATIONSHIP: Post-mineralization GRADE: Amphibolite INVENTORY ORE ZONE: SAMPLE CATEGORY: Assay/analysis SMPLE TYPE: Chip COMMODITY COMMODITY A 120-metre sample. Assays are 0.19 per cent COMMENTS: A 120-metre sample. Assays are 0.19 per cent Nb2O5 and 0.18 per cent Zirconium.	STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	<u>}</u>
LITHOLOGY: Carbonatite Syenite Syenite Sovite Aegirine Sovite Fenite Quarz Homblende Gneiss Quarz Homblende Gneiss Guarztie Sericitic Schist Garnet Biotite Muscovite Schist Carbonatite emplaced within rocks of the Ingenika Group. Dates from R. Parrish (Open File 1987-17). GEOLOGICAL SETTING TECTONIC BELT: Omineca TECTONIC BELT: Omineca TECTO	Devonian-Mississipp. ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	350 Ma, 370 Ma Uranium/Lead Zircon		Unnamed/Unknown Informal	
HOSTROCK COMMENTS:       Carbonatite emplaced within rocks of the Ingenika Group. Dates from         GEOLOGICAL SETTING TECTONIC BEI METAMORPHIC TYPE:       Omineca       PHYSIOGRAPHIC AREA: Manson Upland         TERRANE: Cassiar       Cassiar       PHYSIOGRAPHIC AREA: Manson Upland         METAMORPHIC TYPE:       Regional       RELATIONSHIP: Post-mineralization       GRADE: Amphibolite         INVENTORY       ORE ZONE:       SAMPLE       REPORT ON: N         CATEGORY:       Assay/analysis       YEAR: 1982         SAMPLE TYPE:       Chip COMMODITY       GRADE 0.1900       Per cent 0.1800         Niobium       0.1800       Per cent 0.1900       OF cent 0.1800         COMMENTS:       A 120-metre sample. Assays are 0.19 per cent Nb2O5 and 0.18 per cent	LITHOLOGY:	Carbonatite Syenite Syenitic Carbonatite Biotite Sovite Aegirine Sovite Fenite Quartz Hornblende Gneiss Quartzite Sericitic Schist Garnet Biotite Muscovite Schist			
GEOLOGICAL SETTING TECTONIC BELT: METAMORPHIC TYPE:       Omineca Cassiar Regional       PHYSIOGRAPHIC AREA:       Manson Upland         METAMORPHIC TYPE:       Regional       RELATIONSHIP:       Post-mineralization       GRADE:       Amphibolite         INVENTORY       ORE ZONE:       SAMPLE       REPORT ON: N       N         CATEGORY:       Assay/analysis SAMPLE TYPE:       YEAR:       1982         COMMODITY       0.1900       Per cent 2irconium       0.1800       Per cent 0.1800       Per cent         COMMENTS:       A 120-metre sample.       Assays are 0.19 per cent Nb2O5 and 0.18 per cent       0.18 per cent	HOSTROCK COMMENTS:	Carbonatite emplaced within rocks of R. Parrish (Open File 1987-17).	the Ingenika Group. Dates from	1	
Inconsidered and the provided bell is of minecal terms of the provided terms of the provided bell is of the provided terms of terms	GEOLOGICAL SETTING	Ominana			
INVENTORY       ORE ZONE     SAMPLE     REPORT ON: N       CATEGORY:     Assay/analysis     YEAR: 1982       SAMPLE TYPE:     Chip     GRADE       COMMODITY     0.1900     Per cent       Niobium     0.1900     Per cent       Zirconium     0.1800     Per cent       COMMENTS:     A 120-metre sample. Assays are 0.19 per cent Nb2O5 and 0.18 per cent	TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Omineca Cassiar Regional	RELATIONSHIP: Post-mineraliza	SIOGRAPHIC AREA: Manson Upland ation GRADE: Amphibolite	
ORE ZONE:     SAMPLE     REPORT ON: N       CATEGORY:     Assay/analysis     YEAR: 1982       SAMPLE TYPE:     Chip       COMMODITY     GRADE       Niobium     0.1900       Zirconium     0.1800       COMMENTS:     A 120-metre sample. Assays are 0.19 per cent Nb2O5 and 0.18 per cent zirconium.	INVENTORY				
CATEGORY: Assay/analysis YEAR: 1982 SAMPLE TYPE: Chip <u>COMMODITY</u> Niobium Zirconium COMMENTS: A 120-metre sample. Assays are 0.19 per cent Nb2O5 and 0.18 per cent zirconium.	ORE ZONE:	SAMPLE	REPORT ON: N		
zirconium.		CATEGORY: Assay/analysis SAMPLE TYPE: Chip <u>COMMODITY</u> Niobium	YEAR: 198 GRADE 0.1900 Per cent	2	
REFERENCE: Assessment Report 10729.		Zirconium	0.1800 Per cent	ent	
CAPSULE GEOLOGY	COMMENTS: REFERENCE	Zirconium A 120-metre sample. Assays are 0.19 zirconium. Assessment Report 10729.	per cent Nb2O5 and 0.18 per c	ent	

The Virgil occurrence is located approximately 7 kilometres north-northeast of Manson Creek and can be accessed by a foot trail from the southern end of the Wolverine Lakes. This carbonatite

PAGE: 1158 REPORT: RGEN0100

### CAPSULE GEOLOGY

complex is probably related to the Lonnie complex (093N 012) found 3 kilometres to the southeast along strike, and is most likely of the same age (Upper Devonian to Lower Mississippian).

A syenite-carbonatite complex of Upper Devonian to Lower Mississippian age occurs in metasediments of the Proterozoic Ingenika Group. The metasediments consist of quartz hornblende gneiss, quartzite, sericitic schist, feldspathic wacke and garnet-biotite-muscovite schist. These rocks are metamorphosed to amphibolite grade and impose a penetrative fabric on the complex, concordant with that of the country rocks. The carbonatite appears fault bounded and may be within a mylonitized zone relating to regional tectonism. The country rocks are variable fenitized for tens of metres around the complex. Rocks of the Pennsylvanian to Permian Nina Creek Group lie to the west. The carbonatite consists of syenite and biotite sovite, which is

The carbonatite consists of syenite and biotite sovite, which is composed of calcite, biotite, and minor feldspar, apatite, zircon, columbite and pyrochlore. The zone which strikes 135 degrees and dips 50 degrees, is 120 metres long and up to 40 metres wide. Sampling along the length assayed 0.19 per cent Nb205 and 0.18 per cent zirconium (Assessment Report 10729). A sample assayed 0.007 per cent uranium and another (chips along 56 metres) assayed 0.15 per cent TiO2, 0.05 per cent lanthanum and 0.03 per cent neodymium (Geology, Exploration and Mining in British Columbia 1974).

#### BIBLIOGRAPHY

EMPR ASS RPT \*10729 EMPR GEM 1973-368; \*1974-278-279 EMPR EXPL 1979-237; 1982-321 EMPR MAP 22; 56 EMPR OF \*1987-17, pp. 37-41; 1988-12; 1990-32 EMPR FIELDWORK 1974, p. 86; 1987, pp. 169-180 EMPR BULL \*91 GSC EC GEOL 16 (Rev.), p. 233; 18, pp. 29,31; 29, pp. 71,134 GSC BULL 239, pp. 119-121 GSC MAP 876A; 907A; 971A; 1424A: 5249G GSC P 41-5; 42-2; 45-9; 75-33 GSC OF 551 GSC ECON GEOL 18, p. 29 GCNL #131, 1982 Chevron File

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/24 CODED BY: GSB REVISED BY: FF

MINFILE NUMBER:	<u>093N 175</u>	NATIONAL MINERAL INVENTORY: 093N11 U1
NAME(S):	SMOKE URANIUM	
STATUS:	Showing	MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093N11W	UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 07 N 125 19 23 W 1455 Metres Within 500M Location is the summit of a prominent knoll north of the confli of Kwanika and West Kwanika creeks, where uranium miner been reported, about 42 kilometres east-northeast of Takla L (Assessment Report 5372, Figure 6).	NORTHING: 6162373 EASTING: 353583 uence ralization has .anding
COMMODITIES:	Uranium	
SIGNIFICANT: COMMENTS: ASSOCIATED: MINERALIZATION AGE:	Unknown Uranium mineralization(?). Quartz Unknown	
DEPOSIT		
CHARACTER: CLASSIFICATION:	Vein Shear Epigenetic Hydrothermal	
HOST ROCK DOMINANT HOSTROCK:	Plutonic	
<u>STRATIGRAPHIC AGE</u> Mesozoic	GROUP FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Alaskite Granite Monzonite Gabbro	
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Complex range in age from I to Early Cretaceous.	Late Triassic
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel Plutonic Rocks	PHYSIOGRAPHIC AREA: Omineca Mountains
INVENTORY		
ORE ZONE:	SAMPLE REPORT	TON: N
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis YI SAMPLE TYPE: Grab <u>COMMODITY</u> <u>GRADE</u> Uranium Sample of uranium mineralization in quartz veins hosted by a Assessment Report 5495, page 3.	EAR: 1969 r cent alaskite.
CAPSULE GEOLOGY		
	The Smoke Uranium occurrence is situate the Swannell Ranges (Omineca Mountains), a east-northeast of Takla Landing. It was of Anglo-Bomarc Mines Ltd., who thought it he potential. The area is underlain by granite, more of the Late Triassic to Early Cretaceous F which have been emplaced into volcanic root to Lower Jurassic Takla Group east of the plutonic rocks form an elongate batholith, Lake, north to the Mesilinka River. A plug of alaskite, approximately 300 intrudes granite on a prominent knoll, east Takla mercury mine (093N 008). Uranium mi locally in narrow quartz veinlets and stri fractures cutting the alaskite. Two samples of this mineralization ast cent U308 (0.06 and 0.12 per cent uranium) samples of the alaskite itself ranged from U308 (Assessment Report 5372, page 3). Not	ated at the southern end of approximately 42 kilometres discovered in 1974 by eld little economic nzonite and gabbroic phases Hogem Intrusive Complex, cks of the Middle Triassic Pinchi fault zone. The , extending from Chuchi 0 metres in diameter, st-northeast of the Bralorne ineralization(?) occurs ingers in widely-spaced ssayed 0.07 and 0.14 per ) respectively, while m 0.003 to 0.012 per cent o recent information

concerning this occurrence is available.

#### BIBLIOGRAPHY

EMPR ASS RPT \*5372, 5495 EMPR GEM 1974-280; 1977-E202 EMPR OF \*1990-32, p. 40; 1993-4 EMPR MAP 22, #57 EMPR BULL 70 EMPR FF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR FIELDWORK 1992, pp. 87-107 EMR MP CORPFILE (Anglo Bomarc Mines Ltd.) GSC OF 551 GSC MEM 252 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 Saunders, C.R. (1974): Report on the Smoke Property for Dolmage Campbell and Associates Ltd. CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1992/11/02 CODED BY: GSB REVISED BY: LDJ

MINFILE NUMBER:	<u>093N 176</u>	NATIONAL MINE	ERAL INVENTORY: 093N13 Cu4			
NAME(S):	FLAME					
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N13E 094C04E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)			
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 59 57 N 125 35 52 W 1275 Metres Within 1 KM Location is the common corner of flowing tributary to Haha Creek, a of Old Hogem and 63 kilometres i (Assessment Report 5252, Figure	f the Flame 5-8 claims, on a southeast about 27 kilometres north-northwest north-northeast of Takla Landing e 3).	NORTHING: 6209032 EASTING: 338000			
COMMODITIES:	Copper Molybo	denum				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Bornite I Unknown	Molybdenite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Hydrothermal Epiger L03 Alkalic porphyry Cu-Au	netic				
HOST ROCK DOMINANT HOSTROCK:	Plutonic					
<u>STRATIGRAPHIC AGE</u> Middle Jurassic Mesozoic	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Duckling Creek Syenite Complex Hogem Intrusive Complex			
LITHOLOGY:	Foliated Migmatitic Syenite					
HOSTROCK COMMENTS:	The Duckling Creek Syenite Cor to Early Cretaceous Hogem Intru	nplex is one phase of the Late Triassic usive Complex.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAPH	IC AREA: Omineca Mountains			
CAPSULE GEOLOGY						
	The Flame occurrence is situated in the Swannell Ranges (Omineca Mountains), approximately 27 kilometres north-northwest of Old Hogem and 63 kilometres north-northeast of Takla Landing. The area is underlain by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex which have been emplaced into volcanic rocks of the Middle Triassic-Lower Jurassic Takla Group, east of the Pinchi fault zone. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70). Garnett (1978) shows the area as being entirely underlain by foliated migmatitic syenite of the Duckling Creek Syenite Complex, a Middle Jurassic phase of the Hogem Intrusive Complex. Reports detailing work carried out in 1974 describe local chalcopyrite, bornite and molybdenite mineralization erratically distributed in outcrop throughout the area. No recent information concerning this occurrence is available.					
BIBLIOGRAPHY	EM GEORITE 2002-6					
	EMPR ASS RPT 5251, *525 EMPR BULL 70 EMPR GEM 1971-203-210; EMPR GEM 1971-203-210; EMPR PF (Peto, P. (1971 Mining (refer to 093 EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971 GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, p Harivel, C. (1972): Unp Creek area of the HC	1974-283 ): Report on the Hogem Project for SN General File)) A; 1424A pp. 101-106 published B.Sc. Thesis on the Duck ogem Batholith, University of Brit	r Amoco ling ish			

# BIBLIOGRAPHY

Columbia

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/20 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 177</u>		NATIONAL MINERAL INVENTORY	(: 093N14 Cu18
NAME(S):	JO ANN			
STATUS:	Showing British Columbia		MINING DIVISION	l: Omineca
REGIONS. NTS MAP: BC MAP	093N14W		UTM ZONE	:: 10 (NAD 83)
LOCATION ACCURACY: LOCATION ACCURACY: COMMENTS:	55 56 21 N 125 28 39 W 1450 Metres Within 500M Location is diamond-drill hole JA- Hogem and 59 kilometres norther 5993, Figure 2).	1, about 19 kilometres north of O ast of Takla Landing (Assessmen	NORTHING EASTING 11d 11 Report	3: 6202081 3: 345259
COMMODITIES:	Copper Lead			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Galena Quartz K-Feldspar Potassic Unknown	Bornite		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Disser Hydrothermal Epiger L03 Alkalic porphyry Cu-Au	ninated netic		
HOST ROCK DOMINANT HOSTROCK	: Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAN	/IORPHIC/OTHER
Middle Jurassic Mesozoic			Duckling Creek S Hoaem Intrusive	Syenite Complex
LITHOLOGY:	Syenite Diorite Foliated Migmatitic Syenite			
HOSTROCK COMMENTS:	The Duckling Creek Syenite Cor to Early Cretaceous Hogem Intro	mplex is one phase of the Late Tri usive Complex.	iassic	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Ominec	ca Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY Copper Grade is across 46.9 metres. Assessment Report 5993, page 2	YEAR: <u>GRADE</u> 0.0600 Per cent	1973 t	
	, lococomon report coco, pago (			
	The Jo Ann occurre (Omineca Mountains), ag and 59 kilometres north The area is under! the Late Triassic to Ea have been emplaced into Lower Jurassic Takla Gr plutonic rocks form an Lake, north to the Mesi batholith and the intru associated with graben Garnett (1978) mag migmatitic syenite of the Jurassic phase of the	ence is situated in the pproximately 19 kilomet heast of Takla Landing. Lain by mesozonal pluto arly Cretaceous Hogem I to volcanic rocks of the coup, east of the Pinch elongate batholith, ex linka River. The stru ided Takla Group is one development (Bulletin oped the area as being the Duckling Creek Syen logem Intrusive Complex	Swannell Ranges res north of Old Hogem nic rocks assigned to ntrusive Complex which Middle Triassic to i fault zone. The tending from Chuchi ctural setting of the of vertical tectonics 70). underlain by foliated the Complex, a Middle the only outcrop	

Jurassic phase of the Hogem Intrusive Complex. The only outcrop described by previous workers occurs on a small ridge northwest of the Lorraine occurrence (093N 002). Here, quartz deficient, intrusive rocks ranging in composition from syenite to diorite are locally potassium feldspar altered. Numerous quartz veins, some hosting chalcopyrite and galena

mineralization, are reported to cut the rusty, altered intrusions
(Assessment Report 5649, page 3). Two short diamond-drill holes
collared to the west-northwest also intersected altered diorite
carrying disseminated bornite in 1973. Grades of 0.02 per cent
copper over 61.6 metres and 0.06 per cent copper over 46.9 metres
were reported (Assessment Report 5993, page 3).
No recent information concerning this occurrence is available.

### BIBLIOGRAPHY

EM GEOFILE 2003-6 EMPR AR 1949-A98-A102 EMPR ASS RPT 4273, 4676, \*5649, 5804, 5993 EMPR BULL 70 EMPR GEM 1971-203-210; 1973-378, 1974-283, 1975-E152, 1976-E158 EMPR GEM 1971-203-210; 1973-378, 1974-283, 1975-E152, 1976-E158 EMPR GPT (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File)) EMPR (PRELIM) MAP 9 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 98-103 GSC P 42-7; 45-6 CIM Vol. 67, No. 749, pp. 101-106 Chevron File Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/20 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 178</u>		NATIONAL MINER	AL INVENTORY:	093N14 Cu11
NAME(S):	<b>ST 12</b> , ST 11, DC, ME, BILL, BIG, BX 1, JAJAY				
STATUS:	Showing		Μ	INING DIVISION:	Omineca
NTS MAP:	093N14E 093N14W			UTM ZONE:	10 (NAD 83)
LATITUDE:	55 50 10 N			NORTHING:	6190122
LONGITODE: ELEVATION: LOCATION ACCURACY: COMMENTS:	1175 Metres Within 500M Location is near trenches on the BX east-northeast of Old Hogem and 3 Germansen Landing (Assessment	4 1 claim, about 15 kilometres 35 kilometres west-northwest of Report 21428, Figure 7A).	of	EASTING.	339301
COMMODITIES:	Copper				
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Epidote Epidote Propylitic Unknown				
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE:	Vein Dissemi Hydrothermal Epigene L03 Alkalic porphyry Cu-Au	nated tic			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Takla	FORMATION Plughat Mountain	<u>IC</u>	SNEOUS/METAMO	DRPHIC/OTHER
Mesozoic			Н	ogem Intrusive C	omplex
LITHOLOGY:	Pyroxene Porphyritic Basalt Monzonite Monzodiorite Syenite				
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic Rocks	PHYSIOGRAPHIC	AREA: Omineca	Mountains
CAPSULE GEOLOGY				<i>(</i> <b>- - -</b>	
	The ST 12 occurrenc Mountains), approximatel	e is situated in the y 15 kilometres east- orthwost of Cormongor	Swannell Rang northeast of	es (Omineca Old Hogem	
	The area is underla	in by Upper Triassic	Plughat Forma	tion (Takla	
	plutonic rocks assigned	to the Late Triassic	to Early Cret	aceous	
	from Chuchi Lake north t	o the Mesilinka River	A small sy	enite	
	The ST 12 showing i associated with epidote	s described as pyrite stringers in strongly	e and minor ch	alcopyrite roxene	
	porphyritic basalt. Min The Hogem Intrusive	or sulphides also occ Complex intrudes the	cur as dissemi Takla volcan	nations. ics 3	
	kilometres northwest of mainly of monzonite, mon	the showing. In this zodiorite and syenite	s area it is c e and is proba	omposed bly	
	Jurassic in age. A smal kilometres south of the Hogem complex.	ler syenite-dominated showing and is likely	l body occurs / a satellite	1.5 of the main	
BIBLIOGRAPHY	EMDD OF 1002 5				
	EMPR FIELDWORK 1992, pp.	87-107			
	EMPR GEM 1971-203-210,21	3; 1974-284; 1975-E15	52-153		
	EMPR PF (Peto, P. (1971) Mining (refer to 093N EMPR (PRELIM) MAP 9	: Report on the Hogem General File))	n Project for	Amoco	

### BIBLIOGRAPHY

GSC MEM 252, pp. 98-103
GSC MAP 844A; 907A; 971A; 1424A
GSC P 42-7; 45-6
Chisholm, E.O. (1970): Qualifying Report on the ST claims for Fortune Channel Mines Ltd.
Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia
CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 1985/07/24 DATE REVISED: 1993/02/26 CODED BY: GSB REVISED BY: KBE

MINFILE NUMBER:	<u>093N 179</u>		NATIONA	L MINERAL INVENTORY:		
NAME(S):	<b>EUREKA</b> , CRYSTAL, RUTH TL, BODINE, SITLIKA	Н,				
STATUS:	Showing			MINING DIVISION: Omineca		
REGIONS: NTS MAP: BC MAD:	093N12W			UTM ZONE: 10 (NAD 83)		
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 36 44 N 125 47 54 W 1500 Metres Within 500M Location is the showing e occupied by a creek drain about 18 kilometres northe 8485, Figure 4).	xposed along a north-faci ing the northeast slopes o east of Takla Landing (Ass	ng wall of a ravine f Mount Bodine, essment Report	NORTHING: 6166475 EASTING: 323756		
COMMODITIES:	Copper	Gold	Silver	Zinc		
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Pyrite Silica Silicific'n Unknown					
DEPOSIT	De eliferne	Discoursing to d	0.			
CHARACTER: CLASSIFICATION:	Podiform Volcanogenic	Disseminated Hydrothermal	Snear			
HOST ROCK DOMINANT HOSTROCK:	Volcanic					
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic	GROUP	FORMATIC	N	IGNEOUS/METAMORPHIC/OTHER		
LITHOLOGY:	Rhyolite Dacite Rhyolitic Dacitic Flow Breccia Tuff Graphitic Argillite Chert Chloritic Volcaniclastic					
HOSTROCK COMMENTS:	The Sitlika Assemblage I and has been correlated	has been dated as Upper <sup>-</sup> with the Takla and Asitka	Friassic to/or Jurassic groups.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Stikine		PHYSIOC	GRAPHIC AREA: Omineca Mountains		
INVENTORY						
ORE ZONE:	SAMPLE		REPORT ON: N			
COMMENTS:	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Silver Gold Copper Zinc Sample is from the Eureka	nalysis <u>GRADE</u> 77.1400 1.9900 4.3400 0.0500 a showing taken prior to 19	YEAR: 1981 Grams per tonne Grams per tonne Per cent Per cent 81.			
REFERENCE:	Assessment Report 9547,	, page 5.				
CAPSULE GEOLOGY	The Eureka occurrence is situated 2 kilometres northeast of Mount Bodine in the Hogem Ranges, approximately 18 kilometres northeast of Takla Landing. The area is underlain by felsic volcanic and sedimentary members of the Upper Triassic to/or Jurassic Sitlika Assemblage. To the west, volcanic members include rhyolitic and dacitic flows, breccia and tuff, while weakly graphitic argillite dominates to the east. These rocks generally strike between 150 to 160 degrees, with relatively shallow westerly dips. Two mineralized showings have been located to date. The Eureka, the easterly of the two, consists of siliceous boudins, measuring 70 by 30 centimetres, hosting disseminated chalcopyrite and pyrite. The					

boudins are enclosed in a gouge-like matrix of sheared rhyolite and are located near the pyritic felsic volcanic/sediment contact (Assessment Report 8485, page 6). Another report describes the occurrence as a 1 to 2-metre wide massive sulphide lens exposed "across" 6 metres (Assessment Report 9547).

The best assay from surface samples taken of this mineralization is 4.34 per cent copper, 0.05 per cent zinc, 1.99 grams per tonne gold and 77.14 grams per tonne silver (Assessment Report 9547, page 5). A 127.5-metre diamond-drill hole intersected scattered intervals of copper and zinc mineralization in 1989, the best interval grading 0.44 per cent zinc across 3.8 metres.

The Crystal showing, situated approximately 500 metres west of the Eureka, comprises a 2 to 5-centimetre wide band of pyritic chert at the contact between chloritic volcaniclastics and massive rhyolite. Significant assays from samples of this mineralization have not been reported.

### BIBLIOGRAPHY

EMPR ASS RPT 6578, 7642, \*8485, 9547, 12916, 14780, 16038, 19935
EMPR EXPL 1975-E151; 1977-E203; 1979-238; 1980-361; 1981-61; 1984-340; 1986-374; 1987-C316
EMPR OF 2000-33
EMPR PF (Miscellaneous geology and geochemistry maps by Kennco Explorations (Western) Limited)
GSC MAP 844A; 907A; 971A; 1424A
GSC MEM 252
GSC P 74-1A; P 74-1B, pp. 31-42

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/25 CODED BY: GSB REVISED BY: DMN

MINFILE NUMBER:	<u>093N 180</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	MANSON RIVER EAST			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N09E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 09 N 124 01 12 W 980 Metres Within 500M The Manson River East occ road 0.75 kilometre east of t northeast of the mouth of Me	urrence is exposed in a roadcut on a he Manson River and 5.5 kilometres unro Creek (Open File 1988-12).	NORTHING: EASTING: logging	6160458 435707
COMMODITIES:	Copper			
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Chalcopyrite Pyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: SHAPE:	Disseminated Hydrothermal E Irregular	pigenetic		
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic			
STRATIGRAPHIC AGE Proterozoic	GROUP	FORMATION	IGNEOUS/METAM Wolverine Comple	ORPHIC/OTHER
LITHOLOGY:	Amphibolite Gneiss Hornblende Granitic Gneiss Quartz Feldspar Pegmatite Granodiorite Dike			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Omineca Cassiar Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Manson GRADE: Amphibo	Upland blite
INVENTORY	-			
ORE ZONE:	SAMPLE	REPORT ON	: N	
REFERENCE:	CATEGORY: Assay/ana SAMPLE TYPE: Grab <u>COMMODITY</u> Copper Open File 1988-12.	Ilysis YEAR: GRADE 0.1200 Per cen	t 1987	
CAPSULE GEOLOGY				
	The Manson Riv logging road 0.75 k kilometres northeas Visible minera pyrite hosted by am Complex. The amphi bearing granitic gn thick. The interla pegmatites up to 2 and sills. These i total exposure. A grams per tonne sil	er East occurrence is expo ilometres east of the Mans t of the mouth of Munro Cr lization consists of disse phibolite gneisses of the bolite gneiss is interlaye eiss with the layers being yered gneisses are cut by metres in width and intrud ntrusions comprise up to 5 grab sample analysed 0.12 ver (Open File 1988-12).	osed in a roadcut on a son River and 5.5 reek (Open File 1988-12). minated chalcopyrite and Proterozoic Wolverine ered with a hornblende- g 10 to 30 centimetres quartz feldspar ded by granodiorite dikes 50 to 75 per cent of the per cent copper and 3	
BIBLIOGRAPHY				
	EMPR BULL *91 EMPR FIELDWORK *198 EMPR OF *1988-12 GSC MEM 252 GSC MAP 876A; 971A; GSC P 41-5; 42-2; 4 Placer Dome File	7, pp. 169-180; 1992, pp. 1424A; 5249G 5-9; 75-33	301-306	
DATE CODED: DATE REVISED:	1988/04/20 1992/07/27	CODED BY: FF REVISED BY: DMM	F F	FIELD CHECK: Y

MINFILE NUMBER:	<u>093N 181</u>		NATIONAL MINERAL INVENTORY:				
NAME(S):	<u>DON,</u> JOHN, DAIRY						
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca			
NTS MAP: BC MAP:	093N05E		UTM ZONE:	10 (NAD 83)			
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 12 N 125 33 59 W 1495 Metres Within 500M Location is diamond-drill hole DJD of Takla Landing (Assessment Re	) #3, about 31 kilometres southea port 8357, Drill Hole Location Ma	NORTHING: EASTING: ast ap).	6131547 337092			
COMMODITIES:	Molybdenum Copper	r					
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Molybdenite Chalcopyrite Quartz Kaolinite Argillic Unknown	Pyrite					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stockwork Vein Hydrothermal Porphy L05 Porphyry Mo (Low F- type	/гу е)					
HOST ROCK DOMINANT HOSTROCK:	Plutonic						
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic	GROUP	FORMATION	IGNEOUS/METAM Topley Intrusions	ORPHIC/OTHER			
LITHOLOGY:	Quartz Monzonite Biotite Quartz Monzonite						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		PHYSIOGRAPHIC AREA: Omineca	Mountains			
CAPSULE GEOLOGY							
	The Don occurrence is situated within the Mitchell Range of mountains, 4 kilometres north of the Nesabut Peaks and approximately 31 kilometres southeast of Takla Landing. The area is underlain by granitic rocks assigned to the Late Triassic-Early Jurassic Topley intrusions, which form an elongate pluton underlying the majority of the range. The most prevalent rock type is a pink-grey, medium-grained, equigranular to porphyritic quartz monzonite into which a younger phase of grey, medium-grained, equigranular biotite quartz monzonite has intruded. Local weak to pervasive argillic alteration is the predominant type of alteration observed in these rocks. Narrow (1 to 2-millimetre wide) quartz-molybdenite veinlets form a stockwork across several widely spaced, 6 to 10-metre wide zones of weakly kaolinitized monzonite along a ridge crest 4 kilometres north of the Nesabut Peaks. A diamond-drill hole (DJD #3) collared in late-phase quartz monzonite to the north of this mineralization intersected a minor clot of molybdenite-chalcopyrite-pyrite mineralization in a quartz						
BIBLIOGRAPHY	EMPR ASS RPT *6814, 746 EMPR EXPL 1978-E227; 19 EMPR OF 2000-19 GSC MAP 844A; 907A; 971 GSC MEM 252 GSC OF 3071 GSC P 42-7; 45-6	8, *8357, 8358 79-235; 1980-358 A; 1424A					
DATE CODED: DATE REVISED:	1985/07/24 1992/10/15	CODED BY: GSB REVISED BY: DMN	F F	IELD CHECK: N IELD CHECK: N			

MINFILE NUMBER:	<u>093N 182</u>				NATIONA	L MINERAL INVENTORY:	
NAME(S):	<u>Bar</u> , Lo						
STATUS:	Showing					MINING DIVISION:	Omineca
REGIONS: NTS MAP:	093N03E					UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 50 N 125 10 58 W 1000 Metres Within 500M Location is for san Landing (Assessm	nple A6855, ab nent Report 20	bout 61 kilomet 037, Figure 4).	res southeast of	Takla	NORTHING: EASTING:	6115203 360952
COMMODITIES:	Mercury						
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Cinnabar Quartz Ch Quartz Ca Quartz-Carb. Unknown	nalcedony arbonate	Calcite Mariposite	Ankerite Ankerite	Mariposite Chalcedor	ny	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Epigenetic E01 Almaden H	Brecc Hydro Hg	ia thermal	Shear Replacem	nent 108	Silica-Hg carbonate	
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE	GROUP Cache Creek		FORM	IATION ined Formation		IGNEOUS/METAMO	ORPHIC/OTHER
Paleozoic-Mesozoic			01100			Oceanic Ultramafi	tes
LITHOLOGY:	Andesitic Tuff Andesitic Basaltic Andesite Olivine Basalt Andesitic Basaltic Pyroxenite Volcaniclastic Limestone	Tuff Flow					
HOSTROCK COMMENTS:	Cache Creek Co Oceanic Ultrama	mplex rocks an afites are Missis	re Carboniferou ssippian to Tria	us to Jurassic w Issic.	hile the		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		Cache Cree	ek	PHYSIOC	GRAPHIC AREA: Nechako	Plateau
ORE ZONE:		A a a a v/a a a l vaia		KEPORT C	JN: N		
COMMENTS: REFERENCE:	SAMPLE TYPE: F COMMODITY Mercury Sample A6855. M Assessment Repo	Assay/analysis Rock Mercury grade i prt 20037, Figu	, <u>GRA</u> 0.0 s greater than re 2.	DE 0010 Per ce 10,000 parts per	ent r billion.		
CAPSULE GEOLOGY							
	The Bar occurrence is situated between Tchentlo and Takatoot lakes, approximately 61 kilometres southeast of Takla Landing. The area is underlain by a north-northwest trending package of Carboniferous to Jurassic rocks assigned to the Cache Creek Complex which have been intruded by Mesozoic mafic and ultramafic rocks formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions now termed Mississippian to Triassic Oceanic Ultramafites. Within the Bar grid, a northwest-trending suite of olivine basalt and pyroxenite, intercalated with a thin lens of volcaniclastics(?) is in contact with massive limestone to the southwest and andesitic to basaltic tuffs and flows to the northeast. Magnetic data suggest that the ultramafic rocks form a steeply dipping dike. Local brecciation and shearing occur within both the intrusions and the Cache Creek rocks and is thought to be a result of a moderately to steeply dipping north-northwesterly striking splay						

PAGE: 1172 REPORT: RGEN0100

### CAPSULE GEOLOGY

of the Pinchi fault zone. Locally, hydrothermal alteration of the ultramafic rocks has resulted in the development of quartz-carbonatemariposite (listwanite) mineralization. Trace amounts of cinnabar occur as blebs and fracture coatings in brecciated and quartz-carbonate altered, intermediate to mafic rocks (andesitic tuff?) and brecciated limestone. Quartz, chalcedony, calcite, ankerite, mariposite and very minor sulphides also occur in veinlets and as fracture coatings. Several float boulders were noted to contain carbonate-quartz veining hosting trace, fine-grained arsenopyrite(?) disseminations. Three samples of quartz-carbonate altered rock with mariposite assayed greater than 0.001 per cent mercury. Of these, sample A6855 also analysed 0.080 grams per tonne gold (Assessment Report 20037,

#### BIBLIOGRAPHY

EMPR ASS RPT 19223, 19673, \*20037 EMPR OF 2000-19 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC OF 3071 GSC P 42-7; 42-11; 45-6

DATE CODED: 1992/10/08 DATE REVISED: 1993/03/02

Figure 4).

CODED BY: DMN REVISED BY: DMN

MINFILE NUMBER:	<u>093N 183</u>			NATIONAL	MINERAL INVENTORY:	
NAME(S):	NATION					
STATUS:	Showing				MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N11W				UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 30 54 N 125 22 52 W 1170 Metres Within 500M Location is the 1988 disco Creek (Assessment Repo	overy on a small f rt 18781, Figure	tributary to We	est Kwanika	NORTHING: EASTING:	6154678 349656
COMMODITIES:	Gold	Arsenic				
MINERALS						
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Arsenopyrit Quartz Carbonate Ankerite Siderite Oxidation Unknown	te Albite Carbonate Carbonate	Calcite			
DEPOSIT			<b>D</b> .			
CLASSIFICATION: TYPE:	Stockwork Epigenetic H05 Epithermal Au-Ag:	Vein Hydrothermal low sulphidation	Dis Ind	seminated ustrial Min.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP Cache Creek	F	ORMATION	nation	IGNEOUS/METAMO	ORPHIC/OTHER
Unknown	Cache Creek				Unnamed/Unknow	n Informal
LITHOLOGY:	Limestone Quartz Sericite Schist Chloritic Schist Siltstone Jasperoid Porphyritic Dacite Latite Latite Porphyry Quartz Feldspar Sill Feldspar Porphyry Sill					
HOSTROCK COMMENTS:	Cache Creek Complex ro host intermediate-felsic i	ocks are Carboni ntrusions of unkr	ferous to Juras nown relations	ssic and locally hip.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek			PHYSIOG	RAPHIC AREA: Omineca	Mountains
INVENTORY						
ORE ZONE:	SAMPLE		REF	ORT ON: N		
COMMENTS:	CATEGORY: Assay/ar SAMPLE TYPE: Rock COMMODITY Arsenic Gold Sample 88NBR9 of ankeri	nalysis tic siltstone.	GRADE 0.7917 0.3050	YEAR: 1989 Per cent Grams per tonne		
REFERENCE:	Assessment Report 19373	3, page 3.				
CAPSULE GEOLOGY	The Nation oc northeast into Wes Creek. It was dis the source of a si 1983 regional geoc File 1001, Map 66-	currence is t Kwanika C covered in gnificant a hemical sur 1983).	situated reek at it 1988 as a rsenic-gol vey (Geolo	near a small of s confluence of result of effor d silt anomaly gical Survey of	creek which flows with Kwanika orts to locate y outlined by a of Canada Open	

The area is underlain by Carboniferous to Jurassic sedimentary and volcanic rocks (and derived schist) assigned to the Cache Creek Complex. To the east, a narrow, linear band of ultramafic rocks formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions and now termed Mississippian-Triassic Oceanic Ultramafites, occurs along the trace of the Pinchi fault zone which

separates the Cache Creek rocks from the Late Triassic to Early Cretaceous Hogem Intrusive Complex. At the Nation occurrence, blue-grey coloured limestone occurs in contact with quartz sericite schist, chloritic schist and a "jasperoid-like" unit. Quartz feldspar and feldspar porphyry sills have also been emplaced parallel to stratigraphy. Foliation in the schists strikes 160 degrees and dips steeply west. Mineralization exposed to date occurs in several forms: 1) stockwork quartz-carbonate veins in limestone adjacent to jasperoid-like rocks, 2) ankeritic carbonate-rich siltstone hosting greater than 5 per cent combined pyrite and arsenopyrite, also adjacent to jasperoid-like rocks, 3) auriferous porphyritic dacite and 4) auriferous sideritic latite porphyry hosting fine-grained veinlets of quartz-albite-calcite-pyrite. One sample of dacite porphyry rubble assayed 0.590 gram per tonne gold, while ankeritic siltstone analysed 0.305 gram per tonne gold and 7917 ppm arsenic (Assessment Report 19373, page 3).

#### BIBLIOGRAPHY

EMPR ASS RPT 18781, \*19373 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 42-7; 44-5; 45-6

DATE CODED: 1992/10/01 DATE REVISED: 1993/03/15 CODED BY: DMN REVISED BY: DMN

\_\_\_

MINFILE NUMBER:	<u>093N 184</u>		NATIONAL MI	NERAL INVENTORY:	
NAME(S):	KLAWDETELLE CREEK, CHENT				
STATUS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP:	093N02E			UTM ZONE:	10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 09 N 124 40 35 W 1000 Metres Within 500M Mineralized outcrop, reported to b Creek; however, the plot location side (Assessment Report 21994, F	e on the west side of Kl of samples are shown o ⁻igure 16).	awdetelle on the east	NORTHING: EASTING:	6120462 393354
COMMODITIES:	Copper				
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Malachite K-Feldspar Malachite Potassic Oxidatio	on			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Unknown L03 Alkalic porphyry Cu-Au				
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Porphyritic Gabbro Porphyritic Basalt Porphyritic Diabase Mafic Diorite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic Rocks	PHYSIOGRAF	HIC AREA: Nechakc	) Lowland
INVENTORY					
ORE ZONE:	SAMPLE	REPC	ORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper	GRADE 0.1000	YEAR: 1991 Per cent		
	Assessment Report 21994.				
	An outcrop adjacent potassically altered "ma malachite. A sample of (Assessment Report 21994 The area of the occ by the B.C. Geological S diabase/basalt were mapp part of the Late Triassi which in this area is co	t to Klawdetelle afic diorite" and the rock yielded 4). currence along th Survey; exposures oed (Open File 19 ic to Early Creta onsidered to be F	Creek is compos 1 contains trace 1 0.1 per cent of 1 e creek was rec 3 of sparsely po 392-4). These e aceous Hogem Int Early Jurassic.	ed of s of opper ently surveyed rphyritic xposures are rusive Complex	
BIBLIOGRAPHY	EMDR ASS RDT *21004				
	EMPR FIELDWORK 1990, pp. EMPR OF 1991-3; 1992-4 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A GSC MEM 252 GSC OF 2842	. 89-110; 1991, p A; 1424A	p. 103-118		
DATE CODED: DATE REVISED:	1993/02/22 / /	CODED BY: GJP REVISED BY:		F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093N 185</u>				NATIONAL M	INERAL INVENT	ORY:
NAME(S):	<u>GIBSON</u> , EAGLE 9						
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093N02W					MINING DIVIS	SION: Omineca ONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 13 N 124 53 42 W 1260 Metres Within 500M The Gibson vein, 4 kilo kilometres west-south Report 21762, Figure 1	metres south of T west from the ea: ).	Fchentlo Lake, al st end of the lak	pout 7.5 e (Assess	sment	NORTH EAST	HING: 6115379 FING: 379301
COMMODITIES:	Gold	Silver	Le	ad		Zinc	Copper
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Arsenop Quartz Sericite Clay Carbona Argillic	yrite Galena te Sericite Carbonate	Sphaler Quartz Se	ite C ricitic	Chalcopyrite	Silicific'n	
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Hydrothermal	Podiform Epigenetic	Br	eccia		Massive	
HOST ROCK DOMINANT HOSTROCK:	Volcanic	ins Ag-Pb-Zn±Au	J				
STRATIGRAPHIC AGE Upper Triassic Lower Jurassic	<u>GROUP</u> Takla		FORMATION Witch Lake			<u>IGNEOUS/ME</u> Hogem Intrus	TAMORPHIC/OTHER
LITHOLOGY:	Augite Porphyry Tuff Hornfels Diorite Monzonite Granodiorite Gabbro Syenite						
HOSTROCK COMMENTS:	The volcanic rocks ar an informally named f	e assumed to bel ormation of the Ta	ong to the Witch akla Group.	Lake For	mation,		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Contact	F	RELATIONSHIP:		PHYSIOGRA	PHIC AREA: Neo GRADE: Hoi	chako Lowland rnfels
INVENTORY							
ORE ZONE:	DRILLHOLE		RE	PORT ON:	Ν		
COMMENTS: REFERENCE:	CATEGORY: Assa SAMPLE TYPE: Drill C COMMODITY Silver Gold Lead Zinc From a 9.18-metre drill Assessment Report 21	y/analysis Core interval. 762, page 11.	GRADE 224.3000 4.3400 0.9000 0.6000	YEAR: Grams p Grams p Per cent Per cent	1991 Der tonne Der tonne		
CAPSULE GEOLOGY							
	The Gibson Lake, about 7.5 This area : Jurassic Takla ( the Late Triass: the east and no complex in this and syenite phas however, has man prospect as main	prospect is kilometres s underlain froup and th c to Early of theast, rec area consis ses (Open Fi oped the int aly diorite	located 4 D west-southwe by rocks of eir contact Cretaceous D ent mapping ts primaril le 1992-4). rusive rock with lesser	cilomet est of f the M with t Hogem I indica y of Ea Noran to the areas	res south its easte iddle Tri he southe ntrusive tes that rly Juras da Explor north of of granod	of Tchentle rn end. assic to Lou astern end o Complex. To the Hogem sic monzonit ation Limite the Gibson iorite and	o wer of o te ed,

gabbro. South of the intrusive contact, underlying the area of the showings, the rocks have been identified as augite porphyries and volcanic tuffs, probably of the Upper Triassic Witch Lake Formation, Takla Group. These volcanic rocks are variably hornfelsed near the contact zone. The hornfelsed rocks are generally very fine-grained purple rocks commonly containing 3 to 5 per cent disseminated pyrite and locally some chalcopyrite.

The occurrence consists of fine-grained arsenopyrite and pyrite filling a quartz sericite breccia zone within which are banded galena-sphalerite veins and pods. The quartz-sulphide mineralization is enveloped within a zone of very fine-grained clay-carbonate alteration with 5 to 10 per cent pyrite.

In 1991, Noranda drilled 9 holes into the Gibson zone. All holes intersected significant clay-sericite-quartz altered and pyrite-galena-sphalerite mineralized volcanics. A 9.18-metre drill interval (from 14.10 to 23.28 metres) averaged 4.34 grams per tonne gold, 224.3 grams per tonne silver, 0.9 per cent lead and 0.6 per cent zinc (Assessment Report 21762, page 11).

### BIBLIOGRAPHY

EMPR ASS RPT 851, 1599, 3337, 3338, 19239, 20245, 20406, \*21762, \*21799 EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118 EMPR OF 1991-3; 1992-4 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC OF 2842 Placer Dome File

DATE CODED: 1993/03/04 DATE REVISED: 1993/03/04 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>093N 186</u>	1	NATIONAL MINERAL INVENTORY:
NAME(S):	INDATA LAKE, LIMESTO	NE RIDGE	
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP:	093N06W		UTM ZONE: 10 (NAD 83)
LOCATION ACCURACY: LOCATION ACCURACY: COMMENTS:	55 17 34 N 125 16 00 W 1050 Metres Within 1 KM Location centred on sam St. James (Geological Su	ple site 8, 120 kilometres northwest of Fo Irvey of Canada Memoir 252, page 36).	NORTHING: 6129713 EASTING: 356076 rt
COMMODITIES:	Limestone		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE: ISOTOPIC AGE:	Calcite Dolomite Dolomite Carbonate PennsylvanPermian	DATING METHOD: Fossil	MATERIAL DATED: Fusulinids
	Stratiform	Maggive	
CLASSIFICATION:	Sedimentary	Industrial Min.	
DIMENSION: COMMENTS:	6000 Limestone strikes northw	Metres STRIKE/DIP: vest and dips to the southwest(?).	: TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic DATING METHOD: MATERIAL DATED: Triassic-Jurassic	Cache Creek Fossil Fusulinids Takla	Undefined Formation	
LITHOLOGY:	Limestone Chert Argillite Andesite Greenstone Andesitic Basaltic Volcar	nic	
HOSTROCK COMMENTS:	Cache Creek Complex	rocks range from Carboniferous to Jurass	ic.
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOGRAPHIC AREA: Omineca Mountains
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON:	Ν
	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY	analysis YEAR: GRADE 55 1400 Per cent	1949
COMMENTS: REFERENCE:	Grade given for calcium of Geological Survey of Can	oxide. nada Memoir 252, page 36, Sample 8.	
CAPSULE GEOLOGY	A mass of li Indata Lake on Lin James. The deposit belt of massive P argillite of the belt is approxima Lake. To the eas Lower Jurassic Ta Pinchi fault zone (andesite) of the	mestone outcrops just west of mestone Ridge, 120 kilometres ermian-Pennsylvanian limestor Carboniferous to Jurassic Cac tely 6 kilometres wide in the t the limestone is separated kla Group andesitic to basalt . Overlying chert, argillite Cache Creek Complex outcrop	f the south end of s northwest of Fort St. long, northwest-trending he with minor chert and che Creek Complex. The e vicinity of Indata from Middle Triassic to tic volcanics by the e and greenstone to the west.

zone due to hydrothermal alteration. A sample of buff-coloured

limestone exposed on the east shore of Indata Lake at its south end analysed 51.32 per cent CaO, 1.38 per cent MgO, 3.07 per cent SiO2, 1.56 per cent Fe2O3+Al2O3 and 3.21 per cent insolubles (Geological Survey of Canada Memoir 252, page 36, Sample 7). A second sample of blue-grey limestone on Limestone Ridge, west of the south end of Indata Lake, analysed 55.14 per cent CaO, 0.07 per cent MgO, 0.22 per cent SiO2, 0.14 per cent Fe2O3+Al2O3 and 0.55 per cent insolubles (Geological Survey of Canada Memoir 212, page 36, Sample 8).

#### BIBLIOGRAPHY

EMPR IND MIN FILE (\*McCammon, J.W. (1973): Limestone Occurrences in British Columbia, p. 25 (in Ministry Library) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 32-36 GSC OF 3071 GSC P 42-7; 42-11; 45-6 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1992/10/07

CODED BY: GSB REVISED BY: PSF

\_\_\_

MINFILE NUMBER:	<u>093N 187</u>	NA	TIONAL MINERAL INVENTORY:	
NAME(S):	KWANIKA CREEK LIMES	TONE		
STATUS:	Showing		MINING DIVISION: Omineca	
REGIONS: NTS MAP:	British Columbia 093N06E 093N11E		UTM ZONE: 10 (NAD 83)	
BC MAP: LATITUDE:	55 29 47 N		NORTHING: 6152553	
LONGITUDE: ELEVATION:	125 21 21 W 1150 Metres		EASTING: 351182	
LOCATION ACCURACY: COMMENTS:	Within 1 KM Location centred on samp	ble site #6, about 135 kilometres northwest	of	
	Fort St. James (Geologica	al Survey of Canada Memoir 252, page 36).		
COMMODITIES:	Limestone	Dolomite		
MINERALS SIGNIFICANT:	Calcite Dolomite			
ALTERATION: ALTERATION TYPE:	Dolomite Carbonate			
MINERALIZATION AGE: ISOTOPIC AGE:	PennsylvanPermian	DATING METHOD: Fossil	MATERIAL DATED: Fusulinids	
DEPOSIT				
CHARACTER: CLASSIFICATION:	Stratiform Sedimentary	Massive Industrial Min.		
TYPE: DIMENSION:	R09 Limestone 3800	Metres STRIKE/DIP:	TREND/PLUNGE:	
COMMENTS:	Limestone strikes northwo kilometres wide.	est, dips southwest and is about 3.8		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
Paleozoic-Mesozoic DATING METHOD:	Fossil	Undefined Formation		
MATERIAL DATED: Triassic-Jurassic	Fusulinids Takla	Undefined Formation		
LITHOLOGY:	Limestone			
	Argillite Chert			
	Andesitic Basaltic Volcani Greenstone Andesite	IC		
HOSTROCK COMMENTS:	Cache Creek Complex r	ocks are Carboniferous to Jurassic.		
GEOLOGICAL SETTING				
TERRANE:	Cache Creek	PF	TYSIOGRAPHIC AREA: Omineca mountains	
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
	CATEGORY: Assay/a	nalysis YEAR: 19	949	
	SAMPLE TYPE: Grab	GRADE		
COMMENTS:	Limestone Sample from a ridge west	55.4100 Per cent t of Kwanika Creek. Grade given for calciu	m	
REFERENCE:	oxide. Geological Survey of Cana	ada Memoir 252, page 36, Sample 6.		
CAPSULE GEOLOGY				
	A deposit of Kwanika Creek, jus	limestone outcrops predominan st northeast of Tsayta Lake, 1	tly to the west of 35 kilometres	
	northwest of Fort The deposit 1	St. James. lies within a 200 kilometre lo	ng northwest-trending	
	belt of massive Pe argillite of the C	ermian-Pennsylvanian limestone Carboniferous to Jurassic Cach	with minor chert and e Creek Complex. The	
	belt is approximately 3.8 kilometres wide along the west side of Kwanika Creek. To the east, the limestone is separated from Middle			
	Triassic to Lower volcanics by the P	Jurassic Takla Group andesiti Pinchi fault zone. Overlying	c to basaltic chert, argillite and	
	greenstone (andesi The limestone	tte) of the Cache Creek Comple e is variably dolomitized alon	x outcrop to the west. g the Pinchi fault	

zone due to hydrothermal alteration. A sample of massive, buffcoloured limestone exposed near the Pinchi fault on the lower part of Kwanika Creek analysed 34.03 per cent CaO, 17.97 per cent MgO, 0.38 per cent insolubles and 1.59 per cent Fe2O3+Al2O3 (Geological Survey of Canada Memoir 252, page 36, Sample 5). A second sample of limestone from a ridge west of Kwanika Creek analysed 55.41 per cent CaO, 0.31 per cent MgO, 0.07 per cent insolubles and 0.15 per cent Fe2O3+Al2O3 (Geological Survey of Canada Memoir 252, page 36, Sample 6).

#### BIBLIOGRAPHY

EMPR FIELDWORK 1992, pp. 87-107 EMPR IND MIN FILE (\*McCammon, J.W. (1973): Limestone Occurrences in British Columbia, p. 25 (in Ministry Library)) EMPR OF 2000-19 GSC MAP 844A; 907A; 971A; 1424A GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 32-36 GSC OF 3071 GSC P 74-1A; 74-1B, pp. 31-42 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1992/09/30 CODED BY: GSB REVISED BY: PSF

MINFILE NUMBER:	<u>093N 188</u>			NATIONA	L MINERAL INVENTORY	·:
NAME(S):	QUARTZITE CREEK, QUA	ARTZ CREEK				
STATUS: REGIONS:	Showing British Columbia				MINING DIVISION	: Omineca
BC MAP:	093N12E					: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 49 N 125 39 53 W 1054 Metres Within 1 KM Location is for the centre which extended upstream from its confluence with F Takla Landing (Minister o	of placer workin from a point ap Fall River, about f Mines Annual	ngs on Quartzite Creek, proximately 2.4 kilometre 36 kilometres northeast Report 1933, page A107)	es up of ).	EASTING	: 6177423 :: 332602
COMMODITIES:	Rhodonite	Jade/Nephrite	Gemstones			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Rhodonite Nephrite Unknown					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers Q01 Jade	Industrial Min.		Q02	Rhodonite	
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE	GROUP		FORMATION		IGNEOUS/METAN	IORPHIC/OTHER
Quaternary	Cache Creek		Undenned i Unnation		Glacial/Fluvial Gr	avels
LITHOLOGY:	Glacial Fluvial Gravel Phyllite Sericitic Sediment/Sedime	entary				
HOSTROCK COMMENTS:	Cache Creek Complex	ocks are Carbo	niferous to Jurassic.			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek			PHYSIOG	GRAPHIC AREA: Omined	ca Mountains
CAPSULE GEOLOGY						
	Quartzite (Qu into Fall River a) Landing. Placery point 2.4 kilomet: The earliest place in the late 1930s that any go The creek dra assigned to the Ca in this area is do host numerous barry varying up to a ma Placer mining gravels and report (Geological Survey probable bedrock s (see 093N 165) to in-situ.	proximatel proximatel workings ex- res from it recorded w 1800s. Fu Mines Annua ld producti ains an are arboniferou ominated by ren-looking etre in wid g efforts w tedly uncov y of Canada source for the northw	k flows northerly y 36 kilometres n tend upstream for s confluence with ork on the creek rther work was ag l Report, althoug on was recorded. a underlain by sc s to Jurassic Cac quartz-rich phyl , locally rusty, th. ere directed at b ered boulders of Paper 72-53, pag these boulders is est, where nephri	trom t ortheas 800 me Fall F appears ain ref h it wa histose he Cree lite. white c both pre both pre both rf (e 59). the Mo te has	the Vital Range st of Takla etres from a River. s to have taken ferenced in the as not until the e sediments ek Complex, which These sediments guartz veins e and postglacial nodonite and jade The most punt Ogden area been located	
BIBLIOGRAPHY	EMPR OF 2000-33 GSC MAP 844A; 9077 GSC MEM 252 GSC P *72-53, p. 9 Canadian Rockhound	A; 971A; 14 59; 74-1B, 1 1 Feb. 1966	24A pp. 31-42 : Rhodonite in Br	itish (	Columbia, p. 10	
DATE CODED: DATE REVISED:	1985/07/24 1992/09/22	C R	ODED BY: GSB EVISED BY: DMN			FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 189</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	WOLVERINE RANGE			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N09W		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 8	33)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 43 53 N 124 19 27 W 1860 Metres Within 1 KM The occurrence is located with kilometres northeast from the s	in the Wolverine Range approxin settlement of Manson Creek.	NORTHING: 6176979 EASTING: 416845	,
COMMODITIES:	Mica Felc	Jspar		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Feldspar Muscovite Quartz Plagioclase Unknown	Biotite Garnet		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Massive Pegmatite Syn O04 Feldspar-quartz pegma	genetic Industrial I atite	Min.	
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
<u>STRATIGRAPHIC AGE</u> Proterozoic Tertiary	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTH Wolverine Complex Unnamed/Unknown Informal	<u>IER</u>
LITHOLOGY:	Pegmatite Garnet Muscovite Biotite Grand	odiorite		
HOSTROCK COMMENTS:	Preliminary U-Pb data from zi age for the granodiorites with	rcon analysis indicate an early Te	ertiary	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Omineca Cassiar		PHYSIOGRAPHIC AREA: Omineca Mountains	
CAPSULE GEOLOGY				
	The Wolverine Ra Range, approximately Manson Creek. Pegmatites at th quartz, plagioclase, These pegmatites are muscovite-biotite gra Preliminary U-Pb data age for the granodior preparation).	nge occurrence is locat 12 kilometres northeast e showing are coarse gr orthoclase, muscovite, dike shaped and are fou nodiorites of the Prote from zircon analysis i ites within the complex	ted within the Wolverine from the settlement of biotite and garnet. und within garnet- erozoic Wolverine Complex. Indicate an early Tertiary (Bulletin-in	
BIBLIOGRAPHY				
	EMPR OF 1991-10 EMPR BULL 91 EMPR FIELDWORK 1988, GSC P 41-5; 42-2; 45- GSC MAP 876A; 907A; 1 GSC MEM *252, p. 28	pp. 169-180 9; 75-33 424A; 5249G		
DATE CODED: DATE REVISED:	1985/07/24 1992/11/29	CODED BY: GSB REVISED BY: DMM	FIELD CHECK FIELD CHECK	(: N (: N

\_\_\_

MINFILE NUMBER:	<u>093N 190</u>		NATIONAL M	INERAL INVENTORY:
NAME(S):	MILLIGAN 9, NATION RIVER			
STATUS:	Showing Britich Columbia			MINING DIVISION: Omineca
NTS MAP: BC MAP	093N01E			UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 04 N 124 04 00 W 1300 Metres Within 500M The showings are located about 3 Milligan peak. They are reported to Milligan 9 claim near its southern b northern boundaries of the Phil 1 a 20227, Target Area 1, Figure 19).	kilometres southeast o o be visible in gullies on poundary, and close to t and 10 claims (Assessn	of Mount the he nent Report	NORTHING: 6113981 EASTING: 432053
COMMODITIES:	Copper Gold			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Pyrite Chalcopyrite			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry Hydroth L03 Alkalic porphyry Cu-Au	vermal		
HOST ROCK DOMINANT HOSTROCK	: Plutonic			
STRATIGRAPHIC AGE Triassic-Jurassic	GROUP	FORMATION		IGNEOUS/METAMORPHIC/OTHER Mount Milligan Intrus. Complex
LITHOLOGY:	Monzodiorite			
HOSTROCK COMMENTS:	Both major phases of the Mount I dated as Early Jurassic (J.L. Nels	Villigan Intrusive Compleson, personal communic	ex have been cation, 1993).	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Plutonic Rocks	PHYSIOGRA	PHIC AREA: Nechako Lowland
INVENTORY				
ORE ZONE:	SAMPLE	REPO	ORT ON: N	
REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Gold Copper Assessment Report 20227, page 2	<u>GRADE</u> 0.1160 0.2100 25.	YEAR: 1990 Grams per tonne Per cent	
CAPSULE GEOLOGY	,1.3.	-		
	Two mineralized out covered with overburden by the Mount Milligan In Mineralization consists samples assayed 0.09 (9) million) per cent copper (116 parts per billion) Report 20227, page 25). The Mount Milligan separate Early Jurassic gabbro and hornblende ga Its wallrocks and numero amphibolites and granul earlier of the two pluto equigranular, massive to later plutonic body is a peripheral pegmatite and uplifted as a horst, acc felsic intrusive activity	crops of monzod: , are reported to ntrusive Complex of disseminated 33 parts per mill r and 0.088 (88 p gram per tonne g Intrusive Comple phases: a sphene ranite end membe: ous pendants inc ites as well as o onic bodies on Me o foliated quart: a porphyritic, me d aplite stringe: companied by Lat- ty.	iorite, almost o occur in an a (informal name pyrite and cha lion) and 0.21 parts per billi gold respective ex consists of e-bearing monzo rs, and porphyr lude regionally contact hornfel ount Milligan i z-deficient mon edium-grained g rs. The comple e Cretaceous to	entirely rea underlain ). lcopyrite. Two (2090 parts per on) and 0.116 ly (Assessment at least two nite with itic granite. metamorphosed ses. The s an zonite. The ranite with x was later Early Tertiary
BIBLIOGRAPHY	דאחם אפי פחיי 10,260 *20'	222		

### BIBLIOGRAPHY

EMPR OF 1991-3; 1992-3 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 3071 Placer Dome File

DATE CODED: 1993/02/01 DATE REVISED: 1993/02/01 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>093N 191</u>	NATIONA	AL MINERAL INVENTORY: 093N1 Au1
NAME(S):	<b>MT. MILLIGAN (SOUTHERN S</b> MT. MILLIGAN, PHIL-HEIDI, PHIL, HEIDI	<b>TAR)</b> , SOUTHERN STAR MOUNT MILLIGAN ,	Į
STATUS: REGIONS: NTS MAD:	Developed Prospect British Columbia		MINING DIVISION: Omineca
BC MAP:	55 07 05 N		
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	124 01 57 W 1100 Metres Within 500M Location of the Southern Star de (Open File 1991-3). Situated 9. Mount Milligan peak.	eposit of the Mt. Milligan property 25 kilometres south-southeast of	EASTING: 434148
COMMODITIES:	Copper Gold		
	Durita Chalasaurita		
SIGNIFICANT:	Chalcocite Djurleite	Cuprite Tenorite Copper	
COMMENTS:	Pyrite, chalcopyrite, magnetite a significant hypogene mineraliza	and bornite form the economically tion.	
ASSOCIATED: ALTERATION:	K-Feldspar Biotite	Actinolite Epidote Calcite	
COMMENTS:	Chlorite Albite Py Alteration minerals also include	/rite malachite, azurite, goethite,	
ALTERATION TYPE: MINERALIZATION AGE:	hematite, siderite and limonite. Potassic Prop	ylitic Carbonate	
DEPOSIT			
CLASSIFICATION: TYPE:	Porphyry Hydr L03 Alkalic porphyry Cu-Au	othermal Epigenetic	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE Upper Triassic Triassic-Jurassic	<u>GROUP</u> Takla	FORMATION Witch Lake	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
LITHOLOGY:	Brecciated Monzonite Plagioclase Porphyritic Monzoni Hornblende Plagioclase Porphyr Augite Andesitic Lapilli Tuff Augite Andesitic Crystal Tuff Augite Phyric Andesitic Flow Andesite Latite	ite ritic Monzonite	
HOSTROCK COMMENTS:	The monzonitic plutons are co	eval with the Takla Group volcanics.	
GEOLOGICAL SETTING			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Quesnel Regional	RELATIONSHIP:	GRADE: Greenschist
CAPSULE GEOLOGY	The area of the M underlain by the Upper north-northwest trendi and minor sedimentary Tertiary volcanic and Lake rocks are intrude intrusions related to Milligan Intrusive Com kilometres to the nort Goldmark and North Slo The Mt. Milligan prope deposits. Refer to Mt Main deposit and for f The Southern Star which occurs in the ha stock. Approximately deposit is in brecciat	At. Milligan porphyry copper de Triassic Takla Group consist ing volcanic rocks of the Witc rocks of the Rainbow Creek For sedimentary rocks are also pr ed by coeval Takla Group and p the informally named Early Ju mplex centred around Mount Mil thwest. The monzonitic MBX, S ope stocks host mineralization erty is made up of the Main an t. Milligan (093N 194) for a d further details of the Souther c deposit comprises the Souther angingwall and footwall of the 70 per cent of the ore in the ced monzonite and only about 3	eposits are ing of h Lake Formation rmation. Early esent. The Witch ost-Takla Group rassic Mount ligan, about 9 pouthern Star, on the property. d Southern Star escription of the n Star deposit. rn Star zone, Southern Star 0 per cent in

volcanic rocks of the Witch Lake Formation.

The volcanic rocks consist mainly of monolithic fragmental andesitic varieties which include actinolite-altered augite porphyritic lapilli tuff with minor augite crystal and lithic tuff. Minor augite porphyritic flows and heterolithic debris flows are interbedded with the fragmental rocks. Plagioclase and/or hornblende phenocrysts occur locally within flows and within lapilli or crystal tuffs. Latitic volcanic rocks (potassically altered andesites) underlie much of the area around the MBX stock of the Main zone to the north and less commonly, areas adjacent to the Southern Star stock.

The Southern Star stock is a moderately west-dipping, northwest-striking, tabular body of monzonite, which forks at its northern end. The stock is approximately 800 by 300 metres in area and is composed mainly of plagioclase porphyritic monzonite and, along some of the stock margins, plagioclase hornblende porphyritic monzonite. Hydrothermal breccias occur throughout the Southern Star stock, and less commonly in adjacent volcanic rocks. These areas are characterized by potassium feldspar flooding.

Potassic and propylitic alteration assemblages are present throughout the Mt. Milligan deposits with gold and copper mineralization mainly associated with the potassic assemblage. Minor postmineral carbonate alteration is also present. The potassic alteration is best developed around the contacts of stocks, decreasing in intensity towards the core of the stock and away from the contacts for several hundred metres into fractured country rocks. The alteration is characterized by secondary potassium feldspar and, in areas of intense potassic alteration, fine-grained secondary biotite (up to 40 per cent), chalcopyrite, lesser magnetite and minor bornite. Pyroxene phenocrysts, where present are replaced by actinolite. The propylitic alteration is widespread and generally pervasive. It is developed best outside the zone of potassic alteration, outward from the stocks for up to 2500 metres. The assemblage consists of epidote with varying amounts of calcite, chlorite, albite and pyrite.

Widespread disseminated mineralization accompanied by lesser veinlet and fracture-filling mineralization occurs. Mineralization consists mostly of chalcopyrite, lesser magnetite and minor bornite in areas of potassic alteration, and pyrite in areas of propylitic alteration.

Sporadic supergene enrichment also occurs in the Southern Star deposit. Secondary copper minerals identified in these areas consist of the sulphides, covellite, chalcocite and djurleite; the oxides, cuprite and tenorite; the carbonates, malachite and azurite and; native copper. The sulphides occur as rims around chalcopyrite; and the oxides, in particular cuprite, occur as surface coatings on native copper. Secondary copper minerals commonly occur with goethite, magnetite, hematite and siderite. Limonite, which includes goethite, commonly replaces sulphide minerals or occurs as coatings on fracture surfaces and hairline cracks.

No separate reserve figures are available for the Southern Star deposit. The reader is referred to Mt. Milligan (093N 194), the reserve figure of which includes the Southern Star orebody.

#### BIBLIOGRAPHY

EMPR ASS RFT 4274, 4742, 5175, 11951, 12912, \*14377, \*16966, 17936, 18523, 21488, \*21682, \*22294 EMPR PF ((1988): The Mt. Milligan Bulk Tonnage Gold-Copper Project; Times Colonist Newspaper Mar.18, 1989; 1989 "Snapshot" Review Form; Filing Statements (United Lincoln Resources Inc. 132/88; Continental Gold Corp. 134/88); News Release (United Lincoln Resources Inc., Continental Gold Corp., Nov.18,25, Dec.14, 1988; Jan.9, Feb.7, 1989); \*Sketchley, D.A. (November 30, 1992): Mt. Milligan Copper-Gold Deposits, presented at the Northwest Mining Association Porphyry Copper Model Short Course) EMPR FIELDWORK \*1990, pp. 89-110, 199-205; 1991, pp. 341-347 EMPR OF 1991-3; 1992-3 EMPR GEM 1973-363; 1974-274 EMPR EXPL 1983-453; 1984-335,336; 1985-B16,B17; 1986-C368,C369; \*1988-B133-B135; \*1989-181-192 EMPR \*Mine Development Review Process - Stage 1 Report, April, 1991 GSC P 41-5; 42-2; 45-9 GSC MEM 252 GSC MAP 876A; 907A; 971A; 1424A GSC OF 2842 GCNL #223, 1988; #134,#38,#60,#61,#51,#111,#128,#27,#50,#68,#73,#6, #1,#86,#9,#135(Jul.14),#148(Aug.2),#150(Aug.4),#161(Aug.22), #202(Oct.20),#215(Nov.8),\*#229(Nov.29),#246(Dec.22), 1989; #24(Feb.2),#207(Oct.25), 1990

#### BIBLIOGRAPHY

N MINER Jan.16, Feb.27, Mar.20, Apr.17, June 19, Jul.10, 1989; Dec.5, 1988; Feb.27, Mar.20, Apr.17, Aug.7,28, Oct.16, 1989; Jan.1,15, Feb.19, Mar.12, May 28, Sept.10, Dec.3, 1990; May 27, June 17, July 8, Oct.28, 1991; Feb.10,17, 1992 N MINER MAG Feb. 1991, pp. 13-16 NW PROSP March/April, May/June, Sept./Oct., Nov./Dec., 1989

DATE CODED: 1993/02/01 DATE REVISED: 1993/03/25 CODED BY: GJP REVISED BY: GJP
MINFILE NUMBER:	<u>093N 192</u>			NATIONAL MINERAL INVENTORY:	
NAME(S):	INDATA, INDIO, SCHNAPPS, MAIN, SOUTH, NORTH, ALBERT LAKE, LAKE COPPE	R			
STATUS:	Developed Prospect			MINING DIVISION:	Omineca
NTS MAP:	093N06W			UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 23 39 N 125 20 14 W 1197 Metres Within 500M Location are the collars of dia kilometre east of the northerr east-southeast of Takla Land Map, Sheet 2).	amond-drill holes 88 n tip of Albert Lake a ding (Assessment F	8-I-9 to 11, 1 and 40 kilometres Report 19382, Geo	NORTHING: EASTING: logy	6141141 351975
COMMODITIES:	Copper G Molybdenum	old	Silver	Antimony	Lead
MINERALS					
SIGNIFICANT:	Arsenopyrite Pyrite Galena Bornite	Chalcopyrite Tetrahedrite	Pyrrhotite Sphalerite P	Stibnite entlandite	
COMMENTS:	Scheelite Bismuthinite Minor tetrahedrite, sphalerite	, pentlandite, schee	lite, bismuthinite		
ASSOCIATED:	Quartz Carbonate			noto	
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Talc Si Unknown	Silica Ta ilicific'n	Propylitic	Oxidation	
		iccominated	Shoor		
CLASSIFICATION: TYPE:	Hydrothermal Ep 101 Au-quartz veins	pigenetic	Shear		
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Cache Creek	FORM	ATION ped Formation	IGNEOUS/METAMO	DRPHIC/OTHER
Triassic-Jurassic Triassic-Jurassic Paleozoic-Mesozoic	Takla	Undefi	ned Formation	Topley Intrusions Oceanic Ultramafit	es
LITHOLOGY:	Hornblende Andesite Flow Pillow Breccia Tuff Breccia Andesite Crystal Lithic Tuff Andesite Serpentinite Gabbro Hornblende Diorite Biotite Quartz Monzonite Limestone				
HOSTROCK COMMENTS:	Cache Creek Complex rock Oceanic Ultramafites are M	ks are Carboniferou lississippian to Trias	s to Jurassic while ssic.	e the	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek	Quesnel		PHYSIOGRAPHIC AREA: Omineca	Mountains
INVENTORY					
ORE ZONE:	MAIN		REPORT ON:	Ν	
	CATEGORY: Assay/anal SAMPLE TYPE: Drill Core COMMODITY	lysis GRAI	YEAR: DE	1988	
COMMENTS: REFERENCE:	Sample across 6.09 metres i George Cross Newsletter No	in a talc-carbonate a b. 172, 1988.	altered serpentinite	9.	
CAPSULE GEOLOGY					

The Indata occurrence is situated between Albert and Indata lakes, 4 kilometres south of the outlet of Tsayta Lake and

PAGE: 1190 REPORT: RGEN0100

### CAPSULE GEOLOGY

approximately 40 kilometres east-southeast of Takla Landing. Interest in the area began in 1983 when a regional exploration program was conducted by Imperial Metals Corporation along the Pinchi fault zone. Results of the 1984 regional geochemical release served to focus this interest in the area of Radio Lake and eventually led to the discovery of in-situ mineralization.

The area is underlain by sediments assigned to the Carbonaceous to Jurassic Cache Creek Complex and volcanic rocks similar to those of the Middle Triassic to Lower Jurassic Takla Group to the east. These groups of rocks are separated by the Pinchi fault zone, which traverses the area in a north-northwesterly direction, and have been intruded by intermediate to felsic plutons and by ultramafic bodies. The oldest rock in the area is massive to well bedded, light to blue-grey Cache Creek limestone outcropping as prominent hills and bluffs. Much of the area between Albert and Indata lakes, however, is underlain by hornblende andesite flows and pyroclastics, including pillow breccia, tuff, tuff breccia and crystal lithic tuff. Small areas of dark amygdaloidal basalt flows have also been observed. Three intrusive suites have been mapped in the area. Hornblende diorite, the oldest intrusive unit, forms a pluton east of the occurrence and occurs as dikes. It is thought that this unit may be comagnatic with the volcanic rocks, as it does not intrude other rock types. Intruding both volcanic rocks and the diorite are dark green to black coloured, locally altered serpentinite (metaperidotite) and gabbroic bodies formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions and now termed Mississippian to Triassic Oceanic Ultramafites. The youngest intrusive rocks in the area consist of coarse-grained, light to reddish grey biotite quartz monzonite to granite.

Regionally, similar granites have been described as belonging to the Late Triassic-Early Jurassic Topley intrusions. At least two periods of faulting have affected volcanic rocks in the area. An early set of north striking, east-dipping faults has been cut by predominantly east striking, steeply dipping normal faults. The latter faults are thought to be post-mineralization, as they tend to displace veins hosted by the north-striking faults. Copper mineralization is also hosted by fracture systems in the volcanic rocks thought to be set up by the emplacement of the diorite pluton.

rocks thought to be set up by the emplacement of the diorite pluton. Mineralization found to date is of two types: 1) polymetallic vein mineralization occurring within shallowly dipping, northstriking shear zones and 2) veinlet and disseminated sulphide mineralization in fractured volcanic rocks.

The polymetallic mineralization is characterized by up to 7.6metre wide veins hosting zonally distributed, massive arsenopyrite with associated pyrrhotite, chalcopyrite, pyrite and local stibnite and galena in a quartz-carbonate gangue. Gold and silver associated with the sulphide mineralization occur in variable amounts, with gold:silver ratios increasing from south to north. Minor tetrahedrite, sphalerite, pentlandite, scheelite, bismuthinite and bismuth-telluride mineralization has also been noted locally. Wallrock alteration depends upon rock type, with silicification prominent in volcanic rocks and talc alteration more prevalent in ultramafic wallrocks.

The second type of mineralization is characterized by chalcopyrite (with or without pyrite) with attendant malachite and azurite as fracture coatings and as disseminations within propylitically altered (and locally silicified) wallrock.

Diamond-drill hole 88-I-11, collared to test part of an 800metre long geophysical/geochemical anomaly known as the Main zone, intersected a 1.2-metre wide quartz-sulphide vein grading 6.1 grams per tonne gold. The same drillhole also intersected disseminated sulphide mineralization within talc-carbonate altered serpentinite, 7 metres further down the hole. A 6-metre wide sample across this mineralization graded 31.57 grams per tonne gold (George Cross Newsletter No. 172, 1988; Property File - Eastfield Resources Ltd. Newsletter).

At the north end of Albert Lake, disseminated and stringer pyrite-chalcopyrite mineralization occurs in a shear zone in chlorite-epidote altered basalt. A diamond-drill hole intersection across 0.3 metre graded 1.95 per cent copper (Assessment Report 14074, Appendix III).

In 1996, Clear Creek Resources Ltd. drilled and intersected 96.5 metres of 0.12 per cent copper (GCNL #72 (Apr.15), 1998). Wildrose Resources Ltd. and Clear Creek Resources Ltd.

wildrose Resources Ltd. and Clear Creek Resources Ltd. completed a 10-hole, 955-metre drill program in 1998. One hole intersected 0.20 per cent copper over 145.2 metres (GCNL #72 (Apr.15), 1998).

EM EXPL 1998-33-45 EMPR ASS RPT 13180, 14074, 16129, 17185, 18613, \*19382, 21397 EMPR BULL 70 EMPR EXPL 1984-336,337; 1985-C330; 1987-C314; 1988-B137,B138,C178; 1996-C12 EMPR OF 2000-19 EMPR OF 2000-19 EMPR PF (Vancouver Stockwatch Sept.23, Oct.29, Dec.3, 1987; \*Eastfield Resources Ltd. Newsletter; see Nifty, 093D 006 - Wildrose Resources Ltd. Corporate Information; 1989 Snapshot Review Form) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC OF 3071 GSC P 42-7; 42-11; 44-5; 45-6 N MINER Oct.3, 1988 GCNL #196, 1987; #172,#234, 1988; #53(Mar.17), #129(Jul.7), 1997; #4(Jan.7), #39(Feb.25), #72(Apr.15), #220(Nov.17), 1998 WWW http://www.eastfieldgroup.com/wildrose/wrshome.html; http://www.infomine.com/ Placer Dome File

DATE CODED: 1986/03/13 DATE REVISED: 1992/10/06 CODED BY: AFW REVISED BY: GO

MINFILE NUMBER:	093N 193		NATIONAL MINERAL INVENTORY:	
NAME(S):	PHIL 20. PHIL			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP:	093N02W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 34 N 124 53 52 W 1100 Metres Within 500M The vein is located 3.5 kilomet Alexander, south of Tchentlo L	res north-northwest of Mount ake (Assessment Report 13509).	NORTHING: EASTING:	6114178 379091
COMMODITIES:	Gold Silve	er Lead		
	Calana Durita			
ASSOCIATED: MINERALIZATION AGE:	Quartz Ankerite			
	Voin			
CLASSIFICATION:	Hydrothermal Epig	jenetic		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Cherty Tuff Augite Porphyry Flow Dacitic Tuff Argillite Chert	WICH Lake		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOGRAPHIC AREA: Nechako	) Lowland
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON	N	
REFERENCE:	CATEGORY: Assay/analys SAMPLE TYPE: Grab <u>COMMODITY</u> Silver Gold Assessment Report 13509, pa	is YEAR: 	1984 Der tonne Der tonne	
CAPSULE GEOLOGY				
	Volcanic rocks o Group consisting of d overlain by a sedimen volcanic greywacke. informal Upper Triass al., Fieldwork 1990 a A narrow (1 cent crosscuts cherty tuff grab sample of vein m grams per tonne silve copper (Assessment Re	f the Middle Triassic to acitic tuffs and augite tary package containing The volcanics are assume ic Witch Lake Formation nd 1991). imetre wide) galena-pyri s near a contact with au aterial yielded 16.1 gra r, 0.19 per cent arsenic port 13509, page 3).	b Lower Jurassic Takla porphyry flows are argillite, chert and ed to part of the (Takla Group) (Nelson et te-quartz-ankerite vein agite porphyry flows. A ms per tonne gold, 265 and 0.027 per cent	
BIBLIOGRAPHY				
	EMPR ASS RPT *13509, EMPR FIELDWORK 1990, EMPR OF 1991-3; 1992- GSC MEM 252 GSC P 41-5; 42-2; 45- GSC MAP 876A; 907A; 9 GSC OF 2842	17859, 19163 pp. 89-110; 1991, pp. 10 4 9 71A; 1424A	3-118	
DATE CODED: DATE REVISED:	1986/03/13 1993/03/04	CODED BY: AFW REVISED BY: GJP	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>093N 194</u>		NATIONAL MINERAL INV	ENTORY: 093N1 Au1
NAME(S):	MOUNT MILLIGAN, MT. MILLIC SOUTHERN STAR, PHIL-HEIDI, F HEIDI, MBX, WBX, 66, DWBX, CREEK, ESKER	gan, Main, Hill,		
STATUS:	Developed Prospect		MINING	DIVISION: Omineca
NTS MAP: BC MAP	093N01E		Л	TM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 07 26 N 124 01 39 W 1100 Metres Within 500M MBX zone, 8.75 kilometres sout Milligan, 7.75 kilometres west fro 16966).	h-southeast from the summit om Philip Lakes (Assessmen	NG f Mount t Report	DRTHING: 6109060 EASTING: 434476
COMMODITIES:	Gold Copp Molybdenum	ber Silver	Lead	Zinc
MINERALS SIGNIFICANT:	Pyrite Chalcopyrite Chalcocite Djurleite Sphalerite Galena Tennantite	Magnetite Bornite Cuprite Tenorite Molybdenite Arsenopy	Covellite Copper ite Tetrahedrite	
COMMENTS:	Pyrite, chalcopyrite, magnetite a important hypogene mineralization list belong to the less significant or the outhing polymetralic years	and bornite form the economic on. The remaining minerals is supergene enrichment asses	cally n this mblage	
ASSOCIATED: ALTERATION:	K-Feldspar Quartz K-Feldspar Biotite	Calcite Actinolite Epidote	Calcite	
COMMENTS:	Alteration minerals also occurrin	rrite ng include malachite, azurite, imonite		
ALTERATION TYPE: MINERALIZATION AGE:	Potassic Prop	ylitic Carbor	nate	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Disseminated Stoc Porphyry Hydr L03 Alkalic porphyry Cu-Au Regular Fractured 1300 x 950 x 244 Metre Main deposit dimensions. Does	kwork Massiv othermal Epigen es STRII i not include Southern Star (0	/e etic KE/DIP: TF 93N 191).	REND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic		· · · · ,	
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Witch Lake	IGNEOU	S/METAMORPHIC/OTHER
Upper Triassic Triassic-Jurassic	Takla	Rainbow Creek	Unname	d/Unknown Informal
LITHOLOGY:	Augite Andesitic Lapilli Tuff Augite Andesitic Crystal Tuff Augite Porphyritic Andesitic Flor Andesite Latite Trachyte Trachyte Trachytic Flow Trachytic Tuff Plagioclase Porphyritic Monzoni Monzonite Breccia	w		
HOSTROCK COMMENTS:	The monzonitic hostrocks are	coeval with the Takla Group	volcanics.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Regional		PHYSIOGRAPHIC AREA:	Nechako Lowland
METAMONTHOTIFE.			GIADE.	Crochiothiat

INVENTORY

MINFILE NUMBER: 093N 193

#### ORE ZONE: MOUNT MILLIGAN

REPORT ON: Y

	CATEGORY:	Combined 445000000 Tonr	nes		YEAR: 1997
	COMMODITY			GRADE	
	Gold			0.4150	Grams per tonne
	Copper			0.2150	Per cent
COMMENTS:	Measured and	indicated resource.			

REFERENCE: Property File - Mt. Milligan Project, Economic Growth...12/15/97.

#### CAPSULE GEOLOGY

The Mt. Milligan property is situated in the central part of the Quesnel belt which comprises equivalent rocks of the Middle Triassic to Lower Jurassic Takla, Nicola and Stuhini groups. Bounded to the west by the Pinchi fault, the belt is separated from deformed uplifted Carboniferous to Jurassic Cache Creek Complex (Group) rocks. To the east, the Manson fault zone separates the belt from the high-grade metamorphic Proterozoic Wolverine Complex and the Mississippian to Permian Slide Mountain Group. About 25 kilometres west-northwest of the Mt. Milligan deposit is the southern tip of the northwest-elongate Late Triassic to Early Cretaceous Hogem Intrusive Complex. The main phase of the complex is dated at between 176 to 212 Ma, and is considered to be an intrusive equivalent of the Takla Group.

In the Mount Milligan area, the Takla Group has recently been divided into four informal units - the Upper Triassic Rainbow Creek, Inzana Lake and Witch Lake formations and the Lower Jurassic Chuchi Lake Formation (Fieldwork 1990, page 93). The Rainbow Creek Formation is a basinal layer of slate, and lesser siltstone and epiclastic interbeds. Overlying epiclastic sediments of the Inzana Lake Formation are in turn overlain by augite and other porphyritic volcanics and pyroclastics of the Witch Lake Formation. These pass upward into polymictic lahars and subaerial flows of the Chuchi Lake Formation.

The Mount Milligan Intrusive Complex, located about Mount Milligan peak, approximately 9 kilometres northwest of the Mt. Milligan deposit, consists of at least two separate Early Jurassic intrusive phases. It includes sphene-bearing monzonite, with gabbro and hornblende granite end members; and porphyritic granite. Its wallrocks and numerous pendants include regionally metamorphosed amphibolites and granulites as well as contact hornfelses. The earlier of the two plutonic bodies on Mount Milligan is an equigranular, massive to foliated quartz-deficient monzonite. The later plutonic body is a porphyritic, medium-grained granite with peripheral pegmatite and aplite stringers. The complex was later uplifted as a horst, accompanied by Late Cretaceous to Early Tertiary felsic intrusive activity.

The area of the Mt. Milligan porphyry copper deposits are underlain mainly by north-northwest trending volcanic rocks of the Witch Lake Formation and minor sedimentary rocks of the Rainbow Creek Formation; early Tertiary volcanic and sedimentary rocks are also present. The Witch Lake rocks are intruded by coeval Takla Group and post-Takla Group intrusions related to the Mount Milligan Intrusive Complex. The monzonitic MBX, Southern Star, Goldmark and North Slope stocks host mineralization on the property.

The Mt. Milligan deposits are made up of the Main and Southern Star (093N 191) deposits. The Main deposit comprises the MBX zone, the WBX zone, the 66 zone and the DWBX zone. The Main deposit occurs within the MBX stock and adjacent latitic and trachytic rocks of the Witch Lake Formation. The Southern Star deposit occurs in the Southern Star stock, and adjacent andesitic rocks of the Witch Lake Formation. Refer to the Southern Star occurrence for details of that deposit.

Andesitic rocks underlie most of the area around the Southern Star stock and areas away from the MBX stock. Monolithic fragmental varieties, which form most of the unit, are characterized by actinolite-altered augite porphyritic lapilli tuff with minor augite crystal and lithic tuff. Minor augite porphyritic flows and heterolithic debris flows are interbedded with the fragmental rocks. Plagioclase and/or hornblende phenocrysts occur locally within flows and within lapilli or crystal tuffs. Latitic volcanic rocks are texturally similar to andesitic

Latitic volcanic rocks are texturally similar to andesitic volcanic rocks since they are potassically altered andesites. They underlie most of the area around the MBX stock and, less commonly, areas adjacent to the Southern Star stock. These rocks can be distinguished from andesitic volcanic rocks through their darker colour; general absence of visible hornblende; presence of biotite; and greater than one-third potassic feldspar (visible when stained). Trachytic volcanic rocks are characterized by high potassium

Trachytic volcanic rocks are characterized by high potassium feldspar content and a lack of mafic minerals; minor fine-grained

PAGE 1195 REPORT: RGEN0100

# CAPSULE GEOLOGY

plagioclase is also present. Pyrite and chlorite occur in the rock as curvilinear partings in a massive rock type, and along bedding planes and disseminated throughout in a bedded type. The trachytic rocks are porous and intensely potassically-altered. They are interbedded with latitic volcanic rocks in the eastern portion of the Main deposit which is the only indication of stratigraphy in the area of the deposits.

The above sequence has been intruded by a number of small stocks and dikes of porphyritic monzonite and lesser syenite related to the Mount Milligan Intrusive Complex and aligned with that complex along a northwest-trending belt, indicating that their emplacement was structurally controlled. The MBX stock is a moderately west-dipping monzonite body approximately 400 metres in diameter. In the southeastern portion of the Main deposit, the Rainbow dike, up to 50 metres wide, extends from the footwall of the MBX stock forming an elongate bowl-like body with gently dipping sides open to the southeast. The Southern Star stock is a moderately west-dipping, north-northwest striking tabular body of monzonite which forks at its northern end. This stock is approximately 800 by 300 metres in area. These stocks contain up to 30 per cent plagioclase feldspar phenocrysts, 1 to 10 millimetres in length, occurring within a fine-grained grayish pink groundmass composed mostly of potassium feldspar with lesser plagioclase feldspar, and minor quartz, hornblende, biotite and accessory magnetite. Rafts of volcanic rocks are common in both MBX and Southern Star stocks, and xenoliths of volcanic rock and/or lesser earlier monzonite occur locally.

Hydrothermal breccia occurs extensively throughout the Southern Hydrothermal breecla occurs extensively throughout the southern Star stock and less commonly in adjacent volcanic rocks and along the margins of the MBX stock. It is characterized by potassium feldspar veinlets and flooding that vary in amount and size. Three types of postmineral dikes cut the deposits; trachytic, monzonitic and dioritic varieties. These dikes are characterized by lack of sulphide mineralization, with only the monzonitic and dioritic three otherwise alterities of a weak propulitic and carbonate

dioritic types showing alteration of a weak propylitic and carbonate nature respectively.

Potassic and propylitic alteration assemblages are present throughout the deposits with gold and copper mineralization mainly associated with the potassic assemblage. Minor postmineral carbonate alteration is also present. The potassic alteration is best developed around the contacts of the MBX stock, Rainbow dike and Southern Star stock, decreasing in intensity towards the core of the stocks and away from the contacts for several hundred metres into fractured country rocks. The alteration is characterized by secondary potassium feldspar and, in areas of intense potassic alteration, fine-grained secondary biotite (up to 40 per cent), chalcopyrite, lesser magnetite and minor bornite. Pyroxene phenocrysts, where present, are replaced by actinolite. The propylitic alteration is widespread and generally pervasive. It is best developed outside the zone of potassic alteration, outward from the stocks for up to 2500 metres. The assemblage consists of epidote with varying amounts of calcite, chlorite, albite and pyrite. The propylitic alteration locally overprints the potassic assemblage and less commonly potassic alteration overprints the propylitic assemblage; this relationship is possible because of the contemporaneous nature of the two types of alteration. At least four episodes of postmineral faulting affected the area

containing the deposits. The earliest is manifested by the northerly striking, shallow east-dipping Great Eastern and Rainbow faults. The Great Eastern fault is a moderate east dipping, north to northwest striking regional structure that truncates the southeastern portion of the Main deposit and separates it from sedimentary rocks of the Rainbow Creek Formation and early Tertiary volcanic and sedimentary rocks. The Rainbow fault follows the Rainbow dike, and may be a splay off the Great Eastern fault.

Northwest striking, steeply east-dipping faults occur in the Southern Star deposit and in the western portion of the Main deposit. The most important fault of this type is the Divide fault which separates the Main deposit from the Southern Star deposit.

North-striking faults, possibly related to Tertiary block faulting, are manifested by the steeply east-dipping Harris fault, which separates the WBX and DWBX zones.

Prominent east-northeast striking crossfaults are the latest episode of faulting in the area. These include the Oliver fault, Southern Star crossfaults and the Caira faults, although the latter may belong to an earlier episode that predates the Rainbow fault.

Hypogene mineralization within the Main deposit occurs in the MBX, 66, WBX and DWBX zones, apparently forming one contiguous, blanket-shaped mineralized body over 1300 metres long, up to 950 metres wide and up to 244 metres thick. The MBX zone is in the

PAGE: 1196 REPORT: RGEN0100

# CAPSULE GEOLOGY

central portion of the deposit along the footwall of the MBX stock, and surrounds the Rainbow dike where it protrudes from the stock. This zone contains gold and copper, and grades into the 66 zone to the southeast. The gold-rich copper-poor 66 zone surrounds the Rainbow dike. The WBX zone and its downfaulted western extension, the DWBX zone, form the northwest portion of the deposit. Both occur along the hangingwall of the MBX stock, and contains gold and copper. The Southern Star deposit occurs in the hangingwall and footwall

of the Southern Star stock, and contains gold and copper. Mineralization consists mostly of chalcopyrite, lesser magnetite and minor bornite in areas of potassic alteration, and pyrite in areas of propylitic alteration. In areas of potassic alteration, mineralization is developed best in monzonitic and volcanic rocks adjacent the footwall and, to a lesser extent, the hangingwall contact of the stocks. It is also present in and around trachytic volcanic rocks and the Rainbow dike. In areas of propylitic alteration, mineralization generally decreases away from the stock.

Chalcopyrite occurs mostly as fine-grained disseminations and fracture fillings, and less commonly as veinlets and selvages of veinlets. In veins, chalcopyrite occurs with magnetite and pyrite in a gangue of potassium feldspar, quartz and calcite. Magnetite occurs as disseminations (common in biotite-rich rock), patches and in veinlets, laminae and breccia matrix. A unique occurrence of magnetite breccia occurs as a small zone consisting of 50 per cent massive magnetite veins along the contact of the MBX stock. Bornite occurs as blebs and disseminations in lensoidal zones within volcanic rocks close to the footwall contacts of the MBX and Southern Star stocks where potassium feldspar veinlets are common. Bornite also occurs within the southern portion of the Southern Star stock. Pyrite occurs as disseminations, veinlets, large clots, patches and as replacements in mafic minerals. Several generations of pyrite veinlets are indicated. Gold occurs as grains ranging from 5 to 100 micrometres that fill microfractures, adhere to imperfections on the outside of pyrite grains, and also as inclusions in pyrite, chalcopyrite and magnetite grains. Visible gold is rare.

A diamond-drill hole intersection from the WBX zone across 4.99 metres assayed 12.58 grams per tonne gold and 0.26 per cent copper (George Cross News Letter No.111, 1989). From the gold-enriched 66 zone, a diamond-drill hole intersection across 6.0 metres assayed 4.45 grams per tonne gold and 0.26 per cent copper (George Cross Newsletter No.111, 1989).

Supergene alteration in the deposit is recognized in the MBX, WBX and Southern Star zones. The alteration is deepest and most extensive in the MBX and WBX zones where it is about 20 metres thick over most of the area, with localized areas up to 60 metres thick. However, supergene enrichment is only sporadic and does not form well-defined zones. Secondary copper minerals identified in these areas consist of the sulphides, covellite, chalcocite and djurleite; the oxides, cuprite and tenorite; the carbonates, malachite and azurite; and native copper. The sulphides occur as rims around chalcopyrite; and the oxides, in particular cuprite, occur as surface coatings on native copper. Secondary copper minerals commonly occur with goethite, magnetite, hematite and siderite. Limonite, which includes goethite, commonly replaces sulphide minerals or occurs as coatings on fracture surfaces and hairline cracks. Gold-silver bearing veins are present in propylitically altered

Gold-silver bearing veins are present in propylitically altered volcanic rocks adjacent to the MBX and Southern Star stocks, apparently radiating outward from the MBX stock and occurring mainly within 500 metres of the stock. They comprise sulphide-rich and carbonate-quartz rich types. The best developed sulphide-rich veins occur in the Creek and Esker zones where 3 to 5 subparallel veins strike northeast and dip steeply northwest through andesitic rocks. The Creek zone is about 400 metres south-southwest of the MBX stock; the Esker zone is about 600 metres southest of the stock. The veins contain mostly pyrite with lesser chalcopyrite, sphalerite, galena, molybdenite, arsenopyrite and tetrahedrite-tennantite, and minor quartz, potassium feldspar and carbonate. At the Creek zone, a diamond-drill hole intersection across 1 metre assayed 4.4 grams per tonne gold and 82.0 grams per tonne silver (Assessment Report 16966). The carbonate-quartz rich veins, which contain sphalerite, galena and pyrite, occur in propylitically altered latitic volcanics northwest and northeast of the MBX stock.

In general, higher copper values occur along the footwall of the Southern Star stock and as a halo around the MBX stock. The distribution of higher gold grades is similar to copper, but with several important differences. Where concentrations of chalcopyrite are greater near the margins of the MBX stock and the Southern Star stocks, gold values are higher. However, within the 66 zone, where chalcopyrite is sparse and pyrite is abundant, higher gold grades are

associated with zones where clots of pyrite, carbonate and chlorite are present. Generally, gold grades are lower around the Southern Star stock and have a much broader distribution around the MBX stock particularly in the 66 zone where the highest grades occur. Lower gold:copper ratios occur in the Southern Star deposit, whereas higher ratios, indicating higher gold grade, occur away from the MBX stock. In general, copper and gold mineralization form a core zone around which peripheral gold-only mineralization occurs in the upper portion of the hydrothermal system.

Placer Dome acquired the property from Continental Gold and BP Minerals in 1990.

A prefeasibility study in 1991 estimated the mineable reserve at 298,400,000 tonnes of ore grading 0.45 gram per tonne gold and 0.22 per cent copper (Information Circular 1995-1, page 14).

A geological resource (no economic considerations) for the MBX and Southern Star zones is reported to total 1,153,135,000 tonnes grading 0.254 gram per tonne gold and 0.126 per cent copper (Mt. Milligan Project, Stage 1 Report, Volume 1 - Development Plan (Mine Development Review Process), April 1991, Placer Dome Inc., Table 3.4, page 3-12).

The Mount Milligan deposit has a measured and indicated resource of 445 million tonnes of ore grading 0.415 gram per tonne gold and 0.215 per cent copper. More than 70 per cent of the measured and indicated resource is considered as a mineable reserve which is economically viable to extract. Mount Milligan's reserve is 257 million tonnes of ore grading 0.510 gram per tonne gold and 0.240 per cent copper (Property File - Mt. Milligan Project, Economic Growth for B.C. & Shareholder Value for Placer Dome, 12/15/97).

#### BIBLIOGRAPHY

EMPR ASS RPT 4274, 4742, 5175, 11951, 12912, \*14377, \*16966, 17936, \*18523, 19121, 20446, 21488, \*21682, 22294 EMPR EXPL 1983-453; 1984-335,336; 1985-B16,B17; 1986-C368,C369; \*1988-B133-B135; \*1989-181-192 EMPR FIELDWORK \*1990, pp. 89-110, 199-205; 1991, pp. 341-347 EMPR GEM 1973-363; 1974-274 EMPR INF CIRC 1993-13; 1994-19, page 14; 1995-1, p. 14 EMPR \*Mine Development Review Process - Mt. Milligan Project, Stage 1 Report, Volume 1 - Development Plan, April 1991, Placer Dome Inc. EMPR OF 1991-3; 1992-3; 1994-1; 1998-8-F, pp. 1-60 EMPR PF (1988, The Mt. Milligan Bulk Tonnage Gold-Copper Project; Times Colonist Newspaper Mar.18, 1989; 1989 'Snapshot' Review Form; Filing Statements (United Lincoln Resources Inc. 132/88; Continental Gold Corp. 134/88); News Release (United Lincoln Resources Inc., Continental Gold Corp., Nov.18,25, Dec.14, 1988, Jan.9, Feb.7, 1989); \*Sketchley, D.A. (1992): Mt. Milligan Copper-Gold Deposits, presented at the Northwest Mining Association Porphyry Copper Model Short Course; Continental Gold Corp. Information Folder (includes Annual Report 1989, mining briefs, M. Rebagliati, 1989; Pacific Sentinel Gold Corp. Information folder, 1989; Continental Gold Corp. Progress Report for Shareholders, 1989; The Gangue (Newsletter for Mineral Deposits Division, Geological Association of Canada), pp. 5-7, Oct.10,1989; Drill sections from M. Rebagliati, 1990; MEG Talk notes, 1990; Geology plan maps; Geological notes; DeLong, C. (undated): Mt. Milligan: An Alkaline Porphyry Au-Cu Deposit) GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842 GSC P 41-5; 42-2; 45-9 GCNL #223, 1988; #134,#38,#60,#61,#51,#111,#128,#27,#50,#68,#73,#6, #1, #86, #9, #135(Jul.14), #148(Aug.2), #150(Aug.4), #161(Aug.22), #202(Oct.20),#215(Nov.8),\*#229(Nov.29),#246(Dec.22), 1989; #24(Feb.2),#207(Oct.25), 1990 MIN REV Winter 1996/97 p. 32 N MINER Jan.16, Feb.27, Mar.20, Apr.17, June 19, Jul.10, 1989; Dec.5, 1988; Feb.27, Mar.20, Apr.17, Aug.7,28, Oct.16, 1989; Jan.1,15, Feb.19, Mar.12, May 28, Sept.10, Dec.3, 1990; May 27, June 17, July 8, Oct.28, 1991; Feb.10,17, 1992 N MINER MAG Feb. 1991, pp. 13-16 NW PROSP March/April, May/June, Sept./Oct., Nov./Dec., 1989 WWW http://www.infomine.com/ Mt. Milligan Project, Prefeasibility Study, Volume 1 - Geology, August 1991, Placer Dome Inc. (company report)

DATE CODED: 1986/10/28 DATE REVISED: 1997/04/30 CODED BY: AFW REVISED BY: GJP

MINFILE NUMBER:	<u>093N 195</u>		NA	TIONAL MINERAL INVENTORY:	
NAME(S):	HUMPHREY				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N12W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 37 40 N 125 45 47 W 1675 Metres Within 500M Location is the approxima talc-ankerite altered ultrar about 20 kilometres norther Figure 20).	ite centre of a northe nafic rocks, northwes east of Takla Landing	ast-trending zone of st of Humphrey Lake, (Open File 1988-19,	NORTHING: EASTING:	6168117 326046
COMMODITIES:	Talc	Chrysotile			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Talc Chrysotile Actinolite Tremolite Ankerite Quartz Serpentin'zn Unknown	Carbonate Quartz-Carb.	Mariposite		
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Hydrothermal	Shear Epigenetic	Industrial Min.		
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic				
STRATIGRAPHIC AGE	GROUP	FORM	ATION	IGNEOUS/METAMO	ORPHIC/OTHER
Paleozoic-Mesozoic Paleozoic-Mesozoic	Cache Creek	Unde	fined Formation	Oceanic Ultramafit	es
LITHOLOGY:	Serpentinite Harzburgite Peridotite Greenstone Cherty Phyllite Meta Sediment/Sedimenta	ıry			
HOSTROCK COMMENTS:	Cache Creek Complex r Oceanic Ultramafites are	ocks are Carbonifero Mississippian to Tria	us to Jurassic while th assic.	ie	
	Intermentano				Mountains
METAMORPHIC TYPE:	Plutonic Rocks Regional	Cache Cre RELATIO	ek DNSHIP:	GRADE: Greensc	hist
CAPSULE GEOLOGY					
	The Humphrey occurrence is located northwest of Humphrey Lake, approximately 20 kilometres northeast of Takla Landing. A major structural feature, the Vital fault, strikes north-northwest and dips easterly through the area, dividing metasediments and greenstone of the Carboniferous to Jurassic Cache Creek Complex to the east and serpentinite and ultramafic rocks (peridotite and harzburgite) formerly assigned to the Middle Permian to Late Triassic Trembleur intrusions and now termed Mississippian to Triassic Oceanic Ultramafites, to the west. The ultramafics are variably serpentinized and have locally undergone quartz-carbonate alteration, resulting in generally lenticular zones of quartz- ankerite-mariposite. The alteration zones are cream to light brown, weather orange-brown and are most prominent adjacent to the main fault (Assessment Report 14554). Serpentinite in the area is described as massive, widely sheared and hosts talc and chrysotile veinlets together with coarsely crystalline actinolite and tremolite (Assessment Report 12548, page 4).				
BIBLIOGRAPHY	EMPR ASS RPT 12548 EMPR EXPL 1983-464 EMPR OF *1988-19, GSC MAP 844A; 9077 GSC MEM 252	8, *14554 4; 1985-C337 p. 49; 2000-33 A; 971A; 1424A			

GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED: 1988/01/21 DATE REVISED: 1992/10/11 CODED BY: MM REVISED BY: DMN

MINFILE NUMBER:	<u>093N 196</u>						NATIONAL M	INERAL INVENTORY:	
NAME(S):	AXEL, GOLDA	XE							
STATUS: REGIONS: NTS MAP:	Prospect British Columbi 093N13W	ia						MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 57 55 N 125 57 30 V 1550 Metres Within 500M Approximate k Landing (Asse	N V Docation of Tr Ssment Rep	rench A, abo port 15936, F	ut 54 I Figure	kilometres n 5).	orth of	Takla	Northing: Easting:	6206167 315360
COMMODITIES:	Gold Zinc		Silver		Ant	timony	,	Lead	Copper
MINERALS									
SIGNIFICANT: ASSOCIATED:	Stibnite Quartz Pyrite	Galena Fluorite	Chalcop Calcite	oyrite	Sphaleri Carbonate	te	Chalcocite Arsenopyrite		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Silica Silicific'n Unknown	Carbonate	Azurite Carbonate	•	Malachite				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal L03 Alkalic	: porphyry C	Epigenetic Cu-Au						
HOST ROCK DOMINANT HOSTROCK:	Plutonic								
STRATIGRAPHIC AGE	GROUP			FO	RMATION			IGNEOUS/METAM	ORPHIC/OTHER
Paleozoic-Mesozoic Triassic-Jurassic Eocene	Cache Creek Takla			Una Una	defined Forn defined Forn	nation nation		Babine Intrusions	
LITHOLOGY:	Syenite Porph Felsite Lapilli Tuff Conglomerate Ultramafic Phyllitic Schist Meta Volcanic Shale Siltstone	yry							
HOSTROCK COMMENTS:	Plutonic rock	s are related	d to the Eoce	ene Glo	over stock.				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks		Ca	ache C	reek		PHYSIOGRA	PHIC AREA: Omineca	a Mountains
INVENTORY									
ORE ZONE:	TRENCH				REF	PORT	DN: N		
	CATEGORY: SAMPLE TYPE COMMODITY	Assay/ai Grab	nalysis	G	RADE	YEA	AR: 1987		
COMMENTS	Silver Gold Copper Antimony Zinc Crab sample f	rom Trench	A of quartz.	fluorit	71.4000 12.6000 2.3300 1.3300 0.3400	Gran Gran Per c Per c Per c	ns per tonne ns per tonne eent eent eent		
DEEEDENICE:	stibnite, chalco	cite, galena	a, sphalerite	and py	rite.	115 1103	sung		
	Assessment N	epon 1395	0.						
CAPSULE GEOLOGY	The A of the Axe Landing. The r with folia Creek Comp Lower Jura	xel occu lgold Ra ange has ted rock lex to t ssic Tak	arrence i ange, app: s been di s assign che west a cla Group	s sit roxin vided ed to and s to t	tuated on mately 54 by a se the Car sediments the east.	h the kil ries rboni s of . Th	northeast ometres nor of faults ferous to J the Middle e Cache Cre	facing slopes th of Takla and thrusts, urassic Cache Triassic to ek rocks can be	

PAGE: 1201 REPORT: RGEN0100

# CAPSULE GEOLOGY

differentiated from the younger sediments by their highly tectonizedfoliated state and comprise phyllitic schist with minor interbedded metavolcanics. Takla Group rocks are dominated by shale and siltstone, with a coarse conglomerate appearing in a fault wedge to the north. The conglomerate is moderately to strongly foliated, dips moderately to steeply northeast and appears to overlie and envelope intrusive rocks on the property. A number of small ultramafic bodies are also caught up as slivers within the fault zone.

A sygnitic mass, referred to as the Axel intrusion, has been emplaced within the northwest-striking fault zone. It is represented by a pyritic sequence of variably silicified/carbonatized felsic and siliceous rocks related to either the Late Triassic to Early Cretaceous Hogem Intrusive Complex or the Late Triassic-Early Jurassic Topley intrusions. In general, the core of the intrusion comprises coarse-grained syenite porphyry flanked by a variably altered finer grained syenite porphyry which is, in turn, overlain by a felsic unit which is capped by lapilli tuff. All structural attitudes are northwest striking and dip moderately to steeply northeast.

The similarity between the Axel syenite and the Glover pluton of the Lustdust deposit, and other Eocene Babine Intrusives is stressed in later work (EMPR Fieldwork 2002, pages 97-113). Mineralization, in most cases, was found to be of the quartz

Mineralization, in most cases, was found to be of the quartz vein-type, averaging 2 centimetres thick, having no consistent orientation and occurring in felsitic rocks which themselves were not particularly mineralized. The veins host variable amounts of stibnite, galena and chalcopyrite and most contain anomalous concentrations of gold. Gold mineralization within the Axelgold Syenite (previously

Gold mineralization within the Axelgold Syenite (previously called the Axel syenite) is of the disseminated to stringer, and rarely vein style. Higher gold values tend to be associated with the potash feldspar-biotite plagioclase monzonite. Mineralization consists of quartz, carbonate, fluorite, pyrite, chalcopyrite, chalcocite, ?tetrahedrite, galena and stibnite. The alteration is extensive and pervasive (EMPR Fieldwork 2002, pages 97-113).

Trench A, located to find the origin of copper-stained float observed in a small debris track, exposed silicified syenite porphyry hosting massive pyrite as well as up to 7-centimetre wide quartz-stibnite and fluorite-calcite veins, the latter carrying local stibnite, chalcocite, galena, sphalerite, arsenopyrite, pyrite, malachite and azurite. In addition, several quartz-fluorite veins hosting stibnite and chalcopyrite occur within silicified megacrystic syenite porphyry within 200 metres of this seven metre trench.

The best assay, 12.6 grams per tonne gold, 171.4 grams per tonne silver, 1.33 per cent antimony, 2.33 per cent copper and 0.34 per cent zinc, came from a grab sample from Trench A (Assessment Report 15936).

#### BIBLIOGRAPHY

EM FIELDWORK 2002, pp. 97-114 EMPR ASS RPT 12784, 14018, 14020, 14521, 15226, \*15936, 16508 EMPR EXPL 1984-341; 1985-C340-C341; 1986-C376; 1987-A18,C316-C317; 2002-13-28 EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252 GSC P 74-1B, pp. 31-42; 76-1A, pp. 75-76

DATE CODED: 1988/03/14 DATE REVISED: 1992/09/17 CODED BY: GSA REVISED BY: DMN

MINFILE NUMBER:	<u>093N 197</u>			NATIONAL N	IINERAL INVENTORY:	
NAME(S):	BOLD 2, BOULDER CREEK	<				
STATUS:	Showing				MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093N09W				UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE:	55 36 13 N				NORTHING:	6162826
LONGITUDE: FLEVATION:	124 22 43 W 915 Metres				EASTING:	413144
LOCATION ACCURACY:	Within 500M	on the north h	ank of Boulder	Creek		
COMMENTO.	approximately 2 kilometre	s upstream from	n its mouth.	oroon,		
COMMODITIES:	Lead	Zinc	Mc	blybdenum	Silver	
SIGNIFICANT: COMMENTS:	Galena Sphalerite The sulphides are in four	e Molybder Id in very low co	nite oncentrations.			
ASSOCIATED: MINERALIZATION AGE:	Pyrite Unknown					
DEPOSIT						
CHARACTER:	Disseminated	Hydrothormal				
SHAPE:	Irregular	пушиненна				
MODIFIER:	Fractured					
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE	GROUP		FORMATION		IGNEOUS/METAM	ORPHIC/OTHER
Proterozoic-Paleoz. Cretaceous	Boulder Creek		Undefined Forr	nation	Germansen Batho	lith
	Aropito				Connaniooni Danio	
LIHOLOGI.	Carbonate	<b>Select</b>				
	manposite Taic Ankente s	SCHIST				
GEOLOGICAL SETTING						
TECTONIC BELT: TERRANE:	Omineca Kootenav			PHYSIOGRA	PHIC AREA: Manson	Upland
INVENTORY						
	VEIN		PE			
ONE ZONE.		a a buada				
	SAMPLE TYPE: Chip	nalysis		YEAR: 1982		
	<u>COMMODITY</u> Silver		GRADE 127.5000	Grams per tonne		
	Molybdenum Lead		0.2860 4.3500	Per cent Per cent		
REFERENCE.	Zinc Assessment Report 1070	2	1.3000	Per cent		
		<i>L</i> .				
CAPSULE GEOLOGY	The Bold 2 oc	currence i	s located o	on the north ban	k of Boulder	
	Creek, approximate occurrence is simi	ely 2 kilom llar to the	etres upsti Bold 1 occ	ream from its mo currence (093N 1	uth. This 37).	
	This occurrer molybdenite and py	nce consist vrite occur	s of disser ring withir	minated galena, n arenites and c	sphalerite, arbonates of	
	the Proterozoic to	Paleozoic	(?) Boulder ded body of	r Creek Group. f mariposite-tal	These sulphides	
	schist (altered ul	ltramafic).	The sedir	nents are highly	deformed e rocks are	
	intruded by the Cr	etaceous G	ermansen ba	atholith 2 kilom	etres to the	
	probable Cretaceou	a within th is to Terti	e right-lat ary age.	ceral Manson Iau	lt zone of	
	Chip samples cent zinc, 0.286 p	over 1.1 m per cent mo	etres assay lybdenum ar	yed 4.35 per cen nd 127.5 grams p	t lead, l.3 per er tonne silver	
	(Assessment Report	: 10702).		-		
BIBLIOGRAPHY	EMPR PF (Prospecti	is by TH	Montgomery	on Boulder Cree	k Prospect)	
	EMPR ASS RPT 1659, EMPR FIELDWORK 198	3864, 461 37, pp. 169	1, 6941, *1 -180; 1991,	10702 , pp. 119-126		

EMPR OF 1988-17 EMPR BULL \*91 GSC MEM 252 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1988/03/31 DATE REVISED: 1992/08/11

CODED BY: FF REVISED BY: DMM

MINFILE NUMBER:	<u>093N 198</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	BRALORNE LIMESTONE,	BRALORNE TAKLA		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N11W		MINING DIVISION:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 34 02 N 125 23 18 W 1070 Metres Within 500M Location is centred on the about 145 kilometres north of Canada Map 907A).	Bralorne Takla mercury mine (093N 008 west of Fort St. James (Geological Surv	), /ey	6160504 349400
COMMODITIES:	Limestone			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE: ISOTOPIC AGE:	Calcite Dolomite Dolomite Product of hydrothermal al Carbonate PennsylvanPermian	Iteration of limestone.	MATERIAI DATED: Eusui	inids
CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Stratiform Sedimentary R09 Limestone 2000 The limestone strikes north to 2 kilometres wide.	Massive Industrial Min. Metres STRIKE/DIP hwest and dips to the southwest; it is up	: TREND/PLUN	IGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Paleozoic-Mesozoic DATING METHOD: MATERIAL DATED:	GROUP Cache Creek Fossil Fusulinids	FORMATION Undefined Formation	IGNEOUS/METAMC	RPHIC/OTHER
LITHOLOGY:	Limestone Argillite Chert Greenstone Andesite			
HOSTROCK COMMENTS:	Cache Creek Complex ro	ocks are Carboniferous to Jurassic.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOGRAPHIC AREA: Omineca	Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/an SAMPLE TYPE: Grab <u>COMMODITY</u> Limestone Grade given for calcium ox Geological Survey of Cana	Aalysis YEAR: <u>GRADE</u> 56.0500 Per cent kide. Ida Memoir 252, page 36, Sample 10.	1949	
CAPSULE GEOLOGY	Numerous outc: Bralorne Takla mer 145 kilometres nor The deposit 1 belt of massive Per and argillite assig Complex. The belt Pinchi fault zone. (andesite) of the is up to 2 kilomet along the Pinchi fa Hydrothermal	rops of limestone occur in t cury mine (093N 008), just of thwest of Fort St. James. ies within a 200-kilometre i rmian to Pennsylvanian limes gned to the Carboniferous to is bound to the west by the Overlying chert, argillite Cache Creek Complex outcrop res wide to the west of Silv ault zone. activity along the fault zon	the vicinity of the west of Silver Creek, long, northwest-trending stone with minor chert o Jurassic Cache Creek northwest-striking e and greenstone to the west. The belt ver Creek, which flows he has resulted in the	

variable dolomitization of these carbonates. The limestone in the vicinity of the Bralorne Takla mercury mine is variably brecciated and white to blue-grey to buff in colour. A sample of brecciated buff-coloured limestone from the "A" showing at the mine analysed 50.06 per cent CaO, 0.05 per cent MgO, 3.04 per cent SiO2, 0.41 per cent Fe2O3+Al2O3 and 4.21 per cent insolubles (Geological Survey of Canada Memoir 253, page 36, Sample 11). A second sample of white limestone from the same showing analysed 56.05 per cent CaO, 0.05 per cent MgO, nil SiO2, 0.10 per cent Fe2O3+Al2O3 and 0.19 per cent insolubles (Geological Survey of Canada Memoir 252, page 36, Sample 10).

### BIBLIOGRAPHY

EMPR IND MIN FILE (\*McCammon, J.W. (1973): Limestone Occurrences in British Columbia, p. 25 (in Ministry Library)) EMPR OF 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 32-36 GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED:	1989/08/14
DATE REVISED:	1992/09/30

CODED BY: PSF REVISED BY: DMN

MINFILE NUMBER:	<u>093N 199</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>BB,</u> VITAL CREEK			
STATUS:	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N11W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 43 06 N 125 28 18 W 850 Metres Within 5 KM Location centred on the B northwest of Fort St. Jame 1973).	3B group of claims, about 160 kilometres es (Industrial Minerals File - McCammon,	NORTHING: EASTING:	6177499 344746
COMMODITIES:	Limestone			
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE: ISOTOPIC AGE:	Calcite Dolomite Dolomite Carbonate PennsylvanPermian	DATING METHOD: Fossil	MATERIAL DATED: Fusu	linids
	Stratiform	Massiva		
CLASSIFICATION:	Schementary R09 Limestone	Industrial Min.		
DIMENSION: COMMENTS:	760 Limestone strikes northw metres wide.	Metres STRIKE/DIF vest and dips southwest(?); it is up to 76	P: TREND/PLU 0	NGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Cache Creek	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
DATING METHOD: MATERIAL DATED:	Fossil Fusulinids	Undernied i Unitation		
LITHOLOGY:	Limestone Chert Argillite Greenstone Andesite Quartzite			
HOSTROCK COMMENTS:	Cache Creek Complex r	rocks range from Carboniferous to Juras	sic.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Cache Creek		PHYSIOGRAPHIC AREA: Omineca	Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY	analysis YEAR:	1949	
COMMENTS: REFERENCE:	Grade given for calcium c Geological Survey of Can	55.4600 Per cent oxide. ada Memoir 252, page 36, sample 14.		
CAPSULE GEOLOGY	Limestone is on Silver Creek, ; kilometres northwa The deposit ; belt of massive Pe argillite assigned Complex. The lime striking Pinchi fa chert, argillite, to the Cache Creed width. The limestone	exposed in the vicinity of just north of its confluence est of Fort St. James (see 0 lies within a 200 kilometre ermian-Pennsylvanian limesto d to the Carboniferous to Ju estone is bound to the east ault zone and overlain to th quartzite and greenstone (a k Complex. Locally, the bel e is variably dolomitized al	the BB group of claims with Vital Creek, 160 93N 014). long, northwest-trending ne with minor chert and rassic Cache Creek by the north-northwest e west by a sequence of ndesite) also assigned t is up to 760 metres in ong the Pinchi fault.	

MINFILE NUMBER: 093N 199

# CAPSULE GEOLOGY

zone due to hydrothermal alteration. A sample of blue-grey limestone outcropping on the BB claims analysed 55.46 per cent CaO, 0.27 per cent MgO, 0.11 per cent SiO2, 0.20 per cent Fe2O3+Al2O3 and 0.41 per cent insolubles (Geological Survey of Canada Memoir 252, page 36, sample 14).

# BIBLIOGRAPHY

EMPR IND MIN FILE (\*McCammon, J.W. (1973): Limestone Occurrences in British Columbia, p. 25 (in Ministry Library)) GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252, pp. 32-36 GSC P 74-1A; 74-1B, pp. 31-42

DATE CODED: 1989/08/15	CODED BY: PSF	FIELD CHECK: N
DATE REVISED: 1992/09/23	REVISED BY: PSF	FIELD CHECK: N

MINFILE NUMBER:	<u>093N 200</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	QCM			
STATUS:	Prospect		MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N10E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 41 22 N 124 35 35 W 1200 Metres Within 500M The location is centred on the arr approximately 7 kilometres north	ea of most intense alteration west of Manson Creek.	NORTHING: EASTING:	6172667 399854
COMMODITIES:	Gold			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION:	Pyrite Quartz Sericite Al Ankerite Mariposite Quartz	bite Pyrite Albite	Sericite	
ALTERATION TYPE: MINERALIZATION AGE:	Quartz-Carb. Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Vein Hydrothermal Epiger 101 Au-quartz veins	netic		
HOST ROCK DOMINANT HOSTROCK	: Volcanic			
<u>STRATIGRAPHIC AGE</u> Triassic	<u>GROUP</u> Takla	FORMATION Slate Creek	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Volcaniclastic Volcanic Siltstone Volcanic Sandstone Volcanic Wacke Volcanic Conglomerate Argillite Aphanitic Flow Pyroxene Phyric Flow Chert Listwanite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Manson GRADE: Greenso	Upland chist
COMMENTS:	Related to the Manson fault zone	).		
		5-50-5		
ORE ZONE:	SAMPLE	REPORT	I ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Cold	GRADE	EAR: 1982	
COMMENTS:	A 1-metre chip sample of quartz- intensely altered zone	-carbonate altered material fi	rom an	
REFERENCE:	Assessment Report 10746.			
CAPSULE GEOLOGY	The QCM occurrence northwest of Manson Cre accessed by an old cat intense alteration zone Anomalous gold, s: geochemistry in 1972 of and the Central zones led to extensive geolog eventually reverse circ 11627).	e is located approxi eek, on a north slop road and the locati e. ilver, copper and zi utlined two large an (Assessment Report 4 gical, geochemical a culation drilling in	mately 7 kilometres be of a small knoll. It is ion is centred on the most inc from soil and rock nomalous trends, the Flag 1245). This geochemistry and geophysical surveys and h 1983 (Assessment Report	

Rocks in the area are poorly exposed and are volcanically derived sediments belonging to the Middle-Upper Triassic Slate Creek

PAGE: 1209 REPORT: RGEN0100

# CAPSULE GEOLOGY

Formation (Takla Group). These sediments are a mixture of siltstones, sandstones, wackes and conglomerates. Also present are argillites, aphanitic to pyroxene phyric flows and lesser cherts. The argillites are thin to moderately bedded, cream to rusty weathered and grey on fresh surfaces. They are interbedded with cream to beige, thin to moderately bedded siltstones to siliceous siltstones in sequences 1 to 10 metres thick. The coarser grained sediments are less abundant and contain clasts of subangular feldspar and augite crystal fragments, feldspar augite porphyries, aphanitic volcanics and minor argillite. The basalts are green to dark green, amygdaloidal mafic flows with small phenocrysts of pyroxene and plagioclase.

All the rocks have been affected by variable carbonate alteration characterized by ankerite and pyrite. Two types of carbonate alteration have been distinguished with the first being characterized by large porphyroblasts which have poikiloblastic cores containing quartz, feldspar, hematite and other opaques. The second is characterized by idioblastic, iron-poor porphyroblasts which may be related to the inclusion-free rims of the porphyroblasts of the first type. Fine grained and idioblastic pyrite is the only sulphide associated with these alteration zones and forms up to ten per cent of the rock.

Alteration assemblages are dependent upon lithology. In the mafic and intermediate volcanics, the alteration assemblage is typically ankerite-albite-sericite-quartz +/- mariposite and pyrite. The volcaniclastic rocks typically contain ankerite, sericite, albite and quartz with or without pyrite. The most intensely altered zones contain abundant quartz veins of varying widths. The most important zone is the central zone, which is 200 by 300

The most important zone is the central zone, which is 200 by 300 metres and this zone is hosted by epiclastic rocks of the Takla Group. These sediments are bleached to a whitish to cream-coloured rock composed primarily of sericite, quartz, iron-carbonates, pyrite (5 per cent) and albite. The original clastic nature and texture of these rocks are barely discernible. This zone contains very little quartz veining.

These altered rocks occupy a northwest-trending sliver of the right-lateral Manson fault zone. To the southeast, other splays of the Manson fault zone control the quartz-carbonate (listwanite) alteration.

Surface lithogeochemical sampling from the altered zones analysed as high as 4.2 grams per tonne gold from 1-metre chip samples (Assessment Report 10746). Coincident gold and pyrite concentrations suggest that the gold may be within the pyrite and may also be disseminated within the altered volcanics.

#### BIBLIOGRAPHY

EMPR ASS RPT 4245, 4246, 9944, 10746, \*11627 EMPR BULL \*91 EMPR EXPL \*1988, p. 139-142 EMPR OF FIELDWORK \*1988, pp. 217-219 EMPR OF 1989-12 GSC MAP 876A; 907A; 971A; 1424A; 5249G GSC MEM 252 GSC P 41-5; 42-2; 45-9; 75-33 PR REL Royal County Minerals Corp., Feb.17, 2003

DATE CODED: 1989/02/20 DATE REVISED: 1992/08/24 CODED BY: DMM REVISED BY: DMM

MINFILE NUMBER:	<u>093N 201</u>			NATION	AL MINERAL INVENTORY:	
NAME(S):	<u>WILL</u> , WILL NO. 2					
STATUS: REGIONS:	Showing British Columbia				MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N09E 093O12W				UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 34 26 N 124 00 23 W 1100 Metres Within 500M Located 2 kilometres ea of the mouth of Munro C	st of Manson Ri reek.	ver, 5 kilometres	northeast	NORTHING: EASTING:	6159116 436546
COMMODITIES:	Thorium Tantalum	Lanthanum Copper	Ce Ra	erium are Earths	Neodymium	Yttrium
MINERALS						
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Monazite Chalco Aegirine Augite Magnetite Unknown	oyrite Quartz	Pyrite	Malachite		
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE:	Layered Magmatic O02 Rare element pe	Disseminated Pegmatite gmatite - NYF fa	ımily			
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE	GROUP		FORMATION	motion	IGNEOUS/METAM	ORPHIC/OTHER
Proterozoic	пуенка		Undenned i Un	nation	Wolverine Comple	x
LITHOLOGY:	Meta Schist Pegmatite Gneiss Monzodiorite Alkalic Dike Monzonite					
HOSTROCK COMMENTS:	The Wolverine Comple found above the sillimation	x is defined as p nite isograd.	part of the lower	Ingenika Group		
GEOLOGICAL SETTING	Ominese					Laland
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Cassiar Regional	F	RELATIONSHIP:	PHYSIO Post-mineralization	GRAPHIC AREA: Manson GRADE: Amphibo	olite
INVENTORY						
ORE ZONE:	SAMPLE		RE	PORT ON: N		
	CATEGORY: Assay, SAMPLE TYPE: Rock COMMODITY Cerium Lanthanum Neodymium	'analysis	<u>GRADE</u> 0.2700 0.1300 0.1000	YEAR: 1988 Per cent Per cent Per cent		
COMMENTS:	Sample of aegirine-augi	e monzodiorite f	0.1300 for thorium value	Per cent . Sample		
REFERENCE:	of altered rock for rare- Property File - Halleran,	earth values. 1989; Assessm	ent Report 1787	2.		
CAPSULE GEOLOGY	The Will ocd the Manson River of Munro Creek. The area lid siliciclastic sec rocks belong to t Wolverine Range, subsequently int: pegmatites which Proterozoic Wolve calcsilicate gne: limestone.	currence is approximates within the diments with the late Pro- the sediment ruded by gra- are most l erine Comple las, schist	found appr tely 5 kilo he Omineca 3 h minor car oterozoic I nts are hig anodioritic ikely early ex rocks co s, micaceou	oximately 2 k metres northe Belt consisti bonates and m ngenika Group hly metamorph bodies and a Tertiary in nsist of amph s quartzite a	ilometres east of ast of the mouth ng of afic rocks. These Within the osed and ssociated age. The ibolite and nd crystalline	

The occurrence area is underlain by monzonite (Mount Bisson intrusions), metasomatized Wolverine Complex schists and gneisses (alkalic unit), pegmatites and late crosscutting alkaline dikes. The rocks strike northwest and dip 45 to 65 degrees southwest. The alkaline overprinting is characterized by the presence of aegirine-augite and rare earth element-bearing minerals. Monazite is common in the area. The alkalic dikes appear to parallel the attitude of the host units, which strike 320 degrees and dip 55 degrees southwest. These dikes contain minor chalcopyrite, pyrite, malachite and magnetite. A sample (UG-7813) from the altered rocks assayed 0.13 per cent lanthanum, 0.27 per cent cerium, and 0.1 per cent neodymium. A sample (UG-7816) from a dike assayed 0.23 per cent lanthanum, 0.42 per cent cerium and 0.15 per cent neodymium (Assessment Report 17872). A radioactive sample (UG-38M) of aegirine augite monzodiorite assayed 0.13 per cent thorium (Property File - Halleran, 1989).

# BIBLIOGRAPHY

EMPR ASS RPT \*17872 EMPR PF (Report by Halleran, A.A.D., 1989) EMPR BULL \*91 EMPR FIELDWORK \*1987, pp. 169-180; 1992, pp. 301-306 EMPR OF 1988-12; 1990-32 GSC MEM 252 GSC MAP 876A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33 Chevron File

DATE CODED: 1990/08/01 DATE REVISED: 1992/09/15 CODED BY: LDJ REVISED BY: FF

MINFILE NUMBER:	<u>093N 202</u>		NATIONAL MINERAL INVENTORY:
NAME(S):	CAT		
STATUS:	Showing British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093N10W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 08 N 124 46 52 W 1325 Metres Within 500M The occurrence is located a eastern part of Germansen and is centred on a zinc an	approximately 1.3 kilometres south of t Lake, 18 kilometres west of Manson C omaly.	NORTHING: 6170667 EASTING: 387975 he Creek
COMMODITIES:	Zinc		
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Sphalerite Quartz Pyrite Unknown	Pyrrhotite	
DEPOSIT CHARACTER	Vein	Shear Podiform	
CLASSIFICATION: SHAPE:	Hydrothermal E	Epigenetic	
MODIFIER: COMMENTS:	Faulted S Veins are roughly parallel to	Sheared b east-striking bedding.	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Slate Creek	IGNEOUS/METAMORPHIC/OTHER
Cretaceous	Tana		Germansen Batholith
LITHOLOGY:	Shale Siltstone Greywacke Hornfels Sandstone		
GEOLOGICAL SETTING			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Contact	RELATIONSHIP:	GRADE: Hornfels
CAPSULE GEOLOGY			
	The Cat occurr of Germansen Lake. greywacke/sandstone Formation (the basa Takla Group). Thes the Cretaceous Germ south	ence is found approximatel Quartz veins are found in s of the Middle-Upper Tria l part of the Middle Trias e east-striking sediments mansen batholith several hu	y 1.3 kilometres south shales, siltstones and ssic Slate Creek sic to Lower Jurassic have been intruded by ndred metres to the
	This showing cometres in thickness 10 metres. These v hornfelsed sediment discrete veins or i reported on the Cat within the minerali	comprises white to milky qu in clusters of 5 to 10 ov reins are found in fault an s, are roughly east striki rregular swarms. Only tra claims. Pyrite and pyrrh zed zone.	artz veins up to 1.5 er a thickness of 2 to d shear zones of the ng and occur as pods, ces of sphalerite were otite occur extensively
BIBLIOGRAPHY			
	EMPR ASS RPT 13955 EMPR OF 1989-12 EMPR FIELDWORK 1988 EMPR BULL *91 GSC MEM 252 GSC MAP 876A; 907A; GSC P 41-5; 42-2; 4	971A; 1424A; 5249G 5-9; 75-33	19-126
DATE CODED: DATE REVISED:	1990/06/08 1992/08/26	CODED BY: FF REVISED BY: DMM	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093N 203</u>		NATIONAL MINERAL INV	ENTORY:
NAME(S):	MON			
STATUS: REGIONS: NTS MAP:	Showing British Columbia		MINING I	DIVISION: Omineca
BC MAP:	55 21 22 N		UI NK	ORTHING: 6152442
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 31 22 N 124 01 18 W 1035 Metres Within 500M The occurrence is located in the cent side of Munro Creek. The graphite-be southeast onto NTS map sheet 93O/1	re of a logged area on the ne aaring hostrock continues to 2W (Open File 1988-12).	orth the	EASTING: 435499
COMMODITIES:	Graphite			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Graphite Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Disseminated Layered Metamorphic Industrial M P04 Crystalline flake graphite Tabular	Stratabound lin.		
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOU	S/METAMORPHIC/OTHER
Proterozoic	ingenika	Onnamed/Onknown For	Wolverin	ie Complex
LITHOLOGY:	Graphitic Marble Calc-silicate Biotite Schist Marble			
HOSTROCK COMMENTS:	The Wolverine Complex is part of the the sillimanite isograd.	e lower Ingenika Group foun	d above	
	Omineca		PHYSIOGRAPHIC AREA	Manson Upland
METAMORPHIC TYPE:	Cassiar Regional	RELATIONSHIP: Svn-mine	ralization GRADE:	Amphibolite
INVENTORY	0			·
ORE ZONE:	TRENCH	REPORT ON:	Ν	
	CATEGORY: Assay/analysis SAMPLE TYPE: Rock COMMODITY	YEAR: GRADE	1986	
COMMENTS: REFERENCE:	Graphite Assay reported. Assessment Report 14545.	4.7300 Per cent		
CAPSULE GEOLOGY				
	The Mon graphite occu Creek, approximately 5.5 k Metasediments containing g square kilometres) and are southeast of this locality Graphite occurs as di length and in concentratio Report 14545). These grap calcsilicates or biotite s layers (with lesser calcsi reported. The hostrocks form pa the Proterozoic Wolverine Proterozoic Ingenika Group	rrence is located j illometres upstream raphite occur over found in spotty oc	ust north of Munro from its mouth. a wide area (seven currences northwes to 5 millimetres per cent (Assessme nd in marbles, early pure graphi ntimetres thick a: hibolite grade roo ighly metamorphos	o ral st and ent te re also cks of ed
BIBLIOGRAPHY	EMPR ASS RPT *14545 EMPR BULL *91 EMPR FIELDWORK *1987, pp.	169-180; 1992, pp.	301-306	

EMPR OF 1988-12 GSC MEM 252 GSC MAP 876A; 971A; 1424A; 5249G GSC P 41-5; 42-2; 45-9; 75-33

DATE CODED: 1990/05/25 DATE REVISED: 1992/07/27 CODED BY: FF REVISED BY: DMM

MINFILE NUMBER:	<u>093N 204</u>	NATIONAL MIN	IERAL INVENTORY:	
NAME(S):	<u>MITZI,</u> PHIL			
STATUS: REGIONS:	Showing British Columbia		MINING DIVISION: C	Omineca
NTS MAP: BC MAP:	093N01E		UTM ZONE: 1	0 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 09 38 N 124 03 30 W 1200 Metres Within 500M Located 1 kilometre north approximately 4.5 kilome (093N 194).	h-northeast of the east end of Mitzi Lake, tres northwest of the Mount Milligan deposit	NORTHING: 6 EASTING: 4	113169 32572
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Tetrahedrite Chalcop Quartz Ankerite Biotite Garnet	pyrite		
	Voin	Procesio		
CHARACTER. CLASSIFICATION: DIMENSION: COMMENTS:	Porphyry Attitude of twenty-centin	Hydrothermal Epigenetic Metres STRIKE/DIP: 045/65N netre wide quartz vein.	TREND/PLUNC	Æ:
HOST ROCK DOMINANT HOSTROCK:	Metavolcanic			
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Witch Lake	IGNEOUS/METAMOR	RPHIC/OTHER
LITHOLOGY:	Augite Porphyry Agglom Coarse Grained Equigrar Mafic Biotite Schist Diorite	erate nular Syeno Diorite		
HOSTROCK COMMENTS:	The Witch Lake Formati al. (Fieldwork 1990).	ion is an informal name proposed by Nelson et.		
	Intermontane	PHYSIOGRAPI	HC AREA: Nechako I	owland
METAMORPHIC TYPE: COMMENTS:	Quesnel Regional Zeolite to prehnite-pumpe	RELATIONSHIP: ellyite grade metamorphism.	GRADE: Zeolite	
CAPSULE GEOLOGY				
	The Mitzi sh kilometre north-n kilometres north-n breccia vein host Upper Triassic Wi vein strikes 045 to 5 per cent tet the metavolcanics gossans occur wit sulphides. Outcrops aro rich mafic schist coarse-grained eq metamorphosed amp by the Mount Mill description (093N	owing is located on the Phil claim grou ortheast of the east end of Mitzi Lake est of the Mount Milligan deposit (093) ahedrite-chalcopyrite bearing quartz-an ed in hornfelsed augite porphyry agglou tch Lake Formation, Takla Group. The 3 degrees, dips 65 degrees northwest and rahedrite with minor chalcopyrite. Al includes massive garnet and biotite. hin 500 metres of the vein, but contain und the showing include strongly foliat s that are intruded by and occur as xen guigranular diorite/syenodiorite. These hibolitic schists have been brought to igan horst. See the Mount Milligan dep 194) for related information.	up, 1 and 4.5 N 194). The nkerite merate of the 20-centimetre contains up teration in Prominent n no visible ted biotite- noliths in e regionally the surface posit	
BIBLIOGRAPHY	EMPR FIELDWORK *1 EMPR OF *1991-3; GSC P 41-5; 42-2; GSC MAP 876A; 907 GSC MEM 252 GSC OF 2842	990, pp. 89-110 1992-3 45-9 A; 971A; 1424A		

DATE CODED: 1990/09/06 DATE REVISED: 1993/02/09 CODED BY: MM REVISED BY: GJP

\_

MINFILE NUMBER:	<u>093N 205</u>		NATIONAL MI	NERAL INVENTORY:	
NAME(S):	RAINBOW CREEK				
STATUS:	Showing British Columbia			MINING DIVISION:	Omineca
NTS MAP: BC MAP	093N01E			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 02 41 N 124 03 15 W 1100 Metres Within 500M Located along a north-flow kilometres south of the Mou 1991-3).	ving tributary of Rainbou unt Milligan deposit (093	w Creek, about 15 SN 194) (Open File	NORTHING: EASTING:	6100276 432643
COMMODITIES:	Gold	Copper			
ASSOCIATED: ASSOCIATED: ALTERATION TYPE: MINERALIZATION AGE:	Quartz Carbonate Silicific'n	Fuchsite N	<i>A</i> agnesite		
DEPOSIT	Vein	Breccia			
CLASSIFICATION: TYPE:	Hydrothermal I01 Au-quartz veins	Epigenetic			
HOST ROCK DOMINANT HOSTROCK	: Volcanic				
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMAT Witch La	TION	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Augite Porphyry Agglomera Tuffaceous Siltstone Mudstone Andesitic Flow Andesitic Breccia Andesite	ate			
GEOLOGICAL SETTING					
TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Intermontane Quesnel Regional Zeolite to prehnite-pumpelly	RELATION: vite grade metamorphisr	Physiograf Ship: n.	HIC AREA: Manson GRADE: Zeolite	Upland
INVENTORY					
ORE ZONE:	SAMPLE		REPORT ON: N		
	CATEGORY: Assay/an SAMPLE TYPE: Grab COMMODITY	alysis GRADE	YEAR: 1990		
REFERENCE:	Gold Fieldwork 1990, page 108.	1.400	00 Grams per tonne		
CAPSULE GEOLOGY					
	The Rainbow Ch north-flowing tribu of the Mount Millio The showing co black fault zone bu fault zone cuts the weathering tufface Triassic Witch Lake 3 per cent dissemin One of the veins an arsenic (Fieldwork A strong arsen creek confluence. in andesitic flows	reek showing is ltary into Rainby gan deposit (093) onsists of up to reccia with quar rough augite por ous black siltst e Formation, Tak nated pyrite wit nalysed 1.4 gram 1990, page 108) nic-antimony-zin Trace amounts o and breccias on	located on the Rain c ow Creek, about 15 ki 20 per cent pyrite i tz and carbonate veir phyry agglomerates an one and mudstone of t la Group. Gossanous h magnesite and trace s per tonne gold and c geochemical anomaly f chalcopyrite were a the property.	laims along a lometres south n a grey and ing. The d white- he Upper zones contain s of fuchsite. 0.18 per cent coccurs at the lso observed	
BIBLIOGRAPHY	EMPR ASS RPT *1786	0, 19164, 21660,			
	EMPR FIELDWORK *199 EMPR OF *1991-3; 19	90, pp. 89-110 992-3			

GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842

DATE CODED: 1990/09/05 DATE REVISED: 1993/02/09 CODED BY: MM REVISED BY: GJP

\_

MINFILE NUMBER:	<u>093N 206</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>CHIC</u> , GOLDFINGER			
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP:	British Columbia 093N01E		UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE:	55 12 52 N		NORTHING:	6119566
LONGITUDE: ELEVATION:	124 24 48 W 940 Metres		EASTING:	410077
LOCATION ACCURACY:	Within 500M Showing location, about 2	kilometres north of the east end of C	huchi	
	Lake (Open File 1991-3).			
COMMODITIES:	Copper			
ALTERATION:	Kaolinite Quartz	e Epidote		
ALTERATION TYPE: MINERALIZATION AGE:	Argillic			
DEPOSIT				
CHARACTER: CLASSIFICATION:	Vein Epithermal	Hydrothermal Epigenetic	2	
HOST ROCK	•	, , , , , , , , , , , , , , , , , , , ,		
DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	<u> ORPHIC/OTHER</u>
		Chuchi Lake		
LITHOLOGY:	Intrusive K-Feldspar Porph K-Feldspar Porphyritic And	iyry lesite		
	Amygdaloidal Zeolite Epido Amygdaloidal Dacitic Flow	te Dacite		
	Dacite			
HOSTROCK COMMENTS:	Chuchi Lake Formation is	an informal name at the present time	).	
	Intermentano			lowland
TECTONIC BELT. TERRANE:	Quesnel			Lowiand
COMMENTS:	Regional Zeolite to prehnite-pumpelly	/ite grade metamorphism.	GRADE: Zeolite	
CAPSULE GEOLOGY	The Chic show	ing is located on the Gold	dfinger claim group	
	approximately 3 ki	lometres north of the out	let of the Nation River on	
	potassium feldspar	porphyry intrusion. The	vein contains light green	
	traces of chalcopy	rite (Fieldwork 1990, page	e 107).	
	The feldspar inearby potassium f	porphyry is likely the in eldspar porphyritic andes:	trusive equivalent of ites and purple	
	amygdaloidal dacit Jurassic Chuchi La	ic flows. The rocks are a ke Formation of the Middle	assigned to the Lower e Triassic to Lower	
	Jurassic Takla Gro	up and is comprised of sub pressively underlain by su	baerial volcanic flows and	
	plagioclase volcan	ic porphyritic flows of the	he Upper Triassic Witch	
	sediments of the U	pper Triassic Inzana Lake	Formation (Takla Group).	
	(Takla Group) cons	quence is the Upper Trias isting of fine-grained sla	sic Rainbow Formation ates and sediments	
	derived, in part,	trom a continental source		
BIBLIOGRAPHY	EMPR ASS PRT 19365	, 20509, 21069		
	EMPR FIELDWORK *19 EMPR OF *1991-3; 1	90, pp. 89-110; 1991, pp. 992-4	103-118	
	GSC P 41-5; 42-2; GSC MAP 876A; 907A	45-9 ; 971a; 1424a		
	GSC MEM 252 GSC OF 2842			
	4000/00/24		-	
DATE CODED: DATE REVISED:	1993/02/18	REVISED BY: MIM	F	IELD CHECK: Y

\_\_\_\_

MINFILE NUMBER:	<u>093N 207</u>	I	NATIONAL MINERAL INVENTORY:
NAME(S):	<b>KBE</b> , BN 2, FRAN, ROADSIDE, MIDRIDGE, HILLTOP		
STATUS: REGIONS: NTS MAP: PC MAD:	Showing British Columbia 093N01E 093K16E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 00 27 N 124 24 09 W 1300 Metres Within 500M Located 5 kilometres southeast from and 10 kilometres north-northeast of (Open File 1991-3).	n the east end of Mudzenchoot of the east end of Inzana Lake	NORTHING: 6096525 EASTING: 410304 Lake
COMMODITIES:	Copper Gold		
MINERALS SIGNIFICANT: ALTERATION: MINERALIZATION AGE:	Malachite Magnetite Epidote		
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Epigenetic		
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cretaceous-Tertiary	Такіа	Inzana Lake	Unnamed/Unknown Informal
LITHOLOGY:	Hornblende Granite Hornblende Granodiorite Epiclastic Sediment/Sedimentary		
GEOLOGICAL SETTING TECTONIC BELT: TEDDANE	Intermontane		PHYSIOGRAPHIC AREA: Nechako Lowland
METAMORPHIC TYPE: COMMENTS:	Regional Zeolite to pumpellyite-prehnite grade	RELATIONSHIP: e metamorphism.	GRADE: Zeolite
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON:	Ν
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper	YEAR: GRADE 0.2000 Per cent	1990
REFERENCE:	Fieldwork 1990, page 107.		
CAPSULE GEOLOGY	The small isolated is kilometres north-northeas kilometres southeast of i less than 1 per cent diss slightly gossanous hornby pyrite or other sulphide: amounts of epidote and ma metres of the showing. I gram per tonne gold and 107). The granite intrude: of the Upper Triassic In: (still informal) formati Jurassic Takla Group in underlain by the Rainbow and sediments derived, in it is overlain by augite Lake Formation and the sp Lake Formation. The gran age (Open File 1991-3).	KBE showing is located st of the east end of Mudzenchoot Lake. The seminated malachite in lende granite/granodic s are associated with agnetite are found in A grab sample from thi 0.2 per cent copper (F s volcanically derived zana Lake Formation, co ons which form the Mic this region. The Inza Formation consisting n part, from a contine porphyry flows and ag ubaerial maroon and gn nite is Late Cretaceou	approximately 10 Inzana Lake and 5 e showing consists of a a bleached and orite intrusion. No the malachite. Minor the granite within 100 .s showing yielded 0.196 Fieldwork 1990, page d epiclastic sediments one of four newly named ddle Triassic to Lower ana Lake Formation is of fine-grained slates ental source. In turn, gglomerates of the Witch reen flows of the Chuchi as to early Tertiary in

Navasota Resources Ltd. drilled in the area in January and February 2002. Drill intersections in the Roadside area were 16.1

grams per tonne gold over 0.9 metre and 6.43 grams per tonne gold over 4.55 metres (Navasota Resources Ltd., Press Release March 5, 2002). The Hilltop area lies 2.7 kilometres southwest of the KBE showing and the Roadside area lies 3 kilometres to the south southwest of the KBE. Navasota completed an eight-drillhole program on the KBE property in May 2002. Drilling on the Hill Top Structure No. 3 (HTS No. 3) zone returned results that include 4.24 grams per tonne gold over 26 metres in drillhole DDH-FR-027. Mineralization is hosted in quartz veining that cuts plagioclase porphyry and is associated with pyrrhotite, pyrite, chalcopyrite and trace arsenopyrite (Navasota Resources Ltd. News Release, May 21, 23, 2002).

### BIBLIOGRAPHY

EM EXPL 2002-13-28 EMPR ASS RPT 21744, 25870, 26282 EMPR FIELDWORK \*1990, pp. 89-110 EMPR OF \*1991-3 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC 0F 2842 GSC P 41-5; 42-2; 45-9 PR REL Navasota Resources Ltd., Feb.25, 27, March 5, May 21,23, Aug.29, Sept.19, 2002; Cassidy Gold Corp., Dec.4, 2002 WWW http://www.navasota.com; http://www.infomine.com/

DATE CODED: 1990/09/05 DATE REVISED: 1993/02/09 CODED BY: MM REVISED BY: GJP

MINFILE NUMBER:	<u>093N 208</u>		NATIONAL I	MINERAL INVENTO	DRY:
NAME(S):	RIG BRECCIA, CENTRAL SKOOK,	, SKOOK			
STATUS: REGIONS: NTS MAP: BC MAP: L ATTLIDE:	Showing British Columbia 093N02E 093N01W			MINING DIVIS UTM ZC	ION: Omineca DNE: 10 (NAD 83)
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	124 30 22 W 945 Metres Within 500M Located on the Rig Breccia zone, on the Skook claim group (Assess	near the north shore sment Report 21820,	of Chuchi Lake Figure 6).	EAST	NG: 404154
COMMODITIES:	Zinc Copper		Silver	Gold	Lead
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena C Quartz Carbonate Malachite Azurite Strong iron and manganese staini Oxidation	halcopyrite Pyrit	e		
DEPOSIT					
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Vein Breccia Epithermal Hydroth H05 Epithermal Au-Ag: low sul Irregular Faulted	a nermal E phidation	pigenetic		
DIMENSION: COMMENTS:	Metres Attitude of gouge zone that hosts	mineralized and bre	STRIKE/DIP: 290/90 cciated veinlets.	TREND	/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/ME	TAMORPHIC/OTHER
ISOTOPIC AGE: DATING METHOD:	Takia Early Jurassic Fossil	Chuchi Lake			
MATERIAL DATED: Lower Jurassic	Ammonite			Hogem Intrus	ive Complex
LITHOLOGY:	Plagioclase Porphyry Monzonite				
HOSTROCK COMMENTS:	Fossil age date for the informal C Jurassic (Fieldwork 1991, page	huchi Lake Formatio 109).	n is Early		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOGR	APHIC AREA: Nec	hako Lowland
METAMORPHIC TYPE: COMMENTS:	Contact Contact metamorphism due to Hog	RELATIONSHIP: gem Intrusive Comple	: •X.	GRADE: Gre	enschist
INVENTORY					
ORE ZONE:	SAMPLE	R	EPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY	GRADE	YEAR: 1991		
	Gold	0.1100	Grams per tonne		
	Lead	0.0300	Per cent		
COMMENTS: REFERENCE:	A chip sample taken over 3 metre Assessment Report 21820.	S.			
CAPSULE GEOLOGY					
	The Rig Breccia occ Early Jurassic monzonit Jurassic Chuchi Lake For related to other epither Intrusive Complex; see 209). The showing is expo	currence is lo e of the Hogem rmation of the rmal veins nea: Skook (093N 14 osed in two old	cated at the con Intrusive Comple Takla Group. I r the edge of the 0), SRM (093N 10 d trenches 25 me	tact between ex and the Lo t is probably e Hogem 4) and GG (09 tres apart on	wer 3N

both sides of a small stream on the north shore of Chuchi Lake. It consists of a 1.2-metre wide steeply dipping gouge zone that strikes 290 degrees through altered fine-grained plagioclase porphyritic wallrock and hosts vuggy and brecciated epithermal quartz-carbonate veinlets. Sulphides observed in the zone are chalcopyrite, sphalerite, galena and pyrite. Also occurring are malachite, trace azurite and strong iron and manganese staining. Two chip samples averaged 0.12 per cent copper, 0.03 per cent lead, 0.61 per cent zinc, 2.5 grams per tonne silver and 0.11 gram per tonne gold over 3 metres (Assessment Report 21820, page 19). Some samples yielded higher values in gold and silver.

The Central Skook zone is located about 400 metres eastsoutheast of the Rig Breccia zone and consists of fracture-controlled pyrite within fine-grained monzonite. A grab sample yielded 0.05 per cent copper, 0.03 per cent zinc and 0.02 gram per tonne gold (Assessment Report 21820).

#### BIBLIOGRAPHY

EMPR ASS PRT 1215, \*18073, 21108, \*21820 EMPR FIELDWORK 1990, pp. 89-110; \*1991, pp. 103-118 EMPR OF 1991-3; 1992-4 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842

DATE CODED: 1991/10/01 DATE REVISED: 1993/02/16 CODED BY: KBE REVISED BY: GJP

MINFILE NUMBER:	<u>093N 209</u>			NATIONAL MINERAL INVENTORY:	
NAME(S):	<u><b>GG</b></u> , KLAW				
STATUS:	Showing			MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	British Columbia 093N02E 093N01W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 06 N 124 30 28 W 1055 Metres Within 500M Located 3 kilometres nort Klaw claims.	h from the north shore	of Chuchi Lake o	NORTHING: EASTING: n the	6120124 404078
COMMODITIES:	Copper	Lead	Zinc		
MINERALS SIGNIFICANT: ASSOCIATED: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Sphalerite Galena Quartz Rusty-weathering zone. Oxidation	Chalcopyrite	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION: DIMENSION: COMMENTS:	Vein Epigenetic 5 Vein material occurs as a	Hydrothermal Metres a float zone, 5 metres v	STRIKE/DI	P: TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: Lower Jurassic	<u>GROUP</u> Takla Early Jurassic Fossil Ammonite	<u>FORM</u> Chuch	A <u>TION</u> i Lake	IGNEOUS/METAMC	DRPHIC/OTHER
LITHOLOGY:	Plagioclase Porphyritic La Latite Monzonite Syenite	atite Agglomerate			
HOSTROCK COMMENTS:	The fossil age date of the Jurassic (Fieldwork 199	e informal Chuchi Lake 1, page 109).	Formation is Earl	У	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel			PHYSIOGRAPHIC AREA: Manson	Upland
CAPSULE GEOLOGY	The GG showing, located on the southern portion of the Klaw 9 claim, is a 5-metre wide float zone of rusty weathering quartz vein material containing sphalerite, galena, chalcopyrite and pyrite. Vein segments are 5 to 10 centimetres wide and are hosted within contact metamorphosed grey and maroon-grey plagioclase-porphyritic latitic agglomerate of the Lower Jurassic Chuchi Lake Formation (Takla Group). The agglomerate contains fragments and large irregular amygdules in a broken crystal matrix. Early Jurassic monzonitic and syenitic intrusions of the Late Triassic to Early Cretaceous Hogem Intrusive Complex form much of the bedrock in the area. This showing may be related to the Skook alteration halo (093N 140) and other sulphide vein occurrences near the contact of the Hogem complex. Refer also to the SRM occurrence (093N 104) which comprises mineralized ground on the Klaw 3, 8 and 9 claims.				
BIBLIOGRAPHY	EMPR ASS PRT 3704 EMPR FIELDWORK 199 EMPR OF 1991-3; *1 GSC P 41-5; 42-2; GSC MAP 876A; 9077 GSC MEM 252	, 18392, 20314, 90, pp. 89-110; 1992-4 45-9 A; 971A; 1424A	21807 *1991, pp. 1	.03-118	

GSC OF 2842

DATE CODED: 1991/09/19 DATE REVISED: 1993/02/18 CODED BY: KBE REVISED BY: GJP
\_\_\_\_

MINFILE NUMBER:	<u>093N 210</u>				NATIONAL	_ MINERAL INVENTOR	Y:
NAME(S):	<u>gertie</u> , Jan						
STATUS:	Showing					MINING DIVISION	N: Omineca
NTS MAP:	093N07E	1				UTM ZONE	E: 10 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 26 N 124 44 12 W 1480 Metres Within 500M Located approx claims (Open F showing. Anoth	imately 5 kilo ile 1992-4). her showing	ometres south o The given coo occurs 1 kilom	of Klawli Lake on the rdinates are for the v etre to the east.	Jan vestern	NORTHING	G: 6130353 G: 389764
COMMODITIES:	Copper	S	ilver				
MINERALS							
SIGNIFICANT:	Copper Tetrabedrite	Malachite	Azurite	Chalcopyrite	Chalcocite		
COMMENTS: ASSOCIATED: ALTERATION:	Possibly tetrahe Quartz Epidote Malachite	edrite. Calcite Chlorite Azurite	Carbonate Hematite	Jasper Carbonate	Jasper		
COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Minor propylitic Propylitic	and hematitio H	c alteration. lematite	Carbonate	Э	Silicific'n	Oxidation
DEPOSIT							
CHARACTER: CLASSIFICATION:	Disseminated Hydrothermal	V E	ein pigenetic	Breccia			
HOST ROCK DOMINANT HOSTROCK:	Volcanic						
STRATIGRAPHIC AGE Lower Jurassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	GROUP Takla Early Jurassic Fossil Ammonite		<u>F</u> C	<u>ORMATION</u> huchi Lake		<u>IGNEOUS/META</u>	MORPHIC/OTHER
LITHOLOGY:	Plagioclase Phy Latite Crystal Lapilli Tr Altered Intrusiv	vric Latite Flo uff e	w				
HOSTROCK COMMENTS:	The fossil age Jurassic (Field	date of the ir dwork 1991,	nformal Chuchi page 109).	Lake Formation is E	arly		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel				PHYSIOG	RAPHIC AREA: Manso	n Upland
INVENTORY							
ORE ZONE:	OUTCROP			REPORT C	DN: N		
COMMENTS: REFERENCE:	CATEGORY: SAMPLE TYPE: <u>COMMODITY</u> Silver Copper Grab sample fro Fieldwork 1991	Assay/ana Grab om eastern o , page 116.	lysis	YEA <u>GRADE</u> 17.4900 Gram 1.0800 Per ce	R: 1991 s per tonne ent		
CAPSULE GEOLOGY	The Ge approximate volcanic fl Group). Th kilometre a The we amygdaloida disseminate Pink calcit infillings. cent copper greenish ar	ertie cop ely 5 kild lows of the showing apart. esternmos al, marcoo ed and fra te (rhodo A sing (Fieldwa d aphani	per showing ometres so he Lower J g consists t outcrop i n and grey acture con chrosite?) le grab sa ork 1991, j tic area o	g lies on the a uth of Klawli J urassic Chuchi of two large of plagioclase p trolled malach and jasperoid mple from this page 116). A J f the outcrop of	Jan 5 and Lake. It Lake For outcrops ng a glac phyric la ite and m quartz o locality brecciate contains	6 claims is hosted by mation (Takla spaced roughly 1 ial gully. An tite flow hosts inor azurite. ccur as vesicle yielded 0.2 per d zone in a more minor	

# CAPSULE GEOLOGY

chalcopyrite and has areas of bleaching and hairline fractures with chlorite envelopes. Multidirectional vuggy quartz veinlets are also present and some contain malachite.

Native copper blebs, 1 by 2 centimetres in size, are associated with carbonate and jasper in open-space fillings and occur within a highly amygdaloidal part of the same flow package, 75 metres north of the gully. Two, 1-metre wide zones of strong propylitic alteration (epidote, chlorite) cut the outcrop and contain disseminated malachite.

An altered and bleached intrusive body outcrops 150 metres south of the gully. It contains a crackle breccia that grades into a matrix-supported breccia with milled fragments of intrusive rock floating in a hematite-rich matrix; no sulphides were visible at this locality.

The eastern outcrop is 1.2 kilometres northeast of the native copper showing. Brecciated green, grey and maroon crystal-lapilli tuff contains disseminated malachite, chalcocite and possibly tetrahedrite. A representative grab sample from this outcrop yielded 1.08 per cent copper and 17.5 grams per tonne silver (Fieldwork 1991, page 116).

#### BIBLIOGRAPHY

EMPR ASS RPT 21569 EMPR FIELDWORK 1990, pp. 89-110; \*1991, pp. 103-118 EMPR OF 1991-3; \*1992-4 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC OF 2842

DATE CODED: 1991/12/11 DATE REVISED: 1993/02/25 CODED BY: KBE REVISED BY: KBE

MINFILE NUMBER:	<u>093N 211</u>			NATIONAL MINERAL IN	IVENTORY:
NAME(S):	Hannah, MM				
STATUS: REGIONS:	Showing British Columbia			MINING	BIVISION: Omineca
LOCATION ACCURACY: LOCATION ACCURACY: LOCATION ACCURACY: COMMENTS:	55 16 59 N 124 40 34 W 1700 Metres Within 500M The showing is located 3. Mountain (Open File 1992	25 kilometres southeast ( -4).	of 'Adade Yus	ľ	VORTHING: 6127570 EASTING: 393543
COMMODITIES:	Gold	Copper			
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Pyrrhotite Rare chalcopyrite. Epidote Chlorite Potassic alteration(?) and Propylitic	Chalcopyrite K-Feldspar bleaching. Potassic			
DEPOSIT CHARACTER: CLASSIFICATION:	Disseminated Porphyry	Hydrothermal			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE Lower Jurassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	GROUP Takla Early Jurassic Fossil Ammonite	FORMATI Chuchi La	<u>ON</u> ake	<u>IGNEC</u>	US/METAMORPHIC/OTHER
LITHOLOGY:	Heterolithic Andesitic Agg Andesite Altered Monzonite	lomerate			
HOSTROCK COMMENTS:	The fossil age date for th Jurassic (Fieldwork 199	e informal Chuchi Lake F 1, page 109).	ormation is Earl	ly	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel			PHYSIOGRAPHIC ARE	A: Manson Upland
INVENTORY					
ORE ZONE:	OUTCROP		REPORT ON:	Ν	
REFERENCE:	CATEGORY: Assay/a SAMPLE TYPE: Grab COMMODITY Gold Copper Assessment Report 2185	nalysis <u>GRADE</u> 0.8400 0.0220 3, page 14.	YEAR: O Grams p O Per cent	1991 er tonne	
CAPSULE GEOLOGY					
	The Hannah oc concentrations of green, heterolithi Chuchi Lake Format weathering and cor chalcopyrite. Epi pervasive. The main Hanr southeast of 'Adac monzonite fragment sample taken for a fragments yielded (Assessment Report The heterolit Hannah showing apg (Fieldwork 1991 r	currence incorpor mineralized and a c andesitic agglo tion, Takla Group. ntain disseminated dote and chlorite hah showing outcro de Yus Mountain. ts are bleached an analysis from an a 0.84 gram per ton 21853). thic agglomerates bear to be tapping bare 117)	ates sever ltered mon merate of Fine-gra: pyrite, py alteration ps approxim At this loo d potassic rea rich in ane gold and around 'Ada a mineral:	al areas that ha zonite fragments the Lower Jurass ined fragments a yrrhotite and ra n is generally mately 3.25 kiloo cality crowded p ally(?) altered. n rusty monzonit d 0.022 per cent ade Yus Mountain izing porphyry s	ve within ic re rusty re metres orphyry A e copper and the ystem

EMPR ASS RPT \*21853 EMPR FIELDWORK 1990, pp. 89-110; \*1991, pp. 103-118 EMPR OF 1991-3; \*1992-4 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842

DATE CODED: 1991/12/09 DATE REVISED: 1993/02/25 CODED BY: KBE REVISED BY: KBE

\_\_\_\_

MINFILE NUMBER:	<u>093N 212</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	GROUNDHOG			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Omineca
NTS MAP: BC MAP:	093N11E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 36 30 N 125 13 15 W 1250 Metres Within 500M The showing is situated on a creek of Manson Creek road at Groundhog Pa of the confluence of Groundhog and	crossed by the Takla Rainbo ass, approximately 2 kilometr d Twin creeks.	NORTHING: EASTING: w - res south	6164727 360107
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Magnetite Malachite Oxidation Unknown			
	Disseminated			
CLASSIFICATION:	Epigenetic Hydrother	mal		
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	<u>GROUP</u> Takla	FORMATION Twin Creek	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Plagioclase Porphyritic Basaltic Ande Andesite Amygdaloidal Flow	site		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOGRAPHIC AREA: Omineca	a Mountains
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	: N	
COMMENTS	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper Sample of magnetite-filled amygdalo	YEAR: <u>GRADE</u> 0.0890 Per cen idal volcanics	: 1992 t	
REFERENCE:	Fieldwork 1992.			
CAPSULE GEOLOGY	The Groundhog showin Takla Rainbow-Manson Cree kilometres south of the c multi-element stream sedi this creek during a Regio Follow-up assessment work failed to locate the sour Recent mapping (Open within fresh, maroon, amy andesites. The gently di Jurassic Twin Creek Forma Takla Group. Amygdules u with massive magnetite an magmatic fluids. The mag the RGS anomaly. A grab sample from a copper, 0.0100 per cent z noted on a fracture surfa	g is situated on a c k road at Groundhog onfluence of Groundh ment anomaly was ide nal Geochemical Surv by BP Resources Can ce of the anomaly. File 1993-4) identi gdaloidal plagioclas pping volcanics are tion of the Middle T p to 1 centimetre in d was probably depos netite amygdules are n amygdaloidal flow inc and 0.0012 per c ce (Fieldwork, 1993)	creek crossed by the Pass, approximately 2 nog and Twin creeks. A entified at the mouth of vey (RGS) in 1983. nada Limited in 1984 ified mineralization se porphyritic basaltic part of the Lower Griassic-Lower Jurassic n diameter are filled sited by late-stage the probable source of assayed 0.0890 per cent cent lead. Malachite was	
BIBLIOGRAPHY	EMPR ASS RPT *13505 EMPR OF *1993-4	05 105		

EMPR OF \*1993-4 EMPR FIELDWORK \*1992, pp. 87-107 EMPR BULL 70

GSC MEM 252

DATE CODED: 1993/02/25 DATE REVISED: 1993/03/15 CODED BY: KBE REVISED BY: KBE

MINFILE NUMBER:	<u>093N 213</u>		NATIONAL MI	NERAL INVENTORY:
NAME(S):	VALL			
STATUS:	Showing British Columbia			MINING DIVISION: Omineca
NTS MAP: BC MAP	093N07W			UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 21 08 N 124 50 22 W 1050 Metres Within 500M Located on the northeast ban kilometres from its confluence 1993-3).	k of Valleau Creek, app e with the Klawli River (	proximately 5.5 Open File	NORTHING: 6135528 EASTING: 383374
COMMODITIES:	Gold Co	opper		
MINERALS				
SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Carbonate Epidote Garnet Skarn	Pyrite		
DEPOSIT CHARACTER: CLASSIFICATION:	Vein Skarn			
HOST ROCK DOMINANT HOSTROCK:	Volcanic			
STRATIGRAPHIC AGE	GROUP	<u>FORMATIO</u>	N	IGNEOUS/METAMORPHIC/OTHER
Lower Jurassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	l akla Early Jurassic Fossil Ammonites	Chuchi Lak	e	
LITHOLOGY:	Augite Plagioclase Porphyritic Augite Plagioclase Porphyritic	: Basalt : Flow		
HOSTROCK COMMENTS:	The fossil age date of the Ch from Fieldwork 1991, page 2	nuchi Lake Formation (ii 109.	nformal name) is	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel		PHYSIOGRAF	HIC AREA: Manson Upland
INVENTORY				
ORE ZONE:	SAMPLE		REPORT ON: N	
	CATEGORY: Assay/analy SAMPLE TYPE: Grab COMMODITY	ysis <u>GRADE</u>	YEAR: 1992	
	Gold Copper	0.1300	Grams per tonne Per cent	
REFERENCE:	Open File 1993-3.	0.0110		
CAPSULE GEOLOGY				
	The Vall occurr Valleau Creek approx the Klawli River.	ence is located imately 5.5 kilo	along the northeast metres from its con	bank of fluence with
	The occurrence plagioclase porphyri Formation of the Mid The Vall skarn, dips 78 degrees to t irregular carbonate A grab sample f pyrite yielded 0.130 (Open File 1993-3).	is hosted by hor tic basalts of t dle Triassic to 20 centimetres he east. It is vein system. rom the showing grams per tonne	nfelsed coarse augi he Lower Jurassic C Lower Jurassic Takl wide, strikes 360 d associated with a s containing epidote, gold and 0.0176 pe	te and minor huchi Lake a Group. egrees and mall, garnet and r cent copper
BIBLIOGRAPHY	EMPR FIELDWORK 1990, EMPR OF 1991-3; 1992 GSC MEM 252 GSC P 41-5; 42-2; 45 GSC MAP 876A; 907A;	pp. 89-110; 199 -4; *1993-3 -9 971A, 1424A	1, pp. 103-118; *19	92, pp. 87-107

GSC OF 2842

DATE CODED: 1993/03/11 DATE REVISED: 1993/03/12 CODED BY: KBE REVISED BY: KBE

MINFILE NUMBER:	<u>093N 214</u>	NATIONAL MINE	RAL INVENTORY:
NAME(S):	TSAY		
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N07W		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 27 15 N 124 51 36 W 1505 Metres Within 500M Located 3.5 kilometres north-northeast of (Open File 1993-3).	f the east end of Wudtsi Lake	NORTHING: 6146905 EASTING: 382374
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Quartz Carbonate Sericite Quartz-Carb.	Mariposite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Epigenetic Hydrothermal I01 Au-quartz veins		
HOST ROCK DOMINANT HOSTROCK	: Volcanic		
STRATIGRAPHIC AGE Upper Triassic ISOTOPIC AGE: DATING METHOD: MATERIAL DATED:	GROUP Takla Early Triassic Fossil Conodonts	FORMATION Inzana Lake	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Altered Sediment/Sedimentary Volcanic Sandstone Volcanic Siltstone Listwanite		
HOSTROCK COMMENTS:	The fossil age date is from Fieldwork 19 suggests occurence of listwanite.	991, page 107. Alteration	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIOGRAPH	C AREA: Manson Upland
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
DEFEDENCE	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper: 1000 0	YEAR: 1992 GRADE 0.0098 Per cent	
	Open File 1993-3.		
	The Tsay occurrence is a of the east end of Wudsti La northwest-trending structure end of Tsaydaychi Lake to th 1.5 to 2 kilometres wide, li Inzana Lake Formation (Takla iron-carbonate and quartz-see mica (mariposite?) and pyrit buff-coloured, foliated sedin cent arsenic and 0.0098 per The presence of anomalo quartz-sericite alteration at association. The fault stru gold-bearing quartz veins, a	situated 3.5 kilometres north ke. It is hosted by a region that extends 10 kilometres : e headwaters of Valleau Creek es entirely within the Upper Group) and is characterized ricite alteration. Dissemina e occur in intensely altered ments. A grab sample yielded cent copper (Open File 1993- us arsenic values with carbon nd mariposite suggests a list cture has potential for host nd is thus an interesting reg	n-northeast nal-scale from the west c. The zone, Triassic by ated green , pale d 0.0135 per 3). nate- twanite ing gional

exploration target. Placer gold in the area (Valleau Creek, 093N 053) may be related to this structure.

# BIBLIOGRAPHY

EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118; \*1992, pp. 87-107

EMPR OF 1991-3; 1992-4; \*1992-3 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A, 1424A GSC OF 2842

DATE CODED: 1993/03/12 DATE REVISED: / / CODED BY: KBE REVISED BY:

MINFILE NUMBER:	<u>093N 215</u>	Ν	ATIONAL MINERAL INVENTORY:	
NAME(S):	<u>WUDTSI</u>			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093N07W		MINING DIVISION: On UTM ZONE: 10	nineca (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 27 55 N 124 53 55 W 1280 Metres Within 500M Located on the eastern ba Creek (Open File 1993-3).	ank of a north-flowing tributary of Valleau	NORTHING: 614 EASTING: 379	48208 9966
COMMODITIES:	Copper			
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: COMMENTS: ALTERATION TYPE: MINERALIZATION AGE:	Pyrrhotite Pyrite Quartz Biotite K-Feldspar Hornfelsing and minor pote Biotite	assic alteration. Potassic		
DEPOSIT				
CHARACTER: CLASSIFICATION:	Vein Porphyry	Disseminated Hydrothermal		
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORF	HIC/OTHER
ISOTOPIC AGE: DATING METHOD: MATERIAL DATED: Upper Triassic	Late Triassic Fossil Conodonts		Unnamed/Unknown Ir	nformal
LITHOLOGY:	Mesocratic Hornblende Di Gabbro Epiclastic Sandstone Epiclastic Siltstone Hornfels	orite		
HOSTROCK COMMENTS:	The intrusion is probably is from Fieldwork 1991, p	coeval with the volcanics. The fossil dat page 107.	9	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Intermontane Quesnel Contact	P RELATIONSHIP:	HYSIOGRAPHIC AREA: Manson Upl GRADE: Hornfels	and
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N	I	
REFERENCE	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Copper Open File 1993-3	Analysis YEAR: 1 GRADE 0.0190 Per cent	992	
	At the headwa north of the south the volcanic sedim the Middle Triassi varitextured diori to the Takla rocks contains pyrrhotit copper when analys siltstone hosts ar contain disseminat	ters of Valleau Creek, appro- end of Wudtsi Lake, a small ents of the Upper Triassic In c to Lower Jurassic Takla Gr te and gabbro body and is pro- . A hornfelsed mesocratic he e-bearing quartz stringers to ed (Open File 1993-3). Epic e hornfelsed and potassically ed pyrite.	timately 5 kilometres hybrid stock intrudes tzana Lake Formation of oup. The stock is a obably of similar age ornblende diorite phase hat yielded 190 ppm .astic sandstone and r(?) altered and	
BIBLIOGRAPHY	EMPR FIELDWORK 199 EMPR OF 1991-3; 19 GSC MEM 252	0, pp. 89-110; 1991, pp. 103 92-4; *1993-3	-118; *1992, pp. 87-107	

GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A, 1424A GSC OF 2842

DATE CODED: 1993/03/12 DATE REVISED: / / CODED BY: KBE REVISED BY:

\_\_\_\_

MINFILE NUMBER:	<u>093N 216</u>	NATIC	NAL MINERAL INVENTORY:
NAME(S):	TAKLA 3		
STATUS: REGIONS: NTS MAP: PC MAP:	Showing British Columbia 093N07E 093N07W 093N02E		MINING DIVISION: Omineca UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 15 34 N 124 45 05 W 1600 Metres Within 500M Located on the middle of three copy trending ridge, about 6 kilometres no Lake (Assessment Report 22142, Fi	per showings on an west-northwes orth of the west end of Chuchi gure 6).	NORTHING: 6125061 EASTING: 388696
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Chalcopyrite Quartz Epidote Malachite Propylitic Oxidation		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Vein Hydrothermal Epigenetic L03 Alkalic porphyry Cu-Au	2	
HOST ROCK DOMINANT HOSTROCK	: Volcanic		
STRATIGRAPHIC AGE Lower Jurassic Lower Jurassic	<u>GROUP</u> Takla	FORMATION Chuchi Lake	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex
LITHOLOGY:	Augite Porphyry Brecciated Tuff		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYS	IOGRAPHIC AREA: Manson Upland
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY	YEAR: 1991 GRADE	_
REFERENCE:	Copper Assessment Report 22142.	0.5500 Per cent	
CAPSULE GEOLOGY			
	The Takla 3 occurren rocks of the Lower Jurass Triassic to Lower Jurassi are intruded by the south Cretaceous Hogem Intrusiv consists mainly of monzon Jurassic age. Three copper showing ridge, over a length of a showing consists of chalc The rocks are flooded wit sample taken for analysis per tonne gold (Assessmen east-southeast, minor cha brecciated tuff. A furth highest point of the ridg quartz stringer in tuff.	ce is underlain by volcan ic Chuchi Lake Formation c Takla Group. Regionall eastern end of the Late for e Complex. This part of itic and syenitic intrust soccur along a west-nord bout 1.5 kilometres. The opyrite and malachite in the pidote and propylitica yielded 0.55 per cent co t Report 22142, page 19) cloopyrite was noted in a per 900 metres east-south per, minor malachite stain	nic and sedimentary of the Middle ly, the Takla rocks Triassic to Early the Hogem complex ive phases of Early thwest trending e westernmost augite porphyry. ally altered. A opper and 0.055 gram . About 500 metres quartz stringer in east, near the ing was noted in a

# BIBLIOGRAPHY

EMPR ASS RPT \*22142 EMPR FIELDWORK 1990, pp. 89-110; 1991, pp. 103-118; 1992, pp. 87-107 EMPR OF 1991-3; 1992-4 GSC P 41-5; 42-2; 45-9

GSC MAP 876A; 907A; 971A; 1424A GSC MEM 252 GSC OF 2842 Placer Dome File

DATE CODED: 1993/02/23 DATE REVISED: 1993/03/23 CODED BY: GJP REVISED BY: GJP

\_\_\_\_

MINFILE NUMBER:	<u>093N 217</u>	NATIONAL MIN	IERAL INVENTORY:
NAME(S):	<u>skl</u> , skunk lake, skunk		
STATUS: REGIONS	Prospect British Columbia		MINING DIVISION: Omineca
NTS MAP: BC MAP:	093N08E		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 24 10 N 124 08 19 W 1200 Metres Within 500M A 4-kilometre long northwest-trending r coordinates are for a point halfway alor kilometres west of Skunk Lake (Assess	idge of limestone. The given ng the ridge, about 2 ment Report 20286, Figure 4).	NORTHING: 6140203 EASTING: 427898
COMMODITIES:	Limestone		
	Calaita		
MINERALIZATION AGE:	Upper Paleozoic		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Stratiform Massive Sedimentary Industrial Mir R09 Limestone Attitude of bedding.	n. STRIKE/DIP: 137/65E	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK	: Sedimentary		
STRATIGRAPHIC AGE PennsylvanPermian	GROUP Nina Creek	FORMATION Unnamed/Unknown Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone Conglomerate Shale Andesite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Omineca Slide Mountain	PHYSIOGRAPI	HIC AREA: Manson Upland
CAPSULE GEOLOGY	The SKL prospect is a light grey, locally buff-co Pennsylvanian to Permian Ni Creek Complex (Group) and/o Melville, bulletin in prepa northeast by conglomerate, the southwest were not obse 130 to 145 degrees, dipping The maximum per cent s per cent. The acid generat potential was calculated as equivalent per thousand ton 8.7, and one sample gave a Volume calculations we estimated the topographic s contours; the base of the d visible outcropping of lime estimated to contain 120,41 Report 20268).	northwest-trending ridge of a loured weathering limestone of na Creek Group (formerly part r Slide Mountain Group) (Fern ration). The limestone is bo shales and andesite. Adjacet rved. Rare bedding generally 60 to 70 degrees southwest. ulphur determined by analysis ing potential is zero; the ne being from 988 to 998 tons of s material. Paste pH varied specific gravity of 2.73. re made using a computer pro- urface of the deposit based eposit was estimated from the stone. Based on this, the SI 3,198 tonnes of limestone (As	medium to of the t of the Cache ci and bunded to the nt units to y strikes from s was 0.002 eutralizing CaCO3 from 8.1 to gram which on elevation e lowest KL deposit is assessment
BIBLIOGRAPHY	EMPR ASS RPT *20286 EMPR BULL 91 EMPR FIELDWORK 1990, pp. 89 EMPR OF 1988-12a; 1991-3; 1 GSC MEM 252 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1 GSC OF 2842	-110; 1991, pp. 103-118 992-4 424A	
DATE CODED: DATE REVISED:	1993/03/01 1993/03/01	CODED BY: GJP REVISED BY: GJP	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER: 093N 218

NATIONAL MINERAL INVENTORY:

#### NAME(S): CAS, MITZI STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093N01W BC MAP: UTM ZONE: 10 (NAD 83) LATITUDE: 55 04 17 N LONGITUDE: 124 27 49 W ELEVATION: 1300 Metres NORTHING: 6103714 EASTING: 406545 LOCATION ACCURACY: Within 500M COMMENTS: Mineralized area about 7 kilometres south-southwest of the east end of Witch Lake (Assessment Report 22179, Figure 4). Part of the Mitzi property (see 093N 096). COMMODITIES: Copper MINERALS SIGNIFICANT: Pyrite Pyrrhotite Magnetite Chalcopyrite ALTERATION: Epidote ALTERATION TYPE: Propylitic Ćhlorite Carbonate Carbonate MINERALIZATION AGE: DEPOSIT CHARACTER: Disseminated CLASSIFICATION: Porphyry Hvdrothermal TYPE: L03 Alkalic porphyry Cu-Au HOST ROCK DOMINANT HOSTROCK: Volcanic <u>GROUP</u> FORMATION IGNEOUS/METAMORPHIC/OTHER STRATIGRAPHIC AGE Upper Triassic Witch Lake Takla Triassic-Jurassic Unnamed/Unknown Informal LITHOLOGY: Andesite Trachyandesite Andesitic Tuff Andesitic Flow Trachyandesite Tuff Trachyandesite Flow Monzónite **Biotite Hornfels** Diorite Megacrystic Orthoclase Syenite **GEOLOGICAL SETTING** TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Nechako Lowland TERRANE: Quesnel METAMORPHIC TYPE: Contact **RELATIONSHIP:** GRADE: Hornfels CAPSULE GEOLOGY The Cas occurrence falls within the Mudzenchoot halo (Open File 1991-3), an area where the volcanic rocks are silicified and strongly hornfelsed. Fine-grained diorite and megacrystic orthoclase syenite outcrop within the halo (Fieldwork 1990, page 105). The Cas area is underlain by scattered outcrops of andesite and trachyandesite flows and tuffs of the Upper Triassic Witch Lake Formation (Takla Group) intruded by a monzonite plug and associated dikes (Assessment Report 22179). These intrusions are considered to be coeval intrusive equivalents of the Middle Triassic to Lower Jurassic Takla Group. The volcanics contain an average of 1 to 2 per cent disseminated pyrite and/or pyrrhotite, commonly associated with epidote, chlorite and carbonate alteration or biotite hornfels. This propylitic suite is prominently developed along the north and west flank of the plug, which also contains the same volume of sulphides. The higher sulphide areas in the volcanics locally contains 2 to 3 per cent disseminated magnetite and specks of chalcopyrite. BIBLIOGRAPHY EMPR ASS RPT \*22179

EMPR ASS RPT \*22179 EMPR FIELDWORK 1990, pp. 89-110 EMPR OF 1991-3; 1992-3 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 1424A

GSC MEM 252 GSC OF 2842

DATE CODED: 1993/02/09 DATE REVISED: / / CODED BY: GJP REVISED BY:

MINFILE NUMBER:	<u>093N 219</u>	NATIONAL MINE	RAL INVENTORY:
NAME(S):	WN		
STATUS: REGIONS: NTS MAD	Showing British Columbia		MINING DIVISION: Omineca
LATITUDE: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 08 22 N 124 29 31 W 1200 Metres Within 500M Situated about 1 kilometre north of Witch from its east end. Located on mineralize copper analysis (Assessment Report 210	Lake, about 4 kilometres d rock sample with high 068, Sample 107549).	NORTHING: 6111325 EASTING: 404897
COMMODITIES:	Copper		
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Pyrrhotite Chalcopyr Epidote Chlorite Epidote Propylitic	ite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Porphyry Hydrothermal L03 Alkalic porphyry Cu-Au		
HOST ROCK DOMINANT HOSTROCK:	Volcanic		
STRATIGRAPHIC AGE Upper Triassic Triassic-Jurassic	<u>GROUP</u> Takla	FORMATION Witch Lake	IGNEOUS/METAMORPHIC/OTHER Unnamed/Unknown Informal
LITHOLOGY:	Feldspar Porphyritic Andesite		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIOGRAPHI	C AREA: Nechako Lowland
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY	Intermontane Quesnel	PHYSIOGRAPHI	C AREA: Nechako Lowland
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Intermontane Quesnel SAMPLE	Physiographic Report on: N	C AREA: Nechako Lowland
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE:	Intermontane Quesnel SAMPLE CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Copper	PHYSIOGRAPHIC REPORT ON: N YEAR: 1900 <u>GRADE</u> 0.1314 Per cent	C AREA: Nechako Lowland
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: REFERENCE:	Intermontane Quesnel SAMPLE CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Copper Assessment Report 21068, Sample 1075	PHYSIOGRAPHIC REPORT ON: N YEAR: 1900 <u>GRADE</u> 0.1314 Per cent 549.	C AREA: Nechako Lowland
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: REFERENCE: CAPSULE GEOLOGY	Intermontane Quesnel SAMPLE CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Copper Assessment Report 21068, Sample 1075 The WN occurrence area Formation (Takla Group) volc dikes, mainly monzonites. T porphyritic andesites and a same. The volcanics contain chalcopyrite +/- pyrrhotite. andesite containing chalcopy 0.030 gram per tonne (30 par 21068).	PHYSIOGRAPHIC REPORT ON: N YEAR: 1900 <u>GRADE</u> 0.1314 Percent 549. is underlain by Upper Triassi che volcanics consist of felds strongly epidote-altered vers i l to 2 per cent disseminated A sample of altered porphyr rite yielded 0.1314 per cent ts per billion) gold (Assessm	C AREA: Nechako Lowland c Witch Lake c stocks and par ion of the pyrite +/- itic copper and ent Report
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: INVENTORY ORE ZONE: REFERENCE: CAPSULE GEOLOGY BIBLIOGRAPHY	Intermontane Quesnel SAMPLE CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Copper Assessment Report 21068, Sample 1075 The WN occurrence area Formation (Takla Group) volc dikes, mainly monzonites. T porphyritic andesites and a same. The volcanics contain chalcopyrite +/- pyrrhotite. andesite containing chalcopy 0.030 gram per tonne (30 par 21068). EMPR ASS RPT 20008, 20205, * EMPR FIELDWORK 1990, pp. 89- EMPR OF 1991-3; 1992-4 GSC P 41-5; 42-2; 45-9 GSC MAP 876A; 907A; 971A; 14 GSC MEM 252 GSC OF 2842	PHYSIOGRAPHIC REPORT ON: N YEAR: 1900 <u>GRADE</u> 0.1314 Percent 549. is underlain by Upper Triassi anics and Triassic to Jurassi the volcanics consist of felds strongly epidote-altered vers 1 to 2 per cent disseminated A sample of altered porphyr rite yielded 0.1314 per cent ts per billion) gold (Assesson 221068, 22093 110; 1991, pp. 103-118 224A	C AREA: Nechako Lowland c Witch Lake c stocks and par ion of the pyrite +/- itic copper and ent Report

MINFILE NUMBER: 093N 220 NATIONAL MINERAL INVENTORY: NAME(S): DON W, DON STATUS: Showing REGIONS: British Columbia MINING DIVISION: Omineca NTS MAP: 093N12W BC MAP: UTM ZONE: 10 (NAD 83) NORTHING: 6164534 EASTING: 322013 LATITUDE: 55 35 39 N LONGITUDE: 125 49 29 W ELEVATION: 1800 Metres LOCATION ACCURACY: Within 500M COMMENTS: Location of vein system, about 1 kilometre southwest of Mount Bodine (EMPR OF MAP 1997-2 (Sheet 2)). COMMODITIES: Copper Gold Silver MINERALS SIGNIFICANT: Chalcopyrite Malachite Azurite ASSOCIATED: Quartz ALTERATION: Limonite ALTERATION TYPE: Oxidation MINERALIZATION AGE: Unknown DEPOSIT CHARACTER: Stockwork Vein CLASSIFICATION: Hydrothermal Epigenetic TYPE: 106 Cu±Ag quartz veins HOST ROCK DOMINANT HOSTROCK: Volcanic **FORMATION** IGNEOUS/METAMORPHIC/OTHER TRATIGRAPHIC AGE GROUP Paleozoic-Mesozoic Sitlika Assemblage LITHOLOGY: Volcanic Rock Clastic Rock **GEOLOGICAL SETTING TECTONIC BELT: Intermontane** PHYSIOGRAPHIC AREA: Omineca Mountains TERRANE: Cache Creek METAMORPHIC TYPE: Regional **RELATIONSHIP:** GRADE: Greenschist COMMENTS: Pronounced penetrative cleavage. INVENTORY ORE ZONE: VEIN REPORT ON: N CATEGORY: YEAR: 1996 Assay/analysis SAMPLE TYPE: Grab <u>GRA</u>DE COMMODITY Copper Per cent 2.1700 Gold Silver 0.3800 Grams per tonne 1.8000 Grams per tonne COMMENTS: A sample of mineralized material from a thick vein. REFERENCE: Fieldwork 1996, page 93. CAPSULE GEOLOGY The Don showing comprises a system of mineralized quartz veins that occur within the Permian to Upper Jurassic Sitlika volcanic unit about a kilometre southwest of Mount Bodine. The veins are exposed, although not easily accessible, over a distance of about 200 metres just below the ridge crest at the end of the system occur on either side of northeast-striking fault that defines a 300 metre apparent dextral offset of the contact between the volcanic and eastern clastic units. They range from a few centimetres to about a metre in width, and most dip at moderate to shallow angles to the southwest. Most of the thicker veins contain patches, up to several centimetres across, of limonite-altered pyrite, locally with chalcopyrite, malachite and azurite. A sample of mineralized material from one of these thick veins contained 2.17 per cent copper, 0.38 gram per tonne gold and 1.8 grams per tonne silver (Fieldwork 1996, page 93). Veins farther west within the system are in part marked by gossan zones,

but were not examined.

EMPR OF 1997-2; 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252

DATE CODED: 1997/02/19 DATE REVISED: 1997/04/28 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>093N 221</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	SHANE			
STATUS:	Showing British Columbia		MINING DIVISION: Omineca	
NTS MAP: BC MAP:	093N12W		UTM ZONE: 10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 38 51 N 125 46 57 W 1800 Metres Within 500M Location of vein on ridge, 6 kilometres Bodine (EMPR OF MAP 1997-2 (Shee	s north-northwest of Mount t 2)).	NORTHING: 6170360 EASTING: 324910	
COMMODITIES:	Copper Lead			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Chalcopyrite Pyrite Quartz Unknown			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE:	Vein Hydrothermal Epigenetic I06 Cu±Ag quartz veins			
HOST ROCK DOMINANT HOSTROCK:	Metavolcanic			
STRATIGRAPHIC AGE	GROUP Cache Creek	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Greenstone Amphibolite Ultramafic			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Intermontane Cache Creek Regional Pronounced penetrative cleavage.	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Omineca Mountains GRADE: Greenschist	
INVENTORY				
ORE ZONE:	VEIN	REPORT ON:	Ν	
COMMENTS	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Copper Sample of vein material. Not anomalo	YEAR: <u>GRADE</u> 0.0880 Per cent	1997	
REFERENCE:	Fieldwork 1996, page 96.			
CAPSULE GEOLOGY	The Shane showing is discovered within the Penn ultramafic unit, about 6 k It occurs within a large 1 measures about 1 kilometre The vein is about 1 m was traced for several tem The white quartz contains crystals, and is separated chlorite and rusty carbona approximately parallel to slickensides or mineral fi east. Wallrocks are varia for one to two metres beyon vein consists of scattered	a mineralized quart sylvanian to Lower cilometres north-nor ens of greenstone t e in its longest, no hetre wide, dips ste sof metres along i local cavities line d into discontinuous the. The partings a the vein walls, and bres that pitch at why altered with ru ond the vein. Miner	z vein that was Jurassic Cache Creek thwest of Mount Bodine. o amphibolite that rth-northwest direction. eply to the south, and ts east-west strike. d with small quartz sheets by partings of re oriented some contain moderate angles to the sty carbonate and pyrite alization within the ite and pyrite.	

A single grab sample of vein material yielded 0.088 per cent copper but did not contain anomalous concentrations of gold or silver (Fieldwork 1996, page 96). A sample of altered wallrock did not contain significantly anomalous base or precious metal concentrations.

# BIBLIOGRAPHY

EMPR OF 1997-2; 2000-33 GSC MAP 844A; 907A; 971A; 1424A GSC MEM 252

DATE CODED: 1997/02/19 DATE REVISED: 1997/04/28 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>093N 222</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	FRAN 3			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093N13W	Open Pit	MINING DIVISION: UTM ZONE:	Omineca 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 48 29 N 125 50 22 W 950 Metres Within 500M Location of workings at base of 0 Sheet 2).	Dgden Mountain (Open File 199	NORTHING: EASTING:	6188365 322060
COMMODITIES:	Jade/Nephrite			
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Nephrite Serpentine Serpentin'zn			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Podiform Massi Metamorphic Indust Q01 Jade	ve rial Min.		
HOST ROCK DOMINANT HOSTROCK:	Metaplutonic			
STRATIGRAPHIC AGE Paleozoic-Mesozoic Paleozoic-Mesozoic	GROUP Cache Creek	FORMATION Undefined Formation	IGNEOUS/METAMC	<u>)RPHIC/OTHER</u> ies
LITHOLOGY:	Serpentinite Meta Chert Greenstone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Intermontane Cache Creek Regional Pronounced penetrative cleavag	RELATIONSHIP: e.	PHYSIOGRAPHIC AREA: Omineca GRADE: Greensc	Mountains hist
CAPSULE GEOLOGY	The Fran 3 occurre Cache Creek ultramafic between serpentinite an greenstone. N. Scafe, about 90 tonnes of low 1980s (L. Warren, Perso	ence consists of a nep unit. The nephrite o nd structurally overly owner of the claim, a quality nephrite from onal Communication, 19	whrite lens within the occurs along the contact ing metachert and nd L. Warren extracted this locality in the mid 96).	
BIBLIOGRAPHY	EMPR FIELDWORK *1996, 1 EMPR OF 1997-2; 2000-3 GSC MAP 844A; 907A; 97 GSC MEM 252	pp. 79-100 3 1A; 1424A		
DATE CODED: DATE REVISED:	1997/02/19 / /	CODED BY: GJP REVISED BY:	F	IELD CHECK: Y IELD CHECK: N

MINFILE NUMBER:	<u>093N 223</u>	NATION	AL MINERAL INVENTORY: 093N14 Cu3
NAME(S):	MACKENZIE, LING, DUCKLING, DUCK, JAJAY		
STATUS:	Prospect		MINING DIVISION: Omineca
REGIONS. NTS MAP: BC MAP	093N14W		UTM ZONE: 10 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 49 52 N 125 19 57 W 1020 Metres Within 500M MacKenzie showing, east of Ducklir northeast of Old Hogem and 39 kilo Landing (Page, 1999 (Property File)	ng Creek, about 11 kilometres metres west of Germansen ).	NORTHING: 6189730 EASTING: 353900
COMMODITIES:	Copper Gold	Silver	
ALTERATION: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Epidote K-Feldspar Ca Epidote Potassic Unknown	lcite Malachite Oxidation	
	Maasiya	otod Choor	
CLASSIFICATION:	Epigenetic Hydrothe	ermal Porphyry	
DIMENSION: COMMENTS:	3 Metres Dimension is the width of the semin trench from the east.	STRIKE/DIP: nassive sulphide zone in the third	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
<u>STRATIGRAPHIC AGE</u> Triassic-Jurassic Mesozoic	<u>GROUP</u> Takla	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Altered Intrusive Monzonite Syenite Hybrid Rock Syenite Porphyry Dike Pyroxene Porphyry Dike Basalt		
HOSTROCK COMMENTS:	Phases of the Hogem Intrusive Co Early Cretaceous.	mplex range from Late Triassic to	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	PHYSIO Plutonic Rocks	GRAPHIC AREA: Omineca Mountains
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
COMMENTS:	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Silver Gold Copper A 1.6 metre channel sample at the p	YEAR: 1999 <u>GRADE</u> 16.1000 Grams per tonne 0.4000 Grams per tonne 2.6800 Per cent north MacKenzie showing.	
REFERENCE:	Page, J.W., 1999, Lysander Mineral	ls Corp (Property File).	
CAPSULE GEOLOGY	The MacKenzie prosp the Swannell Ranges (Omin northeast of Old Hogem an In 1970, Donna Minee and conducted geochemical diamond drill holes on th up in 1971 with an 8 kill Resource Corp. staked th taking 13 rock and 45 so Corporation conducted mag	ect is situated in the Duck neca Mountains), approximat nd 39 kilometres west of Ge s held the property as the l sampling and trenching an he Discovery zone (093N 089 ometre ground magnetic surv e Duckling claim in 1981 an il samples. In 1987, Cathe pping and geochemical surve	ling Creek area of ely 11 kilometres rmansen Landing. Duckling claims d drilled three ). They followed ey. Dimac d followed up by dral Gold y consisting of 55

PAGE: 1249 REPORT: RGEN0100

### CAPSULE GEOLOGY

rock and 326 soil samples on its Ling claims which covered much of the same ground as the previous Duckling claims. Cathedral followed in 1989 by taking 73 rock and 163 soil samples. In 1999, Lysander Minerals Corp staked the Duck claims where the Mackenzie showings occur. Eastfield Resources, under a 2000 option agreement with Lysander (see Lorraine (093N 002)), completed an initial diamond-drilling program on the MacKenzie zone. Follow-up geophysical and geochemical surveys are planned by Eastfield.

The area is underlain by Middle Triassic-Lower Jurassic Takla Group volcanics which have been intruded to the north and west by mesozonal plutonic rocks assigned to the Late Triassic to Early Cretaceous Hogem Intrusive Complex. The plutonic rocks form an elongate batholith, extending from Chuchi Lake, north to the Mesilinka River. The structural setting of the batholith and the intruded Takla Group is one of vertical tectonics associated with graben development (Bulletin 70).

Takla Group rocks in the area of the occurrence are predominantly basaltic in composition and host abundant, although erratically distributed epidote (with or without pyrite) as veinlets, stringers, pods and patchy replacements. These rocks are cut by numerous pyroxene porphyry "feeder" dikes which are pre-Hogem in age. Hogem complex intrusions range in composition from monzonite through syenite and are potassically altered, locally hosting up to 50 per cent pink feldspar as veins and envelopes several centimetres wide around fractures. Dikes of fine to medium-grained syenite porphyry cut the volcanic rocks in the area. Near the contact, a dark hybrid rock of uncertain composition has been mapped. It is, however, almost certainly related to the emplacement of the intrusions. The MacKenzie showing, beside Duckling Creek, is reported to

The MacKenzie showing, beside Duckling Creek, is reported to cosist of two showings separated by 250 metres of clay material. The north showing consists of massive pyrite-chalcopyrite exposed in a creek cut-bank. The host was described as an intensely fractured, chlorite-rich, intermediate to mafic intrusive with a late potassic overprint consisting of mainly of potassium feldspar veins. Eastfield's 2000 drill program indicated the area to consist of intensley potassium-altered intrusive rock. A 1.6 metre channel sample taken across this zone assayed 2.68 per cent copper, 16.1 grams per tonne silver and 0.4 gram per tonnne gold (Page, 1999 (Property File)).

The south showing consist of a one metre wide massive chalcopyrite lens dipping into the creek bank. A sample of this material yielded 20.75 per cent copper, 127.6 grams per tonne silver and 6.8 grams per tonne gold (Page, 1999 (Property File)).

#### BIBLIOGRAPHY

EM INF CIRC \*2001-1, p. 11 EMPR ASS RPT 3536, 3537, 10241, 16831, 19448, 26239 EMPR GEM 1970-185; 1971-203-211 EMPR EXPL 1981-241 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File);\*Page, J.W. (1999): 1999 Reconnaissance Report on the Jajay Property, Lysander Minerals Corp.(in Lorraine - 093N 002)) EMPR (PRELIM) MAP 9 EMR MP CORPFILE (Donna Mines Ltd.; Fortune Channel Mines Ltd.) GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 2001/03/28 DATE REVISED: 2001/03/28 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>093N 224</u>	NATIONAL MI	NERAL INVENTORY:
NAME(S):	PAGE, SOUTH CIRQUE, STEELE, LORRAINE-JAJAY, JAJAY		
STATUS:	Showing		MINING DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093N14W		UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 55 16 N 125 25 42 W 1750 Metres Within 500M Area of mineralization in southernmost cir 1999, Figures 5-9 (Property File)).	que on Steele 3 claim (Page,	NORTHING: 6199950 EASTING: 348250
COMMODITIES:	Copper Gold		
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrite Chalcopyrite Bornite Magnetite Malachite Oxidation		
DEPOSIT		<b>-</b>	
CHARACTER: CLASSIFICATION: TYPE:	Shear Vein Porphyry Hydrothermal L03 Alkalic porphyry Cu-Au	Disseminated Epigenetic	
HOST ROCK DOMINANT HOSTROCK:	Plutonic		
<u>STRATIGRAPHIC AGE</u> Mesozoic Middle Jurassic	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Hogem Intrusive Complex Duckling Creek Syenite Complex
LITHOLOGY:	Syenite Monzonite Diorite Pyroxenite Pegmatite		
HOSTROCK COMMENTS:	The Duckling Creek Syenite Complex is Late Triassic to Early Cretaceous Hoger	a Middle Jurassic phase of the n Intrusive Complex.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Plutonic Rocks	PHYSIOGRAF	HIC AREA: Omineca Mountains
INVENTORY			
ORE ZONE:	SAMPLE	REPORT ON: N	
REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab <u>COMMODITY</u> Gold Copper Page, J.W., Lysander Minerals Corp. 199	YEAR: 1999 GRADE 0.9700 Grams per tonne 0.7100 Per cent 9 (Property File).	
CAPSULE GEOLOGY		-ituated in the Duchling G	
	The Fage occurrence is the Swannell Ranges (Omineca Takla Landing. The Page is part of the Lorraine prospect (093N 002) Page mineralization on its S Resources Ltd. optioned the description for more details The area is underlain b the Late Triassic to Early C have been emplaced into volc Jurassic Takla Group, east o rocks form an elongate batho to the Mesilinka River. The the intruded Takla Group is graben development (Bulletin Mapping carried out in	Mountains), 61 kilometres Jajay property which inclu . Lysander Minerals Corp. teele 3 claim in 1999. Eas Jajay in 2000. See the Lorr y mesozonal plutonic rocks retaceous Hogem Intrusive C anic rocks of the Middle Tr f the Pinchi fault zone. T lith, extending from Chuchi structural setting of the one of vertical tectonics a 70). the area in the early 1970s	des the discovered the tfield aine assigned to omplex which iassic-Lower he plutonic Lake, north batholith and ssociated with identified

# CAPSULE GEOLOGY

#### BIBLIOGRAPHY

EMPR ASS RPT 20130, 21971, 21992, 23249, 24358, 25978, 26239 EMPR GEM 1971-203-210; 1972-456 EMPR BULL 70 EMPR PF (Peto, P. (1971): Report on the Hogem Project for Amoco Mining (refer to 093N General File; \*Page, J.W. (1999): Reconaisssance Report on the Jajay Property, for Lysander Minerals Corp.(in Lorraine file - 093N 002)) EMPR (PRELIM) MAP 9 GSC MEM 252, pp. 98-103 GSC MAP 844A; 907A; 971A; 1424A GSC P 42-7; 45-6 Harivel, C. (1972): Unpublished B.Sc. Thesis on the Duckling Creek area of the Hogem Batholith, University of British Columbia CIM Vol. 67, No. 749, pp. 101-106

DATE CODED: 2001/03/29 DATE REVISED: 2001/03/29 CODED BY: GJP REVISED BY: GJP

\_

MINFILE NUMBER:	<u>0930 001</u>		NATIONAL MINERAL INVENTORY	Y: 093O5 Mo1
NAME(S):	FORTUNE'S EYE			
STATUS: REGIONS	Showing British Columbia		MINING DIVISION	I: Omineca
NTS MAP: BC MAP:	093O05W		UTM ZONE	E: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 28 37 N 123 50 37 W 1525 Metres Within 500M The location given is for the north end File - Extracts from Pacific Great Eas Resources Report, 1930).	d of "Barren Ridge" (Propert tern Railway Lands, Survey	NORTHING EASTING of	G: 6148191 G: 446678
COMMODITIES:	Molybdenum			
	N 4 - 1 - 1 - 1 - 1 - 1 1			
MINERALIZATION AGE:	Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: COMMENTS:	Unknown Unknown Molybdenite occurs at several localitie	es along Barren Ridge.		
HOST ROCK DOMINANT HOSTROCK	Metasedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION		MORPHIC/OTHER
	Schiet			
	Quartz Feldspar Gneiss Amphibolite Gneiss Calc-silicate Gneiss Marble Granodiorite Pegmatite			
HOSTROCK COMMENTS:	The Wolverine complex comprises a extensively intruded by granodioritic	mphibolite facies sediments bodies.		
GEOLOGICAL SETTING TECTONIC BELT:	Omineca		PHYSIOGRAPHIC AREA: Manso	n Upland
TERRANE: METAMORPHIC TYPE: COMMENTS:	Cassiar Regional Wolverine Complex metamorphics wit	RELATIONSHIP: thin the Cassiar Terrane	GRADE: Amphit	polite
CAPSULE GEOLOGY	This occurrence lies within the Cassiar Terrane Mackenzie. A block of the siliciclastic sediments ex and associated pegmatites the Paleozoic Harper Ranch Slide Mountain Terrane to probably equivalents of th metamorphic grade is so hi are not possible. The Fortune's Eye occ "molybdenite-rich" rock co occurrences" reported alor is known to have been perf	at the eastern edge e, 40 kilometres wes e Wolverine Complex, stensively intruded of probable Cretace h subterrane to the the east. Wolverin the Upper Proterozoic gh that original list currence is poorly co collected from "one of the north trendin formed on the occurr	e of the Manson Uplands st of the town of , highly metamorphosed by granodioritic bodies eous age, lies between west and the Paleozoic he metasediments are c Ingenika Group but the ithologic determinations documented with only one of several molybdenite ng Barren Ridge. No wor rence.	e e k
BIBLIOGRAPHY	EMPR FIELDWORK 1992 on 3	301-306		
	EMPR PF (*Extracts from Pa of Resources, 1936) GSC MAP 1424A; 1961-11 GSC OF 925 Placer Dome File	acific Great Eastern	n Railway Lands, Survey	
DATE CODED: DATE REVISED:	1985/07/24 1991/01/31	CODED BY: GSB REVISED BY: GKK		FIELD CHECK: N FIELD CHECK: N

# MINFILE NUMBER: 0930 002

#### NAME(S): TUDYAH LAKE

STATUS: Showing REGIONS: British Columbia

LATITUDE: 55 05 00 N

LONGITUDE: 123 00 51 W ELEVATION: 700 Metres

NTS MAP: 093O03E BC MAP:

# NATIONAL MINERAL INVENTORY: 093O3 Au1

MINING DIVISION: Cariboo

UTM ZONE: 10 (NAD 83)

NORTHING: 6104065 EASTING: 499096

COMMODITIES: Gold

LOCATION ACCURACY: Within 1 KM

MINERALS	
SIGNIFICANT:	Pyrite
COMMENTS:	Sparse pyrite
MINERALIZATION AGE:	Unknown

#### DEPOSIT

CHARACTER:	Disseminated
CLASSIFICATION:	Unknown
COMMENTS:	Pyritic quartzite.

#### HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP Gog Lower Cambrian Misinchinka Proterozoic-Cambrian

LITHOLOGY: Quartzite

# HOSTROCK COMMENTS: Grey gritty quartzite of Misinchinka or Gog groups.

#### **GEOLOGICAL SETTING**

TECTONIC BELT: Foreland TERRANE: Ancestral North America METAMORPHIC TYPE: Regional **RELATIONSHIP:** 

COMMENTS: Pyritic outcrop 50 metres east of Hart Highway, 3 kilometres north of Melville Lodge (Minister of Mines Annual Report 1959, page 22).

PHYSIOGRAPHIC AREA: Northern Rocky Mountain Trench

IGNEOUS/METAMORPHIC/OTHER

GRADE: Greenschist

#### CAPSULE GEOLOGY

The Tudyah Lake showing lies in the Rocky Mountain Trench at the western margin of the Ancestral North American miogeocline, approximately 25 kilometres south of the town of Mackenzie. This area is underlain by Cambro-Proterozoic Misinchinka Group quartzite, siltstone and slate and Lower Cambrian Gog Group limestone, dolostone. guartzite, siltstone and slate. Regional subgreenschist facies metamorphism extends west to the McLeod Lake fault, west of Factes metamorphism extends west to the McLeod Lake fault, west of which metasedimentary rocks attain migmatitic sillimanite grade. A small showing of grey gritty quartzite "only sparsely mineralized with pyrite" was reported to contain 137 to 206 grams per tonne gold but there is no evidence to support this. In 1959, two pyritic samples collected by S. Holland of the Ministry of Mines assayed nil in gold. No recent work is known to have been performed or the charter. on the showing.

FORMATION

Unnamed/Unknown Formation

Unnamed/Unknown Formation

#### BIBLIOGRAPHY

EMPR AR \*1959-22 GSC MAP 1424A; 1961-11 GSC P 91-1A, pp. 285-291 GSC OF 925

DATE CODED: 1985/07/24 DATE REVISED: 1991/02/01

CODED BY: GSB REVISED BY: GKK

<u>0930 003</u>		NATIONAL MINE	RAL INVENTORY:	093O13 Au1
BILL CUST'S BAR				
Past Producer British Columbia	Open Pit		MINING DIVISION:	Omineca
55 45 00 N 123 41 06 W 700 Metres Within 5 KM Bill Cust's Bar lies 30 kilon River which is now flooder Annual Report 1906, page	netres above the mouth of t d by Lake Williston (Ministe e 103).	he Parsnip er of Mines	NORTHING: EASTING:	6178468 457003
Gold	Platinum	Iridium		
Gold Platinum Fine gold, minor platinum a Unknown	and iridium from assays onl	ly.		
Unconsolidated Placer C01 Surficial placers Fine flat gold and minor pl bars and benches.	atinum occurs in reworked	glacial gravel		
Sedimentary				
GROUP	FORMATIO	N	IGNEOUS/METAMC Glacial/Fluvial Grav	DRPHIC/OTHER vels
Reworked Glacial Gravel				
Foreland Ancestral North America		PHYSIOGRAPHI	C AREA: Northern	Rocky Mountain Trench
Bill Cust's B stream from the Pe northwest of the t Gold and platinum Peace rivers have in 1861. In the 1920's numerous individua recovering fine go generally occur in gravels deposited worked by hand, th gold is fine and f reported locally, placers. Between 1931 the Parsnip River shown up in assays	Bar, located on the eace River/Finlay R own of Mackenzie, placer occurrences been worked since and 1930's, the M and small amoun the top 1.5 to 3 in streams and as lese placer operation lat and while plat it was considered and 1940, 6220 gram (Bulletin 28, page	Parsnip River 30 kil iver confluence and 5 is now covered by Lak found in the Finlay, the first discovery k inistry of Mines report e gravels of Parsnip ts of platinum. The metres of reworked gl benches along streams ons had limited succe inum is common with k unimportant in most of ms of gold were recove 45). Some iridium v	lometres up 50 kilometres 52 Williston. 53 Parsnip and 54 Parsnip and 54 Parsnip and 54 Parsnip and 55 Parsnip and 56 Parsnip and 57 Parsnip and 58 Parsnip and 59 Parsnip and 50 Parsnip	
	0930 003 BILL CUST'S BAR Past Producer British Columbia 093013E 093012E 55 45 00 N 123 41 06 W 700 Metres Within 5 KM Bill Cust's Bar lies 30 kilon River which is now floode Annual Report 1906, page Gold Gold Platinum Fine gold, minor platinum Unconsolidated Placer C01 Surficial placers Fine flat gold and minor pl bars and benches. Sedimentary <u>GROUP</u> Reworked Glacial Gravel Foreland Ancestral North America Bill Cust's E stream from the Pe northwest of the t Gold and platinum Peace rivers have in 1861. In the 1920's numerous individua recovering fine go generally occur in gravels deposited worked locally, placers. Between 1931 the Parsnip River shown up in assays	<b>930 003 BILL CUST'S BAR</b> Past Producer       Open Pit         British Columbia       093012E         55 45 00 N       123 41 06 W         700 Metres       Within 5 KM         Bill Cust's Bar lies 30 kilometres above the mouth of t       River which is now flooded by Lake Williston (Minister Annual Report 1906, page 103).         Gold       Platinum         Fine flat gold and minor platinum and iridium from assays on Unknown       Inconsolidated         Unconsolidated       Placer         C01       Sufficial placers         Fine flat gold and minor platinum occurs in reworked bars and benches.         Sedimentary       FORMATION         Reworked Glacial Gravel       Foreland         Ancestral North America       Mackenzie, Gold and platinum placer occurrences placer rivers have been worked since in 1861.         In the 1920's and 1930's, the M       numerous individuals were working th recovering fine gold and small amoun generally occur in the top 1.5 to 3 gravels deposited in streams and as worked by hand, these placer operati gold is fine and flat and while plat reported locally, it was considered placers.         Between 1931 and 1940, 6220 grat the Parsnip River (Bulletin 28, page shown up in assays.	<b>930 030</b> NATIONAL MINE <b>BILL CUST S BAR</b> Open Pit         Past Producer       Open Pit         British Columbia       093013E         0930 13E       093013E         55 45 00 N       123 41.06 W         123 41.06 W       00 Metres         Vithin 5 KM       Bill Cust's Bar lies 30 kilometres above the mouth of the Parsnip         Bill Cust's Bar lies 30 kilometres above the mouth of the Parsnip       River which is now flooded by Lake Williston (Minister of Mines         Annual Report 1906, page 103).       Gold       Platinum         Gold       Platinum indium from assays only.         Unconsolidated       Placer         C01       Sufficial placers         Fine flat gold and minor platinum occurs in reworked glacial gravel         bars and benches.         Sedimentary         GROUP       EORMATION         Reworked Glacial Gravel         Foreland       PHYSIOGRAPHI         Ancestral North America       PHYSIOGRAPHI         Stream from the Peace River/Finlay River confluence 3 kill         Sold and platinum placer occurrences found in the Finlay,         Parset rivers have been worked since the first discovery for 1 listo.         In the 1920's and 1930's, the Mininstry of Mines repor	0930_003       NATIONAL MINERAL INVENTORY:         BILL CUSTS BAR         Past Producer       Open Pit       MINING DIVISION:         093013E       UTM ZONE:         55 45 00 N       NORTHING:         122 41 06 W       NORTHING:         700 Metree       NO

EM FIELDWORK 2001, pp. 303-312 EM GEOFILE 2000-2; 2000-5 EMPR AR 1906-103; 1923-141; 1929-206; 1930-159; 1933-104; 1936-C34; 1949-240 EMPR BULL 1, pp. 82-88; 2, pp. 45-46; 21, p. 18; \*28, p. 45 GSC ANN RPT 1894 VOL III pp. 38c-40c GSC EC GEOL 13, p. 81 GSC MEM 259, pp. 142-143

DATE CODED:	1985/07/24	CODED BY:	GSB	FIELD CHECK:	N
DATE REVISED:	1991/02/06	REVISED BY:	GKK	FIELD CHECK:	N

MINFILE NUMBER:	<u>0930 004</u>	NATIONAL MINERAL INVENTORY: 093O4,5 Au2				
NAME(S):	NATION RIVER BAR					
STATUS: REGIONS:	Past Producer British Columbia	Open Pit		MINING DIVISION: Omineca		
BC MAP: LATITUDE:	55 18 18 N			NORTHING: 6128928		
LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	123 39 20 W 750 Metres Within 5 KM This occurrence comprises the Nation River. The local confluence of Philip Creek v of Canada Memoir 259, pag	8 kilometres of placer i tion given is for gravels with the Nation River (G ges 142-143).	nineralization on worked at the eological Survey	EASTING: 458384		
COMMODITIES:	Gold	Platinum	Iridium			
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Gold Platinum Fine flat gold, minor platinu Unknown	m and iridium from assa	ays only.			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers					
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP	Format	ION	IGNEOUS/METAMORPHIC/OTHER Glacial/Fluvial Gravels		
LITHOLOGY:	Reworked Glacial Gravel					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Omineca Slide Mountain Reworked glacial gravels lie	Cassiar e on Slide Mountain and	PHYSIOGRAPHI d Cassiar terranes.	C AREA: Manson Upland		
CAPSULE GEOLOGY	Gold and plati Parsnip and Peace r by Bill Cust in 186 3 metres of reworks and as benches alor operations had limi platinum is common considered unimport The Nation Riv workings along the Creek. Prior to 19 kept. Between 1931 the Nation River fr 45). Iridium values	inum placer occur rivers have been 51. The placers ed glacial gravel ing streams. Norr ited success. The with high values cant in most of to ver occurrence occur Nation River bet 331, records of p and 1940, 5598 com an unknown ar s have also been	rences found in the Fi worked since the first generally occur in the ls that were deposited nally worked by hand, t e gold is fine and fla s reported locally, it these placers. omprises a number of pl tween Philip Creek and production in this area grams of gold were recondunt of gravel (Bullet obtained from assays.	enlay, discovery top 1.5 to in streams hese placer and while was acer 65 Mile were poorly covered from in 28, page		
BIBLIOGRAPHY	EM FIELDWORK 2001, EM GEOFILE 2000-2; EMPR AR 1906-103; 1 1949-240 EMPR BULL 1, pp. 82 GSC ANN RPT 1894 VG GSC EC GEOL 13, p. GSC MEM *259, pp. 1 GSC OF 925 Placer Dome File	pp. 303-312 2000-5 1923-141; 1929-20 2-88; 2, pp. 45-4 DL III, pp. 38c-4 81 142-143	)6; 1930-159; 1933-104; 46; 21, p. 18; *28, p. 40c	1936-C34; 45		
DATE CODED: DATE REVISED:	1985/07/24 1991/02/05	CODED BY REVISED B	: GSB Y: GKK	FIELD CHECK: N FIELD CHECK: N		

MINFILE NUMBER:	<u>0930 005</u>		Ν	IATIONAL MINERAL INVENTORY	: 093O4 Au1
NAME(S):	RAINBOW CREEK				
STATUS:	Past Producer	Open F	Pit	MINING DIVISION:	Omineca
NTS MAP: BC MAP	093O04W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 13 27 N 123 58 06 W 875 Metres Within 1 KM Location of George Snell's	s showing (Bulletin 1,	page 82).	NORTHING EASTING	6120164 438404
COMMODITIES:	Gold	Platinum	Iridium		
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Gold Platinum Fine flat gold, minor plating Unknown	um and iridium from a	ussays only.		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers	Stratabound			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Recent	GROUP	FORM	1ATION	IGNEOUS/METAM Glacial/Fluvial Gra	ORPHIC/OTHER avels
LITHOLOGY:	Reworked Glacial Gravel				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Harper Rai	F	PHYSIOGRAPHIC AREA: Manson	Upland
CAPSULE GEOLOGY	Gold and plat Parsnip and Peace by Bill Cust in 18 3 metres of rework benches along stre operations had lim platinum is common considered unimpor Rainbow Creek through the Manson town of Mackenzie. kilometres above i to over 40 kilomet The fine grained n meant many showing grams of gold were production records obtained from assa	inum placer oc rivers have be 61. The place ed glacial gra ams. Normally hited success. with local hi tant in most o , a tributary Upland, appro Discovery of ts confluence res of the Cre ature of the g s were not pro recovered from are available ys.	currences foun en worked sinc rs generally o vels deposited worked by han The gold is f gh values repo f the Nation simately 60 ki gold in Rainb with the Natio ek being stake old and the lo fitable. Betw m Rainbow Cree . Iridium val	d in the Finlay, e the first discovery ccur in the top 1.5 to in streams and as d, these placer ine and flat and rted, but it was s. River flows north lometres south of the ow Creek, 2 to 3 n River, in 1929, led d and worked by 1931. w platinum content een 1931 and 1935, 1433 k. No other accurate ues have also been	L
BIBLIOGRAPHY	EM FIELDWORK 1991, EM GEOFILE 2000-2; EMPR AR 1906-103; 1949-240 EMPR BULL *1, pp. GSC ANN RPT 1894 V GSC EC GEOL 13, p. GSC MEM 259, pp. 1 GSC OF 925	pp. 344-347; 2000-5 1923-141; 1929 82-88; 2, pp. OL III, pp. 38 81 42-143	2001, pp. 303- -206; 1930-159 45-46; 21, p. c-40c	312 ; 1933-104; 1936-C34; 18; 28, p. 44	
DATE CODED: DATE REVISED:	1985/07/24 1991/02/05	CODED REVISE	BY: GSB D BY: GKK		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>0930 006</u>		NATIONAL MINERAL INVENTORY: 093O4,5 Au2				
NAME(S):	PHILIP AND WHEEL CREEKS						
STATUS:	Past Producer	Open Pit	MINING DIVISION: Omineca				
NTS MAP: BC MAP	093004E 093005E		UTM ZONE: 10 (NAD 83)				
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 52 N 123 31 22 W 900 Metres Within 1 KM Placer workings are report creeks. The location give (Minister of Mines Annual	ted along the length of Philip and Whee in is for a water wheel on Wheel Creek Report 1936, page C34).	NORTHING: 6116925 EASTING: 466724				
COMMODITIES:	Gold	Platinum Iridium					
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Gold Platinum Fine flat gold and minor pl Unknown	atinum. Iridium from assays only.					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unconsolidated Placer C01 Surficial placers	Stratabound					
HOST ROCK DOMINANT HOSTROCK:	Sedimentary						
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER				
LITHOLOGY:	Reworked Glacial Gravel						
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Quesnel	Cassiar	PHYSIOGRAPHIC AREA: Manson Upland				
CAPSULE GEOLOGY							
	Gold and plat Parsnip and Peace by Bill Cust in 18 3 metres of rework along streams and operation had limi platinum is common considered unimpor Philip Creek, through the Manson approximately 35 k of the placers alo 1900's. Wheel Cre	inum placer occurrences for rivers have been worked sir 61. The placers generally ed glacial gravels deposite rivers. Normally worked by ted success. The gold is f with high values reported tant in most of these place a tributary of the Nation Upland, meandering to its scilometres southwest of the ong Philip Creek were worked	and in the Finlay, nee the first discovery occur in the top 1.5 to ed as bars and benches r hand, these placer Fine and flat and while locally, it was ers. River, flows north Nation River confluence town of Mackenzie. Most a in the very early				
	mouth of Philip Cr comprising the mos production figures Values in ir	eek, a tributary 15 kilometi ceek, has a water wheel and st advanced workings of this are not available. 'idium were also derived fro	es up stream from the other structures, s area. Accurate om assays.				
BIBLIOGRAPHY	mouth of Philip Cr comprising the mos production figures Values in ir EM FIELDWORK 2001, EM GEOFILE 2000-2; EMPR AR 1906-103; 1949-240 GSC ANN RPT 1894 V GSC BULL 1, pp. 82 GSC EC GEOL 13, p. GSC MEM 259, pp. 1 GSC OF 925	<pre>tek, a tributary 15 kilometi reek, has a water wheel and st advanced workings of this s are not available. ridium were also derived fro pp. 303-312 2000-5 1923-141; 1929-206; 1930-15 70L III, pp. 38c-40c 2-88; 2, pp. 45-46; 21, p. 1 81 .42-143</pre>	es up stream from the other structures, area. Accurate om assays. 59; 1933-104; *1936-C34; .8				

MINFILE NUMBER:	<u>0930 007</u>	NATIONAL MINERAL INVENTORY:	
NAME(S):	NOMAN CREEK, CLEVELAND CREEK, P	NE PASS	
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093O09W	MINING DIVISION: Liard UTM ZONE: 10 (NAD 83)	
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 36 00 N 122 20 35 W Metres Within 500M The location is for the area of the Nomar and north of the Hart Highway. Noman ( Fisher creeks, flows south into the Pine I Beaudette creek coal areas are located is southeast on the opposite side of the Pin 36).	Creek coal seams, adjacent Creek, between Cleveland and River. The Falling and several kilometres to the e River valley (Bulletin	
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Unknown		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Fossil Fuel Sedimentary A04 Bituminous coal Irregular Folded Faulted		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Lower Cretaceous Lower Cretaceous	<u>GROUP</u> Bullhead Bullhead	FORMATION IGNEOUS/METAMORPHIC/OTHER Gething Cadomin	<u>.</u>
LITHOLOGY:	Sandstone Shale Siltstone Coal		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Overlap Assemblage	PHYSIOGRAPHIC AREA: Rocky Mountain Foothill	ls-North
INVENTORY			
ORE ZONE:	NOMAN CREEK	REPORT ON: Y	
COMMENTS: REFERENCE:	CATEGORY: Measured QUANTITY: 2270000 Tonnes COMMODITY Coal Estimated open pit mineable. Coal Assessment Report 562.	YEAR: 1969 GRADE 100.0000 Per cent	
CAPSULE GEOLOGY			
	In the Noman Creek area the Lower Cretaceous Gething seams, 60 (0 - 1.6 metres th (4.0-7.0  thick metres), 40 ( thick), are interbedded with varies considerably in thick	, the most important coal seams occur in Formation (Bullhead Group). The main ick), 78 (1.0-4.2 metres thick) 76 0-1 metre thick), and 9 (0-1.5 metres sandstone, shale and siltstone. Seam 60 ness and is mostly dirty and dull coal.	

varies considerably in thickness and is mostly dirty and dull coal. Seam 78 varies in thickness and is fairly clean with average ash and volatile content of 7 per cent and 25.8 per cent respectively. Seam 76 is the main seam and is most continuous. Average ash and volatile matter contents on an air dried basis are 5 per cent and 23 per cent respectively. Sulphur content varies from 0.4 to 0.7 per cent. Seams 39 and 40 are discontinuous and deep. A total of about 8 million tonnes of coal is estimated for the Noman Creek area (Bulletin 36, page 17). In 1969, Brameda Resources estimated the mineable reserves in the area southwest of Noman fault.

estimated the mineable reserves in the area southwest of Noman fault, the only portion of the area "of interest to Brameda", as 2.27 million tonnes (Coal Assessment Report 561).

On the west side of Cleveland Creek, four seams of coal of

### CAPSULE GEOLOGY

commercial thickness are exposed at the base of the Gething Formation. They are termed Seam 92 (2 metres thick) at about 76 metres above the base of the Gething, Seam 95 (1.2 metres thick) at 46 metres, Seam 97 (about 2.8 metres of coal) at 37 metres and Seam 100 (2.4 metres thick) at 20 metres. No estimate of reserve is given. The structure consists of three main northwest trending folds the Noman Creek syncline, Noman Creek anticline and the Fisher Creek

the Noman Creek syncline, Noman Creek anticline and the Fisher Creek syncline. The Noman Creek syncline is asymmetrical and plunges approximately 12 degrees southeast, decreasing towards the northwest. The Noman Creek anticline is cut by the northwest trending, southwest dipping Noman Creek fault (reverse), which is in turn displaced approximately 80 metres to the west by a northeast trending normal fault.

The underlying Cadomin Formation contains some coal seams, up to 1 metre thick.

The Falling Creek/Beaudette Creek area is structurally complex with Gething coal occurring mostly below variable thicknesses of Moosebar Formation rock.

#### BIBLIOGRAPHY

EMPR AR 1968-467 EMPR BULL 24; \*36, pp. 15-17; 51; 52, p. 87 EMPR COAL ASS RPT 560, \*561, 562, 823, 827 EMPR FIELDWORK 1991, pp. 433-440 EMPR GEM 1969-423 EMPR MAP 33 GSC BULL 219 GSC MAP 11-1961 GSC MAP 11-1961 GSC OF 286; 925 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1991/02/05 CODED BY: GSB REVISED BY: GJP

MINFILE NUMBER:	<u>0930 008</u>				NATIONAL	MINERAL INV	ENTORY:	
NAME(S):	WILLOW CREEK, PINE VALLI NORTH, CENTRAL	LEY, PINE RIV	ER,					
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093O09E					Mining Ut	DIVISION: M ZONE:	Liard 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 36 00 N 122 14 05 W 853 Metres Within 500M Approximate centre of the pr	roperty.				NC	ORTHING: EASTING:	6161828 548220
COMMODITIES:	Coal							
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous							
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratabound Ma Sedimentary Fo A04 Bituminous coal Tabular Folded Fa	lassive ossil Fuel aulted						
HOST ROCK DOMINANT HOSTROCK:	Sedimentary							
STRATIGRAPHIC AGE	<u>GROUP</u> Bullhead	<u>F</u>	ORMATION Gething			<u>IGNEOU</u>	S/METAMC	RPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Claystone Mudstone Conglomerate Coal							
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Foreland Overlap Assemblage Regional Low to medium volatile bitumi	RE ninous rank co	LATIONSHIP: al.		PHYSIOG	RAPHIC AREA: GRADE:	Rocky Mo MVol Bitu	ountain Foothills-North minous
INVENTORY								
ORE ZONE:	WILLOW CREEK		REF	PORT ON:	Y			
	CATEGORY: Inferred QUANTITY: 3300000 COMMODITY	0 Tonnes	GRADE	YEAR:	1997			
COMMENTS: REFERENCE:	Estimated geologic resources T. Schroeter, personal comm	es. nunication, 199	97.	Percent				
ORE ZONE:	WILLOW CREEK		REF	PORT ON:	Y			
	CATEGORY: Measured QUANTITY: 15650000 COMMODITY	00 Tonnes	GRADE	YEAR:	1997			
COMMENTS: REFERENCE:	Measured open pit coal rese George Cross News Letter N	erves. No.164 (Augus	st 26), 1997.	i ci ceill				
CAPSULE GEOLOGY	Eight major coa medium volatile bitu Formation (Bullhead coal is interbedded Average coal seam th	al zones ( uminous co Group) in with sand nickness v	greater th al occur is the Willd stone, sil caries from	nan 1.5 In the I Dw Cree Itstone n 2.0 (	metres Lower C k occur , and c seams 2	thick) of retaceous ( rence area laystone. and 5) to	low to Gething . The 3.6	

Average coal seam thickness varies from 2.0 (seams 2 and 5) to 3.0
metres (seam 4) and 4.2 metres (seam 7). Coal zones 1, 4 and 7 are
most continuous; zones 6 and 5 show a shorter strike length while
zones 2, 3 and 8 are least continuous.
 Average ash content varies from 7.28 per cent (seam 6) to 14.98
per cent (seam A); volatile matter from 15.63 per cent (seam 7) to
PAGE 1261 **REPORT: RGEN0100** 

#### CAPSULE GEOLOGY

23.72 per cent (seam 1); fixed carbon from 62.47 per cent (seam 2) to 76.58 per cent (seam 7) and sulphur from 0.43 per cent (seam 3) to 0.70 per cent (seam 5) on a dry basis.

The coal property covers the northern part of the northwest Willow Creek anticlinorium in which the Gething Formation is exposed. The anticlinorium consists of four parallel northwest trending anticlines with intervening syncline axes exposed in the west. The Syncline axes in the north are marked by northwest trending faults. Dips vary from 6 to 50 degrees, and are commonly 15 to 30 degrees. Combined (measured, indicated and inferred) resources at Willow Creek are 72,560,000 tonnes of coal (Coal Assessment Report 690).

Globaltex Industries Inc., Matsushima Canada and BCR Ventures

conducted an advanced stage drilling program in 1996. A total of 7500 metres of drilling in 240 holes were completed. Preliminary resources are estimated at 27 million tonnes of metallurgical coal. Various environmental studies are ongoing and the companies hope to receive approval-in-principal for a 500,000 tonne per year mine in late 1997. A full feasibility study is planned to be completed by late 1996-early 1997.

To date (ca. 1997), 523 exploration drillholes totalling 34,500 metres have been completed. In addition, 50 percussion-drill holes have been drilled on claims to the southeast in the Pine Pass area. The mineable reserve at Willow Creek is 15.65 million tonnes of thermal and low grade metallurgical coal (Exploration in B.C., 1997).

Estimated geologic resources are 33 million tonnes of metallurgical coal (T. Schroeter, personal communication, 1997). Pine Valley Coal Limited submitted a Stage 2 report which outlines plans for a 900,000 tonnes per year operation for 15 years. Production is planned in 1999.

Bulk sample programs included 200 kilograms for PCI coal

testing and 600 kilograms for testing of carbonization characteristics and applicability as a semi-soft coking coal. Globaltex Industries Inc. shipped 36,000 tonnes in 2001 and and 84,376 tonnes in 2002. The property is owned two-thirds by Globaltex and one-third by Mitsui Matshushima Canada Ltd.

#### BIBLIOGRAPHY

EM EXPL 1996-A25,C13; 1997-31; 1998-13 EMPR BULL 24; \*36; 51; 52 EMPR COAL ASS RPT 689, 690, 824, 846, 848, 861, 862 EMPR FIELDWORK 1991, pp. 405-417, 433-440 EMPR INF CIRC 1993-13; 1997-1, p. 24; 1998-1, p. 23; 1999-1, pp. 12, 13 EMPR MAP 33; 65 EMPR OF 1992-1; 1994-1 EMPR PF (Willow Creek Coal Project) GSC BULL 219 GSC MAP 11-1961 GSC MEM 259 GSC OF 286; 925 GCNL #164(Aug.26), 1997; #51(Mar.13), 1998; #23(Feb.3), 1999 N MINER \*Apr.12, 1999 PR REL Globaltex Industries Inc., Mar.10, 2003 WWW http://www.globaltexinc.com/projects.html

DATE CODED: 1985/07/24 DATE REVISED: 1997/06/09

CODED BY: GSB REVISED BY: EVFK

MINFILE NUMBER:	<u>0930 009</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	PINE			
STATUS:	Showing British Columbia		MINING DIVISION:	Liard
NTS MAP: BC MAP	093O10E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 31 45 N 122 36 53 W 760 Metres Within 500M Located on the south side of John Hart I Pine River, 2.5 kilometres due east of Lin 20372).	Highway, on the south sid nk Creek (Assessment Re	NORTHING: EASTING: port	6153747 524320
COMMODITIES:	Vanadium			
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Unknown Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: DIMENSION: COMMENTS:	Disseminated Industrial Min. 200 x 100 Metres The vanadium was probably deposited sepigenitic enrichment also occurring.	STRIKE/DIP syngenetically with possib	: TREND/PLUI le	NGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
<u>STRATIGRAPHIC AGE</u> Triassic	GROUP Undefined Group	FORMATION Sulphur Mountain		DRPHIC/OTHER
LITHOLOGY:	Calcareous Mudstone Calcareous Siltstone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America		PHYSIOGRAPHIC AREA: Hart Ran	ges
INVENTORY				
ORE ZONE:	SHOWING	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Vanadium The highest of several samples taken. Assessment Report 20372.	YEAR: GRADE 0.4700 Per cent	1990	
CAPSULE GEOLOGY				
	The area of the Pine sh and Upper Triassic Sulphur M calcareous mudstone or silts strike averaging 125 degrees The rocks are gently folded Sampling has defined a 200 metres and an estimated assayed samples range in val (Assessment Report 20372). possible to separate unminer	nowing is underlain Mountain Formation stone. The sequent s with a dip averag and have a shallor vanadium-bearing true width of 100 lue from 0.219 to realized rock from the	n by the Lower, Middle consisting of ce, where exposed, has a ging 35 degrees west. w northward plunge. zone with a length of metres. Several 0.470 per cent vanadium that it is not visually mineralized.	
BIBLIOGRAPHY	EMPR ASS RPT *20372 EMPR FIELDWORK 1991, pp. 433 GSC OF 925 GSC MAP 11-1961	3-440		
DATE CODED: DATE REVISED:	1992/01/22 0 1992/01/22 1	CODED BY: GJP REVISED BY: GJP	F F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>0930 010</u>	1	NATIONAL MINERAL INVENTORY	093O3 Mo1	
NAME(S):	JACK, HART				
STATUS:	Showing British Columbia		MINING DIVISION:	Cariboo	
NTS MAP: BC MAP	093O03W		UTM ZONE:	10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 00 18 N 123 17 06 W 990 Metres Within 1 KM Centre of property (Geology, Exploratio	n and Mining in B.C., 1971).	NORTHING: EASTING:	6095385 481771	
COMMODITIES:	Molybdenum				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Molybdenite Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Unknown Unknown L05 Porphyry Mo (Low F- type) Molybdenum is hosted in a quartz porp	hyry sill.			
HOST ROCK DOMINANT HOSTROCK:	Volcanic				
STRATIGRAPHIC AGE	GROUP Slide Mountain	FORMATION Unnamed/Unknown Form	ation IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Quartz Porphyry Sill Fragmental Basalt Diorite Limestone				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Omineca Slide Mountain Upper Paleozoic Slide Mountain volcan	ics and sediments.	PHYSIOGRAPHIC AREA: Norther	n Rocky Mountain Trench	
CAPSULE GEOLOGY	The Jack occurrence lies 16 kilometres west of McLeod Lake and 36 kilometres south-southwest of the town of Mackenzie. Diamond drilling in 1971 intersected molybdenite hosted in a quartz porphyry sill intruding Carboniferous to Permian Slide Mountain Group fragmental basalt, diorite and limestone. Detailed results of this 7-bole 610-metre drill program are not available				
BIBLIOGRAPHY	EMPR GEM *1971-219 GSC P 91-1A, pp. 285-291 GSC OF 925; 1565; 1895				
DATE CODED: DATE REVISED:	1985/07/24 1991/03/13	CODED BY: GSB REVISED BY: GKK	ł	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>0930 011</u>	1	NATIONAL MINERAL INVENTORY	2: 093O10 Phs1	
NAME(S):	LEMORAY				
STATUS: REGIONS	Showing British Columbia		MINING DIVISION	: Liard	
NTS MAP: BC MAP:	093O10E		UTM ZONE	: 10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 31 20 N 122 32 35 W 750 Metres Within 1 KM Located on the north side of Hart highwa 1992).	ay near Lemoray (Butrenc	NORTHING EASTING huk,	: 6153001 : 528849	
COMMODITIES:	Phosphate				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown Triassic				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Stratabound Sedimentary Evaporite F07 Upwelling-type phosphate 1 to 2 centimetre phosphorite bed.	Industrial Min			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
	GROUP	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER	
Triassic	Undefined Group	Sulphur Mountain			
LITHOLOGY:	Phosphorite Shale Siltstone Dolomite Chert				
HOSTROCK COMMENTS:	Phosporite beds in Triassic Toad Forma Mountain Formation (Whistler member)	ation (correlative with Sulp south of Pine River.	hur		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Foreland Ancestral North America Permo-Triassic Ancestral North America	n passive margin prism.	PHYSIOGRAPHIC AREA: Hart Ra	inges	
CAPSULE GEOLOGY					
	The Lemoray occurrence lies north of the Pine Pass Highway near Lemoray. Phosphate deposits in the Rocky Mountains of northeast British Columbia occur in a sequence of marine strata, ranging in age from Cambrian to Jurassic but only Triassic occurrences appear to have possible economic significance. At Lemoray, a 1 to 2 centimetre phosphorite bed is present in Triassic strata, believed to belong to the Toad Mountain Formation (correlative with the Whistler Member of the Sulphur Mountain Formation south of Pine River). In thin section it is seen to consist of dark brown to black, ovoid pellets in fine-grained dolomite, quartz and clay matrix. Some chert is also present				
BIBLIOGRAPHY	EMDR AR 1967-314				
	EMPR FIELDWORK *1987, pp. 39 GSC OF 925 *Butrenchuk, S.B. (1992): Ph in press)	6-410; 1991, pp. 4 Nosphates in Britis	433-440 sh Columbia (EMPR Paper		
DATE CODED: DATE REVISED:	1985/07/24 C 1991/03/19 F	CODED BY: GSB REVISED BY: GKK		FIELD CHECK: N FIELD CHECK: N	

\_\_\_

MINFILE NUMBER:	0930 012			NATIONAL MINERAL	INVENTORY:	
NAME(S):	PEACE RIVER CANYON					
STATUS:	Developed Prospect			MINI	NG DIVISION:	Liard
REGIONS: NTS MAP:	British Columbia 093O16E				UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 56 18 N 122 09 00 W 609 Metres Within 500M Approximate centre of pro	operty (Coal Assessr	nent Report 576).		NORTHING: EASTING:	6199543 553096
COMMODITIES:	Coal					
MINERALS						
SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratabound Sedimentary A04 Bituminous coal Tabular Folded	Massive Fossil Fuel Faulted				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	<u>GROUP</u> Bullhead	<u>FOR</u> Geth	MATION ing	IGNE	OUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Claystone Coal					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATI	ONSHIP:	PHYSIOGRAPHIC AR GRA	EA: Rocky Mo DE: MVol Bitu	ountain Foothills-North iminous
INVENTORY						
ORE ZONE:	PEACE RIVER CANYON		REPORT ON:	Y		
	CATEGORY: Combine QUANTITY: 19783 COMMODITY	d 851 Tonnes <u>GR</u>	YEAR:	1980		
COMMENTS: REFERENCE:	Coal Measured and indicated r Coal Assessment Report	eserves suitable for 576, page 25.	0.0000 Per cent surface mining.			
ORE ZONE:	PEACE RIVER CANYON		REPORT ON:	Y		
	CATEGORY: Measure QUANTITY: 37735 COMMODITY	d i360 Tonnes <u>GR</u>	YEAR:	1980		
COMMENTS: REFERENCE:	Coal Measured reserves suitat Coal Assessment Report	le for underground r 576, page 25.	0.0000 Per cent nining.			
CAPSULE GEOLOGY In the Peace River Canyon occurrence area, approximately 11 coal seams and zones occur in the Lower Cretaceous Gething Formation (mostly within the Middle Gething, Bullhead Group) which consists of interbedded sandstone, siltstone, claystone and coal. Average seam thicknesses in area A are as follows: Trojan, 2.4 metres; Titan, 1.7 metres; Falls, 2.1 metres; Gething, 0.6 metre; Little Mogul, 0.7 metre; Mogul; 1.8 metres; Castle Point, 0.9 metre; and Milligan, 0.8 metre. Thinner seams are present between some of the above. Ash content varies from 2.14 to 7.58 per cent and sulphur from 0.60 to 1.23 per cent. The structure consists of a northwest trending anticline cut by						

several northwest trending, southwest dipping thrust faults. Combined (measured and indicated) reserves suitable for surface mining are 19,783,851 tonnes; measured reserves suitable for

underground mining are 37,735,360 tonnes (Coal Assessment Report 576, page 25).

## BIBLIOGRAPHY

EMPR COAL ASS RPT 573, 574, 575, \*576 EMPR OF 1987-21; 1992-1 EMPR MAP 33; 65 (1989) EMPR BULL 51 GSC P 68-28; 89-4 GSC MAP 11-1961 GSC MEM 69; 259 GSC OF 286; 925 GSC BULL 219

DATE CODED: 1985/07/24 DATE REVISED: 1990/08/15 CODED BY: GSB REVISED BY: EVFK

# MINFILE NUMBER: 0930 013

#### NAME(S): <u>AN</u>, ANZAK

STATUS: Showing REGIONS: British Columbia

NTS MAP: 093O01E BC MAP:

LATITUDE: 55 05 33 N LONGITUDE: 122 07 55 W ELEVATION: 1707 Metres

# NATIONAL MINERAL INVENTORY: 093O1 Sia1

MINING DIVISION: Liard

UTM ZONE: 10 (NAD 83)

NORTHING: 6105429 EASTING: 555400

IGNEOUS/METAMORPHIC/OTHER

PHYSIOGRAPHIC AREA: Hart Ranges

COMMODITIES: Silica

LOCATION ACCURACY: Within 1 KM

# MINERALS

SIGNIFICANT: Silica MINERALIZATION AGE: Proterozoic-Cambrian

#### DEPOSIT

CHARACTER: Stratiform CLASSIFICATION: Sedimentary Industrial Min. TYPE: R07 Silica sandstone

COMMENTS: Approximate centre of property (Open File 1987-15).

#### HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE Upper Proterozoic Lower Cambrian Gog

LITHOLOGY: Quartzite

# HOSTROCK COMMENTS: Misinchinka or Gog group quartzite.

GEOLOGICAL SETTING

TECTONIC BELT: Foreland TERRANE: Ancestral North America COMMENTS: Cambro-Proterozoic Ancestral North American quartzite.

#### CAPSULE GEOLOGY

The An occurrence lies approximately 3 kilometres southeast of Mount Kinney and 65 kilometres southeast of the town of Mackenzie, in the Liard Mining Division. This quartzite occurrence is probably part of the Cambrian Gog or Upper Proterozoic Misinchinka Group. At least five holes have been drilled on the occurrence. Company information suggests there is a substantial tonnage of silica with the following analysis: SiO2, 99.43 per cent; Fe2O3, 0.09 per cent; Al2O3, 0.08 per cent; CaO, 0.011 per cent; and LOI, 0.18 per cent (Letter by Ritchie (Property File)).

FORMATION

Undefined Formation Undefined Formation

# BIBLIOGRAPHY

EMPR ASS RPT 5178, 5637 EMPR EXPL 1975, p. 203 EMPR GEM 1974, p. 400 EMPR OF \*1987-15 EMPR PF (Letter by A.C. Ritchie, 1979) GSC MAP 11-1961 GSC OF 925

 DATE CODED:
 1985/07/24
 CODED BY:
 GSB
 FIELD CHECK:
 N

 DATE REVISED:
 1991/03/16
 REVISED BY:
 GKK
 FIELD CHECK:
 N

MINFILE NUMBER:	<u>0930 014</u>		NATIONAL MINERAL INVENTORY:	093O2 Sia1
NAME(S):	WIN			
STATUS: REGIONS	Developed Prospect		MINING DIVISION:	Cariboo
NTS MAP: BC MAP:	093O02W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 02 02 N 122 53 46 W 1250 Metres Within 500M General location of drill collars from 1974 Report 16646).	4 drill program (Assessme	NORTHING: EASTING: ent	6098567 506640
COMMODITIES:	Silica			
MINERALS SIGNIFICANT: COMMENTS: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Silica Sedimentary quartz and quartz viens. Limonite Hematite Sericite Oxidation Proterozoic-Cambrian			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Stratiform Sedimentary Industrial Min. R07 Silica sandstone Regular Faulted 600 x 50 Metres A 600-metre east-west strike length 50 r quartzite bed truncated at east and wes faults.	STRIKE/DIF metre wide steeply dippin t ends by northeast stikin	P: TREND/PLUN 9 9	NGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	ORPHIC/OTHER
Lower Cambrian Unknown	Gog	Undefined Formation	Unnamed/Unknow	n Informal
LITHOLOGY:	Quartzite Quartz Vein			
HOSTROCK COMMENTS:	Misinchinka or Gog group white to pale quartz veins.	pink quartzite with comm	on	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Foreland Ancestral North America Cambro-Proteozoic Ancestral North Ame	erican quartzite.	PHYSIOGRAPHIC AREA: Hart Rang	ges
INVENTORY				
ORE ZONE:	WIN	REPORT ON:	Y	
	CATEGORY: Inferred QUANTITY: 4500000 Tonnes COMMODITY Silica	YEAR: GRADE 45.8200 Per cent	1974	
COMMENTS:	Contaminant levels are above silicon me within ferrosilicon production requirement	tal production requirement	ts but	
REFERENCE:	Assessment Report 16646.			
CAPSULE GEOLOGY	The Win occurrence lies kilometres southeast of the Division. A southeast trending qu metres along strike and has The unit is truncated to the faults. Silty phyllite occu consists of highly deformed siltstones and dirty to clea The quartzite, of the I Proterozoic Misinchinka Grou fine to medium-grained rock,	s on the crest of town of Mackenzie a width roughly e e east and west by irs to the south a interbedded metam an quartzites. Lower Cambrian Gog up, is normally a however, grit-si	Mount Chingee, 30 , in the Cariboo Mining been traced for 600 stimated at 50 metres. northeast striking nd strata to the north orphosed pelites, Group or the Upper buff white, well-sorted, zed quartz grains may	

constitute up to 40 per cent of the rock. It is generally pure, although it sometimes contains traces of sericite and minor hematite and limonite stains, especially on joint surfaces. Quartz veins may account for over 70 per cent of the rock volume over widths of tens of metres.

Six holes totalling 390 metres were drilled in 1974 and four continuous chip samples were collected in 1987. An inferred reserve of 4.5 million tonnes grading 98.03 percent SiO2 (or 45.82 per cent silicon), 0.10 percent Fe2O3, 0.38 percent Al2O3, 0.01 percent CaO and 0.19 percent LOI was confirmed by the 1987 program (Assessment Report 16646). (Conversion to silicon using the factor 2.1393.) Three samples collected by the Geological Survey Branch in 1981 assayed 94.14, 96.02 and 96.10 per cent silica.

#### BIBLIOGRAPHY

EMPR ASS RPT 5025; \*16646 EMPR GEM 1974, p. 401 EMPR FIELDWORK 1982, p. 196 EMPR OF \*1987-15 GSC P 91-1A, pp. 285-291 GSC OF 925

DATE CODED: 1985/07/24 DATE REVISED: 1991/03/16 CODED BY: GSB REVISED BY: GKK

MINFILE NUMBER:	<u>0930 015</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>JET</u> , PEACE			
STATUS:	Showing		MINING DIVISION:	Omineca
REGIONS: NTS MAP: BC MAP	093O13E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 59 24 N 123 34 32 W 1580 Metres Within 500M Sphalerite and galena bearing outcrop	Assessment Report 5643	NORTHING: EASTING: ).	6205116 464095
COMMODITIES:	Lead Zinc			
MINERALS				
SIGNIFICANT: COMMENTS: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Galena Sphalerite Smithso Disseminated sphalerite and galena and Dolomite Hydrozincite Anglesite Oxidation Unknown	onite d oxidized equivalents.		
DEPOSIT CHARACTER:	Disseminated Stratabound	Breccia		
CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Replacement E12 Mississippi Valley-type Pb-Zn 210 x 120 Metres Lead and zinc bearing breccia rubble c metres.	STRIKE/DIF overs a surface area 210	D: TREND/PLUI by 120	NGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION		ORPHIC/OTHER
Middle Devonian Middle Devonian	Undefined Group Undefined Group	Dunedin Stone		
LITHOLOGY:	Dolomite Breccia Dolomite			
HOSTROCK COMMENTS:	Dolomite breccia at the contact of the	Stone and Dunedin format	ions	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Foreland Ancestral North America Ancestral North American Paleozoic pla	atformal carbonates.	PHYSIOGRAPHIC AREA: Muskwa	Ranges
INVENTORY				
ORE ZONE:	DRILLHOLE	REPORT ON:	N	
COMMENTS: REFERENCE	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core <u>COMMODITY</u> Lead Zinc A 1.5-metre interval from drill hole 11B. Assessment Report 6028	YEAR: <u>GRADE</u> 22.0000 Per ceni 0.0140 Per ceni	1976 t t	
CAPSULE GEOLOGY				
	The Jet occurrence, lo Selwyn and 80 kilometres no Lower Paleozoic platformal terrane. Silurian Nonda Formati Formation, Lower and Middle Devonian Dunedin Formation Besa River Formation shale,	cated 3 kilometres rth of the town of carbonates of the on, Silurian-Devon Devonian Stone Fo carbonates and min comprise a platfo	s southeast of Mount Mackenzie, is hosted in Ancestral North America Mian Muncho-McConnell ormation and Middle for clastics, overlain by ormal sequence near a	

facies change to basinal shale. This southwest dipping package is folded and faulted and divided by a prominent thrust fault. The deposit occurs in dolomite breccia healed by coarse sparry dolomite. The breccia occurs at the contact between the Stone and Dunedin formations, but the irregular nature of this contact causes

uncertainty as to which formation hosts the occurrence. Coarse galena, sphalerite, smithsonite, anglesite and hydrozincite are disseminated in the sparry dolomite matrix but are also found occasionally replacing the dolomite clasts. Core samples, containing

up to 22 per cent lead and 4 per cent zinc, have been collected (Assessment Report 6028), however grab samples from the 120 by 210 metre showing commonly contain less than 2 per cent lead and zinc.

### BIBLIOGRAPHY

EMPR GEM 1975-E153, 1976-E159 EMPR ASS RPT \*5643, 6028 GSC MAP 1961-11; 1424A GSC MEM 425, p. 28 GSC OF 261 GSC OF 925

DATE CODED: 1985/07/24 DATE REVISED: 1991/01/23 CODED BY: GSB REVISED BY: GKK

MINFILE NUMBER:	<u>0930 016</u>			NATION	NAL MINERAL INVE	ENTORY: 093O11 Fe1
NAME(S):	FALCON					
STATUS:	Developed Prospect				MINING E	DIVISION: Omineca
REGIONS: NTS MAP:	British Columbia 093O11W				UT	M ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 42 14 N 123 20 57 W 1690 Metres Within 500M Massive magnetite in saddle 6280).	le on Falcon ´	1 claim (Assessr	nent Report	NC E	RTHING: 6173179 ASTING: 478057
COMMODITIES:	Iron	Magnetite				
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Magnetite Hematite Quartz Pyrite Chlorite Sericite Chloritic Proterozoic					
DEPOSIT	o					
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIATED STOL	Stratiform M Exhalative S G01 Algoma-type iron-fo Tabular Folded	Massive Sedimentary ormation	Cc Inc	ncordant Justrial Min. F11	Ironstone	
COMMENTS:	The occurrence is thickene	ed in the nose	e of a southeast	trending fold.	IR	END/PLUNGE: 120/20
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary					
STRATIGRAPHIC AGE Proterozoic	GROUP Misinchinka		FORMATION Undefined Form	nation	IGNEOUS	S/METAMORPHIC/OTHER
LITHOLOGY:	Lithic Fragmental Mudstone Tuffaceous Siltstone Magnetite Iron Formation Cherty Iron Formation Hematite Iron Formation Banded Iron Formation Carbonate Ironstone Tuffaceous Carbonate Iron Siliceous Ironstone	Formation				
HOSTROCK COMMENTS:	An iron formation lies in a group metsediments.	lower clastic	unit of the Misir	nchinka		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Foreland Ancestral North America Regional Proterozoic Ancestral North	F n American m	RELATIONSHIP: netasediments.	PHYSI Post-mineralizatio	OGRAPHIC AREA: on GRADE:	Hart Ranges Greenschist
INVENTORY						
ORE ZONE:	SILICA		RE	PORT ON: Y		
	CATEGORY: Inferred QUANTITY: 389000 COMMODITY	00 Tonnes	GRADE	YEAR: 1986	-	
COMMENTS: REFERENCE:	Iron Grade is total iron. Assessment Report 14839.		29.3000	Per cent		
ORE ZONE:	BANDED		RE	PORTION: Y		
	CATEGORY: Inferred QUANTITY: 318000 COMMODITY	00 Tonnes	GRADE	YEAR: 1986	-	
COMMENTS: REFERENCE:	Grade is total iron. Assessment Report 14839.		30.7000			

#### INVENTORY

ORE ZONE: LOWER REPORT ON: Y CATEGORY: YEAR: 1986 Inferred QUANTITY: 2010000 Tonnes COMMODITY <u>GRA</u>DE Ìron 36.4000 Per cent COMMENTS: Grade is total iron. REFERENCE: Assessment Report 14839. CAPSULE GEOLOGY The Falcon prospect, located in the Misinchinka Range, 40 kilometres northwest of the town of Mackenzie, lies in Upper Proterozoic Misinchinka Group metasediments. The Misinchinka Group, comprised of Cambro-Proterozoic metasediments, minor volcanics and carbonates is overlain by Cambrian carbonates. North-northwest trending folds plunge to the southeast and west dipping thrusts locally repeat the sequence. A regional foliation is pronounced in less competent beds and metamorphism grades up to greenschist facies. grades up to greenschist factes. The Falcon prospect, a 15 to 20 metre thick iron formation of probable exhalite origin, is enclosed in mudstone, siltstone and tuffaceous sediments of the Misinchinka Group. The deposit occurs in the nose of an anticline which trends 110 to 130 degrees and plunges gently to the southeast and to the northwest. This occurrence comprises seven iron formation sub-units as follows: (1) silicate; (2) banded; (3) magnetite-rich; (4) hematite-rich; (5) chert; (6) carbonate; and (7) tuffaceous carbonate. Magnetite and hematite are associated with quartz and pyrite. Chlorite and sericite are noted in the footwall. The iron formation, probably deposited in two cycles, has reserves as follows (Assessment Report 14839): \_\_\_\_\_ -UPPER FORMATION Banded Iron Formation - 3,180,000 tonnes grading 38.7 per cent total iron and 30.1 per cent magnetic iron. Silica facies...... - 3,890,000 tonnes grading 29.3 per cent total iron and 15.6 per cent magnetic iron. - 2,010,000 tonnes grading 36.4 per cent -LOWER FORMATION.... total iron and 23.2 per cent magnetic ir

#### BIBLIOGRAPHY

EMPR ASS RPT 6280, 7400, \*7929, \*14839 EMPR EXPL 1977-E200; 1900, 7929, 14039 EMPR EXPL 1977-E200; 1978-E230; 1979-239 EMPR OF \*1988-28, p. 131; 1998-8-I, pp. 1-20 GSC MAP 1961-11, 1424A GSC OF 925

DATE CODED:	1985/07/24	CODED BY: GSB	FIELD CHECK: N
DATE REVISED:	1992/02/06	REVISED BY: GJP	FIELD CHECK: N

MINFILE NUMBER:	<u>0930 017</u>	N	ATIONAL MINERAL INVENTORY:		
NAME(S):	MOUNT MURRAY, PINE PASS				
STATUS: REGIONS	Showing British Columbia		MINING DIVISION:	Liard	
NTS MAP: BC MAP:	093O07W		UTM ZONE:	10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 27 36 N 122 45 07 W 884 Metres Within 500M Location centered on sample site 5-1070 of Garbit Station along Highway 97 (plott emptor map, Energy, Mines and Petroleur Mineral File).	, 3.8 kilometres southeast ed on Peace River pre- m Resources Industrial	Northing: Easting:	6146010 515686	
COMMODITIES:	Limestone				
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Calcite Dolomite Upper Cambrian				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Massive Sedimentary Industrial Min. R09 Limestone Irregular Folded On the east limb of northwest trending ar	nticline.			
HOST ROCK DOMINANT HOSTROCK	: Sedimentary				
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION Lynx	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Limestone Dolomite				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America	F	HYSIOGRAPHIC AREA: Hart Rar	nges	
INVENTORY					
ORE ZONE:	SAMPLE	REPORT ON: 1	N		
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Limestone Taken across 15 metres. Grade given for Minister of Mines Annual Report 1957, particular	YEAR: GRADE 25.7000 Per cent or calcium oxide. age 86.	1957		
CAPSULE GEOLOGY	, Limestone of the Upper Cambrian Lynx Formation is exposed along the John Hart Highway, 3.8 kilometres southeast of Garbit Station of the B.C. Railway. The limestone lies on the east side of a northwest trending anticline. The roadcut exposes dark grey to black limestone in thin crinkled beds with some scattered 0.15 to 0.6 metre thick layers of light grey dolomite. A sample taken across 15 metres of limestone, perpendicular, to the bedding contained 25.70 per cent CaO, 5.56 per cent MgO, 38.56 per cent insolubles, 2.90 per cent R2O3, 2.03 per cent Fe2O3, 0.04 per cent MnO, 0.12 per cent P2O5, 0.12 per cent sulphur, 27.29 per cent ignition loss and 0.22 per cent water (Minister of Mines Annual Report 1957, page 86). The dolomite bands were excluded from sampling.				
BIBLIOGRAPHY	EMPR AR 1957-86 GSC MAP 11-1961 GSC OF 925				

Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1991/02/06 CODED BY: GSB REVISED BY: PSF

\_\_\_

MINFILE NUMBER:	<u>0930 018</u>	I	NATIONAL MINERAL INVENTORY:		
NAME(S):	Solitude Mountain, Pine Pass				
STATUS:	Showing British Columbia		MINING DIVISION:	Liard	
NTS MAP: BC MAP	093010E 093007E		UTM ZONE:	10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 30 05 N 122 37 55 W 762 Metres Within 1 KM Location centered on sample site S-107 of the summit of Solitude Mountain, alon Mines and Petroleum Resources Industria	1, 1.0 kilometre northwest g Highway 97 (Energy, al Mineral Map 11-1961).	NORTHING: EASTING:	6150649 523249	
COMMODITIES:	Limestone				
SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Caicite Silica Mississippian				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Massive Sedimentary Evaporite R09 Limestone Irregular Folded Folded into a northwest trending synclin	Industrial Min e.			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Mississippian	GROUP Undefined Group	FORMATION Prophet		ORPHIC/OTHER	
LITHOLOGY:	Limestone Chert				
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America		PHYSIOGRAPHIC AREA: Hart Ran	iges	
INVENTORY					
ORE ZONE:	SAMPLE	REPORT ON:	Ν		
	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Limestone	YEAR: GRADE 38.2000 Per cent	1957		
COMMENTS: REFERENCE:	Taken across 46 metres. Grade given for Minister of Mines Annual Report 1957, pa	or calcium oxide. age 86.			
CAPSULE GEOLOGY	A roadcut along the Joh	n Hart Highway (H	ighway 97) 1 kilometre		
	A roadcut along the John Hart Highway (Highway 97), 1 Kilometre northwest of the summit of Solitude Mountain exposes a 46-metre thick section of fine-grained, black limestone of the Mississippian Prophet Formation. This section lies on the west flank of a northwest trending syncline. The rock displays a well developed cleavage. In the upper most portion of the section the limestone becomes interbedded with chert. A sample taken across the 46-metre section contained 38.2 per cent CaO, 1.94 per cent MgO, 25.5 per cent insolubles, 0.70 per cent R2O3, 0.91 per cent Fe2O3, 0.01 per cent MnO, 0.03 per cent P2O5, 0.33 per cent sulphur, 32.6 per cent ignition loss and 0.09 per cent water (Minister of Mines Annual Report 1957, page 86). Limestone of the same formation is exposed on the east side of Solitude Mountain along the east flank of the syncline. A cut along the highway, 3.7 kilometres west of the previous exposure, displayed thickly bedded, fine-grained, black, siliceous limestone. A sample across 61 metres of road cut contained, 20.8 per cent CaO, 2.94 per cent MgO, 47.9 per cent insolubles, 1.22 per cent R2O3, 2.09 per cent Fe2O3, 0.02 per cent MnO, 0.16 per cent P2O5, 1.40 per cent sulphur and 24.7 per cent ignition loss (Minister of Mines Annual Report 1957, page 86).				

EMPR AR 1957-86 EMPR FIELDWORK 1991, pp. 433-440 GSC MAP 11-1961 GSC OF 925 Placer Dome File

DATE CODED: 1985/07/24 DATE REVISED: 1989/10/16 CODED BY: GSB REVISED BY: PSF

\_

MINFILE NUMBER:	<u>0930 019</u>		NATIONAL MINERAL INVENTORY	:
NAME(S):	SILVER SANDS, PINE PASS			
STATUS:	Showing British Columbia		MINING DIVISION:	Liard
REGIONS. NTS MAP: ΒC ΜΔΡ	093O10E		UTM ZONE:	10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 31 14 N 122 32 05 W 732 Metres Within 500M Location centered on sample site S-107 kilometres northeast of the Pine River br River pre-emptor map in Energy, Mines a Industrial Mineral File).	3, along Highway 97, 2.1 idge (plotted on Peace and Petroleum Resources	NORTHING: EASTING:	6152819 529376
COMMODITIES:	Limestone			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Calcite Silica Triassic			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Massive Sedimentary Industrial Min. R09 Limestone Irregular Folded On west limb of northwest trending synd	cline.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
<u>STRATIGRAPHIC AGE</u> Triassic Triassic	GROUP Undefined Group Undefined Group	FORMATION Toad Grayling	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Siliceous Limestone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America		PHYSIOGRAPHIC AREA: Hart Rai	nges
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON:	Ν	
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Chip COMMODITY Limestone Taken across 30.5 metres. Grade given Minister of Mines Annual Report 1957, p	YEAR: GRADE 18.1000 Per cent of cr calcium oxide. age 86.	1957 	
CAPSULE GEOLOGY				
	Black, siliceous limest Liard formations outcrops in Highway (Highway 97), 2.1 k bridge on the west limb of a sample taken across 30.5 met cent MgO, 48.8 per cent inso Fe2O3, 0.03 per cent MnO, 0 ignition loss (Minister of M	one of the Triass on a small roadcut ilometres northeas a northwest trendi cres contained 18. olubles, 0.64 per .06 per cent sulph fines Annual Repor	1c Toad, Grayling and along the John Hart t of the Pine River ng anticline. A chip 1 per cent CaO, 8.30 per cent R2O3, 0.63 per cent ur and 0.27 per cent t 1957, page 86).	
BIBLIOGRAPHY	THDD ND #1057 04			
	EMPR AR *1957-86 EMPR FIELDWORK 1991, pp. 433 GSC MAP 11-1961 GSC OF 925 Placer Dome File	3 - 4 4 0		
DATE CODED: DATE REVISED:	1985/07/24 (0 1992/02/06 (1	CODED BY: GSB REVISED BY: PSF	I	FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>0930 020</u>			NATIONAL MINERAL INVENTORY		
NAME(S):	PEACE RIVER, CLEARWAT	ER CREEK, W	VILLISTON LAKE			
STATUS: REGIONS	Showing British Columbia			MINING DIVISION:	Liard	
NTS MAP: BC MAP:	093O14E			UTM ZONE:	10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 53 18 N 123 12 09 W 1128 Metres Within 5 KM Location centered on surfa band (Geological Survey of	ce trace of 25 Canada Oper	kilometre long limestone n File 925 - Unit Dd).	NORTHING: EASTING:	6193670 487334	
COMMODITIES:	Limestone					
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Calcite Dolomite Middle Devonian					
	Stratiform	Massiva				
CLASSIFICATION: TYPE:	Strationn Sedimentary R09 Limestone	Evaporite	Industrial Mir	1.		
STAPE. MODIFIER: DIMENSION: COMMENTS:	Folded 9999 x 2500 Limestone band strikes nor are 25000 by 2500 metres	Metres thwest for 25	STRIKE/DIP kilometres. Deposit dimer	r: TREND/PLL nsions	INGE:	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE Middle Devonian	GROUP Undefined Group		FORMATION Dunedin	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Limestone Argillaceous Limestone Dolomite Calcareous Shale Sandstone					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America			PHYSIOGRAPHIC AREA: Muskwa	Ranges	
CAPSULE GEOLOGY	A band of limestone of the Middle Devonian Dunedin Formation outcrops on the east arm of Williston Lake (formerly the Peace River), 6 kilometres east of the mouth of Clearwater Creek, and continues southeastward for 25 kilometres. Exposed widths vary up to 2.5 kilometres. The southern half of the band is folded about the crest of a northwest trending syncline. The band is comprised of limestone and argillaceous limestone that is locally replaced by massive dolomite. Calcareous shale and minor sandstone are also present.					
BIBLIOGRAPHY						
	EMPR IND MIN FILE McCammon, J.W. 1 GSC MAP 11-1961 GSC OF 925	EMPR IND MIN FILE (Limestone Occurrences in British Columbia by McCammon, J.W. 1973, p. 267 (in Ministry Library)) GSC MAP 11-1961 GSC OF 925				
DATE CODED: DATE REVISED:	1985/07/24 1992/02/06	CR	CODED BY: GSB REVISED BY: PSF		FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>0930 021</u>				NATIONAL MI	NERAL INVE	ENTORY:
NAME(S):	LAURA, LAURA NO. 2, MC	OUNT BISSON	J				
STATUS:	Showing British Columbia					MINING E	DIVISION: Omineca
NTS MAP: BC MAP:	093012W					UT	M ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 31 19 N 123 56 27 W 1585 Metres Within 500M Location of sample UG-782 west of Mt. Bisson.	26, east of Ma	anson River and	2.2 kilome	etres	NC E	NTHING: 6153277 ASTING: 440601
COMMODITIES:	Thorium Neodymium	Rare Earths Samarium	La	nthanum		Cerium	Praseodymium
MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: MINERALIZATION AGE:	Allanite Monazite Quartz Magnetite Aegirine Augite Unknown	Nepheli	ne Feldsp	ar			
DEPOSIT							
CHARACTER: CLASSIFICATION: TYPE:	Disseminated Pegmatite O02 Rare element pegm	natite - NYF fa	amily				
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary						
STRATIGRAPHIC AGE	GROUP		FORMATION			IGNEOUS	S/METAMORPHIC/OTHER
Upper Proterozoic	Ingenika		Underined For	nation		Wolverine	e Complex
LITHOLOGY:	Allanite Pegmatite Gneiss Monzonite Biotite Amphibolite Aegirine Augite Feldspar S	Syenite					
GEOLOGICAL SETTING							Manager Haland
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Ancestral North America Regional	F	RELATIONSHIP:	Post-mine	eralization	GRADE:	Amphibolite
INVENTORY	-						
ORE ZONE:	SAMPLE		RE	PORT ON:	Ν		
	CATEGORY: Assay/an SAMPLE TYPE: Rock COMMODITY Cerium Lanthanum Neodymium Praseodymium Samarium	nalysis	GRADE 2.5300 2.2400 0.5800 0.1300 0.5000	YEAR: Per cent Per cent Per cent Per cent Per cent	1988		
COMMENTS: REFERENCE:	Thorium Sample of allanite pegmatit Property File and Assessm	e. nent Report 1	0.1100 7872.	Per cent			
CAPSULE GEOLOGY							
	The area of the consisting of silie	he Laura ciclastic	showing lie sediments	s withi with mi	n the Omir nor carbor	leca Belt lates and	l mafic

The area of the Laura showing lies within the Omineca Belt consisting of siliciclastic sediments with minor carbonates and mafic rocks. These rocks belong to the Upper Proterozoic Ingenika Group. Within the Wolverine Range, the sediments are highly metamorphosed and subsequently intruded by granodioritic bodies and associated pegmatites which are possibly Early Cretaceous in age. These high grade metamorphics, known as the Wolverine complex, consist of amphibolite and calc-silicate gneiss, schists, micaceous quartzite, and crystalline limestone. Metasomatism of the Wolverine amphibolite gneisses resulted in a secondary alkalic overprinting, possible related to a deep-seated intrusion.

The Laura showing occurs within a 110 by 60 metre zone of alkalic alteration. Monzonite (Mount Bisson intrusions) outcrops to the south. Biotite amphibolite appears to be altered to banded

aegirine augite-alkali feldspar syenite. Within the alteration zone are various pegmatites containing allanite, nepheline, monazite, quartz, magnetite, and feldspar. The allanite pegmatites are up to 30 metres long and 4 metres wide. A sample (UG-7911) of allanite pegmatite assayed 0.11 per cent thorium, 2.24 per cent lanthanum, 2.53 per cent cerium, 0.13 per cent praseodymium, 0.58 per cent neodymium, and 0.5 per cent samarium. (Assessment Report 17872 and Property File). A radioactive sample (UG-7826), 350 metres to the southeast, assayed 0.305 per cent thorium (Halleran, 1989 - Property File).

#### BIBLIOGRAPHY

EMPR ASS RPT 17734, \*17872, 19404 EMPR PF (Report by Halleran, A.A.D., 1989) EMPR FIELDWORK 1987, pp. 169-180; \*1989, pp. 297-304; 1992, pp. 301-306 EMPR EXPL 1988-C182 GSC MAP 11-1961 GSC OF 925 Chevron File

DATE CODED: 1990/08/01 DATE REVISED: 1992/01/21 CODED BY: LDJ REVISED BY: GJP

MINFILE NUMBER:	: 0930 022 NATIONAL MINERAL INVENTORY:			
NAME(S):	FALLS			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093O11W	MINING DIVISION UTM ZONE	N: Omineca E: 10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 40 53 N 123 26 35 W 915 Metres Within 5 KM The Falls claims are situated on the nor (Minister of Mines Annual Report 1904,	NORTHING EASTING th fork of Six Mile Creek , page G112).	G: 6170709 G: 472141	
COMMODITIES:	Mica			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Mica Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: COMMENTS:	Unknown Industrial Min. A detailed description for this occurren	ice is not available.		
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Misinchinka	FORMATION IGNEOUS/META	MORPHIC/OTHER	
LITHOLOGY:	Unknown			
	The Falls claims may be underlain by	Misinchinka Group sediments		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America	PHYSIOGRAPHIC AREA: Northe	rn Rocky Mountain Trench	
CAPSULE GEOLOGY	The Falls occurrence i Creek, approximately 44 kil in the Omineca Mining Divis The Falls occurrence l sediments, possibly within As recorded in the 1904 Dep appears to be very good gra very encouraging". A more	is situated on the north fork of Six Mile Lometres northwest of the town of Mackenzi sion. Lies within Ancestral North America terrar the Upper Proterozoic Misinchinka Group. Partment of Mines Annual Report "the mica ade and the surface showing is said to be detailed description is not available.	.e, 1e	
BIBLIOGRAPHY	EMPR AR *1904-G112 GSC OF 925			
DATE CODED: DATE REVISED:	1985/07/24 1991/03/15	CODED BY: GSB REVISED BY: GKK	FIELD CHECK: N FIELD CHECK: N	

MINFILE NUMBER:	<u>0930 023</u>	NATIONAL MINE	RAL INVENTORY:	
NAME(S):	GETHING CREEK			
STATUS: REGIONS: NTS MAP:	Showing British Columbia 093O16W		MINING DIVISION: UTM ZONE:	Liard 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 59 10 N 122 17 06 W 670 Metres Within 5 KM Measured section above the south fork Survey of Canada Bulletin 259, Figure 2	of Gething Creek (Geological 11).	NORTHING: EASTING:	6204765 544609
COMMODITIES:	Bentonite			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Bentonite Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: COMMENTS:	Stratiform Sedimentary Industrial Mir A 10-centimetre thick bed of bentonite.	ı.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Fort St. John	FORMATION Moosebar	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Bentonite Shale Sandstone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Foreland Overlap Assemblage Post-accretion Lower Cretaceous Blair	PHYSIOGRAPHI more clastic wedge.	C AREA: Rocky M	Iountain Foothills-North
CAPSULE GEOLOGY	The Gething bentonite Gething Creek, 6 kilometres kilometres northeast of the Division. A 10-centimetre seam o section of several hundred Formation (Fort St. John Gr Geological Survey of Canada not given.	occurrence lies above the sout west of Portage Mountain and town of Mackenzie, in the Lia f bentonite, near the base of metres of Lower Cretaceous Moo oup) shale and sandstone, was Paper 44-19. A detailed desc	th fork of 90 ard Mining a measured osebar reported in cription was	
BIBLIOGRAPHY	GSC MEM *259, p. 75 GSC P *44-19, pp. 7-8 GSC OF 925			
DATE CODED: DATE REVISED:	1985/07/24 1991/03/15	CODED BY: GSB REVISED BY: GKK	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	<u>0930 024</u>	NAT	TIONAL MINERAL INVENTOR	Y:		
NAME(S):	CRASSIER CREEK					
STATUS: REGIONS: NTS MAP	Showing British Columbia 032009W		MINING DIVISION	I: Liard <sup>≕</sup> 10 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 38 00 N 122 17 19 W 1150 Metres Within 5 KM A measured section on a southwest di approximately 5 kilometres north of Pin Canada Paper 43-13).	55 38 00 N 22 17 19 W 150 Metres 150 Me				
COMMODITIES:	Bentonite					
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Bentonite Lower Cretaceous					
DEPOSIT CHARACTER: CLASSIFICATION: COMMENTS:	Stratiform Sedimentary Industrial Min A 3-centimetrte thick seam of bentonite northeast.	n. e strikes northwest and dips				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP Fort St. John	<u>FORMATION</u> Moosebar	IGNEOUS/METAI	MORPHIC/OTHER		
LITHOLOGY:	Bentonite Shale Sandstone					
HOSTROCK COMMENTS:	Lower Cretaceous Moosebar Formati west and dip northeast.	on shale and sandstone strike	north-			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Foreland Overlap Assemblage Post accretion Lower Cretaceous Blair	PH <sup>v</sup> more clastic wedge.	YSIOGRAPHIC AREA: Rocky	Mountain Foothills-North		
CAPSULE GEOLOGY						
	The Crassier Creek occ kilometres north of Pine Ri town of Mackenzie, in the I A 3-centimetre seam of Lower Cretaceous Moosebar F sandstone, was reported (Ge detailed description was no	surrence lies above Cr ver and 63 kilometres dard Mining Division. bentonite, in severa cormation (Fort St. Jo cological Survey of Ca t given.	cassier Creek, 5 northeast of the hundred metres of ohn Group) shale and unada Paper 43-13).	A		
BIBLIOGRAPHY	EMPR FIELDWORK 1991, pp. 43 GSC MEM 259, p. 74 GSC P 43-13, pp. 3-4 GSC OF 925	3-440				
DATE CODED: DATE REVISED:	1985/07/24 1991/03/15	CODED BY: GSB REVISED BY: GKK		FIELD CHECK: N FIELD CHECK: N		

\_\_\_\_

MINFILE NUMBER:	<u>0930 025</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	DOWLING CREEK, PEACE RIVER, TRC	DJAN		
STATUS:	Developed Prospect		MINING DIVISION:	Liard
REGIONS: NTS MAP:	British Columbia 093O16W		UTM ZONE:	10 (NAD 83)
BC MAP: LATITUDE:	55 58 30 N		NORTHING:	6203523
LONGITUDE: ELEVATION:	122 17 36 W Metres		EASTING:	544101
LOCATION ACCURACY: COMMENTS:	Within 1 KM Approximate centre of property (Coal A	Assessment Report 511).		
COMMODITIES:	Coal			
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER	Stratiform			
CLASSIFICATION:	Fossil Fuel Sedimentary	/		
SHAPE: MODIFIER	Irregular			
DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Bullhead	FORMATION Gething	IGNEOUS/METAMO	<u>DRPHIC/OTHER</u>
LITHOLOGY:	Sandstone Mudstone			
	Coal			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE:	Foreland Overlap Assemblage		PHYSIOGRAPHIC AREA: Rocky M	ountain Foothills-North
METAMORPHIC TYPE:	Regional	RELATIONSHIP: Post-min	eralization GRADE:	
INVENTORY				
ORE ZONE:	TROJAN	REPORT ON	: Y	
	CATEGORY: Indicated QUANTITY: 15000000 Tonnes	YEAR:	1976	
	COMMODITY Coal	GRADE	t	
COMMENTS: REFERENCE:	In-place reserves on the northern part Coal Assessment Report 511.	of property.	·	
CAPSULE GEOLOGY				
	Three main coal seams, occur in the Lower Cretaced	, the Trojan, the M ous Gething Formati	Murray, and the Grant Ion (457 metres thick) of	
	the Bullhead Group, interbe Trojan seam lies 37 metres	edded with sandstor below the top of t	ne and mudstone. The the Gething while the	
	Murray and Grant seams occu making the Trojan seam the	ır over 305 metres most important, ha	lower in the succession, aving the least	
	overburden thickness. The in places.	Gething is overlai	In by younger formations	
	The Trojan seam is 2.1 area, but is thinner (0.9 m	l to 2.6 metres thi metre) and contains	ck in the Dowling Creek a split of sandstone	
	in the area of Drill Hole 7 be absent in some drill hol	77-7. It thins to les. A sub-Trojan	the east and appears to seam, 0.5 metre thick,	
	is also present in this are Superior seam above the Tro	ea. Other thinner ojan was intersecte	seams are common and the ed in several drill	
	holes. In place reserves of 1	15 million tonnes (	(Trojan seam) are thought	
	to be present in the norther plus 28 mesh material indic	ern part of the pro	operty. Analyses for the	
	at 6.6 per cent ash, 0.7 pe	er cent sulphur and	d free swelling index of	
	The structure consists trending, broad syncline wh faulted anticlines occur to	s of a gently dippinich is essentially the east and west	ng, north-northwest vunfaulted. Sharply	

EMPR COAL ASS RPT 510, \*511, 512 EMPR MAP 33 GSC MAP 11-1961 GSC MEM 69, 259 GSC OF 286; 925 GSC P 68-28

DATE CODED: 1986/02/16 DATE REVISED: 1991/03/19 CODED BY: EVFK REVISED BY: GKK

MINFILE NUMBER:	<u>0930 026</u>	NATIONAL MIN	ERAL INVENTORY:
NAME(S):	SOUTH MOUNT GETHING		
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093O16W 094B01W		MINING DIVISION: Liard UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 58 00 N 122 25 06 W Metres Within 1 KM Approximate centre of property.		NORTHING: 6202522 EASTING: 536308
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Fossil Fuel Sediment A04 Bituminous coal Irregular Folded Faulted	ary	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Bullhead	FORMATION Gething	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Shale Coal		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	PHYSIOGRAPH RELATIONSHIP: Post-mineralization	HC AREA: Rocky Mountain Foothills-North GRADE:
CAPSULE GEOLOGY	Approximately twelve in the Lower Cretaceous G interbedded with medium t siltstones, which were de environments. In the upper part of 2.06 metres thick (1.65 t splits from the Bri-Dowli to the South Mount Gethin channeled in places. The metres and splits into tw the property. The older Samples of the coal from sulphur, volatile matter, basis) to range as follow sulphur, 0.45 per cent to cent); volatile matter, 1 carbon, 29.29 per cent to 1 to 8. The structure consis which is cut (at its base southwest dipping thrust common.	coal seams (0.07 - 4.5 metres ething Formation (Bullhead Grou o fine-grained sandstones, shal posited in fluvial floodplain a the section, the Superior seam o 2.59 metres). The Trojan sea ng Creek property (to the east, g area. The Titan seam appears Falls seam thins from 1.4 metr o 0.6 metre thick seams in the (and generally thinner) seams a Drill Hole RDH - SMG - 81-28 sh fixed carbon, BTU and FSI (on s: ash, 11.12 per cent to 49.51 2.61 per cent (mostly less tha 7.51 per cent to 29.84 per cent 57.69 per cent; BTU, 6895 to 1 ts of a broad, south plunging a ) by numerous northwest-southea faults. Minor folding and faul	thick) occur up) les, and and deltaic n averages am thins and , 0930 029) s to be res to 1.25 northeast of are not named. howed ash, an air dry L per cent; an 1 per ; fixed L3523 and FSI, anticline ast trending Lting are
BIBLIOGRAPHY	EMPR COAL ASS RPT *638, * EMPR MAP 33 EMPR P 1983-3 GSC MAP 11-1961 GSC MEM 69, 259 GSC OF 286; 925	639, *640	

GSC P 68-28

DATE CODED: 1986/02/16 DATE REVISED: 1992/02/07 CODED BY: EVFK REVISED BY: GJP

MINFILE NUMBER:	<u>0930 027</u>	NATIONAL I	MINERAL INVENTORY:	
NAME(S):	WEST CARBON CREEK			
STATUS:	Prospect		MINING DIVISION: L	iard
NTS MAP: BC MAD	093O15W		UTM ZONE: 1	0 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 57 00 N 122 50 06 W 1989 Metres Within 1 KM Twenty-three coal licence centred on Mount Rockfo	es make an irregular horseshoe arrangement rd.	NORTHING: 6 EASTING: 5	3200527 310304
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Fossil Fuel A04 Bituminous coal Irregular Folded	Sedimentary Faulted		
HOST ROCK DOMINANT HOSTROCK	: Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMO	RPHIC/OTHER
Lower Cretaceous	Minnes	Bickford		
LITHOLOGY:	Sandstone Siltstone Shale Mudstone Conglomerate Coal			
GEOLOGICAL SETTING TECTONIC BELT:	Foreland	PHYSIOGR	APHIC AREA: Rocky Mo	untain Foothills-North
METAMORPHIC TYPE:	Regional	RELATIONSHIP: Post-mineralization	GRADE:	
CAPSULE GEOLOGY	Up to 30 sear	ns of metallurgical coal, ranging in	thickness from	
	of the Minnes Grou consists of interf mudstones, coal an Sandstone frequent show significant important correlat are reflective ind The Bickford Monach Formation siltstones, mudsto the Lower Cretaced recessive thinly rare coals. The o	ap. The unit, which is 650 to 750 modeled sandstones, siltstones, silty and some conglomerates of nearshore de- ly truncates the tops of coal seams variability in thickness and lateral tion tool given the lack of reliable lices. Formation conformably overlies the 1 (Minnes Group) which contains quartz ones and thin coal seams, and which 1 ous Beattie Peak Formation (Minnes G- interbedded siltstone, fine sandston- contact between the Bickford Formation	etres thick, mudstones, eltaic origin. . The seams extent. An marker horizons Lower Cretaceous arenites, in turn overlies roup) with e, mudstone and on and the	

exposed on the West Carbon Creek property. The structure of the property consists of a major syncline (in the west) and an anticline (in the east) with a series of en echelon folds trending north-northwest. The syncline, in the core of which the Bickford Formation is exposed, tightens northward. The area contains at least two steeply dipping (west-southwest) reverse faults with movement between 80 and 150 metres. Faulting and folding are considered contemporaneous.

overlying Lower Cretaceous Cadomin Formation (Bullhead Group) is a regional erosional unconformity, but the Cadomin Formation is not

The south-southeast trending belt of flat lying to gently dipping Bickford Formation sediments in the core of the Western syncline represents an area of approximately 9 square kilometres. and hold the greatest potential for mineable coal. Many of the coals sampled have good coking characteristics and are low in sulphur.

EMPR COAL ASS RPT \*507 EMPR P \*1988-3 EMPR BULL 24 EMPR FIELDWORK 1978, p. 73; 1982, p. 93; \*1984, pp. 227-232; 1985 p. 155; 1986 p. 365; 1991, pp. 441-449 EMPR MAP 33 EMPR OF 1987-21; 1992-12 GSC BULL 219 GSC MAP 11-1961 GSC MEM 69, 259 GSC OF 286; 925

DATE CODED: 1986/02/16 DATE REVISED: 1992/02/07 CODED BY: EVFK REVISED BY: GJP

\_

MINFILE NUMBER:	<u>0930 028</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	CARBON CREEK			
STATUS: REGIONS:	Developed Prospect British Columbia		MINING DIVISION:	Liard
BC MAP:	093015E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 56 45 N 122 39 36 W 762 Metres Within 500M Property centred on Carbon Cree Creek tributary.	ək, 7 kilometres north of the Mc	Allister	6200103 521235
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratabound Massi Sedimentary Fossil A03 Sub-bituminous coal Tabular Folded Faulte	ve Fuel		
HOST ROCK	Sedimentary			
Lower Cretaceous	Bullhead	Gething		
LITHOLOGY:	Sandstone Siltstone Mudstone Chert Pebble Conglomerate Coal			
GEOLOGICAL SETTING	- · ·			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	GRADE: MVol Bit	Iountain Foothilis-North uminous
INVENTORY				
ORE ZONE:	CARBON CREEK	REPORT O	N: Y	
	CATEGORY: Combined QUANTITY: 221831300 T COMMODITY	Tonnes	R: 1972	
COMMENTS:	Coal Measured, indicated and inferred	100.0000 Per ce d reserves calculated on 11 prir	nt ncipal	
REFERENCE:	coal seams. Coal Assessment Report 496, Ta	able 2.		
CAPSULE GEOLOGY				
	At Carbon Creek, t greater than 1 metre th Formation (Bullhead Grc thickness of 1,067 metr British Columbia), cons siltstone, mudstone, co upper Gething Formation plain environment and c occasionally high sulph lower 457 metres repres sediments and laterally sulphur coal seams (les sulphur). The free swelling seam 40 (FSI is 4), and are low in volatile mat all other seams range f The contact betwee (Bullhead Group) is tra marine Lower to Upper C	ick, occur in the Low oup). The Gething For res (maximum known thi sists of non-marine in cal and minor chert pe (610 metres) was dep contains thinner, late nur coal seams (2.49 p sents upper delta plai y continuous, relative ss than 1 per cent; av index (FSI) is less t d seams 53 and 31 (FSI tter (average approxim from 27 to 31 per cent en the Gething and unc ansitional, both verti Cretaceous Moosebar Fo	The grade coal seams, ver Cretaceous Gething mation, which reaches a .ckness in northeast terbedded sandstone, bble conglomerate. The bosited in a lower delta er cent sulphur). The in deposition with coarser by thick and lower verage of 0.8 per cent than 3 in all seams except t is 5). Seams 14 and 15 mately 22 per cent), while to volatile material. derlying Cadomin Formation ically and laterally. The prmation (Fort St. John	

Group) overlies the Gething Formation. The structure consists of a broad, northwest trending syncline (axis follows the course of Carbon Creek) with Gething Formation rocks occurring in the core. The Gething Formation sediments are flat-lying (0 to 15 degrees), with steeper dips associated with four high-angle reverse faults dipping to the east. The faults have broken the coal seams into mineable blocks with steeply dipping unmineable coal near the faults. The dips increase up to approximately 30 degrees locally in the limbs of the syncline to the west and east. Some parasitic folding was noted in the eastern limb. Measured, indicated and inferred reserves calculated on 11 principal coal seams at Carbon Creek are 221,831,300 tonnes (Coal Assessment Report 496, Table 2).

#### BIBLIOGRAPHY

EMPR COAL ASS RPT \*496, \*504 EMPR FIELDWORK 1978, pp. 73-77; 1982, pp. 93-97; 1984, pp. 227-232; \*1985, pp. 155-160; 1986, pp. 365-368; 1991, pp. 405-417, 441-449 EMPR BULL 24; 51 EMPR OF 1987-21; 1992-1; 1992-12 EMPR MAP 33; 65 (1989) EMPR P 1988-3 GSC MAP 11-1961 GSC MAP 69; 259 GSC OF 286; 925 GSC BULL 219 GSC P 80-12; 89-4

DATE CODED: 1986/02/16 DATE REVISED: 1990/08/14 CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>0930 029</u>	NATIO	NAL MINERAL INVENTORY:		
NAME(S):	BRI - DOWLING CREEK, DOWLING CREEK, PEACE RIVER				
STATUS: REGIONS: NTS MAP	Prospect British Columbia		MINING DIVISION:	Liard	
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 57 00 N 122 18 06 W Metres Within 1 KM The coordinates are for the approximat mainly the Dowling Creek property - cor	e centre of the property, acentrated on Dowling Creek.	NORTHING: EASTING:	6200735 543609	
COMMODITIES:	Coal				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary Fossil Fuel A04 Bituminous coal	A03	Sub-bituminous coal		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER	
LITHOLOGY:	Sandstone Siltstone Carbonaceous Shale Shale Mudstone Coal	Getting			
HOSTROCK COMMENTS:	The sediments represent deposition in environment.	an aggrading flood plain			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Foreland Overlap Assemblage All seams med. bituminous except Troja	PHYSM In which is high vol. bituminous.	OGRAPHIC AREA: Rocky M	ountain Foothills-North	
CAPSULE GEOLOGY	The upper four coal set Formation (Bullhead Group) in the area. From top to b Titan, and Falls seams, int siltstones and carbonaceous plain environment. The area is predominan dipping) of a broad south p trending) syncline. In the is little evidence of fault syncline. Towards the sout: intense and anticlines are The Superior seam, alt is only sufficiently thick part of the property. It i bituminous coal with excell A number of thrust faults d The seam thins and splits t The Trojan seam is the property area. It is great southwest parts of the area channeled in places. The s high volatile "A" bituminou by thin mudstone, sandstone thrust faults in the south, developed, and relatively f The Titan and Falls set the southern part of the pr The Titan seam is low in asi only. It is medium volatil	ams of the Lower Cretac are considered to have ottom, they are the Sup erbedded with sandstone shales deposited in an tly underlain by the we lunging (approximately north, dips are 0 to 2 ing. To the northeast h and west gentle folds cut by thrust faults. hough continuous throug and laterally extensive s low ash, low sulphur, ent thermal and metallu ivide the seam into fou o the northeast. thickest and most exte er than 0.92 metre in t , thins towards the cen eam is generally low su s coal, with the high a , or siltstone splits. but in the northeast i lat lying (5 to 8 degre ams attain economic thi operty, but are of limi h and sulphur and is of e bituminous.	eous Gething economic potential erior, Trojan, s, shales, aggregate flood st limb (east north-northwest 0 degrees and there is the axis of the become more hout the property, in the southern medium volatile rgical qualities. r separate blocks. nsive seam in the he northeast and tral region and is lphur, high ash, sh content caused The seam is cut by s continuous, well es). cknesses only in ted areal extent. thermal quality		

The Falls seam is the least economic, not being consistently

thick (very variable in thickness). The Titan and Falls seams, in the area of economic interest, are offset by thrust faults.

## BIBLIOGRAPHY

EMPR COAL ASS RPT \*467, \*468, \*469 EMPR P 1988-3 EMPR MAP 33 GSC MAP 11-1961 GSC MEM 69; 259 GSC OF 286; 925 GSC P 68-28

DATE CODED: 1986/02/16 DATE REVISED: 1992/02/10 CODED BY: EVFK REVISED BY: GJP

MINFILE NUMBER:	: 0930 030 NATIONAL MINERAL INVENTORY:			
NAME(S):	KING GETHING, PORTAGE MOUNTAIN, K 48, FORTY-EIGHT, GRANT FLAT, KING-GETHING, KING GETHING NO. 3, GE PEACE RIVER, CANYON NO. 1	KING, ETHING NO. 3,		
STATUS: REGIONS: NTS MAP	Past Producer British Columbia	Underground	MINING DIVISION: Liard	
LATITUDE: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 58 40 N 122 07 05 W 853 Metres Within 1 KM The location given is for the King seam, v mine, on the east side of Portage Mounta Canada Bulletin 259). The Grant seam, o the King-Gething mine, was worked as the	worked as the King-Gething in (Geological Survey of over 2 kilometres southwest of ne Grant Flat mine.	NORTHING: 6203957 EASTING: 555036	
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary Fossil Fuel A04 Bituminous coal			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Bullhead	FORMATION Gething	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Sandstone Shale			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Foreland Overlap Assemblage Regional Ri Mogul, Galloway, Johnston #2 are low vo	PHYSIOGRAPH ELATIONSHIP: Post-mineralization ol. bit.; Grant is intermediate.	IIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous	
CAPSULE GEOLOGY	Fifty coal seams, thick Cretaceous Gething Formation sandstone and shale. The st folds, with the main anticli locally to the southeast. D generally less than 15 degre	er than 0.3 metre, occur in , Bullhead Group, interbedde ructure consists of northwes ne (Butler Ridge anticline) ips vary from 5 to 40 degree es. Coal-bearing strata occ	the Lower ed with st trending plunging ss and are sur on either	

flank of the anticline. The east limb of the anticline contains the generally north trending, west dipping east Portage Thrust fault at the contact between the Cadomin and Gething formations. Twelve of the coal seams are thicker than 0.8 metre. In the South block, the main seam is the Trojan, (2.2 metres with sandstone partings 0.15 metre thick). Ash content varies from 6.1 to 21.5 per cent (lower to upper); volatile matter, 18.8 to 28.6 per cent (upper to lower); fixed carbon, 58.6 to 64.6 per cent (upper ter lower); description of the term of the term.

to lower); and sulphur, around 0.8 per cent. The North block contains two past producing mines which extracted coal from the "King" and "48" seams. The King seam is medium volatile bituminous, averages 1.5 metres thick and contains 1.4 to 17.1 per cent ash, 22.7 to 28.5 per cent volatile matter, 54.4 to 73.9 per cent fixed carbon, and 0.9 to 1.8 per cent sulphur. The "48" seam (2.0 metres) varies from 4.6 to 25.7 per cent ash, 13.1 to 18 per cent volatile matter, 60.1 to 78.3 per cent fixed carbon and 0.3 to 0.5 per cent sulphur. Other seams present in the North block are the Kreuger (2.3 metres), Intermediate (1.0 metre) and Road (0.9 metre) seams.

The Grant seam, at the west end of Grant Flat on the north side of the Peace River and immediately south of Portage Mountain, was the first seam in the area actively worked. In 1922, it was opened by an adit, 109 metres long.

EMPR AR 1944-88,128-129; 1945-139,172-175; 1946-218,248; 1947-238,266; 1948-204,241; 1949-278,308-309; 1950-244,275-276; 1951-249,289-290; 1952-286,321; 1953-226,258; 1954-214,248; 1955-132,163; 1956-198,225; 1957-121,145; 1958-135,154; 1959-253,274; 1960-218,238; 1961-253,274; 1962-258,278; 1963-239,264; 1964-308,325; 1965-410; 1966-393; 1967-458; 1968-467 EMPR COAL ASS RPT \*596 EMPR MAP 33 GSC MAP 11-1961 GSC MEM 69; \*259, pp. 174-176 GSC OF 286; 925 GSC P 68-28

DATE CODED: 1986/02/16 DATE REVISED: 1992/02/10 CODED BY: EVFK REVISED BY: GJP
MINFILE NUMBER:	<u>0930 031</u>	NATIONAL MINERAL INVENTORY	
NAME(S):	FISHER CREEK		
STATUS: REGIONS: NTS MAP:	Prospect British Columbia 093O09W	MINING DIVISION: UTM ZONE:	:Liard :10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 38 00 N 122 17 05 W Metres Within 500M Approximate centre of proper	NORTHING EASTING:	: 6165504 : 545031
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT	<b>•</b>		
CHARACTER: CLASSIFICATION: TYPE: SHAPE	Stratiform Sedimentary Fos A04 Bituminous coal Irregular	ssil Fuel	
MODIFIER:	Folded Fat	ulted	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Bullhead	FORMATION IGNEOUS/METAM Gething	IORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Claystone Carbonaceous Claystone Coal	J	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE	Foreland	PHYSIOGRAPHIC AREA: Rocky N	Mountain Foothills-North
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	PHYSIOGRAPHIC AREA: Rocky M RELATIONSHIP: Post-mineralization GRADE: MVol Bi	Mountain Foothills-North ituminous
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional	PHYSIOGRAPHIC AREA: Rocky M RELATIONSHIP: Post-mineralization GRADE: MVol Bit reek area, two main coal seams occur in the Lower	Mountain Foothills-North ituminous r
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional In the Fisher Cr Cretaceous Gething Fo sandstone, siltstone, coal seams. Seams an from a few centimetre metre thick. The mai metres and 0.3 to 3 r samples, ash, moistun were found to vary as cent; 21.8 to 25.7 pe per cent respectively. The structure is Creek anticline to the anticline to the sout followed as distinct number of northwest to reverse faults, and a fault.	PHYSIOGRAPHIC AREA: Rocky M RELATIONSHIP: Post-mineralization GRADE: MVol Bit recek area, two main coal seams occur in the Lower ormation, Bullhead Group, interbedded with , claystone, carbonaceous claystone and minor re of medium volatile bituminous coal and vary es to 1.96 metres and are generally 0.5 to 1 In seam zones, lower and upper, are 0.6 to 6.7 metres thick respectively. From three trench re, volatile matter, fixed carbon and sulphur s follows: 11.2 to 24.7 per cent; 2.8 to 8.3 per er cent; 48.0 to 60.3 per cent; and 0.68 to 0.78 % controlled by the northwest trending Fisher he north and west, and by the Willow Creek th and east. These structures have not been elements on the property, which contains a trending lesser folds cut by minor high angle a northwest trending, southwest dipping thrust	Mountain Foothills-North Ituminous r
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY BIBLIOGRAPHY	Foreland Overlap Assemblage Regional In the Fisher Cr Cretaceous Gething Fo sandstone, siltstone, coal seams. Seams an from a few centimetre metre thick. The mai metres and 0.3 to 3 r samples, ash, moistur were found to vary as cent; 21.8 to 25.7 pe per cent respectively The structure is Creek anticline to the anticline to the sout followed as distinct number of northwest to reverse faults, and a fault.	PHYSIOGRAPHIC AREA: Rocky M RELATIONSHIP: Post-mineralization GRADE: MVol Bit ormation, Bullhead Group, interbedded with claystone, carbonaceous claystone and minor e of medium volatile bituminous coal and vary es to 1.96 metres and are generally 0.5 to 1 in seam zones, lower and upper, are 0.6 to 6.7 metres thick respectively. From three trench e, volatile matter, fixed carbon and sulphur s follows: 11.2 to 24.7 per cent; 2.8 to 8.3 per er cent; 48.0 to 60.3 per cent; and 0.68 to 0.78 c. s controlled by the northwest trending Fisher he north and west, and by the Willow Creek th and east. These structures have not been elements on the property, which contains a trending lesser folds cut by minor high angle a northwest trending, southwest dipping thrust	Mountain Foothills-North ituminous r
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY BIBLIOGRAPHY	Foreland Overlap Assemblage Regional In the Fisher Cr Cretaceous Gething Fo Sandstone, siltstone, coal seams. Seams and from a few centimetre metre thick. The mai metres and 0.3 to 3 m samples, ash, moistun were found to vary as cent; 21.8 to 25.7 pe per cent respectively The structure is Creek anticline to the anticline to the sout followed as distinct number of northwest t reverse faults, and a fault. EMPR COAL ASS RPT *52 EMPR BULL 24, 51, 52 EMPR MAP 33 EMPR FIELDWORK 1991 p GSC BULL 219 GSC MAP 11-1961 GSC MEM 259 GSC OF 286; 925	PHYSIOGRAPHIC AREA: Rocke M RELATIONSHIP: Post-mineralization GRADE: MYOL Bit ormation, Bullhead Group, interbedded with claystone, carbonaceous claystone and minor e of medium volatile bituminous coal and vary es to 1.96 metres and are generally 0.5 to 1 in seam zones, lower and upper, are 0.6 to 6.7 metres thick respectively. From three trench re, volatile matter, fixed carbon and sulphur a follows: 11.2 to 24.7 per cent; 2.8 to 8.3 per er cent; 48.0 to 60.3 per cent; and 0.68 to 0.78 % controlled by the northwest trending Fisher e north and west, and by the Willow Creek th and east. These structures have not been elements on the property, which contains a trending lesser folds cut by minor high angle a northwest trending, southwest dipping thrust	Mountain Foothills-North Ituminous r

MINFILE NUMBER:	<u>0930 032</u>			l	NATIONAL MINE	ERAL INVENTORY:	
NAME(S):	<u>TREFI,</u> CARON, HIGHHAT						
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093009E 093016W 093P12	2W 093P05W				MINING DIVISION: UTM ZONE:	Liard 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 40 30 N 122 00 05 W Metres Within 1 KM Pine River divides the northy designated the North Pine ar extends for over 80 kilometr centre of the property.	west trending nd South Pine res. The abov	property into t blocks. The p /e coordinates	wo blocks roperty are for the	Э	NORTHING: EASTING:	6170361 562802
COMMODITIES:	Coal						
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous						
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Sedimentary Fr A04 Bituminous coal Irregular Folded Fr	ossil Fuel					
HOST ROCK DOMINANT HOSTROCK:	Sedimentary						
STRATIGRAPHIC AGE Lower Cretaceous Lower Cretaceous	GROUP Fort St. John Boulder Creek	<u>F</u>	FORMATION			IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Claystone Carbonaceous Claystone Conglomerate Coal						
HOSTROCK COMMENTS:	Coal occurs in the Walton M is also found in the Gates a	Member of the and Gething fo	Boulder Creel ormations.	Formation	n and		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RE	LATIONSHIP:	Post-mine	PHYSIOGRAPH ralization	IC AREA: Rocky M GRADE: MVol Bit	Iountain Foothills-North uminous
INVENTORY							
ORE ZONE:	HIGHHAT		RE	PORT ON:	Υ		
	CATEGORY: Inferred QUANTITY: 1653080 COMMODITY	00 Tonnes	GRADE	YEAR:	1981		
COMMENTS: REFERENCE:	Coal Highhat seam reserves. Coal Assessment Reports 6	80 and 681.	100.0000	Per cent			
ORE ZONE:	CARON		RE	PORT ON:	Y		
COMMENTS:	CATEGORY: Inferred QUANTITY: 10600909 COMMODITY Coal Caron seam reserves.	98 Tonnes	<u>GRADE</u> 100.0000	YEAR: Per cent	1981		
REFERENCE:	Coal Assessment Reports 6	80 and 681.					
CAPSULE GEOLOGY	The main coal- was known as the Wal Cretaceous Boulder (	bearing un lton Membe Creek Form	nit in the er or Member	Fort St er 4 (Bu	t. John Gro ulletin 52) sists of sa	up is what in the Lower ndstone.	

Cretaceous Boulder Creek Formation. This consists of sandstone, siltstone, claystone, carbonaceous claystone, occasional conglomeratic sandstone and 2 main coal seams. This member overlies the upper conglomerate in the Boulder Creek Formation. The coal

occurs towards the base of the member, which, in the south, varies from 60 to 88 metres thick, averaging 68 metres and, in the north, varies from 51 to 65 metres thick, averaging 54 metres.

Coal also occurs in the Lower Cretaceous Gates (Fort St. John Group) and Gething (Bullhead Group) formations, but these formations do not outcrop extensively and the coal occurs at depth.

The dominant structural feature on the property is the northwest trending Pine River anticline. This lies along the west margin of the property. The northeast limb dips 25 to 45 degrees northeast and shallows towards the Hulcross syncline. The latter is broad and narrows to the southeast, terminating north of Highhat Mountain. To the northeast, the Hulcross syncline is paired with the Commotion anticline which converges with the Pine River anticline to the north. Folds are broad with some localized faulting and all folds plunge southeast. South of Highhat Mountain the structure becomes more complex with fold amplitudes increasing and some thrusting taking place.

Two main seams are present but other thin seams also occur. All the seams show considerable lateral variation. The coal is thought to have been deposited in a high energy, inter distributary, prograding deltaic environment which resulted in poor lateral seam continuity. Due to channel cut-outs and limited areas of deposition, seam characteristics vary considerably both vertically and laterally.

The Caron seam (foremost economic seam on the property) varies in thickness from 2.7 metres to 0.18 metre, and exhibits very rapid lateral changes. It is the most laterally extensive of the Trefi seams (the 1.0-metre isopach ranges from north of the Highhat River to the southern extent of coal deposition on the property). The eastern edge is lobate in nature, indicating adjacent areas of thickening and thinning.

The extent of the Highhat seam is much more limited, and it attains a marginal economic thickness north of the Highhat River only. Its thickness ranges from 0.32 to 1.62 metres, and its composition varies laterally.

Analyses of air dried raw coal from the Caron seam yielded the following data: ash, 7.78 to 28.46 per cent; volatile matter, 18.08 to 22.66 per cent; fixed carbon, 52.8 to 68.77 per cent; BTU per pound, 10482 to 13749; and sulphur, 0.32 to 0.38 per cent. Total inferred resources are 106,009,098 tonnes for the Caron

seam and 16,530,800 for the Highhat seam (Coal Assessment Reports 680, 681).

#### BIBLIOGRAPHY

EMPR BULL 51, \*52 EMPR COAL ASS RPT \*680, \*681 EMPR FIELDWORK 1991, pp. 433-440 EMPR MAP 33 GSC MAP 11-1961 GSC MEM 259 GSC OF 286; 925 PR REL Forum Development Corp., Feb.5, Mar.5, 2003

DATE CODED: 1986/02/16 DATE REVISED: 1991/03/18 CODED BY: EVFK REVISED BY: GKK

MINFILE NUMBER:	<u>0930 033</u>	NATIC	NAL MINERAL INVENTORY:	
NAME(S):	PINE RIVER, WILLOW CRE	ΞK		
STATUS: REGIONS: NTS MAP	Showing British Columbia		MINING DIVISION: Liard	
LOCATION ACCURACY COMMENTS:	55 36 00 N 122 14 45 W Metres Within 1 KM Approximate centre of pro	operty.	NORTHING: 6161820 EASTING: 547520	
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Upper Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Sedimentary A04 Bituminous coal Irregular Folded	Fossil Fuel Faulted		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Bullhead	FORMATION Gething	IGNEOUS/METAMORPHIC/OTHER	
LITHOLOGY:	Sandstone Siltstone Carbonaceous Shale Muddstone			
	Cual			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	PHYS RELATIONSHIP: Post-mineralizat	OGRAPHIC AREA: Rocky Mountain Foothills-No on GRADE:	orth
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional The Pine Riv zones in the Lower interbedded with m Approximate thickn are generally less present in some co The structure northwest. In the exhibits some mino northeast with dip least two northwes There are thr metres of coal dip coal is of metallu On a dry basi (generally less th per cent; fixed ca per cent); BTU per per cent.	PHYS RELATIONSHIP: Post-mineralizat Cretaceous Gething Formation, J Udstone, coaly shale, siltstone esses (from trenches) range up than 3 metres, however, many sh al zones. Consists of two tightly folded southwest is the Willow Creek a r folding on the limb) and a syn s ranging from 15 to 70 degrees t trending faults are present. e major coal zones with a combi ping at from 27 to 40 degrees. rgical grade. s, ash content ranges from 7.76 an 20 per cent); volatile matter rbon, 23.12 to 69.34 per cent (s pound, 3409 to 12799; and sulp	OGRAPHIC AREA: Rocky Mountain Foothills-No on GRADE: sts of numerous coal Bullhead Group, and sandstone. to 6.2 metres and hale partings are structures trending inticline (which holine to the over the area. At .ned thickness of 11 In some seams, the to 62.21 per cent c, 15.46 to 38.15 generally about 50 hur, 0.28 to 0.80	orth
GEOLOGICAL SETTING TECTONIC BELT TERRANE METAMORPHIC TYPE CAPSULE GEOLOGY BIBLIOGRAPHY	Foreland Overlap Assemblage Regional The Pine Riv zones in the Lower interbedded with m Approximate thickn are generally less present in some co The structure northwest. In the exhibits some mino northeast with dip least two northwes There are thr metres of coal dip coal is of metallu On a dry basi (generally less th per cent; fixed ca per cent; fixed ca per cent; BTU per per cent. EMPR COAL ASS RPT EMPR BULL 24; 36; EMPR MAP 33 EMPR FIELDWORK 199 GSC MAP 11-1961 GSC MEM 259 GSC OF 286; 925	PHYS RELATIONSHIP: Post-mineralizat er deposit (Licence 3993) consist Cretaceous Gething Formation, for udstone, coaly shale, siltstone esses (from trenches) range up to than 3 metres, however, many shal zones. consists of two tightly folded southwest is the Willow Creek at r folding on the limb) and a syn s ranging from 15 to 70 degrees t trending faults are present. ee major coal zones with a combu- ping at from 27 to 40 degrees. rgical grade. s, ash content ranges from 7.76 an 20 per cent); volatile matter rbon, 23.12 to 69.34 per cent (or pound, 3409 to 12799; and sulp *593, *594 51; 52 1, pp. 433-440	OGRAPHIC AREA: Rocky Mountain Foothills-Not on GRADE: the of numerous coal sullhead Group, and sandstone. to 6.2 metres and hale partings are structures trending inticline (which folline to the over the area. At ed thickness of 11 In some seams, the to 62.21 per cent to 62.23 to 0.80	orth

\_\_\_

MINFILE NUMBER:	<u>0930 034</u>			NATIONAL MIN	JERAL INVENTORY:	
NAME(S):	<u>GOODRICH</u>					
STATUS:	Developed Prospect				MINING DIVISION:	Liard
NTS MAP: BC: MAP	093008W 093008E 0930	We00			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 29 47 N 122 22 06 W Metres Within 500M Around 1981, the Goodrid totalling some 107,741 he trending belt, spanned alm map sheet. The above co by the licences (Coal Asso	h property cons ctares. The lice lost all of 0930/a pordinates are fo essment Report	isted of 367 coal licend ences, covering a north 8 map sheet and part 0 or the central region co 531).	ces west 93O/9 vered	NORTHING: EASTING:	6150213 539906
COMMODITIES:	Coal					
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous					
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratabound Sedimentary A04 Bituminous coal Tabular Folded	Massive Fossil Fuel Faulted				
HOST ROCK DOMINANT HOSTROCK	: Sedimentary					
STRATIGRAPHIC AGE Lower Cretaceous Jurassic-Cretaceous	<u>GROUP</u> Bullhead Minnes	[	FORMATION Gething Brenot		IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Mudstone Carbonaceous Mudstone Coal					
HOSTROCK COMMENTS:	In addition to the Gething Brenot Formation, Minne	Formation coal s Group.	, coal also occurs in the	9		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Foreland Overlap Assemblage Gething coal is a medium	to high volatile m	netallurgical coal.	PHYSIOGRAP	HIC AREA: Rocky M	ountain Foothills-North
INVENTORY						
ORE ZONE:	TOTAL		REPORT ON	ŀΥ		
	CATEGORY: Indicated QUANTITY: 100000 COMMODITY	l )000 Tonnes	YEAR GRADE	: 1981		
COMMENTS:	Potentially surface mineat	ole coal estimate	ed from two of four sear	nt ms		
REFERENCE:	Coal Assessment Report	532, page 1.				
CAPSULE GEOLOGY	In the Goodri	ch occurrer	ce area coal s	eame occur	in the	
	Jurassic-Lower Cre Lower Cretaceous D however, the most Coal seams or north, and in the The coal:rock and 2.18:2.18 metres. Seam thicknesses u thickening. Coal seams or Formation (Bullhea 0.24:0.70 metres t becoming cleaner t	taceous Bre resser and economic se cur in the Middle and coal ratio The coal i p to 5.52 m cur in the d Group), w o 2.36:2.88 owards the	enot Formation ( Gething formation ams are within Upper and Middl Lower Brenot For ranges from 0.0 .s fairly clean thetres may be a s upper part of t yith coal:rock as metres, with so north.	Minnes Group ons (Bullhe the Gething e Brenot For rmation in 4:0.04 metr with minor result of for he Cadomin/ nd coal rat eams thicke	<pre>chick constraints constra</pre>	

PAGE: 1302 REPORT: RGEN0100

## CAPSULE GEOLOGY

The Gething Formation coal is medium to high volatile bituminous rank (metallurgical quality) and occurs interbedded with mudstones, siltstones, very fine to coarse sandstones and carbonaceous mudstones. The majority of the seams occur in the Upper and Middle Gething, with some in the Lower Gething. The coal:rock and coal ratios average from 0.50:0.50 metres to 4.73:7.19 metres (0.20:020 metres to 3.91:4.12 metres in the north, and 3.08:3.79 metres (true thickness) in a seam on the west limb of the White Rabbit syncline in the White Rabbit Block). At least four upper Gething coal zones are continuous and have an aggregate true thickness of 16 metres over 180 metres.

Potential in-situ resources in the Brenot and Gething formations are estimated (1981) at approximately 1.25 billion tonnes. Two are of open pit potential and are defined by the No. 1 and No. 3 coal seams.

The No. 1 seam (1.14 metres thick in the north and 10 metres thick in the south, averaging approximately 8 metres) contains approximately 80 million tonnes of coal in-place in the Lossan-Axis syncline pair. The No. 3 seam (average thickness 4 metres) contains 20 million tonnes of coal in-place (Coal Assessment Report 532).

The range of approximate analyses on an air dried basis for the Gething No. 1 seam are 11.1 to 16.9 per cent ash, 23.2 to 28.6 per cent volatile matter, 58.6 to 64.5 per cent fixed carbon, 0.2 to 0.28 per cent sulphur and 12,500 to 13,300 BTU per pound.

The structure consists of numerous northwest trending variably plunging folds which are tight towards the west of the property and become more open to the east and northeast. The folds are cut by numerous predominantly northwest trending (some north-northwest trending), southwest dipping thrust faults and a small number of northwest trending normal faults (i.e. Burnt Normal fault). Fewer thrust faults are present in the northeast of the property. Potentially surface mineable coal estimated from two of four

seams within the upper Gething Formation total 100 million tonnes (Coal Assessment Report 532, page 1).

#### BIBLIOGRAPHY

EMPR COAL ASS RPT \*532 EMPR MAP 65 (1989) EMPR OF 1992-1; 1992-12 EMPR BULL 51 EMPR FIELDWORK 1991, pp. 405-417, 433-440, 441-449 GSC MAP 11-1961 GSC MEM 69; 259 GSC OF 286; 925 GSC BULL 219 GSC P 89-4

DATE CODED: 1986/02/16 DATE REVISED: 1992/03/04 CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>0930 035</u>	NATIONAL M	INERAL INVENTORY:
NAME(S):	FALLS MOUNTAIN, FALLING CRE	EK-FALLS MOUNTAIN	
STATUS:	Prospect British Columbia		MINING DIVISION: Liard
NTS MAP: BC MAP	093009E 093009W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 33 00 N 122 15 05 W Metres Within 500M The approximate centre of the prop is centred on Falling Creek at 55 de degrees 15 minutes west (Coal As	perty. The potential reserve block egrees 33 minutes north and 122 sessment Report 526).	NORTHING: 6156252 EASTING: 547230
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Sedimentary Fossil Fo A04 Bituminous coal Irregular Folded Faulted	uel	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP Bullhead	FORMATION Gething	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Carbonaceous Mudstone Conglomerate Coal		
GEOLOGICAL SETTING			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Overlap Assemblage Regional Lower Cretaceous Blairmore clasti	PHYSIOGRA RELATIONSHIP: Post-mineralization ic wedge overlap assemblage.	GRADE: MVol Bituminous
CAPSULE GEOLOGY	Coal seams are foun Bullhead Group, interbed	d in the Lower Cretaceous Geth ded with sandstone, shale, car	ing Formation, ponaceous
	<pre>mudstone, and minor cong possibly up to 5 metres ash coking coal. Occasi Cretaceous Gates Formati The structure consi 5 to 30 degrees). It ma west trending axis throu complex and faults may b</pre>	lomerate. The coal, at least thick, is medium volatile, low onal thin coal seams also occu on of the Fort St. John Group. sts of a gently west dipping m by be interpreted as a syncline gh Falls Mountain. The detail be common.	3 metres and sulphur, low r in the Lower pnocline (dips with a north- ed structure is
BIBLIOGRAPHY			
	EMPR COAL ASS RPT *526 EMPR BULL *36 EMPR MAP 33 EMPR FIELDWORK 1991, pp. GSC MAP 11-1961 GSC MEM 259 GSC P *44-7 GSC OF 286; 925	433-440	
DATE CODED: DATE REVISED:	1986/02/16 1991/03/18	CODED BY: EVFK REVISED BY: GKK	FIELD CHECK: N FIELD CHECK: N

\_\_\_\_

MINFILE NUMBER:	<u>0930 036</u>				NATIONAL	MINERAL INVENTORY:	
NAME(S):	FALLING CREEK						
STATUS:	Developed Prospect					MINING DIVISION:	Liard
NTS MAP: BC MAP	093008E 093009E 093P	04W 093P05W				UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 27 45 N 122 05 05 W Metres Within 500M Property extends from 55 55 degrees 10' north 121 of centred on the latitude and	degrees 40' nor legrees 37' wes longitude given	th 122 degrees t, and the main above.	24' wes property	t to / is	Northing: Easting:	6146641 557873
COMMODITIES:	Coal						
MINERALS							
SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous						
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Sedimentary A04 Bituminous coal Irregular Folded	Fossil Fuel Faulted					
HOST ROCK DOMINANT HOSTROCK	: Sedimentary						
STRATIGRAPHIC AGE	GROUP	F	ORMATION			IGNEOUS/METAM	ORPHIC/OTHER
Lower Cretaceous Jurassic-Cretaceous	Bullhead Minnes	ເ	Gething Jnnamed/Unknov	wn Form	nation		
LITHOLOGY:	Sandstone Siltstone Shale Coal						
HOSTROCK COMMENTS:	Most of the coal seams an Minnes Group.	re in the Gething	g Formation but	two are	in the		
GEOLOGICAL SETTING	Foreland				PHYSIOGE		Iountain Footbills-North
TERRANE: METAMORPHIC TYPE: COMMENTS:	Overlap Assemblage Regional High vol. A bituminous (40	REI per cent low vo	LATIONSHIP: Polatile bituminous	ost-mine s).	ralization	GRADE: HVol Bitt	uminous
INVENTORY							
ORE ZONE:	FALLING CREEK		REPC	ORT ON:	Y		
	CATEGORY: Unclassif QUANTITY: 100000 COMMODITY Coal	ied 000 Tonnes	GRADE 100.0000 F	YEAR: Per cent	1980		
COMMENTS: REFERENCE:	From 5 seams ranging in the Coal Assessment Report 5	122.	to 2 metres.				
CAPSULE GEOLOGY							
	The majority of Formation (320 metric seams also occur in Group. Rank is get of the seams being metres thick are in carbonaceous shale 1 to 10 metres thic floodplain environt swamps. The dominant a horizontally plung northwest striking angle faults. The have small displace An average of coaly shale parting	pr the coal res thick) h the Upper herally hig up to low hterbedded , usually i ck and were nents. The structural ing northwe , west dipp former hav ements. 20 per cen gs. Roof r	seams are of the Bull Jurassic t h volatile bi with sandst n fining up deposited upper seam elements ar st trending ing thrust e moderate t of the se ocks vary f	round head ( o Low a bitu tuming one, so a bitu in flu so may re tig] fold fault: displa ams a: rom co	In the Group, h er Creta uminous ous. Co siltstor uvial ch represe ht, angu s. Ther s and fo acement re made oaly sha	Getning however, two iceous Minnes with 40 per cent oal seams up to 3 ie, and The cycles are iannel and ent coastal coal alar, re are several our sets of high while the latter up of shale and ile, shale or	

siltstone to sandstone, and silty sandstone, while floors are carbonaceous to coaly shale. Average ash content (without partings) is 19 per cent; volatile matter, 23 per cent; fixed carbon, 54 per cent; and sulphur, 0.52 per cent. The estimated coal inventory for the area is around 100 million tonnes in 5 seams that range from 1.0 to 2.7 metres. Most of this is underground recoverable (Coal Assessment Report 522).

## BIBLIOGRAPHY

EMPR COAL ASS RPT \*522 EMPR MAP 33 EMPR FIELDWORK 1991, pp. 433-440, 441-449 EMPR OF 1992-12 GSC MAP 11-1961 GSC MEM 259 GSC OF 286; 925

DATE CODED: 1986/02/12 DATE REVISED: 1991/03/18 CODED BY: EVFK REVISED BY: GKK

\_\_\_\_

MINFILE NUMBER:	<u>0930 037</u>	NATIONAL MI	NERAL INVENTORY:	
NAME(S):	ADAMS			
STATUS: REGIONS:	Prospect British Columbia		MINING DIVISION:	Liard
NTS MAP: BC MAP:	093O15E 094B02E 093O16W 094B0	01W	UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 59 29 N 122 31 15 W Metres Within 500M The Adams property covers 9288 her along a northwest trend for over 25 ki 093O15 and 16 and 094B01 and 02. approximate centre of the property (C	ctares in thirty-two coal licences lometres through map sheets The above coordinates are for the oal Asssessment Report 456).	NORTHING: EASTING:	6205225 529891
COMMODITIES:	Coal			
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Sedimentary Fossil Fuel A04 Bituminous coal Irregular Folded			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Bullhead	FORMATION Gething	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Mudstone Siltstone Sandstone Conglomerate Coal			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	PHYSIOGRAF RELATIONSHIP: Post-mineralization	PHIC AREA: Rocky M GRADE: MVol Bitu	ountain Foothills-North uminous
CAPSULE GEOLOGY	Over 25 coal seams, v centimetres to 4.5 metres, Formation, Bullhead Group, sandstones, and occasional top 70 metres of the Gethi thick. A number of seams in the section. The structure consist plunging syncline (Adams s (Gething Creek anticline, 10 to 20 degrees while dip the northwest of the prope trending, southwest dippin from the west, over Cretac the Adams property is mino The coal is medium vo low ash content. Analyses contents varying from 3.17 20.70 to 32.90 per cent; a	arying in thickness from seve occur in the Lower Cretaceou interbedded with mudstones, conglomerates. The Trojan s ng Formation and is generally over 2 metres thick are also s of a northwest trending and yncline, in the northwest) ar in the southeast). The axial s on the flanks are up to 60 rty, the Carbon Creek fault of g) thrusts Triassic and Juras eous rocks. Except for this, r. latile bituminous, with high (1973) of seams over 0.3 met to 28.10 per cent; volatile nd FSI's. from 1 to 7.	eral as Gething siltstones, seam is in the vover 2 metres present lower d southeast d anticline tregions dip degrees. In northwest ssic rocks, faulting on heat value and tre showed ash matter, from	
	200 00 52.90 per cent/ a			
<b>BIDLIUGKAFN (</b>	EMPR COAL ASS RPT *455, *4 EMPR FIELDWORK 1982, p. 93 EMPR MAP 33 EMPR OF 1987-21; 1992-12 EMPR P 1988-3 EMPR PRELIMINARY MAP 57 (w GSC BULL 219 GSC MAP 11-1961	56 ; 1985, p. 155; 1986, p. 365; rith notes)	: 1991, 441-449	

# BIBLIOGRAPHY

GSC	MEM	69;	259
GSC	OF 2	286	

DATE CODED: 1986/02/12 DATE REVISED: 1992/02/11 CODED BY: EVFK REVISED BY: GJP

MINF	FILE NUMBER:	<u>093O 038</u>			NATION	AL MINERAL INVENTORY	<i>(</i> :
	NAME(S):	BAKER CREEK					
	STATUS: REGIONS	Showing British Columbia				MINING DIVISION	I: Liard
	NTS MAP: BC MAP:	093O01E				UTM ZONE	: 10 (NAD 83)
LOCATION	LATITUDE: LONGITUDE: ELEVATION: ACCURACY: COMMENTS:	55 09 10 N 122 06 50 W Metres Within 500M Located 5 kilometres north	hwest of the he	eadwaters of	Baker Creek.	NORTHING EASTING	6112151 556467
С	OMMODITIES:	Phosphate					
MINERALS MINERALI	SIGNIFICANT: ZATION AGE:	Fluorapatite Permian					
DEPOSIT		<b>•</b> • • •	•				
CLAS	CHARACTER: SSIFICATION: TYPE:	Stratabound Sedimentary F07 Upwelling-type ph	Concordant Syngenetic osphate		Industrial Min.		
	SHAPE: DIMENSION:	Regular 1	Metres		STRIKE/DIP:	TREND/PL	UNGE:
HOST ROCI	<b>K</b> T HOSTROCK:	Sedimentary					
<u>STRATIGRA</u> Permian Permian	PHIC AGE	GROUP Undefined Group Undefined Group		FORMATION Mowitch Fantasque	N	IGNEOUS/METAN	/ORPHIC/OTHER
	LITHOLOGY:	Phosphatic Sandstone Sandstone Chert					
GEOLOGIC TEC	AL SETTING CTONIC BELT: TERRANE:	Foreland Ancestral North America			PHYSIO	GRAPHIC AREA: Hart Ra	anges
INVENTORY	,						
	ORE ZONE:	SHOWING			REPORT ON: N		
	COMMENTS: REFERENCE:	CATEGORY: Assay/ar SAMPLE TYPE: Grab <u>COMMODITY</u> Phosphate Phosphate is P2O5. Steve Butrenchuk, persona	nalysis al communicati	<u>GRADE</u> 11.6600	YEAR: 1987 Per cent		
CAPSULE G	GEOLOGY	N 1 metwo thi	alt accordance	no bod o	E the Dermier M	louitab Roumation	
		containing 20 to 3 chert bed of the P Roger Canyon forma Formation. A grab phosphate (P205) a communication, 199	0 per cent ermian Ran tions are sample fr s fluorapa 1).	phospha ger Canyo correlat om this tite (S.	te nodules by v on Formation. ive with the Pe locality contai Butrenchuk, pe	rolume, overlies a The Mowitch and rmian Fantasque ned 11.66 per cen rsonal	t
BIBLIOGRA	PHY	EMPR FIELDWORK, 19 GSC OF 925	87, pp. 39	6-410			
D	DATE CODED: ATE REVISED:	1987/07/09 1991/03/18	C R	ODED BY: EVISED BY:	SSB GKK		FIELD CHECK: Y FIELD CHECK: N

MINFILE NUMBER:	<u>0930 039</u>	I	NATIONAL MINERAL INVENTORY:	
NAME(S):	MCKENZIE LIMESTONE, WILLISTON LA	AKE, BEND		
STATUS: REGIONS:	Past Producer British Columbia	Open Pit	MINING DIVISION:	Cariboo
NTS MAP: BC MAP:	093003E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 17 N 123 12 03 W 792 Metres Within 500M Location centred on guarry site 2000 me Lake (McLeod, W.A. (1988): Report, Fig	etres southwest of Willisto ure 1).	NORTHING: EASTING: n	6113882 487208
COMMODITIES:	Limestone			
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Calcite Clay Dolomite Silica Mississippian			
DEPOSIT				
CHARACTER: CLASSIFICATION: TYPE: SHADE:	Stratitorm Massive Sedimentary Industrial Min. R09 Limestone			
MODIFIER: DIMENSION: COMMENTS:	Faulted 180 x 60 x 30 Metres Attitude of contact with overlying impure	STRIKE/DIP	: 133/28S TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Upper Paleozoic	Side Mountain	Undefined Formation		
LITHOLOGY:	Limestone Siliceous Limestone Dolomitic Limestone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Omineca Slide Mountain		PHYSIOGRAPHIC AREA: Northern	Rocky Mountain Trench
INVENTORY				
ORE ZONE:	MCKENZIE LIMESTONE	REPORT ON:	Y	
	CATEGORY: Measured QUANTITY: 300000 Tonnes COMMODITY	YEAR: GRADE	1988	
COMMENTS: REFERENCE:	Limestone The grade given is for per cent calcium of Industrial Mineral File - MacLeod, W.A., 1	55.0600 Per cent oxide. 1988, page 2.		
CAPSULE GEOLOGY				
	Limestone was quarried 1.3 kilometres northwest of Inc.	2 kilometres south Lignite Creek by H	nwest of Williston Lake, Knox Western Capital	
	The quarry is developed Permian Slide Mountain Group limestone is exposed in a 10 metres above the surrounding The outcrop is comprise coloured, chemical grade lim overlain and underlain by si contact with the overlying id dips 28 degrees southwest. through the middle of the pu sampling and diamond drillin economically recoverable lim per cent MgO, 0.17 per cent cent Fe2O3 (Industrial Minen The deposit was initial	d in limestone of the o, just west of the 08 by 60 metre outo g overburden. ed of a 50-metre the mestone with some a liliceous and dolom: the pure limestone st A fault of similar irer limestone bed ng have defined 300 mestone averaging 9 SiO2, 0.46 per cer cal File - MacLeod lly guarried by B.C	the Carboniferous to MCLeod fault. The prop, projecting 130 mick bed of clean, buff argillaceous carbonate, itic limestone. The trikes 133 degrees and c orientation cuts Mapping, surface 0,000 tonnes of 55.06 per cent CaO, 0.41 nt Al2O3 and 0.17 per , W.A., 1988, page 2). C. Forest Products Ltd.	
	to construct a causeway acro	oss the south end o	of Williston Lake,	

sometime prior to 1986. Knox Western Capital Inc. began quarrying limestone in 1988 for paper mills at MacKenzie and Quesnel. A total

of 33,000 tonnes were quarried on a seasonal basis during 1988 and 1989. The company did not resume quarrying operations in 1990 due to financial difficulties.

## BIBLIOGRAPHY

EMPR PF (\*MacLeod, W.A. (1986): Report; \*MacLeod, W.A. (1988): Report) GSC MAP 11-1961; 1424A GSC OF 925

DATE CODED: 1989/10/06 DATE REVISED: 1991/03/11 CODED BY: PSF REVISED BY: PSF

\_\_\_

MINFILE NUMBER:	<u>0930 040</u>	NA	TIONAL MINERAL INVENTORY:	
NAME(S):	$\underline{\textbf{CHIN}}, \text{ MOUNT CHINGEE, MCLEOD LAKE}$			
STATUS:	Prospect British Columbia		MINING DIVISION:	Cariboo
NTS MAP:	093O02W 093J15W		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 00 11 N 122 54 24 W 1036 Metres Within 500M Test sample site (Industrial Mineral File - Prospecting Report on Chin Claims).	Klein, G. (1989):	NORTHING: EASTING:	6095135 505970
COMMODITIES:	Limestone			
	Coloita			
ASSOCIATED: MINERALIZATION AGE:	Mica Lower Cambrian			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Stratiform Massive Sedimentary Industrial Min. R09 Limestone	STRIKE/DIP:	TREND/PLU	NGE: 145/
COMMENTS:	Bedding trends 120 to 150 degrees.			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMATION Undefined Formation	IGNEOUS/METAMO	DRPHIC/OTHER
LITHOLOGY:	Limestone Quartz			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Omineca Ancestral North America	РН	YSIOGRAPHIC AREA: Northern	Rocky Mountain Trench
INVENTORY				
ORE ZONE:	SAMPLE	REPORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Drill Core COMMODITY	YEAR: 19 <u>GRADE</u>	89	
COMMENTS: REFERENCE:	Limestone Average of cuttings from 33 percussion Industrial Minerals File - G. Klein, 1989.	55.0100 Per cent holes.		
CAPSULE GEOLOGY				
	Mount Chingee. An unnamed Lower Cambri from quartzite to limestone culminating in the peak of M degrees. The sequence occas limestone. A microscopic examinati revealed white to light grey slight contamination by whit Cuttings from 33 percus cent) (Industrial Minerals F Cao 55.01 MgO 0.95 SiO2 0.87 Al2O3 0.30 Fe2O3 0.18 Na20 0.053 K20 0.099 TiO2 0.018 P2O5 0.011 MnO 0.011 Cr2O3 0.010	an sequence comprise outcrops for 15 kild Jount Chingee. Bedd Sionally contains bed on of cuttings from r limestone with som e and dark mica. Sion holes averaged Tile - G. Klein, 1985	ed of beds ranging ometres along a ridge ing trends 120 to 150 ds of high calcium 12 percussion holes e rusty staining and as follows (in per 9):	

The area south and west of Mount Chingee was prospected, sampled and drilled by G. Klein in 1989.

### BIBLIOGRAPHY

EMPR PF (\*Klein, G. (1989): Prospecting Report for Chin Claims) GSC MAP 11-1916; 1204A GSC OF 925

DATE CODED: 1990/01/15 DATE REVISED: / / CODED BY: PSF REVISED BY:

MINFILE NUMBER:	<u>0930 041</u>				NATIONAL M	INERAL INVE	NTORY:	
NAME(S):	<u>URSA</u> , MOUNT BISSON							
STATUS: REGIONS	Showing British Columbia					MINING D	VISION:	Omineca
NTS MAP: BC MAP:	093O05W 093O12W					UTN	1 ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 29 49 N 123 57 51 W 1080 Metres Within 500M Located east of Manson R (Assessment Report 1678	tiver, along th 31).	ne Munro Creek	logging roa	d	NOF EA	rthing: Asting:	6150516 439089
COMMODITIES:	Thorium Neodymium	Rare Earths Samarium	: L	anthanum		Cerium		Praseodymium
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Monazite Quartz Unknown							
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Pegmatite O02 Rare element pegr	natite - NYF	family					
HOST ROCK DOMINANT HOSTROCK:	Metasedimentary							
STRATIGRAPHIC AGE	GROUP		FORMATION			IGNEOUS/	METAMO	ORPHIC/OTHER
Upper Proterozoic Upper Proterozoic	Ingenika		Undefined Fo	ormation		Wolverine	Comple	x
LITHOLOGY:	Mylonitic Pegmatite Gneiss Syenite							
GEOLOGICAL SETTING								
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Omineca Cassiar Regional		RELATIONSHIP	: Post-mine	eralization	GRADE: /	vianson Amphibo	lite
INVENTORY								
ORE ZONE:	SAMPLE		R	EPORT ON:	Ν			
	CATEGORY: Assay/ar SAMPLE TYPE: Grab COMMODITY Cerium	nalysis	<u>GRADE</u> 0.6500	YEAR: Per cent	1988			
COMMENTS:	Lanthanum Neodymium Praseodymium Samarium Thorium Grab sample (UG-1) of pe	gmatite.	$\begin{array}{c} 0.5900 \\ 0.4400 \\ 0.0700 \\ 0.3600 \\ 0.2500 \end{array}$	Per cent Per cent Per cent Per cent Per cent				
REFERENCE:	Assessment Report 1678	1.						
CAPSULE GEOLOGY	The area lies	within	the Omineca	Crystal	line Belt	consisti	ng of	
	siliciclastic sedi rocks belong to th Wolverine Range, t subsequently intru pegmatites which a metamorphic rocks, amphibolite and ca	ments wi e Late P he Igenil ded by g re possil called lc-silica	th minor ca roterozoic ka sediment ranodioriti bly of earl the Wolveri ate gneiss,	rbonates Ingenika s are hi c bodies y Cretac ne Compl schists	and mafie Group. If ghly metan and associe eous age. ex, consis , micaceou	c rocks. Within the morphosed ciated These st of us quartz:	These and ite,	

and crystalline limestone. The Ursa showing occurs within a 10 by 2 metre zone of mylonitized, gneissic pegmatite. Coarse to fine-grained monazite is disseminated in clotty layers. The quartz is shattered and smokey. The pegmatite is bounded on the west by fine-grained radioactive syenite. Other rocks include calc-silicates with biotite, phlogopite and diopside.

A grab sample (UG-1) of the pegmatite assayed 0.25 per cent thorium, 0.59 per cent lanthanum, 0.65 per cent cerium, 0.07 per cent

praseodymium, 0.44 per cent neodymium, and 0.36 per cent samarium. (Assessment Report 16781).

## BIBLIOGRAPHY

EMPR ASS RPT \*16781, 17872 EMPR FIELDWORK 1987, pp. 169-180; \*1989, pp. 297-304; 1992, pp. 301-306 EMPR EXPL 1988-C182 GSC MAP 11-1961 GSC OF 925 Chevron File

DATE CODED: 1990/08/01 DATE REVISED: 2000/11/23 CODED BY: LDJ REVISED BY: LDJ

MINFILE NUMBER:	<u>0930 042</u>		NATIONAL MINERAL INVE	ENTORY:
NAME(S):	<u>KOOTS,</u> SEAN, WINDY			
STATUS:	Showing Britich Columbia		MINING [	DIVISION: Cariboo
NTS MAP:	093O03W		UT	M ZONE: 10 (NAD 83)
LONGITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY:	55 05 25 N 123 23 16 W 1613 Metres Within 500M		NC	RTHING: 6104906 ASTING: 475250
COMMENTS:	Location of trench 3 (Assessment Repo	ort 9921).		_
COMMODITIES:	Molybdenum Tungsten	Copper	Lead	Zinc
MINERALS SIGNIFICANT: ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	Pyrrhotite Magnetite Pyrite Chalcopyrite Sphalerite Galen Garnet Skarn Unknown	Molybdenite a	Scheelite	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Disseminated Skarn K07 Mo skarn			
HOST ROCK DOMINANT HOSTROCK:	Metamorphic			
STRATIGRAPHIC AGE Upper Proterozoic	GROUP	FORMATION	IGNEOUS Wolverin	S/METAMORPHIC/OTHER e Complex
LITHOLOGY:	Garnet Schist Limestone Argillite Gneiss Granodiorite Quartz Monzonite Granite Alaskite Pegmatite			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Omineca Cassiar Contact Contact metamorphism in intrusives and	RELATIONSHIP: Syn-min I Wolverine metasedimer	PHYSIOGRAPHIC AREA: eralization GRADE: tts.	Northern Rocky Mountain Trench Hornfels
INVENTORY				
ORE ZONE:	TRENCH	REPORT ON	√: N	
	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY Molybdenum	YEAR GRADE 3.1000 Per cer	t: 1981	
COMMENTS: REFERENCE:	Altered garnet schist from trench #3. Assessment Report 9921.			
CAPSULE GEOLOGY	Officer and the Malace	ing Danua tha Wa		
	Mackenzie. High-grade schists and pegmatites and granitic bod the Wolverine Complex, an uz equivalent of the Upper Pro volcanic, greenstone, argil Paleozoic age are interwover The Koots occurrence, between a multi-phased intr disseminated pyrrhotite, mar and chalcopyrite, and rare metasedimentary rocks. Away from the calc-sil coarse-grained. dirty grev	gneisses, extens ies of probable C ndifferentiated h terozoic Ingenika lite, shale, and n with the metamo a sulphide-bearin usive and limy me gnetite, pyrite, galena and sphale icate skarn are r limestones and si	ively intruded by retaceous age, comp igh metamorphic gra Group. Andesitic limestone of Upper rphic rocks. g skarn at the cont tasediments, consis molybdenite, scheel rite in the intrusi ecrystallized, liceous and phyllit	n of orise ade sts of lite tve and

argillites. The intrusive grades southward from quartz monzonitegranodiorite through to granite and alaskite. Fine-grained equivalents occur as dikes, sills and aplites in the stock and in the surrounding metamorphosed sediments. A chip sample of altered garnet schist taken from a trench gave a high assay of 3.1 per cent molybdenum (Assessment Report 9921).

#### BIBLIOGRAPHY

EMPR ASS RPT 8775; \*9921 EMPR EXPL 1980-362; 1981-154 EMPR FIELDWORK 1987, p. 169; 1989, p. 297 GSC MAP 1424A GSC OF 925 Chevron File

DATE REVISED DT. GJP FIELD CHECK. N	DATE CODED:	1991/02/28	CODED BY: GKK	FIELD CHECK: N
	DATE REVISED:	1992/02/04	REVISED BY: GJP	FIELD CHECK: N

\_\_\_\_

MINFILE NUMBER:	<u>0930 043</u>		NATION	IAL MINERAL INVENTORY:	
NAME(S):	NITE				
STATUS: REGIONS:	Showing British Columbia			MINING DIVISION:	Cariboo
NTS MAP: BC MAP:	093O03W			UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 05 46 N 123 18 46 W 1380 Metres Within 500M Location of trench 1 (Assessment Re	port 9764).		NORTHING: EASTING:	6105531 480040
COMMODITIES:	Molybdenum Tungsten	Co	opper	Zinc	
MINERALS SIGNIFICANT	Pyrrhotite Magnetite Pyrite	Molybder	nite Scheelite		
COMMENTS:	Chalcopyrite Bornite Spha Molybdenite rossettes, sheelite grains	lerite	pvrite, bornite		
ALTERATION: ALTERATION TYPE: MINERALIZATION AGE:	and sphalerite. Biotite Garnet Diopside Skarn Unknown	9	, , , , , , , , , , , , , , , , , , ,		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: COMMENTS:	Disseminated Skarn K07 Mo skarn Irregular Metasomatic aureoles 10's of metres i	n diameter.			
HOST ROCK DOMINANT HOSTROCK:	Metamorphic				
STRATIGRAPHIC AGE	GROUP	FORMATION		IGNEOUS/METAM Wolverine Comple	ORPHIC/OTHER
LITHOLOGY:	Hornfels Biotite Schist Garnet Diopside Skarn Coarse Grained Limestone Granite Aplitic Dike Porphyritic Quartz Monzonite Dike Porphyritic Syenite Dike Pegmatite				
	Ominoco				Mountains
METAMORPHIC TYPE: COMMENTS:	Cassiar Contact Skarn in Wolverine Complex.	RELATIONSHIP:	Syn-mineralization	n GRADE: Hornfels	
INVENTORY					
ORE ZONE:	TRENCH	RE	PORT ON: N		
	CATEGORY: Assay/analysis SAMPLE TYPE: Channel COMMODITY	GRADE	YEAR: 1981		
	Copper Molybdenum	0.0200 0.0640	Per cent Per cent		
COMMENTS: REFERENCE:	Tungsten Sample 81030727 from trench No.1. Assessment Report 9746.	0.0800	Per cent		
CAPSULE GEOLOGY	The Nite occurrence.	located in t	he Swanell Ra	anges 30 kilometres	1
	southeast of the town of M Complex. High-grade schists an pegmatites and granitic bo	d gneisses, dies of prob	hosted in the extensively able Cretaced	intruded by ous age, comprise	
	the Wolverine Complex, an equivalent of the Upper Pr volcanic, greenstone, argi	undifferenti oterozoic In llite, shale	ated high met genika Group , and limesto	tamorphic grade . Andesitic one of Upper	

Paleozoic age are interwoven with the metamorphic rocks. The Nite claims are underlain by hornfels, biotite schist and

garnet diopside skarn halos within metasediments which are in sharp contact with a granitoid stock and associated aplite, quartz monzonite and syenite dikes. The skarns are in contact with dirty grey, recrystallized limestone. Pyrrhotite, magnetite, pyrite, molybdenite, scheelite, chalcopyrite, bornite and sphalerite are hosted in the metasediments and the intrusives. A channel sample taken from a trench through molybdenite-bearing outcrop contained 0.064 per cent molybdenum, 0.08 per cent tungsten and 0.02 per cent copper (Assessment Report 9746).

### BIBLIOGRAPHY

EMPR EXPL 1981-112 EMPR ASS RPT \*9764 GSC MAP 1634A GSC MEM 425

DATE CODED: 1991/02/22 DATE REVISED: 1992/02/04 CODED BY: GKK REVISED BY: GJP

MINFILE NUMBER:	<u>0930 044</u>	NATION	JAL MINERAL INVENTORY:	
NAME(S):	ROYER LAKE			
STATUS: REGIONS: NTS MAP:	Showing British Columbia		MINING DIVISION:	Cariboo
LATITUDE: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 03 30 N 123 12 16 W 975 Metres Within 500M Pyroxenite outcrops in a p communication, 1991).	rominant knob (L.C. Struik, personal	NORTHING: EASTING:	6101302 486941
COMMODITIES:	Iron	Magnetite		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Magnetite Pyrite Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: SHAPE: MODIFIER: DIMENSION: COMMENTS:	Podiform Industrial Min. Regular Faulted 10 x 10 A 10 by 10 metre zone of magnetite and minor pyrite	Disseminated Metres STRIKE/DIP: pyroxenite hosts small pods of medium grained	TREND/PLU	NGE:
HOST ROCK DOMINANT HOSTROCK:	Plutonic			
STRATIGRAPHIC AGE	GROUP Slide Mountain	FORMATION Unnamed/Unknown Formation	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Coarse Grained Pyroxenit	e		
HOSTROCK COMMENTS:	Upper Paleozoic rusty py	vroxenite.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Omineca Slide Mountain Upper Paleozoic Slide Mo	PHYSIC untain or Takla volcanics and carbonates.	OGRAPHIC AREA: Northern	Rocky Mountain Trench
CAPSULE GEOLOGY	The Royer Lak Lake, approximatel the Cariboo Mining The area is u to Permian Slide M in small pods are crystalline pyroxe by 10 metre area a	te occurrence is located 1 kilomet y 30 kilometres south of the town Division. Inderlain by ultramafic rocks of to Jountain Group. Medium grained ma hosted in a rusty, locally gossan enite. The magnetite pods, disser ire exposed in a prominent knob no	tre north of Royer n of Mackenzie, in the Carboniferous agnetite and pyrite n-like, coarsely minated over a 10 orth of Royer Lake.	
BIBLIOGRAPHY	EMPR PF GSC OF 1565, 1895 GSC P 91-1A PP 285	5-291		
DATE CODED: DATE REVISED:	1991/03/14 / /	CODED BY: GKK REVISED BY:	F	IELD CHECK: N IELD CHECK: N

MINFILE NUMBER:	093O 045	NATIC	DNAL MINERAL INVENTORY:
NAME(S):	PARSNIP RIVER		
STATUS: REGIONS: NTS MAP	Past Producer British Columbia 093O11W	Open Pit	MINING DIVISION: Omineca
BC MAP: LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 33 04 N 123 23 57 W 670 Metres Within 1 KM Placer lease 1440 on the by Lake Williston (Assess	west bank of the Parsnip River, now covered ment Report 248).	NORTHING: 6156194 EASTING: 474817
COMMODITIES:	Gold	Platinum Silver	
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Gold Platinum Fine flakey gold and mino Recent	r platinum. Silver from assays only.	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION: COMMENTS:	Unconsolidated Placer C01 Surficial placers 150 x 30 A 150 by 30 metre area o the Parsnip River until 194	Stratabound Metres STRIKE/DIP: If placer gravels, worked on the west bank of IQ, now flooded by Lake Williston.	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER Glacial/Fluvial Gravels
LITHOLOGY:	Glacial Gravel		
HOSTROCK COMMENTS:	Reworked glacial/fluvial	gravels are deposited as bars and benches.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: COMMENTS:	Foreland Ancestral North America Unconsolidated gravels of	PHYS n Ancestral North American sediments.	SIOGRAPHIC AREA: Northern Rocky Mountain Trench
CAPSULE GEOLOGY	Gold and plat Parsnip and Peace by Bill Cust in 18 3 metres of rework benches along stre operations had lim platinum is common considered unimpor The Parsnip R kilometres north o down stream from B was worked on the 1930's, the Minist working the gravel platinum in much s production records grams of gold were occurrence is now	inum placer occurrences found in rivers have been worked since th 61. The placers generally occur ed glacial gravels deposited in ams. Normally worked by hand, ited success. The gold is fine with local high values reported tant in most of these placers. Ever occurrence is located on th f the Nation River confluence at Sill Custs bar (0930 003). A 1 west bank of Parsnip River. In rry of Mines reported that numer s of Parsnip River and recovering maller amounts than gold). Price were poorly kept. Between 193 recovered from placers on the in flooded by Lake Williston.	n the Finlay, he first discovery r in the top 1.5 to streams and as these placer and flat and d, but it was he Parsnip River, 2 nd 30 kilometres 50 by 30 metre area the 1920's and ous individuals were ng fine gold (and or to 1931, 1 and 1940, 6220 Parsnip River. The
BIBLIOGRAPHY DATE CODED:	EM FIELDWORK 2001, EM GEOFILE 2000-2; EMPR AR 1906-103; 1949-240 EMPR ASS RPT *248 EMPR BULL 1, pp. 8 GSC ANN RPT 1894 V GSC EC GEOL 13, p. GSC MEM 259, pp. 1 GSC OF 925 1991/03/18	pp. 303-312 2000-5 1923-141; 1929-206; 1930-159; 1 22-88; 2, pp. 45-46; 21, p. 18; 70L III, pp. 38c-40c 81 42-143 CODED BY: GKK	933-104; 1936-C34; *28, p. 45 FIELD CHECK: N

\_\_\_\_

MINFILE NUMBER:	<u>0930 046</u>		NATIONA	L MINERAL INVENTORY:
NAME(S):	<u>GLEN</u>			
STATUS:	Showing British Columbia			MINING DIVISION: Liard
NTS MAP:	093O10E			UTM ZONE: 10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 35 00 N 122 39 36 W 1370 Metres Within 500M The location is for the app stretching about 15 kilom width of up to 1 kilometre	proximate centre of the G etre along a northwest tr (Assessment Report 20	ilen claim group, end, attaining a 410).	NORTHING: 6159760 EASTING: 521433
COMMODITIES:	Limestone			
SIGNIFICANT: MINERALIZATION AGE:	Calcite Upper Triassic			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: DIMENSION:	Stratiform Sedimentary R09 Limestone 9999 x 20	Massive Industrial Min. Metres	STRIKE/DIP:	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Undefined Group	FORMAT Bocock	<u>10N</u>	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone Calcarenite			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America		PHYSIOG	RAPHIC AREA: Hart Ranges
INVENTORY				
ORE ZONE:	SAMPLE		REPORT ON: N	
	CATEGORY: Assay/a SAMPLE TYPE: Chip COMMODITY	analysis <u>GRADE</u>	YEAR: 1990	
COMMENTS: REFERENCE:	Limestone Taken across 21 metres. Assessment Report 2041	55.10 The grade given is for c 0, Table 3.1.	00 Per cent alcium oxide (CaO).	
CAPSULE GEOLOGY	The Upper Tr: thick between Silv eroded in the lowe resistant light-gi limestone that is which also has son crinoid and brach: of McNairn Creek, slightly more silf thick to indisting A minimum of CaO is reported to distance of over 1 The analysis of on per cent CaO, 0.1 R2O3, 43.7 per cent Report 20410, Tab	iassic Bocock For- ver Sands and Car- er part of Silver rey to grey weath typically micrit me coarse bioclas iopod fragments. it becomes coars ty and dolomitic guishable, and ma 20 metres of lim o be present from 10 kilometres (As ne sample taken a per cent MgO, 0. nt loss on igniti le 3.1).	mation varies from bon creeks, having Sands Creek. It ering, grey to bro ic to very finely tic units containi To the north, alo e-grained calcaren than to the south. ssive. estone averaging n Discovery Creek t sessment Report 20 cross 21 metres is 9 per cent insolub on and 0 per cent	a 0 to 63 metres been completely consists of very whish grey crystalline, but ng rounded ng the west side ite and is Bedding is early 55 per cent o Tiger Creek, a 410, Figure 2.2). recorded as 55.1 les, 0.5 per cent SiO2 (Assessment
BIBLIOGRAPHY				

EMPR FIELDWORK 1991, pp. 433-440 EMPR ASS RPT \*20410 GSC MAP 11-1961

## BIBLIOGRAPHY

GSC OF 925

DATE CODED: 1992/01/31 DATE REVISED: / / CODED BY: GJP REVISED BY:

MINFILE NUMBER:	<u>0930 047</u>	NATIONAL MINERAL INVENTORY:
NAME(S):	<u>SPARKY</u> , SEE	
STATUS: REGIONS:	Developed Prospect British Columbia	MINING DIVISION: Omineca
NTS MAP: BC MAP:	093O04W	UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 03 04 N 123 46 43 W 1150 Metres Within 500M The location is for the Sparky's Knob de deposit occurs about 1200 metres to the 20230).	NORTHING: 6100756 EASTING: 450257 posit. The "1242 Knob" e east (Assessment Report
COMMODITIES:	Limestone	
SIGNIFICANT: MINERALIZATION AGE:	Calcite Upper Paleozoic	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Industrial Min. R09 Limestone	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary	
STRATIGRAPHIC AGE	GROUP Slide Mountain	FORMATION IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone Dolomite Sandstone Quartzite Argillite	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Intermontane Slide Mountain	PHYSIOGRAPHIC AREA: Manson Upland
INVENTORY		
ORE ZONE:	1242 KNOB	REPORT ON: Y
	CATEGORY: Inferred QUANTITY: 819445 Tonnes COMMODITY	YEAR: 1991 GRADE
REFERENCE:	Assessment Report 20230.	
ORE ZONE:	SPARKY'S KNOB	REPORT ON: Y
REFERENCE	CATEGORY: Inferred QUANTITY: 861159 Tonnes <u>COMMODITY</u> Limestone Assessment Report 20230	YEAR: 1991 GRADE 100.0000 Per cent
	Assessment Report 20230.	
CAPSULE GEULUGY	The area of the Sparky Carboniferous and Permian SI greenstone, argillite, limes consists of two separate are by limestone. Sparky's knob is under quartzite and argillite. Th medium to dark grey limeston level to the peak at 1170 me east-west in the limestone to sediments. The easternmost knob, of massive, medium grey weather strikes 160 degrees and dipo	limestone occurrence is mapped as lide Mountain Group consisting of stone, slate and quartzite. The prospect eas (knobs), 1200 metres apart, underlain lain by limestone, dolostone, sandstone, he massive, buff and grey weathering, he outcrops from the 1060 metre elevation etres elevation. Strikes vary from to north-south in the underlying called the 1242 Knob, is underlain by ring, buff to dark grey limestone which s 53 degrees to the northeast The

limestone is confined to the top 40 to 80 metres of the knob. The limestone was tested for total sulphur, maximum potential

acidity, neutralization potential, paste pH, specific gravity and rock-forming oxides. The maximum per cent sulphur was 0.023 per cent with all other samples being between 0.002 per cent and less than 0.001 per cent. The acid generating potential for the samples taken was zero and the neutralizing potential was calculated as being from 918 to 971 tons CaCO3 equivalent per thousand tons of material. Paste pH varied from 8.1 to 8.8, and the one sample checked gave a specific gravity of 2.70. Volume calculations were made using a computer program which

Volume calculations were made using a computer program which estimated the topographic surface of the deposit based on elevation contours; the base of the deposit was estimated from the lowest outcropping. The Sparky's Knob deposit was estimated to contain 861,159 tonnes of limestone and the 1242 Knob, 819,445 tonnes (Assessment Report 20230).

### BIBLIOGRAPHY

EMPR ASS RPT \*20230 GSC OF 925

DATE CODED: 1992/01/31 DATE REVISED: 1992/01/31 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>0930 048</u>	NATIONAL MINERAL INVENTORY:
NAME(S):	<u>LST</u>	
STATUS:	Developed Prospect	MINING DIVISION: Cariboo
NTS MAP: BC MAP	093O03E	UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 12 N 123 13 00 W 914 Metres Within 500M The location is for the central area of the (Assessment Report 20224).	NORTHING: 6113731 EASTING: 486199
COMMODITIES:	Limestone	
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Calcite Upper Paleozoic	
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Massive Sedimentary Industrial Min. R09 Limestone	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary	
STRATIGRAPHIC AGE	GROUP Slide Mountain	FORMATION IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone Quartz Schist	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Omineca Slide Mountain	PHYSIOGRAPHIC AREA: Northern Rocky Mountain Trench
INVENTORY		
ORE ZONE:	LST	REPORT ON: Y
	CATEGORY: Inferred QUANTITY: 945809138 Tonnes COMMODITY	YEAR: 1991 GRADE
REFERENCE:	Assessment Report 20224.	
CAPSULE GEOLOGY	The area of the IST occ	urrance is underlain by limestone of the
	Carboniferous and Permian Sl	ide Mountain Group. Limestone on the

Carboniferous and Permian Slide Mountain Group. Limestone on the property is reported to be pure, massive or banded and varying in colour from grey to white to beige. The strata appears to strike north to northwest with dips of 25 to 43 degrees to the east and northeast respectively. Some outcrops of quartz schist occur in the area.

area. The limestone was tested for total sulphur, maximum potential acidity, neutralization potential, paste pH and specific gravity. Sulphur content was between 0.002 per cent and less than 0.001 per cent. The acid generating potential for the samples taken was zero and the neutralizing potential was calculated as being from 983 to 1052 tons CaCO3 equivalent per thousand tons of material. Paste pH varied from 8.5 to 9.0 and a specific gravity on one sample was 2.74. Pough limestone reserve calculations were made using a computer

Rough limestone reserve calculations were made using a computer program which estimated the topographic surface of the deposit based on elevation contours; the base of the deposit was estimated from the lowest outcropping of limestone. The LST deposit was estimated to contain 945,809,138 tonnes of limestone (Assessment Report 20224).

# BIBLIOGRAPHY

EMPR	AS	S	RPT	*20224
GSC	ΟF	92	25	

DATE CODED: 1992/02/03 DATE REVISED: 1992/02/03 CODED BY: GJP REVISED BY: GJP

MINFILE NUMBER:	<u>0930 049</u>		NATIONAL MINE	RAL INVENTORY:	
NAME(S):	ASPEN				
STATUS:	Showing British Columbia			MINING DIVISION: (	Cariboo
NTS MAP:	093O03W			UTM ZONE: 1	0 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 03 20 N 123 20 00 W 1150 Metres Within 5 KM Centre of Aspen claims.			NORTHING: 6 EASTING: 4	5101024 178707
COMMODITIES:	Granite	Dimension Stone	Building Stone		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Unknown				
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Massive Syngenetic R03 Dimension stone -	Industrial Min. granite			
HOST ROCK DOMINANT HOSTROCK:	Plutonic				
STRATIGRAPHIC AGE	GROUP	FORMATIO	<u>N</u>	IGNEOUS/METAMO	RPHIC/OTHER
LITHOLOGY:	Granite			Unnamed/Unknown	morna
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Omineca Cassiar		PHYSIOGRAPHI	C AREA: Omineca №	Mountains
CAPSULE GEOLOGY	The Aspen cla	ime cover an attra	ctive pale pink coal	ree-grained	
	Cretaceous granite quarried ten 10-to Washington for pre	In 1998, Hunter onne blocks and sub liminary procession	Humphries and Jim Be mitted them to a plar g and test marketing.	illevance	
BIBLIOGRAPHY	EM EXPL 1998-44 EMPR OF 1995-6; 19 GSC MAP 1634A GSC MEM 425	95-24			
DATE CODED: DATE REVISED:	1999/06/25 / /	CODED BY: REVISED BY:	LDJ	FIE	LD CHECK: N

MINFILE NUMBER: 0930 049

MINFILE NUMBER:	<u>093P 001</u>		NATIONAL MINERAL INVE	ENTORY:
NAME(S):	BULLMOOSE, SOUTH FORK, WEST FOR NE BULLMOOSE, TECK CORPORATION	ORK, N		
STATUS: REGIONS:	Past Producer British Columbia	Open Pit	MINING E	DIVISION: Liard
NTS MAP: BC MAP:	093P04E 093P03W		UT	M ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION LOCATION ACCURACY: COMMENTS:	55 08 50 N 121 30 30 W 1463 Metres Within 500M Approximate centre of property (Coal /	Assessment Report 477).	NC E	RTHING: 6112190 ASTING: 595066
COMMODITIES:	Coal	····· ,		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratabound Massive Sedimentary Fossil Fuel A04 Bituminous coal			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Fort St. John	FORMATION Gates	IGNEOUS	S/METAMORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Shale Conglomerate Coal			
HOSTROCK COMMENTS:	The coal-bearing unit is 80 metres thi Gates Formation.	ck in the lower half of the		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: GRADE:	Rocky Mountain Foothills-North MVol Bituminous
INVENTORY				
ORE ZONE:	BULLMOOSE	REPORT ON:	Υ	
	CATEGORY: Indicated QUANTITY: 10300000 Tonnes COMMODITY	YEAR: <u>GRADE</u>	2002	
COMMENTS: REFERENCE:	Coal Mineral resource as at December 31, 2 Teck Cominco Limited, Annual Report 2	100.0000 Per cent 2001. 2001.		
ORE ZONE:	BULLMOOSE	REPORT ON:	Y	
	CATEGORY: Measured QUANTITY: 12000000 Tonnes COMMODITY	YEAR: GRADE	2002	
COMMENTS: REFERENCE:	Coal Resources as at December 31, 2001. Teck Cominco Limited, Annual Report 2	100.0000 Per cent 2001.		
ORE ZONE:	BULLMOOSE	REPORT ON:	Υ	
	CATEGORY: Proven QUANTITY: 2800000 Tonnes COMMODITY Coal	YEAR: GRADE	2002	
COMMENTS: REFERENCE:	Mineable reserves as at December 31, Teck Cominco Limited, Annual Report 2	2001. 2001.		

A minimum of six coal seams occur in the Lower-Upper Cretaceous Gates Formation (approximately 200 metres thick) of the Fort St. John Group, interbedded with sandstone, siltstone, shale and minor pebble

PAGE: 1328 REPORT: RGEN0100

## CAPSULE GEOLOGY

conglomerate, deposited in a deltaic setting. The sediments form a prominent broad syncline plunging gently northwest. In the Mount Chamberlain area the fold is asymmetrical (the west flank dips up to 70 degrees, the east flank dips at less than 20 degrees). To the south, the dips on both limbs are more gentle where the West and South Fork areas lie along the axial portion of the fold, with dips less than 20 degrees. A northwest trending thrust fault at West Fork dips southwest and shows appreciably large displacement. A thrust fault at South Fork appears to show little displacement.

The coal seams in ascending stratigraphic order are A, B, C, D, E and F seams. Quality and thickness vary between and also within seams. Generally, seam characteristics improve from younger to older and most of the seams also improve southwards. In the West and South Fork areas, the seams are thicker and more easily correlated than to the north, where they are frequently split and contain numerous rock partings.

Seam A is a thin coaly horizon in the northeast becoming thicker and cleaner to the south. The thickness averages 1.8 metres in the West Fork area (shaly parting up to 0.6 metres) and exceeds 4.5 metres in the South Fork area where the parting is also thicker (approximately 1.8 metres). Ash percentage is 7.2 and 13.2 (lower and upper) and 18.8 in the South and West Fork areas respectively and sulphur percentage is 0.35 to 0.45 (lower and upper) and 0.38 respectively.

Seam B is widespread and is most important because of its thickness. It is generally free of rock partings and appears hard and bright. In the north of the property, although thick, the seam is very shaly but thickens and improves in quality southwards. The B seam averages 3.4 metres and 4.8 metres in the West and South Fork areas respectively. The B seam contains 7.2 and 18.0 per cent ash (lower and upper) and 7.2 and 19.8 per cent ash (lower and upper) in the South and West Fork areas respectively, with sulphur values 0.23 per cent (lower and upper) and 0.25 per cent (lower and upper) respectively.

respectively. Seam C is 1.9 metres thick in 3 splits in the West Fork area and 1.8 metres at South Fork, including some dirt bands. Generally dull with some bright bands, ash percentage is 22.4 and 20.6 and sulphur 0.44 and 0.35 per cent in the South and West Fork areas respectively.

The D seam is variable in thickness and quality at West Fork, with the thicker sections having very high ash contents. Average ash and sulphur are 34.5 per cent and 0.26 per cent respectively at West Fork. The seam is more uniform and averages 1.5 metres thick at South Fork. Here it is dull and includes rock partings, with ash and sulphur percentages averaging 35.9 and 0.33 respectively.

The E seam is a distinct seam only at West Fork (less than 1 metre) and South Fork (greater than 1 metre). In the north it consists of several coaly horizons. The seam is thickest at South Fork (greater than 1 metre) where it is hard and bright with minor shale partings. Ash and sulphur percentages are 14.1 and 0.51 respectively at South Fork.

The F seam is represented by one or more coaly horizons in the southern part of the Bullmoose property, it does not occur at South and West Fork.

Volatile matter contents vary from 20.6 per cent (D seam) to 26.9 per cent (E seam) at South Fork and 20.4 (E seam) to 26.6 per cent (lower B seam) at West Fork. Free swelling index ranges from 2.5 to 5 with lower values more common at West Fork. Fixed carbon ranges from 43.6 per cent (D seam, South Fork) to 68.2 per cent (lower A seam, South Fork).

The Bullmoose mine expects to ship 2 million tonnes of coal in 1995. This includes 400,000 tonnes transferred from the Quintette contract. The arrangement has been renewed for an additional two years, ensuring that Bullmoose stays at the 2 million tonnes production level until at least 1998. During 1995, 20 development holes were completed in the South Fork pit (Information Circular 1996-1, page 9).

Three mining methods, depending on coal seam dip angles, are now used at the South Fork pit, which has a mineable reserve of 13.5 million tonnes (sufficient until mid-2003). The mineral resource in the nearby West Fork zone is an estimated 14.3 million tonnes (T. Schroeter, personal communication, 1997).

Production from the South Fork pit in 1998 was about 1.8 million tonnes of clean metallurgical coal. Reserves as of December 31, 1998 was 11.0 million tonnes (Exploration in BC 1998, page 37). Reserves as of January 1, 2000 was 5.8 million tonnes (Information Circular 2001-1, page 6).

Reserves at December 31, 2001 were 2.8 million tonnes proven. Resources were 12 million tonnes measured, 10.3 million tonnes

indicated and 2.6 million tonnes inferred (Teck Cominco Limited, Annual Report 2001). The Bullmoose mine has operated continuously since production began in 1983 and has shipped over 32 million tonnes of metallurgical coal to overseas steel producers. The mine will close April 4, 2003.

#### BIBLIOGRAPHY

EMPR BULL 52 EMPR COAL ASS RPT 472, 475, 476, \*477, 478, 481 EMPR Coal in British Columbia (1976) EMPR COALFILE EMPR ENG INSP Annual Report 1989, 1990 EMPR EXPL 1975-E224,E225; 1977-E272; 1979-356,357; 1982-18; 1985-A33; 1986-A56; 1987-A58,A59; 1996-A12,C6; 1997-22; 1998 - 37EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-382; 1987, pp. 451-470; 1988, pp. 565-576; 1991, pp. 397-417 EMPR GEM 1971-502,503; 1972-640 EMPR INF CIRC 1993-13; 1996-1, p .9; 1997-1, p. 11; 1998-1, p. 12; 2001 - 1. р. б EMPR IR 1984-5; 1986-1, p. 104 EMPR MAP 65 (1989) EMPR MIN STATS 1985, p. 42; 1987, pp. 44,46; 1990, pp. 40,46,52; 1992, p. 20; 1993, p. 30; 1994, p. 34 EMPR MINING 1981-1985, p. 76; 1986-1987, p. 73; 1988, p. 73 EMPR OF 1987-6, 7; 1990-3; 1992-1; 1994-1 EMPR P \*1981-3; 1986-3, pp. 18-21 EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps; Preliminary Feasibility Report on Townsite Community Development (1977); Teck Corporation Annual Report 1985); The Bullmoose Mine brochure) GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669 GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 GCNL #80(Apr.27), 1999 N MINER Feb.22, Apr.12, Nov.1, 1999; Feb.14, Mar.13, May 8, 2000 WWW http://www.teckcominco.com; http://www.infomine.com/index/properties/BULLMOOSE\_MINE.html Teck Cominco Limited, Annual Reports Teck Corporation 1996, 1997, 1998 Annual Reports Times Colonist, Feb.16, 2000, p. D3; Mar.2, 2000, p. B5

DATE CODED: 1985/07/24 DATE REVISED: 1986/02/12 CODED BY: GSB REVISED BY: EVFK

MINFILE NUMBER:	<u>093P 002</u>	NATIO	NAL MINERAL INVENTORY:	
NAME(S):	POUCE COUPE			
STATUS:	Showing British Columbia		MINING DIVISION:	Liard
NTS MAP:	093P09E		UTM ZONE:	10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 43 09 N 120 07 05 W 609 Metres Within 1 KM Beside pump station on river bank, due Coupe (Property File).	east from the town of Pouce	NORTHING: EASTING:	6178587 681014
COMMODITIES:	Clay			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Clay Unknown			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Unknown Industrial Min. B06 Fireclay	E07	Sedimentary kaolin	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Smoky	FORMATION Undefined Formation	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Clay Shale			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Overlap Assemblage	PHYSI	OGRAPHIC AREA: Alberta F	Plateau
CAPSULE GEOLOGY				
	Bedrock geology consis shales.	ts of Upper Cretaceous	Smoky Group marine	
	Tough black to grey cl town of Pouce Coupe. The c for lightweight aggregate.	ay occurs in a river ba lay bloats easily and m	ank east from the may have potential	
BIBLIOGRAPHY	EMPR IND MIN FILE (Clay and Library)) EMPR PF (*Mineral occurrenc GSC MAP 19-1961; 2669 GSC OF 286	Shale Occurrences in E e input form)	3C (in Ministry	
DATE CODED: DATE REVISED:	1989/06/28 1989/06/28	CODED BY: GO REVISED BY: GO	F	TIELD CHECK: N TIELD CHECK: N

MINFILE NUMBER:	093P 003 NATIONAL MINERAL INVENTORY:								
NAME(S):	MOUNT PALSSON, BAKER CREEK, SUKUNKA RIVER								
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093P04W		MINING DIVISION: Liard UTM ZONE: 10 (NAD 83)						
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 34 N   121 52 47 W   121 52 47 W   765 Metres EASTING: 571406   Within 500M South zone, on the southeast side of the Sukunka River, just east of its confluence with Baker Creek, 64 kilometres south-southwest of Chetwynd (Industrial Mineral File - MacLeod, 1988). NORTHING: 6111253								
COMMODITIES:	Limestone								
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Carbonate Dolomite Pyrobitumen Mississippian								
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: DIMENSION:	Stratabound Massive Sedimentary Industrial Min. R09 Limestone Tabular Folded 260 x 100 Metres	STRIKE/DIP:	TREND/PLUNGE:						
COMMENTS: HOST ROCK DOMINANT HOSTROCK:	South zone : Sedimentary								
STRATIGRAPHIC AGE Mississippian DATING METHOD:	GROUP Rundle Fossil	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER						
LITHOLOGY:	Limestone Dolomitic Wacke								
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America	PHYSIOGRAPHIC AREA: Hart Ranges							
ORE ZONE:	SOUTH	REPORT ON: Y							
	CATEGORY: Indicated QUANTITY: 1700000 Tonnes COMMODITY Limestone	YEAR: 1988 GRADE 54.3600 Per cent							
COMMENTS: REFERENCE:	Grade given for CaO. Industrial Mineral File - MacLeod, W.A. (1988).								
ORE ZONE:	NORTH	REPORT ON: Y							
COMMENTS:	CATEGORY: Indicated QUANTITY: 440000 Tonnes <u>COMMODITY</u> Limestone Grade given for CaO.	YEAR: 1988 GRADE 54.4200 Per cent							
REFERENCE:	Industrial Mineral File - MacLeod, W.A. (1	988).							
CAPSULE GEOLOGY The Mount Palsson occurrence is situated on the southeast side of the Sukunka River, just east of its confluence with Baker Creek, 64 kilometres south-southwest of Chetwynd. The deposit lies within a bed of limestone of the Mississippian Rundle Group underlain by shaly carbonates of the Lower Mississippian Banff Formation and overlain by siltstone and shale of the Triassic Sulphur Mountain Formation (Spray River Group). The limestone outcrops as a narrow northwestward trending band along the east limb of an overturned syncline. Locally, the limestone is warped into a pair of closely-spaced anticlines trending west-northwest. The deposit is comprised of a chemical grade limestone member									

that passes upward into an overlying impure limestone member. The chemical grade member consists of white speckled micrite and brown to grey-brown, very fine-grained, slightly dolomitic wackestone. The impure member consists of brown-grey to grey, fine to coarse-grained, silty, dolomitic wackestone with minor dolomitic micrite. Veins of white calcite are present in both units. Pyrobitumen is commonly displayed on fractured surfaces.

Two zones of reserves have been defined in the chemical grade limestone member along the crest of each of the two anticlines. The two zones are separated by an 80 to 90 metre wide band of impure limestone preserved along the intervening syncline. Indicated and inferred reserves (in tonnes) with average grades (in per cent) are given as follows (Industrial Mineral File - W.A. MacLeod, 1988):

	Zone	Reserves	CaO	MgO	SiO2	A1203	Fe203			
	South	1,700,000	54.36	0.67	0.37	0.26	0.01			
	North	440,000	54.42	0.73	0.48	0.27	trace			
The	South zo	ne outcrops	along the	crest o	f the so	outhern a	anticline	3		
over a length of 260 metres with a width of between 80 and 100										
metr	res. The	North zone	outcrops i	Eor up t	o 160 me	etres alo	ong the c	rest		
of t	he north	ern anticlin	e with a w	width of	up to 1	.00 metre	es.			
	The dep	agit wag ini	+ 1 - 1 1	1	her Monte	in Dece		1002		

The deposit was initially evaluated by Westmin Resources in 1983 as a source of agricultural lime for the Peace River area. The property was optioned by Westmin to Knox Western Capital Inc. of Calgary, Alberta. Knox Western Capital carried out detailed mapping and sampling in 1988 in order to determine the quantity and suitability of the limestone available for use in pulp mills.

## BIBLIOGRAPHY

EMPR MAP 65, 1989 EMPR PF (Westmin Resources Annual Report 1982; Notice of Quarry Opening, Westmin Resources 1984; \*MacLeod, W.A. (1989): Geological Report on the Westmin Lease No. 802015, Mount Palsson Area) GSC MAP 19-1961; 2669 GSC OF 286

DATE CODED: 1986/03/14 DATE REVISED: 1989/12/07 CODED BY: ZDH REVISED BY: PSF
MINFILE NUMBER: 093P 004

NATIONAL MINERAL INVENTORY:

NAME(S):	ROCKY CREEK		
STATUS: REGIONS:	Developed Prospect British Columbia		MINING DIVISION: Liard
NTS MAP: BC MAP	093P04W 093P05W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION:	55 15 00 N 121 45 05 W 1295 Metres		NORTHING: 6123322 EASTING: 579372
COMMENTS:	Approximate centre of property.		
COMMODITIES:	Coal		
MINERALIZATION AGE:	Lower Cretaceous		
DEPOSIT			
CHARACTER: CLASSIFICATION: TYPE: SHAPE:	Stratiform Sedimentary A04 Bituminous coal Irregular		
MODIFIER:	Folded Faulted		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous Jurassic-Cretaceous	Bullhead Minnes	Gething Beattie Peaks	
LITHOLOGY:	Sandstone Siltstone Mudstone Claystone Conglomerate		
HOSTROCK COMMENTS:	Most economic coal seams occur in t	he Lower Gething Formation.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Overlap Assemblage	PH	YSIOGRAPHIC AREA: Hart Ranges
CAPSULE GEOLOGY			
	Coal seams occur in the metres thick) of the Bullha siltstones, mudstones and a predominantly in the middle These are from oldest to you Unnamed Zone, Grizzly, Pumy varies from 0.8 to 2.54 med the north and south, while thick, is also important in and the Grizzly averaging 3 other significant seams to regionally extensive, while east decrease in thickness Coal also occurs in the and the Bickford Formation thin (up to 1 metre) seams Mount Merrick area which as dip 40 to 60 degrees southed disturbed areas. The structure consists isoclinal folds of the Merri gentle folds including the The folded strata are fault	he Lower Gething Forma ead Group which consis minor conglomerate. If e third of the Lower ( oungest, the Lake Cado p and B Lower and Uppe tres thick and has res an associated C zone n the south. The Pump 1.69 to 4.85 metres th the north of Rocky Cr e the Pump, Grizzly ar to the east. he Juro-Cretaceous Bea (Minnes Group). In t occur in addition to re each approximately west and cannot be tra s of a series of north rick syncline in the s Rocky Creek synclinon ted by at least four r	ation (320 to 345 sts of sandstones, Jine coal zones occur Gething Formation. Durin, Bumpy, Meadow, Er. Of these the B source potential in 2.65 to 3.13 metres o, 2.89 metres thick hick are the only reek. The B zones are and Cadomin in the attic Peaks Formation the latter, several two seams in the 2 metres thick. They are the into less west trending tight, southwest and more fium in the northeast. hajor thrust faults.

#### BIBLIOGRAPHY

EMPR COAL ASS RPT 620, 621, 698 EMPR Coal in British Columbia (1976) EMPR BULL 52 EMPR P \*1981-3; 1986-3, pp. 18,19 EMPR OF 1987-6,7 EMPR EXPL 1985-A32

\_\_\_\_

MINFILE NUMBER:	<u>093P 005</u>		NATIONAL MINERAL INVE	NTORY:
NAME(S):	PINE PASS			
STATUS: REGIONS: NTS MAP	Developed Prospect British Columbia		MINING D	NISION: Liard
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 29 00 N 121 59 05 W 1189 Metres Within 1 KM Centre of Pan Oceans/Nord	cens 1979 licenses, south of Pine R	NOI E/	RTHING: 6149047 ASTING: 564162
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary A04 Bituminous coal Irregular Folded F A series of northwest trending, s	-aulted ling folds plunging northwest are cι southwest dipping thrust faults.	ut by	
HOST ROCK DOMINANT HOSTROCK:	: Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Bullhead	FORMATION Gething	IGNEOUS	METAMORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Carbonaceous Shale			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: GRADE:	Rocky Mountain Foothills-North LVol Bituminous
INVENTORY				
ORE ZONE:	PINE PASS	REPORT C	DN: Y	
COMMENTS:	CATEGORY: Inferred QUANTITY: 270000 <u>COMMODITY</u> Coal Inferred underground reser tonnes of low volatile bitum	00 Tonnes <u>GRADE</u> 100.0000 Per ci ves are between 27 and 60 million inous coal.	AR: 1986 	
REFERENCE:	Coal Assessment Reports &	586, 587.		
CAPOULE GEULUGY	The main econo Gething Formation ( carbonaceous shale, 2.0 to 4.9 metres t volatile bituminous coal seams and zone are thinner and ten seams lie within th apart from seams E character across th The structure west plunging antic west trending, sout property is bounded and older strata on of the property is property is tightly A broader anti mine (0930 009) is end of the structure	mic seam, seam E occurs Bullhead Group) interbed conglomerate and thinnes hick, laterally persistes coal suitable for therm. d to contain many shale te top 250 metres of the and F, vary considerably e section. consists of a series of lines and synclines whick hwest dipping thrust fau by a major fault which top of the Gething Form also thrust faulted. The folded. cline occurs to the east s situated, but is faulte	in the Lower Cretace ded with sandstone, r coal seams. Seam nt and consists of 1 al use. Several add ormation, however the partings and splits. Gething Formation and in thickness and northwest trending, h are cut by some no lts. The west side thrusts Cadomin Form ation. The eastern e central part of the , where the Hasler d on the south and ea	ous shale, E is ow itional ese The d north- rth- of the ation side e ast

Inferred underground reserves are between 27 and 60 million

tonnes of low volatile bituminous coal with suitable thermal characteristics and less than 6 per cent raw ash, 14,000-15,000 BTU and sulphur generally less than 0.5 per cent. BIBLIOGRAPHY EMPR COAL ASS RPT 581, 582, 583, 584, 585, \*586, \*587, 588, 589, 590, 591, 592 EMPR Coal in British Columbia (1976) EMPR BULL 52 EMPR BULL 52 EMPR P \*1981-3; 1986-3, pp. 18,19 EMPR EXPL 1975-E227; 1979-358,359; 1980-567; 1983-xxv EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-372,379-382; 1987, pp. 451-470; 1988, pp. 565-576; 1990, pp. 407-414; 1991, 433-440 EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2269 CODED BY: EVFK FIELD CHECK: N FIELD CHECK: N DATE CODED: 1986/02/12 DATE REVISED: 1989/06/23 REVISED BY: GO

MINFILE NUMBER: 093P 006

NATIONAL MINERAL INVENTORY:

NAME(S):	WEST BRAZION		
STATUS: REGIONS	Developed Prospect British Columbia		MINING DIVISION: Liard
NTS MAP: BC MAP:	093P05W		UTM ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE:	55 22 00 N 121 57 50 W		NORTHING: 6136084 EASTING: 565671
ELEVATION: LOCATION ACCURACY:	1356 Metres Within 1 KM		
COMMENTS:	Approximate centre of property.		
	Coal		
SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT	Stratiform		
CLASSIFICATION: TYPE:	Sedimentary A04 Bituminous coal		
SHAPE: MODIFIER:	Irregular Folded Faulted		
COMMENTS:	Beds dip less than 10 degrees to the e dip north-northwest in the south.	east-southeast in the north and	
	Sodimonton		
	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Bullhead	Gething	
LITHOLOGY:	Carbonaceous Mudstone Sandstone		
	Siltstone Mudstone		
	Conglomerate		
	Foreland		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	PHYSIOGRAF	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	PHYSIOGRAF RELATIONSHIP:	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A. B.	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, and Group) .stone,
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series r. These are
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series . These are fault. In (less than 10
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south).	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series r. These are fault. In (less than 10 to the north-
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south). The Discovery seam is bright and blocky, with a approximately 0.77 metres	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips approximately 4 metres thick number of mudstone partings.	<pre>PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, and Group) stone, s of a series . These are fault. In (less than 10 to the north- c, and is clean, Seam A is and blocky.</pre>
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south). The Discovery seam is bright and blocky, with a approximately 0.77 metres Seam B is approximately 1. characteristics. Seam C i	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips approximately 4 metres thick number of mudstone partings. thick, and is clean, bright, 84 metres thick with similar s approximately 1.23 metres t	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series . These are fault. In (less than 10 to the north- t, and is clean, Seam A is and blocky.
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south). The Discovery seam is bright and blocky, with a approximately 0.77 metres Seam B is approximately 1. characteristics. Seam C i semi-bright to bright with approximately 33.7 per cen	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips approximately 4 metres thick number of mudstone partings. thick, and is clean, bright, 84 metres thick with similar s approximately 1.23 metres t thin high-ash bands (the seat t ash).	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series r. These are fault. In (less than 10 to the north- t, and is clean, Seam A is and blocky.
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south). The Discovery seam is bright and blocky, with a approximately 0.77 metres Seam B is approximately 1. characteristics. Seam C i semi-bright to bright with approximately 33.7 per cen The coal is medium vo (8.91 to 14.24 per cent dr	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips approximately 4 metres thick number of mudstone partings. thick, and is clean, bright, 84 metres thick with similar s approximately 1.23 metres t thin high-ash bands (the seat t ash). latile bituminous with general ied basis, 33.7 per cent in s	<pre>PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series r. These are fault. In (less than 10 to the north- i, and is clean, Seam A is and blocky. thick, im has and blocky to the and is and is clean, seam C and</pre>
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south). The Discovery seam is bright and blocky, with a approximately 0.77 metres Seam B is approximately 1. characteristics. Seam C i semi-bright to bright with approximately 33.7 per cen The coal is medium vo (8.91 to 14.24 per cent dr high calorific value. Vol 25.04 per cent dried basis cent. and sulphur 0.26 per	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips approximately 4 metres thick number of mudstone partings. thick, and is clean, bright, 84 metres thick with similar s approximately 1.23 metres t thin high-ash bands (the sea t ash). latile bituminous with genera ied basis, 33.7 per cent in s atile matter ranges from 19.5 , fixed carbon 46.72 per cent cent to 0.56 per cent dried	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, and Group) stone, so of a series . These are fault. In (less than 10 to the north- t, and is clean, Seam A is and blocky. thick, m has and blocky. thick, m has and blocky. thick ash team C) and 7 per cent to to 70.16 per basis.
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY BIBLIOGRAPHY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south). The Discovery seam is bright and blocky, with a approximately 0.77 metres Seam B is approximately 1. characteristics. Seam C i semi-bright to bright with approximately 33.7 per cen The coal is medium vo (8.91 to 14.24 per cent dr high calorific value. Vol 25.04 per cent dried basis cent, and sulphur 0.26 per	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips approximately 4 metres thick number of mudstone partings. thick, and is clean, bright, 84 metres thick with similar s approximately 1.23 metres t thin high-ash bands (the seat tash). latile bituminous with genera ied basis, 33.7 per cent in s atile matter ranges from 19.5 , fixed carbon 46.72 per cent cent to 0.56 per cent dried	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series . These are fault. In (less than 10 to the north- t, and is clean, Seam A is and blocky. thick, m has and plocky. thick, im has and plock per basis.
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY BIBLIOGRAPHY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south). The Discovery seam is bright and blocky, with a approximately 0.77 metres Seam B is approximately 1. characteristics. Seam C i semi-bright to bright with approximately 33.7 per cen The coal is medium vo (8.91 to 14.24 per cent dr high calorific value. Vol 25.04 per cent dried basis cent, and sulphur 0.26 per EMPR BULL 52 EMPR COAL ASS RPT *687	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips approximately 4 metres thick number of mudstone partings. thick, and is clean, bright, 84 metres thick with similar s approximately 1.23 metres t thin high-ash bands (the sea t ash). latile bituminous with general ied basis, 33.7 per cent in s atile matter ranges from 19.5, fixed carbon 46.72 per cent cent to 0.56 per cent dried	<pre>PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series r. These are fault. In (less than 10 to the north- t, and is clean, Seam A is and blocky. thick, m has and blocky. thick, m has and procent to to 70.16 per basis.</pre>
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: CAPSULE GEOLOGY BIBLIOGRAPHY	Foreland Overlap Assemblage Regional Four main coal seams, occur in the Lower Cretace interbedded with carbonace mudstone and minor conglom of northwest trending fold cut by an east-southeast t the centre and east of the degrees) to the east-south northwest (in the south). The Discovery seam is bright and blocky, with a approximately 0.77 metres Seam B is approximately 1. characteristics. Seam C i semi-bright to bright with approximately 33.7 per cen The coal is medium vo (8.91 to 14.24 per cent dr high calorific value. Vol 25.04 per cent dried basis cent, and sulphur 0.26 per EMPR BULL 52 EMPR BULL 52 EMPR COAL ASS RPT *687 EMPR COAL FILE	PHYSIOGRAF RELATIONSHIP: the Discovery seam and A, B, ous Gething Formation (Bullhe ous mudstone, sandstone, silt erate. The structure consist s to the west of the property rending, north dipping thrust property strata dips gently east (in the north) and dips approximately 4 metres thick number of mudstone partings. thick, and is clean, bright, 84 metres thick with similar s approximately 1.23 metres t thin high-ash bands (the seat tash). latile bituminous with general atile matter ranges from 19.5 , fixed carbon 46.72 per cent cent to 0.56 per cent dried	PHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous and C seams, ead Group) stone, s of a series . These are fault. In (less than 10 to the north- t, and is clean, Seam A is and blocky. Thick, m has and blocky. Thick, m has and y of a series . These are fault. In (less than 10 to the north- to the north- to the north- to for the seam of the seam of the seam of the seam of the seam of the seam of the seam of the seam of the seam of th

EMPR FIELDWORK 1977, p. 60; 1978, pp. 78-83,86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-372,379-382; 1987, pp. 451-470;

1988, pp. 565-576; 1990, pp. 407-414 EMPR P \*1981-3; 1986-3, pp. 18,19 EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2269 GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 GCNL #89(May 9), 2000

DATE CODED: 1986/02/12 DATE REVISED: 1989/06/23 CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>093P 007</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	BURNT RIVER, BRULE, BURN BRAZION, WESTERN CANADI	FRIVER (WEST ZONE) , IAN COAL		
STATUS: REGIONS: NTS MAP:	Developed Prospect British Columbia 093P05W		MINING DIVISION: UTM ZONE:	Liard 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 23 12 N 121 49 12 W 945 Metres Within 500M Approximate centre of proper	ty.	NORTHING: EASTING:	6138441 574752
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratabound Mas Sedimentary Fos A04 Bituminous coal Tabular Folded Fau	ssive sil Fuel Ilted		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Bullhead	<u>FORMATION</u> Gething	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Mudstone Bentonite Mudstone Coal			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Rocky M GRADE: Semi-Ar	Iountain Foothills-North hthracite
INVENTORY				
ORE ZONE:	BURNT RIVER	REPORT ON	: Y	
COMMENTS:	CATEGORY: Combined QUANTITY: 23808000 COMMODITY Coal Drill ind., inf. and potential res. and seismic seams as well as MDAP_Stage   Report Burnt	Tonnes <u>GRADE</u> 100.0000 Per cen for the Big Seams, middle seams marker seams in excess of 1 metr Biver Coal Project January 1981	: 1981 t e thick.	
CAPSULE GEOLOGY	MD/II Clago I Ropoli, Daniel			
	The Lower Cretac main coal-bearing uni and consists of inter bentonites and semi-a heat value coal. The carbonaceous with som structures. The lith over short distances, Nine main coal s Formation. They are A-A, B, Lower seam, D These vary in thickne 11.0 metres for seams and roof, and are pre The Lower seam i quality. It varies i average 3.2 metres an main reserve area res except at the souther mineable rock parting	eeous Gething Formation ( t at Burnt River and is bedded sandstones, silts inthracite low volatile, e sediments are generally te crossbedding and soft iologies exhibit extreme and abundant facies cha eams occur in the Middle designated from oldest t Jpper seam, Marker C, D, iss from 0.5 to 1.5 metre c. All markers have cark idominantly of interest as the most consistent wi in thickness from 2 to 11 d 6.2 metres thick in the spectively. The seam sho of Average ash content is	(Bullhead Group) is the up to 400 metres thick stones, mudstones, low sulphur and high / fine-grained and sediment deformation thickening and thinning anges. and Upper Gething to youngest: Marker A, Seam 60 and Marker E. Seam 60 and Marker A, Seam 60 and Marker A, Seam 60 and Marker A, Seam 60 and Marker E. Seam 60 and Marker E. Seam 60 and Marker A, Seam 60 and Marker E. Seam 60 and Marker E.	

PAGE: 1340 REPORT: RGEN0100

## CAPSULE GEOLOGY

matter is 13.2 per cent, fixed carbon is 79.0 per cent, inherent moisture is 0.9 per cent, sulphur is 0.40 per cent, calorific content of 7910 calories per gram and average thickness of 4.15 metres.

The Upper seam averages 3.2 to 2.8 metres in width and is usually split by a 30 to 60-centimetre shale parting in the north of the deposit. The seam thins and pinches out to the north. The seam is thick and clean in the south where ash levels are 4 to 5 per cent on three metre intercepts. Ash levels increase to 8 to 12 per cent in the north on thinner seams. Average ash is 8.1 per cent, inherent moisture is 0.8 per cent, volatile matter is 13.2 per cent, fixed carbon is 77.9 per cent, sulphur is 0.41 per cent and calorific value of 7800 calories per gram.

The majority of Seam 60 reserves are in the southwest where quality and thickness are consistent. The seam thins and is cleaner to the north. It contains two major high ash zones (25 to 40 per cent ash) and minor rock partings. The lower high ash zone splits the seam in the north. Average seam analysis across 5.87 metres thickness returned 0.8 per cent inherent moisture, 11.2 per cent ash, 16.1 per cent volatile matter, 71.9 per cent fixed carbon, 0.32 per cent sulphur, and calorific content of 7550 calories per gram.

The structure consists of a series of tight folds and numerous faults. The folds are asymmetrical with northwest trending axes that plunge to the north or south. Coal seams may have undergone ductile deformation along fold axes. The main reserve area (Brule deposit), is dominated by folds trending northwest and several west dipping thrust faults.

Two regional faults cut the property, the Mount Chamberlain fault in the southwest and the Bullmoose thrust fault east of the Blind Creek syncline. Between these faults the property is transected by several southwest dipping thrust faults dipping 10 to 40 degrees, which repeat the Lower Gething and Bernot formations across the property. Drill indicated, inferred and potential reserves for the Big

Drill indicated, inferred and potential reserves for the Big Seams, middle seams and seismic seams as well as marker seams in excess of 1 metre thick are 23,808,000 tonnes; the overall stripping ratio for the reserves is 5.6 cubic metres of overburden per tonne of run-of-mine coal assuming an ultimate pit highwall angle of 45 degrees (Mine Development Assessment Process - Stage I Report, Burnt River Coal Project, January 1981).

## BIBLIOGRAPHY

DATE CODED: 1986/02/12 DATE REVISED: 1989/06/23 CODED BY: EVFK REVISED BY: GO

## MINFILE NUMBER: 093P 008

## NAME(S): BURNT RIVER (EAST ZONE)

STATUS: Developed Prospect REGIONS: British Columbia NTS MAP: 093P05E BC MAP: LATITUDE: 55 20 00 N LONGITUDE: 121 40 05 W ELEVATION: 1086 Metres LOCATION ACCURACY: Within 1 KM COMMENTS: Approximate centre of property.

COMMODITIES: Coal

#### MINERALS

SIGNIFICANT: Coal MINERALIZATION AGE: Lower Cretaceous

#### DEPOSIT

CHARACTER: Stratiform CLASSIFICATION: Sedimentary TYPE: A04 Bituminous coal

# HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP Lower Cretaceous Bullhead

Bullhead

LITHOLOGY: Sandstone Siltstone Mudstone Conglomerate

## **GEOLOGICAL SETTING**

TECTONIC BELT: Foreland TERRANE: Overlap Assemblage

#### CAPSULE GEOLOGY

Coal seams occur in the Lower Cretaceous Upper and Lower Gething Formation interbedded with sandstone, siltstone, mudstone and minor conglomerate. The Bird, Skeeter and Chamberlain seams of the Upper Gething Formation have pinched out and thinned respectively in a northerly direction from the Sukunka area to the south.

FORMATION

Gethina

Several coal zones occur in the Lower Gething Formation, the B zone (in the upper 60 metres of the Lower Gething Formation), having the most potential. The B zone is divided in two by approximately 25 metres of sediments. The lower coal unit contains 1 to 2 metres of coal, while the upper unit contains 3 to 6 metres of coal over 4 to 10 metres of strata. Coal zones C to H are carbonaceous horizons which develop locally into coal sections of minor thickness and poor quality.

Structurally the area is divided by the northwest trending Bullmoose thrust fault into tightly folded Lower Cretaceous Fort St. John strata in the east, and a series of stacked Gething Formation thrust plates in the west. The thrust faults are northwest trending, southwest dipping and contain a series of tight northwest trending asymmetrical folds.

#### BIBLIOGRAPHY

EM EXPL 2001-11-21 EMPR COAL ASS RPT 417, 486, 487, 488, 489, 490, \*491, 657, 658, 665, 666 EMPR Coal in British Columbia (1976) EMPR BULL 52 EMPR P \*1981-3; 1986-3, pp. 18-20 EMPR EXPL 1977-E273; 1978-E310; 1980-567; 1985-A32 EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-372,379-382; 1987, pp. 451-470; 1988, pp. 565-576; 1990, pp. 407-414 EMPR MAP 65 EMPR COALFILE EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and

NATIONAL MINERAL INVENTORY:

MINING DIVISION: Liard

UTM ZONE: 10 (NAD 83)

NORTHING: 6132693 EASTING: 584492

IGNEOUS/METAMORPHIC/OTHER

PHYSIOGRAPHIC AREA: Rocky Mountain Foothills-North

DATE CODED: 1986/03/03 DATE REVISED: 1989/06/23 CODED BY: EVFK REVISED BY: GO

\_\_\_\_

MINFILE NUMBER:	<u>093P 009</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	SUKUNKA RIVER			
STATUS: REGIONS:	Developed Prospect British Columbia		MINING DIVISION:	Liard
NTS MAP: BC MAP:	093P05E		UTM ZONE:	10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 18 00 N 121 38 50 W 1066 Metres Within 1 KM Approximate centre of property.		NORTHING: EASTING:	6129010 585886
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE:	Stratiform Sedimentary A04 Bituminous coal			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAM	ORPHIC/OTHER
Lower Cretaceous Lower Cretaceous	Bullhead Fort St. John	Gething Gates		
LITHOLOGY:	Sandstone Siltstone Carbonaceous Mudstone			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Foreland Overlap Assemblage Regional Metallurgical coal.	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Rocky M GRADE:	Iountain Foothills-North
ORE ZONE:	SUKUNKA RIVER	REPORT OF	N: Y	
COMMENTS:	CATEGORY: Indicated QUANTITY: 7000000 Tonnes COMMODITY Coal Surface coal reserve recoverable at overburden per ton of coal.	YEAF GRADE 100.0000 Per ce a ratio of 7 cubic yards of	R: 1978	
		••		
	Potentially mineable Gething Formation and the St. John groups respective Juro-Cretaceous Minnes Gro to be significant. The Lower Gething For commercial thickness vary middle seam is the thickes carbonaceous shale bands a The Upper Gething Formatic A and B, 2.4 and 3.9 metre thick and Chamberlain, 3.0 an average thickness of 47 sequence of sandstone, sil The Moosebar Formatic and consists of greenish s Gething Formation from the approximately 289 metres t sandstone with interbedded	coal seams occur i Gates Formation of ely. Coal was also oup however thickne mation contains up ing from 0.6 to 6.1 st at 6.1 metres. and have a fairly h on also contains fo es thick respective metres thick. Th 72 metres and consi ttstone, carbonaceo on (Fort St. John G siltstone and shale e Gates Formation. chick and consists d shale, siltstone	n the Lower and Upper the Bullhead and Fort encountered in the sses do not appear to 4 seams of potential metres of which the These coals contain igh inherent ash content. ur main seams; the Bird ly, Skeeter, 2.4 metres e Gething Formation has sts of an interbedded us mudstone and coal. Troup) is 122 metres thick is and separates the The Gates Formation is of massive, fine-grained and four main coal seams,	

the A seam (1.5 metres), the B seam (5.1 metres), the C seam (4.5 metres) and the D seam (1.5 metres). The sulphur content of the coals in the entire area is less than 0.4 per cent. Ash content is variable, however in a represent-

MINFILE NUMBER: 093P 009

ative sample, ash content is 20.2 per cent with values as low as 8 per cent and 4 per cent for better parts of the seams. The structure of the area consists of asymmetrical, northwest trending folds with numerous southwesterly dipping thrust faults. The most northeasterly mapped thrust is thought to be the local "Sole" fault. Other splays from it converge at depth. The "Sole" fault dips are steeper to the northeast than to the southwest. The Nuisance fault is the main fault along the Sukunka River to the northwest. Surface coal reserve recoverable at a ratio of 7 cubic yards of overburden per ton of coal total 7 million tonnes (Coal Assessment

Report 677, page 2).

## BIBLIOGRAPHY

EMPR COAL ASS RPT 665, 672, 673, 674, 675, 676, 677 EMPR Coal in British Columbia (1976) EMPR BULL 52 EMPR D'1981-3; 1986-3, pp. 18-20 EMPR GEM \*1969-423-425; 1970-525,526; 1971-498,499,501,502; 1972-640,641; 1973-586; 1974-423,424 EMPR EXPL 1975-E226,E227; 1977-E272,E273; 1978-E309,E310; 1979-357, 358; 1980-560,566,567 EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-372,379-382; 1987, pp. 451-470; 1988, pp. 565-576; 1990, pp. 407-414 EMPR MAP 65 EMPR COALFILE EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps; Preliminary Feasibility Report on Townsite Community Development (1977)) GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669 GSC OF 286 CIM March 1974, pp. 142-147

DATE CODED: 1986/02/12 DATE REVISED: 1989/06/23

CODED BY: EVFK REVISED BY: GO

\_\_\_\_

MINFILE NUMBER:	<u>093P 010</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	<u>SUKUNKA NORTH</u>			
STATUS:	Developed Prospect		MINING DIVISION: Lia	rd
NTS MAP: BC MAP	093P05W		UTM ZONE: 10	(NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 17 40 N 121 48 05 W 1310 Metres Within 1 KM Location is the approximate centre the Sukunka North is the Sukunka	e of the property. Associate (093P 011).	NORTHING: 612 EASTING: 576 d with	28212 3109
COMMODITIES:	Coal			
SIGNIFICANT: MINERALIZATION AGE:	Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: COMMENTS:	Stratiform Sedimentary A04 Bituminous coal Synclinorium axis trends northwes degrees to the west.	st. The beds dip between 5 a	and 20	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Lower Cretaceous Lower Cretaceous	<u>GROUP</u> Bullhead Bullhead	FORMATION Gething Cadomin	IGNEOUS/METAMORF	<u>'HIC/OTHER</u>
LITHOLOGY:	Sandstone Siltstone Mudstone Carbonaceous Mudstone Conglomerate			
HOSTROCK COMMENTS:	Economic coal seams are restrict minor coal occurs in the Juro-Cre	ted to the Lower Gething For staceous upper Minnes Grou	mation, p.	
GEOLOGICAL SETTING	Foreland			toin Footbillo North
METAMORPHIC TYPE: COMMENTS:	Overlap Assemblage Regional Thermal coal.	RELATIONSHIP:	GRADE:	
CAPSULE GEOLOGY	Four main coal inte Gething Formation of the above the Cadomin Format in thickness with a maxi towards the northwest ar metres above the Cadomir 12 metres thick, however 4 metres. Thickness app washouts. The Pump zone and varies in thickness metres is coal. Variati characteristics are comm 215 to 220 metres above lower component. The to separated by 10 to 12 met the area is divisible in to 450 metres. The Lower Gething F siltstones, mudstones, of zones and conglomerates. contains distinctive bra siltstone and calcareous	ervals occur in the Bullhead Group. T ion (Bullhead Group imum of 2.2 metres i ad southeast. The s r formation, or Griz c individual interva pears to vary latera lies 30 to 35 metr from 4 to 6 metres, ions in thickness an non in this zone. T the Cadomin Formati- btal coal thickness etres of mudstone. Ito three parts with Formation is compose carbonaceous mudston . The overlying Mid ackish/marine very f	Lower Cretaceous Lower he lowest 30 to 35 metres ) averages coal 1.5 metres n the southwest and thins econd zone, 115 to 120 zly seam, may total 10 to ls are normally less than lly with occasional es above the Grizzly seam of which approximately 3 d lithological he topmost coal zone "B", on, contains an upper and (1.5 to 2.5 metres) is The Gething Formation in .a total thickness of 400 d of sandstones, es, the principal coal dle Gething Formation ine-grained sandstone/ er Gething Formation is 8 topped and the sandstone is 8 topped and the sandstone is 8 topped and the sandstone is 8	

and only occurs in isolated areas as a result of erosion. The Sukunka North block is a synclinorium whose axis trends northwest and which is faulted by several thrust faults. A major thrust fault separates the area into a northern half incorporating the Gates Formation (Fort St. John Group) and younger strata, while

the southern segment is underlain by the Gething Formation and older strata. Fault throw is at least 350 metres. Other west dipping thrust faults occur with throws of 10 to 60 metres. BIBLIOGRAPHY EMPR COAL ASS RPT 641, 642, 643, 644, 645, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 661, 662, 663, 664, 665, 666, 667, \*671 EMPR Coal in British Columbia (1976) EMPR BULL 52 EMPR BULL 52 EMPR P \*1981-3; 1986-3, pp. 18-20 EMPR FIELDWORK 1977, p. 60; 1978, pp. 78-83,86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-372,379-382; 1987, pp. 451-470; 1988, pp. 565-576; 1990, pp. 407-414; 1991, pp. 397-404 EMPR GEM 1969-423-425; 1970-525,526; 1971-498,499,501; 1972-640,641; 1973-586; 1974-423,424 EMPR EXPL 1975-E226,E227; 1977-E272,E273; 1978-E309; 1979-358; 1980-566,567 EMPR MAP 65 EMPR COALFILE EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps; Preliminary Feasibility Report on Townsite Community Development (1977)) GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669 GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 CIM March 1974, pp. 142-147 Chowdry, A. (1980): Report on Northeast B.C. Thermal Coal Exploration Program DATE CODED: 1986/02/10 DATE REVISED: 1989/06/23 CODED BY: EVFK REVISED BY: GO FIELD CHECK: N FIELD CHECK: N

#### MINFILE NUMBER: 093P 011 NATIONAL MINERAL INVENTORY: NAME(S): **SUKUNKA**, MOUNT JILG, MOUNT MERRICK, TRIANGLE, SUKUNKA NORTH STATUS: Developed Prospect MINING DIVISION: Liard REGIONS: British Columbia NTS MAP: 093P04W UTM ZONE: 10 (NAD 83) BC MAP: LATITUDE: 55 14 10 N LONGITUDE: 121 52 05 W NORTHING: 6121650 EASTING: 571981 ELEVATION: 1150 Metres LOCATION ACCURACY: Within 1 KM COMMENTS: Approximate centre of property, west of the Sukunka River, between Sukunka River and Burnt River. COMMODITIES: Coal MINERALS SIGNIFICANT: Coal MINERALIZATION AGE: Jurassic DEPOSIT CHARACTER: Stratiform CLASSIFICATION: Sedimentary TYPE: A04 Bitun Bituminous coal SHAPE: Irregular MODIFIER: Folded Faulted COMMENTS: Northwest trending folds and mainly southwest dipping thrust faults. HOST ROCK DOMINANT HOSTROCK: Sedimentary STRATIGRAPHIC AGE FORMATION GROUP IGNEOUS/METAMORPHIC/OTHER Jurassic-Cretaceous Minnes Bickford Jurassic-Cretaceous Minnes Beattie Peaks

LITHOLOGY: Sandstone Siltstone Mudstone Carbonaceous Shale

HOSTROCK COMMENTS: Coal also occurs in the Gething Formation (Bullhead Group).

# GEOLOGICAL SETTING

GEOLOGICAL SETTING		
TECTONIC BELT: Foreland		PHYSIOGRAPHIC AREA: Hart Ranges
TERRANE: Overlap Assemblage		
METAMORPHIC TYPE: Regional	RELATIONSHIP:	GRADE:

## CAPSULE GEOLOGY

Coal seams occur in the Juro-Cretaceous Minnes Group and Lower Cretaceous Gething Formation (Bullhead Group) consisting of sandstone, siltstone, mudstone and carbonaceous shale. Minnes Group coal occurs in the Bickford Formation and consists of two seams, the Merrick and Rusty, each on average 2 metres thick within 30 metres of the Cadomin Formation (Bullhead Group) base. The seams are laterally extensive over considerable distances (in the Merrick block) but deteriorate and thin out across the depositional strike (within the Jilg/Triangle regions) and in the Beattie Peaks Formation (Minnes Group). The latter are generally thin and uneconomic, with the exception of the Hill seam which is over 2.5 metres thick and occurs within an isolated high terrain.

The Gething Formation coal occurs in two coal zones, each 3 to 4 metres thick. Gething Formation strata is present quite extensively in the Sukunka North block, however within the Jilg, Triangle and Merrick blocks the Gething Formation sediments are confined to small tight folds and only the lowermost strata, containing at most 2 seams 0.5-1.5 metres thick in the Merrick block, are preserved.

The structure consists of northwest trending folds and thrust faults. The Jilg block is dominated by tight folds and a northeast dipping thrust fault to the west. A fold in the westernmost area of the Merrick block is overturned. Farther northeast, dips are to the southwest followed by a southwest dipping thrust fault, a large syncline and steeply dipping folds. The Triangle block contains a central broad syncline with a series of tight folds to the southwest and numerous southwest dipping thrust faults both in the southwest and northeast.

MINFILE NUMBER: 093P 011

EMPR Coal in British Columbia (1976) EMPR BULL 52 EMPR P \*1981-3; 1986-3, pp. 18,19 EMPR OF 1987-6,7 EMPR FIELDWORK 1977, p. 60; 1978, pp. 78-83,86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-382; 1987, pp. 451-470; 1988, pp. 565-576; 1991, pp. 397-404 EMPR GEM 1969-423-425; 1970-525,526; 1971-498,499,501,502; 1972-640, 641; 1973-586; 1974-423,424 EMPR EXPL 1975-E226,E227; 1977-E272,273; 1978-E309; 1979-357,358; 1980-560,566,567; EMPR MAP 65 EMPR COALFILE EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps; Preliminary Feasibility Report on Townsite Community Development (1977)) GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 GSC MAP 19-1961; 2669 CIM March 1974, pp. 142-147 Chowdry, A. (1980): Report on Northeast B.C. Thermal Coal Exploration Program

DATE CODED: 1986/03/03 DATE REVISED: 1989/06/26 CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>093P 012</u>		NATIONAL MINERAL INVENTORY	: 093P3,4 Col1
NAME(S):	BULLMOOSE (CHAMBERLAIN), CHAI Skeeter	MBERLAIN, BIRD,		
STATUS:	Developed Prospect		MINING DIVISION	: Liard
REGIONS: NTS MAP:	British Columbia 093P04E		UTM ZONE	: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 00 N 121 36 05 W 1508 Metres Within 1 KM Approximate centre of property.		NORTHING EASTING	: 6114231 : 589093
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratiform Sedimentary A04 Bituminous coal Irregular Folded Faulted			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Lower Cretaceous Lower Cretaceous	GROUP Bullhead Fort St. John	FORMATION Gething Gates	IGNEOUS/METAN	IORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Siltstone Conglomerate			
HOSTROCK COMMENTS:	Coal seams are mainly in the Gething Foramtion contains several reasonab	Formation, however the	e Gates	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Hart Ra GRADE:	nges
INVENTORY				
ORE ZONE:	TOTAL	REPORT	ON: Y	
	CATEGORY: Indicated QUANTITY: 18000000 Tonnes COMMODITY Coal	YE GRADE 100.0000 Per	AR: 1979	
COMMENTS: REFERENCE:	Potential reserves in the Bird, Lower Cl seams calculated to set mining, geolog MDAP-Stage II submission, Sukunka C	hamberlain & Upper Cha jical and coal prep. para oal Project, Vol.1, Nov.	amberlain ameters. 1979, p.7.	
CAPSULE GEOLOGY		<b>,</b>		
	Three Lower Cretaceous seams, the Chamberlain, Ske addition to the Lower Creta seams, all of which occur is and conglomerate. The Chamberlain seam is in thickness from north to 2.5 to 15.2 centimetres this property. To the south the shale partings. The Skeeter metres, with an average of is widely distributed in mis over much of the property. south up to 5 splits. In the with an aggregate thickness of shale bands. The Gates Formation set	s Gething Format: eeter and Bird or aceous Gates Forn in a sequence of is 0.2 to 6.7 me south and also : ick south of the e seam splits and er seam is shaly approximately 0 ineable thickness It includes roo the Chamberlain a s of 11.0 metres	<pre>ion (Bullhead Group) coal ccur in the area in nation (Fort St. John Group sandstone, shale, siltston tres thick and decreases includes a shaly parting northern edge of the d may contain several and thin, 0.3 to 2.1 .9 metres. The Bird seam ses of 0.3 to 5.8 metres ck bands and splits to the area it consists of 3 split, , a third of which consist berlain area all include</pre>	p) ne ts s

large amounts of shaly partings and bands, except for the B seam which

is generally clean. Its thickness varies from 0.76 metres to 2.65 metres. The Gates Formation seams generally thicken to the West and South Fork areas (093P 001).

Average volatile matter and ash percentages in washed Chamberlain coal are 22.77 per cent and 6.29 per cent respectively. The Bird seam and the Chamberlain seam show good coking qualities. The Bird seam samples have an average 0.50 per cent sulphur after washing but may retain up to 2.06 per cent sulphur, of which nearly 50 per cent is in the organic form. Limited sampling of the Gates Formation B seam demonstrated volatile matter and ash contents of 28.15 and 7.07 per cent respectively.

The structure in the Chamberlain area consists of a northwest trending syncline/anticline pair, with a major regional syncline to the east. The southwest dipping northwest trending Chamberlain thrust fault cuts the southwest limb of the minor syncline to the west.

Potential reserves in the Bird, Lower Chamberlain and Upper Chamberlain seams calculated to set mining, geological and coal preparation parametres are 180 million tonnes; the Chamberlain seam reserves may, in part, be duplicated in the Sukunka (Bullmoose) deposit (093P 014).

#### BIBLIOGRAPHY

EMPR COAL ASS RPT 481, 482, \*483, 485 EMPR Coal in British Columbia (1976) EMPR COALFILE EMPR EXPL 1975-E225-E227; 1976-E221; 1979-356; 1980-560,566,567 EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-382; 1987, pp. 451-470; 1988, pp. 565-576 EMPR GEM 1969-423-425; 1970-525,526; 1971-498,499,501,502; 1972-640, 641; 1973-586; 1974-423,424 EMPR MAP 65 EMPR OF 1987-6,7 EMPR P \*1981-3; 1986-3, pp. 18,19 EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps; Preliminary Feasibility Report on Townsite Community Development (1977)) GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669 GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 WWW http://www.teckcominco.com/operations/bull/bull.html http://www.infomine.com/index/properties/BULLMOOSE\_MINE.html

DATE CODED: 1986/02/03 DATE REVISED: 1989/06/26

EMPR BIILL 52

#### CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>093P 013</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	WINDFALL			
STATUS:	Prospect		MINING DIVISION:	Liard
NTS MAP:	093P04E 093P04W		UTM ZONE:	10 (NAD 83)
LATITUDE: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 10 00 N 121 45 05 W 792 Metres Within 1 KM Approximate centre of property.		NORTHING: EASTING:	6114050 579538
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary Irregular Folded Faulted Faulted northwest trending, moderate also trend northwest and dip to the s	ly folded synclinorium. Faul outhwest.	ts	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Minnes	FORMATION Bickford	IGNEOUS/METAMO	ORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Carbonaceous Mudstone			
GEOLOGICAL SETTING	Freedow			
TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Overlap Assemblage Regional	RELATIONSHIP:	GRADE:	ges
CAPSULE GEOLOGY				
	Coal seams 0.04 metre Cretaceous Upper and Lower interbedded with sandstone Four seams were intersecte depths greater than 122.74 Many of the exposed seams partings and are dull. The structure consist moderately folded syncling and dip southwest and incl southwest, the Windfall fa two thrust faults in the s west of the property place Cretaceous strata.	es to 1.49 metres the Bickford Formation es, siltstones and co ed in drill holes RD metres and 59.23 m which were trenched es of a faulted, nor prium. The faults a cude the normal Merr ult in the centre co coutheast. A major es Triassic sediment	hick occur in the Juro- (Minnes Group) arbonaceous mudstones. DH 81-01 and 81-07 to hetres respectively. I contain clastic thwest trending blso trend northwest rick fault in the of the property and thrust fault to the adjacent to Lower	
BIBLIOGRAPHY				
	<pre>EMPR COAL ASS RPT 692, 693 EMPR Coal in British Colum EMPR BULL 52 EMPR P *1981-3; 1986-3, pp EMPR OF 1987-6,7 EMPR FIELDWORK 1977, p. 60 pp. 251-277; 1986, pp. 576 EMPR COALFILE EMPR PF (093P General - Ma reports on the Peace Ri showing leases, wells a bedrock geology maps) GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 1-29,50,51,58-63</pre>	bia (1976) . 18,19 . 1978, p. 86; 1981 369-382; 1987, pp. thews, W.H. (1950,1 ver District; Map c ind seismic surveys; pp. 244,245; 70-1A	<ul> <li>, pp. 244-258; 1984,</li> <li>451-470; 1988, pp. 565-</li> <li>952,1954,1955): Various</li> <li>of Dawson Creek area</li> <li>General surficial and</li> <li>A, pp. 238,239; *89-4,</li> </ul>	

GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669

DATE CODED: 1986/02/03 DATE REVISED: 1989/06/26 CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>093P 014</u>		NATIONAL MINERAL INV	ENTORY: 093P3,4 Col1
NAME(S):	SUKUNKA (BULLMOOSE), SUKUNKA, B BRAMEDA RESOURCES, COALITION MIN SKEETER	ULLMOOSE (SUKUNKA); ING, CHAMBERLAIN,	,	
STATUS: REGIONS	Past Producer British Columbia	Underground	MINING	DIVISION: Liard
NTS MAP: BC MAP	093P04E		ហ	M ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 11 00 N 121 31 05 W 1508 Metres Within 500M Property location is south and east of the south into the Bullmoose property (093P Formation coal seams) to Bullmoose Cree	Sukunka River and exte 001) (excluding the Gates k.	NG E S	DRTHING: 6116195 EASTING: 594361
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
	Stratakound Magaina			
CHARACTER: CLASSIFICATION:	Sedimentary Fossil Fuel			
SHAPE: MODIFIER: COMMENTS:	Folded Faulted Northwest trending gentle folds with a br a series of northwest trending, southwest	oad major syncline are c st dipping thrust faults.	ut by	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Lower Cretaceous Cretaceous	<u>GROUP</u> Bullhead Fort St. John	FORMATION Gething Gates	IGNEOU	S/METAMORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Claystone Carbonaceous Mudstone Coal			
	Foreland			Packy Mountain Footbills North
METAMORPHIC TYPE:	Overlap Assemblage Regional RI	ELATIONSHIP:	GRADE:	MVol Bituminous
COMMENTS:	Coal is medium volatile bituminous to low	volatile bituminous in ranl	k.	L VOI Bituminous
INVENTORY				
ORE ZONE:	TOTAL	REPORT ON:	Υ	
	CATEGORY: Indicated QUANTITY: 183000000 Tonnes COMMODITY Coal	YEAR: GRADE 100.0000 Per cent	1977	
COMMENTS:	Chamberlain seam-170 mt; Skeeter seam- in part be duplicated in the Bullmoose (Ch	13 mt. The Chamberlain	seam may	
REFERENCE:	MDAP-Sukunka-Bullmoose, Stage I Envir	onmental Study,Vol.1,Nov	и./77,р.3.	
CAPSULE GEOLOGY	Coking coal of low to m the Lower-Upper Cretaceous G which is 180 metres thick, a Gething Formation (Bullhead respectively, interbedded wi carbonaceous mudstone. Five seams, A to E, var in thickness and occur in th Formation contains the Bird Skeeter seam, 1.5 to 2.5 met 1.5 to 4.5 metres thick. Th "middle coals" which appear	edium volatile bi ates Formation (F nd the Lower Cret Group), 180 and 6 th sandstone, sil y from less than e Gates Formation seam, 0.5 to 3.0 res thick and the e Lower Gething F to be thinner and	tuminous rank occu ort St. John Group aceous Lower and 0 0 metres thick tstone, claystone 0.5 metres to 4 mm . The Upper Geth: metres thick, the Chamberlain seam ormation contains generally unecond	urs in p) Jpper and etres ing , the pmic.

The most persistent coal seam in the Gething Formation is the Chamberlain seam. It varies in total seam thickness from 1.37 to 8.30 metres with thickest sections in the southeast Sukunka area and northeast Bullmoose area. The seam splits to the southwest and southeast. Where the seam is split the upper bed is generally thin and of poor quality.

The Skeeter seam is potentially of economic value in the northern part of the Sukunka area. It is a composite seam with dirt bands near the roof and in the lower half. The seam has a total thickness of 1.2 to 4.0 metres and deteriorates and thins to the south. In the north the main bed is 1.2 to 2.1 metres thick and is separated by up to 1.37 metres of carbonaceous siltstone from the bottom bed which is 0.15 to 0.91 metres thick.

The Bird seam, although not considered economic in the Sukunka area, varies up to 2.74 metres thick in the Bullmoose area. It splits towards the south.

The structure consists of a series of gentle northwest trending folds with a main broad syncline. The strata are cut by a series of northwest trending, southwest dipping thrust faults. The northern part of the Sukunka property appears to be more intensely faulted than in the south or in the Bullmoose area.

Raw coal of the Chamberlain seam contains on average 5.5 per cent ash, with specific gravity of 1.60 containing on average 21.9 per cent volatile matter, 4.1 per cent ash, 0.37 per cent total sulphur and 0.024 per cent phosphorous, with a calorific value of 14,740 BTU per pound.

At the Sukunka (Bullmoose) property, total reserves are 183 million tonnes coal. The Chamberlain seam hosts 170 million tonnes and the Skeeter seam, 13 million tonnes. The Chamberlain seam reserves may, in part, be duplicated in the Bullmoose (Chamberlain) deposit (093P 012) (Mine Development Assessment Process -Sukunka-Bullmoose Stage I Environmental Study, Volume 1-Text, November 1977, page 3).

#### BIBLIOGRAPHY

EMPR AR 1972-A48; 1973-A48; 1974-A114; 1975-A88 EMPR BULL 52 EMPR COAL ASS RPT 665, 666, 669, \*670 EMPR Coal in British Columbia (1976) EMPR COALFILE EMPR ENG INSP Annual Report 1989, 1990 EMPR EXPL \*1975-E226,E227; 1977-E272,E273; 1978-E309; 1979-357,358; EMPR EAPL 1975-E220, E2277 1976-E272, E2737 1978-E3037 1979-337, 3387 1980-560, 566, 567; 1982-18 EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-382; 1987, pp. 451-470; 1988, pp. 565-576; 1991, pp. 405-417 EMPR GEM \*1969-423-425; \*1970-525, 526; 1971-498, 499, 501, 502; 1972-640, 641; 1973-586; \*1974-423,424 641, 1973-560, 1974-423,424 EMPR MAP 65 (1989) EMPR MINING 1981-1985; 1986-1987; 1988 EMPR OF 1987-6,7; 1990-33; 1992-1 EMPR P \*1981-3; 1986-3, pp. 18,19 EMPR PF (093P General - Preliminary Feasibility Report on Townsite Community Development (1977); Sukunka Coal Mine Project Brochure; Mathews W H (1950 1952 1954 1955); Various reports on the Desce Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) EMR MP CORPFILE (Brameda Resources Limited; Coalition Mining Limited; Brascan Limited; Teck Corporation Limited) GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669 GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 CIM 77, pp. 142-147 WWW http://www.teckcominco.com/operations/bull/bull.html http://www.infomine.com/index/properties/BULLMOOSE\_MINE.html DATE CODED: 1986/02/03 CODED BY: EVFK FIELD CHECK: N REVISED BY: GO DATE REVISED: 1989/06/26 FIELD CHECK: N

MINFILE NUMBER:	<u>093P 015</u>	1	NATIONAL MINERAL INVENTORY:
NAME(S):	MOUNT SPIEKER, MT SPIEKE WOLVERINE, WESTERN CAN	ER, EAST BULLMOOSE, NADIAN COAL	
STATUS: REGIONS: NTS MAP: BC MAP:	Developed Prospect British Columbia 093P03W		MINING DIVISION: Liard UTM ZONE: 10 (NAD 83)
LONGITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 07 45 N 121 22 55 W 1905 Metres Within 500M Just east of Mount Spieker su	ummit.	NORTHING: 6110360 EASTING: 603167
COMMODITIES:	Coal		
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratabound Ma Sedimentary Fo A04 Bituminous coal Tabular Folded Fa A large anticlinal box fold is a concentrically folded syncline	assive ossil Fuel aulted adjacent to and east of a broad ne; both trend northwest.	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cretaceous Lower Cretaceous	Fort St. John Bullhead	Gates Gething	
LITHOLOGY:	Sandstone Siltstone Mudstone Conglomerate Coal		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Rocky Mountain Foothills-North GRADE: MVol Bituminous
			V
UNE ZUNE.	CATEGORY: Inferred QUANTITY: 5500000 COMMODITY	) Tonnes <u>GRADE</u>	1982
COMMENTS:	An in situ speculative resourd	ce if the second area (not drilled) is	
REFERENCE:	Coal Assessment Report 559	Э, page 8.	
CAPSULE GEOLOGY	The Lewer-Hoper	c Crotagoona Catoa Formatic	(Fort St. John Group)
	is 170 metres thick bituminous coal seam and conglomerate. T is 13 metres and the B is 2.5 to 6.0 metr the Mount Spieker pr seam C (0.5 to 4.2 m are important in iso are developed toward rock partings (0.1 t average ash percenta	and contains four major me as interbedded with sandsto The total average thickness by occur towards the base of coses thick and is of economi coperty while seam A (0.8 the netres thick) and seam D (Co blated areas. Two smaller is the northwest. Seams C to 0.3 metres thick in seam age varies from 13.79 (seam 19.54 (seam C) to 23.02 r	and (Fore St. form Group) ene, siltstone, mudstone s of seams A, B, C and D of the formation. Seam .c thickness throughout to 1.4 metres thick), 0.8 to 3.5 metres thick) coal seams A-B and C2, and D contain several n D). In the raw coal, n A) to 31.19 (seam D), per cent (seam B) fixed

volatile matter from 19.54 (seam C) to 23.02 per cent (seam B), fixed carbon from 45.22 (seam D) to 62.62 per cent (seam B), and sulphur from 0.38 (seam D) to 0.95 per cent (seam A). In the Lower Cretaceous Gething Formation (Bullhead Group), only

the uppermost Bird seam is of economic thickness in the Mount Spieker

area. The seam is separated into the upper Bird seam with an average true thickness of 3.5 metres and the lower Bird seam with an average true thickness of 1.75 metres, separated by 2.5 metres of strata. Τn the raw coal, these seams contain 10 per cent ash and 20 per cent volatile matter and are low volatile bituminous rank. Sulphur content in the upper Bird seam raw coal can be as high as 2.33 per cent cleaning to 1.8 per cent, while contents are 0.8 per cent in the cleaned lower Bird seam. The structure consists of a large anticlinal box fold adjacent to the east of a broad concentrically folded main syncline. Both trend northwest and are cut by several northwest trending, southwest dipping thrust faults. An in situ speculative resource is 5.5 million tonnes coal, if the second area (not drilled) is not structurally complex (Coal Assessment Report 559, page 8). BIBLIOGRAPHY EMPR BULL 52 EMPR COAL ASS RPT 552, 553, 555, 556, 557, 558, 559 EMPR Coal in British Columbia (1976) EMPR COALFILE EMPR COALFILE EMPR EXPL 1975-E224; 1976-E221; 1977-E271; 1978-E308; 1979-356; 1980-560,566; 1982-18; 2001-11-21 EMPR FIELDWORK 1977, pp. 57-60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-382; 1987, pp. 451-470; 1988, pp. 565-576; 1991, pp. 405-417 EMPR MAP 65 (1989) EMPR MAP 65 (1989) EMPR MAP 05 (1909); EMPR OF 1987-6,7; 1992-1 EMPR P \*1981-3; 1986-3, pp. 18,19,21 EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669 GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-GCNL #89(May 9), 2000 1-29,50,51,58-63

DATE CODED: 1986/02/03 DATE REVISED: 1989/06/26

CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>093P 016</u>	Ν	IATIONAL MINERAL INVENTORY	?:
NAME(S):	SWAN LAKE			
STATUS:	Showing		MINING DIVISION	: Liard
NTS MAP:	093P09E		UTM ZONE	: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 30 10 N 120 01 05 W 723 Metres Within 1 KM South end of Swan Lake, 25 kilometre Coupe (Geological Survey of Canada N	s south of the town of Pouce lemoir 259, page 149).	NORTHING EASTING	: 6154783 : 688328
COMMODITIES:	Marl			
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Carbonate Calcium carbonate Unknown			
DEPOSIT CHARACTER: CLASSIFICATION:	Unconsolidated Evaporite Industrial Mir	n.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
	GROUP Smoky	FORMATION	IGNEOUS/METAN	IORPHIC/OTHER
LITHOLOGY:	Marl Shale			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Overlap Assemblage	F	PHYSIOGRAPHIC AREA: Alberta	Plateau
CAPSULE GEOLOGY				
	Bedrock geology consists shales. Freshwater marl of exc Swan Lake and is about 0.30 where the water is shallow.	sts of Upper Cretace cellent quality occu ) metres thick and c	ous Smoky Group marine rs at the south end of overs the lake bottom	
BIBLIOGRAPHY	GSC MAP 19-1961; 2669 GSC OF 286 GSC MEM *259, p. 149			
DATE CODED: DATE REVISED:	1989/06/28 1989/06/28	CODED BY: GO REVISED BY: GO		FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093P 017</u>		NATIONAL MINERAL INVENTORY:	
NAME(S):	MOUNT REESOR			
STATUS: REGIONS: NTS MAP: PC MAP:	Prospect British Columbia 093P03W		MINING DIVISION: UTM ZONE:	Liard 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 04 00 N 121 26 20 W 1722 Metres Within 1 KM Approximate centre of the property.		NORTHING: EASTING:	6103324 599692
COMMODITIES:	Coal			
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary A04 Bituminous coal Irregular Folded Faulted A series of nine northwest trending trending, southwest dipping thrust fa	folds are cut by two northv aults.	west	
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE Lower Cretaceous Lower Cretaceous	<u>GROUP</u> Bullhead Fort St. John	<u>FORMATION</u> Gething Gates	IGNEOUS/METAM	ORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Siltstone Conglomerate			
HOSTROCK COMMENTS:	Coal also occurs in the Gates Forma been eroded leaving insufficient coa	ation but much of the sectio al to be a significant reserve	e.	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Hart Ran GRADE:	ges
CAPSULE GEOLOGY				
	Formation (Bullhead Group) interbedded with sandstone, shale, siltstone and minor conglomerate. One of the seams is 2 metres thick. No seams thicker than 1.5 metres were found in the Lower Gething Formation and most were one metre thick or less. Coal also occurs in the Lower Cretaceous Gates Formation (Fort St. John Group), however the small erosional slice does not contain enough coal to constitute a significant reserve. Two coal seams approximately 1 metre thick were found in the Juro-Cretaceous Upper Minnes Group. The structure consists of a series of nine northwest trending and northwest plunging folds. The main fold being the Reesor syncline is located close to the centre of the property. Two north west trending, southwest dipping thrust faults cut the strata north and south of the Reesor syncline.			
BIBLIOGRAPHY		<b>4</b>		
	EMPR COAL ASS RPT *550, 55 EMPR EXPL 1979-356; 1980-5 EMPR Coal in British Colum EMPR BULL 52 EMPR P *1981-3; 1986-3, pp EMPR OF 1987-6,7 EMPR FIELDWORK 1977, pp. 9 pp. 251-277; 1986, pp. 576 EMPR COALFILE	51 560 mbia (1976) p. 18,19 57-60; 1978, p. 86; 369-382; 1987, pp.	1981, pp. 244-258; 1984, 451-470; 1988, pp. 565-	

reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669

DATE CODED: 1986/02/12 DATE REVISED: 1989/06/27 CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>093P 018</u>		NATIONAL MINERAL INVENT	ORY:
NAME(S):	WOLVERINE, DU PONT (V	VOLVERINE)		
STATUS: REGIONS: NTS MAP	Prospect British Columbia			SION: Liard
LOTATION BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 02 38 N 121 08 30 W 1318 Metres Within 500M Approximate centre of pro	operty.	NORTH	HING: 6101254 FING: 618738
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Lower Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Stratabound Sedimentary A04 Bituminous coal Tabular Folded	Massive Fossil Fuel Faulted		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUP Fort St. John	<u>FORMATION</u> Gates	IGNEOUS/ME	TAMORPHIC/OTHER
LITHOLOGY:	Sandstone Siltstone Shale Conglomerate Coal			
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: Ro GRADE:	cky Mountain Foothills-North
CAPSULE GEOLOGY	The Lower-Upper Cretaceous Gates Formation (Fort St. John Group) is 300 metres thick and contains four thick seams equivalent to the D, E, G and J seams of the Quintette area (093P 019, 020). These are interbedded with sandstone, siltstone and shale and occur towards the base of the Gates Formation. Fewer thin seams occur in the Upper Gates Formation. At the Wolverine occurrence, seam D is 2.93 metres thick of which 1.77 metres is coal. The seam contains 49.6 per cent ash total, of which 25.0 per cent is in the coal. Seam E is 5.34 metres thick of which 4.20 metres is coal and contains 33 per cent ash total, of which 19.0 per cent is in the coal. Seam G is 2.0 metres thick of which 1.42 metres is coal and contains 47.3 per cent ash total, of which 16.0 per cent is in the coal. Seam J is 3.55 metres thick of which 3.2 metres is coal and contains 18.6 per cent ash total, of which 9.6 per cent is in the coal. The structure consists of a series of broad to tighter northwest trending folds, dominated by an anticline in the north. Folds appear to be tighter towards the south. The folds are cut by northwest trending, southwest dipping thrust faults. A normal strike fault may be present in the southeast extremity of the property.			
BIBLIOGRAPHY	<pre>EMPR COAL ASS RPT 514, 515, 818 EMPR GEM 1971-501 EMPR EXPL 1979-355; 1980-560,562; 1985-A33; 1986-A54,A55; 1987-A59 EMPR Coal in British Columbia (1976) EMPR BULL 52 EMPR P *1981-3; 1986-3, pp. 18,19 EMPR OF 1987-6,7; 1992-1 EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984,</pre>			

EMPR MAP 65 (1989) EMPR PF (093P General - Preliminary Feasibility Report on Townsite Community Development (1977); Teck Corporation Annual Report (1985); Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) EMPR COALFILE GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669

DATE CODED: 1986/02/12 DATE REVISED: 1989/06/27 CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>093P 019</u>	NATIONAL MINERAL INVENTORY:		
NAME(S):	QUINTETTE, MESA, MESA EX SHERIFF, MCCONKEY, DEPUT	TENSION, Y		
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093P03E	Open Pit	MINING D	DIVISION: Liard M ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 01 40 N 121 11 45 W 1676 Metres Within 500M Includes production from Skika	ano (093I 010) and Babcock (093I 01	NO E	RTHING: 6099371 ASTING: 615324
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratabound Ma Sedimentary Fos A04 Bituminous coal Tabular Folded Fau A series of northwest trendin trending thrust faults.	issive ssil Fuel ulted g open folds are cut by northwest		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	<u>GROUP</u> Fort St. John	<u>FORMATION</u> Gates	IGNEOUS	METAMORPHIC/OTHER
LITHOLOGY:	Sandstone Shale Siltstone Conglomerate Coal			
HOSTROCK COMMENTS:	Coal seams are primarily in th J seams).	ne Middle Gates Formation (D, E, G a	nd	
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSHIP:	PHYSIOGRAPHIC AREA: GRADE:	Rocky Mountain Foothills-North MVol Bituminous
INVENTORY				
ORE ZONE:	TOTAL	REPORT ON:	Y	
COMMENTS: REFERENCE:	CATEGORY: Proven QUANTITY: 18000000 COMMODITY Coal Mineable reserves in Babcock at the end of 1998. Exploration in BC 1998, page 3	YEAR: Tonnes <u>GRADE</u> (093I 011), Mesa and Mesa Extension 37.	1998  on	
CAPSULE GEOLOGY	The Lewer-Upper	Crotagooug Middle Catego	Formation (Fort St	Tohn
	Group) consisting of sandstone, shale, siltstone, conglomerate and coal has been folded into a series of northwest trending open folds with associated low angle thrust faults. Major regional thrusts, the Mesa and Sheriff faults, locally displace the Gates Formation over the Hulcross Formation (Fort St. John Group). The four main coal seams in the McConkey pit are D, E, G and J seams. Seam D, the uppermost, contains a few sporadically developed thin shale partings and basal coal splits and thins to the southeast and is not considered economic. Seam E and F, 8.4 metres thick, contains many sporadic shale partings and has a consistently developed split, E4, 1.8 to 4.4 metres below the main seam. The G seam, 0.9 metres thick, contains a rock parting and coal split in the upper portion in the southeast. Seam J, 8.9 metres thick, is well-developed and contains a few distinct shale partings in the southeast and represents the main target in the McConkey pit. These seams are			

restricted to the Middle Gates Formation. The coal-bearing sequence is capped to the northwest and in the south central areas by up to 40 metres of Lower Cretaceous "Babcock Member" conglomerate and conglomeratic sandstones. Reserves of clean metallurgical coal are 22.8 million tonnes;

undeveloped (geologic) reserves of product coal are 140 million tonnes (The Coal Association of Canada 1993 Directory, page 19)

The Quintette mine, operated by Quintette Coal Limited, had a difficult year and expects to ship 3.8 million tonnes, down from the planned 4.3 million tonnes. Exploration expenditures, estimated at million dollars, were focused on developing reserves for beyond 1998 estimated at 1 on Babcock Mountain (093I 011) (35 drillholes) and in the Mesa Extension area (35 drillholes) (Information Circular 1996-1, page 9).

Clean coal reserves, of 12 million tonnes, are contained mainly in the Shikano pit (093I 010). Exploration in 1995 identified two areas, Mesa Extension and mining along contour at Babcock (093I 011), that would add approximately 19 million tonnes of clean coal to the reserve total (Schroeter, T. and Lane, R., personal communication, 1996).

Reserves within existing pits were estimated at 27.7 million tonnes. Teck advanced the development of the Babcock pit. This will provide a fourth working area and increase coal production in 1997 by about 500,000 tonnes. Reserves at Babcock are 12 million tonnes; Mesa Extension contains 7 million tonnes (T. Schroeter, personal communication, 1997).

Production in 1998 is estimated at 3 million tonnes of clean metallurgical coal. Approximately one-third of that total was produced from the Little and Big Windy developments at Mount Babcock (093I 011). Reserves in the Shikano (093I 010), Wolverine (093P 020) and Deputy pits were exhausted during the year. The remaining and Deputy pits were exhausted during the year. The remaining mineable reserves are contained in the Babcock, Mesa and Mesa Extension areas. Clean coal reserves, at the end of 1998, are an estimated 18 million tonnes. The Babcock development is expected to produce 2 million tonnes of clean coal per annum for the next five years. The balance of 1 million tonnes per year will come from Mesa and Mesa Extension. A planned exploration program consisting of percussion and large-diameter core drilling, together with bulk sampling, on the Window area at Babcock, was postponed indefinitely. In February 2000, Teck announced plans to close the mine in

August 2000, ahead of a planned closure of March 2003. The mine closed on August 17, 2000 (Information Circular 2001-1, page 6).

#### BIBLIOGRAPHY

EMPR BULL 52 EMPR COAL ASS RPT 500, 597, 599, 601, 602, 603, 604, 605, 606, 607, 608, 609, 611, 613, 614, 615, 616, 617, 618, 619, 818, 826, 842 EMPR Coal in British Columbia (1976) EMPR COALFILE EMPR ENG INSP Annual Report 1989, 1990 EMPR EXPL 1975-E221,E222; 1976-E219; 1977-E270,E271; 1979-352; 1980-560,562; 1982-18; 1983-xxiii-xxv; 1985-A33; 1986-A54,A55; 1987-A59; 1996-A12,C6; 1997-22; 1998-37 1996-A12,C6; 1997-22; 1998-37
EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-382; 1987, pp. 451-470; 1988, pp. 565-576; 1991, pp. 397-417
EMPR GEM 1971-500,501; 1972-639,640; 1973-585; 1974-424,425
EMPR INF CIRC 1993-13; 1995-9, p. 9; 1996-1, p. 9; 1997-1, p. 11; 1998-1, p. 12; 2001-1, pp. 6, 8, 10
FMPP P. 1924-5; 1986-1, p. 104 EMPR IR 1984-5; 1986-1, p. 104 EMPR MAP 65 (1989) EMPR MINING 1981-1985, p. 77; 1986-1987, p. 74; 1988, p. 75 EMPR MIN STATS 1985, p. 42; 1987, pp. 44,46; 1990, pp. 40,46,52; 1992, p. 20; 1993, p. 30; 1994, p. 34 EMPR OF 1987-6,7; 1990-33; 1992-1; 1994-1 EMPR P \*1981-3; 1986-3, pp. 18-22 EMPR PF (093P General - Preliminary Feasibility Report on Townsite Community Development (1977); Teck Corporation Annual Report (1985); Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669 GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 GCNL #11 (Jan.16), #66(April 3), 1998 N MINER Oct.1, 1990; Feb 23, 1998; Apr.12, June 28, 1999; Mar.13, 2000 Teck Corporation 1996, 1997 Annual Reports

Times Colonist, Feb.16, 2000, p. D3; Mar.2, 2000, p. B5
WWW http://www.teckcominco.com/operations/;
 http://www.infomine.com/index/

DATE CODED: 1986/02/12 DATE REVISED: 1989/06/27 CODED BY: EVFK REVISED BY: GO

MINFILE NUMBER:	<u>093P 020</u>	NATIONAL MINERAL INVENTORY:		
NAME(S):	QUINTETTE (FRAME), WO	OLVERINE (FRAME), FRAME		
STATUS: REGIONS: NTS MAP: PC MAP:	Past Producer British Columbia 093P03E	Open Pit	MINING DIVISION: Liard UTM ZONE: 10 (NAD 83)	
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 00 30 N 121 13 05 W 1554 Metres Within 500M Approximate centre of dep	posit.	NORTHING: 6097171 EASTING: 613958	
COMMODITIES:	Coal			
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal Cretaceous			
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS: HOST ROCK	Stratabound Sedimentary A04 Bituminous coal Tabular Folded A northwest plunging synd Mountain at 1883 metres e	Massive Fossil Fuel Faulted Cline outcrops on the eastern side of Fra elevation.	ame	
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER	
Cretaceous	Fort St. John	Gates		
LITHOLOGY:	Sandstone Siltstone Mudstone Conglomerate Coal			
HOSTROCK COMMENTS:	The main coal seams are	within the Middle Gates Formation.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Foreland Overlap Assemblage Regional Medium volatile bituminous	RELATIONSHIP: s coking coal.	PHYSIOGRAPHIC AREA: Rocky Mountain Foothills-Nort GRADE: MVol Bituminous	th
CAPSULE GEOLOGY	The main coal seams within the Frame pit are the D, E, F, G and J seams which consist of medium volatile bituminous coking coal. The Lower-Upper Cretaceous Middle Gates Formation (Fort St. John Group) in which this coal-bearing sequence occurs, consists of interbedded sandstones, siltstones, mudstones and conglomerates. The Lower Cretaceous "Babcock Member" of sandstone/conglomerate overlies the Middle Gates Formation Seam D, 2.14 to 2.97 metres thick, is the uppermost seam and has a shale roof with sporadically developed coal splits. The seam contains minor shale partings and is consistent throughout the pit. The roof transition and the middle portion of the E seam consists of a series of coal splits and shale partings of variable thickness. Two mining sections, El and E2, have been identified 1.12 and 2.44 metres thick respectively, or 4.29 metres thick where there are no major splits. The upper seam El contains a high ash content and is separated from E2 by 75 centimetres of carbonaceous claystone. Seam F, 1.49 to 2.71 metres thick, is separated into Fl and F2. While F2 is persistent throughout the pit, Fl is locally developed coal splits, Upper or G1, 0.73 to 0.66 metres thick, and Lower or G2, 2.47 to 3.03 metres thick. The upper and lower roof and floor sections of G2 contain minor coal splits as does the parting. Seam J contains three main coal splits, Top, 0.66 to 1.13 metres thick, Midle, 0.94 to 1.03 metres thick, and Lower, 2.08 to 2.85 metres thick. Each of the splits is very clean however variable thicknesses of shale and minor coal splits, segarate them. The structure of the pit consists of one major feature, the Mast syncline, which is asymetrical with a northerly axial plunge of approximately 14 degrees which flattens to the north. The northeast			

limb dips uniformly at 40 to 50 degrees with maximum displacements of up to 40 metres associated with steeply dipping reverse faults. The southwest limb is homoclinal in the upper section with dips increasing from approximately 15 degrees in the southeast to 30 degrees in the northwest. Towards the northwest the dips in the lower part of the limb gradually increase up to 60 to 65 degrees. This disparity between upper and lower sections of the limb resulted in a thrust fault, with increases in throw up to approximately 50 metres in the northwest. See Quintette (093P 019) for production statistics. The Wolverine pit began producing in 1985 and reserves were exhausted in 1998.

## BIBLIOGRAPHY

EMPR BULL 52 EMPR COAL ASS RPT 615, 618 EMPR Coal in British Columbia (1976) EMPR COALFILE EMPR EXPL 1975-E221,E222; 1976-E219; 1977-E270,E271; 1979-352; 1980-560,562; 1982-18; 1983-xxiii-xxv; 1985-A33; 1986-A54,A55; 1987-A59; 1998-37 EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-382; 1987, pp. 451-470; 1988, pp. 565-576 EMPR GEM 1971-500,501; 1972-639,640; 1973-585; 1974-424,425 EMPR MAP 65 (1989) EMPR MINING 1981-1985, p. 77; 1986-1987, p. 74; 1988, p. 75 EMPR OF 1987-6,7; 1990-33 EMPR P \*1981-3; 1986-3, pp. 18,19,22 EMPR PF (093P General - Preliminary Feasibility Report on Townsite Community Development (1977); Teck Corporation Annual Report (1985); Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) GSC BULL 132; 152; 219; 250; 259; 328 GSC MAP 19-1961; 2669 GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 WWW http://www.teckcominco.com/operations/; http://www.infomine.com/index/ DATE CODED: 1986/02/12 DATE REVISED: 1989/06/27 CODED BY: EVFK REVISED BY: GO FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER: 093P 020

MINFILE NUMBER:	<u>093P 021</u>	NATIONAL MINERAL INVENTORY:		
NAME(S):	WAPITI, KISKATINAW, IRIS LAKE			
STATUS:	Developed Prospect	MINING DIVISION: Liard		
REGIONS: NTS MAP:	093P02E	UTM ZONE: 10 (NAD 83)		
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 08 30 N 120 34 35 W 1028 Metres Within 1 KM Approximate centre of property.	NORTHING: 6113238 EASTING: 654472		
COMMODITIES:	Coal			
MINERALS				
SIGNIFICANT: MINERALIZATION AGE:	Coal Upper Cretaceous			
	Christiferen			
CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratitorm Sedimentary A04 Bituminous coal Irregular Folded Series of northwest trending, southeast plunging open folds with associated small scale subsidiary folding. Overall regional dip is the northeast.	some to		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary			
STRATIGRAPHIC AGE	GROUPFORMATIONWapitiUndefined Formation	IGNEOUS/METAMORPHIC/OTHER		
LITHOLOGY:	Sandstone Siltstone Carbonaceous Mudstone Conglomerate			
GEOLOGICAL SETTING				
TECTONIC BELT: TERRANE: METAMORPHIC TYPE: COMMENTS:	Foreland Overlap Assemblage Regional RELATIONSHIP: Coal is high volatile bituminous "C" rank.	PHYSIOGRAPHIC AREA: Alberta Plateau GRADE: HVol Bituminous		
INVENTORY				
ORE ZONE.	WAPITI REPORT ON	·Y		
	CATEGORY: Inferred YEAR: QUANTITY: 11900000 Tonnes COMMODITY GRADE	: 1980		
COMMENTS:	Area No.6 immediately north of the proposed mining area has 1.9	t mt		
REFERENCE:	Coal Assessment Report 685.			
ORE ZONE:	WAPITI REPORT ON:	: Y		
	CATEGORY: Indicated YEAR: QUANTITY: 45418973 Tonnes COMMODITY GRADE Coal 100 0000 Per cen	: 1980 		
COMMENTS:	In-place coal determined at an overall surface mineable ratio of			
REFERENCE:	Coal Assessment Report 685.			
CAPSULE GEOLOGY				
	Three coal seams, seams No. 1, 2 and 3, occur in the Upper Cretaceous Wapiti Group which is up to 460 metres thick and consists of interbedded sandstone, siltstone, mudstone and conglomerate, deposited in a deltaic environment. Seam No. 1, the most persistent coal seam, lies directly above the "Chungo Member" sandstone at the base of the Wapiti Group. Its maximum thickness is slightly over 2.0 metres in the northwest part of the Kiskatinaw block and it thins to the east, north and south,			

PAGE: 1368 REPORT: RGEN0100

## CAPSULE GEOLOGY

while being eroded away updip to the west. The seam contains a clastic parting in the upper middle part and varies in thickness from 0.10 metres to 1.7 metres. The average ash content of the seam is high (29.0 per cent dried basis). The coal rank is high volatile bituminous "C" and decreases to sub-bituminous "A" in oxidized samples.

Clean coal of +100 mesh floats at specific gravity of 1.50 from adit 1 and contains 11.4 per cent ash, 33.9 per cent volatile matter, 54.7 per cent fixed carbon and 0.53 per cent sulphur with a calorific content of 11,674 BTU per pound. Seams No. 2 and 3 are discontinuous and thin, maximum thickness 0.42 metres and 1.19 metres respectively.

The structure consists of a series of northwest trending, southeast plunging open folds with some associated small scale subsidiary folding. The overall regional dip is to the northeast. Two high angle thrust faults occur in the Kiskatinaw block with throws approximately 100 metres and 500 metres respectively.

In-place coal determined at an overall surface mineable ratio of 11.5:1 totals 45,418,973 tonnes. Area No.6 immediately north of the proposed mining area has 1.9 million tonnes inferred; area No.9 to the south of the proposed mining area has 10 million tonnes inferred (Coal Assessment Report 685).

## BIBLIOGRAPHY

EMPR COAL ASS RPT 683, 684, 685 EMPR EXPL 1979-359; 1980-568 EMPR Coal in British Columbia (1976) EMPR BULL 52 EMPR P \*1981-3; 1986-3, pp. 18,19 EMPR FIELDWORK 1977, p. 60; 1978, p. 86; 1981, pp. 244-258; 1984, pp. 251-277; 1986, pp. 369-372,379-382; 1987, pp. 451-470; 1988, pp. 565-576 EMPR COALFILE EMPR PF (093P General - Mathews, W.H. (1950,1952,1954,1955): Various reports on the Peace River District; Map of Dawson Creek area showing leases, wells and seismic surveys; General surficial and bedrock geology maps) GSC OF 286 GSC P 60-16; 61-10; 69-1A, pp. 244,245; 70-1A, pp. 238,239; \*89-4, pp. 1-29,50,51,58-63 BULL 132; 152; 219; 250; 259; 328 GSC GSC MAP 19-1961; 2669 DATE CODED: 1986/02/03 DATE REVISED: 1989/06/27 CODED BY: EVFK REVISED BY: GO
MINFILE NUMBER:	<u>093P 022</u>	NATIONAL MINE	ERAL INVENTORY:			
NAME(S):	MT. PALSSON					
STATUS: REGIONS	Showing British Columbia		MINING DIVISION: Liard			
NTS MAP: BC MAP:	093P04W		UTM ZONE: 10 (NAD 83)			
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 05 55 N 121 47 25 W 1675 Metres Within 500M Located on the southeastern flank of Mo	ount Palsson.	NORTHING: 6106433 EASTING: 577192			
COMMODITIES:	Phosphate					
MINERALS SIGNIFICANT: ASSOCIATED: MINERALIZATION AGE:	Fluorapatite Quartz Calcite Lower Triassic					
DEPOSIT						
CHARACTER: CLASSIFICATION: TYPE: SHAPE: COMMENTS:	Stratabound Concordant Sedimentary Syngenetic F07 Upwelling-type phosphate Regular Shallow west dipping limb of synclinal fo	Industrial Min. old; overturned along strike.				
HOST ROCK DOMINANT HOSTROCK:	Sedimentary					
STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER			
LITHOLOGY.	Phosphorite					
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America	PHYSIOGRAPH	IC AREA: Hart Ranges			
INVENTORY						
ORE ZONE:	SAMPLE	REPORT ON: N				
COMMENTS: REFERENCE:	CATEGORY: Assay/analysis SAMPLE TYPE: Grab COMMODITY Phosphate Phosphate is P2O5 S. Butrenchuk, personal communication,	YEAR: 1987 GRADE 24.8500 Per cent 1987.				
CAPSULE GEOLOGY			**1. '			
	Phosphorite is exposed in talus near the base of the Whistler member of the Lower Triassic Sulphur Mountain Formation, Spray River Group. The phosphorite bed is estimated to be 1.0 metre or less thick with a quartz-calcite matrix. Host lithologies are fine silt- stones and weakly calcareous siltstones. Phosphate occurs as fluorapatite. A grab sample from this locality contained 24.85 per cent phosphate (Fieldwork 1987).					
BIBLIOGRAPHY	EMPR FIELDWORK *1987, pp. 39	96-410				
DATE CODED:	1987/07/09	CODED BY: SSB	FIELD CHECK: Y			
DATE REVISED:	1989/06/27	REVISED BY: GO	FIELD CHECK: N			

MINFILE NUMBER:	<u>093P 023</u>	NATIONAL MINE	ERAL INVENTORY:
NAME(S):	PRIME LIME & MARBLE, BAKER CREEK,	SUKUNKA RIVER	
STATUS: REGIONS: NTS MAP:	Past Producer O British Columbia 093P04W	pen Pit	MINING DIVISION: Liard UTM ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 09 09 N 121 55 07 W 762 Metres Within 5 KM Quarry on the west side of Sukunka River	(NTS Map 093P/04).	NORTHING: 6112295 EASTING: 568911
COMMODITIES:	Limestone		
MINERALS			
SIGNIFICANT: MINERALIZATION AGE:	Calcite Mississippian		
	Stratiform Massive		
CLASSIFICATION: TYPE: SHAPE: MODIFIER:	Roy Limestone Regular Folded		
COMMENTS:	Deposit strikes between 160 to 180 degre west.	es and dips 75 to 85 degrees	TREND/PLUNGE:
HOST ROCK DOMINANT HOSTROCK:	Sedimentary		
STRATIGRAPHIC AGE Mississippian DATING METHOD:	GROUP H Rundle U Fossil	FORMATION Undefined Formation	IGNEOUS/METAMORPHIC/OTHER
LITHOLOGY:	Limestone Shaly Carbonate Siltstone Shale		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Ancestral North America	PHYSIOGRAPH	IC AREA: Hart Ranges
INVENTORY			
ORE ZONE:	PRIME LIME & MARBLE	REPORT ON: Y	
	CATEGORY: Unclassified QUANTITY: 10000000 Tonnes COMMODITY Limestone	YEAR: 1986 GRADE 99.0000 Per cent	
REFERENCE:	George Cross News Letter No.122, 1986.		
CAPSULE GEOLOGY	The Prime Lime and Marbl side of the Sukunka River, 2 confluence with Baker Creek, Chetwynd. The quarry lies within a Rundle Group underlain by sha Formation and overlain by sil Mountain Formation. The limestone outcrops a along the west limb of an ove thickly bedded, homogeneous 1 and dipping 75 to 85 degrees crest of a "hogback" ridge, w limestone is overlain and und limestone. The deposit is comprised millimetre), light to dark br fractured limestone. Four, 5 succession across a 20-metre per cent CaCO3), 0.29 per cent	te quarry is located on the kilometres north-northwest 64 kilometres south-southwe a bed of limestone of the Mi aly carbonates of the Missis tstone and shale of the Tri as a narrow northwestward tr erturned syncline. At the q imestone, striking 160 to 1 west, outcrops for 330 metr with a minimum width of 45 m derlain by less homogeneous d of fine grained (0.2 to 0. cownish grey, massive but hi i-metre long, chip samples t section averaged 52.8 per c at MgO, less than 0.5 per ce	northwest of its st of ssissippian Banff assic Sulphur ending band uarry, 80 degrees es along the etres. The thinly bedded 5 ghly aken in ent CaO (94.3 nt SiO2,

### CAPSULE GEOLOGY

0.096 per cent Al203, 0.058 per cent Fe203, less than 0.01 per cent Na20, 0.020 per cent K20, less than 0.0004 per cent manganese, 0.00741 per cent PO4 and 0.01442 per cent titanium (Industrial Mineral File - J.D. Curry, 1983). A sample of crushed and screened limestone taken from a stockpile assayed 55.7 per cent CaO, 0.58 per cent MgO, 0.98 per cent SiO2, 0.30 per cent Al2O3, less than 0.07 per cent Fe2O3, 0.004 per cent MnO, 0.02 per cent TiO2 and 43.36 per cent ignition loss (Geological Fieldwork 1985, p. 239). Subsequent drilling in 1986, encountered limestone averaging 55.5 per cent CaO (99 per cent CaCO3). Reserves are estimated in excess of 100 million tonnes (George Cross Newsletter #123, 1986).

The deposit was quarried to produce limestone for agricultural purposes by Prime Lime and Marble Co. Ltd. during 1984 and 1985. Peace River Lime acquired the quarry in 1986, but failed to place the deposit into production. Northern Lime and Fertilizer Co. Ltd. of Vancouver is planning to be begin quarrying operations in the spring of 1992. The company intends to supply limestone to pulp mills in northern Alberta and to agricultural markets in northern Alberta and northeastern B.C.

#### BIBLIOGRAPHY

EMPR EXPL 1985-A48; 1987-A59 EMPR FIELDWORK \*1985, p. 239 EMPR MAP 65, 1989 EMPR PF (\*Curry, J.D. (1983): Notice of Opening of Quarries by Prime Lime & Marble Ltd.) GSC MAP 19-1961; 2669 GSC OF 286 GCNL #123, 1986

DATE CODED: 1989/08/28 DATE REVISED: 1989/12/01 CODED BY: PSF REVISED BY: PSF FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093P 024</u>		NATIONAL	MINERAL INVE	ENTORY:
NAME(S):	HASLER, HASLER CREEK, DISCOVERY GOODRICH, QUARTER	,			
STATUS: REGIONS: NTS MAP:	Past Producer British Columbia 093P12W 093O09E	Open Pit	Underground	Mining e Ut	DIVISION: Liard M ZONE: 10 (NAD 83)
BC MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 30 31 N 121 59 26 W 915 Metres Within 500M Adit in the Discovery seam above Hasle Canada Paper 44-7).	er Creek (Ge	eological Survey of	NC E	RTHING: 6151854 ASTING: 563752
COMMODITIES:	Coal				
MINERALS SIGNIFICANT: COMMENTS: MINERALIZATION AGE:	Coal Alternating bright and dull bands within Lower Cretaceous	the coal be	ds.		
DEPOSIT CHARACTER: CLASSIFICATION: TYPE: SHAPE: MODIFIER: COMMENTS:	Stratiform Sedimentary Fossil Fuel A04 Bituminous coal Regular Folded Faulted Coal outcrops on the east limb of the no Anticline; seams are, on average, 1.2 to	orthwest tren	nding Pine River thick.		
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE	GROUP Bullhead	FORMATIC Gething	ON	<u>IGNEOUS</u>	S/METAMORPHIC/OTHER
LITHOLOGY:	Coal Shale Siltstone Sandstone				
HOSTROCK COMMENTS:	The Discovery seam lies 48 metres be Formation and varies in thickness from	elow the top n 2 to 6 met	of the Gething res.		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE: METAMORPHIC TYPE:	Foreland Overlap Assemblage Regional	RELATIONSI	PHYSIOGR	APHIC AREA: GRADE:	Rocky Mountain Foothills-North
COMMENTS:	Lower Cretaceous Blairmore clastic we	edge overlag	assemblage.		INIVOI BITUMINOUS
INVENTORY					
ORE ZONE:	TOTAL		REPORT ON: Y		
COMMENTS:	CATEGORY: Inferred QUANTITY: 7872000 Tonnes <u>COMMODITY</u> Coal Reserves are fault bound, limited to a d minimum mining width of 1.2 metres.	GRADE 100.000 epth of 300	YEAR: 1955 00 Per cent metres and have a		
REFERENCE:	Bulletin 36.				
CAPSULE GEOLOGY	The Hasler Creek mine kilometres east northeast o The mine area lies fro Creek to about 3000 metres degrees on the southwest li Two minor folds parallel th cut by three reverse faults the east. Three coal seams inter are within 75 metres of the Formation. The Discovery s Goodrich and Quarter seams 200 ton bulk sample showed	is under f the to m about southeas mb and 5 e Pine R strikin sected b top of eam aver average the coal	lain by the Pine C wn of Mackenzie. 900 metres northwe t. Bedding dips f 0 to 80 degrees on iver anticline and g northwest and di y drilling and exp the Lower Cretaceo ages 1.8 metres th 1.2 metres thick. contains 3.5 per	reek antic st of Hasl rom 10 to the north all three pping stee osed in tr us Gething ick , and Analysis cent ash,	er 45 east. are cply to renches the of a 0.5

#### CAPSULE GEOLOGY

percent sulphur and 74.1 per cent fixed carbon. The sample was described as good coking coal. Drill inferred reserves with a minimum mining thickness of 1.2 metres are estimated at approximately 8 million short tons (Bulletin 36).

### BIBLIOGRAPHY

EMPR AR 1944-88,127-128; 1945-139,\*175-176; 1946-249
EMPR BULL \*36, 52
EMPR COAL ASS RPT 841 (Report on Tests on Hasler
 Creek Coal - B.C. Dept.of Railways, 1949)
EMPR FIELDWORK 1991, pp. 433-440
EMPR MAP 33
GSC MAP 2669
GSC MAP 2669
GSC OF 286
GSC P 44-7
GCNL #187, 1968

DATE CODED: 1991/03/18 DATE REVISED: 1991/03/18 CODED BY: GKK REVISED BY: GKK FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER:	<u>093P 025</u>			NATIONAL MINERAL INVE	NTORY:
NAME(S):	PERRY CREEK COAL, WO	OLVERINE			
STATUS:	Prospect British Columbia			MINING D	IVISION: Liard
NTS MAP: BC MAP	093P03E			UTN	/ ZONE: 10 (NAD 83)
LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: COMMENTS:	55 05 10 N 121 14 43 W 980 Metres Within 500M Location is the 2002 Notic	e of Work UTM	coordinates.	NOF E/	RTHING: 6105783 ASTING: 612001
COMMODITIES:	Coal				
MINERALS SIGNIFICANT: MINERALIZATION AGE:	Coal				
DEPOSIT CHARACTER: CLASSIFICATION:	Layered Sedimentary	Stratiform Fossil Fuel			
HOST ROCK DOMINANT HOSTROCK:	Sedimentary				
STRATIGRAPHIC AGE Cretaceous	GROUP Fort St. John	<u>I</u>	FORMATION Gates	IGNEOUS	METAMORPHIC/OTHER
LITHOLOGY:	Coarse Grained Clastic Se	ediment/Sedimer	ntary		
GEOLOGICAL SETTING TECTONIC BELT: TERRANE:	Foreland Overlap Assemblage			PHYSIOGRAPHIC AREA:	Rocky Mountain Foothills-North
CAPSULE GEOLOGY	Perry Creek C	Coal is loca	ted approximatel	y 7.5 kilometres	

Perry Creek Coal is located approximately 7.5 kilometres northwest of Tumbler Ridge and is accessed by driving 15 kilometres along the Wolverine Forest Service Road off Highway 29. Western Canadian Coal Corp is working to demonstrate recoverable open-pit resources for its Perry Creek deposit, the first of three deposits to be developed as part of the Wolverine Coal project. The company started a bulk sample program project in 2002. By February 2003, 58 drillholes totalling 7649 metres had been completed on the Perry Creek prospect. Birtley Coal & Industrial Minerals Testing completed washability and analytical work on the J seam bulk sample and reports: ash content (dry basis -- db) -- 8.2 per cent; volatile matter content (db) -- 22.9 per cent; sulphur content -- 0.44 per cent; free swelling index (FSI) -- per cent; and Gieseler fluidity --106 dial divisions per minute. The product yields from the raw bulk sample were 93.6-per-cent yield (air-dried moisture basis).

## BIBLIOGRAPHY

PR REL Western Canadian Coal Corp., Dec.9, 2002; Feb.13, 2003 WWW http://www.westerncoal.com/

DATE CODED: 2003/04/23 DATE REVISED: 2003/04/24 CODED BY: ICLW REVISED BY: ICLW FIELD CHECK: N FIELD CHECK: N

# MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 1 REPORT: RGEN0200

MINFILE NUMBER:	093L 001	NAME:	EQUITY SILVER		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1994	44,000	51,400	Silver Gold	24,509,353 210,228	825 652
1993	414,963	420,363	Silver	61,620,777 682,006	0.000.034
1992	1,473,000	2,607,500	Copper Silver Gold	87,994,946 1,165,404	2,863,074
1991	2,168,600	3,312,800	Copper Silver Gold	156,372,325 1.619,496	3,798,007
1990	3,612,900	3,145,900	Copper Silver	251,928,862	4,302,192
1989	3,320,300	3,114,000	Copper Silver	2,130,808	6,763,960
1988	3 937 196	3 228 212	Gold Copper Silver	1,775,573	6,565,900
1007	4.044.050	0,010,050	Gold Copper Sites	1,490,479	6,879,299
1987	4,841,950	3,610,050	Silver Gold Copper	1,221,310	6,014,368
1986	2,650,917	2,958,700	Silver Gold Copper	165,280,641 1,271,386	7,426,937
1985	2,844,972	2,058,700	Silver Gold	135,170,858 922,840	8 389 459
1984	2,164,683	2,089,710	Silver	180,133,000 978,983	0,000,400
1983	2,438,552	2,179,740	Copper Silver Gold	152,684,000 835,816	10,990,901
1982	1,876,029	1,939,546	Copper Silver Gold	274,986,398 959 106	7,346,833
1981	2,023,087	1,909,871	Copper Silver	175,628,426	7,633,814
	S 0031 001	NAME	Gola Copper	512,274	4,285,854
OOMMANT TOTAL		Metric			
2	Mined: Milled:	33,811,149 32,626,492	tonnes 37,270,412 tonnes 35,964,551	tons tons	
Recovery:	Silver: Gold: Copper:	2,219,480,555 15,801,709 84,086,250	grams 71,357,853 grams 508,036 kilograms 185,378,397	ounces ounces pounds	
Comments:	1994: Mine clo 1992: Copper	osed January 1994. /silver concentrate 38.	823 tonnes.		

Copper/silver concentrate 38,823 tonnes.

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 2 REPORT: RGEN0200

MINFILE NUMBER:	093L 002	NAME:	SILVER QUEEN		STATUS: Past Producer
Production <u>Year</u>	Ton <u>Mi</u>	nnes Tonnes <u>ined Milled</u>	<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1973	53	3,502 89,156	Silver Gold Cadmium Copper Lead Zinc	9,379,825 59,500	9,126 246,653 535,787 3,908,800
1972	128	3,120 101,520	Silver Gold Cadmium Copper Lead Zinc	4,268,078 38,692	6,645 158,356 165,999 1,140,883
SUMMARY TOTALS	<u>6: 093L 002</u>	NAME:	SILVER QUEEN		
	Mined:	<u>Metric</u> 181,622	tonnes 200,204	tons	
Recovery:	IVIIIIed:	190,676	tonnes 210,184	tons	
	Silver: Gold: Cadmium: Copper: Lead: Zinc:	13,647,903 98,192 15,771 405,009 701,786 5,049,683	grams 438,790 grams 3,157 kilograms 34,769 kilograms 892,892 kilograms 1,547,173 kilograms 11,132,642	ounces ounces pounds pounds pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 3 REPORT: RGEN0200

MINFILE NUMBER:	093L 015	NAME:	GOLDEN EAGLE		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1980		31	Silver Lead Zinc	17,262	648 48
1978			Silver Gold Lead Zinc	10,404 9	317 140
1943	9		Silver Gold Lead	56,390 93	889
1941	58		Silver Gold Lead Zinc	376,315 218	9,020 6,114
1940	15		Silver Gold Copper Lead	106,621 124	23 526
1938 1934	1 15		Silver Silver Gold Lead Zinc	9,082 102,329 62	2,653 1,648
SUMMARY TOTALS	<u>8</u> :093L 015	NAME:	GOLDEN EAGLE		
		Metric	Imperial		
Recoverv:	Mined: Milled:	98 31	tonnes108tonnes34	tons tons	
,	Silver: Gold: Copper: Lead: Zinc:	678,403 506 23 14,053 7,950	grams 21,811 grams 16 kilograms 51 kilograms 30,982 kilograms 17,527	ounces ounces pounds pounds pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 4 REPORT: RGEN0200

MINFILE NUMBER: Production Year	<u>093L 016</u>	Tonnes Mined	NAME: Tonnes Milled	SILVER CUP	Commodity	Grams Recovered	STATUS: Past Producer Kilograms Recovered
1938		5			Silver Lead Zinc	3,484	1,632 578
SUMMARY TOTALS	<u>S</u> : 093L 016		NAME:	SILVER CUP	lean arial		
_	Mined: Milled:		<u>Metric</u> 5	tonnes tonnes	<u>impenai</u> 6	tons tons	
Recovery:	Silver: Lead: Zinc:		3,484 1,632 578	grams kilograms kilograms	112 3,598 1,274	ounces pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 5 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 018</u>	NAME:	TOPLEY RICHFIELD		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1953	32	32	Silver Gold Lead Zinc	16,205 31	8,079 3,982
1941	3	3	Silver Lead Zinc	1,991	1,290 321
1939	1	1	Silver	902	
1938	7	7	Silver Lead Zinc	7,900	163 58
SUMMARY TOTALS	2 093L 018	NAME:	TOPLEY RICHFIELD		

		IVIETIC		Imperial	
	Mined: Milled	43 43	tonnes	47 47	tons
Recovery:	Silver:	26.998	grams	868	ounces
	Gold:	<u>ُ</u> 31	ğrams	1	ounces
	Lead:	9,532	Kilograms	21,014	pounds
	Zinc:	4,361	kilograms	9,614	pounds

Comments:

1939:

Actual tonnage mined was 0.41 tonnes.

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 6 REPORT: RGEN0200

MINFILE NUMBER: Production	093L 022	NAME:	DOME MOUNTAIN (FORKS)	Grams	STATUS: Past Producer
Year	Mine	d <u>Milled</u>	<u>Commodity</u>	Recovered	Recovered
1951		3 3	Silver Gold Lead Zinc	373 187	54 151
1940		2 2	Silver Gold	218 187	
SUMMARY TOTALS	<u>5:093L 022</u>	NAME:	DOME MOUNTAIN (FORKS)		
		Metric	Imperial		
Recovery:	Mined: Milled:	5 5	tonnes 6 tonnes 6	tons tons	
	Silver: Gold: Lead: Zinc:	591 374 54 151	grams 19 grams 12 kilograms 119 kilograms 333	ounces ounces pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 7 REPORT: RGEN0200

MINEILE NI IMBER:	0031 023		EREE COL			STATUS: Past Producer
Production Year	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1982		4,717		Silver Gold Lead Zinc	13,424 7,572	1,204 6,114
1981		597		Silver Gold Lead Zinc	6,610 4,093	645 792
SUMMARY TOTALS	: 093L 023	NAME:	FREE GOLI	O (DOME MOUNTA	AIN)	
Bacoverv	Mined: Milled:	<u>Metric</u> 5,314	tonnes tonnes	Imperial t 5,858 t	ons	
Recovery:	Silver: Gold: Lead: Zinc:	20,034 11,665 1,849 6,906	grams grams kilograms kilograms	644 c 375 c 4,076 p 15,225 p	bunces bunces bounds bounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 8 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 026</u>		NAME:	COPPER CROWN	<u>(L.6472)</u>		STATUS: Past Producer
Production <u>Year</u>	Tonn <u>Min</u>	nes ned	Tonnes <u>Milled</u>	Com	<u>ımodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1940		1			Silver Copper	41	
1938		2			Silver Copper	71	
SUMMARY TOTALS	093L 026		NAME:	COPPER CROWN	(L.6472)		
			Metric		<b>Imperial</b>		
Pocovory:	Mined: Milled:		3	tonnes tonnes	3	tons tons	
Necovery.	Silver: Copper:		112 0	grams kilograms	4	ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 9 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 030</u>		NAME:	LAKEVIEW			STATUS: Prospect
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1917		14			Silver Copper	1,400	1,523
1915		34			Silver Copper	6,718	10,473
SUMMARY TOTAL	<u>S: 093L 030</u>		NAME:	LAKEVIEW			
			Metric		<u>Imperial</u>		
Poopvor <i>u</i> :	Mined Milled	: :	48	tonnes tonnes	53	tons tons	
Recovery.	Silver: Copper:		8,118 11,996	grams kilograms	261 26,447	ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 10 REPORT: RGEN0200

MINFILE NUMBER:	093L 041		NAME:	KING (HUN	ITER BASIN)		STATUS: Past Producer
Production <u>Year</u>	To <u>N</u>	nnes <u>lined</u>	Tonnes <u>Milled</u>		Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1962		25			Silver Gold Copper	283,366 8,160	1,647
1941		225			Silver Gold Copper	185,063 6,501	34,656
1940		6			Silver Gold	3,888 218	036
1915		37			Silver Gold	681,166 684	7 117
SUMMARY TOTALS	<u>5</u> :093L 041		NAME: Metric	KING (HUN	ITER BASIN)		7,117
_	Mined: Milled:		293	tonnes tonnes	323	tons	
Recovery:	Silver: Gold: Copper:		1,153,483 15,563 44,356	grams grams kilograms	37,085 500 97,788	ounces ounces pounds	
Comments:	1941: 1940: 1915:	Combined ore fro Combined ore fro Combined ore fro	m King & Ra m King & Ra m King & Ra	inbow (093L inbow (093L inbow (093L	044) for 1941 044) for 1940 044) for 1915		

Combined ore from King & Rainbow (093L 044) for 1941 Combined ore from King & Rainbow (093L 044) for 1940 Combined ore from King & Rainbow (093L 044) for 1915

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 11 REPORT: RGEN0200

MINFILE NUMBER: Production	<u>093L 043</u>	Tonnes	NAME: Tonnes	COLORADO		Grams	STATUS: Past Producer Kilograms
Year		<u>Mined</u>	Milled		<u>Commodity</u>	<u>Recovered</u>	Recovered
1914		38			Silver Copper	155,515	2,722
SUMMARY TOTALS	<u>S</u> : 093L 043		NAME: <u>Metric</u>	COLORADO	<u>Imperial</u>		
Boowers:	Mined: Milled:		38	tonnes tonnes	42	tons tons	
Recovery:	Silver: Copper:		155,515 2,722	grams kilograms	5,000 6,001	ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 12 REPORT: RGEN0200

	0021 044						CTATUS.	Deat Draducar
Production Year	<u>093L 044</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	KAINBOW	<u>Commodity</u>	Grams <u>Recovered</u>	STATUS.	Kilograms <u>Recovered</u>
1941		225			Silver Gold Copper	185,063 6,501		34,656
1940	)	6			Silver Gold Copper	3,888 218		936
1915	5	37			Silver Gold Copper	68,116 684		7,117
SUMMARY TOTAL	<u>.S</u> : 093L  044		NAME: Metric	RAINBOW	(HUNTER BASIN) Imperial			
Recovery:	Mined: Milled:		268	tonnes tonnes	295	tons tons		
Recovery.	Silver: Gold: Copper:		257,067 7,403 42,709	grams grams kilograms	8,265 238 94,157	ounces ounces pounds		
Comments:	1941: 1940: 1915:	Combi Combi Combi	ned ore from Rainbow ned ore from Rainbow ned ore from Rainbow	& King (093L & King (093L & King (093L	041) for 1941 041) for 1940 041) for 1915			

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 13 REPORT: RGEN0200

MINFILE NUMBER:	093L 063		NAME:	SANTA MAR	RIA		STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1917		217			Silver Copper	69,422	33,203
SUMMARY TOTALS	<u>S</u> : 093L 063		NAME: <u>Metric</u>	SANTA MAF	RIA Imperial		
Baaayan <i>u</i>	Mined: Milled:		217	tonnes tonnes	239	tons tons	
Recovery:	Silver: Copper:		69,422 33,203	grams kilograms	2,232 73,200	ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 14 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 085</u>		NAME:	STOCK			STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1919		4			Silver Copper	995	1,130
1917		7			Silver Gold Copper	1,835 31	1,802
SUMMARY TOTALS	: 093L 085		NAME:	STOCK			
			Metric		Imperial		
Deservery	Mined: Milled		11	tonnes tonnes	12	tons tons	
Recovery:	Silver: Gold: Copper:		2,830 31 2,932	grams grams kilograms	91 1 6,464	ounces ounces pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 15 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 088</u>	NAME:	DUTHIE		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1988	1,000	1,000	Silver Gold Lead Zinc	82,897 1,269	5,996 6,241
1986	500	1,000	Silver Lead Zinc	462,857	20,000 25.000
1985	242	242	Silver Gold Cadmium Lead	895,859 1,482	28 32,670
4004	100	100	Zinc	524.000	37,642
1983	386	386	Silver Silver Gold Lead	867,134 1,489	32,303
1947	1	1	Zinc Silver Lead	1,617	27,284 367
1942	65	65	Zinc Silver	334,513	90
			Lead	407	27,251 7,253
1941	194	194	Silver Gold Lead Zinc	958,626 1,524	54,394 31,416
1940	220	220	Silver Gold Lead	1,351,767 1,617	64,911
1939	20	20	Zinc Silver Gold	118,938 124	38,113
1930	2,337	2,337	Lead Zinc Silver	2,049,439	7,119 1,118
			Gold Lead Zinc	2,924	106,033 93,837
1929	9,407	9,407	Silver Gold Lead	5,931,746 6,283	257,160
1928	13,590	13,590	Zinc Silver Gold	10,137,712 10,077	236,474
1927	3,773	3,494	Lead Zinc Silver	5,505,604	373,239 388,288
			Gold Lead Zinc	4,852	189,905 139,845
1926	1,522	1,522	Silver Gold Lead Zinc	7,624,341 8,802	308,006 268,576
1925	691	691	Silver Gold Lead	2,595,203 3,701	99,501
1924	1,528	1,528	Silver Gold Lead	8,162,765 9,673	342,260
1923	243	243	Silver Gold Lead	1,599,005 1,306	55,646
SUMMARY TOTALS:	093L 088	NAME: Metric	DUTHIE		
	Mined:	35,819	tonnes 39,484	tons	
Recovery:	Milled:	36,040	tonnes 39,727	tons	

MINFILE NUMBER: 093L 088

<u>093L 088</u>	NAME:	DUTHIE			STATUS:	Past Producer
Silver: Gold: Cadmium: Lead: Zinc:	49,214,023 55,590 1,976,761 1,301,177	grams grams kilograms kilograms kilograms	1,582,265 1,787 62 4,358,011 2,868,603	ounces ounces pounds pounds pounds		
1988: 1986:	Custom ore. Operated by Bisl Recovery based on grade (Mi	nop Resource ning in BC 19	es Development L 86-1987, p. 57).	td.		
	093L 088 Silver: Gold: Cadmium: Lead: Zinc: 1988: 1986:	093L 088         NAME:           Silver:         49,214,023           Gold:         55,590           Cadmium:         28           Lead:         1,976,761           Zinc:         1,301,177           1988:         Custom ore. Operated by Bist           1986:         Recovery based on grade (Mir	093L 088NAME:DUTHIESilver:49,214,023 gramsGold:55,590 gramsCadmium:28 kilogramsLead:1,976,761 kilogramsZinc:1,301,177 kilograms1988:Custom ore. Operated by Bishop Resource1986:Recovery based on grade (Mining in BC 19	093L         088         NAME:         DUTHIE           Silver:         49,214,023         grams         1,582,265           Gold:         55,590         grams         1,787           Cadmium:         28         kilograms         62           Lead:         1,976,761         kilograms         2,868,603           1988:         Custom ore.         Operated by Bishop Resources Development L           1986:         Recovery based on grade (Mining in BC 1986-1987, p. 57).	093L 088NAME:DUTHIESilver:49,214,023 grams1,582,265 ouncesGold:55,590 grams1,787 ouncesCadmium:28 kilograms62 poundsLead:1,976,761 kilograms4,358,011 poundsZinc:1,301,177 kilograms2,868,603 pounds1988:Custom ore. Operated by Bishop Resources Development Ltd.1986:Recovery based on grade (Mining in BC 1986-1987, p. 57).	093L 088NAME:DUTHIESTATUS:Silver:49,214,023 grams1,582,265 ouncesGold:55,590 grams1,787 ouncesCadmium:28 kilograms62 poundsLead:1,976,761 kilograms4,358,011 poundsZinc:1,301,177 kilograms2,868,603 pounds1988:Custom ore. Operated by Bishop Resources Development Ltd.1986:Recovery based on grade (Mining in BC 1986-1987, p. 57).

Recovery based on grade (Information Circular 1985-1, p. 17). Includes 279 tonnes crude. Operated by J. Duthie Mines Ltd. 1984: 1927: 1923:

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 17 REPORT: RGEN0200

MINFILE NUMBER:	093L 089		NAME:	DOME			STATUS:	Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
1980		518	518		Silver Gold Copper Lead Zinc	1,004,580 1,586		1,236 29,683 32,026
1979		94	94		Silver Gold Lead Zinc	344,693 118		8,008 9,279
1954		13,330	13,330		Silver Gold Cadmium Copper Lead Zinc	950,290 17,169		4,696 7,006 721,037 679,871
1953		25,001	24,199		Silver Gold Cadmium Copper Lead Zinc	4,665,139 32,254		6,148 11,834 846,863 993,546
SUMMARY TOTALS	:093L 089		NAME: Metric	DOME	Imperial			
Baaayany	Mined: Milled:		38,943 38,141	tonnes tonnes	42,927 42,043	tons tons		
Recovery.	Silver: Gold: Cadmium: Copper: Lead: Zinc:		6,964,702 51,127 10,844 20,076 1,605,591 1,714,722	grams grams kilograms kilograms kilograms kilograms	223,920 1,644 23,907 44,260 3,539,721 3,780,314	ounces ounces pounds pounds pounds pounds		
Comments:	1979: 1954: 1953:	Operate Operate Operate	ed by P. Kindrat. ed by Sil-Van Consolida ed by Sil-Van Consolida	ated Mining a ated Mining a	and Milling Co. Ltd. and Milling Co. Ltd.			

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 18 REPORT: RGEN0200

MINFILE NUMBER:	093L 090	NAME	CORONADO (L.1155)		STATUS: Past Producer
Production Year	Tonne <u>Mine</u>	s Tonnes <u>d Milleo</u>	<u>Commodit</u>	Grams <u>y Recovered</u>	Kilograms <u>Recovered</u>
1940	1	0	Silv Go Lea Zir	er 21,150 Id 62 Id 62	4,313 1,480
1939	2	2	Silv Go Lea Zir	er 75,176 Id 311 Id 311	15,015 5,667
1915	7	1	Silv Go Lea	er 132,405 Id 902 Id	23,667
1905		5	Silve	er 13,810 id	2,495
SUMMARY TOTALS	:093L 090	NAME	CORONADO (L.1155)		
		Metric	<u>Imperi</u>	al	
Recovery:	Mined: Milled:	128	tonnes 14 tonnes	1 tons tons	
Recovery.	Silver: Gold: Lead: Zinc:	242,541 1,275 45,490 7,147	grams 7,79 grams 2 kilograms 100,28 kilograms 15,75	8 ounces 1 ounces 8 pounds 6 pounds	

Comments:

CORONADA and HOME RUN

1905:

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 19 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 093</u>	NAME:	VICTORY			STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	9	<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1939	8			Silver Gold	8,491 124	
1938	1			Silver Lead Zinc	1,462	267 109
1925	11			Silver Gold Lead Zinc	12,099 62	2,717 1,669
1919	13			Silver Gold Lead	11,321 187	2,502
1915	16			Silver Gold Lead	31,352 187	10,124
1914	4			Silver Lead	12,441	1,451
SUMMARY TOTALS	:093L 093	NAME:	VICTORY			
		Metric		<u>Imperial</u>		
D	Mined: Milled:	53	tonnes tonnes	58	tons tons	
Recovery.	Silver: Gold: Lead: Zinc:	77,166 560 17,061 1,778	grams grams kilograms kilograms	2,481 18 37,613 3,920	ounces ounces pounds pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 20 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 097</u>	<b>T</b>	NAME:	SILVER LA	AKE (L.7239)	0	STATUS: Past Producer
Production Year	 -	Mined	Milled		<u>Commodity</u>	Recovered	Riograms <u>Recovered</u>
1913	5	2			Silver Copper	5,412	834
SUMMARY TOTAL	<u>.S</u> : 093L 097		NAME: <u>Metric</u>	SILVER LA	AKE (L.7239) Imperial		
Page voru:	Mined: Milled:		2	tonnes tonnes	2	tons tons	
Kecovery.	Silver: Copper:		5,412 834	grams kilograms	174 1,839	ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 21 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 098</u>	NAME:	IRON VAULT (L.5754)		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1964	1		Silver Lead Zinc	3,235	663 71
SUMMARY TOTALS	<u>S</u> : 093L 098	NAME:	IRON VAULT (L.5754)		
		Metric	Imperial		
Recovery:	Mined: Milled:	1	tonnes 1 tonnes	tons tons	
Recovery.	Silver: Lead: Zinc:	3,235 663 71	grams 104 kilograms 1,462 kilograms 157	ounces pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 22 REPORT: RGEN0200

MINFILE NUMBER	0931 107		NAME	GI ACIFR GI	II CH (NORTH SI	DF)	STATUS' P	ast Producer
Production Year		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		Commodity	Grams <u>Recovered</u>	K <u>Re</u>	ilograms ecovered
1939		28			Gold	1,306		
1938		16			Gold	1,586		
1937		26			Silver Gold Lead Zinc	35,146 124		2,400 6,053
1935		34			Silver Gold	1,182 1,742		
1934		37			Silver Gold	124 1,928		
1933		24			Silver Gold	467 2,550		
SUMMARY TOTALS	6: 093L 107		NAME:	GLACIER GU	JLCH (NORTH SI	DE)		
			Metric		Imperial			
Decement	Mined: Milled:		165	tonnes tonnes	182 t t	ons ons		
Recovery:	Silver: Gold: Lead: Zinc:		36,919 9,236 2,400 6,053	grams grams kilograms kilograms	1,187 c 297 c 5,291 r 13,345 r	ounces ounces oounds oounds		

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 23 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 113</u>	NAME:	VANCOUVER		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Commo	Grai <u>odity Recover</u>	ns Kilograms <u>ed Recovered</u>
1935	23		S	Silver 1,2 Lead Zinc	275 370 116
SUMMARY TOTALS	<u>8:093L 113</u>	NAME:	VANCOUVER		
		Metric	Imp	<u>perial</u>	
Recovery:	Mined: Milled:	23	tonnes tonnes	25 tons tons	
Recovery.	Silver: Lead: Zinc:	1,275 370 116	grams kilograms kilograms	41 ounces 816 pounds 256 pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 24 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 116</u>	NAME:	EMPIRE			STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1914	3			Silver Lead	20,030	699
SUMMARY TOTALS	8:093L 116	NAME: <u>Metric</u>	EMPIRE	Imperial		
Baaayan <i>u</i>	Mined: Milled:	3	tonnes tonnes	3	tons tons	
Recovery.	Silver: Lead:	20,030 699	grams kilograms	644 1,541	ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 25 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 117</u>		NAME:	<b>MIDNIGHT</b>			STATUS: Past Producer
Productior <u>Year</u>	ו <u>ר</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1982	2		17		Silver Gold Lead Zinc	85,286 156	3,597 2,724
198 <sup>-</sup>	1		22		Silver Gold Copper Lead Zinc	111,753 156	280 6,480 2,584
1938	3	3			Silver Gold Lead Zinc	5,412 31	235 307
SUMMARY TOTAL	<u>LS</u> : 093L 117		NAME:	MIDNIGHT			
	Mined	l: l:	<u>Metric</u> 3 39	tonnes tonnes	<u>Imperial</u> 3 43	tons tons	
Recovery:	Silver: Gold: Copper: Lead: Zinc:		202,451 343 280 10,312 5,615	grams grams kilograms kilograms kilograms	6,509 11 617 22,734 12,379	ounces ounces pounds pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 26 REPORT: RGEN0200

MINFILE NUMBER: Production <u>Year</u>	<u>093L 122</u> To	onnes <u>Mined</u>	NAME: Tonnes <u>Milled</u>	<u>CANADIA</u>	N CITIZEN (L.7171 Commodity	l <u>)</u> Grams <u>Recovered</u>	STATUS: Past Producer Kilograms <u>Recovered</u>
1962		24			Silver Gold Copper	11,539 373	1,647
SUMMARY TOTALS	<u>6</u> : 093L 122		NAME:	CANADIA	N CITIZEN (L.7171	)	
			Metric		<u>Imperial</u>		
Recovery:	Mined: Milled:		24	tonnes tonnes	26	tons tons	
Recovery.	Silver: Gold: Copper:		11,539 373 1,647	grams grams kilograms	371 12 3,631	ounces ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 27 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 125</u>		NAME:	SILVER PICK			STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1938		5			Silver Gold Copper Lead Zinc	64,601 124	521 133 327
1936		9			Silver Gold Lead Zinc	101,707 218	287 509
1927		9			Silver Gold Copper	42,922 124	365
SUMMARY TOTAL	S: 093L 125		NAME:	SILVER PICK			
	_		Metric		<b>Imperial</b>		
Pocovory:	Mined Milled	: :	23	tonnes tonnes	25	tons tons	
Necovery.	Silver: Gold: Copper: Lead: Zinc:		209,230 466 886 420 836	grams grams kilograms kilograms kilograms	6,727 15 1,953 926 1,843	ounces ounces pounds pounds pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH

PAGE: 28 REPORT: RGEN0200

GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

 MINFILE NUMBER:	093L 127	NAME:	CRONIN		STATUS: Past Producer
Production Year	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1974	544	544	Silver Gold Cadmium Copper Lead Zinc	113,557 93	308 956 23,212 39,314
1973	2,994	1,814	Silver Gold Cadmium Copper Lead Zinc	252,712 342	509 1,346 42,062 49,530
1972	907	635	Silver Gold Cadmium Lead Zinc	275,728 311	557 44,946 47,642
1971	907	907	Silver Gold Cadmium Lead Zinc	364,869 435	855 49,183 72,321
1970	1,584	1,584	Silver Gold Cadmium Lead Zinc	367,015 840	650 50,508 53,243
1969	272	272	Silver Gold Cadmium Lead Zinc	77,291 62	155 13,866 15,579
1967	680	680	Silver Gold Cadmium Lead	145,407 187	495 33,595 47,522
1966	907	907	Silver Gold Cadmium Lead	312,430 218	1,040 50,315
1965	703	703	Silver Gold Cadmium Lead	379,892 156	1,167 63,472
1964	454	454	Zinc Silver Gold Cadmium L <u>e</u> ad	170,227 249	476 27,649
1963	328	328	Zinc Silver Gold Cadmium Lead	108,798 218	41,592 255 14,037
1961	1,102	1,102	Zinc Silver Gold Cadmium Lead	360,266 467	18,809 625 53,054
1960	921	921	Zinc Silver Gold Cadmium Lead	281,607 498	48,364 430 41 603
1959	907	907	Zinc Silver Gold Cadmium	302,197 342	34,474 440 49.013
1958	112	112	Zinc Silver	191,874 MIN	49,013 36,910 IFILE NUMBER: <u>093L 127</u>

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 29 REPORT: RGEN0200

MINFILE NUMBER:	093L 127	NAME:	CRONIN		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	 Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1958	112	112	Gold Lead Zinc	187	31,969 30,909
1957	5,368	5,368	Silver Gold Cadmium Copper Lead Zinc	2,072,237 1,959	4,891 8,092 317,033 384,805
1956	3,810	3,810	Silver Gold Cadmium Lead Zinc	1,436,554 1,244	3,457 294,727 275,443
1952	3,184	3,184	Silver Gold Cadmium Lead Zinc	740,998 871	1,702 121,867 128,133
1951	55	55	Silver Gold Lead Zinc	62,486 93	12,789 16,162
1929	27	27	Silver Lead Zinc	21,368	6,214 7,765
1917	72	72	Silver Lead	132,405	26,064
SUMMARY TOTALS	<u>5</u> : 093L 127	NAME:	CRONIN		
Deserver	Mined: Milled:	<u>Metric</u> 25,838 24,386	tonnes 28,482 tonnes 26,881	tons tons	
Kecovery:	Silver: Gold: Cadmium: Copper: Lead: Zinc:	8,169,918 8,772 18,012 10,394 1,367,178 1,517,881	grams 262,669 grams 282 kilograms 39,710 kilograms 22,915 kilograms 3,014,111 kilograms 3,346,354	ounces ounces pounds pounds pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 30 REPORT: RGEN0200

MINFILE NUMBER:	093L 128		NAME:	HYLAND B	ASIN		STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1940		4			Silver Gold Lead	25,629 124	904
1935		6			Silver Gold Lead Zinc	59,251 218	2,492 397
SUMMARY TOTALS	<u>6: 093L 128</u>		NAME:	HYLAND B	ASIN		
			Metric		Imperial		
	Mined Milled	:	10	tonnes tonnes	11	tons tons	
Recovery:							
	Silver: Gold: Lead: Zinc:		84,880 342 3,396 397	grams grams kilograms kilograms	2,729 11 7,487 875	ounces ounces pounds pounds	
# MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 31 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 131</u>		NAME:	DRIFT			STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1927		5			Silver Copper	8,367	175
1918		9			Silver Copper	62,206	1,814
1917		9			Silver Copper	62,206	2,722
SUMMARY TOTAL	S: 093L 131		NAME:	DRIFT			
	_		Metric		Imperial		
	Mined: Milled:		23	tonnes tonnes	25	tons tons	
Recovery.	Silver: Copper:		132,779 4,711	grams kilograms	4,269 10,386	ounces pounds	
Comments:	1918: 1917:	This co This co	uld be duplication. uld be duplication.				

RUN DATE:	26-Jun-2003
RUN TIME:	11:46:44

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 32 REPORT: RGEN0200

MINFILE NUMBER: Production <u>Year</u>	<u>093L 132</u>	Tonnes <u>Mined</u>	NAME: Tonnes <u>Milled</u>	DRIFTWOO	<u>D (L.6776)</u> <u>Commodity</u>	Grams <u>Recovered</u>	STATUS:	Past Producer Kilograms Recovered
1937		9			Silver Gold Copper Lead Zinc	21,928 93		109 327 245
SUMMARY TOTALS: 093L 132		NAME:	DRIFTWOO	D (L.6776)				
			Metric		Imperial			
Deserver	Mined Milled	: :	9	tonnes tonnes	10	tons tons		
Recovery:	Silver: Gold: Copper: Lead: Zinc:		21,928 93 109 327 245	grams grams kilograms kilograms kilograms	705 3 240 721 540	ounces ounces pounds pounds pounds		

RUN DATE: 26-Jun RUN TIME: 11:46:4	26-Jun-2003MINFILE PRODUCTION REPORT11:46:44GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION						PAGE: 33 REPORT: RGEN0200		
MINFILE NUMBER: Production <u>Yea</u>	<u>093L 134</u> n r	Tonnes <u>Mined</u>	NAME: Tonnes <u>Milled</u>	<u>REISETER 4</u>	Commodity	Grams <u>Recovered</u>	STATUS:	Past Producer Kilograms Recovered	
1970	0	19			Antimony			6,302	
SUMMARY TOTA	<u>LS</u> : 093L 134		NAME: <u>Metric</u>	<b>REISETER 4</b>	Imperial				
Recovery:	Mined Milled		19	tonnes tonnes	21	tons tons			
Recovery.	Antimony:		6,302	kilograms	13,894	pounds			
Comments:	1970:	About 19 t	onnes of hand-sort	ed ore					

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 34 REPORT: RGEN0200

MINFILE NUMBER:	<u>093L 146</u>	NAME:	GRANISLE		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>Commodit</u>	Grams <u>y Recovered</u>	Kilograms <u>Recovered</u>
1982	1,822,625	1,880,953	Silva Go Copp	er 1,707,084 ld 135,570 er	6.433.439
1981	3,217,860	3,832,538	Silve Gopp Molyddenu	er 3,249,878 Id 284,534 er	11,763,221
1980	3,192,404	3,936,725	Silve Go Copp	er 4,075,675 Id 387,083 er	13,258,799
1979	4,716,418	4,382,882	Silve Go Copp	er 5,338,725 Id 497,624 er	17.326.860
1978	4,621,464	4,549,265	Silve Go	er 4,819,410 Id 467,571	14 851 373
1977	4,491,792	4,474,119	Silve Go	er 5,990,904 Id 559,761	17,001,010
1976	3,932,981	4,008,222	Silve	er 4,549,902 Id 408,227	17,404,635
1975	4,539,402	4,475,103	Copp Silve Go	er 4,982,701 Id 552,140	14,672,658
1974	4,409,485	3,967,166	Coppo Silvo Go	er 6,503,140 Id 617,799	17,034,399
1973	4,186,331	4,123,228	Coppo Silvo Go	er 5,488,062 Id 518,674	18,435,360
1972	2,330,740	2,301,641	Silva Go	er 3,788,656 Id 380,514	11,940,032
1971	2,093,529	2,099,833	Silve Go	er 3,173,128 Id 326,861	10,581,017
1970	2,177,266	2,171,028	Silve Go	er 3,274,337 Id 345,648	10,301,017
1969	2,148,174	2,113,600	Silve Go	er 4,299,026 Id 445,986	11,330,134
1968	2,023,202	2,023,202	Silva Go	er 3,261,523 Id 368,664	0.846.805
1967	2,158,237	1,795,469	Silve	er 4,895,706 Id 492,049	9,040,095
1966	211,241	186,543	Copp Silve Go	er 354,668 Id 44,011	954 244
SUMMARY TOTAL	<u>5</u> :093L 146	NAME:	GRANISLE		001,211
Beegver."	Mined: Milled:	<u>Metric</u> 52,273,151 52,321,517	Imperi   tonnes 57,621,28   tonnes 57,674,59	<u>al</u> 5 tons 9 tons	
Recovery:	Silver: Gold: Copper: Molybdenum:	69,752,525 6,832,716 214,299,455 6,582	grams 2,242,59 grams 219,67 kilograms 472,449,29 kilograms 14,51	3 ounces 7 ounces 3 pounds 1 pounds	

Comments:

1982:

Operations suspended in June 1982.

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 35 REPORT: RGEN0200

MINFILE NUMBER:	093L 152		NAME:	PINE CREEK			STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1945		15,289			Coal		15,288,800
1944		20,326			Coal		20,326,100
SUMMARY TOTALS:	093L 152		NAME:	<b>PINE CREEK</b>			
			Metric		<u>Imperial</u>		
Pease very	Mine Mille	d: d:	35,615	tonnes tonnes	39,259	tons tons	
Recovery.	Coa	:	35,614,900	kilograms	78,517,392	pounds	
Comments:	1945 1944	: Betty n : Betty n	nine closed in 1945. nine.				

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH

PAGE: 36 REPORT: RGEN0200

GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

MINFILE NUMBER:	<u>093L 156</u>		NAME:	TELKWA (	COAL		STATUS:	Past Producer
Production Year		Tonnes Mined	Tonnes Milled		Commodity	Grams Recovered		Kilograms Recovered
1985		232	232		Coal			232 000
1984		139	139		Coal			7 000
1983		80	80		Coal			6,000
1982		275	275		Coal			275,000
1981		15,000	15,000		Coal			15,000,000
1980		160	160		Coal			160,000
1979		225	225		Coal			225,000
1978		308	308		Coal			272,000
1977		285	285		Coal			231,000
1976		265	265		Coal			214,000
1975		318	318		Coal			318,000
1974		393	393		Coal			242,916
1973		272	272		Coal			243,126
1972		432	432		Coal			431,820
1970		2,189	2,189		Coal			2,189,040
1969		8,596	8,596		Coal			8,595,600
1968		12,152	12,152		Coal			12,151,740
1967		11,782	11,782		Coal			11,781,600
1966		10,864	10,864		Coal			10,863,540
1965		5,352	5,352		Coal			5,352,400
1964		6,133	6,133		Coal			6,133,480
1963		5,085	5,085		Coal			5,084,770
1962		5,400	5,400		Coal			5,399,600
1961		5,229	5,229		Coal			5,229,000
1960		4,914	4,914		Coal			4,914,220
1959		5,011	5,011		Coal			5,011,300
1958		4,747	4,747		Coal			4,747,300
1957		4,528	4,528		Coal			4,527,760
1956		7,759	7,759		Coal			7,759,153
1955		28,540	28,540		Coal			28,540,040
1954		33,178	33,178		Coal			33,177,570
1953		38,225	38,225		Coal			38,225,150
1952		33,842	33,842		Coal			33,841,600
1951		20,120	20,120		Coal			23,120,300
1950		10 224	10.224		Coal			10,222,760
1949		10,324	10,324		Coal			10,323,700
1940		0.776	0,110		Coal			0,775,050
1947 1946		9,770 10,877	9,770		Coal			9,775,950
1940		10,077	10,077		Coal			10,077,500
1945		13 007	13,007		Coal			13,006,800
SUMMARY TOTALS	0931 156	10,007	NAME:	TEI KWA (				10,000,000
			Metric		Imperial			
	Mined: Milled:		353,264 353,264	tonnes tonnes	389,407 389,407	tons tons		
Recovery:	Cooli		252 726 905	kilogromo	777 654 004	noundo		
Comments:	Coal:		352,736,805	Kilograms	777,051,321	pounds		
	1985: 1984: 1982: 1981: 1980: 1979: 1966:	Raw th Therma 15,000 Therma Therma Underg	nermal coal. al coal. al coal. ),000 kg of fine coal dus al coal. al coal. ground (3071 tonnes) a	st screened. nd strip (7793	3 tonnes).			

RUN DATE: 26-Jun- RUN TIME: 11:46:4	2003 4	MINFILE PRI GEOLOGIC ENERGY AN	ODUCTION I AL SURVEY BE D MINERALS D	REPORT RANCH IVISION		PAGE: 37 REPORT: RGEN0200
MINFILE NUMBER:	<u>093L 201</u>	NAME:	SILVER KIN	IG		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1927	6			Silver Gold Copper Lead Zinc	20,528 62	107 315 348
1917	6			Silver Lead	21,337	3,175
SUMMARY TOTAL	<u>.S</u> : 093L 201	NAME:	SILVER KIN	IG		
		Metric		Imperial		
Recovery:	Mined: Milled:	12	tonnes tonnes	13	tons tons	
. coorery.	Silver: Gold: Copper: Lead: Zinc:	41,865 62 107 3,490 348	grams grams kilograms kilograms kilograms	1,346 2 236 7,694 767	ounces ounces pounds pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 38 REPORT: RGEN0200

MINFILE NUMBER: Production	093L 231 Tonnes	NAME: Tonnes	SILVER LAK	<u>E 2 (L.7240)</u>	Grams	STATUS: Past Producer Kilograms
Year	Mined	Milled		<u>Commodity</u>		Recovered
1917	5			Silver Gold Lead	36,079 62	1,817
SUMMARY TOTALS: 093L 231		NAME:	SILVER LAP	E 2 (L.7240)		
		Metric		<u>Imperial</u>		
Pagavan <i>u</i>	Mined: Milled:	5	tonnes tonnes	6	tons tons	
Recovery.	Silver: Gold: Lead:	36,079 62 1,817	grams grams kilograms	1,160 2 4,006	ounces ounces pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 39 REPORT: RGEN0200

MINFILE NUMBER:	093L 276		NAME: DOME MOUNTAIN				STATUS: Past Producer			
Production <u>Year</u>	Т	onnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>c</u>	ommodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>			
1992		27,685	27,685		Gold	275,260				
1991		3,205	3,205		Silver Gold	136,982 86,179				
SUMMARY TOTALS	:093L 276		NAME:	DOME MOUNTA	AIN					
			Metric		<b>Imperial</b>					
	Mined:		30,890 30,890	tonnes	34,050 34,050	tons				
Recovery:	Willica.		50,050	tonnes	54,000	10113				
	Silver: Gold:		136,982 361,439	grams grams	4,404 11,621	ounces ounces				
Comments:	1992: 1991:	Information C George Cros	Circular 1994-1, pa s News Letter No	- age 8. 5.6 (January 9), 19	992					

# MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 40 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 001</u>	NAME:	BELL			STATUS:	Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
1992	931,192	1,099,336		Silver Gold	881,784 248,206		6 090 127
1991	4,734,132	4,871,475		Silver Gold	3,616,966 1.021,771		6,089,137
1990	4,878,601	5,422,912		Copper Silver	3,197,799		25,557,139
1989	6,119,763	5,535,766		Copper Silver	2,856,556		21,349,508
1988	5,482,693	5,367,338		Copper Silver	3,161,606		18,506,138
1987	5,388,921	5,409,541		Gold Copper Silver	871,364 3,856,147		22,632,003
1086	5 761 215	5 333 126		Gold Copper Silver	3 793 100		23,396,427
1900	3,701,213	0,000,120		Gold Copper	745,426		21,433,848
1985	1,859,969	1,587,760		Gold Copper	998,982 175,766		5,326,924
1982	3,353,856	3,374,530		Silver Gold Copper	2,039,424 376,134		10,849,825
1981	5,520,508	5,429,531		Silver Gold Copper	2,835,020 1,010,459		22 648 730
1980	5,162,167	5,011,943		Silver Gold	2,259,450 848,347		17 522 042
1979	4,831,942	5,073,909		Silver Gold	1,661,368 656,601		13 136 524
1978	4,080,296	4,470,070		Silver Gold Copper	2,210,148 763,299		17.144.917
1977	4,231,876	4,409,135		Silver Gold Copper	2,066,888 714,280		15.890.606
1976	1,544,895	1,925,246		Silver Gold Copper	823,265 295,292		6,651,253
1975	4,480,660	4,335,049		Silver Gold Copper	2,061,227 739,069		16,466,056
1974	4,161,273	4,083,215		Gold Copper	958,937		20,033,963
1973	3,802,836	3,729,711		Gold Copper	774,091		17,248,440
1972	819,293	696,052		Gold Copper	112,904		2,902,059
SUMMARY TOTALS	: U93M 001	NAME: Metric	BELL	Imperial			
Deservery	Mined: Milled:	77,146,088 77,165,645	tonnes tonnes	85,039,005 85,060,562	tons tons		
Recovery:	Silver: Gold: Copper:	38,319,730 12,885,964 304 705 530	grams grams kilograms	1,232,006 414,293 671 958 951	ounces ounces		
Comments:	1992: Copp 1985: Re-o 1982: Ope	ber concentrates 21,452 t pened in September 1985 rations suspended in 1985	Closed end of 5.	June 1992.	poundo		

Re-opened in September 1985. Operations suspended in 1982.

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 41 REPORT: RGEN0200

MINFILE NUMBER:	093M 015	NAME:	FRENCH PEAK			STATUS:	Developed Prospect
Production <u>Yea</u>	n Tonnes r <u>Mineo</u>	Tonnes <u>Milled</u>	Comm	odity <u>F</u>	Grams Recovered	ļ	Kilograms <u>Recovered</u>
1974	4 30	) 30	С	Silver Gold copper Lead Zinc	161,643 62		1,250 5,293 719
196	5 20	) 20		Silver Gold Lead	197,380 62		3,346
1964	4 2	2 2		Silver Lead Zinc	29,392		301 35
SUMMARY TOTA	LS: 093M 015	NAME:	FRENCH PEAK				
		Metric	In	nperial			
Pagavary:	Mined: Milled:	52 52	tonnes tonnes	57 tons 57 tons			
Recovery.	Silver: Gold: Copper: Lead: Zinc:	388,415 124 1,250 8,940 754	grams 1 grams kilograms kilograms 1 kilograms	2,488 ounce 4 ounce 2,756 pounc 9,709 pounc 1,662 pounc	es es ls ls		

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 42 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 021</u>	NAME:	VIRGINIA SILVER		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1976	189	189	Silver Gold Lead Zinc	485,767 317	7,145 6,240
1975	60	60	Silver Gold Lead	212,185 84	2,612
SUMMARY TOTALS	: 093M 021	NAME:	VIRGINIA SILVER		
		Metric	<u>Imperial</u>		
Pagayon/	Mined: Milled:	249 249	tonnes274tonnes274	tons tons	
Recovery.	Silver: Gold: Lead: Zinc:	697,952 401 9,757 6,240	grams 22,440 grams 13 kilograms 21,510 kilograms 13,757	ounces ounces pounds pounds	

## MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 43 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 038</u>	1	NAME:	SILVERTON			STATUS:	Past Producer
Production <u>Year</u>		Tonnes To <u>Mined</u>	onnes Milled		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
1981			143		Silver Gold Lead Zinc	250,655 415		9,168 13,066
SUMMARY TOTALS	: 093M 038	1	NAME:	SILVERTON				
			<u>Metric</u>		Imperial			
Recovery:	Mined: Milled:		143	tonnes tonnes	158	tons tons		
	Silver: Gold: Lead: Zinc:	25	50,655 415 9,168 13,066	grams grams kilograms kilograms	8,059 13 20,212 28,806	ounces ounces pounds pounds		

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 44 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 040</u>	NAME:	SILVER CUP			STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Comm	odity <u>R</u>	Grams ecovered	Kilograms <u>Recovered</u>
1979	181			Silver Lead Zinc	22,985	2,790 2,374
1978	26			Silver Lead Zinc	13,377	1,642 2,356
1937				Silver Lead Zinc	1,400	88 109
1930				Silver Gold Lead Zinc	214,797 31	11,678 9,755
1929	5,194	5,180		Silver Gold Lead Zinc	2,034,136 373	123,207 88,939
1928	232			Silver Gold Lead Zinc	500,012 156	30,796 20,685
1927	25			Silver Lead Zinc	84,476	4,979 2,743
1925	91			Silver Lead	170,289	12,495
1916	36			Silver Lead	124,412	18,144
1915	64 21			Lead Silver	103 169	18,701
				Lead	100,100	5,899
SUMMARY TOTALS	<u>5: 093M 040</u>	Metric	SILVER COP	<u>mperial</u>		
Recovery:	Mined: Milled:	5,870 5,180	tonnes tonnes	6,471 tons 5,710 tons		
	Silver: Gold: Lead: Zinc:	3,547,176 560 230,419 126,961	grams 11 grams kilograms 50 kilograms 27	14,044 ounces 18 ounces 07,987 pounds 79,901 pounds	3 3 3	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 45 REPORT: RGEN0200

MINFILE NUMBER	093M 043		NAME	SUNRISE (L. 595)	)		STATUS: Past Producer
Production Year	Tor <u>M</u>	ines ined	Tonnes <u>Milled</u>	<u>Co</u>	ommodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1980		191	191		Silver Gold Copper Lead Zinc	31,850 6,656	229 3,376 4,030
1979		181	181		Silver Lead Zinc	22,985	2,790 2,374
1978		26	26		Silver Lead Zinc	19,377	1,642 2,356
1975		40	40		Silver Lead Zinc	45,597	4,867 4,908
1970		22	22		Silver Lead Zinc	16,236	1,090 1,788
1915		67	67		Silver Lead	257,160	29,989
SUMMARY TOTALS	<u>5</u> : 093M 043		NAME: Metric	SUNRISE (L. 595)	) Imperial		
Decement	Mined: Milled:		527 527	tonnes tonnes	581 581	tons tons	
Kecovery:	Silver: Gold: Copper: Lead: Zinc:		393,205 6,656 229 43,754 15,456	grams grams kilograms kilograms kilograms	12,642 214 505 96,461 34,075	ounces ounces pounds pounds pounds	
Comments:	1980: 1978: 1975:	Crude ore. Crude ore. Crude ore.					

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 46 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 047</u>	NAME:	AMERICAN BOY		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1955	19		Silver Gold Lead Zinc	48,738 31	3,570 3,403
1918	230		Silver Gold Lead Zinc	115,019 311	5,761 7,140
1916	25		Silver Lead	87,088	10,160
1915	12		Silver Lead	37,168	2,689
1914	41		Silver Gold Lead	143,198 93	11,450
1913	21		Silver Gold Lead	63,886 93	4,602
SUMMARY TOTALS	<u>5: 093M 047</u>	NAME:	AMERICAN BOY		
		Metric	Imperial		
Recovery:	Mined: Milled:	348	tonnes 384	tons tons	
	Silver: Gold: Lead: Zinc:	495,097 528 38,232 10,543	grams 15,918 grams 17 kilograms 84,287 kilograms 23,243	ounces ounces pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 47 REPORT: RGEN0200

MINFILE NUMBER:	093M 049	NAME:	SILVER STANDARD (L. 2262)		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1989	23	23	Silver Lead Zinc	54,091	5,152 1,315
1988	23	23	Silver Lead Zinc	54,091	5,152 1,315
1985	175	175	Silver Gold Lead Zinc	429,005 441	9,930 9,932
1984	280	280	Silver Gold Lead Zinc	681,473 1,145	30,016 22,279
1983	133	133	Silver Gold Lead Zinc	215,485 323	7,302 7.336
1982	571	571	Silver Gold Cadmium Lead Zinc	1,105,418 2,146	76 41,039 45,334
1981	424	424	Silver Gold Lead Zinc	853,940 1,010	26,896 26,965
1979	93	93	Silver Gold Lead Zinc	114,243 233	5,348 5,627
1978	57	57	Silver Gold Copper Lead	78,286 187	138 2,811 4,016
1977	148	148	Silver Gold Copper Lead	236,725 560	4,010 484 11,541
1976	152	152	Silver Gold Copper Lead	255,791 746	245 8,842 12,750
1975	133	133	Silver Gold Lead Zinc	189,386 218	4,352 4,523
1974	209	209	Silver Gold Lead Zinc	307,267 622	4,150 10,055
1973	111	111	Silver Gold Lead Zinc	213,647 373	6,911 5,322
1971	363	236	Silver Gold Cadmium Copper Lead Zinc	387,543 591	42 207 11,880 9,918
1970	862	441	Silver Gold Cadmium Copper Lead Zinc	263,007 529	123 544 6,501 9.985
1969	953	802	Silver Gold	866,623 1,369	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 48 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 049</u>	NAME:	SILVER STANDARD (L. 2262)	)	STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1969	953	802	Cadmium Lead Zinc		78 27,408 24,054
1968	690	538	Silver Gold Cadmium Lead Zinc	841,087 1,555	101 20,242 22.422
1967	368	368	Silver Gold Lead	510,556 995	16,739
1965	85	85	Silver Gold Lead	268,326 467	10,335
1963	24	24	Zinc Silver Gold Lead	74,803 156	15,319
1962	47	47	Zinc Silver Gold	246,709 280	7,031
1960	34	34	Zinc Silver Gold	161,984 187	4,166
1959	16	16	Copper Lead Zinc Silver	138.377	334 5,181 5,582
			Gold Cadmium Copper Lead Zinc	156	36 197 5,195 6,297
1958	4,576	4,576	Silver Gold Cadmium Copper Lead Zinc	5,547,127 8,305	7,605 8,091 223,184 483,399
1957	19,738	19,738	Silver Gold Cadmium Copper Lead Zinc	23,177,178 33,218	9,790 39,700 1,481,680 914,358
1956	12,485	12,485	Silver Gold Cadmium Copper Lead Zinc	16,963,576 24,945	9,573 28,414 594,057 753,906
1955	12,392	9,115	Silver Gold Cadmium Copper Lead Zinc	11,265,382 19,968	8,754 22,142 409,126 697 555
1954	19,394	19,394	Silver Gold Cadmium Copper Lead Zinc	29,764,700 65,161	22,657 62,367 960,478 1,662,845
1953	28,569	19,558	Silver Gold Cadmium Copper Lead Zinc	27,095,845 56,017	18,115 39,787 787,317 1.445.664
1952	18,169	18,954	Silver Gold	28,230,514 54,430 MIN	FILE NUMBER: <u>093M_049</u>

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 49 REPORT: RGEN0200

MINFILE NUMBER:	093M 049	NAME:	SILVER STANDARD (L. 226	2)	STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1952	18,169	18,954	Cadmium Lead Zinc		21,310 743,220 1,519,990
1951	18,922	18,922	Silver Gold Cadmium Lead Zinc	27,123,433 47,152	19,049 837,302 1,350,560
1950	26,963	7,818	Silver Gold Cadmium Lead Zinc	27,912,454 60,900	20,171 790,063 1,559,896
1949	20,895	15,890	Silver Gold Cadmium Lead Zinc	11,784,553 39,408	8,259 273,947 789,164
1948	3,972	3,214	Silver Gold Cadmium Lead Zinc	1,448,125 6,065	1,028 28,488 115,880
1922	816	816	Silver Gold Lead Zinc	628,001 1,400	14,052 9,558
1921	26	26	Silver Gold Lead Zinc	113,246 249	2,236 5,244
1920	3,629	3,629	Silver Gold Lead	3,204,231 6,780	85,950 205 709
1919	2,908	2,908	Silver Gold Lead	2,220,536 4,292	79,351
1918	3,175	3,175	Silver Gold Lead	1,932,149 4,417	50,289 124,885
1917	609	609	Silver Gold Lead	1,884,220 4,386	55,856
1916	780	780	Silver Gold Lead Zinc	2,713,426 3,919	46,531 76,483
1915	140	140	Silver Gold Lead	830,419 1,275	24,892
1914	668	668	Silver Gold Lead	3,792,824 6,221	127,927
1913	256	256	Silver Gold Lead	1,208,009 1,835	61,213
SUMMARY TOTALS	:093M 049	NAME: Metric	SILVER STANDARD (L. 226	2)	
Recoverv:	Mined: Milled:	205,056 167,794	tonnes 226,036 tonnes 184,961	tons tons	
···· ·· <b>·</b> ,·	Silver: Gold: Cadmium: Copper: Lead: Zinc:	237,387,811 464,632 146,767 202,650 7,957,686 12,283,325	grams 7,632,184 grams 14,938 kilograms 323,566 kilograms 446,767 kilograms 17,543,690 kilograms 27,080,089	ounces ounces pounds pounds pounds pounds	

MINFILE NUMBER:	<u>093M 049</u>	NAME:	SILVER STANDARD (L. 2262)	STATUS: Past Producer
•				

Comments: Comments:

Custom ore. Custom ore.

1989: 1988:

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 51 REPORT: RGEN0200

MINEILE NI IMBER:	093M 051		NAME	MOHAWK (I	5048)		STATUS	Past Producer
Production Year	Tor M	nnes lined	Tonnes <u>Milled</u>	<u></u>	<u>Commodity</u>	Grams <u>Recoverec</u>		Kilograms Recovered
1929		49			Silver Gold Lead Zinc	226,803 31	8	7,246 11,733
1928		63			Silver Gold Lead Zinc	257,844 62		10,456 11,667
1925		16			Silver	32,720	)	
1913		41			Silver Lead	160,958	}	5,336
SUMMARY TOTALS	<u>6</u> : 093M 051		NAME:	MOHAWK (L.	5048)			
			Metric		<u>Imperial</u>			
Peacetory,	Mined: Milled:		169	tonnes tonnes	186	tons tons		
Recovery:	Silver: Gold: Lead: Zinc:		678,325 93 23,038 23,400	grams grams kilograms kilograms	21,809 3 50,790 51,588	ounces ounces pounds pounds		
Comments:	1925: 1913:	Mohawk 1925-1929. Omineca (Erie).		-				

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 52 REPORT: RGEN0200

MINFILE NUMBER:	093M 057		NAME:	BLACK PRINCE (L. 24	<u>11)</u>		STATUS:	Prospect
Production <u>Year</u>	То <u>М</u>	onnes <u>Mined</u>	Tonnes <u>Milled</u>	Commo	odity	Grams <u>Recovered</u>	<u> </u>	Kilograms <u>Recovered</u>
1915		19		S	Silver Lead	120,338		619
SUMMARY TOTALS	<u>8:093M 057</u>		NAME: <u>Metric</u>	BLACK PRINCE (L. 24 Im	11) perial			
Recovery:	Mined: Milled:		19	tonnes tonnes	21 ton ton	IS IS		
	Silver: Lead:		120,338 619	grams 3 kilograms 1	3,869 our 1,365 pou	nces unds		

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 53 REPORT: RGEN0200

MINFILE NUMBER:	093M 067		NAME:	RED ROSE			STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1954		26,888	26,888		Silver Gold Copper Tungsten	11,758 9,324	17,024 229,077
1953		36,463	33,967		Silver Gold Copper Tungsten	15,048 9,975	9,428 254,669
1952		26,484	26,484		Tungsten		184,696
1943		16,222	16,222		Tungsten		229,540
1942		7,316	7,267		Tungsten		79,469
SUMMARY TOTAL	<u>S</u> : 093M 067		NAME:	<b>RED ROSE</b>			
			Metric		Imperial		
_	Mined: Milled		113,373 110,828	tonnes tonnes	124,972 122,167	tons tons	
Recovery:	Silver: Gold: Copper: Tungsten:		26,806 19,299 26,452 977,451	grams grams kilograms kilograms	862 620 58,317 2,154,910	ounces ounces pounds pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 54 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 070</u>	_	NAME:	<u>HIGHLAN</u>	<u>D BOY (L.1000)</u>	_	STATUS: Past Producer
Production <u>Year</u>	Т	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1917		68			Silver Gold Copper	1,089 124	4,760
SUMMARY TOTALS	:093M 070		NAME:	HIGHLAN	D BOY (L.1000)		
			Metric		<u>Imperial</u>		
Recovery:	Mined: Milled:		68	tonnes tonnes	75	tons tons	
Necovery.	Silver: Gold: Copper:		1,089 124 4,760	grams grams kilograms	35 4 10,494	ounces ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 55 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 071</u>	NAME:	ROCHER DEBOULE		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1929	65	65	Silver Gold Copper	101,876 343	2,776
1918	2,888	2,888	Silver Gold Copper	556,947 28,524	288,430
1917	2,882	2,882	Silver Gold Copper	184,683 15,630	206,329
1916	15,202	15,202	Silver Gold Copper	573,782 40,570	795,262
1915	15,420	15,420	Silver Gold Copper	750,492 48,609	1,264,636
SUMMARY TOTALS	: 093M 071	NAME:	ROCHER DEBOULE		

		Metric		Imperial	
	Mined:	36,457	tonnes	40,187	tons
_	Milled:	36,457	tonnes	40,187	tons
Recovery:	Silver: Gold: Copper:	2,167,780 133,676 2,557,433	grams grams kilograms	69,696 4,298 5,638,173	ounces ounces pounds

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 56 REPORT: RGEN0200

MINFILE NUMBER:	093M 072	NAME:	VICTORIA (L. 3303)		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	Commodity	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1940	7	7	Gold	467	
1928	21	21	Arsenic Gold	4,541	7,710
4000	22	22	Cobalt	0.000	785
1920	23	23	Gold	2,333	
SUMMARY TOTAL	<u>S</u> : 093M 072	NAME:	VICTORIA (L. 3303)		
		Metric	Imperial		
Pagayan <i>i</i>	Mined: Milled:	51 51	tonnes56tonnes56	tons tons	
Necovery.	Arsenic: Gold: Cobalt:	7,710 7,341 785	kilograms16,998grams236kilograms1,731	pounds ounces pounds	

MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 57 REPORT: RGEN0200

MINFILE NUMBER:	093M 073		NAME:	CAP			STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1917		26			Silver Gold Copper	7,838 93	1,531
SUMMARY TOTALS	<u>6</u> : 093M 073		NAME:	CAP			
			Metric		<u>Imperial</u>		
Poppyory:	Mined: Milled:		26	tonnes tonnes	29	tons tons	
Recovery.	Silver: Gold: Copper:		7,838 93 1,531	grams grams kilograms	252 3 3,375	ounces ounces pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 58 REPORT: RGEN0200

MINFILE NUMBER:	<u>093M 076</u>		NAME:	SILVER BEL	L		STATUS: Prospect
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1915		9			Silver Lead	34,213	6,350
SUMMARY TOTALS	:093M 076		NAME:	SILVER BEL	L		
			Metric		<u>Imperial</u>		
Boowerv	Mined: Milled:		9	tonnes tonnes	10	tons tons	
Recovery.	Silver: Lead:		34,213 6,350	grams kilograms	1,100 13,999	ounces pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 59 REPORT: RGEN0200

MINFILE NUMBER:	<u>093N 008</u>		NAME:	BRALORN	<u>E TAKLA</u>	ST	ATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1944		9,804	9,804		Mercury		56,225
1943		504	402		Mercury		3,689
SUMMARY TOTAL	<u>S: 093N 008</u>		NAME:	BRALORN	E TAKLA		
			Metric		Imperial		
Decement	Mined Milled		10,308 10,206	tonnes tonnes	11,363 11,250	tons tons	
Recovery:	Mercury:		59,914	kilograms	132,088	pounds	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 60 REPORT: RGEN0200

MINFILE NUMBER:	093N 043		NAME:	KWANIKA	CREEK		STATUS: Past Producer
Production <u>Year</u>	т	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovere</u> d	Kilograms <u>Recovered</u>
1963		4			Jade/Nephrite		4,000
1940		1			Gold	3,438	}
SUMMARY TOTALS	<u>S</u> : 093N 043		NAME:	KWANIKA	CREEK		
			Metric		<u>Imperial</u>		
Recovery:	Mined: Milled:		5	tonnes tonnes	6	tons tons	
J	Gold: ade/Nephrite:		3,438 4,000	grams kilograms	111 8,818	ounces pounds	
Comments:	1000	Covers		Creek (Area			

1963: 1940: Seven boulders from Kwanika Creek (Annual Report 1963, page 151). Geological Survey of Canada Memoir 252, page 143; unknown tonnage.

## MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 61 REPORT: RGEN0200

MINFILE NUMBER:	<u>093N 044</u>		NAME:	VITAL CREE	<u>K</u>		STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1940		1			Gold	9,112	
1935		1			Gold	14,461	
1930		1			Gold	2,457	
1900		1			Gold	27,275	
1890		1			Gold	89,817	
SUMMARY TOTALS	: 093N 044		NAME:	VITAL CREE	ĸ		
			Metric		<b>Imperial</b>		
Baseveru	Mined: Milled:		5	tonnes tonnes	6	tons tons	
Recovery.	Gold:		143,122	grams	4,601	ounces	
Comments:	1940: 1935: 1930: 1900: 1890:	Production fo Production fo Production fo Production fo Production fo	or 1936-1940; unk or 1931-1935; unk or 1926-1930; unk or 1986-1900; unk or 1876-1890; unk	nown tonnage nown tonnage nown tonnage nown tonnage nown tonnage	(Bulletin 28, pag (Bulletin 28, pag (Bulletin 28, pag (Bulletin 28, pag (Bulletin 28, pag (Bulletin 28, pag	ge 46). ge 46). ge 46). ge 46). ge 46).	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 62 REPORT: RGEN0200

MINFILE NUMBER:	<u>093N 045</u>		NAME:	QUART	ZITE (QUARTZ) CRE	<u>EK</u>	STATUS:	Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Gra <u>Recove</u>	ims ered	Kilograms <u>Recovered</u>
1945		1			Gold		622	
1940		1			Gold	8,	865	
1935		1			Gold	4,	043	
SUMMARY TOTALS	: 093N 045		NAME:	QUART	ZITE (QUARTZ) CRE	EK		
			Metric		Imperial			
-	Mined: Milled:		3	tonnes tonnes	3	tons tons		
Recovery:	Gold:		13,530	grams	435	ounces		
Comments:								
	1945: 1940: 1935:	Production Production Production	for 1941-1945 (Bul for 1936-1940; unl is for the period 19	lletin 28, p known ton 931 to 193	bage 45). nage (Bulletin 28, pag 5; unknown tonnage.	ge 45).		

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 63 REPORT: RGEN0200

MINFILE NUMBER:	<u>093N 046</u>		NAME:	HARRI	SON CREEK				STATUS:	Past Producer
Production <u>Year</u>	Т	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Com</u>	<u>modity</u>	Rec	Grams overed		Kilograms <u>Recovered</u>
1949		1				Gold		7,216		
SUMMARY TOTALS	<u>6: 093N 046</u>		NAME:	HARRI	SON CREEK					
			Metric			<b>Imperial</b>				
<b>D</b>	Mined: Milled:		1	tonnes tonnes		1	tons tons			
Recovery:	Gold:		7,216	grams		232	ounces			
Comments:	1949:	Pre 1950 p	production; unknowr	n tonnage	e (GSC Memo	oir 252, pa	age 140).			

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 64 REPORT: RGEN0200

MINFILE NUMBER:	093N 047		NAME:	TOM CREEK			STATUS: Past Producer
Production <u>Year</u>	Т	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1945		1			Gold	51,445	
1910		1			Gold	17,822	
1900		1			Gold	5,443	
SUMMARY TOTALS	: 093N 047		NAME:	TOM CREEK	Imperial		
Poppyon/	Mined: Milled:		3	tonnes tonnes	<u>impenai</u> 3	tons tons	
Recovery.	Gold:		74,710	grams	2,402	ounces	
Comments:	1945: 1910: 1900:	Production for Production for Production for	or 1931-1945; unk or 1906-1910; unk or 1896-1900; unk	nown tonnage nown tonnage nown tonnage	(Bulletin 28, pa Bulletin 28, pa (Bulletin 28, pa	ge 46). ge 46). ge 46).	

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 65 REPORT: RGEN0200

MINFILE NUMBER:	093N 048		NAME:	ALICE CRE	<u>EEK</u>		STATUS:	Past Producer
Production <u>Year</u>	r	lonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
1945		1			Gold	187		
1940		1			Gold	2,333		
SUMMARY TOTALS	: 093N 048		NAME:	ALICE CRE	EK			
			Metric		<u>Imperial</u>			
-	Mined: Milled:		2	tonnes tonnes	2	tons tons		
Recovery:	Gold:		2,520	grams	81	ounces		
Comments:	1945:	Productio	on for 1941-1945: un					

1940: Production for 1936-1940; unknown tonnage (Bulletin 28, page 44).

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 66 REPORT: RGEN0200

MINFILE NUMBER:	<u>093N 050</u>		NAME:	<u>SILVE</u>	R-KENNY CREEK		STATUS: Past Producer
Production <u>Year</u>	Te 1	onnes <u>Mined</u>	s Tonnes <u>d Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1982		1			Gold	22,395	
1949		1			Gold	19,968	
SUMMARY TOTALS: 093N 050			NAME:	SILVE	R-KENNY CREEK		
			Metric		<u>Imperial</u>		
5	Mined: Milled:		2	tonnes tonnes	2	tons tons	
Recovery:	Gold:		42,363	grams	1,362	ounces	
Comments:	1982:	Production for 1979-1982: unknown tonnage (GSC Mem. 252, p. 141).					

1982: Production for 1979-1982; unknown tonnage (GSC Mem. 252, p. 141). 1949: Production for 1931-1949; unknown tonnage (GSC Mem. 252, p. 141).
#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 67 REPORT: RGEN0200

MINFILE NUMBER:	093N 052		NAME:	TWEN	ITY MILE CREEK		STATUS: Past Producer	
Production <u>Year</u>	Т	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Gram <u>Recovere</u>	ns Kilograms ad <u>Recovered</u>	
1945		1			Gold	2,08	34	
SUMMARY TOTALS	: 093N 052		NAME:	TWEN	ITY MILE CREEK			
			Metric		Imperial			
Pocovory:	Mined: Milled:		1	tonnes tonnes	1	tons tons		
Commonto:	Gold:		2,084	grams	67	ounces		
Comments.	1945:	Productio	n for 1941-1945 (Bu	lletin 28,	page 46); unknown to	nnage.		

# MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 68 REPORT: RGEN0200

MINFILE NUMBER:	093N 055		NAME:	GERMANSE	N RIVER SOUTH		STATUS:	Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
1945		1			Gold	438,310		
1900		1			Gold	871		
1890		1			Gold	76,670		
SUMMARY TOTALS	: 093N 055		NAME:	GERMANSE	N RIVER SOUTH			
			Metric		<b>Imperial</b>			
Popovoru:	Mined: Milled:		3	tonnes tonnes	3 to to	ons ons		
Recovery.	Gold:		515,851	grams	16,585 0	unces		
Comments:	1945: 1900: 1890:	Production fo Production fo Production fo	r 1931-1945; toni r 1896-1900; unk r 1876-1890; unk	nage unknown nown tonnage nown tonnage	(Bulletin 28, page (Bulletin 28, page (Bulletin 28, page	e 44). e 44). e 44).		

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 69 REPORT: RGEN0200

MINFILE NUMBER:	<u>093N 056</u>		NAME:	SLATE CR	<u>EEK</u>		STATUS:	Past Producer
Production <u>Year</u>	To I	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
1945		1			Gold	95,332		
1885		1			Gold	5,008		
SUMMARY TOTALS	: 093N 056		NAME:	SLATE CR	EEK			
			Metric		Imperial			
_	Mined: Milled:		2	tonnes tonnes	2	tons tons		
Recovery:	Gold:		100,340	grams	3,226	ounces		
Comments:	1945:	Productio	n for 1931-1945: un	known tonnad	ge (Bulletin 28. pa	ae 46).		

1885: Production for 1881-1885; unknown tonnage (Bulletin 28, page 46).

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 70 REPORT: RGEN0200

MINFILE NUMBER:	<u>093N 058</u>		NAME:	BLACKJACK G	ULCH		STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>	<u>C</u>	<u>ommodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1945		1			Gold	1,866	
1940		1			Gold	4,758	
1935		1			Gold	1,586	
1930		1			Gold	995	
1885		1			Gold	16,701	
SUMMARY TOTALS	: 093N 058		NAME:	BLACKJACK G	ULCH		
			<u>Metric</u>		<b>Imperial</b>		
Pagavan/	Mined: Milled:		5	tonnes tonnes	6 to to	ins ins	
Recovery.	Gold:		25,906	grams	833 0	unces	
Comments:	1945: 1940: 1935: 1930: 1885:	Production fo Production fo Production fo Production fo Production fo	or 1941-1945; unk or 1936-1940; unk or 1931-1935; unk or 1926-1930; unk or 1874-1885; unk	nown tonnage (Bu nown tonnage (Bu nown tonnage (Bu nown tonnage (Bu nown tonnage (Bu	Iletin 28, page Iletin 28, page Iletin 28, page Iletin 28, page Iletin 28, page	44). 44). 44). 44). 44).	

MINFILE NUMBER: 093N 058

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 71 REPORT: RGEN0200

MINFILE NUMBER:	093N 060		NAME:	LOST CREEK			STATUS: Past Producer
Production <u>Year</u>	Т	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1945		1			Gold	840	
1940		1			Gold	7,527	
1885		1			Gold	3,017	
SUMMARY TOTALS	: 093N 060		NAME: <u>Metric</u>	LOST CREEK	Imperial		
Decevery	Mined: Milled:		3	tonnes tonnes	3	tons tons	
Recovery:	Gold:		11,384	grams	366	ounces	
Comments:	1945: 1940: 1885:	Production fi Production for Production for	om 1941-1945; ui or 1936-1940; unk or 1880-1885; unk	nknown tonnage nown tonnage ( nown tonnage (	e (Bulletin 28, p Bulletin 28, pag Bulletin 28, pag	age 45). ge 45). ge 45).	

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 72 REPORT: RGEN0200

MINFILE NUMBER:	093N 061		NAME:	MANSON	RIVER			STATUS:	Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Rec	Grams overed		Kilograms <u>Recovered</u>
1945		1			Gold		8,709		
1940		1			Gold		27,775		
1935		1			Gold		7,962		
1910		1			Gold		17,045		
1905		1			Gold		11,104		
1900		1			Gold		5,443		
1890		1			Gold	2	279,994		
SUMMARY TOTALS	: 093N 061		NAME:	MANSON	RIVER				
			Metric		Imperial				
5	Mined Milled	:	7	tonnes tonnes	8	tons tons			
Recovery:	Gold:		358,032	grams	11,511	ounces			
Comments:	1945: 1940: 1935:	Production f Production f Production f	or 1941-1945; unl or 1936-1945; unl or 1931-1935; unl	known tonna known tonna	ge (Bulletin 28, pa ge (Bulletin 28, pa ge (Bulletin 28, pa	ge 45). ge 45). ge 45)			
	1910: 1905: 1900: 1890:	Production f Production f Production f Production f	or 1906-1910; unl or 1901-1905; unl or 1896-1900; unl or 1874-1890; unl	known tonna known tonna known tonna known tonna	ge (Bulletin 28, pa ge (Bulletin 28, pa ge (Bulletin 28, pa ge (Bulletin 28, pa	ge 45). ge 45). ge 45). ge 45). ge 45).			

RUN DATE: 26-Jun-2003 RUN TIME: 11:46:44  MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION							PAGE: REPOR	73 T: RGEN0200
MINFILE NUMBER	R: <b>093N 064</b>		NAME:	VITAL			STATUS:	Past Producer
Product <u>Y</u>	tion ′ <u>ear</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
1	963	4			Jade/Nephrite			3,538
SUMMARY TO	TALS: 093N 064		NAME:	VITAL				
			<u>Metric</u>		<u>Imperial</u>			
Recovery:	Mined: Milled:		4	tonnes tonnes	4	tons tons		
	Jade/Nephrite:		3,538	kilograms	7,800	pounds		
Comments:	1963:	Three boulders	s (2267, 907 and	l 363 kilogra	ams) (Annual Repo	rt 1963).		

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 74 REPORT: RGEN0200

MINFILE NUMBER:	093N 088		NAME:	BOUL	DER CREEK				STATUS:	Past Producer
Production <u>Year</u>	т	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Com</u>	<u>nmodity</u>	<u>Rec</u>	Grams overed		Kilograms <u>Recovered</u>
1940		1				Gold		3,421		
SUMMARY TOTALS	: 093N 088		NAME:	BOUL	DER CREEK					
			Metric			Imperial				
Decement	Mined: Milled:		1	tonnes tonnes		1	tons tons			
Recovery:	Gold:		3,421	grams		110	ounces			
Comments:	1940:	Production	n for 1936-1940; un	known to	nnage (Bullet	tin 28, pa	ge 44).			

# MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 75 REPORT: RGEN0200

MINFILE NUMBER:	<u>093N 156</u>		NAME:	JADE AND	OGDEN CREEKS		STATUS:	Past Producer
Productic <u>Yea</u>	on ar	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
197	70	45			Jade/Nephrite			45,350
196	69	18			Jade/Nephrite			18,140
190	68	51			Jade/Nephrite			50,792
SUMMARY TOTA	<u>LS</u> : 093N 156		NAME:	JADE AND	OGDEN CREEKS			
			Metric		<b>Imperial</b>			
Beenveru	Mined: Milled:		114	tonnes tonnes	126	tons tons		
Recovery.	Jade/Nephrite:		114,282	kilograms	251,949	pounds		
Comments:	1970: 1969: 1968:	Production Production Production	reported from a be reported to be from reported to be from	drock serper one nephrit n nephrite bo	ntinite source. e boulder. ulders.			

Production reported to be from nephrite boulders.

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 76 REPORT: RGEN0200

MINFILE NUMBER:	093N 157		NAME:	LEE		ST	ATUS: Past Producer
Production <u>Year</u>	T	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1988	ł	22			Jade/Nephrite		22,000
1971		140			Jade/Nephrite		140,000
SUMMARY TOTAL	<u>.S</u> : 093N 157		NAME:	LEE			
			Metric		Imperial		
Poopvoru:	Mined: Milled:		162	tonnes tonnes	179	tons tons	
Recovery.	Jade/Nephrite:		162,000	kilograms	357,149	pounds	
Comments:	1988.	From Mi	ning in British Columb	ia 1988, nana	87		

1988:

From Mining in British Columbia 1988, page 87. Production estimated at 90-140 tonnes (National Mineral Inventory)

## MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 77 REPORT: RGEN0200

MINFILE NUMBE	R: <b>093N 165</b>		NAME:	OGDEN	MOUNTAIN		STATUS: Past Producer
Produc <u>۲</u>	tion ′ear	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1	992	20			Jade/Nephrite		20,000
1	991	40			Jade/Nephrite		40,000
1	990	60			Jade/Nephrite		60,000
1	989	200			Jade/Nephrite		200,000
1	988	200			Jade/Nephrite		200,000
1	987	115			Jade/Nephrite		115,000
1	986	100			Jade/Nephrite		100,000
1	985	408			Jade/Nephrite		408,000
1	976	81			Jade/Nephrite		81,000
1	972	20			Jade/Nephrite		20,000
1	971	127			Jade/Nephrite		127,000
1	970	47			Jade/Nephrite		47,000
1	969	25			Jade/Nephrite		25,000
1	968	12			Jade/Nephrite		12,000
1	967	1			Jade/Nephrite		1,000
SUMMARY TO	TALS: 093N 165		NAME:	OGDEN	MOUNTAIN		
			Metric		Imperial		
	Mine Mille	d: d:	1,456	tonnes	1,605	tons	
Recovery:	Jade/Nephrite	:	1,456,000	kilograms	3,209,930	pounds	
Comments:	1992 1990	: See co	mments for 1989 and 1 tonnages mined are gr	1990. reater than	recovered for 1989-	1992	

1989: 1985:

Recovered jade for 1989-1992 (Kirk Makepeace of Jade West, 1993). Production for the period 1977-1985.

## MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 78 REPORT: RGEN0200

MINFILE NUMBER:	<u>093O 003</u>		NAME:	BILL C	UST'S BAR		STATUS:	Past Producer
Production <u>Year</u>	-	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	<u> </u>	Kilograms <u>Recovered</u>
1940		1			Gold	3,110		
1935		1			Gold	3,110		
SUMMARY TOTALS	<u>6: 0930 003</u>		NAME:	BILL C	UST'S BAR			
			Metric		Imperial			
	Mined: Milled:		2	tonnes tonnes	2	tons tons		
Recovery:	Gold:		6,220	grams	200	ounces		
Comments:	1940: 1935:	Produc 100 ou	tion from the Parsnip F nces recovered from F	River Betw Parsnip Ri	veen 1936 and 1940. ver between 1931 an	d 1935		

100 ounces recovered from Parsnip River Between 1936 and 1940.

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 79 REPORT: RGEN0200

MINFILE NUMBER:	<u>0930 004</u>		NAME:	NATION	RIVER BAR		STATUS:	Past Producer
Production <u>Year</u>	To I	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Gram <u>Recovere</u>	s d	Kilograms <u>Recovered</u>
1940		1			Gold	2,83	80	
1935		1			Gold	2,76	8	
SUMMARY TOTALS	<u>6: 0930 004</u>		NAME:	NATION	RIVER BAR			
			Metric		Imperial			
_	Mined: Milled:		2	tonnes tonnes	2	tons tons		
Recovery:	Gold:		5,598	grams	180	ounces		
Comments:	1940-	Production	from the Nation Ri	ver hetweer	1936 and 1940			

1940:Production from the Nation River between 1936 and 1940.1935:Production from the Nation River between 1931 and 1935.

RUN DATE:	26-Jun-2003
RUN TIME:	11:46:44

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 80 REPORT: RGEN0200

MINFILE NUMBER:	0930 005		NAME:	RAINB	OW CREEK				STATUS:	Past Producer
Production <u>Year</u>	To	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Com</u>	nmodity	Reco	Grams overed		Kilograms <u>Recovered</u>
1935		1				Gold		1,431		
SUMMARY TOTALS	: 0930 005		NAME:	RAINB	OW CREEK					
			Metric			Imperial				
Decement	Mined: Milled:		1	tonnes tonnes		1	tons tons			
Recovery:	Gold:		1,431	grams		46	ounces			
Comments.	1935:	Production fro	om Rainbow Cre	ek betwe	en 1931 and	1935.				

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 81 REPORT: RGEN0200

MINFILE NUMBER:	<u>0930 008</u>		NAME:	WILLOW CRE	EK		STATUS:	Developed Prospect
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
2002		84,376			Coal			84,376
2001		36,000			Coal			36,000
SUMMARY TOTAL	<u>S: 093O 008</u>		NAME:	WILLOW CRE	EK			
	Mined Milled	:	<u>Metric</u> 120,376	tonnes tonnes	<u>Imperial</u> 132,692	tons tons		
Recovery:	Coal:		120,376	kilograms	265,384	pounds		

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 82 REPORT: RGEN0200

MINFILE NUMBER:	<u>0930 030</u>	NAME:	KING GETHIN	G		STATUS:	Past Producer
Production <u>Year</u>	Tonne <u>Mine</u>	s Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>		Kilograms <u>Recovered</u>
1964	4	5		Coal			45,360
1963	1,04	)		Coal			1,039,600
1962	1,26	)		Coal			1,260,080
1961	1,87	1		Coal			1,870,600
1960	1,94	5		Coal			1,945,000
1959	2,79	3		Coal			2,798,760
1958	2,09	7		Coal			2,097,400
1957	1,68	6		Coal			1,685,550
1956	1,39	4		Coal			1,394,340
1955	94	)		Coal			939,840
1954	2,36	2		Coal			2,362,310
1953	2,23	5		Coal			2,235,300
1952	1,30	5		Coal			1,304,500
1951	1,37	1		Coal			1,370,760
1950	6,91	)		Coal			6,910,030
1949	5,63	)		Coal			5,630,000
1948	4,97	2		Coal			4,972,280
1947	3,88	6		Coal			3,886,200
1946	1,65	9		Coal			1,659,130
1945	3,44	3		Coal			3,448,300
1944	1,35	5		Coal			1,355,340
SUMMARY TOTALS	: 0930 030	NAME:	KING GETHIN	G			
		Metric		Imperial			
Pocovory:	Mined: Milled:	50,209	tonnes tonnes	55,346	tons tons		
Commonte:	Coal:	50,210,680	kilograms	110,695,570	pounds		
Commento.	1964: Mii 1951: Kir 1950: Pe 1949: Pe 1948: Pe 1947: Pe 1946: Pe 1945: Pe 1944: Pe	e closed in 1964 due to fa g Gething. ace River (5109 tonnes) ar ace River (4373 tonnes) ar ace River (4059 tonnes) ar ace River (3419 tonnes) ar ace River (1354 tonnes) ar ace River (2625 tonnes) an ace River (780 tonnes) and	ling markets. Id King Gething ( Id King Gething ( Id King Gething ( Id King Gething ( Id King Gething ( I King Gething (5)	(1801 tonnes). (1257 tonnes). (914 tonnes). (467 tonnes). (305 tonnes). (823 tonnes). 75 tonnes).			

### MINFILE PRODUCTION REPORT

PAGE: 83 REPORT: RGEN0200

GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

MINFILE NUMBER:	<u>0930 039</u>		NAME:	MCKENZIE L	MESTONE		STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1989		25,500			Limestone		25,500,000
1988		7,500			Limestone		7,500,000
SUMMARY TOTALS	<u>6</u> : 093O 039		NAME:	MCKENZIE L	MESTONE		
			Metric		Imperial		
	Mined: Milled:		33,000	tonnes tonnes	36,376	tons tons	
Recovery:	Limestone:		33,000,000	kilograms	72,752,526	pounds	
Comments:	1989:	Pers. o	commun. in 1989 with K	arston Nielsen.	Figures approx	x.	

1988: Pers. commun. in 1989 with Karston Nielsen. Figures approx.

## MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 84 REPORT: RGEN0200

MINFILE NUMBER:	<u>0930 045</u>		NAME:	PARSNI	<u>PRIVER</u>		STATUS: Past Producer
Production <u>Year</u>	т	onnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1940		1			Gold	3,110	)
1935		1			Gold	3,110	)
SUMMARY TOTALS	<u>8: 0930 045</u>		NAME:	PARSNI	P RIVER		
			Metric		Imperial		
	Mined: Milled:		2	tonnes tonnes	2	tons tons	
Recovery:	Gold:		6,220	grams	200	ounces	
Comments:	1940: 1935:	Production Production	on from Parsnip Rive	r between 1 River betwee	936 and 1940. en 1931 and 1935.		

Production from Parsnip River between 1936 and 1940. Production from the Parsnip River between 1931 and 1935.

### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 85 REPORT: RGEN0200

MINFILE NUMBER:	<u>093P 001</u>	NAME:	BULLMO	OSE		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
2002	136,500	136,500		Coal		1,552,000,000
2001	2,621,000	1,894,000		Coal		1,894,000,000
2000	2,196,000	1,416,000		Coal		1,416,000,000
1999	1,954,000	1,225,000		Coal		1,225,000,000
1998	2,697,000	1,787,000		Coal		1,787,000,000
1997	3,150,780	2,778,001		Coal		1,891,344,000
1996	3,156,133	2,831,780		Coal		1,922,325,000
1995	2,592,700	2,600,200		Coal		1,860,300,000
1994	2,662,000	2,729,000		Coal		1,870,000,000
1993	2,372,000	2,486,000		Coal		1,795,000,000
1992	2,129,000	2,087,000		Coal		1,593,000,000
1991	2,242,000	2,179,000		Coal		1,620,000,000
1990	2,332,533	2,332,533		Coal		1,535,494,000
1989	2,160,000	2,160,000		Coal		1,618,791,000
1988	2,224,700	2,224,700		Coal		1,718,684,000
1987	2,338,200	2,338,200		Coal		1,700,168,000
1986	2,950,000	2,950,000		Coal		1,787,054,000
1985	3,159,000	3,159,000		Coal		2,167,618,000
1984	2,586,000	2,586,000		Coal		1,785,811,000
1983	265,699	265,699		Coal		206,291,000
SUMMARY TOTALS:	093P 001	NAME:	BULLMO	OSE		
		Metric		<u>Imperial</u>		
5	Mined: Milled:	45,925,245 42,165,613	tonnes tonnes	50,623,917 46,479,632	tons tons	
Recovery:	Coal:	32,945,880,000	kilograms	72,633,211,857	pounds	
	2002:       Jan Sept         2000:       Coal milled         1999:       Coal milled         1998:       Estimated.         1997:       Metallurgid         1996:       Metallurgid         1995:       Metallurgid         1995:       Metallurgid         1994:       Metallurgid         1993:       Metallurgid         1994:       Metallurgid         1992:       Metallurgid         1991:       Metallurgid         1990:       Metallurgid         1988:       Metallurgid         1988:       Metallurgid         1988:       Metallurgid         1986:       Metallurgid         1986:       Metallurgid         1985:       Metallurgid         1985:       Metallurgid         1984:       Metallurgid         1984:       Metallurgid	. 2002. d is clean coal produ d is clean coal produ cal coal-1,862,029,0 cal coal-1,868,675,0 cal coal. cal coal.	iction. iction. 00 kg; Therr 00 kg; Therr 00 kg; Therr 00 kg; Therr 00 kg; Therr 00 kg; Therr 00 kg; Therr	nal coal-29,315,000 nal coal-53,650,000 nal coal-54,809,000 nal coal-59,769,000 nal coal-69,618,000 nal coal-69,618,000	) kg. ) kg. ) kg. ) kg. ) kg. ) kg.	

### MINFILE PRODUCTION REPORT

PAGE: 86 REPORT: RGEN0200

GEOLOG	SICAL	SUR\	/ĒY	BRANCH
ENERGY /	AND N	ЛINER	ALS	DIVISION

MINFILE NUMBER:	093P 014		NAME:	SUKUNK/	<u>(BULLMOOSE)</u>		STATUS: Past Producer
Production <u>Year</u>		Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1975		37,384	37,384		Coal		37,384,000
1973		32,674	32,674		Coal		32,674,000
1972		12,000	12,000		Coal		12,000,000
SUMMARY TOTALS	:093P 014		NAME:	SUKUNK	(BULLMOOSE)		
			Metric		Imperial		
	Mined: Milled:		82,058 82,058	tonnes tonnes	90,453 90,453	tons tons	
Recovery:	Coal:		82,058,000	kilograms	180,906,872	pounds	
Comments:	1973: 1972:	Coal stock Metallurgi	piled. cal coal for washing	and coking	tests.		

Metallurgical coal for washing and coking tests.

## MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 87 REPORT: RGEN0200

MINFILE NUMBER:	<u>093P 019</u>	NAME:	QUINTET	<u>TE</u>		STATUS: Past Producer
Production <u>Year</u>	Tonnes <u>Mined</u>	Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
2000	1,300,000	1,300,000		Coal		1,300,000,000
1999	2,900,000	2,900,000		Coal		2,900,000,000
1998	7,000,000	6,214,000		Coal		2,882,000,000
1997	9,147,131	7,085,034		Coal		4,022,889,000
1996	9,850,817	6,984,112		Coal		3,473,887,000
1995	7,388,800	7,418,700		Coal		3,735,200,000
1994	7,732,000	7,806,000		Coal		4,126,000,000
1993	7,938,000	7,845,000		Coal		4,178,000,000
1992	8,404,000	8,418,000		Coal		4,322,000,000
1991	8,792,000	8,572,000		Coal		4,681,000,000
1990	9,619,808	9,619,808		Coal		4,668,639,000
1989	8,692,042	8,692,042		Coal		4,260,911,000
1988	8,730,875	8,730,875		Coal		4,600,592,000
1987	8,987,447	8,987,447		Coal		4,461,289,000
1986	11,185,488	11,185,488		Coal		5,306,477,000
1985	8,928,530	8,928,530		Coal		5,538,990,000
1984	7,109,749	7,109,749		Coal		3,559,934,000
1983	1,437,883	1,437,883		Coal		81,651,000
SUMMARY TOTALS	: 093P 019	NAME:	QUINTET	ТЕ		
		Metric		<u>Imperial</u>		
Recovery:	Mined: Milled:	135,144,570 1 129,234,668 1	tonnes tonnes	148,971,387 142,456,835	tons tons	
Recovery.	Coal:	68,099,459,000 l	kilograms	150,133,565,499	pounds	
	2000: The mine ( 1998: Estimated, 1997: Metallurgic 1996: Metallurgic 1995: Metallurgic 1994: Metallurgic 1993: Metallurgic 1991: Metallurgic 1990: Metallurgic	closed in August 200 cal coal. cal coal. cal coal. cal coal. cal coal. cal coal. cal coal. cal coal.	0.			
	1989: Metallurgic 1988: Metallurgic 1987: Metallurgic 1986: Metallurgic 1985: Metallurgic 1984: Metallurgic 1983: Metallurgic	cal coal. cal coal. cal coal-4,550,192,00 cal coal-4,452,252,00 cal coal-5,201,422,00 cal coal-4,925,746,00 cal coal-2,856,603,00 cal coal-42,001,000 k	0 kg; Therr 0 kg; Therr 0 kg; Therr 0 kg; Therr 0 kg; Therral g; Thermal	nal coal-50,400,000 nal coal-9,037,000 nal coal-105,055,00 nal coal-613,244,00 nal coal-703,331,00 coal-39,650,000 kg	) kg. kg. )0 kg. )0 kg. )0 kg. j.	

#### MINFILE PRODUCTION REPORT GEOLOGICAL SURVEY BRANCH ENERGY AND MINERALS DIVISION

PAGE: 88 REPORT: RGEN0200

MINFILE NUMBER:	093P 024	Tonnes <u>Mined</u>	NAME:	<u>HASLER</u>			STATUS: Past Producer
Production <u>Year</u>	T		Tonnes <u>Milled</u>		<u>Commodity</u>	Grams <u>Recovered</u>	Kilograms <u>Recovered</u>
1945		3,206			Coal		3,206,500
1944		789			Coal		789,400
1941		590			Coal		590,000
SUMMARY TOTALS: 093P 024			NAME:	HASLER			
			Metric		Imperial		
<b>D</b>	Mined: Milled:		4,585	tonnes tonnes	5,054	tons tons	
Recovery:	Coal:		4,585,900	kilograms	10,110,176	pounds	
Comments:	1941:	Coal was mined from an adit and open-cut benches. GSC Paper 44-7					