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CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES

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GEOLOGICAL SURVEY OF CANADA

# CATALOGUE OF SCIENTIFIC PROJECTS

## 1983-1984



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OTTAWA

1983

**GEOLOGICAL SURVEY OF CANADA**

**CATALOGUE OF SCIENTIFIC PROJECTS**

**1983-84**

Compiled by M.A. Petre

**OTTAWA  
1983**



## PREFACE

This catalogue of all scientific projects of the Geological Survey of Canada approved as of November 1983 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, 1982 to 31 March, 1983, and 2) the field program for the summer of 1983.

As a catalogue it lists and briefly describes all scientific projects. These total 489 (22 inactive) and are compiled from project annual instructions (GSC 229). 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 1983 comprises the field component of those active projects marked by an asterisk after the project number. These total 224. 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  
Chief Program Officer

Ottawa  
1983



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GEOLOGICAL SURVEY OF CANADA

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Eastern Petroleum Geology Subdivision, G.L. Williams, (426-2730)  
Environmental Marine Geology Subdivision, D. Piper, (426-7730)  
Regional Reconnaissance Subdivision, R.T. Haworth, (426-3448)  
Program Support, K.S. Manchester, (426-3411)

Central Laboratories and Technical Services, Director — J.A. Maxwell, (995-4482)  
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Mineral Deposits Geology Section, R.I. Thorpe, (995-4137)  
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Regional Geology Subdivision, D.G. Cook, (284-0110)  
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Precambrian Geology Division, Director — J.C. McGlynn, (995-4314)  
Geochronology Section, O. van Breemen, (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)  
Geomorphic Processes and Engineering Geology 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)

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 BS-Bear Slave

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

PRAS — Petroleum Resource Appraisal Secretariat

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

RGC — Resource (Geochemistry) Subdivision  
 ER — Exploration Research  
 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

GPEG — Geomorphic Processes and Engineering Geology  
 PG — Paleocology and Geochronology  
 RP — Regional Projects  
 SMT — Sedimentology and Mineral Tracing  
 SP — Special Projects

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
380077	Analysis of rocks and minerals by established methods Obj: To provide the scientific staff of the Branch, and others on occasion, with comprehensive compositional analyses using the established methods of the Section, in support of Branch scientific projects.	Lachance, GR	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	NB NS Nfld Ont Que	-	259
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.	Bamber, EW	ISPG C AGC	P MG EPG	-	NS Nfld NB Yk Mack BC Alta	95 B,C; 12 D; 103 G; 82 E,K; 83 C; 93 I	2522 2512 2543
550101*	Reference collections of minerals, rocks and meteorites Obj: To develop, foster and curate reference collections of minerals, rocks, and meteorites in support of Branch activities and in the national interest.	Herd, RK	CLTS	-	M	-	-	259
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 NB Que Ont Man Sask Alta Kee BC Frank	21 G,P; 22,23,31,32 41 I,42,46,47,52, 53,62,63,64,65, 93,103	256
570148	Radiocarbon dating program Obj: To plan and co-ordinate the radiocarbon dating program of the Geological Survey.	Blake, W Jr	TS	-	PG	-	-	2551

\* 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
580175*	Analytical services and development in geochemistry Obj: To provide for the present and future analytical services requirements of the Resource Geochemistry Subdivision.	Hall, GEM	RGG	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.	McNeely, RN	TS	-	PG	-	-	2551
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, G, K, L, M, N; <u>116 F, G, H, I, J, K, N, O, P</u>	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 J; 83; 85; 94; 95; 96; 97; 104 I, P; 105 I; 106; 116; 117; 120; 340	2522
610269	Petrographic examination of coking coals from the Kootenay Group, Alberta and British Columbia Obj: To determine the coking properties, and to prepare seam profiles for correlation and environment of deposition studies, of coals of the Kootenay Group.	Cameron, AR	ISPG	CG	CT	Alta BC	82 G, J, O	2524
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

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
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 W <sub>2</sub> , J, N, P, W <sub>2</sub>	2511
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	-	-	2561
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	Que	Ont 31 H	259
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.	Findlay, DC	EG	-	-	-	-	256
650003*	Cornwallis and adjacent smaller islands 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.	Thorsteinsson, R	ISPG	RG	AI	Frank	58 F, G; 68 E, H; 59 B	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
650007*	Ocean aeromagnetics Obj: 1. To delineate sedimentary basins on the Canadian and adjacent continental shelves. 2. To investigate the validity of theories postulating the magnetic imprinting of oceanic rocks, ocean floor spreading and continental drift. 3. To obtain aeromagnetic data to support the compilation of the Magnetic Anomaly Map of North America. 4. To contribute to the development of high resolution airborne magnetometry.	Bower, ME	RGG	RG	MM	-	-	2571
650013	Quaternary geology, Aishihik Lake 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.	Hughes, OL	TS	-	RP	Yk	115 H; pts. 106 D, E; 115 A, B, G, I	2551
650023	Operation Bow-Athabasca 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.	Price, RA,	DGO	-	-	BC Alta	83, C, D E½; 82 J E½, N E½, O W½	2521
650024*	Cambrian biostratigraphy of the Canadian Cordillera Obj: To describe and assess biochronological significance of Cambrian trilobites in order to refine methods for dating Cambrian strata.	Fritz, WH	ISPG	P	OP	Mack Yk BC	106 B; 94 C-F; 116 B, C	2522
650027*	Quaternary of southern Alberta Obj: To gain knowledge of Quaternary Stratigraphy, chronology, environments and climates in southern Alberta.	Stalker, AM	TS	RP	-	Alta Sask	72, L, M; 73, 82 H; 83	2551
650056*	Geology of lead and zinc resources in Canada 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.	Sangster, DF	EG	-	MDG	-	-	256

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
660006	Granite studies in the Ennadai-Rankin Inlet region 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.	Davidson, A	P	-	SG	Kee	55 E,F,K,L, 65 H,I	253
660009	East Arm of Great Slave Lake, District of Mackenzie 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.	Hoffman, PF	P	-	BS	Mack	75 E, L,K; 85 H,I	253
670002	Operation Bylot 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.	Jackson, GD	P	-	NC	Frank	27; 37; 38; 47; 48	253
670016	S.W. Ellesmere - W. Devon Islands (Operation Grinnell) 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.	Morrow, DW	ISPG	RG	AI	Frank	59 A,B	2521
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.	Tozer, ET	ISPG	P	OP	Yk BC Alta	94 B,K,N; 106 D; 116 B,C; 92 O; 93 O	2522
680012	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.	McGlynn, JC	P	-	BS	Sask Kee	75 E,F; 74; 85; 86; 65; 66	253
680017	Sedimentology-engineering geology laboratory development and operation 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.	Dilabio, RW	TS	-	SMT	-	-	2552

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680023*	X-ray diffraction analyses and mineralogical studies Obj: To provide X-ray diffraction analyses and mineralogical studies in support of Branch projects.	Harris, DC	CLTS	-	M	<u>Ont</u>	-	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
680031	Quaternary stratigraphy of Old Crow Basin and Porcupine River Valleys Obj: Through investigation of Quaternary deposits and associated organic remains, to gain knowledge of the Quaternary stratigraphy and history of the region and to provide a geological framework for current vertebrate paleontology and archeology studies by National Museum scientists.	Hughes, OL	TS	-	RP	Yk Mack	106 E, F; 115 P; 116 I, N E <sub>2</sub> , O, P; 117 A	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	-	GPEG	<u>Mack Yk</u>	85, 95, 96, 97 F; <u>107 B-E; 117 D;</u> 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	Ont Que <u>Mack BC</u>	32 C, D; 42 A, B, C, D, E; <u>41 P; 76 E; 86 H;</u> 103 F, G	2561
680064*	Stratigraphy and Paleontology of Upper Paleozoic rocks on of Ellesmere and Axel Heiberg Islands 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.	Nassichuck, WW	ISPG	P	MaP	<u>BC</u>	<u>92 H</u>	2520

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
680066	Geology of the Cariboo Mountains, British Columbia Obj: 1. To complete compilation of final maps and prepare final reports of Quesnel Lake (93 A) and Canoe River (83 D). 2. To study in the field and report on the "Snowshoe problem".	Campbell, RB	C	-	-	BC	83 D; 93 A,H	2511
680071	Alkaline rocks in Canada Obj: To identify and examine occurrences of alkaline rocks in Canada, and to explain their origin, development mode of emplacement and economic potential.	Currie, KL	P	-	PET	-	-	2531
680081*	High resolution aeromagnetics (experimental surveys) 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.	Olson, DG	GGG	RG	EAO	NS Mfld Ont	Pts. 11 F; 12 A; 30 M,N	2571
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	-	-	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	-	-	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	88 A,B,D; 49 A,B; 59 A	2522



49, 57, 58, 59, 68,  
69, 78; 89  
31 H

Frank  
Kee  
Que

MiP

ISPG P

Uyeno, TT

Conodont biostratigraphy of  
Siluro-Devonian rocks of the  
Arctic Islands

680101\*

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.

12, 21, 11, 20

NB Nfld NS  
Que PEI

-

AGC EPG

Hacquebard, PA

Rank and petrographic studies  
of coal and organic matter  
deposited in sediments

680102

Obj: To obtain information on regional climatic and tectonic geomorphism, with application to economic geology, search for oil and gas fields. Evaluation of properties of coking coals.

**CURRENT INFORMATION NOT AVAILABLE**

11 E; 1; 2; 11; 12; 95

NS NB  
Nfld PEI  
Yk Mack  
Frank

SS

AGC EPG

Barss, MS

Palynological zonation of the  
Carboniferous and Permian rocks  
of Atlantic Provinces, Gulf of  
St. Lawrence and Northern Canada

680109

Obj: To set up a comprehensive stratigraphic framework of the Carboniferous and Permian succession and to reconstruct geological environments of the sedimentary basins; assist other disciplines in sedimentological and geophysical studies, facilitate application of the three dimensional geometry of the Carboniferous basins for resource evaluation.

**CURRENT INFORMATION NOT AVAILABLE**

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-

MDB

EG -

Picklyk, DD

Development and supervision of  
mineral deposits data bank

680114

Obj: To develop files of data on mineral deposits and to supervise the way in which these files are used for the purposes of geological surveys and as a National System of computerized files within the framework of a National System 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 processable files.

**CURRENT INFORMATION NOT AVAILABLE**

117 A, B, C, D, 107 B, C  
116 N, O

Yk Mack

-

ISPG CG

Norris, DK

Structural geology of northern  
Yukon Territory and northwestern  
District of Mackenzie

690005

Obj: Critical evaluation of the structural geometry of Richardson, Barn and British Mountains, intervening plateaux, and adjacent coastal plains for the documentation of the nature, origin and mechanics of the deformation and its bearing on the hydrocarbon potential of the region.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
690038	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
690043	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
690061	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	-	NC	Frank	16 E, K-M; 26 H,P; 27 A,B; 36 P; 37 A,B	2531
690064	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 Que	11 D,E,F,K,N; 20 P; 21 A,H	2551
690065	Surficial geology, St. Anthony-Blanc Sablon map-areas, Newfoundland Obj: To map, describe, and explain the Quaternary deposits and landforms in order to provide: (1) areal geological information including data applicable to land inventory surveys, engineering development, and geochemical mineral exploration surveys; and (2) knowledge of stratigraphy and age of Quaternary features and of history of Quaternary events and environments including glaciation, deglaciation, local sea-level change.	Grant, DR	TS	-	RP	Nfld	2 M; 12 P	2551
690075	Foraminiferal Biostratigraphy of the Pacific Margin Obj: 1. To prepare publications on the taxonomy and biostratigraphic significance of Mesozoic and Cenozoic Foraminifera of the onshore and offshore rocks of the Pacific Margin. 2. To prepare publications on the geology of specifically significant areas of the Pacific Margin.	Cameron, BEB	C	-	MG	BC	92; 102; 103	2512

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
690090	Development of methods for the analysis of geological materials	Lachance, GR	CLTS	-	AC	-	-	259
	Obj: a) to develop new methods in order to: i) meet demands when analyses are requested on materials for which the Section does not have prescribed methods; ii) meet demands when analyses are requested for elements or constituents for which the Section does not have prescribed methods; iii) extend the range of concentration and/or improve accuracy and/or improve productivity. b) the objectives outlined in a) may be oriented towards: i) the analysis of a specific need such as the submission of a suite of unusual samples; ii) providing a detailed procedure that is made available to the analytical services component of the Section.							
690095*	Properties and provenance of glacial sediments	Shilts, WW	TS	-	SMT	Ont	31 E,G,L	2552
	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. (5) To develop and/or evaluate instrumentation and field techniques capable of providing information on thickness, character and properties of glacial sediments. (6) To derive from the record of lake bottom sediments information pertaining to late-glacial history, environmental changes and seismic events.							
700003	Kootenay Lake and Lethbridge map areas, 1:1 million Geological Atlas Program	Okulich, AV	D60	-	-	Alta BC	82	2521
	Obj: To publish a modern compilation and synthesis of the geology of the map-areas as units of the 1:1 million geological atlas of Canada. For more detailed objectives see April 1, 1969 File 116-6-4.							
700008	St. Mary's River (NTS 11) map-area, 1:1,000,000 Geological Atlas Program	Poole, WH	EG	-	SP	NS PEI NB NFLd Que	11	2561
	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.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
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
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	-	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	-	PMag	Ont	-	2532
700027*	Comparative studies of structural prototypes and/or 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
700034*	Devonian biostratigraphy of the northern Yukon Territory and adjacent District of Mackenzie and Alberta 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, Lower/Middle and Middle/Upper Devonian boundaries in Canada.	Norris, AW	ISPG	P	MaP	Yk Mack Alta	116 (E 3/4); 117 (S <sub>2</sub> ); 106 (W <sub>2</sub> ); 74 M; 84 P; <u>85 A, B, C, F, G</u>	2522

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classi- fication
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 0,J; 83 B,C,F	2524
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,F	2511
700056	Surficial geology, Cape Breton Island, Nova Scotia  Obj: To map, describe and explain the surficial deposits and landforms in order to provide: (1) areal geological information with particular reference to the needs for data required for industrial development and mineral exploration, (2) knowledge of the stratigraphy and age of Quaternary features and of the history of Quaternary events and environments including glaciation, deglaciation and local sea level change.	Grant, DR	TS	-	RP	NB NS	11 D,E,F,K, N; 21 A,H	2551
700059*	Geology of copper and molybdenum deposits in Canada - I  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
700092*	Surficial geology and geomorphology, Mackenzie Bay - Continental Shelf  Obj: To resolve the stratigraphic and structural relationships of the unconsolidated surficial deposits of the Beaufort continental shelf within the geological framework necessary for the determination of permafrost, and the identification of 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

**CURRENT INFORMATION NOT AVAILABLE**  
**CURRENT INFORMATION NOT AVAILABLE**  
**CURRENT INFORMATION NOT AVAILABLE**

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

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:  
(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  
(2) determine the Quaternary history of the region.

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,O;  
94-95; 103-106; 115-117;  
340; 560

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.

710023

Granite studies in the Slave Province (Phase I)

Davidson, A

P

SG

Mack

85 I,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.

710033

Northern Basin Analysis Program: Redstone and Great Slave Lake map-areas

Williams, GK

ISPG RG

M

Mack

85, 95

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 compile, in a form suitable for publication (primarily Open File format) all data and ideas so far accumulated.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
710059*	Stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic continental margin <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: To determine the 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 <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: Compile data for a detailed study of the petroleum potential of the Magdalenian Synclinal Basins.	Howie, RD	AGC	EPG	-	NS NB NFld PEI	1, 2, 10, 11, 12, 14, 20	2543
710065	Biostratigraphic zonation (Foraminifera-Ostracoda) of the Mesozoic and Cenozoic rocks of the Atlantic Shelf <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: To determine 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 zonations 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	82 B,C; 83 C,E,F; 106 E; 117 A;	2422
710092	Quaternary geology inventory, Lower Nelson River basin Obj: To map, describe and explain the Quaternary deposits and landforms to provide area geologic-geomorphic data and knowledge of the stratigraphy, age and history of deposition of surficial materials with particular reference to (1) terrain information required for land use (forestry) and engineering development, and (2) background information for geochemical and related surveys. To study short term performance of organic and unconsolidated terrain units along selected roads and at chosen construction sites with particular emphasis on mass-wasting and effects of permafrost.	Klassen, RW	TS	-	RP	Man	53 M; 54 C,D; 63 G,I,O,J,P; 64 A,B,G,H	2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept.'l Classification
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,G,H; 69, 79, 88, 89, 98, 340 B	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	-	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	-	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	-	NC	Frank Kee	47 A,D; 56 J,K	2531
720066	Evaluation of Canada's petroleum potential Obj: To create and maintain an inventory of oil and gas resources of all regions of Canada, both discovered (reserves) and undiscovered (potential); to provide data for the analysis of costs and supply of oil and gas; to develop methods of predicting size, rate of discovery, quality, reservoir character and other attributes of the resource base in order to assist in the development and analysis of energy policy.	Procter, RM	ISPG	PG	PR	-	-	2526



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
720071*	Airborne Gamma-Ray Spectrometry (Experimental Surveys)	Holman, PB	ROG	RR	ARO	Man NB Ont Que Sask Nfld NS	31 E,F; 41 A; 42 C-F; 11 P,D; 12 A; 21 A,G,J; 62 E,F; 14 D; 20 O,P,A	2573
	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.							
720072	Paleozoic ostracodes of Canada	Copeland, MJ	ISPG	P	OP	Ont Que NB NS Nfld	11 E,F,K; 12 B,E,L; 21 A,P; 22 A,B,H; 30 L,M; 40 I,P	2522
	Obj: By means of microfaunas 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.							
720073	Petrographic Analysis of Saskatchewan Lignites	Cameron, AR	ISPG	CG	CT	Sask	62 E; 72 F,G,H	2524
	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.							
720075-	Paleomagnetism of the Hopedale diabase dykes	Christie, KW	P	-	PMag	Nfld	13	2532
	Obj: To determine the paleomagnetism of three swarms of unaltered diabase dykes in the Hopedale area, Labrador.							
720078	Diatom analysis and paleoecological studies of Quaternary sediments	Lichti-Federovich, S	TS	-	PG	Frank Ont.	38, 39, 48, 49, 59, 340, 560, 41 I, 31 E	2551
	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.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	2571
720080*	<p>Interpretation of aeromagnetic surveys of Ellesmere Island</p> <p><b>CURRENT INFORMATION</b> of aeromagnetic data in terms of lithological patterns in support of mineral exploration, geological mapping and radioactive waste disposal programs and to integrate this information with other types of geoscience data.</p> <p><b>NOT AVAILABLE</b></p>	Kornik, LJ	RGG	RG	MM	Ont Man Sask	52 B, E; 74 I	2571
720081*	<p>Surficial geology and geomorphology of Central Ellesmere Island</p> <p>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.</p>	Hodgson, DA	TS	-	RP	Frank	Pts 49 C, D, E, G, H; 340 B	2551
720084*	<p>Gamma-Ray Spectrometry (Technique Development)</p> <p>Obj: To develop improved methods of airborne gamma-ray spectrometry data collection, analysis and presentation.</p>	Grasty, RL	RGG	RR	ARO	Ont	31 C	2573
720089	<p>Quantification of geological variables and geomathematical estimation of mineral potential</p> <p>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.</p>	Fabbri, AG	EG	-	GM	-	-	2563
720098	<p>Lower Paleozoic stratigraphy, southern Rocky Mountains</p> <p>Obj: To determine the nature, thickness, distribution and origin of Lower Paleozoic formations of the region.</p>	Aitken, JD	ISPG	RG	M	BC Alta	82, 83	2521
720101	<p>Bottom studies of the Beaufort Sea</p> <p>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.</p>	Pelletier, BR	TS	-	SP	Frank Mack Yk	97 C, F, G; 107 A, B, C, D, F; 117 A, B, C, D	2550
720102	<p>Marine Science Atlas of the Beaufort Sea</p> <p>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.</p>	Pelletier, BR	TS	-	SP	Mack Frank Yk	97 C, F, G; 107 A, B, C, D, E; 117 A, B, C, D	2550

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
720103	Hydrocarbon inventory of the sedimentary basins of Eastern Canada <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: To prepare 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 <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: To provide a regional subsurface geological interpretation of the Atlantic continental margin 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 and zoning relationships of various elements e.g. Ag, Au, U, Li, Rb, Cs, As, and Sb and Bi in various epigenetic deposits. (3) To study the geochemistry of the platinum metals. (4) To revise the geochemistry of silver (GSC Bull. 160).	Boyle, RW	RGG	RGG	SP	Ont. NB Alta. Sask Man.	31 C, F; 40 P; 41 A; 21 A, O, P; 11 D, E	2572
730006*	Permafrost seismic Obj: To investigate the seismic and related geophysical properties of permafrost in both the marine and terrestrial environment.	Hunter, JA	RGG	TG	SM	Mack	107	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, WW	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
730019	Light drilling and sampling research and support Obj: To support Section and Division requirements for subsurface information, and to contribute to this aspect of Geotechnique with emphasis on light equipment and remote work by (a) maintaining an expertise in drilling and sampling technique and equipment in order to evaluate proposals and suggest possibilities, and (b) developing and co-ordinating systems and procedures to be employed in Division personnel on appropriate problems.	Nixon, FM	TS	-	RP	-	-	2551
730027*	Late Cenozoic fossil insects and Late Cenozoic paleoecology Obj: To provide biostratigraphic and paleoecologic information on late Cenozoic terrestrial sediments as an aid to interpretation of their age and environment of deposition.	Matthews, JV Jr.	TS	-	PG	<u>Mack Yk</u>	<u>116 O; 117 A-D; 107 C-E</u>	2551
730035*	Operation St. Elias Obj: To determine the stratigraphy, structure, metamorphism, and relationship of intrusive and volcanic rocks, and to assess the mineral potential of the area.	Campbell, RB	C	-	-	Yk BC	<u>114 P, O; 115 A-C, F, G</u>	2511
730037	Stratigraphy, structure, and metallogeny of Pelly Mountains, and Yukon Plateau, Yukon Territory Obj: To provide information on the relationship between stratigraphy, structure, sedimentary facies, and mineral deposits in Pelly Mountains and adjacent Yukon Plateau.	Templeman-Kluit, DJ	C	-	BG	Yk	105 A, F, G, H	2511
730040	Archean volcanic studies in the Bear-Slave 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	-	BS	Mack	76 B, C, F, G	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	-	NC	NB NS NFLd	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 A,H; 21 G,H	2531
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. To compile the Eureka sound sheet (NTS 340, 560, 120) of the 1:1 million geological atlas program.	Trettin, HP	ISPG	RG	AI	Frank	340 A-F, H 120 B,C,F,G; 49 H; 560 D,E,F,G,H	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; 105 P	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
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

Souther, JG

C

BG

BC

92 J

2511

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.

730072\*

Bedrock and surficial geology-  
Grand Banks

King, LH

AGC RR

SBG

Atlantic  
Offshore

1, 2, 11

2541

Obj: To contribute to our knowledge and understanding of the surface and subsurface geology, tectonics, and broad tectonic setting of the Grand Banks; and to aid in the economic evaluation of the region.

730081\*

East coast Offshore surveys

Macnab, RF

AGC RR

GPS

Atlantic  
Offshore

-

2541

Obj: A detailed, systematic mapping of hydrographic and geophysical parameters on the continental shelf and in the Canadian offshore.

**CURRENT INFORMATION NOT AVAILABLE**  
(a) to measure and describe the sea floor topography and the gravity and magnetic fields of the offshore;  
(b) to define the broad patterns of bedrock and sediment composition and distribution;

(c) to disseminate this information through a variety of media; charts, reports, digital magnetic tape files, publications, etc.

740003

Geological interpretation of  
geophysical data acquired 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

Obj: To define the geologic structure and history of the sedimentary basins in the offshore regions of Eastern Canada.

740004

Biostratigraphic history of the  
Mesozoic-Cenozoic sediments of  
the Grand Banks in the  
Newfoundland and Labrador  
Shelf and Ostracoda

Gradstein, FM

AGC EPG

SS

Atlantic  
Offshore

1, 2, 3, 11, 12

2543

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.

740016

Geology of the Island Lake  
map-area (53 E), Manitoba  
and Ontario

Herd, RK

P

SG

Man Ont

53 E

2531

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.

**CURRENT INFORMATION NOT AVAILABLE**

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740017	Metamorphism in the Canadian Shield	Fraser, JA	P	-	NC	Que, Ont Man Sask NFLd, Mack Frank Kee	-	2531
	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.							
740019	Archean felsic volcanic complex near Regan Lake, District of Mackenzie, NWT	Lambert, MB	P	-	BS	Mack	Pts of 76 B,C,F,G	2531
	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.							
740041*	Comparative studies of geological types	Cook, DG	ISPG	RG	-	-	-	2521
	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.							
740042	GSC Workshop travel - Micropaleontology Section	Wall JH	ISPG	P	Mip	-	-	2522
	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.							
740054	Geological variability of marine deposits, Ottawa-St. Lawrence Island	Gadd, NR	TS	-	RP	Ont Que	Pts. of 31 G	2551
	Obj: To evaluate the stratigraphic, geomorphic and historical factors affecting the natural and engineering behaviour of marine clays, with special reference to landslides.							
740062	Fraser Delta sedimentation	Luternauer, JL	C	-	MG	BC	92 G	2512
	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.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
740065	Surficial geology inventory, Banks Island	Vincent, J-S	TS	-	RP	Frank	88 B,C,D,F; 97 G,H; 98 A-F	2551
	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.							
740067	Surficial geology-terrain inventory, Bathurst-Cornwallis and eastern Melville Islands	Eidlund, SA	TS	-	RP	Frank	68 E-H; 69 A,B; 78 E-H; 79 A,B	2551
	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.							
740068*	Surficial geology, Ottawa Valley lowlands	Richard, SH	TS	-	RP		Pts. 31 B,C,F,G	2551
	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.							
740072*	Surficial geology of Newfoundland	Grant, DR	TS	-	RP		1; 2; Pts. 11, 12	2551
	Obj: To map and 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.							
740081*	Environmental Geochemistry	Jonasson, IR	GGG	RGC	ES		74 H,I; 64 E,L; 82 F,G; 92 F; 94 F,G; 95 E; 104 N; 105 A-P; 106 A-F; 116 G,P; 103 B,G 117 A,B; 120 K,L	2572
	Obj: (1) Understand the nature of physical and chemical processes which influence the dispersion of elements in the surficial environment.							
	(2) Coordinate subdivision activities relating to environmental matters.							
	(3) Provide appropriate surficial chemical and lithochemical support to the Nahanni IMPP and its objectives.							
	(4) Coordinate Division and GSC activities for Submarine Hydrothermal Research Task Group.							



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	250
740084	Silurian-Ordovician macro-biostratigraphy of Anticosti Island, Quebec	Bolton, TE	DGO	-	SP	Que, NB NS Kee Ont	22 H; 12 E, F, L; 18; 22 A, B; 11 F; 45, 46; 31 G, H	250
	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.							
740085*	Borehole Geophysics (Nuclear Techniques)	Killeen, PG	GGG	RR	RM	Alta Sask Man Ont Que NS NB NFId	21 G; 22 A, B; 31 C, F, H; 32 D, O; 40 I; 41 I, J; 52 L; 64 C, L; 73 B; 74 I; 12 A; 32 D	2573
	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.							
740091*	Borehole Geophysics (Electrical and Magnetic Techniques)	Dyck, AV	GGG	TG	EM	BC Ont Que NB Man Sask NFId	41 I, J; 52 B; 31 F, K; 74 H, I; 64 C, L; 62 I; 32 D, E, 12 A	2574
	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.							
740092*	Geology of the Bathurst Inlet Area	Campbell, FHA	P	-	BS	Frank Mack	76 E, I-P; 77 A, B;; 86 I	2531
	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.							
740095	Quaternary geology - terrain inventory, Kananaskis Lakes	Jackson, LE	TS	-	GPEG	Alta BC	82 J	2552
	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.							

740098\*  
Metallogeny of the northern  
Canadian Cordillera  
Dawson, KM  
EG - MDG  
BC Yk  
116 A,B; 105 A; 106 D;  
94 K,M,N; 104 O,I;  
92 F,L; 82 E,K

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.

740104  
Paleomagnetism of Proterozoic  
to Devonian Strata across  
Boothia Arch  
Fahrig, WF  
P - PMag  
Frank  
48 A,D; 58; 68, 39  
2531

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.

740106\*  
Geological assistance with  
provincial coal drilling  
Hacquebard, PA  
AGC EPG - NS  
11, 21  
2543

**CURRENT INFORMATION**  
NOT AVAILABLE  
Obj: In co-operation with provincial authorities to prepare an inventory of remaining coal in Nova Scotia.

740107\*  
Trace elements in sulphides  
Jonasson, IR  
RGG RGC ER  
Ont BC  
Yk Mack  
Que  
31 A,B,C,F,P; 94 F,G;  
104 N; 105 A-C, F-H,  
K,O,P; 106 A,B,C,E,F;  
116 G; 117 A,B; 41 I  
2572

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, estimates 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.

740110  
Carboniferous and Triassic  
strata of Appalachian region  
Geldsetzer, HHJ  
ISPG RG M  
Mfld NS  
PEI NB  
Que  
1; 11; 12; 21; 22  
2521

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.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Classification
750001	A geophysical investigation of the submarine extension of geological zonation of Newfoundland  <b>CURRENT INFORMATION</b> On interpretation of the offshore extension of the zonation of Newfoundland, the following 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	-	NC	Keewatin	65 J	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	-	SP	Franklin	Pts. of 77 G; 78 B; 87 E, F, G, H; 88 A, B	2531
750008	Geology of Nose Lake and Beechey Lake  Obj: To establish the geology of the intrusive, extrusive and sedimentary rocks in the area, to aid mineral prospecting; to correlate geophysical and geochemical patterns and anomalies with geological and mineral deposit data.	Frith, RA	P	-	BS	MacKenzie	76 F (E <sub>1/2</sub> ); 76 G (W <sub>1/2</sub> )	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	Ontario, Saskatchewan, Quebec, Newfoundland	41 I, J; 52 A, H; 64 E, L; 74 G, H, I; 65; 75; 21; 22 M; 23 D	2562
750011	Geology, petrology and economic potential of the anorthosite 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 anorthosite suite of rocks; (4) Investigation of the economic mineral potential of the anorthositic rocks.	Emslie, RF	P	-	PET	Newfoundland	13 B, C, E, F, G	2531

Stratigraphic and sedimentological studies of Lower Cretaceous rocks, Rocky Mountain Foothills and Front Ranges, Alberta and British Columbia

Gibson, DW

ISPG

CG

GC

BC Alta

82 G, J, O

2524

**CURRENT INFORMATION NOT AVAILABLE**  
Detailed stratigraphic succession, to collect samples for distribution and continuity of coal seams throughout the region; to attempt to determine criteria useful in determining the sub-environments in which deltaic sediments were deposited and eventually to provide a regional geological model that will be of assistance in determining the potential coal resources of these and other regions.

Structure and stratigraphy of Paleozoic and lower Mesozoic rocks in Halfway River Map-area, Northeastern British Columbia

Thompson, RI

C

-

BG

BC

94 B

2511

Obj: To revise Halfway River map-area (94B) at 1:250 000 scale (including subdivision of Triassic strata); to map 94 B/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.

Methodology of petroleum resource evaluation

Lee, PJ

ISPG PRAS

-

2526

Obj: To provide a reliable, effective and statistically valid methodology for estimation of resource abundance.

Petroleum geology of Tertiary, Mesozoic and Paleozoic strata north of 70°

McMillan, NJ

ISPG PG

PR

Frank

37-39; 47-49; 57-59 E-H; 2523  
67-69; 77-79; 87-89;  
97-99; 120; 340; 560 A, B, D

2523

Obj: To provide a reliable and adequate stratigraphic framework and Petroleum, Geology data base for assessment by the Energy Subcommittee for the areas of hydrocarbon potential. To document proven and potential hydrocarbon occurrences in the area.

Petroleum Geology of Tertiary, Mesozoic and Paleozoic north of 68° on the NWT and Yukon mainland and offshore

Dietrich, JR

ISPG PG

PR

Mack, Yk

97, 107, 117

2523

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.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
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
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, 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	-	-	2522
750038	Pleistocene-Holocene Basin sedimentation <b>CURRENT INFORMATION NOT AVAILABLE</b> 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 Systems  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	RGG	RGC	MD	-	-	2572
750043	Consulting advice on physical environmental problems in the coastal zone <b>CURRENT INFORMATION NOT AVAILABLE</b> This advice is to be provided in response to specific requests.	Taylor, RB	AGC	EMG	GCD	-	-	2542

750046

Geochemical transformations and reactions of organic compounds in recent marine sediments

Rashid, MA

OGC

Atlantic Offshore

2542

**CURRENT INFORMATION NOT AVAILABLE**  
 influence of depositional environment in the quantitative determination 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.

750051\*

National geochemical reconnaissance

Hornbrook, EHW

RS

NB NS  
 Nfld Ont  
 Sask BC  
 Yk Frank

2572

Pts 1-16; 23; 27;  
 31 C, F; 37; 41; 42;  
 52 A, B; 74 J; 104;  
 105; 117

Obj: 1. To provide for governments and industry nationally consistent, systematic, multi-element, reconnaissance data to indicate areas of mineral commodity potential for exploration and resource appraisal purposes and to provide information on the natural abundance of elements in the environment.  
 2. To investigate geochemical variability in lake surveys in various terrains.

750055

Structural studies in the Mackenzie Arc, Franklin Mountains and Coleville Hills

Cook, DG

M

Mack

2521

96 B, C, E, F

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.

750061\*

Lower Paleozoic geology of Eastern Canada

Sanford, BV

SP

Ont Que  
 NB

2531

pts 30, 31, 40, 41,  
 52, 21

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.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept '1 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,H; 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.							
750068	CIDA Liaison and Project Coordination	Manistre, BE	RGG	-	SP	-	-	2570
	Obj: <b>CURRENT INFORMATION NOT AVAILABLE</b> To provide assistance in 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 Que	93 A,B,C,D; 22 M; 23 D; 32 P; 82 G,J,K, M,N,O; 83 B,C; 92 E,F,G,K,L	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.							
750071	Quaternary geology - terrain inventory, Boothia Peninsula, northeastern Keewatin, and Somerset and Prince of Wales Islands	Dyke, AS	TS	-	RP	Frank Kee	57 A-D,F,G; 58 A-D; 67 E,H; 68 A-E	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 various aspects of engineering construction, to gather information pertinent to the Quaternary history of the area.							
750072	Quaternary geology, terrain inventory, northeastern Manitoba	Dredge, LA	TS	-	RP	Man	54 D,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	Klassen, RA	TS	-	SMT	Kee	55 M,N,L; 56 C,D; 65 P,I,O; 66A	2552
	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.							
750076*	Quaternary geology of the Canadian Cordillera	Fulton, RJ	TS	-	RP	BC Yk Alta, Mack	82; 92; 93; 103 105 M; 115 P	2551
	Obj: To gather and synthesize information regarding Quaternary deposits, stratigraphy, geomorphology and chronology of the Canadian Cordillera.							
750077	Hydraulic, morphologic and morphometric studies of selected rivers along the Mackenzie Highway	Egginton, PA	TS	-	SMT	Mack	95 N,O,J; 96 C,E; 107 B	2552
	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.							
750078	Quaternary geology-terrain inventory, Prince Rupert-Terrace - Smithers area	Clague, JJ	TS	-	RP	BC	Pts 93 L,M; 103 B,C,F, G,J,K,I,P	2551
	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.							
750082*	Structural analysis of the Fernie Basin	Ollerenshaw, NC	ISPG	CG	CG	BC	Pts 82 G	2524
	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.							
750083	Mesozoic stratigraphy and Basin analysis of Sverdrup Basin, Arctic Archipelago	Embry, AF	ISPG	RG	AI	Frank	29, 39, 49, 59, 69, 79, 87, 99, 120, 340, 560	2521
	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 Sverdrup Basin during the Mesozoic. 4. To assess the economic potential of the Mesozoic strata.							



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	2521
750085	Stratigraphy, sedimentology and diagenesis of Paleozoic rocks in the Mackenzie Mountains and northern Rocky Mountains	Morrow, DW	ISPG	RG	M	Yk	95 C,D; 96; 105; 106 B,C,D	2521
	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.							
750088*	Investigations concerning the optical properties of coals and dispersed organic materials	Kalkreuth, WD	ISPG	CG	CT	BC Alta	-	2524
	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.							
750094	Development of computer-based statistical techniques applicable to regional geological and mineral deposit data	Chung, CF	EG	-	GM	-	-	2563
	Obj: Develop and apply statistical techniques as an input to methods for regional resource evaluation of geological data and mineral deposit data							
750095	Microscopic study of pyrite in main seams of Sydney coalfield, <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: To 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
	To advise the Cape Breton Development Corporation on coal geology for its operation <b>CURRENT INFORMATION NOT AVAILABLE</b> 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	-	NS	-	2543

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
750098*	Metallurgy of the southwestern part of the Canadian Shield	Franklin, JM	EG	-	MDG	Man Sask Que Ont Frank Kee Mack	32, 41, 42, 43, 52, 53, 54, 62, 63, 64, 73, 74	2561
750102	Regional syntheses, southern Keewatin, Project I	Eade, KE	P	-	NC	Kee	65 C	2531
750108*	Marine surficial geology and sedimentation, British Columbia	Bornhold, BD	C	-	MG	Pacific Offshore	-	2512
750110	Federal-Provincial mineral evaluation liaison and co-ordination	Findlay, DC	D60	-	SP	-	-	2560
750004*	Mineralogy and geochemistry of the unconsolidated cover - central Arctic	Adshead, JD	TS	-	SMT	-	-	2552
750010*	Surficial geology, geomorphology and terrain inventory of the Ringnes and adjacent islands	Hodgson, DA	TS	-	RP	Frank	59 B,C,F; 69 C,D,E,F; 79 D, E; 68 G,H; 78 H	2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept '1 Classi- fication
760014*	Geology of uranium bedrock and surficial geology of Canada-4	Dunsmore, HE	EG	-	URE	NS NB NFld Que	11, 12, 21	2562
	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.							
760015*	Eastern Baffin Island shelf bedrock and surficial geology	MacLean, B	AGC	RR	EAO	Arctic Offshore	Pts 15, 16, 17, 25, 26, 27, 28, 38	2541
	Obj: To investigate and map the geology and near surface structure of the rocks occurring within the Paleozoic 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.							
760023	Precambrian geology of south-east Ellesmere, Devon and Cobour Islands	Frisch, T	P	RG	NC	Frank	Pts. 38 B; 39 B-H; 48 E-H; 49 A, B, D, E, H	2531
	Obj: To complete the reconnaissance geological mapping of the northern Churchill Province.							
760024	Keskarrah Bay map-area, District of Mackenzie, NWT	Henderson, JB	P	-	BS	Mack	86 H/2, 3, 6, 7	2531
	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.							
760025	Geology of Amer Lake map-area District of Keewatin, NWT	Tella, S	P	-	NC	Kee	66 H	2531
	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.							
760026	Geology of Penrhyn Fold Belt, Melville Peninsula, NWT	Henderson, JR	P	-		Frank	46 O, P; 47 A	2531
	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.							

**CURRENT INFORMATION**  
NOT AVAILABLE

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept '1 Classi- fication
760027*	Redbed sequences in Canada	Chandler, FW	P	-	PET	Man NS Ont Nfld	63 K; 11 K; 31 M; 42 D, E; 52 A, H; 12 A, H; 2 E	2531
	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.							
760042*	Jurassic biostratigraphy and paleontology of selected areas of western and Arctic Canada	Poulton, TP	ISPG	P	Map	BC Alta Yk Frank Mack	82 G, J, O; 83; 92 H, O; 93 O; 94 B; 103; 104 I, J; 105 D; 106 D, M; 107 M; 115; 116 A, B, C, N, O, P; 49; 59; 69; 79; 89; 340 D; 560	2522
	Obj: To provide detailed biostratigraphic and lithostratigraphic data on Jurassic rocks of selected parts of British Columbia, Alberta, Yukon Territory and Northwest Territories, by field work and study of submitted fossils. To describe taxonomically the most important faunal elements.							
760043	Regional geochemistry Newfoundland & Labrador	Boyle, DR	GGG	GGC	RS	Nfld	13 J, K, N	2572
	Obj: To illustrate the usefulness of NGR regional geochemical surveys in providing data for mineral exploration and mineral inventory studies. 2. Develop a geochemical survey methodology appropriate to the Newfoundland and Labrador geological contexts.							
760045*	Evaluation of Uranium Reconnaissance Data	Charbonneau, BW	GGG	RR	ADI	Ont Frank NS BC, Sask Nfld	21 A; 11 D, N; 104 N; 65 B, C; 74 O, 75 A, 31 C, F	2573
	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.							
760047	Regional geochemistry-Northern Canadian Shield	Maurice, Y	GGG	GGC	RS	Mack Kee Frank Sask	76 H, I; 75 E, F-K; 74 H; 46 N, O, P; 47 A, B, E, F	2572
	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.							

**CURRENT INFORMATION NOT AVAILABLE**

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
760049	Gamma-Ray Laboratory Operations Obj: To provide analytical facilities for the determination of K, U, and Th in rock samples, and for the determination of radioactive disequilibrium in as standards; to provide adequate standards for calibration of the lab as well as 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
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
760056	Resource evaluation and geology of coal deposits of western Canada Obj: To conduct resource evaluation studies required for the National Coal Inventory program. To acquire industry and provincial government data on western Canada's coal deposits. To study the geological framework within which these coals occur. To provide authoritative advice to senior Departmental officials and to scientists in government and industry on the resource potential of Canada's coal deposits. To maintain an up-to-date knowledge of coal fields in Canada.	Dawson, FM	ISPG	CG	RE	Alta	83 H	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	54; 56; 57; 58; 68; 69; 78 F,G; 79; 88 B,C; 87 C,D,E,F	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	92 G; 93 D; 106 C,F; 95 L,M; 94 F,K; 105; 116	2511

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
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	-	SG	Ont Que	31 E,F; 41 H; 32; 42; 21	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	Yk	117	2521
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) Maintain an up-to-date bank of the data described above for ready retrieval for interpretation purposes. (4) Processing and presentation of VLF-EM data	Butt, I	RG	GG	RG	GDP	-	2571

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770001*	Study of the Cenozoic Evolution of the Western 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
770004*	Reconnaissance field study of the Mesozoic sequences outcropping on the Iberian Peninsula	Jansa, L	AGC	EPG	SSG	-		2543
770006*	The Canadian Pacific Continental Margin	Yorath, CJ	C	-	MG	BC	92 B, F, K	2512
770012~	Geology of the Coronation Gulf area	Campbell, FHA	P	-	BS	Mack Frank	77 A, B, D, E; 76 G, J, K, M, N, O (parts of); 86 O, P	2531
770013~	Operation Borden	Jackson, GD	P	-	NC	Frank	parts of 37 G; 38 B, C; 48 A-D	2531

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.

Obj: **NOT AVAILABLE** at the sedimentary sequences of the Iberian Peninsula are co-eval with similar sequences beneath the Grand Banks.

Obj: To describe the stratigraphy, sedimentology, and structure of the Canadian Pacific Continental Margin both in the offshore and, as appropriate, within the Insular Belt. To determine the tectonic history of the region and to contribute to the realization of its economic potential.

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 Tinney Cove and Ellice River Formations; to correlate, if possible, the Hornby Bay dolomite and sandstone with the Parry Bay, Ellice and Tinney 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.

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.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770015	High Resolution Aeromagnetics (Instrumentation Development) Obj: To improve the performance of the GSC experimental high resolution/gradiometer survey system, in terms of sensitivity, precision, reliability, efficiency and endurance.	Sawatzky, P	RGG	RG	MM	-	-	2571
770016*	Operation Dease 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.	Gabrielse, H	C	-	BG	BC	<u>104 H, I, J</u>	2511
770017	Stratigraphy, structure and metallogeny of the northern part of the Intermontane Belt (Whitehorse trough) in the Canadian Cordillera 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.	Temelman-Kluit, DJ	C	-	BG	Yk	105 C, E, L; 115 I	2511
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	-	BS	Mack	86 J, O	2531
770020	Kemano Project Obj: To produce a report and geological map of Whitesail Lake (W <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
770024*	Geology of uranium resources of Canada-V 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 NS, Nfld	<u>75, 76, 85, 86</u> <u>21 H, 13 J, K, L</u>	2562



770025

Regional Geochemistry - Yukon

Goodfellow, WD

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

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.

770026

Geology of Red Indian Lake,

Herd, RK

Nfld

12 A, B

2531

**CURRENT INFORMATION NOT AVAILABLE**

Obj: To assess the geology and evaluate the economic mineral potential of Red Indian Lake, west half (12 A, W½) 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 and under the Canada-Newfoundland Mineral Development Subsidiary Agreement.

770027

Proterozoic redbeds of Richmond Gulf

Chandler, FW

Que

34 B, C

2531

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.

770028\*

Regional Synthesis - Baffin Island: Project I

Jackson, GD

Frank

56-59; 45-49; 34-38; 24-27; 14-16

2531

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.

770030\*

Geologie du Quaternaire, region de l'Outaouais superieur Quebec

Veillette, JU

Que Ont

31 M, L,

2551

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.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770031	Surficial geology and terrain evaluation, southern Yukon	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
	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.							
770032	Geological characterization of Arctic lakes: sediment properties and sedimentary processes	Adshead, JD	TS	-	SMT	Keewatin	66 A, H; 65 A, P, I, H; 55 E, F, M; 56 D, E, N, K	2552
	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.							
770035	Periglacial processes and slope movement, central Keewatin	Egginton, PA	TS	-	SMT	Keewatin	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.							
770037	Slope processes and cryogenic movements, Arctic Islands	Heginbottom, JA	TS	-	GPEG	Frank	58 F, G; 68 G, H; 79 B	2552
	Obj: To document the nature, extent and rate of slope processes and cryogenic movements in a high-arctic, permafrost environment, and to determine the importance of surficial material, geomorphology, ground ice distribution, soil thermal and moisture regime, and other factors on them.							
770041*	Compositional Characteristics of Coals from Hat Creek, British Columbia	Goodarzi, F	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.'1 Classi- fication
770044*	Lower Paleozoic basin-to-platform relationships in the Cordillera	Cecile, MP	ISPG	RG	M	Mack BC Yk Alta	<u>105 I</u> ; pts. <u>95</u> , <u>105</u> , <u>106</u>	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
	Obj: 1) To describe and classify megaspores from northern Canada and when necessary for comparative purposes, from southern localities. 2) To establish biostratigraphic zonation based on the described megaspores.							
770047*	Studies of coal basins of western and northern Canada	Ricketts, BD	ISPG	CG	GC	Yk Mack Frank	<u>116 B,C,F,G</u> ; <u>106 E,F</u> ; <u>59 E,F,G,H</u>	2524
	Obj: To provide geologic data for the evaluation of late Paleozoic, Mesozoic and Tertiary coal resources of western and northern Canada; to prepare suitably illustrated geological reports for publication; to provide resource data for the National Coal Inventory.							
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).							
770051	The relationship between Kerogen (type and rank) and chemical extract data, for the purpose of source rock evaluation	Kalkreuth, WD	ISPG	CG	CT	-	-	2524
	Obj: To assess kerogen type and degree of maturation by microscopical methods and correlate the results with organic chemical data.							
770053	Evaluation of Canada's Potential of Heavy Oil and Oil Sands Resources	Raicar, M	ISPG	PRAS	-	Alta Sask	-	2526
	Obj: To determine the extent of in-place resources; to evaluate various processes to recover these resources; to determine the recoverable portion of these resources; to evaluate the impact of price changes on the potential supply of these resources in Canada.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept '11 Classification
770054	Sample preparation and mineral separating Obj: To provide sample preparation and mineral-separating services in support of Branch projects.	DeLabio, RN	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	46, 55, 56, 64, 65, 66, <u>75, 76, 85, 86</u>	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	-	GPEG	Alta BC	82 G,J; 83 C,E,F,L; 92 I	2552
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 Frank	32 D,F,J; 63 K-N; <u>105 1,0; 48, 68</u>	2561
770067	Canada Oil and Gas Pool data base Obj: To incorporate and maintain a data base of all parametric data relevant to the accumulation and exploitation of oil and gas pools in western, frontier and offshore regions of Canada. To provide a data base suited to reserves calculation, resources estimation, input to economic (costing and project development) studies and for application of and research on statistical methodologies for the evaluation of undiscovered hydrocarbon resources potential in all petroliferous regions of Canada.	Nairn, KN	ISPG	PRAS	-	-	-	2526
770068	Petroleum Evaluation of Mainland Territories 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.	McMillan, NJ	ISPG	PG	PR	Yk Frank	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

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
770070*	Regional Geological Synthesis, Central Superior Province	Card, KD	P	-	SG	Ont Que Man	41, 42, 32	2531
	<p>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:</p> <p>(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.</p>							
770071*	Geology of copper and molybdenum resources of Canada - II	Sinclair, WD	EG	-	MDG	NS NB Que Ont Yk	105 C,D,M; 106 D; 115 O,P; 116 C; 21 G,H,J; 41 I,K; 42 C,E	2561
	<p>Obj: The project is one of comprehensive research on the geology of copper and molybdenum deposits in order to:</p> <p>(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.</p>							
770072	Geological Survey representative on Steering Committee of the Kremp Palynologic Computer Research Project.	Barss, MS	AGC	EPG	-	-	-	2543
	<p>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.</p>							
770077*	Paleozoic conodonts of eastern Canada	Nowlan, GS	ISPG	P	OP	Que Ont Man Kee NB NS NFLd	12 A, E, L; 11 E, F, K; 22 A, B; 21 A, G, H, I, J, O, P 41 G, H; 31 C, F, G	2522
	<p>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.</p>							
780001	Coal Resource Data Management	Mottershead, K	ISPG	CG	RE	-	-	2524
	<p>Obj: To plan and conduct investigations of the methodologies for coal resource assessment in undisturbed and disturbed coal measures. To establish and maintain coal resource data computer files of various coal deposits in Canada and apply, adapt or develop computer programs for the analysis and display of geological data and the compilation of coal resource estimates.</p>							



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	-	BS	Mack	76 B	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 volcanic and related rocks of the Circum-Ungava Belt.	Baragar, WRA	P	-	SP	Kee Que	44 I,P; 35 D	2531
780015	Disequilibrium in the uranium series Obj: To determine the usefulness of disequilibrium in the U series in predicting the existence of U mineralization.	Dyck, W	RGG	RGC	MD	Sask Ont NS	31 G; 64 L; 74 H,I; 24 O,P; 11 E	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	Ont Que <u>Nfld Man</u>	14 D; 24 A; 23 J; 32 C,D; 42 C; 64 C; 42 A	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	Ont Que	31 B,C,F,G,H,L; 21 E,L,M	2551
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

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780019	Ocean Dumping Consultation and Study <b>CURRENT INFORMATION NOT AVAILABLE</b> a) To provide information to provincial government departments concerning the feasibility of disposal of materials in the marine environment. b) To test various techniques and procedures for detecting and monitoring the impact of ocean dumping.	Forbes, DL	AGC	EMG	PEC	Atlantic Offshore	21, 22	2542
780021	Landsat Calibration for Suspended Sediment Concentration in Marine Coastal Environments <b>CURRENT INFORMATION NOT AVAILABLE</b> 1) To initiate cooperative research between A.G.C., C.C.R.S. and other marine agencies to extend sediment concentration. 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 <b>CURRENT INFORMATION NOT AVAILABLE</b> 1) To provide a numerical model to assess the effects of a Fundy Tidal Power Development on the distribution and accretion of sediments. 2) To develop a numerical model to assess the effects 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
780024*	Analytical control and standardization Obj: 1. To obtain sample preparation and a variety of analytical services from commercial sources under contract for the subdivision and the NGR. 2. To provide analytical methodology, the use of which will permit the acquisition of accurate, precise and regionally compatible analytical data for the subdivision and NGR surveys under Federal and/or Provincial jurisdiction. 3. To provide various types of international geochemical reference samples and to provide certified values for a large number of elements for these samples.	Lynch, JJ	GGG	RGC	-	Ont NB Que	-	2572
780025	Archean Rocks of the Nain Province in Hopedale (13 N), Snegamook Lake (13 K), and Makkovik (13 O) map-areas, Labrador 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.	Ermanovics, I	P	-	SG	Nfld	13 N,K,O	2531



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780026	Quaternary paleo-sealevel map of Canada	Pelletier, BR	TS	-	SP	NS, NB PEI, NF, Id 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
780027*	Coastal Geology and processes of British Columbia	McLaren, P	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
780028	Detailed Geological study of selected areas within the Foothills and Rocky Mountain Belts of the Monkman Pass map area - with emphasis on the structure	Thompson, RI	C	-	BG	BC, Alta	93 H, I; 83 E	2511
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
780031	Continental Slope Geologic Processes off Newfoundland	Schafer, CT	AGC	EMG	PEc	Atlantic Offshore	-	2542

Obj: To produce a synthesis of sealevel phenomena for the Quaternary period.

- Obj: i) To analyze the coast of British Columbia with respect to geomorphology, sedimentology, processes and Quaternary/tectonic evolution.  
 ii) To utilize the data base for oil spill contingency planning and cleanup, coastal industrial management and coastal recreation.  
 iii) To research the meaning of grain size distributions both in coastal and shelf environments to establish process models fundamental to the understanding necessary to meet the above two objectives.

Obj: To map at 1:50,000 scale: map sheets 93 I/1, 2E $\frac{1}{2}$ , 7E $\frac{1}{2}$ , 8 and adjacent parts of map areas 93 H/16 and 83 E/13W $\frac{1}{2}$  as a data base for the preparation of structural interpretations across the area.

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.

Obj: Continental Slope Geologic Processes off Newfoundland  
**CURRENT INFORMATION**  
 available on sedimentologic parameters that reflect on-going processes, and to investigate variations in geologic processes on the slope and rise during the Holocene. To develop faunal and textural models for biostratigraphic, paleo-ecologic and environmental impact studies.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
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	21 E; 31 B,C-G, H-L 41 H-K	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 Frank Mack Ont	66 M; 67 A-C; 87 A-F; 88 A-B; 21 E; 31 G	2552
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; 94 B,G,J	2521
780042	Comparative studies of the continental margins of the Labrador Sea and of the North Atlantic <b>CURRENT INFORMATION</b> Obj: <del>NOT AVAILABLE</del> 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.	Srivastava, SP	AGC	RR	LSS	Atlantic Offshore	-	2541

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
780045	Debris flow hazard assessment methodology, alpine and northern upland areas  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.	Jackson, LE	TS	-	GPEG	BC Alta	82 G, J, N, O; 83 C, D, E	2552
780047	Computer Methods and Calibration  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.	Carson, JM	RRG	RR	CMC	Sask Ont NB Alta	21 G; 31 G; 73 B; 82 O, P	2573
780048	Surficial Geology of Lomonosov Ridge, Arctic Ocean  Obj: 1) To describe the tectonic structure and history of the surficial sediments of the NOT AVAILABLE site 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	Arctic Ocean: Seismic Refraction and Related Geophysical Measurements  Obj: 1) To describe the tectonic structure, reflection and related geophysical data in the Arctic Ocean basin. 2) To describe the tectonic structure, reflection and related geophysical data in the Arctic Ocean basin. 3) To describe the tectonic structure, reflection and related geophysical data in the Arctic Ocean basin. 4) To describe the tectonic structure, reflection and related geophysical data in the Arctic Ocean basin. 5) To describe the tectonic structure, reflection and related geophysical data in the Arctic Ocean basin. 6) To describe the tectonic structure, reflection and related geophysical data in the Arctic Ocean basin. 7) To describe the tectonic structure, reflection and related geophysical data in the Arctic Ocean basin. 8) To describe the tectonic structure, reflection and related geophysical data in the Arctic Ocean basin. 9) To describe the tectonic structure, reflection and related 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Jackson, HR	AGC	RR	OBM	-	-	2541
790002*	Geochemical data processing  Obj: 1) To compile, store and document, in digital form, all geochemical data generated for the subdivision. 2) To improve data management support for the subdivision. 3) To produce open file material for Federal NGR and provincial open file releases of geochemical data.	Lund, NG	RRG	RG	RS	BC, Man NF Id	93 N; 64 C; 13 C, D, K, L	2572

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790003*	Regional Geochemistry - Southern Cordillera Obj: 1) To develop and test geochemical exploration methods for the discovery of concealed ore deposits in a variety of geological and surficial environments in the southern Cordillera. 2) To assess the effectiveness of geochemical reconnaissance surveys in the planning of exploration programs and in appraising the resource potential of areas.	Ballantyne, SB	RGG	RGC	RS	BC Yk		104 N, O, P, I; 94 F, K, L; 2572 105 B-F, I, M; 92 O, P; 106 D
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	RGG	RGC	ER	-	-	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
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	105 I	2511
790008*	Stratigraphy, sedimentation, structure and tectonic setting of the Windermere 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.	Tella, S	P	-	NC	Kee	65 K, L; 66 H	253

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
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 petrolierous 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
790016	Geology of the Helikian 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 Obj: To investigate the geomorphology and sedimentology of ice scour tracks and their relationship to glacial geomorphology, 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. <b>CURRENT INFORMATION NOT AVAILABLE</b>	Lewis, CFM	AGC	EMG	CGD	Atlantic Offshore	-	2542
790019*	Environmental Geology of Deep Ocean Obj: To investigate the environmental quality of the deep ocean sediments to maintain normal waste disposal practices and resource exploration and exploitation. 2) To participate in the Seabed Working Group of NEA in order to maintain awareness of progress in feasibility studies for the disposal of high level nuclear waste in the seabed. 3) To participate in studies of the environmental effects of deep ocean mining. <b>CURRENT INFORMATION NOT AVAILABLE</b>	Buckley, DE	AGC	EMG	IGC	Atlantic Offshore	-	2542
790020*	An investigation of the semi-inert Canadian coals, in a heat-treatment process and to establish a reliable microscopic method for predicting the coking properties of these coals. <b>CURRENT INFORMATION NOT AVAILABLE</b>	Kalkreuth, WD	ISPG	CG	CT	BC Alta	-	2524

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790022*	Stratigraphy and sedimentology of the Lower Cretaceous Gething Formation, Rocky Mountain Foothills, Alberta and British Columbia	Gibson, DW	ISPG	CG	GC	Alta, BC	83 L; 93 I, J, O; 94 B, G	2524
	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.							
790024	Geology of the Foxe Fold belt (EAST HALF), Baffin Island	Henderson, JR	P	-	NC	Frank	A, B, C, D	2531
	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.							
790025*	Petrology, mineralogy, geochemistry and mineral potential of a Helikian non-orogenic granitic suite in central Labrador and adjacent Quebec.	Emslie, RF	P	-	PET	Nfld Que	Parts of 13 M, I, J; 14 D; 23 P, 24 A	2531
	Obj: To improve understanding of the conditions and processes that control concentrations of U, Sn, Be, W and Mo in non-orogenic granitic suites.							
790027*	Quaternary stratigraphy Yarmouth region, Nova Scotia	Grant, DR	TS	-	RP	NS	11 E, F, 21 H	2551
	Obj: To document the Quaternary stratigraphy of the southeast coast of Nova Scotia in the vicinity of Yarmouth.							
790029*	Gneissic basement to the Fury and Hecla Formation and the Autridge Formation	Ciestelski, A	P	-	SG	Frank	47 D, E, F	2531
	Obj: To map the basement gneisses adjacent to the Fury and Hecla Formation and the Autridge Formation on Baffin Island at a scale suitable for publication at 1:100 000 or 1:250 000. Emphasis to be placed on basement cover relationships and the relationship of basement geology to radioactive anomalies.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790030*	Geology of Nelson Map-area E/2	Reesor, JE	C	-	BG	BC	82 F, E $\frac{1}{2}$	2511
	Obj: 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.							
790031*	Geology of the Beaufort-Mackenzie Basin	Dixon, J.	ISPG	RG	M	Mack Frank Yk	107 B-H; 117; 97 F, H 106 L, M; 116 I, P	2521
	Obj: (1) To integrate all available geological, biostratigraphic, geophysical, and geochemical data for the Tertiary in the Beaufort-Mackenzie Basin, in order to develop a stratigraphic-sedimentological framework and an appreciation of the petroleum potential. (2) Undertake detailed stratigraphic, sedimentological and petrographic analysis of selected zones within the Cretaceous and Tertiary in order to understand reservoir character and distribution. (3) To do detailed correlations of Lower Cretaceous-Upper Jurassic rocks in the subsurface, set up a stratigraphic framework and do sedimentological interpretations.							
790033*	Geochemistry of Mineral Occurrences and their Host Rocks in the Northern Cordillera	Goodfellow, WD	RGG	RG	RS	Yk NB	105 O, I; 106 B 21 O, P	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	Gagne, RM	RGG	TG	SM	Ont Que BC	31 K, G, 82 E	2574
	Obj: To map the velocity structure of surficial deposits by engineering seismic methods for geological mapping and site analyses.							
790036	Sediment Dynamics Monitor (Ralph Heffler, DE)	Heffler, DE	AGC	PS	SD	-	-	2544
	Obj: <b>CURRENT INFORMATION NOT AVAILABLE</b> Instrument to investigate the dynamics of sediments ranging from a few metres to 200 M for bottom durations of up to 45 days.							

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790037	Ocean Bottom Seismometers at <b>CURRENT INFORMATION</b> Obj: To develop the development of the Ocean Bottom Seismometer (OBS) system now in use in early on the development of the OBS system now in use <b>NOT AVAILABLE</b> Obj: To establish and apply conceptual models of deposition of the original sediment in terms of environment and paleogeography, their subsequent diagenesis and correlation.	Heffler, DE	AGC	PS	SD	-	-	2544
790038*	Middle and Upper Devonian Rocks in east-Central B.C. and west-central Alberta <b>CURRENT INFORMATION</b> Obj: To establish and apply conceptual models of deposition of the original sediment in terms of environment and paleogeography, their subsequent diagenesis and correlation.	Geldsetzer, HHJ	ISPG	RG	M	BC	<u>Alta</u> 83 E, L; 93 H, I, O	2521
790039	Development of data management system for marine geophysical data <b>CURRENT INFORMATION</b> 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.	Sherin, AG	AGC	PS	-	-	-	2544
790040	Taxonomy, biostratigraphy, paleogeology and paleobiogeography of Mesozoic foraminifera <b>CURRENT INFORMATION</b> 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. <b>CURRENT INFORMATION</b> 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 (W<sub>2</sub>)</u>	2511
790042*	Stratigraphy, structure and Tectonics; Innuitian Fold Belt, Ellesmere Island, N.W.T. <b>CURRENT INFORMATION</b> 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 A, B, C, D, E, F, 59 E</u>	2521



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
790044	Nahanni IMPP — Coordinator	Reesor, JE	C	-	-	Yk	105 I	2511
	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.							
790045	NEA/IAEA Athabasca Basin Study	Cameron, EM	RGG	RGC	-	Sask	64 L, 74 I	2572
	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.							
800001*	Quaternary geology and terrain inventory, Nahanni-Sheidon Lake-Finlayson Lake	Jackson, LE	TS	-	GPEG	Yk Mack	<u>105 I, J(S<sub>2</sub>), G</u>	2552
	Obj: To map, describe and explain the surficial deposits, terrain conditions, active geomorphic processes and Quaternary history with specific reference to the significance of Quaternary geology for mineral exploration.							
800003	Subsurface Geology of Great Bear River map-area	Pugh, DC	ISPG	RG	M	Mack	96 C	2521
	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.							
800004	Geology of Whitehills Lake	Taylor, FC	P	-	SP	Keel	66 A	2531
	Obj: To map 66 A/9 and 66 A/16 S <sub>2</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.							
800005	Metamorphism and structure in northeast Superior Province	Ciesielski, A	P	-	SG	Que	33	2531
	Obj: 1. To understand the geological evolution of the higher grade metamorphic region of the northeastern 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.							

Dept'n  
Classi-  
fication

NTS

Prov

Sec

Div

Subdiv

Project  
Leader

Title

Man Sask

56 D

75 D E $\frac{1}{2}$ , 85 A(E $\frac{1}{2}$ )

92 B,C,D,E,F,G,L,K,M;  
93 D; 102 A,H,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

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

2531

2531

2531

800006

Geology of Beechey-Duggan  
Lakes area

Frith, RA

P

-

BS

Mack

76 G(E $\frac{1}{2}$ ), H(W $\frac{1}{2}$ )

2531

- Obj: 1. Map for 1:250,000 published scale.  
2. Understand the nature of the Thelon Front.  
3. Produce final maps and a report.

800007\*

Metamorphism in the  
Kisseynew Subprovince

Froese, E

P

-

PET

Man Sask

63 J,K,L,M,N,O

2531

- Obj: To study the metamorphic zonation in the Kisseynew 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.

800008

Geology of the Baker Lake  
map-area

Schau, M

P

-

NC

Keew

56 D

2531

- 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.

800009

Geology of Fort Smith,  
District of Mackenzie

Bostock, HH

P

-

NC

Mack

75 D E $\frac{1}{2}$ , 85 A(E $\frac{1}{2}$ )

2531

- 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).

800010\*

Marine magnetic surveys

Currie, RG

C

-

MG

Pacific  
Offshore

92 B,C,D,E,F,G,L,K,M;  
93 D; 102 A,H,I,P;  
103 A,B,C,F,G,H,I,J,K

2512

- 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.

800011\*

Rock Magnetism

Currie, RG

C

-

MG

Yk BC

2512

- 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.

Dept.'l  
Classi-  
fication

NTS

Prov

Subdiv

Div

Project  
Leader

Title

Project  
Number

2531

56 E

Kee

NC

P

Fraser, JA

Geology of Woodburn Lake  
map area, District of  
Keewatin

800012

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.

2532

23, 24, 34 C

Ont Que

PMag

P

Buchan, KL

Vertical Movements of the  
Precambrian Shield

800013

Obj: To determine vertical movements for structural provinces in the Precambrian Shield from remanent magnetism. The method is quantitative and would allow estimating the net amount of uplift or tilting of the Shield since the Archean.

2531

63 J,K,N,O,P  
64 A,B,C

Man

PET

P

Gordon, TM

Metamorphism of volcanic  
rocks, Crowduck Bay,  
Manitoba

800014

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.

2542

11 F,G,K

NS

CGD

EMG

AGC

Taylor, RB

Coastal Morphology and  
Sediment Dynamics, Southeast  
Island, Cape Breton

800015

**CURRENT INFORMATION  
NOT AVAILABLE**

Obj: A. To examine 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.

2574

40 I,P; 30 M; 84 A;  
93 G; 73 B; 83 G;  
31 G

Ont Que

SM

TG

RGG

Hunter, JA

High Resolution Seismic  
(Equipment Development)

800018\*

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).

Man Alta  
BC Sask  
YK

Dept '1  
Classi-  
fication

Project  
Number

Project  
Leader

Title

Prov

NTS

2551

31 G 10 (Quebec part)

Que

RP

TS

Fulton, RJ

Surficial geology, Cobden area  
(Quebec part)

Obj: To map, describe and explain the unconsolidated deposits and landforms of the Quebec part of the Cobden area (31 G 10) in order to provide geology and terrain information pertinent to agriculture, urban and industrial development and engineering construction and to determine the Quaternary history of the region.

800020\*

Que BC

PEC

AGC

Schafer, CT

The Recent Paleoclimatic  
and Paleoeologic Records  
of the Sediments

**CURRENT INFORMATION**  
is available  
Obj: To obtain a better understanding of the late Quaternary geological record in unbioturbated fjord sediments recovered from distinctive climatic regimes throughout Canada with a view to the development of predictive models for climatic trends on a 3 to 10-year scale.

22, 2, 3, 11, 12

2542

800021

-

MDG

EG

Sangster, DF

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.

2561

800022\*

Yk

BG

C

Thompson, RI

Stratigraphy and structure of  
Dawson, Larsen Creek and  
Nash Creek map areas

Obj: To update the 1:250,000 geologic maps of Dawson, Larsen Creek and Nash Creek as a framework for the stratigraphic and structural analysis of the region and its bearing on the geological evolution of the northern Cordillera.

116 A, B, C; 106 D

2511

800023

Que NB  
NS NF1d

SP

EG

Poole, WH

Special assignments on  
eastern and northern  
Canada

Obj: To contribute to the mineral resource data base and the evaluation of regional resources.

2561

800024

Man

RP

TS

Dredge, LA

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.

64 J, K, N, O

2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept.'1 Classification
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	32 C,D; 42 A	2561
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.	Kettles, IM	TS	-	SMT	Ont Que NB	31 B,C,E,F,G,K,L; 21 J,N,O	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,J	2511
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, JMH	C	-	BG	BC	92 I,H	2511
800030*	Isotopic Geochemistry, Precambrian Mineralized Basins Obj: (a) Provide data on the distributions of certain isotopic ratios within mineralized Precambrian basins. (b) Utilize these data to interpret the mineralizing processes. (c) Develop methods of geochemical exploration for mineral deposits in these basins based on the findings of (a) and (b).	Cameron, EM	RGG	RGC	-	Mack Ont	42, 52 A, 41 I,J,K, 86	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	ISPS	RG	AI	Frank	-	2521

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
800033	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 the end of 1988.	Wheeler, JO	DGO	C	BC	-	-	2511
800034	Rift Processes and the Development of Passive Continental Margins <b>CURRENT INFORMATION</b> Obj: <del>NOT AVAILABLE</del> Investigate the sequences (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	Atlantic Offshore Arctic Offshore	-	2541
800035	Seismic studies of continental margins and ocean basins of <b>CURRENT INFORMATION</b> Obj: <del>NOT AVAILABLE</del> in crustal structure across passive continental margins.	Keen, CE	AGC	RR	OBM	Atlantic Offshore	-	2541
800036*	Stability and Transport of Sediments on Continental <b>CURRENT INFORMATION</b> Obj: <del>NOT AVAILABLE</del> Objectives of this project are: (1) to determine the sediment stability and objectives of this project are: (1) to determine the sediment 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
800038	Regional distribution of marine Mollusca (Gastropoda and Pelecypoda) in Eastern <b>CURRENT INFORMATION</b> Obj: <del>NOT AVAILABLE</del> Determine the 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; 10 M, N; 11 B-6, J, K	2542

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classi- fication
800039	CO-CRUST 1980	Loncarevic, BD	AGC	RR	OBM	Pacific Offshore	92	2541

**CURRENT INFORMATION**  
 The objective of the project is to determine the deep crustal structure beneath Vancouver Island and adjacent areas, and in particular the structure of the zone where oceanic crust is being underthrust beneath the continent.

800041	Development of Vibrocoring/Drill for Geotechnical, Geological and	Manchester, KS	AGC	PS	-	-	-	2544
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**CURRENT INFORMATION**

Obj: **NOT AVAILABLE**  
 Drilling and vibrocoring to NORBCO Ltd. St. John's, Newfoundland that will lead to the development of an improved commercially available vibrocoring/Drill for Geotechnical, Geological and engineering studies in Canada.

810002	Aeromagnetic Survey: Labrador and Labrador Continental Margin	Knappers, WA	GGG	RG	CAS	Nfld Que		Pt. 14 B, C, D, E, F, K, L, M; 15 D; 24 A, H, I, P; 25 A; 14 E, F, L
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Obj: To provide adequate aeromagnetic coverage of the above areas as an aid to geological mapping and as a stimulation to mineral exploration in frontier areas. The survey entails 82,800 line kms of survey profiles and covers an area of 66,000 square kms, approximately.

810003*	Evaluation of Two Deep Sounding E.M. Systems	Sinha, AK	GGG	RG	TG	Ont Sask Man Mack		31 D, G; 41 A; 40 P; 107 C; 64 C; 74 I, N, O; 30 M; 21 A
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Obj: a) To evaluate and demonstrate the effectiveness of two deep sounding electromagnetic (E.M.) systems, Maxi-Probe and Geonics EM-37, for geological mapping (e.g. permafrost) and mineral exploration (e.g. base metals and uranium) purposes.  
 b) To compare these two systems with other inductive sounding/mapping systems.  
 c) To develop techniques for the interpretation of field data from these two systems and to establish new techniques for electrical exploration at large depths.

810004*	Quaternary geology - terrain inventory, Frances Lake	Dyke, AS	TS	-	RP	Yk	105 H	2551
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Obj: To map, describe and explain the landforms and Quaternary deposits in order to understand the Quaternary evolution of the area and to provide information relevant to land-use planning and mineral information.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept '1 Classifi- cation
810005*	Relationship of flood frequency and heavy metal uptake in growth rings of trees	Egginton, PA	TS	-	GPEG	Ont Mack	31 F, K, L; 42 H, P	2552
	Obj: To develop and evaluate a proxy method of determining flood frequency of rivers.							
810006*	Quaternary Geology, upper Fraser River Basin	Clague, JJ	TS	-	RP	BC	93 A, B, G, H	2551
	Obj: To describe, map and establish the stratigraphy of unconsolidated deposits in order to: 1) reconstruct the upper Fraser River drainage development as an aid to explaining the distribution of placer deposits, 2) provide information pertinent to forestry, land-use planning, urban and industrial development, and 3) to determine the Quaternary history of the region.							
810007*	Quaternary geology-terrain inventory, western Victoria Island	Vincent, JS	TS	-	RP	Frank	87 A, C, D, E, F, G, H; 88 A, B, C, D; Pts of 77 B, C, F, G; 78 B	2551
	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.							
810008*	Nuclear and Analytical Instrumentation	Bristow, Q	RG	RG	ANI	Ont	31 F	2573
	Obj: Adaptation of advanced technology, and development of new technology (both in-house and under contract) for improved acquisition of conventional geophysical and geochemical data and for the measurement of other new parameters which are not at present generally measured. Publication of results and/or licencing of products for the rapid and effective transfer of technology to industry.							
810009	Remote Sensing Applications	Slaney, VR	RG	RG	RM	-	-	2573

**CURRENT INFORMATION NOT AVAILABLE**

Landsat imagery file for the use of the GSC staff and to advise geologists adequately on the potentials and implications of Landsat imagery in the solution of specific problems.  
b) To develop and to demonstrate new methods or to adapt existing methods in relation with the task of integrating imagery (satellite and airborne) with geochemical, geophysical and geological data for the purpose of geological mapping and/or mineral exploration.  
c) To evaluate geological applications of Synthetic Aperture Radar and to provide the Interdepartmental Committee on Space with requirements for RADARSAT project.



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
810010*	Detailed geological study of selected areas within the Foothills and Rocky Mountain Belts between Peace River and Smoky River with emphasis on structure  Obj: To map at 1:50,000 scale: 1) Northern area-map sheets 93 0/11, 12E, 14, and the parts of 93 0/13 E and 13 W east of Williston Lake, 2) Southern area-map sheets 83 L (S.W. corner), 83 E (N.W. corner) and in conjunction with R.I. Thompson parts of 93 I (SE corner) and 93 H (N.E. corner). As a data base for the preparation of structural interpretations across both areas, and the delineation of coal bearing sequences in the southern area.	McMechan, ME	ISPG	RG	M	BC Alta	93 H(NE), I(SE), 0/11-14; 83 E(NW), L(SW)	2521
810011*	Carboniferous stratigraphy and sedimentology of northeastern British Columbia and north-western Alberta  Obj: a) Revision of the stratigraphic nomenclature of subsurface and surface Carboniferous stratigraphic units. b) To solve subsurface and surface stratigraphic problems. c) To determine the characteristics, distributions, and depositional environments of lithofacies in the surface and outcrop belt. d) To summarize region's Carboniferous depositional history. e) Evaluation of hydrocarbon potential. f) To tie in with Richard's work in S.W. District of Mackenzie (GSC 770043) and Bamber's work in N.E., B.C. (GSC 710022).	Richards, BC	ISPG	RG	M	BC Alta	83 E,L,M,N; 84 C,D,E; 93 I,J,O,P; 94 A,B,G, H,I,J,K,N,O,P; 82 O	2521
810012	Structural and stratigraphic studies of Northeast British Columbia  Obj: To provide a synthesis of the geology of the northern Rocky Mountains in terms of the tectonic response of the stratigraphic record.	Taylor, GC	ISPG	RG	M	BC	93 I,O,P; 94 F,G,J,N,O;	2521
810013	Syntheses of Mesozoic and Cenozoic rocks of Eastern Cordillera and Plains  Obj: To provide regional syntheses, including maps and correlations concerning sedimentary sequences, particularly of Mesozoic clastic sequences in Western Canada.	Stott, DF	ISPG	RG	M	Man Sask Mack Alta	- BC YK	2521
810014*	Resource evaluation and geology of Canada's coal deposits  Obj: To conduct resource evaluation programs required for the National Coal Inventory and to recommend the office and/or field studies to be undertaken to meet the requirements of the inventory program. To acquire industry and provincial government data on Canada's coal deposits. To study the geological framework within which these coals occur. To provide authoritative advice to senior Departmental officials and to scientists in government and industry on the resource potential of Canada's coal deposits. To maintain an up-to-date knowledge of coal fields in Canada.	Hughes, JD	ISPG	CG	RE	BC Alta Sask	83 A,G,H,I,J; 93 O,P; 72 F,G,H; 62 E	2524

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
810015	Evaluation of Liquefaction Potential of low rank coals and peats Obj: Determine the composition of raw coals and their liquefaction residues to give insight into: 1) the efficiency of the liquefaction process in converting the coal; 2) behaviour of the different micro-components of coal during liquefaction; 3) the relationship between liquefaction yields and the petrographic composition of feed coal; 4) the occurrence and behaviour of mineral components during liquefaction; 5) the utilization of residues from liquefaction processes.	Kalkreuth, W	ISPG	CG	CT	-	-	2524
810016*	Paleozoic stratigraphy of central and southern Ellesmere Island and northern Devon Island Obj: Investigation of Cambrian to Devonian stratigraphic succession in southern and central Ellesmere Island, Kent Island and northeastern Devon Island; description and interpretation of map units in conjunction with regional mapping program.	Mayr, U	ISPG	RG	AI	Frank	59 A; 49 A, B, C, D, E, G, F, H	2521
810017	Middle and Upper Devonian rocks in the subsurface of west-central Alberta Obj: To establish the depositional environment and paleogeography of the original sediments and their subsequent diagenesis for the purpose of correlating the depositional framework (sedimentological history) with that of the Middle and Upper Devonian sediments in the Rocky Mountains to the west investigated under Project 790038.	Meijer-Drees, NC	ISPG	RG	M	Alta	83 B, C, E-6, J-N	2521
810018*	Regional Coal Rank Variations in the Kootenay Formation and their relationship to the structural history of the Southern Canadian Rocky Mountains Obj: 1) To delineate vertical and lateral coal rank variation (by vitrinite reflectance) in the Kootenay Formation of the southern Rocky Mountains and Foothills. 2) To utilise this and stratigraphic/structural data to interpret the relative timing of deformation and the relative contribution to total loading of structural and sedimentological components.	Cameron, AR	ISPG	CG	CT	BC Alta	82 G, J,	2524
810019*	Regional coalification studies in the Minnes, Bullhead and Fort St. John Groups, N.E. British Columbia Obj: 1) To determine the regional coalification pattern of the lower Cretaceous Bullhead, Fort St. John and Minnes Groups in the foothills belt of northeastern British Columbia and west central Alberta. 2) To determine the petrographic composition of coal seams in the region to provide further data on coal quality and utilization and on depositional environments of seam formation. 3) Coal rank data and petrographic profiles of seams will contribute to stratigraphic correlations.	Kalkreuth, W	ISPG	CG	CT	BC Alta	83 E; 93 I, P	2524

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
810020*	Thrust-Fold Belt of Wopmay Orogen — Internal Zone Obj: To extend the study of metamorphism, plutonism and structure resulting from collisional orogeny affecting an early Proterozoic continental margin.	St-Onge, MR	P	-	BS	<u>Mack</u>	<u>86 E, F, G</u>	2531
810021*	Externides of Wopmay Orogen Obj: To extend the stratigraphic and structural study of an early Proterozoic passive continental margin and its destruction by collisional orogeny.	Hoffman, PF	P	-	BS	<u>Mack</u>	<u>86H, I, J, M, O, P, 76 M</u>	2531
810022*	Permafrost and ground ice map of Canada Obj: To compile a revised permafrost and ground ice map of Canada at a scale of 1:5M.	Heginbottom, JA	TS	-	GPEG	<u>Yk, Mack</u>	<u>106, 107, 116</u>	2552
810023	Quaternary geologic compilation (EG-I revision) Obj: 1) Prepare a volume describing the Quaternary geology of Canada. 2) Prepare a map depicting the surficial materials of Canada at a scale of 1:5 000 000.	Fulton, RJ	TS	-	RP	-	-	2551
810024*	Metallogeny of the Baker Lake-Theilon region, N.W.T. Obj: To determine the relationship of uranium and other mineralization to intrusive and extrusive igneous activity, metamorphism and sedimentary processes in the Archean basement and overlying Aphebian and Helikian rocks in the Baker Lake-Theilon region.	Miller, AR	EG	-	URE	<u>Keeweenaw</u>	<u>55 M; 56 D, E; 65 P; 66 A, B, C, G, H</u>	2562
810025	Organization and preparation of mineral resources component of Economic Geology Series Volume 1 — 6th Edition Obj: To produce descriptive-interpretative accounts of the mineral deposits of Canada, integrated as appropriate with the regional geological accounts, and to produce summaries of deposit types, metallogenic syntheses and inter-regional comparisons of the character and distribution of mineral resources.	Thorpe, RI	EG	-	MDG	-	-	2561
810026*	Radwaste Geophysics Obj: To develop test sites for standard geophysical logging tools in crystalline basement rocks. Requirements of AECL's radioactive waste management program. To coordinate the other AECL's geophysical projects in the Resource Geophysics Subdivision.	Collett, LS	RGG	RG	SP	<u>Ont Man</u>	<u>31 K, 52 B, 62 H</u>	2573
810027*	Development of Geophysical Standards Obj: To develop test sites for electrical, radar and seismic methods of airborne, surface, borehole and marine geophysics for testing and calibration of instrumentation and presentation of results in standardized form. To develop specifications for use of test sites.	Collett, LS	RGG	RG	SP	<u>Ont Que</u>	<u>31 F, G 42 A</u>	2573

2511

BC Yk

Orchard, MJ

Conodont biostratigraphy and  
biogeography in the Canadian  
Cordillera

Obj: To collect and document conodont faunas and associated biotas to provide and refine  
a biostratigraphic framework for the interpretation of Cordilleran geological  
evolution.

2511

BC Yk

Orchard, MJ

Micropaleontological analysis of  
referred samples

Obj: To provide microfossil-based relative ages to Cordilleran geologists for their use  
in the solution of geological problems.

2541

Atlantic  
Offshore

Loncarenvic, BD

Evaluation of Kss-30 Sea Gravimeter

Obj: To record the use of the KSS, and implement operational use of the new sea gravimeter  
mode.

**CURRENT INFORMATION  
NOT AVAILABLE**

2543

Atlantic  
Offshore

Bujak, JP

D.S.D.P. Dinoflagellates

Obj: **NOT AVAILABLE** Plate zonation scheme for the Upper Cretaceous-Cenozoic of  
the Atlantic. Describe new taxonomy where relevant. Correlate and date this  
scheme relative to the standard plankton microfossil zonations and Circum-Atlantic  
onshore stratotypes. Determine stratigraphic-regional distributions of taxa and  
paleo-environmental/altitude significance of these distributions relative to the  
history of the Atlantic and related areas. Assess hydrocarbon source potential  
of sediments beneath the Atlantic using visual kerogen analysis techniques.

**CURRENT INFORMATION**

2543

Atlantic  
Offshore

Davies, EH

Biostratigraphy of the Atlantic

Obj: **NOT AVAILABLE** 1. To establish a petroleum inventory of offshore eastern Canada  
through a detailed chronostratigraphic framework.  
2. To establish, develop and utilize the palynological zonations for  
the Mesozoic-Cenozoic of offshore eastern Canada and to compare  
these with other North Atlantic regions and the Arctic.

**CURRENT INFORMATION**

2543

Atlantic  
Offshore

Williams, GL

Maturation Studies

Obj: **NOT AVAILABLE** Models for maturation of the organic matter in  
east coast offshore wells, and hence highlight potential oil and gas  
provinces and prospective horizons.

**CURRENT INFORMATION**

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
810035	Taxonomy, Phylogeny and Ecology of Palynomorphs <b>CURRENT INFORMATION</b> Obj: <b>NOT AVAILABLE</b> To erect new palynomorph taxa and amend the diagnoses of palynomorph taxa necessary in east coast offshore Canadian wells and relevant areas. Phylogeny: To describe evolutionary lineages of palynomorphs in order to increase biostratigraphic resolution and erect a phylogenetically oriented zonation (phylozones) for eastern Canada. Ecology: To plot the ecological ranges of palynomorph taxa in order to help determine the paleoenvironmental history of the offshore eastern Canadian basins and other relevant areas.	Davies, EH	AGC	EPG	-	-	-	2543
810036*	Morphology, sedimentology, and glaciology of the Labrador coast <b>CURRENT INFORMATION</b> Obj: <b>NOT AVAILABLE</b> To interpret the geomorphology, sedimentary materials, and stability of the Newfoundland coast, with attention to problems of coastal resource management and oil-spill contingency planning. B. To investigate the sedimentary facies and physical processes characteristic of selected coastal types and, in particular, of gravel barrier and associated lagoon systems, for which little information is available.	Forbes, DL	AGC	EMG	CGD	Nfld		1 K, L, M, N; 2 C, D, E, F, M; 2542 11 O, P; 12 A, B, G, H, I, M, P
810037*	Surficial geology, geomorphology, and glaciology of the Labrador coast <b>CURRENT INFORMATION</b> Obj: <b>NOT AVAILABLE</b> To investigate the post glacial sedimentary processes, hydrodynamic glaciation across the shelf; to relate these findings to world wide glacial events; to determine the paleoceanography of the Labrador Sea; to map the surficial geology of the region between Hamilton and Saglele Banks; to assist the offshore industry by providing regional geological data and up-to-date synthesis; to determine the existence and density of seabed hazards.	Josenhans, HW	AGC	RR	LSS	Atlantic Offshore	3, 13, 14	2541
810038	Palynology of Carboniferous, Permian and Triassic Rocks of northern and western Canada Obj: (a) To establish a palynological zonation for Carboniferous, Permian and Triassic rocks of northern and western Canada and to apply this zonation to local, regional and worldwide biostratigraphic correlations. (b) Taxonomic description of palynological taxa to provide bench marks substantiating the zonation. (c) Completion of related studies on Carboniferous rocks in eastern Canada previously initiated by J. Utting before joining the Survey.	Utting, J	ISPG	P	MiP	Frank		560 A, D; 340 A, B, C, D; 2522 59 E, H; 49 E, F, G, H
810039*	Sedimentological studies of coal-bearing Upper Cretaceous and Paleocene formations, central Alberta Foothills Obj: Establish the stratigraphic framework of the Upper Cretaceous and Paleocene formations of the central Foothills of Alberta as a basis of further qualitative, quantitative, mineability and environmental studies leading to an evaluation of their coal resource potential.	Jerzykiewicz, T	ISPG	CG	GC	Alta	83 F, C	2524

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
810040*	<p>Surficial Geology and Crustal Structure of the Alpha Ridge</p> <p><b>CURRENT INFORMATION</b></p> <p><b>NOT AVAILABLE</b></p> <p>the morphology, structure and history of the surficial sediments of the Alpha Ridge in the vicinity of EMR CESAR site (84°N 120°W);</p> <p>2) To describe the crustal structure of the ridge using OBSs in a refraction experiment done jointly with EPB;</p> <p>3) To adapt and develop new technology in working in frozen seas;</p> <p>4) To provide a base line survey for the use of the "RISP" drill for obtaining continuous core and bedrock samples of the Alpha Ridge.</p>	Jackson, HR	AGC	RR	OBM	Arctic Offshore	-	2541
810041*	<p>The physical behaviour of deep particulate matter (Spm) in the Arctic</p> <p><b>CURRENT INFORMATION</b></p> <p><b>NOT AVAILABLE</b></p>	Syvitski, JPM	AGC	EMG	CGD	Atlantic Offshore Arctic Offshore Pacific Offshore	-	2542
810042*	<p>Sedimentology of Fjords</p> <p><b>CURRENT INFORMATION</b></p> <p><b>NOT AVAILABLE</b></p> <p>To complete a comprehensive study on the climatology, hydrography, physical oceanography, sediment dynamics, sedimentological history, and animal sediment relationships of west coast fjords (completion of previous NSERC project) and Arctic fjords.</p> <p>Obj: To discover the physical forms and dynamic behaviour of spm so that the vertical flux of spm can be understood for a variety of environments.</p>	Syvitski, JPM	AGC	EMG	CGD	BC Frank	27 A, F; 26 I, J; 37 H; 92 K, L	2542
810043*	<p>Pore structure in crystalline rocks</p> <p>Obj: To develop methods to determine pore structure and radionuclide isolation capacity of various types of crystalline rocks. To apply these methods on rock samples from Pinawa, Chalk River, Atikokan and other Nuclear Fuel Waste Research areas.</p>	Katsube, TJ	R6G	RG	SP	Man Ont	52 B, L; 41 J; 31 K	2573
810044	<p>Quaternary geology-terrain inventory, Prince of Wales Island, King William Island and adjacent mainland Keewatin</p> <p>Obj: To map, describe and explain the Quaternary deposits and landforms in order to understand the Quaternary evolution of the area and to provide information relevant to land-use planning and mineral exploration.</p>	Dyke, AS	TS	-	RP	Frank Kee	66 O, P; 57 B, C; 67 A, D, H; 68 A-D	2551
810045	<p>An Earth Science Atlas of the Northwest Territories and Yukon, Canada</p> <p><b>CURRENT INFORMATION</b></p> <p><b>NOT AVAILABLE</b></p> <p>Obj: To provide a standardized form suitable for regional studies.</p>	Srivastava, SP	AGC	RR	LSS	-	-	2541

2544

11

NS

SD

PSS

AGC

Fricker, A

Biostratigraphic Data-Processing

810046

2542

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Atlantic  
Offshore

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AGC

Piper, DJW

Quaternary geologic processes

250

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NS

-

DGO

Poole, WH

Canada-Nova Scotia Cooperative  
Mineral Program 1981-84

810048\*

2524

82 G, J

Alta

Completion of outstanding Foothills  
mapping projects

820001\*

2524

106 M; 107 B

Structural Geometry and Tectonic  
History of the Aklavik Range

2541

66 A, B, C, F, G;  
pts 65 O, N

Atlantic  
Offshore

-

AGC

Haworth, RT

Geology of the Atlantic

820003

2531

NC

LeCheminant, AN

Geology of Aberdeen Lake  
and parts of adjoining map  
areas, District of Keewatin

820004\*

Keewatin

Obj: To interpret the geology of the area to produce a 1:250,000 geological map  
that will contribute to a regional geological synthesis. Emphasis is to be  
placed on study of Proterozoic volcanic-plutonic complexes and the stratigraphic  
and sedimentologic history of the Thelon Formation.

**CURRENT INFORMATION**  
Obj: To provide a data-processing system for Biostratigraphic and related geological  
information.

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Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept '1 Classi- fication
820005*	Paleomagnetism of Nipissing diabase and Abitibi dykes. Obj: To study the magnetic characteristics of the Nipissing diabase and Abitibi dykes and the rocks which they intrude in order to establish the relative ages of observed paleomagnetic components.	Buchan, KL	P	-	PMag	Ont., Que	<u>31, 32, 41, 42</u>	2532
820006*	Regional Geological Synthesis, Western Superior Province Obj: To compile and synthesize, in the form of maps and reports, all geological work to date in NTS 52. To outline areas requiring more coverage or update and to evaluate potential problem-oriental studies in order to: a) improve regional correlation; b) improve understanding of Superior Province tectonics, and c) to produce geological maps for publication at 1:1,000,000	Percival, JA	P	-	SG	Ont Man	<u>52</u>	2531
820007*	Deep Rose Lake and parts of adjoining map areas, District of Keewatin Obj: To map the bedrock geology at a scale of 1:250,000 in order to determine the tectonic and metamorphic history of the basement complex and that of the supracrustal rocks, and to assess the economic potential of the region. Emphases will be placed on the study of cataclastic to mylonitic zones in the region to determine their distribution and tectonic significance.	Tella, S	P	-	NC	Keew	<u>65 O, N; 66 B, G, F</u>	2531
820008	Geology of Montresor River and Lower Hayes River map areas, District of Keewatin Obj: The mapping of the supracrustal Chantrey Belt, its extensions and its environs at a scale of 1:250,000.	Frisch, T	P	-	NC	Keew	<u>66 I; pts 66 P, 56 L, M</u>	2531
820009*	Hottah Terrane Obj: To identify and characterize rocks of the Hottah Terrane, establish their relation to the Great Bear Magmatic Zone, and interpret their role in the Tectonic Evolution of Wopmay Orogen.	Hildebrand, RS	P	-	BS	Mack	<u>86 D, E</u>	2531
820010	Precambrian Shield Volume "Decade of North American Geology" Obj: To produce an up-to-date volume (approx. 300 printed pages), and geological and tectonic maps on the geology of the Canadian Precambrian Shield, (as part of a 20 volume work on the geology of North America - GSA centennial project).	Hoffman, PF	P	-	BS	Alta Sask Man Ont Que Nfld		2531
820011*	Geology of the Hill Island Lake Area, District of Mackenzie Obj: To map the Tazin and Nonacho Groups, the adjacent plutonic rocks and the mylonite zones within them, in the immediate vicinity of Hill Island Lake, in order to determine the geological relations of the Tazin and Nonacho in this area, and to provide a zircon (U/Pb) date for muscovite granite intrusive into the Tazin.	Bostock, HH	P	-	BS	Mack	<u>75 C, E</u>	2531



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
820012	Geological and geoscience studies in support of the Nuclear Fuel Waste Management Program Obj: To provide leadership and direction in scientific and technical matters to AECL staff seconded to GSC for purposes of geoscience studies pertaining to the NFWM Program.	Emanovics, I	P	-	SG	Man Ont	-	2531
820013*	Meguma Gold in the Ecum Secum-Liscomb area, Nova Scotia Obj: To determine the origin and distribution of gold mineralization in deformed metaturbidites of the Meguma Group in eastern Nova Scotia.	Henderson, JR	D60	-	-	NS	pts <u>11 D,E</u>	250
820014*	Stratigraphy and tectonics of the western margin of the southern Omineca Belt Obj: To determine the stratigraphy, age and correlation of the rocks in the area underlain by the Snowshoe Formation and therefrom determine the stratigraphic and structural history of the western margin of the southern Omineca Belt.	Struik, LC	C	-	-	BC	82 M; 92 P; <u>93 A,H,G</u>	2511
820015*	Geology of Sheldon Lake (105 J) and Tay River (105 K) map area, east central Yukon Obj: To update geological mapping and understanding of stratigraphy and structure in Sheldon Lake (105 J) and Tay River (105 K) map areas. Available preliminary edition geologic maps lack details useful in mineral exploration. An attempt will be made to extend the stratigraphy defined to the east in Nahanni map area (105 I) into these areas.	Gordey, SP	C	-	-	YK	<u>105 J,K</u>	2511
820016*	Geology of Skagway (104 M) map-area, British Columbia Obj: To update geological mapping in Skagway (formerly Bennett) map-area.	Dodds, CJ	C	-	-	BC	104 M	2511
820017*	The Geology of the Strait of Georgia Obj: To examine and describe the geology of the Georgia Depression including: structures, stratigraphy and sedimentology. To determine the relative importance of glacio-marine and tectonic processes in shaping the constituent basins particularly with respect to the late Cenozoic. To determine the tectonic sequence of events in the Strait of Georgia as they relate to the evolution of the western Canadian Continental margin.	Hamilton, TS	C	-	MG	BC	<u>92 B,F,G,K</u>	2512

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
820018*	Volcanic Rocks of the Insular Belt and Adjacent Deep Ocean  Obj: To examine the volcanic sequences of the western Canadian Continental Margin and describe their: stratigraphy, physical forms and depositional/extrusive modes, age relationships with adjacent formations, petrography, mineralogy, geochemistry, petrology and genesis. To interpret the geologic significance and economic potential of each of the various volcanic units and their roles in the tectonic and geodynamic evolution of the region.	Hamilton, TS	C	-	MG	BC	103 B, C, F, G, I, K; 92 B, C, E, F, K, L 102 I	2512
820019*	Quaternary geology and till geochemistry, northern Nova Scotia  Obj: To determine the stratigraphy, history and ice movement patterns of Quaternary deposits and the geochemistry of tills as an aid to mineral exploration, industrial construction, and environmental geology.	(Stea, RR)	DGO	-	-	NS	pts 11 E, F	250
820020*	Federal Mineral Program in Newfoundland 1982-84  Obj: To ensure that the Federal Mineral Program in Newfoundland is properly designed and that the GSC component is properly managed and productive.	Poole, WH	DGO	-	-	Nfld	-	250
820021*	Borehole Geophysics Applications to Coal  Obj: To improve borehole methods for the detection and evaluation of coal.	Mwenifumbo, CJ	RG	GGG	RG	Ont NS Alta Nfld Man	12 A; 11 F, K; 63 K; 82 I	2573
820022*	Borehole Geophysics <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: To improve borehole geophysical methods to the location and delineation of massive sulphide and coal deposits.	Overton, A	RG	GGG	RG	Nfld Ont	12 A; 41 I	2573
820023*	Operation CESAR <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: To produce a multidisciplinary Canadian Arctic geoscience expedition to investigate the nature and origin of the Alpha Ridge, a major subsea mountain range in the Polar Basin.	Overton, A	RG	GGG	RG	Arctic Offshore	-	2573
820024	Magnetic Anomaly Maps of Canada  Obj: A. To produce a series of composite magnetic anomaly maps in colour at a scale of 1:1,000,000 to be issued by the Geological Survey of Canada; B. To produce a 1:5,000,000 composite magnetic anomaly map of Canada (1255A) C. To provide a bank of digital aeromagnetic data.	Dods, SD	RG	GGG	RG	GDP	-	2571

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept.'s Classification
820025*	Geochemistry of stream sediments, Nova Scotia Obj: To determine the regional variation in geochemistry of stream sediments in Cape Breton Island and northern Nova Scotia as an aid to mineral exploration and environmental studies.	(Rogers, DJ)	DGO	-	-	NS	Pts <u>11 E, F, G, J, K, M, O;</u> <u>21 A, H</u>	250
820026*	Geology of eastern North Bay Batholith, insular Newfoundland Obj: To map and describe the plutonic rocks and adjacent wall rocks suitable for publication at 1:50,000 scale, to determine the geological evolution, and to evaluate the potential for mineralization.	(Dickson, WL)	DGO	-	-	Nfld	<u>11P/15, 16;</u> pts <u>11P/9</u> <u>1M/13;</u> <u>12 A/2</u>	250
820027*	Development of Regional Geophysical Data Processing and Interpretation Methods Obj: To adapt digital data enhancement, display and interpretation techniques and to develop new techniques as required, in relation with the general utilization and interpretation of regional airborne geophysical data.	Teskey, DJ	RG	RG	GDP	NS	<u>11</u>	2573
820028*	Geology of Saglek Fiord area, Main and Churchill Provinces Obj: To map and describe the gneisses and plutonic rocks and the Ramah Group sedimentary and volcanic rocks suitable for publication at 1:100,000 scale, to determine the geological evolution with particular attention to the Main - Churchill province boundary, and to evaluate the potential for mineralization.	(Ryan, AB)	DGO	-	-	Nfld	<u>14 L</u>	250
820029*	Geology of the Atikonak River area, Grenville Province Obj: To map and describe the gneisses and plutonic rocks suitable for publication at 1:100,000 scale, to determine the geological evolution, and to evaluate the potential for mineralization.	(Nunn, GAG)	DGO	-	-	Nfld	Pts <u>23 A, H</u>	250
820031	Petroleum Resource Evaluation Interchange Obj: To provide a firm basis for petroleum resource evaluation by the analysis of the geological setting and characteristics of hydrocarbon accumulations on a worldwide basis; by establishing and quantifying valid analogs applicable to Canadian basins; and by comparison of method and approaches to resource evaluation used by other governments.	Taylor, GC	ISPG	PRAS	-	-	-	2526
820032	Enhanced Oil Recovery Research Obj: To undertake research leading to a better understanding of the technology required and the resulting supply related to enhanced recovery methods; to assist in development of improvements in the technology; and to prepare estimates of future supply from enhanced oil recovery in Canada.	Procter, RM	ISPG	PRAS	-	-	-	2526

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept '1 Classi- fication
820033*	Stratigraphy and Sedimentology of the Mannville Group, Southern Alberta Obj: 1. Regional correlation of the Lower Cretaceous strata in southern Alberta. 2. Construction of a facies model for the Mannville Group from stratigraphic and sedimentological data. 3. Environmental reconstruction of the Mannville Group and delineation of the regional paleogeography of the period.	Banerjee, I	ISPG	RG	M	Alta, Man	82 G, J, O; 83 B, F, L; 63 C, D	2521
820035*	Upper Mesozoic and Cenozoic Palynology of Western and Northern Canada Obj: To establish the biostratigraphic succession, areal distribution, ecologic significance and taxonomy of Upper Mesozoic and Cenozoic palynomorphs of western and northern Canada, with particular emphasis on Mackenzie Delta-Beaufort Sea area.	McIntyre, DJ	ISPG	P	MP	Yk Mack Frank	95, 96, 97, 105, 106 M, 107 B, 115, 116, 117 A; 49, 59, 69, 79, 89, 98, 99, 340 560	2522
820036*	Geology of the Winokapau Lake area, Grenville Province. Obj: To map and describe the gneisses and plutonic rocks suitable for publication at 1:100,000 scale, to determine the geological evolution, and to evaluate the potential for mineralization.	(Thomas, A)	DGO	-	-	Nfld	Pts 13 D, L	250
820037	Oil Shale Resources of Canada Obj: To investigate the geology and geochemistry of kerogen-rich sedimentary rocks ("oil shales") across Canada. Studies of the geological structure, stratigraphy, sedimentology, mineralogy, catagenesis and organic geochemical properties of Canadian oil shales will establish a data base from which resource potential will be determined.	Snowdon, LR	ISPG	PG	CG	-	-	2523
820038*	Measurements of dynamic elastic moduli of frozen and unfrozen surficial materials Obj: To relate dynamic elastic constants of frozen and unfrozen surficial (unconsolidated) materials measured in situ to static measured ones (either in situ in the laboratory to relate these to standard in situ borehole geotechnical parameters (i.e. shear vane, standard penetrometer) and lithological descriptions of soils tested. Should meaningful relationships be established, to correlate these with the NRC or other permafrost classification in order to allow its easier practical applications in the fields of engineering and permafrost geology.	Kurfurst, PJ	TS	-	GPEG	Mack	107 C	2552
820039*	Drift prospecting, east-central Labrador Obj: To develop methods for determining the source of uraniferous boulders contained within or associated with glacial deposits.	Klassen, RA	TS	-	SMT	Nfld	13 J, K; 23 H	2552

2571

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Atlantic  
Offshore

CAS

RG

GG

Ready, EE

**Title**  
Aeromagnetic Survey: Gulf of  
Maine-Georges Bank and  
Adjoining Continental Margin

**Obj:** To complete the aeromagnetic coverage of the above areas as an aid to a geological study and off-shore exploration of the continental margin. The area entails approximately 80,000 line kilometres of survey flying and covers an area of approximately 165,000 square kilometres.

2543

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Atlantic  
Offshore

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EPG

AGC

Williams, GL

**Title**  
Information Data Base,  
Offshore East Coast Wells

**Obj:** To compile a base of all geographical, geological and engineering information on available offshore coast wells. To use the data base for handling queries by management on resources. To facilitate research by allowing comparison of data and directing the researcher to more sophisticated data bases.

2544

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PS

AGC

Fricker, A

**Title**  
Coastal Information System

**Obj:** To solve the problems of organizing large quantities of coastal information and to develop methods for inspection and manipulation of this information. To establish a procedure for description, in varying detail as information permits, of all sections of the coast. To develop a computer-based system for efficient output and release of coastal information in the form of new or updated maps, figures, tables.

2542

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Frank

SD

EMG

AGC

Taylor, RB

**Title**  
Coastal Environments and  
Arctic Archipelago

**Obj:** To map and analyze the coastal environments of the Arctic Archipelago. To determine the frequency and magnitude of processes affecting coastline stability across the Arctic Islands. To provide information on the physical characteristics of shore types and the processes affecting coastal stability which will serve as background information for the evaluation of man's activities in the coastal zone and in case of an environmental emergency, e.g. oil spill.

2542

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Atlantic  
Offshore

PEC

EMG

AGC

Mudie, PJ

**Title**  
Quantitative Quaternary  
Climate

**Obj:** To establish the relationship between present microfossil assemblages and the climate/oceanography of the eastern Canadian margins.  
2. To apply these quantitative data to analysis of past climatic and oceanographic conditions, e.g. Quaternary glacial-interglacial cycles.  
3. To correlate the E. Canadian paleoecological records and relate them to models of global ocean-atmosphere interaction during the Quaternary.

2544

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Prov

Sec

Subdiv

Div

AGC PS

Sherin, AG

Title  
Implementation and Maintenance  
of data management system for  
the offshore

**CURRENT INFORMATION**

**NOT AVAILABLE** Obj: To perform quality checks on geophysical data being entered into the  
GEOFFREY Data Management System. To implement modifications to improve efficiency  
and data integrity resulting from the final review of the development project (790039).  
To monitor the performance of the system, and to make appropriate changes to the  
system and procedures to ensure a reliable and accurate source of geophysical data.

2542

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SD

EMG

AGC

Forbes, DL

Sediment Dynamics and Depositional  
Processes in the Coastal Zone

**CURRENT INFORMATION**

**NOT AVAILABLE** Obj: To determine our understanding of the dynamics of sediment entrainment, transport,  
and deposition in the coastal zone; of the sedimentology of coastal deposits; and  
of long-term trends in the development of coastal sedimentary systems.

2541

-

Atlantic  
Offshore

RR

AGC

Loncarevic, BD

The tectonics of the intersection  
in the offshore

**CURRENT INFORMATION**

**NOT AVAILABLE** Obj: To determine the structure at the intersection of the Vema Fracture Zone and the  
mid-Atlantic ridge on the basis of an intensive study using reflection and refraction  
profiling, gravity and heat flow measurements and a study of microearthquake activities.

2524

-

CT

CG

ISPG

Goodarzi, F

Temperature history of Lower  
Paleozoic rocks, determined by  
optical study of dispersed  
organic materials

Obj: i) To determine optical and morphological character of dispersed organic materials  
(D.O.M.) in lower Paleozoic rocks.  
ii) To examine vertical variation of D.O.M. in boreholes and determine the paleo-  
temperature.  
iii) To classify the D.O.M. of Lower Paleozoic rocks.  
iv) To study the influence of a) time of burial (age), b) rate of subsidence (rate  
to heating), c) genera of specific D.O.M., d) petrological and sedimentological  
environment.

2524

-

GC

CG

ISPG

ex-Ollershaw

Structural Fabric of Coal  
Measure Rocks

Obj: To define the structural fabric of coal measure rocks on a mesoscopic scale where  
they are being excavated and on a megascopic scale adjacent to these excavations.  
To project will embrace both deformed and undeformed strata throughout Canada.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	2542
820050*	Near-Surface Geology of Arctic Channels <b>CURRENT INFORMATION NOT AVAILABLE</b>	Piper, DJW	AGC	EMG	-	Arctic Offshore	-	2542

Obj: To determine the sediment distribution, both by outcrops of lithostratigraphic units and by structural parameters in sufficiently many and varied areas to have a predictive capability elsewhere.

2. To establish a litho-, bio- and chronostratigraphy in the soft-sediment accumulating basins, and if possible in other parts of the surficial sediment sequence.
3. To define the principal contemporary sediment dispersal processes.
4. To define the distribution of principal lithologic types of till.

820051*	Metallogeny of marine environments, including active spreading ridges	Franklin, JM	EG	-	MDG	Pacific Offshore	91, 101, 102	2561
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Obj: 1. In collaboration with other scientists to investigate and document seafloor sulphide and other metalliferous occurrences in Canadian waters, with particular emphasis on the Juan de Fuca-Explorer-Dellwood-Tuzo Wilson ridges and adjacent seafloors.

2. To conduct research on hydrothermal systems and products in seafloor environments and to assist in the design, coordination and implementation of Canadian research programs in these areas.

820052*	Metallogenic processes in sedimentary-diagenetic environments	Dunsmore, HE	EG	-	URE	Ont Que	22 M; 23 D; 31 F	2562
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Obj: To understand how various commodities of economic interest are, or were, concentrated by sedimentary-diagenetic processes, particularly those operating in evaporitic environments. An understanding of these processes is necessary for development of metallogenic models applicable to mineral exploration and resources evaluation.

830001	Permafrost Processes in Arctic Regions	Taylor, RB	AGC	EMG	SG	-	-	2542
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**CURRENT INFORMATION NOT AVAILABLE**

Obj: To determine the thermal regime across Arctic beaches and the factors which affect ice-bonded sedimentation, i.e. climatic data or sea water characteristics.

- Other objectives are to determine: (1) the effect of ice-bonded sediment on wave run-up, swash-backwash velocities and wave washover; and (2) the formation, extent and duration of various types of ice features in Arctic beaches including anchor ice.

830002*	Seismicity Studies of the Arctic	Reid, I	AGC	RR	OBM	Atlantic Offshore, Arctic Offshore	-	2541
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**CURRENT INFORMATION NOT AVAILABLE**

Obj: To investigate the detailed microseismicity of the passive margin: the level of activity, its spatial and temporal distribution, source mechanisms. This will allow better estimates of lithospheric stress distribution and strain rates, and may tell us something about margin evolution as well as the causative mechanism, be it deglaciation or something else. Knowledge of and understanding the seismicity on the continental margin is of course particularly important in view of possible seismic hazard to offshore hydrocarbon activity.

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
830003	Development and Implementation of Cable Handling and Maintenance Program <b>CURRENT INFORMATION NOT AVAILABLE</b>	Manchester, KS	AGC	PS	-	-	-	2544
	Obj: 1. To investigate methods of cable handling and maintenance techniques known. 2. To develop a cable handling and maintenance program at AGC and implement it. 3. To acquire equipment necessary to efficiently carry out program. 4. To increase cable life by a factor of two or more, thereby saving money in the long run.							
830004	Diagenetic Profiles for Reservoir Exploitation - Frontier Basin Resources (OERD Project)	Foscolos, AE	ISPG	PG	GC	Atlantic Offshore, Arctic Offshore	-	2523
830005	Geological Modelling of Petroleum Reservoirs for Enhanced Oil Recovery (OERD Project)	New Recruit	ISPG	PG	PR	Alta	-	2523
830006*	Obj: To develop quantitative fine scale sedimentary models as a basis of enhanced oil recovery projects.  Isotopic age determinations and radiogenic trace element studies of rocks and minerals  Obj: To precisely establish the chronological order of rocks and events. To apply radiogenic isotope tracer studies to the characterization of rock units in order to further extend the criteria for mapping and to determine the origin of rocks. To aid in the search for economic deposits. To remain at the forefront of geochronological research.	van Breenen, O	P	-	G	-	-	2532
830007*	Beaufort Sea Coast <b>CURRENT INFORMATION NOT AVAILABLE</b>	Forbes, DL	AGC	EMG	SG	Yk Mack	-	2542
	Obj: To assess processes, sedimentary styles and rates of change in this distinctive coastal environment. 3. To assess the response of coastal systems in the Beaufort Sea to industrial activities such as aggregate extraction, and to provide a sound scientific foundation for regulatory practices and contingency planning in the Beaufort Sea coastal zone.							
830008	Displacement History of Major Shear Zones in Western Churchill Province  Obj: To document displacement histories of selected portions of two major shear zones in Churchill Province: MacDonald-La Loche and Grease R.-Black L. zones. To provide structural framework for on-going regional mapping in Mackenzie and Keewatin Districts and north Saskatchewan and to permit re-interpretation of existing maps.	Hammer, S	P	-	SG	Mack Sask	85 H; 75 E; 74 P	2531



Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
830009*	Structural studies in the Grenville Province of Ontario and western Quebec Obj: To examine the strain characteristics of major structural boundaries within the Grenville Province of Ontario and western Quebec, in order to determine kinematic sense and significance of possible differential movements. To relate such kinematic data to current regional synthesis.	Hammer, S	P	-	SG	Ont Que	<u>31, 41</u>	2531
830010*	Tinney Hills (76 J)-Overby Lake (76 I W½) map areas Obj: While mapping the geology of the Archean rocks at 1:250,000 scale emphasis will be placed on the petrogenesis and structure of gneissic and migmatitic rocks and on the age, location and significance of the Thelon Front tectonic zone, the boundary between the Slave and Churchill Structural Provinces.	Thompson, PH	P	-	BS	Mack	76 I, J	2531
830011	Thermal History and Basin Evolution - Canadian Frontier Regions Obj: To predict the thermal regime as a means of better defining the hydrocarbon generating potential in unexplored or partially explored basins.	Skibo, DN	ISPG	PG	PR	-	-	2523
830012*	Preliminary geological study of the Yava lead deposit, Nova Scotia Obj: To document the geology and certain geological features of the Yava lead deposit. In order to: 1) determine the relationship between these features and ore grade mineralization; 2) determine the unique features of the deposit relative to what is known of the remainder of the Salmon River Basin; 3) to assist in the exploration for additional resources both in the immediate Yava area and elsewhere in the Upper Carboniferous of Nova Scotia.	(Vaillancourt, PD)	DGO	-	-	NS	<u>11 F</u>	250
830013*	Pleistocene-Holocene Sedimentation in the St. Lawrence Valley <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: 1. Describe a Late Glacial-Postglacial paleosedimentary and paleoceanographic model along a transect through Lake Melville to the inner shelf of SE Labrador. 2. Establish postglacial relative sea level changes in Hamilton Inlet.	Vilks, G	AGC	EMG.	PEC	Nfld	21 B	2542
830014*	Metamorphic Processes in the Kisseynew Sedimentary Gneiss Belt Obj: To determine the pressure-temperature history of selected areas in the belt for comparison with modern tectonic models.	Gordon, TM	P	-	Pet	Man	<u>63 J, K, N, O; 64 B, C</u>	2532

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
830015*	Engineering geology of Canada Obj: To provide engineering geological advice and service as required to departments or agencies of the Government of Canada. To interpret the engineering geological significance and performance of various geological regions of Canada with respect to slope failures or other natural hazards. To assemble selected case histories of natural hazards and/or engineering projects to illustrate the engineering geology of Canada.	Evans, SG	TS	-	GPEG	-	-	2552
830016*	Landslide hazard in the Canadian Cordillera Obj: A. To document the occurrence of landslides in selected geological environments of the Cordillera. B. To develop landslide mechanism models for slope hazard assessment in selected geological environments.	Evans, SG	TS	-	GPEG	BC Alta Yk Mack	82, 83, 92, 93, 94, 95, 96, 102, 103, 104, 105, 106, 114, 115, 116, 117	2552
830017*	Surficial geology, north-central District of Mackenzie Obj: To map, describe and explain the unconsolidated deposits, landforms, permafrost, ground ice and organic cover, and undertake geomorphic process studies of the NE $\frac{1}{4}$ and part of NW $\frac{1}{4}$ of 86 N in order to provide area knowledge of geology and terrain that will (a) elucidate the Quaternary history of the region; (b) aid in the implementation of the Territorial Land Use Regulations, (c) be pertinent to engineering construction, hydrocarbon transportation and related activities; and (d) provide data relative to terrain sensitivity rating.	St-Onge, DA	TS	-	RP	Mack	86 G, J, N, O	2551
830018*	Quaternary geology, southwestern Victoria Island Obj: To complete a systematic study of the Quaternary geology (Wollaston Peninsula) to determine the character, composition, age, origin and history of the Quaternary sediments and their respective landforms. To develop a more detailed understanding of sediment-landforms for evaluation and/or mapping of adjacent areas of Victoria Island (eastwards). To compare landform-sediment mapping techniques with reconnaissance and landsat mapping methods. To demonstrate application of these studies to land-use planning, engineering route selection, mineral exploration and environmental analysis.	Sharpe, DR	TS	-	RP	Frank	77 B, C, D, E, F; 67 C, F; 87 A, B, C, D, E, F	2551
830019*	Quaternary stratigraphy of the Beaufort Coast, Yukon and District of Mackenzie Obj: To confirm the lithostratigraphy of the extensive suite of Quaternary sediments exposed along the Beaufort Sea Coast. To collect further samples for sedimentological and paleoecological studies in order to understand depositional environments. To collect samples for geochronological studies in order to ascertain the age of the sediments. This will help elucidating the Quaternary history of the area, enable regional correlations to be made and provide essential information for the EG-1 compilation.	Vincent, JS	TS	-	RP	Mack Yk	97 C, F; 107 B, C, D, E; 117 A, C, D	2551

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
830020*	Penticton map area 82 E Obj: To study and map the geology of Penticton map-area and to produce a comprehensive report of the results, with progress reports and oral summaries as appropriate.	Tempelman-Kluit, DJ	C	-	-	BC	82 E	2511
830021	The Cordillera Orogen: Canadian Sector Obj: To produce a volume on the geology of the Canadian Cordillera dealing with its physiography, stratigraphy, structure, evolution, geophysical signature, mineral deposits and geology related energy resources. The volume will be one of 10 volumes on the geology of Canada as part of the Decade of North American Geology (DNAG) project sponsored by the Geological Society of America. It will also serve as part of Geology and Economic Minerals of Canada, 6th edition.	Gabrielse, H	C	BG	-	-	-	2511
830022*	Periglacial processes, Canadian arctic Obj: 1. To evaluate the distribution and relative importance of periglacial processes. 2. To assess, on the basis of long-term observation and measurement the characteristics, rates and effects on the terrain of periglacial processes. 3. To provide a national basis for evaluating natural and man-made hazards in the arctic environments.	Eggington, PA	TS	-	GPEG	Yk Frank	-	2552
830023	Quaternary history and surficial materials of northwestern Baffin Island Obj: To map, describe, and explain the Quaternary deposits and landforms in order to understand the Quaternary evolution of the area and to provide information relevant to land-use planning and mineral exploration.	Dyke, AS	TS	-	RP	Frank	47 F,G; 48 B,C; 57 E,H; 58 A,D	2551
830024*	Quaternary geology, southwestern Saskatchewan Obj: To establish the Quaternary lithostratigraphy and to describe and map the surface deposits in order to: establish criteria for recognizing units of different ages occurring at the surface; determine the probable location and extent of potential aquifers; and outline the distribution of materials derived from different sources and deposited at different times. The data obtained are critical to understanding the distribution and nature of soil parent material, to resolving long-standing controversies about the extent of glaciation at different times and to further defining the Quaternary framework as an aid to future studies and mapping in southern Saskatchewan.	Klassen, RW	TS	-	RP	Sask	72 F, G	2551
830025*	Quaternary stratigraphy, northern Ontario Lowlands Obj: 1. To provide a basis for interpretation of the Quaternary history of the northern Ontario lowlands and adjacent regions. 2. To provide a means for assessment of the geology and economic potential of bedrock beneath an extensive drift-covered area.	Shilts, WM	TS	-	SMT	Ont	53 G,I,J,P	2552

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
830026*	Geophysical Interpretation of the Abitibi Belt Obj: 1. To deduce the general (deep) crustal structure of the Abitibi Belt using geophysical and geological data. 2. To interpret these data in terms of intra-belt structures with particular attention to the continuation and extent of known zones or contacts favourable to metal concentration.	Schwarz, EJ	RGG	RG	MM	Ont Que	32, 42	2571
830027*	Petrographic Analyses of coals in the Saunders Group, Outer Foothills Belt, Alberta Obj: 1. Determine petrographic character of these coals and establish vertical and lateral changes in petrography. 2. Determination of rank. 3. Investigate possible correlation between petrography and rank changes with sedimentological studies of Jerzykiewicz.	Cameron, AR	ISPG	CG	CT	Alta	82 O; 83 C	2524
830028*	Properties and distribution of permafrost and ground ice Obj: To provide information on the distribution, classification and properties of frozen soil and ground ice and their dynamic performance when disturbed.	Heginbottom, JA	TS	-	GPEG	Mack Frank YK BC Alta	107 C; 96; 95; 85; 84; 94 J,K	2552
830029	1:1 000 000 Map - western area of south Baffin Island Obj: To compile a 1:1 000 000 scale map of NTS 36 - to form part of the 1:1 000 000 series of maps.	Taylor, FC	P	-	-	Frank	36	2531
830030*	Pilot Study: Geochemistry of soils and tills of the Forest Hills gold district Obj: To systematically study the distribution and dispersion processes within the geochemical primary and secondary environments in the Forest Hills gold district, Nova Scotia.	(Stea, RR)	DGO	-	-	NS	11 F	250
830031*	Geology of southeastern part of Antigonish Highlands area, Nova Scotia Obj: To extend new knowledge of the geology of Antigonish Highlands Block to the south-eastern part and to assess mineral potential.	(Murphy, JB)	DGO	-	-	NS	pts 11 E	250
830032*	Cobequid U-Sn-W-Mo Project Obj: To gain an understanding of the petrometamorphic and geochemical evolution of acid volcanic and contiguous granitoid rocks in a selected area of the Cobequid Highlands where these rocks host U-Sn-Mo-W mineralization.	(Chatterjee, AK)	DGO	-	-	NS	Pts 11 E	250

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
830033*	Geological reconnaissance of the Grenville inlier of the northern Long Range, Newfoundland Obj: To map and describe the metamorphic and plutonic rocks in selected transects across the area, to determine the geological evolution, to evaluate the potential for mineralization and to make recommendations for the initiation of detailed systematic mapping.	(Erdmer, P)	DGO	-	-	Nfld	Pts <u>12 H,I</u>	250
830034*	Geology of the Double Mer-Nipishish Lake area, eastern Grenville Province, Labrador Obj: To map and describe the gneisses and plutonic rocks suitable for publication at 1:100 000 scale, to determine the geological evolution, and to evaluate the potential for mineralization.	(Gower, CF)	DGO	-	-	Nfld	Pts <u>13 J,K</u>	250
830035*	Metallogeny of central Newfoundland island arc volcanogenic sulphide deposits Obj: To map and describe the stratigraphic and structural setting of volcanogenic sulphide mineralization in the Wild Bight Group, to determine the major and trace element and isotope geochemical characteristics of volcanic and subvolcanic rocks associated with this mineralization, to compare these features with coeval sequences in south-central and southern Newfoundland and develop metallogenic models for the mineralization.	(Swinden, HS)	DGO	-	-	Nfld	Pts <u>2 E; 12 A; 11 O,P</u>	250
830036*	Granite-hosted tin and molybdenum deposits of the Ackley Batholith, Newfoundland Obj: To conduct metallogenic studies of granite-hosted tin and molybdenum deposits of the Ackley Batholith, southeastern Newfoundland.	(Tuach, J)	DGO	-	-	Nfld	Pts <u>1 M</u>	250
830037*	Geology and lithogeochemistry of the Skidder Prospect and surrounding area, central Newfoundland Obj: (1) To describe the petrology and lithogeochemistry of host rock units containing the Skidder Prospect, (2) to determine the petrology and paragenesis of the "ore" minerals comprising the deposit, (3) to assess the environment and controls of deposition of the deposit as related to major ore deposits of the Buchans area.	(Pickett, JW)	DGO	-	-	Nfld	pts <u>12 A</u>	250
830038	Geomathematical applications in the integration of geoscience map data Obj: To integrate diverse types of map information: geological maps (incl. structure and stratigraphy), geophysical maps (aeromag., gravity, radiometric surveys), geochemical surveys (stream and lake surveys), satellite imagery (Landsat MSS digital data), mineral occurrences (from CANINDEX and elsewhere). To develop and refine methods for quantitatively comparing and integrating map data from diverse sources.	Bonham-Carter, GF	EG	-	GM	-	-	2562

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
830039	Marine Reflection Seismology of the Western Canadian Continental Margin Obj: To replace our analogue seismic reflection system with digital system for real time processing and reprocessing of acquired data. To improve resolution of the system for easier and more accurate geological interpretation. To measure acoustic reflection co-efficients resulting in sediment classification.	Frydecky, II	C	-	MG	BC	-	2512
830040	Portable Receiver for Trisponder Navigational System Obj: To develop portable receiver for accurate positioning aboard small boats and on foot for detailed surveying of tidal flats, beaches and restricted offshore areas within a hyperbolic navigational chain formed by the existing GSC Trisponder navigational system.	Frydecky, II	C	-	MG	-	-	2512
830041*	Research and Development in the Analytical Methodology of Geological Materials Obj: To provide for the analytical chemistry research and development requirements consistent with the aims of the GSC.	Gregoire, DC	RGG	RGC	-	-	-	2572
830042*	Carboniferous and Permian biostratigraphy and conodont faunas, western and northern Canada Obj: To establish the biostratigraphic succession, areal distribution, paleoecological significance, and taxonomy of upper Paleozoic conodonts, scolecodonts, and other selected microfossils of western and northern Canada, with particular emphasis on the Western Canada Sedimentary Basin and the Sverdrup Basin; to utilize microfossils as indicators of hydrocarbon maturation levels in host rocks.	Higgins, AC	ISPG	P	MIP	Alta	<u>82 G, H, J, O</u>	2522
830043	Resource Evaluation and Geology of Coal Deposits of Western and Northern Canada Obj: To conduct resource evaluation programs required for the National Coal Inventory and to recommend the office and/or field studies to be undertaken to meet the requirements of the inventory program. To acquire industry and provincial government data on Canada's coal deposits. To study the geological framework within which these coals occur. To provide authoritative advice to senior Departmental officials and to scientists in government and industry on the resource potential of Canada's coal deposits. To maintain an up-to-date knowledge of coal fields in Canada.	Smith, GG	ISPG	CG	RE	Alta	72 M	2524
830044	<b>CURRENT INFORMATION</b> Obj: <b>NOT AVAILABLE</b> to microfaunal/stratigraphical taxonomy, ecology and stratigraphy.	Gradstein, FM	AGC	EPG	-	-	-	2543

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept'l Classification
830045	Quaternary Biostratigraphic Methods for Marine Sediments <b>CURRENT INFORMATION NOT AVAILABLE</b> Obj: Determine mineral biostratigraphy to establish relative ages of Quaternary marine sediments, particularly off eastern and Arctic Canada. 2. Integrate biostratigraphy with independent dating through C <sup>14</sup> , O <sup>18</sup> and amino acid analyses and paleomagnetic profiles of sediments. 3. Provide paleontologic sediment dating services to other Quaternary projects whenever appropriate.	Vilks, G	AGC	EMG	PEC	-	Arctic Offshore Atlantic Offshore	2542
830046	Upper Cretaceous - Tertiary geology of Tuktoyaktuk Peninsula and adjacent areas Obj: To develop a stratigraphic model including interpretation of the depositional and tectonic setting of the Upper Cretaceous-Tertiary rocks of the Tuktoyaktuk Peninsula.	Price, LL	ISPG	RG	M	Mack	107 B	2521
830047*	Aeromagnetic Gradiometer/VLF EM Contracted Survey - Manitoba Obj: To carry out aeromagnetic gradiometer/VLF EM surveys as an aid to detailed geological mapping and mineral exploration especially in drift-covered areas.	Ready, EE	GGG	RG	CAS	Man	Pts 64 C	2571
830048*	Aeromagnetic Gradiometer/VLF EM Contracted Survey - Nova Scotia Obj: To carry out aeromagnetic gradiometer/VLF EM surveys as an aid to detailed geological mapping and mineral exploration especially in drift-covered areas and in support of the Canada-Nova Scotia Co-operative Mineral Program.	Ready, EE	GGG	RG	CAS	NS	Pts 21 A	2571
830049	Microbial Enhanced Oil Recovery in S.W. Ontario Obj: To demonstrate the application of Microbiological Enhanced Oil Recovery (MEOR) Techniques for improved production of oil from depleted and/or nearly depleted oil wells in carbonate reservoirs in S.W. Ontario.	Raicar, M	ISPG	PRAS	-	Ont	-	2526
830050*	Geochemical exploration technology in ultrabasic complexes Obj: 1. To determine the favourability of ultrabasic complexes of various types throughout Canada to host Cu-Ni sulphides, platinum-group elements, chromite, and gold and silver deposits. 2. To develop and refine geochemical exploration methods for these metals in different environments. 3. To improve on the existing data base of platinum-group elements and other metals in various types of basic and ultrabasic rocks.	Maurice, YT	GGG	RGC	RS	Ont	21 L; 52 H	2572
830051	Geological Atlas of Canada Obj: To plan and organize the preparation of the Geological Atlas of Canada, comprising a factual synthesis of the bedrock geology of Canada displayed in a series of 1:1 million scale maps accompanied by correlation charts, cross sections, interpretive maps or diagrams, etc., as appropriate.	Okulitch, AV	D60	-	SP	-	-	250

Project Number	Title	Project Leader	Div	Subdiv	Sec	Prov	NTS	Dept '11 Classification
830052*	Norman Wells pipeline — performance monitoring	Harry, DG	TS	-	GPEG	Mack Alta	Pts of 84, 85, 95, 96	2552

Obj: To examine the actual impact of the construction and initial operation of the proposed Norman Wells Pipeline upon the geological environment of the upper Mackenzie Valley; to assess the accuracy of predictions of impacts made during the assessment review phase for the pipeline; and to assess the quality of the surficial geology and terrain sensitivity maps of the upper Mackenzie Valley.

830053	Data Inventory	Sherin, A	AGC	PS	DM	-	-	2544
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**CURRENT INFORMATION NOT AVAILABLE**  
 3. To compile information on the status of surveys on coastal and offshore Canada and to prepare a report on an annual basis.



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Delabio, R.N.	770054	Heginbottom, J.A.	700015; 760024; 780009
(Dickson, W.L.)	820026*	Henderson, J.B.	760026; 790024; 820013*
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Dilabio, R.N.W.	680017; 780016*	Herd, R.K.	830042*
Dixon, J.	790031*	Higgins, A.C.	820009*
Dodds, C.J.	820016 <sup>-</sup>	Hildebrand, R.S.	720081*; 760010*
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Duke, J.M.	800025*		750051*
Dunsmore, H.E.	760014*; 820052*	Holman, P.B.	710061*
Dyck, A.V.	740091*	Hornbrook, E.H.W.	810014*
Dyck, W.	780015	Howie, R.D.	650013; 680031; 710020; 790005*
Dyke, A.S.	750071; 810004*; 810044; 830023	Hughes, J.D.	730006*; 800018*
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		Hunter, J.A.	

Jackson, G.D.	670002; 690061; 770013 <sup>-</sup> ; 770028	Okulitch, A.V.	700003; 790042*; 830051
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Jackson, L.E.	740095; 770060; 780045; 800001*	Olson, D.G.	680081*
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Jerzykiewicz, T.	810039*	Overton, A.	820022*; 820023*
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		Pelletier, B.R.	720101; 720102; 780026
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Katsube, T.J.	810043*	Picklyk, D.D.	680114
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Kirkham, R.V.	700059*	Poulton, T.P.	760053; 760054;
Klassen, R.A.	750074; 780018; 820039*	Powell, T.G.	830046
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Knappers, W.A.	810002	Price, R.A.	720066; 820032
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Lee, P.J.	750023	Richard, S.H.	680027; 740068*
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Loncarevic, B.D.	800039 <sup>-</sup> ; 810031*; 820047	(Rogers, P.J.)	820025*
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McGlynn, J.C.	680012 <sup>-</sup>	Sinclair, W.D.	770071*
McGrath, P.H.	680073	Sinha, A.K.	810003*
McGregor, D.C.	750036*	Skibo, D.N.	830011
McIntyre, D.J.	820035*	Slaney, V.R.	810009
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Mott, R.J.	690064	Stott, D.F.	780039; 810013
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Nassichuk, W.W.	680064*	Taylor, G.C.	810012; 820031
Nixon, F.M.	730019	Taylor, R.B.	750043*; 800015*; 820043
Norford, B.S.	610019*	Tella, S.	760025; 790009; 820007*
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(Nunn, G.A.G.)	820029*	Thompson, P.H.	830010*
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720089	670576*		810024*	790016	680064*
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790041*	810011*	750098*	780033	790034*	500029
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570029*	730001*		<u>Quebec</u>	720071*	780016*
610019*	740017	400006*		720072	780025
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650027*	740091*	680023*	640048*	740084	790025*
670576*	750010*	680060*	680060*	740085*	800023
680027	750051*	680081*	680101*	740106*	810002
680093*	750069*	690095*	680102	740110	810036*
700003	750098*	700018	690064	750010*	820010
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700037	760047	720072	700011	750095	820021*
710022*	770053	720078	720071*	750096*	820022*
710091*	770055*	720080*	720072	760014*	820026*
720098	780003	720084*	740017	760027*	820028*
730001*	780015	730001*	740054	760045*	820029*
740081*	780047	740016	740068*	770024*	820036*
740085*	790013	740017	740081*	770045	820039*
740095	790045	740054	740084	770071*	830013*
750018	800007*	740068*	740085*	770077*	830033*
750027	800018*	740081*	740091*	780015	830034*
750069*	810003*	740084	740107*	780022	830035*
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570029*	750051*	700008 <sup>-</sup>	750046	820041	820050*
680102	750061*	700011 <sup>-</sup>	760054	820044	830002
680109	760008	710061*	780031	820047*	830004
690064	760014*	740110	780042	830002	830045
700008 <sup>-</sup>	770071*	780026	790018*	830004	
700011 <sup>-</sup>	770077*		790019*	830045	<u>Pacific</u>
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710061*	780024*	<u>Offshore</u>	800035	<u>Arctic</u>	
720071*	780026		800036*	<u>Offshore</u>	500029
720072	780047	710065	810031*		750108*
730001*	790033*	720103	810032	700092*	800010*
730043	800023	720104	810033	760015*	800039 <sup>-</sup>
730044*	800027*	730072*	810034	780019	810041*
740084	800038	730081*	810037*	780048	820051*