433053

COBEQUID PROJECT

Dup. avail

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

PART 1 OF 5

433053 07-D 64 01

Gulf

Gulf Minerals Canada Limited

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EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
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PART 1 OF 5

433053 07-D 64 01

A REPORT ON

GEOCHEMISTRY
GEOLOGICAL MAPPING
PROSPECTING
DEEP OVERBURDEN DRILLING
DIAMOND DRILLING

433053 07-D 64 01

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Gulf Minerals Canada Limited

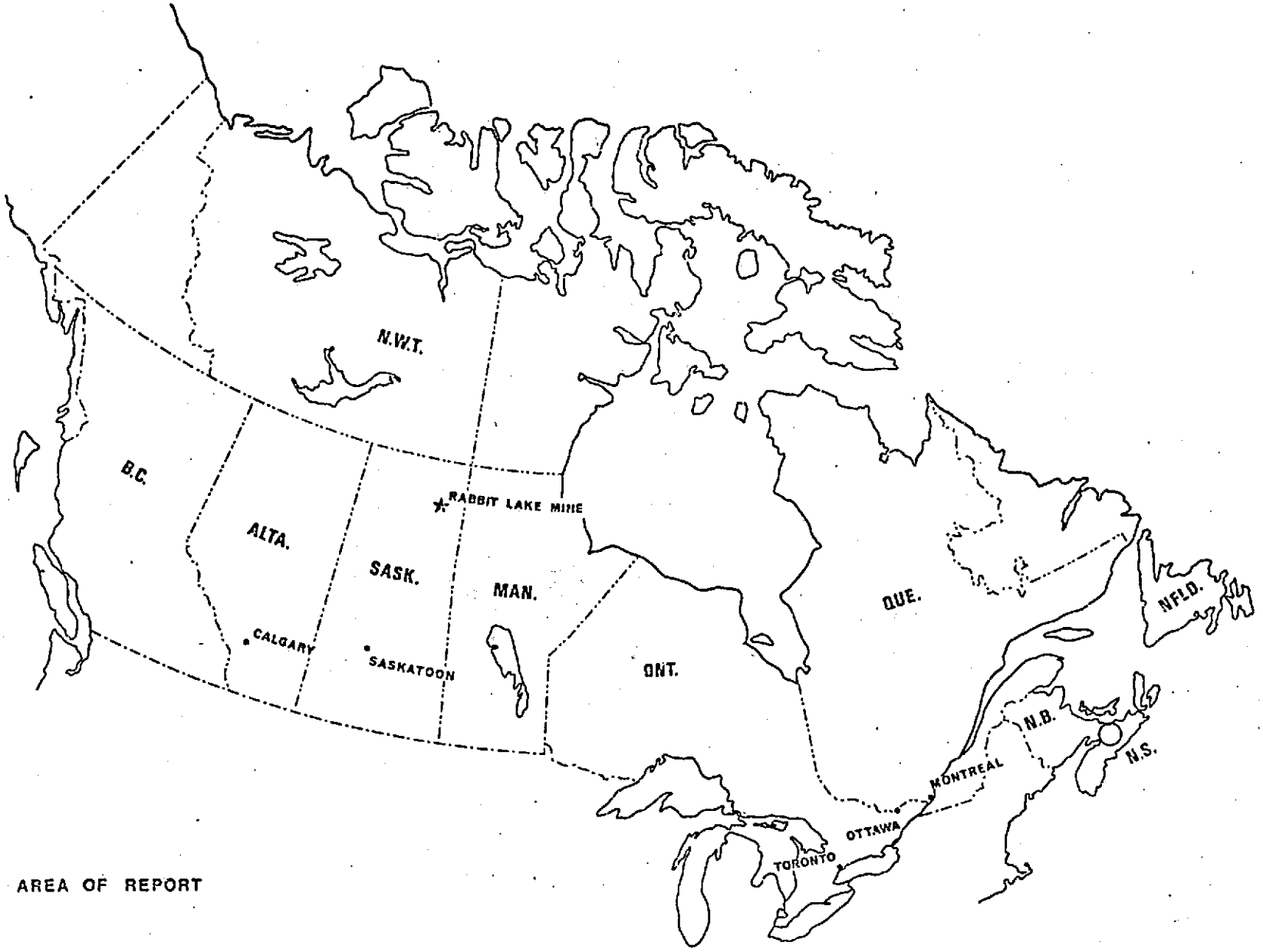
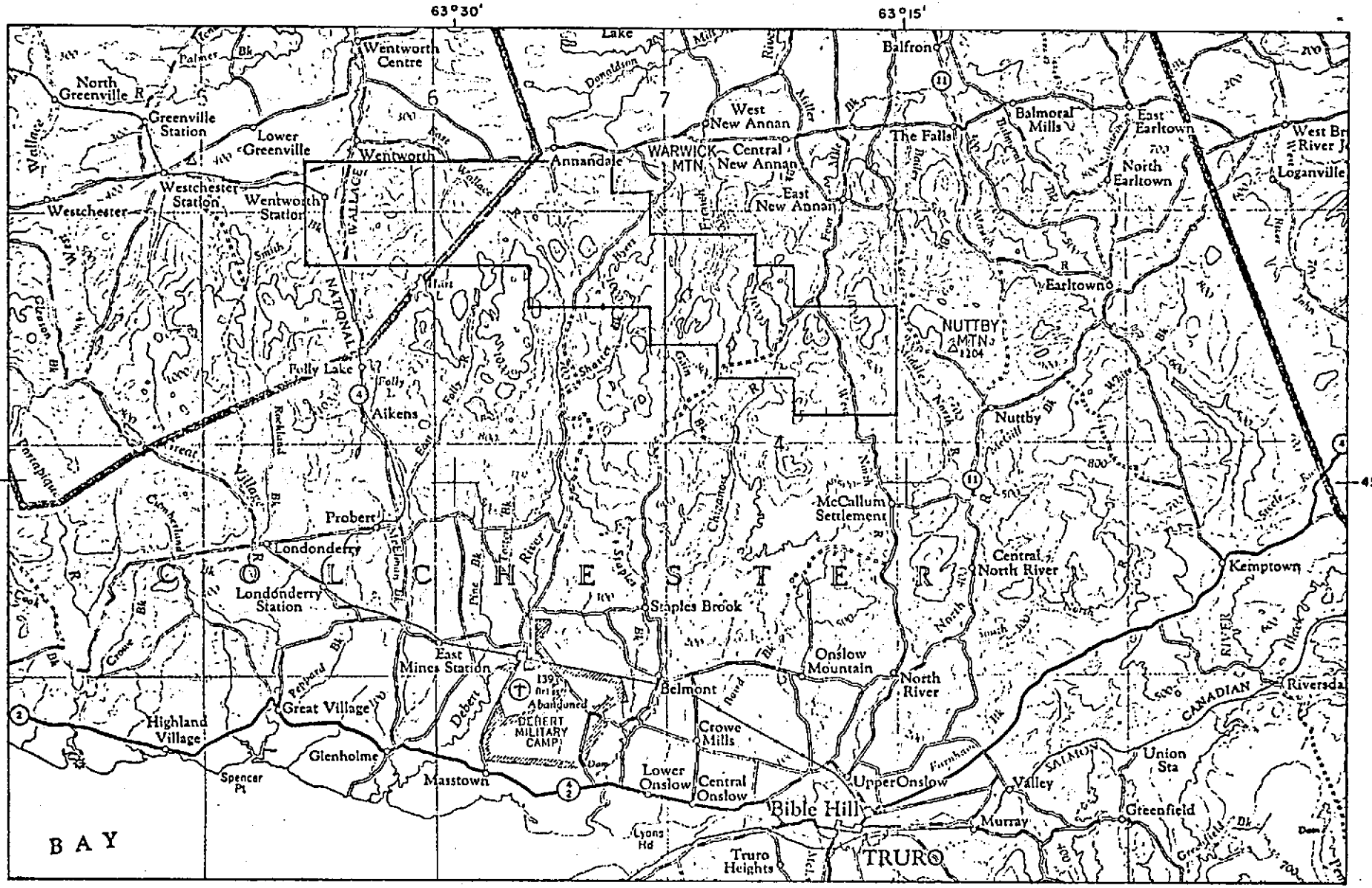


FIGURE 1



COBEQUID BASE METAL CLAIM BLOCK NO. 1

Figure - 2

COBEQUID BLOCK IBM
EXPLORATION PROGRAMME: 1977-1978

I INTRODUCTION

A) SUMMARY

On October 19, 1977, Gulf Minerals acquired an 816 claim block centered on the Juniper-Debert Lakes area of Cumberland and Colchester Counties in Nova Scotia. This block of land has been referred to as Cobequid base metal permit area I or IBM. Table I lists the claim blocks and exploration licenses held by Gulf.

The discovery of copper, zinc and silver carrying boulders in the area by prospectors during the fall of 1977, created a strong interest in the area.

A previously flown helicopter-borne magnetic and electromagnetic survey indicated the presence of several conductive zones and many zones of steep magnetic gradient. This survey was followed by additional prosoecting, geological mapping, geochemistry and ground geophysics. A diamond drilling programme was initiated in October, 1977.

TABLE I

BASE METAL PERMIT AREA IBM

LAND RETAINED FOR 1979

MAP	LICENCE NO.	TRACT	CLAIMS
11E 12A	2237	100	A-Q
11E 12A	2236	75, 76, 93, 94, 99	A-Q
11E 12A	2235	73, 74, 95, 96, 98	A-Q
11E 12A	2234	97	A-Q
11E 11B	2234	105, 106, 107, 108	A-Q
11E 11B	2233	85, 86, 87, 88, 89	A-Q
11E 11B	2231	63, 64, 82, 83, 84	A-Q
11E 11B	2232	77, 78, 79, 80, 81	A-Q
11E 11B	2230	65, 66, 67, 68, 69	A-Q
11E 11B	2229	51, 52, 53, 54, 55	A-Q
11E 11B	2228	44, 45, 46, 47, 50	A-Q
11E 11B	2227	25, 26, 27, 48, 49	A-Q

B) PERSONNEL

For the 1978 field season Gulf personnel employed on the property were:

M. Adshade	Bull Cook
S. Barnhill	Junior
S. Barron	Junior
V. Bergeron	Junior
J. Bigauskas	Junior
G. Black	Prospector
A. Brown	Prospector
L. Cameron	Cook
J. Chadillon	Cook
M. Chaisson	Junior
M. Cullen	Senior Geologist
R. Cote	Geologist
G. Davison	Junior
J. DeBriske	Prospector
M. DeBriske	Geophysist
N. Downey	Project Geologist
W. France	Prospector
M. Fraser	Junior
B. Geddes	Pliestocene Geologist
B. Germundson	Junior
P. Gertzbien	Junior
D. Gower	Junior
J. Halonen	Prospector
J. Harper	Senior Geologist
H. Kenty	Prospector
K. Horan	Logging Technician
J. Kunz	Junior
B. Kotila	Geologist
J. MacIntosh	Geologist
K. MacNeil	Geologist
J. McNeil	Prospector
N. Matheson	Junior

C. Ricks	Junior
R. Rintami	Prospector
R. Sanders	Geologist
A. Seifried	Junior
A. Seguin	Prospector
R. Smith	Prospector
J. Stirling	Mineralogist
M. Strazdins	Geologist
G. Tupper	Prospector
M. Weber	Logging Supervisor
A. Workman	Drill Geologist

Contractors employed on the property were:

Atlantic Groundwater and Geophysics Ltd., - Fredericton, N.B.
St. Lambert Drilling Co. Ltd., - Valleyfield, P.Q.
C. Weatherbee, backhoe operator - Wentworth, N.S.

All work was under the supervision of Mr. C. R. Burkhart and Mr. G. I. Pearson of Gulf's Toronto office.

IV GEOLOGY

A) INTRODUCTION

Geological mapping was conducted by two-man crews consisting of a geologist and a junior assistant or a prospector. All personnel were equipped with a Scintrex BGS-1SL scintillometer for measuring radioactivity. Mapping was mainly confined to stream valleys, road cuts and the Swan Brook grid. Air photos at a scale of 4 inches to one mile and 6 inches to one mile were used for control. Results were plotted on 1/4 mile to the inch Dept. of Lands and Forests base maps. Results from the Swan Brook grid were plotted on one inch to 400 foot base maps.

All outcrop shown on the geological compilation maps were examined in the field by Gulf personnel. Geological survey of Canada maps by Fletcher and work by Wallace and Donohoe reported in Nova Scotia Department of Mines publication 77-1 were used as reference for field work and interpretation.

B) GENERAL GEOLOGY

The Cobequid Mountains form a resistant upland ridge feature trending east-west across north central Nova Scotia for over 200 km. Gulf Minerals Canada Limited's Cobequid VIII property occupies the central region of this upland and extends from near Folly Lake in the east to the Parrsboro area in the west.

The mountains are formed by variably deformed volcanic and sedimentary sequences which have been affected by numerous stages of granitic and dioritic intrusion. The oldest intrusive body in the area is the Jeffers Brook Pluton near Parrsboro which has been dated as late Precambrian to early Cambrian in age (Wanless et al, 1972). The youngest intrusives are diabasic dykes probably associated with basaltic volcanic activity in the Triassic.

At present, exploration efforts are being concentrated upon the Siluro-Devonian volcanic-sedimentary rocks of the Earltown Sequence.

Structural and lithologic discontinuities within the highland prevent widespread correlation of stratigraphic or lithologic units and locally result in complex and/or ambiguous relationships between sequences.

Interpretation of data presently available indicates that poly-deformed sedimentary and volcanic sequences such as the Bass River Complex may represent the basement material of the highland that predates the known late Precambrian near Parrsboro. Since all occurrences of this material are fault bounded, the true stratigraphic relationship of the Silurian and older rocks to it is unknown.

Multiple intrusions of granitic and dioritic bodies into the sedimentary and volcanic sequences probably coincided with the waning stages of the Late-Mid Devonian Acadian Orogeny and these now form a core system to the highland. A distinction among these intrusives is the presence or absence of a tectonic fabric which thusly defines relative age relationships. Recent age dating indicates that some degree of granitic intrusive activity continued into lower Mississippian times (See Wallace & Donohoe, 1977, pp. 174).

Late Devonian basaltic volcanics outcrop in the eastern highlands and are associated with conglomeratic terrestrial red beds. Subsequent sedimentation was confined generally to the basins skirting the upland on the north and south with the Cobequids supplying clastic material in response to continued erosion.

TABLE II

LEGEND - COBEQUID PROJECT

(after Wallace & Donohoe, 1977)

MESOZOIC	XVIII	Triassic
PALAEOZOIC	XVII	Permian
		Pennsylvanian
	XVI	Pictou Group
	XV	Cumberland Group
		Riversdale Group
	XIV	Boss Point Formation - alternating sequences of red to green sandstone, grey to red conglomerate, silstone and mudstone, in part calcareous (undivided)
	XIII	Clairmont Formation
		Mississippian
	XII	Middleborough Formation
	XI	Windsor Group
	X	Nuttby Sequences - grey to red siltstone to argillite, reddish-grey lithic wackes and green conglomerates
		Devonian
	IX	River John Group (Upper) - purple to red conglomerates
	VIII	River John Group (Lower) - black to green basalt, grey, red, to black siltstones, argillites and mudstones; red, grey and green wackes and green conglomerates
	VII	Non-foliated Plutonic Rock
		a) granite b) diorite
	VI	Foliated Plutonic Rock
		a) granite
		Silurian to Devonian
	V	Portapique Parrsboro Succession
	IV	Earltown Sequence
		a) dark grey to black siltstone to argillite b) red, pink, green to grey rhyolite and rhyolite porphyry, agglomerate, rhyolite and dacite tuffs c) grey-green dacites, pink to grey rhyolites, green quartz wackes, shale and mudstone with interbedded dacitic to rhyolite tuffs and argillite
PALAEOZOIC OR OLDER		Silurian or Older
	III	Gran. Gneiss - of Bass River Complex
	II	Bass River Complex - green metavolcanics, grey to white quartzite, dark green to black argillites, quartz-feldspar biotite gneiss and pink granite
	I	Mt. Thom Complex
		Cambrian or Older
		Jeffers Brook Pluton

UNIT: II BASS RIVER COMPLEX

Unit II consists of a metavolcanic-metasedimentary sequence which has been intensely deformed by at least two deformational events. Dating of the unit is somewhat vague and has resulted in its designation as Silurian or older in age. Generally, the unit is composed of dark green, very fine grained metavolcanics, dark grey to white, fine grained quartzite, dark green to black, well foliated argillitic metasediment (phyllitic to schistose), well foliated quartz-feldspar-biotite gneiss and fine to coarse grained, pink deformed granite. Minor acidic volcanics are also present.

UNIT: IV EARLTOWN SEQUENCE

The Earltown Sequence, Unit IV, of Silurian age is made up of three mapable sub-units, briefly described as follows:

a) Located near Wentworth Station is the oldest unit (Unit IVa) in this sequence dated at Middle to Upper Llandoverian age (Wallace and Donohoe, 1977). This unit consists of dark grey to black fine grained, well laminated, fossiliferous siltstone to argillite with minor amounts of green conglomerate and greywacke.

b) Overlying Unit IVa are mainly red, pink, green to grey, aphanitic rhyolite, rhyolite agglomerate and rhyolite porphyry. Banding is evident in places with abundant hematite staining and epidote occurring along fracture surfaces. Minor amounts of rhyolitic to dacitic tuffs, spherulitic rhyolite, argillite and basalt are also present.

c) This unit is made up of grey-green dacites, pink to grey flow-banded rhyolites with minor concentrations of massive sulphides (pyrite, chalcopyrite), green quartz wacke and fine grained laminated shale and mudstone with interbedded dacitic to rhyolitic tuffs. In the northern section, well foliated argillitic metasediments (phyllite) predominate. These metasediments have been labelled as Unit IV 10.

They are believed to be older than the Silurian volcanics. The volcanic sequence to the south has been termed Unit IV 8. Lack of outcrop prevents any determination of the nature of the contact between the two units. However, topography would suggest fault blocks.

UNIT: VI FOLIATED GRANITE

Map Unit VI is composed of fine to coarse grained white to pink foliated hornblende granite. Along Shatter Brook, quartz and orthoclase crystals are stretched and aligned along a strong foliation (Cataclasis?).

UNIT: VII NON-FOLIATED PLUTONIC ROCKS

This unit is composed of diorites and granitic rocks. Small dioritic intrusions are common throughout the Silurian Earltown Sequence. Large bodies occur in the area of Folly Lake and Sugarloaf Mountain.

Intrusive into the diorites are non-foliated hornblende granites of Lower Middle Devonian age (Donohoe and Wallace, 1977) which are, for the most part, fine to coarse grained and pink in colour. Numerous dark red aphanitic rhyolitic phases of the granite are exhibited.

Fine grained, black diabase dykes, some exhibiting good texture and glossy margins, are very common within the highland proper. More than one generation of diabase must be present as some are deformed while others are relatively fresh. The fresh undeformed diabase dykes may be of Triassic age.

UNIT: VIII RIVER JOHN GROUP - LOWER UNIT

Map Unit VIII is the lower unit of the Devonian River John Group. It consists of fine grained to aphanitic, black to dark green vesicular to amygdaloidal basalt with calcite and zeolite infillings. Calcite, epidote stringers and traces of disseminated sulphides are evident. The unit appears to be younging north with individual flows distinguishable in some localities by the presence of red, brecciated (fragmental?) basalt occurring at the flow interfaces. Interbedded with the basalts are dark grey, red to black, fine grained siltstones, argillites and mudstones; red, green and grey wackes with abundant volcanic fragments and well bedded, grey conglomerates.

UNIT: IX RIVER JOHN GROUP - UPPER UNIT

Map Unit IX is the upper unit of the River John Group and consists of purple to red conglomerates carrying fragments of basic volcanics, grey quartzite and rhyolite. The fragments are 0.5 mm. - 150 mm. in size, poorly sorted and well bedded with numerous carbonate stringers.

UNIT: X NUTTBY SEQUENCE

The Nuttby Sequence, Map Unit X of Late Devonian to Early Mississippian age is composed of grey to red, foliated siltstone to argillite, reddish grey lithic wackes and green to red conglomerates. The conglomerates are typified by subrounded to subangular fragments of rhyolite, granite, phyllite and tuff in a fine to medium grained silty matrix.

UNIT: XIV BOSS POINT FORMATION

Map Unit XIV is the Pennsylvanian Boss Point Formation, consisting of alternating sequences of red, white to green sandstones, grey to red conglomerate, red siltstone and red to grey mudstone, in part calcareous. The sandstones encountered varied from red, greenish-red to white, commonly feldspathic to arkosic with interbedded lenses of grey calcerous conglomerate. Numerous green reduction zones, variable organics, fine laminations and trough cross-bedding, and limonitic-specks are also prevelant. Locally, organic trach and plant remains accumulate in the depressions in cross-beds, often with black carbonaceous material (coal). Minor copper (malachite) and radioactivity may also be present.

D) STRUCTURE

The southern extreme of Cobequid IV is underlain by highly deformed metasedimentary and volcanic rocks of the Bass River Complex. Wallace and Donohoe (1977) have tentatively dated these as Silurian or Preo-Silurian in age, making them the oldest encountered on the property. Compositional banding trends generally E-W with minor folds being recorded in a number of localities. Regional fold geometry was not discerned from the exposures mapped on Cobequid IV.

Foliated granite is known to intrude the Bass River Complex and is exposed on both the Chiganois River and West North River, as well as on Farm Lake Road.

Wallace and Donohoe (1977) cite a late Mid-Devonian date for the deformation of these rocks with a possible correlation of the second folding phase to fold geometrics seen in the Pennsylvanian Londonderry Sequence of the southern Cobequids.

Silurian volcanics and interbedded sediments of the Earltown Sequence have been mapped in the eastern property area and also occur along the western boundary. The western exposures are predominantly rhyolitic in nature with some andesite whereas the eastern zone has a higher percentage of sedimentary and tuffaceous volcanic units. Some folding has been mapped in the tuffs and sediments with a synform above the main rhyolitic sequence on Bailey Brook being the largest structure identified. Geometry of the folding is unclear but the axis is trending approximately East-West and plunging to the east.

A large south westerly trending block of Lower River John Group, dated as Devonian (Gillis 1964 in Wallace and Donohoe 1977) transects the Earltown sequence and is known to be in unconformable contact with the volcanics. These rocks are predominantly basaltic flows and interbedded sediments believed to be younging to the north.

The Balmoral Brook fault displaces the Silurian and Devonian sequences of the central property area with the River John Group to the east of the fault consisting of primarily fanglomerate deposits dipping to the north and coarse clastic sediments. Good sections of these Upper River John are exposed on Balmoral Brook and also on the Waugh River.

A second south-easterly trending fault has been proposed based upon interpretation of airborne geophysical data. Magnetic signatures define a movement zone between Farm Lake and the Chiganois River which has been tentatively termed the Chiganois Fault.

Definition of the Chiganois fault on the ground has been inconclusive as a result of overburden.

Devonian undeformed hornblende granite intrudes the volcanic pile in the western property area. Granites of the same granitic complex also intrude the Earltown Sequence in the southerly extent of Cobequid III claim block.

The Nuttby Sequence of fine to coarse clastic sediments is known to be Mississippian in age based upon palynological data.

The units of this sequence are exposed south of Farm Lake, in good sections on the Chiganois River, in the Gain Brook area and along the West North River.

A synform has been mapped in Nuttby sediments on the McCallum Settlement Road with an ENE trending axis plunging to the east. A low angle southerly dipping thrust fault cuts this structure in the closure zone but its importance is to the overall fold geometry or regional geology is minimal. The fault trace is defined by a topographic lineament for a short distance in the form of a stream valley.

Riversdale Group and possibly Pictou Group sediments of Pennsylvanian age occupy the northern property extremes adjoining the Cobequid Highland proper. Boss Point sediments predominate although in the north eastern property corner some sediments have been tentatively mapped as Pictou Group.

Structure within these bedded sequences is generally north dipping at a relatively low angle (30°), this being controlled somewhat by the basement rise to the upland and the Claremount Synclinal structure to the north. This major syncline trends generally east-west and plunges to the southwest but its axial trace and closure zone is not covered by the Cobequid IV claim group.

The nature of the Carboniferous contact with the highland complex in this area is believed to be unconformable but exposures in a definitive section have not been found. Further to the west, near Westchester, on Caldwell Brook this contact is clearly an unconformity.

Pre-Carboniferous north-south faulting occurred along the northern boundary of the Cobequids in this area but none of those structures appear to be major in extent. Differential movement between fault blocks has juxtaposed overlying phyllite with the Silurian rhyolite sequence in the Baily Brook area as well as in the Six Mile Brook area. Airborne geophysical data indicated the existence of such faulting but ground work has accurately defined movement zones in only a few cases. This is, of course, a result of bedrock exposure being limited to stream valleys and its discontinuous nature in these valleys.

III A) GEOCHEMISTRY, SOILS

INTRODUCTION

From May 24 to September 15, one two-man sampling crew collected soil samples on the Swan Brook Grid. Sampling of the A and C soil horizons was carried out on the Swan Brook Grid. Over 4,000 samples were collected.

All analytical services were performed by X-Ray Assay Laboratories, Don Mills, Ontario. The minus 80 mesh fraction was assayed for copper, lead, silver, zinc and uranium. Uranium was detected by delayed neutron activation with a minimum fluorimetrically at minimum detection limits of 5 ppm and 1 ppm respectively. Assay results are attached in Appendix I.

RESULTS

The mean uranium assay value for the area, taken from the C horizon values, is 3.6 ppm with a standard deviation of 1.3 ppm. The anomalous threshold determined from the formula mean + 1 standard deviation yields a value of 5.0 ppm. Values equal to or exceeding the threshold account for 8.6% of the survey results. "A" horizon values were sporadic with the standard deviation greater than the mean.

Base metal values show no apparent relationships either among themselves or with uranium. The suspected association between silver and uranium has proven to be negligable. Additional interpretation of the data is required before the 1979 field season.

CONCLUSION

The soil sampling program in the Cobequid IBM area has been successful in locating uranium anomalies. The occurrence of uranium concentrations appears to be independent of other geochemical associations, i.e. the base metals and silver.

Further study of the anomalous areas is currently under consideration. A detailed statistical analysis relating geochemistry to rock types is planned. The geochemical data will be used to plane the 1979 exploration program.

B) WHOLE ROCK GEOCHEMISTRY

Rock samples collected from outcrop, boulders and core were analyzed for major oxides and trace elements (U, Th, Sn, F-, W, Ca, Zn, Ag). The results are tabulated in Appendix A. The purpose of the whole rock geochemical program is to identify alteration patterns, to select samples for geochronology, to help match boulders with bedrock, and to develop genetic models for concentration of U.

The samples collected were analyzed for major oxides and trace elements (U, Th, Sn, F-, W, Cu, Pb, Zn, Ag). The major oxides and W were analyzed by a fully automated sequential x-ray spectrometer using a poured glass disc sample preparation method. U and Th were determined by neutron activation. Cu, Pb, Zn and Ag were extracted by a hot acid method, and their concentration determined by Atomic Absorption. Sn was analyzed by ommission spectrometry. A specific ion electrode method was used for the F- analyses. A hot acid digestion and titration method was used to determine Fe^{+2}. Total iron is reported as FeO. The contribution of total iron to the sum is calculated as Fe_2O_3.

The detection limits for some of the trace elements are:

Ag	1 ppm
W	20 ppm
Sn	3 ppm
U	10 ppm with high Th
U	1 ppm
Th	1 ppm

The normative calculation is based on a CIPW norm as modified by Irwine and Baragar (1971).

Three splits of a control sample were analyzed. The triplicate results give a measure of the variation caused by analytical precision, sample preparation and sample homogeneity.

Since there are very few results from the lab, the interpretated studies have not yet been statted. Early in 1979 work will be undertaken to evaluate results. An interpretation of results

IV) REVERSE CIRCULATION DRILLING PROGRAMME

This report primarily concerns the procedures and recommendations arising out of the reverse circulation drilling program within the Cobequid Mountains of Nova Scotia from October 28 to November 28, 1978.

1) OBJECTIVES

This reverse circulation program was designed to explain the sources of the radioactive boulder clusters in both the DF and J-Zone areas. The applicability of this method in these specific areas was also tested to see how a typical overburden anomaly can be related to bedrock geology or possibly mineralization further in the "up ice" direction. Sampling and analytical methods were examined to discover the best procedures for stratigraphic interpretations as well as mineralization detection.

2) PROCEDURES

The drilling in the DF area was completed first, due in part to the threat of weather combined with critical road conditions. A small grid consisting of three east-west lines 400 ft apart with drill sites every 200 feet provided the bulk of the DF coverage. An east-west road approximately 800 feet south of the grid was also used for drill locations. A series of seven holes were drilled on two north-south roads just to the west of the main DF area to investigate a soil geochemical anomaly previously obtained.

In the DF area 52 holes were drilled, numbered RD-01 to RD-31 and RD-31B to RD-51. A total of 1,023 feet were drilled with an average depth of 19.7 feet per hole. The average overburden depth was 13.2 feet. A total of 77 overburden and 65 bedrock samples were obtained from the RD drilling.

The reverse circulation drilling in the J-Zone area was restricted to existing roadways and previously cleared diamond drill sites. The restricted grid consisted of four approximately east-west lines with two north-south lines forming the boundaries to the east and west. Drill sites were approximately 200 feet apart with considerable variation due to topography and the non-rectangular nature of the grid. A series of holes spaced 100 feet apart were also located in the area of the mineralized trench at the centre of the J-Zone area.

On the J-Zone, 61 holes were drilled, numbered RJ-01 to RJ-61. A total of 1,557 feet were drilled with an average of 25.5 feet per hole. The average overburden depth of 17.7 feet reflects the few very deep holes drilled down in the creek valley.

Overburden samples were obtained at 5 foot intervals rather than the more normal 7-8 foot interval because of the shallow nature of the till. Only one 5 foot bedrock sample was obtained unless mineralization was encountered or if the lithologics changed in which case sampling was continued.

The overburden samples were split and sieved on the property before being sent off for U, Pb, Zn and Cu analysis (see Chart 1). It was not known which of these samples for analysis (-80, -10+80, heavy liquid separation) would best reflect the glacial dispersal of the uranium mineralization in this area. As of this time, the analytical results have not been received. Further discussions of the applicability of each of the sample types for mineralization detection will be included in a report at a later date.

Bedrock samples were also initially processed in Gulf Minerals' field lab (see Chart 2). The +10 sieve size fraction was handpicked with unweathered and relatively unaltered fragments being sent away for whole rock geochemistry as well as the standard U, Pb, Zn and Cu analysis.

Trace element analysis for Sn, W, F and Th were also included. The results for the bedrock samples are also not available at the present time.

3) RECOMMENDATIONS

The use of a reconverted diamond drill system rather than a more mobile Nodwell mounted unit drastically increased moving and set-up time, thus reducing the footage drilled per day. The lack of mobility also necessitated the building of drill roads which, because of the degree of maturity of the hardwood forest, was a costly and time consuming operation. Having a more mobile water supply system, as on the back of a Bombardier or a small Nodwell, would also have reduced set-up time and almost eliminated the problem of frozen water lines.

Except for the few deep overburden holes drilled in the creek valley in the north J-Zone area, the shallow nature of the overburden covering the majority of the DF and J-Zone areas indicated that the reverse circulation drilling system was not ideal for this area. A large mobile auger or backhoe trenching would probably generate comparable data at a fraction of the cost.

CHART 1

OVERBURDEN LAB PROCEDURE

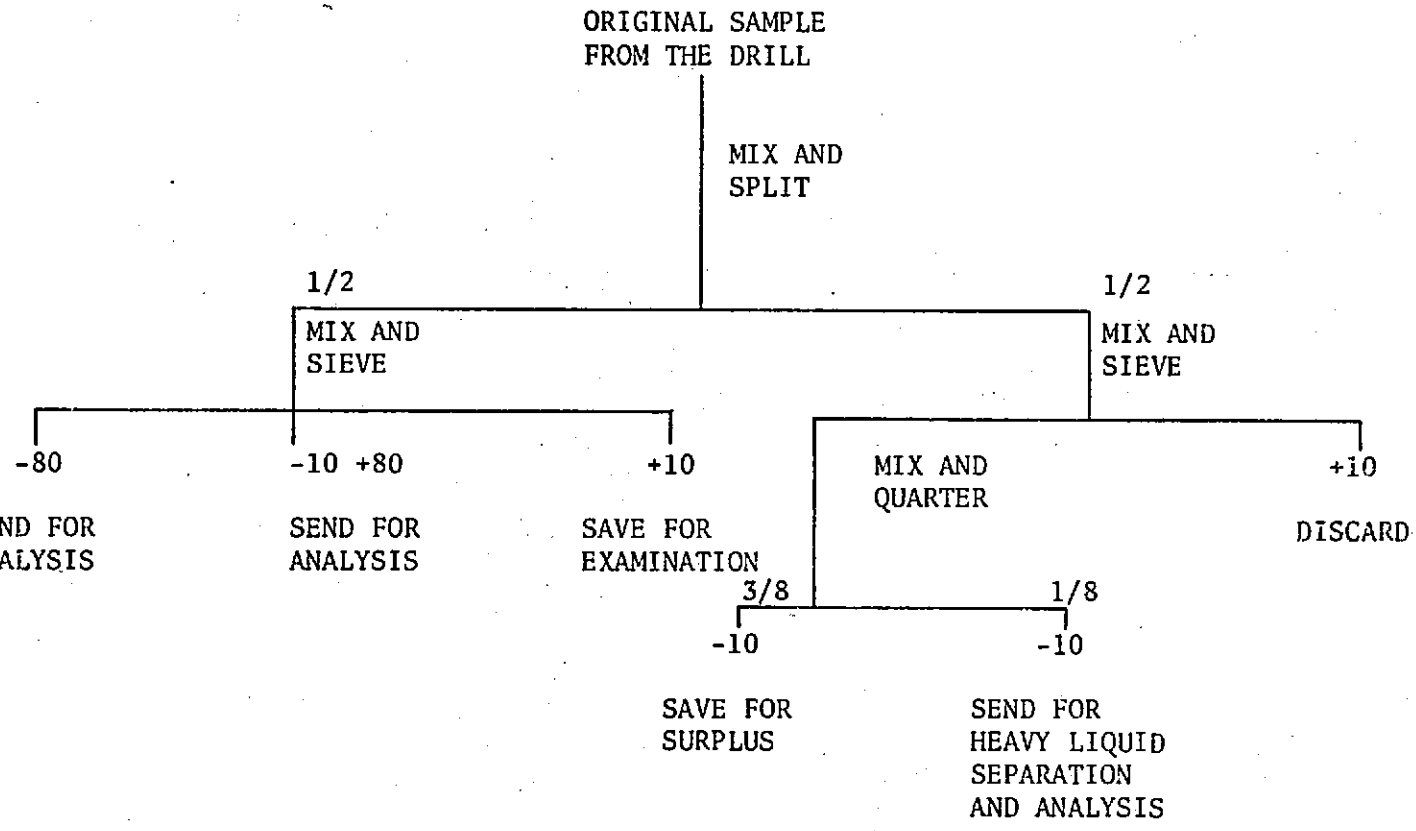
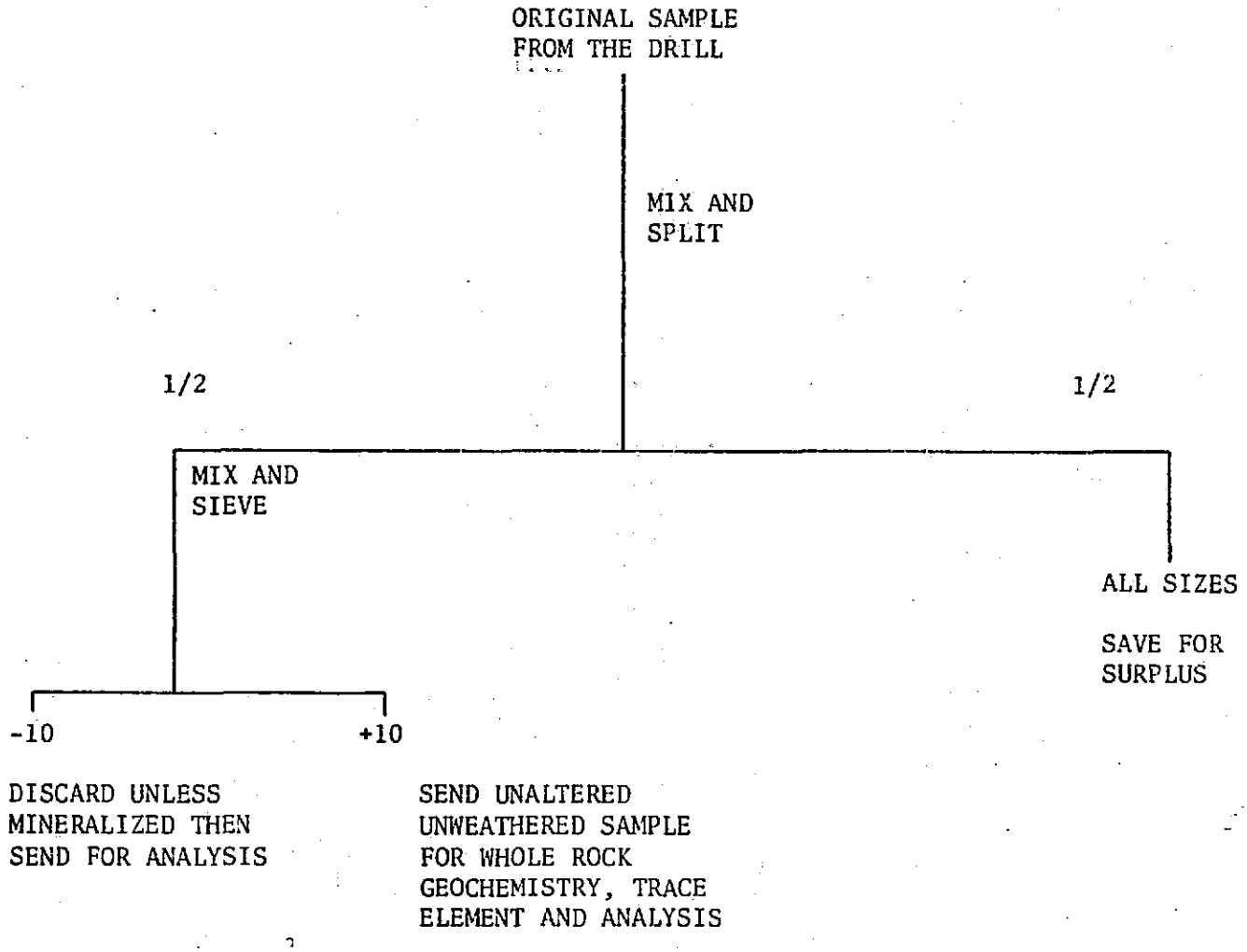


CHART 2

BEDROCK LAB PROCEDURE



APPENDIX I

SECTION A

WHOLE ROCK GEOCHEMISTRY

AND ASSAY RESULTS

ROCK SAMPLES

SAMPLE #	C6301	C6302	C6303	C6304	C6305	C6306	C6307	C6308
SiO_2	74.69	80.16	62.71	77.04	78.10	78.43	70.95	63.86
Al_2O_3	12.82	10.24	21.14	11.92	11.74	11.73	13.87	18.22
CaO	0.61	0.38	0.21	0.45	1.39	0.22	0.56	1.32
MgO	0.34	0.22	0.62	0.45	0.50	0.21	1.07	0.14
Na_2O	1.77	1.99	0.99	4.22	4.81	0.97	2.01	3.06
K_2O	7.48	4.84	12.20	2.95	1.03	7.26	7.16	11.04
FeO	2.07	1.84	1.87	2.39	2.15	0.98	4.04	1.44
MnO	0.03	0.19	0.03	0.44	0.13	0.03	0.18	0.02
TiO_2	0.13	0.11	0.20	0.11	0.11	0.12	0.15	0.17
P_2O_5	0.04	0.04	0.03	0.02	0.03	0.05	0.02	0.73
LOI	1.01	1.34	1.59	1.86	0.88	2.35	1.74	1.01
TOTAL	97.40	97.93	98.66	97.85	97.18	99.95	100.08	97.23
U	7300	3400	1400	1500	4000	2200	390	420
Th	80	15	42	22	10	30	36	44
Cu	22	43	11	15	32	16	5	41
Zn	46	79	140	140	610	41	110	52
Ag	23	50	10	70	14	5	1	1
Pb	270	310	610	120	430	110	20	130
F-								
Sn	3	3	3	3	3	3	3	3
W	20	20	20	40	20	20	20	20
Qtz	33.92	48.87	8.86	39.14	42.43	44.26	27.49	2.74
Cor	0.78	1.11	5.96	1.03	0.28	1.98	1.82	0.56
Or	44.12	28.58	71.93	17.41	6.07	42.86	42.23	65.19
Ab	14.92	16.78	8.39	35.56	40.54	8.23	16.95	25.89
An	2.78	1.64	0.87	2.05	6.62	0.78	2.67	1.78
Ne								
Di								
He								
Wo								
En	0.44	0.22	1.21	0.67	0.67	0.49	2.14	0.33
Fs	0.55	0.41	0.45	1.44	0.76	0.05	3.96	0.03
Fo								
Fa								
Mt	1.47	1.41	0.43	2.43	2.14		2.43	
Hm	0.67	0.69	1.45		0.20	1.09		1.60
Il	0.25	0.20	0.38	0.22	0.22	0.05	0.28	0.04
Ap	0.09	0.09	0.06	0.05	0.08	0.11	0.04	1.68
Ru						0.10		0.15

SAMPLE #	C6309	C6310	C6311	C6312	C6313
SiO_2	63.38	62.23	89.00	62.83	83.78
Al_2O_3	18.43	17.85	5.55	17.71	9.78
CaO	0.49	1.21	1.33	1.39	0.13
MgO	0.38	0.77	0.19	1.03	0.34
Na_2O	1.73	10.10	1.33	10.03	0.00
K_2O	12.18	0.14	0.62	0.21	2.71
FeO	2.98	6.64	1.68	5.89	2.86
MnO	0.03	0.11	0.09	0.16	0.03
TiO_2	0.20	0.47	0.19	0.45	0.33
P_2O_5	0.20	0.38	0.03	0.31	0.04
LOI	1.91	1.15	2.75	1.71	4.02
TOTAL	96.98	97.63	97.12	96.83	99.05
U	9200	3000	5200	1800	3000
Th	40	10	20	17	10
Cu	140	27	22	77	11
Zn	510	120	220	260	530
Ag	11	10	8	1	1
Pb	1000	110	360	120	350
F-					
Sn	3	3	15	3	5
W	20	60	20	40	40
Qtz	5.24		75.68		72.48
Cor	1.97		0.35		6.68
Or	71.82	0.85	3.67	1.22	15.97
Ab	14.58	84.16	11.20	84.29	
An	1.14	2.97	6.38	2.68	0.37
Ne		0.55		0.17	
Di		0.10		0.52	
He		0.40		1.35	
Wo					
En	0.50		0.31		0.29
Fs	1.34		0.20		0.72
Fo		1.02		1.23	
Fa		5.26		4.05	
Mt	2.57	2.94		2.94	2.75
Hm			1.77		0.01
Il	0.38	0.88	0.35	0.85	0.63
Ap	0.46	0.87	0.07	0.71	0.09
Ru			0.00		

SAMPLE #	C6314	C6315	C6316	C6317	C6318	C6319	C6320
SiO_2	81.85	78.79	74.17	65.43	63.95	56.97	70.45
Al_2O_3	10.78	10.54	13.33	17.97	18.87	19.23	14.73
CaO	0.14	0.37	0.28	1.11	0.87	5.27	0.43
MgO	0.29	0.21	0.29	0.24	0.30	0.35	0.12
Na_2O	0.00	0.08	1.12	3.63	1.93	0.51	0.51
K_2O	5.36	7.99	8.69	9.40	12.10	10.68	10.67
FeO	1.43	1.84	1.61	2.00	1.65	6.25	2.78
MnO	0.04	0.04	0.35	0.04	0.04	0.12	0.05
TiO_2	0.09	0.11	0.14	0.14	0.17	0.53	0.23
P_2O_5	0.03	0.04	0.03	0.03	0.12	0.08	0.04
LOI	1.78	1.54	1.38	1.60	2.09	3.99	1.63
TOTAL	98.32	97.94	98.65	97.80	98.40	97.29	99.11
U	1500	1200	3000	2600	700	2700	970
Th	14	18	20	40	38	60	21
Cu	26	35	19	570	17	45	14
Zn	86	190	160	420	89	86	150
Ag	25	17	37	7	7	31	1
Pb	160	670	220	600	190	310	120
F-							
Sn	3	3	3	3	3	15	3
W	20	20	20	20	20	80	20
Qtz	60.56	46.64	33.35	5.70	4.37	0.52	25.38
Cor	4.77	1.18	1.64		1.29		1.63
Or	31.64	47.13	51.27	55.48	71.42	63.04	62.94
Ab		0.65	9.41	30.52	16.32	4.32	4.30
An	0.52	1.58	1.17	4.94	3.50	18.53	1.90
Ne							
Di				0.13		0.69	
He				0.17		5.47	
Wo							
En	0.67	0.26	0.39	0.22	0.60	0.31	0.09
Fs	0.07	0.34	0.44	0.33	0.20	2.83	0.66
Fo							
Fa							
Mt		0.90	1.06	1.20		3.11	2.57
Hm	1.58	1.04	0.95	0.87	1.72		
Il	0.08	0.20	0.25	0.27	0.28	1.00	0.44
Ap	0.06	0.10	0.07	0.07	0.28	0.19	0.09
Ru	0.05				0.02		
Ab	0.0	1.32	15.21	33.63	17.89	5.03	6.22
Or	98.38	95.48	82.89	60.94	78.28	73.40	91.03
An							

SAMPLE #	C6321	C6322	C6323	C6324	C6325	C6326
SiO_2	76.34	59.07	79.93	77.93	78.23	83.03
Al_2O_3	12.54	20.24	11.27	10.74	10.10	8.97
CaO	0.17	3.80	0.22	0.12	1.74	0.09
MgO	0.21	1.13	0.55	0.09	0.19	0.09
Na_2O	0.06	4.84	0.91	0.00	0.24	0.00
K_2O	8.93	5.02	5.42	7.76	6.71	5.70
FeO	1.55	5.12	1.49	3.06	2.47	1.82
MnO	0.05	0.10	0.06	0.04	0.08	0.02
TiO_2	0.13	0.66	0.14	0.22	0.23	0.26
P_2O_5	0.02	0.01	0.02	0.01	0.01	0.02
LOI	1.14	2.22	1.45	1.07	1.15	1.70
TOTAL	98.33	98.20	98.85	99.96	98.98	98.74
U	520	990	220	150	480	90
Th	33	48	27	27	18	39
Cu	20	13	11	12	23	10
Zn	66	190	55	75	54	100
Ag	1	1	1	1	1	1
Pb	240	140	75	30	85	40
F-						
Sn	3	20	3	5	5	3
W	20	20	20	20	20	20
Qtz	41.06	0.56	52.52	47.30	47.43	60.80
Cor	2.49		3.53	2.13		2.68
Or	52.74	29.56	32.01	45.83	39.59	33.63
Ab	0.49	40.79	7.70	0.54	2.02	
An	0.73	18.55	0.98		6.62	0.31
Di		0.06			0.28	
He		0.11			0.87	
Wo					0.23	
En	0.43	1.91	1.28	0.09		0.09
Fs	0.12	3.98	0.10	0.14		0.16
Fo						
Fa						
Mt		3.22		2.52	2.39	
Hm	1.67		1.65		0.11	1.80
Il	0.18	1.25	0.12	0.42	0.43	0.43
Ap	0.04	0.01	0.04	0.02	0.03	0.05
Ru	0.04		0.07			0.03
Ab	0.91	45.88	18.92	1.16	4.19	0.00
Or	97.74	33.25	78.67	98.84	82.09	99.09
An						

SAMPLE #	C6338	C6363	C6364	C6345	C6346	C6347
SiO_2	46.34	71.93	79.71	83.90	82.18	78.91
Al_2O_3	9.99	14.27	10.75	7.79	8.93	11.26
CaO	11.15	0.43	1.32	0.11	1.75	1.63
MgO	0.62	0.31	0.28	0.04	0.19	0.17
Na_2O	2.93	0.45	2.62	0.00	1.64	2.69
K_2O	0.12	10.22	3.72	5.09	3.48	3.72
FeO	5.54					
Fe_2O_3	14.85	1.87	1.41	2.81	1.61	1.44
MnO	0.07	0.33	0.04	0.03	0.04	0.03
TiO_2	2.65	0.13	0.12	0.23	0.11	0.13
P_2O_5	7.13	0.04	0.03	0.01	0.05	0.02
LOI	1.94	1.28	0.82	1.18	0.79	0.81
TOTAL	96.27	98.32	99.92	99.65	98.82	100.01
U	23000	2650	1100	100	510	64
Th	50	15	9	8	15	17
Cu	45	54	20	21	18	19
Zn	94	90	25	82	27	43
Ag	1	5	2	4	1	1
Pb	1520	210	150	110	35	15
F-	6500	640	350	340	410	290
Sn	100	3	3	3	3	3
W		20	20	20	20	20
Qtz		28.80	46.98	63.83	55.62	45.30
Cor		1.76	0.08	2.11		
Or		60.29	21.93	30.03	20.54	21.99
Ab		3.77	22.12	0.00	13.88	22.72
An	1.90	6.35	0.45	6.70	7.62	
Ne						
Di					0.66	0.21
He					0.39	0.03
Wo					0.16	
En		0.34	0.63	0.02		0.29
Fs		0.56	0.07	0.55		0.04
Fo						
Fa						
Mt		1.83		2.55	0.22	
Hm		0.41	1.57		1.49	1.60
Il		0.23	0.09	0.44	0.22	0.07
Ap		0.09	0.06	0.03	0.11	0.05
Ru			0.07			0.09

SAMPLE #	C6654	C6657	C6659	C6661
FIELD #	JZ78-36	JZ78-27	JZ78-39	JZ78-41
SiO_2	79.1	80.2	79.9	79.2
Al_2O_3	10.1	10.7	11.0	11.3
CaO	0.18	0.11	0.25	0.20
MgO	0.24	0.27	0.39	0.18
Na_2O	0.19	0.00	0.40	0.00
K_2O	7.23	5.25	5.05	5.24
FeO	2.67	3.25	2.72	3.55
MnO	0.06	0.02	0.02	0.04
TiO_2	0.21	0.26	0.25	0.22
P_2O_5	0.01	0.01	0.00	0.01
LOI	0.62	2.14	1.63	1.73
TOTAL	100.1	99.0	99.6	101.00
U	81	270	11	6
Th	19	40	40	40
Cu	24	170	10	6
Zn	56	59	65	100
Ag	1	1	2	1
Pb	5	370	60	15
F-	140	370	390	330
Sn	3	8	8	8
W	20	20	20	20
Qtz	49.30	58.82	56.86	57.48
Cor	1.63	4.77	4.42	5.30
Or	42.66	30.95	29.77	30.91
Ab	1.58	0.00	3.38	0.00
An	0.83	0.52	1.21	0.96
Ne				
Di				
He				
Wo				
En	0.24	0.34	0.41	0.26
Fs	0.86	1.49	0.88	2.13
Fo				
Fa				
Mt	2.49	2.62	2.58	2.52
Il	0.39	0.49	0.48	0.42
Hm				
Ap	0.02	0.01	0.01	0.01
Ru				

SAMPLE # / FIELD #	JZ78-107	JZ78-110	JZ78-28	JZ78-29	JZ78-30
SiO_2	77.5	76.1	55.5	91.4	86.2
Al_2O_3	10.9	12.8	19.0	3.97	6.91
CaO	0.23	0.32	4.68	0.67	0.27
MgO	0.04	0.30	0.35	0.03	0.04
Na_2O	3.70	1.93	0.00	0.24	0.11
K_2O	2.61	5.18	10.9	2.28	4.36
FeO	4.77	2.82	3.86	0.49	1.51
MnO	0.09	0.10	0.17	0.01	0.01
TiO_2	0.19	0.35	2.02	0.76	0.49
P_2O_5	0.00	0.03	3.49	0.13	0.04
LOI	0.77	1.54	2.12	0.41	1.39
TOTAL	99.3	100.8	99.9	99.5	101.6
U	31	8	73	13	6
Th	120	30	53	23	12
Cu	24	13	10	15	23
Zn	65	60	75	14	44
Ag	1	1	4	1	2
Pb	90	X	40	5	60
F-	190	290	2700	380	230
Sn	100	3	5	3	3
W	X	X	20	20	20
Qtz	43.33	43.82	12.98	80.06	68.23
Cor	1.54	3.53	7.01	0.17	1.60
Or	15.44	30.57	64.21	13.49	25.76
Ab	31.29	16.25	0.34	2.06	0.95
An	1.16	1.37	0.00	2.51	1.08
Ne					
Di					
He					
Wo					
En	0.07	0.26	0.38	0.08	0.10
Fs	4.30	0.79	0.65	0.01	0.01
Fo					
Fa					
Mt	2.50	2.69			
Il	0.37	0.65	1.72	0.01	0.02
Hm			3.54	0.55	1.67
Ap		0.07	8.06	0.30	0.09
Ru			1.10	0.76	0.48

SAMPLE #	C6349	C6350	C6351	C6352
SiO_2	59.7	64.4	78.0	61.5
Al_2O_3	20.3	17.9	10.8	17.9
CaO	2.79	1.15	0.28	3.19
MgO	1.26	0.23	0.19	0.18
Na_2O	2.34	10.5	2.81	10.8
K_2O	7.80	0.13	4.51	0.10
FeO	4.28	4.87	3.04	4.03
MnO	0.07	0.02	0.04	0.02
TiO_2	1.38	0.38	0.26	0.34
P_2O_5	0.11	0.47	0.01	1.96
LOI	2.48	0.55	0.38	0.44
TOTAL	98.1	97.9	100.8	98.3
U	490	460	23	270
Th	68	27	24	46
Cu	11	15	19	20
Zn	150	66	110	83
Ag	1	1	2	2
Pb	70	30	195	50
F-	1900	450	170	1200
Sn	15	3	3	3
W	20	40	20	20
Qtz	8.58	0.16	43.05	0.00
Cor	3.18	0.00	0.84	0.00
Or	45.79	0.78	26.61	0.57
Ab	19.64	88.30	23.75	84.01
An	13.04	1.60	1.31	0.16
Ne				3.83
Di		0.09		0.27
He		0.84		2.19
Wo				
En	1.79	0.32	0.20	
Fs	1.75	3.30	1.18	
Fo				0.09
Fa				0.98
Mt	1.41	2.79	2.54	2.71
Il	2.60	0.73	0.49	0.64
Hm	1.96			
Ap	0.25	1.08	0.03	4.55
Ru				

SAMPLE #	C6372	C6373	C6374	C6376	C6370	C6371
SiO_2	82.0	60.9	61.0	69.0	73.0	69.8
Al_2O_3	9.75	17.1	17.5	16.6	10.9	13.9
CaO	0.15	4.73	2.08	0.67	2.31	0.40
MgO	0.24	0.70	0.66	0.31	0.78	0.58
Na_2O	0.00	9.07	9.41	9.84	5.36	0.57
K_2O	3.83	0.21	0.16	0.14	0.17	6.81
FeO	3.71	5.47	7.54	2.92	5.27	7.35
MnO	0.04	0.09	0.08	0.03	0.09	0.10
TiO_2	0.26	0.38	0.37	0.37	1.08	0.36
P_2O_5	0.01	1.40	1.18	0.12	0.96	0.09
LOI	2.59	0.89	2.22	0.77	1.51	1.63
TOTAL	99.9	100.0	99.2	99.0	99.6	99.7
U	410	2000	2200	430	5200	2000
Th	38	23	65	25	10	35
Cu	15	12	1240	70	220	34
Zn	120	52	2650	130	180	130
Ag	1	41	80	21	24	1
Pb	100	205	760	250	970	200
F-	150	940	580	290	730	250
Sn	20	15	3	3	3	5
W	20	20	20	20	20	20
Qtz	65.62			10.09	36.89	35.11
Cor	5.33		0.87		0.55	5.11
Or	22.63	1.25	0.94	0.80	1.02	40.18
Ab	0.69	76.52	79.47	82.95	45.13	4.81
An		5.25	2.60	0.61	5.14	1.37
Ne						
Di		1.72		0.46		
He		6.03		1.17		
Wo						
En	0.36	0.43	1.19	0.05	0.99	1.19
Fs	2.26	1.71	7.80	0.14	2.77	8.59
Fo		0.07	0.11			
Fa		0.31	0.79			
Mt	2.62	2.75	2.80	7.75	3.77	2.75
Il	0.49	0.71	0.71	0.70	2.03	0.68
Hm						
Ap	0.02	3.25	2.72	0.29	2.21	0.22
Ru						

SAMPLE #	C6378	C6381	C6375
SiO_2	61.1	62.9	62.7
Al_2O_3	19.2	18.0	18.6
CaO	0.42	2.72	1.67
MgO	1.09	0.18	0.41
Na_2O	0.54	10.3	4.02
K_2O	12.0	0.15	9.19
FeO	5.24	3.71	2.51
MnO	0.08	0.05	0.04
TiO_2	0.37	0.30	0.23
P_2O_5	0.04	1.69	0.56
LOI	2.62	1.05	0.86
TOTAL	100.2	99.5	99.2
U	11.50	17.00	3.40
Th	20	40	43
Cu	14	120	46
Zn	140	120	200
Ag	2	X	1
Pb	160	465	120
F-	420	1200	600
Sn	3	3	8
W	X	X	20
Qtz	7.63	0.18	1.58
Cor	4.62	0.00	0.39
Or	70.59	0.87	54.14
Ab	4.56	87.08	33.87
An	1.81	2.41	4.60
Ne			
Di			
He			
Wo			
En	2.12	0.24	0.44
Fs	5.08	2.10	0.76
Fo			
Fa			
Mt	2.77	2.64	2.40
Il	0.71	0.56	0.44
Hm			0.10
Ap	0.10	3.91	1.29
Ru			

SAMPLE #	C6346	C6347	C6348	C6356
SiO_2	71.9	68.7	74.3	92.6
Al_2O_3	15.1	15.2	12.1	4.38
CaO	0.35	1.53	0.78	0.08
MgO	0.29	1.16	0.24	0.11
Na_2O	0.97	1.53	0.06	0.05
K_2O	10.1	8.80	8.64	1.10
FeO	1.11	2.86	3.43	1.49
MnO	0.03	0.11	0.04	0.01
TiO_2	0.14	0.15	0.28	0.16
P_2O_5	0.04	0.04	0.13	0.01
LOI	0.68	1.27	0.70	0.56
TOTAL	101.5	99.8	101.4	99.0
U	1500	3000	90	6
Th	24	19	28	24
Cu	40	88	39	7
Zn	100	140	65	32
Ag	4	8	1	1
Pb	160	200	70	5
F-	130	380	170	460
Sn	5	3	3	3
W	20	20	20	20
Qtz	26.41	20.63	38.43	87.65
Cor	2.03	0.44	1.50	2.98
Or	59.66	51.85	50.99	6.48
Ab	8.20	12.86	0.52	0.45
An	1.47	7.31	3.00	0.31
Ne				
Di				
He				
Wo				
En	0.67	2.15	0.33	0.27
Fs	0.05	1.97	1.85	0.01
Fo				
Fa				
Mt		2.42	2.56	
Il	0.06	0.29	0.52	0.01
Hm	1.23			1.65
Ap	0.09	0.09	0.30	0.02
Ru	0.11			0.15

SAMPLE #	C6721	C6722	C6723	C6724	C6725	C6726	C6727	C6728	C6729	C6730
SiO_2	77.1	75.5	57.1	78.5	59.1	70.3	81.6	77.3	77.7	
Al_2O_3	12.4	13.9	16.3	11.4	18.5	14.3	9.54	12.2	11.7	
CaO	0.20	0.34	6.20	0.44	4.52	0.98	0.52	0.24	0.11	
MgO	0.00	0.60	1.50	0.12	1.05	0.31	0.52	0.19	0.05	
Na_2O	0.46	0.22	7.72	0.32	3.72	2.66	1.94	0.31	0.29	
K_2O	9.00	7.91	0.74	7.65	6.80	7.17	3.68	8.36	8.99	
FeO	0.64	1.26	8.19	1.39	4.78	3.21	1.84	1.18	1.12	
MnO	0.04	0.04	0.12	0.03	0.08	0.06	0.06	0.02	0.01	
TiO_2	0.09	0.11	1.63	0.17	1.22	0.80	0.24	0.15	0.10	
P_2O_5	0.02	0.07	0.48	0.03	0.29	0.15	0.05	0.01	0.01	
LOI	0.68	1.25	0.52	0.65	1.32	0.88	0.59	0.92	0.76	
TOTAL	99.6	100.4	97.7	100.3	98.4	100.3	100.3	101.4	100.4	
U	5	5	6	5	2	5	2	5	4	
Th	23	30	8	23	8	19	13	26	23	
Cu	9	6	6	12	5	12	13	18	11	
Zn	23	50	28	40	64	58	73	31	15	
Ag	1	1	1	1	1	1	1	1	1	
Pb	15	10	5	25	5	5	10	10	10	
F-	270	430	1100	350	820	640	380	350	230	
Sn	3	3	3	3	3	3	3	3	3	
W	20	20	20	20	20	20	20	20	20	
Qtz	39.56	42.47	0.00	46.17	2.43	25.12	54.34	42.65	41.19	
Cor	1.61	4.52		1.80		0.71	1.52	2.26	1.27	
Or	53.20	46.71	4.36	45.18	39.95	42.28	21.73	49.36	53.11	
Ab	3.85	1.87	59.39	2.72	31.27	22.45	16.33	2.64	2.44	
An	0.89	1.21	7.51	2.01	13.49	3.90	2.27	1.12	0.50	
Ne			2.98							
Di			5.14		2.38					
He			11.83							
Wo			0.04		3.42					
En		1.44		0.26	0.05	0.24	0.95	0.44	0.11	
Fs		0.07		0.04	0.08	0.68	0.44	0.04	0.02	
Fo										
Fa										
Mt			4.59		3.99	1.47	0.34			
Il	0.09	0.08	3.07	0.06	2.30	1.52	0.46	0.04	0.03	
Hm	0.71	1.40		1.54	0.00	1.30	1.51	1.31	1.24	
Ap	0.04	0.16	1.10	0.07	0.67	0.34	0.11	0.02	0.02	
Ru	0.04	0.06		0.14				0.13	0.08	

SAMPLE #	C6781	C6782	C6783	C6784	C6785	C6786	C6787	C6788	C6789	C6790
SiO_2		78.4	79.6	84.5	69.8	83.7	67.3	79.4	84.2	79.7
Al_2O_3		11.2	10.6	7.63	15.8	7.97	15.4	11.0	8.22	11.1
CaO		0.12	0.17	0.07	0.44	1.29	0.83	0.14	0.39	0.10
MgO		0.02	0.07	0.03	1.93	0.73	0.58	0.16	0.03	0.00
Na_2O		0.16	0.52	0.00	2.23	2.68	0.99	0.00	0.16	0.08
K_2O		8.97	7.92	5.61	5.52	1.07	9.39	8.01	6.34	8.38
FeO		0.85	0.93	1.94	3.84	2.31	4.19	1.20	0.54	0.56
MnO		0.01	0.02	0.02	0.09	0.05	0.14	0.02	0.02	0.02
TiO_2		0.17	0.16	0.19	0.30	0.16	0.94	0.09	0.07	0.09
P_2O_5		0.02	0.02	0.01	0.07	0.01	0.30	0.01	0.00	0.01
LOI		0.41	0.38	0.48	1.90	0.94	0.97	0.75	0.24	0.69
TOTAL		100.3	99.0	99.8	98.3	98.8	98.7	100.9	99.7	100.8
U		6	6	18	3	14	2	10	6	7
Th		22	25	15	28	67	10	23	19	21
Cu		8	10	7	6	20	13	12	12	13
Zn		22	25	22	150	190	76	47	16	15
Ag		1	1	1	1	1	1	1	1	1
Pb		10	20	40	5	230	10	5	20	5
F-		210	180	280	610	4300	730	290	460	210
Sn		3	3	3	5	8	3	3	3	3
W		20	20	20	20	20	20	40	20	20
Qtz		42.85	45.76	62.71	31.00	60.00	23.51	48.13	58.15	46.86
Cor		1.07	0.94	1.44	5.45	0.07	2.75	2.06	0.40	1.70
Or		52.99	46.77	33.14	32.51	6.29	55.27	47.29	37.47	49.53
Ab		1.39	4.39	0.00	18.77	22.59	8.35	0.65	1.31	0.71
An		0.48	0.68	0.29	1.74	6.35	2.15		1.90	0.46
Ne										
Di										
He										
No										
En		0.03	0.16	0.01	3.85	1.10	0.53	0.38	0.05	
Fs		0.02	0.03	0.09	3.27	0.92	1.38	0.03	0.02	
Fo										
Fa										
Mt				0.82	2.69	2.19	3.59			
Il		0.02	0.05	0.35	0.57	0.30	1.78	0.04	0.03	0.04
Hm		0.95	1.04	1.13		0.17		1.33	0.60	0.62
Ap		0.04	0.05	0.03	0.16	0.01	0.69	0.01	0.01	0.02
Ru		0.16	0.13					0.07	0.05	0.06

SAMPLE #	C6382	C6384	C6339	C6344	C6345	C6353	C6354
SiO_2	86.5	90.6	83.7	67.7	76.6	73.2	80.5
Al_2O_3	8.03	4.32	9.27	15.7	12.8	14.0	6.86
CaO	0.18	0.60	0.29	0.72	0.14	1.10	4.86
MgO	0.19	0.29	0.58	0.37	0.16	0.46	0.36
Na_2O	0.00	0.11	0.68	0.10	0.00	4.31	0.00
K_2O	2.16	1.66	3.00	10.6	7.74	4.58	0.58
FeO	2.51	2.22	1.68	3.49	2.22	1.92	6.15
MnO	0.02	0.05	0.08	0.07	0.04	0.06	0.11
TiO_2	0.29	0.18	0.77	0.94	0.31	0.37	0.63
P_2O_5	0.07	0.01	0.00	0.26	0.01	0.07	0.00
LOI	2.69	0.52	1.88	2.75	1.88	1.42	1.75
TOTAL	99.5	99.4	99.5	98.4	100.6	100.7	93.8
U	2500	370	1200	200	26	40	170
Th	10	10	3	21	14	5	880
Cu	17	41	11	52	9	18	350
Zn	1560	420	75	520	120	48	87
Ag	7	11	3	2	5	3	4
Pb	580	120	100	230	150	190	130
F-	440	200	230	520	240	240	14900
Sn	3	3	15	3	3	3	740
W	X	X	20	20	20	20	20
Qtz	77.58	81.60	66.62	24.90	46.37	27.63	66.47
Cor	5.51	1.26	4.38	3.33	4.14	0.08	
Or	12.74	9.80	17.68	62.61	45.66	26.99	3.40
Ab	0.00	0.95	5.72	0.87	0.00	36.39	0.00
An	0.43	2.88	0.41	1.89	0.59	5.00	16.96
Ne							
Di							0.74
He							5.47
Wo							
En	0.13	0.30	1.33	0.31	0.12	0.84	0.26
Fs	0.45	0.56	0.14	0.79	0.35	0.38	2.24
Fo							
Fa							
Mt	1.93	1.85		1.43	1.05		3.28
Il	0.56	0.33	0.18	1.77	0.59	0.59	
Hm	0.51	0.42	1.86	1.51	1.11	1.88	1.19
Ap	0.15	0.03	0.01	0.59	0.03	0.16	
Ru			0.68			0.06	

SAMPLE #	C6355	C6357	C6358	C6359	C6360	C6361	C6362
SiO_2	77.4	79.1	71.7	85.4	92.6	88.8	93.6
Al_2O_3	9.98	11.5	6.62	8.71	4.00	6.05	3.57
CaO	1.44	0.15	1.92	0.22	0.10	0.21	0.08
MgO	0.39	0.14	0.73	0.27	0.14	0.09	0.11
Na_2O	0.47	0.16	0.00	0.23	0.13	0.00	0.00
K_2O	5.64	7.45	0.17	2.51	1.17	2.68	1.08
FeO	1.59	1.26	17.6	1.89	1.67	2.00	1.39
MnO	0.06	0.03	0.12	0.07	0.03	0.02	0.02
TiO_2	3.03	0.13	1.14	0.72	0.16	0.17	0.12
P_2O_5	0.02	0.04	0.00	0.01	0.01	0.02	0.02
LOI	1.75	1.19	3.12	1.92	1.05	1.64	1.37
TOTAL	98.8	100.5	91.6	101.7	100.9	100.3	100.3
U	3200	950	350	600	230	370	610
Th	10	17	3000	4	13	8	10
Cu	32	23	110	15	22	11	19
Zn	310	42	120	110	55	60	100
Ag	15	1	1	2	10	4	22
Pb	210	100	490	110	65	80	300
F-	990	170	820	320	170	220	150
Sn	8	3	980	8	3	3	3
W	20	20	20	20	20	20	20
Qtz	49.31	49.15	55.06	73.37	86.81	77.80	89.04
Cor	0.52	2.99	2.93	5.22	2.37	2.81	2.29
Or	33.30	44.01	1.02	14.83	6.89	15.84	6.36
Ab	4.01	1.31	0.00	1.93	1.08	0.00	0.00
An	6.98	0.53	9.52	1.03	0.42	0.90	0.30
Ne							
Di							
He							
Wo							
En	0.89	0.31	1.55	0.60	0.19	0.05	0.25
Fs	0.10	0.05	23.62	0.11	0.20	0.22	0.04
Fo							
Fa							
Mt		4.15		0.16	1.09		
Il	0.12	0.07	2.15	0.15	0.31	0.31	0.05
Hm	1.76	1.40		2.10	1.55	0.94	1.55
Ap	0.05	0.08		0.02	0.04	0.04	0.04
Ru	2.96	0.10		0.65			0.10

APPENDIX I

SECTION B

WHOLE ROCK AND ASSAY RESULTS

DRILL CORE

D.D.H. NO. DF-1

SAMPLE #	B3890	B3891	B3893	B3887
LOCATION	DF1-182'	DF1-237.5'	DF1-360'	DF1-42'
SiO_2	48.15	74.82	77.28	61.60
Al_2O_3	13.58	13.14	11.30	17.73
CaO	7.46	0.29	0.39	9.37
MgO	6.18	0.33	0.22	0.07
Na_2O	3.51	0.57	3.48	8.92
K_2O	1.17	9.23	4.13	0.10
FeO	9.66	0.84	0.71	1.0
Fe_2O_3	5.73	0.66	2.33	0.83
MnO	0.32	0.04	0.13	0.20
TiO_2	3.35	0.14	0.25	0.15
P_2O_5	0.53	0.01	0.01	0.13
LOI	3.35	1.56	0.52	1.99
TOTAL	99.90	99.97	99.54	98.66
U	2	7	8	23
Th	2	24	20	27
Ca	56	23	17	17
Zn	260	35	63	260
Ag	1	1	1	1
Pb	130	5	40	150
F	830	100	150	24000
Sn	3	3	8	8
W	20	20	20	20
Qtz		35.03	39.66	0.00
Cor		1.71	0.39	
Or	6.85	54.59	24.39	0.56
Ab	29.24	4.81	29.38	70.23
An	17.57	1.34	1.91	8.06
Ne				2.73
Di	5.89			0.08
He	7.06			0.32
Wo				15.46
En	5.17	0.76	0.22	
Fs	7.11	0.07	1.01	
Fo	2.62			
Fa	3.97			
Ru		0.09		
Mt	7.04		2.55	0.92
Hm		1.59		1.07
Il	6.27	0.08	0.47	0.28
Ap	1.20	0.03	0.01	0.30

SAMPLE #	B3894	B3895	B3897
LOCATION	DF2-46'	DF2-316.5'	DF2-396'
SiO_2	75.59	71.50	75.41
Al_2O_3	12.58	14.49	13.07
CaO	1.14	0.33	0.24
MgO	0.46	0.48	0.66
Na_2O	3.99	0.63	0.41
K_2O	4.04	10.59	7.67
FeO	1.16	1.13	1.06
Fe_2O_3	0.93	0.70	1.40
MnO	0.05	0.02	0.03
TiO_2	0.15	0.17	0.17
P_2O_5	0.01	0.02	0.02
LOI	0.96	0.62	1.20
TOTAL	99.04	98.02	99.61
U	10	9	14
Th	21	29	30
Cu	30	24	15
Zn	240	69	42
Ag	1	1	1
Pb	55	5	5
F	80	170	260
Sn	3	3	8
W	20	20	20
Qtz	33.98	25.85	42.02
Cor		1.43	3.67
Or	23.80	62.49	45.21
Ab	33.64	5.29	3.46
An	4.48	1.49	1.09
Ne			
Di	0.50		
He	0.37		
Wo			
En	0.46	0.92	0.95
Fs	0.39	0.36	0.89
Fo			
Fa			
Ru			
Mt	1.28	0.32	2.17
Hm	0.79	1.47	0.19
Il	0.28	0.32	0.32
Ap	0.03	0.05	0.04

D.D.H. NO. DF-4

SAMPLE #	B3159	B3160	B3161	B3162	B3164
LOCATION	DF4-152.5'	DF4-175'	DF4-270'	DF4-465'	DF4-403'
SiO_2	76.76	74.26	76.90	75.12	76.66
Al_2O_3	12.17	13.43	12.14	12.79	12.15
CaO	0.34	0.32	0.23	0.30	0.31
MgO	0.12	0.20	0.13	0.12	0.18
Na_2O	1.87	2.19	1.34	2.09	1.39
K_2O	7.29	8.01	7.78	7.93	7.70
FeO	0.68	0.81	0.48	0.58	0.64
Fe_2O_3	0.63	0.64	0.93	0.96	0.89
MnO	0.04	0.04	0.02	0.03	0.02
TiO_2	0.13	0.14	0.13	0.16	0.13
P_2O_5	0.03	0.01	0.02	0.01	0.02
LOI	0.75	1.32	1.67	0.58	0.77
TOTAL	99.51	99.38	99.73	99.49	99.70
U	4	9	8	7	4
Th	21	28	22	25	25
Cu	22	30	26	25	19
Zn	26	37	38	20	74
Ag	1	1	1	1	1
Pb	10	5	20	10	40
F	240	250	170	80	90
Sn	3	3	3	3	3
W	20	20	20	20	20
Qtz	37.05	29.79	38.58	31.71	38.11
Cor	0.65	0.58	1.11	0.23	0.99
Or	43.08	47.30	45.96	46.82	45.46
Ab	15.82	18.53	11.31	17.68	11.75
An	1.47	1.53	1.06	1.42	1.43
Ne					
Di					
He					
Wo					
En	0.24	0.45	0.28	0.26	0.42
Fs	0.06	0.06	0.04	0.04	0.04
Fo					
Fa					
Ru	0.08	0.10	0.10	0.14	0.11
Mt					
Hm	1.38	1.54	1.47	1.60	1.60
Il	0.09	0.08	0.05	0.05	0.04
Ap	0.07	0.03	0.04	0.03	0.04

D.D.H. # JZ-1

SAMPLE #	B3109	B3110	B3111	B3112	B3113	B3114
LOCATION	JZ1-17'	JZ1-37'	JZ1-61'	JZ1-74'	JZ1-75'	JZ1-80'
SiO_2	47.72	75.80	48.02	81.21	44.97	75.53
Al_2O_3	14.42	12.83	13.00	9.43	15.60	10.75
CaO	9.44	0.81	10.11	2.43	5.19	1.36
MgO	6.44	0.16	5.33	0.33	7.36	0.72
Na_2O	2.21	4.90	2.46	4.68	3.57	1.29
K_2O	2.12	3.81	1.29	0.22	1.03	7.06
FeO	9.79	0.23	8.50	0.32	12.00	1.43
Fe_2O_3	4.87	1.44	7.49	1.23	6.57	1.53
MnO	0.28	0.01	0.47	0.02	0.25	0.04
TiO_2	2.79	0.15	3.43	0.23	3.57	0.38
P_2O_5	0.39	0.01	0.63	0.02	0.51	0.05
LOI	2.23	0.61	1.11	1.44	4.51	0.40
TOTAL	97.20	98.02	97.18	98.85	98.48	100.31
Qtz.	--	31.17	1.62	49.11	--	37.78
Cor	--	--	--	--	0.41	--
Or	12.36	22.51	7.51	1.32	5.99	41.56
Ab	18.44	41.36	20.47	39.52	29.75	10.87
An	22.85	1.74	20.34	4.05	22.03	2.55
Ne	--	--	--	--	--	--
Di	8.52	0.81	8.96	1.74	--	1.55
He	8.86	0.06	12.03	0.06	--	1.58
Wo	--	0.46	--	2.31	--	--
En	4.54	--	5.52	--	2.98	0.22
Fs	5.42	--	8.50	--	4.00	0.26
Fo	2.86	--	--	--	7.90	--
Fa	3.76	--	--	--	11.67	--
Mt	6.29	--	7.17	--	7.42	2.57
Hm	--	1.69	--	1.59	--	0.11
Il	5.23	0.04	6.43	0.04	6.68	0.72
Ap	0.88	0.01	1.44	0.05	1.17	0.10
Ru	--	0.12	--	0.21	--	--

D.D.H. # JZ-1 (CONT'D)

SAMPLE #	B3115	B3116	B3117	B3118	B3119	B3120	B3121
LOCATION	JZ1-110'	JZ1-140'	JZ1-146'	JZ1-165'	JZ1-183'	JZ-190'	JZ-200'
SiO_2	49.24	76.92	50.36	77.83	65.75	78.62	46.41
Al_2O_3	14.46	10.79	13.23	11.74	19.11	11.01	16.56
CaO	8.56	3.31	8.78	0.42	1.74	1.05	8.73
MgO	6.33	0.21	5.30	0.11	0.26	0.29	6.58
Na_2O	3.10	3.43	3.03	3.28	11.00	4.24	3.59
K_2O	1.73	3.86	2.44	4.87	0.12	2.44	0.52
FeO	9.07	0.29	7.80	0.55	0.45	0.94	7.45
Fe_2O_3	4.57	1.19	6.78	1.10	1.33	1.20	7.66
MnO	0.28	0.02	0.24	0.03	0.03	0.03	0.25
TiO_2	2.76	0.17	2.36	0.15	0.33	0.25	2.63
P_2O_5	0.38	0.01	0.31	0.01	0.02	0.03	0.33
LOI	2.75	2.41	2.97	0.52	1.18	0.93	3.21
TOTAL	97.60	99.76	98.10	99.04	97.14	98.96	92.27
Qtz	--	37.82	--	38.99	--	42.13	--
Cor	--	--	--	0.32	--	--	--
Or	10.09	22.81	14.26	28.73	0.70	14.41	3.01
Ab	25.82	29.01	25.40	27.72	89.78	35.80	29.22
An	20.17	2.60	15.11	2.03	2.40	3.78	27.18
Ne	--	--	--	--	1.70	--	0.43
Di	8.17	0.57	9.57	--	1.30	0.53	5.47
He	7.81	0.06	12.19	--	0.10	0.52	5.73
Wo	--	5.40	--	--	1.80	--	--
En	4.76	--	2.43	0.20	--	0.14	--
Fs	5.22	--	3.55	0.09	--	0.16	--
Fo	2.57	--	2.55	--	--	--	7.40
Fa	3.11	--	4.11	--	--	--	9.80
Mt	6.24	--	5.68	--	--	0.71	6.08
Hm	--	1.52	--	1.68	1.83	1.29	--
Il	5.17	0.04	4.43	0.14	0.06	0.48	4.93
Ap	0.87	0.02	0.72	0.02	0.04	0.06	0.76
Ru	--	0.14	--	0.08	0.29	--	--

SAMPLE #	B3122	B3123	B3124	B3125	B3126	B3127
LOCATION	JZ1-313.4'	JZ1-318'	JZ1-330'	JZ1-342'	JZ1-375'	JZ1-408'
SiO_2	62.50	49.62	64.73	49.69		64.56
Al_2O_3	15.18	12.20	13.95	12.19		17.14
CaO	9.78	7.32	3.16	7.19		5.08
MgO	0.76	3.47	0.84	3.53		0.39
Na_2O	3.02	2.80	4.70	2.83		8.12
K_2O	1.38	2.62	4.18	2.49		0.14
FeO	0.78	0.62	3.08	9.52		0.45
Fe_2O_3	4.86	8.04	4.26	8.13		3.60
MnO	0.11	0.39	0.15	0.36		0.07
TiO_2	1.84	3.13	1.04	3.23		0.42
P_2O_5	0.26	1.54	0.31	1.61		0.38
LOI	1.45	2.20	0.71	1.94		0.92
TOTAL	98.36	98.30	98.12	97.95		97.84
Qtz	23.12	2.96	13.97	3.68		8.53
Cor	--	--	--	--		--
Or	8.11	15.35	24.61	14.55		0.85
Ab	25.37	23.46	39.59	23.70		68.48
An	23.64	12.84	4.59	13.05		9.87
Ne	--	--	--	--		--
Di	1.53	3.30	1.68	3.03		1.09
He	2.87	7.90	6.07	7.04		3.58
Wo	7.36	--	--	--		3.09
En	--	4.80	0.59	4.99		--
Fs	--	13.17	2.45	13.28		--
Fo	--	--	--	--		--
Fa	--	--	--	--		--
Mt	1.79	6.78	3.75	6.92		2.85
Hm	2.14	--	--	--		--
Il	3.47	5.89	1.98	6.07		0.79
Ap	0.61	3.55	0.73	3.71		0.87

* Total Fe as FeO

D.D.H. # JZ-1 (CONT'D)

SAMPLE #	B3128	B3129	B3130	B3131	B3132	B3133	B3134
LOCATION	JZ1-415'	JZ1-421'	JZ1-432'	JZ1-437'	JZ1-448'	JZ1-569'	JZ1-550'
SiO_2	80.40	77.73	74.61	63.18	79.23	73.16	48.08
Al_2O_3	9.27	10.87	11.75	17.37	10.29	13.15	12.76
CaO	1.29	0.50	0.37	1.52	0.28	0.98	8.84
MgO	0.22	0.41	0.28	0.39	0.02	0.15	5.40
Na_2O	5.01	6.00	6.87	10.17	4.49	7.35	3.01
K_2O	0.12	0.09	0.07	0.09	2.03	0.13	2.30
FeO	1.00	3.89*	5.56*	6.16*	3.34*	4.31*	15.20*
Fe_2O_3	2.55						
MnO	0.06	0.07	0.08	0.15	0.06	0.05	0.36
TiO_2	0.30	0.39	0.36	0.59	0.24	0.60	3.43
P_2O_5	0.02	0.04	0.04	0.42	0.01	0.12	0.62
LOI	0.83	0.33	0.15	0.64	1.18	0.92	1.67
TOTAL	99.65	100.49	99.11	97.18	99.29	97.89	97.36
Qtz	47.93	39.92	31.04	--	44.00	27.44	--
Cor	--	0.08	--	--	0.22	--	--
Or	0.74	0.55	0.43	0.51	11.97	0.80	13.39
Ab	42.29	50.63	58.05	85.49	37.97	62.00	25.13
An	2.43	2.21	0.98	1.67	1.29	2.51	14.28
Ne	--	--	--	--	--	--	--
Di	0.54	--	0.05	0.34	--	0.12	9.08
He	2.77	--	0.45	2.39	--	1.23	11.82
Wo	--	--	--	--	--	--	--
En	0.01	0.61	0.49	0.33	0.03	0.11	1.45
Fs	0.06	2.42	5.00	2.69	1.48	1.28	2.17
Fo	--	--	--	0.14	--	--	2.90
Fa	--	--	--	1.24	--	--	4.76
Mt	2.63	2.74	2.73	3.11	2.56	3.11	7.18
Hm	--	--	--	--	--	--	--
Il	0.56	0.74	0.69	1.11	0.45	1.13	6.42
Ap	0.05	0.10	0.10	0.97	0.03	0.28	1.42

SAMPLE #	B3135	B3136	B3137	B3138	B3139	B3140
LOCATION	JZ1-457'	JZ1-462'	JZ1-476'	JZ1-496'	JZ1-516'	JZ1-528'
SiO_2	72.08	80.27		50.84	62.15	46.67
Al_2O_3	13.27	9.85		15.08	17.63	12.88
CaO	0.91	0.36		9.13	2.91	8.39
MgO	0.11	0.04		5.39	0.32	5.91
Na_2O	7.35	5.50		3.32	10.28	2.85
K_2O	0.11	0.09		2.14	0.14	2.09
FeO	5.46	3.57*		11.54*	4.69*	16.65*
Fe_2O_3						
MnO	0.08	0.05		0.24	0.09	0.31
TiO_2	0.31	0.25		2.10	0.50	3.61
P_2O_5	0.33	0.03		0.31	1.29	0.65
LOI	0.23	1.05		1.60	0.87	2.60
TOTAL	97.94	98.67		97.56	97.89	98.33
U	51	440	140	29	49	1100
Th	25	23	22	17	20	75
Cu	20	23	31	28	51	29
Zn	49	600	43	150	130	1800
Ag	1	1	1	1	1	10
Pb	50	175	25	90	35	2600
F	100	500	130	60	80	530
Sn	25	80	35	5	5	40
W	20	20	20	20	20	20
Qtz	25.40	46.31		--	--	--
Cor	0.18	0.12		--	--	--
Or	0.67	0.50		12.51	0.80	12.16
Ab	62.06	46.48		27.00	84.25	23.79
An	2.38	1.61		20.13	1.57	15.92
Ne	--	--		--	1.35	--
Di	--	--		9.43	0.56	7.54
He	--	--		9.43	3.27	9.97
Wo	--	--		--	--	--
En	0.21	0.05		2.86	--	1.64
Fs	5.09	1.81		3.28	--	2.51
Fo	--	--		2.40	0.16	4.04
Fa	--	--		3.03	1.15	6.76
Mt	2.68	2.59		5.28	2.97	7.43
Hm	--	--		--	--	--
Il	0.58	0.47		3.95	0.94	6.75
Ap	0.75	0.06		0.71	2.98	1.49

SAMPLE #	B3141	B3165	B3166	B3167	B3168	B0120	B0121
LOCATION	JZ1-538'	JZ1-361'	JZ1-378.5'	JZ1-386.5'	JZ1-479'	JZ1-350'	JZ1-379'
SiO_2	76.87	64.13	63.15	66.28	80.00	63.98	64.36
Al_2O_3	9.83	18.43	17.87	17.54	10.34	18.24	18.12
Cao	4.14	0.78	2.52	0.90	0.38	0.85	2.05
MgO	0.40	0.19	0.10	0.19	0.19	0.08	0.11
Na_2O	3.22	10.93	10.48	10.37	5.83	10.79	10.54
K_2O	1.03	0.10	0.10	0.09	0.05	0.16	0.15
FeO	4.12*	3.82	2.67	3.42	1.93	4.21	2.51
Fe_2O_3		1.42	0.77	0.84	1.10	1.48	1.13
MnO	0.12	0.03	0.02	0.04	0.07	0.03	0.02
TiO_2	0.25	0.40	0.36	0.42	0.24	0.47	0.33
P_2O_5	0.02	0.14	1.21	0.22	0.05	0.12	0.93
LOI	1.14	0.46	0.66	0.72	0.48	1.62	0.92
TOTAL	99.13	97.55	97.22	97.15	97.87	97.63	97.04
Qtz	45.78		1.12	3.67	44.62	0.00	0.64
Cor	--				0.13		
Or	6.10	0.56	0.58	0.53	0.29	0.92	0.86
Ab	27.14	88.42	88.46	87.56	49.18	87.82	88.95
An	9.32	0.96	1.43	1.02	1.54	0.89	1.73
Ne	--	2.09				1.78	
Di	1.45	0.15	0.16	0.21		0.07	0.19
He	6.13	1.56	1.44	1.55		2.16	1.86
Wo	0.95		0.57				
En	--			0.14	0.18		0.22
Fs	--			1.16	0.91		0.23
Fo	--	0.16				0.06	
Fa	--	2.19				2.15	
Mt	2.59	2.82	2.77	2.87	2.58	2.86	2.74
Hm	--						
Il	0.48	0.75	0.58	0.80	0.45	0.90	0.62
Ap	0.06	0.33	2.79	0.50	0.13	0.23	2.15

D.D.H. NO. JZ-2

SAMPLE #	B3169	B3170
LOCATION	JZ-2-31	JZ-2-35.5
SiO_2	69.33	78.53
Al_2O_3	14.01	9.67
CaO	0.67	0.32
MgO	0.07	0.22
Na_2O	2.52	0.03
K_2O	8.32	8.04
FeO	1.25	1.32
Fe_2O_3	3.67	1.72
MnO	0.01	0.02
TiO_2	0.33	0.22
P_2O_5	0.17	0.05
LOI	0.27	0.53
TOTAL	98.64	99.49
U	66	25
Th	26	20
Cu	34	100
Zn	36	160
Ag	1	1
Pb	20	175
F-	90	60
Sn	3	3
W	20	20
Qtz	20.27	46.26
Cor	0103	0.45
Or	49.10	47.43
Ab	21.26	0.28
An	2.23	1.24
Ne		
Di		
He		
Wo		
En	0.11	0.24
Fs	3.27	1.04
Fo		
Fa		
Ru		
Mt	2.70	2.52
Hm		
Il	0.63	0.42
Ap	0.39	0.12

D.D.H. # JZ-5

SAMPLE #	B3287	B3289	B3290	B3291	B3292	B3293
LOCATION	JZ-5-64	JZ-5-166	JZ-5-181	JZ-5-240	JZ-5-372	JZ-5-475
SiO_2	47.29	58.70	49.63	75.83	45.91	75.29
Al_2O_3	15.11	16.74	12.01	10.74	17.23	12.50
CaO	9.41	4.27	7.66	0.33	5.75	0.31
MgO	6.70	1.06	3.79	0.19	7.57	0.10
Na_2O	2.20	4.24	2.55	0.65	1.54	0.34
K_2O	1.90	5.43	3.04	8.84	3.77	10.28
FeO	9.15	3.74	10.2	1.19	9.60	0.29
Fe_2O_3	6.13	4.52	6.04	2.02	6.03	0.80
MnO	0.39	0.21	0.38	0.06	0.28	0.02
TiO_2	2.74	1.17	3.50	0.29	2.51	0.13
P_2O_5	0.38	0.35	1.78	0.03	0.38	0.02
LOI	1.45	1.95	1.75	0.54	3.25	0.27
TOTAL	97.98	97.80	97.91	99.97	97.92	100.29
Qtz		2.62	4.13	37.16		33.13
Cor					1.07	0.29
Or	6.39	31.97	17.73	52.15	22.04	60.74
Ab	18.46	35.66	21.34	5.45	12.84	2.91
An	27.86	10.57	12.17	0.29	25.69	1.37
Ne						
Di	17.42	1.64	4.02	0.17		
He	17.90	5.47	7.73	0.82		
En	7.44	1.05	4.67	0.11	4.54	0.21
Fs	9.09	4.02	10.30	0.62	5.09	0.03
Fo	1.76				7.71	
Fa	2.37				9.52	
Mt	6.18	3.97	7.28	2.60	5.90	
Il	5.13	2.22	6.56	0.54	4.71	0.04
Ap	0.88	0.81	4.08	0.08	0.88	

D.D.H. # JZ-5 (CONT'D)

SAMPLE #	B3179	B3180	B3181	B3182	B3857	B3858	B3864
LOCATION	JZ-5-92	JZ-5-99.5	JZ-5-105.5	JZ-5-269	JZ-5-286.5	JZ-5-209	JZ-5-394
SiO_2	77.81	78.38	74.51	76.92	46.00	51.43	46.92
Al_2O_3	10.37	10.39	13.41	11.15	15.18	21.06	16.87
CaO	0.32	0.38	0.46	0.33	8.00	7.66	4.76
MgO	0.14	0.10	0.08	0.11	6.50	3.19	7.15
Na_2O	0.85	1.79	7.09	2.81	2.05	4.41	2.55
K_2O	7.34	5.62	0.90	4.70	1.80	2.60	4.47
FeO	0.71	0.68	0.74	1.58	10.4	4.8	9.69
Fe_2O_3	2.41	2.58	2.74	2.25	6.83	3.57	4.38
MnO	0.05	0.02	0.02	0.09	0.47	0.28	0.49
TiO_2	0.21	0.25	0.25	0.26	3.07	1.24	2.77
P_2O_5	0.03	0.05	0.06	0.02	0.35	0.10	0.38
LOI	0.68	0.63	0.35	0.75	2.28	3.84	2.69
TOTAL	98.88	98.74	97.79	98.12	99.10	98.64	99.72
U	46	60	210	12	3	2	2
Th	19	20	20	15	1	2	3
Cu	80	43	34	29	12	11	17
Zn	230	280	170	220	96	190	240
Ag	1	2	1	1	1	1	1
Pb	120	230	160	30	10	30	10
F	70	340	170	100	670	310	1500
Sn	3	3	3	3	3	3	3
W	20	20	20	20	20	20	20
Qtz	43.48	45.17	28.34	41.82			0.00
Cor	0.49	0.78	0.08	0.88			0.08
Or	43.32	33.19	5.32	27.76	10.51	15.29	26.06
Ab	7.21	15.11	59.88	23.71	17.14	29.87	17.23
An	1.40	1.56	1.89	1.52	26.53	29.74	20.85
Ne						3.89	2.19
Di					3.83	2.86	9.91
He					4.82	3.29	11.43
En	0.14	0.09	0.08	0.14	6.31		
Fs	0.97	0.94	1.21	2.04	9.11		
Fo					3.30	3.43	
Fa					5.25	4.99	
Mt	2.52	2.58	2.60	2.61	6.64	4.08	6.20
Il	0.40	0.48	0.47	0.49	5.74	2.34	5.18
Ap	0.06	0.11	0.14	0.04	0.81	0.22	0.86

D.D.H. NO. JZ-6

SAMPLE #	B3294	B3295	B3296	B3297	B3298	B3299	B3300
LOCATION	JZ-6-20	JZ-6-60	JZ-6-130	JZ-6-209	JZ-6-230	JZ-6-280	JZ-6-328
SiO_2	80.76	77.29	48.23	75.11	60.23	74.89	51.08
Al_2O_3	9.24	11.85	13.90	11.79	14.61	10.98	12.77
CaO	0.25	0.31	8.10	0.47	3.63	0.57	10.70
MgO	0.15	0.07	6.80	0.10	1.36	0.43	5.42
Na_2O	2.07	3.29	2.57	4.78	4.02	1.37	3.17
K_2O	4.53	4.97	1.93	2.97	4.85	7.23	0.85
FeO	0.55	1.10	8.89	1.29	4.45	1.71	7.60
Fe_2O_3	2.36	1.04	6.87	3.16	5.22	2.46	5.88
MnO	0.06	0.04	0.37	0.07	0.21	0.10	0.34
TiO_2	0.22	0.13	2.63	0.49	1.41	0.43	2.43
P_2O_5	0.02	0.00	0.36	0.06	0.51	0.07	0.33
LOI	0.45	0.38	2.08	0.32	0.82	0.58	2.16
TOTAL	100.08	99.13	97.52	99.57	97.60	99.53	97.68
Qtz	50.35	38.28		33.99	8.05	36.61	1.30
Cor	0.51	0.49				0.03	
Or	26.75	29.33	11.30	17.55	28.55	42.65	4.98
Ab	17.47	27.77	21.55	40.35	33.80	11.53	26.56
An	1.12	1.52	20.51	1.94	7.46	2.37	17.98
Ne							
Di			7.70	0.00	1.49		13.57
He			8.42	0.00	4.67		15.36
En	0.12	0.03	4.27	0.12	1.71	0.62	4.31
Fs	0.70	0.19	5.36	2.06	6.15	2.42	5.60
Fo			4.14				
Fa			5.72				
Mt	2.50	1.49	6.07	2.91	4.29	2.82	5.78
Il	0.42	0.25	4.94	0.93	2.66	0.80	4.57
Ap	0.05	0.01	0.83	0.15	1.18	0.16	0.75
Hm		0.63					

D.D.H. NO. JZ-6 (CONT'D)

UNIT						
SAMPLE #	B3301	B3302	B3303	B3304	B3183	B3184
LOCATION	JZ-6-328	JZ-6-376	JZ-6-460	JZ-6-523	JZ-6-458	JZ-6-490.5
SiO_2	78.01	78.01	76.42	49.02	76.70	78.06
Al_2O_3	10.50	10.74	10.52	11.78	10.92	10.44
CaO	1.35	0.51	0.57	8.03	0.24	0.37
MgO	0.28	0.04	0.16	4.14	0.07	0.08
Na_2O	1.83	2.75	0.92	2.52	1.24	2.57
K_2O	5.09	4.81	7.84	2.42	7.26	4.56
FeO	0.84	0.71	0.87	10.00	1.35	1.42
Fe_2O_3	1.95	2.37	2.63	6.81	2.07	2.40
MnO	0.06	0.04	0.06	0.42	0.09	0.07
TiO_2	0.25	0.24	0.24	3.59	0.24	0.24
P_2O_5	0.01	0.01	0.01	1.91	0.01	0.02
LOI	0.42	0.26	0.62	2.29	0.95	0.45
TOTAL	99.62	99.98	100.61	98.24	98.95	98.82
U	5	7				
Th	22	14				
Ca	50	31				
Zn	420	200				
Ag	1	1				
Pb	350	35				
F	80	80				
Sn	3	5				
W	20	20				
Qtz	44.66	42.14	39.22	2.15	40.39	43.81
Cor		0.12			0.58	0.64
Or	30.00	28.37	46.27	14.37	42.87	26.95
Ab	15.47	23.22	7.76	21.48	10.50	21.70
An	5.36	2.44	1.40	13.74	1.15	1.71
Ne						
Di	0.30		0.15	7.89		
He	0.73		1.06	14.46		
En	0.11	0.03	0.13	3.70	0.08	0.11
Fs	0.30	0.69	1.00	7.78	1.39	2.03
Fo						
Fa						
Mt	2.56	2.52	2.53	7.56	2.57	2.56
Il	0.48	0.45	0.46	6.86	0.45	0.45
Ap	0.03	0.02	0.02	4.38	0.02	0.04
Hm						

D.D.H. # JZ-7

SAMPLE #	B3305	B3306	B3307	B3308	B3309	B3310	B3311
LOCATION	JZ-7-24'	JZ-7-37'	JZ-7-49'	JZ-7-53'	JZ-7-75'	JZ-7-113'	JZ-7-170'
SiO_2	48.48	77.57	49.99	75.46	48.44	77.46	48.63
Al_2O_3	13.75	10.02	13.81	11.55	13.13	11.55	15.93
CaO	10.17	0.37	10.15	1.30	9.08	0.71	10.20
MgO	7.09	0.18	5.12	0.34	5.43	0.06	5.00
Na_2O	2.68	0.09	3.10	1.48	3.89	3.48	3.15
K_2O	1.19	8.63	2.45	7.32	0.63	4.86	0.99
FeO	7.57	0.71	7.92	1.03	8.18	0.23	5.35
Fe_2O_3	6.69	2.36	4.82	1.34	8.03	1.54	8.84
MnO	0.31	0.03	0.18	0.03	0.27	0.02	0.19
TiO_2	2.35	0.24	2.56	0.26	3.03	0.15	2.22
P_2O_5	0.34	0.02	0.38	0.02	0.65	0.00	0.34
LOI	1.96	0.92	3.58	1.12	2.72	0.64	2.13
TOTAL	97.61	101.26	98.05	99.97	98.24	98.44	97.63
Qtz	--	42.68	--	36.11	--	37.33	--
Cor	--	--	--	--	--		--
Or	6.96	50.95	14.32	43.19	3.67	28.71	5.79
Ab	22.40	0.73	25.02	12.52	32.51	29.40	26.35
An	21.71	1.42	16.34	3.18	16.28	1.51	26.15
Ne	--	--	0.46	--	--	--	--
Di	11.13	0.05	12.39	0.86	8.56	0.10	7.96
He	10.39	0.23	13.42	1.08	11.59	0.23	10.24
Wo	--	--	--	0.31	--	0.67	--
En	4.31	0.15	--	--	2.38		2.59
Fs	4.61	0.80	--	--	3.70		3.82
Fo	3.51	--	2.71	--	2.77		2.55
Fa	4.14	--	3.72	--	4.74		4.14
Hm	--	--	--	0.84	--	1.51	
Mt	5.65	2.51	5.97	1.36	6.62	0.25	5.47
Il	4.41	0.45	4.80	0.49	5.68	0.28	4.17
Ap	0.77	0.04	0.86	0.06	1.49	0.00	0.79

D.D.H. # JZ-8

SAMPLE #	B3312	B3313	B3314	B3315	B3316
LOCATION	JZ-8-27	JZ-8-34	JZ-8-43	JZ-8-85	JZ-8-128
SiO_2	65.33	58.00	70.59	48.64	77.85
Al_2O_3	18.42	16.50	13.29	12.77	11.65
CaO	0.53	7.26	0.55	8.47	0.40
MgO	0.10	1.47	0.13	4.70	0.15
Na_2O	11.35	3.13	0.24	4.25	3.43
K_2O	0.15	6.03	11.25	0.21	4.47
FeO	0.26	1.90	0.32	8.12	0.48
Fe_2O_3	3.82	5.67	3.55	9.07	1.54
MnO	0.02	0.15	0.02	0.30	0.04
TiO_2	0.30	0.28	0.28	3.70	0.15
P_2O_5	0.09	0.15	0.12	0.63	0.00
LOI	0.34	1.25	0.85	1.45	0.36
TOTAL	97.77	97.06	100.15	98.54	99.19
U	57	76	16	7	
Th	28	28	21	20	
Cu	17	21	96	15	
Zn	34	58	170	56	
Ag	1	1	1	1	
Pb	5	10	80	40	
F	150	160	40	60	
Sn	3	40	8	3	
W	60	20	20	20	
Qtz	--	0.43	24.32	--	39.64
Cor	--	--	0.01	--	0.45
Or	0.87	35.59	66.38	1.22	26.39
Ab	89.37	26.44	2.06	35.47	28.91
An	--	13.08	1.90	14.92	1.94
Ne	2.37	--	--	--	--
Ac	1.82	--	--	--	--
Di	0.13	5.51	--	7.26	--
He	1.68	13.61	--	11.68	--
Wo	--		--	--	--
En	--	0.59	0.16	4.34	0.15
Fs	--	1.62	1.75	8.00	0.29
Fo	0.07	--	---	0.39	--
Fa	1.16	--	--	0.80	--
Mt	1.76	2.69	2.61	7.54	0.82
Hm	--	--	--	--	1.11
Il	0.20	0.35	0.29	1.45	0.01

SAMPLE #	B3317	B3318	B3185	B3186	B3187	B3188
LOCATION	JZ-8-193	JZ-8-250	JZ-8-28	JZ-8-40	JZ-8-47	JZ-8-129
SiO_2	50.73	71.96	65.52	64.73	78.80	77.53
Al_2O_3	12.14	12.32	17.83	18.62	10.16	12.05
Cao	6.77	6.24	0.70	0.80	0.38	0.37
MgO	3.46	0.48	0.06	0.01	0.12	0.09
Na_2O	2.53	3.89	10.76	11.03	2.01	3.70
K_2O	3.50	0.10	0.09	0.10	5.18	4.15
FeO	7.34	0.19	1.0	1.03	1.16	1.19
Fe_2O_3	9.59	4.95	3.84	3.41	2.14	0.82
MnO	0.23	0.06	0.01	0.02	0.01	0.03
TiO_2	3.10	0.25	0.34	0.38	0.24	0.14
P_2O_5	1.52	0.03	0.19	0.18	0.01	0.00
LOI	1.61	1.22	0.31	0.39	0.55	0.50
TOTAL	98.29	99.51	97.12	97.30	98.88	98.90
Qtz.	3.97	36.36	0.58		45.18	39.11
Cor	--	--			0.58	0.80
Or	20.49	0.56	0.53	0.58	30.58	24.51
Ab	21.15	32.81	91.03	90.31	17.00	31.20
An	11.32	15.85	0.02	1.02	1.77	1.83
Ne	--	--		1.55		
Ac	--	--				
Di	3.22	1.92	0.06	0.01		
He	7.11	7.92	1.90	1.57		
Wo	--	1.46				
En	4.73	--	0.06		0.12	0.06
Fs	12.01	--	2.00		1.13	0.22
Fo	--	--		0.01		
Fa	--	--		1.00		
Mt	6.71	2.58	2.74	2.81	2.56	1.10
Hm	--	--				0.90
Il	3.48	0.06	0.44	0.42	0.03	0.01

D.D.H. # JZ-11

SAMPLE #	B3189	B3190	B3191	B3192	B3193	B3194
LOCATION	JZ11-155	JZ11-174.5	JZ11-209.5	JZ11-232	JZ11-273	JZ11-291
SiO_2	65.55	76.76	78.31	77.18	64.63	64.53
Al_2O_3	18.73	11.31	11.56	11.67	18.40	18.95
CaO	0.72	0.29	0.34	0.25	2.00	1.25
MgO	0.15	0.14	0.11	0.12	0.05	0.11
Na_2O	10.51	3.14	2.45	1.88	10.79	11.06
K_2O	0.71	4.36	5.49	6.83	0.08	0.09
FeO	1.13	2.13	1.0	1.25	0.68	0.77
Fe_2O_3	2.2	1.67	0.65	0.70	2.39	2.98
MnO	0.12	0.08	0.02	0.03	0.01	0.02
TiO_2	0.35	0.26	0.13	0.14	0.39	0.47
P_2O_5	0.05	0.03	0.01	0.00	0.80	0.05
LOI	0.58	0.64	0.59	0.58	0.47	0.27
TOTAL	97.52	99.17	98.63	98.55	97.20	97.73
U	30	4	6	8	65	9
Th	21	21	21	23	33	25
Cu	22	34	26	14	19	12
Zn	58	180	62	90	31	21
Ag	1	1	1	1	1	1
Pb	10	190	55	15	5	5
F	90	40	50	40	470	170
Sn	3	5	3	3	20	40
W	20	20	20	20	20	20
Qtz	0.10	40.10	42.07	39.26	0.14	
Cor		0.97	0.98	0.71		
Or	4.17	25.76	32.41	40.31	0.50	0.52
Ab	88.70	26.48	20.67	15.88	91.07	88.44
An	1.85	1.24	1.65	1.26	1.54	1.78
Ne						2.67
Di	0.61				0.02	0.17
He	1.03				0.30	1.67
Wo					1.15	0.83
En	0.06	0.20	0.17	0.11		
Fs	0.42	2.11	0.13	0.26		
Fo						
Fa						
Ru			0.01			
Mt	2.74	2.59		0.94	2.38	2.91
Hm			1.66	1.02	0.30	
Il	0.64	0.50	0.23	0.26	0.74	0.88
Ap	0.12	0.06	0.01		1.84	0.12

D.D.H. # JZ-11 (CONT'D)

SAMPLE #	B3195	B3196	B3197	B3198	B3199	E0101
LOCATION	JZ11-303.5	JZ11-317	JZ11-375	JZ11-495	JZ11-414	JZ11-138
SiO_2	64.38	64.91	62.55	77.22	78.70	77.90
Al_2O_3	18.67	18.73	18.03	11.09	11.09	10.82
Cao	1.01	0.79	1.18	0.31	0.20	0.37
MgO	0.05	0.07	0.56	0.15	0.29	0.05
Na_2O	10.94	11.25	10.15	3.77	0.02	3.07
K_2O	0.09	0.08	0.10	3.76	6.39	4.25
FeO	1.03	0.81	2.13	0.93	0.35	0.90
Fe_2O_3	3.60	3.09	4.87	2.70	2.99	2.60
MnO	0.01	0.02	0.07	0.07	0.01	0.03
TiO_2	0.48	0.47	0.74	0.26	0.24	0.25
P_2O_5	0.08	0.08	0.07	0.01	0.01	0.02
LOI	0.32	0.42	0.52	0.65	2.35	0.80
TOTAL	97.53	97.97	97.58	99.17	99.20	98.63
U	39	59	13	7	6	11
Th	29	30	26	19	19	14
Cu	14	15	15	16	180	54
Zn	27	23	76	130	3100	220
Ag	1	1	1	1	1	1
Pb	10	5	5	30	700	120
F	90	120	150	60	130	70
Sn	80	100	5	3	5	3
W	20	20	20	20	20	20
Qtz			0.00	39.32	52.80	42.36
Cor				0.29	3.79	0.54
Or	0.52	0.47	0.60	22.17	37.68	25.08
Ab	88.64	90.31	84.36	31.83	0.13	25.94
An	1.57	0.39	3.32	1.43	0.93	1.70
Ne	2.04	2.56	0.69			
Di	0.07	0.12	0.29			
He	2.52	1.94	1.50			
No		0.28				
En				0.18	0.35	0.05
Fs				1.67	1.26	1.22
Fo	0.01		0.57			
Fa	0.59		3.78			
Ru						
Mt	2.94	2.91	3.32	2.58	2.59	2.59
Hm						
Il	0.91	0.88	1.40	0.49	0.45	0.47
Ap	0.18	0.18	0.16	0.03	0.03	0.05

D.D.H. #JZ-12

SAMPLE # LOCATION	B3200 JZ12-110	E0102 JZ12-289	E0102 JZ12-225	E0104 JZ12-220	E0108 JZ12-30
SiO_2	80.23	79.91	83.96	85.43	72.74
Al_2O_3	10.27	10.82	8.75	7.63	10.95
CaO	0.25	0.22	0.20	0.24	1.41
MgO	0.09	0.12	0.11	0.06	1.31
Na_2O	5.71	6.33	0.74	0.43	0.92
K_2O	0.05	0.09	5.39	5.53	7.26
FeO	1.03	0.84	0.35	0.13	2.51
Fe_2O_3	1.32	1.50	0.28	0.33	2.31
MnO	0.02	0.03	0.01	0.01	0.08
TiO_2	0.23	0.26	0.21	0.23	0.66
P_2O_5	0.02	0.02	0.01	0.01	0.07
LOI	0.36	0.42	0.58	0.55	0.92
TOTAL	98.27	98.75	100.14	97.33	99.15
U	10	3	4	3	15
Th	18	13	15	13	13
Cu	24	35	18	18	35
Zn	200	30	110	13	190
Ag	1	1	1	1	1
Pb	530	5	70	5	70
F	50	50	70	170	240
Sn	20	3	3	3	3
W	20	20	20	20	20
Qtz	45.68	42.08	58.39	61.15	34.21
Cor	0.42		1.36	0.54	
Or	0.28	0.52	31.86	32.71	42.71
Ab	48.24	53.43	6.29	3.61	7.70
An	1.10	0.86	0.92	1.11	4.30
Di		0.01			0.80
He		0.05			1.05
Wo					
En	0.09	0.07	0.26	0.14	1.86
Fs	1.15	0.27	0.02	0.01	2.80
Fo					
Fa					
Ru			0.20	0.22	
Mt	2.56	1.23			3.16
Hm	0.44	0.49	0.02	0.01	1.24
Ap	0.05	0.05	0.03	0.03	0.16

D.D.H. NO. JZ-15

SAMPLE #	B3115	B3156	E0105	E0106	E0107
LOCATION	JZ15-44	JZ15-44.5	JZ15-43	JZ15-260	JZ15-250
SiO_2	65.43	82.75	64.82	66.58	62.81
Al_2O_3	18.83	7.68	18.41	19.04	17.73
CaO	1.12	0.33	1.48	1.23	1.86
MgO	0.06	0.09	0.11	0.04	0.30
Na_2O	11.27	1.16	10.99	11.45	10.30
K_2O	0.11	4.55	0.15	0.10	0.12
FeO	0.64	1.35	0.77	0.10	1.55
Fe_2O_3	2.37	1.97	2.98	0.81	4.73
MnO	0.02	0.01	0.03	0.01	0.05
TiO_2	0.29	0.25	0.03	0.38	0.39
P_2O_5	0.09	0.03	0.24	0.33	0.59
LOI	0.76	0.63	0.49	0.43	0.58
TOTAL	97.39	98.93	97.53	97.99	97.64
U	75	20	150	200	80
Th	16	17	19	19	23
Cu	37	49	35	16	14
Zn	23	55	26	47	70
Ag	1	1	1	1	1
Pb	20	30	45	75	80
F	230	130	270	210	340
Sn	8	8	8	15	10
W	20	20	20	20	20
Qtz		57.24	0.00		0.00
Cor		0.31			
Or	0.66	26.85	0.86	0.56	0.74
Ab	91.06	9.83	88.97	93.82	84.92
An	0.49	1.43	0.48	0.28	1.77
Ne	2.14		2.06	1.61	1.13
Di	0.03		0.26	0.21	0.32
He	0.44		2.82	0.03	2.83
Wo	1.63		0.74	1.39	
En		0.09			
Fs		1.12			
Fo					0.28
Fa					3.09
Ru				0.37	
Mt	2.67	2.57	2.68		2.81
Hm				0.93	
Il	0.55	0.47	0.57	0.02	0.74
Ap	0.21	0.08	0.56	0.77	1.37

D.D.H. NO. JZ-16

SAMPLE # / LOCATION	JZ16-34	JZ16-61	JZ16-110	JZ16-117	JZ16-253
SiO_2	76.96	64.17	64.22	64.57	64.85
Al_2O_3	10.58	17.79	18.18	18.23	18.53
CaO	0.30	0.99	1.23	1.19	1.31
MgO	0.12	0.14	0.32	0.18	0.11
Na_2O	0.00	0.24	10.87	10.75	10.92
K_2O	8.90	13.46	0.18	0.14	0.14
FeO	0.81	0.64	1.48	1.03	0.77
Fe_2O_3	2.25	2.07	3.21	3.63	2.94
MnO	0.02	0.02	0.05	0.03	0.04
TiO_2	0.23	0.38	0.49	0.41	0.49
P_2O_5	0.04	0.29	0.08	0.17	0.18
LOI	0.95	1.48	1.21	2.97	2.88
TOTAL	99.76	97.94	97.00	97.44	98.14
U	22	430	60	45	65
Th	15	30	23	19	18
Cu	62	76	30	31	20
Zn	220	22	28	19	68
Ag	1	1	1	1	1
Pb	65	10	5	5	35
F	70	150	130	130	130
Sn	3	3	5	8	8
W	20	20	20	20	20
Qtz	41.86	9.68			0.00
Cor	0.51	1.71			
Or	52.51	79.38	1.09	0.83	0.85
Ab		2.05	86.73	88.99	90.07
An	1.19	2.97	0.26	1.06	1.12
Ne			2.71	0.96	1.12
Di			0.75	0.32	0.14
He			3.87	2.91	1.27
Wo					1.09
En	0.10	0.09			
Fs	0.77	0.35			
Fo			0.07	0.07	
Fa			0.44	0.77	
Ru					
Mt	2.54	1.40	2.98	2.90	3.00
Hm		0.97			
Il	0.44	0.72	0.92	0.78	0.93
Ap	0.10	0.68	0.18	0.40	0.41

D.D.H. NO. JZ-17

SAMPLE #	E0114
LOCATION	JZ17-342
SiO_2	83.83
Al_2O_3	9.40
CaO	0.66
MgO	0.08
Na_2O	5.34
K_2O	0.10
FeO	0.10
Fe_2O_3	0.48
MnO	0.01
TiO_2	0.05
P_2O_5	0.01
LOI	1.05
TOTAL	98.63
U	17
Th	17
Cu	9
Zn	19
Ag	1
Pb	10
F	80
Sn	20
W	20
Qtz	51.27
Cor	
Or	0.58
Ab	45.12
An	1.42
Ne	
Di	0.41
He	0.03
Wo	0.50
En	
Fs	
Fo	
Fa	
Ru	0.04
Mt	
Hm	0.58
Il	0.02
Ap	0.03

D.D.H. NO. JZ-18

SAMPLE #	E0115	E0116	E0117	E0118	E0119
LOCATION	JZ18-24	JZ18-311	JZ18-328.5	JZ18-444	JZ18-445.5
SiO_2	69.48	77.68	80.11	78.36	79.51
Al_2O_3	14.61	10.44	10.11	10.82	10.44
CaO	0.67	0.50	0.27	0.36	0.37
MgO	0.07	0.12	0.03	0.09	0.10
Na_2O	8.78	5.98	5.67	6.21	5.88
K_2O	0.09	0.09	0.10	0.09	0.10
FeO	1.58	1.42	0.35	1.10	1.0
Fe_2O_3	4.58	3.73	3.41	2.87	2.45
MnO	0.01	0.02	0.01	0.02	0.02
TiO_2	0.42	0.34	0.24	0.30	0.29
P_2O_5	0.15	0.03	0.02	0.05	0.07
LOI	0.26	5.98	1.25	0.97	1.32
TOTAL	98.09	99.22	98.64	98.82	98.59
U	67	12	13	170	13
Th	16	12	13	10	10
Cu	43	60	24	30	29
Zn	100	130	280	140	180
Ag	1	1	1	1	1
Pb	100	330	350	35	50
F	100	50	100	40	80
Sn	3	80	5	3	3
W	20	20	20	20	20
Qtz	15.17	39.96	45.47	40.27	43.66
Cor			0.24		0.16
Or	0.55	0.51	0.58	0.52	0.60
Ab	74.14	50.52	47.87	52.47	49.67
An	0.18	1.39	1.20	1.36	1.36
Ne					
Di	0.05	0.04		0.01	
He	1.83	0.72		0.10	
Wo					
En	0.09	0.17	0.04	0.10	0.09
Fs	4.01	3.14	1.51	1.81	1.10
Fo					
Fa					
Ru					
Mt	2.84	2.83	2.59	2.67	2.65
Hm					
Il	0.79	0.64	0.46	0.57	0.54
Ap	0.36	0.07	0.05	0.11	0.17

APPENDIX I

SECTION C

GEOCHEMISTRY

SOILS

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1091C	18	110	170	0	6.4
K1092A	23	100	125	0	7.2
K1092C	13	130	160	0	5.6
K1097A	9	15	30	0	8.4
K1097C	20	55	130	0	11.1
K1098A	9	34	45	0	3.0
K1098C	18	80	50	0	3.3
K1099A	18	55	60	0	3.6
K1099C	18	64	50	0	3.7
K1100A	12	42	50	0	2.5
K1100C	21	86	85	0	3.3
K1101A	12	35	40	0	3.0
K1101C	17	88	50	0	3.1
K1102A	15	86	55	0	3.0
K1102C	15	82	60	0	2.8
K1103A	15	33	50	0	3.0
K1103C	26	140	70	0	4.2
K1104A	9	12	20	0	5.8
K1104C	22	100	45	0	2.3
K1105A	19	41	55	0	5.7
K1105C	19	97	50	0	3.3
K1106A	12	38	40	0	3.0
K1106C	24	95	60	0	3.9
K1107A	9	12	30	0	3.4
K1107C	21	91	50	0	3.1
K1108A	15	55	40	0	2.9
K1108C	16	64	50	0	2.6
K1109A	16	55	60	0	3.2
K1109C	20	75	50	0	3.3

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1110A	12	25	40	0	2.9
K1110C	16	27	80	0	2.9
K1111A	5	2	10	0	3.7
K1111C	23	89	60	0	3.1
K1112A	14	40	50	0	2.5
K1112C	13	63	40	0	3.4
K1113A	8	13	20	0	2.7
K1113C	20	86	55	0	2.8
K1114A	22	88	55	0	2.5
K1114C	16	63	50	0	3.1
K1115A	15	25	60	0	3.5
K1115C	29	96	85	0	4.4
K1116A	16	50	60	0	2.8
K1116C	22	70	65	0	2.7
K1117A	14	32	40	0	3.8
K1117C	27	90	75	0	3.2
K1118A	16	40	40	0	2.5
K1118C	17	69	45	0	2.8
K1119A	12	43	55	0	3.4
K1119C	24	120	70	0	2.9
K1120A	12	58	40	0	3.1
K1120C	15	48	50	0	2.4
K1121A	12	35	55	0	2.7
K1121C	13	34	45	0	3.5
K1122A	9	39	20	0	0.0
K1122C	14	46	60	0	4.2
K1123A	19	110	110	0	6.2
K1123C	43	310	160	0	17.3
K1124A	24	170	110	0	8.5

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1124C	58	220	120	0	18.9
K1125A	23	120	80	0	3.7
K1125C	18	82	60	0	3.0
K1126A	16	90	65	0	3.8
K1126C	26	90	100	0	2.4
K1127A	18	92	90	0	2.0
K1127C	26	170	80	0	2.2
K1128A	17	120	40	0	2.0
K1128C	33	220	90	0	2.3
K1129A	11	57	70	0	2.8
K1129C	23	160	60	0	4.7
K1130A	12	62	60	0	1.9
K1130C	13	120	60	0	2.7
K1131A	26	170	60	0	2.1
K1131C	26	170	65	0	2.3
K1132A	18	60	60	0	2.0
K1132C	13	72	70	0	2.5
K1133A	15	71	50	0	1.6
K1133C	16	95	60	0	2.0
K1134A	13	46	50	0	3.4
K1134C	26	170	80	0	2.3
K1135A	12	90	50	0	1.7
K1136A	23	120	60	0	2.0
K1136C	20	130	60	0	2.0
K1137A	9	45	35	0	2.2
K1137C	30	130	65	0	2.5
K1138A	12	82	65	0	3.3
K1138C	10	53	50	0	2.8
K1139A	13	40	70	0	3.3

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1139C	25	120	95	0	2.8
K1140A	17	76	80	0	2.4
K1140C	14	70	60	0	2.1
K1141A	20	95	80	0	2.1
K1141C	16	59	70	0	2.7
K1142A	16	40	85	0	2.6
K1142C	16	47	60	0	3.3
K1143A	14	50	60	0	3.3
K1192A	13	59	95	0	3.4
K1192C	6	30	50	0	2.9
K1193A	7	32	60	0	3.0
K1193C	14	65	70	0	3.3
K1194A	5	32	20	0	3.1
K1194C	12	60	70	0	3.7
K1195A	6	26	40	0	4.3
K1195C	12	38	45	0	2.8
K1196A	6	24	40	0	4.4
K1196C	8	55	70	0	4.1
K1197A	5	27	40	0	3.5
K1197C	10	38	40	0	4.5
K1198A	7	55	30	0	3.0
K1198C	8	68	45	0	4.6
K1199A	15	95	170	0	2.9
K1199C	48	140	140	0	1.9
K1200A	5	32	45	0	3.5
K1200C	12	100	45	0	2.8
K1201A	10	61	50	0	6.1
K1201C	9	87	50	0	5.6
K1202A	12	35	60	0	4.0

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1202C	8	78	50	0	4.8
K1203A	9	100	45	0	4.5
K1203C	18	130	95	0	3.8
K1204A	12	66	65	0	5.3
K1204C	18	110	85	0	4.7
K1205A	6	18	40	0	3.9
K1205C	14	72	65	0	3.0
K1206A	14	56	60	0	3.5
K1206C	8	30	50	0	4.6
K1207A	13	75	70	0	4.1
K1207C	18	85	70	0	4.9
K1208A	6	22	50	0	4.6
K1208C	19	60	80	0	3.8
K1209A	8	22	40	0	6.0
K1209C	16	92	60	0	4.0
K1210A	9	61	55	0	2.9
K1210C	6	40	40	0	3.7
K1211A	13	60	70	0	4.1
K1211C	11	55	60	0	3.5
K1212A	12	47	80	0	3.5
K1212C	7	30	50	0	5.5
K1213A	14	36	60	0	4.3
K1213C	17	91	80	0	3.5
K1214A	11	76	65	0	2.2
K1214C	12	60	70	0	3.7
K1215A	20	55	100	0	3.3
K1215C	14	44	70	0	3.5
K1216A	11	20	20	0	3.0
K1216C	15	58	50	0	4.1

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1217A	14	41	50	0	3.2
K1217C	16	47	60	0	2.8
K1218A	16	25	30	0	4.4
K1218C	14	48	50	0	4.4
K1219A	12	26	40	0	3.9
K1219C	18	44	65	0	3.6
K1220A	8	14	40	0	4.0
K1220C	16	80	75	0	3.2
K1221A	16	59	60	0	2.6
K1221C	10	43	50	0	3.2
K1222A	15	55	50	0	2.9
K1222C	14	33	50	0	2.3
K1223A	10	20	20	0	3.4
K1223C	19	75	60	0	2.6
K1224A	13	36	40	0	2.1
K1224C	16	67	50	0	3.2
K1225A	11	22	40	0	4.5
K1225C	14	52	85	0	3.3
K1226A	10	25	30	0	5.5
K1226C	14	41	50	0	4.1
K1227A	7	12	10	0	4.9
K1227C	13	52	70	0	3.9
K1228A	12	54	25	0	0.0
K1228C	14	33	40	0	3.3
K1143C	15	59	50	0	4.0
K1144A	12	34	45	0	2.9
K1144C	13	48	35	0	2.6
K1145A	12	25	40	0	3.6
K1145C	19	86	50	0	2.7

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1146A	17	66	50	0	2.0
K1146C	22	82	50	0	2.9
K1147A	14	40	60	0	2.9
K1147C	17	95	50	0	3.1
K1148A	12	39	50	0	2.9
K1148C	16	59	40	0	3.3
K1149A	12	44	40	0	3.7
K1149C	19	80	50	0	3.5
K1150A	12	26	40	0	3.7
K1150C	18	85	45	0	3.2
K1151A	15	53	40	0	3.2
K1151C	12	55	40	0	3.9
K1152A	15	33	40	0	3.5
K1152C	14	67	45	0	3.3
K1153A	13	26	40	0	3.1
K1153C	21	87	60	0	2.8
K1154A	18	37	50	0	3.0
K1154C	25	80	60	0	3.8
K1155A	20	20	45	0	3.2
K1155C	19	61	50	0	3.5
K1156A	16	14	40	0	5.9
K1156C	20	52	60	0	4.7
K1157A	16	18	25	0	4.9
K1157C	18	61	50	0	3.2
K1158A	17	34	45	0	2.9
K1158C	20	65	50	0	3.1
K1159A	17	38	45	0	4.3
K1159C	23	89	50	0	2.8
K1160A	13	22	20	0	3.3

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1160C	16	70	50	0	2.9
K1161A	18	23	50	0	1.8
K1161C	12	20	40	0	3.4
K1162A	20	31	40	0	2.3
K1162C	22	110	50	0	2.6
K1163A	23	76	60	0	3.1
K1163C	17	90	50	0	2.7
K1164A	18	52	60	0	4.2
K1164C	22	96	55	0	2.8
K1165A	34	53	35	0	1.6
K1165C	20	60	45	0	2.1
K1166A	20	72	50	0	2.0
K1166C	27	110	45	0	2.1
K1167A	14	30	40	0	3.0
K1167C	22	68	50	0	2.6
K1168A	18	34	35	0	3.6
K1168C	22	90	50	0	2.9
K1169A	17	41	40	0	3.6
K1169C	12	58	30	0	2.3
K1170A	16	15	20	0	4.1
K1170C	14	22	30	0	4.5
K1171A	17	18	25	0	4.5
K1171C	18	54	30	0	3.1
K1172A	14	20	25	0	4.2
K1172C	18	43	45	0	3.8
K1173A	15	22	20	0	6.1
K1173C	21	94	50	0	3.0
K1174A	15	34	50	0	3.3
K1174C	19	58	55	0	3.9

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1175A	19	30	40	0	2.8
K1175C	19	71	50	0	3.9
K1176A	15	39	50	0	2.5
K1176C	18	81	55	0	2.4
K1177A	16	59	65	0	3.4
K1177C	25	84	60	0	3.6
K1178A	17	72	40	0	2.2
K1178C	12	61	30	0	3.9
K1179A	9	31	20	0	3.1
K1179C	13	66	40	0	2.5
K1180A	16	48	70	0	2.8
K1180C	25	97	60	0	3.1
K1181A	13	26	15	0	4.8
K1181C	14	56	45	0	3.3
K1182A	7	18	20	0	3.3
K1182C	89	35	35	0	3.4
K1183A	18	128	80	0	0.4
K1183C	22	50	50	0	2.5
K1184A	115	95	90	0	3.2
K1185A	23	84	110	0	0.4
K1185C	8	15	10	0	7.4
K1186A	7	15	15	0	4.2
K1186C	12	47	55	0	4.2
K1187A	8	26	30	0	3.3
K1187C	11	80	55	0	3.5
K1188A	11	34	65	0	3.3
K1188C	11	25	50	0	4.2
K1189A	9	16	40	0	3.9
K1189C	9	39	45	0	3.2

13-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1190A	6	9	20	0	3.9
K1190C	12	52	50	0	2.7
K1191A	6	22	45	0	3.5
K1191C	12	44	50	0	3.1

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1001A	12	18	30	0	3.3
K1001C	15	39	45	0	2.3
K1002A	16	63	70	0	2.0
K1002C	25	140	70	0	1.7
K1004A	7	32	53	0	3.6
K1004C	19	69	80	0	2.3
K1005A	6	53	60	0	2.3
K1005C	7	78	50	0	2.6
K1006A	6	18	20	0	2.8
K1006C	10	69	50	0	2.2
K1007A	10	45	50	0	3.2
K1007C	12	100	55	0	3.5
K1008C	20	100	60	0	3.0
K1009A	17	68	50	0	2.1
K1009C	17	130	95	0	4.5
K1010A	15	75	70	0	3.0
K1010C	62	140	70	0	2.7
K1011A	10	62	60	0	2.1
K1011C	16	100	95	0	2.8
K1012A	8	19	40	0	2.9
K1014A	7	32	100	0	3.7
K1014C	8	58	100	0	3.5
K1015A	6	36	90	0	2.7
K1015C	11	80	120	0	2.9
K1016A	5	22	40	0	2.6
K1016C	18	130	110	0	3.0
K1017A	7	28	55	0	2.9
K1017C	6	62	60	0	2.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1018A	5	37	45	0	2.8
K1018C	10	80	96	0	2.4
K1019A	30	160	85	0	1.8
K1019C	7	47	60	0	2.0
K1020A	5	23	80	0	3.1
K1020C	14	39	40	0	2.4
K1021A	2	12	15	0	2.9
K1021C	15	100	140	0	3.1
K1022A	5	27	45	0	2.9
K1022C	15	110	80	0	2.8
K1023A	6	42	50	0	3.1
K1023C	9	110	60	0	2.6
K1024A	9	98	100	0	3.0
K1024C	15	100	115	0	2.7
K1025A	22	100	95	0	6.8
K1025C	21	160	80	0	11.1
K1026A	28	120	90	0	8.4
K1026C	40	330	115	0	17.8
K1027A	22	93	80	0	5.5
K1027C	27	270	110	0	13.5
K1029A	9	28	50	0	2.2
K1029C	14	78	50	0	2.4
K1030A	16	53	50	0	2.7
K1030C	17	110	50	0	2.6
K1031A	14	90	50	0	3.6
K1031C	12	58	45	0	3.2
K1032A	13	71	45	0	3.0
K1032C	13	85	45	0	2.9
K1033A	12	45	50	0	3.2

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1033C	13	63	40	0	4.6
K1034A	16	87	50	0	4.2
K1034C	16	100	50	0	4.1
K1035A	10	45	45	0	2.6
K1035C	15	110	45	0	2.9
K1036A	18	63	120	0	13.9
K1036C	75	130	150	0	42.9
K1037A	15	53	50	0	3.1
K1038A	9	28	50	0	2.9
K1038C	13	32	35	0	4.9
K1039A	5	0	5	0	7.4
K1039C	20	92	35	0	3.2
K1040A	18	52	85	0	4.4
K1040C	20	70	70	0	4.9
K1041A	14	53	60	0	3.5
K1041C	12	35	60	0	5.0
K1042A	9	36	90	0	2.7
K1042C	16	110	130	0	2.2
K1043A	24	160	130	0	1.9
K1043C	21	63	140	0	3.4
K1045A	14	48	65	0	1.6
K1045C	28	340	190	0	4.5
K1046A	19	190	65	0	2.9
K1046C	20	230	110	0	2.7
K1047A	9	23	55	0	2.8
K1047C	15	120	85	0	2.4
K1048A	12	20	40	0	3.5
K1048C	8	43	55	0	2.7
K1049A	5	0	10	0	3.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1049C	7	32	50	0	2.1
K1050A	9	20	65	0	3.0
K1050C	18	86	80	0	2.1
K1051A	13	13	50	0	4.9
K1051C	18	84	90	0	3.7
K1052A	13	20	75	0	3.6
K1052C	14	75	80	0	2.6
K1053A	14	64	90	0	2.6
K1055A	14	48	70	0	2.4
K1055C	21	86	125	0	3.2
K1056A	11	55	70	0	2.7
K1056C	12	63	75	0	3.5
K1057A	11	59	85	0	1.9
K1057C	16	90	100	0	2.4
K1058A	14	62	80	0	2.3
K1058C	13	100	70	0	3.0
K1059A	12	60	55	0	2.5
K1059C	20	110	90	0	3.2
K1060A	10	37	55	0	2.2
K1060C	15	80	70	0	2.6
K1061A	16	120	80	0	2.8
K1061C	18	140	110	0	2.6
K1062A	11	80	75	0	2.7
K1062C	13	83	70	0	2.6
K1063C	15	130	65	0	2.7
K1064A	18	140	95	0	9.7
K1064C	16	130	70	0	6.4
K1065A	10	57	40	0	2.0
K1065C	13	120	55	0	3.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1066A	14	98	65	0	2.9
K1066C	20	150	70	0	3.3
K1067A	19	70	70	0	3.0
K1067C	16	100	70	0	2.2
K1068A	8	29	50	0	4.3
K1068C	16	90	80	0	3.1
K1069A	6	30	30	0	2.9
K1069C	15	100	55	0	2.5
K1070A	11	38	40	0	2.8
K1070C	9	59	40	0	3.5
K1071A	5	13	20	0	3.1
K1071C	11	100	45	0	3.3
K1072A	6	19	35	0	3.5
K1072C	11	90	50	0	2.5
K1073A	17	38	40	0	1.7
K1073C	21	150	65	0	3.0
K1074A	6	19	25	0	3.2
K1074C	8	56	40	0	3.2
K1075A	10	34	40	0	3.2
K1075C	12	68	55	0	2.9
K1076A	10	63	100	0	2.6
K1076C	14	79	85	0	3.3
K1077A	12	39	40	0	3.0
K1077C	40	20	115	0	46.4
K1078A	17	62	75	0	4.9
K1078C	47	50	120	0	43.5
K1080A	18	85	110	0	10.8
K1080C	14	95	100	0	12.6
K1081A	12	32	50	0	2.3

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1081C	13	43	25	0	5.2
K1082A	6	5	5	0	10.4
K1082C	18	71	55	0	2.7
K1083A	18	38	70	0	2.3
K1083C	14	51	80	0	3.6
K1084A	15	70	110	0	3.5
K1084C	23	160	210	0	3.0
K1085A	9	28	35	0	3.5
K1085C	27	140	130	0	3.0
K1086C	23	190	380	0	6.7
K1087A	18	93	90	0	3.9
K1087C	20	150	110	0	3.3
K1089A	8	15	10	0	3.4
K1089C	12	42	60	0	3.9
K1090A	25	35	30	0	0.0
K1090C	20	110	100	0	2.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1229A	12	34	35	—	2.5
K1229C	10	80	40	—	5.7
K1230A	17	99	50	—	8.3
K1230C	14	61	50	—	5.9
K1231A	9	36	35	—	2.1
K1231C	8	60	50	—	4.5
K1232A	32	86	30	—	10.9

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1232C	29	110	50	—	17.2
K1233A	9	52	10	—	0.0
K1233C	13	80	50	—	6.8
K1234A	8	63	40	—	1.9
K1234C	20	140	100	—	4.0
K1235A	14	60	30	—	0.0
K1235C	22	160	60	—	3.5
K1236A	11	65	80	—	0.8
K1236C	13	92	70	—	3.5
K1237A	15	50	90	—	0.8
K1237C	9	43	55	—	2.4
K1238A	13	25	70	—	1.7
K1238C	10	39	60	—	3.3
K1239C	11	38	60	—	4.8
K1240A	10	29	50	—	1.3
K1240C	13	73	50	—	2.3
K1241A	8	32	45	—	0.9
K1241C	4	15	20	—	3.7
K1242A	10	29	40	—	1.6
K1242C	8	24	50	—	2.6
K1243A	12	29	20	—	5.7
K1243C	8	76	45	—	3.1
K1244A	12	82	110	—	1.9
K1245A	9	130	60	—	0.9
K1245C	9	35	60	—	4.8
K1246A	9	33	55	—	2.7
K1246C	8	21	20	—	7.8
K1247A	10	52	35	—	3.3
K1247C	7	20	20	—	5.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1248A	10	67	60	—	1.5
K1248C	7	30	35	—	4.9
K1249A	10	60	70	—	0.5
K1249C	8	31	20	—	5.0
K1250A	12	47	50	—	2.9
K1250C	10	72	60	—	4.1
K1251A	10	41	50	—	0.9
K1251C	12	110	70	—	3.5
K1252A	9	33	60	—	0.0
K1252C	9	30	45	—	4.4
K1253A	10	29	60	—	1.1
K1253C	14	84	60	—	3.2
K1254A	22	34	40	—	1.3
K1254C	11	49	50	—	3.4
K1255A	8	26	30	—	4.6
K1255C	7	39	30	—	4.0
K1256A	10	80	110	—	0.4
K1256C	14	87	60	—	3.5
K1257A	12	35	60	—	1.1
K1257C	9	49	40	—	3.0
K1258A	6	24	30	—	3.7
K1258C	5	35	20	—	3.7
K1259A	17	25	30	—	1.1
K1259C	12	75	50	—	3.0
K1260A	11	52	40	—	7.1
K1260C	16	160	50	—	15.7
K1261A	7	62	5	—	1.5
K1261C	9	30	30	—	3.7
K1262A	8	52	40	—	2.8

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1262C	12	52	40	—	3.9
K1263A	8	42	50	—	0.5
K1264C	12	59	40	—	4.4
K1265A	11	140	95	—	0.4
K1265C	7	33	20	—	4.8
K1266A	17	20	40	—	5.4
K1266C	12	40	40	—	4.2
K1267A	12	37	35	—	0.6
K1267C	9	31	25	—	4.1
K1268A	11	69	50	—	1.1
K1268C	12	57	40	—	4.6
K1269A	11	150	40	—	0.0
K1269C	13	71	35	—	5.3
K1270A	19	41	90	—	4.7
K1270C	19	52	140	—	5.7
K1271A	9	47	60	—	2.8
K1271C	17	47	55	—	2.2
K1272A	14	98	80	—	0.0
K1272C	11	53	30	—	4.7
K1273A	10	59	20	—	0.8
K1273C	12	47	40	—	2.5
K1274A	11	55	70	—	0.5
K1274C	8	18	20	—	6.3
K1275A	9	48	90	—	1.1
K1275C	10	69	25	—	3.7
K1276A	14	90	140	—	0.4
K1276C	10	26	15	—	10.4
K1277A	13	38	40	—	0.4
K1277C	13	63	110	—	6.2

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1278A	7	26	25	—	3.8
K1278C	8	30	35	—	3.8
K1279A	15	110	120	—	0.0
K1279C	13	66	40	—	3.6
K1280A	8	32	25	—	5.6
K1280C	8	35	40	—	1.9
K1281A	23	120	15	—	0.0
K1281C	9	27	20	—	5.8
K1282A	24	23	40	—	4.5
K1282C	10	28	30	—	1.6
K1283A	12	49	80	—	0.9
K1283C	7	23	45	—	5.3
K1284A	20	140	70	—	0.5
K1284C	15	63	35	—	3.3
K1285A	11	27	40	—	0.9
K1285C	10	20	30	—	3.8
K1286A	10	51	65	—	0.0
K1286C	10	39	25	—	5.2
K1287A	11	37	40	—	0.6
K1287C	14	59	50	—	3.3
K1288A	13	41	60	—	1.7
K1288C	11	65	40	—	3.5
K1289A	30	130	50	—	0.7
K1289C	12	86	40	—	3.1
K1290A	15	53	120	—	1.5
K1290C	18	160	55	—	3.3
K1291A	11	39	55	—	1.5
K1291C	14	63	50	—	2.9
K1292A	9	25	45	—	1.7

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1292C	29	170	170	—	4.6
K1293A	11	93	60	—	1.0
K1293C	13	80	50	—	4.1
K1294A	16	92	75	—	0.4
K1294C	15	81	65	—	3.1
K1295A	14	67	10	—	0.0
K1295C	13	82	60	—	3.5
K1296A	11	51	50	—	1.7
K1296C	13	61	40	—	3.7
K1297A	11	52	30	—	0.0
K1297C	9	34	70	—	3.7
K1298A	8	76	20	—	0.0
K1298C	18	52	60	—	2.6
K1299A	9	61	30	—	0.0
K1299C	11	44	45	—	3.6
K1300A	8	52	10	—	0.0
K1300C	5	14	10	—	7.6
K1301A	15	110	40	—	0.0
K1301C	11	50	50	—	3.5
K1302A	12	56	40	—	0.0
K1302C	11	47	40	—	3.3
K1303A	8	15	40	—	1.1
K1303C	12	67	60	—	3.1
K1304A	7	31	30	—	1.4
K1304C	17	100	65	—	4.1
K1305A	7	46	50	—	4.2
K1305C	10	39	40	—	4.1
K1306A	12	130	80	—	0.0
K1306C	11	57	50	—	3.2

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1307A	12	82	55	—	0.0
K1307C	9	49	40	—	3.1
K1308A	7	44	25	—	0.0
K1308C	9	24	35	—	5.2
K1309A	8	33	55	—	1.9
K1309C	9	59	70	—	3.6
K1310A	12	80	55	—	0.7
K1310C	12	42	30	—	6.3
K1311A	15	97	70	—	0.0
K1311C	13	100	60	—	4.3
K1312A	12	37	40	—	3.9
K1312C	12	61	40	—	3.3
K1313A	12	41	45	—	2.1
K1313C	14	75	60	—	3.5
K1314A	16	47	55	—	2.4
K1314C	17	93	80	—	3.5
K1315A	10	54	60	—	3.1
K1315C	10	44	40	—	2.6
K1316A	12	68	50	—	1.6
K1316C	8	28	30	—	5.7
K1317A	18	86	70	—	1.2
K1317C	13	46	55	—	3.8
K1318A	13	45	60	—	2.6
K1318C	12	66	55	—	2.5
K1319A	18	120	55	—	1.5
K1319C	16	79	50	—	2.0
K1320A	16	120	45	—	1.4
K1320C	13	36	60	—	2.1
K1321A	10	61	40	—	3.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1321C	8	23	40	—	2.8
K1322A	10	35	35	—	2.9
K1322C	12	91	40	—	2.7
K1323A	13	45	50	—	3.0
K1323C	18	110	55	—	3.2
K1324A	10	68	50	—	2.8
K1324C	11	42	50	—	3.2
K1325A	19	56	110	—	1.3
K1325C	23	150	110	—	3.5
K1326A	11	36	65	—	1.8
K1326C	19	140	60	—	2.8
K1327A	13	55	80	—	3.1
K1327C	12	61	60	—	2.9
K1328A	14	37	80	—	1.2
K1328C	20	56	65	—	3.9
K1329A	15	41	95	—	2.3
K1329C	11	18	25	—	9.4
K1330A	10	50	70	—	2.4
K1330C	15	87	75	—	2.8
K1331A	15	52	55	—	0.7
K1331C	19	120	70	—	3.1
K1332A	8	26	60	—	1.5
K1332C	13	94	50	—	2.3
K1333A	10	54	70	—	2.2
K1333C	12	65	35	—	3.3
K1334A	9	58	40	—	1.8
K1334C	12	36	60	—	5.1
K1335A	10	39	60	—	2.1
K1335C	12	62	35	—	3.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1336A	12	58	70	—	1.3
K1336C	13	89	60	—	2.5
K1337A	12	46	50	—	0.4
K1337C	10	42	20	—	2.9
K1338A	8	55	30	—	3.5
K1338C	14	35	30	—	6.4
K1339A	12	65	60	—	0.6
K1339C	12	53	50	—	2.9
K1340A	12	54	45	—	0.8
K1340C	12	44	40	—	3.3
K1341A	10	32	50	—	0.6
K1341C	15	90	60	—	2.3
K1342A	13	25	30	—	0.8
K1342C	12	46	50	—	2.8
K1343A	12	38	70	—	2.7
K1343C	10	43	40	—	3.1
K1344A	13	36	45	—	3.1
K1344C	12	68	50	—	2.9
K1345A	11	52	55	—	2.1
K1345C	10	57	35	—	2.5
K1346A	12	42	80	—	1.7
K1346C	9	38	50	—	2.5
K1347A	9	38	50	—	1.0
K1347C	23	99	40	—	2.3
K1348A	14	32	30	—	0.0
K1348C	14	91	55	—	3.0
K1349A	14	34	35	—	1.6
K1349C	13	150	45	—	3.6
K1350A	12	75	55	—	0.4

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1350C	8	57	40	—	3.2
K1351A	10	53	10	—	0.0
K1351C	10	63	70	—	3.6
K1352A	8	66	25	—	0.0
K1352C	12	72	70	—	3.2
K1353A	19	82	65	—	2.6
K1353C	9	110	30	—	3.5
K1354A	13	67	110	—	0.6
K1354C	12	99	70	—	3.0
K1355A	12	47	120	—	1.9
K1355C	8	63	60	—	5.1
K1523A	15	55	40	—	2.8
K1523C	15	91	75	—	3.5
K1524A	17	120	60	—	1.3
K1524C	21	230	110	—	4.0
K1525A	24	44	110	—	6.2
K1525C	31	140	150	—	9.9
K1526A	28	50	70	—	7.9
K1526C	28	100	85	—	9.6
K1527A	15	66	70	—	2.0
K1527C	24	190	150	—	6.7
K1528A	16	89	40	—	0.0
K1528C	29	250	140	—	6.0
K1529A	18	59	60	—	3.8
K1529C	24	90	75	—	7.2
K1530A	17	62	70	—	3.0
K1530C	24	200	110	—	5.4
K1531A	22	150	100	—	3.8
K1531C	20	260	90	—	6.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1532A	47	210	95	—	16.8
K1532C	29	200	90	—	12.4
K1533A	50	130	60	—	20.2
K1533C	31	330	100	—	11.8
K1534A	11	120	10	—	0.0
K1534C	17	150	80	—	5.1
K1535A	21	84	40	—	0.5
K1535C	12	65	65	—	3.2
K1536A	16	170	35	—	0.6
K1536C	17	84	60	—	3.8
K1537A	17	78	40	—	0.0
K1537C	17	79	60	—	2.3
K1538A	14	59	35	—	0.0
K1538C	14	46	50	—	2.9
K1539A	17	57	55	—	2.5
K1539C	19	120	60	—	8.7
K1540A	14	68	50	—	1.5
K1540C	27	220	95	—	13.6
K1541A	16	67	70	—	5.3
K1541C	15	160	80	—	10.3
K1542A	12	83	35	—	0.4
K1542C	20	230	90	—	8.7
K1543A	35	97	45	—	1.4
K1543C	19	180	70	—	7.7
K1544A	14	59	70	—	5.7
K1544C	23	110	90	—	16.7
K1545A	17	59	40	—	2.4
K1545C	31	210	70	—	14.5
K1546A	11	65	40	—	0.4

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1546C	33	160	80	—	22.5
K1547A	14	77	40	—	0.4
K1547C	39	160	80	—	23.8
K1548A	17	60	45	—	7.7
K1548C	20	58	35	—	17.3
K1549A	17	95	65	—	6.4
K1549C	22	220	75	—	21.7
K1550A	15	50	20	—	2.7
K1550C	15	120	100	—	4.6
K1551A	21	67	65	—	12.4
K1551C	19	390	95	—	9.9
K1552A	14	89	40	—	0.4
K1552C	10	140	80	—	5.1
K1553A	15	75	60	—	0.0
K1553C	14	78	55	—	3.7
K1554A	18	85	70	—	4.6
K1554C	30	220	115	—	7.6
K1555A	24	100	70	—	12.4
K1555C	27	210	100	—	11.5
K1556A	17	56	55	—	8.6
K1556C	14	83	50	—	0.4
K1557A	19	67	70	—	6.1
K1557C	19	160	85	—	5.7
K1558A	13	40	20	—	1.9
K1558C	17	120	60	—	3.8
K1559A	12	72	65	—	0.9
K1559C	19	160	100	—	3.5
K1560A	22	80	60	—	10.1
K1560C	30	110	60	—	14.2

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1561A	22	130	85	—	6.7
K1561C	18	99	70	—	4.6
K1562A	12	42	50	—	0.0
K1562C	15	53	50	—	4.4
K1563A	10	16	35	—	1.4
K1563C	19	170	95	—	3.3
K1564A	12	65	55	—	0.0
K1564C	13	140	60	—	3.3
K1565A	12	94	65	—	1.9
K1565C	16	82	50	—	3.1
K1566A	15	50	40	—	0.5
K1566C	30	130	110	—	14.0
K1567A	21	92	80	—	3.9
K1567C	21	100	70	—	6.3
K1568A	24	47	70	—	8.7
K1568C	20	78	70	—	8.5
K1569A	12	35	60	—	2.1
K1569C	24	130	90	—	8.9
K1356A	14	31	70	—	1.6
K1356C	21	120	70	—	2.8
K1357A	25	64	90	—	0.4
K1357C	16	89	50	—	2.8
K1358A	16	44	110	—	1.6
K1358C	16	74	65	—	2.7
K1359A	14	40	80	—	0.8
K1359C	14	63	50	—	2.5
K1360A	12	17	20	—	2.1
K1360C	14	80	35	—	2.1
K1361A	14	39	70	—	1.4

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1361C	17	95	50	—	2.6
K1362C	17	120	55	—	2.3
K1363A	14	37	50	—	2.1
K1363C	19	120	50	—	2.2
K1364A	24	50	90	—	2.2
K1364C	21	110	60	—	2.7
K1365A	16	46	120	—	1.5
K1365C	21	100	60	—	2.3
K1366A	23	59	110	—	1.3
K1366C	17	120	40	—	2.4
K1367A	24	54	65	—	0.9
K1367C	19	82	55	—	2.1
K1368A	15	45	110	—	1.7
K1368C	19	80	40	—	2.4
K1369A	14	36	100	—	0.9
K1369C	20	94	45	—	2.0
K1370A	17	35	40	—	2.0
K1370C	17	80	50	—	2.3
K1371A	19	59	95	—	1.1
K1371C	8	25	35	—	3.3
K1372A	10	37	80	—	1.2
K1372C	12	70	50	—	2.1
K1373A	10	34	60	—	1.0
K1373C	12	91	50	—	2.4
K1374A	7	30	55	—	2.0
K1374C	18	120	70	—	2.7
K1375A	11	73	85	—	1.1
K1375C	15	100	40	—	2.4
K1376A	9	36	55	—	1.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1376C	12	70	50	—	2.4
K1377A	13	43	60	—	1.6
K1377C	29	120	70	—	2.9
K1378A	10	46	60	—	2.3
K1378C	13	68	50	—	1.8
K1379A	8	47	70	—	1.5
K1379C	16	120	75	—	3.4
K1380A	10	82	90	—	1.3
K1380C	18	78	55	—	2.8
K1381A	14	38	115	—	0.8
K1381C	21	130	75	—	3.9
K1382A	12	83	100	—	1.2
K1382C	15	80	50	—	2.1
K1383A	11	62	80	—	1.1
K1383C	15	94	60	—	2.5
K1384A	8	24	35	—	1.6
K1384C	13	68	55	—	1.5
K1385A	22	24	110	—	1.5
K1385C	11	56	45	—	1.9
K1386A	10	50	100	—	1.7
K1386C	10	56	40	—	3.3
K1387A	11	31	60	—	1.8
K1387C	12	73	60	—	2.9
K1388A	8	29	70	—	1.1
K1388C	14	90	60	—	2.7
K1389A	10	53	30	—	0.5
K1389C	25	110	60	—	2.6
K1390A	15	66	80	—	0.0
K1390C	18	100	55	—	2.3

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1391A	12	45	80	—	0.6
K1391C	10	55	40	—	3.2
K1392A	10	56	70	—	0.6
K1392C	17	110	55	—	2.8
K1393A	8	66	95	—	1.2
K1393C	24	160	65	—	2.7
K1394A	10	53	50	—	1.5
K1394C	15	120	55	—	6.7
K1395A	10	72	85	—	0.6
K1395C	15	140	50	—	3.2
K1396A	10	64	90	—	1.0
K1396C	12	75	50	—	2.5
K1397A	10	45	80	—	0.9
K1397C	12	70	50	—	2.2
K1398A	10	58	60	—	0.0
K1398C	14	96	45	—	2.7
K1399A	8	46	45	—	0.0
K1399C	13	110	50	—	2.9
K1400A	12	70	65	—	2.4
K1400C	15	110	45	—	2.9
K1401A	12	44	130	—	1.6
K1401C	12	84	60	—	3.2
K1402A	14	50	100	—	0.8
K1402C	12	100	60	—	2.7
K1403A	12	48	120	—	1.1
K1403C	14	130	60	—	3.5
K1404A	16	83	215	—	0.9
K1404C	13	94	50	—	3.0
K1405A	14	44	90	—	1.8

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1405C	14	95	70	—	3.4
K1406A	14	68	220	—	1.4
K1406C	22	87	70	—	3.4
K1407A	10	48	90	—	1.8
K1407C	16	97	90	—	4.2
K1408A	11	36	110	—	2.2
K1408C	11	80	75	—	3.7
K1409A	17	67	170	—	1.7
K1409C	15	86	60	—	3.1
K1410A	7	17	30	—	1.4
K1410C	5	24	10	—	4.2
K1411A	8	36	70	—	0.7
K1411C	17	100	80	—	4.0
K1412A	16	69	100	—	0.7
K1412C	10	94	60	—	2.7
K1413A	8	45	80	—	0.7
K1413C	12	130	50	—	2.8
K1414A	14	62	120	—	0.9
K1414C	11	110	50	—	2.5
K1415A	13	87	140	—	0.5
K1415C	22	160	90	—	3.5
K1416A	24	30	100	—	1.2
K1416C	24	140	80	—	3.3
K1417A	10	37	30	—	0.4
K1417C	13	80	50	—	2.5
K1418A	8	25	60	—	3.3
K1418C	12	88	80	—	3.9
K1419A	53	60	50	—	0.5
K1419C	17	95	80	—	3.1

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1420A	11	43	70	—	0.0
K1420C	19	130	95	—	2.8
K1421A	10	61	90	—	1.0
K1421C	20	150	80	—	2.9
K1422A	11	57	115	—	1.3
K1422C	18	140	100	—	2.6
K1423A	19	69	80	—	0.0
K1423C	32	68	60	—	3.0
K1424A	12	48	150	—	1.5
K1424C	14	87	45	—	2.5
K1425A	9	44	100	—	1.6
K1425C	12	96	50	—	2.0
K1426C	14	130	60	—	2.8
K1427A	9	80	50	—	0.0
K1427C	10	100	65	—	2.0
K1428A	12	61	80	—	0.5
K1428C	7	58	50	—	3.6
K1429A	10	77	80	—	0.6
K1429C	17	150	80	—	4.1
K1430A	12	120	80	—	1.0
K1430C	14	160	70	—	2.0
K1431A	14	140	120	—	0.0
K1431C	14	220	50	—	3.5
K1432A	12	140	110	—	0.0
K1432C	18	250	70	—	3.6
K1433A	12	180	80	—	1.6
K1433C	12	220	50	—	5.0
K1434A	20	140	120	—	8.1
K1434C	17	490	65	—	6.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1435A	14	70	120	—	2.2
K1435C	14	140	50	—	4.8
K1436A	10	46	120	—	0.9
K1436C	10	94	50	—	3.3
K1437A	11	80	110	—	1.5
K1437C	8	47	45	—	4.0
K1438A	10	52	105	—	2.3
K1438C	11	42	40	—	8.1
K1439A	11	58	65	—	2.6
K1439C	23	91	30	—	4.0
K1440A	16	91	70	—	7.5
K1440C	12	130	40	—	4.2
K1441A	17	46	95	—	1.1
K1441C	18	110	60	—	2.3
K1442A	11	34	80	—	1.7
K1442C	16	83	50	—	2.2
K1443A	13	57	120	—	2.5
K1443C	15	84	50	—	2.0
K1444A	24	72	215	—	0.4
K1444C	16	120	65	—	2.7
K1445A	13	32	70	—	1.5
K1445C	20	120	70	—	2.5
K1446A	19	61	110	—	1.4
K1446C	20	99	85	—	2.9
K1447A	17	44	90	—	1.5
K1447C	24	72	80	—	2.3
K1448A	20	29	80	—	1.0
K1448C	15	63	65	—	2.4
K1449A	12	52	100	—	1.4

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1449C	18	84	65	—	1.9
K1450A	17	50	100	—	1.0
K1450C	23	90	85	—	2.8
K1451A	12	37	80	—	1.8
K1451C	12	65	35	—	2.9
K1452A	19	47	120	—	0.6
K1452C	21	100	40	—	2.2
K1453A	16	43	120	—	0.9
K1453C	17	59	55	—	1.9
K1454A	22	42	150	—	0.7
K1454C	13	39	50	—	3.1
K1455A	23	51	130	—	0.0
K1455C	28	100	60	—	2.1
K1456A	17	66	70	—	1.6
K1456C	16	91	40	—	2.3
K1457A	20	36	170	—	0.5
K1457C	23	110	80	—	2.0
K1458A	20	54	160	—	0.6
K1458C	28	130	95	—	1.9
K1459A	18	56	45	—	0.4
K1459C	25	130	80	—	2.5
K1460A	18	33	55	—	1.3
K1460C	17	84	55	—	2.7

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1463A	10	37	70	—	1.9
K1463C	11	66	40	—	2.3
K1464A	11	44	80	—	1.4
K1464C	10	43	40	—	2.8
K1465A	12	42	90	—	1.4
K1465C	16	68	50	—	2.9
K1466A	14	46	100	—	1.6
K1466C	16	92	50	—	3.1
K1467A	7	35	40	—	2.7
K1467C	15	94	60	—	2.8
K1468A	14	46	135	—	2.8
K1468C	12	100	60	—	3.9
K1469A	11	32	40	—	3.7
K1469C	12	88	35	—	3.1
K1470A	10	35	30	—	1.5
K1470C	6	32	20	—	2.9
K1471A	9	57	70	—	1.9
K1471C	12	120	45	—	2.6
K1472A	11	96	35	—	0.5
K1472C	20	110	60	—	3.8
K1473A	8	100	30	—	0.0
K1473C	15	85	40	—	3.6
K1474A	8	66	50	—	1.4
K1474C	11	92	40	—	2.7
K1475A	16	240	55	—	0.0
K1475C	8	150	40	—	3.8
K1476C	14	470	60	—	6.7
K1477A	19	96	60	—	0.0
K1477C	10	110	50	—	4.6

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1478A	11	66	110	—	0.9
K1478C	27	270	110	—	10.7
K1479A	18	53	50	—	1.7
K1479C	12	140	60	—	10.1
K1480A	12	60	65	—	0.0
K1480C	19	140	60	—	5.4
K1481A	9	55	50	—	4.4
K1481C	11	76	45	—	3.8
K1482A	7	22	40	—	2.6
K1482C	10	99	40	—	2.8
K1483A	10	36	50	—	2.2
K1483C	10	83	45	—	2.6
K1484A	10	34	30	—	1.0
K1484C	10	49	40	—	3.9
K1485A	11	40	40	—	2.9
K1486A	13	110	20	—	0.0
K1486C	16	150	60	—	3.1
K1487A	7	41	40	—	2.2
K1487C	7	63	30	—	2.9
K1488A	7	50	55	—	0.7
K1488C	11	65	45	—	3.1
K1489A	9	30	40	—	0.6
K1489C	12	110	45	—	3.1
K1490C	10	78	40	—	2.8
K1491A	5	27	45	—	2.0
K1491C	9	70	35	—	2.8
K1492A	8	52	55	—	1.5
K1492C	10	96	40	—	2.9
K1493A	7	46	60	—	1.2

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1493C	10	91	35	—	2.2
K1494A	10	83	50	—	0.5
K1494C	11	140	45	—	2.0
K1495A	8	70	40	—	0.6
K1495C	11	92	35	—	2.8
K1496A	10	73	40	—	0.4
K1496C	12	130	40	—	2.6
K1497A	12	50	60	—	0.7
K1497C	10	110	35	—	2.3
K1498A	12	46	50	—	1.0
K1498C	8	84	30	—	2.0
K1499A	18	50	70	—	0.5
K1499C	9	59	35	—	2.3
K1500A	20	82	40	—	22.0
K1500C	10	58	45	—	7.8
K1501A	29	47	210	—	2.9
K1501C	31	68	70	—	4.2
K1502A	16	110	115	—	0.7
K1502C	11	75	50	—	2.9
K1503A	12	61	40	—	0.5
K1503C	14	92	65	—	3.7
K1504A	21	50	50	—	2.4
K1504C	15	87	70	—	4.8
K1505A	10	38	40	—	1.9
K1505C	12	90	50	—	2.8
K1506A	16	72	105	—	1.1
K1506C	9	53	45	—	4.3
K1507A	20	75	110	—	2.2
K1507C	14	92	60	—	3.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1508A	12	46	70	—	0.6
K1508C	17	120	70	—	3.5
K1509A	10	35	70	—	2.1
K1509C	11	100	60	—	4.4
K1510A	11	23	70	—	1.7
K1510C	12	94	60	—	4.9
K1511A	10	43	60	—	2.6
K1511C	10	79	60	—	5.2
K1512A	15	42	70	—	2.5
K1512C	17	130	65	—	4.3
K1513A	16	43	100	—	1.0
K1513C	10	72	40	—	3.7
K1514A	19	39	90	—	1.2
K1514C	17	69	30	—	3.1
K1515A	15	30	80	—	2.0
K1515C	7	54	30	—	3.2
K1516A	13	37	75	—	2.1
K1516C	11	62	45	—	3.8
K1517A	19	46	115	—	0.6
K1517C	11	96	40	—	3.1
K1518A	11	33	75	—	3.4
K1518C	17	96	50	—	2.9
K1519A	13	44	70	—	2.0
K1519C	16	83	45	—	3.0
K1520A	22	49	120	—	0.7
K1521C	13	110	45	—	2.6
K1522A	10	53	50	—	2.0
K1522C	10	93	40	—	3.5

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1570A	13	53	80	—	1.3
K1570C	15	98	50	—	2.4
K1571A	14	58	75	—	1.9
K1571C	14	94	45	—	2.7
K1572A	17	63	130	—	1.3
K1572C	14	110	50	—	2.1
K1573A	23	74	100	—	0.0
K1573C	11	110	60	—	2.5
K1574A	18	75	100	—	0.0
K1574C	18	190	90	—	2.9
K1575A	21	80	190	—	1.0
K1575C	15	130	100	—	2.3
K1576A	10	38	30	—	2.3
K1576C	11	96	70	—	3.7
K1577A	13	43	85	—	3.5
K1577C	12	150	180	—	3.3
K1578A	16	55	110	—	1.1
K1578C	15	100	50	—	2.2
K1579A	22	58	60	—	0.6
K1579C	11	95	60	—	3.3
K1580A	12	46	75	—	2.2
K1580C	14	70	75	—	2.6
K1581A	15	53	70	—	0.5
K1581C	15	110	70	—	3.5
K1582A	16	38	60	—	0.8
K1582C	13	100	110	—	2.4
K1583A	20	38	120	—	0.4
K1583C	18	140	60	—	2.7

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1584A	16	37	40	—	1.3
K1584C	17	83	80	—	2.9
K1585A	9	54	85	—	1.1
K1585C	10	55	50	—	2.8
K1586A	11	50	45	—	1.3
K1586C	16	120	120	—	2.9
K1587A	18	130	90	—	0.0
K1587C	16	120	75	—	2.7
K1588A	14	64	65	—	1.7
K1588C	14	110	65	—	5.1
K1589A	13	100	50	—	1.3
K1589C	14	38	25	—	4.1
K1590A	26	80	60	—	0.7
K1590C	21	90	60	—	4.4
K1591A	18	53	120	—	1.7
K1591C	18	75	50	—	4.5
K1592A	17	82	40	—	0.0
K1592C	12	55	80	—	3.3
K1593A	18	52	90	—	0.9
K1593C	15	95	85	—	2.4
K1594A	13	62	100	—	0.0
K1594C	11	47	70	—	2.5
K1595A	14	56	70	—	0.7
K1595C	16	60	65	—	2.8
K1596A	17	75	50	—	0.5
K1596C	16	84	80	—	3.0
K1597A	13	47	70	—	1.1
K1597C	14	44	35	—	3.6
K1598A	18	120	60	—	0.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1598C	15	58	65	—	2.4
K1599A	15	46	85	—	0.0
K1599C	18	94	80	—	3.3
K1600A	16	41	60	—	1.6
K1600C	21	170	100	—	2.6
K1601A	19	55	40	—	0.9
K1601C	28	190	110	—	2.5
K1602A	21	60	140	—	1.4
K1602C	24	140	70	—	2.6
K1603A	20	88	150	—	1.4
K1603C	18	110	60	—	3.4
K1604A	21	60	220	—	1.1
K1604C	11	38	65	—	2.5
K1605A	18	66	110	—	0.4
K1605C	20	120	110	—	2.3
K1606A	13	37	130	—	1.1
K1606C	16	95	65	—	3.8
K1607A	21	53	90	—	0.6
K1607C	15	87	60	—	9.3
K1608A	20	100	170	—	2.8
K1608C	27	190	120	—	6.6
K1609A	16	58	90	—	2.2
K1609C	15	97	85	—	5.3
K1610A	15	60	75	—	4.0
K1610C	15	71	70	—	9.1
K1612A	26	110	150	—	0.6
K1612C	16	98	50	—	2.2
K1613A	21	46	120	—	0.5
K1613C	16	160	60	—	2.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1614A	30	94	85	—	1.2
K1614C	12	100	70	—	2.2
K1615A	14	71	85	—	1.8
K1615C	20	140	110	—	2.1
K1616A	14	60	150	—	1.6
K1616C	17	150	90	—	2.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	U
K1617A	13	73	140	1.1
K1617C	18	100	100	2.2
K1618A	20	64	110	0.9
K1618C	12	66	50	2.9
K1619A	17	41	55	1.5
K1619C	11	58	60	3.0
K1620A	15	47	75	0.7
K1620C	11	65	50	3.3
K1621A	17	50	60	0.0
K1621C	11	37	45	3.2
K1622A	15	47	100	0.7
K1622C	19	110	95	2.3
K1623A	14	37	90	0.7
K1623C	15	75	65	2.6
K1624A	11	29	80	0.8
K1624C	14	68	55	2.8
K1625A	15	41	35	1.4
K1625C	15	69	90	2.9
K1626A	8	38	35	0.6
K1626C	18	87	90	2.7
K1627A	11	51	75	0.4
K1627C	11	96	90	2.7
K1628A	17	52	130	1.2
K1628C	11	98	180	4.2
K1629A	18	42	100	0.9
K1629C	12	100	120	3.0
K1630A	18	44	170	1.3
K1630C	15	180	85	3.3
K1631A	15	41	90	1.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	U
K1631C	22	240	120	2.5
K1632A	11	59	160	1.2
K1632C	8	91	110	2.5
K1633A	11	42	90	2.9
K1633C	12	130	130	2.9
K1634A	17	39	80	2.0
K1634C	21	200	140	2.6
K1635A	12	42	90	2.3
K1635C	16	190	90	3.2
K1636A	15	120	45	0.8
K1636C	24	250	240	6.3
K1637A	8	60	80	1.2
K1637C	8	75	70	3.1
K1638A	21	250	160	0.8
K1638C	17	200	100	3.3
K1639A	19	91	130	0.6
K1639C	15	120	85	2.3
K1640A	11	79	100	1.5
K1640C	17	56	300	4.2
K1641A	12	54	130	1.3
K1641C	11	89	110	3.5
K1642A	11	44	100	2.1
K1642C	9	50	60	3.2
K1643A	33	220	500	3.5
K1643C	47	300	500	7.4
K1644A	11	63	100	1.4
K1644C	10	120	60	2.3
K1645A	10	100	35	0.4
K1645C	21	170	170	4.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	U
K1646A	9	150	50	1.4
K1646C	16	140	180	3.0
K1647A	15	67	110	0.0
K1647C	9	68	40	3.0
K1648A	6	38	85	1.6
K1648C	13	110	90	2.7
K1649A	9	30	70	1.9
K1649C	12	140	85	3.1
K1650A	9	130	70	1.7
K1650C	57	390	620	5.8
K1651A	22	200	120	0.4
K1651C	17	190	120	3.2
K1652A	13	99	30	0.0
K1652C	16	100	75	4.6
K1653A	8	42	60	1.0
K1653C	15	100	100	2.9
K1654A	10	38	50	0.0
K1654C	12	55	65	3.7
K1655A	12	60	90	0.0
K1655C	12	75	75	3.0
K1656A	20	66	65	0.4
K1656C	14	42	70	2.7
K1657A	20	72	40	0.9
K1657C	21	120	120	2.8
K1658A	12	82	70	1.1
K1658C	22	130	100	2.7
K1659A	11	47	60	2.3
K1659C	15	89	110	0.5
K1660A	8	55	85	0.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	U
K1660C	11	74	65	2.3
K1661A	12	62	80	0.9
K1661C	12	98	65	2.7
K1662A	15	49	80	0.9
K1662C	12	75	70	2.5
K1663A	17	52	120	1.0
K1663C	11	58	110	3.2
K1664A	12	75	110	1.0
K1664C	11	120	75	2.2
K1665A	15	84	150	0.6
K1665C	9	98	75	2.6
K1666A	13	34	85	0.9
K1666C	13	54	80	2.0
K1667A	20	60	120	0.0
K1667C	10	90	75	2.9
K1668A	15	57	130	2.1
K1668C	12	110	90	2.8
K1669A	16	70	130	0.5
K1669C	17	150	110	2.6
K1670A	12	120	140	1.7
K1670C	12	180	180	2.3
K1671A	23	60	75	0.0
K1671C	16	180	140	3.2
K1672A	24	52	85	0.8
K1672C	21	130	75	2.5
K1673A	14	41	120	2.1
K1673C	15	170	100	3.9
K1674A	12	55	140	0.9
K1674C	13	350	420	3.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	U
K1675A	13	43	130	1.8
K1675C	16	130	150	2.3
K1676A	14	42	80	1.7
K1676C	13	140	100	3.0
K1677A	15	57	110	1.1
K1677C	11	140	100	3.5
K1678A	18	52	130	1.8
K1678C	17	250	220	3.0
K1679A	12	43	90	1.9
K1679C	16	89	100	2.7
K1680A	15	64	120	0.8
K1680C	14	130	130	2.5
K1681A	30	450	250	1.9
K1681C	20	480	160	3.9
K1682A	16	87	180	1.0
K1682C	15	120	110	2.8
K1683A	12	50	100	2.5
K1683C	15	130	100	2.8
K1684A	14	68	85	2.4
K1684C	13	140	100	2.7
K1685A	12	87	80	1.7
K1685C	16	160	120	1.9
K1686A	74	130	750	12.1
K1686C	96	540	730	11.0
K1687A	20	140	110	0.4
K1687C	15	150	200	4.1
K1688A	54	440	400	3.9
K1689C	31	250	340	6.1
K1690A	29	120	70	0.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	U
K1691A	11	160	50	0.7
K1691C	9	160	95	3.7
K1692A	9	64	30	0.0
K1692C	11	85	90	5.7
K1693A	16	140	75	1.9
K1693C	16	420	310	5.8
K1694A	11	60	50	0.0
K1694C	8	120	110	3.9
K1695A	22	170	150	1.5
K1695C	52	760	310	11.1
K1696A	51	410	220	5.9
K1696C	22	220	85	2.7
K1697A	130	1100	750	14.1
K1697C	55	880	280	3.2
K1698A	19	83	100	0.8
K1698C	20	130	120	3.5
K1699A	20	110	85	1.4
K1699C	23	150	130	2.4
K1700A	17	57	65	1.8
K1700C	17	250	100	3.7
K1701A	15	76	110	2.0
K1701C	11	80	110	3.2
K1702A	14	70	75	0.7
K1702C	19	150	130	2.8
K1703A	10	42	95	2.3
K1703C	12	68	120	2.4
K1704A	12	72	95	0.4
K1704C	28	140	120	2.5
K1705A	17	80	90	1.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	U
K1705C	11	35	50	4.2
K1706A	19	46	160	1.2
K1706C	15	98	110	3.2
K1707A	24	95	100	0.4
K1707C	17	100	110	3.5
K1708A	18	55	120	2.4
K1708C	13	130	150	4.6
K1709A	23	98	95	1.3
K1709C	12	120	110	3.8
K1710A	24	48	95	0.9
K1710C	18	190	130	2.4
K1711A	34	60	130	0.8
K1711C	19	200	220	1.9
K1712A	24	50	110	0.4
K1712C	11	95	75	2.7
K1713A	11	53	100	0.8
K1713C	14	150	80	3.5
K1714A	20	29	120	1.3
K1714C	28	220	130	4.2
K1715A	12	49	70	0.4
K1715C	19	82	130	4.5
K1716A	19	50	110	0.8
K1716C	10	79	85	3.3
K1717A	32	90	100	1.5
K1717C	16	100	85	3.5
K1718A	19	35	90	1.5
K1718C	11	78	80	2.9
K1719A	18	49	170	1.5
K1719C	13	120	80	2.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1931C	31	320	340	—	2.0
K1932A	18	100	150	—	1.5
K1932C	17	130	60	—	3.4
K1933A	12	100	80	—	0.9
K1933C	12	110	60	—	4.0
K1934A	18	86	130	—	0.5
K1934C	17	260	90	—	3.6
K1935A	22	140	100	—	0.9
K1935C	43	360	200	—	2.8
K1936A	12	29	25	—	1.2
K1936C	10	85	50	—	3.1
K1937A	13	60	60	—	2.2
K1937C	12	130	50	—	3.0
K1938A	11	53	60	—	0.0
K1938C	10	68	60	—	3.4
K1939A	8	100	25	—	1.8
K1939C	13	120	60	—	2.7
K1940A	12	76	80	—	2.1
K1940C	13	110	50	—	2.0
K1941A	47	160	100	—	2.2
K1941C	12	100	60	—	3.1
K1942A	12	130	35	—	0.9
K1942C	15	85	60	—	3.3
K1943A	9	44	65	—	1.5
K1943C	12	110	90	—	2.8
K1944A	8	72	60	—	0.4
K1944C	12	90	45	—	2.1
K1945A	17	66	90	—	0.9
K1945C	9	90	55	—	3.9

14-DEC-73 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1727C	27	47	70	—	3.2
K1728A	18	38	90	—	2.1
K1728C	13	47	50	—	3.7
K1729A	12	68	65	—	0.7
K1729C	14	34	40	—	2.5
K1730A	13	53	50	—	0.0
K1730C	12	38	50	—	3.8
K1731A	10	48	25	—	0.0
K1731C	19	99	65	—	2.8
K1732A	16	79	45	—	0.0
K1732C	8	51	30	—	3.1
K1733A	18	53	110	—	0.5
K1733C	18	130	80	—	2.9
K1734A	18	110	100	—	0.0
K1734C	18	80	20	—	1.8
K1735A	16	200	70	—	0.0
K1735C	15	120	100	—	2.6
K1736A	23	92	80	—	0.0
K1736C	13	65	75	—	4.1
K1737A	15	120	35	—	0.0
K1737C	22	260	160	—	2.1

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1738A	19	240	220	—	2.6
K1738C	17	410	150	—	2.5
K1739A	15	70	40	—	0.0
K1739C	18	170	100	—	3.4
K1740A	22	120	80	—	0.5
K1740C	31	370	160	—	4.4
K1741A	18	98	130	—	3.1
K1741C	38	440	190	—	5.1
K1742A	17	90	45	—	0.0
K1742C	20	120	120	—	3.4
K1743A	16	40	60	—	0.0
K1743C	26	150	170	—	2.8
K1744A	12	110	70	—	1.1
K1744C	15	73	95	—	3.0
K1745A	15	50	90	—	2.1
K1745C	18	120	100	—	2.7
K1746A	22	74	100	—	0.8
K1746C	17	120	85	—	3.0
K1747A	20	110	180	—	1.5
K1747C	14	93	130	—	3.5
K1748A	18	200	95	—	0.8
K1748C	23	200	90	—	3.0
K1749A	20	200	90	—	1.7
K1749C	23	370	130	—	3.1
K1750A	20	85	100	—	1.9
K1750C	18	160	110	—	3.0
K1751A	17	44	100	—	1.0
K1751C	15	190	95	—	3.3
K1752A	46	92	180	—	0.9

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1752C	20	160	95	—	3.0
K1753A	16	110	65	—	3.1
K1753C	17	42	60	—	1.7
K1754A	18	51	65	—	0.4
K1754C	14	90	45	—	3.1
K1755A	15	39	140	—	0.8
K1755C	20	54	170	—	5.5
K1756A	18	78	150	—	1.3
K1756C	18	140	270	—	1.3
K1757A	23	43	60	—	2.4
K1757C	20	68	50	—	4.4
K1758A	18	100	130	—	1.3
K1758C	22	100	65	—	2.9
K1759A	20	47	100	—	1.3
K1759C	17	52	85	—	3.0
K1760A	20	43	100	—	1.1
K1760C	15	61	60	—	3.3
K1761A	17	98	90	—	0.4
K1761C	12	51	45	—	2.7
K1762A	12	24	45	—	1.6
K1762C	16	67	50	—	3.1
K1763A	21	50	140	—	2.1
K1763C	14	58	60	—	3.5
K1764A	31	48	90	—	2.2
K1764C	18	60	45	—	2.4
K1765A	19	35	90	—	1.3
K1765C	18	93	65	—	2.7
K1766A	14	35	55	—	1.8
K1766C	15	66	60	—	2.7

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1767A	19	83	140	—	0.6
K1767C	14	50	55	—	2.4
K1768A	15	35	60	—	1.5
K1768C	18	79	60	—	2.6
K1769A	16	69	90	—	0.8
K1769C	15	42	80	—	2.3
K1770A	18	84	80	—	0.5
K1770C	12	51	85	—	3.5
K1771A	16	74	50	—	0.6
K1771C	15	38	70	—	3.5
K1772A	13	46	60	—	1.5
K1772C	12	41	40	—	4.1
K1773A	20	110	80	—	2.6
K1773C	14	81	50	—	3.3
K1774A	10	92	50	—	0.0
K1774C	13	110	50	—	0.7
K1775A	13	120	50	—	0.5
K1775C	17	120	80	—	3.5
K1776A	12	83	55	—	0.4
K1776C	9	72	55	—	2.6
K1777A	10	68	40	—	0.4
K1777C	14	130	80	—	3.3
K1778A	14	40	50	—	0.5
K1778C	11	96	80	—	3.4
K1779A	12	67	70	—	0.0
K1779C	14	57	70	—	2.2

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1781A	22	52	85	—	1.9
K1782A	12	40	45	—	2.3
K1782C	17	63	60	—	3.0
K1783A	17	100	90	—	1.1
K1783C	25	170	80	—	3.6
K1784A	15	69	75	—	0.0

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1784C	17	150	70	—	2.1
K1785A	14	56	90	—	0.6
K1785C	13	74	80	—	2.7
K1786A	22	110	190	—	0.5
K1786C	23	190	95	—	3.1
K1787A	17	86	70	—	1.2
K1787C	15	94	85	—	3.2
K1788A	17	110	55	—	1.1
K1788C	17	110	70	—	3.1
K1769A	25	60	120	—	10.6
K1789C	15	79	85	—	2.3
K1790A	14	54	90	—	1.2
K1790C	15	110	100	—	2.4
K1791A	23	120	130	—	0.7
K1791C	26	200	120	—	2.6
K1792A	20	58	120	—	0.9
K1792C	30	150	125	—	3.9
K1793A	65	250	190	—	7.2
K1793C	56	500	155	—	6.1
K1794A	21	81	110	—	0.4
K1794C	20	120	70	—	3.4
K1795A	20	62	175	—	0.5
K1795C	15	95	75	—	2.9
K1796A	22	61	85	—	1.0
K1796C	45	55	55	—	3.5
K1797A	17	51	60	—	0.0
K1797C	16	96	65	—	3.4
K1798A	21	45	130	—	0.0
K1798C	23	80	80	—	3.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1799A	17	82	105	—	1.2
K1799C	15	79	85	—	3.7
K1800A	18	55	75	—	2.4
K1800C	11	43	70	—	4.2
K1801A	15	61	100	—	0.9
K1801C	19	83	95	—	3.0
K1802A	10	46	65	—	1.5
K1802C	14	120	65	—	2.6
K1803A	18	46	100	—	1.6
K1803C	27	160	120	—	3.5
K1804A	12	55	95	—	1.5
K1804C	17	110	70	—	2.6
K1805A	17	88	95	—	1.2
K1805C	16	66	50	—	2.7
K1806A	12	51	80	—	1.3
K1806C	18	120	55	—	2.7
K1807A	13	36	75	—	1.7
K1807C	14	52	65	—	2.7
K1808A	12	29	50	—	0.8
K1808C	15	54	50	—	3.1
K1809A	9	46	80	—	0.6
K1809C	18	76	65	—	1.5
K1810A	91	140	100	—	0.6
K1810C	9	63	20	—	2.9
K1811A	9	24	30	—	3.1
K1811C	10	29	30	—	3.3
K1812A	6	39	35	—	2.7
K1812C	8	60	40	—	3.4
K1813A	6	37	60	—	1.2

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1813C	13	48	25	—	5.1
K1814A	11	65	65	—	0.0
K1814C	9	22	20	—	5.1
K1815A	13	80	45	—	0.0
K1815C	11	40	25	—	5.5
K1816A	27	29	70	—	0.9
K1816C	10	54	25	—	4.1
K1817A	12	63	60	—	0.0
K1817C	13	75	30	—	3.6
K1818A	11	35	55	—	2.9
K1818C	11	33	35	—	4.2
K1819A	15	49	65	—	0.5
K1819C	9	70	30	—	4.4
K1820A	8	40	80	—	0.5
K1820C	7	41	20	—	5.7
K1821A	11	48	80	—	1.5
K1821C	7	31	15	—	8.7
K1822A	12	42	35	—	3.0
K1822C	7	40	25	—	7.6
K1823A	12	110	80	—	1.2
K1823C	10	88	35	—	4.1
K1824A	11	65	35	—	0.7
K1824C	7	29	20	—	7.2
K1825A	17	110	110	—	0.5
K1825C	11	110	70	—	4.1
K1826A	9	58	60	—	1.5
K1826C	14	84	60	—	4.2
K1827A	11	63	70	—	1.7
K1827C	12	66	65	—	5.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1828A	11	71	45	—	0.0
K1828C	17	130	65	—	4.8
K1829A	8	70	60	—	3.1
K1829C	9	80	75	—	0.7
K1830A	12	36	50	—	1.7
K1830C	13	110	70	—	3.8
K1831A	12	47	90	—	1.6
K1831C	11	72	55	—	3.7
K1832A	12	58	100	—	2.8
K1832C	8	55	60	—	4.1
K1833A	15	60	130	—	1.5
K1833C	14	100	90	—	2.5
K1834A	24	58	120	—	1.8
K1834C	13	56	80	—	3.0
K1835A	14	38	90	—	1.2
K1835C	18	95	120	—	1.9
K1836A	17	51	260	—	5.5
K1836C	14	64	90	—	2.5
K1837A	22	44	100	—	1.4
K1837C	12	51	85	—	4.3
K1838A	17	49	160	—	0.5
K1838C	7	24	30	—	2.5
K1839A	8	26	60	—	1.4
K1839C	12	79	100	—	2.9
K1840A	7	46	110	—	3.7
K1840C	15	87	100	—	3.1
K1841A	13	59	90	—	3.1
K1841C	15	100	100	—	3.4
K1842A	14	72	50	—	1.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1842C	16	120	60	—	3.5
K1843A	13	64	70	—	3.3
K1843C	16	150	70	—	3.3
K1844A	15	60	40	—	0.0
K1844C	20	150	80	—	3.0
K1845A	26	67	75	—	1.0
K1845C	43	150	90	—	4.1
K1846A	37	37	90	—	1.1
K1846C	22	110	50	—	3.8
K1847A	30	140	50	—	1.3
K1847C	82	290	180	—	7.6
K1848A	16	82	35	—	0.5
K1848C	12	62	100	—	2.7
K1849A	8	75	30	—	0.8
K1849C	13	92	80	—	3.6
K1850A	13	78	100	—	2.0
K1850C	11	95	50	—	3.6
K1851A	17	47	180	—	7.5
K1851C	14	94	70	—	2.7
K1852A	19	34	200	—	2.4
K1852C	15	92	90	—	3.1
K1853A	15	100	50	—	0.0
K1853C	23	140	130	—	1.9
K1854A	13	41	90	—	0.7
K1854C	15	89	80	—	2.6
K1855A	19	39	200	—	2.3
K1855C	14	84	80	—	3.0
K1856A	10	79	70	—	0.0
K1856C	14	120	80	—	2.7

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1857A	16	60	50	—	0.4
K1857C	22	160	120	—	4.1
K1860A	18	35	90	—	0.6
K1860C	14	110	85	—	2.4
K1861A	12	110	90	—	0.4
K1861C	12	45	80	—	3.3
K1862A	16	84	85	—	0.5
K1862C	12	51	55	—	4.8
K1863A	11	42	110	—	1.1
K1863C	22	300	170	—	3.1
K1864A	17	63	170	—	0.7
K1864C	17	150	60	—	2.7
K1865A	8	110	75	—	0.0
K1865C	12	89	80	—	2.8
K1866A	18	70	200	—	4.4
K1866C	14	95	60	—	2.8
K1867A	18	79	40	—	0.5
K1867C	14	120	70	—	3.3
K1868A	14	55	70	—	1.7
K1868C	13	150	45	—	4.0
K1869A	17	44	100	—	4.3
K1869C	12	55	40	—	2.7
K1870A	22	53	170	—	3.5
K1870C	15	120	40	—	2.5
K1871A	15	51	130	—	1.8
K1871C	12	64	50	—	3.3
K1872A	18	77	230	—	1.7
K1872C	15	83	50	—	2.1
K1873A	9	75	55	—	0.7

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1873C	17	130	70	—	2.5
K1874A	14	43	70	—	0.4
K1874C	14	71	40	—	3.9
K1875A	15	36	100	—	0.7
K1875C	14	95	60	—	3.2
K1876A	24	87	170	—	1.6
K1876C	15	100	60	—	2.5
K1877A	18	55	80	—	0.6
K1877C	14	100	40	—	2.4
K1878A	13	57	55	—	0.9
K1878C	15	160	60	—	3.2
K1879A	15	70	120	—	2.0
K1879C	11	67	40	—	2.5
K1880A	19	96	110	—	2.3
K1880C	25	120	100	—	2.0
K1881A	12	160	110	—	0.0
K1881C	22	83	70	—	2.2
K1882A	9	110	75	—	0.7
K1882C	19	130	60	—	1.9
K1883A	12	71	70	—	0.4
K1883C	8	75	70	—	3.2
K1884A	14	62	70	—	0.0
K1884C	13	53	65	—	2.2
K1885A	12	62	30	—	0.5
K1885C	7	37	80	—	3.3
K1886A	9	160	30	—	0.0
K1886C	18	120	110	—	1.9
K1887A	12	41	150	—	0.0
K1887C	9	35	30	—	3.6

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1888A	13	100	120	—	0.4
K1888C	26	210	130	—	3.7
K1889A	25	120	200	—	0.0
K1889C	17	100	80	—	2.9
K1890A	11	100	60	—	0.7
K1890C	13	92	110	—	2.9
K1891A	13	87	70	—	3.3
K1891C	12	77	65	—	3.1
K1892A	15	110	170	—	1.3
K1892C	21	190	80	—	3.0
K1893A	23	68	260	—	1.7
K1893C	17	180	100	—	3.0
K1894A	22	110	300	—	1.7
K1894C	32	420	150	—	1.9
K1895A	14	98	90	—	1.3
K1895C	13	130	110	—	4.7
K1896A	17	66	85	—	2.8
K1896C	14	190	70	—	3.3
K1897A	13	140	100	—	0.5
K1897C	13	120	80	—	3.9
K1898A	13	45	120	—	0.7
K1898C	10	48	45	—	3.9
K1899A	15	55	110	—	1.9
K1899C	14	110	55	—	2.0
K1900A	17	84	100	—	1.1
K1900C	17	150	110	—	2.6
K1901A	16	72	30	—	0.7
K1901C	12	65	55	—	4.1
K1902A	12	120	110	—	0.0

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1902C	68	93	160	—	2.3
K1903A	14	75	100	—	0.9
K1903C	18	220	100	—	3.0
K1904A	12	60	130	—	2.5
K1904C	15	150	95	—	2.7
K1905A	11	35	80	—	3.3
K1905C	9	89	60	—	2.8
K1906A	10	50	95	—	3.8
K1906C	15	110	75	—	3.3
K1907A	17	43	240	—	2.3
K1907C	12	75	60	—	2.6
K1908A	16	92	180	—	2.3
K1908C	14	100	80	—	2.5
K1909A	14	88	120	—	1.8
K1909C	22	190	100	—	4.2
K1910A	18	97	120	—	1.7
K1910C	13	110	70	—	3.5
K1911A	17	62	120	—	2.9
K1911C	12	67	45	—	2.5
K1912A	16	72	120	—	3.5
K1912C	15	44	60	—	4.5
K1913A	16	55	140	—	1.5
K1913C	18	150	80	—	3.7
K1914A	17	74	120	—	1.9
K1914C	14	91	75	—	2.7
K1915A	13	50	130	—	1.3
K1915C	13	120	45	—	3.9
K1916A	12	79	55	—	0.5
K1916C	14	67	60	—	4.3

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SAMPLE	CU	ZN	PB	AG	U
K1917A	12	55	100	—	2.3
K1917C	15	150	60	—	2.9
K1918A	21	120	210	—	1.0
K1918C	20	140	90	—	4.4
K1919A	12	95	75	—	0.0
K1919C	20	200	85	—	2.3
K1920A	22	31	60	—	1.3
K1920C	10	94	60	—	3.4
K1921A	11	57	85	—	1.3
K1921C	16	130	80	—	3.2
K1922A	14	100	120	—	1.3
K1922C	15	130	90	—	2.7
K1923A	17	110	95	—	1.9
K1923C	13	120	85	—	3.5
K1924A	14	93	40	—	3.4
K1924C	14	150	90	—	2.6
K1925A	21	170	190	—	1.8
K1925C	10	100	55	—	2.9
K1926A	15	80	100	—	0.5
K1926C	16	140	100	—	2.6
K1927A	12	61	90	—	2.4
K1927C	17	160	80	—	2.5
K1928A	22	80	50	—	1.9
K1928C	15	130	55	—	2.3
K1929A	16	34	80	—	0.5
K1929C	19	170	60	—	3.2
K1930A	12	61	60	—	2.8
K1930C	15	130	50	—	3.0
K1931A	22	70	120	—	2.3

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SAMPLE	CU	ZN	PB	AG	U
K1946A	17	59	160	—	1.6
K1946C	13	68	60	—	2.3
K1947A	12	90	30	—	2.5
K1947C	10	44	50	—	3.0
K1948A	11	47	60	—	2.1
K1948C	17	110	65	—	3.5
K1949A	7	54	40	—	0.7
K1949C	9	67	50	—	2.9
K1950A	8	30	30	—	0.4
K1950C	11	94	60	—	3.1
K1951A	11	90	110	—	0.0
K1951C	8	48	50	—	4.3
K1952A	30	160	115	—	4.7
K1952C	30	170	80	—	4.5
K1953A	12	140	85	—	0.7
K1953C	16	100	95	—	3.0
K1954A	15	110	30	—	0.0
K1954C	8	120	90	—	2.5
K1955A	10	110	80	—	3.4
K1955C	11	82	95	—	3.2
K1956A	8	130	70	—	2.4
K1956C	12	170	130	—	2.5
K1957A	42	95	130	—	9.0
K1957C	54	160	150	—	14.5
K1958A	10	26	40	—	0.4
K1958C	12	180	150	—	3.4
K1959A	13	97	90	—	1.1
K1959C	11	91	120	—	3.0
K1960A	10	75	70	—	0.0

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1960C	8	53	70	—	4.9
K1961A	15	73	160	—	4.5
K1961C	20	250	130	—	6.7
K1962A	13	65	110	—	2.5
K1962C	15	110	130	—	3.3
K1963A	10	53	60	—	2.3
K1963C	33	340	160	—	3.3
K1964A	11	74	70	—	3.0
K1964C	13	110	65	—	3.1
K1965A	11	140	110	—	1.5
K1965C	18	160	90	—	2.7
K1966A	10	80	90	—	2.9
K1966C	18	220	110	—	5.4
K1967A	11	46	90	—	2.1
K1967C	18	83	60	—	3.1
K1968A	17	54	170	—	2.5
K1968C	15	110	40	—	2.5
K1969A	14	100	95	—	0.5
K1969C	11	110	35	—	2.6
K1970A	18	58	170	—	1.5
K1970C	12	70	40	—	3.3
K1971A	14	30	100	—	3.5
K1971C	14	100	50	—	2.7
K1972A	16	28	120	—	3.3
K1972C	13	120	40	—	2.5
K1973A	11	51	140	—	4.4
K1973C	13	110	40	—	2.7
K1974A	13	67	140	—	4.4
K1974C	10	57	50	—	3.6

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1975A	12	55	100	—	2.6
K1975C	13	64	35	—	2.2
K1976A	15	54	120	—	1.7
K1976C	14	100	50	—	2.9
K1977A	18	55	210	—	1.4
K1977C	11	66	45	—	2.9
K1978A	13	65	100	—	2.9
K1978C	14	120	60	—	3.0
K1979A	18	54	220	—	3.4
K1979C	11	67	50	—	3.1
K1980A	8	23	50	—	7.8
K1980C	18	120	60	—	2.9
K1981A	8	44	60	—	1.0
K1981C	11	72	50	—	2.5
K1982A	7	26	30	—	1.8
K1982C	10	65	45	—	3.2
K1983A	9	58	60	—	1.2
K1983C	12	110	65	—	3.3
K1984A	12	130	70	—	0.5
K1984C	9	100	55	—	2.6
K1985A	16	160	205	—	0.0
K1985C	8	55	50	—	3.8
K1986A	9	42	40	—	0.6
K1986C	22	120	70	—	2.7
K1987A	14	58	85	—	0.9
K1987C	11	73	30	—	1.5
K1988A	13	55	95	—	0.6
K1988C	10	94	70	—	3.3
K1989A	8	43	50	—	0.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K1989C	11	71	110	—	2.8
K1990A	10	72	105	—	1.1
K1990C	8	42	40	—	2.2
K1991A	9	41	65	—	0.9
K1991C	9	60	70	—	2.3
K1993A	8	95	35	—	0.0
K1993C	10	59	70	—	4.0
K1994A	12	83	80	—	0.6
K1994C	16	350	160	—	5.2
K1997A	11	80	55	—	0.5
K1997C	7	58	75	—	2.7
K1998A	8	55	30	—	0.5
K1998C	11	120	100	—	2.1
K1999A	10	56	70	—	1.1
K1999C	13	68	85	—	3.2
K2000A	11	45	60	—	0.7
K2000C	15	130	90	—	2.3
K2001A	13	75	110	—	1.0
K2001C	11	83	75	—	3.9
K2002A	34	210	300	—	6.1
K2002C	55	620	220	—	6.1
K2003A	15	57	70	—	1.2
K2003C	17	95	90	—	3.5
K2004A	10	60	60	—	3.3
K2004C	15	170	110	—	3.3
K2005A	43	150	330	—	10.9
K2005C	10	76	60	—	2.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2006A	41	75	80	—	0.5
K2006C	44	71	45	—	5.9
K2007A	24	76	65	—	0.7
K2007C	18	27	20	—	8.9
K2008A	20	82	85	—	0.0
K2008C	18	34	20	—	5.5
K2011A	22	74	40	—	4.2
K2011C	19	46	55	—	0.5
K2012A	23	24	35	—	1.5

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SAMPLE	CU	ZN	PB	AG	U
K2012C	20	44	35	—	3.3
K2013A	16	46	35	—	3.5
K2013C	19	54	30	—	4.6
K2014A	18	54	25	—	2.1
K2014C	29	59	25	—	4.3
K2015A	16	79	30	—	0.8
K2015C	14	20	10	—	5.6
K2016A	30	120	50	—	0.4
K2016C	14	27	20	—	3.5
K2017A	15	54	65	—	0.4
K2017C	17	43	25	—	3.5
K2018A	18	110	70	—	0.0
K2018C	12	21	25	—	5.8
K2019A	13	53	60	—	0.0
K2019C	13	34	20	—	4.5
K2020A	16	79	70	—	0.4
K2020C	75	34	25	—	4.4
K2021A	13	48	65	—	0.8
K2021C	16	17	20	—	4.2
K2022A	12	56	60	—	0.4

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2022C	12	18	10	—	5.0
K2023A	14	79	80	—	0.0
K2023C	9	10	10	—	10.0
K2024A	20	53	130	—	0.4
K2024C	11	18	10	—	7.6
K2025A	15	56	75	—	0.5
K2025C	9	9	5	—	3.9
K2026A	20	56	75	—	1.0
K2026C	13	35	20	—	4.5
K2027A	13	73	50	—	0.4
K2027C	13	20	5	—	7.0
K2028A	15	55	70	—	3.5
K2028C	18	59	15	—	7.3
K2029A	13	46	25	—	2.5
K2029C	18	110	40	—	6.8
K2030A	12	50	60	—	0.4
K2030C	12	23	25	—	6.1
K2031A	12	18	10	—	4.7
K2031C	13	74	40	—	0.5
K2032A	10	55	30	—	1.7
K2032C	22	66	50	—	3.2
K2033A	9	14	10	—	4.7
K2033C	17	39	55	—	4.0
K2034A	13	83	55	—	0.4
K2034C	9	20	20	—	4.6
K2035A	14	64	50	—	0.4
K2035C	13	46	30	—	3.5
K2036A	18	39	50	—	0.9
K2036C	10	24	20	—	3.7

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SAMPLE	CU	ZN	PB	AG	U
K2037A	12	20	35	—	2.4
K2037C	12	24	25	—	5.4
K2038A	17	60	55	—	0.4
K2038C	10	15	10	—	8.1
K2039A	13	24	20	—	1.6
K2039C	15	17	15	—	2.7
K2040A	12	17	15	—	4.2
K2041A	12	70	45	—	0.9
K2041C	15	68	40	—	2.3
K2042A	13	65	90	—	1.1
K2042C	8	18	10	—	3.8
K2043A	12	52	10	—	1.3
K2043C	6	39	30	—	3.7
K2044A	7	22	40	—	1.0
K2044C	8	34	30	—	2.3
K2045A	12	28	35	—	1.9
K2045C	11	60	30	—	3.7
K2046A	11	22	30	—	4.7
K2046C	8	28	25	—	5.6
K2047A	10	19	30	—	4.5
K2047C	17	88	55	—	1.9
K2048A	8	58	60	—	0.5
K2048C	8	55	40	—	2.6
K2049A	11	31	50	—	0.5
K2049C	10	30	50	—	3.2
K2050A	7	46	60	—	0.0
K2050C	12	46	40	—	4.2
K2051A	11	20	30	—	2.3
K2051C	10	43	45	—	5.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2052A	9	24	40	—	0.7
K2052C	9	25	40	—	2.1
K2053A	10	25	45	—	2.3
K2053C	12	100	35	—	4.1
K2054A	7	66	90	—	0.0
K2054C	8	54	30	—	4.5
K2055A	7	63	60	—	0.5
K2055C	4	20	20	—	4.6
K2056A	6	66	60	—	1.1
K2056C	3	15	15	—	4.7
K2057A	10	43	60	—	0.4
K2057C	5	20	30	—	0.5
K2058A	9	83	65	—	0.0
K2058C	6	53	30	—	3.0
K2059A	7	52	80	—	0.0
K2059C	12	70	45	—	4.2
K2060A	4	58	15	—	0.0
K2060C	6	35	30	—	3.3
K2061A	7	43	40	—	3.1
K2061C	11	83	75	—	4.9
K2062A	5	67	35	—	0.0
K2062C	5	30	30	—	4.7
K2063A	8	28	45	—	3.2
K2063C	6	16	25	—	7.8
K2064A	8	35	45	—	2.1
K2064C	8	46	45	—	4.1
K2065A	12	76	120	—	0.6
K2065C	4	20	35	—	4.9
K2066A	7	40	60	—	0.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2066C	9	48	25	—	4.3
K2067A	5	90	55	—	0.0
K2067C	9	66	25	—	2.1
K2068A	8	47	60	—	0.4
K2069A	9	68	75	—	0.0
K2069C	7	31	30	—	5.8
K2070A	9	75	90	—	0.4
K2070C	9	46	25	—	3.3
K2071A	14	54	50	—	0.4
K2071C	19	38	40	—	12.8
K2072A	9	68	65	—	0.4
K2072C	9	59	20	—	4.2
K2073A	4	17	25	—	2.1
K2073C	8	67	20	—	3.2
K2074A	13	96	75	—	1.5
K2074C	8	60	30	—	3.0
K2075A	7	37	40	—	2.3
K2075C	14	75	25	—	2.7
K2076A	10	36	55	—	1.2
K2076C	6	30	20	—	3.1
K2077A	6	34	45	—	3.0
K2077C	17	59	50	—	2.5
K2078A	8	43	60	—	0.6
K2078C	6	37	25	—	3.3
K2079A	8	55	50	—	2.4
K2079C	5	23	15	—	4.7
K2080A	7	22	25	—	1.3
K2080C	12	22	15	—	7.3
K2082A	9	33	35	—	1.3

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SAMPLE	CU	ZN	PB	AG	U
K2082C	6	51	15	—	3.1
K2084A	9	48	60	—	0.9
K2084C	12	58	25	—	3.7
K2085A	9	48	80	—	0.7
K2085C	4	6	0	—	5.4
K2086A	5	41	50	—	0.7
K2086C	4	9	5	—	7.0
K2087A	7	71	60	—	1.1
K2087C	17	24	240	—	7.1
K2088A	10	37	65	—	1.0
K2088C	14	17	150	—	3.8
K2089A	7	29	60	—	2.9
K2089C	5	12	15	—	5.4
K2090A	14	58	130	—	0.5
K2090C	8	28	35	—	5.1
K2091A	9	46	75	—	0.8
K2091C	9	27	35	—	3.6
K2092A	13	31	70	—	1.2
K2092C	2	6	5	—	5.1
K2093A	11	31	85	—	1.0
K2093C	4	6	5	—	5.8
K2094A	8	20	90	—	2.4
K2094C	7	21	25	—	5.8
K2095A	8	20	50	—	4.5
K2095C	7	27	90	—	5.4
K2096A	12	42	95	—	2.1
K2096C	5	20	30	—	5.3
K2097A	12	33	110	—	1.0
K2097C	10	19	30	—	8.6

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SAMPLE	CU	ZN	PB	AG	U
K2098A	17	29	70	—	2.7
K2098C	17	36	75	—	8.2
K2099C	3	9	10	—	4.5
K2100A	8	54	70	—	0.0
K2100C	10	50	45	—	4.2
K2101A	7	75	75	—	0.0
K2101C	5	20	25	—	2.5
K2102A	10	65	70	—	0.4
K2102C	3	8	5	—	7.9
K2103A	7	55	40	—	0.0
K2103C	3	11	5	—	6.5
K2104A	8	64	95	—	0.0
K2104C	7	32	20	—	6.6
K2105A	12	30	70	—	4.7
K2105C	4	12	20	—	5.2
K2106A	9	79	65	—	0.0
K2106C	5	21	20	—	6.4
K2107A	7	87	35	—	0.0
K2107C	11	20	20	—	5.3
K2108A	6	47	40	—	2.8
K2108C	3	9	10	—	9.3
K2109A	5	54	70	—	0.0
K2109C	15	17	15	—	7.3
K2110A	15	91	150	—	5.0
K2110C	5	35	20	—	10.7
K2111A	8	59	70	—	0.6
K2111C	4	10	10	—	5.0
K2112A	7	67	30	—	1.1
K2112C	6	27	20	—	5.5

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SAMPLE	CU	ZN	PB	AG	U
K2113A	4	24	15	—	0.6
K2113C	10	45	35	—	3.9
K2114A	9	63	70	—	1.3
K2114C	6	23	20	—	4.9
K2115A	8	48	65	—	0.5
K2115C	6	33	25	—	3.6
K2116A	9	58	80	—	0.3
K2116C	4	17	20	—	6.6
K2117A	15	32	40	—	1.6
K2117C	12	69	60	—	3.8
K2118A	11	48	90	—	3.2
K2118C	7	58	50	—	7.3
K2119A	7	92	80	—	0.9
K2119C	8	15	35	—	4.5
K2120A	7	37	80	—	2.0
K2120C	10	29	50	—	2.4
K2121A	7	46	65	—	0.6
K2121C	7	33	50	—	3.5
K2122A	8	69	75	—	1.0
K2122C	7	33	20	—	3.4
K2123A	5	20	20	—	4.1
K2123C	4	15	20	—	3.8
K2125A	8	59	120	—	0.4
K2125C	8	34	35	—	2.7
K2126A	9	18	35	—	2.4
K2126C	46	130	25	—	4.8
K2127A	8	61	60	—	1.3
K2127C	13	29	30	—	4.6
K2128A	9	59	65	—	0.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2128C	9	45	35	—	3.7
K2129A	12	27	60	—	0.0
K2129C	8	39	35	—	3.6
K2130A	14	30	120	—	1.9
K2130C	13	56	65	—	4.1
K2131A	11	45	120	—	1.3
K2131C	10	40	30	—	4.2
K2132A	12	63	55	—	0.5
K2132C	8	44	40	—	3.8
K2133A	12	60	45	—	1.5
K2133C	10	41	30	—	4.4
K2134A	7	21	40	—	2.1
K2134C	11	39	35	—	4.4
K2135A	8	77	45	—	3.5
K2135C	7	48	30	—	4.5
K2136A	7	62	85	—	0.0
K2136C	3	11	15	—	6.4
K2137A	7	59	65	—	0.2
K2137C	4	17	10	—	5.8
K2138A	12	77	95	—	1.4
K2138C	13	75	30	—	4.1
K2139A	11	94	65	—	0.2
K2139C	8	57	60	—	5.4
K2140A	11	35	65	—	2.2
K2140C	7	47	60	—	7.6
K2141A	10	41	40	—	0.5
K2141C	6	31	25	—	4.7
K2142A	10	54	75	—	0.4
K2142C	11	62	40	—	6.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2143A	7	83	55	—	0.3
K2143C	5	20	15	—	10.5
K2144A	12	26	65	—	2.2
K2144C	7	53	35	—	6.9
K2145A	7	72	65	—	0.5
K2145C	9	82	50	—	5.0
K2146A	13	44	55	—	0.6
K2146C	12	55	35	—	5.3
K2147A	7	53	50	—	0.6
K2147C	4	13	15	—	6.8
K2148A	12	56	35	—	0.4
K2148C	6	27	20	—	5.8
K2149A	8	70	75	—	0.3
K2149C	7	20	15	—	5.9
K2150A	7	61	45	—	1.4
K2150C	3	8	10	—	5.9
K2151A	6	39	30	—	1.1
K2151C	9	46	15	—	5.6
K2152A	10	58	75	—	0.3
K2152C	5	23	15	—	4.2
K2153A	12	57	65	—	0.0
K2153C	10	37	25	—	3.9
K2154A	35	110	60	—	0.4
K2154C	6	8	5	—	5.5
K2155A	12	34	65	—	0.4
K2155C	6	31	20	—	3.7
K2156A	10	47	60	—	0.5
K2156C	6	42	20	—	4.0
K2157A	8	49	75	—	0.2

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2157C	7	42	35	—	3.2
K2158A	10	47	20	—	0.9
K2158C	8	42	20	—	3.3
K2159A	13	82	120	—	2.0
K2159C	5	19	20	—	7.5
K2160A	15	66	60	—	0.4
K2160C	5	11	5	—	7.7
K2161A	10	87	65	—	0.8
K2161C	7	48	15	—	3.8
K2162A	9	39	40	—	3.8
K2162C	8	41	30	—	3.6
K2163A	6	76	25	—	1.8
K2163C	5	27	15	—	3.6
K2164A	17	160	90	—	2.5
K2164C	10	42	25	—	3.4
K2165A	14	50	30	—	6.2
K2165C	14	70	35	—	4.0
K2166A	15	75	40	—	4.9
K2166C	13	60	40	—	5.1
K2167A	8	34	55	—	0.5
K2167C	9	33	25	—	3.6
K2168A	12	46	40	—	0.6
K2168C	10	53	40	—	3.8
K2169A	17	25	70	—	0.2
K2169C	12	68	65	—	4.2
K2170A	12	32	40	—	0.7
K2170C	6	58	35	—	3.2
K2171A	14	43	50	—	1.5
K2171C	11	56	40	—	4.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2172A	8	48	50	—	0.9
K2172C	5	29	15	—	2.9
K2173A	10	51	55	—	0.8
K2173C	12	48	20	—	3.2
K2174A	9	46	65	—	3.4
K2174C	10	34	30	—	5.3
K2175A	11	64	75	—	0.5
K2175C	11	54	35	—	5.3
K2176A	8	44	60	—	1.7
K2176C	10	49	30	—	5.0
K2177A	11	42	80	—	0.0
K2177C	11	53	40	—	6.5
K2178A	11	69	70	—	1.4
K2178C	27	63	65	—	4.0
K2179A	12	35	55	—	0.6
K2179C	6	33	45	—	6.0
K2180A	10	55	50	—	0.3
K2180C	18	90	35	—	5.2
K2181A	12	80	95	—	0.4
K2182C	7	20	15	—	5.6
K2183A	14	23	45	—	4.8
K2183C	11	31	50	—	5.2
K2184A	11	87	35	—	0.0
K2184C	21	48	120	—	6.4
K2185A	8	57	75	—	1.9
K2185C	10	32	35	—	7.7
K2186A	12	67	70	—	1.1
K2186C	11	84	55	—	6.6
K2187A	16	70	80	—	0.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2187C	9	34	30	—	4.8
K2188A	8	58	45	—	0.0
K2188C	6	7	5	—	5.9
K2189A	8	64	50	—	0.6
K2189C	8	21	25	—	7.5
K2190A	9	28	55	—	2.0
K2190C	7	22	20	—	5.6
K2191A	11	70	55	—	0.4
K2191C	10	46	25	—	4.6
K2192A	7	80	40	—	0.0
K2192C	7	27	20	—	5.6
K2193A	6	50	30	—	0.0
K2193C	4	9	5	—	7.2
K2194A	9	92	30	—	0.7
K2194C	11	27	10	—	7.0
K2195A	8	65	60	—	0.5
K2195C	6	23	20	—	5.9
K2196A	8	78	70	—	0.0
K2196C	9	41	20	—	3.6
K2197A	11	45	95	—	0.6
K2197C	5	16	15	—	4.6
K2198A	10	77	60	—	0.5
K2198C	7	42	25	—	3.4
K2199A	12	63	220	—	0.0
K2199C	10	55	20	—	8.1
K2200A	7	88	50	—	0.4
K2200C	3	11	5	—	7.5
K2201A	15	48	40	—	5.5
K2201C	4	20	5	—	6.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2202A	18	120	110	—	0.0
K2202C	5	3	0	—	6.9
K2203A	5	20	20	—	4.1
K2203C	4	19	15	—	3.9
K2204A	18	79	75	—	0.0
K2204C	11	20	15	—	4.0
K2206A	11	56	70	—	0.0
K2206C	2	9	15	—	3.6
K2207A	18	84	95	—	0.0
K2207C	5	27	20	—	4.0
K2208A	10	63	95	—	1.0
K2208C	5	35	30	—	3.9
K2209A	15	59	110	—	0.0
K2209C	6	42	15	—	3.2
K2210A	12	76	140	—	0.0
K2210C	1	8	0	—	6.0
K2211A	7	70	70	—	0.0
K2211C	2	10	5	—	4.5
K2212A	8	55	75	—	0.5
K2212C	6	30	15	—	3.4
K2213A	10	26	110	—	3.7
K2213C	16	31	170	—	6.5
K2214A	6	32	45	—	1.6
K2214C	7	38	25	—	3.3
K2215A	10	44	75	—	3.1
K2215C	7	46	25	—	4.0
K2216A	10	47	80	—	1.2
K2216C	7	34	30	—	5.2
K2217A	6	36	55	—	1.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2217C	8	43	35	—	5.1
K2218A	10	77	40	—	0.9
K2218C	7	34	30	—	3.9
K2219A	7	90	80	—	0.6
K2219C	7	35	25	—	3.0
K2220A	7	20	40	—	3.3
K2220C	5	12	10	—	4.9
K2221A	5	39	45	—	0.0
K2221C	7	27	25	—	5.5
K2222A	12	60	110	—	0.7
K2222C	13	56	45	—	8.5
K2223A	15	83	80	—	1.0
K2223C	8	33	20	—	6.6
K2224A	7	54	45	—	2.5
K2224C	10	41	50	—	6.8
K2225A	11	71	50	—	0.6
K2225C	12	47	35	—	5.8
K2226A	6	56	55	—	0.6
K2226C	13	62	35	—	4.9
K2227A	7	54	60	—	0.0
K2227C	8	21	15	—	5.0
K2228A	9	62	65	—	0.4
K2228C	7	42	30	—	4.0
K2229A	7	41	40	—	2.5
K2229C	18	80	65	—	7.1
K2230A	11	46	70	—	0.7
K2230C	5	12	15	—	5.8
K2231A	8	69	15	—	1.3
K2231C	12	41	120	—	8.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2232A	7	50	30	—	0.0
K2232C	5	22	15	—	5.4
K2233A	9	67	55	—	0.0
K2233C	5	7	5	—	5.4
K2234A	7	59	40	—	1.4
K2234C	8	34	25	—	5.3
K2235A	16	110	200	—	0.6
K2235C	9	15	15	—	4.8
K2236A	9	180	95	—	0.9
K2236C	6	20	10	—	6.8
K2237A	10	22	30	—	6.6
K2237C	9	41	20	—	3.9
K2238A	14	48	45	—	3.9
K2238C	9	22	30	—	6.5
K2239A	13	97	20	—	11.3
K2239C	17	39	60	—	3.1
K2240A	16	49	40	—	2.8
K2240C	11	50	30	—	4.7
K2241A	10	55	50	—	0.4
K2241C	10	49	20	—	4.5
K2242A	10	55	55	—	0.6
K2242C	5	15	15	—	6.4
K2243A	14	39	70	—	9.6
K2243C	13	87	75	—	12.2
K2244C	10	57	25	—	4.9
K2245A	11	95	60	—	0.0
K2245C	8	27	20	—	7.3
K2246A	10	50	80	—	0.0
K2246C	4	17	10	—	5.6

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2247A	12	39	50	—	3.7
K2247C	8	47	35	—	8.1
K2248A	10	71	65	—	0.5
K2248C	5	12	15	—	7.9
K2249A	10	51	70	—	0.7
K2249C	4	15	20	—	6.8
K2250A	22	55	60	—	11.8
K2250C	20	58	50	—	13.8
K2251A	10	51	50	—	5.2
K2251C	20	61	50	—	14.3
K2254A	12	85	90	—	0.7
K2254C	3	13	10	—	3.2
K2258A	40	82	90	—	0.6
K2258C	9	30	55	—	3.3
K2259A	10	24	45	—	1.5
K2259C	10	31	20	—	4.3
K2260A	7	16	30	—	2.4
K2260C	12	40	120	—	6.0
K2261A	12	95	60	—	0.7
K2261C	8	36	20	—	4.0
K2262A	8	14	30	—	2.9
K2262C	7	30	20	—	3.2
K2263A	8	43	40	—	1.2
K2263C	7	42	20	—	2.9
K2264A	6	30	65	—	0.0
K2264C	10	41	25	—	2.7
K2265A	8	66	35	—	1.3
K2265C	9	28	30	—	7.7
K2266A	5	31	50	—	1.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2266C	11	36	30	—	5.0
K2267A	6	70	55	—	0.4
K2267C	8	40	20	—	4.8
K2268A	9	72	40	—	0.0
K2268C	7	47	25	—	4.3
K2269A	9	94	60	—	0.8
K2269C	5	22	20	—	8.3
K2270A	7	80	30	—	0.5
K2270C	4	25	10	—	7.5
K2271A	10	67	70	—	2.3
K2271C	5	38	10	—	2.5
K2272A	5	35	15	—	0.8
K2272C	6	36	20	—	6.2
K2273A	5	55	40	—	1.1
K2273C	4	15	15	—	5.0
K2274A	7	92	55	—	0.0
K2274C	7	54	40	—	4.4
K2275A	6	91	55	—	0.0
K2275C	16	84	25	—	11.7
K2276A	4	53	50	—	0.0
K2276C	7	30	20	—	4.6
K2277A	7	57	100	—	1.4
K2277C	1	6	5	—	5.9
K2278A	6	53	40	—	0.0
K2278C	3	10	15	—	5.9
K2279A	6	62	50	—	0.0
K2279C	5	17	10	—	4.3
K2280A	6	80	60	—	1.2
K2280C	3	18	15	—	5.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2281A	8	66	65	—	2.2
K2281C	3	30	20	—	5.3
K2282A	9	46	60	—	1.8
K2282C	7	54	20	—	3.1
K2283A	12	66	30	—	0.5
K2283C	10	35	40	—	5.4
K2284A	14	61	20	—	2.9
K2284C	11	58	15	—	3.0
K2285A	6	21	20	—	2.5
K2285C	8	30	15	—	2.5
K2286A	6	20	25	—	2.1
K2286C	5	24	30	—	4.0
K2287A	12	60	70	—	0.0
K2287C	5	22	20	—	3.3
K2288A	12	100	100	—	0.6
K2288C	9	26	15	—	2.5
K2289A	11	58	70	—	0.5
K2289C	2	7	0	—	4.9
K2290A	12	66	70	—	0.5
K2290C	11	27	25	—	3.1
K2291A	6	74	60	—	0.0
K2291C	3	15	5	—	3.6
K2292A	8	43	50	—	0.7
K2292C	9	46	30	—	3.7
K2293A	11	54	100	—	0.4
K2293C	5	22	15	—	4.6
K2294A	2	33	20	—	2.9
K2294C	3	18	20	—	3.9
K2295A	5	56	65	—	0.6

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2295C	2	20	5	—	3.9
K2296A	8	67	50	—	1.2
K2296C	3	18	15	—	4.0
K2297A	6	36	55	—	2.4
K2297C	27	99	40	—	3.0
K2298A	8	40	55	—	1.4
K2298C	3	22	10	—	3.3
K2299A	5	20	15	—	2.6
K2299C	3	22	15	—	3.5
K2300A	7	30	30	—	2.1
K2300C	7	43	20	—	2.8
K2301A	9	54	70	—	0.0
K2301C	10	60	30	—	1.8
K2302A	6	43	45	—	3.7
K2302C	15	90	45	—	3.0
K2303A	8	69	55	—	0.0
K2303C	20	94	55	—	3.0
K2304A	18	41	85	—	2.1
K2304C	11	87	55	—	5.6
K2305A	7	58	20	—	1.4
K2305C	8	52	40	—	3.0
K2306A	8	53	20	—	0.7
K2306C	7	45	25	—	3.3
K2307A	10	72	65	—	4.3
K2307C	8	36	30	—	1.1
K2308A	10	70	65	—	3.1
K2308C	10	40	30	—	3.6
K2309A	6	72	55	—	1.7
K2309C	8	38	30	—	3.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2310A	5	38	25	—	1.7
K2310C	9	40	15	—	7.9
K2311A	15	110	40	—	0.4
K2311C	14	64	20	—	2.6
K2312A	16	92	80	—	0.0
K2312C	4	15	10	—	5.2
K2313A	10	110	65	—	0.4
K2313C	7	20	15	—	5.1
K2314A	5	95	50	—	0.0
K2314C	12	57	20	—	3.9
K2315A	8	60	40	—	0.0
K2315C	11	35	15	—	3.6
K2316A	6	64	80	—	3.3
K2316C	2	12	5	—	5.5
K2317A	9	58	40	—	0.4
K2317C	5	20	15	—	3.6
K2318A	8	100	90	—	1.2
K2318C	18	120	30	—	16.5
K2319A	8	42	20	—	3.0
K2319C	8	46	20	—	3.3
K2320A	8	42	50	—	2.2
K2320C	8	56	10	—	2.6
K2321A	7	82	50	—	0.0
K2321C	4	17	10	—	5.3
K2322A	11	110	70	—	0.6
K2322C	9	61	25	—	2.3
K2323A	6	63	45	—	1.4
K2323C	8	52	20	—	4.3
K2324A	5	30	30	—	2.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2324C	7	28	20	—	3.1
K2325A	8	54	50	—	1.2
K2325C	5	27	15	—	3.7
K2326A	5	30	40	—	2.7
K2326C	5	35	20	—	3.6
K2327A	10	130	60	—	1.0
K2327C	5	30	15	—	3.5
K2328A	11	35	50	—	2.5
K2328C	12	64	20	—	3.1
K2329A	7	28	35	—	3.5
K2329C	12	58	20	—	2.6
K2330A	8	53	80	—	0.5
K2330C	8	29	20	—	4.7
K2331A	10	78	75	—	0.0
K2331C	10	50	25	—	2.7
K2332A	13	59	40	—	0.0
K2332C	15	56	20	—	2.3
K2333A	14	72	80	—	0.0
K2333C	7	20	20	—	3.2
K2334A	10	100	30	—	0.4
K2334C	9	39	30	—	2.8
K2335A	11	62	60	—	0.7
K2335C	11	34	30	—	2.7
K2336A	10	70	40	—	0.9
K2336C	12	43	35	—	3.2
K2337A	16	21	30	—	1.1
K2337C	14	43	40	—	3.2
K2338A	14	28	50	—	0.9
K2338C	11	38	30	—	3.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2339A	11	63	100	—	0.0
K2339C	6	11	25	—	3.3
K2340A	8	54	40	—	0.0
K2340C	12	42	25	—	3.6
K2341A	12	34	50	—	2.0
K2341C	15	62	60	—	4.2
K2342A	14	30	50	—	2.3
K2342C	12	54	40	—	4.8
K2343A	11	62	50	—	1.2
K2343C	15	40	30	—	3.9
K2344A	22	190	130	—	2.9
K2344C	20	78	120	—	8.8
K2345A	13	98	70	—	0.0
K2345C	16	55	70	—	2.6
K2346A	23	120	120	—	0.0
K2346C	13	23	35	—	2.9
K2347A	14	99	55	—	0.0
K2347C	16	55	50	—	3.3
K2348A	13	46	60	—	0.5
K2348C	18	58	60	—	3.4
K2349A	18	110	50	—	0.5
K2349C	22	95	65	—	2.9
K2350A	12	150	40	—	0.0
K2350C	18	75	65	—	3.5
K2351A	14	120	70	—	1.9
K2351C	20	100	70	—	6.0
K2352A	25	120	25	—	1.3
K2352C	32	78	50	—	4.8
K2353A	100	74	75	—	9.6

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2353C	160	210	190	—	13.1
K2358A	20	67	40	—	0.0
K2358C	20	55	30	—	4.8
K2359A	21	62	20	—	0.0
K2359C	21	47	20	—	4.1
K2360A	19	66	50	—	0.0
K2360C	23	63	20	—	2.9
K2361A	28	77	20	—	3.1
K2361C	24	120	55	—	0.0
K2362A	24	86	30	—	3.2
K2362C	29	54	10	—	3.1
K2363A	25	82	60	—	1.0
K2363C	27	48	10	—	4.1
K2364A	26	91	35	—	0.0
K2364C	32	70	30	—	4.0
K2365A	23	56	60	—	0.0
K2365C	25	68	15	—	3.1
K2366A	23	71	40	—	1.3
K2366C	27	79	25	—	2.9
K2367A	12	54	60	—	1.7
K2367C	10	48	20	—	3.2
K2368A	11	49	55	—	0.4
K2368C	12	51	20	—	2.4
K2369A	13	57	40	—	0.0
K2369C	12	58	20	—	3.4
K2370A	9	88	50	—	0.7
K2370C	17	60	25	—	2.1
K2371A	11	72	40	—	0.0
K2371C	10	28	25	—	2.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2372A	16	60	130	—	1.3
K2372C	12	42	30	—	2.5
K2373A	9	33	45	—	1.8
K2373C	7	25	20	—	3.8
K2374A	12	72	40	—	0.0
K2374C	14	50	25	—	2.8
K2375A	11	27	40	—	1.9
K2375C	11	38	20	—	2.6
K2376A	8	18	40	—	2.6
K2376C	8	22	30	—	3.5
K2377A	8	20	20	—	2.0
K2377C	8	12	20	—	3.1
K2378A	12	58	50	—	0.0
K2378C	12	40	30	—	1.8
K2379A	13	36	45	—	1.8
K2379C	12	44	20	—	2.2
K2380A	18	66	50	—	0.0
K2380C	12	24	30	—	2.4
K2381A	11	59	55	—	0.0
K2381C	13	54	20	—	2.7
K2382A	10	29	50	—	0.6
K2382C	10	40	20	—	2.4
K2383A	11	43	55	—	0.0
K2383C	8	20	30	—	2.3
K2384A	6	16	20	—	2.7
K2384C	14	46	50	—	0.4
K2385A	15	78	50	—	0.0
K2385C	7	17	30	—	3.0
K2386A	15	44	50	—	0.0

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2386C	13	24	35	—	3.2
K2387A	12	44	70	—	0.0
K2387C	12	40	30	—	4.7
K2388A	12	22	40	—	2.7
K2388C	10	25	30	—	5.2
K2389A	11	25	65	—	1.3
K2389C	10	31	35	—	5.1
K2390A	9	30	40	—	2.8
K2390C	12	50	40	—	4.7
K2391A	14	91	100	—	0.4
K2391C	15	42	40	—	4.4
K2392A	13	72	80	—	2.0
K2392C	8	22	30	—	5.5
K2393A	14	25	50	—	1.3
K2393C	16	60	40	—	3.5
K2394A	12	77	50	—	4.1
K2394C	11	41	30	—	4.5
K2395A	27	42	40	—	3.2
K2395C	35	62	40	—	4.2
K2396A	20	92	100	—	0.5
K2396C	36	34	15	—	4.2
K2397A	20	38	45	—	2.4
K2397C	16	27	5	—	3.1
K2398A	27	78	75	—	0.0
K2398C	22	41	40	—	3.8
K2399A	32	54	80	—	0.6
K2399C	39	66	35	—	3.6
K2400A	21	44	55	—	2.5
K2400C	28	45	40	—	4.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2401A	33	46	40	—	1.5
K2401C	23	35	30	—	3.5
K2402A	24	35	50	—	1.3
K2402C	25	45	30	—	3.5
K2403A	28	70	65	—	2.1
K2403C	28	66	45	—	3.2
K2404A	30	68	75	—	2.5
K2404C	29	83	70	—	3.6
K2405A	29	61	60	—	0.0
K2405C	37	94	50	—	3.9
K2406A	23	87	90	—	0.0
K2406C	29	110	90	—	0.9
K2407A	19	89	60	—	0.0
K2407C	34	115	95	—	4.9
K2408A	23	85	45	—	0.0
K2408C	49	73	120	—	9.4
K2409A	29	60	45	—	2.6
K2409C	26	85	65	—	3.4
K2410A	19	84	95	—	0.5
K2410C	30	86	45	—	3.4
K2411A	29	120	100	—	0.0
K2411C	28	110	50	—	2.5
K2412A	27	120	110	—	3.5
K2412C	23	110	50	—	4.1
K2413A	19	95	55	—	1.8
K2413C	19	52	30	—	2.9
K2414A	38	56	60	—	6.3
K2414C	33	89	60	—	6.4
K2415A	39	100	100	—	5.9

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2415C	35	150	85	—	5.8
K2416A	21	48	75	—	3.7
K2416C	27	110	75	—	2.9
K2417A	16	100	75	—	1.1
K2417C	23	62	60	—	2.3
K2418A	25	65	150	—	1.4
K2418C	15	76	45	—	2.6
K2419A	18	86	160	—	0.7
K2419C	15	87	60	—	3.6
K2420A	16	80	55	—	1.4
K2420C	18	67	50	—	1.7
K2421A	23	100	45	—	4.6
K2421C	44	170	35	—	10.0
K2422A	15	180	55	—	0.4
K2422C	21	75	65	—	2.6
K2423A	35	73	20	—	0.0
K2423C	22	59	60	—	3.1
K2424A	33	76	110	—	0.0
K2424C	5	34	30	—	4.5
K2425A	4	32	20	—	3.6
K2425C	2	59	75	—	0.4
K2428A	8	77	80	—	1.5
K2429A	37	95	130	—	0.0
K2429C	16	8	5	—	6.9
K2430A	13	49	70	—	0.4
K2430C	2	12	5	—	4.9
K2431A	33	60	40	—	0.4
K2431C	13	34	30	—	5.4
K2432A	9	56	45	—	1.6

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2432C	14	18	20	—	5.8
K2433A	13	41	60	—	1.9
K2433C	17	54	30	—	2.9
K2434A	15	63	100	—	0.4
K2434C	13	31	25	—	4.4
K2435A	22	43	80	—	0.0
K2435C	19	64	40	—	3.5
K2436A	21	51	60	—	0.0
K2436C	18	66	75	—	3.4
K2437A	18	32	35	—	1.6
K2437C	17	68	65	—	2.7
K2438A	14	49	35	—	0.0
K2438C	14	44	50	—	2.3
K2439A	12	51	65	—	1.0
K2439C	22	72	60	—	3.5
K2440A	12	63	50	—	0.7
K2440C	17	40	60	—	3.3
K2441A	20	86	50	—	2.1
K2441C	19	78	45	—	4.1
K2442A	22	51	45	—	7.0
K2442C	26	110	35	—	7.3
K2443A	17	123	70	—	0.4
K2443C	40	170	130	—	1.6
K2444A	16	77	50	—	0.0
K2444C	22	65	30	—	2.1
K2445A	26	65	55	—	0.0
K2445C	22	53	55	—	4.8
K2446A	16	63	135	—	0.8
K2446C	22	74	55	—	5.2

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2447A	17	66	70	—	1.1
K2447C	22	75	65	—	5.4
K2448A	15	34	60	—	1.4
K2448C	20	90	35	—	4.1
K2449A	15	40	45	—	2.5
K2449C	14	62	45	—	4.0
K2450A	19	75	70	—	0.5
K2450C	19	66	35	—	4.2
K2451A	20	76	120	—	1.4
K2451C	16	54	30	—	2.8
K2452A	21	61	65	—	0.4
K2452C	19	70	60	—	7.2
K2453A	20	92	80	—	1.6
K2453C	17	84	35	—	2.3
K2454A	22	99	50	—	1.9
K2454C	26	160	180	—	5.1
K2455A	16	69	60	—	0.0
K2455C	20	95	80	—	2.5
K2456A	14	56	50	—	0.0
K2456C	16	46	30	—	3.0
K2457A	19	48	50	—	0.0
K2457C	21	65	50	—	4.1
K2458A	22	46	80	—	1.3
K2458C	14	48	30	—	3.0
K2459A	22	43	80	—	1.6
K2459C	20	58	30	—	3.0
K2460A	20	58	80	—	0.0
K2460C	15	64	30	—	3.2
K2461A	36	130	105	—	2.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2461C	18	130	50	—	3.5
K2462A	26	140	70	—	1.8
K2462C	20	140	75	—	3.0
K2463A	22	49	35	—	6.6
K2463C	15	70	45	—	3.2
K2464A	19	36	40	—	0.5
K2464C	20	110	60	—	2.9
K2465A	22	78	65	—	1.5
K2465C	19	70	60	—	2.5
K2466A	21	91	105	—	0.0
K2466C	22	59	50	—	3.4
K2467A	20	100	110	—	0.0
K2467C	16	94	65	—	3.1
K2468A	17	100	85	—	0.7
K2468C	16	67	45	—	4.8
K2469A	19	120	55	—	1.9
K2469C	22	80	60	—	4.8
K2470A	25	74	145	—	1.9
K2470C	27	160	90	—	3.3
K2471A	22	67	80	—	0.9
K2471C	26	120	90	—	2.8
K2472A	23	67	75	—	0.0
K2472C	30	110	60	—	3.0
K2473A	21	110	120	—	1.2
K2473C	19	110	45	—	4.3
K2474A	21	41	40	—	0.0
K2474C	22	100	50	—	4.4
K2475A	21	72	50	—	2.0
K2475C	28	150	70	—	3.3

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2476A	18	44	75	—	1.8
K2476C	14	56	30	—	5.2
K2477A	24	42	45	—	3.1
K2477C	28	91	65	—	4.5
K2478A	34	50	160	—	4.7
K2478C	28	125	70	—	4.4
K2479A	20	80	65	—	1.3
K2479C	20	69	30	—	2.6
K2480A	18	27	50	—	4.2
K2480C	16	28	40	—	3.9
K2481A	22	43	70	—	1.6
K2481C	19	74	40	—	2.5
K2482A	22	34	100	—	0.6
K2482C	30	66	85	—	5.7
K2483A	20	40	60	—	1.7
K2483C	19	44	40	—	3.7
K2484A	15	52	105	—	1.7
K2484C	25	60	70	—	7.3
K2485A	24	29	35	—	2.1
K2485C	30	49	50	—	4.0
K2486A	27	34	50	—	2.5
K2486C	18	59	30	—	2.4
K2487A	21	51	75	—	2.2
K2487C	18	31	30	—	4.0
K2488A	16	36	115	—	2.1
K2488C	18	40	210	—	5.3
K2489A	19	54	155	—	5.1
K2489C	25	66	175	—	9.2
K2490A	18	48	55	—	0.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2490C	22	20	25	—	4.4
K2491A	19	22	50	—	0.0
K2491C	19	29	40	—	4.9
K2492A	17	42	50	—	0.0
K2492C	14	27	20	—	4.1
K2493A	20	31	105	—	6.7
K2493C	25	70	105	—	12.2
K2494A	22	40	30	—	0.0
K2494C	17	15	15	—	5.0
K2495A	18	71	65	—	0.0
K2495C	22	49	30	—	3.3
K2496A	27	42	75	—	0.0
K2496C	15	13	5	—	3.7
K2497C	12	9	5	—	6.4
K2499A	22	580	50	—	0.0
K2499C	19	22	22	—	4.7
K2501A	27	58	85	—	0.0
K2501C	22	43	30	—	2.3
K2502A	48	160	85	—	6.9
K2502C	16	46	30	—	3.5
K2503A	34	150	45	—	0.6
K2503C	22	110	80	—	3.3
K2504A	21	51	90	—	0.9
K2504C	23	130	160	—	3.5
K2505A	18	58	135	—	0.0
K2505C	13	110	65	—	3.0
K2506A	12	48	75	—	1.4
K2506C	13	47	65	—	5.3
K2507A	58	160	170	—	7.3

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2507C	18	130	105	—	2.8
K2508A	14	83	115	—	0.0
K2508C	9	35	105	—	4.4
K2509A	13	67	75	—	0.4
K2509C	10	77	65	—	3.9
K2510A	17	50	105	—	0.6
K2510C	8	53	30	—	5.1
K2511A	12	44	80	—	3.1
K2511C	10	60	50	—	4.2
K2512A	16	91	115	—	0.7
K2512C	12	120	80	—	3.9
K2513A	24	44	70	—	2.8
K2513C	12	74	50	—	3.5
K2514A	14	78	105	—	0.7
K2514C	10	23	30	—	5.4
K2515A	15	58	105	—	1.9
K2515C	8	46	25	—	3.0
K2516A	23	65	115	—	0.9
K2516C	12	77	50	—	2.4
K2517A	26	46	110	—	0.0
K2517C	16	120	55	—	4.1
K2518A	20	48	55	—	0.0
K2518C	14	35	35	—	2.8
K2519A	27	56	75	—	0.0
K2519C	31	46	60	—	4.8
K2520A	21	34	65	—	2.6
K2520C	24	45	60	—	6.6
K2521A	20	22	80	—	4.7
K2521C	19	38	70	—	8.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2522A	31	31	55	—	2.0
K2522C	27	26	65	—	8.7
K2523A	21	42	40	—	0.0
K2523C	9	17	35	—	4.2
K2524A	15	20	35	—	1.8
K2524C	19	19	15	—	4.7
K2525A	30	66	70	—	0.0
K2525C	22	32	25	—	2.2
K2526A	21	65	35	—	0.5
K2526C	19	24	15	—	3.9
K2527A	30	67	50	—	0.0
K2527C	24	27	35	—	3.8
K2528A	16	62	55	—	0.5
K2528C	23	46	40	—	4.7
K2529A	23	34	60	—	2.6
K2529C	21	39	55	—	5.1
K2530A	30	73	75	—	0.0
K2530C	20	23	10	—	4.8
K2531A	15	50	60	—	0.0
K2531C	22	46	20	—	2.7
K2532A	18	60	60	—	0.0
K2532C	17	37	25	—	4.1
K2533A	18	54	60	—	0.0
K2533C	9	8	5	—	4.8
K2534A	18	62	60	—	0.0
K2534C	15	26	20	—	4.1
K2535A	17	52	50	—	0.0
K2535C	15	24	25	—	4.2
K2536A	22	62	75	—	0.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2536C	7	7	10	—	5.7
K2537A	17	74	65	—	0.5
K2537C	8	5	5	—	6.2
K2538A	14	47	55	—	0.0
K2538C	5	3	0	—	3.6
K2540A	16	63	50	—	0.7
K2540C	17	21	20	—	3.9
K2541C	14	6	5	—	5.6
K2542A	21	100	100	—	0.6
K2542C	21	80	60	—	3.2
K2543A	12	22	35	—	4.8
K2543C	12	130	75	—	2.6
K2544A	10	27	50	—	2.5
K2544C	19	90	60	—	7.9
K2545A	17	41	60	—	1.9
K2545C	15	100	70	—	6.9
K2546A	10	25	50	—	3.1
K2546C	20	90	75	—	8.8
K2547A	17	15	60	—	0.0
K2547C	4	16	40	—	4.0
K2548A	12	72	65	—	1.0
K2548C	19	77	40	—	2.5
K2549A	7	15	65	—	2.6
K2549C	11	46	50	—	2.7
K2550A	19	16	45	—	3.6
K2550C	18	65	70	—	4.8
K2551A	16	32	45	—	1.1
K2551C	21	90	45	—	3.6
K2552A	23	36	95	—	1.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2552C	16	32	40	—	3.0
K2553A	20	43	60	—	3.2
K2553C	15	80	55	—	4.4
K2554A	11	35	80	—	2.5
K2554C	11	44	45	—	3.1
K2555A	30	47	120	—	0.9
K2555C	20	130	65	—	5.7
K2556A	13	22	60	—	3.3
K2556C	20	130	60	—	4.9
K2557A	16	27	55	—	1.6
K2557C	14	36	40	—	5.1
K2558A	18	25	65	—	2.7
K2558C	15	29	25	—	6.2
K2559A	20	39	120	—	0.9
K2559C	19	90	50	—	3.7
K2560A	13	19	65	—	1.1
K2560C	12	46	35	—	3.4
K2561A	14	74	65	—	0.0
K2561C	14	24	35	—	2.9
K2562A	19	22	50	—	1.0
K2562C	19	22	40	—	5.9
K2563A	17	56	55	—	0.0
K2563C	25	36	30	—	0.8
K2564A	14	85	70	—	0.0
K2564C	12	66	70	—	2.7
K2565A	17	49	40	—	0.6
K2565C	16	54	50	—	2.8
K2566A	25	41	50	—	0.0
K2566C	19	69	60	—	2.7

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2567A	17	40	70	—	1.8
K2567C	20	49	70	—	4.0
K2568A	18	72	60	—	4.0
K2568C	19	90	65	—	3.7
K2569A	18	57	75	—	2.1
K2569C	17	82	75	—	3.9
K2570A	19	70	150	—	1.4
K2570C	24	140	70	—	3.5
K2571A	19	61	90	—	1.4
K2571C	17	75	40	—	2.9
K2572A	23	60	95	—	0.4
K2572C	15	82	60	—	4.0
K2573A	17	42	25	—	1.3
K2573C	17	70	40	—	2.9
K2574A	15	66	75	—	0.0
K2574C	15	67	60	—	3.3
K2575A	14	100	85	—	0.0
K2575C	13	70	65	—	2.7
K2576A	14	28	70	—	0.7
K2576C	16	130	55	—	2.9
K2577A	11	42	20	—	2.3
K2577C	14	53	50	—	4.8
K2578A	13	51	55	—	0.4
K2578C	13	71	35	—	3.5
K2579A	13	120	85	—	1.2
K2579C	19	150	95	—	4.6
K2580A	12	60	40	—	0.0
K2580C	12	87	60	—	4.4
K2581A	19	100	110	—	2.4

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SAMPLE	CU	ZN	PB	AG	U
K2581C	12	69	70	—	3.5
K2582A	18	220	65	—	0.4
K2582C	14	150	60	—	3.9
K2584A	13	69	120	—	1.5
K2584C	19	150	95	—	3.0
K2585A	11	31	70	—	2.5
K2585C	18	90	50	—	1.7
K2586A	20	36	90	—	2.0
K2586C	20	110	65	—	2.0
K2587A	19	50	85	—	0.0
K2587C	26	140	75	—	3.2
K2588A	21	51	50	—	1.7
K2588C	22	120	75	—	2.7
K2589A	12	36	65	—	1.7
K2589C	21	100	45	—	1.8
K2590A	15	47	70	—	1.0
K2590C	15	75	50	—	3.0
K2591A	14	42	65	—	3.0
K2591C	23	90	50	—	2.5
K2592A	18	50	80	—	0.0
K2592C	32	120	80	—	2.6
K2593A	15	48	50	—	2.1
K2593C	24	90	55	—	2.4
K2594A	26	130	110	—	1.8
K2594C	34	140	60	—	2.8
K2595A	28	80	100	—	3.2
K2595C	20	100	60	—	3.1
K2596A	28	55	90	—	1.0
K2596C	36	150	95	—	5.2

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2597A	26	77	80	—	1.6
K2597C	26	110	60	—	3.0
K2598A	31	160	140	—	2.0
K2598C	22	100	65	—	2.9
K2599A	29	57	90	—	0.4
K2599C	18	46	40	—	3.9
K2600A	22	48	120	—	0.4
K2600C	22	81	55	—	5.1
K2601A	32	51	240	—	1.1
K2601C	32	140	90	—	3.5
K2602A	21	41	65	—	4.1
K2602C	25	120	80	—	4.2
K2603A	24	41	110	—	1.7
K2603C	34	150	95	—	3.2
K2604A	24	52	55	—	0.6
K2604C	18	61	70	—	2.3
K2605A	21	47	60	—	2.2
K2605C	20	41	55	—	4.1
K2606A	17	84	55	—	0.0
K2606C	22	62	60	—	2.6
K2607A	22	60	55	—	0.0
K2607C	18	29	50	—	5.2
K2608A	20	54	70	—	0.0
K2608C	22	53	65	—	3.0
K2609A	16	27	60	—	1.5
K2609C	23	82	70	—	2.3
K2610A	17	51	60	—	1.3
K2610C	19	50	40	—	3.3
K2611A	15	48	60	—	2.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2611C	25	100	70	—	2.4
K2612A	17	84	50	—	0.4
K2612C	23	100	70	—	2.5
K2613A	18	30	60	—	0.0
K2613C	33	140	80	—	3.7
K2614A	17	88	30	—	0.4
K2614C	14	58	60	—	3.1
K2615A	14	46	35	—	0.0
K2615C	16	54	65	—	2.7
K2616A	9	36	60	—	0.0
K2616C	19	89	80	—	2.2
K2617A	11	28	80	—	1.5
K2617C	22	130	65	—	8.1
K2618A	17	51	95	—	2.2
K2618C	21	90	85	—	3.1
K2619A	8	39	60	—	2.2
K2619C	14	67	55	—	3.6
K2620A	12	56	75	—	0.7
K2620C	26	120	75	—	2.5
K2621A	18	69	65	—	2.1
K2621C	19	47	55	—	2.3
K2622A	14	77	55	—	1.7
K2622C	31	140	60	—	3.2
K2623A	18	82	95	—	0.4
K2623C	19	58	50	—	3.4
K2624A	18	46	80	—	1.8
K2624C	22	94	70	—	3.2
K2625A	13	32	40	—	1.7
K2625C	19	46	35	—	3.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2626A	15	65	60	—	0.5
K2626C	18	47	55	—	4.8
K2627A	20	29	40	—	11.3
K2627C	11	30	30	—	5.5
K2628A	18	36	80	—	4.5
K2628C	17	61	35	—	4.6
K2629A	18	46	110	—	1.2
K2629C	20	68	45	—	3.7
K2630A	18	51	50	—	0.0
K2630C	15	36	30	—	4.4
K2631A	15	39	35	—	1.3
K2631C	18	55	30	—	3.3
K2632A	17	48	90	—	0.4
K2632C	16	51	25	—	2.8
K2633A	21	50	80	—	2.4
K2633C	12	34	30	—	3.4
K2634A	15	38	55	—	3.4
K2634C	17	39	50	—	3.4
K2635C	22	56	15	—	1.8
K2636A	13	37	70	—	0.8
K2636C	16	55	25	—	3.9
K2637A	17	27	35	—	1.3
K2637C	15	37	20	—	3.4
K2638A	17	55	65	—	0.0
K2638C	11	27	15	—	4.3
K2639A	18	56	85	—	0.0
K2639C	13	35	25	—	3.4
K2640A	14	55	65	—	0.0
K2640C	15	38	25	—	3.9

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2641A	23	70	75	—	0.0
K2641C	11	30	15	—	3.9
K2642A	18	65	80	—	0.0
K2642C	11	40	20	—	3.0
K2643C	10	19	5	—	9.2
K2644A	20	60	85	—	0.0
K2644C	10	18	15	—	4.8
K2645A	17	31	85	—	0.0
K2645C	10	22	5	—	6.3
K2646A	16	58	75	—	0.4
K2646C	10	20	5	—	5.0
K2647A	20	77	90	—	0.0
K2647C	17	70	55	—	2.2
K2648A	16	40	60	—	1.8
K2648C	17	41	50	—	2.2
K2649A	14	58	45	—	1.8
K2649C	15	60	50	—	2.5
K2650A	19	34	85	—	1.9
K2650C	13	26	40	—	3.7
K2651A	21	52	65	—	1.9
K2651C	23	69	70	—	2.8
K2652A	14	42	55	—	0.0
K2652C	26	110	80	—	3.3
K2653A	18	33	30	—	0.7
K2653C	22	82	85	—	2.7
K2654A	16	37	50	—	0.0
K2654C	18	56	55	—	2.8
K2655A	16	54	20	—	0.0
K2655C	17	36	40	—	4.8

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2656A	14	42	30	—	2.0
K2656C	17	27	30	—	4.9
K2657A	16	120	50	—	0.0
K2657C	16	63	45	—	2.3
K2658A	15	43	70	—	0.9
K2658C	21	120	75	—	3.5
K2659A	15	42	45	—	1.0
K2659C	20	95	65	—	3.2
K2660A	16	40	65	—	0.9
K2660C	16	43	55	—	3.3
K2661A	15	54	40	—	0.7
K2661C	20	84	70	—	3.7
K2662A	18	100	60	—	0.0
K2662C	26	140	75	—	4.1
K2663A	17	24	55	—	3.6
K2663C	20	61	45	—	4.4
K2664A	17	49	45	—	0.0
K2664C	14	21	25	—	3.5
K2665A	12	49	45	—	0.0
K2665C	16	26	25	—	5.4
K2666A	15	56	70	—	0.7
K2666C	19	56	35	—	3.7
K2667A	14	53	20	—	0.0
K2667C	12	8	20	—	4.1
K2668A	22	46	80	—	0.0
K2668C	13	29	25	—	3.3
K2669A	16	36	25	—	1.3
K2669C	13	27	25	—	2.9
K2670A	14	24	30	—	0.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2670C	10	14	15	—	5.3
K2671A	16	36	65	—	0.5
K2671C	17	35	30	—	4.0
K2672A	14	29	60	—	1.0
K2672C	12	48	20	—	3.4
K2673A	18	58	110	—	1.0
K2673C	13	27	25	—	5.1
K2674A	12	46	60	—	1.1
K2674C	12	21	20	—	3.7
K2675A	12	41	40	—	0.0
K2675C	12	15	20	—	5.6
K2676A	20	48	60	—	1.0
K2676C	11	7	25	—	6.6
K2677A	17	58	90	—	0.5
K2677C	19	62	30	—	5.2
K2678A	13	44	80	—	0.0
K2678C	12	40	35	—	6.3
K2679A	29	60	125	—	0.0
K2679C	10	4	5	—	6.0
K2680A	22	46	75	—	0.0
K2680C	8	2	5	—	7.4
K2681A	17	55	100	—	0.0
K2681C	12	7	20	—	5.8
K2684A	11	34	60	—	1.7
K2684C	8	3	10	—	5.2
K2685A	11	49	40	—	0.0
K2685C	13	41	35	—	2.0
K2686A	16	44	85	—	0.0
K2686C	8	3	5	—	8.6

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2687A	10	47	30	—	0.0
K2687C	11	46	70	—	2.9
K2688A	10	36	20	—	0.0
K2688C	13	47	40	—	2.8
K2689A	14	48	40	—	0.0
K2689C	10	40	40	—	1.7
K2690A	10	55	45	—	0.0
K2690C	8	29	20	—	3.1
K2691A	10	70	50	—	0.0
K2691C	15	100	80	—	3.0
K2693A	13	83	50	—	0.0
K2693C	15	94	55	—	2.3
K2694A	10	53	30	—	0.0
K2694C	13	60	30	—	2.5
K2695A	9	60	60	—	0.0
K2695C	10	40	40	—	2.8
K2696A	12	55	80	—	0.5
K2696C	15	32	30	—	2.7
K2697A	14	73	80	—	0.0
K2697C	17	80	50	—	2.7
K2698A	17	34	45	—	0.0
K2698C	11	73	40	—	2.1
K2699A	13	78	85	—	0.5
K2699C	12	53	40	—	3.3
K2700A	10	84	75	—	0.7
K2700C	12	79	60	—	3.3
K2701A	11	41	85	—	1.6
K2701C	13	100	65	—	2.4
K2702A	9	70	60	—	0.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2702C	11	45	20	—	3.5
K2703A	12	110	120	—	0.5
K2703C	12	50	20	—	2.5
K2704A	16	55	35	—	0.0
K2704C	12	63	20	—	3.5
K2720A	12	70	50	—	0.0
K2720C	13	41	15	—	2.6
K2721A	11	100	80	—	0.4
K2721C	6	27	5	—	5.7
K2722A	12	42	40	—	2.7
K2722C	14	54	20	—	3.5
K2723A	12	58	70	—	1.1
K2723C	10	42	20	—	3.2
K2724A	11	67	40	—	0.0
K2724C	7	22	10	—	3.0
K2725A	11	34	70	—	0.0
K2725C	6	16	5	—	4.5
K2726A	11	55	80	—	0.7
K2726C	7	35	40	—	3.2
K2727A	13	33	90	—	0.5
K2727C	13	52	50	—	3.6
K2728A	12	40	70	—	2.1
K2728C	22	140	110	—	3.4
K2729A	7	38	25	—	0.4
K2729C	19	150	105	—	2.4
K2730A	10	100	35	—	0.4
K2730C	17	71	70	—	2.9
K2731A	14	60	100	—	1.6
K2731C	18	120	65	—	3.9

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2732A	11	67	50	—	1.7
K2732C	19	160	80	—	2.9
K2733A	11	58	25	—	0.0
K2733C	11	59	70	—	2.3
K2734A	12	49	60	—	1.9
K2734C	15	39	45	—	4.9
K2735A	11	42	50	—	2.7
K2735C	11	61	50	—	3.0
K2736A	19	40	80	—	1.6
K2736C	17	120	70	—	2.3
K2737A	15	59	90	—	1.3
K2737C	9	67	60	—	3.2
K2738A	16	46	60	—	1.1
K2738C	10	98	50	—	3.6
K2739A	8	29	50	—	1.6
K2739C	14	130	50	—	3.3
K2740A	7	46	45	—	0.0
K2740C	7	23	10	—	6.9
K2741A	7	46	40	—	0.0
K2741C	20	49	40	—	2.5
K2742A	9	69	70	—	0.0
K2742C	10	60	30	—	2.3
K2743A	12	27	30	—	1.5
K2743C	8	39	15	—	4.3
K2744A	11	54	60	—	0.0
K2744C	8	44	20	—	3.6
K2745A	8	46	25	—	0.0
K2745C	6	32	10	—	4.1
K2751A	9	60	60	—	0.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2751C	11	41	20	—	3.2
K2752A	16	56	70	—	0.0
K2752C	18	88	25	—	2.9
K2753A	14	58	80	—	0.0
K2753C	7	16	0	—	9.8
K2757A	12	52	65	—	0.0
K2757C	15	80	10	—	2.5
K2758A	11	64	60	—	0.5
K2758C	11	50	15	—	4.4
K2759A	8	28	20	—	3.5
K2759C	9	30	15	—	4.1
K3001A	19	77	100	—	1.1
K3001C	8	75	50	—	2.2
K3002A	16	45	90	—	0.0
K3002C	13	130	60	—	2.7
K3003A	10	52	70	—	1.4
K3003C	12	110	40	—	2.3
K3004A	8	35	80	—	3.1
K3004C	14	150	60	—	2.3
K3005A	7	35	55	—	2.9
K3005C	7	47	40	—	2.7
K3006A	17	46	45	—	0.0
K3006C	10	110	45	—	2.4
K3007A	8	31	65	—	1.9
K3007C	10	110	50	—	3.0
K3008A	7	52	75	—	2.3
K3008C	10	110	45	—	2.9
K3009A	6	22	40	—	3.4
K3009C	11	110	45	—	3.0

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3010A	10	42	100	—	1.6
K3010C	11	110	40	—	2.5
K3011A	15	42	80	—	1.1
K3011C	10	86	40	—	2.4
K3012A	10	46	100	—	0.9
K3012C	8	69	45	—	2.8
K3013A	6	34	70	—	2.3
K3013C	11	110	60	—	3.3
K3014A	11	88	40	—	1.5
K3014C	9	84	45	—	3.3
K3015A	8	32	60	—	2.3
K3015C	11	82	45	—	2.6
K3016A	10	46	75	—	1.0
K3016C	8	45	30	—	4.3
K3017A	14	42	100	—	0.6
K3017C	8	75	50	—	2.3
K3018A	7	38	40	—	1.5
K3018C	8	61	40	—	3.3
K3019A	7	78	45	—	0.0
K3019C	17	140	80	—	2.3
K3020A	8	41	50	—	0.7
K3020C	9	31	30	—	2.3
K3021A	11	56	80	—	0.6
K3021C	8	89	40	—	2.6
K3022A	8	100	70	—	0.9
K3022C	6	67	60	—	3.7
K3023A	13	62	85	—	0.0
K3023C	8	90	65	—	3.0
K3024A	11	64	70	—	0.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3024C	5	43	30	—	3.3
K3025A	6	55	50	—	1.6
K3025C	9	93	45	—	3.0
K3026A	11	50	85	—	0.4
K3026C	7	48	50	—	3.3
K3027A	10	230	30	—	0.4
K3027C	10	79	50	—	2.1
K3028A	6	83	40	—	1.3
K3028C	8	86	55	—	3.2
K3029A	12	180	55	—	0.0
K3029C	35	76	100	—	1.8
K3030A	11	130	65	—	0.0
K3030C	9	79	80	—	2.8
K3031A	7	25	45	—	2.2
K3031C	8	51	35	—	3.3
K3032A	7	28	80	—	2.6
K3032C	8	71	40	—	2.6
K3033A	10	32	70	—	3.9
K3033C	11	120	40	—	2.2
K3034A	12	35	85	—	1.8
K3034C	8	36	20	—	3.0
K3035A	17	41	40	—	0.9
K3035C	11	99	40	—	2.1
K3036A	10	46	85	—	2.1
K3036C	10	89	30	—	2.8
K3037A	11	41	100	—	1.8
K3037C	9	34	50	—	2.7
K3038A	6	30	60	—	3.0
K3038C	8	54	40	—	2.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3039A	11	75	65	—	2.4
K3039C	9	110	45	—	2.5
K3040A	10	29	70	—	2.5
K3040C	11	96	40	—	2.6
K3041A	10	27	85	—	1.3
K3041C	17	150	55	—	2.4
K3042A	13	34	100	—	2.1
K3042C	12	120	55	—	2.8
K3043A	8	29	50	—	3.4
K3043C	12	98	60	—	3.3
K3044A	7	57	80	—	0.8
K3044C	10	83	30	—	2.1
K3045A	11	71	65	—	0.0
K3045C	10	86	55	—	2.2
K3046A	12	59	85	—	0.4
K3046C	12	120	40	—	2.4
K3047A	16	52	120	—	0.5
K3047C	7	75	40	—	4.3
K3048A	8	58	80	—	1.1
K3048C	10	93	60	—	2.3
K3049A	8	50	70	—	1.2
K3049C	8	71	75	—	2.9
K3050A	11	110	75	—	0.0
K3050C	6	43	35	—	4.0
K3051A	11	130	70	—	0.0
K3051C	12	120	60	—	2.5
K3052A	7	58	55	—	1.0
K3052C	11	110	60	—	2.4
K3053A	6	67	40	—	0.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3053C	8	91	60	—	2.5
K3054A	22	150	150	—	2.1
K3054C	20	240	55	—	2.9
K3055A	19	160	160	—	0.7
K3055C	32	380	180	—	3.6
K3056A	11	80	80	—	2.0
K3056C	9	80	70	—	2.5
K3057A1	22	160	150	—	1.6
K3057C1	22	290	135	—	3.4
K3057A2	9	70	130	—	1.6
K3057C2	5	31	65	—	3.7
K3058A	11	60	90	—	0.0
K3058C	10	65	55	—	2.3
K3059A	7	44	90	—	1.7
K3059C	11	85	80	—	2.5
K3060A	6	73	90	—	2.1
K3060C	11	100	80	—	3.4
K3061A	7	35	70	—	1.0
K3061C	10	110	75	—	2.9
K3062A	9	39	60	—	0.7
K3062C	7	68	60	—	3.3
K3063A	10	63	70	—	0.0
K3063C	8	76	75	—	3.1
K3064A	11	90	100	—	0.7
K3064C	6	43	70	—	3.3
K3065A	9	150	90	—	0.0
K3065C	5	40	60	—	4.3
K3066A	12	35	50	—	0.0
K3066C	13	170	80	—	2.9

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3067A	9	95	60	—	1.4
K3067C	11	120	90	—	2.8
K3068A	14	73	85	—	0.8
K3068C	8	72	75	—	4.1
K3069A	8	55	80	—	1.8
K3069C	12	130	85	—	2.8
K3070A	16	110	180	—	0.4
K3070C	10	150	160	—	3.2
K3071A	19	88	110	—	0.7
K3071C	13	180	90	—	3.6
K3072A	10	59	110	—	0.0
K3072C	11	100	80	—	2.6
K3073A	13	56	140	—	1.4
K3073C	9	48	70	—	1.9
K3074A	15	150	165	—	1.0
K3074C	12	140	70	—	3.0
K3075A	15	83	215	—	1.8
K3075C	11	100	75	—	3.5
K3076A	14	68	110	—	0.9
K3076C	13	110	90	—	3.7
K3077A	10	120	80	—	0.6
K3077C	12	90	80	—	2.8
K3078A	15	100	70	—	0.4
K3078C	11	70	70	—	3.6
K3082A	11	70	100	—	0.0
K3082C	11	58	70	—	1.0
K3083A	12	82	80	—	0.5
K3083C	13	93	80	—	3.1
K3084A	7	25	50	—	3.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3084C	12	100	70	—	2.7
K3085A	12	53	60	—	3.1
K3085C	17	150	90	—	2.8
K3086A	14	39	110	—	1.2
K3086C	15	130	70	—	2.5
K3087A	19	58	150	—	0.6
K3087C	15	130	80	—	2.7
K3088A	22	54	70	—	1.1
K3088C	15	150	80	—	2.7
K3089A	12	77	80	—	1.4
K3089C	15	110	70	—	2.8
K3090A	12	46	100	—	1.7
K3090C	14	110	65	—	2.6
K3091A	15	56	80	—	2.8
K3091C	16	110	70	—	3.3
K3092A	19	38	80	—	1.5
K3092C	22	150	110	—	3.3
K3093A	15	29	65	—	3.5
K3093C	18	68	60	—	2.8
K3094A	25	54	100	—	1.1
K3094C	13	55	60	—	3.5
K3095A	10	35	85	—	1.4
K3095C	18	140	90	—	3.0
K3096A	12	94	75	—	0.0
K3096C	13	100	85	—	2.9
K3097A	16	46	80	—	0.0
K3097C	12	130	85	—	2.8
K3098A	8	41	90	—	2.1
K3098C	11	75	70	—	2.8

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3099A	13	67	110	—	2.8
K3099C	14	120	90	—	3.3
K3100A	17	62	90	—	0.4
K3100C	14	110	80	—	2.4
K3101A	18	80	120	—	1.9
K3101C	9	48	80	—	3.6
K3102A	13	69	95	—	2.5
K3102C	17	110	95	—	3.6
K3103A	11	72	120	—	1.8
K3103C	14	92	170	—	4.1
K3104A	18	95	110	—	0.4
K3104C	8	51	50	—	2.8
K3105A	19	95	60	—	0.4
K3105C	13	49	60	—	2.9
K3106A	18	58	90	—	1.2
K3106C	22	89	65	—	3.0
K3107A	15	51	125	—	1.0
K3107C	19	130	75	—	2.8
K3108A	17	98	120	—	0.6
K3108C	10	50	80	—	3.6
K3109A	18	85	100	—	2.0
K3109C	12	100	70	—	4.0
K3110A	15	100	150	—	1.2
K3110C	10	68	70	—	3.4
K3111A	14	120	90	—	1.4
K3111C	7	66	70	—	4.0
K3112A	13	30	80	—	0.0
K3112C	15	110	55	—	3.3
K3113A	22	42	110	—	0.5

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3113C	22	83	105	—	3.9
K3114A	17	100	75	—	1.0
K3114C	11	74	80	—	3.4
K3115A	12	65	100	—	1.6
K3115C	11	46	50	—	3.3
K3116A	10	36	70	—	2.8
K3116C	12	54	60	—	3.0
K3117A	19	46	130	—	0.7
K3117C	15	140	80	—	3.0
K3118A	16	68	160	—	0.8
K3118C	5	25	170	—	6.3
K3119A	8	37	35	—	2.2
K3119C	12	130	45	—	3.9
K3120A	8	28	60	—	3.3
K3120C	10	53	50	—	3.2
K3121A	12	35	60	—	1.1
K3121C	7	63	45	—	3.7
K3122A	12	35	55	—	0.0
K3122C	8	72	45	—	2.6
K3123A	8	39	50	—	3.3
K3123C	9	59	60	—	3.1
K3124A	14	78	70	—	1.1
K3124C	11	100	180	—	2.6
K3125A	20	160	70	—	1.2
K3125C	12	130	80	—	2.6
K3126A	12	35	90	—	2.6
K3126C	13	130	75	—	3.2
K3127A	12	49	90	—	1.3
K3127C	12	92	80	—	2.9

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3128A	13	93	100	—	0.0
K3128C	12	110	75	—	2.6
K3129A	12	64	80	—	0.0
K3129C	8	31	40	—	3.4
K3130A	8	28	40	—	3.6
K3130C	15	130	85	—	2.7
K3131A	14	54	60	—	3.4
K3131C	7	27	50	—	4.0
K3132A	16	48	80	—	3.5
K3132C	9	70	50	—	2.1
K3133A	8	22	50	—	4.9
K3133C	12	100	80	—	2.6
K3134A	11	32	110	—	2.7
K3134C	9	69	75	—	3.0
K3135A	21	68	130	—	0.4
K3135C	13	90	50	—	3.4
K3136A	11	38	70	—	1.6
K3136C	12	110	50	—	3.5
K3137A	19	38	95	—	0.6
K3137C	20	78	60	—	2.2
K3138A	13	35	85	—	2.0
K3138C	7	38	40	—	3.3
K3139A	10	54	75	—	2.9
K3139C	11	70	40	—	2.9
K3140A	10	26	95	—	2.5
K3140C	11	110	30	—	2.5
K3141A	11	38	60	—	2.4
K3141C	10	56	50	—	2.9
K3142A	12	36	50	—	0.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3142C	18	74	60	—	2.6
K3143A	16	25	70	—	0.8
K3143C	27	32	50	—	4.0
K3144A	16	40	65	—	2.1
K3144C	11	31	45	—	3.5
K3145A	13	55	120	—	1.7
K3145C	13	72	45	—	2.9
K3146A	11	31	90	—	2.7
K3146C	11	44	50	—	3.7
K3147A	11	21	50	—	0.0
K3147C	6	37	50	—	3.3
K3148A	12	32	80	—	1.7
K3148C	6	35	45	—	3.9
K3149A	14	41	80	—	1.7
K3149C	8	41	50	—	3.3
K3150A	13	66	150	—	1.8
K3150C	10	110	60	—	3.1
K3151A	17	45	95	—	0.9
K3151C	8	52	50	—	3.1
K3152A	10	34	50	—	1.5
K3152C	12	61	70	—	3.4
K3153A	8	35	95	—	2.2
K3153C	15	82	65	—	2.9
K3154A	14	50	150	—	1.3
K3154C	17	120	60	—	2.9
K3155A	14	47	120	—	1.0
K3155C	18	70	100	—	3.1
K3156A	19	330	145	—	4.0
K3156C	22	280	90	—	4.7

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3157A	12	39	50	—	3.0
K3157C	8	63	70	—	4.8
K3158A	12	47	75	—	0.0
K3158C	13	66	65	—	1.9
K3159A	6	32	80	—	1.8
K3159C	15	94	70	—	2.5
K3160A	21	39	75	—	1.0
K3160C	15	94	55	—	2.4
K3161A	15	100	80	—	0.7
K3161C	15	110	65	—	2.2
K3162A	11	93	90	—	1.4
K3162C	11	82	45	—	3.2
K3163A	20	62	60	—	0.9
K3163C	14	87	60	—	2.2
K3164A	18	32	70	—	1.6
K3164C	13	100	35	—	2.5
K3165A	13	36	60	—	1.7
K3165C	14	130	60	—	2.7
K3166A	17	65	200	—	0.0
K3166C	15	140	65	—	3.0
K3167A	23	50	95	—	0.5
K3167C	12	100	50	—	2.5
K3168A	26	26	85	—	0.7
K3168C	7	63	45	—	2.4
K3169A	22	58	160	—	0.7
K3169C	15	85	40	—	2.4
K3170A	25	130	220	—	0.7
K3170C	15	130	70	—	2.7
K3171A	12	110	80	—	0.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3171C	15	97	50	—	2.3
K3172A	25	78	95	—	0.0
K3172C	8	68	50	—	3.7
K3173A	20	61	120	—	0.0
K3173C	11	66	45	—	2.9
K3174A	13	66	90	—	1.1
K3174C	16	94	35	—	3.0
K3175A	19	44	120	—	0.6
K3175C	18	140	45	—	3.0
K3176A	15	45	85	—	1.8
K3176C	15	89	40	—	2.9
K3177A	16	43	110	—	3.4
K3177C	13	87	45	—	3.7
K3178A	12	54	90	—	2.2
K3178C	16	85	40	—	3.0
K3179A	18	34	80	—	1.5
K3179C	15	65	45	—	3.0
K3180A	13	47	60	—	2.9
K3180C	14	70	40	—	2.6
K3181A	14	39	80	—	0.5
K3181C	10	36	30	—	3.7
K3182A	15	32	95	—	0.0
K3182C	12	43	40	—	3.5
K3183A	8	82	60	—	0.5
K3183C	11	18	30	—	2.9
K3184A	10	31	55	—	1.5
K3184C	10	52	40	—	3.4
K3185A	11	86	75	—	0.0
K3185C	18	81	45	—	3.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3186A	18	56	85	—	0.6
K3186C	8	37	40	—	4.1
K3187A	9	54	110	—	1.7
K3187C	13	71	45	—	2.6
K3188A	21	33	75	—	1.9
K3188C	14	89	45	—	4.5
K3189A	13	42	65	—	2.4
K3189C	14	46	45	—	4.0
K3190A	14	39	80	—	1.9
K3190C	25	72	40	—	3.2
K3191A	18	39	90	—	1.9
K3191C	15	94	40	—	3.2
K3192A	27	100	180	—	0.0
K3192C	15	75	45	—	2.6
K3193A	18	47	95	—	0.0
K3193C	15	110	55	—	3.3
K3194A	21	56	100	—	0.0
K3194C	15	130	50	—	2.3
K3195A	13	63	90	—	1.4
K3195C	13	130	45	—	2.8
K3196A	27	63	130	—	0.6
K3196C	17	92	35	—	3.0
K3197A	18	34	70	—	2.6
K3197C	7	62	35	—	3.0
K3198A	30	94	140	—	0.4
K3198C	10	86	35	—	2.9
K3199A	45	69	160	—	0.7
K3199C	17	48	40	—	2.1
K3200A	12	24	40	—	2.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K3200C	11	84	35	—	2.7
K3201A	21	39	130	—	0.4
K3201C	10	75	35	—	2.6
K3202A	15	52	90	—	0.4
K3202C	14	82	40	—	2.1
K3203A	17	35	130	—	1.5
K3203C	7	31	30	—	2.7
K3204A	13	46	60	—	0.8
K3204C	8	47	30	—	2.8
K3205A	15	24	40	—	3.0
K3205C	12	82	35	—	2.2
K3206A	11	31	55	—	1.8
K3206C	10	48	30	—	2.8
K3207A	12	27	50	—	2.3
K3207C	5	43	25	—	3.3
K3208A	11	36	85	—	1.9
K3208C	10	63	35	—	2.2
K3209A	15	37	75	—	1.9
K3209C	10	73	30	—	2.5
K3210A	22	43	55	—	1.3
K3210C	14	50	30	—	2.1
K3211A	30	45	75	—	0.4
K3211C	14	79	30	—	3.1
K3212A	11	34	50	—	3.2
K3212C	14	120	40	—	2.9

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SAMPLE	CU	ZN	PB	AG	U
K2760C	10	55	25	—	3.9
K2761A	11	50	65	—	1.1
K2761C	8	41	30	—	3.8
K2762A	5	59	55	—	0.0
K2762C	5	24	20	—	5.7
K2763A	10	26	75	—	1.6
K2763C	7	39	30	—	3.9
K2764A	12	36	80	—	1.7
K2765A	7	51	70	—	1.5
K2765C	7	40	30	—	2.6
K2766C	7	46	60	—	1.6
K2767A	10	79	85	—	2.5
K2767C	10	110	80	—	2.7
K2768A	6	34	55	—	1.2
K2768C	22	220	145	—	7.4
K2769A	11	76	80	—	0.5
K2769C	10	90	65	—	3.0
K2770A	7	90	70	—	0.0
K2770C	13	120	85	—	2.5
K2771A	16	120	30	—	0.4
K2771C	9	49	60	—	3.1
K2772A	10	85	40	—	0.0
K2772C	17	130	95	—	2.9
K2773A	7	290	30	—	0.4
K2773C	7	66	60	—	2.7
K2774A	25	130	90	—	16.4
K2774C	15	110	65	—	3.9

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2775A	11	92	80	—	0.5
K2775C	17	110	55	—	3.9
K2776A	10	95	55	—	0.9
K2776C	11	84	50	—	3.5
K2777A	11	130	120	—	0.4
K2777C	11	99	70	—	2.6
K2778A	11	100	60	—	0.4
K2778C	10	85	40	—	4.2
K2779A	8	53	25	—	0.0
K2779C	20	87	50	—	2.7
K2780A	8	150	35	—	0.0
K2782A	11	150	70	—	0.4
K2782C	12	98	50	—	3.8
K2783A	11	51	70	—	1.8
K2783C	15	130	25	—	2.8
K2784A	9	45	50	—	0.0
K2784C	8	56	15	—	2.7
K2785A	13	58	40	—	0.0
K2785C	5	16	5	—	9.0
K2786A	9	56	80	—	0.0
K2786C	11	90	30	—	3.2
K2787A	10	65	65	—	1.4
K2787C	6	44	25	—	3.3
K2788A	10	52	80	—	1.6
K2788C	6	39	20	—	5.7
K2789A	15	100	70	—	2.9
K2789C	7	35	35	—	6.2
K2790A	11	32	45	—	1.8
K2790C	10	58	35	—	4.7

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2791A	11	39	55	—	4.1
K2791C	10	70	40	—	4.3
K2792A	11	34	40	—	6.3
K2792C	10	36	35	—	3.6
K2793A	9	97	100	—	2.3
K2793C	6	36	25	—	4.1
K2794A	11	92	65	—	0.7
K2794C	9	51	35	—	3.8
K2795A	8	76	50	—	3.4
K2795C	7	70	45	—	3.1
K2796A	10	50	60	—	7.0
K2796C	10	70	70	—	3.0
K2797A	17	92	110	—	1.6
K2797C	14	80	75	—	3.0
K2798A	11	47	50	—	0.4
K2798C	12	35	55	—	5.0
K2799A	7	42	30	—	2.6
K2799C	11	68	50	—	2.7
K2800A	11	160	80	—	0.5
K2800C	13	65	25	—	3.1
K2801A	16	67	80	—	0.4
K2801C	71	61	55	—	3.2
K2802A	11	36	50	—	0.0
K2802C	13	82	55	—	0.0
K2803A	17	120	65	—	1.6
K2803C	13	72	55	—	5.1
K2804A	12	35	30	—	2.7
K2804C	11	77	35	—	1.8
K2805A	15	100	70	—	3.8

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SAMPLE	CU	ZN	PB	AG	U
K2805C	11	160	75	—	4.1
K2806A	15	49	90	—	2.6
K2806C	7	26	40	—	5.0
K2807A	9	31	70	—	2.2
K2807C	14	100	70	—	3.3
K2808A	11	48	95	—	2.5
K2808C	23	200	120	—	2.9
K2809A	15	140	65	—	0.9
K2809C	7	75	50	—	3.3
K2810A	11	120	60	—	0.0
K2810C	13	74	80	—	3.3
K2811A	12	34	55	—	0.0
K2811C	12	65	60	—	2.3
K2812A	21	83	120	—	0.5
K2812C	11	95	55	—	3.4
K2813A	12	62	65	—	0.8
K2813C	14	110	75	—	2.7
K2814A	13	120	75	—	1.6
K2814C	23	170	120	—	2.1
K2815A	10	42	50	—	2.6
K2815C	12	71	65	—	3.0
K2816A	10	120	60	—	2.2
K2816C	11	88	65	—	3.5
K2817A	14	44	110	—	1.1
K2817C	15	120	65	—	2.7
K2818A	13	120	85	—	1.8
K2818C	12	97	85	—	3.1
K2819A	10	70	90	—	3.3
K2819C	23	69	40	—	1.9

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X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2820A	15	100	95	—	0.5
K2820C	13	94	100	—	4.4
K2821A	12	84	50	—	0.5
K2821C	11	88	50	—	3.0
K2822A	15	75	160	—	3.1
K2822C	22	130	210	—	9.7
K2823A	12	32	85	—	2.6
K2823C	12	73	30	—	2.6
K2824A	17	63	65	—	2.2
K2824C	6	11	25	—	4.1
K2825A	17	36	55	—	1.0
K2825C	8	29	40	—	3.8
K2826A	12	55	70	—	2.8
K2826C	8	31	35	—	4.0
K2827A	12	31	60	—	3.1
K2827C	12	37	60	—	3.6
K2828A	7	50	35	—	3.2
K2828C	10	59	30	—	3.7
K2829A	13	75	90	—	1.5
K2829C	16	46	110	—	6.9
K2830A	7	36	50	—	1.5
K2830C	9	34	35	—	4.2
K2831A	12	35	40	—	1.7
K2831C	8	24	20	—	4.5
K2832A	12	47	60	—	1.9
K2832C	15	75	35	—	4.4
K2833A	13	23	40	—	2.0
K2833C	11	55	35	—	3.0
K2834A	12	80	165	—	1.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2834C	9	46	25	—	4.7
K2835A	11	42	35	—	2.7
K2835C	13	26	40	—	7.8
K2836A	11	48	45	—	5.3
K2836C	14	53	95	—	0.5
K2837A	12	61	45	—	0.5
K2837C	13	82	40	—	3.9
K2838A	10	61	80	—	1.3
K2838C	14	69	35	—	5.0
K2839A	12	43	40	—	3.9
K2839C	10	38	30	—	5.5
K2840A	15	42	70	—	5.2
K2840C	15	42	85	—	5.0
K2842A	9	61	65	—	0.4
K2842C	10	50	75	—	2.5
K2843A	8	34	45	—	2.4
K2843C	10	70	60	—	2.7
K2844A	8	56	50	—	0.8
K2844C	8	52	65	—	3.2
K2845A	11	53	50	—	0.9
K2845C	11	33	40	—	2.0
K2846A	11	78	90	—	0.0
K2846C	10	44	50	—	3.7
K2847A	7	28	45	—	2.2
K2847C	17	100	45	—	3.1
K2848A	7	34	45	—	0.7
K2848C	12	95	45	—	2.8
K2849A	8	47	35	—	0.0
K2849C	13	120	70	—	2.7

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2850A	11	88	100	—	0.6
K2850C	14	87	120	—	2.8
K2851A	8	130	60	—	0.0
K2851C	9	80	50	—	2.7
K2852A	12	100	70	—	3.3
K2852C	6	49	65	—	3.4
K2853A	12	120	90	—	3.4
K2853C	9	62	60	—	2.5
K2854A	14	93	80	—	2.8
K2854C	10	140	120	—	4.0
K2855A	20	180	140	—	3.4
K2855C	14	89	70	—	3.1
K2856A	12	71	80	—	0.5
K2856C	15	120	80	—	2.7
K2857A	12	74	70	—	0.0
K2857C	9	57	50	—	3.1
K2858A	10	31	20	—	0.0
K2858C	11	58	80	—	2.3
K2859A	11	59	100	—	0.6
K2859C	7	47	60	—	3.8
K2860A	9	56	40	—	0.0
K2860C	13	75	50	—	3.9
K2861A	28	87	200	—	3.8
K2861C	12	94	60	—	2.7
K2862A	11	100	55	—	2.0
K2862C	11	110	70	—	2.2
K2863A	17	100	80	—	0.6
K2863C	8	68	65	—	2.4
K2864A	12	70	130	—	1.7

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2864C	14	100	50	—	2.8
K2865A	8	27	40	—	5.0
K2865C	7	33	35	—	8.5
K2866A	17	49	90	—	0.6
K2866C	8	47	50	—	4.5
K2867A	11	81	60	—	0.7
K2867C	8	35	60	—	8.0
K2868A	11	100	50	—	0.7
K2868C	14	58	40	—	1.8
K2869A	11	57	55	—	2.9
K2869C	7	21	20	—	5.8
K2870A	12	93	85	—	0.5
K2870C	10	42	35	—	3.7
K2871A	27	60	40	—	0.0
K2871C	11	43	50	—	3.1
K2872A	11	30	45	—	2.3
K2872C	11	42	40	—	4.1
K2873A	5	22	55	—	4.2
K2873C	9	30	30	—	4.1
K2874A	12	32	55	—	1.6
K2874C	7	15	20	—	4.0
K2875A	14	65	60	—	0.6
K2875C	8	25	45	—	3.3
K2876A	8	68	60	—	0.8
K2876C	9	42	40	—	2.9
K2877A	13	93	90	—	0.4
K2877C	7	20	30	—	3.9
K2878A	16	38	140	—	3.2
K2878C	14	70	50	—	4.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2879A	9	34	75	—	2.7
K2879C	13	44	40	—	5.2
K2880A	12	42	70	—	0.8
K2880C	8	22	50	—	5.3
K2881A	8	14	30	—	3.7
K2881C	11	32	120	—	4.5
K2882A	15	40	160	—	0.7
K2882C	12	76	55	—	4.2
K2883A	11	40	100	—	2.5
K2883C	10	110	40	—	2.5
K2884A	7	48	80	—	2.1
K2884C	12	86	55	—	3.4
K2885A	7	48	90	—	1.0
K2885C	12	110	45	—	3.2
K2886A	12	74	55	—	1.3
K2886C	13	120	50	—	3.7
K2887A	10	47	110	—	0.5
K2887C	10	83	50	—	2.7
K2888A	9	52	50	—	0.6
K2888C	9	68	40	—	3.1
K2889A	11	70	75	—	0.8
K2889C	8	72	45	—	2.6
K2890A	18	96	95	—	0.0
K2890C	9	75	45	—	3.1
K2891A	10	52	60	—	0.7
K2891C	8	53	50	—	2.9
K2892A	13	110	60	—	0.4
K2892C	11	72	45	—	2.9
K2893A	12	150	95	—	0.4

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2893C	15	85	70	—	2.4
K2894A	9	110	60	—	1.2
K2894C	8	120	45	—	3.2
K2895A	11	73	70	—	0.5
K2895C	11	140	50	—	3.1
K2896A	12	53	55	—	1.4
K2896C	14	80	65	—	3.0
K2897A	11	150	100	—	0.6
K2897C	10	82	70	—	2.3
K2898A	8	83	80	—	3.4
K2898C	13	150	50	—	3.1
K2899A	11	70	110	—	0.7
K2899C	9	56	60	—	3.2
K2900A	13	78	100	—	1.4
K2900C	8	24	50	—	3.3
K2901A	9	64	50	—	0.0
K2901C	6	25	25	—	4.3
K2902A	9	82	35	—	0.0
K2902C	10	59	55	—	3.1
K2903A	8	48	55	—	0.0
K2903C	15	170	60	—	2.4
K2904A	8	48	45	—	0.0
K2904C	11	68	45	—	3.1
K2905A	8	54	60	—	1.8
K2905C	9	85	55	—	2.1
K2906A	15	100	110	—	2.3
K2906C	17	54	55	—	2.5
K2907A	8	53	45	—	2.6
K2907C	12	42	40	—	3.1

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2908A	18	55	110	—	3.8
K2908C	15	55	70	—	4.2
K2909A	11	140	50	—	3.0
K2909C	7	60	50	—	3.4
K2910A	9	150	80	—	1.2
K2910C	9	74	70	—	2.6
K2911A	13	130	90	—	0.9
K2911C	9	80	70	—	3.3
K2912A	9	38	55	—	1.3
K2912C	15	86	60	—	2.7
K2913A	10	92	70	—	1.5
K2913C	7	37	40	—	3.5
K2914A	6	45	90	—	1.0
K2914C	8	40	60	—	2.7
K2915A	6	53	45	—	2.1
K2915C	5	22	25	—	3.9
K2916A	13	62	95	—	1.1
K2916C	15	67	80	—	4.4
K2917A	6	45	70	—	2.5
K2917C	11	46	105	—	4.3
K2918A	11	130	70	—	0.0
K2918C	5	45	35	—	2.0
K2919A	11	51	105	—	1.0
K2919C	14	58	60	—	3.3
K2920A	8	75	95	—	0.0
K2920C	14	50	80	—	2.7
K2921A	8	43	140	—	2.0
K2921C	10	42	50	—	1.1
K2922A	20	62	250	—	0.8

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2922C	12	88	50	—	3.1
K2923A	16	53	180	—	1.5
K2923C	12	79	40	—	3.4
K2924A	7	23	70	—	3.4
K2924C	10	73	45	—	3.3
K2925A	14	62	95	—	0.8
K2925C	9	48	45	—	3.6
K2926A	7	20	55	—	3.5
K2926C	13	110	40	—	3.6
K2927A	14	41	60	—	1.5
K2927C	9	70	40	—	2.6
K2928A	9	36	120	—	2.8
K2928C	9	62	50	—	3.4
K2929A	11	50	90	—	1.1
K2929C	14	120	55	—	3.3
K2930A	16	35	80	—	0.6
K2930C	12	95	55	—	3.6
K2931A	16	42	85	—	0.6
K2931C	16	49	50	—	3.1
K2932A	11	67	80	—	1.5
K2932C	12	85	40	—	3.4
K2933A	7	40	75	—	2.5
K2933C	17	130	60	—	3.6
K2934A	6	65	85	—	2.9
K2934C	14	90	45	—	3.1
K2935A	13	62	160	—	0.0
K2935C	11	100	45	—	2.8
K2936A	7	52	40	—	0.8
K2936C	7	36	45	—	2.6

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2937A	7	63	85	—	1.6
K2937C	8	46	40	—	3.7
K2938A	14	18	80	—	0.0
K2938C	11	73	60	—	2.1
K2939A	13	94	80	—	0.0
K2939C	9	93	60	—	1.5
K2940A	7	56	55	—	0.0
K2940C	13	46	70	—	3.6
K2941A	10	87	90	—	0.0
K2941C	13	77	80	—	2.3
K2942A	8	72	45	—	0.4
K2942C	11	65	60	—	1.9
K2943A	9	53	35	—	2.3
K2943C	7	35	45	—	0.6
K2946A	14	170	45	—	0.6
K2946C	8	60	55	—	2.4
K2947A	9	90	60	—	0.0
K2947C	10	69	35	—	0.7
K2948A	7	84	85	—	1.0
K2948C	11	100	75	—	2.9
K2949A	23	64	100	—	4.6
K2949C	20	60	95	—	3.8
K2950A	21	58	160	—	3.8
K2950C	34	130	160	—	7.2
K2951A	31	46	60	—	1.2
K2951C	12	100	65	—	3.0
K2952A	19	97	105	—	1.4
K2952C	20	93	85	—	4.3
K2953A	12	70	70	—	1.3

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2953C	18	69	120	—	5.1
K2954A	18	77	165	—	1.7
K2954C	30	93	170	—	9.2
K2955A	9	160	60	—	0.0
K2955C	11	70	65	—	2.4
K2956A	12	150	70	—	0.0
K2956C	8	84	45	—	3.3
K2957A	8	77	60	—	0.6
K2957C	11	65	70	—	3.1
K2958A	9	80	65	—	2.8
K2958C	8	35	35	—	3.4
K2959A	7	64	60	—	0.0
K2959C	7	47	45	—	1.6
K2960A	18	85	110	—	0.6
K2960C	21	91	70	—	3.3
K2961A	8	44	65	—	1.6
K2961C	11	53	45	—	3.1
K2962A	9	35	75	—	2.0
K2962C	12	82	40	—	2.9
K2963A	22	37	65	—	1.5
K2963C	11	30	30	—	2.9
K2964A	16	62	245	—	0.0
K2964C	10	54	30	—	1.7
K2965A	8	57	80	—	1.7
K2965C	10	82	40	—	2.6
K2966A	9	23	45	—	2.4
K2966C	10	95	40	—	2.6
K2967A	13	62	115	—	1.3
K2967C	14	100	50	—	3.0

14-DEC-78

X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2968A	5	18	50	—	3.8
K2968C	8	75	30	—	2.6
K2969A	13	23	70	—	0.9
K2969C	16	140	40	—	3.7
K2970A	11	53	85	—	1.2
K2970C	14	110	45	—	2.8
K2971A	16	44	50	—	1.7
K2971C	9	42	45	—	3.7
K2972A	9	46	90	—	1.3
K2972C	11	87	45	—	3.4
K2973A	15	66	155	—	0.8
K2973C	10	100	30	—	2.4
K2974A	13	95	110	—	0.0
K2974C	6	35	35	—	2.6
K2975A	12	100	85	—	1.1
K2975C	10	110	40	—	2.7
K2976A	15	95	160	—	0.5
K2976C	9	52	40	—	2.3
K2977A	7	65	105	—	0.0
K2977C	6	70	40	—	2.5
K2978A	10	46	70	—	0.5
K2978C	4	19	25	—	3.6
K2979A	6	42	30	—	0.0
K2979C	6	62	50	—	1.9
K2980A	19	40	30	—	0.0
K2980C	10	120	55	—	3.1
K2981A	7	58	70	—	2.1
K2981C	5	42	40	—	3.9
K2982A	12	48	35	—	0.0

14-DEC-78 X-RAY ASSAY LABORATORIES

SAMPLE	CU	ZN	PB	AG	U
K2982C	8	49	45	—	2.0
K2983A	7	60	50	—	0.4
K2983C	8	67	30	—	2.9
K2984A	6	76	60	—	0.0
K2984C	8	67	60	—	3.1
K2985A	6	88	40	—	0.0
K2985C	5	45	45	—	3.5
K2986A	7	57	65	—	1.0
K2986C	13	110	70	—	2.7
K2987A	9	70	60	—	0.0
K2987C	7	70	50	—	1.6
K2988A	7	63	45	—	0.0
K2988C	23	110	65	—	2.5
K2995A	6	78	85	—	0.0
K2995C	17	110	80	—	2.1
K2996A	9	70	95	—	0.6
K2996C	9	93	75	—	2.6
K2997A	13	46	75	—	0.6
K2997C	10	62	70	—	2.5
K2998A	17	67	110	—	0.7
K2998C	10	100	80	—	2.7
K2999A	9	41	115	—	3.1
K2999C	16	130	105	—	4.1
K3000A	8	38	80	—	3.2
K3000C	11	100	60	—	2.8

COBEQUID PROJECT

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

433053 PART 2 OF 5

433053
07-D 64 0

Gulf

Gulf Minerals Canada Limited

433053

COBEQUID PROJECT

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

433053 PART 2 OF 5 07 - D 64 01

A REPORT ON

GEOCHEMISTRY
GEOLOGICAL MAPPING
PROSPECTING
DEEP OVERBURDEN DRILLING
DIAMOND DRILLING

433053 07 - D 64 01

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Gulf Minerals Canada Limited

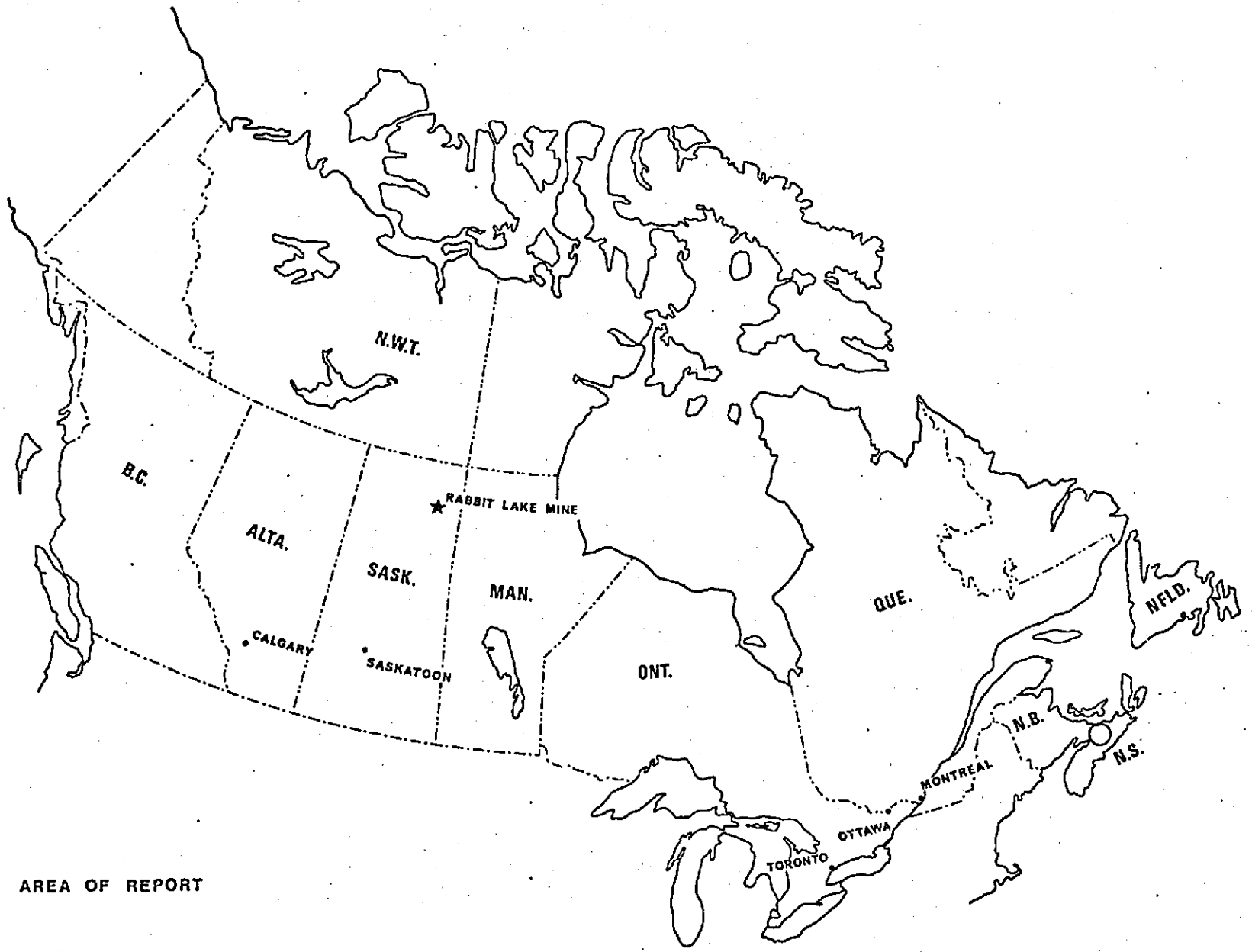
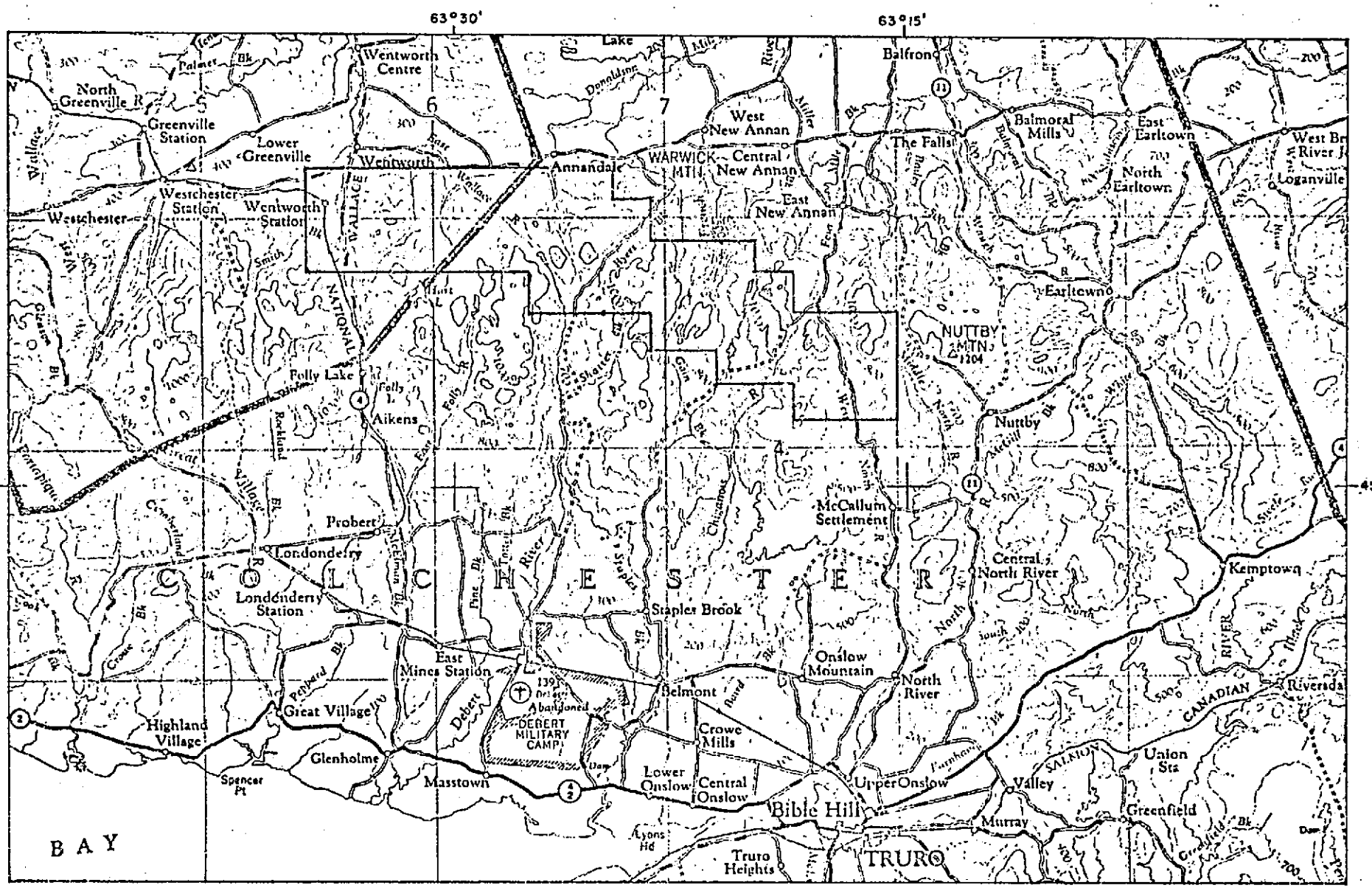


FIGURE 1



COBEQUID BASE METAL CLAIM BLOCK NO. I

0 5 10

Miles

Figure - 2

EXPLORATION PROGRAMME: 1977-1978

I INTRODUCTION

A) SUMMARY

On October 19, 1977, Gulf Minerals acquired an 816 claim block centred on the Juniper-Debert Lakes area of Cumberland and Colchester Counties in Nova Scotia. This block of land has been referred to as Cobequid base metal permit area I or IBM. Table I lists the claim blocks and exploration licenses held by Gulf.

The discovery of copper, zinc and silver carrying boulders in the area by prospectors during the fall of 1977, created a strong interest in the area.

A previously flown helicopter-borne magnetic and electromagnetic survey indicated the presence of several strong conductive zones and many zones of steep magnetic gradient. This survey was followed by additional prospecting, geological mapping, geochemistry and ground geophysics. A diamond drilling programme was initiated in October, 1977.

B) PERSONNEL

For the 1977-78 diamond drilling programme, Gulf personnel employed on the property were:

N. Downey	Project Geologist
K. Horan	Downhole Logging Technician
A. Seifried	Downhole Logging Technician
A. Workman	Drill Geologist

Additional Gulf personnel included:

S. Barron	Geologist
J. Stirling	Geologist
M. Strazdins	Geologist
M. Weber	Downhole Logging Supervisor

Contractors employed on the property were:

Atlantic Groundwater and Geophysics Ltd., - Fredericton, N.B.
St. Lambert Drilling Co. Ltd., - Valleyfield, P.Q.

Diamond drilling was under the supervision of Mr. C. R. Burkhart and Mr. G. I. Pearson of Gulf's Toronto office.

TABLE I

BASE METAL PERMIT AREA I

LAND RETAINED FOR 1979

MAP	LICENCE NO.	TRACT	CLAIMS
11E 12A	2237	100	A-Q
11E 12A	2236	75, 76, 93, 94, 99	A-Q
11E 12A	2235	73, 74, 95, 96, 98	A-Q
11E 12A	2234	97	A-Q
11E 11B	2234	105, 106, 107, 108	A-Q
11E 11B	2233	85, 86, 87, 88, 89	A-Q
11E 11B	2231	63, 64, 82, 83, 84	A-Q
11E 11B	2232	77, 78, 79, 80, 81	A-Q
11E 11B	2230	65, 66, 67, 68, 69	A-Q
11E 11B	2229	51, 52, 53, 54, 55	A-Q
11E 11B	2228	44, 45, 46, 47, 50	A-Q
11E 11B	2227	25, 26, 27, 48, 49	A-Q

REPORT ON DIAMOND DRILLING

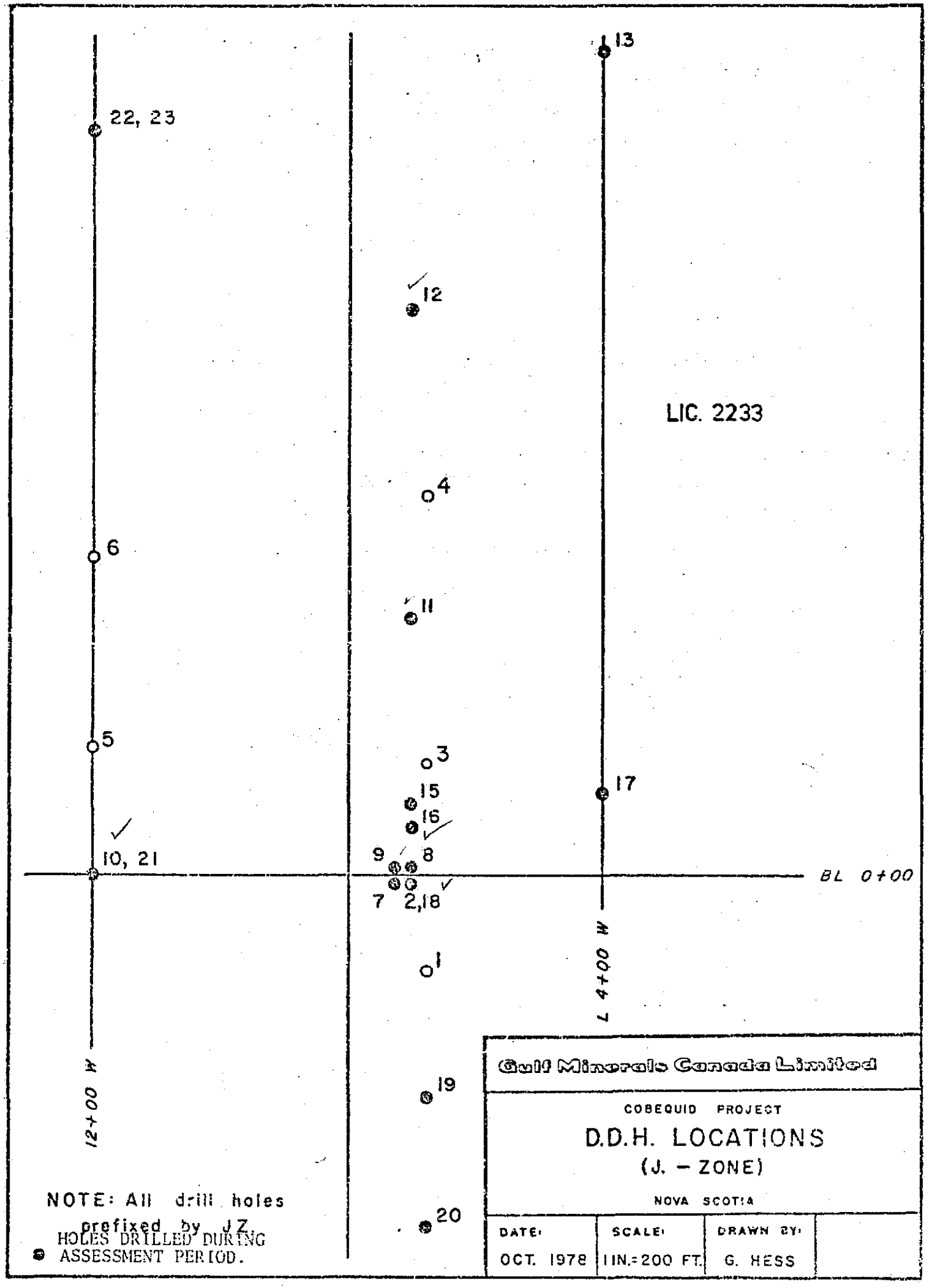
A) SUMMARY

Sixteen diamond drill holes have been completed on the J-Zone, fourteen holes have been drilled in the DF-Zone, and twenty-two holes have been cored in the DL-Zone. Diamond drilling has totalled 5,468.1', 5,794.7', and 9,637.4', respectively, on each zone. Total footage drilled on the base metal permits during the 1977-78 period is 20,900.2'.

The holes drilled in the J-Zone were located on lines 12+00W and 4+00W. Half of the holes were located between lines 4W and 8W, on the 675W, 700W and 725W sections. With the exception of JZ-21, and JZ-23, which were drilled easterly, all holes were drilled along north-south sections. Figure 3 shows the locations of all holes. Data concerning the drilling of these holes is given in Table IIA and IIB.

All holes drilled in the DF-Zone were located on lines 48+00E and 52+00E. SL-1 was drilled on line 80+00E. All holes were drilled towards the south except the holes DF-13, 15, 17 and 18, which were drilled towards the west. Locations for these holes are shown in Figure 4. Technical data about each hole is given in Table II.

In the DL-Zone, sixteen holes were drilled in line 96E, (9600E. Section), and six holes were drilled between lines 100E and 104E, (10225E. Section). All holes were drilled southerly at 180° Az. Locations for these holes are illustrated in Figure 5. Technical data on each hole is given in Table IVA and IVB.


22, 23
13
12
LIC. 2233
4
6
11
5
3
15
17
16
10, 21
9
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7
2,18
1
L 4+00 W
12+00 W
19
20
NOTE: All drill holes prefixed by JZ
HOLES DRILLED DURING ASSESSMENT PERIOD.
Gulf Minerals Canada Limited
COBEQUID PROJECT
D.D.H. LOCATIONS
(J. – ZONE)
NOVA SCOTIA
DATE: OCT. 1978
SCALE: 1IN.=200 FT.
DRAWN BY: G. HESS

Figure 3

JUNIPER (J-ZONE) DIAMOND DRILLING PROGRAMME 1977

HOLE	LOCATION	BEARING (TRUE)	DIP	FOOTAGE	DATE STARTED	DATE COMPLETED
JZ-7	0+15S 7+25W	vertical	-90°	230'	22 Nov. '77	25 Nov. '77
JZ-8	0+10N 7+00W	vertical	-90°	251'	26 Nov. '77	27 Nov. '77
JZ-9	0+10N 7+25W	vertical	-90°	250'	27 Nov. '77	29 Nov. '77
JZ-10	0+00 12+00W (Base Line)	180°	-45°	570'	29 Nov. '77	5 Dec. '77
JZ-11	4+00N 7+00W	180°	-45°	471'	1 Dec. '77	8 Dec. '77
JZ-12	8+80N 7+00W	180°	-45°	348'	8 Dec. '77	13 Dec. '77
JZ-13	12+80N 4+00W	000°	-45°	136' (Casing)	13 Dec. '77	17 Dec. '77 (Uncompleted)
JZ-15	1+10N 7+00W	vertical	-90°	333'	5 Dec. '77	9 Dec. '77
JZ-16	0+75N 7+00W	vertical	-90°	311'	9 Dec. '77	11 Dec. '77
JZ-17	1+25N 4+00W	180°	-45°	358'	11 Dec. '77	13 Dec. '77
JZ-18	0+15S 7+00W	000°	-77°	453'	13 Dec. '77	16 Dec. '77

TABLE IIA

JUNIPER (J-ZONE) DIAMOND DRILLING PROGRAMME 1978

HOLE	SECTION	LOCATION	BEARING (TRUE)	DIP	FOOTAGE	DATE STARTED	DATE COMPLETED
JZ-19	675W	3+50S 6+75W	180°	-45°	223.1'	22 Aug., 1978	24 Aug., 1978
JZ-20	675W	5+55S 6+75W	180°	-45°	231.5'	24 Aug., 1978	28 Aug., 1978
JZ-21	000	00Base Line12+00W	090°	-45°	439.6'	28 Aug., 1978	1 Sept., 1978
JZ-22	1200W	11+75N 12+00W	180°	-60°	438'	2 Sept., 1978	8 Sept., 1978
JZ-23	125° Az	11+75N 12+00W	125°	-60°	424.9'	9 Sept., 1978	15 Sept., 1978
					1,757.1' (TOTAL)		

TABLE IIB

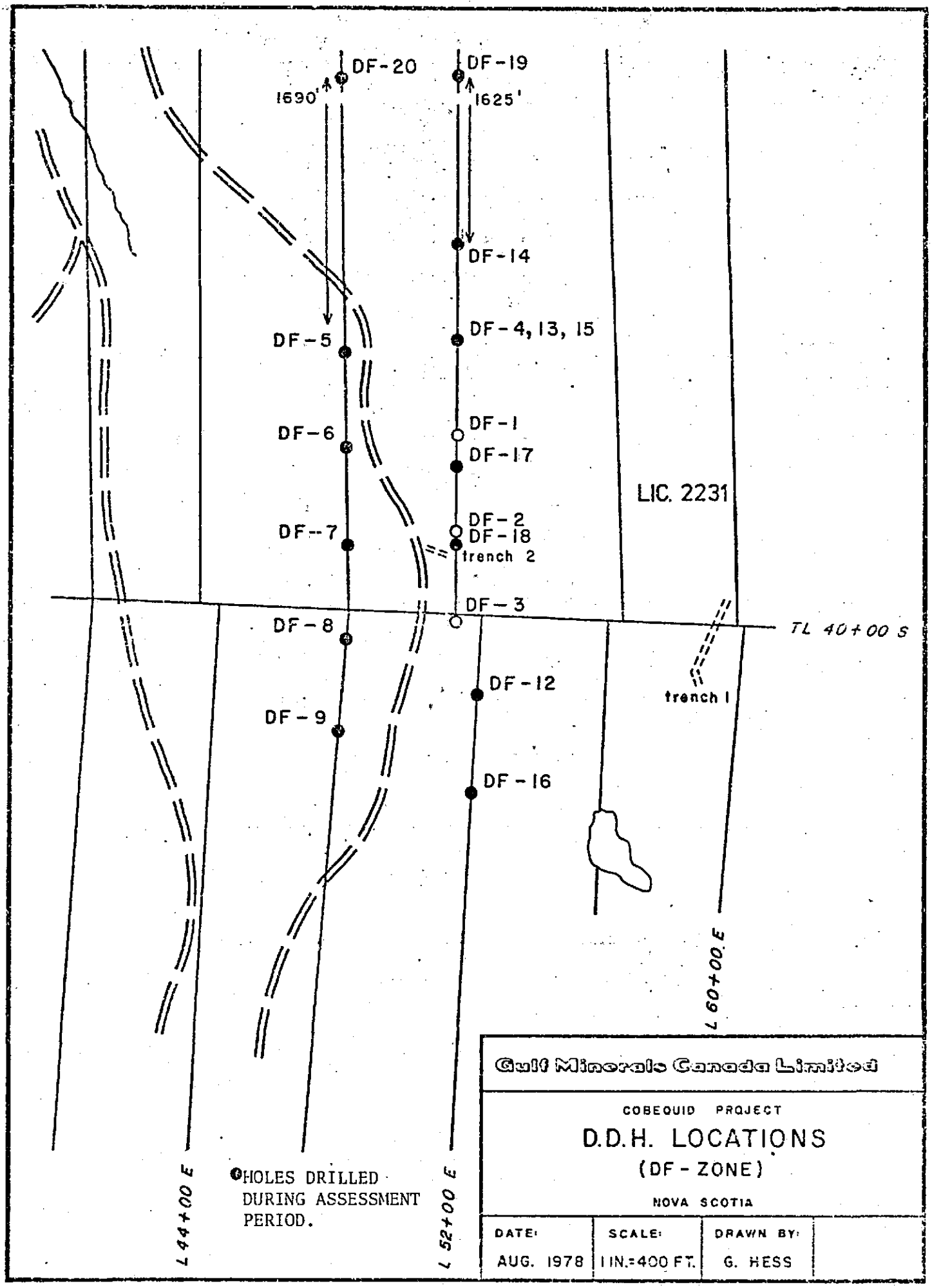
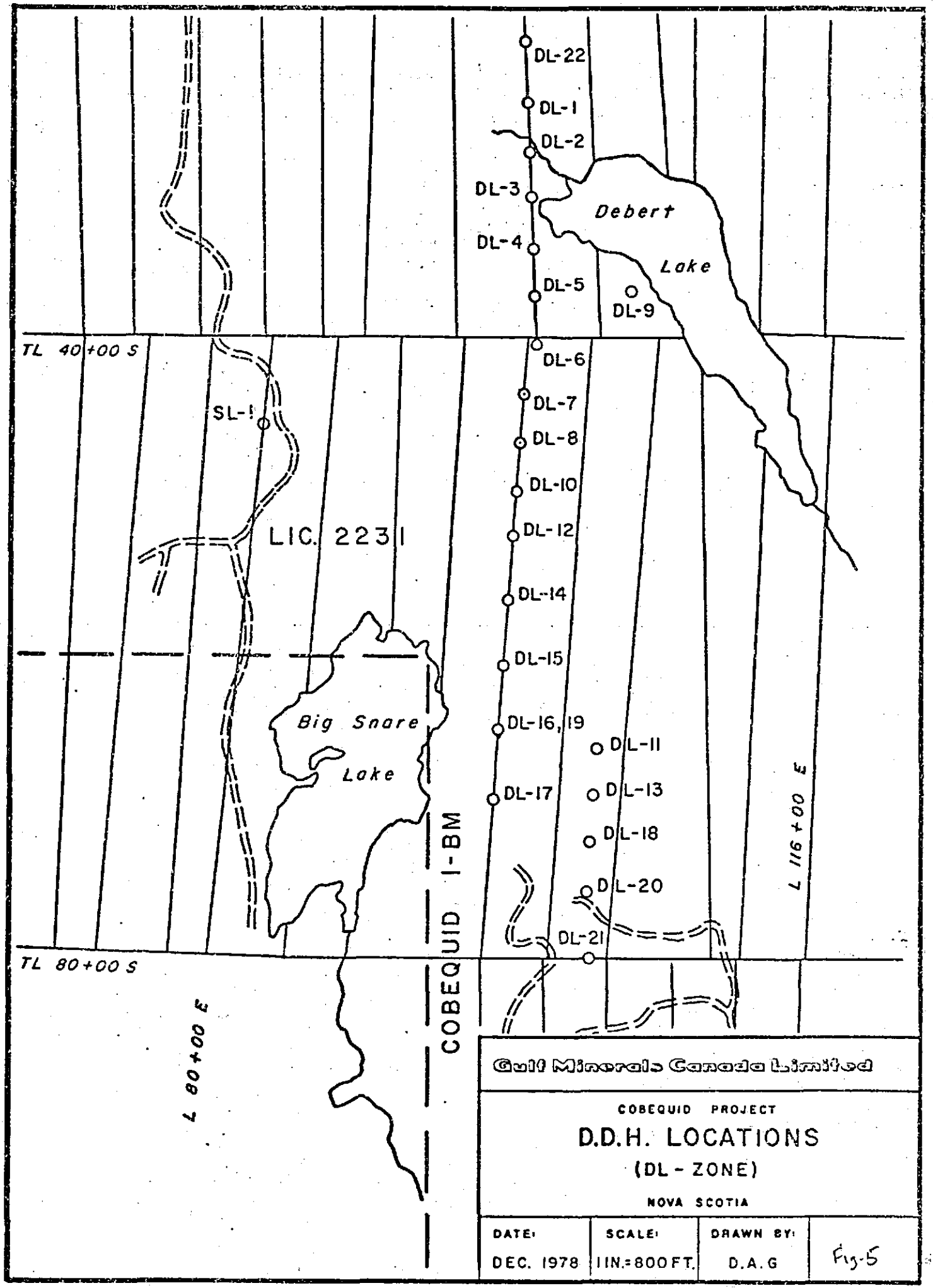

DF-20
1690'
DF-19
1625'
DF-14
DF-4, 13, 15
DF-5
DF-1
DF-6
DF-17
LIC. 2231
DF-2
DF-7
DF-18
trench 2
DF-3
DF-8
TL 40+00 S
DF-12
trench 1
DF-9
DF-16
L 60+00 E
L 44+00 E
L 52+00 E
●HOLES DRILLED DURING ASSESSMENT PERIOD.
Gulf Minerals Canada Limited
COBEQUID PROJECT
D.D.H. LOCATIONS
(DF-ZONE)
NOVA SCOTIA
DATE: AUG. 1978
SCALE: 1 IN.=400 FT.
DRAWN BY: G. HESS

Figure 4

DEBERT FOLLY (DF-ZONE) DIAMOND DRILLING PROGRAMME 1978

HOLE	SECTION	LOCATION	BEARING (TRUE)	DIP	FOOTAGE	DATE STARTED	DATE COMPLETED
DF-5	4800E	32+15S 48+00E	180°	-45°	493'	18 July, 1978	25 July, 1978
DF-6	4800E	35+10S 48+00E	180°	-45°	424.2'	25 July, 1978	29 July, 1978
DF-7	4800E	38+15S 48+00E	180°	-45°	315.6'	31 July, 1978	7 Aug., 1978
DF-8	4800E	41+15S 48+00E	180°	-45°	387.2'	30 July, 1978	3 Aug., 1978
DF-9	4800E	44+15S 48+00E	180°	-45°	424'	3 Aug., 1978	7 Aug., 1978
DF-12	5200E	42+38S 52+00E	180°	-45°	463.6'	6 Aug., 1978	10 Aug., 1978
DF-13	3100S	31+00S 52+00E	270°	-45°	345'	8 Aug., 1978	14 Aug., 1978
DF-14	5200E	28+00S 52+00E	180°	-45°	533'	10 Aug., 1978	17 Aug., 1978
DF-15	3100S	31+00S 52+00E	270°	-70°	349.5'	14 Aug., 1978	19 Aug., 1978
DF-16	5200E	45+50S 52+00E	180°	-45°	375'	18 Sept., 1978	19 Sept., 1978
DF-17	3500S	35+00S 52+00E	270°	-45°	414.4'	19 Aug., 1978	24 Aug., 1978
DF-18	3750S	37+50S 52+00E	270°	-45°	292'	24 Aug., 1978	29 Aug., 1978
DF-19	5200E	11+75S 52+00E	180°	-45°	303.8'	1 Sept., 1978	4 Sept., 1978
DF-20	4800E	15+25S 48+00E	180°	-45°	228.2'	4 Sept., 1978	6 Sept., 1978
SL-1	8000E	43+85S 80+00E	180°	-45°	446.2'	18 Sept., 1978	21 Sept., 1978
					5,794.4' (TOTAL)		

TABLE III


DL-22
DL-1
DL-2
DL-3
DL-4
DL-5
DL-9
Debert
Lake
TL 40+00 S
DL-6
SL-1
DL-7
DL-8
DL-10
DL-12
LIC. 2231
DL-14
DL-15
Big Snare
Lake
DL-16, 19
DL-11
DL-17
DL-13
DL-18
DL-20
DL-21
L 116+00 E
TL 80+00 S
L 80+00 E
COBEQUID I-BM
Gulf Minerals Canada Limited
COBEQUID PROJECT
D.D.H. LOCATIONS
(DL - ZONE)
NOVA SCOTIA
DATE: DEC. 1978
SCALE: 1IN.=800FT.
DRAWN BY: D.A.G
Fig-5

HOLE	SECTION	LOCATION	BEARING	DIP	FOOTAGE	DATE STARTED	DATE COMPLETED
DL-1	9600E.	L96+00E 24+00S	180° AZ	-45°	462'	November 9/77	November 17/77
DL-2	9600E.	L96+00E 27+00S	180° AZ	-45°	435'	November 18/77	November 22/77
DL-3	9600E	L96+00E 29+80S	180° AZ	-45°	450'	November 23/77	November 25/77
DL-4	9600E	L96+00E 33+00S	180° AZ	-45°	350'	November 26/77	November 29/77
					1,697'		

DL - ZONE DIAMOND DRILL HOLE DATA

1977

TABLE IV A

DEBERT LAKE (DL-ZONE) DIAMOND DRILLING PROGRAMME 1978

HOLE	SECTION	LOCATION	BEARING (TRUE)	DIP	FOOTAGE	DATE STARTED	DATE COMPLETED
DL-5	9600E	36+00S 96+00E	180°	-45°	412.7'	7 Sept., 1978	11 Sept., 1978
DL-6	9600E	39+00S 96+00E	180°	-45°	444'	12 Sept., 1978	16 Sept., 1978
DL-7	9600E	42+00S 96+00E	180°	-45°	453.7'	15 Sept., 1978	20 Sept., 1978
DL-8	9600E	45+00S 96+00E	180°	-45°	414.4'	20 Sept., 1978	23 Sept., 1978
DL-9	10225E	34+85S 102+00E	180°	-45°	387.2'	22 Sept., 1978	25 Sept., 1978
DL-10	9600E	48+00S 96+00E	180°	-45°	503'	24 Sept., 1978	27 Sept., 1978
DL-11	10225E	63+88S 102+23E	180°	-45°	415'	26 Sept., 1978	1 Oct., 1978
DL-12	9600E	50+83S 96+00E	180°	-45°	453.8'	27 Sept., 1978	1 Oct., 1978
DL-13	10225E	66+88S 102+23E	180°	-45°	533.1'	2 Oct., 1978	13 Oct., 1978
DL-14	9600E	54+83S 96+00E	180°	-45°	432.1'	1 Oct., 1978	4 Oct., 1978
DL-15	9600E	58+83S 96+00E	180°	-45°	434'	4 Oct., 1978	7 Oct., 1978
DL-16	9600E	62+80S 96+00E	180°	-48°	472.4'	8 Oct., 1978	11 Oct., 1978
DL-17	9600E	67+17S 96+00E	180°	-45°	256.9'	12 Oct., 1978	13 Oct., 1978
DL-18	10225E	69+82S 102+23E	180°	-45°	474.1'	14 Oct., 1978	21 Oct., 1978
DL-19	9600E	62+80S 96+00E	180°	-70°	453.7'	13 Oct., 1978	16 Oct., 1978
DL-20	10225E	72+97S 102+20E	180°	-45°	532.5'	16 Oct., 1978	20 Oct., 1978
DL-21	10225E	77+30S 102+96E	180°	-45°	299.2'	20 Oct., 1978	22 Oct., 1978
DL-22	9600E	20+20S 96+00E	180°	-45°	568.6'	24 Oct., 1978	28 Oct., 1978
					7,940.4' (TOTAL)		

TABLE IVB

B) J-ZONE DIAMOND DRILLING

The J-Zone, or Juniper Zone, is located in the vicinity of several conductive zones and magnetic anomalies. Offset of the conductors along apparent north-south faults provoked interest. In addition, some local offset of magnetic contours is vaguely descernible.

A diamond drilling programme was planned to: (1) to explore the potential for mineralization along these conductors; and, (2) provide geological information on the volcanics of the Cobequid Highlands.

The drilling has probed a zone of rhyolite flows, ignimbrite sheets, tuffs and agglomerates, and minor volcanic-related sediments. Rhyolite flow rocks may be massive or flow banded. The individual flow laminations are generally pink, set in a grey matrix, and are continuous and regular. Ignimbrites may also be flow banded, but in this case the bands are rippled, lensitic and discontinuous. They may contain various types of lithic fragments. Fiammi, or flattened pumice fragments, may be observed locally. Both rhyolite flows and ignimbrite rocks may be porphyritic with euhedral feldspar phenocrysts and round quartz phenocrysts up to 5 mm. in size. Tuffs are fine to medium grained and may contain individual feldspar grains. Agglomerates are variable in colour from green to pink. Fragments up to 5 cm. in size may be found locally. They are usually sub-round to sub-angular and may represent a wide range in felsic volcanic rocks as well as including some mafic rocks. The groundmass to fragments is usually aphanitic and siliceous. Rocks described as sediment may in fact be agglomerate horizons. In this case, however, pebbles are rounded and may be set in a sandy matrix. It is believed, but not conclusively proven, that the volcanics dip steeply north. The volcanic rocks are intruded and deformed by diorite stockworks. Locally, the rhyolites and ignimbrites may be recumbantly folded by the intrusives. Some overturning of units is apparent locally. Both volcanic and dioritic rocks have been intruded by a network of diabase dykes. Because of cross-cutting relationships, at least two phases of diabase intrusion are perceived.

Alteration within the volcanics consists of soda-metasomatism near the margins of mafic intrusives with some accompanying hematization. Localized kaolinization of feldspar may be moderate, particularly where the rock is strongly brecciated. The mafic intrusives are variably chloritized, particularly near contacts with country-rock, and weakly uralitized. When porphyritic, feldspar phenocrysts are usually sausauritized

No base metal mineralization of consequence was found within the presently defined J-Zone during the 1977-78 drilling programme.

The following section gives a summary of each diamond drill hole cored in the J-Zone during the assessment period:

JZ-7

This drill hole intersected pinkish-grey rhyolite and ignimbrite. These rocks are generally porphyritic with 1-2 mm. quartz phenocrysts and a few feldspar phenocrysts. The rhyolite is finely fractured throughout and moderately silicified. The rock is intruded by several diabase dykes in the upper hole and the interval from 120.5' to the base of the hole at 230' is diorite. No sulphide mineralization was found in this hole.

JZ-8

The eighth hole located twenty-five feet from JZ-7, is virtually the same geologically. Pinkish-grey, occasionally brick red rhyolite is aphanitic, finely fractured and moderately silicified. Some ignimbrite sheets are also present. Hematization is variable but strongest in brick red zones. The rock is generally non-porphyritic but round 1-2 mm. quartz phenocrysts may be found locally. The base of the hole from 135'-247' is diorite followed by a five foot thick section of dark pink rhyolite. No base metal mineralization was observed in this hole.

JZ-9

This hole was collared in diorite and remained within the dyke to the base of the hole. The dyke is dark green, fine to medium grained and weakly to moderately chloritized. Some degree of uralitization, usually weak, may be observed locally. The diorite is porphyritic over short sections and euhedral feldspar phenocrysts up to 5 mm. are common. Smaller quartz phenocrysts are typically round. No mineralization was found in this hole.

JZ-10

The upper section of the tenth hole is diorite to a depth of 82 feet. It is dark green, fine to medium grained and locally porphyritic. Below the intrusive is 157 feet of dark pinkish-grey, weakly flow laminated rhyolite. Numerous conglomerate zenoliths are found in the rhyolite. The interval 240'-271' is dark green, fine grained rhyolite. The section from 271'-433' is conglomerate. Light and dark grey pebbles up to 5 cm. in size are found in a dary grey, sandy matrix. Minor coarse grained sandstone is found locally. Pyrite and chalcopyrite blebs are found in the matrix. Underlying the conglomerate is a rhyolite section which extends to the base of the hole at 570 feet. The rhyolite is grey but becomes pinker with depth. It is porphyritic, finely fractured and locally flow brecciated. The volcanic flow is intruded occasionally by diabase. Several samples of sulphide rich sediment were assayed and found to contain no precious metals or base metals.

JZ-11

This hole remains within the rhyolite and ignimbrite flows. The rock is pinkish-grey, aphanitic and has a well developed flow lamination at 40° to the core axis. Ignimbrite units have a more irregular discontinuous banding than the rhyolite flows. Where intruded by diabase or diorite, the rhyolite may be finely fractured and more reddish in colour due to silicification and hematization. Finely disseminated pyrite is common in the rhyolite. Numerous dark green, fine grained, ophitic textured diorites and diabases intrude the rhyolite. The largest of these, a diorite, was intersected from 83.5'-111' but more typically they are ten to fifteen feet in thickness.

The section from 305'-317', sampled on 2' intervals, carries an average of 0.05 oz/ton silver. No other base metal or precious metal mineralization was detected.

JZ-12

This diamond drill hole was collared in rhyolite. The rock is grey but becomes pinkish-grey locally where intruded by diabase or diorite. It is non-porphyritic and may be flow brecciated locally. Numerous small diabase dykes cut the uppermost rhyolite. At 135.5' a large diorite dyke was intersected which is present to 214.5'. It is dark green, fine grained and moderately chloritized locally. The zone 188-196.5' is strongly porphyritic and moderately sausauritized. The rhyolite below this diabase is pinker than the upper variety. An abundance of diabase dykes averaging three to five feet in thickness cut the rhyolite often producing a brick red colour in the lava. Alteration, consisting of silicification and hematization is stronger in the lower section of this hole.

No base metal mineralization was detected in this hole.

JZ-13

This hole was shut down prior to intersection of bedrock at 141'. Future deepening of this hole may be accomplished utilizing a larger more powerful drill than was available at the time.

JZ-14

Although spotted, this hole was not drilled due to lack of time at year's end.

JZ-15

This hole intersected a predominately grey to pinkish-grey rhyolite unit at surface. It is locally porphyritic with euhedral, pink feldspar phenocrysts up to 2 mm. in size. Where swarms of narrow diabase dykes are found, the rhyolite is silicified and moderately hematized. The rock in these zones may be finely fractured. With depth, the rock becomes more pink in colour with minor red and brick red zones. These deeper zones are generally more highly hematized and silicified. Some limited kaolinization may be present in the rhyolite at 151' where a diorite dyke intrudes the volcanics. The diorite is intersected through to 193'. It is dark green, medium grained and porphyritic. The rhyolite from 193'-274' is dark pink to red, moderately fractured and non-porphyritic. It becomes mylonitic locally and is strongly silicified and hematized. A diabase dyke is located at 274'-285.5'. From the base of the diabase to the end of the hole at 333', the rhyolite becomes less pink and less altered.

No significant mineralization was observed.

JZ-16

This drill hole is very similar to JZ-15. Rhyolite intersected in the top of the hole, is generally grey but numerous red to brick red zones may be present locally. These zones are strongly silicified and hematized and may be moderately fractured. Numerous diabase dykes up to ten feet in thickness are intersected in the upper hole. At 136'-246.5', a diorite dyke is found. It is porphyritic locally and weakly to moderately uralitized and chloritized. Feldspar phenocrysts are variably sausauritized. The rhyolite below the diorite is red to dark pink reflecting a higher degree of hematization and silicification than the upper rhyolite. It is intruded at 276'-298' by diorite.

Several zones containing some sulphide were sampled. The zone from 104'-106' produced values of 0.03% Copper, 0.04% Zinc, and 0.08% Lead.

JZ-17

This hole was collared in diorite and continued to intersect the intrusive to a depth of 303'. The rock is dark green, medium grained and strongly chloritized near surface. It exhibits good ophitic texture. Spotty epidotization is common and may reflect late state feldspar alteration or sausauritization. Some porphyry is present locally with generally euhedral feldspar phenocrysts up to 1 cm. in size. Below the diorite, 55' of rhyolite was intersected. The volcanic rock is dark pink and locally porphyritic with indistinct 1 mm. round quartz phenocrysts. It is moderately fractured and locally may be flow brecciated.

No significant base metal mineralization was observed in this hole.

JZ-18

This diamond drill hole intersected rhyolite at surface. This unit is brick red to pinkish red, intensely silicified and strongly hematized. It is intruded at 45'-125' by a dark green, fine grained diorite dyke. Below the dyke is 21.5' of reddish-pink. porphyritic rhyolite. Euhedral feldspar phenocrysts up to 4 mm. in size and quartz phenocrysts up to 3 mm. in size are common. Fracturing is widespread in the rhyolite, often with accompanying epidotization and weak kaolinization. From the base of this rhyolite at 146.5', and extending for 127.5' to a depth of 274', a second diorite body was intersected. It is dark green with light green spotty epidotization. The rock is weakly fractured and moderately chloritized near the contacts. Some porphyry is present within the diabase from 224.5'-228'. The hole intersected rhyolite from 274'-387.5' and from 428.5'-453'. It is reddish-pink to greyish-pink with minor brick red zones. Flow banding has developed locally at an angle of 45° to the core axis. Silicification and hematization are variable in degree of alteration. The volcanic is intruded by diabase at 387.5'-428.5'.

Of ten samples taken, none contained any base metal mineralization above trace amounts.

JZ-19

The nineteenth drill hole was collared in diorite and continued within the intrusive body to a depth of 161'. The rock is dark green, fine to medium grained and weakly chloritized. At 161', a sediment unit was intersected. The rock is dark grey to black and mainly composed of sandy conglomerate with minor sandstone. Pebbles are of granitic and rhyolitic origin. At 189' a diorite dyke was intersected which continued to the base of the hole at 223'.

No base metal mineralization was found in this hole.

JZ-20

This diamond drill hole intersected pink, porphyritic rhyolite to a depth of 33'. From 33'-113' is diorite intrusive. The rock is dark green, fine to medium grained and porphyritic. A greyish-brown to dark grey crystal tuff unit is located at 113'-170.6'. Rock shards up to 3 mm. are set in a fine grained to aphanitic matrix. From 170.6'-173.1' is a highly broken zone along the edge of a dioritic intrusive which was intersected from 173.1'-231.5'. The diorite is weakly porphyritic with sausauritized feldspar phenocrysts.

No base metal mineralization was found in this hole.

JZ-21

From surface to 39.4', the twenty-first hole intersected a dark green porphyritic diorite dyke. Below this, to a depth of 73' is pinkish-grey aphanitic and weakly porphyritic rhyolite. The volcanic rock is flow banded locally at 25°-30° to the core axis. It is intruded at 73'-91.7' and again at 110.1'-125.2' by mafic intrusives. The upper variety is dioritic whereas the lower dyke is probably diabase. Reddish-pink to red porphyritic rholite is located at 125.2'-139.4'. A diorite dyke was intersected at 139.4'-149.7' and is followed by rhyolite flow and minor ignimbrite to a depth of 225.8'. Diorite is located below the volcanics to 259.2' and is found again at 325.3'-428.2'. From 259.2'-325.3' is greyish-pink, flow laminated ignimbrite and below the diorite from 428.2'-439.7' is pinkish-red, non-porphyritic rhyolite.

No base metal mineralization was intersected in this drill hole.

JZ-22

The twenty-second diamond drill hole was cased through overburden to a depth of 146' and then intersected a dark to medium grey, fine grained to aphanitic rhyolite unit to a depth of 280'. The rock has light grey bands well developed locally at 40°-45° to the core axis. The bands are probably tuff horizons. Several dark green diorite dykes were intersected at 198'-207.3', 234.6'-241.9', and 280'-329.9'. From 329.9'-332.5' is light grey, to pinkish-grey aphanitic rhyolite. Diorite is found at 332.5'-337.4'. A gradational contact is found at 337.4' where the rock changes to a rhyolitic type of unit. Below 388' the rock has abundant light green flecks - possibly an alteration product of volcanic glass shards. Minor chalcopyrite and pyrite was found disseminated throughout the zone, particularly below 388' where combined sulphide content may reach 5% locally. Abundant graphitic was found on fractures.

JZ-23

This hole intersected 131.2' of overburden and then 108.7' of rhyolite. The volcanic is light grey, and very fine grained to aphanitic. Several narrow mafic intrusives were intersected at 133.9'-136' (Diorite), 184.1'-185.4' (Diabase), 204'-207.7' (Diorite), and 232.4'-239.9' (Diorite). A pink to reddish pink felsic intrusive is located at 239.9'-284.9'. The rock is strongly porphyritic with quartz and feldspar phenocrysts. From 284.9'-345.9' the rock is rhyolitic, light grey and fine grained to aphanitic. It is well flow banded at 30°-50° to the core axis. A diorite dyke is located at 345.9'-372.4' followed by 22.7' of felsic intrusive similar to the upper zone at 239.9'-284.9'. From 395.1'-415.8' is rhyolite followed by diorite to a depth of 424.9'. Abundant pyrite and minor chalcopyrite were found finely disseminated throughout the hole to a depth of 184.5'. Up to 10% sulphide with abundant graphite is found locally.

No base metal mineralization was found in this zone above trace amounts.

C) DF-ZONE DIAMOND DRILLING (including SL-1)

The DF-Zone, or Debert-Folly Zone, is located approximately one mile west of Debert Lake in Colchester County. It is an area of several intersecting conductive (V.L.F. defined) zones and steep magnetic contours. Within this area were found malachite stained boulders containing up to 5.38 oz/ton silver and up to 0.08% lead. A soil copper geochem. anomaly is found within the C-horizon in the DF-Zone.

A diamond drilling programme was formulated to: (i) explore the potential for mineralization related to the conductors and magnetic anomalies, (ii) attempt to find the source of the soil geochem. anomaly in bedrock, and; (iii) provide geological information on the rhyolite volcanics and the granite contact in the Cobequid Highlands.

The drilling probed the granite along a section roughly 200' inside and parallel to the contact. The granite contact cuts across this section at three points. In addition, the volcanics along the contact were intersected. The felsic extrusives included rhyolite flows, ignimbrite sheets and minor pyroclastics (tuffs and agglomerates). The flows are of massive and banded varieties. Banding consists of 1-2 mm. parallel laminations, usually including grey rhyolite with pink or cream rhyolite. Laminations are continuous and regularly spaced. Ignimbrites on the other hand, are irregularly banded. Lensitic, rippled and discontinuous laminations are coarse, and often include fragments of rhyolite as well as some other non-indigenous rocks such as mafic volcanics. Both rhyolite flow and ignimbrite are often porphyritic with 1-3 mm. euhedral feldspar phenocrysts and 1-2 mm. round quartz phenocrysts. It is possible that the DF-Zone is cut by a north-south striking strongly porphyritic intrusive. The groundmass is red to burgundy in colour, aphanitic fresh, siliceous and contains average sized quartz and pink to orange feldspar phenocrysts. The rock carries occasional mafic fragments locally. These fragments are quite hard and may be andesite. The volcanics are cut by diorite stockworks.

These bodies are dark green, fine to medium grained and weakly chloritized. The rock is weakly to moderately fractured. These rocks are in turn intruded by granite. The granite is pink to pinkish-red, medium grained and contains up to 40% quartz locally but very little mafic minerals. The granite is variably fractured. All the aforementioned rocks are intruded by a complex swarm of diabase dykes. These dykes are dark green, fine grained, chloritized and weakly fractured.

Alteration consists of soda-metasomatism of acid volcanics with minor accompanying hematization near mafic intrusives, local kaolinization of feldspar in rhyolite and granite especially in intensely fractured or mylonitic zones, and, epidotization of fractures. Feldspar phenocrysts within diorite are typically sausauritized. Mafic minerals may be weakly uralitized and chloritized.

No base metal mineralization has been found in any hole drilled to date within the DF-Zone.

The following is a summary of each hole drilled during the 1978 drilling programme:

DF-5

The first hole in 1978 intersected granite to a depth of 493'. The rock is pinkish-red, medium grained and contains 10-20% quartz. A zone of diorite, possibly a xenolith, is located at 200.7'-213.5'. A similar zone is found at 368.5'-380.5'. Abundant diabase dykes up to 5' in thickness are found locally.

No base metal mineralization was found in this hole.

DF-6

This hole collared in pinkish-grey rhyolite. The flow is flow brecciated to a depth of 134.9'. The rocks are weakly flow banded and carry red rhyolite fragments up to 3 cm. in size. The zone is strongly fractured and tectonically brecciated. Below this zone to a depth of 173.3' is a massive, non-brecciated porphyritic rhyolite. From 173.3'-206.7' is found a centrally - porphyritic diorite intrusive. A two feet thick strongly fractured rhyolite horizon is located at 206.7'-208.7' below which is a 41' thick diorite intrusive resembling the upper zone. From 294.7'-276.1' is a porphyritic mottled rhyolite which is stoped by granite locally. Below 276.1' to the base of the hole at 424.2' is dark pinkish-red to pink, fine to medium grained granite. Locally, the granite is strongly fractured to mylonitic.

No base metal mineralization was found in this hole.

DF-7

This hole was collared in diorite. The mafic rock was encountered to a depth of 45.7'. It is followed by granite which has been intruded by diabase at 59.5'-81.7' and at 134'-141.5'. The diabasic rocks are dark green and carry abundant re-crystallized granite fragments. The granite body, itself, is reddish-pink, fine to medium grained and locally contains up to 40% quartz but only traces of mafic minerals. Feldspar content varies from 60-80%.

No base metal mineralization was intersected in this hole.

DF-8

This diamond drill hole intersected pinkish-red, granite to a depth of 387.2' at which point the hole was terminated. The granite is medium grained and is mylonitic locally. Strongly broken zones often contain kaolinized feldspar grains. A fault zone is located at 321.8'-325.8'.

No base metal mineralization was found in this drill hole.

DF-9

The fifth hole drilled during the 1978 season collared in granite and continued within this rock unit to the base of the hole at 424'. It is reddish-pink and medium grained with up to 25% quartz. It is intruded locally by diabase at 135.9'-138.3', 155.6'-162.5' and 396.6'-402.2'. Several narrow aplite dykes are found locally, (e.g. 153.6'-154.6').

Base metal mineralization was not observed in this hole.

DF-10 and DF-11

Although spotted, these holes were not drilled.

DF-12

This hole intersected rhyolite to a depth of 53.6'. The volcanic is dark grey with red and pink mottling and is very fine grained to aphanitic. Quartz and feldspar phenocrysts up to 2 mm. are weakly developed. It is cut at 53.6' by a dioritic intrusive which continues to the base of the hole at 463.6'. Locally, the rock resembles basalt, but these zones may in fact be diabase dykes.

No base metal mineralization was detected in this drill hole.

DF-13

To a depth of 44.3', this hole intersected a dioritic intrusive. Below this, from 44.3'-116.6' is a reddish-pink porphyritic rhyolite. The volcanic rock is weakly flow banded, locally becoming well banded, but irregular. Small mafic intrusives cut this zone at 48.6'-56.8', 82.7'-95.8', and 99.1'-108.6'. A diorite dyke is located at 116.6'-149.4' and a second is found at 167.7'-188.7'. Between them is a reddish-pink altered and chloritized rhyolite. The zone from 188.7'-206' is grey to pinkish-grey porphyritic rhyolite. It is underlain by 7.3' of diorite intrusive. From 213.3'-240.8' is pinkish-red, aphanitic and possibly silicified rhyolite. A diabase dyke containing abundant fragments of rhyolite and granite is found at 240.8'-259.5' and the zone from 259.5' to the base of the hole at 345' is granite.

No base metal mineralization was encountered.

DF-14

The fourteenth hole intersected red to pinkish-red, medium grained granite to a depth of 178.5'. Below this, from 178.5'-533' is pinkish-grey rhyolite, which becomes pinker with depth. The rock is porphyritic with quartz and feldspar phenocrysts up to 3 mm. set in an aphanitic groundmass. The rock is irregularly and weakly flow banded locally. Over two sections, (302.2'-317.9' and 433'-444.6') the rock is well banded at 30°-40°, and 5°-40°, respectively, to the core axis. Locally the zone is strongly broken. A noteworthy lack of mafic intrusives is observed. The only occurrence at 223.6'-225.6' is probably diabasic.

No base metal mineralization was found in the hole.

DF-15

The fifteenth diamond drill hole intersected rhyolite at 26'-32.8'. The rock is reddish-pink aphanitic and porphyritic, and, is cut at 32.8'-49.9' by a diorite dyke. From 49.9'-128.2' is a reddish-pink, porphyritic rhyolite unit which is locally flow banded. It is intruded at 66.9'-67.6' and 113.9'-124.3' by diabase and at 88.4'-102.2' by diorite. The diorite is dark green, fine to medium grained, and weakly chloritized locally. Diorite dykes are found at 128.2'-131.2', 145.2'-157.5', 160.4-168.3', and 195.3'-206.7'. The rhyolite between these intrusives is pinkish-red, aphanitic and porphyritic. The zone from 168.3'-195.3' is weakly flow banded. From 206.7'-286.3', the rhyolite is spherulitic locally (e.g. 212') and weakly porphyritic. The rock is more strongly broken with depth. A diabase dyke has been intruded at 286.3'-302.3'. It contains abundant rhyolite and granite xenoliths. From 302.3' to the base of the hole at 349.5' is red to grey-red granite.

No base metal mineralization was observed in this hole.

DF-16

This drill hole intersected a grey, aphanitic altered rhyolite unit which continued to a depth of 94.5'. At this point, a dioritic dyke is intruded. The lower contact is at 196'. The diorite itself is cut by a complex swarm of diabasic intrusives. At 196'-271.5' is a grey aphanitic rhyolite unit. The lowermost 30' are redder in colour. A diorite dyke is located at 214.8'-222.9' and a diabase dyke is found at 237.2'-243.9'. The rhyolite is cut off at 271.5'- 295.3' by a diabase dyke which contains 50% of its rock volume composed of rhyolite and minor quartz fragments. The zone below 295.3' to the base of the hole at 375' is granite.

No base metal mineralization was found in this hole.

DF-17

The seventeenth hole, after casing through 34.5' of overburden, intersected 3.9' of medium grained diabase dyke. The zone from 38.4'-57.7' is grey, aphanitic, locally porphyritic tectonically brecciated rhyolite. A 3.7 ft. thick diabase dyke is intruded at 57.7'. From 61.4'-133.9' is cream to pinkish-grey coloured, aphanitic and porphyritic rhyolite. This zone is frequently mylonitic. Strongly broken zones are highly epidotized. Some fluorite is also present in fractures. At 133.9' a unit is intersected which is red in colour and possibly ignimbritic, although a well developed flow banding is lacking. The zone is porphyritic with both quartz and feldspar phenocrysts. This zone continues to a depth of 231.3'. A diorite dyke is intersected at 231.3'-243.8'. From the lower contact of the intrusive to 304.1' is a strongly porphyritic burgundy coloured rhyolite unit. Feldspar phenocrysts are 1-5 mm. in size and orange in colour. Quartz phenocrysts are smaller. The matrix is aphanitic. A diorite dyke is located at 304.1'-320.1'. Beneath this is 25.4' of flow banded rhyolite, followed by diorite from 345.5'-383.1'. The zone at 383.1'-403.9' is pinkish-red to red porphyritic rhyolite. A narrow diorite dyke is located at 403.9'-406'. At 406' a unit is intersected which is the same texturally and similar in colour to the porphyritic zone at 243.8'-304.1'. It extends to a depth of 431.1' where a 6" diabase dyke is encountered. Below the diabase to the base of the hole at 462.2 is granite.

No base metal mineralization was observed.

DF-18

This hole intersected pink to red, aphanitic and porphyritic rhyolite to a depth of 219.8'. The rock is strongly fractured, frequently becoming mylonitic. These intensely broken zones are strongly chloritized. The rhyolite is intruded by a large number of mafic dykes which are diabasic to dioritic in composition.

The larger varieties were intersected at 40.7'-42.5', 93.7'-101.8', 142.9'-153.1', 176.4'-177.5', 180.4'-185.4', and 210.4'-219.8'. The zone from 219.8'-236.6' is reddish-pink porphyritic rhyolite which may be ignimbritic above 234.6'. Beneath the rhyolite is 0.8' of diorite followed by brownish-pink, strongly porphyritic rhyolite to the base of the holes at 292'. This zone is the same texturally as the unit at 243.8'-304.1' in DF-17. It contains abundant angular felsic (rhyolite) fragments below 285!.

No base metal mineralization was observed.

DF-19

This diamond drill hole intersected ignimbrite to a depth of 77.1'. The rock is aphanitic and strongly porphyritic. Flow banding is well developed. At 77.1'-139.8', a reddish-brown to burgundy coloured rhyolitic unit was intersected. The rock is very strongly porphyritic with quartz and orange feldspar phenocrysts. Similar units were found in DF-17 and DF-18. A diabase dyke is located at 139.8'-142.5'. From 142.5'-176-2' is a pale green, porphyritic, locally flow banded rhyolite. The flow banded zone from 150'-172' may be ignimbritic. Diorite is found at 176.2'-197.6'. It is fine to medium grained, dark green and porphyritic locally. Below the diorite at 197.6'-223.8' is a felsic intrusive. This zone is reddish-pink, strongly porphyritic and has 1-2 mm. spherulites nucleated on phenocrysts. It carries abundant mafic (dioritic) fragments. A diorite dyke is located at 223.8'-297.7'. From the base of the diorite to the end of the hole at 303.8' is reddish-pink, strongly porphyritic ignimbrite. It is well flow banded at 30°-35° to the core axis.

No base metal mineralization was found in this hole.

DF-20

This hole intersected a siliceous sediment unit, possibly tuffaceous, to a depth of 81.4'. The rock is light green, fine grained to aphanitic, and is well bedded locally. Some vague grading of particle size within beds may be present. Some pink rhyolite fragments have settled within individual beds. The unit is intruded by diorite at 52.3'-58.1'. A diorite dyke is located at 81.4'-105.5'. Below this intrusive is more sediment similar to the upper unit. Load casting indicates that the succession is overturned. Another diorite dyke has been intruded at 138.8', which extends to the base of the hole at 228.2'.

Minor finely disseminated chalcopyrite is found in the upper sediment zone, particularly in strongly fractured rock. Content is less than 1%. Graphite is also common on fractures locally.

SL-1

This diamond drill hole intersected diorite to a depth of 59.1'. Below this, to a depth of 125.3', is pink to reddish-pink porphyritic rhyolite. A diabase dyke is located at 72.7'-79.5' and another is found at 125.3'-130.1'. Beneath this, to a depth of 152.6', is an ignimbrite unit. Flow laminations are very irregular in dip. From 152.6'-164.7' is a diabase dyke and below this is a rhyolite unit which is ignimbritic below 212.4'. The base of this unit is at 218.2'. From this point to a depth of 232.2' is a spherulitic rhyolite unit. Spherulites are up to 3 mm. in diameter and are concentrated in bands. From 232.2'-382.5' is diorite. Beneath this, to the base of the hole at 446.2' is red to pinkish-red strongly porphyritic rhyolite.

No base metal mineralization was encountered in this hole.

D) DL-ZONE DIAMOND DRILLING

The DL-Zone, or Debert Lake Zone, is located in the area surrounding Debert Lake in Colchester County. Two north-south striking sections were drilled along the west side of Debert Lake in an area where a strong VLF conductor runs up Debert Lake and several discontinuous conductors cut through the surrounding area. No outstanding magnetic anomalies were delineated with the exception of one near the 80S TL and line 100E.

A diamond drilling programme was planned to: (i) explore the potential of mineralization related to the conductors; and, (ii) provide geological information on the acid volcanics, mafic intrusives and granite which might facilitate better interpretation of geophysical surveys in the Cobequid Highlands.

The drilling programme probed the volcanic units and the intrusives which cut them. The volcanics are made up to roughly equal quantities of rhyolite flow, ignimbrite and pyroclastic. The latter variety is mostly felsic agglomerate but also includes some ash-fall and lapilli tuff. A small amount of vesicular mafic flow, probably andesitic in composition, is present locally. These volcanics are intruded by dioritic stockworks. The diorite and volcanics are in turn intruded by a large granitic mass which in turn in intruded by a complex swarm of diabase dykes. The volcanics are Silurian in age, whereas the diorite and granite are thought to be Devonian.

Rhyolite flow rocks are pink and red to grey in colour but are often green locally. They are generally aphanitic and most are porphyritic with round quartz phenocrysts up to 2 mm. in size and euhedral, cream coloured feldspar phenocrysts up to 4 mm. in size. Flow banding is found in approximately half of the flows. It is generally regular and evenly spaced. Laminations are 1-2 mm. in thickness. Some rhyolite flows are spherulitic. These growths, often nucleated on phenocrysts, average 0.5-1.0 cm. in size but spherulites up to 3 cm. have been observed locally (e.g. DL-6, 235'). Spherulites often have a green colour which may encompass the groundmass as well. This is probably attributable to chlorite alteration. Locally some serpentinization is evident in spherulitic zones.

Ignimbrite sheets encompass a wide variety of textural types. The most easily recognized variety is flow banded. However, unlike the regular banding of normal rhyolites, ignimbrite laminations are rippled, lensitic (i.e. they pinch and swell), and discontinuous. Occasionally, a fiammi, or flattened pumice fragment may be observed within a banded sequence. Within the same sequence, ignimbrites may have a mesh like arrangement of indistinct bands which are continuous for less than 2 cm. Often these rocks will have a mottled appearance rather than banded. Locally, it appears that the upper part of an ignimbrite sheet is more massive in texture and appearance. Ignimbrites are usually red to reddish-grey in colour although cream and grey varieties are known. They may or may not be porphyritic with quartz and feldspar phenocrysts of similar size to those found in other felsic volcanics. The phenocrysts and perhaps, the occasional angular lithic fragment may be found to have settled within individual flow laminations. Ignimbrites are consistently aphanitic.

Agglomerates differ greatly in colour. Green and grey varieties are most common. Well rounded fragments up to 8 cm. in size may be either sharply defined or partially absorbed by the surrounding magma. These fragments include all varieties of felsic volcanic including massive and flow banded rhyolite, ignimbrite and other felsic agglomerate. The groundmass is aphanitic and usually porphyritic and may be flow banded. Banding, however, is almost always poorly developed and locallized. Tuffs vary from aphanitic to fine grained. Some varieties (lapilli) contain angular lithic fragments up to 4 cm. in size. Some tuffs are well bedded and load casts locally indicate that sequences are overturned. Both crystal tuffs and lithic tuffs are represented but the latter is the more prevalent.

Mafic flow rocks are dark green, fine to very fine grained and show very little grain size variation. They are vesicular and contain abundant partially absorbed felsic volcanic xenoliths. Vesicules are up to 1 cm. in size and are strongly chloritized. Few flowage features are observed.

The diorite is present as narrow dykes (less than 5') and as massive 200'-300' wide stockworks. The rock is fine to medium grained occasionally becoming coarse grained. Feldspar phenocrysts are euhedral and light green in colour. They are found in almost all diorite dykes over ten feet in thickness.

Granite intrudes all the beforementioned rocks. It is red in colour and has a varying mafic content. It is generally medium grained but both fine and coarse grained varieties are common. Quartz is interstitial to feldspar. Up to 15% hornblende is found locally - usually in the most southern part of the DL-Zone. The granite is fresh with very little alteration. Because of its low thermal energy, little alteration is also observed in rocks in contact with the granite.

All rocks are intruded by a dark green, fine grained diabase dyke swarm. It causes some reddening of the granite near intrusive contacts. A similar reddening is often observed when diabase intrudes the felsic volcanics.

It is possible that a porphyritic felsic intrusive is found in the DL-Zone. The rock is similar to one observed possibly cutting north-south through the DF-Zone. The Debert Lake variety is reddish-brown to burgundy-red in colour and strongly porphyritic. It also carries mafic fragments, often dioritic in composition, up to 2 cm. in size. It may be a dyke rock related to the granite temporally and genetically. One such intersection is found in the top of hole DL-7.

Indications are, from load casting and the positioning of xenoliths within intrusives that the volcanic rocks in the DL-Zone are overturned. This probably occurred at about the same time as the intrusion of the diorite and the granite. Dips measured on flow banding within felsic volcanic sequence seem to indicate that the volcanics dip steeply north. Strikes from surface mapping average east-west. Mafic dyke rocks, however, have a complex cross-cutting geometry.

The following section gives a description of each drill hole bored during the 1977-78 assessment period:

DL.-1

A diabase dyke was intersected at the top of the first hole. It was intruded into a weakly altered, locally trachytic, porphyritic rhyolite which is exposed between 36' and 166.5' in the hole. Round quartz phenocrysts, 1-2 mm. in size are common. Below this is 88' of moderately to highly kaolinized, strongly fractured rhyolite. This alteration zone gradually fades into a rhyolite similar to the upper zone although some strong kaolinization may persist locally. At 305.5' - 330.5' is a mottled dark red and olive green rhyolite. It is underlain by 34.5' of dark green, aphanitic, porphyritic "hybrid rhyolite". From 364.5' to 401.5' is 37' of diabase. Beneath it is 25.5' of conglomerate. The sediment is composed of rounded pebbles up to 1 cm. in size. The matrix is fine to coarse sand. Some preferred orientation

of pebbles at 45° to the core axis is found locally. the base of the hole, from 427' to 462', is cut by a hybrid intrusive. It is dark green, medium grained, locally porphyritic and weakly altered. No base metal mineralization was found in this hole.

DL.-2

This hole intersected intensely tectonically brecciated, pink rhyolite between 45' and 120'. This zone is strongly kaolinized. It is underlain by 21.5' of brick red, porphyritic, moderately brecciated and kaolinized rhyolite. The zone from 141.5' to 146' consists of diabase, siliceous sediment and a second diabase dyke. The zone from 146' to 176' is conglomerate overlying a 13.5' siltstone unit. The zone from 176' to 280' is composed of numerous diabase dykes and porphyritic intrusives, and several rhyolitic horizons which may themselves be intrusive. From 280' to 366' is a succession of conglomerate, sandstone and siltstone. The base of the hole, from 366' to 435' is cut by a fragmental intrusive. No base metal mineralization was intersected in this hole.

DL.-3

The upper 90' of this hole is sediment consisting of sandstone, conglomerate and siltstone beds. Below this is a porphyritic, siliceous flow followed by rhyolite at 163.5'. The contact zone may be gradational but is obscured by mafic intrusive which cuts this zone in the hole. The section from 215.5' to 403' is composed of two rhyolite horizons which grade into each other at about 280'. These units are porphyritic and flow laminated locally. The lower unit contains fragments of acid composition. The zone from 403' to 423' is dark red rhyolite with dark green alteration bands. These bands dip at 45° to the core axis. The lower 27' of the hole is mafic intrusive. The rock is diabasic, porphyritic and becomes glomeroporphyritic at the base of the hole.
No base metal mineralization was detected in this hole.

DL.-4

The upper 273' of this hole consists of a porphyritic rhyolite. In texture and composition, it resembles quartz-feldspar porphyry. It is dark pink near surface, becoming grey with depth. At 273.5' it is underlain by 8.5' of hybrid agglomerate. This rock is medium to coarse grained and consists of 3-7 mm. spherulitic appearing growths set, in a porphyritic matrix. Beneath this is 33' of trachytic, porphyritic rhyolite and 34' of what may be mafic flow. The mafic rock carries rounded fragments up to 1 cm. in size. It is locally flow laminated.

No base metal mineralization was intersected in this hole.

DL-5

The first hole in the 1978 programme for the DL-Zone intersected grey, aphanitic and strongly porphyritic rhyolite to a depth of 61.2'. At this point, a diorite dyke was intersected which continues to 85.1'. It is followed from 85.1'-151.2' by a rhyolite unit with minor ignimbrite sections. Diorite dykes cut the zone at 100.4'-105.6', 126.3'-133' and 137.6'-148.1'. From 151.2'-311.7', a diabase dyke was intersected. It carries a section of rhyolite, possibly as a xenolith, from 242.7'-276.9'. From 311.7' to the base of the hole at 412.7', rhyolite was intersected. It is porphyritic and alternates from green to pink in colour over several sections.

No base metal mineralization was found in this hole.

DL-6

This diamond drill hole intersected diorite to a depth of 25.1'. Below this, an andesitic flow as cored to a depth of 59.6'. This rock contrasts with mafic intrusives in that it is uniformly fine grained and very hard. It is dark green in colour and carries abundant pink angular rhyolite fragments. Below the andesite, from 59.6'-69.9' is what may be a light green intrusive rock. It is porphyritic with both quartz and feldspar phenocrysts. It is followed by 21.7' of diorite dyke to a depth of 91.6', which in turn is followed by rhyolite. The flow contains several tuffaceous horizons which contain dark green, angular devitrified glass shards. From 116.8'-155.3' is diorite. Beneath this, to a depth of 207.3', is a pink, porphyritic locally flow banded rhyolite unit. Diorite has been intruded at 207.3'-222.8'. A spherulitic rhyolite unit was intersected between 222.8' and 336.9'. Spherulites have developed in zines separated by intervals of poorly developed spherulitic rhyolite or intervals of non-spherulitic rhyolite. Some individual spherulites up to 3 cm. in size are found locally (230'-247.8'). This unit is well flow banded. A diorite dyke is located at 336.9'-347.1'. An ignimbrite unit extending to 382.7' underlies the diorite. Below this is 18.4' of non-banded mottled rhyolite which may also be ignimbritic. This is followed by 36.5' of pink to reddish-pink, weakly porphyritic banded ignimbrite which continues to the base of the drill hole at 437.6'.

No base metal mineralization was detected in this hole.

DL-7

In the top of this hole is a reddish-pink to red, strongly porphyritic massive rhyolite unit which may be intrusive. It carries abundant chloritized mafic fragments. It extends to 71.7' where a diorite dyke was intersected. The dyke's lower contact is at 95.1'. It intrudes a grey aphanitic, porphyritic rhyolite unit which was cored to a depth of 138.6'. From this depth to 181.1', a spherulitic rhyolite zone was intersected. Spherulites are up to 5 mm. in size. It is followed down the hole by 24.4' of ignimbrite.

This unit is well banded locally and tectonically brecciated. From 205.5'-252.5' is dioritic intrusive. It is followed by 8.8' of rhyolite. flow and from 261.3'-292.7' is ignimbrite. Flow banding is better developed above 280'. From 292.7'-334.1' is another ignimbrite unit. Below 329.5', the rock is only weakly flow laminated. Rhyolite agglomerate was intersected between 334.1' and 394.9'. The rock is waxy green and contains a wide variety of rhyolite fragments. Massive rhyolite flow extends from the base of the agglomerate to 423.9', below which is 25.3' of rhyolitic agglomerate. From 449.2' to the base of the hole at 453.7' is diabase.

No base metal mineralization was found in this hole.

DL-8

This diamond drill hole is located on an esker and cased through 44.4' of overburden, and then 18.8' of diorite. From 63.2'-76.1' is rhyolitic agglomerate. The rock is light green and weakly porphyritic. It carries red and green rhyolite fragments. At 76.1'-84' is a diabase dyke. Below this is 99.6' of massive, porphyritic rhyolite. A diabase dyke is located at 183.6'-192' and is followed by another 15.5' of massive porphyritic rhyolite flow. From 207.5'-212.2' is diabase and from 212.2'-257' is a greenish-pink, aphanitic, porphyritic rhyolite. It is flow banded locally and weakly spherulitic. A diorite dyke is found at 257'-387.4' which is itself intruded by diabase at 312.2'-314.5', 348'-350.7' and 380.6'-385.8'. Another diabase cuts across the base of the diorite from 387.4'-402.2'. From 402.2'-414.4' is pinkish-red porphyritic rhyolite which becomes greenish-pink away from the intrusive contact.

No base metal mineralization was found in this hole.

DL-9

The ninth diamond drill hole intersected tuff to a depth of 44.4'. The rock is grey and is aphanitic to medium grained. It contains some rock fragments up to 4 cm. in size. Below this is 8.6' of diabase followed by red, porphyritic rhyolite flow from 53'-145.2'. It is followed by 6.2' of dioritic intrusive. An ignimbrite sequence including some agglomerate is located at 151.4'-230'. Some fragments of rhyolite up to 4 cm. are found in an unbanded agglomerate horizon. The ignimbrite contains fiammi up to 5 cm. in length and 1 cm. in thickness. Diabase is found at 230'-242.5' followed by ignimbrite from 242.5'-296.9'. Another diabase dyke is located at 296.9'-354.3'. Beneath the intrusive is an ignimbrite unit which becomes less flow banded and more massive towards the base of the hole at 387.1'.

No base metal mineralization was encountered in this hole.

DL-10

An ignimbrite is found in the top of this drill hole and continues to a depth of 35.1'. It is followed by a lapilli tuff horizon from 35.1'-48.5'. Angular lithic (rhyolite) fragments up to 4 cm. in size comprise 30-40% of the rock volume. Below this unit is 10.9' of ignimbrite which is porphyritic and contains some fiammi. From 59.4'-107.3' is reddish-brown, strongly porphyritic rhyolite. It contains some mafic fragments up to 2 cm. in size. This unit may be intrusive. From 107.3'-165.2' is diorite. Below this is a rhyolitic agglomerate which is frequently intruded by mafic dyke rocks. The volcanic is greenish-grey to waxy-green and contains rounded fragments up to 5 cm. in size. Intrusives of dioritic composition are located at 186.6'-222', and 264.8'-304'. A diabasic intrusive is located at 309.2'-342.7'. The base of the agglomerate is at 365.2'. From this point, to a depth of 417.3', is ignimbrite. The rock is well flow banded at 50° to 80° to the core axis. Below this is rhyolite agglomerate which extends to the base of the hole at 503'. Fragments are rhyolitic and average 2-4 cm. in size although a few up to 8 cm. are found locally.

Diorite intrudes this unit at 428.4'-459.5'.

Base metal mineralization was not observed in this drill hole.

DL-11

Diorite was intersected in this hole to a depth of 70.5'. It is followed by 4.3' of massive red porphyritic rhyolite and then by 6.6' of diabase (dioritic?) dyke. From 81.4'-127.7' is grey, porphyritic and weakly spherulitic rhyolite. Diorite is found at 127.7'-149.4'. Below this is 125.1' of rhyolite to a depth of 274.5'. It is intruded at 191.4'-203.9' by diabase, and is cut off at 274.5'-301.3' by another diabase dyke. Below this is 19.9' of dark red, porphyritic rhyolite which contains abundant mafic (dioritic) fragments up to 4 cm. in size. This zone may be intrusive. Below this, at 321.2'-326.1' is diabase. From 326.1' to the end of the borehole at 415', is reddish-grey, porphyritic and locally flow banded rhyolite.

No base metal mineralization was found in this hole.

DL-12

This hole intersected diorite to a depth of 35.4'. It is followed by pinkish-red, massive porphyritic rhyolite to a depth of 63.7'. It is intruded at 52.8'-60.2' by diorite, which is also found at 63.7'-73.6'. An ignimbrite was intersected between 73.6' and 210.4'. This unit is reddish-pink, porphyritic and well flow banded. It is intruded by diorite at 83'-92', and by diabase at 137.3'-140.4' and 167.9'-170.0. Another dioritic intrusive is located at 210.4'-257.9'. It is underlain by 23.5' of rhyolitic agglomerate to a depth of 281.4'. At this point it is cut off by diorite which extends to 354.7. This in turn is cut at 354.7'-388.1' by diabase. From 388.1'-396.7' is flow banded, weakly porphyritic ignimbrite. From the base of the volcanic to the base of the drill hole at 453.7' is diorite. It is cut at 396.7'-404.3' and 428.9'-450.8' by diabase.

No base metal mineralization was found in this hole.

DL-13

This drill hole intersected light green, weakly porphyritic and crudely flow banded rhyolite to a depth of 55.7'. It is intruded at 32.5'-43.1' by diabase. From 55.7' to 186.5' is grey, aphanitic porphyritic rhyolite. It is locally flow banded and is intruded by diabase at 148'-153.8'. From 186.5'-254.3' is rhyolitic agglomerate. Rounded fragments up to 2 cm. in size increasing to 8 cm. locally, represent massive rhyolite and ignimbrite units. Diorite was intersected at 254.3'-265' and below this to a depth of 288.2' is ignimbrite. Diabase is found at 288.2'-324.7'. Below this, from 324.7'-372.0', is a brownish-red, aphanitic and strongly porphyritic intrusive of approximately rhyolite composition. It carries abundant chloritized dioritic fragments up to 3 cm. in size. At 372', this unit seems to grade into the underlying diorite unit which then continues to a depth of 412.1'. From 412.1'-432.2' is a massive, porphyritic rhyolite unit. Below this, extending to the base of the hole at 533.1', is pinkish-red granite. It has incorporated some diorite at 492.5'-500.1' and 511.2'-513.5'.

No base metal mineralization was observed in this hole.

DF-14

This hole intersected a diabase dyke which extended down the hole to 44.8'. At this depth, an ignimbrite horizon was intersected. The rock in this zone is red, aphanitic and porphyritic and in addition it is well banded above 60'. From 60' to the base of the unit at 80.1', it is poorly flow laminated. A diabase dyke intrudes the ignimbrite at 73'-77'. A diorite cuts off the volcanic unit at 80.1' and extends to a depth of 234.1'. From this point to 271.1' is a rhyolitic agglomerate horizon. The flow contains rounded ignimbrite and rhyolite fragments up to 5 cm. in size. It is cut off at 271.1' by diorite which extends to 314.5'. This is followed by 55.9' of tectonically brecciated rhyolite.

From 370.4'-401.3' is a rhyolitic agglomerate unit in which rhyolite fragments are not well defined. From the base of this volcanic to the base of the hole at 432.1', a diabase dyke was intersected.

No base metal mineralization was intersected in this drill hole.

DL-15

The eleventh hole of the 1978 diamond drilling programme intersected rhyolitic agglomerate to a depth of 147.6'. Rounded ignimbrite and rhyolite fragments up to 4 cm. are set in a porphyritic aphanitic groundmass. It is frequently intruded by mafic dykes and seams at 46.8'-47.7', 65.4'-68.1', 70.4'-71.0' and 120.3'-129.8'. From 147.6'-207.6' is diorite dyke. From the lower contact to 275.6' is found a brownish-red, strongly porphyritic rhyolite. It is cut off at 275.6' by 4' of diabase dyke. A rhyolitic agglomerate unit extends from 279.6'-298.4' and is cut off by diorite which was intersected to a depth of 306.3'. A spherulitic rhyolite unit was intersected from 306.3'-316.3'. Spherulites up to 1 cm. in size are found in a locally porphyritic groundmass. Beneath this is 53.1' of rhyolitic agglomerate, followed by more spherulitic rhyolite from 369.4' to the base of the hole at 434.1'.

No base metal mineralization was found in this hole.

DL-16

This diamond drill hole intersected massive porphyritic rhyolite to a depth of 22.6' followed by diabase to 34.4'. From this point, the drill hole cored rhyolitic agglomerate to a depth of 110.9'. Fragments are rounded and up to 2 cm. in size. From 110.9'-268.2' is reddish-pink, porphyritic, well banded ignimbrite. It is cut at 124.3'-143.9' by diorite, and at 165.3'-172.6' by diabase. A rhyolite which may in fact be ignimbrite is found at 268.2'-296'. It is followed by rhyolitic agglomerate to a depth of 403.7'.

The agglomerate contains rhyolite fragments up to 2 cm. in size but they are not well defined. A diorite dyke is located at 356.6'-383.1', and another cuts across the base of the agglomerate at 403.7'-414.5'. Below this is 34.3' of massive, porphyritic rhyolite. A flow brecciated rhyolite extends from 448.8' to the base of the hole at 472.4'. Below 468.5', the rock is more massive.

No mineralization by base metals was found in this hole.

DL-17

This drill hole intersected massive rhyolite to a depth of 8.7'. The rock is brownish-pink, aphanitic and porphyritic. From 8.7' to the base of the hole at 256.9' is red, medium to coarse grained hornblende granite. It has stoped diorite and a block of the mafic was intersected at 188'-223.3'.

No base metal mineralization was found in this drill hole.

DL-18

This drill hole intersected diorite to a depth of 136.2'. It is intruded by diabase at 114.8'-116.6'. From 136.2'-189.4' is rhyolitic agglomerate. Rhyolite fragments are red and grey in colour, and rounded to sub-angular. The groundmass is aphanitic and porphyritic. From 189.4'-199.8' is diorite. It is followed below by 27.2' of ignimbrite. Below this, from 227'-313.8' is massive porphyritic rhyolite. It is intruded at 265.4'-303.4' by diorite. Ignimbrite is found at 313.8'-395.8'. This unit is well banded and is locally tectonically brecciated. From 395.8'-421.9' is grey, massive rhyolite and it is followed at 421.9'-457.0' by ignimbrite. From 457.0'-474.1' is massive, red, non-porphyritic rhyolite.

No base metal mineralization was detected in this drill hole.

DL-19

This hole intersected rhyolite in the upper 2.5' followed by 7' of diabase dyke. From 15.4'-189.1' is a poorly banded rhyolitic ignimbrite unit. Intruding this at 87.8'-104.9' is diorite. A diabase dyke is found at 189.1'-194.7'. Below this, from 194.7'-217.7', is pink porphyritic rhyolite. It is intruded by diorite at 217.7'-236.2'. Pink ignimbrite was intersected at 236.2'-266.1'. It is strongly porphyritic and weakly flow banded. Diorite is found at 266.1'-276.9' and is followed down the hole by 48.9' of mixed tectonic and flow breccia. It is cut by a diorite at 294.8'-308.1'. Diabase cuts off the breccia at 325.8'-328.8'. Below this is a red, medium grained granite dyke which is intersected to a depth of 357.6'. Below it is 1.8' of massive rhyolite followed by 3.1' of diorite. From 362.5'-410.4', an ignimbrite unit was intersected. It is intruded at 391.1'-396.8' and at 400.5'-410.4' by diorite. Ignimbrite was cored from the base of the diorite at 410.4' to the base of the hole at 453.7'.

No base metal mineralization was intersected in this diamond drill hole.

DL-20

This hole intersected diorite to a depth of 13.8'. From the base of the intrusive to a depth of 288.7', the drill hole intersected a well banded, grey coloured ignimbrite. The rock is porphyritic and is composed of abundant tectonically brecciated zones. It is intruded by diorite at 49.8'-56.6' and 183.1'-189.2'. The ignimbrite is cut off at 288.7'-366.1' by diorite. From the lower intrusive contact to 406.6' is ignimbrite. It is not as well banded as the upper zone. From 406.6'-520' is mafic flow. This rock is very fine grained to aphanitic and dark charcoal grey in colour. The rock is vesicular and contains some rhyolite xenoliths. From the base of the mafic flow to the end of the hole at 532.5' is red, hornblende granite.

No base metal mineralization was found in this drill hole.

DL-21

This diamond drill hole intersected mafic flow to a depth of 67.3'. This zone is the same as the unit at 406.6'-520' in hole DL-20. Beneath this is 56.4' of rhyolitic agglomerate. It is porphyritic and carries poorly defined rhyolite fragments. It is cut by diorite at 78.3'-88.4' and at 121.7'-123.7'. At the lower contact of the second diorite, a granitic dyke is found. It extends to a depth of 143'. From 143'-171.1' is grey porphyritic ignimbrite. It carries a few 1-2 cm. rounded rhyolite fragments. From 171.1' to the base of the hole at 299.2' is red hornblende granite. It is intruded by diabase at 200.5'-213.5' and 258.1'-262'.

DL-22

The last drill hole in the 1978 programme, intersected granite to a depth of 99.7'. From this point to 100.9' a fault zone was intersected. It consists of an intensely epidotized mylonite zone containing rhyolitic and granitic fragments. Below this is an additional 5.6' of granite - possibly a fault block. At 106'-106.8', a diabase dyke was intersected. Below this, to a depth of 302.7', is rhyolitic ignimbrite. It is well banded but flow laminations are obscured by intense fracturing. The volcanic is intruded by diorite dykes at 114.2'-126.5', 131.5'-141.9', 170.1'-174.6', 209.5'-223.6', 234.6'-245.6' and 267.8'-272.5'. An additional diorite cuts the base of the ignimbrite at 302.7'-323.9'. Below this intrusive, the rhyolite is too strongly fractured for specific determination but seems to be of a massive porphyritic variety. It is intruded by numerous diorite dykes at 345.5'-335.8', 360.2'-372.5', and 381.6'-400.6'. From 451.1' to 488.8', ignimbrite was intersected. The rock is dark red, porphyritic and well banded. It is cut at 488.8'-491.8' by diabase followed by massive porphyritic rhyolite to a depth of 510.1'. Below this, to the base of the hole at 568.6', an ignimbrite was intersected. It is burgundy-red, porphyritic and well flow banded.

No base metal mineralization was detected in this drill hole.

E) Down-Hole Logging

From July 1 to August 15, Atlantic Groundwater Geophysics Ltd. of Fredericton, N.B., conducted down-hole spectral logs using a McPhar Spectra 44. The probe of 1 1/4 inch diameter used a 3/4 by 3 inch crystal and a single-channel analog recorder. Curves run were: Total Count, Potassium, Uranium and Thorium.

From August 15 to November 1 the logging was done by Gulf personnel. The McPhar Spectra 44 was used as a manual system until September 15. At that time it was replaced with a Spectra 44D Digital Acquisition system with motorized winch. Data was collected on a cassette tape as well as a single-channel analog strip. The probe size was 1 1/4 inches and a 1 1/2 inch probe was made available; the crystal sizes were 3/4 by 3 and 1 by 3 inches respectively. Curves recorded on cassette were: Total Count, Potassium, Uranium and Thorium.

Electric Logs were run with Gearhart-Owen equipment. The logs gave self-potential, 16 and 32 inch apparent resistivity analog recordings.

The spectral logs were run at five to seven feet per minute inside drill rods, the Electric Log being run in open hole at 20 to 25 feet per minute.

E) CONCLUSIONS

Diamond drilling has indicated that base metal mineralization along VLF conductors is very limited. However, evidence found in boulders indicates that the area has mineralization of economic potential. Many more geophysical targets remain to be fully evaluated.

APPENDIX I

DIAMOND DRILL HOLE

LITHOLOGY LOGS

SECTION A: J-ZONE

SECTION B: DF-ZONE

SECTION C: DL-ZONE

SECTION A FOLLOWS.....

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-7
SHEET 1 OF 2

PROPERTY COBEQUID III
LATITUDE 0+15S.
LONGITUDE 7+25W.
ELEVATION

BEARING—TRUE Vertical
DIP Collar: -90°
FINAL DEPTH 230'
CORE SIZE BQ

DATE STARTED November 22, 1977
DATE COMPLETED November 25, 1977
DRILLED BY St. Lambert Diamond Drilling
LOGGED BY A. Workman

DATE: November 30, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0	- 22		Overburden	Very blocky - casing reamed to 22'			ACID DIP TESTS
	(0)						-230': 89°
22	- 27		Diabase	Dark green, fine to medium grained. The rock is weakly to moderately			zone 22'-24' is badly
	(5)			magnetic and weakly chloritized. Limited uralitization of pyroxene is			ground - some rhyolite
				present. Fine fractures are epidotized.			boulders.
27	- 48		Rhyolite	Grey to pinkish-grey with reddish-pink bands and minor brick red zones,			
	(21)			aphanitic and non-porphyritic. Darker red bands are found as narrow			
				zones paralleling and adjacent to fractures. The rock is strongly			
				silicified locally and moderately hematized.			
				42-46.5' - reddish-pink, fine black specks dot the rock - possibly			
				disseminated magnetite - finely fractured and gaps are			
				magnetite filled - rock is moderately hematized and			
				silicified.			
				46.5-48' - greyish-pink; intensely fractured, moderately epidotized			
				hematized and silicified.			
48	- 51.5		Diabase	Dark green, fine grained, moderately chloritized with epidotized			
	(3.5)			fractures.			
51.5	- 56.5		Rhyolite	Pink to greyish pink, aphanitic and porphyritic with 1-2 mm. quartz			
	(5)			phenocrysts. The rock is finely fractured throughout and fracturing			
				becomes intense at 55.5-56.5'. Breaks are epidotized and larger			
				fractures are surrounded by pink alteration halos. Some magnetite occurs			
				locally.			
56.6	- 107.5		Diabase	Dark green, fine to medium grained and weakly to moderately (at contacts)			
	(51)			chloritized. Some uralitization of pyroxene occurs locally. Hazy			
				rhyolite xenoliths are found locally. Partial absorption by the			
				diabase makes them vague in outline. The zones 85-86' and 91.5-92.5			
				are highly fractured and strongly epidotized.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-7

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
107.5	- 120.5		Rhyolite	Greyish-pink with minor grey bands becoming pink to reddish-pink with			
	(13)			depth. The rock is aphanitic and porphyritic with 1-2 mm. round quartz			
				phenocrysts and minor 1-2 mm. pink feldspar phenocrysts. Quartz pheno-			
				crysts are surrounded by narrow pinkish red reaction rims. The zone			
				is finely fractured and epidotized. The rock is moderately silicified			
				and possibly weakly hematized.			
120.5	- 230		Diabase	Dark green, fine to medium grained, weakly chloritized. The rock is			
	(109.5)			highly fractured and moderately to strongly epidotized locally. It is			
				weakly to moderately magnetic.			
				125-127' - fractured - chloritized and epidotized			
				131-137' - as above			
				140.5-142' - as above			
				145-147' - as above			
				147-159.5 - possibly a quartz-feldspar porphyry - the rock is dark			
				pinkish-red and aphanitic. Feldspar phenocrysts are			
				euhedral, unaltered and 1-4 mm. in size. Quartz pheno-			
				crysts are 1-2 mm. in size and somewhat rounded. Numerous			
				mafic (diabase) fragments are located throughout the zone.			
				They are rounded and up to 5 cm. in size. The zone is			
				graditional into diabase at the upper and lower "contacts".			
				159.5-230' - Diabase as before in zone 120.5-147'			
				- fracturing locally throughout the rock at 164-165',			
				168-170.5, 178-180.5 and 218-229'.			
				230' END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-8
SHEET 1 OF 2

PROPERTY COBEQUID III
LATITUDE 0+10N.
LONGITUDE 7+00W.
ELEVATION

BEARING—TRUE Vertical
DIP Collar: - 90°
FINAL DEPTH 251
CORE SIZE BO

DATE STARTED November 20, 1977
DATE COMPLETED November 27, 1977
DRILLED BY St. Lambert Diamond Drilling
LOGGED BY A. Workman

DATE: November 30, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0	- 23		Overburden	Very blocky, bouldery sand.			ACID DIP TESTS
	(0)						100': -89°
							251': -89°
23	- 32		Rhyolite	Brick red, aphanitic, massive but very finely fractured. The breaks			
	(9)			are commonly filled with magnetite. The rock is highly silicified and			
				hematized. The zone is non-porphyritic.			
32	- 36.5		Diabase	Dark green, fine to medium grained, chloritized. Contains an epidotized			
	(4.5)			rhyolite xenolith at 32-33'.			
				NOTE: This intrusive corresponds to unit 48'-51.5' in hole JZ-7.			
36.5	- 50		Rhyolite	Alternating brick red and grey becoming pinkish grey with depth. The			
	(13.5)			rock is aphanitic and non-porphyritic. It is finely fractured and the			
				breaks are epidotized with brick-red alteration halos. The darker red			
				zones are generally more highly fractured. Some breccia is located			
				locally along a diabase seam at 39'-39.3'. Some irregular flow	44'	flow	30° to the core axis
				lamination occurs locally (eg. 42-50'). It is found usually in a grey		laminat-	
				coloured rock and averages a dip of 30-35° to the core axis.		ion	
50	- 122		Diabase	Dark green, fine to medium grained and weakly to moderately chloritized,			
	(72)			especially near contacts. Some uralitization of pyroxene is common.			
				A few rhyolite xenoliths may be observed locally. Some fine black			
				mottling is found locally. The zone 62.5-64.5' is strongly brecciated	82.5'	intrus-	40° to the core axis
				and chloritized. Banding at 82'-83' dips 40° on the core axis.		ive ban-	
				101-103' - porphyritic zone - light green euhedral sausauritized feldspar		ding	
				phenocrysts up to 1 cm. in size.			
				107-108' - breccia zone - strongly epidotized			
				115-119' - prophyritic - as zone 101-103'			
				NOTE: This zone corresponds to 56.5' - 107.5' in hole JZ-7.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-8

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
122	- 135 (13)		Rhyolite	Dark pink with minor greyish pink, pink and grey bands. The rock is aphanitic and porphyritic. Feldspar phenocrysts are pink and up to 2 mm. in size. They are not as common or well illustrated as the 1-2 mm round quartz phenocrysts. The quartz crystals are surrounded by narrow pinkish-red reaction zones. The rock is finely fractured and the breaks are epidotized. The unit is moderately to strongly silicified and possibly weakly hematized.			
135	- 247 (112)		Diabase	Dark green, fine to medium grained, weakly chloritized. The rock is finely fractured and moderately to strongly epidotized locally. It is weakly to moderately magnetic. Fracturing occurs most noticeably at 135.5-137', 142.5-144.5' and at 148-162'. Some light green mottling is located in the zone from 143-147' and from 165-175'. Irregularly distributed 1 cm amygdules are found at 158-166'. The rock is intensely fractured and epidotized at 165-167'.			
				182.5-193' - possibly a quartz-feldspar porphyry - the rock is dark pinkish-red and aphanitic. Feldspar phenocrysts are pink, euhedral, unaltered and 1-4 mm in size. Quartz phenocrysts are rounded and up to 2 mm. in size. Abundant diabase fragments are located throughout this zone. They are rounded and up to 5 cm. in size. The rock is extremely hard and grades into standard looking diabase at the upper and lower "contacts".			
				193'-247' - Diabase - dark green, fine to medium grained. Weakly fractured at 203'-204' and from 213-247'.			
				NOTE: This zone corresponds to zone 120.5-230' in JZ-7.			
247	- 252 (5)		Rhyolite	Dark pink to reddish pink, aphanitic and weakly porphyritic with 1 mm. round quartz phenocrysts. The rock is very finely fractured. The breaks are epidotized. The unit is silicified moderately and possibly very weakly hematized locally.			
				252' END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-9
SHEET 1 OF 2

PROPERTY Cobequid III
LATITUDE 0+10N
LONGITUDE 7+25W
ELEVATION

BEARING—TRUE Vertical
DIP -90°
FINAL DEPTH 250'
CORE SIZE BQ

DATE STARTED 27 November, 1977
DATE COMPLETED 29 November, 1977
DRILLED BY St. Lambert
LOGGED BY A. Workman

DATE: 4 December, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	17		Overburden	Very blocky, bouldery, sand.			ACID DIP TESTS 100' - 89°
17 -	122.5 (105.5)		Diabase	Dark green to dark greyish-green, fine to medium grained. Occasional 1-2 cm., light green, saussauritized, euhedral feldspar phenocrysts, in the upper 50' becoming massive and equigranular in the zone 50'-97.5'. The zone 97.5' - 120.5' is highly porphyritic with abundant euhedral, weakly altered phenocrysts up to 1 cm. in size. They are typically fractured or unevenly broken. Occasional rhyolite xenoliths are located throughout the zone. The diabase is weakly to moderately chloritized locally and very weakly uralitized locally. 40 - 42.5': rhyolite - brick red, aphanitic, weakly magnetic, highly fractured, strongly silicified and hematized. 54.5 - 55.5': rhyolite xenolith - as above 57 - 58': rhyolite xenolith 73': abundant pyrite cubes - up to 3 mm. 88 - 97': altered zone in diabase - strongly chloritized and epidotized, weakly uralitized. 95.5 - 96.5': absorbed rhyolite fragment 97.5 - 120.5: porphyritic diabase - light green and occasional light pink, feldspar phenocrysts 120.5 - 122.5': becoming highly chloritized at contact			
122.5 -	132.5 (10)		Rhyolite Intrusive (?)	Dark pink to reddish pink, aphanitic, and porphyritic with numerous 1-5 mm. euhedral feldspar phenocrysts and less common 1-2 mm. round quartz phenocrysts. The quartz phenocrysts are surrounded by thin reddish alteration halos. Some flow banding occurs locally at 45° to the core axis. A 2-3 cm. rounded diabase fragment is located near the lower contact.	130.5	flow banding	45° to the C/A

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-9

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
132.5	- 250		Diabase	Dark green to dark grey-green, fine to medium grained, weakly chloritized in fracture zones. Feldspar crystals present may be weakly saussauritized. The rock is weakly magnetic. The zone 148' - 182' is highly fractured. The breaks are strongly epidotized with some epidote mottling in the rock adjacent to the fracture zone.			
	(117.5)						
				185.5' - 192': possibly a quartz-feldspar porphyry - the rock is dark pinkish-red and aphanitic. Feldspar phenocrysts are pink, euhedral, unaltered and up to 1 cm. in size. Quartz phenocrysts are 1-2 mm. in size and rounded Abundant diabase fragments up to 1.5 cm. in size are found in the zone. The rock is very hard and grades into diabase at the upper and lower "contacts" through greenish-pink porphyritic diabase over 6-12 inches.			
				192' - 250': Diabase - dark green, fine to medium grained. The rock is moderately fractured. Epidotization and chloritization of fractures is common.			
				END OF HOLE: 250'			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-10
SHEET 1 OF 3

PROPERTY Cobequid III
LATITUDE 0+00 Base Line
LONGITUDE L.12+00W
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 570'
CORE SIZE BQ

DATE STARTED 29 November, 1977
DATE COMPLETED 5 December 1977
DRILLED BY St. Lambert Drilling
LOGGED BY A. Workman

DATE: 9 December 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0	26	casing	Overburden				ACID DIP TESTS
							0 - 45°
26	29.5						100' - 43°
	(3.5)		Rhyolite	Pink aphanitic rubble - possibly ground boulder			300' - 41.5°
							500' - 41.0°
29.5	83		Diabase	Dark green, fine to medium grained and locally porphyritic where			570' - 40.5°
	(53.5)			1-2 mm., pink feldspar phenocrysts are found. Chloritized amygdules			
				up to 3 mm. in size also dot the core. The rock is weakly chloritized.			
				Chloritization is stronger in magnetic zones near diabase contacts.			
				29.5 - 48' - typically textured, porphyritic diabase.			
				48 - 53.5' - pinkish porphyritic zone resembling quartz-feldspar			
				porphyry. Light pink to reddish pink, euhedral feldspar			
				phenocrysts up to 1.5 cm are common.			
				Numerous rounded diabase fragments up to 3 cm. in size			
				are scattered throughout this zone.			
				The rock is unaltered and very hard.			
				53.5 - 83' - typical porphyritic diabase.			
83	239.7		Rhyolite	Dark pinkish-grey with numerous pink to red zones. The rock is			
	(156.7)			aphanitic but becomes porphyritic locally with 1-3 mm., light pink			
				to cream coloured feldspar phenocrysts. A vague, contorted flow	139'	flow	45° to the core axis
				lamination is often indicated, and a dip of 45° relative to the		laminations	
				core axis can be abundant xenoliths of conglomerate. They were likely			
				ripped up from the basement sediments. The fragments are up to 2'			
				in size and consist of 3-4 cm. pebbles in a sandy matrix. Several			
				diabase dykes cut this unit. They are similar to other occurrences:			
				dark green, fine to medium grained and non porphyritic.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-10

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
83 -	239.7		Rhyolite	continued..			
	(156.7)			118 - 119.5': brick red rhyolite			
				119.5 - 122': quartz-pebble conglomerate			
				122 - 123': rhyolite			
				123 - 124': conglomerate			
				124 - 125.5: tectonically brecciated rhyolite			
				125.5 - 126: conglomerate			
				126 - 130.5': tectonically brecciated rhyolite			
				130.5 - 132': conglomerate			
				132 - 134.5': rhyolite			
				134.5 - 136.5': diabase			
				136.5 - 146.5': grey rhyolite			
				146.5 - 148': grey flow brecciated rhyolite - round 1-2 cm. fragments in a laminated matrix			
				148 - 181': greyish-pink and pink, locally porphyritic and vaguely laminated rhyolite			
				181 - 184.5': diabase			
				184.5 - 224': grey rhyolite with minor pink sections (202'-207', 218'-219') non-porphyritic and finely fractured			
				224'-224.5': diabase			
				224.5 - 225': pink rhyolite			
				225' - 226': diabase			
				226' - 239.7': rhyolite becoming pinker coloured			
239.7 - 271			Diabase	Dark green, fine grained and locally porphyritic with 1-5 mm. euhedral, light green phenocrysts. The rock is moderately chloritized. Minor finely disseminated pyrite is found locally.			
	(31.3')						
271 - 433			Conglomerate	Dark grey sandy matrix with light and dark grey pebbles up to 5 cm. in size. Minor coarse grained sandstone sections are found locally within the conglomerate. Pebbles in the upper part of this unit are quartz but towards the base, pebbles are rhyolitic and pink. Pyrite and minor chalcopyrite is found in the matrix as disseminated blebs up to 1 mm. in size and in amounts approaching 2-3% locally. The unit becomes very mafic, cherty and vaguely foliated in the basal 20'. The basal contact cuts the core axis at 30°.			- samples -
	(162')					#3392	290.5'-292.5'
						#3391	304'-306'

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-10

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				The basal contact cuts the core axis at 30°. Some diabase has been intruded into this unit at numerous locations. The diabase is dark green and fine to medium grained. The dykes are located at:	433'	Contact	30° to C/A
				279'-290.5': includes conglomerate xenolith at 282'-283'			
				292'-293.5'			
				300.5'-302'			
				312'-314.5'; 361.5'-362'; 364'-365' and 369'-372'			
	433'- 507.5' (74.5')		Rhyolite	Medium grey becoming pink locally near diabase, aphanitic and porphyritic. Pink, euhedral, 1-2 mm. feldspar phenocrysts are common. The rock is chloritized, fractured and silicified. Some flow breccia is found over short intervals (eg. 476'-477'). Abundant fine to very finely disseminated chalcopyrite and pyrite is found in this unit. Diabase frequently cuts this zone. It is dark green, fine to medium grained and often porphyritic.			
				441.5'-445.5': diabase			
				466'-475': porphyritic diabase, 1-5 mm., light green, euhedral feldspar phenocrysts - probably weakly sausauritized			
				494.5'-496': porphyritic diabase as above			
	507.5' - 545' (37.5')		Diabase	Dark green to grey-green, medium grained with abundant finely disseminated pyrite. The rock is un-altered but fractures are strongly chloritized.			
	545' - 570' (25')		Rhyolite	Pink to greyish-pink, aphanitic and porphyritic. Euhedral 1-3 mm. fractured feldspar phenocrysts are common. The rock is weakly chloritized and moderately to highly fractured. Near diabase, the rock is moderately silicified and pinker coloured. The rhyolite becomes weakly sericitized in the zone 563'-570'. Diabase is found at 555'-556.5'.			
				570': End of Hole			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-11
SHEET 1 OF 5

PROPERTY Cobequid III
LATITUDE 4 + 00 N.
LONGITUDE 7 + 00 W.
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 471'
CORE SIZE BQ

DATE STARTED 1 December 1977
DATE COMPLETED 8 December, 1977
DRILLED BY St. Lambert Diamond Drilling Co
LOGGED BY A. Workman

DATE: 11 December 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	0' - 20'		Overburden	~~Very bouldery sand - core recovery may not start until 22'~~			~~Acid Dip Test~~ ~~0' - 45°~~
	20' - 83.5' (63.5')	61.5'	Rhyolite	Pinkish-grey with dark pink mottling becoming greyish-pink with depth. The rock becomes dark reddish-pink within 20' of diabase dyke, (eg. 67'-83.5'). The rock is uniformly aphanitic and weakly to moderately well flow laminated. The bands consist of narrow 1-2 mm. reddish-pink stripes on a dark grey background. They cut the core axis at an average of 45°. Finely disseminated pyrite is found throughout the zone. The rock is finely fractured and silicified, and the reddish zone are weakly hematized. The unit is frequently cut by diabase dykes. They are dark green, fine to medium grained and weakly to moderately magnetic. The diabase is chloritized at contacts and fractures are epidotized. Less altered rock displays good ophitic texture. 20'-45': grey, laminated rhyolite 45'-64.5': greyish-pink to pink with minor orange altered zones, (eg. 57-58') 64.5'-67': Diabase - moderately chloritized 67'-83.5': greyish pink to reddish pink rhyolite with minor brick red zones; strongly epidotized locally.	30' 56' 71'	flow lamination flow flow lamination	100' - 41° 300' - 42° 450' - 40.5° 45° to C/A 40° to C/A 45° to the C/A
	83.5' - 111' (27.5')		Diabase	Dark green, fine to medium grained, moderately magnetic numerous fine epidotized fractures. An orange, epidotized rhyolite zenolith is located at 110-110.5'.			
	111' - 195' (84.5')	5'	Rhyolite	Dark burgundy-red with minor orange altered zones and red seams. The rock is aphanitic. The unit is finely fractured and fractures near diabase dykes are moderately epidotized. Numerous diabase dykes cut the unit. They are typically dark green and fine to medium grained. Chlorite alteration is strongest along contacts.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-11

SHEET 2 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
111'	111' - 195' (84.5')	5'	Rhyolite	continued..... 111'-119.5': Minor brick red mottling in rhyolite, flow laminated locally at 10°-15° to the core axis. 119.5'-123.5': Diabase 123.5'-126.5': Moderately fractured and epidotized rhyolite 126.5'-129': Diabase 129'-131.5': Burgundy rhyolite - some orange altered zones highly fractured and epidotized. 131.5'-134': Diabase 134'-193.5': Well laminated at 40° to the core axis with abundant finely disseminated pyrite along the flow bands. The rock is generally dark grey with numerous reddish-pink hematized and silicified zones. Some flow breccia is found locally - (eg. 140' and 183'-193.5'). The zone 152.5'-153' is strongly epidotized and weakly kaolinized. 193.5'-194.5': Diabase 194.5'-195.5': Greyish-pink rhyolite.			
	195.5' - 236' (40.5')		Rhyolite	Pink to dark pink, aphanitic and porphyritic. Euhedral, light pink, 1-6 mm. feldspar phenocrysts and rounded 1-2 mm. quartz phenocrysts are common. Quartz phenocrysts are surrounded by thin reddish-pink reaction halos. The unit is weakly fractured. Fractures are frequently epidotized. Minor tectonic breccia occurs locally, usually near diabase occurences. These dykes are similar in texture, colour and grain size to those in the upper hole. 195.5'-196.5': Dark pink, porphyritic, rhyolite 196.5'-197.5': Diabase 197.5'-221': Dark pink, porphyritic, becoming very dark pink from 219' to 221'. Diabase is found at 215.5'-216' and a 1" seam at 217'. 221'-229.5': Diabase - abundant 1-2 mm. chloritized amygdules. the intrusive contact cuts the core axis at 45°. 229.5'-236': Dark pink, porphyritic rhyolite.	221'	Contact	45° to C/A

DIAMOND DRILL RECORD—CONTINUATION SHEET

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SHEET 3 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	236'-244' (8')		Diabase	Dark green, fine grained, non-amygdaloidal, moderately to strongly chloritized.			
	244' - 329.5' (85.5')		Rhyolite	Alternating zones of dark pink to brick red, and pinkish-grey uniformly aphanitic rock. Reddish zones are highly fractured and grey zones may be less fractured. The grey zones have irregular, hazy, light pink bands locally. The rock may become porphyritic locally. Feldspar and quartz phenocrysts up to 2 mm. in size are found in the zone 283.5'-301'. The rock is silicified to a varying degree.			
				244'-253': Red to dark pink rhyolite with minor grey mottling.			
				253'-269': Grey rhyolite with minor dark pink			
				269'-283.5': Red to rinkish red; becoming vaguely flow laminated at 270' cutting the core axis at 35°.	270'	flow lamination	35° to the core axis
				283.5'-285.5': Grey, porphyritic rhyolite			
				285.5'-291': Red to pinkish-red, porphyritic rhyolite - thin red reation halos surround quartz phenocrysts.			
				291'-301': Pinkish grey to grey with minor 1" red halos around fractures. The rock is laminated locally at 40° to the core axis. The zone is weakly porphyritic.			
				301'-322': Red to pinkish-red rhyolite with some grey zones. The interval, 318'-319' is intensely fractured.			
				322'-329.5': Grey to pink with irregular convolute red bands. Fractures are epidotized and are typically surrounded by red "reaction" halos. The grey zones are well laminated at 30° to the core axis. Laminations are cut off at 328' by a fault cutting the core axis at 40°. The rock from 328'-329.5' is intensely tectonically brecciated.	327'	flow laminations	30° to the C/A

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-11

SHEET 4 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	329.5' - (12.5')	342'	Diabase	Dark green, fine to medium grained and porphyritic. Abundant light green, sausauritized feldspar phenocrysts up to 5 mm. in size speckle the rock. The diabase is weakly magnetic. 329.5'-332.5': porphyritic diabase 332.5'-339.5': possible quartz-feldspar porphyry. Light pink, zoned feldspar phenocrysts up to 1.5 cm. in size are set in a fine grained to aphanitic, reddish-pink matrix. Diabase fragments are common. They are typically round, dark green and vary in size up to 4 cm. 339.5'-342': Porphyritic diabase			
	342'-394 (52.5')	5'	Rhyolite	Dark grey to dark pinkish-grey, aphanitic and vaguely flow laminated locally, (eg. 385') at 30'35° to the core axis. The rock is epidotized along fractures. Numerous zones of tectonic breccia are located throughout the unit, (eg. 357'). Minor red to pinkish red zones occur over short intervals (eg. 354'-356' and 361'-363'). The unit becomes reddish in a 4' zone bordering the diabase at 394.5. The rock in this zone is strongly brecciated and epidotized.	385'	flow lamination	30° to the C/A
	394.5'-409' (14.5')		Diabase	Dark green, fine to medium grained, moderately chloritized. Minor finely disseminated chalcopyrite and graphite are found throughout the zone.			
	409'-420' (11')		Rhyolite	Dark pink to reddish pink, aphanitic and possibly porphyritic locally. Some chloritized amygdules, up to 2 mm. in size dot the unit locally. The rock is highly fractured and tectonically brecciated over short intervals. (417'-420') Fractures are epidotized and some localized kaolinization may be present.			
	420'-445 (25')		Rhyolite	Dark grey, aphanitic and strongly tectonically brecciated. Numerous red fracture zones are caused by red halos surrounding individual fractures. The matrix to the angular fragments is mylonitic locally and kaolinized. Towards the base of the unit the rock is less brecciated.			Zone 440'-450' has 10-15% core loss

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-11

SHEET 5 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	445'-471' (26')		Rhyolite	Grey to pinkish-grey, aphanitic and porphyritic locally. Feldspar phenocrysts, up to 1 cm. in size are fractured weakly kaolinized and set in a laminated matrix. The flow lamination is locally developed (448') and dips 40°-45° to the core axis. Numerous red to pinkish-red zones occur along the flow laminations. Some vague light pink mottling is found locally (452'). It may reflect partially absorbed flow breccia fragments. The unit becomes more fractured towards the base of the hole. At 467' the rock becomes pink to reddish-pink aphanitic and non-porphyritic.	448'	flow lamination	40° to the C/A
				471' End of Hole			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-12
SHEET 1 OF 2

PROPERTY Cobequid III
LATITUDE 8 + 80 N
LONGITUDE 7 + 00 W
ELEVATION

BEARING—TRUE 180° AZ
DIP -45°
FINAL DEPTH 348'
CORE SIZE BQ

DATE STARTED 8 December, 1977
DATE COMPLETED 13 December, 1977
DRILLED BY St.Lambert Diamond Drilling
LOGGED BY A. Workman

DATE: 19 December, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G. & FOLIA	REMARKS SAMPLES ETC.
0 - 18	0	Casing	Overburden				Acid Dip Tests
							0' - 45°
18 - 36.5'	(18.5')		Broken Bedrock	Zone includes several boulders (?) and two small sections of sand			100' - 42°
							300' - 40.5°
36.5 - 135.5	(99')		Rhyolite	Light greenish grey becoming medium grey with depth. The rhyolite is rusty pink coloured in the presence of diabase. The rock is aphanitic and weakly foliated locally. The foliation resembles flow banding. Small elongated chloritized amygdules we found along the laminations. The rock is strongly fractured locally (40'-46'). The rhyolite is pink coloured where strongly fractured. Diabase is found locally. It is commonly dark, green, fine to medium grained and chloritized.	39'	foliation 40° to the core axis	
				50'-70': flow breccia - fragments of varying composition up to 1 cm. and matrix is foliated and very siliceous. Breccia becomes tectonic locally. Breccia fragments become indistinct in the lower part of this zone.			
				55'-56': Diabase Carries small rhyolite fragments			
				81'-86': Diabase - very dark green to black, strongly chloritized.			
				86'-90': pinkish grey, brecciated rhyolite			
				90'-93': Diabase			
				93'-114': Light grey, (rusty pink near diabase) rhyolite, aphanitic with some flow breccia locally - round, vague, siliceous fragments. Flow laminated locally. Abundant finely disseminated pyrite and minor chalcopyrite locally. Fractures near diabase are rusty.	102.5	flow lamination	45° to the core axis
				114'-135.5': Alternating light grey, non-fractured rhyolite with rusty yellow and pink fractured rhyolite well laminated locally: Narrow chloritized seams carry up to 50% pyrite.	119.5	flow lamination	30° to the C/A

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-12

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
135.5'	- 214.5' (79')		Diabase	Dark green to blackish-green, fine grained. The zone 188.5' - 194.5' is strongly porphyritic. Light green, moderately sausauritized, euhedral Feldspar phenocrysts up to 1 cm. in size occupy 50-75% of the rock. The rock is moderately to strongly (locally) magnetic. The contact margins are moderately chloritized. Overall alteration is weak. Weak uralitization of pyroxene is common.			
214.5	- 348' (133.5')		Rhyolite	Reddish pink to brick red with minor grey zones. The rock is aphanitic and non-porphyritic. Some flow breccia is present locally. Fracturing is moderately developed near diabase and breaks near the intrusives are epidotized and occasionally chlor-tized. 214.5'-233': Grey rhyolite with abundant pink zones and minor flow breccia Diabase at 226'-227' 233'-246': Reddish-pink rhyol-te 246'-254.5': Diabase 254.5'-259': Red rhyolite becoming brick red at contacts highly silicified, weakly hematized. 259'-262.5': Diabase - rhyolite zenoliths at lower contact 262.5'-271': Dark grey rhyolite 271'-274': Cream to brick red, intensely fractured rhyolite. 274'-275.5': Diabase 275.5'-277': Brick-red rhyolite. 277'-278': Diabase 278'-325': Brick red rhyolite with minor reddish-pink zones, aphanitic, highly silicified, weakly hematized: abundant strongly chloritized seams. 325'-332': Brick red becoming pinkish-red, tectonically brecciated and strongly epidotized, intensely fractured - highly silicified. 232'-238': Diabase - rhyolite zenolith at 334'-335' 338'-348': Reddish-pink, highly fractured, strongly silicified rhyolite, some epidotized fractures and chloritized seams. 348': End of hole			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-13
SHEET 1 OF 1

PROPERTY Cobequid III
LATITUDE 12 + 80 N.
LONGITUDE L.4 + 00 W.
ELEVATION

BEARING—TRUE 000° AZ
DIP - 45°
FINAL DEPTH 141' - in overburden
CORE SIZE BQ

DATE STARTED 13 December, 1977
DATE COMPLETED 17 December, 1977
DRILLED BY St. Lambert Drilling Co.Ltd.
LOGGED BY A. Workman

DATE: 19 December, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				Hole was cased to 136'			
				Drill rods were run ahead to 141' and no bedrock in hole to that depth.			
				Drill was unable to turn casing at this depth due to lack of power.			
				Hole terminated.			
				Casing left in ground.			
				A. Workman			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-15
SHEET 1 OF 3

PROPERTY Cohequid III
LATITUDE 1 + 10 N.
LONGITUDE 7 + 00 W.
ELEVATION

BEARING—TRUE Vertical
DIP - 90°
FINAL DEPTH 333'
CORE SIZE BQ

DATE STARTED 5 December, 1977
DATE COMPLETED 9 December, 1977
DRILLED BY St. Lambert Diamond Drilling
LOGGED BY A. Workman

DATE: 12 December, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0'	- 15'	Casing	Overburden				Acid Dip Tests 0' - 90° 100' - 90° 260' - 89°
15'	- 79' (64')		Rhyolite	Grey to pinkish-grey with numerous pink intervals, aphanitic and porphyritic locally. Feldspar phenocrysts are usually pink, and up to 2 mm. in size. Quartz phenocrysts are vaguely defined and are not common. Pink zones are more highly fractured and the core is commonly ground. Some uranium stain is present on fractures from 20'-27'. The rock is moderately fractured overall and variably silicified. Numerous diabase dykes cut this unit. They are typically dark green, fine to medium grained and weakly to moderately chloritized.			the zone 15-20' is badly ground and recovery is poor
				15'-18': core badly ground			
				18'-20': grey, porphyritic rhyolite			
				20'-27': pink and grey, hematized, silicified rhyolite. Core badly ground.			
				27'-30': grey rhyolite			25'-30': averages 300 cps
				30'-34': alternating medium grey and pink rhyolite			
				34'-41': diabase			
				41'-46': grey and pink becoming brick red at 41' (intrusive contact)			
				46'-50': diabase			
				50'-52.5': pinkish-grey porphyritic rhyolite - possible zenolith			
				52.5'-68': diabase			
				68'-70': pinkish grey rhyolite			
				70'-72': diabase			
				72'-77': pink to greyish pink rhyolite, porphyritic - 1-2 mm. qtz. phenocrysts			
				77'-79': diabase			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-15

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	79' - 112' (33')		Rhyolite	Pink to red with minor greyish-red and brick red zones. Very dark red zone are located adjacent to diabase. The rock is aphanitic and non-porphyritic. The rhyolite is highly fractured locally. Fractures are strongly epidotized and may be breccia-filled. Some indistinct flow lamination is found locally)eg.108') at 30°-40° to the core axis. Minor disseminated pyrite and chalcopyrite is found locally	108'	flow laminatibn	35° to the core axis
	112' - 123' (11')		Diabase	Dark green, fine to medium grained, weakly chloritized and uralitized. Abundant pyrite cubes up to 2 mm.			
	123' - 151.5' (28.5')		Rhyolite	Pink to red, to pinkish-grey, aphanitic and porphyritic. Quartz phenocrysts up to 2 mm. in size are round and surrounded by thin pinkish-red reaction halos. Some vague feldspar phenocrysts may be found locally. Within strongly porphyritic zones, the rock often appears spherulitic. The rock is moderately fractured. Locally the degree of fracturing may be quite high. The fractures are frequently surrounded by pink altered halos. The rock is strongly silicified and weakly hematized. Minor disseminated pyrite and magnetite is found near the lower contact with diabase. The lower contact is strongly bleached and kaolinized.			
	151.5' - 193' (41.5')		Diabase	Dark green, medium grained and porphyritic. Pink to light green 1-5 mm. feldspar phenocrysts are common. The feldspar crystals are weakly to moderately sausauritized. Pyroxene crystals are moderately uralitized. The upper contact is very fine grained and strongly chloritized. The lower contact is medium grained and flooded with feldspar from the rhyolite.			
	193' - 274' (81')		Rhyolite	Brick red to reddish pink with minor pinkish-grey sections becoming lighter coloured with depth zones near diabase contacts are generally darker coloured. The rock is aphanitic and non-porphyritic. Minor 1-3 mm. chloritized amygdules dot the core but become smaller in lower zones. The rock is moderately fractured and becomes strongly fractured to mylonitic locally. The rock is strongly silicified and weakly to moderately hematized.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-15

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	193' - 274' (81')		Rhyolite	193'-221': brick red to reddish-pink, strongly fractured in zones 211'-214' and 219'-221'. Contains a strongly chloritized diabase (?) seam at 193.5'-194'			
				221'-225': Diabase - dark green, fine to medium grained porphyritic - 1 cm. euhedral pink feldspar phenocrysts at 223'-224'			
				225'-229': brick red rhyolite - highly fractured, strongly silicified and hematized			
				229'-235': Diabase - medium to dark green, porphyritic feldspars are strongly sausauritized and of unknown size. Pyroxenes are strongly uralitized.			
				235'-274': Brick red to pink with minor grey seams. Some vague flow lamination may be present locally. Moderately to strongly fracted and strongly silicified. Numerous strongly chloritized seams are located at 258'-259', 261'-262' and 269'-270'. Some uranium stain may be present locally on fractures.			the zone 250'-270' averages 300 cps. peak of 470 cps. at 270'
	274' - 285.5' (11.5')		Diabase	Dark green, fine to medium grained, weakly chloritized. Abundant chloritized 1 mm. amygdules.			
	285.5' - 333' (47.5')		Rhyolite	Reddish-pink becoming pinkish-grey to grey at the base of the hole. The rock is aphanitic and porphyritic with 1-2 mm. round quartz, and euhedral feldspar phenocrysts. The unit is indistinctly flow lamination near the top and becomes well laminated at the base. Abundant finely disseminated pyrite is found along the laminations. The rock is strongly fractured locally. Fractures are surrounded by thin cream coloured reaction halos.	333'	flow lamination	45° to the C/A
				333' End of Hole			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-16
SHEET 1 OF 3

PROPERTY Cobequid III
LATITUDE 0 + 75 N.
LONGITUDE 7 + 00 W
ELEVATION

BEARING — TRUE Vertical
DIP - 90°
FINAL DEPTH 311'
CORE SIZE BQ

DATE STARTED 9 December, 1977
DATE COMPLETED 11 December, 1977
DRILLED BY St. Lambert Drilling Co.Ltd.
LOGGED BY A. Workman

DATE: 14 December, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0'	20'		Overburden				Acid Dip Tests
							0' - 90°
20'	- 136'		Rhyolite	Grey with pink mottling with numerous orange and brick red altered zones.			100' - 89°
	(116)			The rock becomes brick red in zones adjacent to some diabase contacts,			310' - 89°
				(eg.21.5'-22.5'). The unit is aphanitic becoming locally porphyritic.			
				Feldspar phenocrysts are light green and up to 3 mm. in size. The rock			
				is vaguely laminated locally but may be well laminated over very short			
				intervals, (109.5'). The rock is moderately fractured. Breaks are			
				frequently surrounded by orange alteration halos. This is most noticeable			
				in zones of grey rhyolite (30'-35'). Some zones near diabase dykes			
				are intensely fractured and strongly epidotized. The rock is highly			
				silicified and hematized to a varying degree - highest in brick red zones.			
				Diabase frequently intrudes the rhyolite. It is typically dark green,			
				fine to medium grained, weakly magnetic, weakly chloritized and, in			
				some cases, uralitized and sausauritized.			
				20'-25': Diabase			
				25'-39': Grey rhyolite: core badly ground			
				39'-49.7': Diabase: intensely fractured at 41'-42'			
				49.7'-54': Orange to brick red rhyolite - intensely fractured and strongly epidotized.			
				54'-57.5': Diabase			
				57.5'-73.5': Grey rhyolite with abundant orange altered zones - possibly some flow breccia.			
				73.5'-82.5': Diabase - porphyritic; carries rhyolite and mafic, fragments up to 1 cm. in small zone (79'-82.5') at base			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-16

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
20 - 136'	(116)		Rhyolite	continued:			
				82.5'-94.5': Greyish pink to pink rhyolite with minor red zones, aphanitic. The zone is flecked with abundant 1-2 mm. chloritized amygdules. The rock is moderately fractured and weakly epidotized on fracture surfaces, and is strongly silicified and weakly hematized.			
				94.5'-98': Diabase and rhyolite mixture - strongly chloritized.			
				98'-106.5': Pink to pinkish red, strongly fractured rhyolite. Fracture surfaces are epidotized and the rock becomes strongly tectonically brecciated at 106'.			
				106.5'-110.5': Brick-red rhyolite, well laminated locally, massive, few fractures very strongly silicified and moderately to stronly hematized.	109.5	flow lamination	- 10° to the core axis
				110.5'-113.5': Diabase			
				113.5'-117.5': Brick-red rhyolite near diabase, flow laminated locally. strongly silicified and hematized.			
				117.5'-134.5': Pink rhyolite becoming greyer with depth; porphyritic with 1-2 mm., round quartz phenocrysts and 2-3 mm. euhedral, pink feldspar phenocrysts. Pink reaction halos and found around phenocrysts in the centre section of the zone but the greyer rock lacks the halos.			
				134.5'-136': Remelted rhyolite and diabase mixture			
136' - 246.5'	(110.5')		Diabase	Dark green, fine to medium grained, moderately chloritized along contacts and variably uralitized throughout. Fracturing is weak becoming strong locally (205'-206') and breaks are strongly epidotized. The unit is frequently porphyritic. Feldspar phenocrysts up to 1 cm in size are euhedral, light green and weakly sausauritized.			
				207'-232': Porphyritic zone - 1 cm feldspar phenocrysts			
				232'-233.5': Porphyritic zone above cut off by later intrusive surge - strongly chloritized.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-16

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	136' - 246.5' (110.5')		Diabase	continued: 233.5'-236.5': Feldspar porphyry zone: dark pinkish red, with pink feldspar phenocrysts up to 6 mm. in size in an aphanitic, very siliceous matrix. Diabasic fragments up to 5 cm. are scattered throughout the zone. 236.5'-246.5': Weakly porphyritic diabase			
246.5'	- 276' (29.5')		Rhyolite	Dark pink to brick red rhyolite with dark grey mottling in narrow seams. Rock may originally have been grey. Some small 1-2 mm. amygdules are located irregularly throughout the unit and are strongly chloritized. The unit is aphanitic. The rhyolite is very strongly silicified and moderately to strongly hematized. Fracturing is moderate locally.			
276'	- 298' (22')		Diabase	Dark green, fine to medium grained. The rock is weakly to moderately (at contacts) chloritized. Amygdules up to 2 mm. in this unit are strongly chloritized. Fractures are strongly epidotized. Numerous 1-4 mm. blebs of pyrite are scattered throughout the diabase.			
298'	- 311' (13')		Rhyolite	Pinkish grey to brick-red locally, (308.5'-309.5') aphanitic, and flow laminated locally (300') at 45° to the core axis. The rhyolite is moderately fractured, some zones are intensely tectonically brecciated (303'-306'). The rock is strongly silicified. 311': End of Hole	300'	flow laminated	45° to the c/a

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-17
SHEET 1 OF 2

PROPERTY Cobequid III
LATITUDE 1 + 25 N.
LONGITUDE 4 + 00 W.
ELEVATION

BEARING -- TRUE 180° AZ
DIP - 45°
FINAL DEPTH 358
CORE SIZE BQ

DATE STARTED 11 December, 1977
DATE COMPLETED 13 December, 1977
DRILLED BY St. Lambert Drilling Co.Ltd.
LOGGED BY A. Workman

DATE: 16 December, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
							Acid Dip Tests
	0' - 16'		Overburden				0' - 45°
							100' - 41°
	16' - 303' (287')		Diabase	Dark green to very dark green, medium grained, orhitic textured, weakly to locally moderately magnetic, and strongly chloritized at surface becoming very weakly chloritized lower. Fractures are clustered with zones of non-fractured rock between moderately fractured intervals. Breaks are strongly epidotized and carbonated. Weak uralitization of pyroxene is widespread. Light green mottling is caused by spotty epidotization. The rock is locally porphyritic (eg. 122'-130') and euhedral, light green, occasionally shattered feldspar phenocrysts are weakly sausauritized. The diabase includes a dark pink, porphyritic rhyolite zenolith at 116'-120.5'.			358' - 40.5°
				277.5'-286.5': Feldspar porphyry - pinkish red, aphanitic and porphyritic with 1 cm., pink unaltered feldspar phenocrysts. Diabase fragments are common in this zone. They are well rounded and up to 3 cm. in size.			
				286.5'-303': porphyritic diabase carries several rhyolite zenoliths in the zones 289'-292.5' and 294.5' - 296.5'. The diabase is very weakly porphyritic.			
	303' - 358' (55')		Rhyolite	Dark pink, aphanitic, locally porphyritic with indistinct 1 mm. round, quartz phenocrysts. The rock may be weakly hematized. Moderate fracturing becomes very strong locally. Fractures are strongly epidotized and epidotized blebs up to 2 cm. are found locally. An intensely fractured and moderately kaolinized zone is located at 303'-310'.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-17

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	303' - 358' (55')			continued..... 323'-325': Diabase - strongly chloritized 355'-358': Flow brecciated rhyolite--rounded light pink fragments up to 1 cm. in a foliated siliceous aphanitic matrix. 358': End of Hole			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-18
SHEET 1 OF 3

PROPERTY Cohequid III
LATITUDE 0 + 15 S.
LONGITUDE 7 + 00 W.
ELEVATION

BEARING—TRUE 000° AZ
DIP - 77°
FINAL DEPTH 453'
CORE SIZE BQ

DATE STARTED 13 December, 1977
DATE COMPLETED 16 December, 1977
DRILLED BY St. Lambert Drilling Co Ltd.
LOGGED BY A. Workman

DATE: 18 December, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
							Acid Dip Tests
	0' - 21		Overburden				0' - 77°
							100' - 76°
	21' - 45		Rhyolite	Brick-red to pinkish red, aphanitic, with fine 1 mm. chloritized blebs			300' - 75.5°
	(24')			and some strongly chloritized seams throughout the unit. The rock is			450' - 76°
				intensely silicified and strongly hematized.			
	45' - 125'		Diabase	Dark green, fine to medium grained, strongly chloritized at contacts,			
	(80')			interior of intrusive is weakly altered. The rock is weakly magnetic			
				and weakly uralitized. Fractures are epidotized and wider breaks up			
				to 1 cm. are filled with quartz and epidote. Small intervals may be			
				strongly fractured (112'-114'). The diabase dyke carries brick red			
				rhyolite zenoliths at 48'-49' and 50'-51'			
	125' - 146.5'		Rhyolite	Reddish-pink, aphanitic and porphyritic with euhedral, pink feldspar			
	(21.5')			phenocrysts up to 4 mm. and round quartz phenocrysts up to 3 mm. in size.			
				The quartz phenocrysts are commonly surrounded by thin pink reaction halos.			
				The rock is moderately silicified and weakly hematized. The rhyolite			
				is strongly fractured locally. Fractures are epidotized and some			
				intensely broken zones (135-136') are orange coloured with green fractures.			
				The unit includes a zone at 125'-128' where the rhyolite has been re-			
				melted by the diabase, and a colour gradation from diabase to rhyolite			
				is located here.			
	146.5' - 274'		Diabase	Dark to very dark green, with light green mottling produced by spotty			
	(127.5')			epidotization. Epidote also is found in zones on and paralleling fractures.			
				The rock is weakly fractured and moderately chloritized near the contacts.			
				Weak uralitization of pyroxene is widespread.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-18

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	146.5' - (127.5')	274'	Diabase	continued..... 146.5'-224.5': Diabase as above. 224.5'-228': Feldspar porphyry - reddish pink, aphanitic matrix with pink, euhedral, feldspar phenocrysts up to 5 mm. in size. The rock is unaltered and very hard. It contains abundant round diabase fragments up to 3 cm. 228' - 274': Diabase - typically coloured, textured and altered, (as above)			
	274' - 387.5' (113.5')		Rhyolite	Reddish-pink to greyish pink, minor brick red locally, and numerous orange altered zones and narrow seams. The rhyolite aphanitic with some flow lamination locally. The flow banding varies from highly contorted to regularly dipping at 45° to the core axis. The rock is strongly fractured. The break are epidotized and surrounded by orange altered halos. More strongly fractured rock is reddish-orange in colour. The rock is moderately silicified and weakly hematized. In the zone 289'-300', epidotization along seams may reflect the attitude of the flow lamination at 45° to the core axis. Abundant disseminated pyrite is found locally (eg. 300')	285'	flow lamination	45° to the C/A
				~~345': flow-banding consists of 1 cm. layers of thinly laminated rhyolite alternating with flow brecciated rhyolite - dip at 50° to the core axis.~~	~~345'~~	~~banding~~	~~45° to the C/A~~
				349'-355': light cream to pink altered zone, micro-faulted and flow laminated.	353'	flow lamination	50° to the C/A
				365'-370': flow breccia - 1-2 mm. elongated fragments in a laminated, siliceous matrix			
				368'-387.5': brick red, aphanitic, strongly silicified and moderately hematized rhyolite is invaded by numerous chloritized diabase seams. The rock is flow laminated locally at 35° to the core axis (385'-386')	385.5'	flow lamination	35° to the C/A

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-18

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
	387.5' - (41')	428.5'	Diabase	Dark to very dark green, fine to medium grained and porphyritic. Light green, euhedral feldspar phenocrysts up to 1 cm. in size are weakly sausauritized. The rock is weakly fractured, chloritized and epidotized. Pyroxenes are weakly uralitized locally.			
	428.5' - (24.5')	453'	Rhyolite	Brick red and reddish-grey with some brick red seams in grey zones. The rock is aphanitic and porphyritic. Euhedral, dark pink feldspar phenocrysts up to 3 mm. are common, particularly in the centre section of this unit. The rock is vaguely flow laminately locally. The flow banding at 446'-448' is highly contorted. Some flow breccia is present in this banding. It consists of 1.5 cm. rounded, elongated fragments in a foliated matrix. Fragments and matrix are very close in rhyolitic composition.			
				453' End of Hole			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-19
SHEET 1 OF 2

PROPERTY COBEQUID III
LATITUDE 3 + 50S
LONGITUDE 6 + 75W
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 223.1'
CORE SIZE BQ

DATE STARTED 22 August, 1978
DATE COMPLETED 24 August, 1978
DRILLED BY St. Lambert Drilling Co. Ltd
LOGGED BY A. W. Workman

DATE: 26 August, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	24.6		Overburden				ACID DIP TESTS
24.6 -	161.3 (136.7)		Diorite	The rock is dark green, fine to medium grained and porphyritic locally. Feldspar phenocrysts up to 10 mm. are light green as a result of sausauritization and are usually euhedral. The intrusive is weakly to moderately fractured. At 55.3' the core is ground but it is believed that the diorite grades into a porphyritic zone which is light reddish-pink to pinkish-red. An aphanitic siliceous matrix surrounds 1-4 mm. red euhedral feldspar phenocrysts and 1-3 mm. white, round quartz phenocrysts. Epidotized fractures are moderately developed. Locally, chloritized clots dot the core. At 66.4' the rock is gradational back into a dark green, fine to medium grained, non-porphyritic diorite. With depth the diorite becomes porphyritic. Towards the base of this unit, pink felsic zones are found - possibly reflecting absorbed rhyolite xenoliths.			-98': -45° -223': -42.5°

24.6' - 53.3': diorite - porphyritic locally
55.3' - 66.4': porphyry - pinkish red, siliceous
66.4' - 67.3': gradational zone - porphyry to diorite
67.3' - 85.5': non-porphyritic diorite
85.5' - 88.6': porphyritic diorite - light green, 1-10 mm. feldspar phenocrysts
88.6' - 161.3': diorite - fine to medium grained, locally porphyritic with numerous felsic zones (eg. 118.7'-119.4'). The felsic patches are pinkish-red and strongly fractured.

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ - 19

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
24.6'	- 161.3'		Diorite	continued			
				135.1' - 141.7': Porphyritic zone - pink feldspar phenocrysts up to 1.5 cm. are found in the centre of the unit. Rim alteration of feldspar is common. Outside the centre section, the phenocrysts are light green and smaller.			
				158.5' - 161.3': The rock contains numerous light pink, rounded felsic fragments.			
161.3'	- 189' (27.7')		Sediment	The rock is dark grey to black, dominately sandy conglomerate with minor sandstone. The unit is strongly silicified. Pebbles are rounded to angular and include granitic and rhyolitic varieties. The rock is moderately chloritized as a result of numerous diabase dykes cutting the zone. The unit may incorporate a small amount of felsic volcanic flow (e.g. 183.9'- 189').			
189'	- 223.1' (34.1')		Diorite	The rock is dark green, medium grained and weakly chloritized. Feldspars are light green and weakly sausauritized.			
				219.5' - 1" quartz vein.			
				223.1' END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ - 20
SHEET 1 OF 3

PROPERTY COBEQUID III
LATITUDE 5 + 55 S.
LONGITUDE 6 + 75 W.
ELEVATION

BEARING — TRUE 180° Az
DIP -45°
FINAL DEPTH 231.5'
CORE SIZE BQ

DATE STARTED August 24, 1978
DATE COMPLETED August 28, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: August 29, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-23.6	Ø		Overburden				ACID DIP TESTS
23.6	- 9.2'		Rhyolite	The rock is pink to greyish - pink, fine grained and porphyritic with 1-3 mm. pink to cream feldspar phenocrysts and 1-2 mm. white quartz phenocrysts. The rock is weakly to moderately fractured, and fractures are strongly epidotized and chloritized.			-98' : - 45.5° 230' : - 41°
32.8'	- 113' (80.2')		Diorite	The intrusive is dark green, fine to medium grained and mainly porphyritic. Euhedral, white to light green and occasionally pink feldspar phenocrysts up to 1.5 cm. in size are common. The degree of fracturing is variable from weak to moderate. Fractures are strongly epidotized wider breaks may contain white carbonate locally. A central zone from 61' - 72.2' is very porphyritic and siliceous. It is light pinkish-red in colour and contains dioritic fragments. It's contacts are gradational into porphyritic diorite. The entire unit is weakly magnetic. 49.2' : a felsic zone - 6" thick - possibly terminates at an intrusive contact at 49.1' 58.3' : scattered mafic amygdules up to 1 cm. 58.3'-61.0': medium grained, porphyritic with pink and light green feldspar phenocrysts up to 1 cm. 61.0'-72.2': pink, aphanitic to fine grained, porphyritic with pink, euhedral feldspar crystals up to 1 cm. and aggregates of crystals up to 2 cm. Porphyritic diorite fragments are common. They are dark green, rounded and up to 3 cm. in size. They closely resemble rock in the zones (58.3'-61') and 72.2' - 75.5'.			

GMC 1018

DIAMOND DRILL RECORD — CONTINUATION SHEET

D.D.H. NO. JZ-20

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
32.8'	- 113			72.2' - 75.5' : green diorite, fine to medium grained, porphyritic with pink feldspar phenocrysts up to 1 cm. The zone is strongly fractured.			
				75.5' - 87.6' : porphyritic diorite - feldspar phenocrysts are light green.			
				85.3' : rock becomes medium grained			
				91.9' - 92.4' : DIABASE - The intrusive is dark green, fine grained and strongly chloritized.			
				106' : the diorite trends towards a fine grained variety.			
113'	- 170.6' (57.6')		CRYSTAL TUFF	The rock is greyish - brown to dark grey, and appears to be very siliceous and hard. A fine grained to aphanitic matrix surrounds angular, 1-3mm. white light green and rusty - red shards and fragments. Non-white varieties show variable rounding. Occasionally fragments are up to 1 cm. in size. Locally some foliation to the fragments may be observed The rock is weakly to moderately fractured. Fractures are strongly epidotized.			
				113.5' : fragments are pinkish in a narrow zone near the upper intrusive.			
				118.3' - 119.8' : DIABASE - dark green, fine grained strongly chloritized - also 120.2'.			
				120.7' - 122.2' : pink, strongly epidotized.			
				169.5' : the rock becomes strongly broken; fractures are very crisp and angular - epidotized.			
170.6'	- 173.1' (2.5')		Contact Zone	The rock is strongly broken, chloritized and epidotized. It may be part of the underlying mafic intrusive.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ - 20

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
173.1'	- 231.5'		Diorite	The rock is dark to medium green, fine to medium grained and weakly to			
	(58.4')			moderately fractured. Fractures are strongly epidotized and occasion-			
				ally chloritized. Voids are filled with white carbonate. The rock is			
				weakly porphyritic locally with 1-3 mm. light green sausauritized			
				feldspar phenocrysts. The rock is weakly-magnetic.			
				173.1' - 198.5': dominantly fine grained.			
				198.5' : rock becomes medium grained and lighter coloured -			
				feldspar content is probably higher.			
				206.7' : 10" strongly brecciated and epidotized zone.			
				217.2' : very weakly fractured to the base of the hole.			
				END OF HOLE: 231.5'			

GMC 1051 (09/78)

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-21
SHEET 1 OF 4

PROPERTY Cobequid III
LATITUDE BL 0+00
LONGITUDE 12+00W
ELEVATION

BEARING—TRUE 90° Az
DIP -45°
FINAL DEPTH 439.6'
CORE SIZE BQ

DATE STARTED 28 August, 1978
DATE COMPLETED 1 September, 1978
DRILLED BY St. Lambert Drilling Co
LOGGED BY A. W. Workman

DATE: 2 September, '78 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	31.2'	*	Overburden				ACID DIP TESTS
31.2' -	39.4'						100': - 44°
	(8.2')		Diorite	The intrusive rock is dark green, fine to medium grained and porphyritic.			299': - 41.5°
				Feldspar phenocrysts are pink with thick light green alteration rims,			439': - 41.5°
				and are up to 1 cm. in size. Smaller crystals are completely green			
				as a result of sausauritization. The rock is weakly chloritized			
				and weakly fractured. Fractures are epidotized with white carbonate			
				filling more open voids.			
39.4' -	73'		Rhyolite	The rock is pinkish-grey, aphanitic and weakly porphyritic with			
	(33.6')			1-2 mm. red to orange feldspar phenocrysts. The rock is pink to			
				reddish-pink locally reflecting spotty alteration zones (eg. 41'- 42'			
				and 49.2'- 57.7'). The rhyolite is flow laminated over short	44.3'	flow	30° to the C/A.
				intervals at 25°-30° to the core axis, (eg. 40.8' and 44.3' - 48.2')	47.6'	banding	25° to the C/A.
				Fracturing is weak to moderate. Fractures are commonly surrounded			
				by red reaction halos.			
				39.4' - 49.2': pinkish-grey, porphyritic rhyolite			
				49.2' - 57.7': reddish-pink, weakly hematized rhyolite			
				57.7' - 64.1': Diabase - dark green, fine grained, moderately			
				chloritized and weakly fractured.			
				64.1' - 73': pinkish-red rhyolite - moderately fractured with red			
				halos around breaks. Fractures are epidotized and			
				chloritized.			
73' -	91.7'		Diorite	The rock is dark green, fine to medium grained and weakly porphyritic			
	(18.7')			with 1-5 mm. pink feldspar phenocrysts. The rock is moderately			
				chloritized and uralitized. It grades sharply into a pink, very			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-21

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
73' -	91.7'		diorite	continued.....			
				porphyritic, fragmental zone at 80.4'. The matrix is aphanitic and weakly chloritized, and surrounds light pink feldspar phenocrysts up to 2 cm in size. Dark green, round, dioritic fragments up to 3 cm. in size are common. The porphyritic section becomes brecciated and very strongly chloritized at 89.4'.			
				73' - 80.4': dark green, porphyritic diorite			
				80.4' - 89.4': pink, very strongly porphyritic fragmental			
				89.4' - 91.7': very strongly chloritized, porphyritic fragmental.			
91.7' -	110.1' (18.4')		Rhyolite	The rock is greyish-pink, aphanitic and porphyritic with 1-3 mm. white penetrated quartz phenocrysts and light pink, euhedral feldspar phenocrysts of similar size. Epidotized fractures are moderately developed. Wider more open fractures are carbonated and epidotized and are surrounded by broad, red reaction halos.			
				91.7' - 93': Strongly broken and epidotized.			
110.1'-	125.2' (15.1')		Diabase	The intrusive is dark green, fine grained, non-porphyritic and strongly chloritized. It is weakly to moderately fractured. Fractures are epidotized and chloritized with minor white carbonate. A rhyolite xenolith is located at 119.8' - 121.2'.			
125.2'-	139.4' (14.2')		Rhyolite	Reddish-pink to red, becoming grey locally, these rocks are aphanitic and porphyritic. Quartz phenocrysts are up to 2 mm. in size. Cream coloured, euhedral feldspar crystals are up to 3 mm. in size. Locally the rock is weakly flow laminated at 15° - 20° to the core axis. At some points the flow banding is sub-parallel to the core axis.	126.8'	flow banding	15° to the C/A.
139.4'-	149.7' (10.3')		Diorite	The intrusive zone is dark green, fine to medium grained and porphyritic. Pink fledspar phenocrysts are up to 8mm in size. Epidotized (with minor white carbonate) fractures are weakly developed. The zone is moderately chloritized and uralitized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-21

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
149.7'	-225.8' (76.1')		Rhyolite	These rocks are grey becoming red and orange at 155.8' and then becoming grey below 163.2'. The rock is aphanitic and porphyritic. Pink and red feldspar phenocrysts are up to 3 mm. in size while white quartz phenocrysts are up to 1 mm. Locally, the rock is flow laminated at 10°-20° to the core axis. Phenocrysts are commonly found settled in the laminations producing load casts. Some flow breccia (?) may be found locally. Minor rounded red zones are found in otherwise grey rhyolite. However, these may reflect spotty alteration rather than fragments. The rhyolite is strongly fractured with quartz filling fractures locally. Light coloured reaction halos surround most fractures.			
				165': narrow, techonically brecciated zone with white carbonate			
				163.2'-176.8': grey zone, weakly flow laminated locally. Bands are discontinuous with some lensitic features (eg 170'). The zone carries some rhyolitic fragments up to 5 mm. in size - ignimbrite?			
				176.8'-179.5': cream to orange with minor red rhyolite; contains several well laminated zones, strongly fractured and epidotized.	179.1'	flow banding	30° to the C/A.
				179.5'-225.8': grey rhyolite with minor red seams and light green patches. These colour variations reflect spotty alteration. Flow banding is evident throughout the zone. Some laminations are discontinuous. This unit may contain minor flow breccia. Abundant kaolinized mylonitic seams are located at 186', and 187.9' - 188.7'.	209'	flow banding	30° to the C/A.
225.8'	- 259.2' (33.4')		Diorite	The rock is dark green, fine grained, non-porphyritic and moderately chloritized. It is weakly fractured. Breaks are epidotized and coated with chlorite.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-21

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
259.2'-	325.3' (66.1')		Rhyolite	The rock is greyish-pink, aphanitic and porphyritic with 1 mm. quartz phenocrysts and 1-2 mm. red euhedral feldspar phenocrysts. The feldspar crystals are centrally altered (to silica?) The zone is flow laminated. Individual band are discontinuous with some lensitic features (ignimbrites ?). Occasional fragments of "foreign" rock are found locally (eg 306.6'). The rock is strongly fractured. Fractures are epidotized and silicified.	264.9' 292' 306.8' 324.5'	flow banding 	20° to the C/A. 20° to the C/A. parallel to the C/A. 0-5° to the C/A.
325.3'-	428.2' (102.9')		Diorite	The intrusive is dark green, medium grained becoming fine locally (368.1'), weakly to moderately chloritized and weakly fractured. It is porphyritic in a centrally felsic zone. Euhedral, generally light green, feldspar phenocrysts are up to 8 mm. in size. Several zones of pink feldspar seem to be related to intensely epidotized fracture zones, (eg. 384') Rhyolite xenoliths are located at 331.7'-335', 420' - 421', and 422.3' - 422.8'. 372.1 - 418.8': porphyritic, felsic diorite			
428.2'-	439.7' (11.5')		Rhyolite	The rock is red to pinkish-red, aphanitic, non-porphyritic and may be flow laminated locally. It is moderately fractured. Fractures are strongly epidotized with minor chloritization and hematization. Overall, the rock is probably strongly silicified. 439.7': END OF HOLE.			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-22
SHEET 1 OF 3

PROPERTY COBEQUID III
LATITUDE 11 + 75 N.
LONGITUDE L 12 + 00 W.
ELEVATION

BEARING—TRUE 180° Az.
DIP -60°
FINAL DEPTH 438'
CORE SIZE BQ

DATE STARTED September 2, 1978
DATE COMPLETED September 8, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: September 10, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 146		Ø	Overburden				ACID DIP TESTS:
146 - (134)	280		Rhyolite ?	The rock is dark to medium grey with light grey bands becoming pink locally, particularly near mafic intrusives. It is very fine grained to aphanitic. The bands represent bedding (?) which locally may be lensitic and discontinuous (e.g. 147'). The rock is variably fractured and may be brecciated locally (e.g. 168.6'). Frequently, the bands are broken with non-laminated material forming a matrix to large banded fragments up to 4 cm. in size, (e.g. 214.9'-234.6'). The rock is weakly magnetic. Some dark coloured bands are moderately to strongly magnetic. The zone is moderately fractured although it is strongly fractured near mafic intrusives. Locally, the rock may be mylonitic. Fractures near intrusives are hematized and chloritized. Some voids are white carbonate filled. Very finely disseminated pyrite is found along some bands, often in the more highly magnetic occurrences. Minor chalcopyrite is found to accompany pyrite. Graphite is common as 1-2 mm. flakes on some fracture surfaces. Total sulphide and graphite content may be up to 2% locally.			98': -59° 384': -60°
					147'	Bands	40° to the core axis
					157.2'	"	40° to the core axis
					209.5'	"	45° to the core axis
				198' - 207.3': Diorite - the rock is dark green, fine to medium grained with a few epidotized euhedral feldspar phenocrysts. It is dotted with abundant 1-2 mm. black chloritized blebs. It is weakly fractured becoming moderately fractured locally. Fractures are epidotized and voids may be filled by white carbonate.			
				214.9' - 234.6': the bedding is brecciated with angular banded fragments surrounded by a non-laminated, locally granular matrix. Some pink zones are strongly fractured and epidotized. Minor graphite is found locally on fractures.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-22

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
146 - 280 (134)			Rhyolite (cont'd)	234.6'-241.9': Diorite - as before - abundant finely disseminated pyrite and minor chalcopyrite - abundant graphite on fractures as disseminated blebs and plates up to 3 mm.			
				241.9'-248.7': same as the zone 214.9'-234.6'			
				248.7'-251': pinkish-grey to pink locally, strongly fractured, brecciated. Fractures are epdotized and carbonate fills the open voids.	251.3'	bands	40° to the core axis
					254.9'	"	45° to the core axis
				251'-258.2': medium grey, well banded becoming broken at 255.1'.			
				258.2'-280': dark grey, massive and non-bedded with numerous greyish-pink vaguely outlined patches. The rock is speckled with fine epidote blebs - probably as an alteration. The rock is weakly to moderately fractured. Breaks are epidotized and chloritized with minor white carbonate. The zone is weakly magnetic. Minor finely disseminated pyrite is found throughout the unit.	273'	fol.	45° to the core axis
280 - 329.9 (49.9)			Diorite	The rock is dark green, medium grained and weakly chloritized with strongly chloritized contacts and fractures. It carries minor clots and blebs of pyrite up to 2 mm. in size. It is weakly fractured and weakly magnetic. Some strongly epidotized zones are moderately to strongly magnetic. Some sharp changes in grain size (e.g. 301.8') from fine to medium may reflect different intrusive pulses.			
329.9 - 438 (108.1)			Rhyolite and Diorite	The rock is light grey to pinkish-grey, fine grained and moderately fractured. Changes in rock locally appear to be gradational (eg 337.4') but may be the result of melting along on intrusive contact.			
				329.9'-332.5': light grey, moderately developed fractures are epidotized with white carbonate in voids			
				332.5'-337.4': Diorite - light to medium grey-green medium grained and moderately to strongly chloritized near contact. It is weakly porphyritic with 1-5 mm. euhedral epidotized feldspar phenocrysts. Abundant chloritized black specks dot the core-devitrified glass.			

GMC 1018

DIAMOND DRILL RECORD — CONTINUATION SHEET

D.D.H. NO. JZ-22

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
329.9 - 438	(108.1)		Rhyolite and Diorite (cont'd)	337.4'-388': at this point the diorite grades to a light grey, fine grained rock which becomes medium grained in the interval 353'-357.5' and strongly resembles the zone at 329.9'-332.5'. Graphite is found locally on fractures. The rock becomes strongly broken, and brecciated with a fine epidotized matrix in the zone 347.8'-348.8'. Abundant finely disseminated pyrite is found locally although small anounts are common. Locally, fractures may be strongly hematized. The rock becomes fragmental locally (e.g. 384.4' and 387.8') possibly as a result of flowage.	384.8'	laminations 35° to the c/a or foliation (?)	
				388'-438': the zone has abundant fine elongated, light green flecks probably as an alteration product. The rocks contains up to 5% sulphide locally - mainly pyrite with minor chalcopyrite. The sulphide occurs mainly as a fine dissemination but also as clots filling vugs. Graphite is common on fracture surfaces. Blue chlorite coats some fractures below 428'. Light green altered and weakly brecciated zones are located at 427.7' and from 430.4'-431.9'. Below 433.1' the rock is medium grained and strongly chloritized.			
				438': END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. JZ-23
SHEET 1 OF 3

PROPERTY COBEQUID III
LATITUDE 11 + 75 N.
LONGITUDE 12 + 00 W.
ELEVATION

BEARING—TRUE 125° Az.
DIP -60°
FINAL DEPTH 424.9'
CORE SIZE BQ

DATE STARTED September 9, 1978
DATE COMPLETED September 15, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: September 15, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-131.2		∅	Overburden				ACID DIP TESTS:
131.2 - (108.7)	239.9		Rhyolite	The rock is light to medium grey, and pink for a short interval near surface. It is aphanitic to very fine grained. Fractures are weakly developed and coated with epidote and purple hematite. Fracturing becomes stronger below 164'. Abundant, very finely disseminated pyrite and occasional chalcopyrite are found throughout the zone to a depth of 184.5', below which the sulphide content decreases. Locally the sulphide may be as high as 10% where fractures have been filled, but 5% sulphide is common.			98': -57.5° 295': -58.5° 425': -58°
				131.2'-133.9': pink zone - possibly related to diorite contact aurole			
				133.9'-136': Diorite - dark green, medium grained, weakly chloritized			
				136'-164': rock is weakly fractured rhyolite, abundant disseminated pyrite			
				164'-184.1': moderately to strongly fractured - sulphide content in fractures increases			
				184.1'-185.4': Diabase - very dark green, fine grained, strongly chloritized			
				185.4'-204': same as zone 164'-184.1' - minor finely disseminated pyrite - carries angular laminated 2 cm. fragments of same composition as matrix - agglomerate bands parallel to core axis			
				204'-207.7': Diorite - moderately fractured, moderately to strongly chloritized and epidotized			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-23

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
131.2 - 239.9			Rhyolite	207.7'-213.9': strongly broken rhyolite - chloritized and epidotized with minor carbonate filling openings			
(108.7)							
				213.9'-218.3': rock is spherulitic locally and carries few flow banded fragments (e.g. 216.4')			
				217.2'-218.3': strongly epidotized, pink altered zone			
				218.3'-218.7': chloritized mafic seam			
				218.7'-232.4': minor flow laminations at 50° to the core axis - faulted at 231.3'			
				232.4'-239.9': Diorite - carries an epidotized, strongly fractured rhyolite xenolith at 238.1'-239'			
239.9 - 284.9			Felsic Intrusive (Rhyolite?)	Pink to reddish pink, porphyritic rock with pink anhedral feldspar phenocrysts up to 5 mm. and round quartz phenocrysts up to 3 mm. Several zones of phenocrysts set in a strongly chloritized black matrix are located at 239.9'-244.8', 252.3'-253.8' and 256.6'-263.8'. Locally the texture is pseudo-granite except that grain boundaries are not sharp. The rock carries minor finely disseminated pyrite but may have up to 10% pyrite on some fractures - mainly 1-2 mm. pyrite cubes located in black chloritized zones. The pink rock is strongly epidotized locally.			
(45)							
				270.2'-273.3': Diorite - strongly chloritized, weakly to moderately fractured			
284.9-345.9			Rhyolite	The rock is light grey becoming almost white locally. It is aphanitic to fine grained. The rock is laminated locally becoming well laminated at 302.2'. Bands are irregular and convolute locally. The laminations are sharply cut off at 315' - probably by a fault.	292'	Flow	35° to the c/a
(61)					302.5'	Laminations	34°-40° to the c/a
					308.1'	"	40°-50° to the c/a
				315'-323.3': a 1' strongly epidotized breccia zone followed by a light green strongly epidotized rhyolite	313.3'	"	40° to the c/a
					329.7'	"	30°-35° to the c/a
				323.3'-326.3': chloritized zone - diabase (?)			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. JZ-23

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
284.9 - 345.9			Rhyolite	326.3'-330.5': laminated rhyolite similar to the zone from 302'-315'			
(61)							
				330.5'-333.8': grey, strongly fractured and epidotized			
				333.8'-342.4': Diorite - dark green, fine to medium grained. The contacts are fine and strongly chloritized with minor pyrite, graphite and chalcopyrite. The rock becomes medium grained with pink feldspars but remains strongly chloritized.			
				342.4'-345.9': greenish-pink, strongly chloritized and epidotized rhyolite with some convolute banding locally.			
345.9 - 372.4			Diorite	The rock is dark green, fine grained at the contacts becoming medium			
(26.5)				grained towards the centre of the intrusive. The entire dyke is mod-			
				erately to strongly chloritized. Feldspars in the coarser grained			
				sections are pink.			
372.4 - 395.1			Felsic	This zone is identical to the zone at 239.9'-284.9'. The rock is			
(22.7)			Intrusive	reddish-pink with quartz and feldspar phenocrysts. Locally the pheno-			
			(Rhyolite)	crysts are set in a black, strongly chloritized matrix - (e.g. at			
				379.1'-381.9', 390.4'-391.4' and 392.6'-394.9'). A mafic, fine			
				grained, strongly chloritized intrusive is located at 383.8'-387.8'.	393.7'	Fol.	50° to the c/a
				The mafic intrusive is strongly foliated at 50° to the core axis. The			
				rock bordering the intrusive is strongly fractured and pinkish-red. A			
				dark foliated porphyritic zone is sharply cut off at 395.1' at 45° to	395.1'	Contact	45° to the c/a
				the core axis			
395.1 - 415.8			Rhyolite	The rock is grey, aphanitic with abundant fine white flecks. It is	401.9'	Flow	40° to the c/a
(20.7)				weakly fractured becoming more strongly fractured at 400.4'. Fractures		Laminations	
				are strongly epidotized. The rock is strongly flow laminated at 400.5'-	405.7'		35°-40° to the c.a
				409.1'. Below the banded zone is grey non-laminated fractured rhyolite.	409.1'		45° to the c/a
415.8 - 424.9			Diorite	The rock is dark green, fine to medium grained, and strongly chloritized			
(9.1)				throughout. Moderately developed fractures are strongly epidotized.			
				Feldspar grains are pink.			
				424.9': END OF HOLE			

SECTION B

DF-ZONE LOGS

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-5
SHEET 1 OF 3

PROPERTY COBEQUID III
LATITUDE 32 + 15 S.
LONGITUDE 48 + 00 E.
ELEVATION

BEARING — TRUE 180° Az.
DIP -45°
FINAL DEPTH 493'
CORE SIZE BQ

DATE STARTED 18 July 1978
DATE COMPLETED 25 July 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. Workman

DATE: 26 July, '78 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 27.2	Ø		Overburden				Acid Dip Tests:
27.2 - 200.7	173.5		Granite	Medium to dark pinkish-red with light grey mottling, fine to medium grained rock. Mottling reflects 1-2 mm. grey quartz grains which comprise 10-20% of the rock volume. Feldspars are of similar size and are usually pink in colour although some are greenish locally. The rock is variably fractured. Larger fractures may be epidote filled while smaller fractures are discontinuous and silicified. A dark blue mineral is present locally on fracture surfaces. Alteration consists of weak silification locally and perhaps some weak hematization around mafic intrusives. Feldspar grains may be weakly epidotized or sausauritized locally. Several zones of angular brecciation with fragments set in an epidotized siliceous matrix may reflect movement of late stage fluids.			98': - 41.5° 328': - 40.5° 493': - 41.5°
				66.5'-72.5': breccia zone - angular fragments in a moderately epidotized siliceous matrix - up to 1% finely disseminated pyrite locally.			
				72.5'-78.1': a less red coloured, possibly weakly kaolinized zone of microfaulting.			
				78.1'-81.5': fragmental zone similar to 66.5'-72.5'.			
				81.5'-83': fault zone - the rock is strongly fractured and larger breakages are epidotized and silicified - abundant finely disseminated pyrite in finer fractures.			
				101.5'-107.3': thin tabular breccia zones dip 40° to the core axis and 109' - epidotized, silicified. Some 1-3 mm. magnetite cubes are found locally.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-5

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
27.2 - 200.7	173.5		Granite (continued)	109.5'-114': zone of brecciation - rock is strongly shattered. Epidote stringers and fracture fillings are abundant and some strongly chloritized amygdules are locally found, often associated with minor pyrite.			
				114'-117.5': Diabase-Diorite dyke: The rock is dark green, fine grained and strongly chloritized. Very minor stoping and alteration of the granite has occurred.			
				117.5'-128': the granite is fractured and possibly weakly kaolinized.			
				130.3'-131': chloritized seam - possibly narrow mafic dyke.			
				131'-131.5': chloritized granite.			
				131.5'-132': chloritized seam			
				139' : carbonate filled fault plane - slickensides cut the core axis at 70°.			
				153.5' : zone of parallel fractures at 40°-45° to the core axis.	153.5	fractures	40-45° to the core axis
				156'-158': fragmental zone - same as 66.5'-72.5'.			
				162.5'-167': fragmental zone - same as above.			
				175.5'-176': several 2" strongly chloritized seams in a fractured and chloritized granite zone			
				177.5' : strongly chloritized fractures in granite cut the core axis at 50°.			
				169.3'-189': pinkish-red granite - quartz grains are intergrown with dark red feldspar grains. This zone is characterized by a deeper red colour and slightly coarser texture from the previous zones. Towards the base of this section the rock becomes a more typical granular texture.			
200.7 - 213.5	-	12.8	Diorite	The rock is dark green, fine grained and weakly chloritized. It is moderately fractured. Breakages are quartz-epidote filled. NOTE: This intrusive corresponds to the VLF. (EM-16) conductor outlined by ground geophysics survey.			
213.5 - 368.5	-		Granite	Pinkish-red, fine to medium grained with 1-2 mm. quartz grains typically surrounded by red glassy feldspar intergrowths. Quartz grains make up about 30% of the total rock volume. Small clots of chlorite and epidote may dot the core and small amounts of pyrite may be locally associated with the mafic centres.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO DF-5

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
213.5	-		Granite	213.5'-225.5': altered chloritized zone adjacent to diorite.			
368.5			(continued)	223' : banding at 30° to the core axis.	233'	banding	30° to the core axis
				235.5': zone of intergrown quartz and feldspar begins and extends to about 250'.			
				300.5': granite becomes finer grained, and the rock is more equigranular. A band of unknown origin has a vague dip of 45° with respect to the core axis.	300'	banding	45° to the core axis
				364':-365': dark green strongly chloritized Diabase seam.			
				365'-368.5': pinkish-red, fine to medium grained granite - lower 6" is strongly chloritized.			
368.5	-	12'	Diorite	Dark green, fine grained and strongly chloritized rock with numerous white quartz stringers probably following fracture systems. Pyroxeme crystals are weakly to moderately uralitized.			
380.5							
380.5	-	112.5	Granite	The upper 2" is dark greenish red due to proximity to the mafic intrusive. The rock in general is dark pinkish-red with light grey mottling reflecting 1-2 mm. quartz grains. The rock is moderately fractured becoming strongly broken locally.			
493							
				398'-399': banding - a 1" dark greyish pink zone cuts the core axis at 40°.	398.5	banding	40° to the core axis
				451.8'-460': the rock is vuggy and fractured - surfaces are coated with fine quartz crystals.			
				475'-480': Diorite-Diabase dyke. The rock is fine grained and strongly chloritized. The upper contact cuts the core axis at 35°. The lower contact is partly ground but may dip at 70°.			
				480'-493': light greyish-pink, quartz-feldspar intergrown grains up to 2 mm. Some feldspar grains are up to 8 mm. in size and are euhedral to anhedral in shape. The interval is vuggy and fractured similar to 451.8'-460'.			
				END OF HOLE: 493'			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-6
SHEET 1 OF 4

PROPERTY COBEQUID III
LATITUDE 35 + 10 S.
LONGITUDE 48 + 00 E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 424.2'
CORE SIZE BQ

DATE STARTED 25 July, 1978
DATE COMPLETED 29 July, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: 30-31 July, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 28.9	ø		Overburden				Acid Dip Tests -100': -41° -295': -39° -424': -38°
28.9 - 134.9	106		Rhyolite	Dark pinkish-grey with minor dark grey becoming red locally. Aphanitic with some hazy, feldspar phenocrysts up to 2 mm. and minor quartz phenocrysts of similar size. Some vague flow lamination may be present locally but generally the unit is massive and non-laminated. Flow breccia is common. Well rounded and minor angular red fragments are surrounded by a dark grey matrix. Fragments up to 3 cm. are common with occasional larger blocks. Some microfaulting is present locally and overall, the rock is weakly to moderately fractured. Narrow breaks are epidotized. Some wider openings are mylonite filled. Alteration is patchy and consists of red reaction halos around some fractures, spotty epidotization in zones of proximity to mafic intrusives and weak chloritization of some amygdules. Some intensely broken zones are cream coloured perhaps reflecting some degree of kaolinization. 31.9'-42.9': dark green diorite (?) or diabase dyke. It is strongly chloritized and epidotized and carries some rhyolite fragments. 43.9'-51.7': flow breccia: hazy red fragments up to 3 cm. in an aphanitic greyish-red matrix. Breccia fragments may be flow laminated. The zone is irregular and includes minor intervals of non-brecciated material. It contains several 1" bands of porphyritic dark grey rhyolite. 45.7' : a 10 cm. mylonitic zone where the rock is intensely broken, fragmental, and moderately kaolinized - Fault zone?			

GMC 1019

DIAMOND DRILL RECORD — CONTINUATION SHEET

D.D.H. NO. DF-6

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
28.9 - 134.9	106		Rhyolite (continued)	53.7'-60.5': Diabase - Diorite dyke - dark green, fine grained, generally fresh with strongly chloritized contact zones. At 55.5' a strongly fractured rhyolite xenolith is found.			
				60.5' : the rhyolite becomes more strongly porphyritic, phenocrysts mainly consisting of feldspar with minor quartz up to 2 mm. Some phenocrysts are surrounded by red reaction halos.			
				68.6' : flow laminations at 60° to the core axis - may be a flow contact.	68.6	flow lamination	60° to the core axis
				66.9'-95.1': flow breccia - rounded, dark red, occasionally porphyritic or flow laminated breccia fragments up to 10 cm. set in a reddish-grey aphanitic matrix. The lower 1.5' is strongly fractured and epidotized.			
				95.1'-100.6': Diabase-Dioritic dyke - The rock is dark green, fine grained and strongly chloritized. Fractures are strongly epidotized and partly carbonate filled. A 6" rhyolite xenolith is located at 96.1'.			
				100.6'-104.8': flow breccia - same as 66.9'-95.1'.			
				104.8'-109.8': Diorite dyke: Dark green, fine to locally medium grained and strongly chloritized at the contacts. The centre zone is feldspathic and porphyritic.			
				: porphyritic with 1-3 mm. euhedral pink feldspar phenocrysts.			
				109.8'-111.8': the rhyolite is tectonically brecciated and was probably flow breccia. The rock presently consists of angular fragments up to 1 cm. in size. It is dark red coloured with minor cream coloured, possibly kaolinized material.			
				111.8'-134.9': flow breccia - red fragments up to 2 cm. 116.8'-120.3' - minor massive flow (eg. 117.8'-119.3').			
134.9' - 173.3'	38.4		Rhyolite	Massive, non-brecciated flow that is reddish-grey in colour and gradually becomes redder and more strongly porphyritic towards 158.5' whereupon the trend reverses back to the original colour, and texture at 173.3'. Quartz phenocrysts up to 4 mm. are rounded while feldspar phenocrysts up to 5 mm. are red and euhedral. Feldspars may be clumped together or individually spaced. Fractures are filled by white carbonate			
				135.9': 1 cm. mylonite seam at 80° to the core axis.			
				142.8': 2 cm. mylonite seam at 33° to the core axis. Below this the rock is broken with fractures silicified and epidotized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-6

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
173.3 - 206.7	33.4		Diorite	Dark green near the contacts and fine grained becoming light pinkish green and porphyritic in the central zone. Pink feldspar phenocrysts are up to 3 mm. in size.			
				173.3'-177.7': fine grained - upper contact dips at 35° to the core axis.	173.3	contact	35° to the core axis
				177.7'-196.8': porphyritic zone - more strongly fractured than outer zones - carbonate filled.			
				196.8'-206.7': fine grained - lower contact dips at 30° to the core axis.	206.7	contact	30° to the core axis
206.7 - 208.7	2		Rhyolite	Grey to pinkish grey becoming pink near mafix intrusives, aphanitic and porphyritic with 1 mm. quartz and feldspar phenocrysts. The zone is strongly fractured.			
208.7 - 249.7	41		Diorite	Contact zones are dark green and the intrusive becomes lighter green to light pinkish green in the central core zone. Contacts are fine grained and strongly chloritized. The central zone is medium grained and porphyritic with pink feldspar phenocrysts up to 3 mm.			
				208.7'-224.8': fine grained diorite - upper contact at 45°.	207.8	contact	45° to the core axis
				224.8'-242.2': porphyritic zone - contains 1-10 mm. rounded chloritized fragments of diorite. The central zone is more highly fractured than boundary zones. Fractures are white carbonate filled.			
				242.2'-249.6': fine grained diorite - lower contact at 40°	249.6	contact	45° to the core axis
249.7 - 276.1	26.4		Rhyolite	The rock is mottled light grey and red becoming red near mafic intrusives, aphanitic and porphyritic with 1-2 mm. quartz phenocrysts and indistinct feldspar phenocrysts of similar size. Abundant flow breccia is present with rounded fragments up to 3 cm. that are both red and grey in colour and are set in both grey and red matrices. The zone is partly red non-brecciated massive flow. The unit is strongly fractured and surfaces of breakage are usually epidotized. The unit is stoped towards the base by granite stringers and narrow dykes. Near these, the rhyolite is strongly silicified and some mafic minerals dot the light greyish-green and red core. The rhyolite is extremely glassy in these zones. Some magnetite flooding of the rhyolite has occurred especially in the lower 3' section.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-6

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
249.7	26.4		Rhyolite	249.7'-250.7': granite dyke - pink, fine to medium grained.			
276.1			(continued)	262.2' : 6" granite dyke.			
				268.2'-269.2': granite dyke.			
276.1	148.1		Granite	Dark pinkish-red to pink, fine to medium grained rock. The composition averages 30% quartz and 68% feldspar with the balance being hornblende, biotite and minor magnetite. Lighter coloured zones may locally contain 50% quartz. Grains up to 4 mm. are found locally often with quartz-feldspar intergrowths. Graphic intergrowths are common in most feldspar crystals. The rock is vuggy near the upper contact. Fracturing is well developed. Breaks are carbonated and epidotized. The rock is weakly magnetic, especially around altered mafic minerals.			
424.2				320.8' : mylonite zone - angular granite fragments in a silicified, epidotized matrix - some weak feldspar kaolinization. similar zones at 331.6'-333.6' and 335.6'-336.6'.			
				353.8' : fault plane cuts the core axis at 20°and slickensides pitch 45° across the plane. The surrounding rock is strongly fractured, microfaulted and silicified.			
				368.2'-368.3': mylonitic fractured zone.			
				399.5'-424.2': the granite contains minor rounded patches of light grey granite - up to 5 cm. in size - reflect, varying quartz content and resulting textural changes.			
				END OF HOLE: 424.2'			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-7
SHEET 1 OF 2

PROPERTY COBEQUID III
LATITUDE 38 + 15 S.
LONGITUDE 48 + 00 E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 315.6
CORE SIZE BQ

DATE STARTED July 31, 1978
DATE COMPLETED August 7, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: August 11, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 24.6	Ø		Overburden				Acid Dip Tests
24.6 - (21.1)	45.7		Diorite	The rock is dark green, fine to medium grained, weakly magnetic and weakly fractured. Fractures are strongly epidotized. Weak uralitization and epidotization are widespread.			-100' : -42° -315' : -42°
45.7 - (13.8)	59.5		Granite	Reddish-pink, medium to coarse grained. Feldspar grains and aggregates of feldspar crystals are up to 1.5 cm. in size. The rock is very fresh and hard.			
59.5 - (22.2)	81.7		Diabase	Dark green and fine to medium grained with a central porphyritic zone containing feldspar phenocrysts up to 3 mm. in size. This zone also contains numerous recrystallized granitic fragments, and diabasic fragments up to 1.5 cm. The intrusive is moderately fractured and epidotized overall. 63.7'-78.7': fragmental porphyritic zone			
81.7 - (52.3)	134		Granite	Reddish-pink, medium to coarse grained. Numerous bands cut the core axis at 40°. Chloritized seams and strong chloritization are present at the contact (81.7') and in the surrounding zone (81.7'-86').			
134-141.5 (7.5)			Diabase	Dark green, fine grained and weakly magnetic. The intrusive carries numerous granite xenoliths up to 4" in size. Feldspar has commonly flooded from the xenoliths into the surrounding rock. Epidote stringers originate in the diabase and cut into fragments			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-7

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
141 (174.1)	5 - 315.6		Granite	Reddish-pink, fine to medium grained. Composition averages 30-40% quartz and 60-70% feldspar with up to 2% combined hornblende, mica and magnetite. The coarsest feldspar grains are up to 8 mm. in size. Quartz and feldspar are typically graphically intergrown. The rock is generally very fresh. Some strongly broken zones may be weakly kaolined and strongly epidotized, especially near mafix intrusives. The zone from 147.5'-167.5' is vuggy. Openings are filled with quartz crystals.			
				147.5'-151.5': chloritized diabase-diorite			
				153': strongly broken, weakly chloritized granite			
				237': 6" chloritized seam			
				315.6' END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-8
SHEET 1 OF 2

PROPERTY COBEQUID III
LATITUDE 41 + 00 S.
LONGITUDE 48 + 00 E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 387.2'
CORE SIZE BQ

DATE STARTED July 30, 1978
DATE COMPLETED August 3, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

* NOTE: Line 48E intersects 40S. Tie line at 40 + 15 S.; - DF-8 is 100'S of tie line.

DATE: August 3, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-21	ø		Overburden				ACID DIP TESTS:
21-325.8 (304.8)			Granite	Pink to pinkish red, medium grained becoming fine grained locally. Composition is 20-25% quartz, 75-80% feldspar and 2-5% mafix minerals - chiefly hornblende and biotite. The rock is weakly magnetic locally - especially near chloritized seams. Vugs are common and usually filled with small quartz crystals. The rock is strongly to moderately fractured throughout the zone, with numerous intensely fractured and mylonitic zones. Fractures are epidotized and frequently coated with an orange to yellow iron oxide. Some fractures are coated with drusy quartz crystals. A blue to purple crystalline mineral is found in some vugs and as coatings on some fractures, (e.g. 180.5'). Minor amounts of 1-2 mm. pyrite blebs and 1 mm. crystals are common in the granite.			-98.4': -43° -285': -43°
				126.9'-128.4': mafic zone - 5-10% hornblende, biotite and some magnetite			
				180.5': vugs and some fractures coated with purple crystalline mineral - terminated prisms			
				215.5': dark green intensely chloritized seam - possibly and altered diabase dyke - 6" thick			
				230': the granite becomes strongly fractured with some weak kaolinization of feldspar likely. The rock becomes mylonitic locally.			
				254.9': a 10" chloritized seam } possible altered			
				258.3': a 4" chloritized seam } diabase intrusives			
				285.4'-292.4': a zone of intense brecciation around a 12" strongly chloritized diabase dyke located at 287.9'-289.4'. The granite host is strongly chloritized along fractures and seams emanating from the diabase.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-8

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
21 - (304.8)	325.8		Granite (cont'd)	285.4': the rock is mylonitic and intensely fractured below this depth			
				321.8': zone of mylonite - fragments up to 1 cm. of varying lithologies - some rhyolite. Fragments are angular to sub-round, and frequently are rimmed by alteration. Matrix to the fragments is strongly epidotized and chloritized probably by fluids originating in the intrusive below.	321.8'-325.8'		: fault zone
325	8-387.2		Diabase	The rock is dark green, fine grained and very strongly chloritized. It is strongly magnetic locally. Abundant lithic fragments are incorporated into the dyke - up to 2 cm. in size. Some variation in rock type of these fragments is apparent but alteration masks the original rock type.			
				346.5': minor galena and chalcopyrite with pyrite in a narrow carbonate zone - the core here is strongly ground			
				345.5'-370.7': this zone appears to be largely without wall rock xenoliths and is probably the core of the intrusive			
				387.2': END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-9
SHEET 1 OF 2

PROPERTY COBEQUID III
LATITUDE 44 + 00 S.
LONGITUDE 48 + 00 E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 424'
CORE SIZE BQ

DATE STARTED August 3, 1978
DATE COMPLETED August 7, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: August 11, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-19.7	Ø		Overburden				ACID DIP TESTS:
19.7-424 (404.3)			Granite	The rock is reddish-pink becoming pink locally and medium granied with minor fine grained zones. Quartz grains are up to 2 mm. in size; reddish feldspars are of similar size. Quartz and feldspar are intergrown and form 98-100% of the rock volume. Generally the quartz-feldspar ratio is 1:3. Minor amounts of hornblende, mica and magnetite are also present. The granite is weakly fractured becoming moderately fractured locally. Major fractures are epidotized and occasionally white carbonate filled, minor fractures are discontinuous and appear to be silicified. The rock is weakly to very weakly magnetic. Alteration consists of chloritization of amygdules which may have been hornblende clusters, and, epidotization and chloritization of fractures. Vugs may be carbonated locally. Some strongly fractured and mylonitic zones may be weakly kaolinized, (e.g. 83.2' and 210.7')			-90': -42.5° -295': -41° -420': -41°
				33.5'-36': Aplite dyke - fine to medium grained, pink 61.2'-74.2': Aphanitic siliceous zone - pink to grey, laminated locally and intensely fractured - some strongly chloritized fractures are shear planes - possible rhyolite xenolith - might be spherulitic - contains abundant Cpy. and 1-2 mm. pyrite cubes 74.2'-84.6': granite is abnormally fractured and mylonitic locally (e.g. 83.2') 103.4'-105.4': 3"-4" aplite dyke 109.5': possible 12" strongly fractured rhyolite xenolith - carbonated fractures. 135.9'-138.3': Diabase - dark green, fine grained, weakly to moderately magnetic, strongly chloritized. The intrusive carries 103 mm. epidotized fragments and pink granite xenoliths up to 3 cm.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-9

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
19.7-424			Granite	138.3'-139.3': strongly chloritized fracture network in granite			
(404.3)			(cont'd)	153.6'-154.6': Aplite dyke			
				155.6'-162.5': Diorite - dark green, fine grained, strongly chloritized weakly magnetic and moderately uralitized			
				203.8'-213.5': vuggy zone in granite - strongly fractured			
				210.7': 6" mylonitic zone - kaolinized			
				226.4': 1/2" strongly hematized mylonitic fault zone - weakly epidotized	226.4'	fault plane at 15° to the core axis	
				263.4': red mylonitic zone			
				264.9': epidotized mylonitic zone			
				304.6'-337.6': granite becomes increasingly vuggy and fractured - weakly kaolinized zones are more common and lighter coloured			
				347'-382.6': as above			
				396.6'-402.2': Diorite - dark green, fine to medium grained - numerous epidotized shear planes at varying angles. The rock is generally strongly chloritized and weakly uralitized			
				404.5'-405.5': strongly chloritized, dark green intrusive			
				407.2'-407.8': strongly chloritized seam			
				402.2'-409.5': granite is flooded with mafix minerals which have been chloritized			
				424': END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-12
SHEET 1 OF 3

PROPERTY COBEQUID III
LATITUDE 42 + 38 S
LONGITUDE 52 + 00 E
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 463.6'
CORE SIZE BQ

DATE STARTED August 6, 1978
DATE COMPLETED August 10, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

NOTE: Latitude measured 250' south of 40 S. tie line.

DATE: August 15, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-22	Ø		Overburden				ACID DIP TESTS:
22-53.6 (31.6)			Rhyolite	The rock is dark grey with red and pink mottling, very fine grained to aphanitic and porphyritic with minor 1-2mm. quartz and feldspar phenocrysts. The zone is intensely broken and fractured with widespread tectonic breccia. Fractures and gouge between breccia fragments are strongly epidotized and variably hematized. Numerous zones of mylonitic rock are present and are weakly kaolinized. Some fractures are surrounded by red reaction halos.			98': - 45° 290': - 45° 442': - 45°
53.6-463.6 (410)			Diorite	Dark green, fine to medium grained rock. The unit is cut by dark green, very fine grained, strongly chloritized diabase dykes. This unit in part may include several sections of andesite-basalt. Due to alteration, distinction between diabase and mafic flow is difficult. All rocks are fractured, at times becoming mylonitic over short sections. Fracture surfaces are chloritized. Gaps along fractures are white carbonate or epidote filled. Mylonitic zones are strongly epidotized. All rocks are weakly magnetic.			
				76.2' : brecciated, epidotized shear zone cutting the core axis at 10-20°	76.2	shear	15° to the core axis
				80.7'-82.7': mylonite zone - silicified and epidotized, intensely fractured - angular breccia fragments up to 3 cm. in size			
				85.6'-92.6': porphyritic diorite - occasional pink feldspar phenocrysts and aggregated phenocrysts up to 1 cm. Large phenocrysts are rim altered. Smaller crystals are completely sausauritized			
				92.6': epidotized fault plane cuts the core axis at 30°	92.6	fault	30° to the core axis
				97.9': fault plane in epidotized zone cuts the core axis at 60°	97.9	fault	60° to the core axis

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-12

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
53.6-463.6			Diorite	143.3': pink feldspathic material is found filling voids in a			
(410)			(cont'd)	fracture system with epidote. Fractures are angular and			
				rock has a general shattered appearance which decreases			
				in intensity towards 150'			
				154.6': epidotized mylonite zone			
				152.6'-163.3': rock is strongly fractured and highly epidotized			
				163.3'-167.8': diorite - medium grained, good dioritic texture.			
				Pyroxene crystals are weakly uralitized and weak overall			
				epidotization is the rule despite the rock being fresher			
				than surrounding zones. The rock is weakly to moderately			
				magnetic. Minor finely disseminated pyrite is found in			
				the zone.			
				172.3': spotty feldspathic zones and blebs - epidotized			
				173.8'-174.8': laminated zone - possibly a diabase dyke - chloritized	174'	laminations	30-35° to the c/a
				and strongly epidotized			
				235.7': discontinuous bands dip 10° across the core axis			
				231.6'-232.6': strongly broken and epidotized			
				252.9'-256.9': diorite - medium grained, weakly chloritized, minor			
				finely disseminated Pyrite.			
				264.7'-272.7': epidotized fractured zone			
				272.7'-280.5': RHYOLITE - The rock is dark pink, and spherulitic			
				(1-2 mm. diameter). Spherulites are located along flow			NOTE: 272.7'-280.5'
				laminations at 40° to the core axis. Mafic amygdules			represents rhyolite
				are strongly chloritized. Minor 1-2 cm. mottled pink			xenolity
				and grey rhyolite fragments are incorporated in the			
				laminations. The lower 1' of the zone is strongly			
				deformed.			
				280.5'-281.5': feldspar flooded diorite			
				281.5'-303.8': weakly to moderately fractured, locally mylonitic diorite			
				303.8'-307.6': pinkish feldspathic diorite			
				307.6'-308.1': zone of parallel shears - chloritized	308'	shear	60° to the core axis
				320.8'-328.8': medium grained zone - minor finely disseminated pyrite			
				333.6': 1" fine to aphanitic mafic stringer (diabase) cuts the			
				core axis at 45°			

GMC 1016

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-12

SHEET 3 OF 3

DEPTH FEET	FTAGE CORED	FTAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
53.6-(410)	463.6		Diorite (cont'd)	344.5'-361.2': diorite - medium grained, light to medium grey colour; weakly fractured, minor disseminated pyrite - the base of the zone is strongly epidotized			
				361.2'-380.9': basalt (?) - upper contact is a 6" highly fractured and strongly epidotized zone. The unit as a whole is fine grained and more highly fractured than the overlying diorite			
				380.9'-388.9': diorite - medium grained, epidotized and contains up to 2% disseminated pyrite and minor chalcopyrite. The rock is weakly fractured 385.8'-386.8': strongly fractured silicified epidotized mafic xenolith			
				388.9'-414.4': diabase - chloritized			
				414.4'-427.8': feldspathic zone - pink feldspar clots up to 2 cm. 426.2'-426.9': fractured rhyolite xenolith			
				427.8'-442.6': rock is medium grained with numerous white carbonate filled fractures			
				442.6': diabase (basalt?) fine grained, dark green, chloritized - seems to grade into diorite			
				460.7'-463.6': basalt - dark green, fine to aphanitic, strongly chloritized			
				463.6' END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-13
SHEET 1 OF 3

PROPERTY COBEQUID III
LATITUDE 31 + 00 S.
LONGITUDE 52 + 00 E.
ELEVATION

BEARING—TRUE 270° Az.
DIP -45°
FINAL DEPTH 345'
CORE SIZE BQ

DATE STARTED August 8, 1978
DATE COMPLETED August 14, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: August 16, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-29.5	Ø		Overburden	Rhyolite boulders lying on bedrock surface			ACID DIP TESTS
29.5-44.3 (14.8)			Diorite	The rock is dark greyish-green, fine grained and porphyritic. Light green, euhedral, 1-5 mm. feldspar phenocrysts are sausauritized. The groundmass is generally fresh. Contact zones are moderately to strongly chloritized.			98': -42°
				31.5'-42': porphyritic zone			285': -40.5°
44.3-116.6 (72.3)			Rhyolite	The rock is reddish pink, aphanitic and porphyritic with 1-2 mm. cream coloured, euhedral feldspar phenocrysts. It is weakly flow laminated above 48.6' and well laminated locally below 56.8'. Dips of 40° but as high as 60-70° are recorded. White mottling representing pseudo-phenocrysts of quartz are found throughout the zone.			
				44.3'-48.6': flow laminated rhyolite - irregular dips			
				48.6'-56.8': Diorite - scattered 1-5 mm. feldspar phenocrysts			
				56.8'-82.7': irregularly flow laminated rhyolite	64.7	flow lamination	65° to the c/a
				82.7'-95.8': Diabase - dark green, fine grained, moderately to strongly chloritized			
				95.8'-99.1': reddish-pink, porphyritic rhyolite			
				99.1'-108.6': Diabase - lower contact dips 15°-20° to the core axis - 102.4'-106' rhyolite xenolith			
				108.6'-116.6': Rhyolite - upper part is weakly flow laminated at 40°-45° to the core axis. The lower half is more strongly broken, becoming mylonitic locally and light pink locally - possibly weakly kaolinized	110	flow lamination	45° to the c/a

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-13

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
116.6-149.4 (32.8)			Diorite	Dark green, fine to medium grained and porphyritic with light green sausauritized feldspar phenocrysts up to 5 mm. in size. Some phenocrysts are penetrated by the groundmass. The rock is weakly chloritized and epidotized.			
				134.2'-145.3': medium to coarse grained felsic zone with 20-35% pink feldspar grains up to 3 mm. in size.			
				145.3'-149.4': fine to medium grained, porphyritic. A 6" rhyolite xenolith sits 3" above the lower contact.			
149.4-167.7 (18.3)			Rhyolite	Reddish-pink becoming cream coloured locally in zones where core is highly broken or mylonitic (163.4'-164.7'). Fractures are epidotized throughout the zone. Cream coloured rock may be weakly kaolinized. The zone has numerous mafic clots and stringers especially near mafic intrusives.			
				157'-157.5': chloritized seam			
167.7'-188.7' (21)			Diorite	Dark green, fine to medium grained, non-porphyritic.			
				172.6'-177.8': felsic zone - 10-20% pink feldspar grains up to 3 mm. in size			
				179.8'-182.1': rhyolite xenolith - reddish-pink aphanitic, flow laminated with 1-2 mm. spherulites			
188.7'-206' 17.3			Rhyolite	Light grey to pinkish-grey becoming pinkish-red below 191.3'. The rock is aphanitic and porphyritic with 1-3 mm. round quartz phenocrysts often clumped together and penetrated by the matrix. Below 192.3' the rock becomes mottled red and white, reflecting quartz-rich zones. The unit may be partly flow breccia. Vague rounded fragments up to 1 cm. in size are found locally. Mafic minerals in the rock are moderately chloritized, the groundmass is largely unaltered. Fractures are surrounded by red reaction halos. Some fine cream coloured speckling may indicate spotty kaolinization of feldspar.			
				193.3'-193.9': some secondary uranium stain on fractures - rock is dark red, aphanitic and not mottled - possibly silicified			
				194.6'-198.5': mottled red and white rhyolite			
				198.5'-206': rock becomes less red coloured and returns to a cream-grey rhyolite with minor red zones - may be weakly and irregularly flow banded			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DE-13

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
206-213.3 (7.3)			Diorite	Dark green, fine to medium grained. The contact zones are strongly chloritized but the felsic central zone is weakly altered. The rock is weakly to moderately fractured. Fractures are strongly epidotized and locally carbonated.			
				206.7'-210': felsic zone - medium grained - 40% feldspar			
213.3-240.8 (27.5)			Rhyolite	Pinkish-red becoming cream to pink locally, the rock is aphanitic, strongly fractured and tectonically brecciated. Matrix to breccia fragments is epidotized. Fractures are epidotized and carbonate coated.			
				231.6'-233.7': Diorite - weakly to moderately chloritized 5-15% pink feldspar.			
240.8-259.5 (18.7)			Diabase	Dark green, fine grained. Carries 10-20% of rock volume composed of rhyolite xenoliths up to 3 cm. and minor granite fragments. The dyke is strongly chloritized. Fragments are epidotized and fractures are strongly carbonated. Some non-magnetic metallic grey mineral is found locally along fractures (e.g. 254.1'). Large xenoliths are found at 247.9'-249.5', 250.7'-251' and 253.6'-254.3.			
259.5-345 (85.5)			Granite	The rock is reddish-pink, medium to coarse grained. Composition is 30% quartz, 70% feldspar with minor amounts of hornblende, chlorite and magnetite. The contact zone from 259.5'-264' is fine grained. Fracturing is variable in strength. Some more intensely broken zones may be weakly kaolinized. Near the mafic intrusive (240.8'-259.5') some flooding of mafic minerals has occurred. These minerals are now strongly chloritized.			
				282.5'-283.6': strongly chloritized diabase			
				345': END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-14
SHEET 1 OF 4

PROPERTY COBEQUID III
LATITUDE 28 + 00 S.
LONGITUDE 52 + 00 E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 533'
CORE SIZE BQ

DATE STARTED August 10, 1978
DATE COMPLETED August 17, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: August 18, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-53.2	Ø		Overburden				ACID DIP TESTS
53.2-178.5 (125.3)			Granite	Pinkish-red to red, medium grained rock with quartz grains up to 4 mm. in size - commonly graphically intergrown with feldspar. The granite is strongly fractured and broken near surface.			98' - 41.5° 295' - 39° 534' - 33.5°
				53.2'-86': strongly broken, fractures are weakly epidotized			
				129.2'-134.5': strongly broken, moderately to strongly chloritized fracture and broken near surface			
				136'-161.1': tectonic breccia - sub-round to sub-angular fragments up to 1 cm. are set in a strongly epidotized matrix. The rock becomes mylonitic at 146.3' and the zone 146.3'-148.3' is strongly chloritized. The interval 149'-154.2' is light pink and kaolinized, and extending to 159' the rock is coarser textured red and kaolinized. The zone 159'-161.1' is chloritized.			
				161.1'-161.9': angular breccia - probably tectonic in origin - fragments up to 1.5 cm. with white carbonate in matrix and openings			
				163.1'-168.6': tectonically brecciated, epidotized and carbonated			
				161.9'-163.1': diabase - strongly chloritized			
				168.6'-172.1': diabase - contains abundant xenoliths and micro-xenoliths of wall rock - ground mass is strongly chloritized			
				172.1'-173.9': strongly fractured - angular fragments are set in a white carbonate matrix fine fractures are epidotized			
				173.9'-174.9': diabase - abundant xenoliths as in unit 168.6'-172.1' above			
				174.9'-178.2': intensely broken and chloritized granite may include some rhyolite			
				178.2': 3" strongly chloritized diabase seam with abundant xenoliths of wall rock.			

GMC 1/018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-14

SHEET 2 OF 4

DEPTH FEET	FTAGE CORED	FTAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
178.5-533 (354.5)			Rhyolite	The zone initially is dark pinkish-grey, aphanitic, perhaps weakly porphyritic (possible hazy phenocrysts) and tectonically brecciated. The degree of brecciation locally becomes mylonitic. Fractures and finely broken mylonite are strongly epidotized. Wider fractures are white carbonate filled. Below 216.5', the rock is pink to reddish-pink and occasionally greyish-pink. Phenocrysts of quarts up to 2 mm. are usually round while euhedral pink feldspar phenocrysts may be up to 3 mm. in size. The rhyolite is well laminated locally as a result of flowage. Alteration consists of epidotization and local chloritization of fractures and weak kaolinization of mylonitic zones.			
				178.5'-218.8': grey and pinkish grey rhyolite, strongly brecciated, strongly silicified - 1-3 mm. feldspar phenocrysts; abundant finely disseminated pyrite			
				218.8'-223.6': the rock becomes pinker and more strongly fractured and brecciated - some kaolinized mylonitic zones locally. This zone is less strongly porphyritic than the above zone			
				223.6'-225.6': dark green chloritized diabase dips along core axis			
				229.5'-233.6': dark pinkish-grey, porphyritic rhyolite			
				233.6'-243.8': strongly porphyritic rhyolite - minor flow banding			NOTE: Zone 243.8'-264.6' bears a striking resemblance to 400'-415' in DF-4
				243.8'-264.6': red, aphanitic and porphyritic rhyolite, with quartz and feldspar phenocrysts, irregularly flow laminated, frequently mylonitic and strongly epidotized. Some mafic clots are strongly chloritized.	258.5 264.1	flow lamination - 25° to the c/a flow lamination - 20° to the c/a	
				264.6'-274.8': very strongly porphyritic, fractured and epidotized mylonitic and intensely broken zones are weakly kaolinized			
				274.8'-279.5': orange-red tectonically brecciated weakly flow laminated rhyolite. May include minor flow breccia. Some kaolinized mylonite at 280.5'			
				279.5'-292.8': dark red becoming greyish red strongly porphyritic weakly to moderately fractured minor flow breccia - a flow contact cuts the core axis at 60°. Flow laminations at 40°-60° are very irregular between 290.4' and 292.8'.			
				292.8'-302.2': same as 274.8'-279.5' - unit is strongly broken and kaolinized 300.7'-301.7'.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-14

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
178.5-533			Rhyolite	302.2'-317.9': well developed flow laminations, porphyritic and flow	302.5		45° to the c/a
(354.5)			(cont'd)	breccia locally - The zone 309.1'-311.7' is not laminated	307.4	Flow	40° to the c/a
					312.7	Laminations	40° to the c/a
				316.6'-317.4': intensely chloritized diabase	314.6		30° to the c/a
					316		40° to the c/a
				317.9'-383.2': non-laminated, strongly porphyritic rhyolite. The rock is weakly fractured but below 329' it is more strongly broken. Quartz phenocryst aggregates up to 1 cm. dot the zone.			
				100.9'-101.1': strongly chloritized			
				336.3'-: intensely broken and mylonitic - the rock is cream coloured reflecting weak kaolinization. The interval contains epidotized tectonic breccia and some other fragmental - possibly flow breccia - wide fractures are white carbonate filled.			
				383.2'-386.2': minor flow breccia with tectonic breccia - weakly fractured.			
				386.2'-387.7': dark grey siliceous feldspar porphyry with numerous rhyolite xenoliths near contacts - contacts are very angular, blocky irregular, and unaltered - low temperature intrusive			
				387.7'-401.9': similar to zone at 317.9'-383.2' - irregularly flow laminated at 60° to the core axis but laminations are disrupted by indistinct fragments and quartz clots up to 2 cm. in size. The vague fragments may be related to flow breccia.			
				401.9'-433.4': below a sharp contact at 401.9', the rock becomes strongly fractured, mylonitic and weakly kaolinized. The degree of tectonic brecciation increases with depth to 414.4' and then increases again towards 419.3'.			
				411.1'-411.8': strongly, chloritized diabase	436.7		5-10° to the c/a
					440.6	Flow	40° to the c/a
				433.4'-444.6': flow laminated zone - laminations are irregular in dip and some breccia is found in the interval 443.6'-438.7'.	441.6	Laminations	convolute
					442.1		30° to the c/a
					443.9		35° to the c/a

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-14

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
178.5-533 (354.5)			Rhyolite (cont'd)	444.6'-480': similar to zone 387.7'-401.9'. Brecciation is strongest in the zone below 460.8'. Some flow laminated rock is mixed with flow breccia (e.g. 463.4'-463.9', 467.5'-469.5' and 474.1'-475.1)	478.4	Flow Lamination	45° to the c/a
				480'-487.2': finely laminated locally, weakly porphyritic and may include some intervolcanic sediment.			
				487.2'-488.2': strongly chloritized spherulitic locally and intensely brecciated.			
				488.2'-488.5': dark red rhyolite - flow brecciated and spherulitic			
				488.5'-492.2': dark red, porphyritic and weakly fractured			
				492.2'-509.5': dark red, moderately to strongly fractured			
				509.5'-518.4': weakly fractured and epidotized. The rock is speckled with quartz and feldspar phenocrysts up to 2 mm. in size.			
				518.4'-525': strongly speckled dark red and black - strongly porphyritic and silicified rhyolite.			
				525'-533': tectonically brecciated, silicified and epidotized - angular fragments up to 1 cm.			
				533': END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-15
SHEET 1 OF 3

PROPERTY COREQUID III
LATITUDE 31 + 00 S.
LONGITUDE 52 + 00 E.
ELEVATION

BEARING—TRUE 270° Az.
DIP -70°
FINAL DEPTH 349.5'
CORE SIZE BQ

DATE STARTED August 14, 1978
DATE COMPLETED August 19, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: August 19, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-26	Ø		Overburden				ACID DIP TESTS:
26-32.8 (6.8)			Rhyolite	The rock is reddish-pink, aphanitic and porphyritic with 1 mm. pink and cream coloured, euhedral feldspar phenocrysts.			102': -68.5° 272': -66.5° 349': -68.5°
32.8-49.9 (17.1)			Diorite	The rock is dark greyish-green, fine grained and porphyritic with light green, euhedral 1-5 mm. altered feldspar phenocrysts. Alteration consists of sausauritization of feldspar and chloritization of mafic minerals.			
49.9-128.2 (78.3)			Rhyolite and Diorite	The rock is reddish-pink becoming dark red locally (e.g. 65') aphanitic and porphyritic with 1-2 mm. cream coloured and pink feldspar phenocrysts. The rock is flow laminated locally. Dips of 30°-45° are recorded. White mottling reflecting quartz-rich zones - pseudophenocrysts speckle the zone. The rock is weakly to moderately fractured becoming intensely shattered locally (64.8'-65.3') and (80.2'-81.86')	65'	Flow Lamination	45° to the c/a
					81.5'	Flow Lamination	30° to the c/a
				66.9'-67.6': diabase - strongly chloritized 88.4'-102.2': Diorite - dark green, fine to medium grained, porphyritic with light green sausauritized feldspar phenocrysts up to 7 mm. 80.1'-99.7': porphyritic zone 102.2'-113.9': rhyolite - moderately to strongly fractured; wide breaks are filled with white carbonates - narrow fractures are epidotized 113.9'-124.3': Diabase - strongly chloritized, fractured 124.3'-128.2': rhyolite - red, aphanitic, porphyritic locally strongly kaolinized upper contact, weakly flow banded			
128.2-131.2 (3.0)			Diorite	Dark green, fine grained with hazy light green sausauritized feldspar phenocrysts up to 3 mm. in size. The rock is moderately well fractured and chloritized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-15

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
131.2-145.2 (14)			Rhyolite	Reddish-pink, aphanitic with euhedral pink feldspar phenocrysts up to 3 mm. and round quartz phenocrysts up to 2 mm. Numerous strongly chloritized blebs and seams cut the core. A 3" porphyritic mafic intrusive is located at 133'.			NOTE: Zone 131.2' - 145.2' may be a xenolith or stoped rhyolite block.
145.2-157.5 (12.3)			Diorite	Dark green, fine to medium grained with minor hazy fractured pink feldspar phenocrysts - weakly to moderately chloritized.			
157.5-160.4 (2.9)			Rhyolite	Red, aphanitic, weakly porphyritic with 1 mm. round quartz phenocrysts. The rock is strongly fractured and surfaces of breakage are epidotized. Numerous chloritized seams cut the zone.			NOTE: Zone 157.5' - 160.4' is probably a xenolith.
160.4-168.3 (7.9)			Diorite	Dark green, fine to medium grained, weakly chloritized.			
168.3-195.3 (27)			Rhyolite	Pinkish-red, aphanitic and porphyritic with 1 mm. round quartz phenocrysts. The rock is weakly flow laminated. Locally the flow banding is irregular and convolute. The development of laminations is good below 174' where the rock is also brecciated. Rounded fragments disrupt the bands locally.	174.9	Flow Banding	parallel to c/a
					177.2	"	25° to the c/a
					180.1'-180.9'	"	40" to the c/a
				55.15': tectonic breccia, mylonitic locally, epidotized and weakly kaolinized - fractures are yellow coloured			
				below 59.2': possible flow breccia - indistinct fragments in a dark red matrix			
195.3-206.7 (11.4)			Diorite	Fine to medium grained, dark green, moderately chloritized. Fractured moderately with epidote filling voids.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET.

D.D.H. NO. DF-15

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
206.7-286.3 (79.6)			Rhyolite	Pinkish-red, aphanitic, spherulitic locally (212') and weakly porphyritic with minor 1 mm. hazy feldspar phenocrysts. The rock mylonitic locally (e.g. 65'-66.3', 70.3'-70.6', and 71.7'-72.1'). These zones are strongly epidotized and weakly kaolinized. Below 236' the rock is intensely broken. Fractures are strongly epidotized and weakly chloritized. Core recovery is about 75%. Tectonic brecciation is widespread. Breccia is silicified and epidotized. The rock is weakly fractured for only short intervals (258.5'-259.5').			
					285.5	Foliation 55° to the c/a	
				284.5'-286.3': a sharp fault contact cuts the core at 284.5'. Below this is about 2' of mylonite with a foliation dipping 55°. The rock is epidotized, chloritized and probably kaolinized.			
286.3-302.3 (16)			Diabase	Dark green, fine grained, intensely chloritized and moderately epidotized The lower part of the intrusive is very dirty with abundant rhyolite and granite fragments up to 4 cm. Fragments are strongly fractured. Fractures are white carbonate and epidote filled.			
302.3-349.5 (47.2)			Granite	Red to grey-red, medium to coarse grained rock with feldspar crystals up to 3 mm. Composition remains constant at about 30% quartz and 70% feldspar with minor hornblende. The rock is weakly fractured. Epidote is commonly found on fractures. The rock is weakly magnetic locally.			
				349.5': END OF HOLE.			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-16
SHEET 1 OF 3

PROPERTY COBEQUID III
LATITUDE 45 + 38 S.
LONGITUDE 52 + 00 E.
ELEVATION

BEARING — TRUE 180°
DIP -45°
FINAL DEPTH 375'
CORE SIZE BQ

DATE STARTED August 18, 1978
DATE COMPLETED August 19, 1978
DRILLED BY St.Lambert Drilling Co. Ltd.
LOGGED BY A.W. Workman
M. Strazdins

Note: Latitude measured 550' south of 40 S. tie line.

DATE: August 25, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-23.3'	Ø		Overturned				ACID DIP TESTS:
23.3'	- 94.5'		Felsic Zone	The rock is medium grey, aphanitic with pink felsic zones and bands.			98' : - 38.5°
	(71.2')		Rhyolite?	Chlorite and epidote alteration is patchy with many unaltered zones.			295' : - 37°
				Some flow banding may be observed locally. Some altered zones also			374' : - 37°
				appear to be banded. A flow contact (?) is located at 52.5'.			
				A pink,highly brecciated zone is located at 90.4'.	flow	banding	(?) 55° to the core axis.
94.5'	-196'		Diorite	Dark green, fine grained, weakly chloritized and weakly porphyritic			
	(101.5')		with Diabase	locally with pink feldspar phenocrysts up to 2 mm. in size. The rock			
				is generally strongly fractured. Fractures are epidotized and white			
				carbonate is found filling wider cavities. The presence of chill			
				margins within this mass indicates the presence of many intrusives			
				cross-cutting through this body - possibly a multiple intrusive origin.			
				96.5' - 98.1' ; rhyolite xenolith - pinkish grey, aphanitic and porphyritic with white quartz and pink feldspar phenocrysts up to 2 mm. in size. The rock is highly fractured.			
				98.1' -104.9' : weakly fractured diabase with up to 5% pyrite locally			
				104.9' -119.1' : chill margin located at 104.9' - diabase is similar to above varieties, but is moderately fractured.			
				119.1' -119.8' : rhyolite xenolith - reddish brown, strongly fractured, epidotized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-16

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
94.5'	- 196'		diabase	continued ----			
				119.8' - 129.9': diabase - dark green, very fine, grained, chloritized, strongly fractured.			
				129.9' - 144' : diabase - chill zone located at 129.9' - the rock is chloritized and pyroxines are uralitized. Up to 5% pyrite locally.			
				144' - 165' : diabase - another intrusive phase - strongly fractured- 2-5% pyrite.			
				165' - 196' : possibly diorite - moderately chloritized, strongly fractured with epidotization of fractures. Numerous black alteration patches up to 3 mm. in size dot the zone - chloritized amygdules (?)			
196'	- 271.5' (75.5)		Rhyolite	The rock is grey at the contact with red halos around fractures becoming brick red to grey-red. It is aphanitic and porphyritic locally with well defined 1-3mm. euhedral red feldspar phenocrysts and indistinct quartz phenocrysts. The rock may be spherulitic locally. The zone is highly silicified and strongly chloritized locally. Fractures are epidotized.			
				214.8' - 222.9' : Diorite - dark green to black, weakly feldspathic (?) The upper contact is fresh to weakly chloritized. Chlorite alteration is stronger with dept.			
				229.9' - 237.2' : Rhyolite - dark grey with pinkish - red mottling and bands. Locally, fractures are strongly developed and surrounded by red reaction halos. They are chloritized and epidotized. Several 1"-3" granite stringers and reinlets are located at 229.7'.			
				237.2' - 243.9' : Diabase - very dirty with abundant xenoliths of rhyolite and granite up to 3 cm. - dyke is strongly chloritized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-16

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
196	- 271.5		rhyolite	continued ---			
				243.9' - 271.5' : rhyolite - pinkish-red, aphanitic and porphyritic, intensely fractured becoming moderately fractured with depth. Frequently the rock is mylonitic in the upper zone and may be kaolinized. Numerous epidotized fractures and chloritized seams cut this zone.			
271.5'	- 295.3' (23.8')		DIABASE	The rock is dark green, fine grained and strongly chloritized. It contains up to 50% of its volume composed of sub-angular rhyolite fragments and minor granite fragments.			
295.3'	- 375' (79.7')			Pinkish - red, fine grained at the contact becoming medium grained with depth. The rock is weakly fractured becoming moderately broken locally. Composition is 25-40% quartz and 60-75% feldspar. Minor amounts of hornblende are also present locally.			
				309.7' - 314' : diabase - fine grained, strongly chloritized and moderately fractured.			
				329.1' - 347.8' : diorite - pink feldspar grains - moderately chloritized locally.			
				367.3' - 368.1' : diabase - strongly chloritized.			
				375': END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-17
SHEET 1 OF 5

PROPERTY COBEQUID III
LATITUDE 35 + 00S.
LONGITUDE 52 + 00E.
ELEVATION

BEARING—TRUE 270° Az.
DIP -45°
FINAL DEPTH 414.4'
CORE SIZE BQ

DATE STARTED August 19, 1978
DATE COMPLETED August 24, 1978
DRILLED BY St. Lambert Drilling Co. Ltd
LOGGED BY A. Workman

DATE: August 24, 1978 SIGNED A. Workman

DEPTH FEET	FTAGE CORED	FTAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -34.5'	Ø		Overburden				Acid Dip Tests
34.5'	- 38.4 (3.9')		Diabase	Dark green, fine to medium grained and strongly chloritized. The rock is moderately fractured and epidote is found filling voids.			98' :- 40.5°
							295' : 39°
38.4'	- 57.7' (19.3')		Rhyolite	The rock is dark grey to reddish - grey, aphanitic and strongly brecciated. The breccia is of tectonic origin and is strongly silicified. The zones frequently are mylonitic . The rock moderately to strongly fractured with epidote on fracture surfaces. Locally, the rhyolite is porphyritic and possibly spherulitic.			414' : 38°
57.7'	-61.4' (3.7')		Diabase	The intrusive is dark green, fine grained and strongly chloritized.			
61.4'	-133.9' (72.5')		Rhyolite	Cream and orange to pinkish-grey, aphanitic and porphyritic. Round quartz and euhedral feldspar phenocrysts up to 2 mm. are common in the zone. The rhyolite is intensely fractured and strongly brecciated. Breccia is frequently mylonitic and has broken easily during coring. Unaltered grey and red rhyolite fragments are angular and average 1 cm. in size, but may be up to 4 cm. locally. They are set in a mylonitic matrix which is weakly kaolinized, epidotized and weakly to moderately hematized. Locally the fragments may have a weak foliation Wider fractures are filled with white carbonate and/or epidote. Blue fluorite is found in silicified fractures and in the matrix to tectonic breccia fragments at 88.6' and 125'.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-17

SHEET 2 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
64.1'	- 133.9'		rhyolite	continued....			
				61.4'- 103.7' : Strongly brecciated			
				103.7'- 107.8' : Rock is less brecciated but remains strongly fractured-red with 1-2 mm. quartz and feldspar phenocrysts.			
				107.8'- 110.4' : Strongly chloritized seam - diabase (?).			
				110.4'- 116.8' : Rhyolite - pink to reddish - pink and intensely fractured.			
				116.8'- 120.6' : Diorite - dark green, moderately chloritized.			
				120.6'- 128.8' : Rhyolite - intensely fractured, strongly brecciated becoming mylonitic at 122'. Fluorite is found in the matrix to epidotized rhyolite fragments at 125'.			
				128.8'- 133.9' : Diabase - dark green, intensely chloritized. Below 130.3' the intrusive is very dirty with epidotized rhyolite fragments (25-50%) of rock volume).	131.6' 132.7'	-folia-tion	fragments in dyke at 60° to the core axis.
133.9'	- 231.3' (97.4')		Rhyolite Ignimbrite	The rock is red (grey patches surrounded by wispy red filaments), aphanitic and porphyritic. Round quartz phenocrysts and red to cream coloured, euhedral feldspar phenocrysts are 1-2 mm. in size. Feldspar crystals frequently have reaction rims. The rock is weakly to moderately fractured becoming intensely broken, locally. Brecciation is weak to moderate. Locally, the rock is flow banded.			
				143.7': Numerous chloritized clots surrounded by red reaction halos - possibly near small mafic intrusive.			
				156.8'- 158.1' Chloritized diabase.			
				161.9': Weakly flow laminated zone - 6" wide.	161.9'	flow	laminations at 45° to the core axis.
				163.4': Narrow epidotized mylonite zone.			
				171.1': Weakly flow laminated zone - 6-8" wide.	171.1'	flow	laminations -40° to the core axis.
				175.4'- 191.9' Strongly fractured zone - brecciated with minor kaolinized mylonite.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-17

SHEET 3 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
133.9'	- 231.3'		Rhyolite	continued			
				191.9'- 196.4' : Diabase - dark green, fine grained, strongly chloritized.			
				196.4'- 231.3' : Rhyolite - red to pinkish - red, aphanitic, strongly fractured. Fractures are epidotized and weakly hematized. Chlorite is found in fractures locally, especially in very red zones.			
231.3'	- 243.8' (12.5')		Diorite	The rock is dark green, fine to medium grained, with scattered 1-5 mm. reddish- pink, euhedral feldspar phenocrysts. The matrix to the large feldspar crystals contains 1-2 mm. feldspar grains. A rhyolite xenolith is located at 242.5'-243'.			
243.8'	- 304.1' (60.3')		Rhyolite Intrusive?	The rock is dark burgundy red, aphanitic with 1-5 mm. orange, euhedral feldspar phenocrysts and 1-3 mm. white, round quartz phenocrysts. The rock is very strongly porphyritic. The ground mass is very hard. Locally, feldspar crystals may be clumped together. The porphyry is weakly fractured becoming moderately fractured locally. The rock is vuggy over short sections (e.g. 263' - 266').			
304.1'	- 320.1' (16')		Diorite	This zone is dark green, fine to medium grained and porphyritic locally similar to the diorite at 231.3-243.8'. A rhyolite xenolith is located at 299.6'.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-17

SHEET 4 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
320.1'	- 345.5' (25.4')		Rhyolite	The rock is pink to pinkish-red, aphanitic and porphyritic with 1-3 mm. feldspar phenocrysts. Flow laminations are well developed locally but usually are indistinct and irregular. The rock is weakly to moderately fractured. Cracks are epidotized and some are chloritized. Some chloritized patches are surrounded by red reaction halos.	322.2'	flow banding	40° to the core axis.
					326.8'	"	
					333'	"	
345.5'	- 383.1' (37.6')		Diorite	The rock is dark green, fine to medium grained with a concentration of feldspar grains in the centre of the dyke. The zone is non-porphyritic. Some feldspars are pink particularly in the central part. Feldspar grains in the outer margins of the dyke are light green and weakly sausauritized. The intrusive is weakly fractured. Fractures are epidote filled - wider breaks may be filled locally with white carbonate.			
383.1'	- 403.9 (20.8')		Rhyolite	The zone is pinkish-red to red, aphanitic and porphyritic. Red feldspar phenocrysts, 1-3 mm. in size are euhedral and fresh. The rock is weakly fractured. The zone is locally similar to 133.9' - 231.3'.			
403.9'	- 406' (2.1')		Diorite	Dark green, fine grained, non-porphyritic and strongly chloritized.			
406'	- 430.6' (24.6')		Rhyolite Intrusive?	The rock is very strongly porphyritic similar to the zone at 243.8' - 304.1'. The matrix is reddish brown to burgundy becoming pinkish red locally and aphanitic. The feldspar phenocrysts are 1-5 mm. in size, pink to red, and euhedral. Quartz phenocrysts are white, round and up to 3mm. in diameter. Fractures are well developed and epidotized. Below 415', the rock becomes strongly fractured and broken, with abundant white carbonate and epidote stringers. The lowermost 3' are equigranular and weakly porphyritic.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-17

SHEET 5 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
430-6	- 431.1'		Diabase	The rock is dark green, fine and very strongly chloritized. It contains abundant rhyolite and granite xenoliths.			
	(0.5')						
431.1'	- 469.2'		Granite	The zone is reddish - pink, medium grained with up to 30% quartz and 70% feldspar and minor hornblende. Quartz and feldspar are commonly intergrown.			
	(38.1')						
				469.2' - END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-18
SHEET 1 OF 4

PROPERTY COBEQUID III
LATITUDE 37 + 50 S.
LONGITUDE 52 + 00 E.
ELEVATION

BEARING—TRUE 270° Az.
DIP -45°
FINAL DEPTH 292'
CORE SIZE BQ

DATE STARTED August 24, 1978
DATE COMPLETED August 29, 1978
DRILLED BY St.Lambert Drilling Co. Ltd.
LOGGED BY A.W. WORKMAN

DATE: August 31, 1978 SIGNED

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-29.5'	Ø		Overburden				Acid Dip Tests:
29.5'	- 219.8'						
	(190.3')		Rhyolite	The rock is pink to pinkish-red becoming grey locally and trending to greyer varieties below 160.5'. The flow is aphanitic and porphyritic with 1-2 mm. white quartz phenocrysts and 1-3 mm. cream coloured euhedral feldspar phenocrysts. The rock is strongly fractured and tectonically brecciated. Fractures are epidotized. Near diabase or diorite dykes they are chloritized and frequently carbonated. Breccia fragments are angular and set in an epidotized, frequently mylonitic matrix. The matrix is kaolinized weakly in some locations. Several mylonitic zones are also located along flat planes - probably due to localized faulting, (e.g. 49.3' - 49.5'). In strongly broken zones, the core is vuggy as a result of alteration to softer minerals and loose core washing away.			98' : 41° 285' : 41°
				29.5' - 39.9' : Intensely broken rhyolite, mylonitic and strongly brecciated.			
				39.9' - 40.3' : Diabase - intensely chloritized.			
				40.7' - 42.5': Diabase - intensely chloritized, includes rhyolite xenolith at 40.8'.			
				49.9' - 74.4': Strongly fractured and intensely brecciated rhyolite - numerous mylonite zones (e.g. 52.8' - 54').			
				54' and 59.6': Chloritized seams - diabase?			
				Mylonite zones are located at 65.8' - 66.3', 66.8' - 67.2', 68.5' - 68.9' 69.7' - 69.9' and 70.4' - 71.8'. They are strongly chloritized and may be related to mafic intrusives that were not intersected, but are close to the hole.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-18

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
29.5'	- 219.8'		Rhyolite	continued ...			
				74.4': The degree of brecciation and fracturing and the mylonite content decrease, but still remain strong.			
				93.7'- 101.8': Diorite - dark green, fine grained, and strongly chloritized.			
				104.7': 3" chloritized seam.			
				105': The rhyolite is less brecciated, weakly to moderately fractured, strongly porphyritic and becomes greyer in colour from the upper pink varieties. It contains minor red fragments (flow breccia?) which are rhyolitic, rounded and up to 8 mm. in size.			
				135.7'-136.2': Mylonitic zone.			
				138': 3" chloritized seam.			
				142.9'-153.1': Diorite - dark green, fine to medium grained, weakly chloritized and weakly magnetic. The zone from 145.7' to 150.6' is porphyritic with pink, euhedral feldspar phenocrysts up to 1.5 cm. Feldspar grains are light green in the edges of the porphyritic zone.			
				153.1': At this point the rhyolite trends towards a more strongly fractured pinker variety which becomes red locally. Numerous mylonitic and intensely brecciated zones are spatially related to thin mafic intrusives (e.g. 169'-170.6', 171.8' - 172.4', 173.1' - 174.2').			
				174.2'-176.4': Strongly chloritized rhyolite - some crude foliation locally - flow breccia?			
				176.4'-177.5': Diabase - very dirty with angular rhyolite fragments.			
				177.5'-180.4': Intensely broken and fractured rhyolite - tectonically brecciated - becomes very red at the contact at 180.4'.			
				180.4'-185.4': Diabase(?) dark green, fine grained. The intrusive carries abundant pink rhyolite xenoliths throughout. The centre is brecciated and foliated at 45° to the core axis.	183'	foliation	45° to the core axis.

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-18

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
29.5'	- 219.8'		Rhyolite	continued....			
				185.4' - 210.4': Rhyolite - pink to reddish - pink and vaguely flow banded, locally at 30° to the core axis (e.g.198.5' - 199.3').	199'	flow banding	30° to the core axis.
				196.7' - 197' : Chloritized seam - diabase			
				199.3' - 200' : Chloritized seam - diabase			
				210.4' - 219.8': Diorite - medium to dark green, fine to medium grained and porphyritic. Feldspar content is up to 40% locally. The lower contact is strongly fragmental.			
219.8'	- 236.6' (16.8')		Rhyolite Ignimbrite?	The rock is reddish - pink, aphanitic and porphyritic with 1-3 mm.round quartz phenocrysts and 1-2 mm. cream - coloured, euhedral feldspar phenocrysts. The large quartz grains are frequently penetrated by the matrix. Abundant chloritized seams and clots are found throughout the zone. The rock is vaguely mottled locally - red sinues surround reddish - pink blebs and pseudo - fragments up to 3 mm. in size (e.g. 231.8'). The zone below 234.6' appears to be porphyritic flow breccia similar in texture to the rock at 231.8'. Fragments (?) are up to 5 mm. in size.			
236.6'	- 237.4' (0.8')		Diorite (diabase?)	Dark green, fine grained, weakly fractured, and strongly chloritized.			
237.4'	- 292' (54.6')		Rhyolite Intrusive?	Dark reddish - pink and brownish - pink to light pink, aphanitic and very strongly porphyritic. Quartz phenocrysts are white and rounded, and feldspar phenocrysts are pink, occasionally greenish - pink and euhedral. Both are up to 5 mm. in size. Quartz and feldspar phenocrysts are occasionally penetrated by the matrix. Feldspar phenocrysts are fractured and frequently the centres are replaced by pyrite. The rock is weakly fractured. Fractures are weakly epidotized and voids are filled with white carbonate locally.			NOTE: This unit is the equivalent of 243.8' - 304.1' and 406'-430.6' in DF - 17.
				247.2' 263.6': Diorite - dark green, fine to medium grained porphyritic with small pink feldspar grains occupying 40% of the rock locally.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-18

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
237.4'	- 292'		Rhyolite	continued ...			
				285' - 292' : Minor 1-2 mm. pink feldspar pnenocrysts. The zone 291.4'-292' is fragmental - the rock contains (50% of volume) angular, felsic fragments, possibly rhyolite, in an epidotized matrix.			
				292' - END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-19
SHEET 1 OF 4

PROPERTY COBEQUID III
LATITUDE 11 + 75S
LONGITUDE 52 + 00E
ELEVATION

BEARING—TRUE 180 Az.
DIP -45°
FINAL DEPTH 303.8'
CORE SIZE BQ

DATE STARTED 1 September, 1978
DATE COMPLETED 4 September, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: 5 September 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	19.7		Overburden				ACID DIP TESTS 98': -42°
							295': -38°
19.7 -	77.1		Rhyolite	The rock is light pinkish-green becoming red below 64.5' as the diabase	20.7		30° to the core axis
	(57.4)		Ignimbrite	is approached. The rock is aphanitic and very strongly porphyritic.			
				Pink to cream coloured, euhedral feldspar phenocrysts up to 5 mm., and	34.5	"flow"	30° to the core axis
				minor round quartz phenocrysts up to 2 mm. in size are found throughout			
				the zone. The rock is strongly "flow" laminated with bands often less	51.8	lamellae	35° to the core axis
				than 1 mm. thick and rippled with lensitic features (and is			
				probably ignimbrite. Laminations become coarser with depth especially	66.1		33° to the core axis
				below 28'. Rhyolite fragments up to 3 cm. are found locally. The zone			
				is weakly fractured. Fractures are epidotized with minor spotty			
				chlorite locally - devitrified glass. Locally, fractures are hematized.			
				71' - 74.6': Diabase - dark green, fine grained, weakly chloritized -			
				contacts are strongly chlorite altered. The			
				rock is weakly to moderately fractured. A			
				rhyolite xenolith is located at the lower contact.			
				74.6' - 76.6': Rhyolite - greenish grey becoming green and red with			
				depth and thinly laminated similar to the	75.5'	"flow"	40° to the core axis
				upper section of the hole.		laminations	
				76.6' - 77.1': intensely chloritized, "diabase" seam			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-19

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
73.8 -	139.8 (66)		Rhyolite intrusive(?)	The rock is reddish-brown to burgundy in the aphanitic matrix and is very strongly porphyritic with 1-3 mm. round quartz phenocrysts and euhedral, red to orange feldspar phenocrysts up to 5 mm. in size. Aggregates of feldspar crystals are up to 1 cm. in size locally. The rock is non-laminated and massive. It is weakly fractured becoming moderately broken locally. These zones are pinkish-red in colour and are strongly epidotized, (eg. 82.3' - 82.7', 87.3' - 88.1' and 134.5' - 134.8'). The upper contact zone from 73.8' - 75.1' is dark green, with light green mottling as a result of strongly epidotized feldspar phenocrysts, and very hard. Diabase fragments up to 3 cm. in size are located at 74.4'.			Note: This unit is identical to the formation in DF-17 from 243.8' - 304.1' and 406' - 430.6'; and in DF-18 from 237'-292' (intrusive swarm?)
				107.4' - 112.1': feldspar phenocrysts are cream coloured and the matrix is a more sandy brown colour.			
				139.8': in the zone just above the lower contact, feldspar phenocrysts are less abundant.			
139.8 -	142.5 (2.7)		Diabase	The rock is dark green, fine grained and strongly chloritized. Epidotized and chloritized fractures are weakly developed. Abundant 1 mm. black, chloritized amygdules (glass) dot the zone.			
142.5 -	176.2 (33.7)		Rhyolite	The "flow" is pale greenish-cream in colour becoming greyish-pink and pink with depth. The rock is moderately to strongly porphyritic with abundant cream coloured, euhedral feldspar phenocrysts up to 5 mm. in size and somewhat fewer 1-3 mm. round quartz phenocrysts. The rock alternates between weakly flow laminated and massive varieties - probably ignimbritic in origin. Below 163.6' the rock is strongly laminated. Bands are very thin, frequently rippled or convolute. Abundant silicified and chloritized seams cut the core below 164.1'.	150.2 161.3 164.4 171.3 172.5	"flow" laminations	(fiammi?) 30° to the C/A 45° - 55° to the C/A 35°-40° " " 40° " " 25° " "

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-19

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
176.2	- 197.6 (21.4)		Diorite	The intrusive is dark green, medium grained and porphyritic. Light green euhedral feldspar phenocrysts are up to 2 cm. in size. The rock is weakly chloritized and weakly magnetic.			
				176.2 - 179.1': fine to medium grained diorite with abundant 1-2 mm. black specks - devitrified glass			
				179.1 - 190': porphyritic diorite - contains rounded dioritic fragments up to 3 cm. in size. The porphyritic zone ends sharply at a quartz-carbonate seam at 190'.			
				190 - 197.6': dark green, non-porphyritic diorite			
197.6	- 223.8 (26.2)		Felsic intrusive	The rock is reddish-pink, strongly porphyritic with 1-3 mm. cream-pink euhedral feldspar phenocrysts and 1-2 mm. round quartz phenocrysts. Up to 50% of the rock volume is composed of 1-2 mm. spherulites which have nucleated on quartz and feldspar phenocrysts. Numerous round dark green 1-5 cm. diorite fragments, occasionally porphyritic, are found throughout the zone. They are usually moderately to strongly chloritized. They are feldspar-flooded and surrounded by thin red reaction rims.			
				204.7 - 214.4': zone is very strongly spherulitic			
				217.8 - 220.6': DIABASE - dark green, fine to medium grained, non-porphyritic, massive to weakly fractured	220.6'	Contact	45° to the C/A.
223.8	- 297.7 (73.9)		Diorite	The rock is dark green, medium grained and porphyritic in the upper part. A narrow zone at the upper contact is flooded with feldspar from the felsic intrusive at 197.6 - 223.8'.			
				223.8 - 229.8': porphyritic zone carrying chloritized dioritic fragments.			
				229.8 - 239.8': diorite - medium grained, weakly to moderately fractured.			
				239.8 - 242.7': DIABASE - fine grained, chloritized			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-19

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
223.8	- 297.7		diorite	continued.....			
				242.7 - 249.5': medium grained diorite			
				249.5 - 251.2': DIABASE - fine grained - chloritized			
				251.2 - 262.4': medium grained diorite - 3" chloritized seam at 254.2'			
				262.4 - 271.8': felsic diorite - 40% pink feldspar			
				268' - 268.7': chloritized diabase dyke			
				271.8': a sharp change to a fine grained, chloritized diorite which becomes medium grained with depth - feldspars are light green in colour.			
297.7	- 303.8		RHYOLITE	The rock is reddish-pink and very strongly porphyritic. Cream coloured,			
	(6.1)		Ignimbrite	euhedral, 1-3 mm. feldspar phenocrysts and 1-2 mm. round quartz			
				phenocrysts are common in the zone. The rock is well laminated and	299.3		30° to the core axis
				probably ignimbritic in origin. "Flow" bands are lensitic, often		laminations	
				discontinuous and rippled. The zone is weakly to moderately fractured.	301.2		35° to the core axis
				Breaks are strongly epidotized.			
				303.8': END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DF-20
SHEET 1 OF 2

PROPERTY COBEQUID III
LATITUDE 15 + 25 S.
LONGITUDE L 48 + 00 E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 228.2'
CORE SIZE BQ

DATE STARTED September 4, 1978
DATE COMPLETED September 6, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: September 7, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 31.2		Ø	Overburden	Rhyolite boulders in overburden - pink, porphyritic			ACID DIP TESTS
31.2 - 81.4 (50.2)			Tuff?	The rock is light green, fine grained to aphanitic and very siliceous. It is thinly bedded. Alternating light and dark green with occasional pink beds are up to 5 mm. in thickness. Some vague grading of the beds might be present locally, and if so indicates that the beds are overturned. Lithic fragments, found locally, have settled within some beds, also indicating overturning. These fragments are rounded and probably a variety of pink rhyolite. Abundant pale green "flecks" of unknown mineral dot the rock - possibly as a product of alteration. The rock is strongly broken and vuggy near surface. Fractures are heavily carbonated especially near mafic intrusives. Many fractures are weakly chloritized and epidotized. Some fractured zones carry blebs of chalcopyrite and graphite on fracture surfaces, (e.g. 75.5'-77.9')			100': -40° 228': -37°
					49.9'	Bedding	48° to the core axis
					59.9'	"	75° to the core axis
					65'	"	45° to the core axis
					74.5'	"	45° to the core axis
				52.3'-58.1': Diorite - the rock is dark green, fine to medium grained and strongly chloritized near the contacts. It is non-porphyritic. Feldspars are light green in colour. Some black chloritized amygdules are found locally.	80.4'	"	30° to the core axis
				58.1'-65': the beds are vuggy and brecciated			
				65': the rock is less fractured and becomes dark green and less distinctly bedded locally			
				69.7': a 3 cm. quartz stringer carries blebs of chalcopyrite and graphite up to 1 cm. in size. Graphite is also found on some fracture surfaces			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DF-20

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
81.4 - 105.5	(24.1)		Diorite	The intrusive rock is dark green, fine to medium grained and becomes weakly porphyritic locally (e.g. 87.6') with 1-5 mm. euhedral, light green feldspar phenocrysts. The rock is strongly chloritized at the contact becoming less so in the central part. It is generally unfractured but minor fractures do occur locally - usually strongly chloritized and carbonated. The rock is weakly magnetic.			
105.5 - 138.8	(33.3)		Tuff	The rock is light to medium green and fine grained similar to the uppermost zone. Bedding is pinker locally. The sediments at the contact are strongly fractured and breaks are carbonated strongly.	115.5'	Bedding	33° to the core axis
				114.8': some rounded, pink rhyolite fragments up to 3 mm. in size are found from here to the base of this unit. They typically show load casing within beds as a result of settling. Bedding is overturned.	127'	"	35° to the core asix
					133.5'	"	30° to the core axis
138.8 - 228.2	(89.4)		Diorite	The upper 8" are a light green, strongly chloritized and fine grained rock which grades sharply to a pink to greenish-pink, strongly porphyritic zone. At ... the rock sharply grades back to a dark green, non-porphyritic diorite.			
				138.8'-139.4': light green, strongly chloritized diorite			
				139.4'-156.5': pink porphyritic zone - orange 104 mm. euhedral feldspar phenocrysts and 1-2 mm. round quartz phenocrysts			
				156.5'-228.2': dark green, medium grained diorite. Feldspar grains are light green becoming pink locally. The rock is weakly fractured. Breaks are epidotized and chloritized Vugs and voids are strongly carbonated. Some fractures belonging to a late stage set, are highly carbonated. A few feldspar phenocrysts up to 1 cm. are found at 221.2'.			
				228.2': END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. SL-1
SHEET 1 OF 3

PROPERTY COREQUID IV
LATITUDE 43 + 85 S. *
LONGITUDE L. 80 + 00 E.
ELEVATION

BEARING—TRUE 180°
DIP -45°
FINAL DEPTH 446.2'
CORE SIZE BQ

DATE STARTED September 18, 1978
DATE COMPLETED September 21, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

* L. 80 E. - Intersects the 40 S. Tie Line at 38 + 35 S.

DATE: September 24, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 9.8		Ø	Overburden				ACID DIP TESTS:
9.8-59.1 (49.3)			Diorite	The rock is dark green, medium grained becoming fine grained locally. It is weakly porphyritic locally, with 1-3 mm. light green, euhedral feldspar phenocrysts. Some 1-2 mm. black blebs representing devitrified volcanic glass are found locally. The rock is moderately fractured. Fracturing is epidotized and voids are white carbonate filled. Some localized shears are chloritized.			98': -44.5° 446': -46°
59.1-125.3 (66.2)			Rhyolite	The rock is pink to reddish-pink, aphanitic and porphyritic. Round, 1-2 mm. quartz phenocrysts and orange-pink, euhedral, 1-4 mm. feldspar phenocrysts are common. Feldspar crystals are epidotized locally. The rhyolite becomes more strongly porphyritic below the diabase at 75'. In this zone, the rock is 30-40% phenocrysts by volume, and these crystals are commonly penetrated by the matrix. Weakly to moderately developed fracture systems are epidotized. The cavities located along some fractures are epidotized and white carbonate filled. A few chloritized mafic stringers and clots (e.g. 98.3') are found locally. Some darkening of the rhyolite to grey-pink or brownish-pink near mafic intrusives is observed. 72.7'-79.3': Diabase - dark green, fine grained, weakly to moderately chloritized, moderately fractured with epidote-carbonate filling - abundant rhyolite xenoliths.			
125.3-130.1 (4.8)			Diabase	This intrusive is dark green, fine grained and weakly to moderately fractured. Fractures are chloritized and epidotized. This unit straddles the contact between upper and lower rhyolite units.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. SL-1

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
130.1-152.6	(22.5)		Rhyolite Ignimbrite	The rock is pink, aphanitic and porphyritic with 1-2 mm. round quartz phenocrysts. It is well flow banded locally. Thin laminations are rippled, lensitic and irregular in dip. The rock is moderately fractured becoming strongly fractured and tectonically brecciated locally (e.g. - 139.6'). Angular to sub-angular fragments up to 3 cm. are set in a strongly epidotized groundmass. The matrix contains abundant 1-2 mm. fragments of rhyolite and quartz phenocrysts of the same size.			
152.6-164.7	(12.1)		Diabase	The intrusive is dark green, fine grained and strongly fractured. Fractures are epidotized and filled with white carbonate. Some shear planes are strongly chloritized. The zone from 152.6-156.8 contains abundant rhyolite, xenoliths. These fragments are strongly fractured and epidotized and represent flow banded and porphyritic rhyolite			
164.7-218.2	(53.5)		Rhyolite Minor Ignimbrite	The rock is pink, aphanitic and porphyritic. Quartz phenocrysts are 1-2 mm. in size and the rounded white feldspar crystals are 1-4 mm. in size. Zones of tectonic brecciation are located at 166', 169.6', 178.1', and 204-206.1. The matrix to angular fragments up to 4 cm. is moderately epidotized. Minor chloritization and epidote veinlets are found locally. At 191.4', the rhyolite becomes brownish-red and is cut by several narrow diabase stringers. Below 212.4', the rock is well flow banded. The laminations consist of rippled, lensitic bands. This lower section is probably ignimbrite.			
				193.8'-199.6': Diabase - dark green, fine grained and chloritized.			
				206.1'-207.1': Chloritized diabase seam.			
218.2-232.2	(14)		Rhyolite (Spherulitic)	The rock is grey with pink bands becoming redder and more strongly fractured with depth. Some cloudy pink to green zones mottle the core. The rock is aphanitic with 1-3 mm. white kaolinized spherulites. The spherulites are found in bands averaging 0.5' wide but may be up to 1' thick locally, (e.g. 227.2'). The rock is porphyritic with 1-2 mm. quartz and feldspar phenocrysts. Quartz phenocrysts have acted as nuclei for feldspar growth.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. SL-1

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
232.2-382.5	(150.3)		Diorite	Dark grey-green, fine to medium grained with pink feldspar grains. The rock is weakly to moderately fractured. Fractures are strongly epidotized and some epidote veinlets up to 5 mm. thick are found locally. Minor pyrite and chalcopyrite is found disseminated on fractures in blebs up to 3 mm. in size. The rock is weakly to locally moderately chloritized. Several sections are porphyritic locally with 1-4 mm. feldspar phenocrysts.			
				232.9'-233.9': Red rhyolite xenolith - strongly fractured.			
				239.7': Red rhyolite xenolith.			
				316.6'-343.7': The diorite becomes strongly felsic and medium to coarse grained. Feldspar is up to 50% of the rock volume as 1-3 mm. grains.			
				375.7'-382.5': Rock is fine grained, more fractured and moderately to strongly chloritized.			
382.5-446.2	(53.7')		Rhyolite	The rock is pinkish-red to red becoming a darker brownish-red at 394'. It is aphanitic and strongly porphyritic with 1-2 mm. round quartz phenocrysts and 1-4 mm. pink euhedral feldspar phenocrysts. The rock is weakly to moderately fractured becoming strongly broken to mylonitic (e.g. 399.9') locally. Abundant green chloritized glass shards are found throughout the zone. At 431.4', the rock becomes vuggy with white carbonate filling the open fractures and cavities.			
				446.2': END OF HOLE.			

COBEQUID PROJECT 483053

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

483053 PART 3 OF 5 07 - D 64 01

Gulf

Gulf Minerals Canada Limited

COBEQUID PROJECT 433053

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

433053 PART 3 OF 5 07-D 64 01

A REPORT ON

GEOCHEMISTRY
GEOLOGICAL MAPPING
PROSPECTING
DEEP OVERBURDEN DRILLING
DIAMOND DRILLING

433053 07-D 64 01

SECTION C

DL-ZONE LOGS

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-1
SHEET 1 OF 6

PROPERTY Cobequid
LATITUDE 24+00S
LONGITUDE L 96E
ELEVATION

BEARING—TRUE 180° AZ
DIP -45°
FINAL DEPTH 462'
CORE SIZE BQ

DATE STARTED 9 November 1977
DATE COMPLETED 17 November 1977
DRILLED BY St. Lambert
LOGGED BY A. Workman

DATE: 19 November 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	22		Overburden				ACID DIP TEST
22 -	36		Diabase	Dark to very dark green, fine grained, moderately chloritized and possibly serpentinized. Strongly epidotized fractures are common. The intrusive is frequently micro-faulted at various angles and amounts of displacement are unknown (e.g. 25.5'). It is weakly to moderately magnetic and the basal zone contains abundant rhyolite xenoliths, 1 - 1.5 cm in size, from 32' - 36'.			100' -45°
	(14)			29 - 30.5': in this zone the diabase is intruded by a felsic, possibly granitic, pink, equigranular, medium grained dyke. The contacts are indistinct and some feldspar-flooding of the mafic rock has occurred. It contains numerous magnetic diabase xenoliths up to 3 cm in size.			300' -48°
							462' -47°
36 -	166.5		Rhyolite -trachytic?	Dark pink to reddish pink becoming greyer and darker hued with depth. Minor orange alteration zones are found locally. The rock is aphanitic and porphyritic. Quartz-eyes, probably quartz phenocrysts, are roundish and 1 - 2 mm in size. These quartz growths are frequently surrounded by thin, light pink to orange reaction rims, indicating transport after formation. Flow laminations are uncommon but are found locally to consist of alternating 1-3 mm grey and pink bands which frequently wrap around quartz phenocrysts. Flow banding cuts the core axis at 50° - 70°. Near diabase dykes, the rhyolite (which may be trachytic in composition) is a deeper red hue and is frequently strongly fractured in these zones. Typically, the fractures are moderately to strongly epidotized. Weak chloritization of fractures adjacent to diabase is common. Some fractures are filled with quartz and white carbonate.			
	(150.5)						

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-1

SHEET 2 OF 6

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
36 -	166.5 (130.5)		Rhyolite	continued...			
				No primary brecciation is apparent in the upper hole but several zones occur below 115'. As a whole, the rock is relatively fresh near surface but at 127.5' some degree of kaolinization of feldspar may be present. The degree of alteration increases with depth. Some silification and hematization is also widespread in this zone. Numerous diabase dykes are present. They are typically dark green, fine to medium grained, moderately chloritized and possibly serpentinized. They are equigranular, and weakly to locally moderately magnetic.			
				36 - 43': moderately to strongly laminated zone. Flow banding cuts the core axis at 65° - 70°, and the zone is cut off at 43' by diabase.	42'	flow lamination	65° to the C/A
				43 - 51': Diabase			
				53.5 - 54.5': orange altered rhyolite - finely fractured, possibly weakly kaolinized, silicified.			
				57 - 80': Diabase			
				80 - 94': vaguely laminated zone - dark greyish red to dark greyish pink - flow banding cuts the core axis at 45° - 50°	90'	flow lamination	50° to the C/A
				83.5 - 84.5': Diabase			
				94 - 100': Diabase - contains an intensely fractured and epidotized rhyolite xenolith at 94.5 - 95'			
				100 - 106': reddish pink rhyolite, porphyritic: quartz eyes have reddish reaction rims giving zone its colour - actually a grey rhyolite zone is well laminated at 106 - 107'.	106'	flow lamination	50° to the C/A
				107 - 110': grey rhyolite			
				110 - 112': reddish-pink zone			
				112 - 122.5': rhyolite is greyish to greyish-pink, locally porphyritic with 1-3 mm quartz eyes, and possibly coarsely laminated locally. Intense tectonic brecciation occurs at 118 to 119' and 120 to 121'.			
				122.5 - 127.5': Diabase: lower contact is highly altered and fractured - small fault is located at 127' cutting the core axis at 70° with 2" displacement.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-1

SHEET 3 OF 6

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
36 -	166.5		Rhyolite	continued...			
	(130.5)			127.5 - 147.5': light pinkish grey, aphanitic, porphyritic locally with some intensely tectonically brecciated rock locally. Some degree of clay alteration (kaolinization) of feldspar is present. Fractures are chloritized or epidotized.			
				147.5 - 166.5': Diabase - fractures are epidotized, chloritized and hematized.			
166.5 -	254.5		Alteration	Reddish-pink to reddish-brown to grey, aphanitic and finely fractured.			
	(88.0)		Zone	At edges of the zone, the alteration consists primarily of epidotization, chlorite development and irregular hematization along fractures. The rhyolite itself may also be weakly hematized in the more reddish zones. The centre section of the zone is more intensely fractured and in addition to the other alteration, the rhyolite is moderately and possibly strongly kaolinized. Degree of clay alteration may vary according to feldspar content, the more strongly altered zones being trachytic in composition. The rhyolite is also commonly porphyritic; quartz-eyes and occasional feldspar phenocrysts are present. Several diabase dykes cut this zone. They are typically fine to medium grained and moderately to strongly chloritized.			
				166.5 - 174.5': alteration is fracture controlled - epidote and hematite.			
				174.5 - 176': Diabase			
				176 - 186': pink to reddish rhyolite, moderately to strongly kaolinized, weakly to moderately hematized locally weakly porphyritic - 1-2 mm. quartz. phenocrysts locally.			
				186 - 192.5': Diabase			
				192 - 221.5': pink rhyolite near diabase contact, becoming greyer with depth - the zone is intensely tectonically brecciated, weakly silicified, hematized, kaolinized and epidotized. Fracturing frequently becomes mylonitic.			
				221.5 - 225.5': Diabase - very highly chloritized and contains abundant altered rhyolite xenoliths. Intrusive contacts are intensely altered.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-1

SHEET 4 OF 6

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
166.5	- 254.5 (88)		Alteration zone	continued...			
				225.5 - 230': rhyolite is highly fractured and altered			
				230 - 252': rhyolite is mylonitic, intensely kaolinized, and hematized locally. It is porphyritic and abundant breccia is present in several quartz carbonate filled fracture zones. Numerous diabase dykes are present.			
				233 - 234.5: Diabase - highly chloritized.			
				237 - 238': Diabase			
				239 - 242': very mafic zone - possibly near a diabase contact.			
				252 - 254.5': rhyolite becomes less intensely fractured. Several diabase stringers are present and 4" - 6" zones of moderate hematization surround them. The zone is porphyritic 1-2 mm quartz phenocrysts are common.			
254.5	- 305.5 (51)		Rhyolite -trachyte?	Dark red to dark reddish-brown becoming reddish green at base, aphanitic and porphyritic. The rock is flow laminated locally at varying angles to the core axis. Frequently the bands wrap around the 1-2 mm. quartz phenocrysts. Generally the zone is not intensely fractured and only weakly to moderately hematized. Numerous diabase dykes are found. They are dark green and fine to medium grained, and are usually weakly magnetic.			
				254.5 - 257': dark red, porphyritic, few fractures, highly hematized locally.			
				257 - 272': Diabase - possibly mafic gabbro - dark green with olive-green mottling, fine to medium grained, and the pyroxene crystals may be weakly uralitized. The rock is weakly magnetic locally and contacts are moderately chloritized. Contains some rhyolite xenoliths up to 10" in size (e.g. 269'-270')			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-1

SHEET 5 OF 6

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
254.5	305.5 (51)		Rhyolite	continued....			
				272 - 298': Dark red to dark reddish brown, porphyritic, finely to coarsely laminated locally. Phenocrysts of quartz and possibly feldspar are present. Few fractures.	272.5	flow lam.	45° to the C/A
				After 287.5' the rock becomes more strongly porphyritic and more irregularly altered. Some weak hematization and kaolinization is present.	291	flow lam.	75° to the C/A
				296.5 - 297.5': possible chloritized fault zone			
				298 - 299.5': Diabase			
				299.5 - 305.5': Rhyolite becomes reddish green and then greenish at lower boundary.			
305.5	330.5 (24.5)		Mottled Rhyolite	Dark red with irregular hazy light olive green patches, aphanitic and porphyritic with 1-2 mm. phenocrysts of quartz and feldspar common. Olive green patches probably reflect some form of irregular alteration. These zones increase in occurrence and size towards 330'. Several dark green, fine grained diabase dykes cut this zone.			
				305.5 - 309': Diabase - numerous quartz filled fractures.			
				309 - 310': Rhyolite			
				310 - 311': Diabase			
				311 - 313': Rhyolite			
				313 - 315': Diabase			
				315 - 330.5': Rhyolite			
330.5	364.5 (34.5)		Hybrid Rhyolite	Dark green, aphanitic and very hard. Some minor rusty red zones appear in the lower half of the zone. Some olive green "alteration" patches persist from the 305' to 330' zone to 336'. This zone is moderately prophyritic. Quartz phenocrysts 1-2 mm. in size are fairly common. Some feldspar phenocrysts of similar size may be present below 345'. These phenocrysts are hazy in outline and dark pink in colour. The base of this zone becomes fragmental with 1-2 cm. fragments of varying composition. The rock is indistinctly laminated locally at about 60° to the core axis			
				360 - 364.5': this zone may be diabase or possibly an altered zone as the result of the lower diabase dyke. Numerous epidotized zones cut at 50° to the core axis.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-1

SHEET 6 OF 6

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
364.5	- 401.5		Diabase	Dark green, fine to medium grained, moderately chloritized at contacts; numerous lighter green zones are located throughout the dyke - possibly spotty epidotization. The intrusive contains some rhyolite fragments, (e.g. 391' - 391.5' and 392' - 393').			
	(37)						
401.5	- 427		Conglomerate	Light to dark grey-green, fine to very fine grained with pebbles and granules up to 1 cm. in size. These larger fragments are well rounded and an abundance of red, possibly volcanic, types is common. A number of the pebbles are weakly epidotized. The matrix is fine sand and silt. Locally, the zone is foliated and some pebbles are oriented along the laminations. Dip averages 45° to the core axis. Some alteration occurs locally. Moderate hematization is present at 417' - 417.5' and a strongly epidotized zone is located at 425'.	423'	foliation	45° to the C/A
	(25.5)						
427	- 462		Hybrid Intrusive	Dark green becoming very dark green, medium grained becoming finer grained with depth. The upper zone 427' - 428' is highly chloritized and resembles an intrusive contact. The zone, 428' - 432' is porphyritic and the rock remains more vaguely porphyritic to 440'. Numerous epidote-filled fractures are found in this unit and towards the base of the hole, alteration consists of spotty epidotization and weak chloritization. This causes the core to appear mottled light green on dark green ground mass. Minor chalcopyrite is found locally as a fine dissemination.			
	(35)						
462				END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-2
SHEET 1 OF 4

PROPERTY COBEQUID
LATITUDE 27+00S
LONGITUDE L. 96+00E
ELEVATION

BEARING—TRUE 180° AZ.
DIP -45°
FINAL DEPTH 435'
CORE SIZE BQ

DATE STARTED November 18, 1977
DATE COMPLETED November 22, 1977
DRILLED BY St. Lambert
LOGGED BY A. Workman

DATE: November 25, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0	- 45		Overburden				ACID DIP TESTS
	(0)						100' -44°
							300' -44°
45	- 120		Rhyolite	Dark pink to pinkish red becoming greenish red locally and aphanitic.			435' -45°
	(75)		trachytic	This zone is predominately intensely tectonically brecciated and it is			
				moderately kaolinized. Clay alteration of feldspar is stronger in the			
				zone 104-120'. Below 120' the rock is frequently mylonitic and very			
				finely brecciated. Fragments are angular and up to 2 cm. in size. The			
				matrix to the fragments is very fine breccia and silica cement, which is			78-80': core ground and
				weakly epidotized and chloritized. Chlorite is common near diabase			lost.
				intrusives. These dykes are common in the unit and are dark green, fine			91-94.5:core ground and
				grained, weakly magnetic and chloritized.			lost
				70.5-76' - Diabase - strongly to moderately chloritized.			
				97.5-103.5' - Diabase - contains rhyolite fragment at 99-100'.			
				108.5-115' - Diabase - contacts are intensely chloritized and ground -			
				rhyolite fragments at 110-111' and 112.5'-144'.			
120	- 141.5		Rhyolite	Brick red, aphanitic and porphyritic with 1-2 mm. quartz and feldspar			
	(21.5)			phenocrysts. The zone is highly brecciated and fractured. The rock is			
				moderately to strongly hematized and in the zone 120-132.5', it is			
				strongly kaolinized. Alteration decreases in intensity with depth.			
				Few diabase dykes are present.			
				132'-136.5' - diabase - moderately chloritized			
				136.5-139' - rhyolite mixed with diabase			
141.5	- 142.5		Diabase	Dark green, intensely chloritized.			
	(1)						
142.5	- 144		Siliceous	Dark pink, aphanitic and finely fractured. Numerous epidote stringers			
	(3.5)		Sediment	along fracture networks.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-2

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
144	- 146 (2)		Diabase	Dark green, intensely chloritized, some uralitization of pyroxene crystals.			
146	- 162.5 (16.5)		Conglomerate	Light grey and pink, with a fine sandy matrix surrounding 1-4 cm. pebbles of varying composition. The pebbles are rounded and a red variety is common, (possibly hematized volcanic). Some fragments are epidotized. A foliation is present and dips 35° on the core axis. Elongated pebbles foliated minerals are weakly chloritized.	161'	foliat-ion	35° to the c/a
162.5	- 176 (13.5)		Siltstone	Brick red, and pale green to greenish-pink, fine to very fine grained and moderately hematized. In darker red zones, hematization may be quite strong. Some epidotization of fractures occurs and spotty epidote alteration gives the core a mottled appearance locally. Some micro-faulting is present at 168' dipping 60° to the core axis. A diabase is present at 166'-168'. An alteration zone of unknown type is located at 174-176'.			
176	- 178 (2)		Diabase	Strongly chloritized.			
178	- 180 (2)		Rhyolite Flow Breccia (?)	Orange altered zone - moderately kaolinized. Rock appears to consist of rounded fragments in a thinly laminated matrix. Fragments are 1-1.5 cm in size. Foliation dips 30° on the core axis. Some epidotization of fractures has occurred. 178.5-179 - diabase			
180	- 191.5 (11.5)		Rhyolite (?)	Pink with black mottling, fine grained to aphanitic. Black mottling may be chloritized amygdules. Rock becomes more strongly mottled and becomes medium grained towards the base of the unit. At the base, the texture is granitic.			
191.5	- 195.5 (4)		Porphrytic Intrusive	Pink to reddish-pink, aphanitic and porphyrtic with 1-2 mm. quartz eyes. A fragmental zone is present at the contact. Mafic fragments, 1-5 mm. in size are present in this zone.			
195.5	- 218.5 (23)		Diabase	Dark green, fine grained and weakly to moderately chloritized. At 200' the rock is weakly laminated and more highly chloritized. Some spotty epidote alteration is also present.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-2

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				196.5-197' - xenolith of altered, mafic, porphyritic medium grained rock			
				200-217.5' - amygdaloidal zone: dark green with light green to white mottling, fine to medium grained (locally). Mottling is the result of chlorite and white carbonate filling amygdules. They are up to 1.5 cm. in size. Some are elongated along a weak foliation, which cuts the core axis at 80°. The rock is moderately to strongly chloritized. Mottling is weaker and less distinct below 210'. The rock may become porphyrtic at 213.5'.			
				217.5-218.5 - dark green, fine grained ophitic texture.			
218.5	- 232 (13.5)		(?)	Dark pink to pinkish-red mottled with dark grey hazy patches, fine grained to aphanitic.			
232	- 269 (37)		Porphyritic Intrusive	Dark green with white to pale pink 1-5 mm. feldspar phenocrysts. Composition is probably diabasic. Contact zones are non-porphyritic. The rock is foliated locally at 40° to the core axis:	233'	folia-tion	40° to the c/a
				232'-234' - foliated - porphyritic			
				263'-269' - foliated - non-porphyr			
				Numerous epidotized fracture zones are present and the rock is moderately chloritized overall.			
269	- 273 (4)		(?)	Pale green to greenish orange alteration zone. The rock is well laminated and highly brecciated, silicified and epidotized. Fracture planes are weakly chloritized and hematized.			
273	- 280 (7)		(?)	Brick red with some dark green banding, aphanitic, well laminated at 45° to the core axis at the upper boundary. Grey-green bands increase in number and thickness towards the base. Some light green and orange alteration bands occur at 275.5 and 276.5'. A conglomerate xenolith or fragment (boulder) is located at 279'-279.5'.			
280	- 323 (43)		Conglomerate Sandstone & Siltstone	Conglomerate matrix is light grey with dark green and red pebbles and granules up to 3 cm. in size. The matrix is slightly epidotized.			
				Siltstone and sandstone are alternating light grey and yellow or pink in colour. Some fine red grains may be seen in the sandstone. Banding cuts the core axis at 45-60°.			
				280'-282' - conglomerate			
				282-288.5' - diabase			
				288.5-290' - siltstone and sandstone			
				290-292' - conglomerate	290'	folia-tion	45° to the c/a

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-2

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				292-293' - diabase - several conglomerate xenoliths			
				293-294.5' - conglomerate - very mafic matrix			
				294.5-296' - sandstone and siltstone			
				296'-300' - diabase			
				300'-304.5' - alternating 1-2 cm. bands of siltstone and fine sandstone.			
				304.5-306.5' - fine conglomerate and conglomeratic sandstone	305	folia-	60° to the c/a
				309'-311' - alteration zone - medium grey, fine to aphanitic, laminated chloritized - abundant 1-2 mm. pyrite cubes.		tion	
				311'-319' - diabase			
				319-319.5 - siltstone and sandstone			
				319.5-323 - fine sandstone and silty - sandstone			
323	- 340.5		Diabase	Dark green with light green mottling, fine to medium grained. Amygdal-			
	(17.5)			oidal - amygdules are epidotized to produce the mottling. The rock is			
				moderately epidotized and chloritized overall.			
340.5	- 366		Sandstone &	Dark brick red becoming dark green at 353'. Greenish rock has minor			
	(25.5)		Siltstone	orange altered bands. The rock is foliated or thinly banded throughout			
				at 50-60° to the core axis. The red zones are moderately hematized.	348'	foliat-	50° to the c/a
				Minor conglomerate occurs locally (361.5-363) and pebbles up to 1.5 cm		ion	
				are present. Numberous quartz veins also are found at 344'-345',			
				346-347', 347.5-347.6' and 348-348.5'. They are typically surrounded	360'	foliat-	60° to the c/a
				by orange or green alteration halos.		ion	
				363-366' - contact zone - dark green with light green mottling, strongly chloritized.			
366	- 435'		Fragmental	Pale green-grey with darker mottling becoming pink with dark green			
	(69)		Intrusive	mottling. Fine grained to aphanitic. Flow(?) laminated in the upper			
			flow?	zone is non-laminated in the pinkish zone. Fragments are stretched			
				along the foliation and are moderately to strongly chloritized. Abun-			
				dant pyrite is found finely disseminated in the rock locally.			
				366-406' - pale green-grey, dark green mottling, aphanitic	405'	flow lam-	40° to the c/a
				406-435' - increasingly pink coloured and grain size increasing - becomes granitic textured		ination	
				410-420' - diabase - 1-5 mm amygdules.			
				435' END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-3
SHEET 1 OF 3

PROPERTY COBEQUID
LATITUDE 29+80S.
LONGITUDE L. 96+00E.
ELEVATION

BEARING—TRUE 180° AZ.
DIP -45°
FINAL DEPTH 450'
CORE SIZE BQ

DATE STARTED November 23, 1977
DATE COMPLETED November 25, 1977
DRILLED BY St. Lambert
LOGGED BY A. Workman

DATE: November 29, 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0	- 17 (0)		Overburden	Blocky, bouldery sand: casing reamed from 15-17'.			ACID DIP TESTS
17	- 33 (16)		Sandstone	Light grey-green, fine grained with some granules up to 2 mm. in size. Composition of the grains is variable as indicated by different colouration - green, grey and red. The unit becomes pink and cherty at 31.5'.			100': -45° 300': -44° 450': -42°
33	- 44.5 (11.5)		Conglomerate	Light to medium grey becoming beige coloured with light green and pink rounded pebbles up to 3 cm. in size. The matrix is typically fine sand. Colour difference between grey and beige sections may indicate different beds as break is quite sharp at . The "contact" is chloritized and possibly weakly heamtized.			
44.5	- 67.5 (23)		Mafic Intrusive	Dark green with light green alteration zones locally and some black chloritized amygdules throughout the unit, particularly at 52'-55'. The rock is fine grained and overall is weakly chloritized. Alteration may be strong locally. Some epidote alteration is present in strongly amygdaloidal zones. Some sedimentary rock xenoliths are located at 57-58' and 63'.			
67.5	- 77 (9.5)		Fine Sandstone & Siltstone	Light green and pink, fine to very fine grained. The unit is thinly foliated or bedded at 75° to the core axis. It is frequently irregular, rippley and convolute. Beds are commonly graded, micro-faulted and some load casts or flame structures may be observed locally. Minor amounts of fine conglomerate are found within some beds. 70.25'-71.25': chloritized mafic intrusive	69'	foliation of bedding	75° to the c/a
77	- 84 (7)		Mafic Intrusive	Dark green, fine grained, moderately chloritized with abundant finely disseminated pyrite.			
84	- 90 (6)		Siltstone??	Dark green to dark grey-green, fine grained to aphanitic. Some pink fragments or pebbles (?) up to 2 cm. in size. Laminated locally. Some round quartz grains (phenocrysts?) up to 2 mm. in size may be observed in the zone.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-3

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
90	- 120.5		Porphyritic	Light to medium grey becoming grey-green with depth. Red mottling is			
	(30.5)		Siliceous	common and may reflect feldspathic or weakly hematized zones. The rock			
			Flow ?	is fine grained to aphanitic. Rounded quartz phenocrysts, 1-2 mm. in			
				size are found throughout the unit. The rock is weakly epotized locally.			
120.5	- 163.5		Mafic	Medium to dark green, aphanitic and well foliated. Wispy, indistinct			
	(43)		Intrusive	light and dark green bands curving around elongated, 1-5 mm. pink, felsic			
			(foliated)	patches make up the laminations. Numerous pink and light green, round			
				xenoliths up to 3 cm. in size dot the unit. The foliation generally			
				wraps around these fragments. The rock becomes more massive and less			
				foliated below 135'. The unit is weakly to moderately chloritized, and			
				some 6" epidotized patches occur locally. Minor finely disseminated			
				pyrite blebs may be present over short intervals.			
163.5	- 215.5		Rhyolite	Greyish-pink, aphanitic and porphyritic locally. Round, 1-2 mm. quartz			
	(52)			phenocrysts and 1-3 mm. pink, euhedral feldspar phenocrysts are located			
				throughout the zone but can be observed best near the upper contact.			
				The rock is strongly tectonically brecciated locally and is highly			
				silicified. Matrix to the breccia fragments is strongly epidotized.			
				Some zones in this unit appear more mafic in composition. Chloritized	184'	flow	40° to the c/a
				mafics are concentrated along a weakly developed foliation, (eg. 183').		foliat-	
				Flow foliation is very poorly developed and vaguely outlined. The rock		ion	
				becomes weakly amygdaloidal at 180'. Chloritized 1-5 mm. amygdules are			
				elongated along the foliation. Finely disseminated pyrite and chalco-			
				pyrite is common locally.			
215.5	- 280		Rhyolite	A dark reddish-brown unit which grades into the upper unit (163.5-215.5')			
	(64.5)			without apparent contact. It is aphanitic and porphyritic. Quartz			
				phenocrysts up to 3 mm. in size are common and fine cream coloured speck-			
				les probably indicate kaolinized feldspar crystals. Some zones may be			
				spherulitic, but individual grains are very hazy and indistinct. The			
				rock is non-brecciated, generally non-fractured and very massive.			
				Alteration, if present may consist of weak to moderate hematization and			
				silicification. The rock carries a 1.5 cm. rounded sediment (?) fragment	268'	flow	45° to the c/a
				at 265'. Below 250' some vague flow lamination can be observed to cut		laminat-	
				the core axis at 45°. This unit grades down into the next rock formation.		ion	

DIAMOND DRILL RECORD — CONTINUATION SHEET

D.D.H. NO. DL-3

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
280	- 403 (123)		Rhyolite	Reddish-brown to pink locally, aphanitic and porphyritic. Feldspar phenocrysts are 1-2 mm. in size and they are epidotized and/or kaolinized. In addition, 1-3 mm. quartz phenocrysts are common. Chloritized, 1-2 mm. amygdules are found throughout the unit. The rock is vaguely laminated at 50°-60° to the core axis. Abundant narrow epidotized seams locally follow the laminations. Some flow breccia(?) is located in a zone below 310' and consists of rounded, 1.5 cm. fragments very close in composition to the matrix rock. This zone is poorly laminated. Below 330', the fragments increase in number and diversity of rock type. They are olive green, dark green and red in colour. At 348', the flow lamination is very fine but moderately well developed. In this zone, the rock is non-porphyritic and very deep red coloured. Below 355', there are few fragments and the rock is weakly amygdaloidal locally. Throughout the zone, numerous diabase dykes occur. They are located at: 280.5' -281' - strongly chloritized. 282' -285.5' 305' -308' 311.5-312.5' 359.5'-363'.5 Chalcopyrite and pyrite with minor graphite occurs locally as a fine dissemination or as plates along the foliation planes. Size of individual grains is seldom more than 1-2 mm.	348'	flow laminat-ion	40° to the c/a
403	- 423 (20)		Rhyolite	Deep red with dark green banding, aphanitic and porphyritic. The bands are of varying width and they reflect some form of alteration. Kaolinized and/or epidotized, 1-2 mm. feldspar phenocrysts are common. The rock is strongly epidotized and weakly hematized. Epidotized zones are usually surrounded by dark pinkish-red halos. The banding dips at 45° to the core axis.	400'	flow laminat-ion	35° to the c/a
					415'	flow laminat-ion	45° to the c/a
					418'	flow laminat-ion	50° to the c/a
423	- 450 (27)		Mafic Intrusive	Dark green, fine to medium grained and generally finer at the base of the hole. The rock is weakly porphyritic with some 1-2 mm. light green saussauritized feldspar phenocrysts. 423'- 425.5' - contact zone - abundant 1-2 cm. volcanic fragments in a dark green fine rock. 442' - rock becomes glomeroporphyritic - 1-2 cm. saussauritized feldspar phenocrysts in a fine grained moderately chloritized matrix. 450' END OF HOLE			

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-4
SHEET 1 OF 2

PROPERTY Cobequid
LATITUDE 33+00S
LONGITUDE L96+00E
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 350'
CORE SIZE BQ

DATE STARTED 26 November 1977
DATE COMPLETED 29 November 1977
DRILLED BY St. Lambert
LOGGED BY A. Workman

DATE: 3 December 1977 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0	- 34		Overburden	Blocky, bouldery sand.			ACID DIP TESTS
							100' - 38°
34	- 197		Quartz-	Dark pink to reddish-pink with orange and white mottling grading			350' - 41°
	(163)		Feldspar	to greyish-pink at 70' and grey below 73'. The rock is aphanitic			
			porphyry Flow-	and porphyritic. The mottling represents 1-2 mm. quartz phenocrysts			
			Rhyolite ?	and 1-3 mm. euhedral feldspar phenocrysts. Some quartz phenocrysts			
				are surrounded by thin, orange coloured reaction halos. The rock is			
				generally equigranular and locally may approach a granitic texture.			
				The unit is generally massive but some epidotized fractures occur			
				locally. Abundant finely disseminated pyrite and minor chalcopyrite			
				are found throughout the rock. Numerous dark green, fine to medium			
				grained diabase dykes cut this unit. They are typically, weakly			
				magnetic and moderately chloritized. Where many diabase dykes are			
				present, the flow rocks are more intensely fractured and silicified.			
				80.5' - 81.5': Diabase			
				92.5 - 95': Diabase - includes volcanic xenolith from 93' to 93.5'			
				148.5' - 167': Diabase - a volcanic xenolith is located at			
				151 - 151.5 and the zone 152.5 and 153.5,			
				is a very dark grey-green intrusive within the diabase,			
				- the diabase is surrounded by a pink alteration halo			
				in the porphyry.			
				186' - 195': Diabase			
197	- 273.5		Quartz-	Medium to dark grey, aphanitic and porphyritic. Quartz and feldspar	202	Flow	60° to C/A
	(176.5)		Feldspar	phenocrysts are up to 3 mm. in size and overall texture is similar		banding	
			Porphyry Flow	to the upper unit. The rock is weakly to moderately laminated by			
			Rhyolite	flowage and some dark pink banding occurs locally. From 204' -			
				215', the rock is fragmental. Blocks up to 3 cm. in size are common.			
				They are round to sub-round in outline.			

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-4

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				240': unit becomes paler coloured and slighly pinker			
				255': rock is medium grey, and moderately to strongly chloritized abundant finely disseminated pyrite and minor chalcopyrite are found in this zone.			
273.5	282		Hybrid	Medium green mottling on a dark green and white background. The			
	(8.5)		Agglomerate	mottling consists of mafic growths, possibly spherulites, which occurs as 3-7 mm. individual round balls set in a medium to coarse grained, moderately chloritized, porphyritic matrix. Quartz and feldspar phenocrysts up to 3 mm. in size are common. Minor disseminated pyrite is common locally as intergranular blebs.			
282	315		Rhyolite	Dark pink and brick red with some light pink mottling, aphanitic. The			
	(33)		-trachytic	rock is highly feldspathic and probably trachytic, and the mottling is due to 1-2 mm. feldspar phenocrysts. The unit is highly fractured, silicified and chloritized. Chlorite is found on fracture surfaces.			
315	316		Diabase	Dark green, fine grained, moderately chloritized.			
	(1)						
316	350		Mafic flow	Dark green, fine to medium grained and carrying rounded fragments			
	(34)			up to 1 cm. in size. The rock is locally laminated at 50° to the core axis. The unit is finely fractured. The wider fractures are quartz-carbonate filled. Abundant finely disseminated pyrite and minor chalcopyrite occur along the laminations and throughout the rock. Weak to moderate chloritization is widespread.	338.5	flow lamination	50° to the C/A.
350				END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-5
SHEET 1 OF 4

PROPERTY Cobequid IV
LATITUDE 36 + 00 S.
LONGITUDE L 96 + 00 E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 412.7'
CORE SIZE BQ

DATE STARTED 7 September 1978
DATE COMPLETED 11 September 1978
DRILLED BY St. Lambert Drilling Co.
LOGGED BY A. W. Workman

DATE: 12 September 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	18.7		Overburden				ACID DIP TESTS
18.7'-	61.2' (42.5')		Rhyolite	The rock is greenish-grey becoming pinkish-grey locally, aphanitic and strongly porphyritic with 1-3 mm. round quartz phenocrysts and 1-4 mm. light green, epidotized feldspar phenocrysts. A few 1-4 mm. black, chloritized glass shards are found locally. Some weak foliation, possibly flow banding is found locally near 35.8'. It is generally lensitic and discontinuous, and may contain porphyritic rhyolite fragments up to 1 cm. locally, (eg. 46.8'). Up to 1% disseminated pyrite blebs is common. The rock is weakly fractured becoming moderately fractured near mafic intrusives. Some fractures are strongly chloritized with light green secondary patches.			100': -41° 296': -42.5° 412.7': -43°
				18.7' - 22': strongly to moderately chloritized 22' - 61.2': fresh to weakly chloritized locally	46.8'	flow banding	80° to the core axis
					52.2'	"	75° to the C/A.
61.2'-	85.1' (23.9')		Diorite	Dark green, fine to medium grained abundant light green 0.5 - 2.0 cm. epidotized rhyolite xenoliths near the contacts. These zones are located at 61.7' - 64.6' and 82.8' - 85.1'. The intrusive becomes gradually porphyritic at 74.5' - 82.8'. Abundant 1-2 mm. black chloritized glass shards are found throughout the zone. The rock is weakly to moderately fractured with epidote and white carbonate fracture fillings. It carries a 7 cm. red rhyolite xenolith at 83.5'.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-5

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
85.1'-	151.2' (66.1')		Rhyolite & Ignimbrite	Dark red to greenish-red and porphyritic with abundant 1-2 mm. quartz phenocrysts and 1-3 mm. epidotized feldspar phenocrysts. The matrix is weakly laminated locally. The bands are frequently lensitic with red terminated bands set in a green matrix, (eg. 121') Abundant fiammi are located at 93.5'. To a depth of 100.4', the fractures are open and white carbonate filled. Fracturing is weak to moderate but is strong locally especially near zone of tectonically brecciated and mylonitic rock (e.g. 95.0' and 95.5').			
				96.9' - 97.6': the rock is strongly tectonically brecciated with minor mylonite. The rhyolite fragments are angular and set in a carbonated matrix.			
				100.4' - 105.6': Diorite - dark green, strongly chloritized, weakly porphyritic with minor graphite. It carries some altered rhyolite xenoliths.			
				105.6' - 126.3': the rock is a strongly fractured, frequently mylonitic (105.6'-108.3') equivalent of the zone from 96.9' - 100.4'. Up to 2% finely disseminated pyrite is common. Fragments are angular and up to 3 cm. in size. They are set in a light green, epidotized, possibly kaolinized finely ground matrix. Some fault planes are located at 111.3' and 115.2' which are sub-parallel to the core axis. Slickensides pitch at 5° across the fault planes.	121'	flow banding	75'-80° to the core axis
					124.7	flow banding	75-80° to the core axis
				126.3' - 133': Diorite - dark green, fine grained and porphyritic with feldspar phenocrysts.			
				133' - 137.6': rhyolite resembles broken brecciated units above.			
				137.6' - 148.1': Diorite - faults are sub-parallel to the core axis - rock is porphyritic			
				148.1' - 151.2': brick red rhyolite with grey bands and carrying rhyolite fragments. IGNIMBRITE			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-5

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
151.2'	- 311.7' (160.5')		Diabase	The rock is dark green, fine grained, moderately to strongly chloritized with abundant epidotized rhyolite fragments up to 1 cm. in size. Numerous fine, black specks up to 2 mm. dot the core. They are probably strongly chloritized glass shards. Epidote is found rimming the shards as well as on fractures, which are weakly developed. Below a contact at 185', the rock is moderately to strongly fractured ans strongly epidotized.			
				226.4': a 10" epidotized rhyolite xenolith			
				237' - 242.7': the rock becomes strongly fragmental with zones epidotized rhyolite xenoliths averaging 1-2 cm. in size. Zonation is a result of rim alteration.			
				242.7' - 276.9': rhyolite is light green becoming pinkish-green locally and grading to a green tinted variety at 274.1'. The rock is aphanitic and porphyritic with 1-2 mm. quartz phenocrysts and 1-5 mm. red fractured feldspar crystals. Abundant pyrite is found in clots up to 1 cm. in size. The rock is well laminated locally (e.g. 252.8'). It is weakly epidotized and silicified and as mafic intrusives are approached, the rhyolite becomes darker green and more strongly fractured.	242.7 252.8	contact flow banding	foliation at 35° to the core axis 55-60° to the core axis
				276.9' - 277.9': chloritized mafic intrusive			
				277.9' - 280.6': reddish-green rock - same as 242.7' - 276.9'.			
				280.6' - 282.1': chloritized mafic intrusive			
				282.1' - 283.9': chloritized red rhyolite as zone 277.9' - 280.6'.			
				283.9' - 286.7': chloritized mafic intrusive			
				286.7' - 289.5': rhyolite chloritized close to intrusives			
				289.5' - 294.3': light yellow-green to white rhyolite, strongly epidotized and fractured. Abundant pinkish-red felsic seams. It is tectonically brecciated strongly.			
				294.3' - 297.9': chloritized mafic intrusive with 10" rhyolite xenolith			
				297.9' - 307.1': same as zone 289.5' - 294.3'			
				307.1' - 311.7': chloritized Diorite - rhyolite xenoliths.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-5

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
311.7'	412.7' (101')		Rhyolite	The rock consists of alternating light green and pink to pinkish-red zones. The light green zones frequently have dark green mottling. Pink zones are porphyritic with 1-3 mm. round quartz phenocrysts and minor 1-2 mm. light pink, euhedral feldspar phenocrysts.			
				311.7' - 366.3': light green, mottled becoming pink locally, fine grained and possibly spherulitic locally (e.g. 316.3'). It is massive and unfractured becoming weakly fractured locally. Fractures are chloritized. Feldspar grains may show variable epidotization locally. The degree of fracturing increases below 330.6' as well as the degree of alteration. Some magnetite seams are present below 340.6'. At 332' and 334' are several oppositely dipping flow contacts.			
				366.3' - 390.7': rhyolite sharply becomes pinkish-red and aphanitic			
				390.7' - 400.5': greenish-pink zone becoming redder with depth. The rhyolite is strongly fractured and moderately chloritized. Abundant pyrite seams up to 1 cm. Numerous chloritized tectonic breccia zones are found locally, (e.g. 398').			
				400.5' - 412.7': the rhyolite is brick red, aphanitic and porphyritic			
				412.7': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-6
SHEET 1 OF 4

PROPERTY COBEQUID IV
LATITUDE 39 + 00 S. *
LONGITUDE L 96 + 00 E.
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 444'
CORE SIZE BQ

DATE STARTED 12 September, 1978
DATE COMPLETED 16 September, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

* Note: line 96E. intersects the 40 S. Tie Line at 38 + 45 S. and 96 + 85 E. DL-6 is 55' south of this point.

DATE: 21 September, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	21'		Overburden				ACID DIP TESTS
21.0' -	25.1' (4.1')		Diorite	The rock is fine to medium grained, dark green and weakly chloritized. It is weakly magnetic and fractured weakly to moderately. The fractures are epidotized and voids are filled with white carbonate. Near the lower contact, the rock is chloritized.			98': -43.5° 295': -43° 444': -43.5°
25.1' -	59.6' (34.5')		Andesite?	The rock is dark green, fine grained and very hard. It carries abundant pink angular rhyolite fragments up to 2 cm. in size. The rock is weakly fractured and weakly chloritized. Alteration is moderate locally. Locally, the rock is foliated. This structure may be attributable to flow banding, (eg. 43.3'). Abundant disseminated pyrite is observed as 1-2 mm. blebs and in amounts up to 2%. The lower contact at 59.6' is chloritized and epidotized and dips at 20° to the core axis. 53.1' - 56.3': epidotized fractured rhyolite xenolith.	40'	foliation	50° to the C/A.
					43.3'	"	45° to the C/A.
					59.6'	contact	20° to the C/A
49.6' -	69.9' (10.3')		intrusive	The rock is light green, aphanitic and porphyritic with 1-3 mm. round, quartz phenocrysts and occasional 1-2 mm. light pink, euhedral feldspar phenocrysts. Abundant chloritized, elongated flecks parallel a crude foliation (eg. 65'). The rock contains abundant finely disseminated blebs of pyrite most concentrated along the foliation in granular plates as well as disseminated throughout the rock.	65'	foliation	50° to the C/A.
69.9' -	91.6' (21.7')		Diorite	The rock is dark green, fine grained and porphyritic with light green, euhedral fractured feldspar phenocrysts up to 2 cm. in size. A few 1-2 mm. glass shards are found locally.			

GMC 1010

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-6

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
91.6'-	116.8' (25.2')		Rhyolite	The rock is light pink, fine to aphanitic and porphyritic with 1-3 mm. light pink feldspar crystals and 1-2 mm. quartz phenocrysts. The zone from 91.6' to 93.7' contains dark green angular shards of divitrifed glass. These may represent thin tuff horizons within the flow sequence. These horizons are located at 97.9' - 99.6', 105.4' - 105.8', 107.6' - 108.1', 108.9' - 109.1', 109.3' - 109.7' and 111.8' - 112.5'. Abundant chloritized seams are found below 98.4'.	105.4' 109.7' 112.5'	bedding contact bedding	45° to the C/A. 30° to the C/A. 40° to the C/A.
116.8'-	155.3' (38.5')		Diorite	The rock is dark green, fine to medium grained and porphyritic with light green, euhedral feldspar phenocrysts up to 2 cm. in size. Some clumping of phenocrysts into aggregates up to 3 cm. are common. A rhyolite xenolith is located at 121.4' - 122.9'. The lower contact dips at 15° to the core axis.	155.3'	contact	15° to the C/A.
155.3'-	207.3' (52')		Rhyolite	The rock is pink to light pink becoming brick red locally, and dark grey below 192.6'. It is aphanitic and porphyritic. Light pink feldspar phenocrysts are up to 2 mm. in size and round quartz phenocrysts are 1-3 mm. in size. The rock is weakly flow banded locally (eg. 159.4'). Some fragmetns of dark green rock are observed. They are sub-round to sub-angular and very hard. The surrounding rhyolite is depleted in quartz phenocrysts and redder in colour within a narrow margin of the fragments, (eg. 160.8'). Some mottled epidotization is present locally and fractures are moderately epidotized. The rock around 180' also contains some vague rhyolitic fragments up to 5 cm. The zone from 182.2' to 192.6' is reddish pink and more strongly flow banded. The rock below 192.6 is dark grey with pink bands becoming grey-green locally. In this zone are numerous dark green fine grained fragments (?)	159.4' 191.9' 199.5' 207.2'	flow banding " " "	45° to the C/A. 65° to the C/A. 60° to the C/A. 50° to the C/A
207.3'-	222.8' (15.5')		Diorite	The rock is dark green, fine to medium grained and it carries abundant epidotized porphyritic rhyolite xenoliths up to 8 mm. in size. At 212', it grades sharply to a waxy-green fine grained serpentinized rock with abundant dark green mafic bands.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-6

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
222.8'-	336.9' (114.1')		Rhyolite	This unit consists of variably developed spherulites set in a green altered groundmass which grades to a white spherulitic zone at 225.9' and then to pink at 230.8'. The pink zone is more strongly spherulitic than the two upper zones. Spherulites			
				average 1 cm. in size over much of the pink zone becoming up to	261.8'	flow	45° to the C/A.
				3 cm. locally. Some voids which appear as growth lines in the		banding	
				spherulites are strongly chloritized. A gross flow banding is	266.4	"	45° to the C/A.
				observed locally which becomes more apparent at 253.6' and again	267.4	"	35-40° to the C/A.
				at 261.8'. Spherulite become smaller and less well developed below 257.1'.			
				222.8' - 225.9': green altered spherulitic zone			
				225.9' - 230.8': white chloritized spherulites			
				230.8' - 247.8': pink, strongly spherulitic zone - growths up to 3 cm.			
				247.8' - 266.1': green, chloritized spherulitic zone - the average spherulite size decreases to less than 1 cm. at 257.1'.			
				266.6': the rock is pink with weakly to moderately developed spherulites which are found in zones	274.1'	flow	50° to the C/A.
				alternating with 2'-5' flow banded sections. At		banding	
				288.1', the rhyolite becomes more strongly fractured	307.3'	"	30° to the C/A.
				and locally tectonically brecciated. In this zone	314.1	"	45° to the C/A.
				spherulites are weakly developed. Fractures are chloritized and epidotized. The zone 312.7' - 313.6' is strongly chloritized.			
				324.1' - 336.9': the rock is strongly flow banded with few spherulites. Banding consists of alternating	324.8'	"	60-65° to the C/A
				reddish-pink and grey-pink bands. Some 1-2 mm.	329.6	"	45° to the C/A.
				pink feldspar phenocrysts dot the zone.			
336.9'-	347.1' (10.2')		Diorite	The intrusive is dark green, fine to medium grained and porphyritic with light green fractured feldspar phenocrysts up to 2 cm. in size. Some pyrite is found locally as cubes up to 2 mm. in size. The rock is weakly chloritized becoming moderately altered at the contacts.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-6

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
347.1'-	382.7'		Rhyolite	The rock is pink to reddish-pink aphanitic and moderately to strongly			
	(35.6')		Ignimbrite	flow banded. Minor 1-2 mm. feldspar phenocrysts are found locally.	351.4'	flow	60° to the C/A.
				The flow banding is often lensitic and discontinuous as well as		Banding	
				rippled and convolute.	355.5'	"	65° to the C/A.
				355.7' - 361.5': Diorite - dark green, fine to medium and porphyritic			
				same as zone 336.9' - 347.1'.			
				361.5' - 382.7': light to dark pink, aphanitic, weakly spherulitic			
				locally, with minor porphyry - 1-2 mm. feldspar	372'	flow	40° to the C/A.
				phenocrysts. Flow banding is strongly developed		banding	
				below 113.4'. This zone is very similar to the zone	375.7'	"	30° to the C/A.
				at 324.1' - 336.9'.	378.5'	"	45° to the C/A
					379.4'	"	35-40° to the C/A.
382.7'-	389.9'		Rhyolite ?	The rock is light to dark green and strongly chloritized with			
	(7.2')			relatively minor pink zones. It is fine to aphanitic and very hard.			
389.9'-	401.1'		Rhyolite	The rock is pink to red with dark green mottling caused by numerous			
	(11.2')			chloritized clots and amygdules. It is aphanitic and porphyritic			
				with 1-3 mm. cream, euhedral feldspar phenocrysts and 1 mm. round			
				quartz phenocrysts. The rock contains some dark red "micro-mottling"			
				which may represent an ignimbritic origin. The unit also contains			
				some light green, rounded fragments (?) up to 4 cm. in size			
				throughout the zone.			
401.1'-	437.6'		Rhyolite	The rock is pink to reddish-pink, aphanitic and strongly flow banded.			
	(36.5')		Ignimbrite	The laminations are lensitic discontinuous and irregular. It contains	406.8'	flow	35° to the C/A.
				light green fragments of rhyolite which are well rounded and up to		banding	
				6 cm. in size. At 411.3' the unit becomes grey-green and more weakly	411.7'	"	45° to the C/A.
				flow banded. Below 421.3' the rhyolite is strongly fragmental with			
				fragments similar to those above. The matrix is often well banded			
				but may be extremely disturbed by the fragments.			
				444': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-7
SHEET 1 OF 5

PROPERTY COBEQUID IV
LATITUDE 42 + 00 S. *
LONGITUDE L 96 + 00 E.
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 453.7'
CORE SIZE BQ

DATE STARTED 15 September, 1978
DATE COMPLETED 20 September, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

* NOTE: line 96E. intersects the 40S. tie line at 38 + 45 S. and corrected to 96 + 00 E. DL-7 is 355' south of this point.

DATE: 23 September, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 21.3'			Overburden				ACID DIP TESTS:
21.3'	- 71.7' (50.4')		Rhyolite	The rock is reddish-pink to pinkish-red and strongly porphyritic. Light pink, 1-3 mm. feldspar phenocrysts and 1-2 mm. round quartz phenocrysts are set in an aphanitic groundmass. This unit carries abundant dark green, sub-round to sub-angular chloritized fragments (andesite?), up to 2 cm. in size. The rock is moderately fractured. Fractures are epidotized and chloritized. 65.9' - 71.7': the rock is strongly broken and chloritized in the zone bordering the mafic intrusive.			-98': -42° -295': -40.5° -454': -44°
71.7'	- 95.1' (23.4')		Diorite	The rock is dark green, medium grained and fresh to weakly chloritized. The contacts are fine grained and moderately altered. The zone 76.4' - 89.2' is porphyritic with abundant light green, euhedral feldspar phenocrysts up to 2.5 cm. in size. Abundant finely disseminated pyrite is found through the intrusive. Fracturing is weakly to moderately developed and cracks are epidotized. More open cavities along fractures are filled with white carbonate.			
95.1'	- 138.6' (43.5')		Rhyolite	This unit is light grey with pink mottling, aphanitic and weakly porphyritic with 1-2 mm. round quartz phenocrysts. Pink mottling is found along flow banded zones and along silicified fractures. These fractures are open and filled with quartz phenocrysts and both rhyolitic and mafic rock fragments up to 2 cm. in size. Phenocrysts are commonly penetrated by the matrix. Minor tectonic breccia, possibly kaolinized, is found locally. Chloritized mafic intrusives are located at 111.5', 112.7' & 117.1'-118.4'. Fracturing increases with depth, particularly near intrusives. With the fracturing, the rock becomes redder in colour. Flow laminations or a flow contact is located at 127.2'. A quartz vein is located at 140.1' to 142'.	127.2'	contact	70° to the core axis

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-7

SHEET 2 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
138.6' - 181.1'	(42.5')		Rhyolite spherulitic	Zones of pink spherulitic rhyolite alternate with brecciated fragmental horizons. Spherulites are up to 5 mm. in size but may be up to 1 cm. locally. The breccia is tectonic in origin and fragments are similar in type and composition. The spherulitic horizons are located at 142.9' - 147.5', 150.1' - 151.7' and 160.9' - 163.5'. The zone from 165.7' to 181.1' is moderately to strongly spherulitic and is less fractured. Minor amounts of chloritized tectonic breccia is present locally (e.g. 167.3' - 173.9'). Fractures and breccia have minor amounts of dark blue fluorite present locally, (e.g. 180.4').			
181.1' - 205.5'	(24.4')		Rhyolite Ignimbrite	The rock is grey-red to grey-pink, aphanitic, and strongly fractured, with tectonic breccia found locally. Fragments up to 2 cm. are common. Some flow banding may be observed locally. It is lensitic and irregular - ignimbrite. Strongly epidotized fractures and chloritized breccia increase in number with depth. Some white carbonate is found filling voids.	184.4' 186.6'	flow banding	45° to the core axis 60° to the core axis
205.5' - 252.5'	(47')		Diorite	The intrusive is dark green, fine to medium grained with abundant 1-2 mm. black, devitrified glass shards. The zone 209.3' - 212.3' is porphyritic with light green, euhedral feldspar phenocrysts up to 1.5 cm. in size. The rock grades to fine grained at 215.2'. Two fault planes, at 215.2' and 216.1' cut the core axis at 40° and sharply change the grain size. In the zone below the faults (216.1' - 252.5'), the rock is fine grained and non-porphyritic. The occasional feldspar phenocrysts may be found locally.			
252.5' - 261.3'	(8.8')		Rhyolite	This zone is one of tectonically brecciated, flow brecciated rhyolite with rounded red to pinkish-red fragments set in an often strongly chloritized, finely fragmental matrix. Some grey fragments are found in a pink matrix. Fragments have altered rims.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-7

SHEET 3 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
261.3' - 292.7'	(31.4')		Rhyolite and Ignimbrite	Light grey, rounded fragments up to 2 cm. with red rims are set in a light pinkish-red, aphanitic, locally, well laminated groundmass. A few scattered quartz and feldspar phenocrysts up to 2 mm. in size are found locally.	261.5	flow banding	35° to the core axis
					263.9	flow banding	55-60° to the core axis
				265.3': minor purple fluorite in a weakly fractured zone.			
				270.8': the rhyolite becomes sharply greyer at this point to at least 50% grey. Minor pink fragmental material is found locally. It is weakly flow banded but becomes more strongly laminated with depth. The rock is more strongly porphyritic below 275.6'.	274.5	flow banding	80° to the core axis
					275.6	flow	60-70° to the core axis
				288.7' - 292.7': the rock grades from grey to light pink.			
292.7' - 334.1'	(41.4')		Rhyolite and Ignimbrite	The rock is light pink, aphanitic and weakly porphyritic locally. At 302.8' the zone grades to a light grey section. Rounded to sub-rounded, rhyolite fragments up to 2 cm. in size, are set in a matrix of similar colour to the fragments. The groundmass is often flow banded and may be moderately porphyritic. Minor amounts of dark red (flow breccia?) may be found locally (e.g. 301.6'). This fragmental becomes better developed and more porphyritic with depth. At 329.5', the unit becomes weakly flow laminated. Some intervals of tectonic breccia are found at 319.1' - 323' and 329.6' - 330.8'. The matrix to the breccia is often epidotized with white carbonate filling the voids.	301.6	flow banding	45° to the core axis
					308.7	flow banding	35° to the core axis
					312	flow banding	55° to the core axis
					316.5	flow banding	45-55° to the core axis
					324.5	flow banding	55° to the core axis

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-7

SHEET 4 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
334.1' - 394.9'	(60.8')		Felsic Agglomerate	Brick red, light to dark green, and burgundy fragments up to 1 cm. in size are located in a medium (waxy) green, aphanitic and locally, weakly porphyritic groundmass. Round quartz phenocrysts are up to 1 mm. in size. The matrix is weakly epidotized. Fragments up to 4 cm. are found locally and represent flow banded and porphyritic varieties (e.g. 358.4'). Below 367.5', a few 8 cm. fragments are found, and the matrix becomes dark green in colour. The unit is weakly fractured. Open cracks are white carbonate filled. Some foliation is observed locally (e.g. 352.7'). Fracturing and a pale green to cream coloured alteration increase below 355.8'.	389.3	foliation 50-55° to the c/a	
				359.6': 10" chloritized mafic intrusive 370.6' - 373.1': spherulitic rhyolite (xenolith?) 386.3' - 387': foliated dark green, epidotized rhyolite xenolith			
394.9' - 423.9'	(29')		Rhyolite	The rock is light waxy green, with some pink zones often with dark green seams. The rhyolite is aphanitic and weakly porphyritic. Feldspar phenocrysts 1-3 mm. in size and quartz phenocrysts up to 2 mm. increase in number below 413.4'. Feldspars are light green, euhedral and many are strongly epidotized. At 416.7' to 423.9' the rock is cut by abundant tectonically brecciated zones. Fragments are angular to sub-angular and are in contact with each other. Little matrix is found. Epidotized mylonitic material fills voids between fragments.			
423.9' - 449.2'	(25.3')		Felsic Agglomerate	The rock is light green, well foliated and moderately to strongly epidotized. It carries abundant very fine fragments which increase in number at 429.3'. At this point are light green rhyolite fragments up to 1 cm. in size. The unit is porphyritic with pink 1-3 mm. euhedral feldspar phenocrysts and 1-2 mm. round quartz phenocrysts. Rock texture and colour are extremely variable across sharp contacts. Minor zones of tectonic breccia are found over short intervals (e.g. 442.9' - 443.6'). Minor amounts of pink rhyolite are found in the vicinity of the lower intrusive at 449.2'.	428.5	foliation 65° to the core axis	

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-7

SHEET 5 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
449.2' - 453.7'	(4.5')		Diabase (Diorite?)	The rock is dark green, fine to medium grained and moderately to strongly chloritized. Abundant 1-2 mm. black specks dot the rock. These are probably devitrified glass shards. The rock is weakly fractured. Epidotization of fractures is widespread, cavities also being filled with white carbonate.			
				453.7': END OF HOLE			

GMC 1051 (09/78)

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL - 8
SHEET 1 OF 3

PROPERTY COBEQUID 1V
LATITUDE 45+00 S
LONGITUDE L. 96+00 E.
ELEVATION

BEARING — TRUE 180° Az.
DIP -45°
FINAL DEPTH 414.4'
CORE SIZE BQ

DATE STARTED 20 SEPTEMBER, 1978
DATE COMPLETED 23 SEPTEMBER, 1978
DRILLED BY ST. LAMBERT DRILLING CO. LTD
LOGGED BY A.W. WORKMAN

DATE: 25 SEPTEMBER, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-44.4	0		Overburden	esker complex - sandy			
							ACID DIP TESTS
44.4'-63.2'	18.8'		Diorite	The intrusive is dark green, fine to medium grained and prophyritic with 1-3 mm. light green euhedral feldspar phenocrysts. The rock is weakly to moderately fractured. Breaks are strongly epidotized and some shears are chloritized. Voids and cavities are white carbonate filled. Pink rhyolite xenoliths are located at 51.9' - 55.5', 58.1', 58.9' - 59.6' and 62.2' - 62.9'.			98': -42° 295': -38° 414': -37°
63.2' - 76.1'	12.9'		Rhyolite Agglomerate	The rock is light green, aphanitic and very weakly porphyritic with 1 mm. quartz phenocrysts. Light green to red, rhyolitic fragments of varying composition are found in several tectonic breccia and agglomerate zones. The agglomerate fragments are up to 3 cm. in size. The breccia fragments are angular and smaller on the average. The matrix to breccia fragments is dark green.			
76.1-84'	7.9'		Diabase (diorite?)	The rock is dark green with 1-2 mm. black blebs, fine grained and moderately to strongly chloritized. The black specks are probably glass fragments. 78.2' - 80.1' : dark red, porphyritic rhyolite fragment from the zone at 84' - 144'.			
84'-183.6'	99.6'		Rhyolite	The rock is reddish - pink to red, aphanitic and moderately to strongly porphyritic. Pink to cream, 1-3 mm. euhedral, locally epidotized feldspar phenocrysts and 1-2 mm. round quartz phenocrysts are common. The rock is massive and non-banded. It is weakly to moderately fractured becoming intensely fractured and mylonitic locally. Epidote and minor chlorite coat most fracture surfaces. Near mafic intrusives chloritization is stronger.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL - 8

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
84'-183.6'			Rhyolite	Cont'd.....			
				94.5'-95.1' : chloritized diabase seam			
				130.4' : 4 cm. diabase(?) seam - intensely chloritized			
				144'-152.2' : DIABASE - dark green, fine to medium grained with black specks up to 3 mm. and moderately chloritized			
				152.2'-165.4': strongly to intensely fractured rhylolite- mylonitic locally - chloritized seams are located at 157.2'-157.8', 159.8'-160.1' and 160.4'-161.7'			
				165.4'-172.1': DIABASE - dark green, fine to medium grained and moderately chloritized with black blebs.			
				172.1'-177.5' : Same as 152.2'-165.4' - intensely fractured, mylonitic and strongly epidotized.			
				177.5'-181.1' : DIABASE - strongly chloritized.			
				181.1'-183.6' : strongly epidotized mylonitic rhyolite (xenolith?)			
183.6-192'	8.4		Diabase	The rock is moderately epidotized and chloritized.			
192-207.5	15.5'		Rhyolite	The rock is shattered, dark green, medium grained as a result of brecciation and silicification, and is intensely chloritized. Locally the rock is mylonitic. Feldspar phenocrysts have partially survived brecciation and alteration but quartz phenocrysts are undisturbed.			
				202.1'-203.2' : mylonitic rhyolite			
				203.2'-205.9' : DIABASE - dyke cuts along the core axis			
				205.9'-207.5' : epidotized, mylonitic rhyolite.			
207.5-212.2'	4.7'		Diabase	The rock is dark green, fine grained with moderately to strongly developed chloritized and epidotized fracture systems.			
212.2-257'	44.8'		Rhyolite	The rock is greenish-pink to reddish-green with white mottling. Free quartz, often found as 1-4 mm. bands is causing the mottled appearance. The rock is weakly flow banded locally (eg. 226.4'). Quartz and feldspar phenocrysts up to 2 mm. in sizeare common. It is weakly spherulitic. Spherulites are up to 1 cm. in size, and are often nucleated on phenocrysts. At 226.4', the rock becomes fragmental locally, as a result of tectonic brecciation. Angular rhyloite fragments are up to 4 cm. in size.	226.4'	flow banding	45° to the core axis

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-8

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
212.7 -	257' (44.8')		Rhyolite	228.2' - 230.1': Diabase - dark green fine grained and strongly chloritized.			
				240' - 241': the rock is weakly flow banded and contains some dark spherulitic growths up to 1 cm. in size.	240.5'	flow banding	40° to the C/A
257' -	387.4' (130.4')		Diorite	The intrusive is dark green, medium grained becoming fine at the upper and lower contacts. It is moderately to strongly porphyritic with light green, euhedral feldspar phenocrysts up to 6 mm. in size. It is massive to weakly fractured becoming moderately fractured locally. Fractures are epidote and white carbonate filled. Some wider fractures up to 2 cm. are quartz-carbonate filled. Some localized zones of feldspar enrichment in the matrix are observed to contain pink feldspar up to 50% of the rock volume, (eg. 292').			
				Diabase Dykes are located at 312.2' - 314.5', 348' - 350.7', 374.9' - 375.8', 380.6' - 385.8'. These are intrusive into the diorite and are dark green, fine grained and weakly chloritized. They contain minor pyrite blebs up to 3 mm. in size.			
387.4' -	402.2' (14.8')		Diabase	Similar to the above diabase swarm, - fine grained weakly chloritized to moderately altered at the contacts.			
402.2' -	414.4' (12.2')		Rhyolite	The rock is pinkish-red at the contact becoming waxy-green at 406.2'. It is porphyritic with quartz phenocrysts up to 2 mm. and euhedral pink feldspar crystals of similar size, which are set in an aphanitic matrix. The rock is moderately to strongly epidotized.			
				411.1': a 2 cm. calcite stringer contains a few galena crystals up to 3 mm. in size and 1-2 mm. chalcopyrite blebs.			
				414.4': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-9
SHEET 1 OF 3

PROPERTY COBEQUID IV
LATITUDE 34+85 S. *
LONGITUDE 102+00 E. *
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 387.2'
CORE SIZE BQ

DATE STARTED 22 SEPTEMBER, 1978
DATE COMPLETED 25 SEPTEMBER, 1978
DRILLED BY ST. LAMBERT DRILLING CO
LOGGED BY A.W. WORKMAN
S. BARRON

* tied in at line 100 E. 34+00 S. picket

DATE: 27, SEPT. 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0-21.3	0		Overburden				
21.3'-44.4'	23.1		Tuff	The rock is medium grey to grey-green with green bands, aphanitic to medium grained and contains fragments up to 4 cm. in size locally. The rock fragments are of rhyolitic composition. Most grains are in the sand size category. Fractures are weakly developed and filled with white carbonate and quartz.			ACID DIP TESTS 98': -43° 295': -44.5°
44.4'-53'	8.6'		Diabase	The intrusive unit is dark to very dark greyish-green, fine grained and weakly to moderately fractured. Locally the unit contains fragments of volcanic rock up to 2 cm. in size. These fragments are strongly epidotized. Above 50.6' the rock is moderately epidotized and chloritized. Below this point alteration is weaker. Spotty epidote alteration is prevalent in the lower section. The rocks are weakly fractured. Fractures are white carbonate and epidote filled.			
53'-145.2'	92.2'		Rhyolite	The rock is red, very fine grained to aphanitic and porphyritic with 1-3 mm. euhedral orange feldspar phenocrysts and 1-2 mm, round quartz phenocrysts. The rhyolite is massive and non-structured. Locally, it is moderately fractured. Fracture surfaces are epidotized. Near the lower contact, the rhyolite is less reddish coloured; feldspar phenocrysts are less euhedral and become weakly epidotized. Diabase dykes are located at 66'-72.9', 84.6'-86.5', and 115'-120'. These intrusives are dark grey-green fined grained and weakly to moderately chloritized. They are weakly to moderately fractured.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-9

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
145.2'	6.2'		Diorite(?)	The rock is dark greyish-green and fine grained with epidotized			
151.4				feldspar phenocrysts up to 2 mm. in size. The phenocrysts (?) are			
				rounded instead of the normal euhedral variety. Some banding within			
				the unit is found locally - possibly as a segregation formed at the time			
				of intrusion. Devitrified glass blebs are common in the unit.			
				Fractures are moderately hematized.			
151.4'-	148.6'		Rhyolite-	The rock is greenish-grey to pink becoming dark grey locally. It is			
230'			Ignimbrite &	aphanitic but contains minor zones of porphyritic rhyolite. Some			
			Agglomerate	sections contain angular and rounded fragments up to 4 cm. in size.			
				These zones are non-banded and unfoliated agglomerate but grade into			
				zones of thinly banded, ignimbrite. These bands are rippled,			
				discontinuous and contain fiammi up to 5 cm. in length and 1 cm. in	223'	fiammi	45° to the core axis
				thickness, (eg. 223'). Ignimbrite is also porphyritic. Zones of			
				epidotized tectonic breccia are found locally. The rock is weakly			
				fractured. Fractures are epidotized with white carbonate filling voids.			
				203.9'-208.8' : DIORITE - dark green, fine to medium grained and			
				porphyritic with 1-2 mm. epidotized			
				feldspar phenocrysts.			
230.0'-	12.5'		Diabase	The rock is greyish-green, fine grained and weakly to moderately			
242.5'				fractured. The intrusive is moderately chloritized and fractures are			
				strongly epidotized. Chloritized amygdules or vessicules increase in			
				size and number towards the base of the unit indicating an overturned			
				structure.			
242.5'-	54.4'		Rhyolite-	The rock is light to medium waxy green and fine to medium grained.			
296.9'			Ignimbrite	The unit is similar to the section at 151.4'-230' except that it			
				contains no agglomerate. The rock is strongly porphyritic and contains			
				a few fiammi and rhyolite fragments locally. Fiammi are found	268'	flow	45° to the core axis
				with flow laminated sequences (eg. 293'). Pyrite is found locally		banding	
				filling voids up to 2 cm. in size.	274'	"	50° to the core axis
					283'	"	50° to the core axis

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL -9

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
296.9'- 354.3'	57.4'		Diabase	The rock is greyish-green, medium grained becoming fine grained locally. It contains abundant 1-2 mm. black chloritized glass shards which increase in number towards the contacts. Pyrite is found on some fractures as thin plates and occurs as 1-2 mm. blebs throughout the unit.			
354.3'- 387.1'	32.8		Rhyolite Ignimbrite	The section is dark grey to greenish-grey, aphanitic and strongly porphyritic with vague 1-3 mm. quartz and feldspar phenocrysts. The rock contains some fiammi locally but the lower part of the unit may be rhyolite flow. The rock is weakly fractured. Fractures are epidotized with some chlorite near mafic intrusives.			
				380.6' - 384.7': pinkish, aphanitic, well banded section with minor feldspar phenocrysts. Phenocrysts have settled within the laminations producing load casts. However, tops determinations from point to point are contradictory. (eg. 383')			
				387.1' END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-10
SHEET 1 OF 4

PROPERTY COBEQUID IV
LATITUDE 48+00S
LONGITUDE L96+00E
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 503'
CORE SIZE BQ

DATE STARTED 24 September 1978
DATE COMPLETED 27 September 1978
DRILLED BY St. Lambert Drilling Co.Ltd.
LOGGED BY A. W. Workman
S. Barron

DATE: 9 October, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 21.3'	Ø	-	Overburden				ACID DIP TESTS:
21.3'	- 35.1' (13.8')		Rhyolite Ignimbrite	The rock is brownish-orange and light green, aphanitic and porphyritic with euhedral feldspar phenocrysts up to 3 mm. and round quartz phenocrysts up to 2 mm. in size. The unit is well banded, pink and grey, and the individual laminations are lensitic and discontinuous. The rock is weakly to moderately fractured with epidote and locally hematite on the fracture surfaces. Minor zones of tectonic brecciation are strongly epidotized.			98': -42° 295': -42° 502.9': -39°
35.1'	- 48.5' (13.4')		Lapilli Tuff	The rock is light greenish-grey, aphanitic to fine grained with 30-40% by volume composed of angular lithic fragments encompassing a wide range of rhyolitic compositions. These fragments are grey, black and red and may be up to 3 cm. in size. Some feldspar crystal-fragments up to 1 cm. in size are found locally. The rock is weakly fractured with hematite and limonite on breakage surfaces.			
48.5'	- 59.4' (10.9')		Rhyolite Ignimbrite	The rock is reddish-brown, aphanitic and strongly porphyritic with euhedral pink feldspar phenocrysts up to 4 mm. and 1-3 mm. round quartz phenocrysts. Minor fiammi up to 2 cm. are present locally. Local zones of tectonic brecciation are strongly epidotized. Angular breccia fragments are often red in colour. The lower content zone is weakly chloritized.			
59.4'	- 107.3' (47.9')		Rhyolite	The rock is red to reddish-brown and strongly porphyritic with euhedral, orange to pink feldspar phenocrysts up to 5 mm. and round quartz phenocrysts up to 3 mm. in size. It carries abundant mafic clots, possibly fragments? They are moderately to strongly chloritized with indistinct boundaries. Some contain quartz phenocrysts within their borders. The rock is weakly fractured becoming moderately fractured locally. Fractures are epidotized with minor limonite. The basal zone from 104'-107.3' is mylonitic. This zone is green and strongly altered with chlorite and epidote.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-10

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
107.3'	- 165.2' (57.9')		Diorite	The rock is dark green, medium grained becoming fine grained locally and is generally porphyritic with light green feldspar phenocrysts up to 2 cm. locally. The rock is weakly chloritized and fractures are filled by epidote and white carbonate. Shear surfaces are strongly chloritized. Minor amounts of finely disseminated pyrite in blebs up to 2 mm. is common. 115.5' - 122.2': porphyritic with light green epidotized feldspar phenocrysts up to 2 cm. 122.2': the rock becomes sharply fine grained at this point and then slowly grades back to a medium grained porphyritic variety the same as 115.5'-112.2'.			
165.2'	- 365.2' (200')		Felsic Agglomerate	The rhyolite agglomerate unit is greenish-grey to light waxy green with several pinkish sections. It is locally porphyritic and short sections may be well flow laminated. A small amount of ignimbrite may be found locally. Agglomerate fragments are typically representive of several rhyolitic lithologies including massive porphyritic rhyolite and banded ignimbrite, and, may average 3-6 cm. in size, although larger and smaller fragments have been observed. These fragments are usually well rounded to sub-round. The unit is frequently intruded by diabase and diorite dykes. The former variety may locally intrude the diorite as well. 165.2' - 186.6': Rhyolite agglomerate - greenish-grey, weakly fractured with ignimbrite and rhyolite fragments up to 5 cm. The lower 4' may be tuffaceous. 186.6' - 222': Diorite - the unit is dark green to dark greyish-green, fine to medium grained and weakly to moderately fractured. Epidote and white carbonate are found in fractures. Traces of disseminated pyrite are found locally. 222' - 264.8': Rhyolite agglomerate - light waxy green, with rhyolite and ignimbrite fragments up to 5 cm. Most fragments are rounded and retain sharp boundaries. The rock is weakly fractured with epidotized fracture surfaces. 236.3' - 238.4': Diabase dyke - chloritized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-10

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
165.2'	- 365.2'	continued		264.8' - 304': Diorite - dark green, fine to medium grained - coarser grain sizes are found in the upper half. The intrusive is weakly fractured with epidote and white carbonate fracture filling. It is intruded by Diabase at 268.3' - 270.9'.			
				304' - 309.2': Rhyolite agglomerate - the rock is green with more larger fragments than tge agglomerate horizons above. Fragments are sub-round to round and up to 5 cm. in size. The rock is weakly fractured.			
				309.2' - 342.7': Diabase - greyish-green, fine grained and weakly fractured with white carbonate and epidote veining. 327.6' - 329.5': brecciated rhyolite xenolith.			
				342.7' - 365.2': Rhyolite agglomerate - dark green becoming orange locally with a few 5-8 cm. rhyolite flow fragments. The rock is fresh to very weakly altered.			
365.2'	- 417.3' (52.1')		Rhyolite Ignimbrite	The rock is light pinkish-green, and moderately porphyritic with 1-2 mm. quartz and epidotized feldspar phenocrysts. The upper contact dips at 20° to the core axis. The ignimbrite is well banded and the individual laminations intersect sharply with this contact. Bands are discontinuous and locally may be lensitic or rippled. At 395.2', feldspar phenocrysts are 1-3 mm. in size, strongly epidotized and, are more common. A diabase stringer is located at 395.8' - 396.2'.	365.2'	contact	A contact between agglomerate and ignimbrite units dips at 20° to the core axis.
					365.8'	banding	80° to the core axis
					373.4'	"	70° to the core axis
					380.9'	"	50° to the core axis
417.3'	- 428.4' (11.1')		Rhyolite Agglomerate	The rock is light waxy green and aphanitic with 4-5 cm. rounded fragments of various lithic types. The rock is non-laminated.			
428.4'	- 459.5' (31.1')		Diorite	The intrusive is dark green, fine to medium grained with feldspar phenocrysts up to 7 mm. in size. These crystals are light green and euhedral. The rock is weakly to moderately fractured. White carbonate and epidote are found on fracture surfaces. A rhyolite xenolith is located at 433' - 434.5'.			
495.5'	- 503' (43.5')		Rhyolite Agglomerate	The rock is green with generally greenish fragments but acquires reddish fragments with depth. Generally, fragments are sub-round up to 8 cm. in size and represent porphyritic rhyolite and ignimbrite varieties of volcanic. Some fragments are strongly epidotized. Tectonic breccia is found locally, particularly towards the base of the hole.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-10

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
495.5'	- 503'	continued		474.8' - 475.3': Diabase - dark green, fine to medium grained, moderately chloritized.			
				487' - 500.5': Diabase stringer.			
				503': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-11
SHEET 1 OF 3

PROPERTY Cobequid IV
LATITUDE 63+88S
LONGITUDE 102+23E
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 415'
CORE SIZE BQ

DATE STARTED 26 September 1978
DATE COMPLETED 1 October 1978
DRILLED BY St. Lambert Drilling Co.
LOGGED BY A. W. Workman
S. Barron

DATE: 11 October, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0	- 17.3		Overburden				Acid Dip Tests
							98' - 44°
17.3	- 70.5'		Diorite	The rock is dark green, medium grained becoming fine grained at the			295' - 43.5°
	(53.2)			contact, and weakly porphyritic with scattered light green 1-3 mm.,			415' - 43°
				euhedral feldspar phenocrysts. The intrusive is weakly to moderately			
				fractured with epidote and white carbonate fillings.			
70.5	- 74.8'		Rhyolite	The rock is greyish-red and red, aphanitic and porphyritic with 1-3 mm.			
	(4.3)			white to pink feldspar phenocrysts and round quartz phenocrysts up to			
				2 mm. The rock is massive and non-structured. The unit is weakly			
				fractured with epidote coating and filling fractures. Some white			
				carbonate is found near mafix intrusives.			
74.8	- 81.4'		Diabase	The intrusive is dark green, fine grained, strongly fractured and highly			
	(6.6)			chloritized. Some shearing is apparent. Fractures are epidote-			
				carbonate filled.			
81.4	- 127.7'		Rhyolite	The rock is pinkish-grey, aphanitic and porphyritic. Feldspar phenocrysts			
	(46.3)			are pink and up to 3 mm in size. Quartz phenocrysts are 1-2 mm. in size.			
				The zone becomes reddish-pink at 91.2' and remains porphyritic. Round			
				spherulitic growths, 1-2 mm. in size give the rock its colour. The			
				zone becomes greyer and locally becomes crudely banded at 108.3'.	108.3	banding	35° to the core axis
				109.1': diabase stringer - strongly chloritized			
				111.4 - 112': diabase dyke - strongly chloritized, epidote and			
				white carbonate in fractures.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-11

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
127.7 -	149.4' (21.7)		Diorite	The intrusive is dark green, fine to medium grained and strongly porphyritic. Light green, euhedral feldspar phenocrysts up to 1 cm. in size are common throughout the dyke. The rock is weakly fractured with white carbonate and minor epidote in fractures.			
149.4 -	191.4' (42)		Rhyolite	The volcanic is red to pinkish red becoming pink at the upper contact and aphanitic with round quartz phenocrysts up to 3 mm in size. These crystals are frequently penetrated by the ground-mass. Feldspar phenocrysts are not apparent. At the lower contact the rock is greyish-red with minor purple fluorite in some fractures. The unit is weakly to moderately fractured. Diabase stringers are found locally.			
191.4 -	203.9' (12.5)		Diabase	The intrusive unit is dark green and fine grained. It is weakly to moderately fractured with epidote and minor white carbonate as a fracture filling. Where highly fractured locally, the rock is strongly epidotized. The rock is weakly chloritized.			
203.9 -	274.5' (70.6)		Rhyolite	The rock is grey with red mottling and contains abundant 1-3 mm. round quartz phenocrysts set in an aphanitic ground-mass. Feldspar phenocrysts are not distinguishable. The rock is moderately fractured with minor locallized zones of tectonic brecciation. Breaks are strongly epidotized and cavities are white carbonate filled.			
274.5 -	301.3' (26.8)		Diabase	The rock is dark green, fine grained and moderately chloritized. Fractures are moderately developed and are epidote and white carbonate filled.			
301.3 -	321.2' (19.9)		Rhyolitic Intrusive	The rock is dark red to greyish-red aphanitic and porphyritic with euhedral pink feldspar phenocrysts up to 3 mm. and round quartz phenocrysts up to 4 mm. in size. The unit is unstructured but contains abundant mafic fragments up to 4 cm. in size. They are typically dark green, chloritized, fine grained and may be porphyritic with light green feldspar phenocrysts up to 3 mm. The fragments are especially noticed below 312'. The rock is weakly to moderately fractured. Fractures are epidotized. The contact with the underlying intrusive is very broken and carbonate filled cavities are common.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-11

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
321.2 -	326.1'		Diabase	The rock is dark green, fine grained and moderately to highly fractured.			
	(4.9)			Breaks are strongly epidotized with minor white carbonate and chlorite.			
326.1 -	415'		Rhyolite	The rock is reddish-grey with red mottling, very fine grained and			
	(88.9)			porphyritic with round quartz grains up to 2 mm. and euhedral feldspar			
				phenocrysts up to 3 mm. in size. Some spherulites may be nucleated on			
				quartz phenocrysts. The rock is moderately fractured. Fractures			
				often have red reaction halos and are commonly epidotized. The rock	351'	Flow	45° to the core axis
				becomes less fractured towards the base of the hole. The rhyolite		banding	
				becomes indistinctly flow banded at 350.2' and may include some ignim-	396'	"	40° to the core axis
				brite locally (e.g. 372.4').	414'	"	35° to the core axis
				415': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-12
SHEET 1 OF 4

PROPERTY Cobequid IV
LATITUDE 50+83S.
LONGITUDE L.96+00E
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 453.8'
CORE SIZE BQ

DATE STARTED 27 September 1978
DATE COMPLETED 1 October 1978
DRILLED BY St. Lambert Drilling Co.
LOGGED BY A. W. Workman
S. Barron

DATE: 8 Oct. 78 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0	- 6.7'		Overburden				ACID DIP TESTS
6.7'	- 35.4' (28.7')		Diorite	The intrusive is dark greyish-green, fine to medium grained and porphyritic with scattered light green feldspar phenocrysts up to 4 mm. Feldspars are euhedral as are most grains. The rock is weakly fractured and breaks are epidotized, locally chloritized and cavities as well as wider fractures may be white carbonate filled. Some fractures are limonite coated. A massive pink rhyolite xenolith is located at 29.1' - 31.0.' It is strongly fractured and epidotized.			98': -45.5° 295': -46° 453.8': -45.5°
35.4'	- 63.7' (28.3')		Rhyolite	The rock is pinkish-grey to dark pinkish-red locally, aphanitic and porphyritic with cream to pink, euhedral feldspar phenocrysts up to 4 mm. in size and a few quartz phenocrysts up to 1 mm. The rock is massive and non-structured. It is moderately to highly fractured with limonite and epidote on fracture surfaces. Some fluorite is noticed near 63.7' in fractured rhyolite. 52.8' - 60.2': Diorite - dark green, fine grained and porphyritic with feldspar phenocrysts up to 1 cm. It contains an epidotized rhyolite xenolith at 54.2' - 55.4'.			
63.7'	- 73.6' (9.9')		Diorite	The intrusive rock is dark greyish-green, medium grained and porphyritic with euhedral, light green feldspar phenocrysts up to 1 cm. in size. It is weakly to moderately fractured with white carbonate and epidote found in fractures.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-12

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
73.6'	210.4' (136.8')		Rhyolite Ignimbrite	The rock is reddish-pink with grey bands and laminations, aphanitic and porphyritic. The bands are lensitic, rippled and often discontinuous. No fiammi were observed. A few quartz phenocrysts up to 2 mm. in size are observed in the upper part of the zone but below 140.4', pink euhedral feldspar phenocrysts up to 3 mm. as well as abundant quartz phenocrysts may be observed. Phenocrysts have typically settled within laminations producing load casts. A few massive to poorly banded zones are found locally. Angular to sub-angular, pink rhyolitic fragments up to 1 cm. are found throughout the zone. Typically, they are set in an aphanitic grey matrix. Often the fragments may be surrounded by cream-coloured reaction rims. The rock is weakly to moderately fractured. Locally, zones of tectonic brecciation are common. Fractures and breccia matrix are epidotized. Below 140.8' some increase in fracturing and fragment size may be observed.	74.1'	flow banding	35°-40° to the C/A.
					81.7'	"	45°-50° to the C/A
				83.0'-92.0': Diorite - dark green, fine to medium grained porphyritic with euhedral to anhedral, light green, feldspar phenocrysts up to 6 mm. in size.			
				109': abundant tectonic breccia around this point.	123'	flow banding	50°-55° to the C/A.
				135.3' - 136.2': chloritized diabase - diorite dips along the core axis.			
				137.3' - 140.4': diabase - dark green, fine to medium grained, highly fractured and epidotized.	145.7'	"	90° to the C/A.
					150.9'	"	45° to the C/A.
				158.6' - 167.9': ignimbrite breccia - angular ignimbrite fragments are set in a light grey quartz matrix - may be genetically related to intrusive at 167.9'	155.8'	"	30° to the C/A.
				167.9' - 170.0': Diabase - dark green, fine grained, weakly fractured			
				170.0' - 178.0': the volcanic rock appears to carry abundant light red to pink rhyolite fragments.			
				178.0' - 210.4': light pinkish-red rhyolite and ignimbrite fragments are set in a light grey siliceous groundmass. The rock is weakly banded locally. It carries abundant cream, euhedral feldspar phenocrysts up to 3 mm. in size.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-12

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
210.4'	- 257.9' (47.5')		Diorite	The rock is dark green, medium to coarse grained with black chloritized glass shards up to 4 mm. and euhedral, light green feldspar phenocrysts up to 7 mm. The rock is weakly fractured with epidote and white carbonate fracture filling. A rhyolite xenolith is located at 215.4'. The fragment is strongly fractured and epidotized.			
257.9'	- 281.4' (23.5')		Rhyolite Agglomerate	The rock is greenish-grey with dark grey and pink rhyolite fragments. These fragments are rounded, up to 3 cm. in size, and represent both ignimbrite and rhyolite units. The zone is weakly fractured with minor epidotized tectonic breccia locally. Below 276.9' is a spherulitic zone. Spherulites are olive green, round and up to 1 cm. in size.			
				272.2' - 276.9': Diorite - the rock is dark greyish-green, fine to medium grained with 1-2 mm. black chloritized glass shards. Pyrite is found as 1-2 mm. blebs scattered throughout the zone.			
281.4'	- 354.7' (73.3')		Diorite	The intrusive is dark green, medium to coarse grained and weakly to moderately fractured. White carbonate with minor epidote fills fractures and openings. Minor disseminated pyrite is found in the unit. The rock is moderately chloritized.			
				309.6' - 313.6': Diabase - dark green, fine to medium grained, moderately chloritized			
				330.5' - 336.3': Diabase - same as above			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-12

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
354.7' -	388.1'		Diabase	The rock is dark green, fine grained, moderately chloritized with			
	(33.4')			minor finely disseminated pyrite as 1-2 mm. blebs.			
388.1' -	396.7'		Rhyolite	The rock is dark red to reddish-brown and banded. Individual laminations			
	(8.6')		Ignimbrite	are rippled and discontinuous. A few phenocrysts of quartz and			
				feldspar are observed - up to 2 mm. in size, and are set in an			
				aphanitic matrix. The unit is highly fractured. Fractures are			
				strongly epidotized. Minor tectonic breccia is found locally. The			
				rock is redder in colour towards 396.7'.			
396.7' -	404.3'		Diabase	The intrusive is dark green, fine grained and moderately fractured.			
	(7.6')			Epidote and white carbonate fill openings and coat fractures. Overall,			
				the rock is moderately chloritized.			
404.3' -	428.9'		Diorite	The rock is dark green, medium to coarse grained and weakly to			
	(24.6')			moderately fractured. Fractures are epidotized with white carbonate			
				filling cavities. Abundant disseminated pyrite is found as 1-2 mm.			
				blebs and occasional clots up to 1.5 cm. The intrusive is weakly			
				chloritized.			
428.9' -	450.8'		Diabase	Same as 396.7' - 404.3'.			
	(21.9')						
450.8' -	453.7'		Diorite	Same as 404.3' - 428.9'			
	(2.9')						
				453.7' END OF HOLE			

GMC 1051 (09/78)

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-13
SHEET 1 OF 4

PROPERTY Cobequid IV
LATITUDE 66+88S
LONGITUDE 102+23E
ELEVATION

BEARING — TRUE 180° Az.
DIP -45°
FINAL DEPTH 533.1'
CORE SIZE BQ

DATE STARTED 2 October, 1978
DATE COMPLETED 13 October, 1978
DRILLED BY St. Lambert Drilling
LOGGED BY A. W. Workman

DATE: 13 October, '78 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
							ACID DIP TESTS
0 -	1.6'		Overburden				
							98': - 44°
1.6' -	55.7'		Rhyolite	The rock is light green to light greyish-green becoming pinkish-green			295': - 43°
	(54.1')			or dark grey locally (eg 24.6'). It is weakly porphyritic with			533.1': - 40°
				1-2 mm. round quartz phenocrysts, often surrounded by red halos. With			
				depth is found an increase in the number of feldspar phenocrysts.			
				The zone is crudely and coarsely flow banded locally (eg. 3.6'-7.4')	6.6'	flow	35-40° to the C/A.
				and at 9.8' the zone carries several rounded rhyolitic fragments up		banding	
				to 2 cm. in size. In the lowermost 2' are several coarsely			
				porphyritic green zones which are strongly chloritized.			
				32.5' - 43.1': Diabase - the intrusive is dark green to black, fine			
				grained, moderately fractured and weakly to			
				moderately chloritized	55.7'	flow	-45° to the C/A.
						contact	
55.7' -	186.5'		Rhyolite	The rhyolite is dark to medium grey and aphanitic. Over short			
	(130.8')			intervals the colour may be greenish-grey with pink mottling			
				(eg. 63-70') or reddish pink (eg. 80.4' - 87.9' and 103.7' - 109.8').			
				It becomes porphyritic at 74.6' with euhedral pink feldspar phenocrysts			
				up to 4 mm and round quartz phenocrysts up to 2 mm. Fracturing			
				is variable but is usually silicified with minor epidote and, locally			
				white carbone filling. Minor very finely disseminated pyrite			
				is found throughout the zone.			
				105.6': chloritized seam			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-13

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				112.7' - 115.2': the rock becomes granular in appearance, is greenish-grey in colour and is porphyritic with mostly quartz phenocrysts			
				120.1' - 126.8': the rock grades sharply to grey at 120.1' and then back to pink at 126.8'			
				126.8': the rock is more highly fractured and develops a weak flow banding which is coarse and crude at best.	134.2'	flow banding	40° to the C/A.
				148' - 153.8': Diabase - dark green, fine grained and weakly chloritized. Weakly developed fracturing is epidotized and cavities are carbonate filled.			
				153.8' - 172.4': the rhyolite is grey to reddish-grey and appears to be fragmental (agglomeratic?). Hazy patches which resemble fragments are common and usually very similar in colour to the matrix. The groundmass is weakly porphyritic becoming moderate with depth. Round quartz phenocrysts up to 2 mm. and pink euhedral 1-3 mm. feldspar phenocrysts are common. The rock is flow banded locally and development of laminations is poor to fair.	164.4'	flow banding	70° to the C/A.
					174.5'	flow banding	40° to the C/A.
				172.4' - 186.5': generally pink in colour - possible flow contact at 186.5'.			
186.5'-	254.3' (67.8')		Felsic Agglomerate	The rock is grey, aphanitic with abundant round to sub-round red, pink and grey fragments. These fragments are representative of rhyolite flow and ignimbrite units and are up to 2 cm. in size set in an aphanitic groundmass. Fragment size increases down the hole and some up to 8 cm. are observed below 209'. Fracturing is weakly developed but increases with depth, particularly below 212.6'. Below this point the rock becomes moderately and then strongly fractured with increasing tectonic brecciation. Tectonic breccia is composed of bright red, angularly fractured and shattered agglomerate fragments set in an aphanitic grey very siliceous matrix, (eg. 217').	225.9'	flow banding	40° to the C/A.

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-13

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				A green, weakly chloritized and possibly sericitized zone is located at 222.9' - 223.7'.			
				At approximately 246', the agglomerate unit may grade to an ignimbrite. Because of brecciation and the presence of ignimbrite fragments in the agglomerate, the exact contact is not apparent.			
254.3' -	265' (10.7')		Diorite	The rock is dark green, fine to medium grained and fresh to weakly chloritized. Fracguring is weakly developed. Cracks are epidotized with minor white carbonates.			
265' -	288.2' (23.2')		Rhyolite Ignimbrite	The rock is bright red and aphanitic. Where strongly tectonically brecciated, angular red fragments are set in a grey matrix. The rock is well banded locally but brecciation has confused and masked it. Some laminations are convolute and recumbantly folded (eg. 283.8'). The rock is intensely broken and fractured along the intrusive contact at 265'. Overall, the rock is moderately fractured with epidote and locally, carbonate on fracture surfaces.	275.3'	flow banding	30° to the C/A.
288.2' -	324.7' (36.5')		Diabase	The rock is dark green, fine grained and weakly chloritized. Abundant 1-2 mm. black devitrified glass shards are found throughout the intrusive. Rhyolite xenoliths are found at 289.1', 290.8' - 293.1' and 294.1' - 295.2'. They are strongly fractured and epidotized. The diabase contains abundant 1-2 mm. blebs of pyrite.			
324.7' -	372' (47.3')		Rhyolitic Intrusive	The rock is red to brownish-red, apahanitic and strongly porphyritic with 1-3 mm. quartz phenocrysts and 1-2 mm. euhedral pink feldspar phenocrysts. The rock is massive and unstructured and carries abundant chloritized dioritic (?) fragments up to 3 cm. in size. The fragments are well rounded but not sharply defined. The unit is weakly to moderately fractured. Fractures are strongly epiodotized. The rock becomes greyish-pink near 372' at which point it seems to grade into the underlying diorite. This may be a result of re-melting at the contact. Abundant finely disseminated pyrite is found locally.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-13

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
372' -	412.1' (40.1')		Diorite	The rock is dark green, fine to medium grained and porphyritic. It is strongly fractured - frequently becoming mylonitic. Epidotization of fractures is prevalent with minor white carbonate. A rhyolite xenolith is located at 410.8' - 412.1'.			
412.1' -	432.2' (20.1')		Rhyolite	The rock is red to reddish-pink aphanitic and moderately porphyritic with 1-2 mm. quartz phenocrysts and 1 mm. red feldspar phenocrysts. The rock is moderately to strongly fractured (eg. 412.1 - 412.6') locally with chlorite found in fractures near mafic intrusives. Epidote is also common on breaks. The rock is mylonitic and very strongly epidotized locally, (eg 428.1').			
432.2' -	533.1' (100.9')		Granite	The rock is red to pinkish red, medium to coarse grained and is composed of 20-30% quartz, up to 80% feldspar and minor amounts of hornblende, magnetite and chlorite. Feldspar grains are dark red. Quartz grains are interstitial to the feldspar. The rock is moderately to strongly fractured. Fractures are weakly epidotized and coated with limonite. Specular hematite is the dominant fracture filling mineral. Minor pyrite and white carbonate are found in fractures. 492.5' - 500.1': Diorite - dark green, fine grained and porphyritic with light green, sausauritized feldspar phenocrysts up to 6 mm. in size. The intrusive is cut by a granite stringer at 497.2' - 497.6'. 511.2' - 513.5': Diorite - as above - feldspar phenocrysts up to 1 cm. in size. 513.5': feldspar grains are weakly kaolinized below this point. 533.1': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-14
SHEET 1 OF 3

PROPERTY Cobequid IV
LATITUDE 54+83S.
LONGITUDE L96+00E
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 432.1'
CORE SIZE BQ

DATE STARTED 1 October 1978
DATE COMPLETED 4 October 1978
DRILLED BY St. Lambert Drilling Co.Ltd.
LOGGED BY A. W. Workman

DATE: 10 October 78 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	20.7'		Overburden				ACID DIP TESTS
20.7 -	44.8'		Diabase	The intrusive is dark green, fine grain and moderately to highly fractured. Fractures are epidotized and cavities are white carbonate filled. The rock is moderately sheared and chloritized.			295': -42°
44.8' -	80.1' (35.3')		Rhyolite-Ignimbrite	The rock is red to pinkish-red, aphanitic with euhedral, pink to orange feldspar phenocrysts up to 2 mm. and round quartz phenocrysts of similar size. The rock is well banded, pink and grey to a depth of 60'. The bands are lensitic, rippled and discontinuous. The rock is moderately to highly fractured with minor zones of tectonic brecciation. Below 60', the ignimbrite is non-banded to locally banded and becomes increasingly brecciated and fractured. Below 70.5' the rock is less intensely broken.	48.5'	flow banding	40° to the C/A.
					78'	flow banding	45° to the C/A.
				67.7' - 69.7': chloritized, dark green diabase dyke 70.3' - 70.4': chloritized seam 73' - 77': chloritized, dark green diabase dyke			
80.1' -	234.1' (154')		Diorite	The intrusive rock is dark green, fine to medium grained and porphyritic with euhedral, light green feldspar phenocrysts up to 1 cm. in size. Minor zones of pink bladed feldspar crystals are found over short intervals. The rock is weakly fractured with epidote and white carbonate fracture fillings. Locally, fracturing may be quite strong with an increase in epidote alteration. Minor disseminated pyrite is found locally.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-14

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
80.1'	- 234.1'	continued		86' - 133.4': Diabase - dark green, fine grained and weakly to moderately fractured with epidote fracture filling. The rock is moderately chloritized. Some blue stain (chlorite?) in fractures at 88.6'.			
				223.2' - 225.7': rhyolite xenolith - strongly fractured and epidotized.			
234.1'	-271.7' (37.6')		Felsic Agglomerate	The rock is composed of pink and grey ignimbrite and rhyolite fragments up to 5 cm. in size and generally well rounded to sub-angular set in a predominately grey aphanitic groundmass. The rock is porphyritic with pink euhedral feldspar phenocrysts up to 3 mm in size. The agglomerate is moderately to highly fractured.			
271.7'	- 314.5' (42.8')		Diorite	It is dark green, medium grained, and weakly to moderately fractured. White carbonate and epidote are found in fractures. The intrusive is weakly chloritized.			
				311.4' - 314.5': a zone of up to 50% rhyolite xenoliths dips along the core axis.			
314.5'	- 342.8' (28.3')		Rhyolite	The rock is composed of (up to 50% of rock volume), reddish-pink to grey, angular rhyolite fragments in a hard, greenish-grey possibly silicified, aphanitic groundmass. The matrix is frequently cut by chloritized seams. The rock is moderately to strongly fractured. Fractures are chlorite and epidote filled As a whole this unit is tectonically brecciated rhyolite flow.			
				327.9' - 331.2': Diabase - dark green, fine grained, chloritized contains abundant intensely fractured rhyolite xenoliths.			
342.8'	- 370.4' (27.6')		Rhyolite	The rock is pink and aphanitic with abundant light green tectonically brecciated and mylonitic zones. Mylonite zones are strongly epidotized. The rock is strongly fractured but becomes less fractured below 355'. Fractures are stronly epidotized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-14

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
370.4'	- 401.3' (30.9')		Felsic Agglomerate	The rock is composed of red to pink and minor grey ignimbrite and rhyolite fragments set in a pinkish-grey groundmass. The fragments are vaguely outlined, and are probably well rounded. Fragments may be up to several centimeters in size. The zone is weakly tectonically brecciated and fractured. The rock is redder towards the lower contact.			
401.3'	- 432.1' (30.8')		Diabase	The intrusive is dark green, fine to medium grained and moderately chloritized. Fracturing is weakly developed becoming moderate locally. Epidote and white carbonate fill fractures.			
				432.1': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-15
SHEET 1 OF 4

PROPERTY Cobequid IV
LATITUDE 58+83S.
LONGITUDE L96+00E.
ELEVATION

BEARING—TRUE 180° Az.
DIP 45°
FINAL DEPTH 434'
CORE SIZE BQ

DATE STARTED 4 October 1978
DATE COMPLETED 7 October 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: 13 October 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
							ACID DIP TESTS
0 -	7.5'		Overburden				
							98': -43°
7.5' -	147.6'		Felsic	The rock is light to medium waxy green, becoming pinkish red			433': -35.5°
	(112.8')		Agglomerate	to red near mafic intrusives, and is aphanitic with rhyolite			
				and ignimbrite fragments up to 4 cm. The fragments are			
				generally rounded and encompass a wide range in colour and texture.			
				Locally, the groundmass is porphyritic with 1-4 mm. pink			
				feldspar phenocrysts and 1-2 mm. round quartz phenocrysts. Over			
				short intervals the matrix may be weakly flow banded (eg. 7.5'-	8.7'	foliation	50° to the C/A.
				9.5'). The zone is weakly fractured becoming moderately and		or flow	
				strongly fractured below 51' - probably due to the mafic		banding	
				intrusive at 67'.			
				Blue fluorite is found filling fractures at 59.5' and 58.6'. Epidote			
				is the dominate fracture filling.			
				41.3' - 42': chloritized seam			
				46.8' - 47.7': Diorite - dark green, fine grained, light green			
				feldspar phenocrysts, moderately chloritized,			
				highly fractured.			
				50.2' - 50.9': chloritized seam			
				58.6' - 65.4': agglomerate becomes pink with an increase in			
				fracturing and minor tectonic brecciation.			
				65.4' - 68.1': Diabase - dark green, fine grained, moderately			
				chloritized and fractured - breaks are			
				epidotized.			
				68.1' - 68.9': the agglomerate is red to pinkish-red			
				70.4' - 71.0': Diabase seam - strongly chloritized.			
				87' - 87.9': chloritized seam - intrusive (?) - contains			
				angular rhyolite fragments.			
				111.7' - 118': the felsic volcanic becomes non-fragmental but the			
				groundmass remains the same as higher in the hole			
				light greenish-grey.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-15

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				118.7': the rock contains an 8 cm. reddish-pink, porphyritic rhyolite fragment. It is well rounded and is found with several small angular chips which originated as part of the larger block.			
				120.3' - 129.8': Diorite - the intrusive is dark green, fine to medium grained and weakly porphyritic with light green euhedral feldspar phenocrysts up to 3 mm. in size. The rock is moderately to strongly fractured and is sheared locally. Epidote coats fractures and shear surfaces are strongly chloritized. Below 129' are abundant rhyolite fragments.	129.8'	intrusive contact	15° to the C/A.
				129.8' - 140.6': the rock is light grey with reddish-pink mottling and minor red fragments. It is porphyritic with 1-3 mm. pink feldspar phenocrysts and 1-2 mm. quartz phenocrysts. The agglomerate is moderately to strongly fractured.			
				140.6' - 147.6': rhyolite is dark grey and aphanitic with pink, red and grey rounded fragments up to 2 cm. in size. Fragments are massive porphyritic and ignimbrite. The groundmass is frequently porphyritic with 1-2 mm. cream feldspar phenocrysts and 1 mm. round quartz phenocrysts. The matrix is mixed locally with pink fine grained material (eg. 139.1'). The rock is weakly to moderately fractured. Fragments are redder towards the intrusive at 147.6'.	140.6'	flow banding	30° to the C/A
147.6'	207.6' (60')		Diorite	The intrusive is dark green, fine to medium grained with minor coarse grained pinkish-green feldspathic zones, (eg. 160.1' - 161.3'). The rock is weakly to moderately porphyritic with scattered 1-5 mm. light green sausauritized feldspar phenocrysts. The unit is weakly to moderately fractured becoming highly broken locally. Epidote and minor white carbonate are found as fracture fillings. Dark green diabase seams cut the core axis at 159.4', 159.6' and 159.9'. This is the same seam in each case. It has been faulted at 85° to the core axis. The upper fault has a displacement of 1 cm. The lower fault displaces the seam 3-4 cm.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-15

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
207.6'	- 275.6' (68')		Rhyolite	The rock is pinkish-red to brownish-red, aphanitic and strongly porphyritic with 1-2 mm. round quartz phenocrysts which have frequently been penetrated by the groundmass. Feldspar phenocrysts up to 4 mm. are pink and euhedral. The rock becomes greyish-red at the upper intrusive contact and also in zones at 260.8' - 263.5' and 267.6' - 271'. The rock is weakly to moderately fractured, but locally fracturing may be strong. Epidotization of fractures is prevalent. At 273' the rock becomes darker with more chloritized fractures.			
275.6'	- 279.6' (4.0')		Diabase	The intrusive is dark green, fine grained and contains abundant 1-2 mm. black, chloritized glass shards. It is weakly fractured with white carbonate as a fracture filling.			
279.6'	- 298.4' (18.8')		Felsic Agglomerate	The rock is dark grey-green, aphanitic to fine grained and carries rounded fragments up to 1 cm. in irregular zones. The groundmass is porphyritic locally with 1-2 mm. quartz phenocrysts and may be well flow banded (eg. 283.6'). Abundant chloritized amygdules dot the zone. Those are typically surrounded by reddish reaction halos.	283.6'	flow banded	50° - 55° to the C/A
298.4'	- 306.3' (7.9')		Diorite	The intrusive is dark green, fine grained and weakly porphyritic with scattered light green euhedral feldspar phenocrysts up to 1 cm. Phenocrysts are concentrated in the centre of the dykes. The rock is weakly to moderately fractured with epidote and white carbonate filling breaks. Generally, the rock is weakly to moderately chloritized.			
306.3'	- 316.3' (10.0')		Rhyolite (Spherulitic)	The rock is light to medium grey and pink, and fine grained. The zone is porphyritic locally with 1 mm. quartz phenocrysts. Pink, round but distorted spherulites are found throughout the zone. They are up to 1 cm. in size and give the rock a pink colour. The zone is weakly fractured becoming moderately fractured locally.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-15

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
316.3'	- 369.4' (53.1')		Felsic Agglomerate (?)	The rock is medium to dark grey, becoming pink locally, fine grained with a few rounded fragments up to 3 cm. Scattered quartz and feldspar phenocrysts are up to 2 mm. in size. Towards the base of the unit, the rock is redder and more strongly porphyritic. Fractures are weakly developed and epidotized. Some fractures are surrounded by red reaction halos. At 343.2' the rock becomes pink to reddish-pink.			
369.4'	- 434.1' (64.7')		Rhyolite (Spherulitic)	The rock is pinkish-grey, frequently mottled grey and pink, aphanitic, and contains pink and green spherulites up to 1 cm. in size. Quartz and feldspar phenocrysts are 1-2 mm. in size. The rhyolite is weakly to moderately fractured. Epidote fills fractures. Minor intensely broken, epidotized zones are found locally, (e.g. 375.7'). Below 404.9', spherulite size increases and occurrences up to 3 cm. in diameter are observed locally (e.g. 407.3'). The rock is weakly spherulitic below 416.7'.			
				434.1': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-16
SHEET 1 OF 5

PROPERTY COBEQUID IV
LATITUDE 62 + 80 S.
LONGITUDE 96 + 00 E.
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 472.4'
CORE SIZE BQ

DATE STARTED 8 October, 1978
DATE COMPLETED 11 October, 1978
DRILLED BY St. Lamberts Drilling Co. Ltd.
LOGGED BY A. W. Workman

DATE: 14 October, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 6.9'			Overburden				ACID DIP TESTS:
6.9' -	22.6' (15.7')		Rhyolite	The rock is pinkish-red, aphanitic and porphyritic with 1-2 mm. quartz phenocrysts and minor 1 mm. feldspar phenocrysts. The rock is massive and unstructured. It is moderately fractured becoming strongly shattered locally with limonite and epidote on fracture surfaces.			98': -40.5° 295': -43.7° 472.4': -43°
22.6' -	34.4' (11.8')		Diabase	The intrusive is dark green, fine grained, weakly to moderately chloritized and fractured with epidote and minor carbonate on fractures.			
34.4' -	110.9' (76.5')		Felsic Agglomerate	The volcanic is pink to greyish-pink and aphanitic with 1-2 mm. quartz phenocrysts and 1 mm. feldspar phenocrysts. The rock is weakly agglomeratic locally with rounded porphyritic rhyolite fragments up to 2 mm. in size. The fragments are very similar in composition to the groundmass. A 5 cm. rhyolite fragment is located at 65.1'. Generally, fragments are not sharply defined. The rock is moderately fractured becoming strongly fractured at 57.4' - 69.9'. Below 74.5', are numerous chloritized fractures and patches which are usually moderately magnetic. Below 94.3', the rock is a darker greyish-red and carries small chloritized mafic fragments up to 2 cm. in size as well as abundant grey rhyolite fragments.			
110.9' -	124.3' (13.4')		Rhyolite Ignimbrite	The rock is reddish-pink becoming pinkish-red with depth, aphanitic and porphyritic. Round, quartz phenocrysts up to 2 mm. in size and 1 mm. strongly epidotized feldspar phenocrysts are common.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-16

SHEET 2 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				The rock is weakly to moderately flow laminated and contains a few rounded grey rhyolite fragments up to 2 cm. in size. The zone is weakly fractured. Epidotization of fractures is prevalent except close to mafic intrusives where chloritized fractures are common.	115.6'	flow banding	35° to the C/A.
					119.1'	"	30° to the C/A.
					121.7'	"	30° to the C/A.
124.3'	- 143.9' (19.6')		Diorite	The intrusive is dark green, fine to medium grained and contains a pinkish-green, feldspathic central zone. This zone is medium grained and contains abundant fine grained mafic seams and fragments. The feldspathic zone is a result of segregation within the intrusive. The dark green border phases are porphyritic with 1-5 mm. light green euhedral feldspar phenocrysts.			
				131.8' - 135.1': rhyolite xenolith- dark red, intensely broken and epidotized.			
143.9'	-268.2' (124.3'		Rhyolite Ignimbrite	The rock is dark pinkish red, aphanitic and porphyritic with 1 mm. quartz phenocrysts and 2 mm. fractured epidotized feldspar phenocrysts. Phenocrysts are commonly surrounded by red to pink reaction rims. The unit is weakly flow banded becoming well laminated locally. Bands are irregular and lensitic, frequently discontinuous and consist of alternating red and grey laminations. The rock is weakly to moderately fractured. Breaks are silicified and epidotized.	148'	flow banding	35° - 45° to C/A.
				158.1' - 165.3': highly fractured, moderately to strongly chloritized ignimbrite with several chloritized seams (eg. 164.2').			
				165.3' - 172.6': Diabase - dark green, fine grained, moderately to strongly developed fractures are epidotized with minor white carbonate. Rhyolite xenoliths are located at 166.1' - 166.3' and 167.9' - 168.1.			
				172.6' - 204.5': pinkish-grey as a result of pink halos around fractures, moderately porphyritic with moninately quartz phenocrysts and weakly banded locally becoming moderately banded at 200.1'. A chloritized seam is located at 197.9'.	189.7'	flow banding	85° to the C/A.

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-16

SHEET 3 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				204.5': Fault - cuts the core axis at 55°.	200.8'	flow	45° to the C/A.
				204.5' - 208.7': bright red moderately well banded ignimbrite	211.1'	banding	45° to the C/A.
				207.7': 5 cm. fine grained, red, granite stringer	211.9'	flow	35° to the C/A
				208.7': the rock becomes redder in colour and flow banding is well developed locally. Fracturing is more pronounced below 208.7' and they are surrounded by reddish halos.		banding	
					213.4'	flow	45° to the C/A.
				The rock is moderately porphyritic with 1-2 mm. quartz phenocrysts and 1-3 mm. epidotized feldspar phenocrysts.		banding	
				214' - 217.5': Diorite - the intrusive is dark green, fine grained and porphyritic with light green euhedral feldspar phenocrysts up to 4 mm. in size. The rock is weakly to moderately fractured with epidote and white carbonate filling fractures.			
				217.5' - 217.7': rhyolite xenolith similar to rhyolite at 226'.			
				217.7' - 219.2': mixed chloritized intrusive, granite and rhyolite fragments.			
				220.4' - 221.7': strongly chloritized diabase			
				219.2' - 244.9': bright red grading to pinkish-grey, aphanitic and moderately to strongly porphyritic with 1-2 mm quartz penocrysts and 1-3 mm. feldspar phenocrysts well flow banded with bands up to 1 cm. in thickness - possibly ignimbrite. The zone is weakly to moderately fractured.	226.5'	flow	40° to the C/A.
						banding	
					231.1'	"	75° to the C/A.
				244.9' - 247': pinkish grey, moderately porphyritic and very well flow banded locally (eg. 250.8' and 262.2'). Banding is irregular. Abundant chloritized seams are found in fracture zones - generally magnetic.	253.1'	flow	35° to the C/A.
						banding	
					254.8'	"	45° to the C/A.

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-16

SHEET 4 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
268.2'	296' (27.8')		Rhyolite (Ignimbrite?)	The rock is grey with red sinues surrounding grey aphanitic patches. These patches are reounded and form 80 - 90% of the rock volume. They may reflect pseudo flow brecciation. Generally the rock is porphyritic with 1-2 mm. quartz phenocrysts and a flow feldspar phenocrysts. The zone is weakly to moderately fractured. Below 293' the rock is highly fractured. Fractures are silicified and surrounded by red halos. Minor tectonic breccia is found locally (eg. 295.8' - 296.6').			
296'	356.6' (60.6')		Felsic Agglomerate	The rock is pinkish-grey becoming pink locally, aphanitic and porphyritic. Quartz phenocrysts up to 2 mm. are common. A few chloritized and epidotized feldspar phenocrysts are found. Below 324.8' are found abundant 1-2 cm. green rounded, chloritized fragments and greyish rhyolite fragments (eg. 330.2'). Abundant chloritized vugs are observed which may be fragments as well. The rock is weakly fractured becoming moderately fractured locally. Epidote is the major fracture filling. 329.1': a fault zone with abundant epidotized mylonite dips along the core axis at 5° - 10°.			
356.6'	383.1' (26.5')		Diorite	The intrusive is dark green, fine to medium grained and porphyritic with scattered light green, euhedral feldspar phenocrysts up to 5 mm. in size. The rock is weakly to moderately fractured. Epidote and minor white carbonate fill fractures.	356.6	intrusive contract	30° to the C/A.
383.1'	403.7' (20.6')		Rhyolite Agglomerate?	The rock is dark red with grey mottling and aphanitic. It is porphyritic with 1-2 mm. round quartz phenocrysts. The flow contains a few rounded grey and light pink rhyolitic fragments up to 2 cm. in size. They are not generally well defined. 392.2' - 393.9': chloritized seams in fractures, with chloritized mylonite - fault zone? 399.9' - 401.9': chloritized fractures 383.9' - 384.4', 386.3' - 387', 389.5' - 390.4': - chloritized dykes			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-16

SHEET 5 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
403.7'	- 414.5' (10.8')		Diorite	The rock is dark green, fine grained and porphyritic with a few light green, euhedral 1-3 mm. feldspar phenocrysts. The intrusive is weakly fractures becoming strongly broken locally. Epidote and white carbonate are found in fractured. Shear surfaces are strongly chloritized with minor graphite.			
414.5'	- 448.8' (34.3')		Rhyolite	The rock is pinkish-red grading to pink and then to greyish-pink away from the overlying intrusive. The zone contains abundant chloritized clots and seams up to 3 cm. in size. The rock is weakly fractured becoming moderately shattered locally. Fractures are silicified and epidotized.			
448.8'	- 472.4' (23.6')		Rhyolite Flow Breccia?	The rock consists of pink to pinkish-red, aphanitic rhyolite fragments set in a black to dark grey, fine grained to aphanitic, hard groundmass. The fragments are rounded and up to 4 cm. in size. The rock becomes more massive with less fragmental at 468.5'. It is porphyritic with quartz feldspar phenocrysts up to 2 mm. in size. Some weak flow banding is observed locally. The volcanic flow is intruded locally by granite stringers and dykes. (e.g. 452.9' - 454.1', 462.8' - 463', 496.3' - 469.5') The granite is pinkish-red, fine grained and very fresh.	468.7	flow banding	45° to the core axis
					452.9	intrusive contacts	45° to the core axis
					454.1		45° to the core axis
				472.4': END OF HOLE			

GMC 1051 (09/78)

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-17
SHEET 1 OF 2

PROPERTY Cobequid IV
LATITUDE 67 + 17 S.
LONGITUDE 96 + 00 E.
ELEVATION

BEARING—TRUE 180° Az
DIP -45°
FINAL DEPTH 256.9'
CORE SIZE BQ

DATE STARTED 12 October, 1978
DATE COMPLETED 13 October, 1978
DRILLED BY St. Lambert Drilling Co. Ltd.
LOGGED BY A. W. Workman
S. Barron

DATE: 17 October, 1978 SIGNED A. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 - 5.2'			Overburden				ACID DIP TESTS:
5.2' - 8.7'	(3.5')		Rhyolite	The rock is brownish-pink and cream coloured, aphanitic and porphyritic with anhedral, light pink feldspar phenocrysts up to 4 mm. and 3 mm. round quartz phenocrysts. The rock is weakly fractured. Breaks are chloritized locally with minor epidote.			98': -43° 256.9': -42.5°
8.7' - 188'	(179.3')		Granite	The rock is red to pinkish-red, medium to coarse grained and is composed of 20-30% quartz, 60-70% feldspar and 5-15% hornblende. Quartz grains up to 2 cm. are interstitial to feldspar. Feldspar grains are very red in colour and display good cleavage. Hornblende crystals up to 1.5 cm. are euhedral to anhedral. Fracturing is weakly developed becoming moderate locally. Epidote and limonite coat fracture surfaces. Diorite xenoliths are located at 30' - 30.5' and 178.5' - 179'. They are dark green, fine to medium grained and weakly to moderately porphyritic.			
188' - 223.3'	(35.3')		Diorite	The rock is dark green, fine grained and porphyritic with light green, euhedral feldspar phenocrysts up to 4 mm. The rock is weakly to moderately fractured with epidote and white carbonate filling breaks and cavities. The intrusive is weakly chloritized. Abundant granite stringers of varying grain size are located at: 211.5' - 214.7', 220.6' - 221.1' and 222.3'. A 1.5 cm. wide stringer runs along the core axis at 198' - 199.4'.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-17

SHEET 2 OF 2

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
223.3'	- 256.9' (33.6')		Granite	The plutonic rock is red to pinkish red, fine to medium grained and is similar in composition to the upper granite unit. Hornblende content is 1-3% however with the balance being made up mostly by feldspar. Quartz content is 25-30%.			
				256.9': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-18
SHEET 1 OF 4

PROPERTY Cobequid IV
LATITUDE 69 + 82 S.
LONGITUDE 102 + 20E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 474.1'
CORE SIZE BQ

DATE STARTED 14 October 1978
DATE COMPLETED 21 October 1978
DRILLED BY St. Lambert Drilling Co.
LOGGED BY A. W. Workman

* measured from L 96 E. at 70 + 00 S. picket

DATE: 25 Oct., 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	9.4'		Overburden				ACID DIP TESTS
9.4' -	136.2' (126.8')		Diorite	The rock is dark green, fine to medium grained and weakly porphyritic with a few scattered light green feldspar phenocrysts up to 4 mm. in size. Fractures are weakly to moderately developed with epidote and white carbonate found on all fracture surfaces. Locallized shear planes are strongly chloritized. Overall, the rock is weakly to moderately chloritized and good dioritic texture is exhibited only locally (eg. 97.1'). Weak uralitization of pyroxene is evident. Spotty epidote alteration is common below 99.7'. Round epidotized amygdules are up to 5 mm. in size. Minor finely disseminated pyrite as well as blebs up to 2 mm are common.			98': -45.5° 295': -45° 474': -44°
				114.8' - 116.6': Diabase - dark green, fine grained and strongly chloritized; the rock is weakly fractured.			
136.2' -	189.4' (53.2')		Felsic Agglomerate	The rock is medium to dark grey with red, pink and grey rounded to sub-angular rhyolite fragments. The fragments are up to 5 cm. in size and are set in an aphanitic groundmass. The matrix is weakly porphyritic with a few 1-2 mm. quartz phenocrysts. The fragments represent massive rhyolite and ignimbrite lithologies. The larger fragments are better rounded. Many smaller, more angular fragments appear to have been broken from larger fragments. The rock is weakly fractured becoming moderately fractured locally. Epidote is the pervasive fracture filling mineral. Locally the matrix to fragments is weakly chloritized.	136.2'	intrusive contact	40° to the C/A

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-18

SHEET 2 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
136.2' -	189.4'	continued....		179.6' - 181.3': non-fragmental chloritized zone			
				180.1' weakly and irregularly flow banded			
				187.8' - 188.3': chloritized intrusive - seam			
189.4' -	199.8		Diorite	The intrusive is dark green, fine to medium grained and porphyritic			
	(10.4')			with 1-4 mm. light green and pink feldspar phenocrysts. Rhyolite			
				xenoliths up to 4 cm. in size are located at 189.5', 189.8' and			
				190.2'. The diorite is weakly fractured with epidote and white			
				carbonate in fractures.			
199.8' -	227'		Rhyolite	The rock is pinkish-grey to grey, aphanitic and porphyritic with 1-2 mm			
	(27.2')		Ignimbrite	quartz phenocrysts. The rock is well flow banded locally. The			
				individual laminations are irregular, rippled, discontuous and	212.8'	flow banding	80°-90° to the C/A.
				locally lensitic. The rock contains numerous partly absorbed			
				and poorly defined rhyolitic fragments up to 1 cm. in size.	213.3'	"	50°-55° to the C/A.
				Structure suggestive of ignimbrite become more poorly defined	219'	"	45° to the C/A
				towards the base of this section.	226.2'	"	50° to the C/A
				214.1' - 221.5': Diorite - dark green, medium grained and non-porphyritic. The intrusive contains abundant 1-2 mm. black blebs - chloritized glass.			
227' -	265.4'		Rhyolite	The rock is generally pinkish-grey but is frequently pink or waxy-green. It is aphanitic, massive and unstructured. A vague grey			
	(38.4')			mottling is apparent locally. This may be the result of brecciation			
				and re-melting. The rhyolite may contain 3-5 cm. rounded fragments	258.1'	flow(?) banding	40-45° to the C/A
				at 261.5'. The rock is weakly to moderately fractured. Epidote			
				fills many fractures and many are silicified or poorly cemented.			
				The more strongly fractured zones are often pinkish-red to brick red.			
				249.2' - 251': Diabase (?) - the rock is dark green, fine grained and strongly chloritized. A rhyolite xenolith is located at 250.2' - 250.5'.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-18

SHEET 3 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
265.4'-	303.4 (38')		Diorite	The intrusive rock is dark greyish-green, medium to coarse grained and porphyritic with light green, sausauritized feldspar phenocrysts up to 1 cm. in size. Abundant 1-2 mm. chloritized glass blebs dot the zone. The rock is weakly fractured with epidote and white carbonate on fracture surfaces. The rock is weakly chloritized, weakly sausauritized and uralitized.			
				287.9' - 292.2': Rhyolite - xenolith of rock similar to the zone at 227' - 265.4'.			
				292.2' - 303.4': non-porphyritic diorite			
303.4'-	313.8' (10.4')		Rhyolite	The rock is pinkish-grey to grey with pink mottling. This zone is the same as the zone above 265.4'. It is generally unstructured with no distinct recognizable features. Fracturing is weakly to moderately developed with either epidote or chlorite on fractures. At 303.4', the rhyolite is locally stopped by the diorite.			
313.8'-	395.8' (82')		Rhyolite Ignimbrite	The rock is light grey to pinkish-grey becoming dark grey and red with depth. It is porphyritic with 1-2 mm. quartz and pink feldspar phenocrysts set in an aphanitic groundmass. The zone is well flow banded. Individual laminations are irregular, discontinuous and rippled. Flow banding is frequently obscured by tectonic brecciation. The breccia fragments are angular and set in a white silicified matrix. Fragments average 1.5 cm. but some up to 3 cm. are found locally. Well developed tectonic breccia is found locally (eg 344.8' - 347.4'). Below 347.4', the rock has undergone general tectonic brecciation weak to moderate in strength. At 369.1', the rock becomes brick red where broken. The rock is chloritized locally (eg 393.4' - 394.3')	318.4'	flow banding	30° to the C/A.
					322.3'	"	35-40° to the C/A.
					335.1'	"	40-45° to the C/A.
					336.3'	"	60° to the C/A
					342.0'	"	35-40° to the C/A.
					343.1'	"	65° to the C/A
					348.3'	flow banding	55° to the C/A.
					356.3'	"	45°-50° to the C/A.
					372.0'	"	50°-60° to the C/A.
				394.3': Fault - epidotized mylonite zone - 1 cm. thick, at 40° to the core axis.	394.3'	Fault	40° to the C/A.

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-18

SHEET 4 OF 4

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
395.2' -	421.9 (26.7')		Rhyolite	The rock is dark grey to greenish-grey, aphanitic and non-structured. It carries occasional pink to red, sub-round to sub-angular fragments of rhyolite. Minor widespread chloritization of the rock has produced an overall greenish hue. The rock is weakly fractured. Fractures are epidotized and chloritized. Some are silicified. Abundant disseminated chalcopyrite locally on fractures.			
421.9' -	457.0' (35.1')		Rhyolite Ignimbrite	The zone is medium to light grey, aphanitic and weakly porphyritic with 1-2 mm. quartz phenocrysts. The ignimbrite is weakly to moderately flow banded. Laminations are irregular and discontinuous, and are not usually well developed. One well developed, recognizable band may be observed every 3-5 cm. The rock contains occasional angular red rhyolitic fragments up to 2 cm. in size. The rock is weakly chloritized becoming strong locally (eg. 430.4' - 431.3'). The degree of chloritization of the groundmass may increase towards the base of this unit.	426'	flow banding	45° to the C/A.
					427.7'	"	35°-40° to the C/A.
					448.9'	"	30°-35° to the C/A.
				441.9' - 447.9': 449.5' - 457': tectonic breccia zones - red angular rhyolite and ignimbrite fragments up to 3 cm. in a light grey to white matrix.			
457' -	474.1' (17.1')		Rhyolite	The rock is grey with numerous pink and reddish pink zones. Colouration locally is closer to mottling than to separate distinct zones. The rock is aphanitic and non-porphyritic. It is non-structured and massive. Fracturing is moderately to strongly developed. Fractures are poorly cemented with epidote and chlorite. Cavities along some fractures are strongly chloritized. The rock is generally weakly chloritized.			
				474.1': END OF HOLE			
				NOTE: In this hole, ignimbrite units appear to grade down hole into unstructured, generally massive rhyolitic units. The point of gradation is typically strongly tectonically brecciated. The underlying ignimbrite begins at a well defined point although sharp contacts are absent.			

GMC 1051 (09/78)

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-19
SHEET 1 OF 5

PROPERTY Cobequid IV
LATITUDE 62 + 80 S.
LONGITUDE 96 + 00 E.
ELEVATION

BEARING—TRUE 180° Az
DIP -70°
FINAL DEPTH 453.7'
CORE SIZE BQ

DATE STARTED 13 October, 1978
DATE COMPLETED 16 October, 1978
DRILLED BY St. Lambert Drilling Co. Ltd
LOGGED BY A. W. Workman

DATE: 20 October, 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
							ACID DIP TESTS
0 -	5.9'		Overburden				
(2 -	1.8						98': -70°
5.9' -	8.4'		Rhyolite	The rock is pink to reddish-pin, aphanitic and porphyritic with 1-2 mm.			295': -66.5°
	(2.5')			round quartz phenocrysts and 1 mm. euhedral cream coloured feldspar			452.8': - 67.5°
1.8 -	2.6			phenocrysts. The rock is massive and unstructured. It is			
				moderately fractured. Near mafic intrusives, the rhyolite is			
				strongly broken with epidote, chlorite and white carbonate on fractures.			
8.4' -	15.4'		Diabase	The intrusive is dark green, fine grained and weakly to moderately			
	(7')			chloritized. Fracturing is weakly developed but becomes moderate			
2.6 -	4.7			to strong locally with epidote and minor carbonate in fractures.			
15.4' -	87.8'		Rhyolite	The rock is grey to pinkish-grey becoming red locally, (eg. near			
	(72.4')		Ignimbrite?	mafic intrusives), aphanitic and weakly to moderately porphyritic			
4.7 -	26.8			with 1-2 mm. quartz phenocrysts and minor 1-3 mm. pink clots which			
				may represent cumulative feldspar growths. Rounded greyish patches			
				appear to be similar to those found as pseudo-fragments in			
				ignimbrite units, (eg. 30.9'). Locally, the rock is very weakly	46.3'	flow	15° to the C/A.
				flow banded, (eg. 20.8' and 46.3'). Alteration consists of chloritiza-		banding	
				tion of small 1 mm. blebs - possibly glass shards, and epidotization			
				of some feldspar phenocrysts. The rock is epidotized along			
				weakly to moderately developed fracture systems. Some fluorite			
				is found locally in fractures (eg. 40').			
				64.1' - 66.2': epidotized, carbonated tectonic breccia zone -			
				possible fault zone			
				79.3' - 79.9': chloritized seam			
				83.3': the rhyolite becomes greyish-pink, then pinkish red as the			
				intrusive contact at 87.8' is approached. The rock is more			
				strongly fractured and epidotized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-19

SHEET 2 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
87.8' -	104.9'		Diorite	The intrusive is dark green, fine grained and weakly porphyritic with			
	(17.1')			light green, euhedral feldspar phenocrysts up to 1.5 c m. in size.			
26.9 -	32.0			The central zone is feldspathic and pinkish-green. This zone			
				contains mafic fragments of the border phases of the intrusive.			
				90.2' - 102.3': medium grained feldspathic zone.			
104.9' -	189.1'		Rhyolite	The rock is grey to greyish-pink and red locally, aphanitic and weakly			
	(84.2')		Ignimbrite	to moderately porphyritic with 1-2 mm. quartz and minor 1-2 mm.			
32.0 -	57.6			epidotized feldspar phenocrysts. The rock is very weakly flow			
				banded locally, and contains rounded pseudo-fragments similar to			
				the zone at 15.4' - 87.8'. Fractures are weakly to moderately			
				developed and are epidotized and chloritized. Vugs are chloritized			
				as are many blebs up to 2 mm. in size. The rock may be generally			
				chloritized as it has an overall greenish hue. A 10 cm. chloritized			
				seam is located at 187'.			
189.1' -	194.7'		Diabase	The intrusive is dark green and fine grained. It is epidotized			
	(5.6')			along weakly developed fractures and is chloritized weakly overall.			
57.6 -	59.3			Minor finely disseminated pyrite is found locally.			
194.7' -	217.7'		Rhyolite	The rock is pinkish-grey becoming pink with depth, aphanitic and			
	(23')			moderately porphyritic with 1-3 mm. quartz and minor epidotized			
59.3 -	66.35			feldspar phenocrysts. The rock is weakly to moderately fractured.			
				Breaks are epidotized and near mafic intrusives, they are strongly			
				chloritized. Several chloritized seams are surrounded by red			
				reaction halos.			
217.7' -	236.2'		Diorite	The intrusive unit is dark green, fine to medium grained and moderately			
	(18.5')			to strongly fractured. Epidote and minor white carbonate are			
66.35 -	72.0			found in fractures. The rock is weakly to moderately chloritized.			
				Abundant mylonitic zones are intensely epidotized, probably along			
				shear zones, (eg 226.4')			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-19

SHEET 3 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
236.2' - 72.0 -	266.1' (29.9') 81.1		Rhyolite Ignimbrite	The rock is pink to pinkish-red, aphanitic and moderately to strongly porphyritic with 1-2 mm. quartz and 1-3 mm fractured feldspar phenocrysts. The rock is weakly flow banded locally. Single lamination tend to be discontinuous. The rock is weakly ignimbritic locally with some pseudo-fragments which are probably an indistinct micro-zonation of the groundmass to produce rounded greyish patches (eg. 259.2'). Fractures are strongly developed and are epidote and chlorite filled. The more strongly fractured zones are light pink in colour.			
266.1' - 81.1	276.9' (10.8') -84.4		Diorite	The rock is dark green, fine grained and weakly porphyritic with a few scattered light green, euhedral, sausauritized feldspar phenocrysts up to 6 mm. in size. The groundmass is weakly chloritized.			
276.9' - 84.4	325.8' (48.9') - 99.3		Rhyolite breccia	The rock is red with abundant grey zones, aphanitic and porphyritic with 1-3 mm. quartz phenocrysts. The grey material is restricted to an aphanitic groundmass which surrounds sub-round to sub-angular red rhyolite fragments. The matrix is very hard and siliceous. The fragments tend to be ignimbritic but lack any conclusive evidence. The fragments were formed through combination of tectonic brecciation followed by some flow brecciation. The zone is strongly fractured. Fractures are strongly epidotized with minor white carbonate. 278.1' - 278.9': chloritized stringer 294.8' - 308.1': Diorite - dark green, fine grained and porphyritic with scattered light green feldspar phenocrysts up to 5 mm. in size. The intrusive is weakly fractured. 321.5' - 325.8': rock is weakly tectonically brecciated locally, and is moderately to strongly fractured.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-19

SHEET 4 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
325.8'	- 328.8'		Diabase	The intrusive is dark green, fine grained and weakly fractured.			
	(3.0')			The rock is moderately chloritized. Fractures are weakly to			
99.3	- 100.7			strongly chloritized and epidotized.			
328.8'	- 357.6'		Granite	The rock is reddish-pink to pinkish-red, and is fine to medium			
	(28.8')			grained. Quartz grains are up to 2 mm. in size. Cream coloured			
100.7	- 109.0			euhedral, often accicular, feldspar grains up to 5 mm. are			
				common. Rock has a general porphyritic appearance due to the			
				interstitial nature of the quartz. Abundant fluorite is found			
				on fractures at 355.3'. The granite carries several rounded			
				fragments of diorite in a 1' zone bordering the upper contact.			
109.0	- 109.5						
357.6'	- 359.4'		Rhyolite	This zone is the same as the zone below 362.5'. It is cut by several			
	(1.8')			granite stringers.			
109.5	- 110.5						
359.4'	- 362.5'		Diorite	The intrusive is dark green, fine grained and very weakly porphyritic			
	(3.1')			with scattered 1-3 mm. light green, sausauritized feldspar			
				phenocrysts. The unit contains a 3 cm. fractured rhyolite xenolith			
				at 361'. A granite stringer is located at 359.6'			
110.5	- 125.1						
362.5'	- 410.4'		Rhyolite	The volcanic rock is grey to pinkish-grey, aphanitic and porphyritic			
	(47.9')		Ignimbrite	with 1-3 mm. quartz phenocrysts and 1-2 mm. feldspar phenocrysts.			
				The rock contains dark grey rounded and indistinct pseudo-fragmental			
				patches up to 1 cm. in size. They are surrounded by wispy pink			
				zones similar to the rock at 104' - 189'.			
				Fractures are weakly developed becoming moderately developed			
				locally. Epidote is found as a pervasive fracture filling.			
				391.1' - 296.8': Diorite - dark green, fine grained, weakly			
				119.2 - 90.5 chloritized and weakly fractured with epidote			
				and white carbonate fracture filling.			
				396.8' - 400.5': brick red, aphanitic rhyolite with 1-2 mm.			
				120.9 - 12.3 quartz and feldspar phenocrysts. Contains			
				hazy grey patches - ignimbrite.			

GMC 1010

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-19

SHEET 5 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				400.5' - 410.4': Diorite - as diorite above - weakly to moderately porphyritic with light green, sausauritized feldspar phenocrysts.			
410.4'	- 453.7' (43.3')		Rhyolite Ignimbrite	The rock is brick red at the intrusive contact at 410.4' but turns greyish-pink and then pinkish-grey to grey at 415.4'. The rock becomes bright red locally and exhibits a fragmental texture similar to fragmental zones within some ignimbrites. These fragments are masked in the greyer rock but are apparent in red zones near minor intrusives. The rock is moderately to strongly fractured. Fractures are epidotized and chloritized with minor white carbonate.			
				437.3' - 438.5': Granite - pinkish-red, medium grained, massive. (133.3 / 133.65)			
				453.7': END OF HOLE (138.3)			

GMC 1051 (09/78)

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-20
SHEET 1 OF 5

PROPERTY Cobequid IV
LATITUDE 72 + 97 S.
LONGITUDE 102 + 20 E. *
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°
FINAL DEPTH 532.5'
CORE SIZE BQ

DATE STARTED 16 October 1978
DATE COMPLETED 20 October 1978
DRILLED BY St. Lambert Drilling Co
LOGGED BY A.W. Workman

* measured from L96E at 73+00S. picket and tied in to hole DL-18

DATE: 21 October 1978 SIGNED A.W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	10.3'		Overburden				ACID DIP TESTS
10.3' -	13.8'		Diorite	The intrusive rock is dark green, fine to medium grained and porphyritic			98': -42.5°
	(3.5')			with light green, euhedral feldspar phenocrysts up to 1 cm. in size.			295': -41°
				The rock is weakly fractured. Epidote is found in fractures with			522': -40°
				minor white carbonate. The rock is weakly chloritized and feldspars			
				are sausauritized.			
13.8' -	288.7'		Rhyolite	The rock is medium grey with pink fractured zones occasionally cream			
	(274.9')		Ignimbrite	coloured and frequently brick red near mafic intrusives. The			
				volcanic is aphanitic and porphyritic with 1-2 mm. round quartz			
				phenocrysts and occasional 1-2 mm. chloritized feldspar phenocrysts.			
				The rock is well flow banded. Individual laminations are usually	22.6'	flow	30° to the C/A.
				red in colour, and are discontinuous, locally lensitic and may be		banding	
				rippled. In the upper zone above 49.8', the laminations are more			
				regular and continuous. Locally, the rock becomes very dark to			
				charcoal grey and flow banding is present but indistinct. Abundant			
				zones of tectonic brecciation are found throughout the unit. These			
				zones consist of angular, red, ignimbrite fragments set in an			
				aphanitic grey siliceous matrix. These fragments are usually			
				2-4 cm. in size but a few up to 6 cm. are found locally. Fracturing			
				of the rock is varied from weak to strong. Fractures are epidotized			
				and may be chloritized near mafic intrusives. Chloritized			
				fractures are surrounded by red reaction halos. Near these			
				intrusives, the rock is softer and a chloritized aureole is evident.			
				The intrusives are generally dioritic although narrow seams are			
				too strongly chloritized to make identification possible. The			
				diorite is dark green, fine to medium grained and is frequently			
				porphyritic with sausauritized feldspar phenocrysts.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-20

SHEET 2 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				23.6' - 33.1': tectonically brecciated ignimbrite	34.4'	flow	5° - 15° to the C/A.
				35.4' - 49.8': tectonically brecciated ignimbrite		banding	
				44.8' - 46.1': strongly chloritized seam			
				49.8' - 56.6': Diorite - euhedral light green feldspar phenocrysts up to 1.5 cm. and abundant 1-2 mm. black chloritized specks. The intrusive is weakly fractured with chlorite epidote and white carbonate in fractures.			
				56.6' - 72.4': tectonically brecciated ignimbrite - red near intrusive at 55'.	73.8'	"	30° to the C/A.
				88.9' - 91.1': dark charcoal grey, aphanitic, flow banded ignimbrite	78.7'	"	35° to the C/A.
					81.0'	"	45° to the C/A.
				99.4' - 99.7': tectonically brecciated ignimbrite	83.3'	"	50° to the C/A.
				104' - 106': flow banding is folded and convolute	87.3'	"	45° to the C/A.
				118.1': several epidotized and chloritized rhyolite fragments: up to 2 cm in size	92.2'	"	50°-55° to the C/A.
				122' - 126.6': tectonically brecciated ignimbrite	108.3'	"	40°-45° to the C/A.
				132.2': rhyolite fragments	110.6'	"	15° to the C/A.
				132.7' - 134.5': tectonically brecciated ignimbrite	114.2'	"	25°-30° to the C/A.
				134.5': fault plane at 35° to the core axis - sharply defined; 1 cm. wide, mylonitic and epidotized	116.5'	"	40° to the C/A.
					120.1'	"	45° to the C/A.
					128.8'	"	60° to the C/A.
				139.1' - 141.1': irregular, poorly banded zone - weakly brecciated	138.8'	"	60° to the C/A.
				143.7' - 149.8', 151.1' - 153.9', 154.5' - 156.2': tectonically brecciated ignimbrite	148.6'	"	60° to the C/A.
					149.9'	"	65°- 70° to the C/A.
				156.9': load casting and settling of small fragments (Phenocrysts?) within laminations suggests that this sequence is overturned.	157.5'	"	85° to the C/A.
					158.5'	"	50° to the C/A.
				159.1' - 183.1': the ignimbrite is strongly brecciated with accompanying silicification, and the rock is weakly to moderately fractured. Epidote is found to coat most fracture surfaces. Most fragments are brick red and angular. The groundmass is aphanitic and grey.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-20

SHEET 3 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				162.9' - 163.4': chloritized seam			
				169.1' - 170.1': a chloritized dyke dips along the core axis at 30°			
				171.1' - 171.5': chloritized seam			
				177 - 179.7': chloritized diorite - minor 1-2 mm. pyrite blebs			
				183.1' - 189.2': Diorite - dark green, fine to medium grained with light green feldspar phenocrysts up to 1 cm. in size. weakly to moderately fractured.			
				189.2' - 193.9': tectonically brecciated ignimbrite - same as zone 159.1' - 183.1'			
				193.9' - 195.6': massive, well banded ignimbrite	194.6'	flow banding	40° to the C/A.
				195.6' - 211.5': tectonically brecciated ignimbrite			
				211.5' - 246.9': tectonically brecciated ignimbrite - fragments are strongly silicified and show little flow banding	246.6'	"	40° - 45° to the C/A.
				246.9' - 251.1': chloritized zone, possibly intrusive; the lower contact is sharp and epidotized			
				266.6' - 278.5': the rock is brick red, aphanitic and exhibits no flow banding.			
				278.5': fault zone - the rock is mylonitic, and strongly epidotized over a 10 cm. width.			
				278.5' - 288.7': tectonically brecciated ignimbrite with brick red angular ignimbritic fragments in a grey aphanitic matrix. The fragments are well banded locally and weakly porphyritic with occasional 1-2 mm. quartz phenocrysts.			
288.7'	366.1' (77.4')		Diorite	The intrusive is dark green, fine to medium grained and weakly porphyritic. Feldspar phenocrysts are light green, euhedral and up to 1 cm. in size. The rock is weakly fractured with epidote and minor white carbonate in fractures. The rock is weakly chloritized and carries occasional grey, well rounded, silicified rhyolite fragments. The diorite carries minor finely disseminated pyrite.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-20

SHEET 4 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				353.1' - 360.2': rhyolite, possibly ignimbrite - brick red, aphanitic, strongly broken and epidotized.			
				360.2' - 362.4': Diorite - chloritized and non-porphyritic			
				362.4' - 364.6': rhyolite - as zone 353.1' - 360.2'			
				364.6' - 366.1': Diorite - chloritized moderately to strongly and non-porphyritic.			
366.1'-	406.6' (40.5')		Rhyolite Ignimbrite	The rock is light to medium grey, aphanitic and contains abundant angular to sub-angular, pink aphanitic fragments. Some fragments are well flow banded but most are massive. They may be up to 5 cm. in size but average 2-3 cm. The matrix to the fragments is aphanitic and very weakly porphyritic locally with 1 mm. quartz phenocrysts. Fragments occur up to 50% of the rock volume. Locally fragments may comprise 75% of the rock volume , (eg. 389.4' - 391.4'). Locally, the rock is well flow banded, (eg. 398'). The rock becomes redder in colour below 394', possibly due to a chloritized stringer which partly cuts the core axis at 394.7' - 395'. The zone from 399.6' to 406.6' is strongly broken and chloritized.	398'	flow banding	50° to the C/A.
					402.9'	"	45° to the C/A.
406.6'-	520' (113.4')		Mafic flow	The rock is dark charcoal grey to black, very fine grained to aphanitic and weakly chloritized locally. It is primarily equigranular with little textural change between contacts. Near the contacts, there are abundant strongly fractured and epidotized rhyolitic fragments. There are also abundant light pinkish, glassy zones which may represent absorbed xenoliths or chill margin material possibly related to pillow formation. The rock is vessicular with abundant light green, frequently epidotized rounded vessicules up to 2 cm. in size. Often, they are oblate in shape. Some banding, perhaps related to flowage, is observed locally (eg. 455.4'). The zone from 403.9' to 467.8' is free of xenoliths. It contains a few 1-2 mm. pyrite cubes locally. The rock is weakly to moderately fractured. Fractures are coated with blue and green chlorite with minor white carbonate and epidote. Granite stringers are located at 482' - 482.4', 493.1' and 496.7'.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-20

SHEET 5 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
520' -	532.5'		Granite	The rock is medium to coarse grained and reddish-pink to red.			
	(12.5')			Composition is approximately 60 - 70% feldspar, 25-35% quartz and 10% hornblende with up to 15% hornblende locally. The rock is weakly fractured with minor epidote along some fractures. A chloritized diabase dyke is located at 529.2' - 529.7'.			
				532.5': END OF HOLE			

GMC 1051 (09/78)

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-21
SHEET 1 OF 3

PROPERTY Cobequid IV
LATITUDE 77 + 30 S. (at 80 S.Tie Line)*
LONGITUDE 102 + 96 E.
ELEVATION

BEARING—TRUE 180° Az.
DIP -45°S.
FINAL DEPTH 299.2'
CORE SIZE BQ

DATE STARTED 20 October 1978
DATE COMPLETED 22 October 1978
DRILLED BY St. Lambert Drilling Co.
LOGGED BY A. W. Workman

* latitude used with respect to line 100E.
hole is 435' south and 34' east of DL-20.

DATE: 27 October 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	10.8'		Overburden				ACID DIP TESTS
10.8'-	67.3'		Mafic flow	The rock is dark grey to greenish-grey and aphanitic to very fine			98': -42°
	(56.5')			grained. Abundant vessicules are found throughout the zone and			299': -40°
				are commonly round to oblong and weakly chloritized. Minor			
				poorly developed flow banding is found locally. The rock is			
				moderately fractured and weakly chloritized. The lower contact			
				is sharp.	67.3'	flow	30° to the C/A.
						contact	
				52.7' - 53.6': narrow, unaltered, granite dyke			
				54.4': 2 cm. granite stringer			
67.3'-	123.7'		Felsic	The rock is greenish-grey and aphanitic. Abundant brick-red altered			
	(56.4')		Agglomerate	zones are found associated with strongly fractured zones. The zone			
				carries rounded, indistinct, light grey fragments. They are			
				rhyoLitic in composition and are partially absorbed by the			
				groundmass. The rock is porphyritic locally becoming more strongly			
				porphyritic with depth. Quartz phenocrysts are up to 2 mm. in size.			
				Feldspar phenocrysts are up to 4 mm. in size, euhedral and usually			
				pink to cream in colour. The rock is weakly flow banded locally.			
				The zone is weakly to moderately fractured with abundant			
				chloritized amygdules.			
				73.2' - 75.1': pronounced fracturing parallel to the core axis.			
				74.1', 75.5': fine to medium grained granite stringers			
				106.2' - 106.6': coarse grained granite.			
				78.3' - 88.4': diorite - dark green, fine grained and porphyritic with			
				1.5 cm. feldspar phenocrysts; - weakly fractured			
				and moderately chloritized			
				121.7' - 123.7': Diorite - same as 78.3' - 88.4' weakly porphyritic.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-21

SHEET 2 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
123.7'-	143'		Granite	The rock is medium to coarse grained and redish-pink to red in			
	(19.3')			colour. Composition is about 60-70% feldspar, 25-35% quartz			
				and up to 15% hornblende. The rock is weakly fractured with minor			
				epidote and hematite along some fractures.			
143' -	171.1'		Rhyolite	The zone is light to medium grey and aphanitic with 1-2 mm. quartz			
	(28.1')		Ignimbrite	phenocrysts and minor 1 mm. feldspar phenocrysts. The rock			
				carries a few 1-2 cm. rounded rhyolite fragments. Locally, the			
				rock is well flow banded (eg. 153.4' - 155.3'). Abundant very			
				finely disseminated pyrite is found throughout the zone. The			
				rock is weakly fractured becoming moderately broken locally.	155'	flow	45° to the C/A.
				It is moderately chloritized along most fracture surfaces.		banding	
				159.4': the rock becomes greyish-pink to reddish-pink			
				161.4' - 171.1': Diorite - the intrusive is dark green, fine to			
				medium grained and weakly fractured with abundant			
				1-2 mm. chloritized glass blebs. The intrusive			
				is cut by granite stringers at 162.2' and 168.6'.			
171.1'-	299.2'		Granite	The rock is pinkish-red becoming pink locally, medium to coarse grained.			
	(128.1')			Composition is variable but approximately 55 - 70% feldspar			
				25 - 40% quartz and 10-15% hornblende. The rock is weakly			
				fractured becoming moderately fractured near mafic intrusives.			
				Fractures are carbonate and chlorite filled locally.			
				200.5' - 213.5': Diabase- the intrusive is dark green, fine to			
				medium grained and weakly to moderately fractured.			
				Fractures are carbonate filled. A 1.5 cm.			
				granite xenolith is located at 209.1'. Abundant			
				1-2 mm. pyrite blebs dot the intrusive.			
				257.2': narrow chloritized seam.			
				257.2' - 258.1': strongly fractured and chloritized granite			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-21

SHEET 3 OF 3

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				258.1' - 262': Diabase - dark green, fine grained weakly to moderately chloritized and fractured.			
				273.3' - 286.1': the granite is strongly fractured locally. The fractures are well cemented with silica and specular hematite with minor magnetite.			
				285.6': a 10 cm. chloritized seam - granite is strongly fractured and chloritized with sperular hematite in fractures.			
				299.2': END OF HOLE			

GMC 1051 (09/78)

Gulf

Gulf Minerals Canada Limited
DIAMOND DRILL RECORD

D.D.H. NO. DL-22
SHEET 1 OF 5

PROPERTY Cobequid IV
LATITUDE 20 + 20 S
LONGITUDE 96 + 00 E.
ELEVATION

BEARING — TRUE 180° Az
DIP -45°
FINAL DEPTH 568.6'
CORE SIZE BQ

DATE STARTED 24 October 1978
DATE COMPLETED 28 October 1978
DRILLED BY St. Lambert Drilling Co.
LOGGED BY A. W. Workman

DATE: 29 October 1978 SIGNED A. W. Workman

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
0 -	13.1'		Overburden				ACID DIP TESTS
13.1'-	99.7' (86.6')		Granite	The rock is pinkish-red, fine to medium grained becoming coarse grained locally and composition is approximately 10-15% quartz, up to 85% feldspar and less than 1% hornblende and other accessories. Grain boundaries are often indistinct. The granite is moderately to strongly fractured. Fractures are epidotized.			98': - 42° 295': - 39° 558': - 39°
				75.3' - 83.8': Diabase - the intrusive is dark green fine grained, strongly chloritized and moderately to strongly fractured. A granite xenolith is located at 80.5' - 80.9'.			
				89.6' - 99.7': the granite becomes darker in colour and becomes locally mylonitic.			
99.7'-	100.9' (1.2')		Fault zone	The rock is light green, with angular mylonitic rhyolite, granite and mafic intrusive fragments. The matrix is intensely chloritized.			
100.9'-	106' (5.1')		Granite	The rock is red and fine to medium grained, the same as the uppermost section in this hole. It is intensely fractured to mylonitic.			100.9'-106': possible fault block
106' -	106.8' (0.8')		Diabase	The intrusive is dark green, fine grained and strongly fractured. The rock is strongly chloritized. Fractures resemble shear planes and are strongly chloritized.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-22

SHEET 2 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
106.8'-	114.2'		Rhyolite	The rock is dark burgundy red, aphanitic and porphyritic with 1-2 mm.			
	(7.4')		Ignimbrite	quartz phenocrysts. Locally, the rock is well flow banded. Single			
				laminations are lensitic and irregular. Flow banding is often			
				obscured by fracturing which may locally be very strong. Darkening			
				of the rock near mafic intrusives also hides flow structures.			
114.2'-	126.5'		Diorite	The rock is dark green, fine to medium grained and weakly			
	(12.3')			porphyritic with 1-2 mm. light green feldspar phenocrysts. The			
				intrusive is weakly to moderately fractured. Breaks are epidote			
				filled with minor white carbonate.			
126.5'-	131.5'		Rhyolite	The rock is brick red, aphanitic, strongly fractured. Fractures			
	(5')		Ignimbrite	are strongly epidotized and a mylonitic zone at 126.5' - 127.8'			
				is strongly epidotized and chloritized.			
131.5'-	141.9'		Diorite	The intrusive is dark green, fine grained and essentially the			
	(10.4')			same as the unit at 114.2' - 126.5'.			
141.9'-	209.5'		Rhyolite	The rock is brick red to dark burgundy red, aphanitic and	145.6'	flow	35° to the C/A.
	(67.6')		Ignimbrite	weakly flow banded locally. The rock is moderately to strongly		banding	
				fractured. Epidote and minor chlorite are found on fracture surfaces.	158.5'	"	30° to the C/A.
				Locally, the rhyolite is mylonitic (eg. 174.6' - 175.2'). Towards			
				mafic intrusives the rock is darker in colour.	176.0'	"	30° to the C/A.
				170.1' - 174.6': Diorite - the intrusive is fine to medium grained with			
				generally pink unaltered feldspar. The mafic			176.4'-178.2' ground
				minerals are uralitized and chloritized.			core-20% recovery
							178.2'-188': 50%
				176.3': the rhyolite becomes medium grey in colour and is weakly flow			core recovery
				banded locally.			188 - 197' 70% recovery
209.5'-	223.6'		Diorite	The intrusive is dark green, fine to medium grained and moderately			
	(14.1')			chloritized. The rock is weakly to moderately fractured. Chlorite			
				and epidote with minor white carbonate are found in fractures.			
				219.7' - 220.5': flow banded rhyolite xenolith			
				220.8' - 221.3': Diabase dyke - fine grained			
				222.4' - 223.6': zone of abundant rhyolite xenoliths.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-22

SHEET 3 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
223.6'-	302.7' (79.1')		Rhyolite Ignimbrite	The rock is pinkish-red, aphanitic and moderately to strongly porphyritic with 1 mm. feldspar and 2 mm. quartz phenocrysts. The rock is well flow banded but becomes more weakly flow banded with depth. Fracturing is extremely variable.	224.1'	flow banding	80° to the C/A.
					225.7'	"	80° to the C/A.
				231.1' - 232.9': Diorite - The intrusive is dark green, fine to medium grained and weakly porphyritic with a few 3-4 mm. light green feldspar phenocrysts. The rock is weakly to moderately fractured.	227.7'	"	70° to the C/A.
					264.4'	"	15-20° to the C/A.
				232.9' - 234.6': rhyolite - possible xenolith in surrounding diorite			
				234.6' - 245.6': Diorite - same as zone at 231.1' - 232.9' contains a number of rhyolite xenoliths at 243.7', 245.6' - 246.4' and 246.9'.	283.8'	"	30° to the C/A
				245.6' - 261.8': greyish-pink rhyolite - strongly to intensely fractured - minor chloritized mylonite.			
				267.8' - 272.5': Diorite - non-porphyritic equivalent of above intrusives at 232' and 240'.			
				275.6': flow banding in rhyolite is indistinct but appears to be at 10° to 15° to the core axis.			
				289.7' - 290.7': mafic intrusive - diorite or diabase			
				301.6' - 301.9': narrow chloritized seams.			
302.7'-	323.9' (21.2')		Diorite	The intrusive is dark green, fine to medium grained and moderately to intensely fractured. The rock is strongly chloritized. Fractures are hematized and locally epidotized.			
323.9'-	345.5' (21.6')		Rhyolite	The rock is red, aphanitic and porphyritic with 1-2 mm. quartz phenocrysts. It is intensely fractured and mylonitic. Structure is not determinable.			
345.5'-	355.8' (10.3')		Diorite	The rock is dark green, fine grained and mylonitic to intensely fractured. The intrusive is strongly chloritized.			

GMC FO18

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-22

SHEET 4 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
355.8'-	360.2'		Rhyolite	A mylonitic zone is found here similar to the rhyolite at 323.9' -			
	(4.4')			345.5'.			
360.2'-	372.5'		Diorite	Dark green, fine grained, strongly fractured and chloritized intrusive			
	(12.3')			rock.			
372.5'-	381.6'		Rhyolite	The rock is reddish-pink to greyish-pink, aphanitic and porphyritic			
	(9.1')			with quartz phenocrysts up to 2 mm. in size. The rock is strongly			
				fractured and locally mylonitic.			
381.6'-	400.6'		Diorite	The rock is dark green, fine to medium (?) grained and contains			
	(19')			abundant 1-3 mm. rhyolite xenoliths. Larger xenoliths are			
				found at 400.8' - 401.7'. The rock is intensely fractured and			
				mylonitic. Epidotization and chloritization are moderate to			
				strong.			
400.6'-	451.1		Rhyolite	The rock is redish-pink and aphanitic. Quartz and feldspar phenocrysts			
	(50.5')			are found scattered throughout the zone. The rhyolite is			
				intensely fractured and mylonitic. Fractures and ground rock are			434.1'-443.9'
				epidotized and chloritized. Abundant hematite is found on fractures			core lost
							45% recovery
				433.2' - 435.7' chloritized intrusive			
				447.8' - 451.1' chloritized intrusive - 30-40% xenoliths			
451.1'-	488.8'		Rhyolite	The rock is dark burgundy red and aphanitic with abundant 1-3 mm.	449.8'	flow	60°-70° to the C/A.
	(37.7')		Ignimbrite	quartz and orange feldspar phenocrysts. It is well flow banded.		banding	
				Individual flow laminations are lensitic and irregular - often	466.5'	"	45°-50° to the C/A.
				discontinuous. The rock is weakly to moderately fractured. Locally	474.1'	"	50° to the C/A.
				the rock may be strongly fractured with chlorite on the fracture			
				surfaces (eg. 476.4' - 478.5' and 479.5' - 485.3')	488.4'	"	55° to the C/A.
488.8'-	491.8'		Diabase	The intrusive is dark green, fine grained and moderately chloritized.			
	(3.0')			It is weakly to moderately fractured with epidote and carbonate in			
				fractures.			
491.8'-	510.1'		Rhyolite	The rock is light green, becoming pinkish-green with depth, and			
	(18.3')			aphanitic. It is porphyritic with 1-3 mm. quartz phenocrysts,			
				commonly penetrated by the groundmass. The rock is dotted with			
				abundant 1-3 mm. chloritized blebs possibly devitrified volcanic			
				glass.			

GMC 1018

DIAMOND DRILL RECORD—CONTINUATION SHEET

D.D.H. NO. DL-22

SHEET 5 OF 5

DEPTH FEET	F'TAGE CORED	F'TAGE REC'D	FORMATION	DESCRIPTION	DEPTH	BED'G & FOLIA	REMARKS SAMPLES ETC.
				Below 502', feldspar phenocrysts are observed. They are generally orange-pink and euhedral. They average 2 mm. in size. Abundant finely disseminated pyrite is found throughout the zone. Some weak flow banding is observed locally which becomes better developed with depth.	504.6	flow banding	60-80° to the C/A.
				510.1': possible flow contact at 30° to the core axis			
510.1'-	568.6'		Rhyolite	The flow is burgundy red, with olive green flow laminations and becomes			
	(58.5')		Ignimbrite	light pink locally. It is aphanitic in the groundmass but strongly porphyritic with 1-2 mm. quartz phenocrysts and 1-3 mm. orange feldspar	510.5'	flow banding	65-70° to the C/A.
				phenocrysts. Flow banding is lensitic and irregular. Abundant	512.8'	"	45-55° to the C/A.
				lensitic features are observed below 531.5'. The rock is moderately	521.2'	"	65° to the C/A.
				fractured with chlorite and white carbonate in fractures. Fracturing			
				is stronger below 539.7'. Abundant finely disseminated pyrite is	531.4'	"	65-70° to the C/A.
				found throughout the zone. The rock is very similar to the	554.5'	"	70-75° to the C/A.
				ignimbrite at 451.1' - 488.8'.	561.7'	"	75-80° to the C/A.
					568'	"	60° to the C/A.
				568.6': END OF HOLE			

APPENDIX II

DOWN THE HOLE LOGGING

SECTION A: J-ZONE

SECTION B: DF-ZONE

SECTION C: DL-ZONE

SECTION A FOLLOWS.....

Gulf Minerals Canada Limited

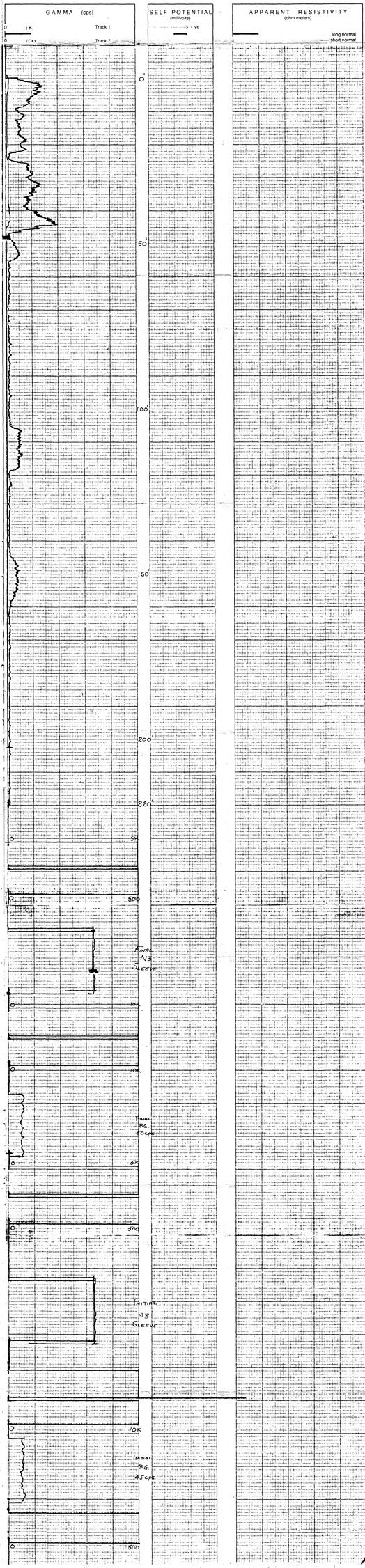
HOLE NO.	JZ-7
PROJECT	Cobequid
PROVINCE	Nova Scotia
Bearing	N/A °
Dip	90 °
Casing depth	22 ft
Total depth	230 ft
Surface elev.	ft
Coordinates	0 15 S / 7 25 W

GAMMA LOG (Total Count)	
Date	Dy 25 Mo Nov yr 77
Logged depth	220 ft
Logging speed	10 ft/min.
Crystal size	3/4 in x 1 in.
Time constant	1 sec.
Probe No.	547
Detector No.	12-B-232
Track 1 RMM	207 #125
Track 2 RMM	207 131

ELECTRIC LOG	
Date	Dy Mo yr
Logged depth	ft.
Logging speed	ft/min.
Probe size (dia)	in.
Borehole medium	
Res. between gnds	A
Normal spacings	
Truck No.	Eastern Projects
Logged By	G. Forget
Logger's Comments	E-Log Not Working - Normal Current Crabs Out!

GAMMA FACTORS	Track 1	Track 2
Detector K factor	0000 150	0000 152
Instrument dead time	16.1 μ sec.	16 μ sec.
Calibration standard (cps)	6.6 K	6.5 K
Fluid factor		1.030
Casing factor		1.360

REMARKS correlated by



Gulf Minerals Canada Limited

HOLE NO.	JZ-8
PROJECT	Cobequid
PROVINCE	Nova Scotia
Bearing	N 8 0 °
Dip	9 0 °
Casing depth	1 7 ft
Total depth	2 5 1 ft
Surface elev.	ft
Coordinates	0 1 0 N / 7 0 0 W

GAMMA LOG (Total Count)

Date	Dy 2 7 Mo N 0 yr 7 7
Logged depth	2 5 0 ft
Logging speed	10 ft/min
Crystal size	3/4 in x 1 in
Time constant	1 sec
Probe No.	547
Detector No.	12-8-232
Track 1 RMM	207 # 125
Track 2 RMM	207 # 131

ELECTRIC LOG

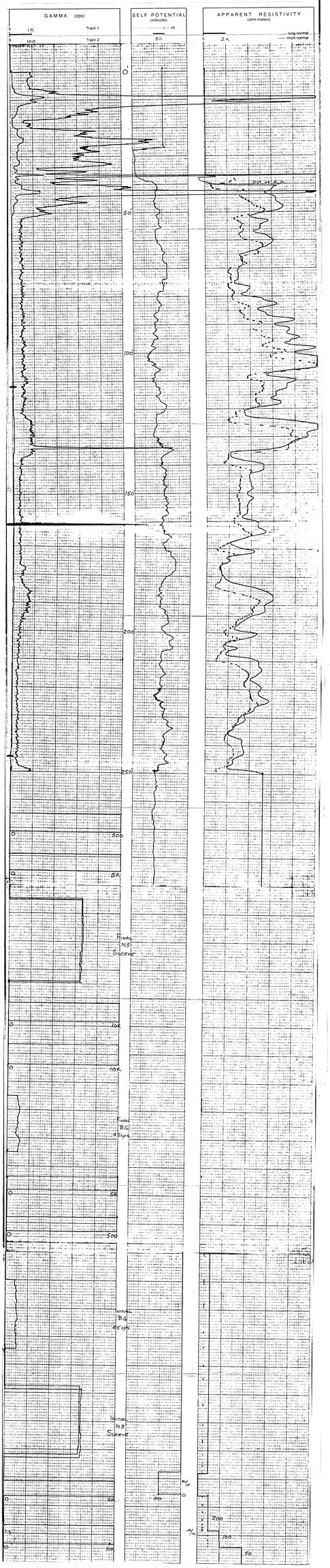
Date	Dy 0 4 Mo D E yr 7 7
Logged depth	2 5 0 ft
Logging speed	30 ft/min
Probe size (dia)	1 1/4 in
Borehole medium	Mud & water
Res. between grids	2K
Normal spacings	16" & 32"

Truck No. Eastern Projects
Logged By Mark T. Weber
Logger's Comments
No E-log as equipment not repaired

GAMMA FACTORS

	Track 1	Track 2
Detector K factor	0000 1 5 0	0000 1 5 2
Instrument dead time	μ sec	μ sec
Calibration standard (cps)	6.5K	6.6K
Fluid factor		1 0 3 0
Casing factor		1 3 6 0

REMARKS correlated by



Gulf Minerals Canada Limited

HOLE NO. JZ-9
PROJECT COBEQUID III
PROVINCE NOVA SCOTIA
Bearing N/A °
Dip 90 °
Casing depth ft
Total depth ft
Surface elev. ft
Coordinates 0·10N 7·25W

GAMMA LOG (Total Count)
Date Dy 04 Mo DE yr 77
Logged depth 15 ft.
Logging speed 10 ft/min
Crystal size 3/4 in x 1 in.
Time constant 1 sec.
Probe No.
Detector No.
Track 1 RMM 207 * 125
Track 2 RMM 207 131

ELECTRIC LOG
Date Dy Mo yr
Logged depth ft.
Logging speed ft/min.
Probe size (dia) in.
Borehole medium
Res. between gnds A
Normal spacings

GAMMA FACTORS
Detector K factor
Instrument dead time
Calibration standard (cps)
Fluid factor
Casing factor

Track 1: .0000 μ sec. 5.8K
Track 2: .0000 μ sec. 5.9K
1030

Truck No. EASTERN PROJECTS
Logged By M. F. WEBER
Logger's Comments
Hole filled with sludge - not able to log outside of casing.
No E-log attempted

REMARKS correlated by

GAMMA (cps)
0 1K Track 1
0 100 Track 2

SELF POTENTIAL (millivolts)
— +ve

APPARENT RESISTIVITY (ohm meters)
0
long normal
short normal

0'
15'
Hole caved in
0 500
0 5K
FINAL N3 SLEEVE
0 10K
0 10K
FINAL BG. 45cps.
0 5K
0 500
INITIAL BG. 45cps.
INITIAL N3 SLEEVE
0 10K
0 10K

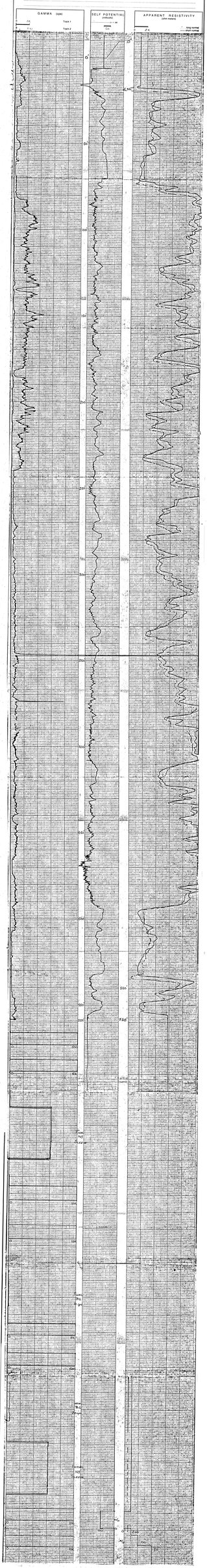
HOLE NO.	58-10
PROJECT	Cabbage Ck
PROVINCE	Nova Scotia
Easting	15 0 0
Northing	4 5 0
Casing depth	2 7 0
Total depth	5 7 0
Surface elev.	1 0 0
Coordinates	1 0 0 N
	1 0 0 W

GAMMA FACTORS		
Detector Factor		
Instrument dead time		
Calibration standard (cps)		
Fluid factor		
Casing factor		
	Track 1	Track 2
	0.0 0 1 / 7 7 4	0.0 0 1 / 7 7 4
	26.5 / μ sec	μ sec
	0.2 K	0.1 K

GAMMA LOG (Total Count)	
Date	15 10 81 Mo 28 81 Yr 7 7
Logged depth	0 0 0 0
Logging speed	30 m/min
Crystal size	1 1/4 x 1
Time constant	1 sec
Scale	5 0 0
Detector No.	0 0 0 0
Track 1 RAM	2 0 7 x 1 0
Track 2 RAM	2 0 7 x 1 0
	0 0 0 0
	0 0 0 0

ELECTRIC LOG	
Date	15 10 81 Mo 28 81 Yr 7 7
Logged depth	0 0 0 0
Logging speed	30 m/min
Fluid resistivity	0.1 K
Borehole medium	Mud, water
Max. temperature	0 0 K
Normal spacings	16" & 8 ft.
Track No.	Cabbage Tracers
Logged by	Mark Y. Hobbs
Logger's Comments	

REMARKS corrected by



Gulf Minerals Canada Limited

HOLE NO. 32-11
PROJECT Cornerbrook BL
PROVINCE Nova Scotia
Bearing
Dip
Casing depth
Total depth
Surface elev.
Coordinates

GAMMA FACTORS
Detector K factor
Instrument dead time
Calibration standard (cps)
Fluid factor
Casing factor

REMARKS correlated by

GAMMA LOG (Total Count)
Date
Logged depth
Logging speed
Crystal size
Time constant
Voltage
Detector No.
Track 1 #MM
Track 2 #MM

ELECTRIC LOG
Date
Logged depth
Logging speed
Probe size (dia)
Borehole medium
Borehole diameter
Normal spacings

Truck No. Canadian Projects
Logged By
Witnessed By
Thickness of fresh cover to ground

GAMMA (cps)
Track 1
Track 2

SELF POTENTIAL (millivolts)

Started in Casing 7 min. after drilling 30 hours

APPARENT RESISTIVITY (ohm meters)
long normal
short normal

0
50
100
150
200
250
300
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100
2150
2200
2250
2300
2350

Gulf Minerals Canada Limited

HOLE NO.	32-12
PROJECT	Cabeaub III
PROVINCE	Nova Scotia
Bearing	
Dip	-80°
Casing depth	38 ft.
Total depth	346 ft.
Surface elev.	ft.
Coordinates	6 800 N
	7 000 W

GAMMA LOG (Total Count)

Date	Dy 1 8 Mo 3 6 Yr 7 7
Logged depth	346 ft.
Logging speed	10 ft/min.
Crystal size	3"x3" in.
Time constant	sec.
Track 1 INMM	556
Detector No.	13-B-231
Track 1 INMM	209 #125
Track 2 INMM	209 #131

ELECTRIC LOG

Date	Dy 1 8 Mo 3 6 Yr 7 7
Logged depth	346 ft.
Logging speed	35 ft/min.
Probe size (dia)	1.7" in.
Borehole medium	Mud / water
Res. between grids	16" in.
Normal spacings	16" & 64"

GAMMA FACTORS

	Track 1	Track 2
Detector K factor	0000 / 715	0000
Instrument dead time	203 #131	#125
Calibration standard (cps)	6.6K	6.5K
Fluid factor		1.080
Casing factor		1.360

Truck No. Eastern Projects
Logged By Allan T. Weeks
Logger's Comments

REMARKS correlated by

GAMMA (cps)
1K Track 1
0 1000 Track 2

SELF POTENTIAL (millivolts)
-100 0 +100

APPARENT RESISTIVITY (ohm meters)
long normal
short normal
0 2K

0
50
100
150
200
250
300
346
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100
2150
2200
2250
2300

Gulf Minerals Canada Limited

HOLE NO.	32-15
PROJECT	Cobequid III
PROVINCE	Nova Scotia
Bearing	
Dip	90
Casing depth	18 ft
Total depth	353 ft
Surface elev.	1 ft
Coordinates	1 00 N
	7 00 W

GAMMA LOG (Total Count)

Date	Dy 09	Mo 10	Yr 17
Logged depth			353 ft
Logging speed			10 ft/min
Crystal size			3/4 in x 1 in
Time constant			1 sec
Probe No.	556		
Detector No.	12-8-23-1		
Track 1 RMM	207		125
Track 2 RMM	207		131

ELECTRIC LOG

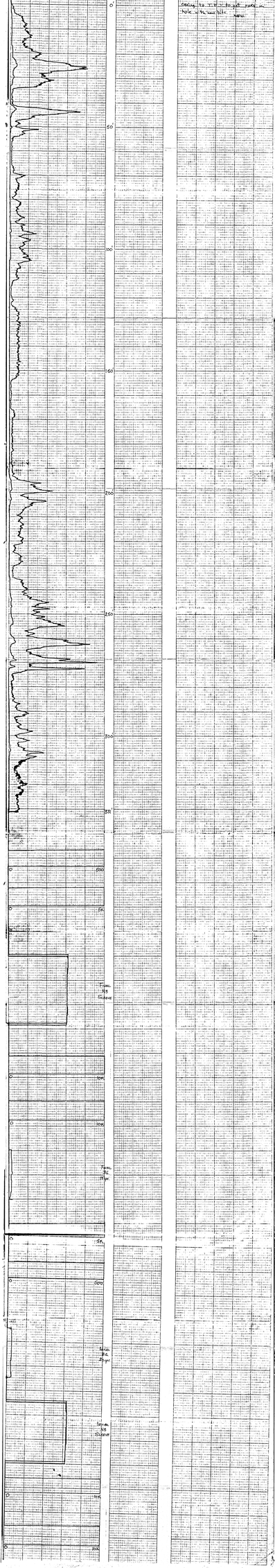
Date	Dy	Mo	Yr
Logged depth			1 ft
Logging speed			ft/min
Probe size (dia)			in
Borehole medium			
Res. between grids			A
Normal spacings			

Truck No. Eastern Products
Logged By Mark T. Weber
Logger's Comments

GAMMA FACTORS

	Track 1	Track 2
Detector K factor	0000 17.5	0000 17.5
Instrument dead time	20 μ sec	20.3 μ sec
Calibration standard (cps)	6300	6200
Fluid factor		1 030
Casing factor		1 300

REMARKS correlated by



Gulf Minerals Canada Limited

HOLE NO.	JZ-16
PROJECT	Cobequib III
PROVINCE	Nova Scotia
Bearing	N/A
Dip	90
Casing depth	20 ft
Total depth	511 ft
Surface elev.	
Coordinates	0 - 75 N 7 - 00 W

GAMMA LOG (Total Count)

Date	Dy 11 Mo 3 Yr 77
Logged depth	288 ft
Logging speed	10 ft/min
Crystal size	5/4 in x 1 in
Time constant	1 sec
Probe No.	556
Detector No.	12-8-231
Track 1 RMM	207 #125
Track 2 RMM	207 #131

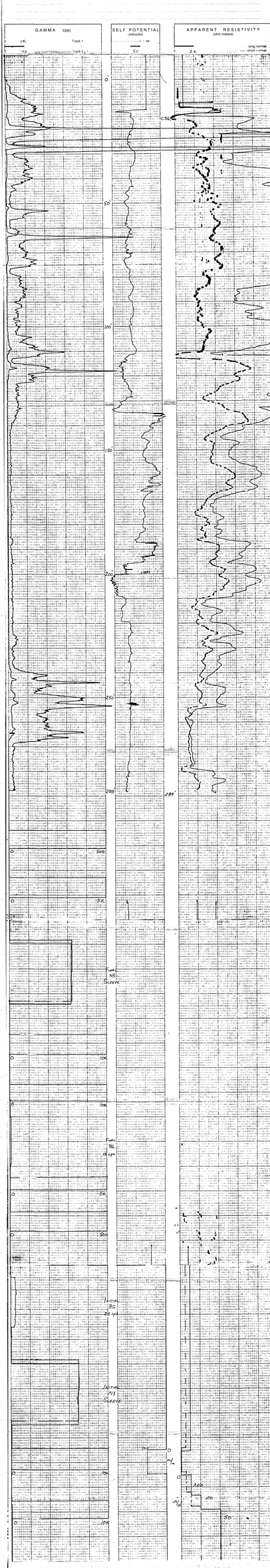
ELECTRIC LOG

Date	Dy 11 Mo 3 Yr 77
Logged depth	288 ft
Logging speed	35 ft/min
Probe size (dia)	1 1/4 in
Borehole medium	WATER
Res. between gnds	25K
Normal spacings	16" & 32"
Truck No.	EASTERN PROJECTS
Logged By	MARK T. WEBER
Logger's Comments	

GAMMA FACTORS

	Track 1	Track 2
Detector K factor	0000 1 75	0000
Instrument dead time	20.3 μ sec	μ sec
Calibration standard (cps)	6.6K	6.8K
Fluid factor		1.030
Casing factor		1.360

REMARKS correlated by



Gulf Minerals Canada Limited

HOLE NO.	J2-17
PROJECT	Cobequid III
PROVINCE	Nova Scotia
Bearing	180°
Dip	45°
Casing depth	16 ft
Total depth	358 ft
Surface elev.	n
Coordinates	1 2 5 N / 4 0 0 W

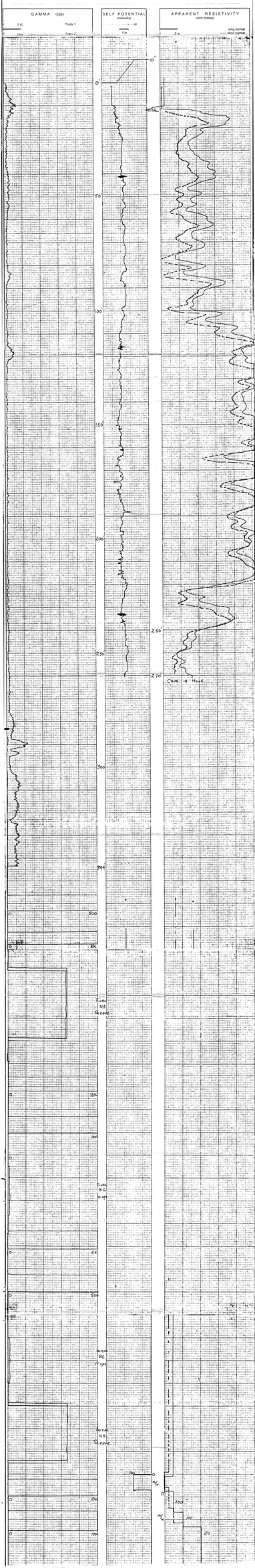
GAMMA FACTORS	Track 1	Track 2
Detector K factor	0000 / 175	0000
Instrument dead time	20.8 μ sec	μ sec
Calibration standard (cps)	6.6 K	6.5 K
Fluid factor	1 0 3 0	
Casing factor	1 3 6 0	

GAMMA LOG (Total Count)	
Date	Dy 1 5 Mo 3 Ye 7 7
Logged depth	3 4 4 ft
Logging speed	10 ft/min
Crystal size	3/4 in x 1 in
Time constant	1 sec
Probe No.	556
Detector No.	12-B-221
Track 1 RMM	207 # 125
Track 2 RMM	207 # 131

ELECTRIC LOG	
Date	Dy 1 5 Mo 3 Ye 7 7
Logged depth	2 7 0 ft
Logging speed	35 ft/min
Probe size (dia)	1 3/4 in
Borehole medium	Mud/water
Res. between grids	4 K
Normal spacings	16" / 32"

Truck No. Eastern Products
Logged By Mark T. Weber
Logger's Comments

REMARKS correlated by



Gulf Minerals Canada Limited

HOLE NO.	32-18
PROJECT	Cobequid III
PROVINCE	Nova Scotia
Bearing	
Dip	7 7
Casing depth	
Total depth	
Surface elev.	
Coordinates	

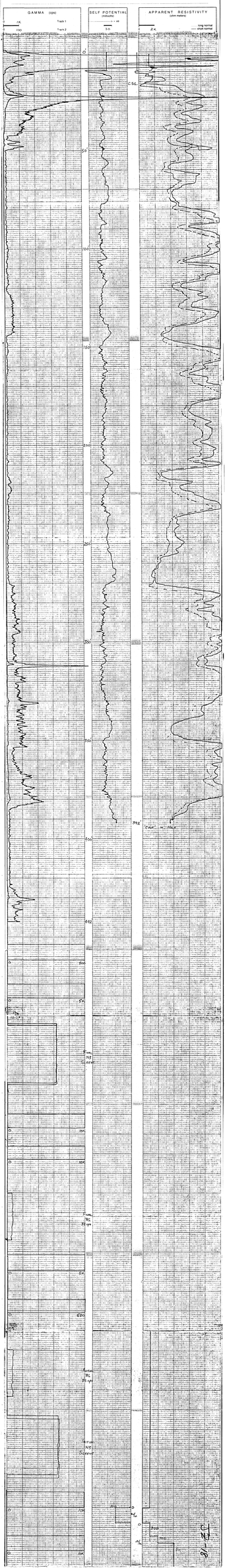
GAMMA FACTORS	Track 1	Track 2
Detector K factor	0.0 0	1 1 5
Instrument dead time	20.8	0.0 0
Calibration standard (cps)	6.7K	6.5K
Fluid factor		0 0
Casing factor		3 0

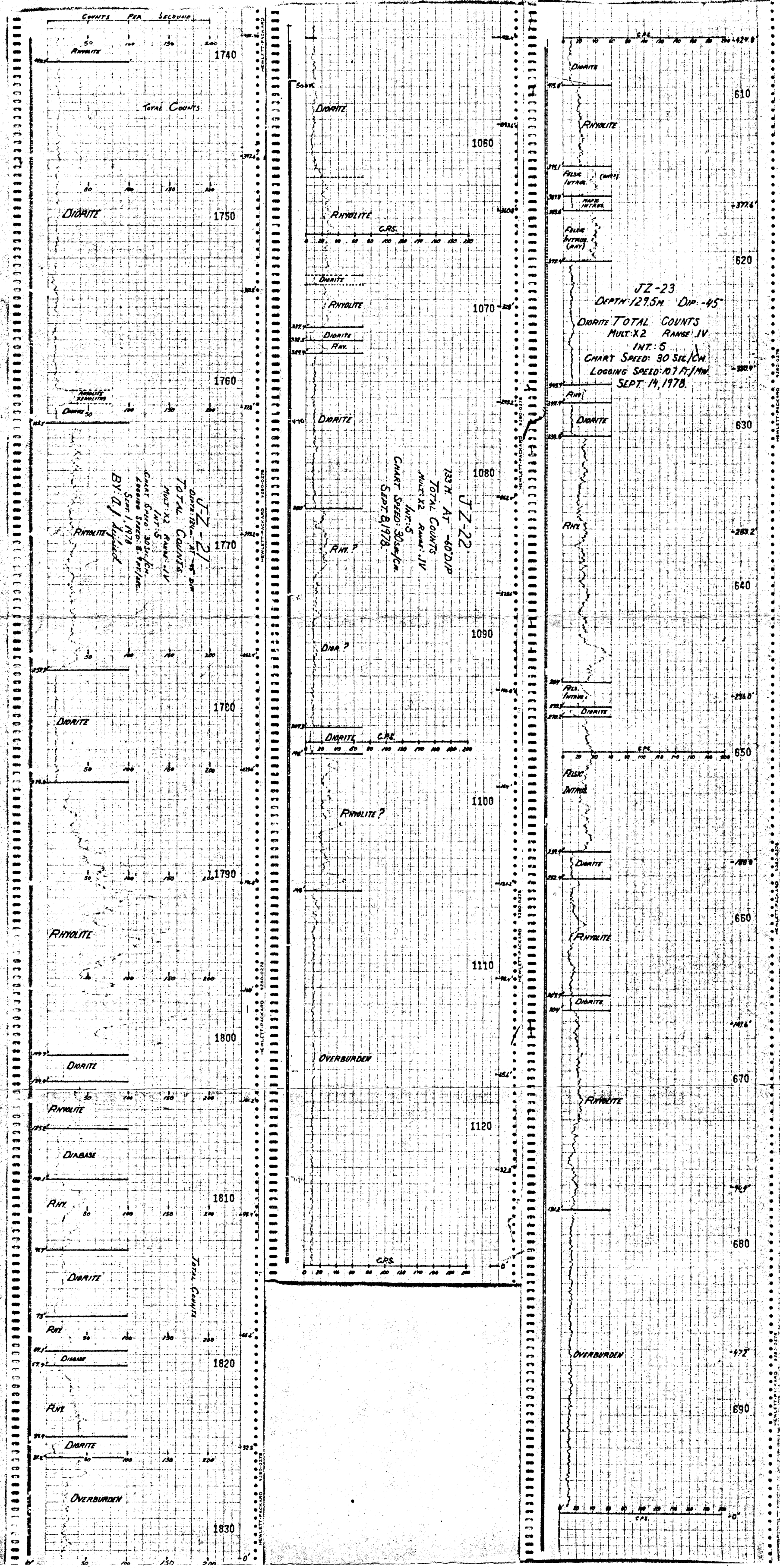
GAMMA LOG (Total Count)		
Date	0 1	1 1 Mo 0 2 Yr 7 7
Logged depth		
Logging speed	20	ft/min
Crystal size	3	x 1 in
Time constant	1	sec
Probe No.	556	
Detector No.	0-8-131	
Track 1 RAM	2.07	#135
Track 2 RAM	2.07	#131

ELECTRIC LOG		
Date	0 1	1 1 Mo 0 2 Yr 7 7
Logged depth		
Logging speed	30	ft/min
Probe size (dia)	1	1/8 in
Borehole medium		mm/water
Res. between grids	3	K
Normal spacings	6"	1 30"

Truck No. Eastern Products
Logged By Hank S. Webber
Logger's Comments
395 - Cave in hole

REMARKS correlated by




COUNTS PER SECOND
RHYOLITE
1740
TOTAL COUNTS
DIORITE
1750
1760
1770
1780
1790
1800
1810
1820
1830
DIABASE
OVERBURDEN
HEWLETT-PACKARD 9280-0278
JZ-21
DEPTH: 134m AT -45° DIP
TOTAL COUNTS
MULT: X2 RANGE: IV
INT: 5
CHART SPEED: 30 SEC/CM.
LOGGING SPEED: 8.4 FT/MIN.
SEPT. 1, 1978
BY: A.J. Lajoie
JZ-22
733 M. AT -60° DIP
TOTAL COUNTS
MULT: X2 RANGE: IV
INT: 5
CHART SPEED: 30 SEC/CM.
SEPT. 8, 1978.
1060
1070
1080
1090
1100
1110
1120
C.P.S.
JZ-23
DEPTH: 129.5M DIP: -45°
DIORITE TOTAL COUNTS
MULT: X2 RANGE: IV
INT: 5
CHART SPEED: 30 SEC/CM.
LOGGING SPEED: 10.7 FT/MIN.
SEPT 14, 1978.
610
620
630
640
650
660
670
680
690
FELSIC INTRUS.
MAFIC INTRUS.
RHY.

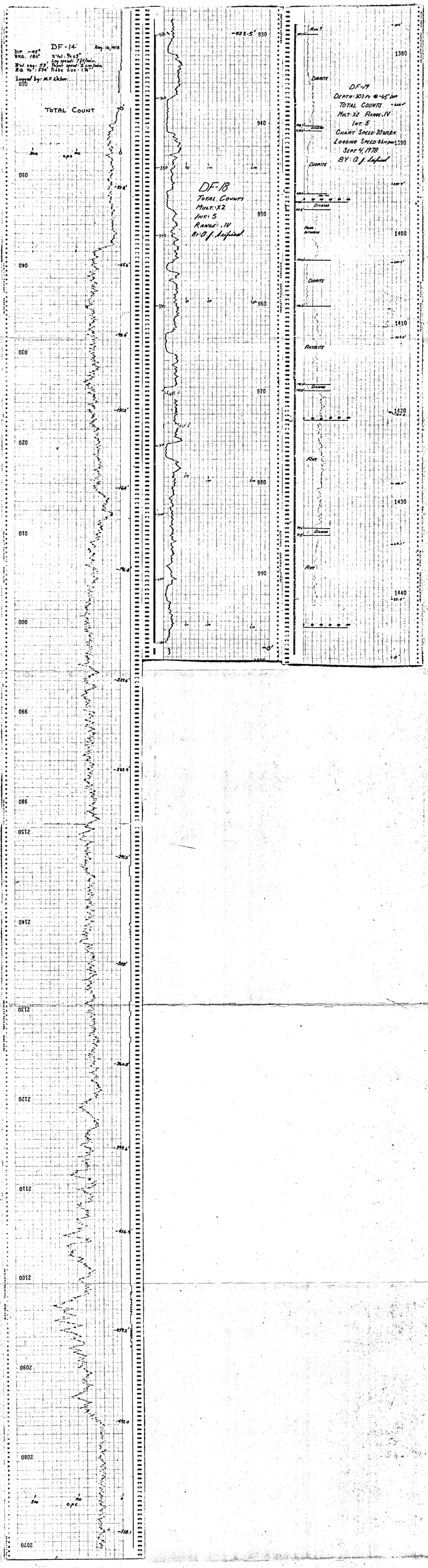
SECTION B

DF-ZONE

DF-13
DEPTH: 345' AT -45° DIP
TOTAL COUNTS
MULT: 2x4 RANGE: IV
CHART SPEED: 30 SEC/CM.
AUG. 30, 1978.
BY: A. J. Seifried

DF-15
DEPTH: 108M. DIP: -70°
TOTAL COUNTS
MULT: X2 RANGE: IV
INT: 5
CHART SPEED: 30 SEC/CM.
LOGGING SPEED: 10.4 FT/SEC.
AUGUST 31, 1978.

D-F-17
DEPTH - MDH: DIP: -45°
TOTAL COUNTS
MULT: X2 RANGE: IV
INT: 10
CHART SPEED: 30 SEC/CM.
LOGGING SPEED: 12.4 FT/SEC.


DF-14
Aug. 16, 1978
DIP -45°
BRG. 180°
X'tal: 3/4 x 3"
Log speed: 7 ft/min.
B.W. csg: 53"
Paper speed: 2 cm/min.
EQ To: 534"
Probe size: 1 1/4"
Logged by: M.F. Ucker.
TOTAL COUNT
DF-18
TOTAL COUNTS
MULT: X2
INT: 5
RANGE: IV
BY: O.J. Seifried
DF-19
DEPTH: 303 FT @ -45° DIP
TOTAL COUNTS
MULT: X2 RANGE: IV
INT: 5
CHART SPEED: 30 SEC/CM
LOGGING SPEED: 8 hrs/min
SEPT. 4, 1978
BY: O.J. Seifried
DIORITE
RHYOLITE
RHY.
DIABASE
FOLIA INTRUSIVE
-422.5'
-0'

SECTION C

DL-ZONE

Gulf Minerals Canada Limited

HOLE NO.	DL - 1
PROJECT	Cobequid
PROVINCE	Nova Scotia
Bearing	7 8 0
Dip	4 5 0
Casing depth	7 2
Total depth	0.0 ft. 3 6 4
Surface elev.	1 2 4 1 0 0 5
Coordinates	6 4 0 1 0 0 6

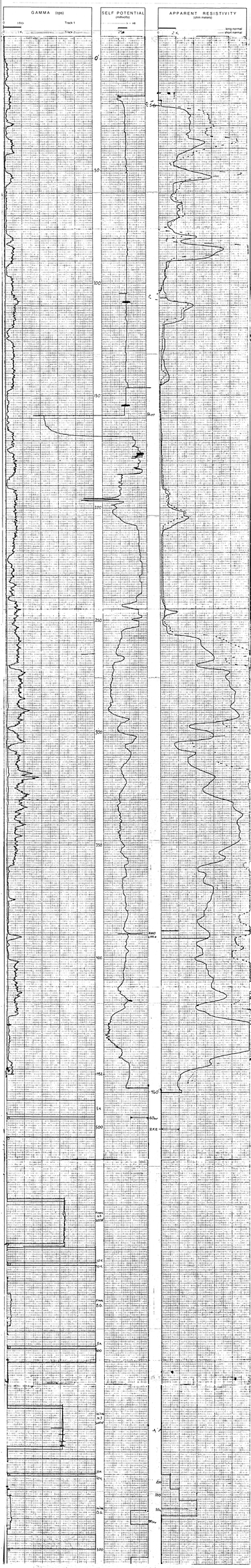
GAMMA LOG (Total Count)	
Date	Dy / 7 Mo / 7 / 7 / 7
Logged depth	1 5 2 ft.
Logging speed	10 ft/min.
Gamma size	3/4 in x 1 in
Time constant	1 sec
Probe No.	3 4 7
Detector No.	12-1-232
Track 1 RMM	207 / 123
Track 2 RMM	207 / 131

ELECTRIC LOG	
Date	Dy / 7 Mo / 7 / 7 / 7
Logged depth	4 6 0 ft.
Logging speed	20 ft/min.
Probe size (dia)	1 1/4 in
Borehole medium	MUD
Res. between grids	2 K
Normal spacings	16 & 32"

GAMMA FACTORS	Track 1	Track 2
Detector & factor	0000 / 5 0	0000 / 5 2
Instrument dead time	16.1 μsec	16 μsec
Calibration standard (cps)	0 6 1 K	1 0 5 0
Fluid factor	1	1 5 6 0
Casing factor	1	1 5 6 0

Truck No. Castern Projects
Logged By G. Forget
Logger's Comments

REMARKS correlated by



Gulf Minerals Canada Limited

HOLE NO.	DL-2
PROJECT	Lodevale
PROVINCE	New Scotia
Bearing	180
Dip	45
Casing depth	42 ft
Total depth	435 ft
Surface elev.	ft
Coordinates	27 - 00 S 96 - 00 E

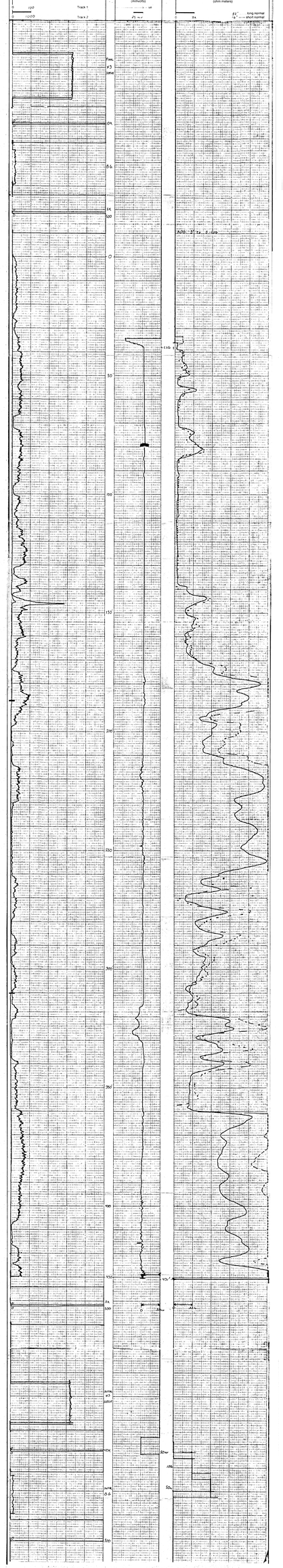
GAMMA FACTORS	Track 1	Track 2
Detector K factor	0000 / 150	0000 / 152
Instrument dead time	16.0 μsec	16.1 μsec
Calibration standard (cps)		6.4K
Fluid factor		1.030
Casing factor		1.360

REMARKS correlated by

GAMMA LOG (Total Count)	
Date	Dy 22 Mo 11 Yr 77
Logged depth	4.3 0 ft
Logging speed	10 ft/min
Crystal size	3/4 in x 1 in
Time constant	1 sec
Probe No.	547
Detector No.	12-8-232
Track 1 RMM	207 - 125
Track 2 RMM	207 - 131

ELECTRIC LOG	
Date	Dy 22 Mo 11 Yr 77
Logged depth	4.3 0 ft
Logging speed	20 ft/min
Probe size (dia)	1.5 in
Borehole medium	MUD
Res. between grids	2500 Ω
Normal spacings	16 & 32

Truck No. EASTERN PAD
Logged By G. FORGET
Logger's Comments - PACKAGE OFFSEN OF 3'(1 in), ADD 3' to E LOG.



Gulf Minerals Canada Limited

HOLE NO.	DL-5
PROJECT	Cobequid
PROVINCE	Nova Scotia
Bearing	180
Dip	90
Casing depth	20
Total depth	600
Surface elev.	1
Coordinates	2 1 0 0
	1 4 0 0

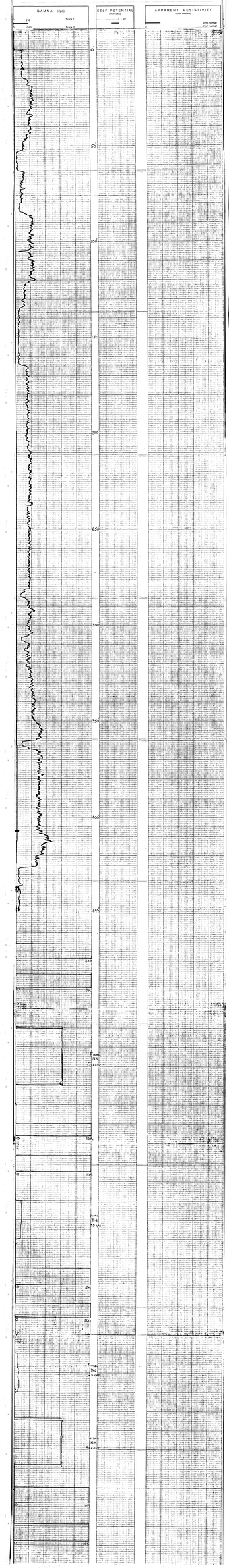
GAMMA LOG (Total Count)	
Date	Oct 27 Mo 10 Yr 1977
Logged depth	4 5 9 m
Logging speed	10 Kmin
Crystal size	3 1/2 in x 1 in
Time constant	1 sec
Probe No.	567
Detector No.	12-B-232
Track 1 RMM	50 Ft. = 125
Track 2 RMM	50 Ft. = 18

ELECTRIC LOG	
Date	Oct 27 Mo 10 Yr 1977
Logged depth	4 5 9 m
Logging speed	10 Kmin
Probe size (dia)	1 in
Borehole medium	
Res. between grids	4
Normal spacings	

GAMMA FACTORS	Track 1	Track 2
Detector No.	1 2 3 1 5 0	1 2 3 1 5 0
Instrument Head Line	40 ft. = 100	40 ft. = 100
Calibration standard (pipe)	6.2 m	6.8 m
Fluid factor		1 0 1 0
Casing factor		1

Truck No. Cobequid Transport
Logged By Mark T. Wood
Logger's Comments
Other Mud Log - No Rock/
Oil log available - no. increased H.P.

REMARKS correlated by



11E/12A COBEQUID PROJECT

483053

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

PART 4 OF 5

483053

07 - D . 64 . 01

Gulf

11E/12A COBEQUID PROJECT 433053

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

433053 PART 4 OF 5 07-D-64-01

A REPORT ON

GEOCHEMISTRY
GEOLOGICAL MAPPING
PROSPECTING
DEEP OVERBURDEN DRILLING
DIAMOND DRILLING

433053 07-D-64-01

MAPS ENCLOSED IN POCKETS

PART 4 ✓

Plate 24 E g ✓	Geological Compilation	1 in. = 1/4 mile
25 E g ✓	Geological Compilation	1 in. = 1/4 mile
26 E g ✓	Geological Compilation	1 in. = 1/4 mile
26 E gb ✓	Prospecting	1 in. = 1/4 mile
Plate 1 g ✓	Geological Compilation	1 in. = 400 feet
11 g ✓	Geological Compilation	1 in. = 400 feet
111 g ✓	Geological Compilation	1 in. = 400 feet

PART 5

Plate 1 gb	Prospecting	1 in. = 400 feet
11 gb	Prospecting	1 in. = 400 feet
111 gb	Prospecting	1 in. = 400 feet
Plate 11 ka	Deep Overburden Hole Locations	1 in. = 400 feet
111 ka	Deep Overburden Hole Locations	1 in. = 400 feet
	Geochemical Survey	
Plate 11 f	Sample Locations	1 in. = 400 feet
111 f	Sample Locations	1 in. = 400 feet
11 fb	Values Uranium A & C	1 in. = 400 feet
111 fb	Values Uranium A & C	1 in. = 400 feet

63°37'30" E 1,225,000 37 E 1,230,000 36 35' E 1,235,000 34' E 1,240,000 33' E 1,245,000 32' E 1,250,000 31' E 1,255,000 63°30'00"

45°37'30" N 16,580,000 37 N 16,570,000 36 N 16,565,000 35 N 16,560,000 34 N 16,555,000 33 N 16,550,000 32 N 16,545,000 31 N 16,540,000 45°30'00"

XIV XIV IVa IVb IVa IVb VII VII VII

WENTWORTH STATION

Caldwell Brook · Whetstone Brook · Wallace River · Smith Brook · Brook · Higgins Brook · Brook · Rockland Brook · Village Brook · Swans Brook · Little Long Lake · Lake Hart · Hart Brook · Hart Lake · Barber Lake · FOLLY LAKE · Folly Lake · Carter Lake · Slack Lake · McElmon Brook · Folly River · East River

SKI SLOPE

104

COUNTY
COUNTY
CUMBERLAND
COLCHESTER

Gravel Pit

No Outcrop

LEGEND

MESOZOIC	XVIII	TRIASSIC	
PALAEOZOIC	XVII	PERMIAN	
		PENNSYLVANIAN	
	XVI	Pictou Group	
	XV	Cumberland Group	
		Riversdale Group	
	XIV	Boss Point Formation	
	XIII	Clairmont Formation	
		MISSISSIPPIAN	
	XII	Middleborough Formation	
	XI	Windsor Group	
	X	Nuttby Sequence	
		DEVONIAN	
	IX	River John Group (Upper)	
	VIII	River John Group (Lower)	
	VII	Non-foliated Granite	
	VI	Foliated Granite	
		SILURIAN to DEVONIAN	
	V	Portapique Parrsboro Succession	
	IV	Earlton Sequence (a,b,c)	
PALAEOZOIC OR OLDER		SILURIAN or OLDER	
	III	Granite Gneiss - Bass River Complex	
	II	Bass River Complex	
	I	Mt. Thom Complex	

LEGEND - LITHOLOGIC

11 Intrusives : (a) granite (b) diorite, diabase (c) gabbro, ultramafic

10 Sediments : (a) argillite, shale (b) quartzite (c) conglomerate (d) sandstone (e) siltstone (f) mudstone (g) limestone

9 Pyroclastics - Aglomerates (Mx) mafic fragments in mafic matrix (Fx) felsic fragments in felsic matrix (M) mixed

8 Felsic Volcanics : dacites - rhyolites

7 Mafic Volcanics : basalts - andesites (P) pillowed (T) tuffaceous (B) brecciated (Ph) porphyritic (S) sheared - deformed

Note : For symbols see plate : E-25g

21 22 23 24 25 26 27 28 29 · C D E F · 45°30' · 64°00' 63°00' · KEY

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOLOGICAL COMPILATION

433053 07-D 64 01

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: E-24g
NOV. 1977	1 IN. = 1/4 MI.		NTS. 11E/12 PT.

TO ACCOMPANY "1BM REPORT", DEC. '78

II/E – 11 WEST

63°30'00" 45°37'30" E 1,265,000 E 1,280,000 24' E 1,285,000 23' 63°22'30" 45°37'30"

N 16,580,000 N 16,575,000 N 16,570,000 N 16,565,000 N 16,560,000 N 16,555,000 N 16,550,000 N 16,545,000

37' 36' 35' 34' 33' 32' 31'

XIV IVb IVc VIII VII - IIa VI II

CUMBERLAND COLCHESTER COUNTY COUNTY

Fox River Wallace River No Outcrop

12a 11a

Swan Brook Juniper Lake Indian Lake Big Snare Lake Trout Lake Little Snare Lake Rory Pond Detert Lake Byers Lake Whirleywaugh Lake Round Lake Long Lake Shatter Lake Irvine Lake Rocky Lake Johnston Lake Musquash Lake Guyon Lake Moose Lake Cook Lake Clark Lake Chain Lakes Frog Lake East Folly River Totten Lake Totten Brook Pine Brook Little Totten Lake

29' 28' 27' 26' 25' 24' 23'

45°30'00" 63°30'00" 63°22'30"

SYMBOLS

- Geological contact (definite, indefinite)
- Bedding (horizontal, vertical, inclined, overturned)
- Schistosity, Gneissosity, Foliation (vertical, inclined, dip unknown)
- Fault (definite, indefinite)
- Anticline, Syncline (with plunge)
- Outcrop, area of outcrop
- Diamond drill hole
- Lineation (trend and plunge)

Note: For legend see plate: E-26g

21 22 23 24 25 26 27 28 29

C D E F

45°30' 64°00' 63°00'

KEY

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOLOGICAL COMPILATION

433053 07-D 64 01

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: E-25g
NOV. 1977	1 IN. = 1/4 MI.		NTS. 11E/11 PT.

TO ACCOMPANY "1BM REPORT", DEC. '78 978

11/E-11 WEST

63° 22' 30" — 22 — E 1,290,000 — 21 — E 1,295,000 — 20 — E 1,300,000 — 19 — E 1,305,000 — 18 — E 1,310,000 — 17 — E 1,315,000 — 16 — 63° 15' 00"

45° 37' 30" — N 16,580,000 — 37 — N 16,575,000 — 36 — N 16,570,000 — 35 — N 16,565,000 — 34 — N 16,560,000 — 33 — N 16,555,000 — 32 — N 16,550,000 — 31 — N 16,545,000 — N 16,540,000 — 45° 30' 00"

IV-8 · IV-10 · VIII · IVb · VII · II · X · VI

EAST NEW ANNAN

Sutherland Brook · French River · Porter Brook · Munroe Brook · Whippey Lake · Clear Lake · Black Lake · Little Lake · Johnston Lake · Form Lake · Gaum Brook · Chiganois River · West Branch of North River · Cavanagh Brook

Gravel Pit · GP

No Outcrop

LEGEND

MESOZOIC	XVIII	TRIASSIC	
PALAEOZOIC	XVII	PERMIAN	
		PENNSYLVANIAN	
	XVI	Pictou Group	
	XV	Cumberland Group	
		Riversdale Group	
	XIV	Boss Point Formation	
	XIII	Clairmont Formation	
		MISSISSIPPIAN	
	XII	Middleborough Formation	
	XI	Windsor Group	
	X	Nuttby Sequence	
		DEVONIAN	
	IX	River John Group (Upper)	
	VIII	River John Group (Lower)	

	VII	Non-foliated Granite
	VI	Foliated Granite
		SILURIAN to DEVONIAN
	V	Portapique Parrsboro Succession
	IV	Earlton Sequence (a,b,c)
PALAEOZOIC OR OLDER		SILURIAN or OLDER
	III	Granite Gneiss - Bass River Complex
	II	Bass River Complex
	I	Mt. Thom Complex

LEGEND - LITHOLOGIC

11 — Intrusives : (a) granite (b) diorite, diabase (c) gabbro, ultramafic

10 — Sediments : (a) argillite, shale (b) quartzite (c) conglomerate (d) sandstone (e) siltstone (f) mudstone (g) limestone

9 — Pyroclastics – Aglomerates (Mx) mafic fragments in mafic matrix (Fx) felsic fragments in felsic matrix (M) mixed

8 — Felsic Volcanics : dacites - rhyolites

7 — Mafic Volcanics : basalts andesites

(P) pillowed (T) tuffaceous (B) brecciated

(Ph) porphyritic (S) sheared - deformed

Note: For symbols see plate: E-25g

KEY

21 22 23 24 25 26 27 28 29

C · D · E · F

45° 30' — 64° 00' — 63° 00'

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOLOGICAL COMPILATION

433053 07-D 64 01

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: E-26g
NOV 1977	1 IN. = 1/4 MI.		NTS. 11E/11 PT.

TO ACCOMPANY "1BM REPORT", DEC. '78

11/E-11 WEST

63° 22' 30" — E 1,290,000 — 22' — 21' — E 1,295,000 — 20' — E 1,300,000 — 19' — E 1,305,000 — 18' — E 1,310,000 — 17' — E 1,315,000 — 16' — 63° 15' 00"

45° 37' 30"

N 16,580,000

37'

N 16,575,000

36'

N 16,570,000

35'

N 16,565,000

34'

N 16,560,000

33'

N 16,555,000

32'

N 16,550,000

31'

N 16,545,000

N 16,540,000

45° 30' 00"

ra 150 rhyolite
ra 40, 50
ra 150 rhyolite
ra 40, 50 basalt
ra 30, 40 basalt
ra 120 rhyolite
ra 170 rhyolite
ra 150 rhyolite
ra 150 rhyolite
French Brook
Sutherland Brook
Munroe Brook
Basalt
Rhyolite
Gravel Pit
GP
Gravel Pit
ra 80 gray sediment
EAST NEW ANNAN
basalt
ra 40 basalt
ra 20 basalt
ra 40 quarry basalt
ra 30, 40 basalt
ra 30, 40 basalt
Cavanagh Brook
Porter Brook
River
ra 150, rhyolite
ra 250, rhyolite
ra 150 rhyolite
ra 90, 100 rhyolite
ra 80, 90 rhyolite
ra 30, 40 basalt
ra 30, 40, basalt
ra 40 basalt
ra 200 rhyolite
Whippey Lake
ra 100, 120 rhyolite
sulphide bearing boulders: rhyolite
Clear Lake
ra 20, 40, basalt
ra 90, 100 rhyolite
sulphide bearing boulders of rhyolite
E-170
Black Lake
ra 40, 60
ra 90, 100 rhyolite
ra 150 rhyolite
ra 90, 100 rhyolite
ra 30, 40
Little Lake
Johnston Lake
ra 90, 100 granite
ra 30, 40 basalt
ra 150 rhyolite
ra 90, 100 granite
ra 90, 100 granite
ra 100, 150, granite
E-164 ra 200 sediment
E 161, 162 ra 250, rhyolite
West Branch of
ra 300 rhyolite
E 165, ra 300
E 166, ra 220 rhyolite
ra 90, 100 rhyolite
ra 150 rhyolite
Basalt
Rhyolite
North River
ra 90, 100 granite
ra 100, 150 granite
ra 100, 130 granite
Farm Lake
ra 90, 100 granite
ra 90, 100 granite
ra 90, 100 granite
ra 120, 140
ra 100, 120 granite
granite
ra 120, 140 granite cgl.
Chiganois
Gain Brook
ra 100, 120 granite
LIMIT OF PROSPECTING
LIMIT OF PROSPECTING
C-1168
C-1169
C-1170
C-1171
C-1172
C-1173
340
339
341
338
342
343
347
347
280
281
282

LEGEND

- Major traverse
- Boulder, area of boulders
- Outcrop, area of outcrop
- Fault zone
- 80/60 ra 50 — Radioactivity (ra) in counts per second - high/background, spot reading
- Airborne anomaly

21 22 23 24 25 26 27 28 29

C
D
E
F

45° 30'

64° 00' — 63° 00'

KEY

Gulf Minerals Canada Limited

COBEQUID PROJECT

PROSPECTING

433053 07-D 64 01

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: E-26 gb
DEC. 1978	1 IN. = 1/4 MI.		NTS. 11E/11 PT.

To accompany "Cobequid I-BM Report" Dec. 1978

63°34
45°37'30"
33'
32'
63°31'
45°37'30"
37'
36'
35'
45°34'
63°34'
33'
32'
63°31
45°34'

L - 152 + 00 W
L - 140 + 00 W
L - 120 + 00 W
L - 100 + 00 W
L - 80 + 00 W
L - 60 + 00 W

TL - 72 + 00 N
TL - 30 + 00 N
BL - 0 + 00
TL - 40 + 00 S

SKI SLOPE

C-832
C-825
C-826
C-824
C-831
C-830
C-827
C-829
C-828
C-878
C-886
C-888

849
848
850
847
851
846
852
853
854
855

292

Wallace

Lake

Hart Brook

Hart Lake

104

NOTE : For legend see sheet 2

63°34'00" 63°22'00"
45°37'30"
45°34'00"
1 2 3 4

KEY

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOLOGICAL COMPILATION

483053 07-D 64 01.

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: Ig
DECEMBER 1978	1 INCH=400 FEET	D. A. G	N.T.S. 11E/12 PT.

To accompany "Cobequid I-BM Report" Dec. 1978

63°31' 30' 29' 63°28'
45°37'30"

37'

36'

35'

45°34'

L-40+00 W
L-20+00 W
L-0+00
L-20+00 E
L-40+00 E
L-60+00 E

TL-72+00 N
TL-30+00 N
BL-0+00
TL-40+00 S
TL-80+00 S

Wallace River
Swan Brook
Swan Brook
Juniper Lake
Indian Lake
Trout Lake

CUMBERLAND COUNTY
COLCHESTER COUNTY

290
291
289
288

J-1 J-2,18 J-3 J-4 J-5 J-6 J-9 J-10 J-11 J-12 J-13 J-16 J-17 J-19 J-20 J-21 J-22 J-23

DF-1 DF-2 DF-3 DF-4,13,15 DF-5 DF-6 DF-7 DF-8 DF-9 DF-10 DF-12 DF-14 DF-17 DF-18 DF-19 DF-20

LEGEND

EXTRUSIVE VOLCANICS

7 Mafic : (a) andesite (b) basalt.

8 Felsic : dacite, rhyolite (a) ignimbrite (b) ash fall tuff, crystal tuff (c) flow banded rhyolite (d) massive or undetermined (e) breccia.

9 Agglomerates : (Mx) mafic fragments in mafic matrix (Fx) felsic fragments in felsic matrix (M) mixed.

10 SEDIMENTS : (a) argillite (b) quartzite (c) conglomerate (d) sandstone (e) siltstone (f) mudstone (g) phyllite
bedding or foliation : D-distinct, I-indistinct

INTRUSIVE VOLCANICS

11 Granite : (a) pink leucocratic granite (b) pink mesocratic granite (c) white-grey granite-granodiorite

12 Diorite : (a) unaltered diorite (b) altered/metamorphosed diorite

13 Diabase : (a) unaltered diabase (b) spotted diabase (c) aphanitic altered diabase

14 Gabbro, pyroxenite - peridotite

15 Felsic and porphyritic intrusives

SYMBOLS

- Outcrop, area of outcrop
- Boulder, area of boulders
- Bedding, tops known (vertical, inclined)
- Bedding, tops unknown (" , ")
- Schistosity, gneissosity, foliation (vertical, inclined)
- Flow layering (vertical, inclined)
- Jointing (" , ")
- Glacial strae
- Drag fold (with plunge)
- Fault (definite, indefinite)
- Airphoto lineament
- Geological contact (definite, indefinite)
- G Geophysical interpretation
- Diamond drill hole (vertical, inclined)
- re 50 150/100 Radioactivity (ra) in counts per second - high/background
- Δ JS 760 Sample location and number (C, EO, K)
- Dike

63°34'00" 63°22'00"
45°37'30" / 45°34'00"
1 2 3 4

KEY

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOLOGICAL COMPILATION

483053 07-D 64 01

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: IIg
DECEMBER 1978	1 INCH = 400 FEET	D.A.G	N.T.S. 11E/11, 12 P.T.

TO ACCOMPANY "1BM REPORT", DEC. '78

63°28' 27' 26' 63°25'
45°37'30"

37'

36'

35'

45°34'

L - 80 + 00 E
L - 100 + 00 E
L - 120 + 00 E
L - 140 + 00 E
L - 160 + 00 E
L - 180 + 00 E
L - 200 + 00 E

TL - 72 + 00 N
TL - 30 + 00 N
BL - 0 + 00
TL - 40 + 00 S
TL - 80 + 00 S
TL - 120 + 00 S

Debert Lake
Big Snare Lake
Little Snare Lake

DL-1 DL-2 DL-3 DL-4 DL-5 DL-6 DL-7 DL-8 DL-9 DL-10 DL-11 DL-12 DL-13 DL-14 DL-15 DL-16 DL-17 DL-18 DL-19 DL-20 DL-21 DL-22

NOTE : For legend see sheet 2

KEY

63°34'00" 63°22'00"
45°37'30" 45°34'00"
1 2 3 4

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOLOGICAL COMPILATION

433053 07-D 64 01

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: III g
DECEMBER 1978	1 INCH = 400 FEET	D.A.G.	N.T.S. 11E/11 PT.

TO ACCOMPANY "IBM REPORT", DEC. '78 978

11E/12A COBEQUID PROJECT 433053

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

433053 PART 5 OF 5

07-D 64 0

Gulf

Gulf Minerals Canada Limited

11E/12A COBEQUID PROJECT 483053

EXPLORATION PROGRAM 1977-78
BASE METAL ASSESSMENT REPORT
PERMIT AREA IBM

ON PARTS OF 11E 12A AND 11E 11B

483053 PART 5 OF 5 07 - D 64 01

A REPORT ON

GEOCHEMISTRY
GEOLOGICAL MAPPING
PROSPECTING
DEEP OVERBURDEN DRILLING
DIAMOND DRILLING

483053 07 - D 64 01

MAPS ENCLOSED IN POCKETS

PART 4

Plate 24 E g	Geological Compilation	1 in. = 1/4 mile
25 E g	Geological Compilation	1 in. = 1/4 mile
26 E g	Geological Compilation	1 in. = 1/4 mile
26 E gb	Prospecting	1 in. = 1/4 mile
Plate 1 g	Geological Compilation	1 in. = 400 feet
11 g	Geological Compilation	1 in. = 400 feet
111 g	Geological Compilation	1 in. = 400 feet

PART 5 ✓

Plate 1 gb ✓	Prospecting	1 in. = 400 feet
11 gb ✓	Prospecting	1 in. = 400 feet
111 gb ✓	Prospecting	1 in. = 400 feet
Plate 11 ka ✓	Deep Overburden Hole Locations	1 in. = 400 feet
111 ka ✓	Deep Overburden Hole Locations	1 in. = 400 feet
	Geochemical Survey	
Plate 11 f ✓	Sample Locations	1 in. = 400 feet
111 f ✓	Sample Locations	1 in. = 400 feet
11 fb ✓	Values Uranium A & C	1 in. = 400 feet
111 fb ✓	Values Uranium A & C	1 in. = 400 feet

63°34
45°37'30"
33'
32'
63°31'
45°37'30"
37'
36'
35'
45°34'
63°34'
33'
32'
63°31
45°34'

L - 132 + 00 W
L - 140 + 00 W
L - 120 + 00 W
L - 100 + 00 W
L - 80 + 00 W
L - 60 + 00 W
TL - 72 + 00 N
TL - 30 + 00 N
BL - 0 + 00
TL - 40 + 00 S

WV-3
WV-1
B-3416+20
B-3415
B-3413
B-3412
B-3411
rd 1400

SKI SLOPE

C-832
C-825
C-826
C-824
C-831
C-830
C-827
C-829
C-828
849
848
850
847
851
846
852
853
854
855
C-878
C-886
C-888
292

Wallace
Lake
Hart
Brook
Hart
Lake
104

NOTE : For legend see sheet 2

63°34'00"
63°22'00"
45°37'30"
45°34'00"
1
2
3
4

KEY

433053 07-D 64 01

Gulf Minerals Canada Limited

COBEQUID PROJECT

PROSPECTING

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: Igb
DECEMBER 1978	1 INCH = 400 FEET	D.A.G	N.T.S. 11E/12 PT.

To accompany "Cobequid HBM Report" Dec. 1978

63°31' 30' 29' 63°28'

45°37'30"

37'

36'

35'

45°34'

L-40+00 W
L-20+00 W
L-0+00
L-20+00 E
L-40+00 E
L-60+00 E

TL-72+00 N
TL-30+00 N
BL-0+00
TL-40+00 S
TL-80+00 S

Brook
East
Wallace
River
Swan
Swan Brook
Juniper
Lake
Indian
Lake
Trout Lake

COUNTY
COUNTY
CUMBERLAND
COLCHESTER

290
291
289
288

M-77,79,80
ra 4000
EO 1500

M-74
ra 1000

C-6380
ra 1000

C-6379

C-6369

ra 1500

ra 2000

ra 200

C-6378

DF75
ra 3000

M-77
ra 1500

LEGEND

- Outcrop, area of outcrop
- Boulder, area of boulders
- ra 3000 — Radioactivity (ra) in counts per second
- 78014 — Sample location and number (B,C,EO,PL,M,S,WV)

63°34'00" 63°22'00"
45°37'30"
45°34'00"
1 2 3 4

KEY

433053 07-D 64 01

Gulf Minerals Canada Limited

COBEQUID PROJECT

PROSPECTING

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: IIgb
DECEMBER 1978	1 INCH=400 FEET	D.A.G	N.T.S. 11E/11,12 PT.

To accompany "Cobequid IBM Report" Dec. 1978

63°28' 27' 26' 63°25'
45°37'30"

37'

36'

35'

45°34'

L - 80 + 00 E
L - 100 + 00 E
L - 120 + 00 E
L - 140 + 00 E
L - 160 + 00 E
L - 180 + 00 E

TL - 72 + 00 N
TL - 30 + 00 N
BL - 0 + 00
TL - 40 + 00 S
TL - 80 + 00 S
TL - 120 + 00 S

Debert Lake
Big Snare Lake
Little Snare Lake

ro400
C-6368
SL-82
C-6330
SL-81
ro3000
S35
C-6365
C-6353
C-6382
SL76
ro 9000
S34
S40
S33
S38
S37
S36
S39
S60
S56
S58
ro 1000
C-6354
S59
S55
S63
S62
S54
C-6360
ro 2000
C-6384
ro 2500
SL78
126
ro 2500
ro 400
ro 300
ro 250
ro 300
ro 400
ro 300

NOTE : For legend see sheet 2

63°34'00" 63°22'00"
45°37'30"
45°34'00"
1 2 3 4

KEY

433053 07-D 64 01

Gulf Minerals Canada Limited

COBEQUID PROJECT

PROSPECTING

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: III gb
DECEMBER 1978	1 INCH=400 FEET	D.A.G	N.T.S. 11E/11 PT.

To accompany "Cobequid I-BM Report" Dec. 1978

63°31' 30' 29' 63°28'

45°37'30"

37'

36'

35'

45°34'

L-40+00 W
L-20+00 W
L-0+00
L-20+00 E
L-40+00 E
L-60+00 E

TL-72+00 N
TL-30+00 N
BL-0+00
TL-40+00 S
TL-80+00 S

Swan Brook
East Wallace River
Swan Brook
Juniper Lake
Indian Lake
Trout Lake

CUMBERLAND COUNTY
COLCHESTER COUNTY

RJ-1 RJ-2 RJ-3 RJ-4 RJ-5 RJ-6 RJ-7 RJ-8 RJ-9 RJ-10 RJ-11 RJ-12 RJ-13 RJ-14 RJ-16 PJ-15 RJ-17 RJ-18 RJ-19 RJ-20 RJ-21 RJ-22 RJ-23 RJ-24 RJ-25 RJ-26 RJ-27 RJ-28 RJ-29 RJ-30 RJ-31 RJ-32 RJ-33 RJ-34 RJ-35 RJ-36 RJ-37 RJ-38 RJ-39 RJ-40 RJ-41 RJ-42 RJ-43 RJ-44 RJ-45 RJ-46 RJ-47 RJ-48 RJ-49 RJ-50 RJ-51 RJ-52 RJ-53 RJ-54 RJ-55 RJ-56 RJ-57 RJ-58 RJ-59 RJ-60 RJ-61

RD-1 RD-2 RD-3 RD-4 RD-5 RD-6 RD-7 RD-8 RD-9 RD-10 RD-11 RD-12 RD-13 RD-17 RD-18 RD-19 RD-20 RD-21 RD-22 RD-23 RD-24 RD-25 RD-26 RD-27 RD-28 RD-29 RD-30 RD-31(A,B) RD-32 RD-33 RD-34 RD-35 RD-36 RD-37 RD-38 RD-39 RD-40 RD-41 RD-42 RD-43 RD-45 RD-46 RD-47 RD-48 RD-49 RD-50 RD-51

290 289 288 291

LEGEND

⊙ RD-1 Reverse drill hole location - project - number

63°34'00" 63°22'00"
45°37'30"
45°34'00"
1 2 3 4

KEY

483053 07-D 64 01

Gulf Minerals Canada Limited

COBEQUID PROJECT

DEEP OVERBURDEN HOLE LOCATIONS

(REVERSE CIRCULATION DRILLING)

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: II ka
DECEMBER 1978	1 INCH = 400 FEET	D.A.G	N.T.S. 11E/11, 12 PT.

To accompany "Cobequid I-BM Report" Dec. 1978

63°28' 27' 26' 63°25'

45°37'30"

37'

36'

35'

45°34'

L - 80 + 00 E

L - 100 + 00 E

L - 120 + 00 E

L - 140 + 00 E

L - 160 + 00 E

L - 180 + 00 E

TL - 72 + 00 N

TL - 30 + 00 N

BL - 0 + 00

TL - 40 + 00 S

TL - 80 + 00 S

TL - 120 + 00 S

Debert Lake

Big Snare Lake

Little Snare Lake

RD-15

RD-14

RD-16

RD-4

RD-3

RD-1,2

63°28' 27' 26' 63°25'

45°34'

LEGEND

⊙ RD-1 Reverse drill hole location - project - number

KEY

63°34'00" 63°22'00"

45°37'30" — 45°34'00"

1	2	3	4

433053 07-D 64 01

Gulf Minerals Canada Limited

COBEQUID PROJECT

DEEP OVERBURDEN HOLE LOCATIONS

(REVERSE CIRCULATION DRILLING)

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: III ka
DECEMBER 1978	1 INCH = 400 FEET	D.A.G	N.T.S. 11E/11 PT.

To accompany "Cobequid I-BM Report" Dec. 1978

63°31' 30' 29' 63°28'

45°37'30"

37'

36'

35'

45°34'

L - 40 + 00 W

L - 20 + 00 W

L - 0 + 00

L - 20 + 00 E

L - 40 + 00 E

L - 60 + 00 E

TL - 72 + 00 N

TL - 30 + 00 N

BL - 0 + 00

TL - 40 + 00 S

TL - 80 + 00 S

Brook

East

Wallace River

Swan

Swan Brook

Juniper Lake

Indian Lake

Trout Lake

CUMBERLAND COUNTY

COLCHESTER COUNTY

290

291

289

288

LEGEND

o Soil Sample Location

o 801-1,2 "A" Sample Number, "C" Sample Number

Sample numbers are consecutive unless otherwise noted.

63°34'00" 63°22'00"

45°37'30"

45°34'00"

1 2 3 4

KEY

433053 07-D 64 01

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND NUMBER)

CLAIM BLOCK III.

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: II f
OCTOBER 1978	1 INCH=400 FEET		N.T.S. 11E/11,12 PT.

TO ACCOMPANY "COBEQUID 1-BM REPORT," DEC. '78.

63°28' 27' 26' 63°25'

45°37'30"

37'

36'

35'

45°34'

L - 80 + 00 E

L - 100 + 00 E

L - 120 + 00 E

L - 140 + 00 E

L - 160 + 00 E

L - 180 + 00 E

TL - 72 + 00 N

TL - 30 + 00 N

TL - 40 + 00 S

TL - 80 + 00 S

TL - 120 + 00 S

BL - 0 + 00

Debert Lake

Big Snare Lake

Little Snare Lake

K1692 K1732 K1771 K1868 K1869 K1928 K1967 K2962 K3031 K3001 K3095 K3134 K3173 K3212

K1870 K1930 K1970 K3090 K3130 K3170 K3210

K1700 K1740 K1779 K1860 K1781 K1857 K1880 K1940 K1980 K2970 K3040 K3010 K3082 K3120 K3160 K3200

K1710 K1750 K1790 K1850 K1927 K1890 K1950 K1990 K1991 K2980 K3050 K3020 K3078 K3110 K3150 K3190

K1720 K1760 K1800 K1920 K1900 K1960 K1993 K1994 K1997 K2988 K3056 K3030 K3070 K3140 K3180

K2000 K2995 K3000 K3060 K3100 K3135 K3174

K1730 K1731 K1770 K1809 K1910 K1908 K1907 K1966 K2005 K3057 K3096

K2687 K2648 K2608 K2584 K2582 K2542 K2502 K2463 K2462 K2842 K2882 K2922

K2650 K2610 K2690 K2590 K2580 K2550 K2510 K2470 K2460 K2423 K2420 K2810 K2850 K2890 K2930

K2660 K2620 K2700 K2704 K2600 K2570 K2560 K2520 K2480 K2450 K2410 K2820 K2860 K2900 K2940

K2564 K2563 K2607 K2670 K2630 K2440 K2943

K2946

K2400 K2490 K2530 K2830 K2870 K2910 K2950

K2680 K2640 K2720 K2681 K2684 K2686 K2725 K2647 K2430 K2496 K2428 K2495 K2390 K2538 K2500 K2425 K2540 K2501 K2424 K2387 K2840 K2880 K2920 K2960 K2344

K2006 K2048 K2090 K2132 K2174 K2216 K2921 K2961 K2301

K2008 K2050 K2260

K201 K2220

K2180 K2350

K2140 K2310 K2353

K2100 K2270

K2060 K2230 K2358

K2020 K2190 K2360

K2150 K2320

K2110 K2280

K2070 K2240 K2370

K2030 K2200 K2330

K2160 K2203

K2120 K2205 K2290

K2080 K2123 K2250

K2040 K2125 K2251 K2380

K2210

K2170 K2254

K2130 K2131 K2340

K2047 K2089 K2173 K2215 K2300 K2343 K2386

L - 100 + 00 E

L - 120 + 00 E

L - 140 + 00 E

L - 160 + 00 E

L - 180 + 00 E

L - 80 + 00 E

LEGEND

- ∘ Soil Sample Location
- ∘ K2070 "K" Series, 1978 Samples

Sample numbers are consecutive unless otherwise noted.

63°34'00" 63°22'00"

45°37'30"

45°34'00"

1 2 3 4

KEY

433053 07-D 64 01

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND NUMBER)

CLAIM BLOCK III, IV

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: III f
OCTOBER 1978	1 INCH = 400 FEET		N.T.S. 11E/11 PT.

TO ACCOMPANY "COBEQUID 1-BM REPORT," DEC. '78.

63°31' 30' 29' 63°28'

45°37'30"

37'

36'

35'

45°34'

L - 40 + 00 W
L - 20 + 00 W
L - 0 + 00
L - 20 + 00 E
L - 40 + 00 E
L - 60 + 00 E

TL - 72 + 00 N
TL - 30 + 00 N
BL - 0 + 00
TL - 40 + 00 S
TL - 80 + 00 S

Brook
East
Wallace
River
Swan
Swan Brook
Juniper
Lake
Indian
Lake
Trout Lake

COUNTY
COUNTY
CUMBERLAND
COLCHESTER

290
291
289
288

LEGEND

- o Soil sample location.
- 6/4 "A" Horizon value in p.p.m. / "C" Horizon value in p.p.m.
- — Assay value < 0.1 p.p.m.
- NOTE: Sample values are X 10
  ie: 1.8 = 18

63°34'00" 63°22'00"
45°37'30"
45°34'00"
1 2 3 4

KEY

433053 07-D 64-01

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY
(SAMPLE LOCATION AND VALUE)
URANIUM
CLAIM BLOCK III
NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: II fb
OCTOBER 1978	1 INCH = 400 FEET		N.T.S. 11E/11, 12 P.T.

To accompany "Cobequid IBM Report" Dec. 1978.

63°28' 27' 26' 63°25'

45°37'30"

37'

36'

35'

45°34'

L - 80 + 00 E

L - 100 + 00 E

L - 120 + 00 E

L - 140 + 00 E

L - 160 + 00 E

L - 180 + 00 E

TL - 72 + 00 N

TL - 30 + 00 N

BL - 0 + 00

TL - 40 + 00 S

TL - 80 + 00 S

TL - 120 + 00 S

Debert Lake

Big Snare Lake

Little Snare Lake

LEGEND

° Soil sample location

6/4 "A" Horizon value in p.p.m. / "C" Horizon value in p.p.m.

– Assay value < 0.1 p.p.m.

NOTE: Sample values are X 10

ie: 1.8 = 18

63°34'00" 63°22'00"

45°37'30" – 1 2 3 4 – 45°34'00"

KEY

433053 07-D 64 01

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

URANIUM

CLAIM BLOCK III, IV

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: III fb
OCTOBER 1978	1 INCH = 400 FEET		N.T.S. 11E/11 P.T.

To accompany "Cobequid I-BM Report" Dec. 1978