

CANADA  
DEPARTMENT OF ENERGY, MINES AND RESOURCES

---

GEOLOGICAL SURVEY OF CANADA

PRELIMINARY EDITION  
CATALOGUE OF SCIENTIFIC PROJECTS  
1981-1982

Compiled by M.A. Petre



This document was produced  
by scanning the original publication.

Ce document est le produit d'une  
numérisation par balayage  
de la publication originale.

---

OTTAWA  
1981

GEOLOGICAL SURVEY OF CANADA

CATALOGUE OF SCIENTIFIC PROJECTS

1980-81

OTTAWA  
1981



## CONTENTS

	Page
Department of Energy, Mines and Resources Program Activity Structure	vii
List of Abbreviations Used	viii
Geological Survey of Canada Organization	x
Scientific Projects	1
Index by Project Leader	71
Index by Province	73





#### PREFACE

This catalogue of all scientific projects of the Geological Survey of Canada approved as of January 1981 has been compiled by M.A. Petre of the Geological Survey Program Office. It is arranged to indicate: 1) the total scientific program of the Survey for the period 1 April, 1981 to 31 March, 1982, and 2) the field program for the summer of 1981.

As a catalogue it lists and briefly describes all scientific projects. These total 468 (45 inactive) and are compiled from preliminary estimates of our scientific program (GSC 231). Thus it comprises the current authority on such matters as project numbers, titles and objectives and supersedes previous catalogues and documents concerning scientific projects. Projects are listed in numerical order and an index by project leader and by province is provided at the end.

All projects are classified in the Program/Activity structure now in use throughout the Department, this classification appearing in the column "Departmental Classification". Details of this classification follow this preface.

The field program for the summer of 1981 comprises the field component of those active projects marked by an asterisk after the project number. These total 201. No distinction has been made between a minor field component, such as a few days, and a major component requiring the entire field season.

D.G. Benson  
A/Chief Program Officer

Ottawa  
1981



DEPARTMENT OF ENERGY, MINES AND RESOURCES  
PROGRAM ACTIVITY STRUCTURE

1 ADMINISTRATION PROGRAM

ACTIVITIES

- .1 Corporate Management
- .2 Common Services

SUB-ACTIVITIES

2 MINERAL & EARTH SCIENCES PROGRAM

- .1 Mineral Development
- .2 Administration of the Canada Explosives Act
- .3 Minerals Technology
- .4 Energy Technology
- .5 Geological Surveys

- .1 Cordilleran Geology
  - .1 Cordilleran Regional Geology
  - .2 Pacific Marine Geology
  - .0 General
- .2 Sedimentary & Petroleum Geology
  - .1 Sedimentary Regional Geology
  - .2 Paleontology
  - .3 Petroleum Geology
  - .4 Coal Geology
  - .5 Sedimentary Geology Information
  - .6 Petroleum Resources Appraisal Secretariat
  - .0 General
- .3 Precambrian Geology
  - .1 Precambrian Regional Geology
  - .2 Precambrian Laboratory Geology
  - .0 General
- .4 Atlantic Geoscience
  - .1 Atlantic Regional Geology
  - .2 Environmental Marine Geology
  - .3 Eastern Petroleum Geology
  - .4 Marine Geoscience Technology
  - .0 General
- .5 Terrain Sciences
  - .1 Regional Terrain Geology
  - .2 Terrain Use Geology
  - .0 General
- .6 Economic Geology
  - .1 Mineral Deposits Geology
  - .2 Uranium Resource Evaluation
  - .3 Mineral Deposits Data Analysis
  - .0 General
- .7 Resource Geophysics & Geochemistry
  - .1 Regional Geophysics
  - .2 Resource Geochemistry
  - .3 Resource Radioactivity
  - .4 Terrain Geophysics
  - .0 General
- .8 Geological Information
- .9 Central Laboratories & Technical Services
- .10 Activity Management & Support

- .6 Earth Physics
- .7 Polar Continental Shelf
- .8 Remote Sensing Service
- .9 Surveying and Mapping
- .10 Minerals & Earth Sciences Public Information
- .11 Program Management and Support

LIST OF ABBREVIATIONS USED

DIRECTOR GENERAL'S OFFICE — DGO

SP — Special Projects

ATLANTIC GEOSCIENCE CENTRE — AGC

EPG — Eastern Petroleum Geology Subdivision  
 CG — Coal Geology  
 LBG — Labrador-Baffin Group  
 PBG — Paleozoic Basin Group  
 SGBM — Scotian Grand Banks Margin Group

EMG — Environmental Marine Geology Subdivision  
 CGD — Coastal Geodynamics  
 G — Geomorphology  
 IGC — Inorganic Geochemistry  
 MA — Methods & Analysis  
 OGC — Organic Geochemistry  
 PEc — Paleocology  
 SD — Sediment Dynamics

RR — Regional Reconnaissance Subdivision  
 EAOG — Eastern Arctic Offshore Geology  
 GPS — Geophysical Surveys  
 LSS — Labrador Sea Studies  
 OBM — Ocean Basins and Margins  
 SBG — Surficial and Bedrock Geology

PS — Program Support  
 SD — Systems Development

CENTRAL LABORATORIES AND TECHNICAL SERVICES — CLTS

M — Mineralogy  
 AC — Analytical Chemistry

CORDILLERAN GEOLOGY DIVISION — C

BG — Bedrock Geology  
 MG — Marine Geology

ECONOMIC GEOLOGY DIVISION — EG

GM — Geomathematics  
 MDB — Mineral Data Bank  
 MDG — Mineral Deposits Geology  
 URE — Uranium Resources Evaluation  
 SP — Special Projects

INSTITUTE OF SEDIMENTARY AND PETROLEUM GEOLOGY — ISPG

CG — Coal Geology Subdivision  
 CG — Coal Geology  
 CT — Coal Technology  
 RE — Resource Evaluation

PG — Petroleum Geology Subdivision  
 GC — Geochemistry  
 PR — Petroleum Resources  
 RM — Resource Methodology

P — Paleontology Subdivision  
 MaP — Macropaleontology  
 MiP — Micropaleontology  
 OP — Ottawa Paleontology

RG	—	Regional Geology Subdivision
AI		-Arctic Islands
CTS		-Curation and Technical Services
M		-Mainland

PRECAMBRIAN GEOLOGY DIVISION — P

G		-Geochronology
PET		-Petrology
PMag		-Paleomagnetic
SP		-Special Projects

RG	—	Regional Geology Subdivision
BS		-Bear Slave
NC		-Northern Churchill
SG		-Superior Grenville
SP		-Special Projects

RESOURCE GEOPHYSICS AND GEOCHEMISTRY — RGG

RG	—	Regional Geophysics Subdivision
AI		-Aeromagnetic Interpretation
CAS		-Contract Aeromagnetic Surveys
EAO		-Experimental Airborne Operations
GDP		-Geophysical Data Processing
MM		-Magnetic Methods

RG	—	Resource (Geochemistry) Subdivision
GL		-Geochemical Laboratories
MD		-Method Development
RS		-Regional Surveys

RR	—	Resource (Radioactivity) Subdivision
ADI		-Airborne Data Interpretation
ARO		-Airborne Radiometric Operations
ANI		-Analytical & Nuclear Instrumentation
CMC		-Computer Methods and Calibration
RM		-Radiation Methods
RSA		-Remote Sensing Applications

TG	—	Terrain Geophysics Subdivision
EM		-Electrical Methods
SM		-Seismic Methods

TERRAIN SCIENCES DIVISION — TS

EG	—	Engineering Geology
GP	—	Geomorphic Processes
PG	—	Paleoecology and Geochronology
RP	—	Regional Projects
SMT	—	Sedimentology and Mineral Tracing



GEOLOGICAL SURVEY OF CANADA  
ORGANIZATION

Office of the Director-General

W.W. Hutchison, Director-General (995-4208)  
J.G. Fyles, Chief Geologist (995-4249)  
D.G. Benson, A/Chief Program Officer (995-4122)

Atlantic Geoscience Centre, Dartmouth, N.S., Director – M.J. Keen, (902)426-2367)

Eastern Petroleum Geology Subdivision, G.L. Williams, (426-2730)  
Environmental Marine Geology Subdivision, D.E. Buckley, (426-7730)  
Regional Reconnaissance Subdivision, R.K.H. Falconer, (426-6326)  
Program Support, K.S. Manchester, (426-3411)

Central Laboratories and Technical Services, Director – J.A. Maxwell, (995-4482)

Mineralogy Section, A.G. Plant, (995-4686)  
Analytical Chemistry Section, Sydney Abbey, (995-4391)

Cordilleran Geology Division, Director – R.B. Campbell, (604)544-1408)

Marine Geology, C.J. Yorath, (604)656-8418)

Economic Geology Division, Director, G.B. Leech, (995-4093)

Geomathematics Section, F.P. Agterberg, (996-3413)  
Mineral Data Bank Section, D.D. Picklyk, (995-4670)  
Mineral Deposits Geology Section, R.I. Thorpe, (995-4137)  
Uranium Resources Evaluation Section, V. Ruzicka, (995-4558)

Geological Information Division, Director – R.G. Blackadar, (995-4089)

Institute of Sedimentary and Petroleum Geology, Calgary, Alberta,  
Director – W.N. Nassichuk, (403)284-0110)

Coal Geology Subdivision, D.K. Norris, (284-0110)  
Information Subdivision, E.R.W. Neale, (284-0110)  
Paleontology Subdivision, (284-0110)  
Petroleum Geology Subdivision, J.E. Brindle, (284-0110)  
Regional Geology Subdivision, D. G. Cook, (284-0110)

Precambrian Geology Division, Director, J.C. McGlynn (995-4314)

Geochronology Section, R.D. Stevens (A), (995-4354)  
Petrology Section, K.L. Currie, (995-4972)  
Paleomagnetic Section, E.J. Schwarz, (995-4085)  
Regional Geology Subdivision, W.H. Fahrig, (995-4793)

Resource Geophysics and Geochemistry Division, Director – A.G. Darnley (995-4909)

Regional Geophysics Subdivision, P.J. Hood (995-4913)  
Resource Geochemistry Subdivision, E.M. Cameron, (995-4521)  
Resource Radioactivity Subdivision, K.A. Richardson, (995-4436)  
Terrain Geophysics Subdivision, L.S. Collett, (993-5964)

Terrain Sciences Division, Director – J.S. Scott, (995-4938)

Engineering Geology Section, E.B. Owen, (993-6093)  
Geomorphic Processes Section, J.A. Heginbottom, (993-6083)  
Paleoecology and Geochronology Section, W. Blake, (995-4583)  
Regional Projects Section, R.J. Fulton, (993-6094)  
Sedimentary and Mineral Tracing Section, W.W. Shilts, (995-4523)

Dept'l  
Classi-  
fication

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
380077	Analysis of rocks and minerals Obj: To provide compositional data on geological materials as a contribution to the solution of geological problems.	Abbey, S	CLTS	-	AC	-	-	259
400006*	Preparation of collections of Canadian rocks and minerals for distribution to the public Obj: To make available for distribution to educational institutions and the Canadian public representative collections of Canadian rocks and minerals that will assist prospectors and promote interest in the mineral industry.	Larose, JM	CLTS	-	M	NS, NB NFLd Ont Que	-	259
490038*	Miscellaneous field investigation by staff at Vancouver office Obj: Various objectives according to the particular investigations, which include supervision of Geological Survey field parties, examination of mining properties, assistance in various government engineering projects such as water power sites, dams, tunnels, and location of convenient deposits of industrial minerals and rock materials.	Leaming, S	C	-	BG	BC	104 I, J, P	2511
500029*	Identification and biostratigraphic interpretation of referred fossils Obj: By the study of fossils collected by officers of the Geological Survey of Canada, members of other organizations and the general public, to provide identifications and ages vital to correlation of the host rocks and to the dating of geological events. To describe important fossils from these collections to further knowledge of paleontology and biostratigraphy of Canada.	Staff of Eastern & Western Paleontology Sections	ISPG C AGC	P MG EPG	-	NS NFLd NB Yk Mack BC Alta	95 B, C; 103 G, 82 E, K	2522 2512 2543
500038	Coal resources of Canada and studies of coal deposits in Canada Obj: To prepare estimates on the coal reserves of Canada; to prepare for publication reports and illustrations concerning Canada's coal resources; to advise and prepare reports for other Branches or Departments when so requested; to have up-to-date knowledge of coal fields in Canada.	Recruit	ISPG	CG	RE	-	27, 62, 72, 82, 83	2524
540028	Isotopic age determinations of rocks and minerals Obj: To determine the geological age of rock, minerals and geological events using isotopic methods.	vice-Manless, RK	P	-	G	-	-	2532

\* in first column indicates project has a field component.  
- in first column indicates project is inactive.  
Brackets indicate seasonal employee or other non-staff.  
Underscoring indicates province of 1981-82 field work.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
550101*	Reference collections of minerals, rocks and ores Obj: To develop, foster and curate reference collections of minerals, rocks, and ore specimens in support of Branch activities and in the national interest.	Steady, HR	CLTS	-	M	-	-	259
570001*	Operation Mackenzie Obj: To acquire stratigraphic information on the sequence of bedrock formations, to effect their correlation and study their variations and mode of origin; to prepare geological maps of the plains areas at 1 inch to 8 miles and of the mountains at 1 inch to 4 miles; to assess the economic possibilities of the area as a source of oil, gas, coal and minerals.	(vice-Douglas, RJW)	D60	-	SP	Mack	85, 95	250
570029*	Geology and evaluation of iron and manganese resources Obj: To conduct comprehensive study and research on the geology of iron and manganese deposits to provide a geological basis for exploration, evaluation and development of iron and manganese resources in Canada.	Gross, GA	EG	-	SP	Nfld Que Ont Man, Sask Alta Kee	22, 23, 31, 32 41, 42, 52, 53, 62, 63, 64, 65, 93, 103	256
570119*	Studies of meteorites and other extra-terrestrial material Obj: To study the mineralogy, petrology, and chemistry of Canadian meteorites, and of other extra-terrestrial material, and to apply the knowledge thus gained towards a better understanding of earth science processes; and to foster, develop and curate Canada's National Meteorite Collection.	Plant, AG	CLTS	-	M	-	-	259
570148	Radiocarbon dating program Obj: To plan and co-ordinate the radiocarbon dating program of the Geological Survey.	Blake, W Jr	TS	-	PG	-	-	2551
580160	Catalogue of Canadian minerals Obj: To assist in the identification and inventory of potential mineral resources in Canada by compilation and publication of a Catalogue of Canadian Minerals that provides reference material for direct use by earth scientists, the mining industry and the general public.	Plant, AG	CLTS	-	M	-	-	259
580175	Analytical services and development in geochemistry Obj: To coordinate and supervise the "in-house" sample preparation and analyses of sediment, soil, rock, mineral and water samples, collected by or for the Resource Geochemistry Subdivision.	Hall, GEM	GGG	RGC	GL	-	-	2572
590457	Radiocarbon laboratory development and operation Obj: 1) To determine the age of carbonaceous matter using radiocarbon dating techniques; to ensure continuing and improving precision of existing techniques; and to keep abreast of current research on new techniques. 2) To conduct research on variations in the radiocarbon content of modern organic material and its application to age determinations on fossil material.	Lowdon, JA	TS	-	PG	-	-	2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
600307	X-ray emission analysis Obj: To contribute to the knowledge of Canadian mineralogy and mineral deposits through research and development of methods and concepts of X-ray emission analysis and application of these to the analysis of geological materials. To improve the quality and rate of production of X-ray fluorescence analyses that may be applied to geological research and to provide "custom" XRF analyses in support of G.S.C. research projects.	Lanchance, GR	CLTS	-	AC	-		259
610007	Operation Porcupine Obj: Critical evaluation of the structural geometry and stratigraphy within the project area of northern Yukon Territory and western District of Mackenzie for the documentation of the nature, origin, and mechanics of the deformation and its bearing on the hydrocarbon and mineral potential of the region.	Norris, DK	ISPG	CG	-	Mack Yk	106 E, F, K-N; 116 F-K, N-P	2524
610019*	Ordovician and Silurian Biostratigraphy of British Columbia, Alberta, Manitoba Yukon, Mackenzie & Franklin Obj: Establishment of sequence of biochronological zones for Ordovician and Silurian time. Such sequence of zones to provide necessary time control for exploration of natural resources of Ordovician and Silurian rocks in northern and western Canada.	Norford, BS	ISPG	P	MaP	Frank Mack Yk BC Alta	36; 37; 47-49 54; 57-59; 67-69; 82; 83; 85; 94; 95; 96; 97; 104 I, P; 105 I; 106; 116; 117; 120; 340	2522
620018	Geological Survey of NTS 82 J W½ (Kananaskis Lakes, W½) Obj: To determine and interpret the stratigraphic structural and economic geological features of the region.	Leech, GB	EG	-	-	BC	82 J W½	2561
620019	Prince Rupert - Skeena map-areas Obj: To determine the regional geologic relationships and the origin and evolution of the metamorphic and plutonic rocks of part of the Coast Mountains.	Hutchison, MW	DGO	-	-	BC	103 I, J	250
620308	Electron beam microanalysis Obj: To conduct studies of geological materials using techniques of electron probe microanalysis and scanning electron microscopy, in support of Branch projects.	Plant, AG	CLTS	-	M	-		259
630016*	Coast Mountains project Obj: A geological reconnaissance of the Coast Mountains between southeast Alaska and Vancouver for publication on a scale of 1 inch equals 4 miles. The investigation is expected to reveal the main events in the geological history of the Coast Crystalline Belt and to develop an understanding of the processes governing the formation of plutonic rocks in such orogenic belts.	Roddick, JA	C	-	BG	BC	92 F, G, H, J, K, L M, N; 93 D; 102 P; 103 A, G, I W½, J, N, P, W½	2511
630017	Operation Liard Obj: To establish the stratigraphic framework of the northern Rocky Mountains and in conjunction to establish a conceptual model of the structural deformation of these rocks.	Taylor, GC	ISPG	RG	M	BC	94 F, G, H, I, J, K, N, O, P	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
630037*	Geology of Canadian nickel and platinum group deposits  Obj: To carry out comprehensive research on the geology of the Canadian nickel and platinum group deposits in order to: 1) support or provide geologically based estimates of Canada's mineral resources; 2) provide guidelines for their discovery; 3) provide advice to government for mineral policy and related matters.	Eckstrand, OR	EG	-	MDG	BC Sask Man Ont Que	23; 31; 32 C,D; 42 A; 44 P; 63 O	256
630049	Electrical Rock Properties  Obj: To determine the frequency spectral characteristics of the electrical properties related to rock, mineral and soil types, and to rock texture, dissemination, pore structures and pore water structures, for development of new electrical and electromagnetic sounding methods, to solve specific problems of mineral exploration and/or geotechnical engineering.	Katsube, TJ	RG	TG	EM	-	-	2574
640036	Geology of the Lake Panache and Collins Inlet map-areas, Ontario  Obj: To revise the stratigraphy and structure of the Huronian succession as previously shown (GSC maps 220A and 221A); to determine the nature of the Grenville Front within the area and the effect of metamorphism on the Huronian formations; and to determine the metamorphic and structural history and the mineral potential of the map-areas.	Frarey, MJ	P	RG	SG	Ont	41 H,I	253
640048*	Study of mineral collecting areas of interest to collectors and tourists  Obj: To meet the needs of mineralogists and non-professional Canadian and foreign visitors for information on the accessibility, location, and nature of occurrences of minerals and rocks.	Stenson, Mrs AP	CLTS	-	M	-	-	259
640125	General metallogeny of Canada  Obj: To study metallogenic concepts pertaining to the geological and tectonic regions of Canada as a whole in order to determine relationships in the distribution of economic minerals to their geological environments and thus to more completely understand Canada's present and potential mineral resources.	Leech, GB	EG	-	-	-	-	256
640402	Certification of bedded and non-bedded mineral deposits  Obj: To act on behalf of the Director-General of the Geological Survey in the certification of mineral deposits as bedded or non-bedded for income tax purposes.	Leech, GB	EG	-	-	-	-	256
640420	Geological observations at shafts of potash mines in Saskatchewan  Obj: To record geological data and obtain fossil and rock specimens from the rocks exposed in large-diameter potash mine shafts in the eastern plains; to interpret these observations and material within the stratigraphic framework.	Price, LL	ISPG	RG	SM	Sask	62 K/5, 12; 72 O/16; 62 I/16; 72 P/13,14; 73 B/1,2,3	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
650003	Cornwallis and adjacent smaller islands	Thorsteinsson, R	ISPG	RG	AI	Frank	58 F, G; 68 E, H; 59 B	2521
	Obj: 1. To improve the understanding of the age, structure, sequence, relationship, thickness of bedrock formations with a view of helping; 2. Assess the size, grade, mode of occurrence, origin and potentialities of any fuel or mineral deposit that may occur; 3. Improve the knowledge and understanding of the morphology of Silurian and Devonian ostracoderms of Cornwallis Island, thus aiding in the establishment of a more useful stratigraphic framework for the region and thereby contributing to No. 1 above.							
650007*	Ocean aeromagnetics	Bower, ME	GGG	RG	MM	Frank	340, 560	2571
	Obj: 1. To conduct high resolution aeromagnetic surveys over the Canadian continental shelves for the purpose of delineating sedimentary basins. 2. To obtain and study magnetic data over the ocean basins in order to investigate theories of magnetic imprinting of oceanic rocks, ocean floor spreading and continental drift. 3. To develop and modify instrumentation and techniques for the improvement of airborne magnetometry, navigation, and data acquisition, processing and analysis.							
650008	Stratigraphy, sedimentology and correlation of Nonacho Group, N.W.T.	McGlynn, JC	P	RG	BS	Mack	75 E, F, K	253
	Obj: To define the sedimentology and stratigraphy of Nonacho Group and relationships of these rocks to surrounding igneous rocks as a contribution to regional correlation and geological history of the region.							
650013	Quaternary geology, Aishihik Lake	Hughes, OL	TS	-	RP	Yk	115 H; pts. 106 D, E; 115 A, B, G, I	2551
	Obj: To map and explain the Quaternary geology and geomorphology of Aishihik Lake area with particular reference to the nature and distribution of surficial materials and Quaternary stratigraphy and history in order to 1) improve knowledge of the glacial history of southwestern Yukon; and 2) provide areal geological information for land use planning and engineering development.							
650023	Operation Bow-Athabasca	(Price, RA, Prof)	ISPG	RG	M	BC Alta	83, C, D E's; 82 J E's, N E's, O W's	2521
	Obj: To complete the systematic reconnaissance geologic study of the Rocky Mountains south of lat. 53°N; to obtain information on the character, structure, distribution, age, stratigraphic relationships, and origin of the bedrock and other geological data that are required to evaluate the mineral potential of the area and to assist exploration of oil, gas, coal and other mineral deposits in this and adjacent areas.							
650024*	Cambrian trilobites and Cambrian biostratigraphy of Canada	Fritz, WH	ISPG	P	OP	Mack Yk BC	82 N, O; 83 C; 94 C; 104 P; 105 I, P; 106 A	2522
	Obj: To describe and assess biochronological significance of Cambrian trilobites in order to refine methods for dating Cambrian strata.							



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
650027*	Quaternary of southern Alberta	Stalker, AM	TS	RP		Alta Sask	72, L, M; 73, 82, 83	2551
	Obj: To gain knowledge of Quaternary Stratigraphy, chronology, environments and climates in southern Alberta.							
650056*	Geology of lead and zinc resources in Canada	Sangster, DF	EG	-	MDG	-	-	256
	Obj: To carry out comprehensive research on the geology of lead and zinc resources in order to: 1) support or provide geologically based estimates of Canada's mineral resources; 2) provide guidelines for their discovery; 3) provide advice to government for mineral policy and related matters.							
660006	Granite studies in the Ennadai-Rankin Inlet region	Davidson, A	P	RG	SG	Kee	55 E, F, K, L, 65 H, I	253
	Obj: To classify the granitic rocks according to age, geological and chemical nature, using geophysical parameters where available and to relate this classification to the regional geology and mineral deposits.							
660009	East Arm of Great Slave Lake, District of Mackenzie	Hoffman, PF	P	RG	BS	Mack	75 E, L, K; 85 H, I	253
	Obj: To refine existing stratigraphic descriptions and relationships of the sedimentary and volcanic rocks; to determine source regions and dispersal patterns in the sedimentary fill; to determine depositional environments and reconstruct the Paleogeographic history of the sedimentary basin.							
670002	Operation Bylot	Jackson, GD	P	RG	NC	Frank	27; 37; 38; 47; 48	253
	Obj: To provide a reconnaissance geological survey of a previously unmapped area and describe and interpret the broad geological framework and outline areas of potential economic interest.							
670003	Anorthosite study	Emslie, RF	P	-	PET	Que Nfld	13 L, M, N; 23 I	2521
	Obj: To examine three large anorthosite intrusions between Michikamau Lake and Main, Coast of Labrador for purposes of comparison with Michikamau Intrusion (including mineral potential).							
670016	S.W. Ellesmere - W. Devon Islands (Operation Grinnell)	Morrow, DW	ISPG	RG	AI	Frank	49 B, C; 59 A, B; 69 A	2521
	Obj: To improve the understanding of the stratigraphy and structure of the region, which is a key area for information in both of these fields; a primary purpose is to aid in evaluation of the resource potential - particularly petroleum and base metals - of this part of the north.							
670068	Operation Norman	Cook, DG	ISPG	RG	M	Mack	86 W; 96; 97; 106 E; 107 E <sub>1/2</sub>	2521
	Obj: To complete reconnaissance geological mapping, to conduct stratigraphic and structural studies, and to evaluate the economic potential of bedrock formations in the subject area; to embody the results of these studies in an integrated series of reports and maps, some under single authorship and others under multiple authorship according to the topic of contribution.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
670576*	Canadian Triassic Ammonoidea and Bivalvia Obj: To describe and assess biochronological significance of Triassic Ammonoidea and Bivalvia in order to refine methods for dating Triassic rocks. Paleomagnetic study of Proterozoic red beds of the western Canadian Shield Obj: To obtain paleomagnetic pole positions from various Proterozoic red bed sequences in the western Precambrian Shield for purposes of correlation.	Tozer, ET McGlynn, JC	ISPG	P	OP	Yk BC	94 B; 106 D; 116 B, C	2522
680012	Obj: To standardize, develop, and/or bring into use various testing and/or analytical procedures available to the geoscientist; to develop new techniques and instrumentation; to ensure efficient operation of the sedimentology laboratories.	Podolak, WE	TS	-	SMT	Sask Kee	75 E,F; 74; 85; 86; 65; 66	253
680017	Sedimentology-engineering geology laboratory development and operation							2552
680023	X-ray diffraction analyses and mineralogical studies Obj: To provide X-ray diffraction analyses and mineralogical studies in support of Branch projects.	Plant, AG	CLTS	-	M			259
680027	Surficial geology, Tawatinaw area Alberta Obj: To map, describe and explain the unconsolidated deposits and landforms of the Tawatinaw map-area (83 I) in central Alberta in order to provide geology and terrain information pertinent to land use planning, agriculture, urban and industrial development, forestry and engineering construction and to determine the Quaternary history of the region.	Richard, SH	TS	-	RP	Alta	83 I	2551
680047*	Geomorphic processes, Mackenzie Valley-Arctic Coast Obj: To investigate the processes involved in the growth of permafrost and ground ice under present day conditions, in order to understand better the processes associated with the past growth of permafrost in northern Canada	(Mackay, JR Prof)	TS	-	GP	Mack Yk	85, 95, 96, 97 C,D 106, 107 B,D; 117 D; 96 B-F; 106-F,I,P; 116 I,N-P	2552
680060*	Geology of silver and gold deposits in Canada Obj: To carry out comprehensive research on the geology of silver and gold deposits in order to: (1) support or provide geologically based estimates of Canada's mineral resources; (2) provide guidelines for their discovery; (3) provide advice to government for mineral policy and related matters.	Thorpe, RI	EG	-	MDG			2561

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680064*	Stratigraphy and Paleontology of Upper Paleozoic rocks on of Ellesmere and Axel Heiberg Islands	Nassichuck, WW	ISPG	P	MaP	Frank	NTS	2520
	Obj: (a) To improve the understanding of stratigraphy and facies relationships of the marginal and axial parts of the Sverdrup Basin; (b) to establish a biostratigraphic framework for Carboniferous and Permian rocks; and (c) to evaluate the economic potential of the area.							49 B,C,E,G,H; 340 A, B,C,D; 560 A
680066*	Geology of the Cariboo Mountains, British Columbia	Campbell, RB	C	-	-	BC		2511
	Obj: To determine the tectonic movement of the Cariboo Mountains, and explain their origin, development mode of emplacement and economic potential.							83 D; 93 A,H
680071	Alkaline rocks in Canada	Currie, KL	P	-	PET	-		2531
	Obj: To identify and examine occurrences of alkaline rocks in Canada, and to explain their origin, development mode of emplacement and economic potential.							
680073	Magnetic anomaly maps of Canada	McGrath, PH	RG	RG	AI	-		2571
	Obj: To publish regional magnetic anomaly maps of Canada (1255A and 1512A), and to interpret the resultant anomaly patterns in terms of the geological framework of Canada.							
680076*	Geology of Southern Indian Lake, Manitoba	Davison, WL	P	RG	SG	Man	64	2531
	Obj: To study and assess an area of scientific and economic potential, before flooding caused by construction of the Southern Indian Lake diversion dam. Particular attention will be given to the relationships of the Sickle and Wasekwan Groups to various intrusive rocks of the region. Publication scale 1:500 000.							
680081*	High resolution aeromagnetics (experimental surveys)	Olson, DG	RG	RG	EA0	Que Man NB NS Ont Sask BC	32 C; 73 G; 63 K; 52 F; 20 U,P; 21 A,B	2571
	Obj: To execute, according to prescribed specifications, high resolution experimental aeromagnetic and/or gradiometer surveys, over areas selected and defined by management, as a means of testing the effectiveness of the GSC aeromagnetic system in different geological contexts.							
680084*	Operation Smoky	Taylor, GC	ISPG	RG	M	BC	93 I,O,P; 83 L	2521
	Obj: To establish the interdependent relationships of the structure, and stratigraphic succession between the contrasting areas of the southern Rocky Mountains and those of the northern Rocky Mountains.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680090	Identification of unknown minerals and elemental analysis of sedimentary rocks by X-ray analysis and chemical techniques Obj: Quantitative and semiquantitative analysis of layer lattice silicates, mixed layer silicates, clays, minerals and elements submitted by GSC staff, university professors and various government agencies.	Foscolos, AE	ISPG	PG	GC	Alta	-	2523
680091	Clay and clay minerals investigation Obj: To improve and develop techniques for routine mineralogical and chemical analyses of clays and Canadian coals; to develop better techniques for quantitative, semi-quantitative and qualitative analyses of clays and clay minerals in sedimentary rocks and coals; to conduct research related to the crystal lattice structure of clay minerals. These studies also determine those parameters that affect: (1) the degree of sediment diagenesis and oil generating potential; (2) migration of fluids from source rocks which carry heavy metals.	Foscolos, AE	ISPG	PG	GC	Alta	-	2523
680093*	Upper Silurian and Devonian biostratigraphy western and northern Canada Obj: Elucidation of the sequence of Upper Silurian and Devonian faunas, especially corals, of western and northern Canada so that correlations of strata of these ages can be achieved. Description and illustration of fossils that have, or are expected to have, biostratigraphic significance. Paleogeological and biogeographic analyses of species and other taxonomic categories that have different time ranges in different geographic realms and ecologies.	Pedder, AEH	ISPG	P	MaP	Sask Man Alta BC Yk Frank Mack	106 C,D,E,F; 116 G,H; 84 P; 85 A,B,C,F; 94 B; 95 J	2522
680101	Conodont biostratigraphy of Siluro-Devonian rocks of the Arctic Islands Obj: To set up conodont biostratigraphic framework for the Siluro-Devonian rocks of the Arctic Islands; to integrate this framework with zonations based on other fossil groups, such as graptolites, palynomorphs and brachiopods; to fix time lines in areas where strata undergo complex facies changes over relatively short distances. To determine the thermal maturity of the enclosing rocks with the use of conodonts.	Uyeno, TT	ISPG	P	Mip	Frank Kee	49, 57, 58, 59, 68, 69, 78; 89	2522
680102*	Rank and petrographic studies of coal and organic matter dispersed in sediments Obj: To obtain information on local and regional changes in organic metamorphism, with application towards economic geology, search for oil and gas, and evaluation of properties of coking coals.	Hacquebard, PA	AGC	EPG	-	NB Nfld NS Que PEI	12, 21, 11, 20	2543
680109	Palynological zonation of the Carboniferous and Permian rocks of Atlantic Provinces, Gulf of St. Lawrence and Northern Canada Obj: To establish a comprehensive biostratigraphic framework of the Carboniferous and Permian succession and to reconstruct geological events and ecological environments, assist other disciplines to carry out stratigraphic, sedimentological and geophysical studies, facilitating a determination of the three dimensional geometry of the Carboniferous basins for resource evaluation.	Barss, MS	AGC	EPG	SS	NS NB Nfld PEI Yk Mack Frank	11 E; 1; 2; 11; 12; 95	2543

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680114	Development and supervision of mineral deposits data bank Obj: To establish files of data on mineral deposits and to supervise their operation in ways effective for the needs of the Geological Survey of Canada and, as far as is practical, compatible with related files within the Department and with a National System for storage and retrieval of geological data. Two main types of files are involved: (1) documentary files of reports, maps and other published and unpublished information and (2) computer-related files.	Anderson, FD	EG	-	MDB	-	-	2563
680119	Operation Stewart Obj: To outline and interpret the regional stratigraphy and structure in a previously unmapped part of the Selwyn Basin and to relate these features to the search for mineral deposits analogous to the Keno Hill and Vangorda deposits on the west and south.	Blusson, SL	C	-	BG	Mack Yk	105 I, N, O, P, 106 A, B, C	2511
690005*	Structural geology of northern Yukon Territory and northwestern District of Mackenzie Obj: Critical evaluation of the structural geometry of Richardson, Barn and British Mountains, intervening plateaux, and adjacent coastal plain for the documentation of the nature, origin and mechanics of the deformation and its bearing on the hydrocarbon potential of the region.	Norris, DK	ISPG	CG	-	Yk Mack	117 A, B, C, D, 107 B, C	2524
6900038*	Probability models for estimating mineral potential and geoprocessing Obj: To develop a statistical method employing geological information to assess the probability of occurrence of specific types of mineral deposits in geographically-delineated areas and to design quantitative methods for the integration and processing of various types of geoscience data.	Agterberg, FP	EG	-	GM	-	-	2563
6900043	Quaternary geology inventory, southern Labrador Obj: To map and explain Quaternary deposits and landforms in order to provide: (1) areal geologic and geomorphic data; and (2) knowledge of stratigraphy, age and history of Quaternary features.	Fulton, RJ	TS	-	RP	Nfld	12 P; 13 A-K; pts 13 L, N, O; 23 H	2551
6900061	Operation Penny Highlands Obj: To provide a reconnaissance geological survey of a previously unmapped area and describe and interpret the geological framework and outline areas of potential economic interest.	Jackson, GD	P	RG	NC	Frank	16 E, K-M; 26 H, P; 27 A, B; 36 P; 37 A, B	2531
6900064*	Quaternary palynology Obj: To study the quaternary palynology of Canada and to provide a biostratigraphic and paleoecologic information service to other scientists within the Division, Branch, or Department as well as other Government Departments and agencies and non-government institutions.	Mott, RJ	TS	-	PG	NS NB	11 D, E, F, K; 20 P; 21 A, J	2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
690072*	Federal-Provincial Aeromagnetic Survey contract No. 69-54 Labrador, Melville Peninsula, Coppermine - Great Bear Lake Areas	Ready, EE	RGG	RG	CS	Nfld; Que; Frank; Kee	23 I, J, O	2571
690075*	Obj: To provide the Provinces, the Geological Survey of Canada and the mining industry with aeromagnetic data as an aid to geological mapping and mineral exploration programs. Tertiary foraminiferal succession of Western Cordillera and Pacific Margin	Cameron, BEB	C	-	MG	BC Pacific Offshore	92 C; Pts 93; 102 I; 103	2512
690086*	Obj: To determine the foraminiferal succession within the Tertiary sedimentary rocks of the Western Cordillera and Pacific Margin in order to establish a biostratigraphic standard of reference. 1:1 million Geological Atlas Project	(vice-Douglas, RJW)	DGO	-	SP	-	-	250
690089	Obj: As scientific adviser and editor, to make recommendations to a steering committee concerning technical and scientific matters required to ensure publication of a suitable 1:1 million geological atlas of Canada by 1986, including recommendations on coordination, scheduling, guidelines, legend and format; and to ensure, through scientific editing of all manuscripts, that approved standards are met. Analysis of international reference samples	Abbey, S	CLTS	-	AC	-	-	259
690090	Obj: To participate in world-wide collaborative analysis of reference samples prepared by geologically-related institutions thereby contributing to the establishment of such samples as calibration and reference standards. Development of methods for the analysis of geological materials	Abbey, S	CLTS	-	AC	-	-	259
690095*	Obj: To develop, modify and improve methods for the analysis of geological materials, using chemical and instrumental methods. Properties and provenance of till	Shilts, MW	TS	-	SMT	Man Ont	42, 43, 53, 54	2552
700003*	Obj: (1) To build a data bank comprising chemical, petrologic, and geotechnical properties of till in Canada. (2) To define till provenance regions based on data from objective 1. (3) To clarify mechanisms and scale of glacial dispersal of rocks, minerals and trace elements. (4) To relate regional chemical and petrologic properties of till to engineering, geomaterial, and biological problems that can be defined areally. Kootenay River (NTS 82) map area, 1:1 million Geological Atlas Program	Okulitch, AV	ISPG	RG	AI	Alta BC	82	2521

Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as of April 1, 1969 File 116-6-4.



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
700008	St. Mary's River (NTS 11) map-area. 1:1,000,000 Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 File 116-6-4.	Poole, WH	EG	-	SP	NS PEI NB Nfld Que	11	2561
700011	St. John River (NTS 21) map-area. 1:1,000,000 Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 File 116-6-4.	Poole, WH	EG	-	SP	NB PEI Que	21	2561
700014	Mineral indicator tracing southern Keewatin Obj: (1) To develop methods of utilizing drift composition for prospecting in perennially frozen terrain; (2) to define glacial and postglacial processes that affect regional and local variations in till mineralogy and chemistry; (3) to define the relationship of till compositions to compositions of bedrock or to those of higher order derivations (eskers, modern lake sediment, marine sediment etc).	Shilts, WW	TS	-	SMT	-	-	2552
700015	Yellowknife and Hearne Lake map-areas, District of Mackenzie Obj: To revise and interpret the geology and economic potential of the Precambrian terrain of the project area known only through earlier gross reconnaissance.	Henderson, JB	P	RG	BS	Mack	85 I, J	2531
700018	Paleomagnetism and rock magnetism instrumentation and technological development Obj: To contribute to the development of paleomagnetism as a geophysical method: (a) by designing, building, testing and calibrating instrumentation required for the measurement of magnetic properties of rocks and minerals; (b) by developing new techniques or systems for the routine measurement of magnetic parameters of standard samples and for the processing of data resulting from such measurements; (c) by improving on the design of existing instrumentation or techniques in order to improve the efficiency of the laboratory and/or the quality of the data emanating from the laboratory.	Christie, KW	P	RG	PMag	Ont	-	2532
700027	Comparative studies of ancient and modern sedimentary environments. Obj: The objective is to familiarize the participants with the types of observations that may identify specific conceptual models of depositional environments to enable the participants to both recognize such environments and to critically evaluate the models proposed.	Cook, DG	ISPG	RG	-	-	-	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
700030	Lancaster Sound (NTS 48, 58) map-area. 1:1 million Geological Atlas Program. Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 of File 166-6-4.	Christie, RL	ISPG	RG	AI	Frank	48, 58	2521
700031	Victoria Strait (NTS 67, 77) map-area. 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 of File 116-6-4.	Christie, RL	ISPG	RG	AI	Frank	67, 77	2521
700034*	Devonian biostratigraphy of the northern Yukon Territory and adjacent District of Mackenzie Obj: (a) delineation of facies distribution of Devonian rocks in northwestern Canada; (b) identifying and determining ranges of fossils for refining zonation and correlation with other areas; (c) determining distribution of faunal provinces and paleogeography of Devonian seas; and (d) obtaining more information on the Upper Silurian Lower Devonian and Lower/Middle Devonian boundaries.	Norris, AM	ISPG	P	Map	Yk Mack Alta	116 (E 3/4); 117 (S 1/2); 106 (W 1/2); 74 M; 84 P; 85 A, B, C, F, G,	2522
700037	Geology of the southern Alberta Foothills, Highwood River to Athabasca River Obj: To provide an improved basis for mineral evaluation and oil and gas development of the region, through the publication of new and revised geological maps and cross sections, on a scale of 1:50,000; integrated analyses of surface and sub-surface geology; the description, correlation and facies relationships of all major rock units; and the description, genetic analysis and relationships of the major structural elements; to provide data for 1:250,000 scale map compilations and regional structural syntheses.	Ollerenshaw, NC	ISPG	CG	CG	Alta	82 O, J; 83 B, C, F	2524
700040	Eureka Sound-Robeson Channel (NTS 340, 560, 120) map-areas; 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-areas as a unit of 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969, of File 116-6-4.	Trettin, HP	ISPG	RG	AI	Frank	340, 560, 120	2521
700045	Belcher Channel and Ballantyne Strait (NTS 59, 69, 79, 89, 99) map-area. 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of the 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 of File 116-6-4.	Nassichuk, WW	ISPG	P	Map	Frank	59; 69; 79; 89; 99	2520

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
700047*	Operation Finlay Obj: To establish the stratigraphy, structure and geological framework to which the mineral deposits may be related as an aid to regional development.	Gabrielse, H	C	-	BG	BC	94 C E $\frac{1}{2}$ , F W $\frac{1}{2}$ , E	2511
700048*	Petrology and structure of the Daly Bay Complex and environs Obj: To determine the petrology and structure of the anorthosite-gabbro-gneiss-granulite complex in the Daly Bay region in order to understand its origin, age, and stratigraphic relations.	Gordon, TM	P	-	PET	Kee	56 A; pts 55 P, 46 D	2531
700059*	Geology of copper and molybdenum deposits in Canada - 1 Obj: To carry out comprehensive research on the geology of copper and molybdenum deposits in order to: (1) support or provide geologically based estimates of Canada's mineral resources; (2) provide guidelines for their discovery; (3) provide advice to government for mineral policy and related matters.	Kirkham, RV	EG	-	MDG	-	-	2561
700061	Seismic-Precambrian Shield Obj: To apply seismic refraction and reflection methods to solution of geological problems in the Precambrian Shield. To apply sonic methods to downhole environments. To apply sonic methods to such problems as subsurface structure, boundaries between geological provinces, interfaces between geological formations, definitions of orebodies, delineation of Conrad discontinuity, etc.	Overton, A	RG	TG	SM	Kee	65, 66	2574
700071*	Redstone River (NTS 95). 1:1 million Geological Atlas Projects Obj: To publish a modern compilation and synthesis of the geology of the sheet as a unit of the 1:1 million Geological Atlas of Canada.	(vice-Douglas, RJW)	DGO	-	SP	Mack Yk	95	250
700073	Operation Northern Melville Peninsula Obj: To determine the general structure, historical and economic geology of a previously unmapped terrain in order to aid future economic development of northern Canada.	Heywood, WW	P	RG	NC	Frank	Pts. of 47 A-D	2531
700092*	Surficial geology and geomorphology, Mackenzie Bay - Continental Shelf Obj: To resolve the stratigraphic and structural relationships of the unconsolidated surficial marine sediments of the Beaufort continental shelf to provide the geological framework necessary for: the delineation of permafrost; the assessment of offshore aggregate supplies; the establishment of engineering design criteria for offshore structures for petroleum exploration and production; the resolution of the Quaternary history of the shelf area; the identification of sedimentary and geomorphic processes operating on the shelf; and to continue development of the technology necessary to conduct surficial marine geological surveys in ice covered areas of the arctic and in shallow coastal waters.	Blasco, SM	AGC	EMG	CGD	Arctic Offshore	87, 97, 107, 117	2542

Dept'l  
Classi-  
fication

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
710016	Geological and Tectonic Compilations	(vice-Douglas, RJW)	D60	-	SP	Ont Que	pts 31, 41, 52	250
	<p>Obj: 1) Maintain a continuing compilation of data received from 1:1 million Geological Atlas (project 690086) for revision of Geological and Tectonic Maps at 1:2 1/2 million and 1:5 million scale.</p> <p>2) Maintain data available for use as a base for compilations of other data-magnetic, gravity, mineral deposits, etc.</p>							
710018	Alberta Foothills	(vice-Douglas, RJW)	D60	-	SP	Alta	82 H; 83 C,F	250
	<p>Obj: 1) standard 1 mile mapping with emphasis on stratigraphy and structure; revision of mapping by B.R. Mackay; oil, gas, coal potentialities.</p>							
710020*	Surficial geology and land classification, Mackenzie Valley Transportation Corridor	Hughes, OL	TS	-	RP	Mack Yk	96 C-F; 106 H-K, L, M, N, O, P; 107 A; 97 C; 116 N, O, P	2551
	<p>Obj: To map, describe and explain the unconsolidated deposits, landforms, permafrost, ground ice, and organic (muskeg) cover of the Mackenzie Valley Transportation Corridor in order to:</p> <p>(1) provide areal knowledge of geology and terrain, bearing particularly in mind the needs of government for terrain information in connection with land use planning, pipeline proposals and other aspects of petroleum development, and engineering construction; and</p> <p>(2) determine the Quaternary history of the region.</p>							
710022*	Carboniferous and Permian biostratigraphy and coral faunas, western and northern Canada	Bamber, EW	ISPG	P	Map	Frank Mack Yk BC Alta	49; 59; 69; 78; 79; 82 G, H, J, M, N, O; 83 B, C, D, F, G; 92; 93 I, 94-95; 103-106; 115-117; 340; 560	2522
	<p>Obj: Establishment of faunal sequence within stratigraphic framework previously described for Upper Paleozoic of Alberta, British Columbia, Yukon, and District of Mackenzie, for use as a biostratigraphic reference succession in surface and subsurface exploration of these areas. Description of coral and other faunas from these areas to document the above succession and facilitate its use by other workers in industry and in other government organizations.</p>							
710023	Granite studies in the Slave Province (Phase 1)	Davidson, A	P	RG	SG	Mack	85 I, P	2531
	<p>Obj: To classify the granitic rocks according to age, geological and chemical nature, using geophysical parameters where available, and to relate them to the regional geology and to mineral deposits.</p>							
710033	Northern Basin Analysis Program: Redstone and Great Slave Lake map-areas	Williams, GK	ISPG	RG	M	Mack	85, 95, 96	2521
	<p>Obj: (1) To maintain an up-to-date inventory of subsurface data, mainly in the form of maps, cross-sections and lithologic logs within the Great Slave Lake and Redstone map-areas. (2) To provide an improved understanding of the geological history of the northern Canadian mainland. (3) To test an hypothesis that may provide criteria, in addition to fossils, for long distance correlation (the hypothesis being that certain dynamic events (subsidence, eustatic) simultaneously affected the northwestern part of the American craton).</p>							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
710038	Juniper (east half) map-area, NB Obj: To determine the stratigraphy, structure and igneous, metamorphic and tectonic history of a part of the Central Mineral Belt of New Brunswick as an aid to the economic development of the region.	Skinner, R	P	RG	SG	NB	21 J/11 E $\frac{1}{2}$	2531
710050	Lockhart River (NTS 75) map-area, 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million geological atlas of Canada. More detailed objectives are as April 1, 1969 of File 116-6-4.	McGlynn, JC	P	RG	BS	Mack	75	2531
710051	Slave River (NTS 85) map-area, 1:1 million Geological Atlas Program Obj: To publish a modern compilation and synthesis of the geology of the map-area as a unit of a 1:1 million Geological Atlas of Canada. More detailed objectives are as April 1, 1969 of File 116-6-4.	McGlynn, JC	P	RG	BS	Mack	85	2531
710059	Stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic continental margin Obj: To determine stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic continental margin and the basin; delineate distribution of clastic, carbonate, evaporite sequences, their thickness, composition, provenance, current patterns, depositional environment and porosity development as an aid to the resource evaluation of this region.	Jansa, LF	AGC	EPG	SS	-	-	2543
710061*	Compilation of geoscientific data in the Upper Paleozoic basins of southeastern Canada Obj: Compile data for a detailed study of the petroleum potential of the Magdalen and Sydney basins.	Howie, RD	AGC	EPG	-	NS NB NFLd PEI	<u>1, 2, 10, 11, 12,</u> <u>14, 20</u>	2543
710062	Palynostratigraphy and Paleogeology of the Mesozoic and Cenozoic rocks of the Atlantic Continental Margin Obj: Application and refinement of the Palynological zonation now established for the Mesozoic and Cenozoic of the Scotian Shelf, Grand Banks and Labrador Shelf. Correlation with coeval assemblages from European stratotypes, and DSDP coreholes in the Atlantic Ocean, and eastern U.S. surface sections. Determine paleoecological value, paleoclimatological fluctuations of the dinocysts. Undertake visual kerogen analysis for resource evaluation. Produce (four issues of) Geolog.	Williams, GL	AGC	EPG	SS	Atlantic Offshore	1, 2, 10, 11, 14, 20	2543

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
710065	Biostratigraphic zonation (Foraminifera-Ostracoda) of the Mesozoic and Cenozoic rocks of the Atlantic Shelf Obj: To determine the biostratigraphic zonation (Foraminifera and Ostracoda) of the Mesozoic and Cenozoic in offshore wells of the Atlantic Shelf, to form the basis of local, regional and world wide correlation, and to accurately reconstruct geological events and ecological environments, to aid in the economic evaluation of the region.	Ascoli, P	AGC	EPG	SS	Atlantic Offshore		2543
710091*	Palynological studies of Mesozoic and Tertiary coal measures in western and northern Canada Obj: (a) To establish palyno-stratigraphic zonation of coal measures and contiguous strata as an aid to petrological, sedimentological and structural interpretations of coal basins. (b) Where applicable to correlate coal seams by means of spore and pollen histograms. (c) To describe and classify recovered pollen and spores as necessary to accomplish the above objectives.	Sweet, AR	ISPG	P	MiP	BC Alta Yk Mack	82; 83; 92 I; 96 C; 106 E; 117	2422
720044	Reconnaissance of Mesozoic Foraminifera of Arctic Islands Obj: To assess the assemblage composition, paleoecology and biochronological significance of Mesozoic Foraminifera in the Arctic Islands in order to better define Mesozoic subsurface and outcrop stratigraphy.	Wall, JH	ISPG	P	MiP	Frank	49, 59 E, 69, 79, 88, 89, 98, 340	2522
720052	Geology of Indin Lake (86 B) Obj: To revise and interpret to modern standards the geology of the Precambrian terrane of the area known only through early reconnaissance and semi-detailed mapping.	Frith, RA	P	RG	BS	Mack	86 B	2531
720056	Paleomagnetism of the dykes of west Greenland Obj: To determine the paleomagnetism of the diabase dyke swarms of west Greenland in order to examine the possible correlation of the rocks of this area with those of Baffin Island and the coast of Labrador.	Fahrig, WF	P	RG	PMag	-	-	2531
720057*	Terrain mapping in mountainous areas Obj: 1. To devise terrain mapping units which can be used to adequately define mountainous country. 2. To map the terrain in several small, mountainous, pilot-areas.	Fulton, RJ	TS	-	RP	BC	Pts of 82 M,N,K,L	2551
720062	Volcanic rocks of the Prince Albert Belt Obj: To determine the structure, stratigraphy and petrology of the volcanic rocks of the Prince Albert Group and relationship to the adjacent gneisses and the enclosed basic and ultrabasic rocks; to evaluate the mineral potential of the belt.	Schau, M	P	RG	NC	Frank Kee	47 A,D; 56 J,K	2531



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
720066	Evaluation of Canada's petroleum potential Obj: To provide the necessary data base in support of departmental oil and natural gas energy programs and policy; to research methods for a basin-by-basin analysis of the liquid hydrocarbon reserves and/or potential in the sedimentary basins of Canada both onshore and offshore; to create and maintain an inventory of hydrocarbon deposits in Canada.	Procter, RM	ISPG	PG	PR	-	-	2526
720070	Gneisses of the Prince Albert Group Obj: To determine the feasibility of further structural, stratigraphic and petrological studies of the gneissic rocks adjacent to the Prince Albert Belt of metamorphosed sedimentary and volcanic rocks.	Frisch, T	P	RG	NC	Frank Kee	Pts. of 46 M,N,L; 47 A,B; 56 I,J,P	2531
720071*	Airborne Gamma-Ray Spectrometry (Experimental Surveys) Obj: (1) Provide acceptable standards for the acquisition and compilation of airborne gamma-ray spectrometric data. (2) Demonstration of suitability of airborne gamma-ray spectrometry methods in various parts of Canada by: i) conducting orientation surveys in advance of U.R.P. contract surveys. ii) conducting reconnaissance surveys maps. iii) conducting detailed follow-up surveys of areas of interest located by URP program. (3) Have available the technology and personnel to respond to nuclear accidents where aircraft monitoring is required.	Holman, PB	GGG	RR	ARO	NS NB Ont Que NF1d	21 E,G; 22 NM; 31 H; 41 P; 42 A	2573
720072*	Paleozoic ostracodes of Canada Obj: By means of microfossils and non-trilobite Arthropoda to determine the zonation and correlation of strata among the Paleozoic sedimentary basins of Canada and thus aid in assessing the economic potential of these rocks.	Copeland, MJ	ISPG	P	OP	Ont Que NB NS NF1d	11 E,F,K; 12 B,L; 21 A,P; 22 A,B; 30 L,M; 40 I,P	2522
720073	Petrographic Analysis of Saskatchewan Lignites Obj: 1. Petrographic characterization of Saskatchewan lignites. 2. Determination of vertical and lateral changes in petrographic composition 3. Relation of petrographic composition to environment of deposition.	Cameron, AR	ISPG	CG	CT	Sask	62 E; 72 F,G,H	2524
720078	Diatom analysis and paleoecological studies of Quaternary sediments Obj: (1) To develop diatom analysis as a paleoecological tool in conjunction with palynological and plant megafossil analyses. (2) To provide paleoecological interpretation and biostratigraphic correlations of Recent and Quaternary sediments.	Lichti-Federovich, S	TS	-	PG	-	-	2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
720080*	Interpretation of aeromagnetic surveys	Kornik, LJ	RG	MM		Ont. Man Sask	31 F,C; 52 B,E; 55, 56, 64 L,N, 65, 66, 74 I, 75, 76	2571
	Obj: To express the significance of aeromagnetic data in terms of lithological structural and metamorphic patterns in support of mineral exploration, geological mapping and radioactive waste disposal programs and to integrate this information with other types of geoscience data.							
720081	Surficial geology and geomorphology of Central Ellesmere Island	Hodgson, DA	TS		RP	Frank	Pts 49 C,D,E,G,H; 340 B	2551
	Obj: To provide an inventory of surficial materials, landforms, geomorphic processes (active and inactive) and permafrost conditions, with particular reference to terrain information pertinent to the implementation of territorial Land Use Regulations and to the effects of the terrain on petroleum exploration and related activities.							
720084*	Gamma-Ray Spectrometry (Technique Development)	Grasty, RL	RR	ARO		Sask	62 E	2573
	Obj: To develop improved methods of airborne gamma-ray spectrometry data collection, analysis and presentation.							
720089*	Quantification of geological variables and geomathematical estimation of mineral potential	Fabbri, AG	EG		GM	-	-	2563
	Obj: To prepare a computer-oriented data base for selected areas of Canada by the compilation, pre-coding, and coding of geological data to be obtained from maps of scales 1 inch to 4 miles and larger and other sources of information. To compile and code basic parameters for mineral deposits in the same areas. To perform geomathematical analyses in order to assess regional mineral potential.							
720098	Lower Paleozoic stratigraphy, southern Rocky Mountains	Aitken, JD	ISPG	RG	M	BC Alta	82, 83	2521
	Obj: To determine the nature, thickness, distribution and origin of Lower Paleozoic formations of the region.							
720101	Bottom studies of the Beaufort Sea	Pelletier, BR	TS		SP	Frank Mack Yk	97 C,F,G; 107 A,B,C, D,F; 117 A,B,C,D	2550
	Obj: To obtain information on bottom sediments and their dispersal trends, and to describe bottom morphology with reference to ice-scour and pingo-like features in order to provide data for engineering works and environmental programs, and to provide maps and other illustrative material to support such programs.							
720102	Marine Science Atlas of the Beaufort Sea	Pelletier, BR	TS		SP	Mack Frank Yk	97 C,F,G; 107 A,B,C, D,E; 117 A,B,C,D	2550
	Obj: To compile known marine aspects of the Beaufort Sea including oceanography, biology, bathymetry, geology, geophysics, etc., in order to present a marine science atlas of the Beaufort Sea that will include maps, sketches, photographs and graphs. This atlas will serve the public, universities, industry and various agencies of government on engineering, environmental and resource-development programs.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
720103	Hydrocarbon inventory of the sedimentary basins of Eastern Canada  Obj: To prepare and maintain a geological appraisal of the potential oil and gas resources of the sedimentary basins of Eastern Canada, including those on the Atlantic continental margin and in Baffin Bay, the Atlantic Provinces and Gulf of St. Lawrence and the St. Lawrence and Hudson Platforms.	Wade, JA	AGC	EPG	RSBS	Atlantic Offshore	-	2543
720104	Regional subsurface geology of Mesozoic and Cenozoic rocks of the Atlantic continental margin  Obj: To provide a regional subsurface geological interpretation of the Atlantic continental margin of Canada as a basis for (1) the Departmental Hydrocarbon Inventory, (2) to establish a framework for other specific studies such as lithostratigraphy, biostratigraphy, geochemistry, plate tectonics, etc.	Wade, JA	AGC	EPG	RSBS	Atlantic Offshore	21 A,H	2543
730001*	Geochemistry of metallogenesis and primary halos  Obj: (1) To ascertain the trend of metallogenesis from the Precambrian to the present. (2) To ascertain the nature of primary halos of various elements e.g. Ag, Au, U, Li, Rb, Cs, As, and Sb in various epigenetic deposits.	Boyle, RW	GGG	RGC	SP	Ont NB	31 C,F; 40 P; 41 A; 21 A,O,P; 11 D,E	2572
730004*	Applied EM problems  Obj: To develop theories for new e.m. exploration techniques with special reference to ground and airborne mapping of permafrost and unfrozen ground. To develop methods for quantitative interpretation of e.m. data. To assess various e.m. systems, analyze their deficiencies, if any, and suggest suitable remedies.	Sinha, AK	GGG	TG	EM	Sask BC Mack Ont	92 J; 107 C,B; 74 H,I,N; 31 G; 64 L; 40 P	2574
730006*	Permafrost seismic  Obj: To identify and delineate permafrost in continuous and discontinuous zones in the various geomorphological environments found in northern Canada; to obtain acoustic and elastic properties of permafrost and correlate these with lithology, moisture content, temperature, etc; to investigate the applicability of shallow seismic techniques in permafrost areas; to design and test new instrumentation relating to these problems.	Hunter, JA	GGG	TG	SM	Frank Mack Ont Que	37 A; 40 I; 58; 95; 96; 105; 107 C; 117; 23 J	2574
730013	Quaternary geology inventory - Southern Keewatin  Obj: (1) To produce a map of southern Keewatin showing surficial geology at a scale of 1:500,000 from Chesterfield Inlet south to Manitoba and east of ~97°00'. (2) To produce maps for open filing at scales of 1:125,000 based on 1:250,000 NTS sheets. (3) To collect regional samples of till to describe its sedimentology, geotechnical properties, and geochemistry. (4) To elucidate the history of the south and central portions of the Keewatin Ice Divide.	Shilts, MW	TS	-	SMT	Keew	65 A-C,F,K,N-P; 55 D,E, F,L,K,N,O; 66 A-C,F-K, N-P; 56 D	2552



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730039	Sloan River map-area (86K), District of Mackenzie Obj: (1) To establish the stratigraphic and intrusive relations of the Aphebian plutonic, volcanic, and sedimentary rocks; (2) to rationalize observed variations in chemistry, mineralogy, texture and hydrothermal alternation (including mineralization) of the igneous rocks in the form of genetic models of epizonal plutonism and volcanism; (3) to reconstruct the magmatic and structural history in light of its location in the internal part of the Coronation Geosyncline; (4) to ascertain modalities in the evolution of the crust by comparing the area with older and younger volcano-plutonic belts; (5) to provide a descriptive and conceptual framework for assessment of the mineral resources of the area.	Hoffman, PF	P	RG	BS	Mack	86 K	2531
730040	Archean volcanic studies in the Slave-Bear Province Obj: To determine 1) stratigraphic and structural relations; 2) location of volcanic centres; 3) sequence and types of volcanic eruptions and their environment of deposition; 4) relationship of mineral deposits to volcanic stratigraphy and volcanic processes.	Lambert, MB	P	RG	BS	Mack	76 B,C,F,G	2531
730041	Calder River map-area, (86F) District of Mackenzie Obj: (1) To define the stratigraphic and relative age relations of Aphebian (Snare, Cameron Echo Bay (Groups) sedimentary rocks and associated Aphebian plutonic rocks; (2) to determine the nature and environment of the volcanogenic-plutonic complex of the western Bear Province; (3) to define the various tectonic environments present in the Bear Province and to place them in the context of the Coronation geosyncline and its associated Aphebian orogen; (4) to develop models of relationship of mineral deposits with tectonic, plutonic and supercrustal history thereby providing data for resource assessment and exploration.	McGlynn, JC	P	RG	BS	Mack	86 F	2531
730042	A study of certain accessory elements in Canadian Sulphide assemblages and minerals Obj: To determine the concentration ranges and averages of certain elements in selected Canadian Sulphide ores and sub-ores.	Sangster, DF	EG	-	MDG	-	-	2561
730043	Volcanic rocks of the Appalachian region Obj: To determine the physical volcanology, petrology, chemistry, environment, age and tectonic relations of the volcanic rocks of the Appalachian Orogen in order to relate them to the evolution of the orogen and to the formation of associated mineral deposits.	Bostock, HH	P	RG	NC	NB NS NF1d	Pts 2 E/12, 5; 12 H	2531

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730044*	Granite studies in the Appalachians Obj: (1) To establish a set of criteria based on field, petrographic and chemical observations, by which granitoid rocks in the Appalachian region can be assigned to a limited number of well defined classes; (2) to establish the physical conditions of emplacement, fractionation trends, solidification history, and subsequent deformation of each of these classes; (3) to relate these classes to the tectonic development of the Appalachian region; (4) to evaluate the economic possibilities of each class, and possible factors enhancing these possibilities.	Currie, KL	P	-	PET	NS Nfld NB	2 E; 12 E 21 G,H	2531
730046*	Geochronological research and control studies Obj: To precisely establish the chronological order of rocks and events, thereby providing the fourth dimension -- time--to geological mapping.	vice-Wanless, RK	P	-	G	Yk Mack Kee Man Frank BC Ont	27 A,B; 55 M,N; 56 C,D; 66 A; 65 C,O,K	2532
730047	Development of techniques for geochronological studies Obj: To develop methods and apparatus required to remain at the forefront of geochronological research and applications.	vice-Wanless, RK	P	-	G	-	-	2532
730051	Completion of reconnaissance geology, northern Ellesmere Island Obj: To prepare terminal reports accompanied by maps of the region at the scale of 1:250,000 or more detailed.	Trettin, HP	ISPG	RG	AI	Frank	340 A-H; 120 C-H; 49 H; 560 D,E,F,G,H	2521
730055	Comparative field seminar -- structural prototypes Obj: The objective is to familiarize the participants with the types of observations that may characterize specific models of structures to enable the participants to both recognize such features and to critically evaluate the models proposed.	Cook, DG	ISPG	RG	-	-	-	2521
730057*	Helikian and Hadrynian stratigraphy Eastern Cordillera and Interior Platform Obj: Firstly, to establish a coherent picture of Helikian and Hadrynian events in western and northwestern Canada, and secondly, to emphasize study of those events that may have created exploitable mineral and/or hydrocarbon deposits.	Aitken, JD	ISPG	RG	M	Mack Yk	95 L,M; 106 A,B,C,F,G,H	2521
730062	Development of extraction, identification and correlation systems for organic compounds from sedimentary rocks and crude oils Obj: To develop, improve and adapt analytical techniques in organic geochemistry in order to facilitate the identification of petroleum source rocks and to assist in source rock-oil correlations. To develop and/or apply statistical methods to the geochemical data generated in the GSC labs and from outside organizations in order to correlate crude oils into genetic families or groups and to improve data handling and storage systems.	Snowdon, LR	ISPG	PG	GC	-	-	2523

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
730063	An automated system for petrologic analysis of metamorphic mineral assemblages Obj: To develop a set of computer programs to expedite the analysis of metamorphic mineral assemblages.	Gordon, TM	P	-	PET	-	-	2532
730067*	Geothermal Energy Resources in Canada Obj: To make an inventory of the distribution, nature and geological setting of hot springs in Canada and the chemistry of their waters. To provide a base of geological information and expertise for geothermal results.	Souther, JG	C	-	BG	BC	92 J	2511
730072	Bedrock and surficial geology-Grand Banks Obj: To contribute to our knowledge and understanding of the surface and subsurface geology, geologic history, and broad tectonic setting of the Grand Banks; and to aid in the economic evaluation of the region.	King, LH	AGC	RR	SBG	Atlantic Offshore	1, 2, 11	2541
730081*	East coast Offshore surveys Obj: A detailed, systematic mapping of hydrographic and geophysical parameters on the continental shelf and margin off the Canadian east coast. (a) To measure and describe the sea floor topography and the gravity and magnetic fields in the offshore; (b) to define the broad patterns of sediment composition and distributions; (c) to disseminate this information through a variety of media, charts, reports, digital magnetic tape files, publications, etc.	Folinsbee, RA	AGC	RR	GPS	Atlantic Offshore	-	2541
730085	Classification of dinocysts Obj: 1) A revised generic and specific index. 2) A generic key. A study of provincialism in fossil dinocysts. Examination of extant cyst populations of continental shelves.	Williams, GL	AGC	EPG	SS	-	-	2543
730155	Surficial geology, Fraser Lowland Obj: To map, describe and explain the Quaternary deposits and landforms to provide geologic-geomorphic data on stratigraphy, thickness, age and history of deposition of surficial materials, and to determine the thickness and distribution of Tertiary rocks with particular reference to information pertinent to urban and rural land use planning, groundwater investigations, engineering development and soils mapping.	(Armstrong, JE)	TS	-	RP	BC	Pts of 92 G/1-3, 6-8; H/4-6	2551
730160*	Paleomagnetism of the Circum-Ungava Belt Obj: To determine: (1) whether the curved nature of the belt is due to differential rotation and, if so, to movements of parts of the Shield (i.e. Churchill and Superior Provinces) and (2) to arrive at time-stratigraphic correlations between various parts of the Belt.	Schwarz, EJ	P	RG	PMag	Ont	23, 24, 33, 34, 43	2531

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740003	Geological interpretation of geophysical data as an aid to basin synthesis and hydrocarbon inventory Obj: To define the geologic structure and history of the sedimentary basins in the offshore regions of Eastern Canada.	Grant, AG	AGC	EPG	RSBS	Atlantic Offshore	1-16, 27, 28, 38,39	2543
740004	Biostratigraphic history of the Mesozoic-Cenozoic sediments of the Grand Banks, Northeast Newfoundland and Labrador Shelves (based on Foraminifera and Ostracoda) Obj: To establish and maintain a comprehensive biostratigraphic and depositional environmental framework of the Mesozoic-Cenozoic sediments of Grand Banks and Labrador. Utilize North Atlantic Basin control to more clearly establish the relationship of the Eastern Canadian margin.	Gradstein, FM	AGC	EPG	SS	Atlantic Offshore	1, 2, 3, 11, 12	2543
740016*	Geology of the Island Lake map-area (53 E), Manitoba and Ontario Obj: To establish the geology of the intrusive, extrusive and sedimentary rocks of the map-area; and provide a tectonic synthesis suitable for resource evaluation.	Herd, RK	P	RG	SG	Man Ont	53 E	2531
740017	Metamorphism in the Canadian Shield Obj: To provide suitable maps and studies on metamorphism of the Shield which will focus on this parameter in such a way as to make a unique contribution to the understanding of the development of the Shield; and to provide regional and local information on metamorphic grade and history which will be of use in evaluating mineral resource potential of the Canadian Shield.	Fraser, JA	P	RG	NC	Que, Ont Man Sask Nfld, Mack Frank Kee	-	2531
740019*	Archean felsic volcanic complex near Regan Lake, District of Mackenzie, NWT Obj: (1) To map in detail the felsic volcanic belt; (2) to establish criteria for the identification and interpretation of metamorphosed felsic volcanic in the Slave Province; (3) to establish a model for the history, environment and processes of volcanism that relate to this part of the Slave Province to provide a basis for resource exploration in this area.	Lambert, MB	P	RG	BS	Mack	Pts of 76 B,C,F,G	2531
740020	Geology of the Foxe Fold belt (west half), Baffin Island, District of Franklin Obj: To establish the stratigraphy, structure and metamorphism of the Aphebian sedimentary, volcanic and plutonic rocks in the Piling Group and their relationship to the rocks of the Mary River Group. The structural evolution of Archean "gneiss domes" in the area is also to be studied, and the economic mineral resource potential of the region evaluated.	Morgan, WC	P	RG	NC	Frank	27 pts A,B,C; 37 A, pts C,D, Pts. of 25 H	2531



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740030*	Boothia Peninsula and Somerset Island (Operation Boothia) Obj: To improve the understanding of the stratigraphy and structure of the region, which is a key area for information in both of these fields. The purpose is two fold: (1) to aid in evaluation of the resource potential, particularly petroleum and base metals, of this part of the North; and (2) to provide background knowledge and maps to assist in future natural gas pipeline construction.	P.D.F.	ISPG	RG	AI	Frank	57 C,F,G; 58 A-F; 67 E,H	2521
740035	Petroleum Exploration Analog Study Obj: To study the geological setting and characteristics of hydrocarbon accumulations on a worldwide basis. To establish valid analogs and their attendant parameters that may be applicable to the Canadian basins. This will help in the evaluation and understanding of the petroleum potential of Canada.	Procter, RM	ISPG	PG	PR	-	-	2523
740041	Comparative studies of geological types Obj: To examine field occurrences of local geological phenomena in order to familiarize the staff of the Institute with the local geology and the interpretation thereof, so that general principles so elucidated may inform and communicate the role of the Institute to all levels of staff.	Cook, DG	ISPG	RG	-	Alta	82 B	2521
740042	GSC Workshop travel - Micropaleontology Section Obj: To exchange information on current projects and techniques relating to palynology, foraminifers and other microfossils, during workshops of GSC's specialists; to plan programs in these fields and generally improve communication between the specialists in different Divisions.	Wall JH	ISPG	P	MIP	-	-	2522
740062	Fraser Delta sedimentation Obj: To provide a geological/sedimentological knowledge base about the active delta of the Fraser River for general land and waterfront planning and environmental management.	Luternauer, JL	REG	CPM	MG	BC	92 G	2512
740065	Surficial geology inventory, Banks Island Obj: To map, describe and explain the unconsolidated deposits, landforms, permafrost, ground ice and organic cover, and undertake geomorphic process studies in order to provide areal knowledge of geology and terrain that will: (a) aid in the implementation of the Territorial Land Use Regulations; (b) be pertinent to engineering construction, petroleum exploration and related activities; (c) provide data relative to terrain sensitivity rating; and (d) elucidate the Quaternary history of the region.	Vincent, J-S	TS	-	RP	Frank	88 B,C,D,F; 97 G,H; 98 A-F	2551
740067	Surficial geology-terrain inventory, Bathurst-Cornwallis and eastern Melville Islands Obj: Map, describe and explain the surface materials, landforms, ground ice and vegetation in order to provide areal knowledge of geology, geomorphology and terrain as background information suitable for land use management and various aspects of engineering construction and to determine the Quaternary history of the region.	Edlund, SA	TS	-	RP	Frank	68 E-H; 69 A,B; 78 E-H; 79 A,B	2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740068*	Surficial geology, Ottawa Valley lowlands Obj: To map, describe and explain the unconsolidated deposits and landforms of the Ottawa Valley lowlands (31 G, 31 F (parts of) and 31 B (parts of) in order to provide geology and terrain information pertinent to land use planning, agriculture, urban and industrial development, forestry and engineering construction and to determine the Quaternary history of the region.	Richard, SH	TS	-	RP	Ont	31 B, E, G	2551
740072	Surficial geology of Newfoundland Obj: To map, describe and explain the unconsolidated deposits and landforms in order to provide areal knowledge of geology and terrain as background information relative to land use planning, mineral exploration, location of granular deposits, community water supply problems, forestry, urban and industrial development, and various aspects of engineering construction, and to determine the Quaternary history of the region.	Grant, DR	TS	-	RP	Nfld	1; 2; 11; 12 G, H, I	2551
740081*	Environmental Geochemistry Obj: (1) To understand the nature of physical and chemical processes which influence the dispersion of elements in the surface environment. (2) To coordinate Section activities relating to environmental matters. (3) To provide appropriate surficial and lithochemical support to the Nahanni IMPP and its objectives.	Jonasson, IR	GGG	RGC	MD	Yk Mack BC Alta Sask Ont Que	31 B-P; 74 H, I; 64 E, L; 82 F, G; 94 F, G; 104 N; 105 A-P; 106 A-F; 116 G;	2572
740084*	Silurian-Ordovician macro-biostratigraphy of Anticosti Island, Quebec Obj: To obtain data on the Silurian and Ordovician rocks of Anticosti Island, St. Lawrence platform and Maritime regions to provide: (1) precise descriptions for all appropriate stratigraphic units of their succession, thickness, lithology, facies change, faunal content; (2) descriptions of significant fauna for each stratigraphic unit; and (3) local and regional correlations consistent with the data.	Bolton, TE	DGO	-	SP	Que, NB NS Que Ont	22 H; 12 E, F, L; 18; 22 A, B; 11 F; 45, 46; 31 G, H	250
740085*	Borehole Geophysics (Nuclear Techniques) Obj: To contribute to geophysical exploration technology by maximizing the useful information obtained from boreholes by: (1) investigation, implementation and evaluation of new developments and improvements in nuclear borehole logging, and (2) establishment of calibration and standardization as a routine procedure in nuclear logging operations.	Killeen, PG	GGG	RR	RM	Alta Sask Man Ont Que NS NB	21 G; 22 A, B; 31 C, F, H; 40 I; 41 J; 52 L; 64 L; 73 B; 74 I	2573

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740089-	Glacially displaced megablocks of the Canadian Prairies Obj: To investigate the gigantic bedrock blocks found included in the drift of the southwest Prairies; to determine size, location, and time of emplacement of the largest of these blocks, their value as a marker horizon, and to develop theory as to how they were deposited.	Stalker, AM	TS	-	SP	Alta	72, 82, 73, 83, 74, 84	2551
740090	Palynological study of the Shell Anglo Harlequin D-86, Murrelet L-15, Auklet G-14, and Osprey D-36 wells, offshore British Columbia Obj: To establish preliminary biostratigraphic subdivision of the offshore continental Tertiary and to tie the palynological subdivision into the marine foraminiferal zones that have been established farther south.	Hopkins, WS, Jr	ISPG	P	MiP	BC	102 0; 103 B	2522
740091*	Borehole Geophysics (Electrical and Magnetic Techniques) Obj: To contribute to the development of borehole mining geophysics technology as a means of improving the efficiency and effectiveness of mineral exploration practices, geophysical techniques applied to engineering and geological mapping.	Dyck, AV	RGG	TG	EM	BC Ont Que NB Man Sask	41 I, J; 52 B; 31 F, K; 74 H, I; 64 L; 62 I 32 D, E	2574
740092	Geology of the Bathurst Inlet Area Obj: To establish the geology of the intrusive, extrusive and sedimentary rocks of the map-area; to compile a detailed stratigraphic-sedimentological analysis of the Goulburn Group and related overlying rocks; to relate the Goulburn Group to other depositional sequences in the Coronation Geosyncline.	Campbell, FHA	P	RG	BS	Frank Mack	76 J (WL/2), K (E1/2); pts. 76 E, G, O, N, L; 77 A, B, D, E, G, H; 86 G, H	2531
740095	Quaternary geology - terrain inventory, Kananaskis Lakes Obj: To map, describe, and explain the unconsolidated deposits and the landforms and their susceptibility to modern processes in order to provide areal knowledge of surficial geology and terrain as background information relative to mineral exploration and exploitation, land use planning, forestry, agriculture, urban and industrial development and various aspects of engineering construction and to determine the Quaternary history of the area.	Jackson, LE	TS	-	GP	Alta BC	82 J	2552
740098*	Metallurgy of the northern Canadian Cordillera Obj: To integrate present mineral commodity and regional geological studies in order to: (1) examine the large scale geological controls and distribution of known mineral deposits; (2) assist in planning of future geological mapping; (3) assess the area with regard to its mineral potential.	Dawson, KM	EG	-	MDG	BC Yk Mack	94, 95, 96, 104, 105, 106, 114, 115, 116, 117	2561

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740100*	Preparation of popular earth science education literature Obj: To present to the Canadian public, particularly students, information dealing with earth science topics of general interest and of educational importance.	Copeland, MJ	ISPG	P	OP	-	-	2522
740104	Paleomagnetism of Proterozoic to Devonian Strata across Boothia Arch Obj: To measure the paleomagnetism of Upper Proterozoic, Ordovician, Silurian and Devonian strata across the Boothia Arch to determine the paleolatitude, whether these strata have been shifted relative to the North America Craton, and to contribute information on the North American polar wandering curve.	Fahrig, WF	P	RG	PMag	Frank	48 A,D; 58; 68	2531
740106*	Geological assistance with provincial coal drilling project in Nova Scotia Obj: In co-operation with provincial authorities to prepare an inventory of remaining coal resources in Nova Scotia.	Hacquebard, PA	AGC	EPG	-	NS	<u>11, 21</u>	2543
740107*	Trace elements in sulphides Obj: (1) To determine the typical contents and ranges of trace elements, including metals, metalloids and non-metals in ores and ore minerals. (2) To assess the value of such data with regard to classification of ores, estimation of ore reserves of rare metals, definition of geochemical and metallogenic provinces, establishment of environment baseline levels. (3) To provide a systematic geochemical inventory for regional surveys.	Jonasson, IR	RGG	RG	MD	Ont BC Yk Mack	31 A,B,C,F,P; 94 F,G; 104 N; 105; 106 A,B,C, E,F; 116 G; 117 A,B	2572
740110	Carboniferous and Triassic strata of Appalachian region Obj: To determine the stratigraphy, sedimentology, variations in facies and external and internal basinal geometry of the Middle Devonian to Triassic strata; to reconstruct the tectonic development, provenance, current direction and environment of deposition; and to determine the distribution, controls and origin of the associated mineral deposits, all with a view to elucidating the mineral resource potential.	Geldsetzer, HHJ	ISPG	RG	M	Nfld NS PEI NB Que	1; 11; 12; 21; 22	2521
750001	A geophysical investigation of the submarine extension of geological zonation of Newfoundland Obj: An interpretation of the offshore extension of the zonation of Newfoundland, to include (1) tracing offshore all recognizable onshore features; (2) building a developmental model for the tectonic pattern observed; (3) assessing the compatibility of that model with others proposed for the same and adjacent regions.	Haworth, RT	AGC	RR	GPS	Atlantic Offshore	-	2541
750004	Geology of the Tulemalu Lake map-area Obj: To interpret the Precambrian geology of the area to modern 4-mile standards and to interpret the economic potential of the area.	Eade, KE	P	RG	NC	Ke	65 J	2531

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750005	MacQuoid Lake (W 1/2), Thirty Mile Lake (E 1/2) Map-Areas Obj: To interpret the geology and mineral potential of the Precambrian rocks of the area to a standard of 1:250,000 mapping.	LeCheminant, AN	P	RG	NC	Kee	55 M w/ 1/2; 65 P e/ 1/2	2531
750006	Stratigraphy and petrology of the Natkusiak Basalts, Victoria Island Obj: To determine the variation in chemical composition and petrography of the lavas with stratigraphic level, to obtain representative bulk compositions of the flows, to determine relationships between the composition of the flows and associated copper prospects and between the flows and accompanying sills, and to obtain contributory information towards an understanding of late Precambrian tectonic history in the northwestern Canadian Shield.	Baragar, WRA	P	RG	SP	Frank	Pts. of 77 G; 78 B; 87 E,F,G,H; 88 A,B	2531
750007*	Correlation and geochronological studies in the Canadian Shield Obj: To identify, date and correlate depositional, thermal and orogenic events within the various provinces of the Canadian Shield. To integrate Shield province histories. To extend and improve the present scheme of Precambrian time-classifications.	Frarey, MJ	P	RG	SG	Ont Que	41 H/14, I/3	2531
750008	Geology of Nose Lake and Beechey Lake Obj: To establish the geology of the intrusive, extrusive and sedimentary rocks of the area, to provide a base for mineral prospecting, and to correlate geophysical and geochemical patterns and anomalies to the geological and mineral deposit data.	Frith, RA	P	RG	BS	Mack	76 F (E½); 76 G (W½)	2531
750010*	Geology of Uranium and Thorium Resources in Canada Obj: To carry out comprehensive research on the geology of uranium and thorium deposits in order to: (1) support or provide geologically based estimates of Canada's uranium and thorium resources; (2) provide guidelines for their discovery; (3) provide advice to government for nuclear energy policy and related matters.	Ruzicka, V	EG	-	URE	-	-	2562
750011	Geology, petrology and economic potential of the anorthositic suite in southern Labrador Obj: (1) Comparison of rock types, rock and mineral chemistry, and structures with similar features north of the Grenville Front; (2) Estimation of the grade of regional metamorphism in this part of Grenville Province, (3) Determination of age of the anorthositic suite of rocks; (4) Investigation of the economic mineral potential of the anorthositic rocks.	Emslie, RF	P	-	PET	Nfld	13 B,C,E,F,G	2531
750017	Stratigraphy and correlation, lower Paleozoic subsurface, Arctic Islands Obj: (1) Comparison and correlation of different sets of nomenclature; (2) Outline of regional facies changes and paleogeography; (3) Outline areas with hydrocarbon potential in lower Paleozoic rocks.	Mayr, U	ISPG	RG	AI	Frank	49 C; 58 D-H; 68 D,E,G,H; 78 E-H; 88 E-H; 89 B,C	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	2512
750019	Structure and stratigraphy of Paleozoic and lower Mesozoic rocks in Halfway River Map-area, Northeastern British Columbia  Obj: To revise Halfway River map-area (948) at 1:250 000 scale (including subdivision of Triassic strata); to map 94 8/3, 4, 5, 6, 11, 12, 13, 14 at 1:50 000 scale and to study in detail the structure and stratigraphy of this area and its relation to adjacent areas; to determine the regional stratigraphic and structural setting of Pb-Zn mineralization in the area; to help develop models for the stratigraphic and structural evolution of this portion of the Rocky Mountains.	Thompson, RI	C	-	BG	BC	94 B	2512
750020	Carboniferous biostratigraphy in the northern Yukon, British Columbia, and Alaska  Obj: To extend the Carboniferous biostratigraphy of the Sverdrup-Basin, utilizing ammonoids, into northern Yukon, Alaska, Alberta and British Columbia in order to better interpret regional stratigraphy and paleoenvironments.	Nassichuk, WW	ISPG	P	MaP	Yk BC	116 C, I; 92 F	2520
750021	Development of programs for Kremp File and Dinofile GSC palynological data files  Obj: Assist in the development and execution of the Kremp and other palynological computer files.	Hopkins, WS	ISPG	P	MiP	-	-	2522
750023	Methodology of petroleum resource evaluation  Obj: To provide a reliable, effective and statistically valid methodology for estimation of resource abundance.	Lee, PJ	ISPG	PG	PR	-	-	2526
750024	Petroleum geology of Tertiary, Mesozoic and Paleozoic strata north of 70°  Obj: To provide a reliable and adequate data base for assessment by the Energy Subcommittee of the area's hydrocarbon potential and to document proven and potential hydrocarbon occurrences in the area.	Densmore, AA	ISPG	PG	PR	Frank	37-39; 47-49; 57-59; 67-69; 77-79; 87-89; 97-99; 120; 340; 560	2523
750025	Petroleum Geology of Tertiary, Mesozoic and Paleozoic north of 68° on the NWT and Yukon mainland and offshore  Obj: To provide a reliable and adequate data base for assessment by the Geological Potential Subcommittee of the area's hydrocarbon potential and to document proven and potential hydrocarbon occurrences in the area.	Dietrich, JJ	ISPG	PG	PR	Mack, Yk	97, 107, 117	2523
750027	Diagenesis of organic matter and clay minerals in sediments in relation of petroleum generation  Obj: To correlate the various methods of determining the diagenesis of sediments in relation to oil and gas potential so that the accuracy of each can be determined. To define the ranges in which petroleum generation can be expected in each method. To examine the relationship between clay diagenesis, oil migration and cementation of petroleum reservoirs.	Foscolos, AE	ISPG	PG	GC	Frank, Mack BC Alta	94 M,N; 107 E; 97 B,C; 72; 73 E; 82; 83 B,G,H	2523

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750032*	Regional Airborne Magnetometer and VLF-EM Data Processing Methods Obj: To adapt digital data enhancement and display techniques and to develop new techniques, as required, in relation with the general utilization and interpretation of regional airborne magnetometer and VLF-EM survey data.	Teskey, DJ	RG	RG	GDP	-	-	2571
750035*	Biostratigraphic study of Mesozoic rocks in the Intermontane and Insular Belts of the Canadian Cordillera Obj: To determine the biostratigraphic succession of the Mesozoic strata, particularly Jurassic, and to define a geological history and paleogeography in the evolution of the Mesozoic model.	Tipper, HW	C	-	BG	BC Yk	92 H,L; 93 E; 94 D; 103 C,F,G; 104 H-K; 105; 115	2511
750036	Silurian and Devonian spores of Canada Obj: To refine palynological methods of dating and correlating Silurian and Devonian rocks of Canada, by (a) identifying and describing Silurian and Devonian spores, (b) determining their value in terms of regional and world wide biostratigraphy and (c) establishing stratigraphic reference sections and zonations for spores in Silurian and Devonian sedimentary basins in Canada.	McGregor, DC	ISPG	P	OP	Frank	-	2522
750037	Radar Sounding for Geological Mapping Obj: To develop radar sounding methods for applications to surficial and engineering geology using surface and borehole techniques.	Collett, LS	RG	TG	EM	Ont Man	31 K/3; 52 L/4, 62 I/1	2574
750038*	Pleistocene-Holocene Basin sedimentation Obj: (1) Describe the Pleistocene-Holocene sedimentary history of the continental shelves of eastern Canada using paleontological and geochemical evidence of sedimentary basins. (2) Improve the understanding of the genesis of gaseous hydrocarbons in sediments. (3) Establish geological environments favorable for the preservation of microfossils.	Vilks, G	AGC	EMG	PEC	Atlantic Offshore	21 B	2542
750039*	Geochemical Information System Obj: To provide a liaison between the available data processing facilities and scientists within the geochemistry sub-division to design, implement and document systems to facilitate the expeditious computer processing of machine readable geochemical data, and to manage the archiving of such data.	Ellwood, DJ	RG	RGC	MD	-	-	2572
750043	Consulting advice on conservation and restoration of coastal environments Obj: To provide consultation and expertise on environmental problems in the coastal zone of the Maritimes. This advice is to be provided in response to specific requests.	Reinson, GE	AGC	EMG	GCD	-	-	2542

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept. 1 Classi- fication
750046	Geochemical transformations and reactions of organic compounds in recent marine sediments  Obj: a) To determine the influence of depositional environment in the quantitative and qualitative distribution of organic compounds so as to decipher the physical and chemical history of sedimentation. b) To isolate, identify and characterize various chemo-taxonomic constituents so as to develop guide lines for the interpretations of major geological events. c) To determine and correlate early diagenetic transformations with long-term diagenesis resulting in the evaluation of oil and gas. d) To understand the role and influence of organic compounds on solubility, mobility and recycling of trace metals. e) To collect and compile geochemical data on sedimentary organic matter to write a book for the benefit of geologists, geochemists and other disciplines related to organic geochemistry.	Rashid, MA	AGC	EMG	OGC	Atlantic Offshore	-	2542
750049	Milliken Lake - Goldfields mining area, Saskatchewan  Obj: To fill in gaps outstanding in map-coverage of the Beaverlodge uranium area.	Davison, WL	P	RG	SG	Sask	74 N	2531
750051*	National geochemical reconnaissance  Obj: To provide for industry high quality, multi-element, reconnaissance exploration data to indicate areas of highest potential for uranium and other mineral commodities; to provide governments with nationally consistent, systematic data to assist in resource appraisal for uranium and other minerals; to provide information on the natural abundance of elements, including toxic elements, in the environment.	Hornbrook, EHM	GGG	RGC	RS	NB NS Nfld Ont Sask BC Yk Frank	Pts 1-16; 23; 27; 31 C,F; 37; 41; 42; 52 A,B; 74 J; 104; 105; 117	2572
750055	Structural studies in the Mackenzie Arc, Franklin Mountains and Coleville Hills  Obj: To conduct detailed examinations of typical structures and thus obtain a clearer understanding of the geometry and kinematics of deformation within the study area. To remap those areas within the Mackenzie Arc and Franklin Mountains that are considered to have been inadequately mapped in initial reconnaissance stages.	Cook, DG	ISPG	RG	M	Yk Mack	82 N,O; 94 N; 96 E; 106 A,B; 95 C,K,L,M,N 105 P	2521
750058*	Geology of Uranium Resources of Canada-2  Obj: To carry out comprehensive research on the geology of uranium deposits in order to: (1) support or provide geologically based estimates for Canada's uranium resources; (2) provide guidelines for their discovery; (3) provide advice to government for uranium policy and related matters.	Tremblay, LP	EG	-	URE	Sask Que	73; 74; 22; 23; 24; 31; 32; 33	2562
750061	Lower Paleozoic geology of Eastern Canada  Obj: (1) To continue detailed and regional studies of Lower Paleozoic terrain of eastern Canada, i) in northern and eastern offshore regions, reconnaissance mapping on an opportunity basis and ii) in the southern regions, detailed mapping when required for terrain studies. (2) To study all data that become available from petroleum exploration for purposes of hydrocarbon evaluation of the frontier basins.	Sanford, BV	P	-	SP	Ont Que	31 F,G	2531



Dept'l  
Classi-  
fication

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750063*	Quaternary geochronology, Arctic Islands	Blake, W, JR	TS	-	PG	Frank	25-28; 29 F; 35-38; 39 B,C,E,H; 47-48; 49 A,B,D,E; 57-59; 67-69; 77-79; 87-89; 97-99; 120; 340; 560	2551
	Obj: (1) To establish a chronostratigraphic framework for Quaternary time in the Arctic Archipelago. (2) To investigate the suitability of other methods of age determinations, especially those beyond the range of <sup>14</sup> C. (3) To determine rates of crustal movement. (4) To reconstruct environments and events for as much of Quaternary time as possible.							
750064	Regional synthesis, southern Superior Province and eastern Southern Province, Project I	Frarey, MJ	P	RG	SG	Ont Que	31, 32, 41, 42	2531
	Obj: To provide a single comprehensive source for all relevant data on the region; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and economic aspects of the region.							
750068	CIDA Liaison and Project Coordination	Manistre, BE	RG6	-	SP	-	-	2570
	Obj: To provide assistance in technical matters to CIDA in connection with Geoscience Aid Projects under the terms of the EMR/CIDA Memorandum of Understanding. Liaison with the EMR liaison branch Planning and Evaluation and with the Commonwealth Science Council through the interdepartmental CSC committee.							
750069*	Geology of uranium resources of Canada 3	Bell, RT	EG	-	URE	BC Yk Mack Alta Sask Man	93 K, L, M, N; 94 C, D, E; 104-G, H, K; 105 B, C; 115 N, O; 116 B, C	2562
	Obj: To carry out comprehensive research on the geology of uranium deposits in sedimentary basins in Canada west of the Canadian Shield in order to: (1) provide or support geologically based estimates of Canada's uranium resources; (2) provide guidelines for discovery of deposits; (3) provide advice to government for uranium policy and related matters.							
750070	Synthesis of Quaternary geology, Great Plains of Canada	Stalker, AM	TS	-	RP	BC Alta Sask Man	62, 63, 64, 72, 73, 74, 82, 83, 84, 93, 94	2551
	Obj: To coordinate and oversee publication of a project to synthesize present knowledge of the Quaternary of the Great Plains of Canada, including surficial deposits, geomorphology, historical geology, chronology and stratigraphy, invertebrate and vertebrate paleontology, tephra, soils, pollen, archeology.							
750072	Quaternary geology, terrain inventory, northeastern Manitoba	Dredge, LA	TS	-	RP	Man	54 E, F, K, L, M; 64 I, J, K, L, M, N, O, P	2551
	Obj: To map, describe and explain the unconsolidated deposits, landforms, permafrost, ground ice and organic cover in order to provide areal knowledge of geology and terrain as background information relative to land use planning and engineering construction, to provide data relative to terrain sensitivity rating and to determine the Quaternary history of the region.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750074	Uranium drift prospecting techniques; Lower Kazan River area Obj: To study glacial and postglacial processes that can affect the geochemical properties of till and other sediments and to investigate the use of till in mineral exploration for uranium and other metals.	Klassen, RA	TS	-	SMT	Kee	55 M,N,L; 56 C,D; 65 P,I,O; 66A	2552
750076*	Quaternary geology of the Canadian Cordillera Obj: To gather and synthesize information regarding Quaternary deposits, stratigraphy, geomorphology and chronology of the Canadian Cordillera.	Fulton, RJ	TS	-	RP	BC Yk Alta, Mack	82; 92 G; 93; 103	2551
750077*	Hydraulic, morphologic and morphometric studies of selected rivers along the Mackenzie Highway Obj: To identify and assess natural change through time in the channel and hydraulic characteristics of selected gravel streams along Mackenzie Highway, and to identify and assess the impact of Mackenzie Highway construction on the channel and hydraulics characteristics of the same rivers.	Egginton, PA	TS	-	SMT	Mack	95 N,O,J; 96 C,E; 107 B	2552
750078	Quaternary geology-terrain inventory, Prince Rupert-Terrace, Smithers area Obj: To map, describe and explain the unconsolidated deposits and landforms in order to provide areal knowledge of geology and terrain as background information relative to forestry, land use planning, urban and industrial development and various aspects of engineering construction and to determine the Quaternary history of the region.	Clague, JJ	TS	-	RP	BC	Pts 93 L,M; 103 B,C,F, G,J,K,I,P	2551
750082*	Structural analysis of the Fernie Basin Obj: To establish a detailed structural model of the Fernie Basin, and in particular to elucidate the structural behaviour of coal as an element of the sedimentary succession as an aid to the evaluation of the coal resources of the Fernie Basin.	Ollerenshaw, NC	ISPG	CG	CG	BC	Pts 82 G	2524
750083	Mesozoic stratigraphy and Basin analysis of the Western Queen Elizabeth Islands, Arctic Archipelago Obj: 1. To determine regional stratigraphic relationships within the Mesozoic strata. 2. To determine environments of deposition of the strata. 3. To determine the geologic history of the western Sverdrup Basin during the Mesozoic. 4. To assess the economic potential of the Mesozoic strata.	Embry, AF	ISPG	RG	AI	Frank	69, 79, 87, 99	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750085*	Stratigraphy, sedimentology and diagenesis of Paleozoic rocks in the Mackenzie Mountains and northern Rocky Mountains Obj: 1. Revision of Silurian, Devonian and Carboniferous stratigraphy of the Mackenzie Mountains and northern Rocky Mountains leading to an improved understanding of shelf, slope and basinal facies and their potential for base metal mineralization. 2. The determination of a more precise location for the shelf-to-basin transition in these rocks which may, in itself, provide a guide to mineralization. 3. Analysis of diagenetic events reflecting burial and post-burial fluid movements that have affected this sequence, both with respect to mineralization and hydrocarbon generation and emplacement.	Morrow, DW	ISPG	RG	M	Yk BC Mack	94; 95 K,L,M,N; 96 C, D, I, P; 105; 106 A,B,G,H	2521
750088	Investigations concerning the optical properties of coals and dispersed organic materials Obj: To provide information on metamorphism and petrographic properties of coal and dispersed organic matter for the GSC geologists, the data to be used for establishing metamorphic regimes for correlation of coal seams and other rock bodies and for estimating paleotemperatures and burial depths. Largely a service project.	Kalkreuth, WD	ISPG	CG	CT	BC	82 G; 93 O, P	2524
750089	Planning, directing and coordinating coal resource evaluation programs Obj: To develop and maintain resource evaluation systems for Canadian coal deposits upon which authoritative advice and information can be based, and to perform administrative duties as Head of the Resource Evaluation Section	Latour, BA	ISPG	CG	RE	-	-	2524
750092	Mesozoic stratigraphy and basin analysis of Eastern Sverdrup Basin, Arctic Archipelago Obj: To provide a thorough understanding of the geological history of the Eastern Sverdrup Basin, stressing the inter-relationships of tectonics, sedimentation, biostratigraphy, geochemistry and hydrocarbon distribution. To evaluate the oil and gas potential of the region.	Emby, AF	ISPG	RG	AI	Frank	29; 39; 49 C,F,H; 59 D, E,H; 69; 79 E,H; 120 F; 340 B,D; 560 D	2521
750094*	Development of computer-based statistical techniques applicable to regional geological and mineral deposit data Obj: Develop and apply statistical techniques as an input to methods for regional resource evaluation of geological data and mineral deposit data	Chung, CF	EG	-	GM	-	-	2563
750095*	Microscopic study of pyrite in main seams of Sydney coalfield, Nova Scotia Obj: Determine the mode and distribution of pyrite in coal, and if possible, establish geological trends that may permit prediction of high sulphur areas ahead of present (submarine) workings.	Hacquebard, PA	AGC	EPG	-	NS	11 K, G	2543

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750096	To advise the Cape Breton Development Corporation on coal geology for its operation in the Sydney coalfield Obj: To provide geological information as an input in the planning of new mines, and to interpret geological features in present underground workings as an aid to continued mining developments.	Hacquebard, PA	AGC	EPG	MS	MS	-	2543
750098*	MetaIlogeny of the southwestern part of the Canadian Shield Obj: To provide a regional synthesis of the geology of a large part of the Canadian Shield south of Lat. 60° and west of Long. 25°, in order to determine the origin, setting and distribution of mineral deposits as an aid to prospecting and to the economic development of the region.	Franklin, JM	EG	-	MDG	Man Sask Ont Frank Kee Mack	42, 43; 52, 53, 54, 62, 63, 64, 73, 74	2561
750100	Regional Synthesis — Baffin Island Project II Obj: To provide a single comprehensive source for all relevant data on the region; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and related economic aspects of the region.	Morgan, WC	P	RG	NC	Frank	Pts 25, 26, 36, 16, 27, 37, 47, 38, 48, 39, 49	2531
750102	Regional syntheses, southern Keewatin, Project I Obj: To provide a single comprehensive source for all relevant data on the region; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and related economic aspects of the region.	Eade, KE	P	RG	NC	Kee	65 C	2531
750103*	Regional Synthesis — Bear and Slave Province, Project 1 Obj: To provide a single comprehensive source for all relevant data on the region; to prepare and have available for presentation broad regional and tectonic syntheses; and to have a designated "expert" who will be thoroughly familiar with the geological data and related aspects of the region.	Frith, RA	P	RG	BS	Mack	Pts 75, 85; 76 F, G, 86 B	2531
750108*	Marine surficial geology and sedimentation, British Columbia Obj: In order to provide the sedimentological framework and geological perspective for environmental concerns and landmass description: (1) map, describe and explain in a systematic manner the physiography, surficial deposits, processes and history of the Pacific continental shelf, slope, deep sea, straits, and fiords of British Columbia; (2) determine the composition, distribution, transport mechanisms and flux of suspended particulate matter in the marine waters off the British Columbia coast.	Bornhold, BD	C	-	MG	Pacific Offshore	-	2512

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750110*	Federal-Provincial mineral evaluation liaison and co-ordination Obj: To provide technical advice and liaison on the Geological Survey's involvement in the design and monitoring of joint federal-provincial actions in mineral resource evaluation and development; to participate, as required in the co-ordination, implementation, and management of such projects and specifically in the Non-Renewable Resource Evaluation Program (NREP).	Findlay, DC	EG	-	SP	-	-	2560
760004	Mineralogy and geochemistry of the unconsolidated cover - central Arctic Obj: 1. To use mineralogical and chemical criteria to define weathering in the active layer of surficial deposits in Arctic regions. 2. To relate information on weathering products and processes to problems in i) geochemical prospecting, ii) northern construction, and iii) waste disposal.	Adshead, JD	TS	-	SMT	-	-	2552
760005	Environmental geology of eastern Arctic Coasts Obj: To investigate and describe central Arctic coasts based on consideration of bedrock stratigraphy and structure, Quaternary deposits and events, physiography and bathymetry, sediment input, sea ice dynamics, ocean tides, currents and waves, and other pertinent factors in order to establish a system for coastal description as baseline information for proposed energy/mineral resource development.	McLaren, P	C	-	MG	-	-	2512
760008*	Geologie du Quaternaire region de Bathurst-Campbellton, Nouveau Brunswick Obj: Cartographier, decrire et expliquer les depots meubles et formes de terrain, en integrant des informations reliees a la planification territoriale, l'exploration minerale, la localisation des ressources granulaires, les eaux sous-terraines, la foresterie, le developpement urbain et industriel. Le travail final comportera une synthese de l'histoire quaternaire regionale.	(Gauthier, RC)	TS	-	RP	<u>NB</u>	<u>21</u> N, O, P	2551
760014*	Geology of uranium resources of Canada-4 Obj: Comprehensive research on the geology of uranium deposits in order to: (1) support or provide geologically based estimates of Canada's uranium resources; (2) provide guidelines for their discovery; (3) provide advice to government for uranium policy and related matters.	Dunsmore, HE	EG	-	URE	NS NB PEI NF Id Frank Que	<u>11</u> D, E, F, G, J, K, L, N, O; <u>12</u> A, B, H; <u>20</u> O, P; <u>21</u> A, B, G, J, N, O, P	2562
760015*	Eastern Baffin Island shelf bedrock and surficial geology mapping program Obj: To investigate and map the geology and near surface structure of the rocks occurring at the pre-Pleistocene unconformity on the eastern Baffin Island shelf and adjoining areas. To obtain geophysical data to put bedrock and surficial data in a regional context and to check the validity of geophysical interpretation against bedrock sample data. To investigate the distribution and geological history of the unconsolidated sediments on the eastern Baffin Island shelf and adjoining shelf areas.	MacLean, B	AGC	RR	EA0	Arctic Offshore	<u>Pts 15, 16, 17, 25, 26, 27, 28, 38</u>	2541

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760018*	Stratigraphy and sedimentology of Blairmore Group and equivalent strata in Alberta and northeastern B.C.  Obj: Evaluation of the regional lithostratigraphy and sedimentology of the Blairmore Group with emphasis on the correlation and origin of coal seams and their relationship to associated sediments. The project is being expanded into northeastern British Columbia to include similar studies of the Bullhead Group and lower Fort St. John.	Recruit	ISPG	CG	CG	Alta BC	Pts 83 B,C,E,F,L; 93; 94	2524
760021*	Structure and stratigraphy of Devon Island and Vendom Fiord map-area, Ellesmere Island  Obj: To delineate the stratigraphy and structural history of Devon Island and Vendom Fiord map-area with a view to helping assess the size, grade, mode of occurrence, origin and potential of mineral deposits that may occur there.	Thorsteinsson, R	ISPG	RG	AI	Frank	48 F,G; 58 F,G,E,H; 59 A; 49 A	2521
760023	Precambrian geology of south-east Ellesmere, Devon and Cobourg Islands  Obj: To complete the reconnaissance geological mapping of the northern Churchill Province.	Frisch, T	P	RG	NC	Frank	Pts. 38 B; 39 B-H; 48 E-H; 49 A,B,D,E,H	2531
760024	Keskarrah Bay map-area, District of Mackenzie, NWT  Obj: To determine the extent and significance of Archean basement rocks in the area; to identify stratigraphic control of base metal mineralization to improve understanding of iron formations and their significance in the region; and to obtain a better understanding of the evolution of an Archean basin in the Slave Province.	Henderson, JB	P	RG	BS	Mack	86 H/2,3,6,7	2531
760025	Geology of Amer Lake map-area District of Keewatin, NWT  Obj: To provide a comprehensive study of the Amer Lake map-area in order to refine and update the 16-mile reconnaissance mapping of that area.	Heywood, WW	P	RG	NC	Kee	66 H	2531
760026	Geology of Penrhyn Fold Belt, Melville Peninsula, NWT  Obj: To determine the structural, metamorphic, stratigraphic and age relations between basement gneisses and migmatites, and the covering Penrhyn Group metasedimentary gneisses and schists. To elucidate the structural development of polyphase folds in an area of high-grade metamorphic rocks. To provide structural-stratigraphic and isotopic age bases for regional correlation.	Henderson, JR	P	RG	Frank	Frank	46 O,P; 47 A	2531
760027*	Redbed sequences in Canada  Obj: To determine the origin and sedimentological and tectonic processes that yield redbed sequences; to determine the influences of climate, topography, weathering, sedimentation and diagenesis on their origin; and to determine the processes which contribute to the concentration of economic minerals in redbed sequences.	Chandler, FW	P	-	PET	Man NS	63 K; 11 K	2531

Dept'l  
Classi-  
fication

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760028	The geology of southeast Baker Lake, NWT Obj: To provide information on the origin and relationships of a heterogeneous group of plutonic and metamorphic rocks.	Schau, M	P	RG	NC	Kee	56 C,D	2531
760029*	Huntec Seabed Project Obj: Development and application of high resolution vertical incident acoustic reflection data for the quantitative classification of marine sediments.	King, LH	AGC	RR	SBG	-	-	2541
760030*	Surficial geology and paleogeology of Saglek Bank, Labrador Obj: To understand recent sedimentary processes and hydrodynamic regime, and iceberg movement across bank; to learn pattern of glacial movement across onto bank and history of sedimentary processes (post-glacial); to delineate separate phases of glacial cycles as recorded in cross sectional structure; to relate findings to glacial history of Canada, and findings to worldwide glacial-deglacial cycle; to relate findings to the problem of whether an ice sheet-ice shelf complex ever existed in Baffin Bay-Labrador Sea and when, and to paleo-oceanography of Labrador Sea, North Atlantic and Arctic Ocean.	Fillon, RH	AGC	RR	LSS	Atlantic Offshore	-	2541
760037	Regional subsurface geology, continental shelf and slope, offshore Labrador, Baffin Island and related areas Obj: To investigate the geological framework of the Labrador Sea-Baffin Bay areas; to analyse the sedimentary sequences off Labrador and Baffin Bay; to assess the hydrocarbon potential of this area.	Umpleby, DC	AGC	EPG	RSBS	Atlantic Offshore	2, 3, 13, 14, 15, 16, 27, 28, 29, 30, 39, 120	2543
760038	Biostratigraphy and paleoecology (palynology) of Mesozoic and Cenozoic of the Atlantic Shelf Obj: Refinement of the Mesozoic-Cenozoic palynological zonation, already established for the Scotian Shelf Grand Banks, and Labrador Shelf. Comparison of palynomorphs from offshore Eastern Canadian wells with coeval assemblages from other Atlantic margins, the Atlantic Basin and other related areas. Determination of the environmental significance of dinoflagellate cyst distributions and the biogeography through time. Studies of organic type (kerogen) and maturation where relevant.	Bujak, J	AGC	EPG	SS	Atlantic Offshore	1, 2, 3, 10, 11, 12	2543
760042*	Jurassic biostratigraphy of selected areas of western and Arctic Canada Obj: (1) To provide detailed biostratigraphic and lithostratigraphic data on Jurassic rocks of selected parts of British Columbia, Alberta, Yukon Territory and Arctic Islands where other geologists are conducting field work. (2) This project is intended to support and complement the work of regional mapping geologists by field studies in the areas concerned. In this context, the scope and objectives of the project will vary somewhat from year to year.	Poulton, TP	ISPG	P	MaP	BC Alta Yk Frank	82 J; 83; 92 H; 93; 94; 103; 104; 105 D; 106 D; 107; 115; 116 A,B,C; 49; 59; 69; 79; 89; 340; 560	2522

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classi- fication
760043*	Regional geochemistry Newfoundland & Labrador Obj: 1. Illustrate the effectiveness of NGR regional geochemical surveys in providing a data base adequate for mineral exploration and mineral inventory studies. 2. Develop a geochemical survey methodology appropriate to the Newfoundland and Labrador geological contexts.	Boyle, DR	RGG	RGC	RS	Nfld	13 J,K,N	2572
760044*	Regional geochemistry-Southern Canadian Shield Obj: (1) To assess, through regional orientation surveys, the use of various geochemical sample media, as a fundamental step in the development of geochemical survey procedures appropriate to the project area; (2) to illustrate through detailed surveys, interpretation and follow up activities, the effectiveness of such survey apparatus, as a means of stimulating mineral exploration within the project area; (3) to provide a data base for the compilation of a National Geochemical Reconnaissance Map as a contribution to the mineral potential inventory of the nation.	Coker, WB	RGG	RGC	RS	Sask Man Ont	31 C,F; 42 D,E; 52 A,H; 64 E,J,K,L,N,O; 74 I	2572
760045*	Evaluation of Uranium Reconnaissance Data Obj: (1) To develop guidelines for interpretation of Uranium Reconnaissance Program data; (2) to identify features in reconnaissance data that are diagnostic of mineralization; (3) to maximize the usefulness of URP data; (4) to correlate URP data with uranium resource potential.	Charbonneau, BW	RGG	RR	ADI	Ont Frank NS	21 A; 41 J,P; 42 A	2573
760047	Regional geochemistry-Northern Canadian Shield Obj: To determine the nature and factors affecting the distribution of trace elements within bedrock, overburden and stream and lake waters and sediments, etc. in order to: (1) evaluate the effectiveness of the NGR program (project 750051) and improve the operating techniques and specifications; (2) provide methodology for interpreting and following up NGR reconnaissance results; (3) assess the mineral potential of various regions and rock units with emphasis on granitoid rocks.	Maurice, Y	RGG	RGC	RS	Mack Kee Frank	76 H,I; 75 E,F-K; 46 N,O,P; 47 A,B,E,F	2572
760049	Gamma-Ray Laboratory Operations Obj: To provide analytical facilities for the determination of K, U, and Th in geological samples, and for the determination of radioactive disequilibrium in rock samples; to provide adequate standards for calibration of the lab as well as standards for the various calibration facilities constructed; to provide a data storage and retrieval system related to the analytical results produced by the laboratory.	Cameron, GW	RGG	RR	CMC	-	-	2573
760053	Hydrocarbon geochemistry of Arctic Archipelago Obj: To determine presence or absence and quality of petroleum source rocks and petroleum product type so that reasonable gas/oil ratios may be determined; to calculate probable or maximum maturation levels so that maturation isopleths can be plotted and used to map probable petroleum regions; to quantitatively evaluate hydrocarbons dispersed in fine grained rocks in order to estimate relative amounts of petroleum in various regions or plays.	Powell, TG	ISPG	PG	GC	Frank	98, 88, 78, 68, 58, 99, 89, 79, 69, 59, 49, 560, 340	2523



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760054	Hydrocarbon geochemistry of Canadian East Coast offshore Obj: To determine presence or absence and quality of petroleum source rocks and petroleum product type so that reasonable gas/oil ratios may be determined; to calculate probable or maximum maturation levels so that maturation isopleths can be plotted and used to map probable petroleum regions; to quantitatively evaluate hydrocarbons dispersed in fine grained rocks in order to estimate relative amounts of petroleum in various regions or plays.	Powell, TG	ISPG	PG	GC	Atlantic Offshore	14, 3, 10, 11, 20	2523
760055	USSR/Canada Exchange - Hydrocarbon Geochemistry Obj: To exchange information on methods of geochemical investigations of oil, gas and organic matter and application of their results to explorations and resource assessment. To gain a broader knowledge of geochemical criteria for petroleum generation and accumulation in various geological settings.	Powell, TG	ISPG	PG	GC	-	-	2523
760056	Evaluation of coal deposits of western Canada Obj: To establish a coal resource base in the coal deposits of western Canada from which quantitative, qualitative, mineability and environmental studies can be made.	Graham, PS	ISPG	CG	RE	Alta BC	82 J; 92 O; 93 B, C, G; 83 A	2524
760058	Vegetation distribution and relationships to surficial materials-Arctic Obj: To map and describe vegetation distribution and plant communities as they relate to selected areas of the Arctic Islands.	Edlund, SA	TS	-	RP	Frank Kee Man	54; 56; 57; 58; 68; 69; 78 F, G; 79; 88 E	2551
760059*	Study of large landslides in the Cordillera Obj: To determine the setting and mechanisms of major slope failures in selected parts of the Cordillera to establish criteria for assessing potential landslide regions and specific localities.	Eisbacher, GH	C	-	BG	Mack Yk BC	93 D; 106 C, F; 95 L, M; 94 F, K; 105; 116	2511
760060	Mineral and energy resource evaluation; Probabilistic Methods Obj: Preparation of a book to bring together and provide a perspective for those mathematical methods which, in one way or another, aim to predict the places and modes of occurrence of undiscovered mineral resources.	Agterberg, FP	EG	-	GM	-	-	2563
760061*	Regional synthesis of the Grenville Province in Ontario and western Quebec Obj: To effect a regional synthesis of the geology of the Grenville Province in Ontario and western Quebec and to interpret the synthesis in terms of the geological evolution of the area, and in cooperation with project 750062, of the Grenville Province as a whole.	Davidson, A	P	RG	SG	Ont Que	31 E, F; 41 H; 32	2531
760062*	Geology of bedded phosphate deposits in Canada Obj: To identify Canadian phosphate resources and to develop an understanding of the regional geology relationships: patterns and occurrences, associations, facies, paleogeography, etc.	Christie, RL	ISPG	RG	AI	Alta, BC Yk	-	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760063	Hydrocarbon geochemistry of northern interior plains and Beaufort Sea  Obj: To determine presence or absence and quality of petroleum source rocks and petroleum product types so that reasonable gas/oil ratios may be determined; to calculate probable or maximum maturation levels so that maturation isopleths can be plotted and used to map probable petroleum regions; to quantitatively evaluate hydrocarbons dispersed in fine grained rocks in order to estimate relative amounts of petroleum in various regions or plays.	Snowdon, LR	ISPG	PG	GC	Yk Mack	106, 107, 117	2523
760064	Geology of Mineral Resources in the Ocean  Obj: (1) To provide a base of geological information for identifying and determining the kinds, distribution and possible extent of ocean mineral resources, and for evaluating their significance to Canada. (2) To provide a direct and independent national competence for evaluating these resources and for appraising implications of their development with respect to Canadian mineral policy and the use and marketing of Canadian mineral products.	Gross, GA	EG	-	SP	-	-	2561
760065	Digital Compilation of Queenair Aeromagnetic Data  Obj: (1) Production of total field and vertical gradient aeromagnetic contour maps relating to the yearly GSC Queenair airborne survey operations; (2) Improved modes of presentation of the above data as new computer facilities develop; (3) An up-to-date bank of the data described above for ready retrieval for interpretation purposes.	Dods, SD	RG	RG	GDP	Que Man Ont NS	32 C; 63 K; 30 L, M, N; 40 G-J	2571
770001*	Study of the Cenozoic Evolution of the Western Cordillera  Obj: (1) To compile and publish a review of existing data on the Cenozoic geology of the Cordillera. (2) To obtain data from selected areas where additional data are required or which illustrate typical relationships. (3) To publish a series of topical papers based on selected field studies leading to a synthesis of the Cenozoic evolution of the Cordillera.	Souther, JG	C	-	BG	BC Yk	pts. of 82, 92, 93, 103, 94, 104, 95, 105, 115 A-C, 106, 116, 117, 114 O, P	2511
770004	Reconnaissance field study of the Mesozoic sequences outcropping on the Iberian Peninsula  Obj: To provide evidence that the sedimentary sequences of the Iberian Peninsula are co-eval with similar sequences beneath the Grand Banks.	Jansa, L	AGC	EPG	SSG	-	-	2543

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770006*	Stratigraphy and structure of the Pacific Continental Slope and Shelf using manned and unmanned submersibles	Yorath, CJ	C	-	MG	Pacific Offshore	92 C,D,E,L; 102 H,I, O,P; 103 B,C,F,G,K	2512
	Obj: (1) To describe the stratigraphy, biostratigraphy, sedimentology, structure and geochemistry of the stratigraphic successions exposed on the continental slope. (2) To map the distribution, structure, facies and stratigraphic relationships of rock units beneath the continental shelf. (3) To incorporate (1) & (2) in the interpretation of geophysical information to obtain an understanding of the tectonic history of the offshore Pacific continental margin. (4) To determine the petroleum potential of the region.							
770012*	Geology of the Coronation Gulf area	Campbell, FHA	P	RG	BS	Mack Frank	77 A,B,D,E; 76 G,J,K, M,N,O (parts of); 86 O,P	2531
	Obj: To establish the geology of the extrusive and sedimentary rocks of these areas; to compile a detailed stratigraphic-sedimentologic analysis of the Parry Bay and Kanuyak Formations, and the Coppermine River Group, and to relate these rocks to the underlying Timney Cove and Ellice River Formations; to correlate, if possible, the Hornby Bay dolomite and sandstone with the Parry Bay, Ellice and Timney Cove; to relate tectono-depositional events in other post-Coronation Geosyncline sequences. To determine the extent of copper mineralization in the Coronation lavas, and uranium content in the Parry Bay and other sedimentary rocks.							
770013	Operation Borden	Jackson, GD	P	RG	MC	Frank	parts of 37 G; 38 B,C; 48 A-D	2531
	Obj: A study of the stratigraphy, sedimentology, and economic potential of the upper Proterozoic rocks (EQUULIK and ULUKSAN GROUPS) of northern Baffin and Bylot Islands, and of the relationships between these strata and the underlying basement gneisses. A basin analysis will supply data for comparison and possible correlation with strata of west Greenland and Arctic Canada.							
770015	High Resolution Aeromagnetics (Instrumentation Development)	Sawatzky, P	RG	RG	MM	-	-	2571
	Obj: To improve the performance of the GSC experimental high resolution/gradiometer survey system, in terms of sensitivity, precision, reliability, efficiency and endurance.							
770016*	Operation Dease	Gabrielse, H	C	-	BG	BC	104 I,J,N	2511
	Obj: i) To complete and update the 1:250,000 geological mapping of Cry Lake and Dease Lake map-areas and N <sub>2</sub> Spatzizi. ii) To publish reports of field activities and papers on specific aspects of the geology of the region. iii) To complete and publish a final map and memoir on Cry Lake map-area and a final map and paper on Dease Lake map-area.							
770017	Stratigraphy, structure and metallogeny of the northern part of the Intermontane Belt (Whitehorse trough) in the Canadian Cordillera	Tempelman-Kluit, DJ	C	-	BG	Yk	105 C,E,L; 115 I	2511
	Obj: To provide data on, and extend our understanding of, the relationships between stratigraphy, structure, sedimentary facies and mineral deposits on the northern Intermontane Belt of central Yukon.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770018*	Regional Seismic Surveys Obj: To determine the thickness, attitude and seismic velocities of sedimentary formations comprising the Lomonsov Ridge, using seismic methods.	Overton, A	RG	RG	SM	Mack	86 K, M, N, O	2574
770019	Hepburn Batholith, Hepburn Lake map-area, District of Mackenzie Obj: To provide an analysis of the deposition and deformation within a eugeosyncline, and describe the plutonic and metamorphic character of the batholith, in order to reconstruct the tectonic history and understand the significance of the batholithic-eugeosynclinal belt as a whole, including its mineral deposits.	Hoffman, PF	P	RG	BS	Mack	86 J, O	2531
770020	Kemano Project Obj: To produce a report and geological map of Whitesail Lake (M <sub>2</sub> ) map-area, on a scale of 1:250,000, with one or more 1:50,000 maps of the most critical areas.	Woodsworth, GJ	C	-	BG	BC	93 E	2511
770022	Regional Synthesis - Northern Keewatin; Project 1 Obj: Regional synthesis of all aspects of the geology of an area in Northern Keewatin. Purpose will be to: (1) compile and evaluate geological data; (2) File supporting data - geological, geophysical, age, air photography, ERTS, geochemistry, etc. (3) File data on exploration activity in region; (4) To have a designated "expert" on this area of the Shield available to Government and Industry.	Heywood, MW	P	RG	NC	Keew	46, 47, 56, 57, 66	2531
770024*	Geology of uranium resources of Canada-Y Obj: To carry out comprehensive research on the geology of uranium deposits in order to: (1) support or provide geologically based estimates of Canada's uranium resources; (2) provide guidelines for their discovery; (3) provide advice to government for uranium policy and related matters.	Gandhi, SS	EG	-	URE	BC Mack	86 C, F, K, G, J, L, 85 I, M, N; 75 C, D, E, K, L; 82 M; 46 N; 76 J, N, O	2562
770025	Regional Geochemistry - Yukon Obj: 1) To assess through orientation surveys the use of various geochemical sample media as a fundamental step towards the development of geochemical methodology appropriate to the project area; 2) To illustrate through detailed interpretation surveys the effectiveness of such surveys as a means of evaluating the mineral potential; 3) To provide a data base for the compilation of a National Geochemical Reconnaissance Map as a contribution to the mineral potential inventory of the nation.	Goodfellow, WD	RG	GGC	RS	Yk BC Mack	105 A, B, H, I, F, O; 106 E; 116 B, L, M, N; 115 G, I, J; 117 A, B, C, D; 95 J, K, N	2572

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classi- fication
770026*	Geology of Red Indian Lake, west half, Newfoundland Obj: (1) To revise the geology and evaluate the economic mineral potential of Red Indian Lake, west half (12 A, W <sub>2</sub> ) by mapping at 1:50,000 scale and by compilation where needed. (2) To monitor, assess and then absorb results of geological mapping of insular Newfoundland under the Canada-Newfoundland Mineral Development Subsidiary Agreement.	Herd, RK	P	RG	SG	Nfld	12 A	2531
770027*	Proterozoic redbeds of Richmond Gulf Obj: (a) To determine the processes of formation of Proterozoic redbeds and associated metallogenesis; (b) To correlate Richmond Gulf sequence with sequences elsewhere on Canadian Shield.	Chandler, FW	P	-	PET	Que	33 N/15 34 C/1,8	2531
770028*	Regional Synthesis - Baffin Island: Project I Obj: Regional synthesis of all aspects of the Precambrian geology of Baffin, eastern Devon and southeastern Ellesmere Islands in the District of Franklin, N.W.T.	Jackson, GD	P	RG	NC	Frank	56-59; 45-49; 34-38; 24-27; 14-16	2531
770030*	Geologie du Quaternaire, region de l'Outaouais superieur Obj: Cartographier, decrire et expliquer les depots meubles formes de terrain, avec objectifs secondaires de: (1) Fournir des donnees relatives a l'utilisation du sol, a la prospection et localisation de sable et gravier, aux reserves d'eaux souterraines, a la prospection geochimique. (2) Determiner les proprietes physiques et mecaniques de certain depots.	Veillette, JJ	TS	-	RP	Que Ont	31 M, (N <sub>2</sub> ); 31 N, (NW <sub>2</sub> )	2551
770031*	Surficial geology and terrain evaluation, southern Yukon Obj: To map, describe and explain the surficial materials and landforms and to provide areal geologic-geomorphic data and knowledge of the stratigraphy, age and history of surficial deposits to provide background information for land-use planning and engineering development.	Klassen, RW	TS	-	RP	Yk BC	94 M; 95 D; 104 P; 105 A-D, E, J, K, L; 115 A, H, I; 114 P	2551
770032	Geological characterization of Arctic lakes: sediment properties and sedimentary processes Obj: To characterize Arctic lakes by providing a framework of mineralogical and compositional data on lake sediments and watersheds, and to evaluate postglacial sedimentation and diagenetic processes to assist 1) potential construction activities, 2) environmental impact studies, and 3) mineral exploration programs.	Adshead, JD	TS	-	SMT	Kee	66 A, H; 65 A, P, I, H; 55 E, F, M; 56 D, E, N, K	2552

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770035	Periglacial processes and slope movement, central Keewatin	Eggington, PA	TS	-	SMT	Kee Man	54 L; 55 L; 65 I, O, P,	2552
	Obj: (1) To determine the rates of slope mass movement; (2) To determine the processes involved in mudboil development and their rate of development; (3) if possible relate slope movement to mudboil development and morphology. The study area straddles the proposed Polar Gas pipeline route and hence will provide terrain data for the assessment of that route as well as information that could be used for future development projects.							
770036	Geotechnical study of rock heave, central Arctic	Dyke, LD	TS	-	GP	Frank Kee Man	54 K, L; 57 G; 58 B, C, F, G; 65 O, P; 68 G, H; 78 G, H; 79 B	2552
770037*	Slope processes and cryogenic movements, Arctic Islands	Heginbottom, JA	TS	-	GP	Frank	58 F, G; 68 G, H; 79 B	2552
	Obj: To study and describe the process of rock heave in massive rocks in the central Arctic along the proposed route of the Polar Gas pipeline and its effect on the pipeline.							
770038	A text on Canadian Geology and Natural Resources	Neale, ERW	ISPG	GI	-	Alta BC	82, 92, 93, 103	2525
	Obj: To prepare a text, at about the senior high school or introductory college level, which will summarize our present knowledge of Canada's rocks and minerals and relate them to recent hypotheses of the earth's evolution. It will be designed to provide factual background for intelligent laymen interested in world resource crises.							
770041*	Compositional Characteristics of Coals from Hat Creek, British Columbia	Marchioni, DL	ISPG	CG	CT	BC	92 I, P	2524
	Obj: i) To determine the petrographic character of the coals of the Hat Creek deposit ii) To determine the suitability of vitrinite reflectance as a rank parameter in these low rank coals (lignite to sub-bituminous) and if suitable, to use this parameter as the basis of determination of the relative timing of coalification and deformation iii) To examine the nature, vertical and lateral variation of associated clastics in boreholes and to combine these data with those of the petrographic study and a literature survey to interpret the depositional and post depositional environment of the deposit.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770044*	Lower Paleozoic basin-to-platform relationships in the Cordillera	Cecile, MP	ISPG	RG	M	Mack BC Yk	106 A,B,E,F,G,L; 94 B, F,G; 105 I,O,P; 95 K,L, M,N; 116 H,I	2521
	Obj: To contribute to the subdivision, mapping and understanding of important Lower Paleozoic basinal sequences through: (a) Tracing of time-rock units from platform to basinal sequences, (b) Correlation of events on the platform with responses in the basin, (c) Identification of mappable units in basinal sequences, on lithological paleontological, geochemical or other criteria, (d) Estimation of basinal water depths, (e) Elucidation of the composition and movement of basinal fluids, as deduced from diagenetic events.							
770045	Taxonomy and biostratigraphic distribution of Mesozoic and Paleogene megaspores	Sweet, AR	ISPG	P	MIP	Mack Frank Ont, NS	107 B; 88 C; 98 E; 79 B,D; 69 D; 49; 42 N; 11 E	2522
770046	Resource Evaluation of coal deposits of western and northern Canada	Hughes, JD	ISPG	CG	RE	Alta Yk	83 A,G,H,I,J	2524
	Obj: To establish a coal resource base from which quantitative, qualitative, mineability and environmental studies can be made by other government scientists. To advise scientists and engineers in industry on geological conditions relating to the coal deposits of Canada in order to assist them in the exploration for coal. To collaborate, on behalf of the Department, with geologists and engineers from various provincial government agencies as part of coal resource studies. To provide basic data required for the evaluation of the coal resources of these deposits.							
770047	Studies of coal deposits of western and northern Canada	Long, DGF	ISPG	CG	GC	Yk BC	93 B; 106 E; 105 A,B, F,G,H,J,K,L,M; 115 H, I,N,O,P; 116 A,B,C	2524
770048	Brachiopods of the Lower Upper Devonian Waterways Formation of northeastern Alberta	Norris, AW	ISPG	P	Map	Alta	74 D,E; 84 P	2522
	Obj: To describe and illustrate the rich brachiopod fauna of early Frasnian (early Late Devonian) age that occurs in the Firebag, Calumet, Christina, Moberly and Mildred Members of the Waterways Formation outcropping along the Clearwater and Athabasca Rivers of northeastern Alberta (see GSC Memoir 313 by Norris).							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770051	The relationship between kerogen type (known petrographic rank) and chemical extract data, for the purpose of source rock evaluation Obj: To assess kerogen type and degree of maturation by three microscopical methods and correlate the results with organic chemical data in order to define the most efficient microscopical method of source rock evaluation.	Kalkreuth, WD	ISPG	CG	CT	Kee Mack	107; 117; 99; 89; 79; 69; 59; 49; 560; 340	2524
770053	Heavy Oil and Sand Resources Obj: To determine the extent of in-place resources; the recoverable portion of that resource; and, to make projections of the impact of these resources on Canada's oil supply.	Brindle, JE	ISPG	PG	PR	Alta Sask	-	2523
770054	Sample preparation and mineral separating Obj: To provide sample preparation and mineral-separating services in support of Branch projects.	Machin, DB	CLTS	-	M	-	-	259
770055*	Metallurgy of the northwestern part of the Canadian Shield Obj: To provide a metallogenic basis for the evaluation of the mineral resources of the northwestern part of the Canadian Shield.	Roscoe, SM	EG	-	MDG	Mack Kee Man Sask	55, 56, 64, 65, 66, 75, 76, 85, 86	2561
770060	Environmental assessment of coal resource development, Canadian Cordillera Obj: Assessment of the geologic and hydrologic impact of open pit coal mining and emplacement of coal spoil and the investigation of geotechnical problems attendant with the reclamation of lands disturbed by coal mining operations in the Canadian Cordillera.	Jackson, LE	TS	-	GP	Alta BC	82 G, J; 83 C, E, F, L; 92 I	2552
770061*	Mineralogy of uranium deposits in granitic rocks in the Grenville Structural Province Obj: To determine the mineralogy of selected uranium deposits in pegmatitic and other granitic rocks as an input to the evaluation of uranium resources in these deposits and in related terranes.	Rimsaite, JYH	EG	-	URE	Ont Que	12, 31	2562
770063*	Geology of Lead and Zinc resources of Canada - II Obj: (1) support or provide geologically based estimates of Canada's resources of these commodities; (2) provide guidelines for their discovery; (3) provide advice to government for mineral policy and related matters.	Lydon, JW	EG	-	MDG	Yk Mack Que Man	32 D, F, J; 63 K-N; 105 I, O	2561
770067	Western Canada Oil and Gas Pool File Obj: Compilation of all parametric data relevant to the accumulation and exploitation of oil and gas pools in western Canada for basis of statistical methods in evaluation of undiscovered resources, resource estimates for heavy oils and unconventional gas.	Skibo, DN	ISPG	PG	PR	Alta Sask BC Man	-	2526



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770068	Petroleum Evaluation of Mainland Territories	Recruit	ISPG	PG	PR	Yk	85, 86, 95, 96, 97 A, B, C, D, F; 105 P; 106 A, B, 106 H-P; 107 A-E; 116 F-P; 117 A-D	2523
770070*	Regional Geological Synthesis, Central Superior Province	Card, KD	P	RG	SG	Ont	<u>Que</u> <u>41, 42, 32</u>	2531
770071*	Geology of copper and molybdenum resources of Canada - II	Sinclair, WD	EG	-	MDG	-	-	2561
770072	Geological Survey representative on Steering Committee of the Kremp Palynologic Computer Research Project.	Barss, MS	AGC	EPG	-	-	-	2543
770077*	Paleozoic conodonts of eastern Canada	Nowlan, GS	ISPG	P	OP	Que	<u>12 L; 11 E, F, K; 22 A, B; 21 A, G, H, I, J, O, P</u>	2522
780001	Coal Resource Data Management	Recruit	ISPG	CG	RE	Man Kee NB NS Nfld	-	2524

Obj: To provide a reliable and adequate data base for assessment by the Geological Potential Subcommittee of the project's hydrocarbon potential.  
To document proven and potential hydrocarbon occurrence in the area.

Obj: To compile and synthesize in the form of maps and reports, all geological work to date in NTS map-areas 42 and parts of 32 and 41. To outline areas requiring more coverage or updating and to evaluate what problem-oriented work can be undertaken:  
(a) to improve regional correlation in Superior Province; and  
(b) to further understanding of Superior-Grenville boundary.  
To produce geological maps for publication at 1:1,000,000 scale.

Obj: The project is one of comprehensive research on the geology of copper and molybdenum deposits in order to:  
(1) support or provide geologically based estimates of Canada's resources of these commodities;  
(2) provide guidelines for their discovery;  
(3) provide advice to government for mineral policy and related matters.

Obj: To represent the Geological Survey and present the views of GSC palynologists to the KPCR Steering Committee with regard to the operation and management of the project.

Obj: To describe and assess biochronological significance of early Paleozoic conodonts in order to refine methods for dating the rocks in which they are found.  
Coal Resource Data Management  
Obj: To establish and maintain coal resource data computer files of various coal deposits in Canada and to apply, adapt or develop computer programs for the analysis and display of geological data and the compilation of coal resource estimates.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept.'1 Classi- fication
780002*	Glacial erosion of the Canadian Shield Obj: A - To define and summarize ways of quantifying rates, depths and volumes of glacial erosion; B - Define parameters that are most influential in controlling glacial erosion on the Shield; C - To measure glacial erosion in selected test areas; D - To evaluate recently developed differences of opinion on efficacy of glacial erosion on the Shield.	Shilts, W	TS	-	SMT	Keewatin	55 E, L, K; 41 I 21 E, L	2552
780003	Petroleum Resource Evaluation of Western Canada Obj: To evaluate the resource potential for hydrocarbons in western Canada. This includes a knowledge of reserves discovered, appreciation of reserves, degree to which those reserves may be conducive to enhanced recovery, the determination of parameters required to estimate the cost and timing of future supply, the probable extent of undiscovered resources.	Wallace-Dudley, KE	ISPG	PG	PR	Alta BC Sask Man	62 E, F, L, K; 72 E-P; 73 C, D, E, F, K, L, M; 74 D, E; 82 H, I, J, O, P; 83; 84; 93 I, P; 94 A, B, G-K, N, O, P	2523
780004	Evaluation of Unconventional Gas Resources in the Deep Basin of Western Canada Obj: To determine the quantity of gas in low porosity, low permeability sandstone reservoirs in the Deep Basin of western Canada.	Recruit	ISPG	PG	PR	Alta BC	83 B, C, E, F, K-N; 93 I, P; 94 A, B, G	2523
780006*	Mineral Matter and Trace Element Content of Canadian Coals Obj: 1) To determine if coal basins and seams within basins are specific in terms of mineral matter and trace element content. 2) To enlarge the data base for the interpretation of the depositional regimes within coal basins. 3) To relate mineral matter and trace element content to other compositional parameters. 4) To provide a data bank on environmental and utilization aspects of these coals.	Marchioni, DL	ISPG	CG	CT	Alta	82 G, O, P; 83 A	2524
780007	Operation Hyde Obj: To interpret the Precambrian geology and economic potential of the area mapped to a standard of 1:250,000 mapping.	Fraser, JA	P	RG	NC	Keewatin	55 D; 55 E (S); 65 A (E)	2531
780008	Geology of Thirty Mile Lake 65 P (W) and Tebesjuak Lake 65 O (W) map-areas Obj: To interpret the geology of the area to a standard of 1:250,000 mapping, and thereby update the geological data base to improve regional tectonic syntheses. To investigate the structure and metamorphism of Archean and Archean gneisses and their relation to the Dubawnt group cratonic cover.	LeCheminant, AN	P	RG	NC	Keewatin	65 P (W); 65 O (E)	2531

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780009*	Healey Lake map-area, District of Mackenzie Obj: To determine the general structural metamorphic and age relations of rocks on each side of the Thelon Front in order to better understand the nature of the boundary between Slave and Churchill provinces. To evaluate the economic potential of the area and to map it at the scale of 1:250 000.	Henderson, JB	P	RG	BS	<u>Mack</u>	<u>76 B</u>	2531
780010*	A study of Bear Batholith rocks and basement to the Bear Batholith Obj: To define basement rocks of the Bear Batholith, and to establish the stratigraphy and distribution of the lowest parts of the Bear Batholith supracrustal rocks.	McGlynn, JC	P	RG	BS	<u>Mack</u>	<u>86 D, 85 N (pts. of)</u>	2531
780011	A survey of Metamorphism in the Canadian Shield Obj: To write a concise selective field oriented introduction to metamorphic petrology directed to geologists working in the precambrian Shield	Froese, E	P	-	PET	Man	63 J,K,N	2531
780012*	Stratigraphy and geochemistry of the volcanic rocks of the Circum-Ungava Belt Obj: To determine the geochemical characteristics and to work out the stratigraphic relationships of the Circum-Ungava Belt.	Baragar, MRA	P	RG	SP	<u>Ke</u>	<u>44 I,P</u>	2531
780013	Compilation of 1:1 million maps of the Canadian Shield Obj: To compile, synthesize and publish a series of 1:1 million geological maps of the Canadian Shield.	Eade, K	P	RG	NC	-	-	2531
780015*	Material balance of the uranium series in natural environments Obj: To establish the usefulness of studying the material balance of uranium and its decay products as a means of estimating uranium ore potential of a region.	Dyck, W	RGG	RGC	MD	<u>Sask Ont</u>	31 G; 64 L; <u>74 H,I</u>	2572
780016*	Drift prospecting methods and models Obj: 1) To model glacial dispersal from known sources. 2) To develop drift prospecting methods for use in clay belts.	DiLabio, RNW	TS	-	SMT	<u>Ont Que</u>	<u>14 D; 24 A; 23 J; 32 D; 42 C</u>	2552
780017*	Correlation of Quaternary geology; Great Lakes - St. Lawrence Valley region Obj: To resolve apparent age discrepancies in Pleistocene stratigraphic sequences of the lower Ottawa - upper St. Lawrence valleys and adjacent Lake Ontario basin. To provide a basis for regional compilation and synthesis of Quaternary geology in southern Ontario and southwestern Quebec.	Gadd, NR	TS	-	RP	<u>Ont Que</u>	<u>31 B, C, F, G, J, K</u>	2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780018*	Surficial geology and Quaternary stratigraphy of north Baffin-Bylot Islands  Obj: To provide information on the history and mode of deposition and the distribution and origin of Quaternary sediments in the northern part of Baffin Island and of Bylot Island, for use by environmental and development groups that may require knowledge of the area, and to provide data applicable to drift prospecting techniques.	Klassen, RA	TS	-	SMT	Frank	38 B,C; 48 A-D	2552
780019	Ocean Dumping Consultation and Study  Obj: a) To provide advice to government concerning the feasibility of ocean dumping or disposal of waste materials. b) To test various techniques and procedures for detecting and monitoring the impact of ocean dumping.	Schafer, CT	AGC	EMG	PEC	Atlantic Offshore	21, 22	2542
780021	Landsat Calibration for Suspended Sediment Concentration in Marine Coastal Environments  Obj: 1) To initiate cooperative research between A.G.C., C.C.R.S. and other marine agencies abroad, with a view to extending a calibration of Landsat radiance vs. suspended sediment concentration. Originally applied to the Minas Basin. 2) To extend the Minas Basin calibration. 3) To relate the available Seasat program to Landsat measures.	Amos, CL	AGC	EMG	CG	-	-	2542
780022*	Sediment Dynamics at the Head of the Bay of Fundy  Obj: 1) To determine the mass input, transfer and removal of sediments to Chignecto Bay, inclusive of Shepody Bay and Cumberland Basin. 2) To develop a numerical model to assess the affects of a Fundy Tidal Power Development on the distribution and accretion of sediments. 3) To formulate a methodology of assessing the implications of marine constructions on sediments in macrotidal regions.	Amos, CL	AGC	EMG	CG	NS NB	21, 11	2542
780023*	Development and application of magnetic interpretation methods  Obj: To establish a comprehensive capability for the interpretation of aeromagnetic survey data in order to support geological mapping and resource assessment programs.	Teskey, D	RGG	RG	MM	Sask Que	64 L; 74 I; 32 C	2571
780024*	Analytical control and standardization  Obj: 1. Arrange, direct and coordinate the utilization of all the subdivision's analytical and sample preparation resources. 2. Provide specifications for all analytical and sample preparation requirements. 3. Where feasible, analytical methodology is to be standardized; quality control procedures are to be devised and implemented to monitor output of both commercial and "in house" laboratories when this output relates to the activities of the subdivision.	Lynch, JJ	RGG	RGC	-	Ont	31 M	2572

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	2531
780025*	Archean Rocks of the Main Province in Hopedale (13 N), Snegamook Lake (13 K), and Makkovik (13 O) map-areas, Labrador	Ermanovics, I	P	RG	SG	Nfld	13 N, K, O	2531
	Obj: 1. To produce maps (suitable for publications at 1:100,000) and comprehensive reports on the geology and economic mineral potential of the Archean rocks in these areas. 2. To monitor, compile and synthesize results of the geological mapping of Labrador to be carried out under the Canada - Newfoundland Mineral Development Subsidiary Agreement.							
780026	Quaternary paleo-sea-level map of Canada	Pelletier, BR	TS	-	SP	NS NB PEI Nfld Que Ont Man BC Yk Mack Kee Frank	1-2, 11, 13-16, 20-22, 24-29, 32-39, 42-43, 45-49, 54-59, 66-69, 76-79, 86-89, 92, 98-99, 102-103, 107, 114, 117, 120, 340, 350, 360	2550
	Obj: To produce a synthesis of sea-level phenomena for the Quaternary period.							
780027*	Coastal Geology - British Columbia	Bornhold, BD	C	-	MG	BC	92 B, C, E, F, G, K, L, M; 93 D; 102 I, P; 103 A, B, C, F, G, H, I, J, K, O, P	2512
	Obj: To carry out both inventory and process studies of coastal and nearshore geology in British Columbia in order to: provide a data base for coastal management; be able to respond to requests for information and advice from other government agencies; and understand better the Quaternary evolution of the west coast of Canada.							
780028*	Detailed Geological Investigation of selected areas within the Foothills and Rocky Mountains of the Monkman Pass map area - with emphasis on the structure	Thompson, RI	C	-	BG	BC Alta	93 H, I; 83 E	2512
	Obj: (i) To assist in the completion of reconnaissance studies within the Monkman Pass map sheet; (ii) to proceed with selected, more detailed studies aimed at a clearer understanding of structural relationships across this part of the Rocky Mountain Belt; and to begin a preliminary analysis of fracture fabrics within some upper Paleozoic and Mesozoic stratigraphic units.							
780029*	Mesozoic and Cenozoic Foraminifera of the Arctic Western mainland of Canada	McNeil, DH	ISPG	P	MiP	Yk Mack	95, 96, 97, 105, 106, 107, 115, 116, 117	2522
	Obj: To establish the biostratigraphic distribution and significance of Mesozoic and Cenozoic foraminifers in the Arctic western mainland of Canada, with particular emphasis on the Mackenzie Delta-Beaufort Sea area.							
780030	Taxonomy, biostratigraphy and paleoecology of Mesozoic and Cenozoic palynomorph assemblages from the Mackenzie Delta Beaufort Sea and Arctic Region	Ioannides, NS	ISPG	P	MiP	Frank Mack	120 F; 340 D, B; 107; 117; 49 G; 59 H	2522
	Obj: To establish a biostratigraphic zonation scheme for the Mesozoic and Cenozoic the Mackenzie Delta, Beaufort Sea and Arctic Region.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780031*	The Newfoundland Continental Slope at 49°N to 50°N: Nature and magnitude of contemporary marine geologic processes Obj: (1) To discover the nature and magnitude of contemporary marine geologic processes based on sedimentologic, geochemical neontologic <u>in situ</u> sensor data. (2) To develop process and environmental models for biostratigraphic, paleoecologic and environmental impact studies.	Schafer, CT	AGC	EMG	PEC	Atlantic Offshore	-	2542
780032	Lead isotopic studies on genesis of ore deposits Obj: 1) To do lead isotopic studies of ore deposits in order to improve our understanding of the age and genesis of these deposits. 2) To derive a lead isotope model that will be useful in refining genetic models for many types of ore deposits. 3) To coordinate the obtaining of lead isotope analyses for the members of the Mineral Deposits Geology Section and the assignment of priorities for such analyses. 4) To aid members of the section in interpretation of analyses that have been carried out for other projects.	Thorpe, RI	EG	-	MDG	-	-	2561
780033*	Quaternary paleoecology, Great Lakes Obj: To describe, analyze and explain unconsolidated deposits and associated organic remains in the Great Lakes in order to: 1) determine Quaternary stratigraphy, history and paleoecology; 2) identify processes operative in the lakes during the Quaternary and the factors controlling them; 3) to provide background geological information for other scientific studies in the Great Lakes.	Anderson, TW	TS	-	PG	Ont Que	<u>21 E; 31 B-6, J-L</u>	2551
780035*	Remote sensing applied to Quaternary geology and mineral tracing Obj: To evaluate the potential use of remotely sensed, multispectral data for terrain evaluation, terrain mapping, Quaternary geology and mineral tracing. To apply appropriate processing techniques for remotely sensed data to Quaternary geology and related terrain studies in selected test areas in Canada.	Belanger, JR	TS	-	SMT	Yk Kee Que	55 E,L,M; 65 H; 115 A-C,F,G,J,K; <u>21 E,L</u>	2552
780037	Structural geology-geomorphology, southwest Yukon Obj: To determine the nature and scope of late Quaternary tectonic activity along the Denali Fault and to identify and interpret landslides and other potential terrain hazards in southwest Yukon Territory in order to provide information pertinent to industrial development, including pipeline and road construction and maintenance, and to determine the history of faulting in the region.	Clague, JJ	TS	-	RP	Yk	105 C,D,E; 115 A,B, F,G,H,I,J,K; 114 O,P	2551
780039*	Jurassic and Cretaceous Minnes Group, Alberta and British Columbia Obj: To describe the stratigraphic succession and petrography to document fossil flora and fauna; to provide data on correlation of these strata, their lateral variation, their potentialities as sources of oil and gas, and their suitability as reservoirs for those fuels.	Stott, DF	ISPG	-	-	Alta BC	83 E,L; 93 I,O,P; <u>94 B,G,J</u>	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780042	Comparative studies of the continental margins of the Labrador Sea and of the North Atlantic	Srivastava, SP	AGC	RR	LSS	Atlantic Offshore	-	2541
	Obj: 1) To delineate subsurface structure across Labrador and west Greenland margins. 2) To determine the transition from the continental to oceanic crust across the margins. 3) To discuss the subsidence history of the margin as obtained from well data and to relate it to the subsurface structures.							
780043	Coastal Reconnaissance of the Sverdrup Basin, N.W.T.	Taylor, RB	AGC	EMG	G	Frank	59, 69	2542
	Obj: To map and analyze the coastal environments of the Sverdrup Basin, N.W.T. To provide information on the shore types, processes and the effects of massive shore ice piles which will serve as background information for the evaluation of potential marine terminal sites and the impact of such installations on the coastal zone.							
780044*	Environmental assessment through remote sensing and vegetation analysis	(Rencz, AN)	TS	-	SMT	Ont Que Kee	31 B, C, F, G, L, P; 42 C; 56 D, K; 32 D	2552
	Obj: To study factors affecting the uptake of various trace elements into plant organs, in order to understand the movement of potentially toxic elements from the geochemical environment to biological systems; to process digitized land satellite data from various regions of Canada to provide a classification of major surficial features.							
780045	Debris flow hazard assessment methodology, alpine and northern upland areas	Jackson, LE	TS	-	GP	BC Alta	82 G, J, N, O; 83 C, D, E	2552
	Obj: To identify and determine the relative importance of the environmental factors favouring the development of debris flows in the Rocky Mountains (49°N-54°N), and to develop a methodology for assessing the hazards to transportation and utility facilities from this process.							
780046*	Metamorphic Map of the Canadian Cordillera	Woodsworth, GJ	C	-	BG	BC Yk	116, 115, 105, 95, 114, 104, 94, 103, 93, 83, 92, 82	2511
	Obj: To compile a metamorphic map of the Cordillera on a scale of 1:2,000,000 depicting areas underlain by rocks representing particular grades of regional metamorphism.							
780047*	Computer Methods and Calibration	Carson, JM	RRG	RR	CMC	Sask Ont NB Alta	21 G; 31 G; 73 B; 82 O, P	2573
	Obj: 1) To develop computer methods for compilation of radiometric data. 2) Develop data base for airborne, ground, laboratory and borehole gamma ray spectrometric data. 3) To standardize and coordinate the calibration of radiometric systems.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780048	Surficial Geology of Lomonosov Ridge, Arctic Ocean Obj: 1) To describe the morphology, structure and history of the surficial sediments of the Lomonosov Ridge in the vicinity of the EMR LOREX site (near North Pole). 2) To contribute to Earth Physics Branch's LOREX to define continental (?) origin of Lomonosov Ridge. 3) To adapt technology and to gain experience in working on frozen seas. 4) To establish working contacts with other groups concerned with Arctic Ocean geology.	Blasco, SM	AGC	EMG	CGD	Arctic Offshore	-	2542
780049*	FRAM I Seismic Refraction and Reflection Experiment Obj: To collect seismic refraction and reflection data and study natural seismicity during the drift of the U.S. ice camp FRAM I adjacent to the Nansen Ridge in order to determine representative crustal sections of the Arctic Ocean Basin as an indicator of its development.	Falconer, RKH	AGC	RR	EA0G	Arctic Offshore	-	2541
790002*	Geochemical data processing Obj: 1) Document and store, in digital form, all geochemical data (descriptive and analytical) generated by the geochemistry subdivision staff; 2) Provide data processing support for the specific needs of the subdivision staff; 3) Provide data management of GSC-NGR and/or Provincial survey data; 4) Release N.G.R. data to the public.	Lund, NG	RGG	RGC	RS	-	-	2572
790003*	Regional Geochemistry - Southern Cordillera Obj: 1) To develop and test geochemical exploration methods for concealed ore deposits in a variety of geological and surficial environments. 2) To assess the effective performance of geochemical reconnaissance surveys.	Ballantyne, SB	GGG	RGC	RS	BC Yk	104 N, O, P, I; 94 F, K, L; 105 B, I, M 92 O, P; 106 D	2572
790004*	Geochemical Sampling and Resource Evaluation Studies Obj: To develop and document methods of utilizing geochemical data in mineral resource evaluation studies. Particular attention will be paid to assessing the reliability of such studies through measurement of the variabilities associated with all stages of sample and data acquisition and processing.	Garrett, RG	GGG	RGC	MD	-	-	2572
790005*	Quaternary geology, Mayo-McQuesten Obj: To map, describe and explain the surficial materials and landforms and to provide areal geologic-geomorphic data and knowledge of stratigraphy, age and history of surficial deposits to provide background information for land use planning, engineering and mineral development.	Hughes, OL	TS	-	RP	Yk	105 M, 115 P	2551
790006*	Marine Delta Sedimentation, British Columbia Obj: To provide geological/sedimentological data base for delta systems in coastal British Columbia for general land and waterfront planning and environmental management.	Luternauer, JL	C	-	MG	BC	92 B, G; 103 G, H, I, J	2512



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790007*	Geology of Nahanni map-area, Yukon and Northwest Territories Obj: To update geological mapping in Nahanni map-area with emphasis on the distribution of stratigraphic units of the economically important Road River Formation and Earn Group.	Gordey, SP	C	-	BG	Yk Mack BC Alta	105 I	2511
790008	Stratigraphy, sedimentation, structure and tectonic setting of the Windermere Supergroup Obj: To establish the stratigraphic succession, origin and correlation and determine the role played by these rocks in the evolution of the Cordillera. To relate mineral deposits to the stratigraphic, sedimentological and structural framework of these rocks.	Eisbacher, GH	C	-	BG	Yk, Mack BC Alta	115; 105; 95; 94 K; 93 I, O; 83; 82 K, N, O; 116; 106	2511
790009	Kamilukuak Lake Map-area, District of Keewatin, N.W.T. Obj: To map the bedrock geology of the area at a standard of modern 1:250 000 scale mapping. Emphasis will be placed on the Dubawnt Group rocks, their extent, lithology, and relationship to the basement rocks.	Eade, KE	P	RG	NC	Kee	65 K, L; 66 H	253
790012*	China-Canada Exchange - Hydrocarbon Geochemistry Obj: To exchange information on methods of geochemical investigations of oil, gas and organic matter and application of their results to exploration and resource assessment. To gain a broader knowledge of geochemical criteria for petroleum generation and accumulation in various geological settings.	Powell, TG	ISPG	PG	GC	-	-	2523
790013*	Relationship of reflectance to chemical rank parameters of western Canadian coals Obj: 1) To establish reference curves relating rank as determined by reflectance to rank as determined by chemical means. 2) To determine the relationship of varying maceral compositions on rank as determined chemically.	Cameron, AR	ISPG	CG	CT	Sask Alta BC	62 E; 72 H, G, M; 82 G, H, J, O, P; 83 A, C, E, F, G, M; 93 I, O, P	2524
790014	Triassic Foraminifera of the Sverdrup Basin Obj: To investigate the feasibility of using foraminifera as a means of refining biostratigraphic zonation within the Triassic System and of establishing criteria for the dating and correlation of potentially petroliferous sequences within and adjacent to the boundaries of the system.	Wall, JH	ISPG	P	MIP	Frank	49 C, 59 H; 69; 79; 88; 89; 340 B, C; 560	2522
790015*	Surficial geology and paleo-glaciology of the central Labrador Shelf Nain, Makkovik and Harrison Banks Obj: To gain insight into recent sedimentary processes and hydrodynamic regime; the pattern of glaciation on the banks; the history of glaciation locally and an integration of results with those of previous Labrador Shelf projects to develop a regional picture.	Fillon, RH	AGC	RR	-	Atlantic Offshore	-	2541

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790016	Geology of the Heilikian Sediments and Adjacent Gneisses, Fury & Hecla Strait Area  Obj: 1) To determine the internal stratigraphy, sedimentology, structure, age, geological history of the sediments. 2) To map the gneisses underlying the sediments to the north, concentrating on those gneisses coincident with strong radiometric anomalies.	Chandler, FW	P	-	PET	Frank	47 C,D,E,F	2531
790018*	Ice Scouring of Continental Shelves  Obj: To investigate the geomorphology and sedimentology of ice scour tracks and their relationship to bathymetry, geology, oceanography and drift ice with a view to interpreting the dynamics and history of ice impacts on the seabed in order to provide advice for resource management.	Lewis, CFM	AGC	EMG	CGD	Atlantic Offshore	-	2542
790019	Environmental Geology of Deep Ocean  Obj: 1) To investigate the capacity of the deep ocean environment to maintain normal processes under stress imposed by exploration of waste disposal. 2) Participate with the seabed working group of NEA in order to maintain awareness with the progress in feasibility studies for the disposal of high level nuclear waste in the seabed and DOMES project.	Vilks, G	AGC	EMG	PEC	Atlantic Offshore	-	2542
790020*	An investigation of the semi-inert constituents of W. Canadian coals  Obj: To investigate the degree of participation of semi-inert macerals, of Western Canadian coals, in a heat-treatment process and to establish a reliable microscopic method for predicting the coking properties of these coals.	Kalkreuth, WD	ISPG	CG	CT	BC Alta	-	2524
790021	Surficial geology, Lac Kipawa Region  Obj: To map, describe and explain the surficial materials and landforms and to provide geological-geomorphic data and knowledge of stratigraphy, age and history of surficial deposits, to provide background information pertinent to land use planning, forestry, agriculture, urban and industrial development and engineering construction.	Vincent, JS	TS	-	RP	Que	31 L	2551
790022*	Stratigraphy and sedimentology of the Lower Cretaceous Gething Formation, Rocky Mountain Foothills, Alberta and British Columbia  Obj: To describe the Lower Cretaceous stratigraphic succession; to collect samples for laboratory studies, and to collect fossil flora and fauna; to provide data on the origin, distribution and continuity of coal seams throughout the region; to attempt to determine criteria useful in determining the sub-environments in which the fluvial-deltaic sediments were deposited, and to eventually provide a regional geological model that will be of assistance in determining the potential coal resources of this and other regions.	Gibson, DW	ISPG	CG	GC	Alta, BC	83 L; 93 I, J, O; 94 B, G	2524
790024	Geology of the Foxe Fold belt (EAST HALF), Baffin Island  Obj: To establish the stratigraphy, structure and metamorphism of the Aphebian sedimentary, volcanic and plutonic rocks in the Piling Group and their relationship to the rocks of the Mary River Group. The structural evolution of Archean "gneiss domes" in the area is also to be studied, and the economic mineral resource potential of the region evaluated.	Henderson, JR	P	RG	NC	Frank	Pts 27 A-D	2531

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790025*	Petrology, mineralogy, geochemistry and mineral potential of a Helikian non-orogenic granitic suite in central Labrador and adjacent Quebec. Obj: To improve understanding of the conditions and processes that control concentrations of U, Sn, Be, W and Mo in non-orogenic granitic suites.	Emslie, RF	P	-	PET	Nfld Que	Parts of 13 M, 14 D, 23 P, 24 A	2531
790026*	Geological evaluation of crystalline, sedimentary and seabed terranes for radio-active waste disposal. Obj: On behalf of AECL/EMR to manage geological research program in the evaluation of crystalline, sedimentary and seabed terranes as potential host rocks for radio-active waste disposal.	Sanford, BV	P	-	SP	Ont Sask Man NS	Pts 41, 42, 52, 62	2531
790027	Quaternary stratigraphy Yarmouth region, Nova Scotia Obj: To document the Quaternary stratigraphy of the southeast coast of Nova Scotia in the vicinity of Yarmouth.	Grant, DR	TS	-	RP	NS	20 O, 21 A, B	2551
790028	Seabed Mosaics/Mapping Engineering Development Program (COPI) Obj: Huntco '70 Limited is to design, produce and test various modular subsystems for use with existing AGC profiling and side scanning systems to improve their positional performance and to, by 1982, design, produce and evaluate ready for marketing a full Mosaic facility for quasi-three dimensional plotting of the contours of the ocean floor.	(Dessureault, JG)	AGC	PS	-	-	-	2544
790030*	Geology of Nelson Map-area Obj: a) To update the geology of Nelson area to current requirements embodying new field work and scattered studies done since the original work in the late 1930's. b) To provide a 1:250,000 synthesis of stratigraphy, structure, metamorphism and mineral deposit potential.	Reesor, JE	C	-	BG	BC	82 F, E <sub>1/2</sub>	2511
790031*	Geology of the Beaufort-Mackenzie Basin Obj: (1) To integrate all available geological, biostratigraphic, geophysical, and geochemical data for the offshore areas, Beaufort Sea, in order to develop a stratigraphic-sedimentological framework and an appreciation of the petroleum potential. (2) Undertake a sedimentological and petrographic analysis of selected zones within the Tertiary in order to understand reservoir character and distribution. (3) To do detailed correlations of Lower Cretaceous-Upper Jurassic rocks, set up a stratigraphic framework and do sedimentological interpretations.	Dixon, J.	ISPG	RG	M	Mack, Frank YK	107 B-H; 117; 97 F, H	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790032*	Identification of Mesozoic and Tertiary Continental Microfloras from Northwest Territories, Yukon Territory, British Columbia, Alberta	Hopkins, WS, Jr.	ISPG	P	MP	Yk BC Alta	92 I	2522
	Obj: To determine floral successions from scattered and widely separated Tertiary Basins in order to establish Biostratigraphic Zonations and to interpret depositional environments.							
790033*	Geochemistry of Mineral Occurrences and their Host Rocks in the Northern Cordillera	Goodfellow, WD	RG	RG	RS	Yk	105 O, I; 106 B	2572
	Obj: Through geochemical studies, to assist in determining: (1) the origin of selected mineral occurrences; (2) criteria which can be used in the exploration for new and possibly deeply buried mineral deposits; (3) geochemical methodology for the identification and differentiation of stratigraphic units, thereby assisting in stratigraphic correlations.							
790034*	Shallow Seismic Surveys	Gagne, RM	RG	TG	SM	NB Yk	21 O/1 116 P/9	2574
	Obj: To map the thickness of surficial deposits by seismic methods for geological mapping and engineering projects.							
790035*	Coastal Reconnaissance of Bylot and N.E. Baffin Islands, N.W.T.	Taylor, RB	AGC	EMG	CGD	Frank	27 G, 37 H, 38 A, B, C, 48 A, D	2542
	Obj: To map and analyze the coastal environments of Bylot and N.E. Baffin Islands, N.W.T. To provide information on the shore types, sediments and processes affecting the shoreline stability which will serve as background information for the evaluation of effects of offshore drilling in Lancaster Sound in the event of a well blowout.							
790036	Sediment Dynamics Monitor (Ralph)	Heffler, DE	AGC	PS	SD	-	-	2544
	Obj: To design, build and test an instrument to investigate the dynamics of sediments in water depths ranging from a few metres to 200 M for bottom durations of up to 45 days.							
790037	Ocean Bottom Seismometers at A.G.C.	Heffler, DE	AGC	PS	SD	-	-	2544
	Obj: To carry on the development of the Ocean Bottom Seismometer (OBS) system now in use at AGC. Future developments will be acoustic release, better tape recorders, study of seismic coupling and response problem, improved playback facilities and other improvements which are agreed to be important. Also, to maintain existing OBS's.							
790038*	Middle and Upper Devonian Rocks in east-Central B.C. and west-central Alberta	Geldsetzer, HHJ	ISPG	RG	M	BC Alta	83 E, L; 93 H, I, O, P	2521
	Obj: To establish and apply conceptual models of deposition of the original sediments in terms of environment and paleogeography, their subsequent diagenesis and correlation.							

Dept'l  
Classi-  
fication

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classi- fication
790039	Development of data management system for marine geophysical data Obj: To provide a capability for the efficient storage of potential field data collected in marine geophysical surveys. To enable portions of the data to be effectively retrieved for use by AGC (and external) personnel. To facilitate the identification and correction of errors and inaccuracies in the data values.	Martin, GM	AGC	PS	DS	-	-	2544
790040	Taxonomy, biostratigraphy, paleoecology and paleobiogeography of Mesozoic-Cenozoic agglutinated foraminifera. Obj: A. To clarify the taxonomy of Late Mesozoic-Cenozoic agglutinated foraminifera. B. To establish an agglutinated foraminiferal biostratigraphy of more than local significance in Upper Mesozoic-Cenozoic strata. C. To understand the distribution in space and through time of predominantly agglutinated foraminiferal assemblages in sedimentary basins and to formulate models for this distribution.	Gradstein, F	AGC	EPG	-	-	-	2543
790041*	Lardeau map-area, B.C. Obj: To complete terminal report and related geological, structural and mineral deposits maps and structure sections for publication at 1:250,000 scale.	Wheeler, JO	C	-	BG	BC	<u>82 K (M<sub>2</sub>)</u>	2511
790042*	Structure and Tectonics; Immutian Fold Belt, Ellesmere Island Obj: To map and describe structures of the fold belt, their evolution and the tectonic history of that part of the belt on Ellesmere Island.	Okulitch, AV	ISPG	RG	AI	Frank	<u>49 C, D, E, F, 59 E</u>	2521
790043	Depositional Environments and Diagenesis of Viking Sandstone Reservoirs, Alberta Obj: 1. To develop models of the depositional framework, facies, geometry, and sequence of diagenesis within subsurface Viking reservoir sandstones. 2. To investigate the relationship between depositional environment and diagenetic trends in specific reservoirs, and to determine the relative role of burial metamorphic versus depositional controls on sandstone diagenesis and resultant reservoir quality.	Reinson, GE	ISPG	RG	M	Alta	72, 73, 82, 83	2521
790044	Nahanni IMPP - Coordinator Obj: To provide coordination for participants from 5 divisions in a multidisciplinary study of Nahanni map area (105 I) and environs involving bedrock, surficial deposits, geochemistry and mineral deposits to ensure that various disciplinary studies are undertaken such that maximum interaction takes place in the field and in follow-up laboratory and office investigations. To judge ultimately the efficacy of such studies in GSC 1:250,000 systematic mapping.	Reesor, JE	C	-	-	Yk	105 I	2511
790045	NEA/IAEA Athabasca Basin Study Obj: 1. To provide administrative coordination and logistical support for this integrated study. 2. The study has the objective of evaluating a wide range of exploration techniques for uranium mineralization present at depth.	Cameron, EM	RGG	RGC	-	Sask	64 L, 74 I	2572

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classi- fication
800001*	Quaternary geology and terrain inventory, Nahanni Obj: To map, describe and explain the surficial deposits, terrain conditions, active geomorphic processes and Quaternary history of the Nahanni map area with specific reference to the significance of Quaternary geology for mineral exploration.	Jackson, LE	TS	-	GP	Yk	<u>105 I</u>	2552
800002	Cretaceous and Upper Jurassic Paleontology and biostratigraphy, Western and Arctic Canada Obj: To describe and illustrate important Cretaceous and Upper Jurassic (Buchia-bearing beds only) molluscan faunas (Ammonoidea and Pelecypoda) and to formulate final reports on Cretaceous stratigraphy in selected areas of Western and Arctic Canada. To prepare reports pertaining to final completion of the Dibranchiata volume of the Treatise on Invertebrate Paleontology.	Jelezky, JA	ISPG	P	OP	BC Alta Yk Mack Frank Kee	-	2522
800003	Subsurface Geology of Great Bear River map-area Obj: To provide a thorough understanding of the pre-Mesozoic geological history of the Great Bear River map-area, emphasizing the interrelationships of sedimentation stratigraphy, tectonics and economics. To evaluate the economic mineral potential of the area.	Pugh, DC	ISPG	RG	M	Mack	96 C	2521
800004	Geology of Whitehills Lake Obj: To map 66 A/9 and 66 A/16 S <sub>4</sub> at a scale suitable for publication at 1:50,000, in order to determine: whether or not supracrustal strata in the Whitehills Lake district belong to two or three rock units, their sequence, age and structure; to ascertain the relationship between stratigraphy and uranium mineralization; to delineate komatiite zones in volcanic rocks.	Taylor, FC	P	RG	SP	Ke	66 A	2531
800005*	Metamorphism and structure in northeast Superior Province Obj: 1. To understand the geological evolution of the higher grade metamorphic region of the north-eastern Superior Province, and in particular, the relationship between greenstone and granulite terrains. 2. To contribute, through field studies, to compilation of a geological map at 1:1,000,000 scale for NTS 33.	Ciesielski, A	P	RG	SG	Que	<u>33 N, O, P</u>	2531
800006*	Geology of Beechey-Duggan Lakes area Obj: 1. Map for 1:250,000 published scale. 2. Understand the nature of the Thelon Front. 3. Produce final maps and a report.	Frith, RA	P	RG	BS	Mack	<u>76 G(E<sub>1/2</sub>), H(M<sub>1/2</sub>)</u>	2531
800007*	Metamorphism in the Kiseynew Subprovince Obj: To study the metamorphic zonation in the Kiseynew Subprovince, from the low grade margin to the granulite facies in the centre, and to determine its relationship to the development of alternating volcanic and sedimentary subprovinces.	Froese, E	P	-	PET	Man Sask	<u>63 J, K, L, M, N, O</u>	2531

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
800008*	Geology of the Baker Lake map-area Obj: To refine and upgrade the 16-mile reconnaissance, with emphasis on the structure and stratigraphy of Archean metavolcanics and Archean(?) metasediments, and relationship to gneissic and granitic rocks. The economic potential will be evaluated.	Heywood, WM	P	RG	NC	Kee	56 D	2531
800009*	Geology of Fort Smith, District of Mackenzie Obj: To complete mapping of Precambrian rocks at 1:250,000 scale in Fort Smith (75 D) and east part of Little Buffalo River (85 A).	Bostock, HH	P	RG	NC	Mack	75 D, 85 A (E½)	2531
800010*	Marine magnetic surveys Obj: To measure and interpret the earth's magnetic field over the Pacific margin of Canada to extend our knowledge of the geology and economic potential of the area.	Currie, RG	C	-	MG	Pacific Offshore	92 B, C, E, F, G, L, K, M; 93 D; 102 I, P; 103 A, B, C, F, G, H, I, J, K	2512
800011*	Rock Magnetism Obj: To investigate the relationships between rock magnetism, rock type and associated magnetic anomalies to enhance the usefulness of magnetic surveys as a tool in geological mapping and resource evaluation.	Currie, RG	C	-	MG	Yk BC	92 B, C, E, F, G, L, K, M; 93 D; 102 I, P; 103 A, B, C, F, G, H, I, J, K; 105 C, D, E, L; 115 A, F, G, H, I, J, K, N, O, P	2512
800012*	Geology of Woodburn Lake map area, District of Keewatin Obj: To upgrade the 16-mile geological reconnaissance survey made in 1953, in particular to refine interpretations of the stratigraphy and structure of the Proterozoic(?) supracrustal rocks, and to determine their relationship to the granitic basement. To assess the economic potential of the area.	Fraser, JA	P	RG	NC	Kee	56 E	2531
800013*	Vertical Movements of the Precambrian Shield Obj: To determine vertical movements for structural provinces in the Precambrian Shield from remnant magnetism. The method is quantitative and would allow estimating the net amount of uplift or tilting of the Shield since the Archean.	Schwarz, EJ	REG	P	PMag	Ont Que	23, 24	2531
800014*	Metamorphism of volcanic rocks, Crowduck Bay, Manitoba Obj: Conduct a detailed field and petrologic study of a belt of volcanic and associated sedimentary rocks in order to provide correlation criteria for mapping amphibolites and gneisses equivalent to volcanic belts and elucidate the chemical processes which limit the economic potential of metamorphic rocks.	Gordon, TM	P	-	PET	Man	63 J/13	2531

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	2542
800015*	Coastal Morphology and Sediment Dynamics, Southeast and East Cape Breton Island, N.S. Obj: A. To provide a map of shoreline features and sediment along SE and E Cape Breton Island. B. To examine two well developed barrier beaches with different aspect, geological setting and sediment availability in order to determine seasonal changes in beach-nearshore morphology and sediment characteristics and to document the historic changes and response of these beaches to changing environmental conditions.	Taylor, RB	AGC	EMG	CGD	NS	11 F, G, K	2542
800016*	Tracked vehicle - terrain relationships, central Keewatin Obj: To determine the relationship and significant geotechnical properties involved in the traction-reaction forces of tracked vehicle operation in permafrost terrain and to assist DIAND Land Use Inspectors in predicting what levels of terrain disturbance may result from a given level of industrial field activity in the Keewatin section of the Canadian Shield.	Dyke, LD	TS	-	GP	Ke	65 J, 66 A	2552
800017	Quaternary geology - terrain inventory, Dundas Peninsula Obj: To map, describe and explain the surficial materials, landforms, permafrost and ground ice to provide areal knowledge of geology and terrain as background information relevant for land management and engineering studies and to determine the Quaternary history of the region.	Hodgson, DA	TS	-	RP	Frank	78 F, G, 88 E	2551
800018*	High Resolution Seismic (Equipment Development) Obj: To assemble a high resolution seismic reflection system by matching commercially available components including an inexpensive microcomputer and developing the ancillary software for shallow sounding (<500 m).	Hunter, JA	RGG	TG	SM	Ont Que	31 F, G; 40 P	2574
800020*	The Recent Paleoclimatic and Paleogeologic Records in Fjord Sediments Obj: To relate documented climatic excursions with periods of 1 to 300 years to the sedimentological and paleogeological record in unbioturbated fjord sediments.	Schafer, CT	AGC	EMG	PEc	Que Nfld	22, 2, 3, 11, 12	2542
800021	Lead and zinc in carbonate rocks - joint research with Esso Minerals Canada Obj: To obtain a better understanding of Canadian carbonate-hosted lead-zinc deposits, particularly concerning recognition of areas favourable for their occurrence and mechanisms for their formation; to make resultant information generally available.	Sangster, DF	EG	-	MDG	-	-	2561
800022*	Stratigraphy and structure of Dawson, Larsen Creek and Nash Creek map areas; Ogilvie Mountains Project Obj: To reassess and update the geology of Dawson, Larsen Creek and Nash Creek map areas as a basis for providing data and concepts applicable to the exploration for metal deposits as well as further input into the ongoing synthesis of Yukon geology.	Thompson, RI	C	-	BG	Yk	116 A, B, C; 106 D	2511



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
800023*	Special assignments on eastern and northern Canada Obj: To contribute to the mineral resource data base and the evaluation of regional resources.	Poole, WH	EG	-	SP	Que NB NS Nfld	-	2561
800024	Quaternary geology-terrain inventory, northwestern Manitoba Obj: Map, describe and explain the surficial materials and landforms, thermal conditions and active processes to provide knowledge of stratigraphy, age and Quaternary history and areal geologic data with particular reference to engineering construction and mineral exploration.	Dredge, LA	TS	-	RP	Man	64 J,K,N,O	2551
800025*	Chromium resources in Canada Obj: Survey of available information on Canadian chromite occurrences. Determinations of potential for chromite (and associated platinum group metals) in mafic/ultramafic intrusive rocks in selected greenstone belts of the Canadian Shield.	Duke, JM	EG	-	MDG	Que Ont	21 E,L; 32 D; 42 A	2561
800026*	Cretaceous biostratigraphy in the Cordillera, western plains and Arctic regions of Canada Obj: To study the paleontology, stratigraphy, paleogeography and depositional environments and to develop a biostratigraphic framework for Cretaceous formations in the area. To describe and illustrate Cretaceous molluscan faunas (ammonites, bivalves) for publication in GSC and other professional journals.	Riccardi, AC	ISPG P	OP	BC Alta Yk		82 H,I	2522
800027*	Sensitivity of surficial sediments to effects of acid precipitation Obj: (1) To establish baseline data on natural variations of buffering capacities of surficial sediments, with respect to possible loading by acid precipitation in an area of predominantly non-carbonate bedrock. (2) To establish magnitude of natural areal variation of chemical (trace and minor element) components that might be mobilized by loading by acid precipitation. (3) To determine the extent that glacial dispersal has modified the physical and chemical properties of surficial sediments from those that would be expected based on bedrock lithologies alone.	Shilts, WW	TS	-	SMT	Ont	31 B-H,K,L	2552
800028*	Eastern Margin of the Coast Plutonic Complex Obj: (1) To examine the stratigraphy, structure, and plutonism of the eastern Coast Plutonic Complex and to correlate metamorphic rocks with unmetamorphosed rocks to the east. (2) To produce reports and geologic maps of Bella Coola (93 D), Terrace (103 I), Pemberton (92 J) and Nass River (103 O) map-areas.	Woodsworth, GJ	C	-	BG	BC	92 J,N; 93 D; 103 I,P	2511

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
800029*	Geology of the Ashcroft and Hope map-areas Obj: To produce Geological maps of Ashcroft (92 I) and Hope (92 H) map-areas.	Monger, JWH	C	-	BG	BC	92 I,H	2511
800030*	Geochemical provinces Obj: To outline possible causes for major, regional variations of selected elements in the crust within Canada; to relate these variations to the distribution of mineral deposits and to concepts of the geological history of Canada; and to ascertain any facts which might assist mineral exploration.	Cameron, EM	RG	RG	-	Nfld Que Ont	23 J,0; 41 J; 52 A,B	2572
800031	Geological reconnaissance, southeastern margin of Franklinian Geosyncline Obj: To improve understanding of the sedimentation and paleogeography of the Franklinian Geosyncline, particularly late Precambrian to lower Paleozoic stratigraphy; to provide better understanding of late Precambrian to Silurian events along the platform and platform-miogeosyncline junction along the edge of the Franklinian Geosyncline.	Christie, RL	ISPG	RG	AI	Frank	-	2521
800032	Structure and stratigraphy of Mount Selwyn 93 0-13-Ek and Point Creek 93 0-14 map-areas Obj: To produce for publication 1:50,000 scale geological maps of the designated areas in order to resolve outstanding problems of the structure and stratigraphy of a complex terrain lying geologically on the westward termination of the Peace River Arch. This detailed study will also contribute towards the completion of the 1:250,000 scale geological map of Pine Pass (93 0) map-area.	McMechan, M	ISPG	RG	M	BC	93 0	2521
800033	Coordinator, Geology and Economic Minerals of Canada, 6th Edition Obj: To coordinate the preparation of a new edition of Geology and Economic Minerals of Canada and related charts and thematic maps for publication by 1988.	Wheeler, JO	C	-	BG	-	-	2511
800034	Rift Processes and the Development of Passive Continental Margins Obj: To investigate consequences (i.e. subsidence history, stratigraphy, crustal thicknesses, heat flow, and gravity anomalies) of various processes perhaps responsible for initial rifting. These processes include extension, intrusion, erosion and phase changes in the lower crust. Models of the processes allow predictions of the above observations which can be compared to real data. This allows elimination of models which do not fit the observations and hopefully will lead to a better geological model of the rift processes.	Keen, CE	AGC	RR	OBM	-	-	2541

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
800035*	Seismic studies of continental margins and ocean basins of the North Atlantic Obj: To study the variations in crustal structure across passive continental margins; To study the deep structure of the lithosphere using data resulting from the Lesser Antilles Deep Lithosphere Experiment (LADLE); To relate seismic structure to other geological and geophysical data and to models of continental margin evolution.	Keen, CE	AGC	RR	OBM	Atlantic Offshore	-	2541
800036	Stability and Transport of Sediments on Continental Shelves Obj: The scientific objectives of this project are: (1) to determine the sediment stability under waves and currents on continental shelves, because of a serious lack of experimental data in this highly-disputed field; (2) to apply the above predictively to problems related to ice scouring of seabeds, offshore oil production activities, the differentiation of modern and relict features and the dispersal of materials across the continental shelf; (3) to develop a generalized, programmed strategy for application by other users to solve similar problems of sediment stability at other shelf sites.	Amos, CL	AGC	EMG	CGD	Atlantic Offshore	-	2542
800037	Fluid Rock Interaction in Sandstones Obj: To study the effects of fluid pH and temperature on the stability of authigenic clays in sandstone reservoirs with special reference to hydrocarbon reservoir exploitation.	Foscolos, AE	ISPG	PG	GC	-	-	2523
800038	Regional distribution of marine Mollusca (Gastropoda and Pelecypoda) in Eastern Canada Obj: To determine the areal distribution and ecological requirements of individual species of marine gastropods and pelecypods of the Eastern Canadian littoral and slope as an aid to paleoecological and stratigraphic interpretations of Pleistocene and Holocene occurrences.	Wagner, FJE	AGC	EMG	PEC	Ont NB NS	Pts of 31 C, F, G, K; 20 I, N, O, P; 21 B, C, G, H; 10 M, N; 11 B-G, J, K	2542
800039	CO-CRUST 1980 Obj: To assist the West Coast Marine Group (PGC) to obtain seismic refraction data at sea. The overall objective for the project is to determine the deep crustal and upper mantle structure beneath Vancouver Island and adjacent areas, and in particular the structure of the zone where oceanic crust is being underthrust beneath the continent.	Loncarevic, BD	AGC	RR	OBM	Pacific Offshore	92	2541

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
800040	Heat flow from rifted margins: a pilot study  Obj: 1) To see if heat flow can be measured in the fjords of N.E. Nfld. and/or the shelf off N.E. Nfld. using 5 metre and/or 2½ metre Bullard-type probes; 2) to train AGC personnel in the use of heat flow equipment; 3) to maintain good relations with Memorial University staff, and Dalhousie University staff; 4) to obtain sediment cores from the fjords of N.E. Nfld. to meet the objectives of other projects and of other agencies; 5) to relate heat flow observations to the gross structure of the Appalachian Orogen in Nfld.	Keen, MJ	AGC	-	-	Atlantic Offshore	-	2540
800041	Vibracore Updating  Obj: To improve the operational utility of the AGC Vibracorer by: a) making it safer and easier to handle at sea b) making a smaller version more suited to vessels smaller than Hudson or Dawson e.g. charter vessels c) making the handling and operating systems compatible with the Metrology/A.G.C. deep sea drill. d) examining the methods of improving penetration efficiency e.g. mass loading, coreline	Walker, M	AGC	PS	-	-	-	2544
1*	Micropaleontology	Orchard, M	C	-	BR	-	-	2511
2*	Geology of Uranium Resources of Canada - 6	Miller, AR	EG	-	URE	Kee	66	2562
3	Mesozoic-Cenozoic Palynostratigraphy	Davies, EH	AGC	EPG	-	Atlantic Offshore	-	2543
4	Vitrinite reflectance of dispersed matter	Davies, EH	AGC	EPG	-	Atlantic Offshore	-	2543
5	DSDP Dinoflagellates	Bujak, JP	AGC	EPG	-	-	-	2543
6	Origin & Evolution of dinoflagellates	Davies, EH	AGC	EPG	-	-	-	2543
7	An Earth Science Atlas of the Continental Margin of Eastern Canada	Srivastava, SP	AGC	RR	-	-	-	2541
8	Sedimentary Properties and dynamics	Syvitski, J	AGC	EMG	-	-	-	2542
9	CESAR	Biasco, S	AGC	EMG	-	-	-	2542
10	Development of a Biostratigraphic Data Base	Fricker, A	AGC	PS	-	-	-	2544

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
11*	Aeromag. -Labrador & Southern Baffin Is.	Ready, EE	RGG	RG	-	Nfld.	14 C,D,E; 24 A,H	2571
12*	Aeromag. northern BC	Knappers, WA	RGG	RG	-	BC	94 E,F,L,M	2571
13	1:1M Aeromag map series	Dods, SD	RGG	RG	-	-	-	2571
14*	Nuclear & Analytical Instrumentation	Bristow, Q	RGG	RR	-	Ont, Sask	31 C,F; 41 J; 64 L	2573
15*	Remote Sensing Applications	Staney, VR	RGG	RR	-	NS, Alta BC	11 D; 83 G; 92 G	2573
16*	Thrust-Fold Belt of Wopmay Orogen - External Zone	Hoffman, PF	P	RG	BS	Mack	86 H,I,O,P; 76 M	2531
17*	Thrust Fold Belt of Wopmay Orogen - Internal Zone	St. Onge, MR	P	RG	BS	Mack	86 G,F	2531
18*	Structural relationships, northwest margin of the Central Metasedimentary Belt, Grenville province	Morgan, WC	P	RG	N-C	Ont Que	31 C-G,J,K	2531
19*	Carboniferous stratigraphy and sedimentology of northeastern British Columbia and northwestern Alberta	Richards, BC	ISPG	RG	-	BC Alta	83 L-N; 84 C-E; 94 A,B,G-K,N,O,P	2521
20*	Regional coal rank variations in the Kootenay formation and their relationship to the structural biostratigraphy of the Southern Canadian Rocky Mtns.	Cameron, AR	ISPG	CG	-	BC Alta	82 G,J	2524
21*	Regional coalification studies in the Blairmore and Minnes Group, N.E. B.C.	Kalkreuth, WD	ISPG	CG	-	BC	-	2524
22	Evaluation of liquefaction potential of low rank coals and peats	Kalkreuth, WD	ISPG	CG	-	-	-	2524
23*	Quaternary geology - Upper Fraser River Basin	Clague, JJ	TS	-	RP	BC	93 A,B,G,H	2551
24*	Quaternary geology - terrain inventory, Francis Lake	Dyke, AS	TS	-	RP	Yk	105 H	2551
25	Quaternary geologic compilation	Fulton, RJ	TS	-	RP	-	-	2551
26*	Quaternary geology - terrain inventory, western Victoria Island	Vincent, JS	TS	-	RP	Frank	87 A,C-H; 88 A,B,D	2551
27	Quaternary bryophytes	Janssens, JA	TS	-	PG	-	-	2551
28*	Quaternary geology - terrain inventory, Sheldon Lake	Jackson, LE	TS	-	GP	Yk	105 J	2551

INDEX BY PROJECT LEADER

Abbey, S.	380077; 690089; 690090	Eade K.E.	750004; 750102; 780013; 790009
Adshead, J.D.	760004, 770032	Eckstrand, O.R.	630037*
Agterberg, F.P.	690038*; 760060	Edlund, S.A.	740067; 760058
Aitken, J.D.	720098; 730057*	Egginton, P.A.	750077*; 770035
Amos, C.L.	780021; 780022*, 800036	Eisbacher, G.H.	760059*; 790008
Anderson, F.D.	680114*	Ellwood, D.J.	750039*
Anderson, T.W.	780033*	Embry, A.F.	750083; 750092*
(Armstrong, J.E.)	730155	Emslie, R.F.	670003; 750011; 790025*
Ascoli, P.	710065	Ermanovics, I.	780025*
Ballantyne, S.B.	790003*	Fabbri, A.G.	720089*
Bamber, E.W.	710022*	Fahrig, W.F.	720056; 740104
Baragar, W.R.A.	750006, 780012*	Falconer, R.K.H.	780049*
Barss, M.S.	680109; 770072	Fillon, R.H.	760030*; 790015*
Belanger, J.R.	780035*	Findlay, D.C.	750110*
Bell, R.T.	750069*	Folinsbee, R.A.	730081*
Blake, W., Jr.	570148; 750063*	Foscolos, A.E.	680090; 680091; 750027; 800037
Blasco, S.M.	700092*; 780048	Franklin, J.M.	750098*
Blusson, S.L.	680119	Frarey, M.J.	640036; 750007*; 750064
Bolton, T.	740084*	Fraser, J.A.	740017; 780007; 800012*
Bornhold, B.D.	750108*; 780027*	Frisch, T.	720070; 760023
Bostock, H.H.	730043; 800009*	Frith, R.A.	720052; 750008; 750103; 800006*
Bower, M.E.	650007*	Fritz, W.H.	650024*
Boyle, D.R.	760043*	Froese, E.	780011; 800007*
Boyle, R.W.	730001*	Fulton, R.J.	690043; 720057*; 750076*;
Brindie, J.E.	770053	Gabrielse, H.	700047*; 770016*
Bujak, J.P.	760038	Gadd, N.R.	780017*
Cameron, A.R.	720073; 790013*	Gagne, R.M.	790034*
Cameron, B.E.B.	690075*; 500029*	Gandhi, S.H.	770024*
Cameron, E.M.	790045; 800030*	Garrett, R.G.	790004*
Cameron, G.W.	760049	(Gauthier, R.C.)	760008*
Campbell, F.H.A.	740092; 770012*	Geldsetzer, H.H.J.	740110; 790038*
Campbell, R.B.	680066*; 730035*	Gibson, D.W.	750018; 790022*
Card, K.D.	770070*	Goodfellow, W.D.	770025; 790033*
Carson, J.M.	780047*	Gordey, S.P.	790007*
Cecile, M.P.	770044*	Gordon, T.M.	700048; 730063; 800014*
Chandler, F.W.	760027*; 770027*; 790016	Gradstein, F.M.	740004; 790040
Charbonneau, B.W.	760045*	Graham, P.S.	760056
Christie, K.W.	700018	Grant, A.C.	740003
Christie, R.L.	700030; 700031; 760062*; 800031	Grant, D.R.	740072; 790027
Chung, C.F.	750094*	Grasty, R.L.	720084*
Ciesielski, A.	800005*	Gross, G.A.	570029*; 760064
Clague, J.J.	750078; 780037	Hacquebard, P.A.	680102*; 740106*; 750095*;
Coker, W.B.	760044*		750096
Cook, D.G.	670068; 700027; 730055;	Hall, G.E.M.	580175
	740041; 750055	Haworth, R.T.	750001
Copeland, M.J.	720072*; 740100	Heffler, D.E.	790036; 790037
Currie, K.L.	680071; 730044*	Heginbottom, J.A.	770037*
Currie, R.G.	800010*; 800011*	Henderson, J.B.	700015; 760024; 780009*
Davidson, A.	660006; 710023; 760061*	Henderson, J.R.	760026; 790024
Davison, W.L.	680076; 750049	Herd, R.K.	740016; 770026*;
Dawson, K.M.	740098*	Heywood, W.W.	700073; 760025; 770022; 800008*
Densmore, A.A.	750024	Hodgson, D.A.	720081; 800017
(Dessureault, J.G.)	790028	Hoffman, P.F.	660009; 730039; 770019
Dietrich, J.J.	750025	Holman, P.B.	720071*
DiLabio, R.N.W.	780016*	Hopkins, W.S.	740090; 750021; 790032*
Dixon, J.	790031*	Hornbrook, E.H.W.	750051*
Dods, S.D.	760065	Howie, R.D.	710061*
(vice-Douglas, R.J.W.)	570001; 690086; 700071; 710016;	Hughes, J.D.	770046
	710018	Hughes, O.L.	650013; 710020*; 790005
Dredge, L.A.	750072; 800024	Hunter, J.A.	730006*; 800018*
Duke, J.M.	800025*	Hutchison, W.W.	620019;
Dunsmore, H.E.	760014*	Ioannides, N.S.	780030
Dyck, A.V.	740091*	Jackson, G.D.	670002; 690061; 770013;
Dyck, W.	780015*		770028
Dyke, L.D.	770036; 800016*	Jackson, L.E.	740095; 770060; 780045; 800001*
		Jansa, L.F.	710059; 770004
		Jeletzky, J.A.	800002
		Jonasson, I.R.	740081*; 740107*

Kalkreuth, W.D.	750088; 770051; 790020*	(Price, R.A.)	650023
Katsube, T.J.	630049	Proctor, R.M.	720066; 740035 <sup>-</sup>
Keen, C.E.	770010*; 800034, 800035*	Pugh, D.C.	800003
Killeen, P.G.	740085*		
King, L.H.	730072; 760029 <sup>-</sup>	Rashid, M.A.	750046
Kirkham, R.V.	700059*	Ready, E.E.	690072*
Klassen, R.A.	750074; 780018*	Reesor, J.E.	790030*; 790044
Klassen, R.W.	770031*	Reinson, G.E.	750043; 790043
Kornik, L.J.	720080*	(Rencz, A.N.)	780044*
		Riccardi, A.C.	800026*
Lachance, G.R.	600307	Richard, S.H.	680027; 740068*
Lambert, M.B.	730040; 740019*	Rimsaite, J.Y.H.	770061*
Larose, J.M.	400006*	Roddick, J.A.	630016*
Latour, B.A.	750089	Roscoe, S.M.	770055*
Leaming, S.	490038*	Ruzicka, V.	750010*
LeCheminant, A.N.	750005; 780008		
Lee, P.J.	750023	Sanford, B.V.	750061; 790026*
Leech, G.B.	620018 <sup>-</sup> ; 640125; 640402	Sangster, D.F.	650056*; 730042; 800021
Lewis, C.F.M.	790018*	Sawatzky, P.	770015
Lichti-Federovich, S.	720078	Schafer, C.T.	780019; 780031*; 800020*
Loncarevic, B.D.	800039	Schau, M.	720062; 760028
Long, D.G.F.	770047	Schwarz, E.J.	730160*; 800013*
Lowdon, J.A.	590457	Shilts, W.W.	690095*; 700014 <sup>-</sup> ; 730013; 780002*; 800027*
Lund, N.G.	790002*		
Luternauer, J.L.	740062 <sup>-</sup> ; 790006*	Sinclair, W.D.	770071*
Lydon, J.W.	770063*	Sinha, A.K.	730004*
Lynch, J.J.	780024*	Skibo, D.N.	770067
		Skinner, R.	710038;
Machin, D.B.	770054	Snowdon, L.R.	730062; 760063
(Mackay, J.R.)	680047*	Souther, J.G.	730067*; 770001*
MacLean, B.	760015*	Srivastava, S.P.	780042
Manistre, B.E.	750068	Stalker, A.M.	650027*; 740089 <sup>-</sup> ; 750070
Marchioni, D.L.	770041*; 780006*	Stacy, H.R.	550101*
Martin, G.M.	790039	Stenson, A.P.	640048*
Matthews, J.V.	730027*	Stott, D.F.	780039*
Maurice, Y.	760047	Sweet, A.R.	710091*; 770045
Mayr, U.	750017		
McGlynn, J.C.	650008 <sup>-</sup> ; 680012; 710050 <sup>-</sup> ; 710051 <sup>-</sup> ; 780010*; 730041	Taylor, F.C.	800004
		Taylor, G.C.	630017; 680084*
McGrath, P.H.	680073	Taylor, R.B.	730021; 780043; 790035*; 800015*
McGregor, D.C.	750036*	Tempelman-Kluit, D.J.	730037 <sup>-</sup> ; 770017 <sup>-</sup>
McLaren, P.	760005 <sup>-</sup>	Teskey, D.	750032*; 780023*
McMechan, M.	800032 <sup>-</sup>	Thompson, R.I.	750019; 780028*; 800022*
McNeil, D.H.	780029*	Thorpe, R.I.	680060*; 780032
Monger, J.W.H.	800029*	Thorsteinsson, R.	650003; 760021*
Morgan, W.C.	740020; 750100	Tipper, H.W.	750035*
Morrow, D.W.	670016; 750085*	Tozer, E.T.	670576*
Mott, R.J.	690064*	Tremblay, L.P.	750058*
Muller, J.E.	730036*	Trettin, H.P.	700040 <sup>-</sup> ; 730051
Nassichuk, W.W.	500029*; 680064*; 700045 <sup>-</sup> ; 750020 <sup>-</sup>	Umpleby, D.C.	760037
		Uyeno, T.T.	680101
Neale, E.R.W.	770038		
Norford, B.S.	610019*	Veillette, J.J.	730019; 770030*
Norris, A.W.	700034*; 770048	Vilks, G.	750038*; 790019
Norris, D.K.	610007 <sup>-</sup> ; 690005*	Vincent, J.S.	740065; 790021 <sup>-</sup>
Nowlan, G.S.	770077*		
		Wade, J.A.	720103; 720104
Okulitch, A.V.	700003 <sup>-</sup> ; 790042*	Wagner, F.J.E.	800038
Ollerenshaw, N.C.	700037; 750082 <sup>-</sup>	Walker, M.	800041
Olson, D.G.	680081*	Wall, J.H.	720044; 740042; 790014*
Overton, A.	700061; 770018*	Wallace-Dudley, K.E.	780003
		(vice)Wanless, R.K.	540028; 730046*; 730047
Pedder, A.E.H.	680093*	Wheeler, J.O.	790041*; 800033
Pelletier, B.R.	720101; 720102; 780026	Williams, G.K.	710033
Plant, A.G.	570119*; 580160; 620308; 680023	Williams, G.L.	710062; 730085
Podolak, W.E.	680017	Woodsworth, G.J.	770020; 780046*; 800028*
Poole, W.H.	700008; 700011; 800023*		
Poulton, T.P.	760042*	Yorath, C.J.	770006*
Powell, T.G.	760053; 760054; 760055 <sup>-</sup> ; 790012		
Price, L.L.	640420		

Index by Province

<u>General</u>	770071*	780035*	760047	750051*	780044*
	770072	780037	760059*	750063*	790009
380077	780001	780046*	760063	750083	800002
500029*	780013	790003*	770012*	750092	800004
500038	780021	790005	770018*	750098*	800008*
540028	780026	790007*	770019	750100	800012*
550101	780032	790008	770024*	760014*	800016*
570119*	790002*	790031*	770025	760021*	
570148	790004*	790032*	770044*	760023	<u>British</u>
580160	790012	790033*	770045	760026	<u>Columbia</u>
580175	790018	790034*	770051	760042*	
590457	790028	790044	770055*	760045*	490038*
600307	790036	800001*	770063*	760047	500029*
620308	790037	800002	780009*	760053	610019*
630049	790039	800011*	780010	760058	620018
640048*	790040	800022*	780029*	770012*	620019
640125	800021	800026*	780030	770013	630016*
640402	800033	800037	790007*	770028	630017
650056*	800034		790008	770036	630037*
680017	800037	<u>Mackenzie</u>	790031*	770037*	650023
680023	800041		800002	770045	650024*
680060*		500029*	800003	770068	670576*
680071	<u>Yukon</u>	570001	800006*	780018*	680066*
680073		610007	800009*	780030	680081*
680114*	500029*	610019*	800016*	780043	680084*
690038*	610007	650008		790014	680093*
690086	610019*	650024*	<u>Franklin</u>	790016	690075*
690089	650013	660009		790024	700003
690090	650024*	670068	610019*	790031*	700047*
700008	670576*	680047*	650003	790035*	710022*
700011	680047*	680093*	650007*	790042*	710091*
700014	680093*	680109	670002	800002	720057*
700027	680109	680119	670016	800017	720071*
700059	680119	690005*	670576*	800031	720098
710059*	690005*	700015	680064*		730004*
720056	700034*	700034*	680093*	<u>Keewatin</u>	730027*
720066	700071	700071	680101		730035*
720078	710020*	710020*	680109	570029*	730036*
720089*	710022*	710022*	690061	660006	730046*
730042	710091*	710023	690072*	680012	730057*
730047	720101	710033	700030	680101	730067*
730055	720102	710050	700031	690072*	730155
730062	730027*	710051	700040	700048	740062
730063	730035*	710091*	700042	700061	740081*
730085	730037	720052	700043	720062	740090
740035	730046*	720101	700045	720070	740091*
740042	730057*	720102	700073	730013	740095
740100	740081*	730004*	710022*	730046*	740098*
750010*	740098*	730006*	710049*	740017	740107*
750021	740107*	730027*	720044	740084*	750018
750023	750020	730039	720062	750004	750019
750032*	750025	730040	720070	750005	750020
750038	750035*	730041	720081	750051*	750027
750039*	750051*	730046*	720101	750074	750035*
750043	750055	730057*	720102	750098*	750051*
750068	750069*	740017	730006*	750102	750069*
750088*	750076*	740019*	730021	760025	750070
750089	750085	740081*	730027*	760028	750076*
750094*	760042*	740092	730046*	760047	750078
750110*	760059*	740098*	730051	760058	750082
760004	760062*	740107*	740017	770022	750085
760029	760063	750008	740020	770032	750088
760049	770001*	750025	740030*	770035	760018*
760055	770017	750027	740065	770036	760042*
760060	770025	750055	740067	770051	760056
760064	770031*	750069*	740092	770055*	760059*
760065*	770044*	750076*	740104	770077*	760062*
770004	770046	750077*	750006	780002*	770001*
770010*	770047	750085	750017	780007	770016*
770015	770063*	750098*	750024	780008	770020
770038*	770068	750103	750027	780012*	770024*
770054	780029*	760024	750036	780035*	770025



770031*	780004	750072	800018*	730001*	740084*
770038	780006*	750098*	800025*	730043	740085*
770041*	780028*	760027*	800027*	730044*	740091*
770044*	780039*	760044*	800030*	740084*	740110
770047	780045	760058	800038	740085*	750051*
770060	780047*	760065		740106*	760008*
770067	790008	770035-	<u>Quebec</u>	740110	760014*
780003	790013*	770036		750051*	760045*
780004	790020*	770055*	400006*	750095*	770077*
780027*	790022*	770063*	570029*	750096	780022*
780028*	790032*	770067	630037*	760014*	780047*
780039*	790038*	770077*	670003	760027*	790018*
780045	790043	780003	680081*	760045*	790026*
780046*	800002	780011	680102*	760065	790034*
790003*	800026*	790026*	690072*	770045	800023*
790006*		800007*	700008	770077*	800038
790008	<u>Saskatchewan</u>	800014*	700011	780022*	
790013*		800024	710016-	790026*	<u>P.E.I.</u>
790020*	570029*		720071*	790027	
790022*	630037*	<u>Ontario</u>	720072*	800015*	680102*
790030*	640420		730006*	800023*	680109
790032*	650027*	400006*	730027*	800038	700008
790038*	680012	570029*	730160*		700011
790041*	680081*	630037*	740017	<u>Newfoundland</u>	710061*
800002	680093*	640036	740081*		740110
800011*	720071*	680081*	740084*	400006*	760014*
800026*	720073	690095*	740085*	500029*	
800028*	720080*	700018	740091*	570029*	<u>Atlantic</u>
800029*	720084*	710016-	740110	670003	<u>Offshore</u>
800032-	730004*	720071*	750007*	680102*	
	740017	720072*	750037*	680109	710062
<u>Alberta</u>	740081*	720080*	750058*	690043-	710065
	740085*	730001*	750061	690072*	720103
500029*	740089-	730004*	750064	700008	720104
570029*	740091*	730006*	760014*	710061*	730072
610019*	750049	730027*	760061*	720072*	730081*
650023	750051*	730046*	760065	730043	740003
650027*	750058*	730160*	770027*	730044*	740004
670576*	750069*	740016-	770030*	740017	750001
680027	750070	740017	770061*	740072	750038*
680090	750098*	740068*	770063*	740110	750046
680091	760044*	740081*	770070*	750011	760030*
680093*	770053	740084*	770077*	750051*	760037
700003-	770055*	740085*	780002*	760014*	760054
700034*	770067	740091*	780016*	760043*	780019
700037	780003	740107*	780017*	770026*	780031*
710018-	780015*	750007*	780023*	770077*	780042
710022*	780023*	750037*	780033*	780025*	790015*
710091*	780047*	750051*	780035*	790025*	790018*
720098	790013*	750061	780044*	790027*	790019
730057	790026*	750064	790021-	800020*	800035*
740041	790045	750098*	790025*	800023*	800036
740081*	800007*	760044*	800005*	800030*	
740085*		760045*	800013*		<u>Arctic</u>
740089-	<u>Manitoba</u>	760061*	800018*	<u>New Brunswick</u>	<u>Offshore</u>
740095		760065	800020*		
750018	570029*	770030*	800023*	400006*	700092*
750027	630037*	770045	800025*	500029*	760015*
750069*	680076-	770061*	800030*	680081*	780048
750070	680081*	770070*		680102*	780049*
750076*	680093*	770077*	<u>Nova Scotia</u>	680109	
760018*	690095*	780002*		690064*	<u>Pacific</u>
760042*	720080*	780014*	400006*	700008	<u>Offshore</u>
760056	730046*	780015*	500029*	700011	
760062*	740016-	780016*	680081*	710038	500029
770038	740017	780017*	680102*	710061*	690075*
770046	740085*	780024*	680109	720071*	750108*
770048	740091*	780033*	690064*	720072*	770006*
770053	750007*	780044*	700008	730001*	800010*
770060	750037*	780047*	780047*	730019	800039
770067	750069*	790026*	720071*	730043	
780003	750070	800013*	720072*	730044*	