


# Gold

The Yukon's gold potential was first recognized during the great Klondike gold rush of 1898. Over 20 million ounces (600 million grams) of gold have been recovered from the Klondike placer mining district and production is ongoing. Several other areas of the Yukon, such as Mayo-McQuesten, Dawson Range, Livingstone Creek, Kluane and Whitehorse South, have historical and recent placer gold mining activity, but considerably less effort has been directed towards locating their hardrock sources.

In the Yukon, a variety of gold deposit styles are related to the complex Mesozoic and Cenozoic metamorphic, plutonic and volcanic history associated with the formation of the northern Canadian Cordilleran orogen. Orogenic gold veins formed in response to two events. The oldest veins, Jurassic in age, formed after peak metamorphism of the Yukon-Tanana Terrane, and their erosion likely contributed to the Klondike placer deposits. The youngest



orogenic veins formed during Eocene metamorphism and uplift of more outboard terranes near the Coast Plutonic Complex. A number of smaller hardrock occurrences of this type have been found in association with placer gold-bearing creeks in west-central Yukon, but follow-up exploration has been limited and potential is high. It is notable that in neighbouring Alaska, the POGO deposit, an orogenic vein deposit, contains approximately 4 million ounces (100 million grams) gold at a grade of 16 g/t.

Intrusion-related gold ores in the Yukon are related to post-orogenic, reduced mid-Cretaceous plutons that intruded Selwyn Basin sedimentary rocks, and comprise the main part of the Tintina Gold Belt in

the Yukon. Intrusion-related gold deposits include the Dublin Gulch and Brewery Creek deposits. An Alaskan example of this deposit type is the Fort Knox deposit, which contains 7 million ounces (200 million grams) gold, at a grade of 0.9 g/t.

Epithermal gold ores in Yukon, such as the Mount Skukum and Grew Creek deposits, formed in association with Late Cretaceous to Eocene subaerial felsic volcanism and faults.

Differentiating between these different gold deposit models is an important first step for gold exploration targeting in Yukon. From comparisons with the Alaskan deposits, the magnitude of gold potential in Yukon is high.

2 million ounces

Approximately 30,000 ounces (900 000 grams) of gold were produced from placer mining the creeks draining the Dublin Gulch, intrusion-related gold deposit. Trenching on the mountainside marks the location of the Eagle Zone deposit which hosts approximately 2 million ounces (60 million grams) of gold.







The Skukum Creek deposit is a silver-rich, gold-quartz-sulphide vein hosted in a caldera-bounding shear in an Eocene volcanic complex. Here it is shown during underground drilling that was conducted during the winter of 2005 by Tagish Lake Gold Corp.



Grew Creek is an low-sulphidation style epithermal gold deposit developed in Eocene felsic tuffs and related sedimentary rocks. Freegold Resources conducted a winter drilling program in 2005.

The Brewery Creek mine is an epizonal, intrusion-related deposit. The heap-leach mine operated from 1998 to 2002 producing 280,000 ounces (7.9 million grams) of gold from oxidized upper portions of several deposits. Current exploration is targeting the unoxidized refractory sulphide mineral potential of the property, which bears many similarities with the Donlin Creek deposit in Alaska.



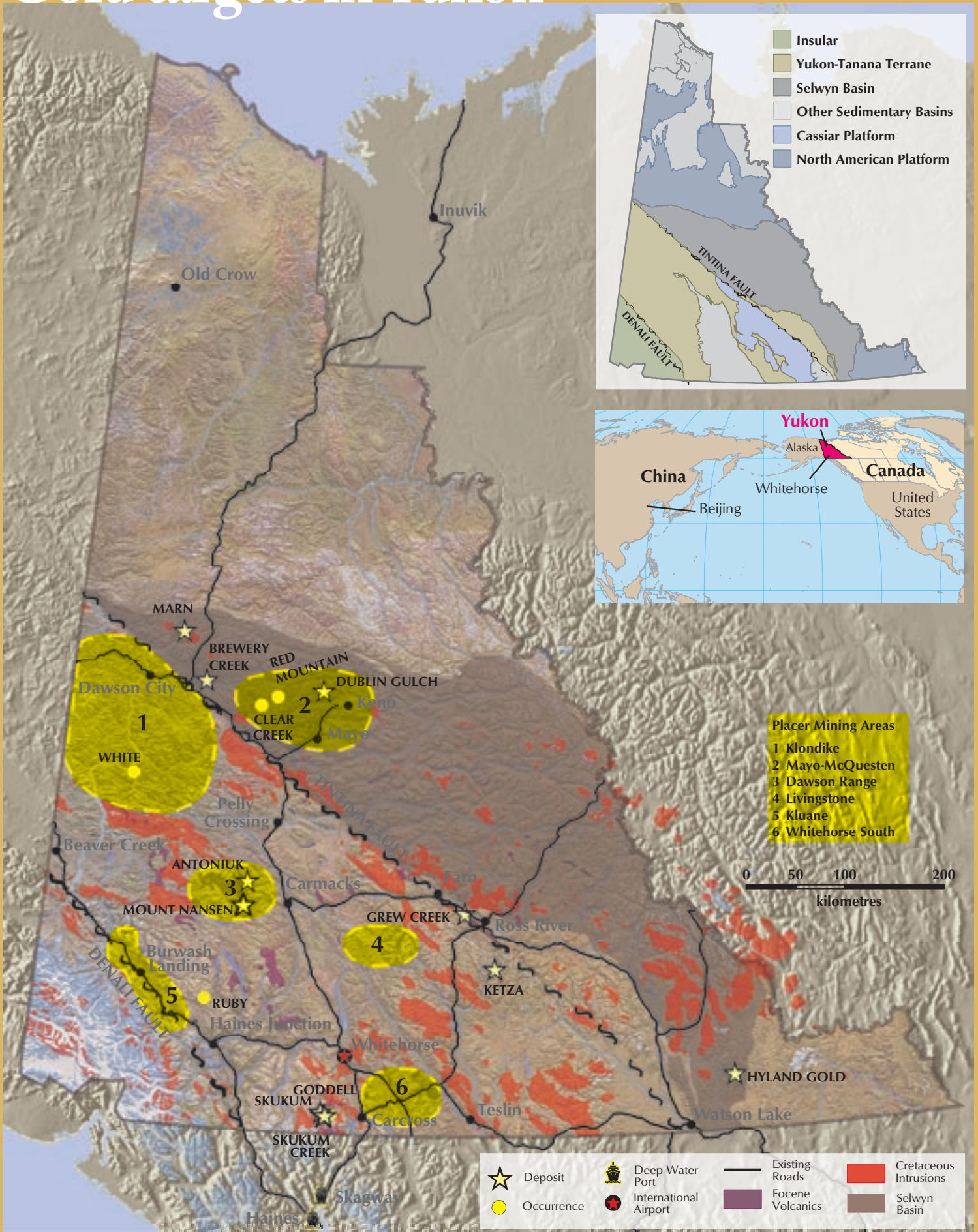
old

Canada's Yukon





# Gold targets in Yukon





## Orogenic gold veins.

Deposit Owner/optioned to/contact	Zone(s) Year resource-reserve was calculated/reference	Mineral resource-reserve category‡/ Tonnage@ grade/commodity	Status Yukon MINFILE no.**
<b>Klondike District</b> Various property owners	Some <b>small resources</b> are reported on several properties. Over 12 million ounces (340 million grams) produced from placer mining.	No known sizeable lode sources have been discovered in the Klondike Placer Mining District. Numerous small high-grade vein occurrences occur in the district. Current exploration on some properties is targeting orogenic veins and deposit modeling.	<i>Active exploration.</i>  Several companies are active in the district. Planned work includes bulk sampling and diamond drilling of several occurrences.  115N-various
<b>Lower Stewart River Drainage</b>	The <b>Lower Stewart River drainage</b> which has produced approximately 300,000 ounces (8 million grams) of gold from 1978-2004.	This area has produced substantial quantities of placer gold in recent years but has received little exploration for hard rock deposits. Exploration has increased in the last couple years with orogenic veins being targeted.	<i>Active exploration, geochemistry, geophysics, prospecting.</i>  Several properties at the grassroots stage of exploration.  115N-various
<b>White</b> Madalena Ventures 4460 Atlee Avenue Burnaby, British Columbia Canada V5G 3R6 Telephone: 604-618-3433	<b>None.</b> The property is in the Lower Stewart River drainage which has produced approximately 300,000 ounces (8 million grams) of gold from 1978-2004.	Trenching has exposed two parallel quartz veins with traces of galena, chalcopyrite and visible gold. Veins vary from 1 to 5 m in width and are exposed over a 12 m length, open in every direction. Assays up to 50 g/t Au have been obtained from the veins.	<i>Active exploration, geochemistry, geophysics, trenching, drilling planned for 2005.</i>  1898: Rumoured discovery reported in this general area. 2003: Rediscovered by prospector Shawn Ryan. 2004: extensive geochemistry, geophysics, trenching, geological mapping program.  115O 012
<b>Ruby</b> John Peter Ross B1-2002 Centennial Street Whitehorse, Yukon Canada Y1A 3Z7 Telephone: 867-633-5101	<b>None</b>	Numerous narrow quartz-carbonate veins hosted in biotite and muscovite schist. Diamond drilling has intersected up to 2.83 g/t Au over 6.80 m.	<i>Available for option.</i>  1984: discovery. 1993: trenching. 1995: drilling. 2004: geology, geochemistry.  115H 047

‡Mineral resource-reserve category: resource and reserve figures have been compiled from a variety of historical data sources that in most cases predate the implementation of National Instrument 43-101. Therefore, only those figures indicated by an asterisk (\*) comply with National Instrument 43-101.

\*\* The Yukon MINFILE is a computerized mineral inventory system that documents the exploration history and geology of metallic, industrial mineral and coal occurrences in the Yukon. The database contains detailed descriptions of 2606 separate mineral occurrences located throughout the Yukon.



Exposed quartz vein on the White property. Veins on the property contain up to 50 g/t Au.



## Intrusion-related gold deposits.

<b>Deposit</b> Owner/optioned to/contact	<b>Zone(s)</b> Year resource-reserve was calculated/reference	Mineral resource-reserve category‡/ Tonnage@ grade/commodity	<i>Status</i> Yukon MINFILE no.**
<b>Dublin Gulch</b> StrataGold Corporation 701-475 Howe Street Vancouver, British Columbia Canada V6C 2B3 Telephone: 604-682-5474	<b>Eagle</b> 2004 Technical report by Snowden Mining Industry Consultants	Indicated* 55.228 Mt @ 0.934 g/t Au (COG of 0.5 g/t Au)  Inferred* 17.255 Mt @ 0.743 g/t Au (COG of 0.5 g/t Au)	<i>Deposit, active exploration. Currently undergoing \$5 million exploration program.</i>  1996: metallurgical testing, engineering and environmental baseline studies. 1997: feasibility study. 1998: ongoing baseline studies, permitting under CEAA, environmental monitoring. Total of 27 700 m of drilling to date.  106D 025
<b>Brewery Creek</b> Quest Capital Corporation/ NovaGold Resources Incorporated 3454-1055 Dunsmuir Street Four Bentall Centre PO Box 49215 Vancouver, British Columbia Canada V7X 1K8 Telephone: 604-669-6227	<b>Pre-production</b>  <b>Brewery Creek</b> (includes Bohemian, Big Rock, Fosters zones)  <b>North Slope</b> 2003 Technical report by R.M. Diment and R.G. Simpson	Geological resource 17 145 988 tonnes @ 1.36 g/t Au (COG of 0.5 g/t)  Indicated* 3 975 900 t @ 1.135 g/t Au (COG of 0.5 g/t Au)  Inferred* 214 000 t @ 2.01 g/t Au (COG of 0.5 g/t Au)	<i>Open pit past producer, oxide deposits, reclamation, active exploration for sulphide deposits.</i>  1987: discovery. 1988-91: completed 38 656 m of drilling. 1989-90: bulk sampling, metallurgical testing. 1992-93: test pitting, environmental studies. 1994: feasibility study, permitting. 1995: mine construction. Began heap leach production in Nov. 1996. Total gold production approximately 280,000 ounces (7.9 million grams). 2003: comprehensive compilation of property completed. 2004: drilling.  116B 160
<b>Clear Creek</b> StrataGold Corporation 701-475 Howe Street Vancouver, British Columbia Canada V6C 2B3 Telephone: 604-682-5474	<b>none</b>	Five adjacent intrusions host a number of intrusive-related gold occurrences. Geophysics indicate potential for a larger intrusion at depth.	<i>Active exploration.</i>  1902: original staking related to discovery of placer gold in creeks. 1987: restaked. 1987-2004: various operators.  115P 011,012,013
<b>Red Mountain</b> Acero-Martin Exploration Inc. Box 43050 Burnaby, British Columbia Canada V5G 3H0 Telephone: 604-876-4476	<b>none</b>	Several areas of intrusive-related gold occurrences related to the Red Mountain intrusive stock. Numerous intersections of gold mineralization up to 125 m grading 1.14 g/t Au in recent drilling.	<i>Active exploration.</i>  1923: original staking. Late 1920s: short adit. 1987: restaked. 1987-2005: various operators.  115P 006
<b>Antoniuk</b> FM Resources Corporation 1100-609 W Hastings Street Vancouver, British Columbia Canada V6B 4W4 Telephone: 604-331-3395	<b>Antoniuk</b> 1988 Assessment report #092161	Not defined 3 877 900 t @ 1.16 g/t Au	<i>Deposit, inactive.</i>  1931: discovery. Over 5200 m of drilling. Cyanide leach tests showed that mineralization is amenable to heap leaching.  115I 111



Gold oxide ore from the Brewery Creek mine.

## Intrusion-related skarn/replacement gold deposits.

<b>Deposit</b> Owner/optioned to/contact	<b>Zone(s)</b> Year resource-reserve was calculated/reference	Mineral resource-reserve category‡/ Tonnage@ grade/commodity	<i>Status</i> Yukon MINFILE no.**
<b>Ketza</b> YGC Resources Limited 207-304 Cordova Street West Vancouver, British Columbia Canada V6B 1E8 Telephone: 604-688-9427	<b>Pre-production oxide resource</b>  <b>Manto style sulphide zones</b> 2004 report: resource estimates by Giroux Consultants Limited using a 1.0 g Au/t cutoff  <b>Shamrock zone</b> 2004 report: resource estimates by Giroux Consultants Limited using a 1.0 g Au/t cutoff	495 000 t @ 18 g/t Au  Measured* 1 210 00 t @ 3.43g/t Au Indicated* 3 040 000 t @ 2.67 g/t Au Inferred* 6 270 000 t @ 1.76 g/t Au  Indicated* 2 590 000 t @ 2.19 g/t Au Inferred* 4 030 000 t @ 1.92 g/t Au	<i>Active exploration. \$5 million exploration drilling program ongoing. Past producer, mill.</i>  1954: discovery. 1988-90: production of over 3 112 000 g of gold before closing in Sept. 1990. 1994-96: drilling (11 090 m), mapping, prospecting.  105F 019
<b>Marn</b> Canadian United Minerals Incorporated P.O. Box 1260 Dawson City, Yukon Canada Y0B 1G0 Telephone: 867-993-5219	<b>Mini grid</b> 1986 Assessment report #091814	Historical calculation 226 796 t @ 8.56 g/t Au, 1% Cu, 0.1% W, 7.12 g/t Ag	<i>Deposit, active exploration, geophysics and geochemistry.</i>  1914: original discovery. A total of over 4400 m of drilling has been completed to date.  116B 147
<b>Hyland Gold</b> StrataGold Corporation /Northgate Minerals Corporation 701-475 Howe Street Vancouver, British Columbia Canada V6C 2B3 Telephone: 604-682-5474	<b>Main zone</b> 1991 Assessment report #094150	Historical calculation 3.1 Mt @ 1.1 g/t Au	<i>Deposit, active exploration.</i>  1954-86: discovery, intermittent exploration. 1989: winter road construction. Over 7500 m of drilling completed to date. Low-grade oxide gold deposit with open-pit potential. Current program is testing sulphide mineral potential.  095D 011

Gold-bearing quartz-carbonate-sulphide manto ore from the Ketza River mine. Close-up photo of rock sculpture by Rick Zuran.





## Epithermal vein/breccia gold deposits.

Deposit Owner/optioned to/contact	Zone(s) Year resource-reserve was calculated/reference	Mineral resource-reserve category‡/ Tonnage@ grade/commodity	Status Yukon MINFILE no.**
<b>Skukum</b> Tagish Lake Gold Corporation 2130-21331 Gordon Way Richmond, British Columbia, Canada V6W 1J9 Telephone: 604-273-6477	<b>Lake</b> 2003 Annual Information Form	Indicated 109 200 t @ 13.4 g/t Au	<i>Underground past producer, mill, active exploration.</i>  1981: discovery. 1986 to 1988: produced 2 962 227 g Au from 201 461 tonnes of ore from Cirque Zone, with an average grade of 13.0 g/t Au. 2001: mapping, prospecting and sampling.  105D 158
<b>Goddell</b> Tagish Lake Gold Corporation 2130-21331 Gordon Way Richmond, British Columbia Canada V6W 1J9 Telephone: 604-273-6477	<b>Total</b> 2003 Engineering report by W.D. Roy, MineTech International Ltd.	Indicated* 320 000 t @ 11.02 g/t Au  Inferred* 280 000 t @ 9.21 g/t Au	<i>Deposit, active exploration.</i>  1906: discovery, trenching and short adit. 1985-90: geophysics, geochemistry, drilling (6373 m). 1995-98: drilling (2842 m). 1996-97: drove ramp and carried out underground drilling (6946 m). 2003: drilling (800 m).  105D 025
<b>Skukum Creek</b> Tagish Lake Gold Corporation 2130-21331 Gordon Way Richmond, British Columbia Canada V6W 1J9 Telephone: 604-273-6477	<b>Total (Rainbow and Kuhn zones)</b> 2003 Engineering report by W.D. Roy, MineTech International Ltd.	Measured* 160 000 t @ 6.52 g/t Au, 257 g/t Ag  Indicated* 640 000 t @ 6.84 g/t Au, 203 g/t Ag  Inferred* 90 000 t @ 6.53 g/t Au, 225 g/t Ag	<i>Deposit, active exploration to increase resources.</i>  1922: discovery. 1985-88: extensive surface and underground exploration and development. Bio-leach tests were positive. Metallurgical tests showed recoveries of 92% for Au and 94.5% for Ag. 1996-98: underground and surface drilling. 2000: compilation of exploration data. 2001: surface drilling of Ridge Zone. 2002: underground drilling. 2004-2005: extended access tunnel, underground drilling.  105D 022
<b>Grew Creek</b> Al Carlos/Freegold Ventures Limited 2303 41st Avenue West Vancouver, British Columbia Canada V6M 2A3 Telephone: 604-685-1870	<b>Main</b> 1997 Assessment report #093627, p.20.	Not defined 527 360 t @ 5.27 g/t Au  Resource currently being recalculated based on 2004 drilling program.	<i>Deposit, active exploration, drilling 2004, 2005 based on new geologic interpretation of deposit.</i>  1984: discovery. Over 32 000 m of drilling completed to date. Current drilling program is evaluating a new interpretation of the structural controls on the mineralized vein system within the Main zone and other nearby targets.  105K 009
<b>Mount Nansen</b> <i>In receivership:</i> Micheal Vermette, Senior Vice President PricewaterhouseCoopers LLP Suite 700, 250 Howe Street Vancouver, British Columbia Canada V6C 3S7 Telephone: 604-806-7675 michael.j.vermette@ca.pwc.com	<b>Huestis</b> 1989 Assessment report #092701  <b>Webber</b> 1989 Assessment report #092701  <b>Flex</b> 1995 Assessment report #093365  <b>Brown-McDade</b> 1989 Assessment report #092701 Assumes 1.52 m minimum mining width and cutoff grade of 6.8 g/t Au	Not defined 85 727 t @ 14 g/t Au, 283 g/t Ag  Not defined 58 524 t @ 10.9 g/t Au, 611 g/t Ag  Indicated 69 977 t @ 6 g/t Au, 234 g/t Ag Inferred 38 615 t @ 5.8 g/t Au, 333 g/t Ag  Not defined (originally reported as a probable reserve) 193 706 t @ 14.47 g/t Au, 100 g/t Ag	<i>Deposit, past producer, mill, in receivership.</i>  1945: discovery. 1968-69, 1976: production from Webber, Huestis. 1995: expansion and rehabilitation of existing mill, drilling of Flex and Huestis zones. 1994-95: tailings storage study, road building, tailings dam stripping, construction and rehabilitation of mill and mine buildings. 1996: received a class A water license; production rates at the end of year reached 500 t/day. 1997: stripping, trenching, geochemistry of Flex zone which was slated for production after depletion of the adjoining Brown-McDade pit. 1999: mining ceased due to non-compliance.  1151 064,065



Skukum Creek gold-bearing quartz-sulphide vein.  
Close-up photo of rock sculpture by Rick Zuran.