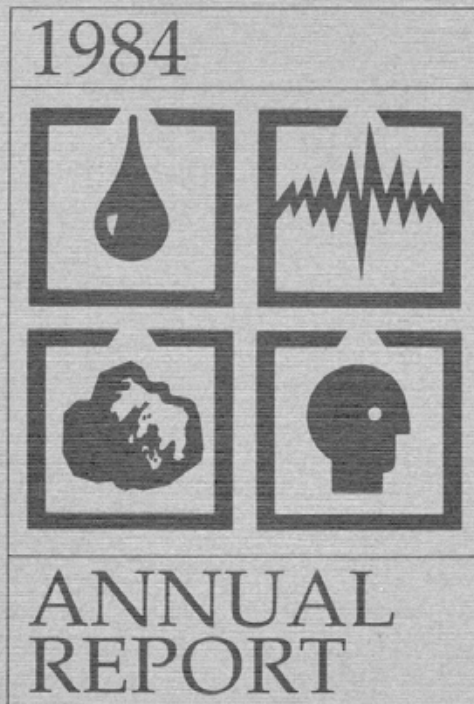




Ministry of Energy,  
Mines & Petroleum  
Resources





To the Honourable  
R.G. ROGERS,  
Lieutenant-Governor  
of British Columbia

MAY IT PLEASE YOUR  
HONOUR:

I beg to submit the Report of  
the Ministry of Energy, Mines  
and Petroleum Resources for  
the year 1984.

A handwritten signature in black ink, appearing to read "Stephen Rogers". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

STEPHEN ROGERS  
*Minister of Energy, Mines and  
Petroleum Resources*

# MINISTRY OVERVIEW

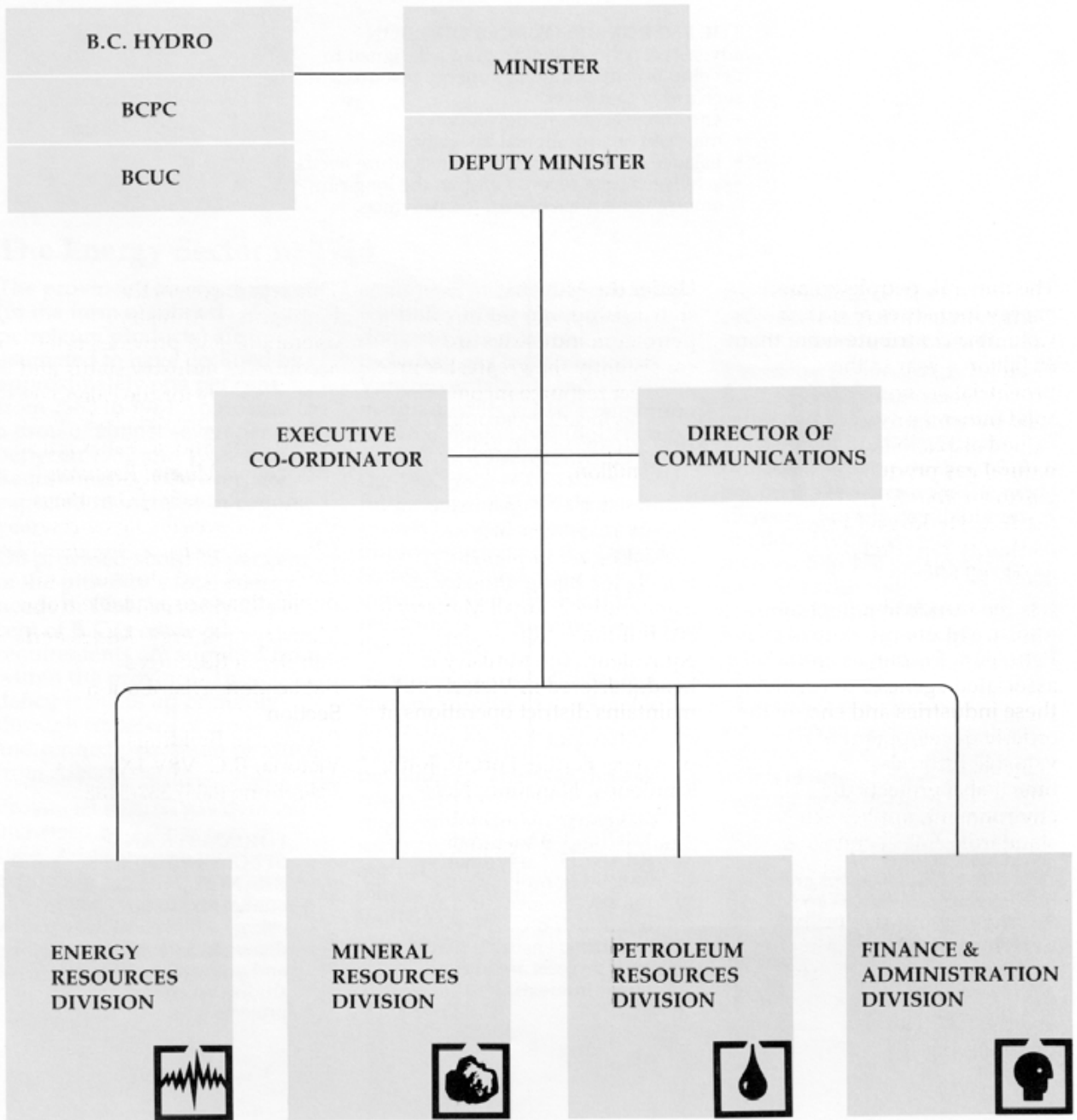
The mineral, petroleum and energy industries of British Columbia contribute more than \$5 billion a year to the provincial economy. In 1984, solid mineral production was valued at \$2.3 billion, oil and natural gas production was worth another \$1 billion, and the B.C. Hydro and Power Authority reported revenue of nearly \$2 billion.

It is the responsibility of the Ministry of Energy, Mines and Petroleum Resources and associated agencies to regulate these industries and ensure the orderly development of our valuable resources. At the same time it also protects the environment, applies safety standards, collects revenue, formulates policies and advises government. The Minister is directly responsible for three Crown agencies operating in the energy sector: B.C. Hydro, the B.C. Petroleum Corporation and the B.C. Utilities Commission.

Under the Ministry's stewardship, our mining and petroleum industries are consistently the greatest source of direct resource income for the provincial government. In 1984, that revenue amounted to \$370 million.

Administering our mineral and energy resources and regulating a complex industry is a big job being done by a comparatively small Ministry — 305 full-time staff, or the equivalent. The Ministry is headquartered in Victoria but maintains district operations at nine other locations around the province: Fernie, Fort St. John, Kamloops, Nanaimo, Nelson, Prince George, Quesnel, Smithers and Vancouver.

This report covers the highlights of Ministry operations and provides brief accounts of industry status and energy trends for the calendar year 1984. More detailed information and statistics are supplied in *Mineral Resources Division Summary of Operations 1984* and *Petroleum Resources Division Summary of Operations 1984*. These and other Ministry publications are available from: Ministry of Energy, Mines and Petroleum Resources Publications Distribution Section  
Parliament Buildings  
Victoria, B.C. V8V 1X4  
Telephone (604) 387-3188





## **THE ENERGY RESOURCES DIVISION**

advises on policies and programs designed to develop British Columbia's energy resources in such a way that they:

- \* encourage economic development
- \* maintain environmental integrity
- \* balance current demands against future needs
- \* achieve energy security and, in the long run, energy self-sufficiency for the province.

### **ASSISTANT DEPUTY MINISTER**

**POLICY  
DEVELOPMENT  
BRANCH.** Develops and recommends short- and long-term energy policy strategies.

**PROJECT ANALYSIS  
BRANCH.** Co-ordinates reviews of proposals for the development, use and removal of B.C. energy resources, ensuring that such projects are in the public interest.

**FORECASTS AND  
SPECIAL PROJECTS  
BRANCH.** Prepares annual forecasts on energy supply and demand in the province and undertakes special studies on energy projects.

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## The Energy Sector in 1984

The province's oil requirements (in the form of refined petroleum products) are estimated to have declined by approximately one per cent from 1983 to 1984, compared to a drop of almost seven per cent between 1982 and 1983.

Requirements, however, are expected to increase in coming years.

Oil provided about 38 per cent of the province's total energy needs in 1984, but only 27 per cent of B.C.'s crude oil requirements are supplied from within the province. This deficit is made up primarily through transfers of crude oil and refined petroleum products from Alberta.

Provincial natural gas demand increased by 2.3 per cent in 1984. Additionally, pipeline exports of natural gas to the U.S. slightly reversed a decline which started in 1980. In its effort to improve markets for natural gas, the province

continued in 1984 to explore the feasibility of expanding domestic gas markets, including gas transmission to Vancouver Island, and maintained its active evaluation of the Canada LNG (liquefied natural gas) Project further to the 1982 decision to allocate future surplus gas to this project, as well as seeking to improve exports to the United States. Gas marketing initiatives will also assist in reducing oil requirements in the province.

At the beginning of 1984, the current surplus of marketable gas in the province increased by one per cent to 2730 petajoules.\* This was the gas reserve in excess of that required for domestic market security, amounting to 25 times annual consumption, plus gas required for future use on Vancouver Island and the total

gas remaining on the province's export commitment under export licence GL-41.

Electricity requirements on the B.C. Hydro system are estimated to have increased by 5.4 per cent in 1984 and are projected to grow at about 2.4 per cent per annum for the next 15 years. Supply capability on the B.C. Hydro system increased to 170 petajoules in late 1984 with the commissioning of the Revelstoke hydro-electric generating project.

*\*A petajoule is a standard metric unit of energy equivalent to 25,426 cubic metres of oil, 27 million cubic metres of natural gas or 280 gigawatt hours of electricity.*

**British Columbia End Use Consumption by Energy Type and by Sector, 1983 and 1984\***

	Refined Petroleum Products					Natural Gas	Electricity	Propane	Hog Fuel and Pulping Liquor	Total
	Motor Gasoline	LFO	Diesel	HFO	Aviation Fuel					
	<b>1983</b>					<i>Petajoules*</i>				
Road and Urban Transport	119.9	—	14.1	—	—	—**	—**	1.2	—	135.6
Marine	—	—	10.9	7.6	—	—	—	—	—	18.5
Airlines	—	—	—	—	16.5	—	—	—	—	16.5
Railways	—	—	10.4	—	—	—	—	—	—	10.4
Total Transportation	119.9	—	35.5	7.6	16.5	—**	—**	1.2	—	181.1
Industrial	—	2.0	27.2	22.0	—	79.0	80.2	1.1	190.4	401.9
Residential***	4.5	12.9	6.1	—	—	61.1	36.0	2.6	—	123.2
Commercial and Other Institutional	7.2	5.0	11.2	2.5	2.6	30.8	32.1	2.5	—	93.9
Total	131.7	20.0	80.1	32.1	19.2	171.0	148.6	7.4	190.4	800.1****
	<b>1984</b>					<i>Petajoules*</i>				
Road and Urban Transport	119.4	—	16.3	—	—	—**	—**	2.1	—	138.5
Marine	—	—	9.1	4.2	—	—	—	—	—	13.3
Airlines	—	—	—	—	16.1	—	—	—	—	16.1
Railways	—	—	13.4	—	—	—	—	—	—	13.4
Total Transportation	119.4	—	38.8	4.2	16.1	—**	—**	2.1	—	181.3
Industrial	—	2.1	29.2	19.0	—	80.4	81.4	1.1	192.0	405.2
Residential***	2.4	13.3	3.2	—	—	62.1	39.7	2.3	—	123.0
Commercial and Other Institutional	7.5	5.2	11.1	3.6	2.8	32.2	30.3	2.4	—	95.1
Total	129.3	20.6	82.3	26.9	18.9	174.9	151.8	7.9	192.0	804.6****

\* A petajoule is a standard metric unit of energy equivalent to 25,426 cubic metres of oil, 27 million cubic metres of natural gas or 280 gigawatt hours of electricity.

\*\* Less than 1 petajoule.

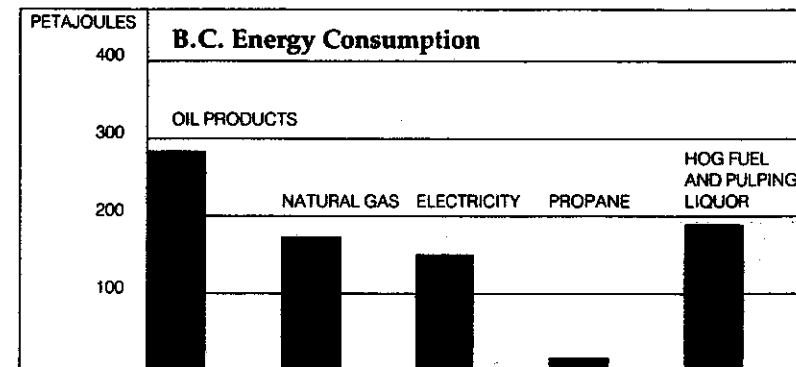
\*\*\* Includes apartments and agriculture.

\*\*\*\* Rows or columns may not add to totals because of rounding.

Source: Ministry estimates and Quarterly Report on Energy Supply-Demand in Canada, Statistics Canada Cat. 57-003.

1983

1984



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## Highlights

Energy policy initiatives in 1984 centered on developing a new gas marketing and royalty system, on exploring industrial development and export opportunities, and on federal/provincial negotiations.

A *Final Decisions and Comments* paper was released, summarizing the government's position on Dr. George Govier's committee report of 1983 on the marketing of natural gas.

A new system allowing petrochemical plants to purchase natural gas feedstock at negotiated prices, which are then used to calculate royalties, was implemented.

An analysis of electricity export markets, as well as a program for allocating surplus electricity to domestic industrial

consumers, was completed in 1984. Surplus and price tests for electricity were established and served as the basis for issuing an Energy Removal Certificate for B.C. Hydro's exports of electricity to the United States.

Discussions were undertaken with the Government of Canada on funding the Vancouver Island Natural Gas Pipeline following receipt, in June, of a B.C. Utilities Commission report to cabinet. That report, based on a public hearing from September 1983 to May 1984, recommended B.C. Hydro build an Island pipeline on a 'southern route' and calculated the funding required to eliminate revenue deficiencies.

Extensive technical work was done on the Vancouver Island Pipeline project, including

evaluation of the Utilities Commission recommendations. Detailed demand forecasts were produced because of their particular importance in determining project feasibility. With the forecast data as a base, independent financial and economic analyses were conducted to support discussions on funding with the federal government.

In mid-year, the federal government announced a new gas export policy allowing exporters to negotiate prices above an established floor with customers. That policy was developed in consultation with the governments of British Columbia and Alberta. Criteria for implementing the policy were issued by the National Energy Board in August and co-operative arrangements to



dovetail provincial and federal approvals followed. Two Energy Removal Certificates for short-term sales of B.C. gas to the U.S. were issued and several other applications were under review at year end.

In late 1984, the western oil-producing provinces began negotiating with Ottawa on a new energy pricing and taxation agreement.

Westcoast Transmission Company's natural gas liquids 'straddle plant' at Taylor was given authorization, a Removal Certificate for its production was issued, and construction began in the fall.

Ammonia production facilities at the Ocelot methanol plant in Kitimat received approval-in-principle, subject to meeting specific regulatory requirements.

In January, Alcan submitted an application for its Kemano Completion project; a full-scale review, including federal/provincial co-ordination, was under way when the company requested in October that the application be held in abeyance pending improved market conditions for aluminum.

B.C. continued its support for a liquefied natural gas project. In April, an Energy Removal Certificate was issued to Dome Petroleum, providing the project with 50 per cent of the required natural gas feedstock. The certificate was transferred to Union Oil and Nissho Iwai after Dome withdrew in June.

Seventy routine Removal Certificates for refined petroleum products were issued during 1984.

The Energy Resources Division published its comprehensive *British Columbia Energy Supply and Requirements Forecast, 1982-2000* in June of 1984. This document is a key reference for industry and government in various policy and program planning activities. It is particularly important for those activities requiring determination of domestic needs and hence the availability of any surplus energy for export sales. The Division produced a forecast of natural gas revenue based on expected volumes and prices for the Ministry of Finance, which used it as part of government's five-year financial planning. It also developed a contingency plan to deal with any petroleum shortage that might occur in the future.



# MINERAL RESOURCES DIVISION

**THE MINERAL RESOURCES DIVISION**  
oversees the operation of British Columbia's mining industry and facilitates the orderly development of mineral, coal and aggregate resources in the province.

**ASSISTANT DEPUTY MINISTER**

**INSPECTION AND ENGINEERING BRANCH.**

Ensures mine safety and mine reclamation practices are followed, using a network of district offices.

- \* Geotechnical Section
- \* Mechanical/Electrical Section
- \* Reclamation Section
- \* Mines Rescue and First Aid Section
- \* Environmental Control Section
- \* Coal Section
- \* Mining and Petroleum Roads Section

**MINERAL GEOLOGY BRANCH.**

Carries out geological studies and provides the mineral industry with geological data.

- \* Geoscience Projects Section
- \* Applied Programs Section
- \* Resource Data and Analysis Section
- \* Analytical Laboratory

**MINERAL POLICY AND EVALUATION BRANCH.**

Provides economic, financial and statistical analyses related to the mineral sector and maintains statistical data.

**MINERAL TITLES BRANCH.**

Administers laws and regulations pertaining to the acquisition and maintenance of mineral tenures, using gold commissioners and sub-recorders in 24 mining divisions in the province.

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## The Mining Industry in 1984

The value of solid mineral production in British Columbia rose to \$2,342.6 million in 1984, up by nearly one-fifth from the \$1,957.7 million recorded in 1983. Coal contributed the most to this increase, as the first full year of production from the Northeast coal mines pushed output to a record 21 million tonnes and value to a record \$964 million. Industrial minerals, including asbestos and sulphur, also accounted for a good share of the increase, climbing by nearly 50 per cent to \$132 million in total value.

Metals as a group were down seven per cent in value to \$1,026.8 million. Although prices from metals generally continued to be depressed, production values for both molybdenum and zinc were up. Many B.C. copper producers operated at or below break-even levels, and a number were forced to curtail or shut down operations in 1984. Most mines, however,

managed to institute cost-saving measures to enhance their competitive positions in the future.

Exploration levels in 1984 remained high, driven by the search for precious metals in the province. Recorded mineral claims totalled 81,729, down 23 per cent from the all-time record of 106,683 set in 1983 but still reflecting a high degree of interest in primary exploration. More than 800 companies spent close to \$83 million in total exploration activity.

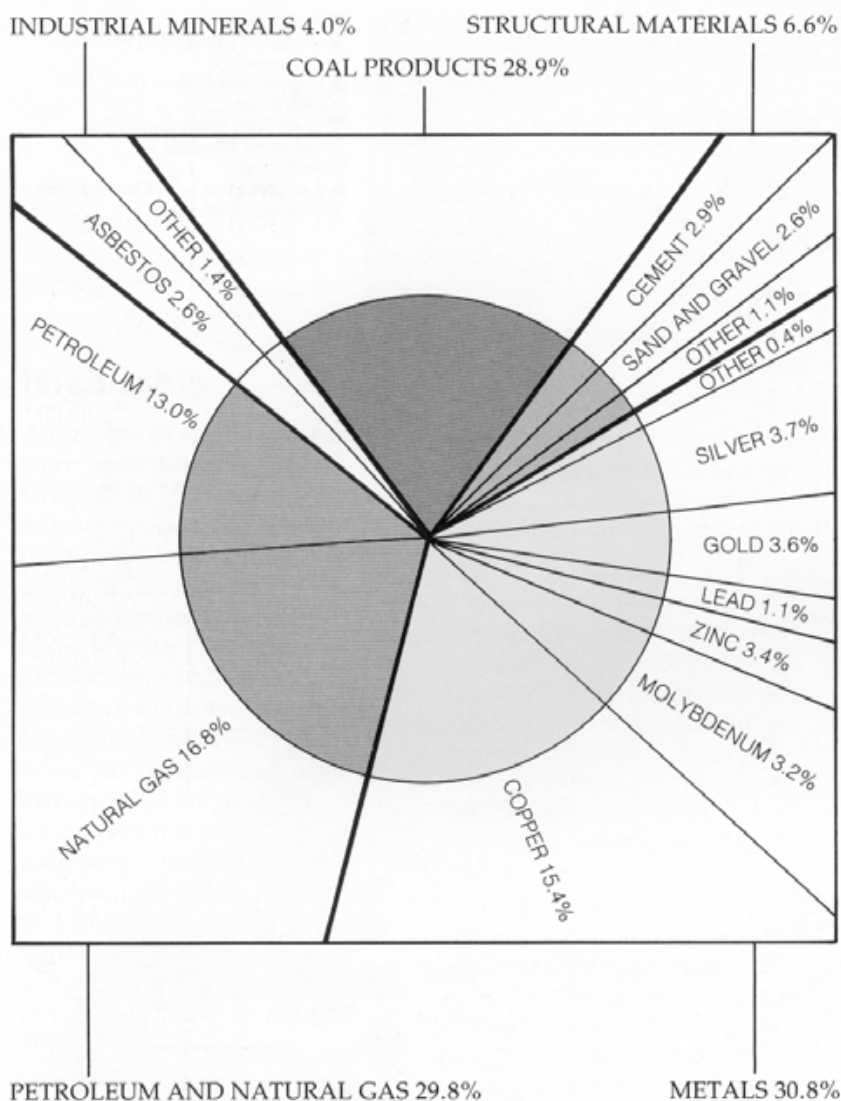
Emerging markets in the Pacific Rim countries hold great promise for B.C. mineral producers which are stepping up marketing efforts in these areas.

The precious metals will continue to be the main areas of interest in mineral exploration in 1985. Other higher-grade polymetallic deposits will also draw some special attention in the mineral exploration sector.

## Mineral Production of British Columbia, 1983 and 1984

	1983 Actual		1984 Estimate	
	QUANTITY	\$ VALUE	QUANTITY	\$ VALUE
<b>METALS</b>				
Copper ..... kg	282 825 388	559 571 421	288 646 000	515 027 000
Gold ..... g	7 978 914	130 931 052	7 550 000	118 927 000
Iron Concentrates ..... t	496 823	13 078 465	172 000	5 775 000
Lead ..... kg	112 941 984	48 778 436	84 186 000	37 436 000
Molybdenum ..... kg	10 178 825	87 584 823	10 765 000	107 856 000
Silver ..... g	402 002 507	179 877 966	355 617 000	122 041 000
Zinc ..... kg	95 286 818	79 634 214	92 619 000	112 542 000
Others .....	—	4 583 744	—	7 183 000
Total Metals	—	1 104 040 121	—	1 026 787 000
<b>INDUSTRIAL MINERALS</b>				
Asbestos ..... t	81 653	53 395 853	94 000	88 360 000
Sulphur ..... t	488 176	24 862 954	512 000	31 103 000
Others .....	—	11 237 627	—	13 127 000
Total Industrial Minerals	—	89 496 434	—	132 590 000
<b>STRUCTURAL MATERIALS</b>				
Cement ..... t	853 064	71 080 982	915 000	95 223 000
Sand and Gravel ..... t	39 560 774	99 919 233	34 600 000	88 230 000
Others .....	—	37 401 313	—	35 687 000
Total Structural Materials	—	208 401 528	—	219 140 000
<b>COAL</b> ..... t	11 480 298	555 789 196	21 028 000	964 085 000
<b>TOTAL</b>	—	1 957 727 279	—	2 342 602 000

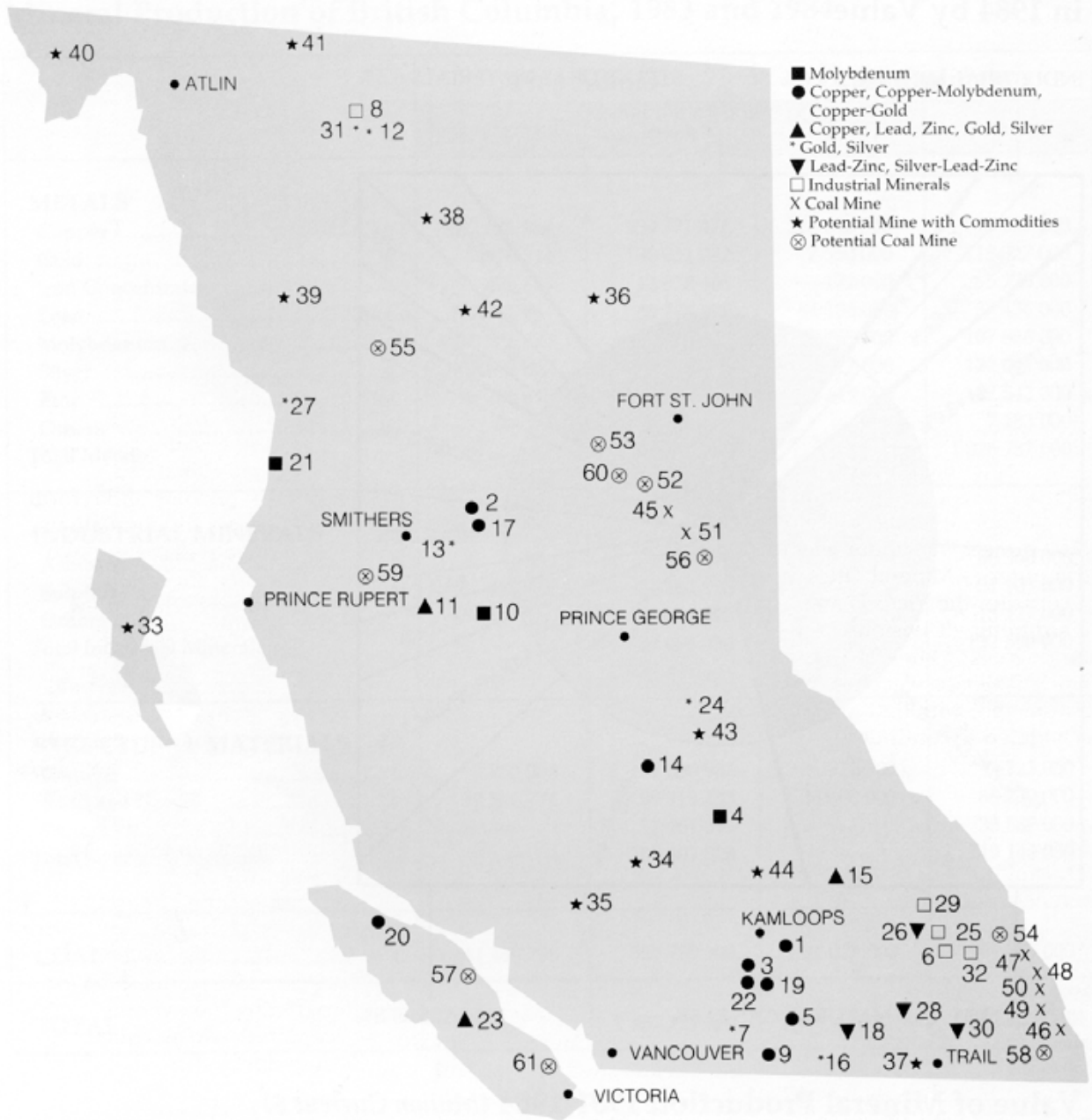
## Major Mineral and Petroleum Commodities Produced in 1984 by Value



## Value of Mineral Production 1981-1984 (Million Current \$)

	1984 (Est)	1983	1982	1981
Metals	1,026.8	1,104.0	1,057.5	1,246.7
Industrial Minerals	132.6	89.5	95.6	122.5
Structural Materials	219.1	208.4	164.2	200.8
Coal	964.1	555.8	566.9	554.3
<b>Total</b>	<b>2,342.6</b>	<b>1,957.7</b>	<b>1,884.2</b>	<b>2,124.3</b>

# Major Mines and Selected Potential Mines in British Columbia, 1984



## PRODUCING MINES

1. Afton
- \* 2. Bell
3. Valley Copper (Bethlehem)
- \* 4. Boss Mountain
5. Brenda
6. Brisco
7. Carolin
8. Cassiar
9. Copper Mountain
- \* 10. Endako
11. Equity
12. Erickson
13. Freegold/Dome Mountain
14. Gibraltar
- \* 15. Goldstream
16. Goodhope-Horn Silver

- \* 17. Granisle
18. Highland Bell
19. Highmont
20. Island Copper
- \* 21. Kitsault
22. Lornex
23. Lynx/HW
- \* 24. Mosquito Creek
25. Parsons
26. Ruth Vermont
27. Scottie
28. Silvana
29. Spillimacheen
30. Sullivan
31. Taurus
32. Western Gypsum

## POTENTIAL MINES

33. Babe (Au)
34. Blackdome (Au)
35. Bralorne (Au, Ag)
36. Cirque (Pb, Zn)
37. David Minerals/Rosland (Cu, Au)
38. Kutcho (Cu, Zn, Ag)
39. Schaft Creek (Cu, Mo, Au)
40. Windy-Craggy (Cu, Co)
41. Midway (Ag, Pb, Zn)
42. Lawyers (Au, Ag)
43. QR (Au, Cu)
44. Rea Gold (Au, Ag, Zn, Pb, Cu)

## PRODUCING COAL MINES

45. Bullmoose
46. Byron Creek (Corbin)

47. Fording
48. Greenhills
- \* 49. Harmer (Sparwood)
50. Line Creek
51. Quintette

## POTENTIAL COAL MINES

52. Burnt River
53. Carbon Creek
54. Elco
55. Klappan
56. Monkman
57. Quinsam
58. Sage Creek
59. Telkwa
60. Willow Creek
61. Wolf Mountain

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## Highlights

A number of special projects were undertaken by the Division in 1984, in addition to normal operational activity. A pilot project was under way to computerize Mineral Titles records for the Victoria and Liard Mining Divisions. Production of Mineral Titles reference maps were also being automated, with both projects scheduled to continue until the Provincial Gold Commissioner's network is fully computerized in 1987. Mineral Titles Branch collected \$4.1 million for issuing Free Miner Certificates and in mining receipts during the year.

In June, Inspection and Engineering Branch engaged the services of Currie, Coopers and Lybrand, consultants, to evaluate branch systems and procedures with a view to streamlining and improving efficiency. The firm's final report was received in October.

Some recommendations were implemented immediately and preparations were begun for future implementations of others.

Inspection and Engineering held its Reclamation Symposium in Victoria in February, with Island Copper Mine of Port Hardy winning the main reclamation award. The annual Open Pit and Quarry Safety Awards presentations were held in Vancouver in April, with the main award going to Brinco Mining Ltd. for its Cassiar operation. In June, the provincial Mine Rescue and First Aid Competitions were held in Kamloops; the underground event trophy went to the Cominco Sullivan team and the surface event trophy went to the Island Copper team.

Mineral Policy and Evaluation Branch co-ordinated a continuing review and reform of legislation and regulations. These initiatives, begun two years earlier, include a streamlining of the review process for new mining ventures, now largely completed, and an overhaul and updating of coal, mineral and placer tenure systems. In addition, a review of the Mines Act resulted in the publishing of revised reclamation requirements in 1984. The Branch was also involved in preparing for a Mineral Development Agreement with the federal government, and developed an initial plan for upgrading the mineral economics and statistics computer system.



## PETROLEUM RESOURCES DIVISION

**THE PETROLEUM RESOURCES DIVISION** is responsible for all matters related to Crown-owned petroleum and natural gas rights in British Columbia. It supervises the disposition of these rights and regulates all exploration, development and production operations of the oil and gas industry. Geothermal resources are also regulated by this division.

**ASSISTANT  
DEPUTY  
MINISTER**

**ENGINEERING  
AND  
OPERATIONS  
BRANCH.**

Regulates operational activities of the petroleum industry, including safety and waste control. Maintains a District Office at Charlie Lake, near Fort St. John.

- \* Development Engineering Section
- \* Drilling and Production Section (District Operations)
- \* Reservoir Engineering Section

**PETROLEUM  
GEOLOGY  
BRANCH.**

Collects geological and geophysical information on the petroleum and geothermal resources of the province and assists the petroleum industry in its exploration and development activity.

- \* Economic Geology Section
- \* Geophysical Section
- \* Reservoir Geology Section

**PETROLEUM  
TITLES  
BRANCH.**

Administers laws and regulations affecting the title and disposition of oil and natural gas rights, including underground storage.

**MEDIATION AND  
ARBITRATION  
BOARD.**

Facilitates negotiations between petroleum companies and landowners regarding access to petroleum-bearing lands.



## The Petroleum Industry in 1984

A major recovery in drilling activity was recorded by the province in 1984. After three consecutive years of decreasing drilling and exploration operations, the petroleum industry experienced a significant growth in 1984 as the result of an important oil discovery made the previous year in the Desan area of northeastern British Columbia.

The number of geophysical crew weeks worked and wells drilled more than doubled compared to 1983.

Most of the increase in drilling activity resulted from drilling programs that were initiated to follow up the Desan discovery, located 70 miles northeast of Fort Nelson. Petroleum became the principal objective for British Columbia drilling rather than natural gas which had dominated the provincial scene since inception of the industry. Some seismic exploration was carried out in the Flathead region in the southeast corner of the province. Three wells were drilled in this area and another was drilling at year end. The main objective here is to establish reserves of carbon dioxide, which is used in enhanced oil recovery (EOR) projects.

The volumes of petroleum and natural gas produced in 1984 recorded moderate gains, with increased sales of gas to the United States and increased oil production resulting from a federal/provincial incentive program. As well, the upgrading of producing

operations in several fields contributed to the improvement in production figures.

Direct revenues to the province from Petroleum and Natural Gas totalled \$320.5 million in 1984.

### Provincial Revenue from the Petroleum Industry *in thousands of dollars*

	1980	1981	1982	1983	1984
Rentals & fees	27,809	27,334	31,126	40,259	42,422
Crown reserve dispositions	181,267	60,776	16,724	26,014	61,754
Crown royalties	49,370	55,640	76,181	89,255	102,665
Gas revenue from BCPC	242,875	158,000	155,000	102,580	113,700
<b>Total</b>	<b>501,321</b>	<b>301,750</b>	<b>279,031</b>	<b>258,108</b>	<b>320,541</b>

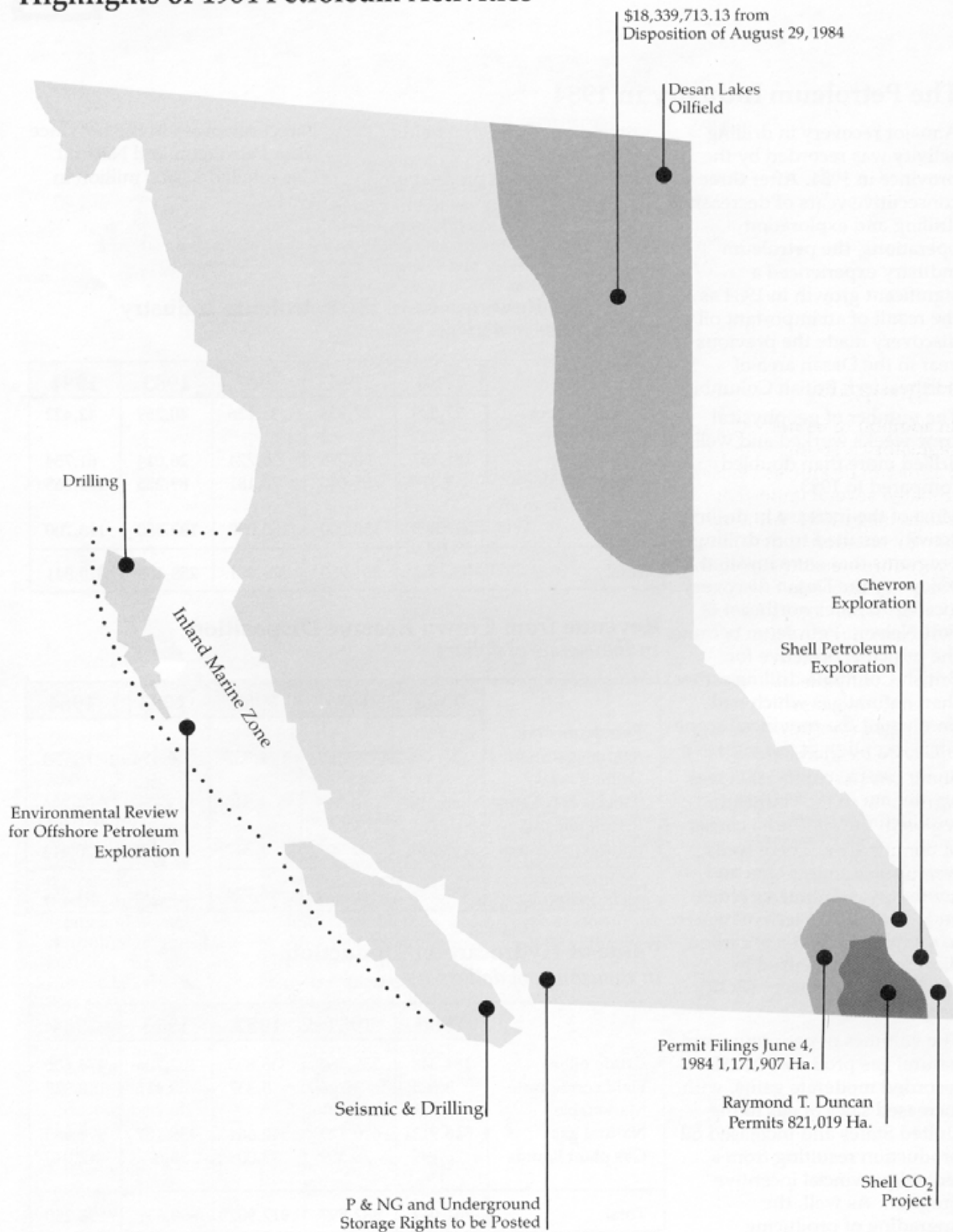
### Revenue from Crown Reserve Disposition *in thousands of dollars*

	1980	1981	1982	1983	1984
Petroleum and natural gas permits	21,126	22,531	4,837	4,458	16,794
Drilling reservations & licences	68,359	6,338	4,540	13,756	24,546
Petroleum and natural gas leases	91,782	31,907	7,347	7,801	20,414
<b>Total</b>	<b>181,267</b>	<b>60,776</b>	<b>16,724</b>	<b>26,015</b>	<b>61,754</b>

### Value of Hydrocarbon Production *in thousands of dollars*

	1980	1981	1982	1983	1984
Crude oil	184,348	235,560	333,893	402,706	434,600
Field condensate	3,605	3,225	3,337	3,411	2,927
Marketable					
Natural gas	546,912	620,423	542,664	455,187	518,683
Gas plant liquids	26,199	28,389	33,008	38,677	42,040
<b>Total</b>	<b>761,064</b>	<b>887,597</b>	<b>912,902</b>	<b>899,351</b>	<b>998,250</b>

# Highlights of 1984 Petroleum Activities



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## Highlights

In addition to its normal regulatory responsibilities, the Petroleum Resources Division initiated several important programs in 1984. Although implementation of new procedures resulting from the Natural Gas Marketing Study was delayed, detailed work was carried out on the compilation of factors and data to be used by the industry. When this scheme is put into effect, gas royalties will be collected by the Crown based upon each gas well's location, depth, age and monthly production volume.

A complete rewrite of the computer application that compiles and reports volumes of produced oil, gas and water was undertaken. It is planned to extend this application to

include the calculation of provincial reserves and a data base of drilling and completion results in the near future.

Because of the importance of the development of the Desan oil pool and its complexity, several special studies were done by staff of the District Office at Charlie Lake near Fort St. John, to obtain an optimum understanding of drilling completion and production concepts.

With the appointment of a panel to consider the effects of offshore petroleum development, the Division was involved in the development of policies for consideration and the communication of such policies to the public and industry.



# FINANCE AND ADMINISTRATION DIVISION

**THE FINANCE AND ADMINISTRATION DIVISION** provides support for the Ministry's operations and programs, and manages the assessment and collection of taxes and royalties from the mineral and petroleum industries.

**ASSISTANT DEPUTY MINISTER**

**MINERAL REVENUE BRANCH.**

Administers taxes and royalties assessed under the Mineral Resources Tax Act, Mineral Land Tax Act, Coal Royalty Regulations and Petroleum and Natural Gas Royalty Regulations.

**FINANCIAL SERVICES BRANCH.**

Provides financial administration for all sections of the Ministry.

**ADMINISTRATION BRANCH.**

Manages office space and equipment, vehicles, telecommunications, mail and courier services for the Ministry. It also administers distribution of Ministry maps and publications.

**DATA SERVICES BRANCH.**

Plans and manages data processing operations, including automation of Mineral Titles and Petroleum Titles systems.

**PERSONNEL SERVICES BRANCH.**

Responsible for staff recruitment, labour-management relations and staff training and development programs.

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## Highlights

Revenue collections by the Ministry in 1984 increased by 33 per cent, to a record of \$146.1 million from the \$109.6 million collected in 1983. The previous record year was 1980, when revenues reached \$144.8 million. The primary reason for the dramatic increase in revenues was the increased demand for and the supply of petroleum and natural gas. A continued weakness in metal prices on world markets resulted in revenues from this sector remaining at depressed levels for the year.

Automation of the financial systems enabled the Ministry to cope with a high level of financial activity as transaction volumes rose above those experienced in 1983.

Negotiations were initiated with the Ministry of Forests regarding province-wide access to their repeater tower network for emergency broadcast purposes.

Data Services Branch entered the final year of a project to develop the Petroleum Titles and Mineral Titles administration system. This system forms the foundation of information flow across the province. Activities also included implementation of the automated mapping program and working with industry in defining requirements for the Mineral Inventory System.

Government Personnel Services Division delegated staffing authority to the Ministry in 1984. A self-development course was introduced for women employees.

## Ministry of Energy, Mines and Petroleum Resources Details of Expenditures by Appropriations and Activities, and By Standard Expenditure Classification

*Fiscal Year Ended March 31, 1985 (with comparative amounts for March 31, 1984)  
(This information covers the two fiscal years bracketing the 1984 calendar year.)*

Summary of Expenditures	YEAR ENDED 3/31/84	YEAR ENDED 3/31/85
Minister's Office	129,282	146,711
Resource Management Program (net of recoveries)		
Executive Management	439,437	539,335
Finance and Administration Division	4,212,524	3,844,618
Energy Resources Division	4,884,188	1,746,813
Mineral Resources Division	6,772,308	8,040,428
Petroleum Resources Division (Note 1)	2,112,380	8,923,871
British Columbia Utilities Commission (net of recoveries)	1,484,817	1,777,306
Fort Nelson Indian Band Revenue Sharing Agreement Statutory	2,002,480	1,439,120
Financial Administration Act Sec. 24 (c) — Interest on Revenue Refunds	97,340	200,625
Financial Administration Act Sec. 22 — Utilities Hearings (Note 2)	0	0
Mines Act Sec. 15 (2) — Mine Improvement	2,355	32,785
Special Account — Energy Development	88,827	—
Financing Transactions — NORP Program (net of recoveries)	0	0
	22,225,938	26,691,612

Standard Expenditure Classification	YEAR ENDED 3/31/84	YEAR ENDED 3/31/85
Salaries	11,272,765	12,245,926
Supplies and Services	7,879,251	8,055,556
Capital (Note 1)	64,454	6,872,022
Other Expenditure (NORP Program)	31,853,062	54,259,857
Grants	7,474,270	72,000
Recoveries (NORP Program and Utilities Hearings)	(36,317,864)	(54,813,749)
	22,225,938	26,691,612

## Notes

1. Fiscal 84/85 amount includes \$6,400,000 for capital construction of a petroleum resource road to Desan Lake.
2. Vancouver Island Pipeline Hearing incurred fully recovered costs of \$781,094 in fiscal 83/84 and \$244,927 in fiscal 84/85.

Anzac Tumbler Ridge Branch Line Hearing incurred fully recovered costs of \$2,500,000 in fiscal 83/84.

# MINISTRY TELEPHONE DIRECTORY

## DEPUTY MINISTER'S OFFICE

.....	387-5137
Executive Coordinator .....	387-5137
Communications Branch .....	387-5178
Library .....	387-6407
Publications Production .....	387-5631



## ENERGY RESOURCES DIVISION

Assistant Deputy Minister .....	387-1916
Policy Development Branch .....	387-5231
Project Analysis Branch .....	387-5231
Forecasts and Special Projects Branch .....	387-5231



## MINERAL RESOURCES DIVISION

Assistant Deputy Minister .....	387-6242
Mineral Titles Branch .....	387-4417
Central Records .....	387-4417
Area Titles Management .....	387-4417
Mineral Titles Drafting .....	387-4417
Inspection & Engineering Branch ....	387-3781
Mineral Geology Branch .....	387-5975
Resource Data & Analysis .....	387-5975
Geoscience Projects .....	387-5068
Drafting .....	387-5975
Applied Programs .....	387-5538
Lapidary .....	387-6758
Analytical Laboratory .....	387-6249
Mineral Policy & Evaluation Branch .	387-3787



## PETROLEUM RESOURCES DIVISION

Assistant Deputy Minister .....	387-3485
Engineering & Operations Branch ...	387-5993
Reservoir Engineering .....	387-5993
Development Engineering .....	387-5993
File Room .....	387-5993
Petroleum Geology Branch .....	387-5993
Drafting .....	387-1908
Petroleum Titles Branch .....	387-1908
Drafting .....	387-1908
Offshore Coordinator .....	387-1908



## FINANCE & ADMINISTRATION DIVISION

Assistant Deputy Minister .....	387-5135
Finance & Resource Revenue Branch	
Resource Revenue .....	387-6991
Financial Services .....	387-5185
Administration Branch .....	387-1368
Publications Distribution .....	387-3188
Mail/Supply Room .....	387-6248
Data Services Branch .....	387-1267
Personnel Branch .....	387-3775

## DISTRICT OFFICES

Fernie .....	423-6884
Fort St. John (Charlie Lake) .....	787-3450
Mediation & Arbitration Board ....	787-3403
Kamloops .....	828-4566
Nanaimo .....	758-8971
Nelson .....	354-6125
Prince George .....	565-6125
Quesnel .....	992-5591
Smithers .....	847-7383
Vancouver .....	660-2672