

# GM 44011

REPORT ON REVERSE CIRCULATION DRILLING, ENJARLAN-CARHEIL JOINT VENTURE PROPERTIES

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REPORT

ON

REVERSE CIRCULATION DRILLING

ON THE

ENJALRAN-CARHEIL

JOINT VENTURE PROPERTIES

BAROQUE OPTION

FOR

PETROMET RESOURCES LTD.

AND

GREENSTRIKE GOLD CORPORATION

**Ministère de l'Énergie et des Ressources**

**Service de la Géoinformation**

Date: 10 MARS 1987

No G.M.: 44011

D. Meyer, B.Sc.

W.E. Brereton, P.Eng.

MPH CONSULTING LIMITED

Toronto, Ontario  
October, 1986

## SUMMARY

A major program of reverse circulation drill testing of electromagnetic and magnetic anomalies was completed on the Petromet/Baroque joint venture property in the Casa Berardi-Selbaie area of northwestern Quebec during early to mid-1986.

The work was carried out to test the geophysical features and their immediate environments for the presence of gold and/or base metal deposits.

Seventy-eight reverse circulation holes were drilled on and immediately down-ice from geophysical targets in two phases.

The four individual claims groups comprising the overall property cover portions of regional INPUT/magnetic trends reflective of major sedimentary/tuffaceous units with graphitic, sulphidic and oxide iron formation members. These rocks are in turn contained within thick sequences of predominantly mafic volcanics.

In general, a well developed till (Matheson Till) derived from the northwest was encountered in the project area. A second or Lower Till derived from the north-northeast was also encountered in areas of deeper overburden.

A total of 242 gold grains was observed in tabling and panning of overburden samples. Of those, 222 were abraded, 13 were irregular and 7 were delicate. Gold values in heavy mineral concentrates ranged from 5 ppb to 26,710 ppb and generally correlated well with gold grain sightings.

Although there are a number of scattered anomalous indications in gold + base metals in the glacial tills, it has been concluded that there are no significant dispersion trains reflective of a major mineralized bedrock

source(s) on the present property. Certain limitations in the reverse circulation method are recognized however and we are of the opinion that there are a number of areas that warrant diamond drill testing based on the results of all of the work that has been carried out to date, including previous diamond drilling.

A total of 3,000 ft is recommended in 7-8 holes. Limited IP surveying (4 lines) will be required prior to drilling on the Enjalran Township claim group. The recommended program is estimated to cost \$165,000.



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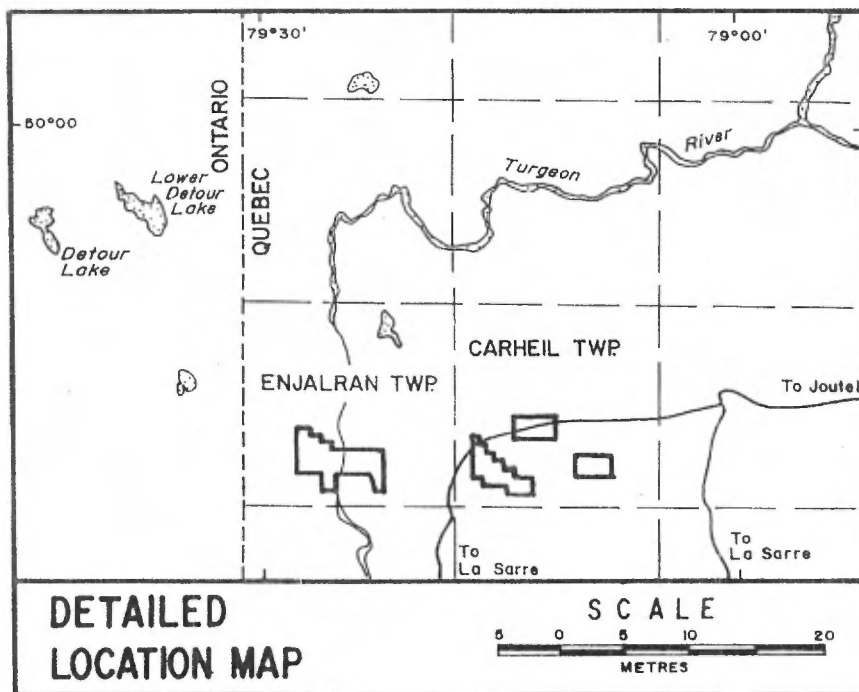
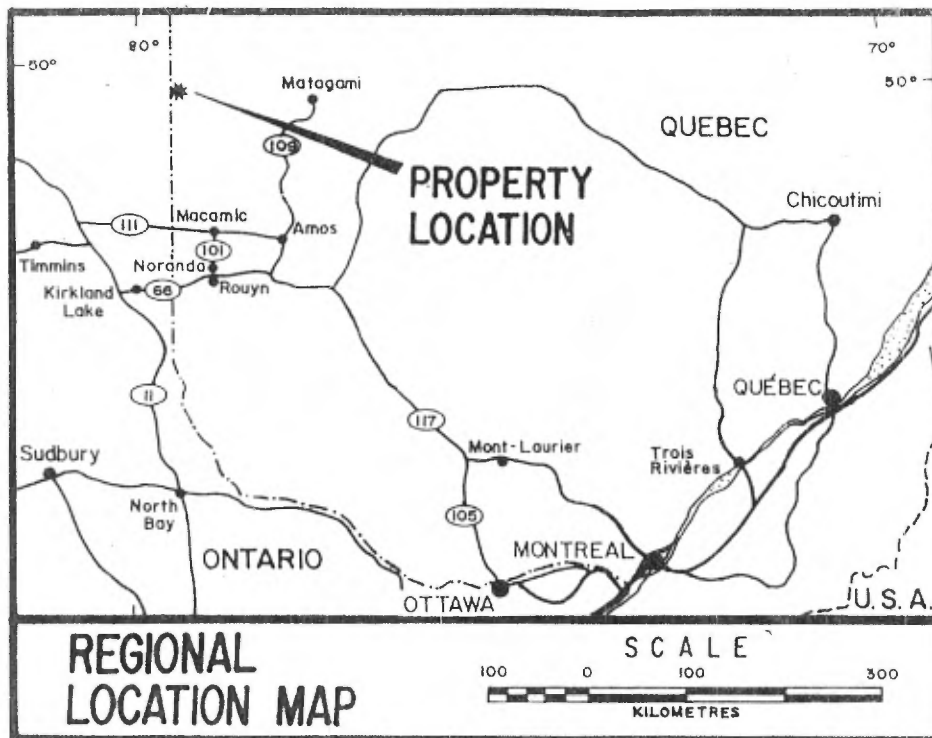
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<b>PETROMET RESOURCES LIMITED - GREENSTRIKE GOLD CORP.</b>	
BAROQUE RESOURCES LTD. - ROYEX GOLD MINING CORP. OPTION	
<b>LOCATION MAP</b>	
Project No. C-856	By: J. Roth
Scale:	Drawn: MPH
Drawing No: Figure 1	Date: August, 1986
 <b>MPH Consulting Limited</b>	

## 1.0 INTRODUCTION

A major program of ground geophysical surveying and reverse circulation drilling was conducted by MPH Consulting Limited on the Petromet/Baroque joint venture properties in the Casa Berardi-Selbaie area of northwestern Quebec during early to mid-1986. This work was preceded by extensive data compilation and re-interpretation of previous exploration data.

Recent interest in this area centers around major discoveries in Casa Berardi (Golden Knight and Golden Hope deposits) and expanding operations and ore reserves at the Selbaie mine to the east of the present property.

Results of the ground geophysical surveying have already been presented to Petromet/Baroque in an MPH report entitled "Geophysical Report on the Baroque Option: Enjalran/Carheil Project, Casa Berardi-Selbaie Area" by J. Roth dated June, 1986.

It is the purpose of this report to present the results of the reverse circulation drilling program along with a description of the exploration methodology all in the context of the geology and mineral deposits of the region. Recommendations are made for a diamond drilling program and limited IP surveying to further evaluate several targets located by the foregoing work.

## 2.0 LOCATION, ACCESS AND INFRASTRUCTURE

The Petromet/Baroque project area is located in Carheil and Enjalran Townships some 110 km north of the town of La Sarre in northwestern Quebec and approximately 6-10 km east of the Ontario border (Figure 1).

The Lac Dieppe gravel road, which extends past the Golden Knight development, very conveniently passes through the Lac Santoire and Theo River portions of the property in Carheil Township. The Enjalran Township portion of the property is most easily accessed by helicopter from bases in La Sarre, Quebec or Cochrane, Ontario. Abitibi Helicopters Ltd. maintains one or more helicopters at the Teck-Golden Hope base camp on the Selbaie Road in Puisseaux Township, some 40 km to the southeast; these are often available for casual charter. Helicopters may be landed in several open swampy areas on the Baroque claims and in this area in general.

Existing hydro-electric power transmission lines extend to within 40 km due south of the property (at Val Paradis/Villebois) and more recently to the Selbaie mine, 30 km directly east of the property.

The Detour gold mining operation is located 35 km northwest of the property in the Province of Ontario.

La Sarre, population 10,000, serves as the main centre of service and supply in the area. Most forms of mining exploration support requirements are available here including fixed and rotary wing aircraft, food, fuel, etc., along with a skilled labour pool from which to draw a potential mining force. The main line of the Canadian National Railway passes through La Sarre.

The local economy is based on the logging, mining, farming, tourism and government service industries. It should be noted that active logging

activities are being carried out in the general area. In addition to improving access, this will greatly facilitate ground exploration activities such as geophysical surveying and diamond drilling.

The nearest existing gold milling facilities which might be available for milling external ore on a custom or toll basis are those in the Rouyn-Noranda area to the south. Any mining-milling infrastructure established at the Inco-Golden Knight or Teck-Golden Hope project might also be available to receive custom ore. Such custom facilities might enable exploitation of a small or low grade deposit that did not justify its own mill.

### 3.0 PROPERTY

The Petromet/Baroque holdings consist of 194 unpatented mining claims in four separate claim blocks in Enjalran and Carheil Townships as follows:

#### Enjalran Township:

<u>Claim Number</u>	<u>Expiry Date</u>
437343-1 to 5	December 14, 1986
437344-1 to 5	December 15, 1986
437364-4 and 5	December 06, 1986
437365-4 and 5	December 07, 1986
437366-4 and 5	December 08, 1986
437367-4 and 5	December 09, 1986
437368-4 and 5	December 10, 1986
437369-1 to 5	December 11, 1986
437370-1 to 5	December 12, 1986
437371-1 to 4	December 13, 1986
437372-1 to 5	December 14, 1986
437373-1, 3, 4, 5	December 15, 1986
437411-1 to 5	December 07, 1986
437412-1 to 5	December 08, 1986
437413-1 and 2	December 09, 1986
437417-1 to 5	December 10, 1986
437418-1 to 3	December 11, 1986
437421-2 to 4	December 07, 1986

Total: 66 claims (1,038 hectares)

Figure 2a shows the relative disposition of the claims in Enjalran Township.

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Carheil Township:

<u>Claim Number</u>	<u>Expiry Date</u>
<u>Claim Block #2 - Theo River (30 claims)</u>	
438294-1 to 5	January 05, 1987
438295-1 to 5	January 06, 1987
438296-1 to 5	January 07, 1987
438297-1 to 5	January 08, 1987
438298-1 to 5	January 09, 1987
438299-1 to 5	January 10, 1987
<u>Claim Block #3 - Lac Carheil (16 claims)</u>	
438300-1 to 5	January 11, 1987
438301-1 to 5	January 12, 1987
438302-1 to 5	January 13, 1987
438303-1	January 14, 1987
<u>Claim Block #4 - Lac Santoire (82 claims)</u>	
440689-2 to 5	December 30, 1986
440700-1 to 5	December 21, 1986
440701-1 to 5	December 22, 1986
440702-1 to 5	December 23, 1986
440703-1 to 5	December 24, 1986
440704-1 to 5	December 25, 1986
440705-1 to 5	December 26, 1986
440706-1 to 5	December 27, 1986
440707-1 to 5	December 28, 1986
440708-1 to 5	December 29, 1986
440709-1 to 5	December 30, 1986
440710-1 to 5	December 31, 1986
440711-1 to 5	December 22, 1986
440712-1 to 5	December 23, 1986

<u>Claim Number</u>	<u>Expiry Date</u>
<u>Claim Block #4 - Lac Santoire (82 claims)</u>	
440713-1 to 5	December 24, 1986
440714-1 to 5	December 25, 1986
440715-1 to 3	December 26, 1986

Total: 128 claims (2,048 hectares)

The disposition of these claims is shown in Figure 2b.

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The claims were originally acquired by Petromet Resources Ltd. by staking in December, 1985 and January, 1986. Greenstrike Gold Corp. was subsequently assigned an interest in the properties.

In January 1986, Petromet Resources as to 50% and Greenstrike Gold Corp. (controlled by Petromet) as to 50% optioned the claims to Baroque Resources Ltd. whereby the latter may earn a 50% interest in the claims by making expenditures of \$1,000,000 including a \$200,000 expenditure by the first anniversary date.

Under a separate agreement, Royex Gold Mining Corporation may, in turn, earn a 50% interest in the claims by funding further property expenditures, producing a feasibility study and arranging the financing required to bring a mine into production.

To maintain the claims in good standing, assessment work is required by the Quebec government on an annual expenditure basis for each claim as follows:

First year	\$5/hectare (i.e. \$80/claim)
Second to tenth years	\$10/hectare (i.e. \$160/claim)

Work performed on one claim may be applied to other claims of the same group provided the claims are contiguous and the claim grouping does not exceed 480 hectares (1,200 acres).

There is also an annual tax of \$0.75/hectare which must be paid to the government within 10 days of the expiration date of the claim.

The holder of a claim(s) who wishes to retain his rights must apply for a development licence no later than 10 days prior to the expiration of a claim. The licence is valid for one year and must be renewed each year.

#### 4.0 HISTORY AND PRESENT EXPLORATION ACTIVITY

The townships of Enjalran and Carheil have undergone comparatively little exploration for gold and base metals in the past.

Early exploration was hampered by the very minor extent of outcropping bedrock. Since the advent of airborne EM, the area has been flown with several systems but a formational, sedimentary character indicated by the long, multiple conductors has caused explorationists to downgrade potential for classical volcanogenic massive sulphide deposits.

##### 4.1 Assessment Work

The following is a summary of previous mining work, particularly diamond-drilling, on and in the area of the property as gleaned from assessment files in the offices of the Ministère de l'Énergie et des Ressources, Rouyn, Quebec.

Drill holes and significant EM conductors have been compiled on Map 1 at rear, guided by the Quebec government Geoscientific Compilation Map for Enjalran and Carheil Townships.

Some of the following work was carried out off the present property area. Descriptions are, however, included here as we feel the results are pertinent in the context of further exploration on the Petromet/Baroque ground.

Noranda Exploration Co. Ltd. in 1978 drilled a 497 ft hole (Hole 2-78) on an HEM conductor near the Santoire River on the Lac Santoire claims. The hole is summarized as:

0-157 ft: Overburden (@-55°)  
157-453 ft: Graphitic dacite (tuff?)  
453-497 ft: Fragmental dacite tuff

There were no values of any interest in Cu, Zn, Au, Ag in 5 sections assayed.

Dome Exploration (Canada) Ltd. in 1975-76 carried out a major program of ground EM surveying and diamond drilling on a 63 claim block straddling the Turgeon River in Enjalran Township, northeast of the Enjalran portion of the property.

Drilling was carried out on 6 EM zones from north to south, east of the Turgeon River as follows:

<u>ZONE</u>	<u>HOLES</u>
A	1 (94B-3)
B	1 (94B-12)
C	5 (94B-0,2B,11,4,5)
D	1 (94B-1)
E	2 (94B-8,6)
F	2 (94B-9A,7)

Conductivity is due to variably graphitic, sulphidic-cherty iron formation and graphitic sediments/tuffs. All gold assays returned nil to trace values. Several of the holes had distinctly anomalous copper tenors. The best intersection was 1.25% Cu over 0.76 m (hole 94B-2B).

This same stratigraphy continues eastward onto the Baroque claims.

Of interest, most of the holes intersected variable amounts of quartz ± carbonate veining in the rocks.

Noranda Exploration Co. Ltd. in 1976 drilled a single hole on a long formational conductor directly to the northwest of the above Dome block (Hole ENJ-76-2; Map 1). The hole is summarized as follows:

- 0 - 60 ft: Overburden (@-55°)
- 60 - 318 ft: Basic-intermediate intrusives

318 - 450 ft: Intermediate volcanics with cherty tuff bands containing graphite and pyrite/pyrrhotite (particularly 364-394 ft.)

A hole drilled by Selco Exploration Co. Ltd. in 1959 on the south shore of Lac Lalonde on the adjoining New Ridge property on an EM conductor intersected a completely sedimentary environment (hole Victor 1 - greywacke, argillite) with the conductivity due to barren sulphide bands.

No assays are reported.

The Korich Mining Company Ltd. in 1960 drilled 8 holes on EM/magnetic features on a property straddling the Turgeon River to the south of the Enjalran group. Conductivity was due to black graphitic tuffs with a number of holes intersecting magnetite-bearing gabbro. Holes 6, 7 and 8 in particular, were mainly or entirely in diorite/gabbro and contained numerous quartz-sulphide veins.

No gold assays were reported.

Imperial Oil Ltd. in 1970 held a claim group west of the Theo River in Carheil Township as part of their Group C. Extensive Turam surveying was carried out but there is no record of any drilling. Imperial Oil also carried out Turam surveying on the Petromet/Baroque block at the north end of Lac Carheil. They located a strong, ENE-trending Turam anomaly here which they do not appear to have drill tested.

Inco Ltd. in 1971 drilled a single hole (#33297) west of the Turgeon River, southeast of Lac Ledieu to the north of the Enjalran property. The hole is summarized as follows:

- 0-148 ft: Overburden (0-50°)  
148-328 ft: Greywacke and quartzite; mineralization is generally very weak. Conductivity is due to zones of graphite + pyrite in the upper portion of the hole.

No assays are reported.

Mining Corporation Ltd. in 1965 drilled 2 holes (65-1,65-2) on EM conductors near the Santoire River in Carheil Township in the centre of the Petromet/Baroque main or Lac Santoire Carheil group.

Conductivity was due to zones of pyrite-pyrrhotite and graphite in intermediate-felsic volcanics. Minor chalcopyrite was noted, particularly in hole 65-2 where a 10 ft section is described as containing chalcopyrite-pyrrhotite stringers in dacitic fragmentals. Quartz stringers are described in massive rhyolite towards the bottom of hole 65-2.

These holes are located in what has turned out to be an area of interest based on results of the present work. In detail, it can be seen that hole 65-1 was drilled down-dip although it did transect a graphite conductor.

Hole 65-2 seems to have been drilled well off the east end of the ground EM anomaly as it is presently known. This hole cut some very interesting felsic geology with pyrrhotite-chalcopyrite as noted. An assay of 1.5% Cu is reported from the section from 315 to 325 ft in the hole although it is not clear from the log if this value represents the entire 10 ft or a selected portion thereof.

Selco Exploration Co. Ltd. in 1959, as part of a bigger project in the area, completed 4 drill holes on EM targets on a property straddling the Enjalran-Carheil Township line (holes JIG-1,2,5,6).



Conductivity in general was due to pyrite and pyrrhotite zones in volcanics. Traces of chalcopyrite were noted locally.

Of possible interest in a gold exploration context, intense carbonate alteration is described in "fine-grained greenstone" in hole JIG-1. Also, hole 5 contained 25 ft of "massive pyrite in silicified residual rock". Similar rocks are reported in hole 6.

No assays are reported.

Selco Exploration Co. Ltd. in 1958-59 completed 3 more holes, nos. 1,4,5 (of 5 attempted), just east of the Santoire River in the south portion of the main Enjalran block on ground EM targets in a continuation of the above-cited project.

Conductivity was due to pyrite-pyrrhotite  $\pm$  graphite zones mainly in "altered andesites".

Of interest, hole 4, which was unsuccessful in testing their EM conductor 1, did intersect andesitic volcanics containing relatively abundant carbonate  $\pm$  quartz veins. Hole 5 also reported quartz/carbonate stringers in altered andesite.

No assays are reported.

Selco also reported on another 3 holes in southeast Enjalran Township (JIG, 7, 8, 9 - Figure 3).

Of interest, "coarse blebs and veins of pyrrhotite in quartz veinlets" were reported from 82-97.5 ft in andesite in hole JIG-8.

Conductivity again appears to be due mainly to pyrite-pyrrhotite zones in volcanics with traces of chalcopyrite.

No assays are reported.

Area Mines Ltd. in 1962 drilled 2 holes on EM conductors midway between Lakes Enjalran and Freniere in southeast Enjalran Township (holes 44-1, 44-2), just off the south boundary of the Petromet/Baroque property.

The holes are summarized as follows:

Hole 44-1

0-18 ft: Overburden (at -52°)  
18-27 ft: Rhyolite  
27-122 ft: Diabasic lava  
122-270 ft: Rhyolite tuff and breccia with "strong py, minor po and cp from 119-200 and, from 234-270, graphite"  
270-350 ft: Diabase

Hole 44-2

0-50 ft: Overburden (at -52°)  
50-100 ft: Rhyolite, rhyolite tuff; minor py, po, graphite  
100-135 ft: Greenstone  
135-142 ft: Massive pyrrhotite  
142-360 ft: Rhyolite/greenstone ± py, po, gf

This felsic setting is of exploration interest, particularly in a base metals context.

No assays are reported.

Noranda Exploration Co. Ltd. in 1964-65 drilled 2 short holes (TE-2, 3) immediately east of the Turgeon River on the property that was later tested by Dome as described above.

In particular, in hole TE-2, pyrite/pyrrhotite and minor chalcocopyrite and sphalerite in rhyolite are recorded.

No assays are reported.

Selco Mining Corp. Ltd. in 1973, carried out magnetic and EM surveys and drilled a single hole on an EM-magnetic target immediately west of Lac Jodin, 0.75 km east of the main Carheil block.

The hole (D-1-1) is summarized:

0-122 ft: Overburden (at -45°)  
122-323 ft: Interbedded argillite and sandstone

The conductive-magnetic responses were due to scattered bands of pyrrhotite ± graphite and pyrite in the sediments.

It does not appear that there were any gold assays carried out. Zinc values to 0.30% were recorded.

Serem Ltee in 1978 drilled 3 holes on EM targets on a property tied onto the north boundary of the Lac Carheil block (Holes 78-LAB-1, 2, 3). Serem still retain the property.

The holes, 400-600 ft in length, intersected abundant graphite, pyrite and pyrrhotite in intermediate-mafic volcanics. Some quartz veining is mentioned. Extensive rock geochemistry showed no precious metals values of economic significance although intersections of up to 0.47% Zn/3.05 m (hole 78-2) and 0.34% Zn/2.04 m (hole 78-1) were recorded.

Abitibi-Price Mineral Resources Ltd. in 1984 carried out a major program of ground geophysical surveying and diamond drilling (13 holes) on a land package which included all of the present Carheil Township claims. A total of 7 of these holes was drilled on the Petromet/Baroque Carheil lands.

All EM conductors of interest were explained by the drilling. All of the holes intersected mafic volcanics with conductive zones consisting of graphite and/or graphite  $\pm$  pyrite-pyrrhotite rich interflow sediments. No ore grade concentrations of base or precious metals were found although anomalous values in the 0.01 to 0.03 oz gold per ton range were encountered in several holes.

Drill results are summarized by Abitibi-Price as follows:

<u>D.D.H.</u>	<u>Depth</u>	<u>Comments</u>
DL 84-1	117.95 m	Mafic volcanics with conductive zones of graphitic interflow sediments with up to 10% py-po and traces cpy. Best assay 0.005 oz/ton Au over 1.25 meters.
DL 84-2	115.82 m	Mafic volcanics with conductive zone of graphitic interflow sediment with 10-25% py-po and traces cpy. Traces Au only.
DL 84-3	107.28 m	Mafic volcanics with conductive zone of graphitic sediment with 10-25% py. Best assay 0.01 oz/ton Au over 0.61 metres.
DL 84-4	120.69 m	Mafic volcanics with conductive zone of graphitic interflow sediment with 5-20% py. Some magnetite-chert iron formation underlying conductive zone. Best assay 0.02 oz/ton Au over 1.34 metres.

<u>D.D.H.</u>	<u>Depth</u>	<u>Comments</u>
DL 84-5	122.22 m	Silicified mafic volcanic with conductive zone of graphitic interflow sediment with 5-15% py-po and traces cpy. Best assay 0.005 oz/ton Au over several sections.
DL 84-6	152.39 m	Mafic pillow lava to massive flows with abundant thin zones of inter-pillow calcite-chert-py-po. Traces cpy. Traces Au only. Conductor not satisfactorily explained.
DL 84-7	121 m	Silicified mafic volcanic, partly pillowed, with conductive zone of graphitic interflow sediment with 10-20% py. Minor iron formation. Best assay 0.005 oz/ton Au over several sections.
DL 84-8	105.76 m	Massive gabbroic intrusive with conductive zone of graphitic sediments with up to 50% py and traces sphalerite. Best assay 0.005 oz/ton Au over 3.05 metres.
DL 84-9	91.44 m	Mafic volcanic with frequent bands of magnetite-chert iron formation. Conductive zone of graphitic shale with 20-25% po-py. Best assay 0.01 oz/ton Au over 1.99 m.

<u>D.D.H.</u>	<u>Depth</u>	<u>Comments</u>
DL 84-10	106.67 m	Mafic volcanic with frequent bands of chert-magnetite iron formation. Conductive zone of graphitic interflow sediments with 5-10% po. Best assays 0.02 and 0.03 oz/ton over 1.52 and 1.46 metres respectively.
DL 84-11	90.83 m	Gabbro and mafic volcanic with conductive zone of graphitic sediments and fault zone with 15-25% py. Traces Au only.
DL 84-12	84.73 m	Same conductor as DL 84-6. Mafic pillow lava. Conductive zone caused by abundant thin po-py-chert-calcite inter-pillow zones (maximum 0.64 m of 70% py). Traces cpy. Best assay 0.01 oz/ton Au over 1.53 metres.
DL 84-13	106.67 m	Mafic volcanic with conductive zone of graphitic interflow sediments with 20-30% py-po. Best assay 0.005 oz/ton Au over several zones.

#### 4.2 INPUT Survey

A key facet of the existing exploration data base in the region is the airborne geophysical surveys (Mark VI INPUT and magnetics) flown by Questor Surveys for the Quebec government and released in 1973-1974. Results of these surveys in the property area have previously been presented to the Joint Venture.

There are a large number of INPUT anomalies on the properties. These generally represent portions of major regional conductive zones which extend considerably further to the east and west beyond the property boundaries. An exception is the more discrete zone at the north end of Lac Carheil drilled by Abitibi-Price. The long INPUT conductors are generally interpreted to be reflective of graphitic and sulphidic interflow sedimentary zones in light of previous drill results.

Linear magnetic highs spatially associated with the INPUT zones are interpreted to represent oxide iron formations. Note that the INPUT conductors do not correlate exactly with the magnetic anomalies indicating geologically different sources in most cases.

#### 4.3 Geochemical Surveys

The Quebec government released in 1983 the results of a regional soil sampling program covering 6,000 sq km in this section of the Abitibi (Pedogeochemie de la Region de Brouillon, M. Baumier, Report DP-83-10, Ministere de l'Energie et des Ressources, Quebec). Samples were taken of surficial humic materials at a density of 1 per 2.5 sq km and were analyzed for Cu, Zn, Pb, Ni, Co, Mn, V, Mo, Hg, As and L.O.I.

There are some weakly to moderately anomalous values in Zn, As and Cu on the three Carheil Township blocks.

5.0 GEOLOGY AND MINERAL DEPOSITS:  
DETOUR-MATAGAMI SECTOR, ABITIBI GREENSTONE BELT

5.1 Regional Geology

The Petromet/Baroque holdings lie within the northern portion of the Abitibi Greenstone Belt as indicated in Figure 3. The Abitibi is the largest and most productive of several east-west trending meta-volcanic-metasedimentary belts within the Superior Structural Province of the Canadian Shield. These supracrustal rocks are dominantly of Archean age, generally greater than 2 billion years B.P.

The general area of interest is a rectangular zone 200 km long by 125 km wide bounded approximately by the Detour mine in the northwest, the Burntbush area in the southwest, the Joutel area in the southeast and the Matagami area in the northeast.

The area is generally flat and monotonous with extensive black spruce swamp and muskeg cover. Outcrop exposure is typically 1% or less so that the geology is very imperfectly known. A further corollary of this is that additional undiscovered major deposits likely exist beneath overburden in the region.

Mafic metavolcanics are interpreted to be the predominant lithology. Scattered throughout this mafic "sea" are several centers of felsic volcanism such as in the Matagami area and around the Selbaie Mine. However, extensive assessment research indicates that there are far more felsic rocks in this region than presently recognized. This is very important from an exploration viewpoint in that massive sulphide gold-base metal deposits are typically hosted by felsic volcanics.

Intercalated with the mafic rocks are regional sedimentary-tuffaceous units with abundant graphite, argillite, sulphides and oxide iron formation. These units typically appear as zones of airborne



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EM conductors which may extend for tens of km across country. As such, they provide valuable stratigraphic marker horizons. This sedimentary-tuffaceous setting can also be a fertile one for mineral deposits. Inco's Casa Berardi gold deposit is in such a setting as is the Agnico-Eagle Mine.

Intruding all of these rocks are various intermediate to felsic plutons, some of which may be broadly coeval with volcanism, i.e. synvolcanic, and hence of interest from an exploration viewpoint.

## 5.2 Mineral Deposits

After the Republic of South Africa's Witwatersrand, which produced some 1,114 million ounces of gold between 1884 and 1978, the greatest gold mining area of the western world is Canada's Abitibi belt. Composed mainly of Archean volcanic and sedimentary rocks, the Abitibi has produced more than 133 million ounces of gold between 1906 and 1981.

Several major gold and base metal deposits are present in the general region. The characteristics of some of these deposits, pertinent to further exploration in the region, are described below:

### (a) Detour Mine - Ontario

The Detour gold (+ copper) deposit, located 30 km northwest of the present property, was discovered in 1974 by Amoco Canada Petroleum Company Ltd. during a geophysically oriented search for base metal massive sulphide deposits. The original drill target was a strong electromagnetic conductor with a directly coincident magnetic high. These geophysical responses are now known to relate primarily to the cherty sulphide (pyrite, pyrrhotite + chalcopyrite) iron formation which hosts much of the gold ore.

Present reserves are quoted at approximately 10.9 million tons averaging approximately 0.128 oz Au per ton and 0.15% Cu. These reserves extend to the 1,800 foot level and the deposit is completely open to depth. The mine went into official production on November 4, 1983 at a rate of 2,500 tons per day. Initial production was by open pit although operations are currently suspended due to a lower than expected gold grade and weak gold prices. Shaft sinking is currently underway to determine the economic feasibility of the underground mining of the deposit.

The "main zone" of gold mineralization at Detour is essentially an auriferous quartz fracture zone centered on a cherty tuff unit (or a silicified shear zone via a very recent re-interpretation) and extending into the immediately overlying basalts. Gold values also extend beneath the cherty tuff into underlying altered ultramafics. The overall mineralized zone plunges 45 degrees west.

The main zone is generally 20 to 40 feet in width and consists of a system of narrow quartz veins which contain 10 to 15% pyrrhotite, 0.5 to 1% chalcopyrite and 1 to 5% pyrite within the veins and selvages.

Four gold zones are found in the hangingwall basalts above the main zone and are referred to as the quartz-vein zones. The mineralization is similar to the main zone in that the gold occurs within quartz veins with associated pyrrhotite and chalcopyrite with biotite selvages. Most of the quartz vein zones are interpreted to occur in structures that parallel the main zone.

There are several zones of mineralization in underlying talc-carbonate rocks. In these zones, the gold occurs as blebs and specks in close association with pyrrhotite and chalcopyrite.

Quartz veins are occasionally present but are not essential for the presence of gold.

The Detour ore body occurs at a local, gentle anticlinal warp on the north limb of the Detour anticlinal fold, the axis of which is located well south of the mine. The plunge of the ore is exactly that of the fold and appears to occupy a fracture zone which is axial planar to the subsidiary warp. It is therefore suggested that there is a very strong structural influence at Detour in addition to the obvious stratigraphic control.

(b) Selbaie Mine - Brouillan Township

The Selbaie zinc-copper (+ gold, silver) mine is located 30 km east of the present property and was discovered in 1974 by a Selco Exploration - Pickands Mather joint venture. The deposit was discovered by diamond drilling of a very weak horizontal loop EM anomaly in follow-up to an airborne EM survey. Production began in mid-1981 at 1,500 metric tonnes per day (B-Zone). The mine is currently undergoing a major expansion, funded in part by the Quebec government.

The Selbaie deposit occurs within acid pyroclastic and volcanoclastic rocks which form part of the Matagami section of the Archean Abitibi orogenic belt.

Ore reserves in the B Zone at December, 1982 consisted of 2.83 million tonnes averaging 3.5% Cu, 0.7% Zn, 33 g Ag, 1.2 g Au per metric tonne. Reserve figures quoted for the A-2 Zone (1978) were 5 million tons in grading 2.02% Cu, 1.33% Zn, 0.36 oz Ag and 0.036 oz Au per ton.

This base metal deposit is somewhat atypical in that it consists mainly of epigenetic quartz-carbonate-base metal vein

systems resulting from hydrothermal activity related to late stages of acid volcanism rather than the standard massive sulphides emplaced in syngenetic fashion.

The host rocks consist of rhyolitic tuffs and breccias, bedded chert-pyrite and volcaniclastic debris. An overlying quartz porphyry unit, which is weakly mineralized, may have acted as an impermeable cap rock during the mineralization event.

Veining and minor replacement occur in preferred but variable steeply dipping fracture/fault systems. The vein systems (Zones A-1 and A-2) are concentrated within subhorizontal, permeable rhyolitic units.

Principal hypogene minerals are pyrite, sphalerite and chalcopyrite. Galena, tetrahedrite, polybasite, and native silver occur in minor amounts together with native gold. Supergene chalcocite, digenite, covellite, bornite and native copper occur as fracture fillings and replacement rims around hypogene sulphides.

Important characteristics of the Selbaie deposit include the relatively weak nature of the related EM target and the epigenetic nature of the mineralization as compared to the classical stratiform massive sulphide model.

(c) Agnico-Eagle Mine, Joutel Township

Located near Joutel, some 70 km southeast of the property, this gold mine has produced 610,000 ounces of gold from 3,300,000 tons of ore from 1974 to 1984. Reserves at December 31, 1984 were 1,401,592 tons of 0.203 oz gold per ton. Barnett et al. (1982) report on the deposit as follows:

"Investigations leading to the discovery of the deposit began in February, 1962 during early exploration of the Joutel-Poirier district for base metal sulphide deposits. Ground geophysical surveys outlined coincident magnetic and electromagnetic anomalies which were tested by diamond drilling in late spring of the same year. Exploration continued, and by 1967 it was apparent that a potentially mineable deposit of auriferous pyrite existed, and underground development was initiated. Regular and substained production began in 1974.

Unlike most Archean gold deposits, Agnico-Eagle has many similarities to massive base metal sulphide deposits, suggesting a common volcanogenic origin. The gold is contained within the sulphide facies of a stratabound to stratiform carbonate-sulphide-silicate-oxide facies iron formation which immediately overlies a sequence of partially welded felsic tuff and lapilli tuff. A carbonaceous schist containing pyrite bands and nodules occur immediately overlying the ore zone.

The ore-bearing sequence is distinctly zoned with an outward change from an iron silicate facies exhalite at the center of the ore body to iron carbonate facies exhalite. Although chalcopyrite and sphalerite are present only in accessory quantities, analytical data indicates that copper and zinc exhibit both lateral and vertical zonation. The only important ore mineral is native gold with a fineness of approximately 830. The gold occurs as microscopic-size inclusions and veinlets in and around pyrite in the carbonate facies exhalite, and pyrite and pyrrhotite in the silicate facies exhalite. It is proposed that like many massive base metal sulphide bodies, the Agnico-Eagle deposit formed by volcanogenic and exhalative process."

A key observation concerning the Agnico-Eagle mine is that it is essentially a massive pyrite deposit which carries economic

gold values. This deposit is reminiscent of the Horne Mine in Noranda which, although generally thought of as a base metal mine (mainly copper), is a massive sulphide gold deposit which produced 11 million ounces of gold from 58 million tons of ore.

Any pyrite  $\pm$  pyrrhotite zone in this region should therefore be thoroughly evaluated for its gold potential. It is our finding that many such zones have not been assayed for gold in the past.

(d) The Golden Pond Gold Deposits, Casa Berardi Township

Four separate gold deposits are now indicated on the Golden Pond property located 20 km south of the present property. Estimated reserves at the Golden Pond and Golden Pond East deposits currently total some 6.3 million tons of 0.255 oz gold per ton with approximately equivalent tonnages in both zones.

The initial discovery was made by INCO in 1981 by diamond drilling of a ground electromagnetic-magnetic anomaly. The initial discovery hole was drilled on what is now known to be a small satellitic zone to the south of the main Golden Pond deposit. Three holes drilled as follow-up to the discovery hole were blanks. It was only by continued drilling of targets in the immediate area that the Golden Pond deposit was eventually discovered.

Golden Knight Resources Inc. of Vancouver subsequently farmed into the entire 882 claim property to earn a 40% interest in the property by spending \$3,000,000 on exploration with INCO remaining as operator.

The property lies on the south limb of a regional synclorium and straddles the contact between a lower sequence of volcanics and an overlying thick sedimentary pile. The contact generally trends E-W and dips almost vertically.

The geology of the property has been differentiated into various units using regional iron formations and graphitic horizons as marker horizons. The main rock units from stratigraphic top to bottom are given below:

<u>Unit</u>	<u>Description</u>
3	Clastic sediments, mostly sandstone, siltstone.
2e	Upper banded iron formation, ferruginous sediments.
2d	Golden Pond pyroclastic unit, agglomerate, lapilli tuff, tuffaceous sediments (ore-bearing).
2a	Volcaniclastic conglomerates.
1	Lower iron formation, magnetite, ferruginous sediments, clastic sediments.

Both geological and geophysical data clearly show that the Golden Pond gold-bearing zone lies within a major east-west trending conductive zone and an overlying complex pyroclastic unit. The conductive unit is traced without ambiguity west to the Turgeon River for a strike length of 20 km. At this point, the conductive unit bifurcates and correlation is less certain.

It should be noted that there appears to be a major zone of east-west faulting, shearing and alteration, designated the "Casa Berardi Break", which extends through the deposit area and which may have played a role in ore localization.

In detail, the geology of the Golden Pond area, based on drilling to November 1983, can conveniently be considered in terms



of a sequence of four mini-cycles. The cycles (from south to north) are briefly described as follows:

The base of cycle I consists of a thick polymictic volcanoclastic conglomerate. Clasts of pyritic grey chert and white bedded chert are characteristic. The basal unit is overlain by graphitic mudstone-siltstone which is capped by a discontinuous lens of bedded sulphide facies (chert-pyrite) iron formation. Cycle I hosts three distinct types of gold occurrences described below:

1. A weak but continuous gold zone that straddles the contact between the polymictic conglomerate and graphitic sediments.
2. A high-grade quartz-tourmaline-arsenopyrite-pyrite zone in mudstone-siltstone containing visible gold.
3. Disseminated auriferous arsenopyrite in the pyrite-chert exhalite.

The base of Cycle II consist of a variety of dacitic volcanic and volcanoclastic rock with intraformational conglomerates. The bulk of the cycle consists of a very thick sequence of turbidite greywacke, sandstone, siltstone, mudstone, containing nodular pyrite graphite and chert. Variable quantities of intermediate to felsic volcanoclastic material are associated with one or more apparently transgressive, carbonate-sericite alteration zones which cut diagonally across the units. The alteration is intense and pervasive and may represent fossil hydrothermal conduits.

Ore grade mineralization in Cycle II is associated with the alteration and is also associated with graphite-pyrite-chert-arsenopyrite zones at the top of the cycle.

Cycle III is dominantly pyroclastic. The cycle begins with a thin, somewhat discontinuous, lapilli-tuff horizon overlain by a thick, felsic agglomerate unit. The agglomerate is overlain by a mixed sequence of lapilli-to-ash tuffs, green chloritic mudstone, cherts and a thin dacitic flow (?). The cycle ends with a magnetite quartz-chlorite-carbonate-pyrite iron formation.

Gold mineralization in Cycle III has been located on both the south and north contacts of the agglomerate unit and in one thin bed of pyritic iron formation.

Cycle IV is imperfectly defined and consists of well-bedded calcareous sandstone-mudstone.

Some of the best gold mineralization found so far is in the central and western part of the Golden Pond area. Values higher than 0.15 ounces gold per ton over 10 feet were intersected by 16 out of 22 holes along a strike length of 720 meters (2,360 feet). Most of the holes in this sector returned two or more sections of economic interest.

An on-going, aggressive exploration effort has subsequently resulted in the discovery and partial delineation of the Golden Pond East deposit and more recently, the Golden Pond West zone.

The significance of the Golden Pond East zone is emphasized by an article in the Northern Miner (December 13, 1984) which notes that:

"Hole 71747 returned an impressive 44.2 ft. grading 0.78 oz gold per ton from 693.5-737.7 ft. This section included 19.3 ft. grading 1.27 oz. gold per ton."

A multi-million dollar underground evaluation program on the Golden Pond East zone has recently been completed and results are currently being assessed.

The January 13, 1986 issue of the Miner also released details of an initial hole into what may be another discovery in the Golden Pond West area, a hole impressive by any standards. The hole contained three separate intersections as follows: 66.3 feet of 0.41 oz Au/ton; 47.6 feet of 0.1 oz Au/ton and 19.8 feet 0.46 oz Au/ton.

Key points at Golden Pond in our opinion include the crosscutting, quartz-sulphide vein nature of the mineralization, its occurrence within a regional INPUT-magnetic zone reflective of sulphide-graphite-oxide iron formation. The abundance of arsenopyrite in the deposit indicates that arsenic may be a very useful pathfinder element in this region.

(e) The Estrades Deposit, Estrades Township

The Estrades deposit, located 30 km southeast of the present property, was discovered by the Golden Hope-Teck Corporation joint venture in late 1985. The deposit occurs in an Archean clastic sedimentary and felsic volcanoclastic sequence (locally graphitic and pyritic) with interbedded mafic to intermediate volcanic flows and associated pyroclastics. The discovery would appear to be in the same broad regional stratigraphic package which contains the Golden Pond deposits and possibly the Agnico-Eagle mine.

Information from drilling to-date suggests a steeply dipping, tabular massive sulphide deposit striking east-west. The discovery hole, spotted approximately 400 ft south of the north Golden Hope boundary cut a 35.1 ft section grading 0.2 oz gold

per ton and 9.15 oz silver with high copper and zinc values (Northern Miner, December 2, 1985).

Drilling is being concentrated on two weakly conductive zones which probably represent a common horizon. The western part of the conductor has a strike component of more than 600 meters, while the eastern part extends for approximately 1,100 meters. Both are separated by a narrow gap occupied by a magnetic high which appears to represent a cross-cutting diabase dyke emplaced along a fault.

Thin section studies of the first core are indicated to reveal a quartz-sericite schist in the hangingwall and a volcani-clastic sediment comprising the footwall. These horizons form a thin but persistent unit in an environment generally characterized by mafic to intermediate volcanics.

Of importance to other exploration in this area is the fact that Teck drilled an extremely weak, albeit discrete, airborne conductor. A similarity to the Selbaie discovery is suggested in this regard.

Recently released figures based on extensive drilling indicate 2.4 million tonnes at 0.14 oz Au/T, 3.5 oz Ag/T, 0.84% Cu and 7.7% Zn (Northern Miner, June 6/86). The gold values are particularly noteworthy.

### 5.3 Exploration Models

From the foregoing deposit descriptions, the probable types of gold or gold/base metal deposits which can be expected in the area and which serve as models to guide exploration are:

- (a) stratiform/stratabound deposits  $\pm$  sulphides, quartz vein zones, graphite, oxide iron formation in mafic volcanic environments (Detour mine) or in felsic volcanoclastic-tuffaceous-sedimentary environments near volcanic contacts (Golden Pond).
- (b) massive and stringer sulphide gold deposits without base metals (Agnico-Eagle mine) or with base metals (Selbaie mine and Estrades deposit) in a generally felsic volcanic-sedimentary environment.

The following models are also considered prospective in the area:

- (c) Structurally-controlled, intrusive-associated, quartz stockwork types of deposit localized along the margins of or within intermediate to felsic plutons. Such deposits are well represented in the Val d'Or area to the southwest.
- (d) Disseminated gold deposits associated with carbonated, pyritic mafic volcanics. Such deposits are important sources of gold ore elsewhere in the Abitibi, notably, in the Timmins area (Owl Creek mine, Dome mine).

#### 5.4 Local Geology

The Enjalran and Lac Santoire claim blocks encompass portions of two broad, west-northwest trending bands of airborne magnetic and EM anomalies representing sedimentary/tuffaceous horizons with multiple graphitic-sulphidic units and chert-magnetite-sulphide iron formations.

Synclinal axes have been established by MPH and Quebec government mapping in the centre of both of these broad bands and it is presently interpreted that these bands may be stratigraphically equivalent. Between the two properties, a large granite batholith as out-

lined by airborne geophysics truncates these long regional west-northwest trends of magnetic and electromagnetic anomalies.

The geology of the Enjalran Township claim group is dominated by a band of pelites and wackes in the northern portion of the property as defined by overburden drilling and subsequent petrography. Flanking this unit on at least one side and contained within it are graphitic, sulphidic iron formation units.

The southern portion of the property is occupied by an ultramafic to mafic intrusive body which appears to be intrusive into the southern limb of the syncline.

The central axial zone is composed of mafic to possibly ultramafic volcanics with several shorter EM conductors which have been interpreted from reverse circulation drilling to be due to sulphide lenses containing pyrite and pyrrhotite with some sericite alteration and quartz veining.

The Lac Santoire claim block is similar to the Enjalran claims in geological character. The property is composed of a sequence of intermediate-mafic and possibly ultramafic volcanic rocks and interflow sediments trending roughly 120°. A number of conductors outlined by ground geophysics are shown by reverse circulation and past diamond drilling to represent graphitic and sulphidic sedimentary horizons. Locally, metamorphism is of amphibolite facies. Reverse circulation bedrock samples returned quantities of shalerite, chalcopyrite, pyrite and pyrrhotite in several holes (e.g. hole 35).

The mafic volcanics are known from geologic mapping in the area to consist of alternating units of massive and pillowed flows. Locally, the pillowed mafic volcanics are silicified and sulphides, predominantly pyrite, selectively occupy pillow selvages and interstices.

A major NE-trending shear zone south of Lac Lacoutre offsets some of the conductors such that the main conductor trend sweeps more southerly in the shear zone and then flattens out again to the east.

A magnetic low and the absence of INPUT anomalies in the north portion of the property is presumed to represent a monotonous mafic to intermediate flow sequence. The area to the south is again interpreted to be underlain by intermediate to mafic flows.

The 30 claim Theo River block encompasses a sequence of mafic to intermediate volcanic rocks containing a series of west-northwest trending chert-magnetite iron formations and graphitic-pyritic sediments.

#### 5.5 Regional Glacial Geology

Glacial landforms and striae in the area suggest that two lobes of the Laurentide ice sheet coalesced in the Joutel area to the southeast during the late Wisconsinan. A younger Hudson advance from the northwest appears to have collided with a retreating Nouveau Quebec lobe from the north-northeast. The so called "Mattagami esker" which passes to the east of the present property is now recognized as an interlobe moraine which marks the broad area of coalescence. This north trending feature is of regional proportions and extends for some 100 km or more.

Till deposits of the older advance (Lower Till) from the north-northeast are well preserved in bedrock depressions beneath younger deposits (Matheson Till or Upper Till) from the north-northwest glaciation. This is an important consideration in that bedrock depressions in this area are often the locus of shearing, mineralization and alteration.

The presence of a number of even older pre-Wisconsinan tills has been alluded to by workers in the region although their origin and distribution remains uncertain.

In many cases two complete glacial sections consisting of upper sediments (usually lacustrine clays) with underlying clastic sections are present. It is of course absolutely essential to be able to differentiate between the tills of the two glaciations. The one key distinguishing factor of the Upper Till is the presence of limestone clasts derived from the Paleozoic terrain of the Hudson Bay Lowlands.

It is also our experience in some parts of this area that the earlier advance was a particularly erosive one which formed well defined dispersion trains, while the younger glaciation was characterized by ice that was often not in contact with bedrock and did little more than disrupt existing patterns.

The Cochrane Till, a clay-rich till which incorporated and overlies upper lacustrine clays, was formed by a late re-advance from the north-northwest. Cochrane tills are generally restricted to the northwest portion of the Casa Berardi-Selbaie area, including the present property.



## 6.0 THE REVERSE CIRCULATION DRILLING METHOD

### 6.1 General

Overburden or reverse circulation drilling consists of drilling through the overburden section with dual-tube rods and a tricone bit using a water-air mixture as drill fluid. The resultant slurry is visually monitored, collected, sampled and then is usually processed to obtain a heavy minerals concentrate. This concentrate is then analysed optically and geochemically to detect ore or indicator particles. The optical examination is particularly important in gold work where the size and shape of gold grains may be highly diagnostic of the distance to the bedrock gold source and even the nature of the source.

The method is based on the principle that there are dispersion trains created in till during glacial over-riding which can be detected and followed back up-ice to the bedrock source area. The use of heavy mineral concentrates greatly enhances anomalous metals concentrations making the method extremely sensitive to distant deposits.

One of the most important applications of the method is in the detailed follow-up to airborne and/or ground geophysical surveys and evaluations along favourable geological trends.

### 6.2 Glacial Sediments and Dispersion Trains

Approximately 97% of Canada's land surface was glaciated during the Quaternary. Figures 4 and 5 summarize the environments of glacial deposition, the types of glacial sediments and associated land forms.

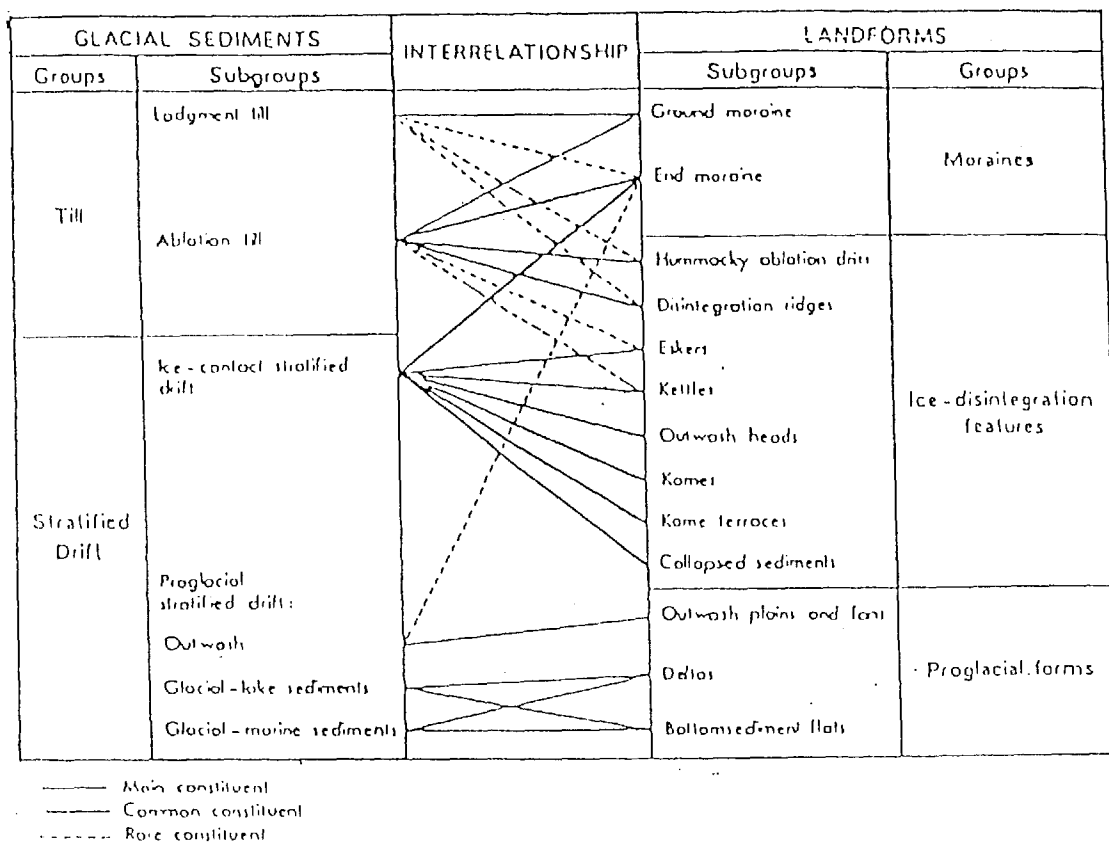


Figure 4: Relationship between glacial sediments and land forms.

Lodgement till is the most favourable drift exploration medium because in general, the source of clasts in the till will be directly up-ice. In till, the concentration of ore clasts usually shows a sharp peak at or near the source followed by a rapid then gradual, i.e. approximately exponential, decline in the down-ice direction. The size, shape and continuity (and therefore detectability) of a dispersion train will depend on many factors. These include size and composition of source, bedrock topography, vigour of glacial quarrying and abrasion, etc. Boulders closest to source will be larger and more angular. Down-ice comminution leads to a decrease in average clast size and increase in sphericity.

There is a recognizable indicator train almost 10 miles long down-ice from the George Lake Zn deposit in northern Saskatchewan. In the Noranda area, anomalous Cu-Zn values have been recorded in till up to 1 mile down-ice from the Horne deposit while geochemical anomalies in till are restricted to within 1,000 ft. of the nearby West Macdonald low grade Zn deposit. A dispersion train appears to extend for over 6 miles down-ice from the Kidd Creek Mine near Timmins based on a 1970-71 G.S.C. overburden drilling program. The above program also showed that the separation between anomalous lenses in till and bedrock increases down-ice from the Kam-Kotia deposit near Timmins. This is interpreted as representing relict shear planes in the glacier in lateral and down-ice extent.

In gold exploration, detectable dispersion trains may be poorly developed and may be very limited. This is due to a number of reasons chief among which are local bedrock topography, orientation of mineralized source relative to ice direction and relative erodability of source. Trains may be very narrow and have a distinct pencil-like form, e.g. Dome Mine near Timmins and the Komis deposit in Saskatchewan; this effect is usually a reflection of source orientation/topographic constraints.

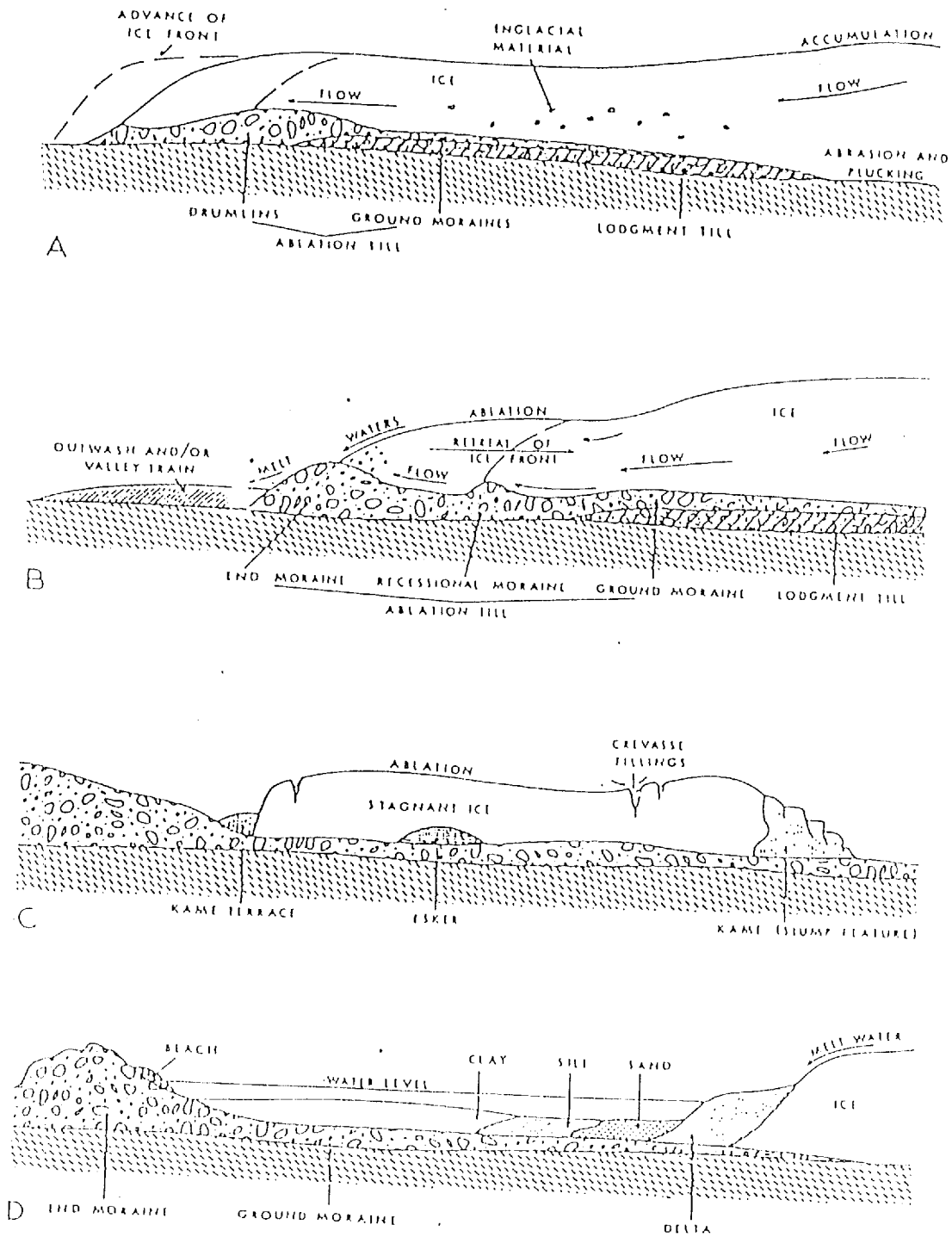


Figure 5: Glacial sediment and landform deposition relative to ice front.

The effect of bedrock topography on down-ice glacial dispersion can be profound. At the Golden Pond deposit, for example, the recognizable gold train seems to be no more than 200 m long in the down-ice direction and is closely contained within Lower Tillis within a local east-west valley. At the nearly Golden Hope Estrades deposit, a bedrock ridge immediately down-ice from the deposit has completely blocked the formation of any significant dispersion fans.

When in very close proximity to the source, anomalous values are generally concentrated in the basal part of the till sheet so that this area of the overburden column is of prime importance during sampling. Spectacular sulphide concentrations may occur down-ice from a sulphide deposit. In such cases, it is not necessary to await geochemical analyses. Additional overburden drilling can progress directly on the visual results.

The stratified varieties of drift, i.e. bedded gravels, sands, silts and clays, are a less favourable sampling medium because the fluvial re-working inherent in their formation may make it difficult or impossible to identify the bedrock source area. Placer-like concentrations, in which normal background values are upgraded, may develop during the meltwater re-working of glacial debris. This often produces spurious anomalies in an overburden drilling program.

Varved lake clays representing rock flour washed out of glacial drift and deposited in proglacial lakes are virtually useless in minerals exploration (to date) and are not sampled during the drilling process. Analyses on varved clays over the Kidd Creek and South Bay polymetallic massive sulphide orebodies, for example, show no signs of the immediately underlying mineralization.

During drilling, the clays serve the useful purpose of sealing the hole resulting in good sample return. Also, sulphide minerals survive well in the reducing environment beneath the clay cap. Oxidation and leaching of sulphides can be a problem in some exposed tills.

### 6.3 Drilling and Sampling

The reverse circulation method uses an approximately 3 inch O.D. dual-tube drill pipe. The drill fluid consisting of water and air is pumped down between the inner and outer tubes, past the drill bit and back up the inner tube with the cuttings which are then collected and sampled. The return water overflows the sampling pail and is collected in the underlying tank. This water may then be re-used as drilling fluid or water may be pumped or hauled from some external source.

The drill and accessory equipment such as pumps and compressors may weigh 30 tons or more. These are generally mounted either on the back of a large tracked carrier such as a Nodwell or on skids so that it can be towed from drill site to drill site by a medium-sized tractor. A permanent or removable drillshack erected around the drill protects drillers and geologists from the elements and allows for year-round operation (24 hours per day if desired).

Figure 6 illustrates the drilling-sampling procedure.

Three drillers are normally required to carry out the drilling, haul water if necessary, make roads, repairs, etc. A geologist and an assistant are also present. The geologist logs the overburden section by "feeling" the return and monitoring the material collecting on a 10 mesh screen. The helper bags samples and generally assists the geologist.

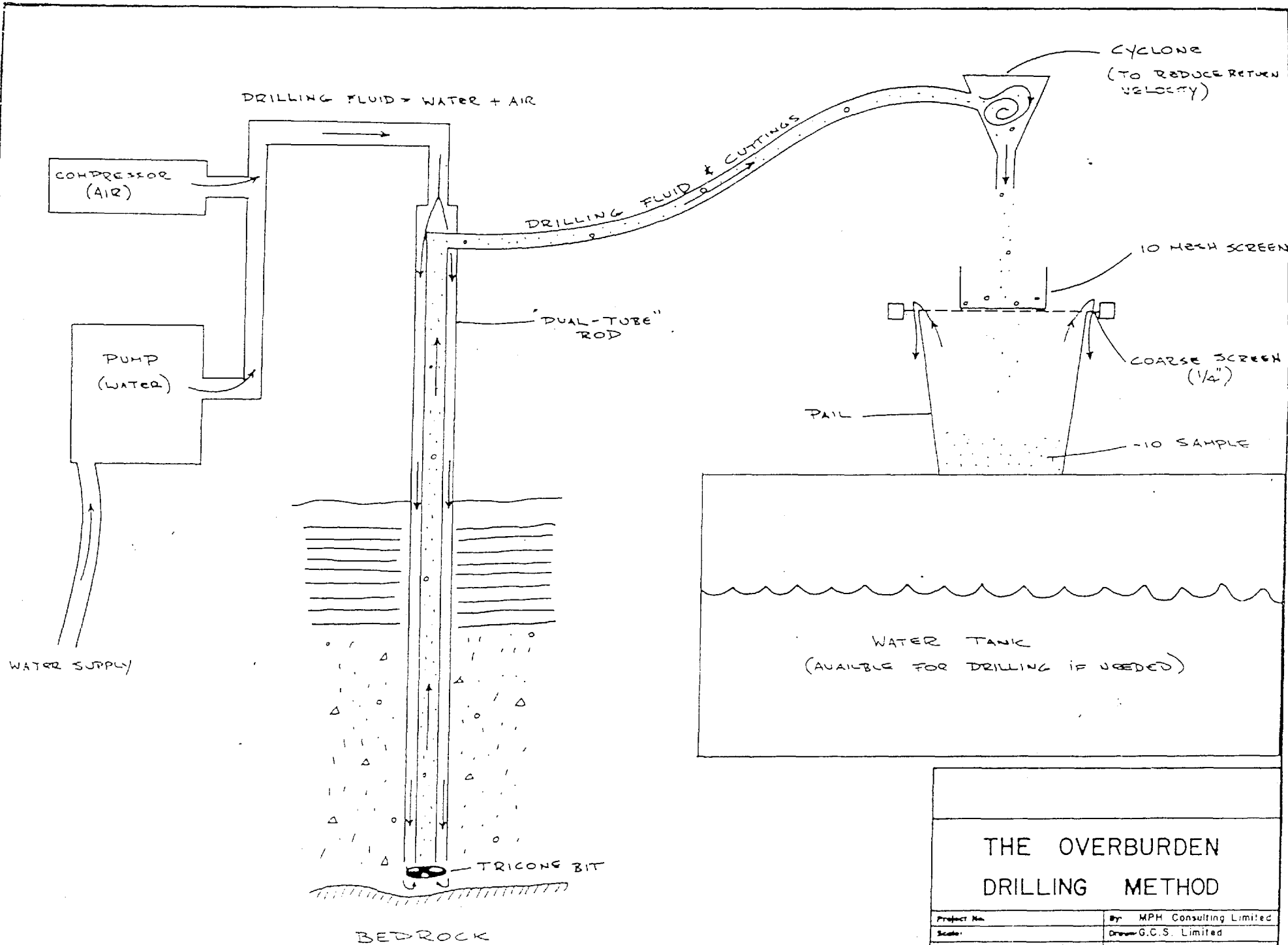


Figure 6

## THE OVERBURDEN DRILLING METHOD

Project No.	By: MPH Consulting Limited
Scale:	Drawn: G.C.S. Limited
Drawing No: FIGURE 6	Date:



MPH Consulting Limited

Although it will emerge in the geochemical results, the visual monitoring in the field, however, is very important since the recognition of an ore clast during the drilling allows the geologist to modify/extend the program while the drill is in the immediate area.

The return is normally sampled at 5 ft intervals or at major sedimentological boundaries. The bulk of the +10 mesh material is discarded after inspection during the drilling as is the return from most boulders. An overburden hole is usually continued 2-5 ft or more into bedrock to try and ensure that the bit is not in a boulder. A five foot run normally yields about 15 lbs (6.8 kg) of -10 mesh material.

#### 6.4 Sample Processing and the Heavy Minerals Concentrate

At the processing laboratory, a standard approach would be to first wet screen the field samples at 10 mesh. The -10 mesh material is then passed across a shaking or concentrating table to produce a heavy minerals preconcentrate. Any grains of native gold present in the samples, other than extremely fine material, will ideally be seen on the table and recorded by the laboratory technician during this operation. Samples containing gold grains are then subjected to a careful panning operation in which the gold grains are isolated for microscopic inspection, measurement and micro-photography if desired.

Some operators, such as Overburden Drilling Management Ltd. of Ottawa classify gold grains as being abraded, "irregular" or "delicate". These shapes are felt to be generally indicative of transport distance with delicate grains being closest to source, perhaps a few tens of metres, with highly abraded grains having travelled much longer distances on the order of a kilometer or more.



Figure 7 illustrates these grain shape parameters.

The table preconcentrates are then passed through a heavy media (e.g. methylene iodide; S.G. = 3.3) to effect the true heavy minerals separation. This will contain mainly the common sulphides, free gold, magnetite, garnet and epidote. The magnetic fraction is removed either before or after this step. A 3/4 split is sent for geochemical analysis with a 1/4 split retained for reference purposes in the case of destructive analytical techniques while the entire heavies sample may be submitted for analysis in the case of non-destructive (e.g. neutron activation) methods.

Individual grains can be further subjected to Scanning Electron Microscope or microprobe work to determine the presence of trace elements (which may "fingerprint" a source area), morphological features such as folding of grains, re-crystallization, etc. The value of the microscope was amply demonstrated in one instance around Timmins where some highly anomalous Cu values were shown with the microscope to be due to copper filings from O-rings on a water pump and not copper mineralization. This sort of contamination has been virtually eliminated in overburden drilling work. Also, heavy mineral concentrates can be lamped with ultraviolet or examined by a scintillometer in the case of uranium exploration.

Concentration ratios for the "heavies" vary between 100:1 to 200:1. This concentration greatly enhances anomalous metal values making the method extremely sensitive. For example, if Cu background in till was 100 ppm, the addition of a few grains of chalcopyrite constituting another 100 ppm Cu to the sample would only double the standard -80 mesh anomaly but would produce a huge heavy minerals anomaly of 10,000 to 20,000 ppm because of the concentration ratio.

DELICATE

0-100 m ice transport.  
Primary crystal faces, pitted leaf  
surfaces & ragged leaf edges intact.

IRREGULAR

100-1000 m ice transport.  
Gross primary shape  
and pitted surface  
intact.

IRREGULAR

Curled leaf variety.

ABRADED

1000+ m ice transport.  
Large primary leaf  
reduced to smaller  
flakes with polished  
surfaces.

ABRADED

Spindled leaf variety.

ROUNDED

1000+ m ice + stream transport.  
Polished equidimensional grains.

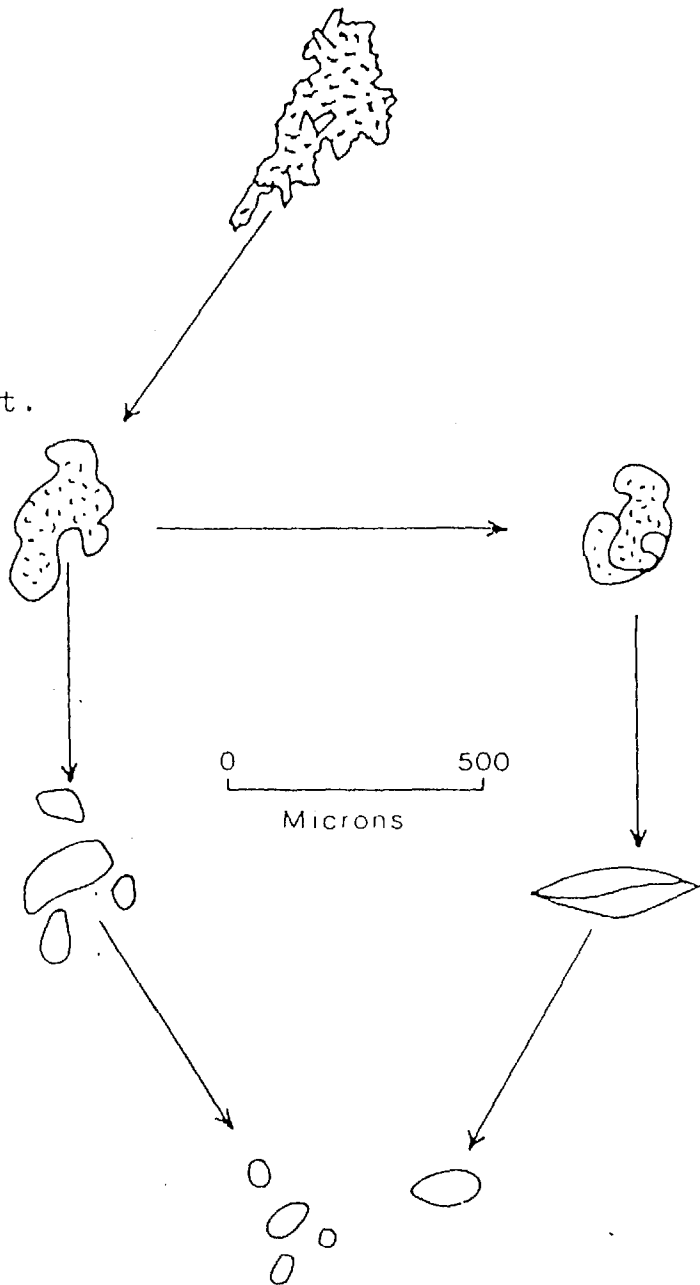


Figure 7: Grain Shape Parameters

Occasionally, the "lights" are of interest as in exploration for asbestos or the common lithium-beryllium minerals. Appropriate heavy media can be used to isolate specific gravity ranges of interest.

#### 6.5 Applications

There are applications for reverse circulation drilling on both the regional and detail scale. Regional work involves wider hole spacings, up to 1 km or more. Such large step-outs are allowed by the high sensitivity of the method. The usual purpose of regional work is to intersect a large indicator train which can then be traced back up-ice and the probable source area explored by detailed overburden drilling, geophysics and diamond drilling.

A very important use of the method is in follow-up to airborne and/or ground geophysical surveys to assist diamond drilling in anomaly evaluation. In this way all or most of the anomalies located during a survey can be evaluated, not only those with the highest geophysical rating. The overburden drilling approach is also very useful in evaluating long, formational anomalies.

A standard approach in the case of EM conductors is to drill a string of holes immediately down-ice from the conductive zone with a hole spacing of 100 to 300 m. This results in a geochemical appraisal of the entire conductive zone. This is particularly desirable since the actual economic deposit may be in a less conductive or non-conductive area off or beside the main conductor. In addition, it is common practice to drill an overburden hole(s) directly into the conductor.

Another detailed application is to further explore a property where a favourable contact or productive geological trend or rock unit is known from previous work.

The bedrock information gained during overburden drilling is very important for lithologic correlation and rock geochemistry. Also, there have been instances of direct ore intersections during overburden drilling (Asarco gold deposit, Timmins, Ontario).

#### 6.6 Interpretational Considerations

The drilling technology is now fairly advanced and more sophisticated improvements, e.g. computer monitoring during the drilling process, are already on the drawing boards. Likewise the sample processing and analytical techniques are now fairly rapid, effective and accurate.

One of the great problems of overburden drilling is in the interpretation of the analytical/processing results. This is particularly so in the case of gold exploration where the "nugget effect" of a single large grain of gold in a small heavy minerals sample may give rise to a very high yet possibly meaningless gold value. It may also be difficult in some cases to distinguish between high background levels of gold and a truly significant anomaly. In geophysics, this would be a question of trying to separate the "signal" from the "noise" when the two can be of the same order of magnitude.

These problems are further complicated in areas of extremely complex glacial geology as in portions of the Clay Belt of northern Ontario-Quebec.

One technique that we at MPH Consulting have used to advantage in interpretation is to calculate, generally by computer, an "equivalent metal" value. This takes into account the analytical value and weight of the HMC and the original sample weight utilizing a formula of the form:

$$\frac{\text{Analysis ug/g}^* \times \text{Proportion Heavy Mineral ug/g}}{1,000} = \text{Equivalent concentrate of metal (ng/g)}^*$$

\*An original value would be in ng/g resulting in an equivalent concentration in pg/g.

This, in effect, is a reflection of the metal content per gram of original till sample. Such equivalent values often project a much more meaningful picture of metal distribution in overburden.

We recognize however that such calculations are, in part, a reflection of glacial lithology. A fluvial sand, for example, would have a much larger heavy minerals endowment, reflecting the fluvial concentration process inherent in its formation, than a clay-rich till. The former would give a higher equivalent number, other things being equal.

A further problem is the failure to recognize that the overburden material may not be giving the desired "reading" on the up-ice bedrock stratigraphy. This will be the case if the desired tills are absent or only poorly developed or if the over-riding glaciers were not in contact with bedrock. This latter effect may be much more common than previously thought. Such overburden samples, no matter how carefully processed and analyzed, will not be indicative of the up-ice bedrock. For example, if drilling immediately down-ice from a strong EM conductive zone, one should expect to see some indication of that conductor, e.g. graphite or sulphide chips, to be confident that the method is indeed working.

Another problem in the case of gold work is the potential loss of fine gold during the drilling and processing and the potential loss

of gold in compound grains (e.g. gold in quartz) during the heavy media separation.

In summary, however, there is similarly little doubt that if glacial conditions are correctly interpreted and if the method is properly applied, the reverse circulation technique can be extremely effective one in mineral exploration in glaciated terrain.

## 7.0 EXPLORATION PROGRAM

### 7.1 Geophysical Surveys

A comprehensive ground electromagnetic and magnetometer survey was carried out on the Enjalran claims prior to a first phase of reverse circulation drilling in April and May 1986. Following the first phase of reverse circulation drilling, a program of selective MaxMin II EM surveying over previous Abitibi-Price ground EM conductors was conducted on the Lac Santoire and Theo River groups in August 1986. The details of both surveys are dealt with in a previous MPH report by J. Roth.

### 7.2 Reverse Circulation Drilling, Sample Processing, Analytical

Reverse circulation drilling was carried out in two phases. An initial 61 holes totalling 4,919 ft (1,513.5 m) were drilled between April 25 and June 21, 1986. A follow-up program consisting of a further 17 holes totalling 1,678 ft (516.3 m) was completed between July 23 and August 21, 1986 after detailed geophysical surveys pinpointed additional conductor axes.

No work was carried out on the Lac Carheil block given the location of the EM zones under the lake.

By way of exploration philosophy, reverse circulation holes were spotted both directly on and immediately down-ice (10-100 m) from EM targets. Experience at the Golden Knight deposit and elsewhere in the region has shown that this is the most effective approach in evaluating EM zones for their gold potential. The holes directly into the EM conductors usually identify the cause of the conductivity and provide bedrock material for assay. The holes immediately down-ice provide a reading, via the glacial tills, on the overall conductor or sedimentary/tuffaceous stratigraphy of which the specific EM conductor may be a relatively minor portion. This, in turn, recognizes that the gold deposit may be within the overall conductive environment but not part of the conductor per se, e.g. Golden Knight deposit area.

Bradley Brothers Ltd. of Timmins, Ontario was the drill contractor. They supplied a SuperAcker, dual-tube reverse circulation drill mounted on an FN 160 Nodwell tracked carrier with a smaller tracked vehicle to carry the water tank and pump equipment.

The drill crew consisted of a drill operator or "runner", a runner's helper and a water hauler to provide water for the drilling operations. The following MPH personnel were involved with the reverse circulation drilling:

Consultant	- W.E. Brereton, P.Eng.
Project Geologist	- D. Meyer, B.Sc.
Samplers	- P. Sobie, B.Sc.; M. Banas; B. Walker
Geochemical Consultant	- J. Siriunas, P.Eng.

A camp established by Bradley Brothers Ltd. at Lac Gagnon on the Lac Dieppe road was used by the drill crew and MPH personnel during the drilling operations. A Bell 206 helicopter based at the Lac Gagnon camp was used to access the drill area in portions too distant for daily travel by muskeg tractor.

Most of the overburden samples collected during drilling were sent to the laboratory of Overburden Drilling Management Ltd. for heavy minerals processing in Ottawa. Some were sent to Overburden Exploration Services in Timmins on a trial basis. Standard visual monitoring was carried out during the tabling pre-concentration process. Any samples in which gold was observed were subjected to a careful panning operation in order to isolate and characterize each individual grain. Three-quarter splits were then sent to Bondar-Clegg and Co. Ltd. for Cu, Zn, Ag, As and Au analyses. The remaining one quarter split was retained for microscopic examination and as a permanent record. Sample processing results can be found in Appendix A.



At Bondar-Clegg, any samples containing significant visible gold grains were analyzed by the pulp and metallics method whereby the coarser fraction of the sample (+150 mesh), which presumably contains the gold grains, was analyzed separately from the fine fraction (-150 mesh) and the results combined to give a final weighted average value.

Au was analyzed by fire assay preconcentration followed by aqua regia dissolution and atomic absorption analysis; Ag, Cu and Zn were analyzed by atomic absorption after a hydrochloric acid-nitric acid digestion and As was determined by a colourmetric determination after nitric acid-prechloric acid digestion. Certificates of analysis are presented in Appendix C.

Bedrock chip samples (+10 mesh) were sent to Swastika Laboratories in Kirkland Lake or to Bondar-Clegg in Ottawa for analysis of Cu, Zn, Ag, As and Au contents. A representative suite of bedrock chips and any chips which showed unusual alteration and/or mineralization were analyzed petrographically by MPH. Multi-element ICP analyses were carried out in selected samples. The petrographic reports are presented in Appendix D.

### 7.3 Sample Statistics and Data Processing

Weights of some heavy mineral concentrate have been converted to ug/g (ppm) of original sample material (i.e. table feed x 0.75 (void factor)). "Equivalent" metal values (e.g. "eAu") have been calculated for some elemental values based on the amount of non-magnetic heavy mineral concentrate recovered for each sample. Analytical data,  $\log_{10}$  - transformed data and "equivalent" data have been examined using histograms.

On previous MPH reverse circulation projects in the Casa Berardi area, all elements and equivalent values have been approximated by

$\log_{10}$  - normal distributions from an examination of computer generated histograms and for the purpose of establishing thresholds,  $\log_{10}$  - normal distributions and probability-cumulative frequency plots were used. The thresholds that were selected include (a) threshold for "elevated" background concentrations (50% probability of occurrence); (b) threshold for "possibly anomalous" concentrations (5% probability of occurrence); and (c) threshold for "probably anomalous" concentrations (2.5% probability of occurrence). These values have been determined for gold as follows:

- a. 550 ppt
- b. 4,200 ppt
- c. 8,800 ppt

Comparison of the coefficients of variation for all samples and duplicate samples in previous MPH studies showed that the intrasample variation was much less than the overall variation observed in the entire population of till samples. In the present data it is expected that intrasample variation does not contribute significantly to the overall variation of the population. In the same MPH studies, the replicate analysis of samples showed that only a small portion of the overall variation was due to the analytical variation. The analytical variation was most pronounced for analyses of Au.

## 8.0 REVERSE CIRCULATION DRILLING RESULTS

### 8.1 General

The average thickness of overburden was found to be approximately 80 ft with a maximum depth to bedrock of 151 ft in hole 92.

An average of 158 ft of drilling per tricone bit was achieved in the course of the overall program.

An average of 185.8 ft of drilling per 11 hour shift or 2.3 holes per operating day was obtained reflecting average drilling conditions.

### 8.2 Local Glacial Geology

Quaternary stratigraphy on the property consists of a lower till, lower sediments, upper till, upper sediments and a third (clay-rich) till capped by recent organics and muskeg.

Cross-sectional profiles A-A' and B-B', at rear, well illustrate the glacial stratigraphy in the property area.

Lower till is generally best preserved in bedrock depressions where it was sheltered from later, overriding glacial advances and is not found everywhere on the property. This effect is demonstrated in holes 32, 38, 39 and 126. The till generally has a silty, sandy and locally clayey matrix with abundant pebble to cobble-sized clasts. Clasts within this till seem for the most part to be locally derived indicating that they have been scoured from relatively proximal bedrock. The greenish tint of the matrix clay also indicates derivation from pulverized mafic volcanics. This lodgement till characteristically is an excellent medium in a till sampling program.

Lower sediments generally consist of gritty, hardpacked lacustrine clays, silty sand and gravel and lie directly on top of lower tills. These lower sediments are also best preserved in the bedrock depressions. The lower clays often have a greenish tint.

Upper or Matheson till is found in all of the holes and varies in thickness up to 60 ft although its till nature is often blurred by extensive reworking. The till is sandy, pebbly to gravelly and is highly variable in thickness, overall composition and size and shape of clasts. Volcanic clasts comprise the major portion of this till with minor quantities of clasts of sediments, granitics, iron formation, etc. Characteristic of this till are minor amounts of Paleozoic limestone fragments. Clasts range from subangular to subrounded. Isolated lenses of boulders and cobbles, probably fluvial lag deposits representing stream channels are common in this unit. Upper portions of this till sequence seem to represent mainly ablation material melted out of wasting ice. In lower sections it seems likely that a significant part of the detritus was derived more locally from bedrock.

Upper sediments consist of a thick lacustrine clay unit with silty sands and gravel units. The clay is generally dark to light grey, well flocculated and relatively homogeneous. Although of little use as a sampling medium the lacustrine clay does provide a good cap which allows for good return of sample material during the drilling operation. The clay often grades downward into silty sand and gravel.

On the Enjalran claim block west of the Turgeon River a thick sand and gravel sequence was identified around holes 123 and 141 to 145.

In swampy areas, for example around holes 40 and 41, the upper clays thickened to as much as 90 ft with intercalated sand and gravel units.

In most portions of the property, a third till (derived from the Cochrane readvance) overlies the upper sediments unconformably. The thickness of this unit is variable ranging up to 10 ft or more. Glacial fluting in the area clearly delineates the ice direction for this readvance at 160°.

Recent organics, predominantly muskeg and humus, blanket the entire property area and range up to 10 ft or more in thickness in low swampy areas. Movement of heavy machinery across some of these open swamps in the summer months can be extremely hazardous.

### 8.3 Visual Grain Counts

A total of 242 gold grains was observed in tabling and panning. Of those, 222 were described by the lab as abraded, 13 were described as irregular and 7 delicate per the following Table.

It should be noted that previous researchers have established that several abraded gold grains in an overburden sample, perhaps as many as 10, are simply a reflection of elevated background in an area of regional gold mineralization.

Holes 126 and 172 stand out as having a significant number of gold grains, several of which have been classified as delicate.

### 8.4 Analytical

#### 8.4.1 Overburden

Gold values in till are generally relatively low.

Some "spot high" values are generally reflective of nugget effects relative to small HMC weights and/or pseudo-placer concentrations of heavy minerals in fluviually re-worked sandy till material.

TABLE 1 - Gold Grain Counts

Hole	Abraded Grains Au	Irregular Grains Au	Delicate Grains Au	Total
EC-86-001	1			1
005	1			1
006	8			8
008	3			3
010	1			1
011	1			1
014	2			2
016	6			6
020	1			1
021	1			1
023	1			1
024	6			6
025	9	1		10
028	1			1
029	6			6
030	1			1
031	2			2
032	3			3
033	1			1
034	1			1
035	2		1	3
036	1			1
037	6			6
038	1			1
039	2			2
040	28			28
041	1			1
042	3			3
043	3			3
045	9			9
046	2	1	2	5
047	4			4
087		1		1
092	2	1		3
122	1			1
126	19	2	2	23
141	6			6
142	2			2
143	4	1		5
144	6	1		7
170	1			1
171	15	1		16
172	17	3	2	22
174	2			2
175	14	1		15
176	8			8
177	7			7
TOTAL	222	13	7	242

A good example of the former effect is to be found in the basal sample from hole 90. The initial analytical value was 19,000 ppb gold. The corresponding equivalent value, taking into account the very small HMC size, was 89 ppt, a value of no interest.

Likewise, a 4,500 ppb Au value in sandy material near the top of hole 88, and a value of 15,290 ppb in a similar position in hole 29, probably represent spurious concentrations of heavy minerals during fluvial re-working of till.

It should be noted that many of the higher analytical values (1,000-5,000 ppb range) occur in the upper sandy portion of the holes reflective, probably, of the above effects.

The highest gold value recorded was 26,710 ppb in hole 91. This again would appear to be a nugget effect related to a single large gold grain identified during the processing.

Base metal values often increase in holes directly over and immediately down-ice from EM conductors. This is reflective of the generally increased backgrounds of these elements in these sedimentary units. It also provides some confidence that, in most areas, the method is indeed providing the desired "reading" on bedrock.

This latter effect is well illustrated, for example, at the south end of profile A-A' (section 2A at rear) where Cu + Zn equivalent values increase markedly in hole 01, directly down-ice from an EM zone, then tail off in the down-ice direction.

The highest base metal value recorded was 7,900 ppm Zn in the midsection of hole 37. This would appear to be a somewhat isolated occurrence as there are no supporting values elsewhere in the same hole or in surrounding holes.

#### 8.4.2 Bedrock

No highly anomalous gold values were returned from analyses on bedrock chips. Gold values were generally in the less than 5 ppb range.

Probably the most significant bedrock value in other elements was a 1,424 ppm Zn in altered volcanics in hole 35. Graphitic argillite bedrock in hole 32 returned a distinctly anomalous As value of 645 ppm. The 1,000 grains of arsenopyrite identified in the basal till sample in hole 32 are very likely derived from this conductive zone. There is no notable gold correlation either in bedrock or in till in hole 32.



## 9.0 DISCUSSION OF RESULTS

It is convenient to discuss the reverse circulation results within the context of a number of areas as follows:

### 9.1 Lac Santoire Group

#### 9.1.1 Hole 29 Area

An HMC from upper gravels in hole 29 contained a highly anomalous gold value of 15,290 ppb. Six abraded gold grains were noted in the sample. None of the surrounding holes provided any support for this value (holes 30, 31, 32) and this occurrence is now felt to be, as noted, a local fluvial upgrading of background gold.

#### 9.1.2 Hole 33-35 Area

Holes 33, 34 and 35 investigated some short (1 to 3-line) EM anomalies in the west portion of the block. Hole 35 was drilled directly into one of the EM conductive zones. Bedrock chips from this hole contain visible pyrite ± pyrrhotite and sphalerite (1,424 ppm Zn). Petrographic analysis indicates an altered volcanic bedrock.

The basal sample in hole 35 contained two abraded and one delicate gold grain with the marginally anomalous gold value of 550 ppb.

#### 9.1.3 Hole 05-172 Area

Holes 02, 03, 04, 05, 16, 17 and 18 were drilled into an area of multiple conductors in the central portion of the property during the Phase 1 drilling. Weakly anomalous values in base metal and gold were encountered in the glacial tills. The value of 8,790 ppb Au in sample 01, hole 05 (1 abraded grain Au) is in gravelly outwash material and, as

such, is somewhat suspect. Magnetite iron formation bedrock in hole 16 contained 10 ppb gold, one of the few bedrock samples to contain any gold.

Follow-up reverse circulation drill holes 172, 173, 179 and 180 tested this trend further west. Hole 172 contain an anomalous Cu value (1,510 ppm) and a total of 22 gold grains in the basal sample (17 abraded, 3 irregular, 2 delicate).

The value of 320 ppb Au in this sample however seems abnormally low given the amount of gold. The probable reconciliation of these facts lies in the extremely small size of the gold grains as indicated by the laboratory processing results.

The  $\frac{1}{4}$  split of this sample, along with many others, was examined under the binocular microscope. The heavy mineral grains were in general very fine and there was no noteable sulphide content.

It should be noted that tills in this Area may be poorly developed or non-existent.

#### 9.1.4 Hole 46 Area

The basal sample in hole 46 consisted of a "good lodgement till with fragments of py-bearing graphite". The HMC contained two abraded and two delicate gold grains, along with 95% pyrite and 100 grains of arsenopyrite. Copper, zinc and silver values are weakly anomalous (577, 200 and 1.2 ppm, respectively). The gold value of 35 ppb is abnormally low. Bedrock consisted of graphite argillite with 5-10% pyrite with weakly anomalous values in Cu, Zn and Au (235 and 345 ppm and 20 ppb, respectively).

The short EM zone that this hole investigated has not been drill tested.

#### 9.2 Theo River Group

Holes 174, 175, 176 and 177 were spotted to test an EM conductor in the west portion of the block. A previous drill hole here by Abitibi-Price returned low gold values in the conductor and overlying basalts. Elevated gold values are present in basal till material from holes 174 (1,690 ppb), 175 (1,260 ppb) and 176 (7,385 ppb) drilled over and immediately down-ice from the conductor.

#### 9.3 Enjalran Township Group

The initial round of drilling disclosed a number of scattered anomalous gold values in the west portion of this claim group. Holes 87, 88, 90, 91 and 123 all contained anomalous gold values although the high values in holes 90 and 91 (19,000 and 26,710 ppb) relate, at least in part, to nugget effects as previously noted.

Follow-up drilling (holes 126, 141, 142, 143, 144, 145) in Phase 2 was carried out to determine if there was a definite gold dispersion train which emanated from a source on the Baroque property or if the indications were reflective of a broad area of high background gold emanating from a source or sources to the north of the property.

With reference to Profile B-B' (Section 3 at rear), it would appear that the latter is generally the case. Above average gold values are scattered over the entire overburden column, often near the top. Results in hole 123 indicate that the "dispersion" is continuing to the north of the property.

One possible exception is in the area of hole 88 where the basal till sample contains a somewhat anomalous gold value of 1,285 ppb (4,587 equivalent) immediately down-ice from a previously untested EM conductive zone.

Further west on this same trend, hole 126 contained a total of 23 gold grains although with reference to the log, it can be seen that the gold is widely scattered over the hole. Sample 16 is of possible interest with two abraded, two irregular and one delicate gold grain and 15% pyrite.

## 10.0 CONCLUSIONS

It has been recognized in the Casa Berardi camp, especially in work done by Inco Limited on the Golden Pond deposit, that a recognizable gold and/or arsenic dispersion train in overburden is detectable up to 1,000 m from a gold orebody, often in the form of a significant number of abraded gold grains. As well, within 100 m of the subcropping mineralization, the majority of the gold grains are delicate in nature.

On the present property, 92% of the gold grains were abraded. Gold grains generally occurred throughout the entire till section and often in units of glaciofluvial material where it can be assumed that there has been some pseudo-placer concentration of heavy minerals.

The main purpose of the reverse circulation drill program was to test all of the very large number of geophysical anomalies for zones of gold and/or base metal values. It is concluded that this was accomplished successfully except in a few local areas where till was poorly developed or in one case where drilling was prohibitively difficult (hole 145).

It is further concluded that, within the limitations of the reverse circulation method, there are no significant gold or base metal dispersion trains that relate to an obvious bedrock source on the Baroque claims.

There are however a number of areas, based on all of the work to date, that warrant further work, mainly diamond drill testing, to explore for gold/base metal deposits that may not be reflected in the glacial tills for a number of reasons. The latter would include deposits that may not extend to the subcrop interface and areas where the tills are poorly developed.

## 11.0 RECOMMENDATIONS

It is recommended that additional work be carried out as follows:

### Lac Santoire Group

#### Hole 05-172 Area

Reverse circulation results (e.g. 22 gold grains in hole 172) and results of previous diamond drilling (Noranda, hole 65-2) strongly suggest that two diamond drill holes should be completed here to test previously untested EM zones as follows:

<u>Grid</u>	<u>Co-Ordinate</u>	<u>Dip</u>	<u>Azimuth</u>	<u>Length</u>
Abitibi-Price #5	*24+00E, 5+50N	-45°N	035°	130 m

and

Abitibi-Price #5	*24+00E, 2+00N	-45°N	Grid N	125 m
------------------	----------------	-------	--------	-------

\*Line 24+00E re-surveyed by MPH.

#### Hole 35 Area

Weakly anomalous geochemical indications in tills and bedrock relative to an attractive EM target warrant a drill test here as follows:

<u>Grid</u>	<u>Co-Ordinate</u>	<u>Dip</u>	<u>Azimuth</u>	<u>Length</u>
MPH Area 4/Grid 4	160+00E, 11+75S	-45°N	Grid N	100 m

#### Hole 46 Area

A drill test is warranted here on the above reasoning as follows:

<u>Grid</u>	<u>Co-ordinate</u>	<u>Dip</u>	<u>Azimuth</u>	<u>Length</u>
MPH Area 4/Grid 4	164+00E, 0+75S	-45°	Grid N	110 m

Theo River Group

Sub-economic gold values in previous Abitibi-Price drill hole 84-4 and scattered anomalous gold values in lower tills indicate that another test of this EM zone is warranted as follows:

<u>Grid</u>	<u>Co-Ordinate</u>	<u>Dip</u>	<u>Azimuth</u>	<u>Length</u>
Theo River Area 8	12+00E, 0+80S	-55°N	Grid N	110 m

Enjalran Township Group

The area around holes 91, 143-145 remains of geologic interest given that this is the interpreted contact area of an altered ultramafic intrusive with the surrounding volcano-sedimentary + iron formation sequence. Highly anomalous, although somewhat suspect gold values are present in hole 91.

There is no obvious diamond drill target in this zone. Limited Induced Polarization surveying should be completed prior to any drilling to test for a disseminated sulphide zone in the contact area. IP lines should also be extended across the hole 88 and hole 126 EM conductor areas to test for any flanking disseminated sulphide zones.

Recommended IP coverage is as follows:


<u>Line</u>	<u>From</u>	<u>To</u>
3500E	350N	350S
2800E	BL	900S
2700E	BL	900S
2400E	350N	900S

A further 2-3 diamond drill holes (325 m) should be allowed either for the above area and/or as follow-up to encouragement in the other drilling.

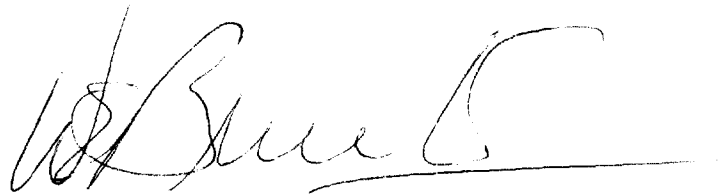
The total drill program is therefore estimated at approximately 900 m (3,000 ft). Estimated cost of the program, inclusive of the IP work, reporting, contingencies, etc. is \$165,000.

Recommendations for further work will be contingent on the results of the above relative to our exploration models for the property area.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "David Meyer".

D. Meyer, B.Sc.

A large, stylized handwritten signature in cursive script, appearing to read "W.E. Brereton".

W.E. Brereton, P.Eng.



APPENDIX A

Heavy Mineral Processing Results

**Ministère de l'Énergie et des Ressources**  
**Service de la Géoinformation**

Date: 10 MARS 1987

No G.M.: 44011

mpheljun.86

OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)				AU	DESCRIPTION	CLASS							
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CONC. TOTAL	NON MAG				NO. MAG						
									CLAST		MATRIX						
									SIZE	%	S/U	SD	ST	CY	COLOR		
									V/S	GR	LS	OT	SD	CY			
<b>BAROQUE</b>																	
EC-86																	
01-02	7.9	1.3	6.6	47.1	17.7	29.4	15.2	14.2	0	NA P	30	70	NA NA	U Y	Y Y	GB GY	TILL
-03	3.9	0.0	3.9	137.4	103.8	33.6	28.8	4.8	1	22 TR	NA NA	NA NA	U Y	Y Y	GB GY	TILL	
02-02	8.0	0.5	7.5	155.9	120.8	35.1	19.6	15.5	0	NA P	60	40	NA NA	U Y	Y Y	GB GB	TILL
-03	8.1	0.4	7.7	136.1	105.5	30.6	19.6	11.0	0	NA P	80	20	NA NA	U Y	Y Y	BK GY	TILL
04-01	7.4	0.2	7.2	142.0	107.6	34.4	21.9	12.5	0	NA P	90	10	NA NA	U Y	Y Y	B GB	TILL
05-01	6.0	1.3	4.7	200.7	186.1	14.6	7.5	7.1	1	1261 P	50	50	NA NA	U Y	Y Y	B B	TILL
06-04	4.2	0.0	4.2	42.4	30.3	12.1	8.1	4.0	0	NA TR	NA NA	NA NA	U Y	Y Y	B GB	TILL	
07-01	4.8	0.0	4.8	86.1	57.6	28.5	18.6	9.9	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
09-03	7.4	0.2	7.2	117.9	83.9	34.0	22.7	11.3	0	NA P	90	10	NA NA	U Y	Y Y	B B	TILL
-06	7.3	0.2	7.1	72.6	36.5	36.1	28.3	7.8	0	NA P	60	40	NA NA	U Y	Y Y	GB GB	TILL
10-02	6.8	0.1	6.7	77.5	51.0	26.5	18.0	8.5	0	NA P	70	30	NA 1	U Y	Y Y	GB GB	TILL
11-01	6.8	0.1	6.7	129.5	88.3	41.2	30.7	10.5	0	NA P	70	30	NA NA	U Y	Y Y	GB GB	TILL
-02	6.8	0.2	6.6	155.8	118.9	36.9	24.1	12.8	1	42 P	70	30	NA NA	U Y	Y Y	GB GB	TILL
-03	8.1	0.1	8.0	154.6	116.6	38.0	24.5	13.5	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
-06	9.0	0.0	9.0	162.6	117.7	44.9	35.0	9.9	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
12-05	8.7	0.0	8.7	111.6	63.2	48.4	30.2	18.2	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
13-07	7.0	0.0	7.0	96.3	44.0	52.3	41.0	11.3	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
14-09	5.7	0.0	5.7	98.2	82.4	15.8	10.9	4.9	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
-10	7.4	0.2	7.2	150.9	112.2	38.7	27.9	10.8	0	NA P	80	20	NA NA	U Y	Y Y	GB GB	TILL
15-01	6.5	0.0	6.5	120.0	91.0	29.0	17.7	11.3	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
-02	7.2	0.0	7.2	90.9	59.3	31.6	21.4	10.2	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
-07	7.7	0.1	7.6	66.7	36.8	29.9	21.5	8.4	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
16-03	8.3	0.1	8.2	105.9	61.0	44.9	27.9	17.0	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
-04	8.4	0.1	8.3	110.3	36.5	73.8	48.9	24.9	0	NA P	95	5	NA NA	U Y	Y Y	GB GB	TILL
17-01	8.3	1.0	7.3	160.6	127.8	32.8	19.0	13.8	0	NA P	60	40	NA NA	U Y	Y Y	GB GB	TILL
18-01	8.3	0.1	8.2	74.0	29.9	44.1	26.9	17.2	0	NA P	70	30	NA NA	U Y	Y Y	B GB	TILL
19-06	8.0	0.2	7.8	73.3	44.8	28.5	17.6	10.9	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
-07	8.5	0.3	8.2	110.3	77.0	33.3	21.4	11.9	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
20-07	8.7	0.2	8.5	97.5	65.6	31.9	21.2	10.7	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
-08	8.0	0.2	7.8	107.1	72.9	34.2	22.4	11.8	0	NA P	80	20	NA NA	U Y	Y Y	GB GB	TILL
-04	7.8	0.1	7.7	97.5	80.6	16.9	11.7	5.2	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
21-03	8.4	0.2	8.2	80.5	51.1	29.4	18.2	11.2	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
22-03	7.2	0.0	7.2	61.8	30.1	31.7	23.4	8.3	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
-04	7.1	0.2	6.9	106.5	71.6	34.9	21.6	13.3	0	NA P	80	20	NA NA	U Y	Y Y	GB GB	TILL
-06	7.4	0.2	7.2	73.9	46.5	27.4	18.5	8.9	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
-07	7.8	0.0	7.8	60.8	32.9	27.9	19.1	8.8	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
23-04	6.6	0.0	6.6	110.0	83.1	26.9	16.0	10.9	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
-05	7.6	0.1	7.5	94.3	59.1	35.2	23.1	12.1	0	NA P	90	10	NA NA	U Y	Y Y	GB GB	TILL
24-02	7.8	0.8	7.0	173.1	141.1	32.0	18.6	13.4	1	335 P	80	20	NA NA	U Y	Y Y	GB GB	TILL
25-08	7.7	0.0	7.7	223.1	188.6	34.5	21.3	13.2	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
-09	7.7	0.0	7.7	104.8	69.2	35.6	21.8	13.8	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
-10	8.1	0.1	8.0	96.1	56.3	39.8	23.3	16.5	0	NA P	70	30	NA NA	U Y	Y Y	GB GB	TILL
26-01	6.9	0.0	6.9	79.6	46.6	33.0	22.0	11.0	0	NA TR	NA NA	NA NA	U Y	Y Y	GB GB	TILL	
27-02	7.1	0.0	7.1	92.3	64.6	27.7	18.5	9.2	0	NA NA	NA NA	NA NA	U Y	Y Y	GB GB	TILL	

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## OVERBURDEN DRILLING MANAGEMENT LIMITED

## LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)					AU	DESCRIPTION							CLASS					
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CONC. TOTAL	NON MAG	NO. MAG		CALC V.G.	CLAST			MATRIX								
										SIZE	%	S/U	SD	ST	CY	COLOR						
												V/S	GR	LS	OT		SD	CY				
EC-86																						
28-02	7.5	0.7	6.8	135.5	99.1	36.4	21.3	15.1	0	NA	P	60	40	NA	NA	U	Y	Y	Y	GB	GB	TILL
29-02	7.2	0.2	7.0	110.0	74.1	35.9	24.6	11.3	0	NA	P	70	30	NA	NA	U	Y	Y	Y	GB	GB	TILL
31-02	7.7	0.1	7.6	141.4	109.4	32.0	19.1	12.9	2	970	P	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-03	8.0	0.1	7.9	140.5	106.5	34.0	23.9	10.1	0	NA	P	70	30	NA	NA	U	Y	Y	Y	GB	GB	TILL
32-05	7.8	0.1	7.7	137.0	101.4	35.6	22.6	13.0	0	NA	G	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-06	6.5	0.0	6.5	127.5	102.7	24.8	15.4	9.4	0	NA	TR	NA	NA	NA	NA	U	Y	Y	Y	B	B	TILL
-07	7.0	0.0	7.0	116.0	84.6	31.4	19.8	11.6	1	146	TR	NA	NA	NA	NA	U	Y	Y	Y	B	GB	TILL
-08	6.3	0.5	5.8	225.3	199.9	25.4	13.2	12.2	0	NA	C/BD	90	10	NA	NA	U	Y	Y	Y	B	GB	TILL/BDK
33-02	6.9	0.0	6.9	122.3	88.5	33.8	20.6	13.2	1	77	TR	NA	NA	NA	NA	U	Y	Y	Y	B	B	TILL
-03	7.4	0.1	7.3	169.5	129.6	39.9	24.3	15.6	0	NA	C	60	40	NA	NA	U	Y	Y	Y	B	B	TILL
34-03	7.3	0.2	7.1	149.8	118.8	31.0	18.6	12.4	1	20	P/C	60	40	NA	NA	U	Y	Y	Y	B	B	TILL
35-02	7.4	0.1	7.3	165.3	137.6	27.7	15.8	11.9	1	12	P	60	40	NA	NA	U	Y	Y	Y	B	B	TILL
-03	7.3	0.1	7.2	157.8	116.7	41.1	31.5	9.6	3	160	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
36-02	8.2	0.4	7.8	233.3	187.8	45.5	30.3	15.2	1	1485	P	60	40	NA	NA	U	Y	Y	Y	B	B	TILL
37-02	6.4	0.1	6.3	137.5	109.3	28.2	19.3	8.9	4	78	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
-03	7.4	0.3	7.1	173.0	138.6	34.4	23.8	10.6	1	8	G	60	40	NA	NA	U	Y	Y	Y	B	GN	TILL
38-03	7.9	0.5	7.4	191.9	151.6	40.3	27.4	12.9	1	77	G	60	40	NA	NA	U	Y	Y	Y	B	B	TILL
39-05	6.9	0.1	6.8	130.9	99.4	31.5	21.5	10.0	0	NA	G	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-06	7.5	0.8	6.7	273.4	238.6	34.8	23.8	11.0	2	105	P	80	20	NA	NA	U	Y	Y	Y	B	B	TILL
40-14	6.8	0.5	6.3	121.2	97.2	24.0	16.4	7.6	0	NA	P	80	20	NA	NA	U	Y	Y	Y	B	GB	TILL
-22	7.3	0.2	7.1	294.9	227.4	67.5	54.2	13.3	1	28	P	80	20	NA	NA	U	Y	Y	Y	B	GY	TILL
41-12	6.0	0.5	5.5	162.1	139.0	23.1	15.2	7.9	0	NA	C	80	20	NA	NA	U	Y	Y	Y	B	GB	TILL
42-04	7.8	0.3	7.5	267.0	223.4	43.6	25.8	17.8	0	NA	C	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-14	4.8	0.3	4.5	125.4	92.3	33.1	18.7	14.4	1	20	C	95	4	NA	5	U	Y	Y	Y	B	B	TILL
43-07	13.1	0.2	12.9	242.8	200.7	42.1	20.6	21.5	3	170	C	90	10	NA	NA	U	Y	Y	Y	B	B	TILL
44-05	7.7	0.2	7.5	180.6	157.8	22.8	14.5	8.3	0	NA	G	65	35	NA	NA	U	Y	Y	Y	GB	B	TILL
45-10	8.1	0.1	8.0	134.6	97.5	37.1	25.0	12.1	0	NA	G	60	40	NA	NA	U	Y	Y	Y	GB	GB	TILL
-11	8.6	0.3	8.3	103.0	58.7	44.3	29.9	14.4	1	381	G	90	10	NA	NA	U	Y	Y	Y	G	GB	TILL
-12	2.6	0.1	2.5	48.4	35.8	12.6	9.1	3.5	0	NA	C/BD	95	5	NA	NA	U	Y	Y	Y	GG	GB	TILL
47-02	7.7	0.1	7.6	107.5	74.0	33.5	17.8	15.7	4	455	C	90	10	NA	NA	U	Y	Y	Y	GB	GB	TILL
46-05	7.0	0.2	6.8	213.8	61.4	152.4	142.4	10.0	4	21	C	80	20	NA	NA	U	Y	Y	Y	GB	GY	TILL



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OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG. WET)			WEIGHT (GRAMS DRY)				AU	DESCRIPTION								CLASS	
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M. I. LIGHTS	CONC. TOTAL	NON MAG		ND. MAG	ND. V.G.	CALC PPB	CLAST SIZE	%	MATRIX				ST CY
											V/S	GR	LS	DT	SD	CY		

EC-86

36-01	7.7	0.2	7.5	153.8	127.4	26.4	13.6	12.8	0	NA	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
37-01	7.1	0.1	7.0	208.5	191.5	17.0	9.1	7.9	1	165	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
38-01	7.0	0.2	6.8	150.4	128.5	21.9	11.4	10.5	0	NA	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
-02	7.4	0.2	7.2	240.4	216.2	24.2	13.2	11.0	0	NA	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
40-01	7.8	0.2	7.6	128.6	108.6	20.0	10.3	9.7	0	NA	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
-04(2)	6.6	0.3	6.3	109.8	84.7	25.1	17.3	7.8	1	7023	C	65	35	NA	NA	U	Y	Y	Y	B	B	TILL
-06(1)	6.1	0.1	6.0	97.6	79.1	18.5	12.4	6.1	0	NA	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
-02	6.7	0.0	6.7	72.0	55.0	17.0	8.8	8.2	1	22	TR	NA	NA	NA	NA	U	Y	Y	Y	B	B	TILL
-03	11.8	0.3	11.5	99.5	72.5	27.0	15.8	11.2	0	NA	P	80	20	NA	NA	U	Y	Y	Y	GB	GB	TILL
-04(1)	6.0	0.2	5.8	90.3	72.9	17.4	10.9	6.5	0	NA	P	60	40	NA	NA	U	Y	Y	Y	B	B	TILL
40-05	11.8	0.2	11.6	115.2	80.2	35.0	20.5	14.5	0	NA	P	80	20	NA	NA	U	Y	Y	Y	B	B	TILL

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## OVERBURDEN DRILLING MANAGEMENT LIMITED

## LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)				AU	DESCRIPTION						CLASS							
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CONC. TOTAL	NON MAG		NO. MAG	NO. V.G.	CALC PPB	CLAST		MATRIX		COLOR						
				M. I. CONC						SIZE		%		S/U SD		ST CY		COLOR				
										V/S GR		LS OT				SD CY						
EC-86																						
40-06(2)	6.4	0.2	6.2	104.1	80.2	23.9	14.6	9.3	0	NA	P	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-07	14.2	0.3	13.9	129.9	95.4	34.5	19.0	15.5	1	53	P	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-08	12.0	0.3	11.7	58.4	67.5	30.9	16.6	14.3	9	1926	P	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-09	14.2	0.4	13.8	134.3	98.1	36.2	21.3	14.9	8	490	P	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-10	11.7	0.2	11.5	75.0	46.0	29.0	18.4	10.6	0	NA	P	75	25	NA	NA	U	Y	Y	Y	B	B	TILL
-11	14.0	0.3	13.7	105.6	62.8	42.8	25.7	17.1	1	83	P	75	25	NA	NA	U	Y	Y	Y	B	GB	TILL
-12	6.6	0.3	6.3	52.2	32.7	19.5	12.1	7.4	0	NA	P	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-13	12.8	1.0	11.8	65.8	42.2	23.6	15.6	8.0	1	96	P	80	20	NA	NA	U	Y	Y	Y	B	GB	TILL
-15	5.9	0.7	5.2	49.0	33.9	15.1	9.9	5.2	0	NA	P	80	20	NA	A	U	Y	Y	Y	B	GB	TILL
-16	12.8	0.3	12.5	94.9	69.8	25.1	14.8	10.3	1	523	P	80	20	NA	A	U	Y	Y	Y	B	GB	TILL
-17	7.1	0.4	6.7	83.4	69.6	13.8	13.4	0.4	0	NA	P	90	10	NA	NA	U	Y	Y	Y	GB	GB	TILL
-18	7.3	0.6	6.7	106.5	89.5	17.0	11.1	5.9	2	36	P	80	20	NA	NA	U	Y	Y	Y	GB	GB	TILL
-19	7.7	0.4	7.3	237.7	211.0	26.7	16.7	10.0	0	NA	C	99	1	NA	NA	U	Y	Y	Y	GB	GB	TILL
-20	2.8	0.3	2.5	245.6	204.3	41.3	18.6	22.7	1	861	G	80	20	NA	NA	U	Y	Y	Y	B	GB	TILL
-21	7.2	0.2	7.0	261.3	238.0	23.3	14.4	8.9	0	NA	G	60	40	NA	NA	U	Y	Y	Y	B	GB	TILL
41-01	7.1	0.5	6.6	211.9	194.0	17.9	11.1	6.8	0	NA	P/G	80	20	NA	NA	U	Y	Y	Y	B	GB	TILL
-02	5.0	0.6	4.4	67.3	60.0	7.3	4.0	3.3	1	9113	P/G	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-03	5.8	0.5	5.3	109.0	100.2	8.8	5.0	3.8	0	NA	P/G	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-09	6.4	0.8	5.6	152.2	129.1	23.1	14.3	8.8	0	NA	P	85	15	NA	NA	U	Y	Y	Y	B	GY	TILL
-10	6.6	1.2	5.4	139.4	118.8	20.6	13.0	7.6	0	NA	P	85	15	NA	A	U	Y	Y	Y	B	GY	TILL
-11	6.4	0.4	6.0	156.2	134.1	22.1	13.9	8.2	0	NA	P/EK	90	10	NA	NA	U	Y	Y	Y	B	GY	TILL
42-01	6.7	0.3	6.4	215.5	194.3	21.2	11.4	9.8	0	NA	P	70	30	NA	NA	U	Y	Y	Y	B	GY	TILL
-02	7.3	0.8	6.5	228.4	197.2	31.2	18.1	13.1	1	2808	P	70	30	TR	NA	U	Y	Y	Y	B	GY	TILL
-03	5.9	0.1	5.8	144.4	127.9	16.5	8.8	7.7	0	NA	P	70	30	NA	NA	U	Y	Y	Y	B	GY	TILL
-05	7.9	0.2	7.7	149.0	125.7	23.3	11.9	11.4	1	178	C	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-06	7.1	0.2	6.9	202.5	170.9	31.6	17.7	13.9	0	NA	C	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-07	5.2	0.3	4.9	78.8	63.9	14.9	8.5	6.4	0	NA	P	90	10	NA	NA	U	Y	Y	Y	B	GB	TILL
-08	7.0	0.1	6.9	59.1	43.8	15.3	8.2	7.1	0	NA	P	80	20	NA	NA	U	Y	Y	Y	B	GY	TILL
-09	7.0	0.6	6.4	52.4	40.5	11.9	6.5	5.4	0	NA	P	75	20	5	NA	U	Y	Y	Y	B	GY	TILL
-10	8.0	0.7	7.3	70.7	57.0	13.7	7.0	6.7	0	NA	P	80	20	TR	NA	U	Y	Y	Y	GB	GB	TILL

mph11jul.86

## OVERBURDEN DRILLING MANAGEMENT LIMITED

## LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)				AU		DESCRIPTION						CLASS						
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CONC. TOTAL	NON MAG	MAG MAG	NO. V.G.	CALC PPB	CLAST		MATRIX				SD	CY				
										SIZE	%	S/U	SD	ST	CY	COLOR	SD	CY				
										V/S	GR	LS	OT									
EC-86																						
42-11	6.6	0.1	6.5	132.5	105.4	27.1	16.5	10.6	0	NA	P	60	40	NA	NA	U	Y	Y	Y	B	GB	TILL
-12	7.9	0.1	7.8	140.3	107.9	32.4	20.4	12.0	0	NA	P	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-13	7.5	0.3	7.2	142.1	109.2	32.9	22.2	10.7	0	NA	P	80	20	NA	NA	U	Y	Y	Y	B	GB	TILL
43-01	8.4	0.2	8.2	140.1	103.5	36.6	19.1	17.5	0	NA	P	60	40	NA	NA	U	Y	Y	Y	B	GB	TILL
-02	7.8	0.1	7.7	133.3	104.2	29.1	16.5	12.6	0	NA	P	60	40	NA	NA	U	Y	Y	Y	B	B	TILL
-03	7.2	0.1	7.1	141.9	116.3	25.6	15.6	10.0	0	NA	P	55	45	NA	NA	U	Y	Y	Y	B	GB	TILL
-04	7.3	0.1	7.2	136.9	115.1	21.8	12.2	9.6	0	NA	P	60	40	NA	NA	U	Y	Y	Y	B	GB	TILL
-05	7.5	0.2	7.3	50.1	40.0	10.1	5.7	4.4	0	NA	P	60	40	NA	NA	U	Y	Y	Y	B	GB	TILL
-06	7.6	0.2	7.4	126.3	103.2	23.1	14.1	9.0	0	NA	P	55	45	NA	NA	U	Y	Y	Y	B	GY	TILL
45-01	8.4	3.1	5.3	129.5	116.1	13.4	3.4	10.0	0	NA	P	55	45	NA	NA	U	Y	Y	Y	B	GB	TILL
-02	7.4	0.0	7.4	115.4	90.9	24.5	14.9	9.6	0	NA	P	55	45	NA	NA	U	Y	Y	Y	B	B	TILL
-03	14.5	0.1	7.7	211.6	164.8	46.8	28.4	18.4	4	79	P	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-04	6.8	0.1	7.7	133.7	107.8	25.9	17.8	8.1	2	176	P	70	30	NA	NA	U	Y	Y	Y	B	GB	TILL
-05	8.1	0.2	7.6	152.7	110.8	41.9	22.0	19.9	1	224	P	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-06	7.2	0.2	7.6	176.2	148.7	27.5	17.3	10.2	1	659	C/BL	15	85	NA	NA	U	Y	Y	Y	GB	B	TILL
-07	6.9	0.2	6.7	111.5	84.4	27.1	18.7	8.4	0	NA	P	70	30	NA	NA	U	Y	Y	Y	GB	GB	TILL
-08	7.3	0.1	7.2	119.5	89.8	29.7	20.7	9.0	0	NA	P	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-09	7.3	0.2	7.1	149.0	118.8	30.2	20.6	9.6	0	NA	P	50	50	NA	NA	U	Y	Y	Y	B	B	TILL
46-01	7.5	0.2	7.3	151.1	122.8	28.3	17.6	10.7	0	NA	P	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-02	6.8	0.2	6.6	132.1	111.2	20.9	11.5	9.4	0	NA	P	70	30	NA	NA	U	Y	Y	Y	GB	GB	TILL
-03	7.7	0.1	7.7	217.1	189.7	27.4	17.3	10.1	1	659	P	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
-04	7.2	0.3	6.9	140.7	109.5	31.2	19.7	11.5	0	NA	C	70	30	NA	NA	U	Y	Y	Y	B	B	TILL
47-01	7.5	0.2	7.3	191.7	164.2	27.5	11.0	16.5	0	NA	P	40	60	NA	NA	U	Y	Y	Y	B	B	TILL

SampleNo. Bulk +10MeshTableFeed TableConc Mags NonMags M.I.Heav M.I.Lites 1/4Split V.G.Pan Other Remarks

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83-02 8.37 .04 8.33 62.45 12.01 50.44 21.95 28.49 5.49

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SampleNo.	Bulk	+10Mesh	TableFeed	TableConc	Mags	NonMags	M.I.Heav	M.I.Lites	1/4Split	V.6.Pan	Other Remarks
83-03	8.46	.05	8.41	61.81	17.05	44.76	26.05	18.71	6.51		
83-04	6.48	.07	6.41	34.15	13.77	20.38	14.96	5.42			
83-05	8.50	.12	8.38	28.23	8.14	20.09	10.53	9.56	.50		
84-01	6.88	.12	6.76	33.56	6.55	27.01	13.46	13.55	3.37		
85-10	8.55	.96	7.59	28.19	3.89	24.30	3.58	20.72			
85-11	8.72	.54	8.18	18.57	7.37	11.20	7.53	3.67			
85-12	7.57	.65	6.92	11.47	3.42	8.05	4.12	3.93			
85-13	8.26	.05	8.21	34.70	6.59	28.11	15.81	12.30	3.95		
85-14	7.44	.03	7.41	37.50	7.84	29.66	16.69	12.97	4.17		
86-01	7.88	.06	7.82	50.57	13.31	37.26	26.90	10.36			
86-02	6.50	1.32	5.18	20.99	5.95	15.04	8.21	6.83			
87-01	5.57	.01	5.56	27.76	4.16	23.60	14.01	9.59	3.50		
87-02	7.69	.02	7.67	40.94	8.76	32.18	20.47	11.71	5.10		
87-03	7.52	.05	7.47	31.52	7.60	23.92	15.58	8.34	3.90		
87-04	7.23	.10	7.13	27.31	7.59	19.72	12.59	7.13	2.50		
87-05	5.63	.10	5.53	22.99	5.70	17.29	9.65	7.64			
88-01	8.29	.66	7.63	48.11	11.46	36.65	18.28	18.37	4.57		
88-02	8.48	.05	8.43	38.23	13.05	25.18	14.79	10.39	3.70		
88-03	7.64	.06	7.58	42.68	8.79	33.89	16.04	17.85	4.01		
88-04	8.99	.01	8.98	68.81	10.57	58.24	33	25.24	8.25		
88-05	7.13	.04	7.09	36.68	10.12	26.56	18.98	7.58	4.81		
89-01	8.44	.12	8.32	47.89	12.09	35.80	21.95	13.85	5.49		
89-02	8.46	.01	8.45	47.72	10.72	37	21.23	15.77	5.31		
89-03	7.49	.10	7.39	37.28	17.75	19.53	13.69	5.84	3.42		
90-01	8.18	.05	8.13	38.93	13.09	25.84	14.59	11.25	3.65		
90-02	7.07	.05	7.02	12.71	6.26	6.45	3.34	3.11			
90-03	5.47	0	5.47	38.76	7.43	31.33	13.04	18.29	3		
90-04	4.41	0	4.41	33.99	5.36	28.63	11.78	16.85	1.70		
90-05	8.48	0	8.48	65.48	9.21	56.27	28.96	27.31	7.24		
90-06	7.80	.02	7.78	28.33	10.54	17.79	11.99	5.80	1.90		
90-07	8.11	.03	8.08	18.15	3.35	14.80	8.67	6.13			
90-08	2.85	.01	2.84	1.57	.09	1.48	.01	1.47			
91-01	8.59	.01	8.58	52	10.35	41.65	24.33	17.32	6.08		
91-02	8.30	0	8.30	60.85	13.19	47.66	22.34	25.32	5.59		
91-03	8.26	.49	7.77	33.92	8.72	25.20	11.40	13.80	1.30		
91-04	8.29	.07	8.22	16.81	4.61	12.20	5.56	6.64			
91-05	8.42	.04	8.38	7.33	1.98	5.35	2.20	3.15			
91-06	7.79	.07	7.72	3.29	.69	2.60	.65	1.95			
91-07	7.81	.12	7.69	5.02	1.45	3.57	1.10	2.47			
91-08	8.05	.20	7.85	4.40	1.29	3.11	1.30	1.81			
91-09	8.98	.29	8.69	31.57	14.30	17.27	9.56	7.71			
92-01	7.85	0	7.85	36.80	5.05	31.75	20.95	10.80	5.24		
92-02	8.53	.60	7.93	49.20	12.70	36.50	22.23	14.27	5.56		
92-13	8.15	.30	7.85	31.18	8.48	22.70	13.10	9.60	3		
92-14	8.68	.32	8.36	30.18	8.79	21.39	12.26	9.13	2.20		

SampleNo. Bulk +10MeshTableFeed TableConc Mags NonMags M.I.Heav M.I.Lites 1/4Split V.G.Pan Other Remarks

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122-03	7.55	.05	7.50	31.75	9.15	22.60	14.76	7.84	3.65	
122-04	7.66	.29	7.37	23.99	5.51	18.48	10.92	7.56	.80	
122-05	7.69	.18	7.51	16.70	4.65	12.05	7.40	4.65		
122-08	7.50	.17	7.33	15.68	7.85	7.83	4.07	3.76		
122-09	7.33	.05	7.28	28.25	5.81	22.44	13.08	9.36	3	
123-04	7.64	.05	7.59	41.89	10.19	31.70	19.15	12.55	4.79	
123-09	9.71	.12	9.59	20.14	6.76	13.38	8.06	5.32		
124-01	7.50	.33	7.17	37.67	10.04	27.63	18.24	9.39	4.56	
125-03	4.83	.20	4.63	17.54	2.99	14.55	9.15	5.40		
CR-02	6.65	2.11	4.54	10.98	.43	10.55	3.15	7.40		

MPHEIAUG.85

## OVERBURDEN DRILLING MANAGEMENT LIMITED

## LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG. WET)			WEIGHT (GRAMS DRY)				AU	DESCRIPTION				CLASS						
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CGNC. TOTAL	NON MAG		NO. V.G.	CALC PPB	CLAST SIZE	%		MATRIX S/U SD ST CY COLOR					
													SD CY						
EC-86																			
30-01,02	16.5	0.6	15.9	313.7	273.5	40.2	23.5	16.7	0	NA			U	Y	Y	Y	B	B	TILL
-03,04	16.3	0.1	16.2	244.9	197.0	47.9	30.5	17.4	0	NA			U	Y	Y	Y	B	B	TILL
-05,06	16.6	0.3	16.3	263.8	197.4	66.4	41.8	24.6	0	NA			U	Y	Y	Y	B	B	TILL
-07	8.0	0.2	7.8	192.5	150.2	42.3	27.0	15.3	1	107			U	Y	Y	Y	B	B	TILL
05-02	7.8	0.8	7.0	267.8	241.8	26.0	8.1	17.9	0	NA			U	Y	Y	Y	B	B	TILL
06-02,03	14.3	0.3	14.0	211.0	172.7	38.3	17.2	21.1	8	353			U	Y	Y	Y	B	B	TILL
08-05,06	14.5	0.2	14.3	199.1	177.1	22.0	11.0	11.0	1	58			U	Y	Y	Y	B	B	TILL
-07,08	14.2	0.1	14.1	103.9	80.8	28.1	17.1	11.0	1	452			U	Y	Y	Y	GB	GB	TILL
10-03,04	14.1	0.1	14.0	100.8	77.4	23.4	10.1	13.3	0	NA			U	Y	Y	Y	B	B	TILL
-05,06	16.0	0.4	15.6	193.6	165.5	28.1	15.1	13.0	0	NA			U	Y	Y	Y	GB	GB	TILL
11-04,05	16.6	0.7	15.9	220.1	194.6	25.5	14.2	11.3	0	NA			U	Y	Y	Y	GB	GB	TILL
12-04	6.7	0.1	6.6	85.1	66.3	18.8	10.9	7.9	0	NA			U	Y	Y	Y	GB	GB	TILL
14-03,04	14.7	0.3	14.4	179.5	143.2	36.3	22.8	13.5	0	NA			U	Y	Y	Y	GB	GB	TILL
-05,06	16.7	0.4	16.3	162.9	131.9	31.0	18.2	12.8	1	159			U	Y	Y	Y	GB	GB	TILL
15-03,04	15.3	0.2	15.1	218.0	182.9	35.1	20.3	14.8	0	NA			U	Y	Y	Y	GB	GB	TILL
-05,06	16.2	0.3	15.9	128.8	96.0	30.8	18.9	11.9	0	NA			U	Y	Y	Y	GB	GB	TILL
19-2,3,4	21.9	0.4	21.5	217.4	194.0	23.4	13.8	9.6	0	NA			U	Y	Y	Y	GB	GB	TILL
-05	9.1	0.2	8.9	119.7	90.8	28.9	18.2	10.7	0	NA			U	Y	Y	Y	GY	GY	TILL
23-01,02	12.8	0.3	12.5	202.0	159.0	43.0	23.5	19.5	1	64			U	Y	Y	Y	B	B	TILL
-03	7.4	0.1	7.3	125.5	104.4	21.1	12.9	8.2	0	NA			U	Y	Y	Y	B	B	TILL
25-04,05	15.5	0.1	15.4	240.4	195.7	44.7	24.1	20.6	1	392			U	Y	Y	Y	B	B	TILL
-06,07	16.2	0.2	16.0	362.4	314.6	47.8	26.4	21.4	9	833			U	Y	Y	Y	B	B	TILL
32-02,03	16.9	0.5	16.4	362.2	314.6	47.6	30.4	17.2	1	49			U	Y	Y	Y	B	B	TILL
-04	8.1	0.1	8.0	119.5	93.0	26.5	16.7	9.8	0	NA			U	Y	Y	Y	B	B	TILL
41-04	4.5	0.6	3.7	66.4	51.8	14.6	7.1	7.5	0	NA			S	C	Y	N	B	B	GRAVEL
-05,06	14.2	0.8	13.4	155.2	109.3	45.9	31.4	14.5	0	NA			U	Y	Y	Y	B	B	TILL
-07,08	12.8	0.9	11.9	205.8	170.5	35.3	21.5	13.8	0	NA			U	Y	Y	Y	B	B	TILL
44-01,02	17.0	0.4	16.6	225.2	169.4	55.8	29.2	26.6	0	NA			U	Y	Y	Y	B	B	TILL
-03,04	16.1	0.3	15.8	187.2	155.2	32.0	19.5	12.5	0	NA			U	Y	Y	Y	B	B	TILL

MPHEZAGS.36

OVERBURDEN SPILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG. WET)			WEIGHT (GRAMS DRY)				AU	DESCRIPTION				CLASS
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CONC. TOTAL	NON MAG		NO. V.G.	CALC. FFB	CLAST SIZE	%	
													SD CY

85-01,02	17.6	0.9	16.7	344.0	309.2	34.8	19.6	15.2	1	1452		
-03,04	17.0	0.3	16.7	139.4	85.5	53.9	33.6	20.3	4	86		
-05,06	17.7	0.2	17.5	316.5	289.6	26.9	14.4	12.5	0	NA		
-07	8.9	0.2	8.7	165.7	135.4	30.3	18.9	11.4	0	NA		
-08	8.4	0.7	7.7	279.9	248.5	31.4	18.0	13.4	1	213		
-09	8.5	0.7	7.8	314.2	265.9	48.3	29.9	18.4	0	NA		
92-03	8.8	0.3	8.5	217.1	198.6	20.5	10.5	10.0	1	96		
-04	8.9	0.1	8.8	197.4	163.6	33.8	18.3	15.5	0	NA		
-05	8.7	0.2	8.5	192.4	161.6	30.8	18.1	12.7	0	NA		
-06	8.4	0.2	8.2	186.6	155.0	31.6	17.8	13.8	0	NA		
-07	8.2	0.0	8.2	146.7	118.9	27.8	15.9	11.9	0	NA		
-08	9.0	0.6	8.4	217.2	186.9	30.3	17.4	12.9	1	1433		
-09	16.1	1.1	15.0	190.6	158.3	32.3	15.2	17.1	0	NA		
-10	9.2	1.9	7.3	299.4	284.5	14.9	7.3	7.6	0	NA		
-11	8.6	0.0	8.6	86.5	66.5	20.0	11.2	8.8	0	NA		
-12	7.7	0.2	7.5	195.5	172.9	22.6	13.0	10.6	1	1232		

MPEC4AUG.86

## OVERBURDEN DRILLING MANAGEMENT LIMITED

## LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)					AU	DESCRIPTION						CLASS						
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CONC. TOTAL	NON MAG	NO. MAG		CALC V.G.	CLAST SIZE	%	MATRIX S/U SD			ST CY	COLOR					
												V/S	GR	LS	OT		SD	CY				
122-01,02	15.5	0.4	15.1	218.6	197.0	21.6	11.5	10.1	1	56	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-06	7.4	0.3	7.1	212.7	173.6	39.1	14.9	24.2	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-07	7.5	0.1	7.4	156.0	135.0	21.0	11.6	9.4	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
123-02,03	16.1	0.8	15.3	305.1	247.5	57.6	30.9	26.7	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-05,06	13.8	1.1	12.7	392.9	345.4	47.5	29.5	18.0	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-07,08	15.1	1.8	13.3	322.4	257.1	65.3	37.4	27.9	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
125-02	6.8	0.6	6.2	137.0	114.8	22.2	12.0	10.2	0	NA	NA	NA	NA	NA	NA	S	C	Y	N	B	NA	SAND
126-01,02	13.3	0.1	13.2	146.5	113.8	32.7	19.4	13.3	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-03	5.8	0.0	5.8	62.2	44.7	17.5	11.1	6.4	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-04	5.6	0.0	5.6	101.8	87.4	14.4	8.8	5.6	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-05	6.5	0.0	6.5	81.0	62.0	19.0	11.0	8.0	1	348	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-06,07	17.1	0.0	17.1	262.4	196.1	66.3	42.9	23.4	5	31	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-09	7.1	0.0	7.1	183.0	168.2	14.8	9.4	5.4	0	NA	NA	NA	NA	NA	NA	S	F-M	Y	Y	B	B	SAND
-10	7.7	0.0	7.7	244.5	230.3	14.2	9.0	5.2	1	860	NA	NA	NA	NA	NA	U	Y	Y	Y	B	B	TILL
-12	7.3	0.1	7.2	128.8	100.0	28.8	16.8	12.0	1	89	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-13	7.8	0.4	7.4	161.4	132.4	29.0	16.3	12.7	6	1304	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GY	TILL
-14	7.6	0.3	7.3	172.0	147.5	24.5	12.5	12.0	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GY	TILL
-15	6.6	0.2	6.4	122.8	96.8	26.0	14.6	11.4	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GY	TILL
-16	7.0	0.6	6.4	140.4	109.4	31.0	21.7	9.3	5	555	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GY	TILL
-17	7.1	0.4	6.7	142.1	120.2	21.9	13.3	8.6	0	NA	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GY	TILL

MPEC4AUG.86

OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)				AU		DESCRIPTION						CLASS		
	TABLE	+10	TABLE	TABLE	M.I.	CONC.	NON	NO.	CALC	CLAST			MATRIX					
	SPLIT	CHIPS	FEED	CONC	LIGHTS	TOTAL	MAG	MAG	V.G.	PPB	SIZE	%	S/U	SD	ST	CY	COLOR	
											V/S	GR	LS	OT			SD	CY

141-01	6.0	0.1	5.9	89.7	74.2	15.5	10.7	4.8	0	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-02	6.6	0.1	6.5	61.9	38.3	23.6	14.9	8.7	0	NA	NA	NA	NA	NA	U	Y	Y	Y	B	B	TILL
-03	4.6	0.1	4.5	224.6	200.3	24.3	14.0	10.3	0	NA	NA	NA	NA	NA	U	Y	Y	Y	B	B	TILL
-04	7.8	0.6	7.2	108.0	78.8	29.2	16.6	12.6	6	1510	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-05	7.0	0.2	6.8	224.5	203.9	20.6	12.0	8.6	0	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-06	6.6	0.2	6.4	216.6	190.0	26.6	17.3	9.3	0	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
143-01,02	14.3	0.3	14.0	123.2	86.1	37.1	20.8	16.3	0	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-03,04	12.6	0.2	12.4	133.5	108.2	25.3	13.8	11.5	0	NA	NA	NA	NA	NA	U	Y	Y	Y	B	GB	TILL
-13	6.6	0.8	5.8	108.7	89.5	19.2	10.4	8.8	4	581	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-14	6.8	0.5	6.3	153.8	124.6	29.2	15.7	13.5	0	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-15	7.4	0.9	6.5	148.3	125.9	22.4	12.5	9.9	0	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
-16	6.5	0.7	5.8	109.8	76.6	33.2	17.3	15.9	0	NA	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL
144-01,02	15.4	0.5	14.9	394.8	247.0	147.8	81.2	66.6	6	768	NA	NA	NA	NA	U	Y	Y	Y	GB	GB	TILL

MFHEISEP.86

OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)				AU		DESCRIPTION				CLASS	
	TABLE	+10	TABLE	TABLE	M.I.	CONC.	NON	NO.	CALC	SIZE	%	S/U	SD		ST
=====															
M. I. CONC															
=====															
CLAST															
=====															
MATRIX															
=====															
SPLIT CHIPS FEED															
=====															
V/S GR LS OT															
=====															
SD CY															
=====															

EC-86

142-01	8.1	0.2	7.9	196.2	180.2	16.0	9.2	6.8	0	NA						
-02	6.2	0.0	6.2	209.1	186.0	23.1	14.5	8.6	1	340						
-03	5.7	0.0	5.7	138.3	119.7	18.6	12.2	6.4	1	1313						
144-03	7.5	0.5	6.9	270.4	250.7	19.7	10.2	9.5	0	NA						
-04	8.0	1.2	6.8	464.2	446.7	17.5	10.2	7.3	0	NA						
-04	6.6	0.8	5.8	212.1	195.5	16.6	9.0	7.6	1	236						
-06	6.2	0.6	5.6	275.9	266.6	9.3	5.0	4.3	0	NA						
-07	5.4	1.3	4.1	150.1	127.1	23.0	4.9	18.1	0	NA						

MPHE1SEP.86

OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)		WEIGHT (GRAMS DRY)				AU	DESCRIPTION				CLASS					
	TABLE	+10 TABLE	TABLE	M.I. CONC.	NON	NO.		CLAST	MATRIX								
	SPLIT	CHIPS	CONC	LIGHTS	TOTAL	MAG	MAG	V.G.	PPB	SIZE	%	S/U	SD	ST	CY	COLOR	
										V/S	GR	LS	OT			SD	CY

126-08	6.4	0.0	6.4	75.6	57.2	18.4	10.8	7.6	0	NA							
-11	7.8	0.4	7.4	125.4	104.6	20.8	12.9	7.9	4	436							
143-07,08	14.2	0.0	14.2	118.8	85.9	32.9	20.0	12.9	0	NA							
-09,10	14.1	0.0	14.1	131.8	89.9	41.9	26.0	15.9	0	NA							
-11,12	12.7	0.0	12.7	168.9	141.3	27.6	17.1	10.5	1	37							





MPHETSEP.86

OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)				AU		DESCRIPTION				CLASS	
	TABLE SPLIT	+10 CHIPS	TABLE FEED	TABLE CONC	M. I. LIGHTS	CONC. TOTAL	NON MAG	NO. MAG	CALC V.G.	CLAST SIZE	%	S/U SD	MATRIX ST CY		COLOR
ED-86															
-12	6.7	0.0	6.7	203.3	184.5	18.8	12.1	6.7	0	NA					
-13	8.6	0.0	8.6	173.6	142.4	31.2	19.4	11.8	0	NA					
-14	7.5	0.0	7.5	176.6	168.5	8.1	4.5	3.6	0	NA					
-15	4.0	0.0	4.0	97.4	87.0	10.4	6.7	3.7	1	1155					
176-01,02	16.0	0.4	15.6	289.0	223.5	65.5	33.8	31.7	8	3371					
-03,04,05	23.8	0.2	23.6	163.3	83.7	79.6	44.5	35.1	0	NA					
-06,07	14.6	0.2	14.4	135.5	93.0	42.5	22.2	20.3	0	NA					
-08	7.6	0.0	7.6	102.0	75.5	26.5	16.9	9.6	0	NA					
-09	6.0	0.0	6.0	230.7	228.0	2.7	1.4	1.3	0	NA					
-10	6.4	0.1	6.3	87.3	60.0	27.3	17.8	9.5	0	NA					
-11	7.2	0.1	7.1	81.5	60.0	21.5	14.2	7.3	0	NA					
-12	8.1	0.1	8.0	136.3	104.8	31.5	19.7	11.8	0	NA					
-13	4.0	0.1	3.9	97.9	84.7	13.2	8.2	5.0	0	NA					
177-01,02	7.8	0.1	7.7	145.6	120.0	25.6	20.9	4.7	1	650					
-03,04,05	17.4	0.4	17.0	226.6	163.6	63.0	38.2	24.8	1	653					
-06	7.2	0.1	7.1	129.6	95.5	34.1	24.3	9.8	0	NA					
-07	7.9	0.1	7.8	122.5	82.9	39.6	16.2	23.4	0	NA					
-08	8.1	0.0	8.1	141.1	103.5	37.6	23.9	13.7	0	NA					
-09,10	16.7	0.2	16.5	226.6	173.0	53.6	26.9	26.7	0	NA					
-11,12	15.7	0.3	15.4	220.5	163.3	57.2	31.6	25.6	1	67					
-13	4.8	0.0	4.8	126.2	104.3	21.9	14.3	7.6	1	797					
-14	5.5	0.1	5.4	191.8	168.8	23.0	14.2	8.8	0	NA					
-15	7.9	0.2	7.7	232.8	192.3	40.5	25.9	14.6	0	NA					
-16	12.8	0.5	12.2	320.3	232.7	87.6	67.8	19.8	2	99935					
-17	6.4	0.3	6.1	263.7	208.3	55.4	47.5	7.9	1	81					
178-01,02	12.1	0.0	12.1	164.0	119.9	44.1	27.3	16.8	0	NA					
-03	5.7	0.0	5.7	75.9	58.0	17.9	12.6	5.3	0	NA					
-04,05	16.7	0.4	16.3	64.7	40.6	24.1	15.9	8.2	0	NA					
-06	7.3	0.1	7.2	113.1	91.7	21.4	15.1	6.3	0	NA					
-07,08	15.2	0.8	14.4	228.2	158.8	69.4	45.8	23.6	0	NA					
-09,10	8.3	0.2	8.1	131.4	102.2	29.2	19.3	9.9	0	NA					
-11	4.0	0.0	4.0	76.4	60.8	15.6	10.9	4.7	0	NA					
-12	3.4	0.0	3.4	86.8	76.6	10.2	7.4	2.8	0	NA					
-13	5.5	0.1	5.4	70.0	45.6	24.4	15.9	8.5	0	NA					
-14	6.3	0.1	6.2	105.4	74.2	31.2	23.0	8.2	0	NA					
179-01	5.9	0.0	5.9	71.2	54.2	17.0	12.8	4.2	0	NA					
-02	6.7	0.1	6.6	54.2	39.1	15.1	10.7	4.4	0	NA					
180-01	7.6	0.2	7.4	120.7	63.8	56.9	31.3	25.6	0	NA					
-02	8.2	0.3	7.9	136.0	102.0	34.0	19.1	14.9	0	NA					
-03	5.9	0.1	5.8	170.4	126.0	44.4	26.3	16.1	0	NA					

## GOLD CLASSIFICATION

## =====

mphel jun. 86

## NUMBER OF GRAINS

BAR

SAMPLE # PANNED	Y/N	DIAMETER	THICKNESS	NUMBER OF GRAINS				NON MAG	CALC V.G. ASSAY	REMARKS
				ABRADED =====	IRREGULAR =====	DELICATE =====	TOTAL			
				T	P	T	P	TOTAL	GMS	PPB

EC-86

01-02 N NO VISIBLE GOLD

-03 N 75 X 75 15 C 1

TOTAL	1	28.8	22
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02-02 N NO VISIBLE GOLD

-03 Y NO VISIBLE GOLD

EST: 15% PYRITE

04-01 N NO VISIBLE-GOLD

05-01 N 125 X 250 36 C 1

TOTAL	1	7.5	1261
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06-04 N NO VISIBLE GOLD

07-01 N NO VISIBLE GOLD

09-03 N NO VISIBLE GOLD

-06 N NO VISIBLE GOLD

10-02 N NO VISIBLE GOLD

11-01 N NO VISIBLE GOLD

-02 N 75 X 100 18 C 1

TOTAL	1	24.1	42
-------	---	------	----

-03 N NO VISIBLE GOLD

-06 N NO VISIBLE GOLD

12-05 N NO VISIBLE GOLD

13-07 N NO VISIBLE GOLD

14-09 Y NO VISIBLE GOLD

EST: 15% PYRITE  
200 GRAINS ARSENOPIRYTE (FINE)  
1 GRAIN COPPER (75X75)  
(IRREGULAR)

-10 N NO VISIBLE GOLD

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

BAR

mphe1jun.86

NUMBER OF GRAINS

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
					T	P	T	P	T	P			

EC-86

15-01 N NO VISIBLE GOLD

-02 N NO VISIBLE GOLD

-07 N NO VISIBLE GOLD

16-03 N NO VISIBLE GOLD

-04 N NO VISIBLE GOLD

17-01 N NO VISIBLE GOLD

18-01 N NO VISIBLE GOLD

19-06 N NO VISIBLE GOLD

-07 N NO VISIBLE GOLD

20-07 N NO VISIBLE GOLD

-08 N NO VISIBLE GOLD

-04 N NO VISIBLE GOLD

21-03 N NO VISIBLE GOLD

22-03 N NO VISIBLE GOLD

-04 N NO VISIBLE GOLD

-06 N NO VISIBLE GOLD

-07 N NO VISIBLE GOLD

23-04 N NO VISIBLE GOLD

-05 N NO VISIBLE GOLD

24-02 N 125 X 200 31 C 1

TOTAL	1	18.6	335
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25-08 N NO VISIBLE GOLD

-09 N NO VISIBLE GOLD











GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND FANNING

MPHE2JUN.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABGRADED				IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
				T	P	T	P	T	P	TOTAL	GMS			

BAR

EC-86

-02	Y	25 X 25	5 C								1		EST: 2% FYRITE
		25 X 50	8 C								1		
		50 X 100	15 C		1						1		
		75 X 100	18 C		1						1		
		125 X 200	31 C		1						1		

TOTAL 5 17.1 467

19-01 N NO VISIBLE GOLD

20-01 N NO VISIBLE GOLD

-02 N NO VISIBLE GOLD

-03 N NO VISIBLE GOLD

-05 N 300 X 575 73 C 1

TOTAL 1 14.7 7103

-06 N NO VISIBLE GOLD

21-01 N NO VISIBLE GOLD

-02 N 100 X 150 25 C 1

TOTAL 1 20.7 140

22-01 N NO VISIBLE GOLD

-02 N NO VISIBLE GOLD

-05 N NO VISIBLE GOLD

24-01	Y	50 X 50	10 C			2					2		NO SULPHIDES
		50 X 125	18 C								1		
		100 X 200	29 C		1						1		
		200 X 200	38 C		1						1		

TOTAL 5 21.6 821

25-01 N NO VISIBLE GOLD

-02 N NO VISIBLE GOLD

-03 N NO VISIBLE GOLD

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MFHE2JUN.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABGRADED		IRREGULAR		DELICATE		NON MAG TOTAL	GMS	CALC V.G. ASSAY PPB	REMARKS
				T	P	T	P	T	P				

BAR

EC-86

27-01 N NO VISIBLE GOLD

28-01 N 100 X 100 20 C 1

TOTAL 1 12.4 121

29-01 Y 25 X 50 8 C 1  
 50 X 50 10 C 1  
 50 X 75 13 C 1 1  
 125 X 150 27 C 1  
 325 X 450 66 C 1

EST: 1% PYRITE

TOTAL 6 18.5 4302

31-01 N NO VISIBLE GOLD

33-01 N NO VISIBLE GOLD

34-01 N NO VISIBLE GOLD

-02 N NO VISIBLE GOLD

35-01 N NO VISIBLE GOLD

36-01 N NO VISIBLE GOLD

37-01 N 100 X 100 20 C 1

TOTAL 1 9.1 165

38-01 N NO VISIBLE GOLD

-02 N NO VISIBLE GOLD

40-01 N NO VISIBLE GOLD

-04 (2) N 275 X 650 76 C 1

TOTAL 1 17.3 7023

-06 (1) N NO VISIBLE GOLD

-02 N 50 X 50 10 C 1

TOTAL 1 8.8 22

GOLD CLASSIFICATION

=====

VISIBLE GOLD FROM SHAKING TABLE AND FANNING

MPHE2JUN.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABGRADED		IRREGULAR		DELICATE		NON MAG TOTAL GMS	CALC V.G. ASSAY PPB	REMARKS
				T	P	T	P	T	P			

EC-86												
-03	N											
-04(1)	N											
40-05	N											

BAR





GOLD CLASSIFICATION

=====

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

mph11jul.86

NUMBER OF GRAINS

SAMPLE # PANNED	Y/N	DIAMETER	THICKNESS	ABGRADED		IRREGULAR		DELICATE		NON MAG TOTAL GMS	CALC V.G. ASSAY PPB	REMARKS	
				T	P	T	P	T	P				
EC-86													
42-11	N	NO VISIBLE GOLD											
-12	N	NO VISIBLE GOLD											
-13	N	NO VISIBLE GOLD											
43-01	N	NO VISIBLE GOLD											
-02	N	NO VISIBLE GOLD											
-03	N	NO VISIBLE GOLD											
-04	N	NO VISIBLE GOLD											
-05	N	NO VISIBLE GOLD											
-06	N	NO VISIBLE GOLD											
45-01	N	NO VISIBLE GOLD											
-02	N	NO VISIBLE GOLD											
-03	Y	25 X 25	5 C		1					1		EST: 10% PYRITE 150 GRAINS ARSENOFYRITE (FINE)	
		25 X 50	8 C		1					1			
		50 X 100	15 C	1						1			
		75 X 125	20 C	1						1			
										TOTAL	4	28.4	79
-04	Y	75 X 100	18 C	1						1		EST: 10% PYRITE 100 GRAINS ARSENOFYRITE (FINE)	
		100 X 125	22 C	1						1			
										TOTAL	2	17.8	176
-05	N	150 X 150	29 C	1						1			
										TOTAL	1	22.0	224
-06	N	200 X 200	38 C	1						1			
										TOTAL	1	17.3	659
-07	N	NO VISIBLE GOLD											
-08	N	NO VISIBLE GOLD											
-09	N	NO VISIBLE GOLD											

BAR

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

mph11jul.86

NUMBER OF GRAINS

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABGRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
					T	P	T	P	T	P			

EC-86

46-01 N NO VISIBLE GOLD

-02 N NO VISIBLE GOLD

-03	N	200 X 200	38 C			1					1		
TOTAL											1	17.3	659

-04 N NO VISIBLE GOLD

47-01 N NO VISIBLE GOLD

BAR

57

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND FANNING

MFHE1AUG.86

NUMBER OF GRAINS

SAMPLE #	FANNED Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
				T	P	T	F	T	P	TOTAL	GMS			

EC-86

30-01.02 N NO VISIBLE GOLD

BAR

-03.04 N NO VISIBLE GOLD

-05.06 N NO VISIBLE GOLD

-07 N 100 X 150 25 C 1

TOTAL 1 27.0 107

05-02 N NO VISIBLE GOLD

05-02.03 Y 25 X 25 5 C 1  
 25 X 50 8 C 1  
 50 X 50 10 C 3  
 50 X 75 13 C 1  
 100 X 125 22 C 1  
 100 X 150 25 C 1

EST: 5% PYRITE

TOTAL 8 17.2 353

08-35.06 N 75 X 75 15 C 1

TOTAL 1 11.0 58

-07.08 N 125 X 225 34 C 1

TOTAL 1 17.1 452

10-03.04 N NO VISIBLE GOLD

-05.06 N NO VISIBLE GOLD

11-04.05 N NO VISIBLE GOLD

12-04 N NO VISIBLE GOLD

14-03.04 N NO VISIBLE GOLD

-05.06 N 125 X 125 25 C 1

TOTAL 1 18.2 159

15-03.04 N NO VISIBLE GOLD

-05.06 N NO VISIBLE GOLD





GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MFHEZAG.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
				T	F	T	P	T	P			

85-01,02	N	175 X 375	50 C	1						1		BAP	
TOTAL											1	19.6	1452
-03,04	Y	50 X 75	13 C	2						2		EST: 2% PYRITE	
		75 X 75	15 C		1					1			
		100 X 100	20 C		1					1			
TOTAL											4	33.6	86
-05,06	N	NO VISIBLE GOLD											
-07	N	NO VISIBLE GOLD											
-08	N	100 X 175	27 C			1				1			
TOTAL											1	18.0	213
-09	N	NO VISIBLE GOLD											



92 -14

5% py, anhed & marc.fram,  
1:20 arseno:py, 1mm mass  
py frags

EAR

83-02	-	<2% py, anhedral to euhedral	70% hematite
84-01	-	10% py, anhedral to euhedral cubes to <del>len</del>	40% hematite
85-14	-	5% py, anhedral	40% hematite
87 -02	450x250x150 simple, pitted grain	5% py, anhedral, 1:20 arseno:py	30% hematite
87-03	-	2% py, anhedral	30% hematite

BAR

87-04	-	5% py, anhedral trace marcasite	35% hematite
88-01			
88-05(i)	-	5% py, anhedral 1:20 arseno:py, good rhombs	50% hematite
88-05(ii)	-	as above	50% hematite
89-03	-	<2% py, anhedral to euhedral	40% hematite
90-07	-	60% py, anhedral, trace arsenopy	20% hematite
91-09	560x300x25 simple, pitted flake	20% py, anhedral, marcasite framb, 1:30 arseno:py, trace chalcopy	40% hematite
92-13	-	5% py, anhedral, trace marcasite	25% hematite
92-14	-	5% py, anhedral, massive sulphide, 1:20 arseno:py, trace marcasite	25% hematite

BAR

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPEC4AL6.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
				T	P	T	P	T	P			

122-01,02	N	50 X 100	15 C	1						1			
										TOTAL	1	11.5	56

NR  
BAR

-06 N NO VISIBLE GOLD

-07 N NO VISIBLE GOLD

123-02,03 N NO VISIBLE GOLD

-05,06 N NO VISIBLE GOLD

-07,08 N NO VISIBLE GOLD

125-02 N NO VISIBLE GOLD

126-01,02 N NO VISIBLE GOLD

-03 N NO VISIBLE GOLD

-04 N NO VISIBLE GOLD

-05	N	125 X 150	27 C	1						1			
										TOTAL	1	11.0	348

-06,07	Y	25 X 25	5 C		1					1		30 GRAINS PYRITE
		50 X 50	10 C		1					1		
		50 X 75	13 C	1	1		1			3		

GOLD CLASSIFICATION

=====

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPEC4AUG.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	NUMBER OF GRAINS				NON MAG	CALC V.G. ASSAY	REMARKS				
				ABBRADED =====		IRREGULAR =====					DELICATE =====			
				T	P	T	P	T	P	TOTAL GMS	PPB			
EC-86										TOTAL	5	42.9	31	
-09	N	NO VISIBLE GOLD												
-10	N	150 X 200	34 C	1							1			
										TOTAL	1	9.0	860	
-12	N	100 X 100	20 C	1							1			
										TOTAL	1	16.8	89	
-13	Y	50 X 75	13 C			1				1				EST. 10% PYRITE
		75 X 100	18 C			1				1				20 GRAINS ARSENOFYRITE
		75 X 125	20 C			1				1				
		75 X 175	25 C	1						1				
		125 X 225	34 C	1						1				
		125 X 225	34 C	1						1				
										TOTAL	6	16.3	1304	
-14	N	NO VISIBLE GOLD												
-15	N	NO VISIBLE GOLD												
-16	Y	25 X 50	8 C							1				EST. 15% PYRITE
		50 X 75	13 C							1				
		75 X 75	15 C	1						1				
		75 X 125	20 C							1				
		125 X 250	36 C	1						1				
										TOTAL	5	21.7	555	
-17	N	NO VISIBLE GOLD												
126-08	N	NO VISIBLE GOLD												
-11	Y	50 X 75	13 C	1						1				EST. 30 GRAINS PYRITE

BAR



GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPEC4AUG.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY PPB	REMARKS	
				T	P	T	P	T	P				TOTAL
EC-86													
										TOTAL	1	12.3	173
130-01	N	100 X 100	20 C	1							1		
										TOTAL	1	18.2	82
131-01	N	NO VISIBLE GOLD											
-02	N	NO VISIBLE GOLD											
-03	N	NO VISIBLE GOLD											
-04,05	N	100 X 150	25 C	1							1		
										TOTAL	1	26.9	108
132-01	N	NO VISIBLE GOLD											
-02	Y	25 X 50	8 C					2			2		EST. 15% PYRITE 1 GRAIN GALENA
										TOTAL	2	8.2	20
-03	N	NO VISIBLE GOLD											
-04	N	NO VISIBLE GOLD											
-05	N	NO VISIBLE GOLD											
133-01	Y	50 X 75	13 C	1	1						2		EST. 7% PYRITE
		75 X 100	18 C	2							2		25 GRAINS ARSENOPYRITE (FINE)
		175 X 250	40 C			1					1		
										TOTAL	5	20.6	794
-02,03	N	200 X 300	46 C	1							1		
										TOTAL	1	20.5	1058
-04	N	NO VISIBLE GOLD											
-05	N	NO VISIBLE GOLD											
-06	N	NO VISIBLE GOLD											
-07	N	NO VISIBLE GOLD											
-08	N	NO VISIBLE GOLD											



GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPEC4AUG.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
				T	P	T	P	T	P			
141-01	N	NO VISIBLE GOLD										
-02	N	NO VISIBLE GOLD										
-03	N	NO VISIBLE GOLD										
-04	Y	25 X 50	8 C		1					1		EST 10% PYRITE 0.5% ARSENOPIRYTE (FINE)
		50 X 75	13 C		1					1		
		75 X 125	20 C	1						1		
		100 X 100	20 C	1						1		
		100 X 150	25 C	1						1		
		150 X 325	44 C		1	1				1		
TOTAL										6	16.6	1510
-05	N	NO VISIBLE GOLD										
-06	N	NO VISIBLE GOLD										
143-01,02	N	NO VISIBLE GOLD										
-03,04	N	NO VISIBLE GOLD										
-13	Y	50 X 200	25 C		1					1		EST. 20% PYRITE 0.5% ARSENOPIRYTE (FINE)
		75 X 75	15 C				1			1		
		75 X 100	18 C		1					1		
		75 X 125	20 C		1					1		
TOTAL										4	10.4	581
-14	N	NO VISIBLE GOLD										
-15	N	NO VISIBLE GOLD										
-16	N	NO VISIBLE GOLD										
-144-01,02	Y	25 X 25	5 C		1					1		EST. 5% PYRITE 0.5% ARSENOPIRYTE (FINE)
		75 X 100	18 C		1					1		
		75 X 125	20 C		1					1		
		125 X 125	25 C	1						1		
		150 X 400	50 C	1						1		
		275 X 275	50 C	1						1		

BAR



GOLD CLASSIFICATION

=====

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPHE1SEP.86

NUMBER OF GRAINS

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
					T	P	T	P	T	P			

126-08 N NO VISIBLE GOLD

-11 Y 50 X 75 13 C 1

EST. 30 GRAINS PYRITE

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPHE1SEP.86

NUMBER OF GRAINS

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS	
					T	P	T	P	T	P				TOTAL
EC-86			50 X 125	18 C										
			75 X 150	22 C	1									
			100 X 125	22 C	1									
											TOTAL	4	12.9	436
143-07,0	N		NO VISIBLE GOLD											
-09,10	N		NO VISIBLE GOLD											
-11,12	N		50 X 100	15 C	1									
											TOTAL	1	17.1	37

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPH13EP.86

NUMBER OF GRAINS

SAMPLE #	FANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG TOTAL GMS	CALC V.G. ASSAY PPB	REMARKS
				T	P	T	P	T	P			

EC-86

142-01 N NO VISIBLE GOLD

-02 N 100 X 200 29 C 1

TOTAL 1 14.5 340

BAR

-03 N 200 X 250 42 C 1

TOTAL 1 12.2 1313

144-03 N NO VISIBLE GOLD

-04 N NO VISIBLE GOLD

-05 N 50 X 175 22 C 1

TOTAL 1 9.0 236

-06 N NO VISIBLE GOLD

-07 N NO VISIBLE GOLD

R

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND FANNING

MFHE3SEP.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG TOTAL GMS	CALC V.G. ASSAY PFB	REMARKS
				T	F	T	F	T	P			

ED-86

BAR

-08	N	NO VISIBLE GOLD											
-09,10	N	NO VISIBLE GOLD											
-11,12	N	100 X	125	22 C	1					1			
										TOTAL	1	31.6	67
-13	N	175 X	225	38 C	1					1			
										TOTAL	1	14.3	797
-14	N	NO VISIBLE GOLD											
-15	Y	NO VISIBLE GOLD											
		EST. 10% PYRITE											
-16	Y	100 X	125	22 C						1		EST. 25% PYRITE	
		2075 X	2175	200 M	1					1			
										TOTAL	2	67.8	99935
-17	N	125 X	150	27 C	1					1			
										TOTAL	1	47.5	81
178-01.02	N	NO VISIBLE GOLD											
-03	N	NO VISIBLE GOLD											
-04,05	N	NO VISIBLE GOLD											
-06	N	NO VISIBLE GOLD											
-07,08	N	NO VISIBLE GOLD											
-09,10	N	NO-VISIBLE GOLD											
-11	N	NO VISIBLE GOLD											
-12	N	NO VISIBLE GOLD											
-13	N	NO VISIBLE GOLD											
-14	N	NO VISIBLE GOLD											



GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPHE3SEP.86

NUMBER OF GRAINS

BAR

SAMPLE #	PANNED	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
				T	P	T	P	T	P			

EC-86

-02	N											NO VISIBLE GOLD
180-01	N											NO VISIBLE GOLD
-02	N											NO VISIBLE GOLD
-03	N											NO VISIBLE GOLD

## GOLD CLASSIFICATION

=====

## VISIBLE GOLD FROM SHAKING TABLE AND FANNING

MPH15SEP.86

## NUMBER OF GRAINS

SAMPLE #	FANNED Y/N	DIAMETER	THICKNESS	ABRAGED =====		IRREGULAR =====		DELICATE =====		NON MAG	CALC V.G. ASSAY	REMARKS	
				T	P	T	P	T	P				TOTAL GMS
EE-86													
										TOTAL	g	31.0	379
-06.07	N											NO VISIBLE GOLD	
-08	N											NO VISIBLE GOLD	
-09	N											NO VISIBLE GOLD	
-10	N											NO VISIBLE GOLD	
-11	N											NO VISIBLE GOLD	
-12	N											NO VISIBLE GOLD	
187-01	N											NO VISIBLE GOLD	
-02	N											NO VISIBLE GOLD	

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MPH83SEP.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
				T	P	T	P	T	F	TOTAL	GMS			

170-01,02 N NO VISIBLE GOLD

BAR

-03,04 N 75 X 125 20 C 1

1

TOTAL 1 36.7 41

-05 N NO VISIBLE GOLD

-06 N NO VISIBLE GOLD

-07 N NO VISIBLE GOLD

-08 N NO VISIBLE GOLD

-09 N NO VISIBLE GOLD

-10 N NO VISIBLE GOLD

171-01,02 N 50 X 75 13 C 1

1

TOTAL 1 38.9 10

-03,04	Y	25 X 25	5 C	1	1		1			3		EST. 2% PYRITE
		25 X 75	10 C		1					1		
		50 X 75	13 C	1	1					2		
		50 X 100	25 M	1						1		
		75 X 125	20 C	1						1		
		125 X 150	25 M	1						1		



GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND FANNING

MPH36EP.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY PPB	REMARKS
				T	P	T	P	T	P			

EC-8e														
										TOTAL	22	82.9	493	BAR

174-1,2,3	N	25	75	10	C	1								
										TOTAL	1	52.3	4	

-04 N NO VISIBLE GOLD

-05,06	N	550 X	800	96	C	1								
										TOTAL	1	56.9	5777	

-07 N NO VISIBLE GOLD

-08 N NO VISIBLE GOLD

-09 N NO VISIBLE GOLD

-10 N NO VISIBLE GOLD

175-01 N NO VISIBLE GOLD

-02.03	Y	25 X	50	8	C					2				EST. 5% PYRITE
		100 X	125	22	C					1				150 GRAINS ARSENOFYRITE (FINE)
		125 X	225	34	C	1				1				1 GRAIN COPPER (NATIVE)
		175 X	350	48	C	1				1				75x75 MICRONS
										TOTAL	5	23.6	1481	

-04,05 N NO VISIBLE GOLD

-06,07,08	Y	25 X	25	5	C					3				EST. 1% PYRITE
		25 X	50	8	C					1				800 GRAINS ARSENOFYRITE (FINE)
		50 X	50	10	C					1				
		50 X	100	15	C					1				
		100 X	150	25	C	1				1				
		100 X	200	29	C	1				1				
										TOTAL	6	40.7	217	

-09	N	100 X	175	27	C	1								
										TOTAL	1	11.7	327	

-10,11 N NO VISIBLE GOLD

GOLD CLASSIFICATION

=====

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MFH03SEP.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED =====		IRREGULAR =====		DELICATE =====		NON MAG TOTAL	GMS	CALC V.G. ASSAY PFB	REMARKS
				T	P	T	F	T	P				

ED-86

6.7

-13 N NO VISIBLE GOLD

-14 N NO VISIBLE GOLD

-15 N 150 X 200 34 C 1 1

TOTAL 1 6.7 1155

176-01.02	Y	50 X 125	18 C	1					1			EST. 7% PYRITE 1000 GRAINS ARSENOPYRITE (FINE)
		75 X 75	15 C	1					1			
		75 X 100	18 C	1					1			
		100 X 200	29 C	1					1			
		125 X 175	29 C	1					1			
		125 X 200	31 C	1					1			
		200 X 225	40 C	1					1			
		300 X 500	68 C	1					1			

TOTAL 8 33.8 3371

-03,04,05 N NO VISIBLE GOLD

-06,07 N NO VISIBLE GOLD

-08 N NO VISIBLE GOLD

-09 N NO VISIBLE GOLD

-10 N NO VISIBLE GOLD

-11 N NO VISIBLE GOLD

-12 N NO VISIBLE GOLD

-13 N NO VISIBLE GOLD

177-01.02 N 150 X 275 40 C 1 1

TOTAL 1 20.9 650

-03,04,05 N 200 X 325 48 C 1 1

TOTAL 1 38.2 653

-06 N NO VISIBLE GOLD

-07 N NO VISIBLE GOLD

GOLD CLASSIFICATION

=====

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

MFHE3SEP.86

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON MAG	CALC V.G. ASSAY	REMARKS
				T	P	T	P	T	P			

ED-86

*6.7*

-13	N	NO VISIBLE GOLD											
-14	N	NO VISIBLE GOLD											
-15	N	150 X 200	34 C	1									
										TOTAL	1	6.7	1155
176-01.02	Y	50 X 125	18 C	1									
		75 X 75	15 C	1									
		75 X 100	18 C	1									
		100 X 200	29 C	1									
		125 X 175	29 C	1									
		125 X 200	31 C	1									
		200 X 225	40 C	1									
		200 X 500	68 C	1									
										TOTAL	8	33.8	3071
-03,04,05	N	NO VISIBLE GOLD											
-06,07	N	NO VISIBLE GOLD											
-08	N	NO VISIBLE GOLD											
-09	N	NO VISIBLE GOLD											
-10	N	NO VISIBLE GOLD											
-11	N	NO VISIBLE GOLD											
-12	N	NO VISIBLE GOLD											
-13	N	NO VISIBLE GOLD											
177-01.02	N	150 X 275	40 C	1									
										TOTAL	1	20.9	850
-03,04,05	N	200 X 325	48 C	1									
										TOTAL	1	38.2	653
-06	N	NO VISIBLE GOLD											





GOLD CLASSIFICATION

=====

VISIBLE GOLD FROM SHAKING TABLE AND FANNING

MPHESSEP.86

NUMBER OF GRAINS

Bar

SAMPLE #	FANNED	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		NON	MAG	CALC V.G.	REMARKS
				T	P	T	P	T	P				

EC-86

-02 N NO VISIBLE GOLD

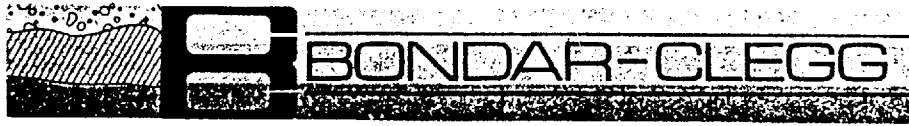
129-01 N NO VISIBLE GOLD

-02 N NO VISIBLE GOLD

-03 N NO VISIBLE GOLD

APPENDIX B

Certificates of Analysis - Overburden



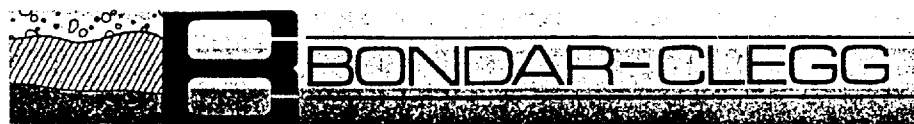
BAROQUE

REPORT: 016-1881

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
EC-86-01-02 3/4		512	86	0.4	50	300	9.73
EC-86-01-03 3/4		1735	88	2.0	15	60	
EC-86-02-02 3/4		260	60	0.5	108	165	
EC-86-02-03 3/4		385	109	1.3	70	65	
EC-86-04-01 3/4		177	35	0.3	23	30	
EC-86-06-04 3/4		112	168	0.2	14	65	4.66
EC-86-07-01 3/4		370	50	0.3	20	5	
EC-86-09-03 3/4		79	18	0.2	3	25	
EC-86-09-06 3/4		124	118	<0.1	19	90	
EC-86-10-02 3/4		104	52	0.3	21	35	
EC-86-11-01 3/4		303	40	0.1	14	25	
EC-86-11-02 3/4		38	25	<0.1	2	330	
EC-86-11-03 3/4		200	92	0.8	58	165	
EC-86-11-06 3/4		200	60	0.2	19	10	
EC-86-12-05 3/4		45	66	0.1	11	10	
EC-86-13-07 3/4		124	60	0.1	13	30	7.09
EC-86-14-09 3/4		246	106	0.4	114	15	
EC-86-14-10 3/4		197	50	0.4	48	115	
EC-86-15-01 3/4		57	36	0.2	12	1090	
EC-86-15-02 3/4		184	370	0.3	29	110	
EC-86-15-07 3/4		316	136	0.3	22	10	
EC-86-16-03 3/4		121	36	0.2	15	270	
EC-86-16-04 3/4		315	560	0.5	14	10	
EC-86-17-01 3/4		211	96	0.4	22	35	
EC-86-18-01 3/4		32	16	<0.1	<2	10	
EC-86-19-06 3/4		340	172	0.5	56	125	7.73
EC-86-19-07 3/4		329	182	0.5	44	30	
EC-86-20-04 3/4		231	50	0.2	25	65	
EC-86-20-07 3/4		306	128	0.7	62	145	
EC-86-20-08 3/4		413	92	0.5	47	170	
EC-86-21-03 3/4		240	72	0.6	43	115	
EC-86-22-03 3/4		123	80	0.3	20	290	
EC-86-22-04 3/4		205	75	0.2	19	650	
EC-86-22-06 3/4		510	130	0.6	62	15	
EC-86-22-07 3/4		286	80	0.3	63	150	
EC-86-23-04 3/4		145	140	0.7	30	10	
EC-86-23-05 3/4		100	210	0.5	19	20	
EC-86-25-08 3/4		138	225	0.5	18	205	
EC-86-25-09 3/4		98	130	0.2	16	15	
EC-86-25-10 3/4		73	78	0.3	12	20	



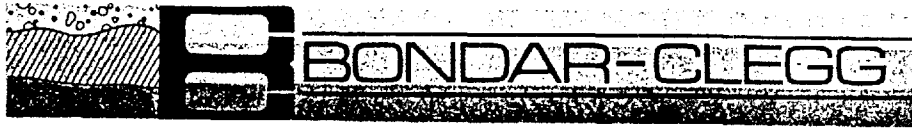
BAROQUE

REPORT: 016-2157

PROJECT: C-856

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
EC-86-01-01-3/4		335	22	<0.1	8	170	
EC-86-02-01-3/4		230	78	0.6	74	50	
EC-86-08-01-3/4		55	36	<0.1	4	85	5.00
EC-86-08-02-3/4		47	24	<0.1	4	<15	4.00
EC-86-09-04-3/4		60	14	<0.1	3	55	7.00
EC-86-09-05-3/4		73	29	<0.1	19	120	6.00
EC-86-10-01-3/4		235	118	1.0	60	95	7.00
EC-86-10-07-3/4		390	36	0.7	23	280	4.00
EC-86-13-01-3/4		100	33	<0.1	16	95	6.00
EC-86-13-02-3/4		2075	53	0.7	41	15	8.00
EC-86-13-04-3/4		460	70	0.7	38	130	8.00
EC-86-13-03-3/4		1000	40	1.1	45	65	5.00
EC-86-13-05-3/4		280	250	0.4	89	55	
EC-86-13-06-3/4		250	164	0.7	50	155	
EC-86-14-01-3/4		265	136	0.6	52	45	9.00
EC-86-14-02-3/4		230	240	1.2	64	40	8.00
EC-86-14-07-3/4		92	49	<0.1	45	125	
EC-86-14-08-3/4		155	124	0.4	63	155	
EC-86-14-11-3/4		175	57	<0.1	71	135	6.00
EC-86-16-01-3/4		124	54	<0.1	47	55	
EC-86-19-01-3/4		39	34	<0.1	5	30	
EC-86-20-01-3/4		12	42	<0.1	4	<10	5.00
EC-86-20-02-3/4		83	34	<0.1	23	165	7.00
EC-86-20-03-3/4		86	73	<0.1	19	<15	4.00
EC-86-20-06-3/4		330	152	1.0	53	170	
EC-86-21-01-3/4		117	49	<0.1	17	170	
EC-86-21-02-3/4		165	29	0.6	29	20	
EC-86-22-01-3/4		190	90	0.3	41	215	
EC-86-22-02-3/4		230	160	0.5	79	80	
EC-86-22-05-3/4		320	64	<0.1	81	75	
EC-86-25-01-3/4		77	38	0.5	47	45	
EC-86-25-02-3/4		107	38	<0.1	129	35	9.00
EC-86-25-03-3/4		82	75	<0.1	60	35	9.00
EC-86-27-01-3/4		57	58	<0.1	31	210	8.00
EC-86-28-01-3/4		90	40	0.2	26	135	6.00
EC-86-31-01-3/4		59	35	<0.1	10	65	
EC-86-33-01-3/4		140	50	<0.1	46	40	
EC-86-34-01-3/4		165	110	<0.1	33	80	7.00
EC-86-34-02-3/4		108	62	0.4	16	40	6.00
EC-86-35-01-3/4		101	54	1.0	38	205	7.00



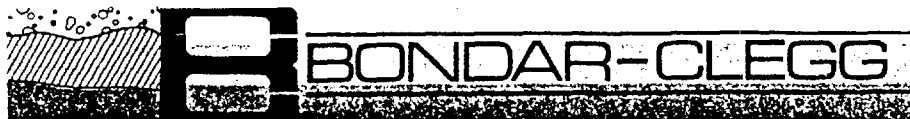
BAROWE

REPORT: 016-2157

PROJECT: C-856

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
MR	EC-86-36-01-3/4	182	51	0.6	29	15	8.00
	EC-86-37-01-3/4	50	48	<0.1	18	65	4.00
	EC-86-38-01-3/4	100	25	<0.1	121	60	6.00
	EC-86-38-02-3/4	92	52	<0.1	93	55	6.00
	EC-86-40-01-3/4	128	59	0.6	37	90	5.00
	EC-86-40-06-3/4	144	100	<0.1	43	160	6.00



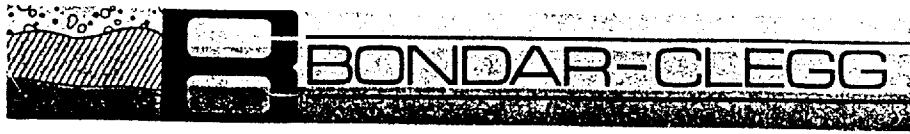
REPORT: 016-2930

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
EC86-05-02-3/4		620	126	1.0	131	200	10.00
EC86-06-02,03-3/4		160	280	0.7	50	770	10.00
EC86-08-05,06-3/4		148	136	0.6	38	575	6.01
EC86-10-03,04-3/4		148	156	0.5	14	4190	5.01
EC86-10-05,06-3/4		250	128	0.5	33	35	9.00
EC86-11-04,05-3/4		240	26	0.2	39	115	8.00
EC86-12-04-3/4		58	34	<0.1	33	<10	5.00
EC86-14-03,04-3/4		290	220	1.2	76	90	10.00
EC86-14-05,06-3/4		39	172	1.1	43	1950	10.00
EC86-15-03,04-3/4		300	180	0.6	80	360	10.00
EC86-15-05,06-3/4		240	148	0.8	63	25	10.00
EC86-19-02,03,04-3/4		220	144	1.1	87	185	8.01
EC86-19-05-3/4		330	152	0.8	76	435	10.00
EC86-23-01,02-3/4		84	32	0.2	86	165	10.00
EC86-23-03-3/4		56	22	0.2	25	10	8.00
EC86-30-01,02-3/4		290	106	0.4	60	390	10.00
EC86-30-03,04-3/4		210	124	0.6	100	15	10.00
EC86-30-05,06-3/4		120	54	0.4	40	10	10.00
EC86-30-07-3/4		260	92	0.7	63	15	10.00
EC86-32-02,03-3/4		600	160	0.8	115	105	10.00
EC86-32-04-3/4		176	78	0.6	42	80	10.00
EC86-41-04-3/4		450	136	0.7	171	80	3.01
EC86-41-05,06-3/4		250	96	0.9	162	55	10.00
EC86-41-07,08-3/4		230	128	0.7	80	40	10.00
EC86-44-01,02-3/4		116	40	0.2	29	25	10.00
EC86-44-03,04-3/4		156	98	0.6	32	45	10.00

BAR



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REPORT: 016-2156

PROJECT: C-856

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au-150 PPM	Au+150 PPM	Au AV PPM	TestWt gms	-150Wt gms	+150Wt gms
EC-86-16-02-3/4		90	40	<0.1	26	0.11	0.04	0.11	8.50	11.76	0.50
EC-86-20-05-3/4		240	200	0.4	77	0.11	168.75	6.63	8.00	9.95	0.40
EC-86-24-01-3/4		24	17	<0.1	4	0.14	<0.01	0.13	11.00	13.23	0.56
EC-86-29-01-3/4		45	24	<0.1	4	0.55	283.00	15.29	10.00	11.99	0.66
EC-86-40-04-3/4		170	80	<0.1	25	0.12	69.88	4.86	9.50	11.39	0.83

Bondar-Clegg & Company Ltd.  
5420 Canotek Rd.,  
Ottawa, Ontario,  
Canada K1J 8X5  
Phone: (613) 749-2220  
Telex: 053-3233



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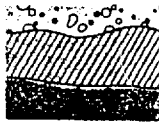
PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au-150 PPM	Au+150 PPM	Au AV PPM	Test Wt gms	-150Wt gms	+150Wt gms
EC-86-05-01		704	65	0.5	30	18.62	<0.01	8.79	1.09	2.37	2.65
EC-86-24-02		184	88	0.3	123	1.60	0.03	0.96	6.00	7.92	5.42
EC-86-31-02		194	176	0.2	41	0.03	3.97	1.49	6.50	8.51	5.01
EC-86-36-02		266	200	0.3	121	0.13	5.55	1.53	14.00	15.77	5.47
EC-86-45-11		485	83	0.7	50	0.12	3.69	1.11	13.00	15.18	5.86

TEXPEZ





BARODNE

REPORT: 016-2334

PROJECT: C-856

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au-150 PPM	Au+150 PPM	Au AU PPM	Test Wt gms	-150Wt gms	+150Wt gms
EC-86-40-08-3/4		180	164	1.0	75	4.02	2.30	3.43	4.20	6.69	3.50
EC-86-40-16-3/4		220	82	0.5	117	0.98	1.08	1.00	6.00	7.75	2.44
EC-86-40-20-3/4		320	330	1.7	171	<0.01	0.36	0.08	8.00	9.71	2.62
EC-86-41-02-H		600	196	1.6	176	8.69	5.81	8.37	1.60	3.40	0.42
EC-86-42-02-3/4		150	56	0.7	71	4.93	0.82	4.13	8.10	9.76	2.36

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PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
EC-86-26-01	3/4	100	45	0.2	19	<5	
EC-86-27-02	3/4	52	30	0.3	13	<5	
EC-86-28-02	3/4	274	46	0.3	96	60	
EC-86-29-02	3/4	234	98	0.6	57	150	
EC-86-31-03	3/4	167	120	0.3	30	140	
EC-86-32-05	3/4	259	97	0.6	38	45	
EC-86-32-06	3/4	236	75	0.4	35	120	9.00
EC-86-32-07	3/4	225	75	0.5	113	165	
EC-86-32-08	3/4	343	136	0.5	229	110	
EC-86-33-02	3/4	48	21	<0.1	5	40	
EC-86-33-03	3/4	91	22	0.1	4	20	
EC-86-34-03	3/4	154	20	0.1	6	70	8.00
EC-86-35-02	3/4	129	60	0.3	11	60	7.00
EC-86-35-03	3/4	312	680	0.7	41	550	
EC-86-37-02	3/4	279	7900	7.3	31	55	
EC-86-37-03	3/4	305	360	1.2	97	55	
EC-86-38-03	3/4	291	245	0.7	70	75	
EC-86-39-05	3/4	187	51	0.6	22	80	
EC-86-39-06	3/4	349	280	1.0	84	325	
EC-86-40-14	3/4	188	83	0.7	52	<10	9.00
EC-86-40-22	3/4	251	78	1.7	55	275	
EC-86-41-12	3/4	270	140	3.9	69	10	8.00
EC-86-42-04	3/4	235	52	0.7	76	80	
EC-86-42-14	3/4	278	110	0.8	47	225	
EC-86-43-07	3/4	72	42	0.4	113	120	
EC-86-44-05	3/4	206	102	0.4	39	<10	8.00
EC-86-45-10	3/4	96	57	0.2	59	770	
EC-86-45-12	3/4	577	116	0.4	35	115	4.00
EC-86-46-05	3/4	577	200	1.2	98	35	
EC-86-47-02	3/4	170	24	0.3	32	60	

BAROQUE

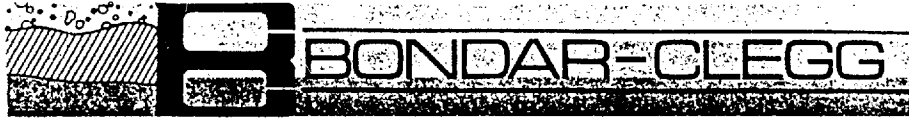
REPORT: 016-2333

PROJECT: C856

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
EC-86-40-02-3/4		43	40	0.4	123	205	4.10
EC-86-40-03-3/4		280	152	1.0	83	180	9.00
EC-86-40-04(1)-3/4		150	116	0.8	64	175	6.00
EC-86-40-05-3/4		120	120	0.3	57	55	10.00
EC-86-40-06(2)-3/4		150	104	0.6	72	85	8.60
EC-86-40-07-3/4		260	132	0.5	59	435	10.00
EC-86-40-09-3/4		113	130	0.7	57	495	10.00
EC-86-40-10-3/4		135	146	<0.1	43	125	10.00
EC-86-40-11-3/4		290	86	1.2	74	595	10.00
EC-86-40-12-3/4		170	88	<0.1	55	130	6.50
EC-86-40-13-3/4		163	80	<0.1	50	355	10.00
EC-86-40-15-3/4		160	88	0.6	152	60	5.50
EC-86-40-17-3/4		240	96	0.7	130	70	7.90
EC-86-40-18-3/4		380	220	0.7	71	170	6.10
EC-86-40-19-3/4		300	184	0.6	68	20	10.00
EC-86-40-21-3/4		320	184	1.0	65	270	8.70
EC-86-41-01-3/4		240	84	0.8	87	15	6.30
EC-86-41-03-3/4		580	1800	2.0	314	<50	1.10
EC-86-41-09-3/4		280	172	0.6	135	90	8.40
EC-86-41-10-3/4		280	172	0.6	72	100	8.00
EC-86-41-11-3/4		1800	140	1.2	108	25	8.30
EC-86-42-01-3/4		184	76	0.6	624	445	5.70
EC-86-42-03-3/4		85	26	<0.1	47	885	4.40
EC-86-42-05-3/4		180	38	0.4	38	620	6.90
EC-86-42-06-3/4		105	40	0.4	45	5	10.00
EC-86-42-07-3/4		80	38	<0.1	23	30	4.10
EC-86-42-08-3/4		70	44	<0.1	17	125	4.00
EC-86-42-09-3/4		100	84	<0.1	24	<20	2.80
EC-86-42-10-3/4		85	32	<0.1	11	345	3.20

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PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
EC-86-42-11-3/4		38	18	<0.1	48	35	9.20
EC-86-42-12-3/4		105	28	0.2	66	30	
EC-86-42-13-3/4		220	84	0.2	107	60	
EC-86-43-01-3/4		145	34	<0.1	48	25	
EC-86-43-02-3/4		68	28	<0.1	95	60	
EC-86-43-03-3/4		88	22	<0.1	33	20	9.40
EC-86-43-04-3/4		80	28	<0.1	29	15	6.80
EC-86-43-05-3/4		200	29	<0.1	46	235	2.30
EC-86-43-06-3/4		60	38	<0.1	34	90	8.30
EC-86-45-01-3/4		172	26	<0.1	49	175	7.70
EC-86-45-02-3/4		100	26	<0.1	26	45	9.10
EC-86-45-03-3/4		600	92	0.2	72	50	
EC-86-45-04-3/4		240	145	0.3	37	1105	
EC-86-45-05-3/4		158	96	<0.1	46	745	
EC-86-45-07-3/4		138	64	<0.1	212	70	
EC-86-45-08-3/4		110	48	<0.1	31	95	
EC-86-45-09-3/4		130	94	<0.1	42	30	
EC-86-46-01-3/4		300	48	<0.1	43	30	
EC-86-46-02-3/4		460	40	<0.1	49	45	6.00
EC-86-46-04-3/4		115	42	<0.1	48	120	
EC-86-47-01-3/4		94	30	<0.1	39	25	BAROQUE



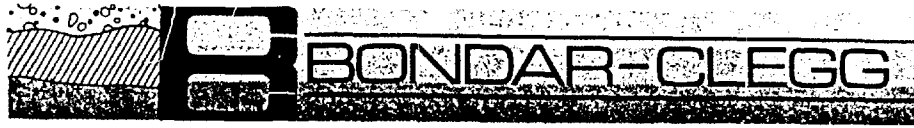
REPORT: 016-2476

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au-150 PPM	Au+150 PPM	Au AV PPM	TestWt gms	-150Wt gms	+150Wt gms	
EC-86-45-06-3/4		184	125	0.5	60	0.09	2.00	0.16	10.00	12.35	0.48	
EC-86-46-03-3/4		320	54	0.4	59	<0.01	0.48	0.04	10.00	11.72	0.89	BAROQUE

Bondar-Clegg & Company Ltd.  
764 Belfast Road  
Ottawa, Ontario  
Canada K1G 0Z5  
Phone: (613) 237-3110  
Telex: 053-4455



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REPORT: 116-2122

PROJECT: NONE

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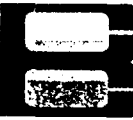
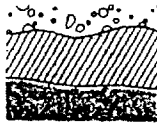
SAMPLE NUMBER	ELEMENT UNITS	Au PPB	TestWt gm
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EC-86-66-02

20

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REPORT: 016-2122

PROJECT: NONE

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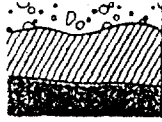
SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPA	As PPA	Au PPB	TestWt gm
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MPH-EC-83-04		84	61	<0.1	30	55	
MPH-EC-86-01		54	12	<0.1	2	155	

BAROQUE

MPH-EC-86-02		2850	74	0.6	71	70	
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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
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EC86-85-03,04-3/4		220	70	0.7	41	600	10.00
EC86-85-05,06-3/4		230	100	1.1	70	205	8.00
EC86-85-07-3/4		166	122	0.7	43	55	10.00
EC86-85-08-3/4		210	136	0.8	53	70	10.00

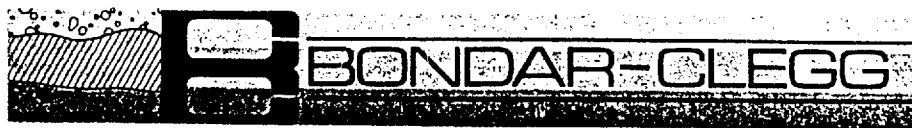
BAL

EC86-85-09-3/4		124	32	0.8	12	10	10.00
EC86-92-03-3/4		48	12	0.5	9	10	5.00
EC86-92-04-3/4		44	12	<0.1	5	10	10.00
EC86-92-05-3/4		32	14	0.2	46	<5	10.00
EC86-92-06-3/4		36	30	0.2	3	135	10.00

EC86-92-07-3/4		42	30	0.2	2	200	9.00
EC86-92-09-3/4		380	32	0.6	21	100	10.00
EC86-92-10-3/4		330	34	0.7	15	735	3.01
EC86-92-11-3/4		192	39	0.9	81	30	6.00



Bondar-Clegg & Company Ltd.  
5420 Ganorek Rd.,  
Ottawa, Ontario,  
Canada K1J 8X5  
Phone: (613) 749-2220  
Telex: 053-3233



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REPORT: 016-2548

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au-150 PPM	Au+150 PPM	Au AV PPM	Testwt gms	-150wt gms	+150wt gms
EC-87-02		48	24	0.3	3	0.02	<0.01	0.02	15.00	12.22	2.44
EC-91-09		780	32	0.3	238	0.39	137.01	26.71	5.00	7.46	1.78
EC-92-02		188	43	0.2	35	0.45	0.01	0.33	15.00	11.84	4.49

BAR



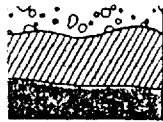
REPORT: 016-2547

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
EC-86-83-02-MIH		132	58	0.1	39	70	
EC-86-83-05-MIH		240	2500	1.2	68	500	7.76
EC-86-84-01-MIH		300	290	1.0	26	60	7.00
EC-86-85-14-MIH		220	42	<0.1	32	125	
EC-86-87-03-MIH		58	22	0.2	4	405	9.49
EC-86-87-04-MIH		192	48	0.4	67	420	8.00
EC-86-87-05-MIH		320	240	0.9	83	620	7.00
EC-86-88-03-MIH		156	52	0.4	16	2530	9.00
EC-86-89-03-MIH		166	52	0.1	6	65	7.25
EC-86-90-03-MIH		168	64	0.1	8	<10	7.75
EC-86-90-05-MIH		60	18	0.2	<2	245	
EC-86-90-07-MIH		1600	64	0.6	37	60	6.50
EC-86-92-13-MIH		140	24	3.5	26	25	7.35
EC-86-92-14-MIH		280	32	1.0	41	10	8.00

BAR



REPORT: 016-2617

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
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83-03		156	54	<0.1	20	90	
85-10		420	30	<0.1	54	1415	2.00

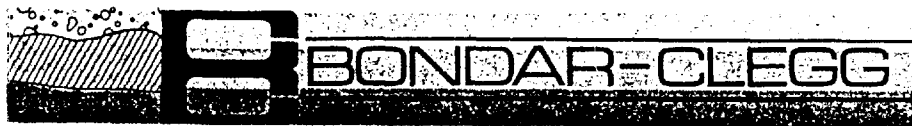
BAR

85-11		480	60	<0.1	144	15	6.00
85-12		420	34	0.2	177	<25	2.00
85-13		120	22	<0.1	31	105	9.00
87-01		72	20	<0.1	19	15	8.00
88-01		136	40	<0.1	82	4500	

88-02		200	45	<0.1	38	1385	9.00
88-04		78	20	<0.1	7	<5	
88-05		300	40	3.5	14	1285	
89-01		110	44	<0.1	23	<5	
89-02		72	20	<0.1	8	320	

90-01		270	52	<0.1	132	715	8.00
90-02		1050	100	<0.1	50	25	2.00
90-04		108	28	<0.1	30	<10	8.00
90-06		58	16	<0.1	6	2275	8.00
90-08		IS	IS	IS	IS	19000	0.01

91-01		124	28	<0.1	11	15	
91-02		58	18	<0.1	12	5	
91-03		16	14	<0.1	6	70	8.00
91-04		100	14	<0.1	4	<15	4.00
91-05		IS	IS	IS	IS	<25	2.00



REPORT: 016-2617

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm	
91-06		IS	IS	IS	IS	65	0.64	
91-07		IS	IS	IS	IS	<10	1.14	
91-08		IS	IS	IS	IS	1590	1.27	BARONE
92-01		116	200	<0.1	27	<5		

122-03		240	36	<0.1	8	15	9.00	BAR
122-04		80	16	<0.1	5	<10	8.00	
122-05		100	16	<0.1	7	<20	3.00	
122-08		840	30	<0.1	52	<20	2.50	
122-09		80	18	<0.1	5	45	8.00	
123-04		128	34	<0.1	13	5		



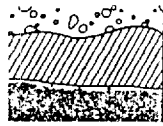
REPORT: 016-2617

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
123-09		360	48	<0.1	191	1525	6.00
124-01		104	56	<0.1	53	55	
125-03		2350	260	1.6	98	60	7.00
CR-02		12	20	<0.1	2	5455	1.70

BAR



REPORT: 016-3019

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPM	TestWt gm
EC-86-122-01,02-3/4		194	20	0.3	40	1240	7.00
EC-86-122-06-3/4		238	66	0.4	42	390	9.00
EC-86-122-07-3/4		208	250	0.5	13	40	7.01
EC-86-123-02,03-3/4		99	29	0.4	50	15	10.00
EC-86-123-05,06-3/4		375	89	1.2	196	4680	10.00
EC-86-123-07,08-3/4		302	37	1.2	96	35	10.00
EC-86-125-02-3/4		1256	70	0.9	36	35	7.00
EC-86-126-01,02-3/4		93	22	0.2		580	10.00
EC-86-126-03-3/4		157	41	0.3	33	225	6.00
EC-86-126-04-3/4		148	31	0.4	17	680	4.00
EC-86-126-05-3/4		129	57	0.1	22	800	6.00
EC-86-126-06,07-3/4		12	28	0.1	2	50	10.00
EC-86-126-09-3/4		62	294	<0.1	3	75	5.00
EC-86-126-12-3/4		158	49	0.6	85	355	10.00
EC-86-126-14-3/4		268	58	0.9	196	140	7.00
EC-86-126-15-3/4		256	86	0.5	75	20	9.00
EC-86-126-17-3/4		236	50	0.7	107	50	8.00

BAR

REPORT: 016-2931

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au-150 PPM	Au+150 PPM	Au AV PPM	TestWt gms	-150Wt gms	+150Wt gms
BAR EC86-08-07,08-3/4		98	66	0.1	25	0.22	<0.01	0.20	9.50	10.82	1.15
BAR EC86-25-04,05-3/4		120	430	0.4	46	0.16	5.90	0.48	14.50	16.48	0.97
BAR EC86-25-06,07-3/4		126	180	0.6	26	0.31	6.53	0.97	14.00	15.87	1.88
BAR EC86-85-01,02-3/4		207	96	0.5	91	0.08	0.02	0.07	9.00	10.97	2.09
EC86-92-08-3/4		91	34	<0.1	6	0.14	<0.01	0.12	8.50	10.39	2.11
EC86-92-12-3/4		270	104	0.8	91	0.04	11.76	<u>1.51</u>	6.50	3.29	1.19

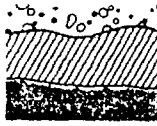
Additional Processing: Aug 19

93-02: 1 small irreg Au, 1% py (panning of 1/4 split)  
 1 abr off shaking table

93-03: 3 abr. gr, 3% py ( " " " )

93-04: 2 abr. gr, 1% py ( " " " )  
 1 irreg  
 1 coarse grain off table

Bondar-Clegg & Company Ltd.  
5420 Canotek Rd.  
Ottawa, Ontario,  
Canada K1J 8N5  
Phone: (613) 749-2220  
Telex: 053-3233



**BONDAR-CLEGG**

**Geochemical  
Lab Report**

REPORT: 016-3512

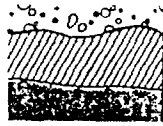
PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPM	TestWt gm
EC-86-126-08-3/4		9	12	<0.1	10	15	5.00
EC-86-126-11-3/4		89	18	0.1	8	200	8.00

BAR





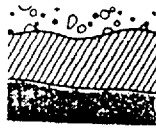
REPORT: 016-3425

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
EC-86-142-01-3/4		58	18	<0.1	20	25	4.00
EC-86-144-03-3/4		53	20	<0.1	33	1220	5.00
EC-86-144-04-3/4		103	24	0.1	12	<10	5.00
EC-86-144-05-3/4		164	24	0.3	14	210	4.50
EC-86-144-06-3/4		175	23	0.2	10	<25	2.00
EC-86-144-07-H		401	60	<0.1	18	<20	3.00

BAR

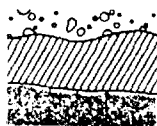


REPORT: 016-3426

PROJECT: NQRE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au-150 PPM	Au+150 PPM	Au AV PPM	TestWt gms	-150Wt gms	+150Wt gms	
EC-86-142-02-3/4		48	18	<0.1	7	0.36	0.01	0.25	5.00	7.04	3.07	
EC-86-142-03-3/4		233	80	0.3	56	0.27	0.01	0.21	5.00	6.05	1.75	BAR

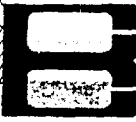
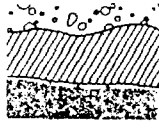


REPORT: 016-3018

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au-150 PPM	Au+150 PPM	Au AV PPM	TestWt gms	-150Wt gms	+150Wt gms	
EC-86-126-10-3/4		25	26	0.3	<2	0.02	53.71	1.24	4.00	6.04	0.14	BAR
EC-86-126-13-3/4		323	70	0.7	185	0.04	<0.01	0.04	9.00	10.78	0.49	
EC-86-126-16-3/4		189	41	0.3	58	0.81	<0.01	0.80	14.00	15.37	0.22	
EC-86-141-04-3/4		93	37	0.3	121	0.42	27.08	1.64	10.00	10.02	0.48	BAR
EC-86-143-13-3/4		347	28	1.6	132	0.47	0.26	0.47	10.00	11.89	0.23	
EC-86-144-01,02-3/4		179	45	0.5	83	0.10	122.55	1.33	20.00	57.11	0.58	



REPORT: 016-3019

PROJECT: NONE

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
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EC-86-141-01-3/4		160	108	0.9	34	70	6.00
EC-86-141-02-3/4		146	56	0.4	36	10	9.01
EC-86-141-03-3/4		197	54	0.6	48	130	8.00
EC-86-141-05-3/4		240	76	0.4	108	30	7.00

BAR

EC-86-141-06-3/4		177	95	0.3	54	5	10.00
EC-86-143-01,02-3/4		159	48	0.1	56	10	10.00
EC-86-143-03,04-3/4		71	37	0.1	11	10	8.00
EC-86-143-14-3/4		617	38	<0.1	39	5850	9.00
EC-86-143-15-3/4		340	41	0.2	76	170	7.00

EC-86-143-16-3/4		427	169	<0.1	90	2195	10.00
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REPORT: 016-3559

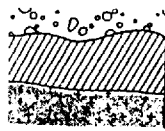
PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
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EC-86-170-01,02-3/4		133	23	1.1	58	>20000	
EC-86-170-03,04-3/4		91	20	0.7	12	70	
EC-86-170-05-3/4		50	15	0.2	10	35	
EC-86-170-06-3/4		135	20	0.3	7	<5	
EC-86-170-07-3/4		117	32	<0.1	11	30	7.00
EC-86-170-08-3/4		401	42	0.3	14	30	5.00
EC-86-170-09-3/4		77	54	0.4	28	190	
EC-86-170-10-3/4		124	36	<0.1	206	15	
EC-86-171-01,02-3/4		118	26	0.2	49	80	
EC-86-171-03,04-3/4		71	14	<0.1	12	150	
EC-86-171-05,06-3/4		135	79	0.2	29	40	

BAR

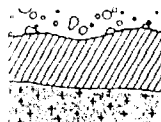


REPORT: 016-3720

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPM	TestWt gm
PREFIX EC-86-							
171-7,8,9-3/4 2 VIAL		142	84	0.1	43	45	10.00
171-10,11-3/4		185	96	0.3	63	5	10.00
171-12,13-3/4		207	92	0.7	130	45	10.00
171-17,18-3/4		431	88	0.5	119	270	10.00
171-19-3/4		354	109	0.5	84	2880	6.00
171-20-3/4		501	22	<0.1	42	45	10.00
171-21-3/4		331	15	<0.1	14	5	10.00
171-22-3/4		199	20	0.1	69	195	4.00
172-01-H		142	16	<0.1	6	440	2.00
172-02-3/4		45	10	0.2	4	90	10.00
174-1,2,3-3/4 2 VIAL		70	104	0.6	38	210	10.00
174-04-3/4		109	112	0.8	31	160	4.00
174-07-3/4		46	32	0.2	24	400	10.00
174-08-3/4		156	44	0.2	104	205	2.70
174-09-3/4		157	51	0.3	102	<105	0.48
174-10-3/4		486	68	0.2	68	1690	6.00
175-01-3/4		104	64	0.3	56	65	10.00
175-4,5-3/4		56	23	0.1	36	10	10.00
175-09-3/4		107	22	0.5	30	70	7.00
175-10,11-3/4		136	82	0.4	36	40	10.00
175-12-3/4		98	91	1.9	41	<10	7.00
175-13-3/4		177	152	0.6	46	20	10.00
175-14-H		185	203	0.7	77	<25	2.00
176-3,4,5-3/4		80	29	<0.1	56	90	10.00
176-6,7-3/4		58	38	0.1	19	445	10.00
176-08-3/4		38	23	<0.1	8	165	10.00
176-09-H		130	89	<0.1	43	<70	0.70
176-10-3/4		279	21	<0.1	64	60	10.00
176-11-3/4		123	40	0.2	52	<10	8.00
176-12-3/4		195	209	1.1	87	7385	10.00
176-13-3/4		635	191	0.3	58	10	10.00
177-06-3/4		49	25	<0.1	17	5	10.00
177-07-3/4		82	31	<0.1	17	50	10.00
177-08-3/4		91	24	<0.1	17	45	10.00
177-9,10-3/4		42	13	0.2	18	10	10.00
177-11,12-3/4		104	71	0.3	48	345	10.00
177-14-3/4		212	178	0.7	109	20	8.00
177-15-3/4		467	344	0.8	480	20	10.00
177-17-3/4		259	532	3.5	64	30	10.00



REPORT: 016-3720

PROJECT: NONE

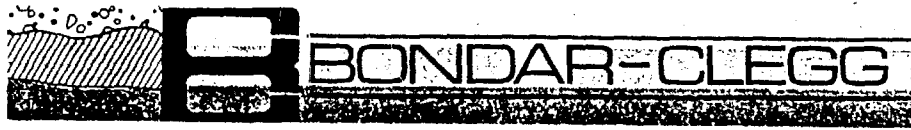
PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB	TestWt gm
178-1,2-3/4		28	14	<0.1	2	335	10.00
178-03-3/4		35	19	0.1	5	185	7.00
178-4,5-3/4		67	35	<0.1	10	<5	10.00
178-06-3/4		115	37	0.1	18	30	8.00
178-7,8-3/4		315	11	0.8	86	25	10.00
178-9,10-3/4		241	85	0.2	41	350	10.00
178-11-3/4		235	120	0.2	69	70	5.00
178-12-3/4		195	121	0.2	33	20	3.00
178-13-3/4		180	51	1.4	32	15	10.00
178-14 3/4		362	44	0.2	55	60	10.00
179-01-3/4		56	20	0.3	4	20	7.00
179-02-3/4		59	12	0.2	3	<10	5.00
180-01-3/4		150	33	<0.1	33	215	10.00
180-02-3/4		91	23	0.2	20	100	10.00
180-03-3/4		209	63	0.3	13	60	10.00

APPENDIX B

Certificates of Analysis - Bedrock





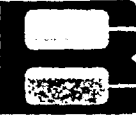
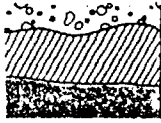
REPORT: 016-1862

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB
EC-86-01-04		53	125	<0.1	2	15
EC-86-02-04		54	54	<0.1	2	<5
EC-86-03-01		104	90	0.1	2	<5
EC-86-04-02		67	153	<0.1	3	<5
EC-86-05-03		87	160	<0.1	3	<5
EC-86-10-08		86	40	<0.1	2	<5
EC-86-11-07		59	60	<0.1	<2	<5
EC-86-12-06		103	43	<0.1	4	<5
EC-86-16-05		197	645	0.3	2	10
EC-86-17-02		103	96	<0.1	2	<5
EC-86-18-02		74	105	<0.1	2	<5
EC-86-19-08		46	54	<0.1	2	<5
EC-86-20-09		69	82	<0.1	2	<5
EC-86-21-04		54	63	<0.1	5	<5
EC-86-22-09		37	119	<0.1	6	<5
EC-86-23-06		92	52	<0.1	<2	<5
EC-86-24-03		29	42	<0.1	3	<5
EC-86-25-11		51	76	<0.1	20	<5
EC-86-27-03		61	31	<0.1	<2	<5
EC-86-28-03		66	130	<0.1	4	<5
EC-86-32-09		109	545	0.1	645	<5
EC-86-33-04		74	92	<0.1	3	<5
EC-86-34-04		82	76	<0.1	<2	<5
EC-86-36-03		62	84	0.2	2	<5
EC-86-37-04		128	510	0.1	66	55
EC-86-38-04		106	730	0.1	26	5
EC-86-39-07		69	52	<0.1	4	<5
EC-86-40-23		125	40	0.4	60	<5
EC-86-41-13		97	200	<0.1	3	<5
EC-86-42-15		14	86	<0.1	3	<5
EC-86-43-08		37	44	<0.1	7	5
EC-86-44-06		52	66	<0.1	5	<5
EC-86-45-13		80	119	<0.1	146	<5
EC-86-46-06		235	345	0.5	70	20

BAR



REPORT: 016-1896

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPM
EC-86-06-05		74	29	<0.1	<2	5
EC-86-07-02		48	34	<0.1	<2	<5
EC-86-09-07		25	22	<0.1	<2	<5
EC-86-13-08		61	46	<0.1	<2	<5
EC-86-14-12		107	66	<0.1	<2	<5
EC-86-15-08		95	58	<0.1	<2	<5
EC-86-22-08		43	117	<0.1	3	<5
EC-86-26-02		100	20	<0.1	<2	<5
EC-86-31-04		75	130	<0.1	<2	<5
EC-86-35-04		146	1424	0.2	10	<5
EC-86-47-03		99	78	<0.1	<2	<5

BAR

Bondar-Clegg & Company Ltd.  
5420 Canotek Rd.,  
Ottawa, Ontario,  
Canada K1J 8N5  
Phone: (613) 749-2220  
Telex: 053-3231



**BONDAR-CLEGG**

**Geochemical  
Lab Report**

REPORT: 016-1862

PROJECT: NONE TEX

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB
EC-86-54-06		25	89	<0.1	3	<5



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0  
TELEPHONE: (705) 642-3244  
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

Certificate No. 63387

Date: June 27th, 1986

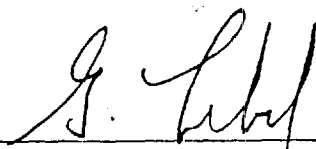
Received June 6th, 1986 Samples of Bedrock Chips

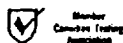
Submitted by M.P.H. Consulting Ltd., Toronto, Ontario

SAMPLE NO.	GOLD PPB	SILVER PPM	COPPER PPM	ZINC PPM
------------	-------------	---------------	---------------	-------------

83-06	Nil	Nil	6	5	BAR
84-02	Nil	Nil	209	16	

Note Arsenic results to follow.

Per   
G. Lebel - Manager



ESTABLISHED 1928



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0  
TELEPHONE: (705) 642-3244  
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

Certificate No. 63387 A Date: July 7th, 1986

Received June 6th, 1986 14 Samples of Bedrock Chips

Submitted by M.P.H. Consulting Limited, Toronto, Ontario Project #C-856

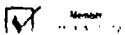
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SAMPLE NO.	ARSENIC PPM
------------	----------------

83-06	6	BPK
84-02	<1	

Per

G. Lebel - Manager





# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

Certificate No. 63419

Date: July 2, 1986

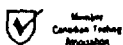
Received June 10 & 13/86 17 Samples of bedrock chips

Submitted by M.P.H. Consulting Ltd., Toronto, Ontario proj#C-856

SAMPLE NO.	GOLD PPB	SILVER PPM	COPPER PPM	ZINC PPM
EC-86-85-15	20 Nil	Nil	45	120
85-15A	Nil	Nil	39	83
85-15B	Nil	Nil	47	76
86-03	Nil	0.7	615	447
86-03A	Nil	0.2	483	324
87-06	Nil	Nil	75	290
88-06	Nil	0.3	49	82
89-04	Nil	0.2	98	113
90-09	Nil	Nil	51	64
91-10	Nil	Nil	94	13
92-15	Nil	Nil	175	102
92-15A	Nil	Nil	51	30
92-15B	Nil	Nil	144	109

BAR

Per G. Lebel  
G. Lebel, Manager



ESTABLISHED 1928



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

Certificate No. 63419A

Date: July 4th, 1986


Received June 10 & 13, 1986 17 Samples of Bedrock Chips

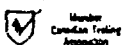
Submitted by M.P.H. Consulting Limited, Toronto, Ontario Project #C-856

SAMPLE NO.	ARSENIC PPM
EC-86-85-15	31
85-15A	<1
85-15B	<1
86-03	<1
86-03A	<1
87-06	<1
88-06	<1
89-04	<1
90-09	<1
91-10	<1
92-15	<1
92-15A	<1
92-15B	<1

BAR

Per

  
G. Lebel - Manager



ESTABLISHED 1928



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0  
TELEPHONE: (705) 642-3244  
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

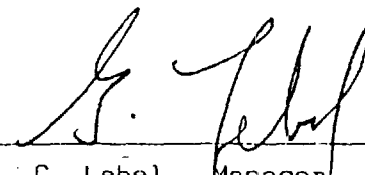
## Certificate of Analysis

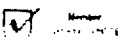
Certificate No. 63606 Date: July 17th, 1986  
Received June 24th, 1986 14 Samples of Bedrock Chips  
Submitted by MPH Consulting Ltd., Toronto, Ontario

SAMPLE NO.	GOLD PPB	SILVER PPM	COPPER PPM	ZINC PPM	<u>AS</u> PPM	<u>FROM PHONE CONVERSATION SEPT 3/86</u>
------------	-------------	---------------	---------------	-------------	------------------	--

122-10	Nil	0.2	69	36	2	BAR
123-10	Nil	0.4	98	1450	2	
123-10A	Nil	0.2	65	469	31	
124-02	Nil 10	Nil	205	41	41	
125-04	Nil	1.0	263	80	18	

NOTE: Arsenic results to follow.

Per   
G. Lebel - Manager







# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

AUG 25 1986

## Certificate of Analysis

Certificate No. 63980

Date: August 21st, 1986

Received August 11th, 1986 39 Samples of Bedrock Chips


Submitted by MPH Consulting Ltd., Toronto, Ontario

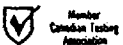
Page 1 of 2

SAMPLE NO.	GOLD PPB	SILVER PPM	COPPER PPM	ZINC PPM	
EC-86-126-18	Nil	Nil	85	106	BAR

141-10	Nil	Nil	113	225	BAR
142-04	Nil	Nil	157	60	

..... Con't

Per   
G. Lebel - Manager



ESTABLISHED 1928



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0  
TELEPHONE: (705) 642-3244  
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

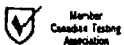
Certificate No. 63980

Page -2-

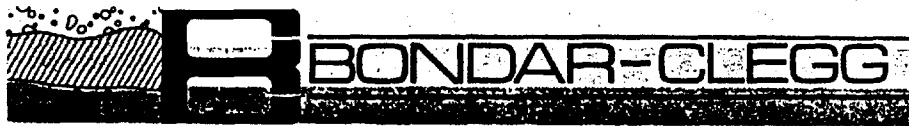
SAMPLE NO.	GOLD PPB	SILVER PPM	COPPER PPM	ZINC PPM
EC-86-144-08	Nil	Nil	53	64 BAR

Note: Arsenic results to follow.

Per   
G. Lebel - Manager



ESTABLISHED 1928



REPORT: 016-3558

PROJECT: NONE

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	As PPM	Au PPB
---------------	---------------	--------	--------	--------	--------	--------

EC-86-170-11-BD		58	29	<0.1	<2	<5
EC-86-171-23-BD		114	47	<0.1	2	<5
EC-86-172-04-BD		197	135	<0.1	<2	<5

BAR

EC-86-172-04A-BD		54	135	<0.1	<2	<5
EC-86-173-01-BD		99	124	<0.1	<2	<5
EC-86-174-11-BD		87	55	0.1	<2	<5
EC-86-175-16-BD		253	435	0.6	114	5
EC-86-176-14-BD		98	69	<0.1	<2	<5

EC-86-177-18-BD		46	60	<0.1	<2	<5
EC-86-177-19-BD		77	68	0.2	<2	<5
EC-86-178-15-BD		76	82	<0.1	<2	<5
EC-86-179-03-BD		75	107	<0.1	<2	<5
EC-86-179-03A-BD		43	125	<0.1	<2	<5

EC-86-179-03B-BD		47	118	<0.1	<2	<5
EC-86-180-04-BD		69	134	<0.1	3	<5

APPENDIX C

Reverse Circulation Drill Logs



OVERBURDEN DRILL LOG

Hole EC-86-001

Property/Area PETROMET (LAKOUE CATION) / OSA BERARDI  
 Date(s) APRIL 25/86  
 Township ARSEN  
 Claim No. \_\_\_\_\_  
 Drilling Co. HARVEY BROTHERS  
 Location LAKOUE, 1+75 (R) N. (ABITIBI-MUCE CLUBS)  
 Bit No. CB 68023  
 Logged by D. MEYER  
 Depth to bedrock 33'  
 Sampler D. MEYER  
 Total depth 40'  
 Sample screening +10 MESH

Remarks SPK 500  
FINISH 10:25

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au(PAS)
	0-2'				0-2': HUMUS					
	2-5'				2-5': DARK BROWN CLAY-RICH TILL?					
	5-10'				5-10': VERY CLAY-RICH GRAVELLY TILL					
	10-22'				10-22': LIGHT GREY CLAY (LACUSTRINE, HOMOGENEOUS)					
	22-30'		01	C	22-30': FINE SAND AND ROUNDED GRAVEL, SAND RUSTY BROWN WITH SOME RUSTY FRAGMENTS	335	22	40.1	8	170
	30-25'		02	C	-DISTAL LITHOLOGIES (LS) 25' GABBRO BOWDOK	512	86	0.4	30	300
	25-26-27'		03	1 ABR. ISOLAY	26-27' POSSIBLE SILT HORIZON (DARK GREY REDUCED)	1735	88	2.0	15	60
	30-33'		04		30-33': VERY CLAY-RICH TILL (LOOSEMENT)	53	125	40.1	2	15
	33-40'				33': BED ROCK: FINE TO MEDIUM GRAINED MAFIC VOLCANIC 40' EQ H					



OVERBURDEN DRILL LOG

Hole K-16-002

Property/Area <u>PETROMET (BAROQUE OPTION) / CASA BENARDI</u>	Date(s) <u>AUG. 25/86</u>
Township <u>CARRELL</u>	Drilling Co. <u>BRADLEY BROTHERS</u>
Claim No. _____	Bit No. <u>CB 68023</u>
Location <u>L24+00E, 0+00N (MONTI-BI-MICE GRID S)</u>	Depth to bedrock <u>57'</u>
Logged by <u>D. MEYER</u>	Total depth <u>66'</u>
Sampler <u>D. MEYER</u>	Sample screening <u>+10 MESH</u>

Remarks START 10:30  
FINISH 11:00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au(PPB)
					0-5': STONEY HUMUS (RECENT)					
					5'-33': LT. BROWN CLAY GRADING TO LIGHT GREY CLAY (LACOSTRINE) AT 10'					
			01	0	33'-57': FINE SAND GRADING TO SANDY GRAVEL AT 35' AND TO COARSE GRAVEL AT 45' 33'-GRANITE COBBLE 50-51'-GABBRO COBBLE / BOULDER 53-55'-SANDY LENS (TROUBLE WITH RETURN) 55'-PRELIMINARY # OF PROXIMAL FRAGMENTS	230	78	0.6	74	50
			02	0		260	60	0.5	108	165
			03	0		565	159	1.3	70	65
			04		57' BEDROCK: MEDIUM-GRAINED DARK MAFIC INTRUSIVE? 66' L of H.	54	54	0.1	2	45





OVERBURDEN DRILL LOG

Hole EC-86-007

Property/Area <u>PETROMET (NANOCORE OPTICS) COAST BEACH</u>	Date(s) <u>APRIL 25/86</u>
Township <u>CR 4516</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L 321002E, 151000 (ft.) N (NORTH-PIECE BLK 5)</u>	Bit No. <u>CB 68025</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>37'</u>
Sampler <u>D. MEYER</u>	Total depth <u>42'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 2:15  
FINISH 3:35

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPB)
					0-5': DARK BROWN GRAVELLY TILL WITH MATRIX OF SAND AND CLAY					
					5'-28': CLAY					
					28'-32': SAND					
10			01	0	32'-37': SANDY FINE GRAVELLY TILL?	177	35	0.3	23	30
			02		37' BEDROCK: BLACK MAFIC TO ULTRAMAFIC VOLCANIC? OR STANGERS	67	153	<0.1	3	<5





OVERBURDEN DRILL LOG

Hole EG-86-005

Property/Area PETROMET (BAROQUE OPTION) / CASA BERARDI Date(s) APRIL 28/16  
 Township CARLETON  
 Claim No. \_\_\_\_\_  
 Location 2800E, 700 (P.C.) N (AGRI-PRICE GRIDS) Drilling Co. HARLEY BROTHERS  
 Logged by D. MEYER Bit No. 0669025  
 Sampler D. MEYER Depth to bedrock 32'  
 Total depth 35'  
 Sample screening +10 MESH

Remarks START 3:50  
FINISH 4:50

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	AL (PPM)
	0-5				0-5': LIGHT BROWN CLAY-RICH TILL					
	5-20				5'-20': LIGHT GREY LACUSTRINE CLAY					
	20-32		01	1 AB.	20'-32': SANDY FINE GRAVELLY TILL / OUTWASH	704	65	0.5	30	6740
	32-33		02	0	32' BEDROCK: FINE TO MEDIUM-GRAINED MAFIC VOLCANIC	620	126	1.0	131	200
	33-35		03		33'-35' E q/H - 94/92 STRUNGERS - MIXED BSS BY 100 - TUFF?	87	160	40.1	3	45







OVERBURDEN DRILL LOG

Hole EC-86-008

Property/Area PETROMET (BARBOUE OPION) (CASH TEXAS) Date(s) APRIL 29/86

Township CARHER

Claim No. \_\_\_\_\_ Drilling Co. BRADLEY BROTHERS

Location L 6700E, O100N (AGITABI-PRICE GRID S) Bit No. CB 68021, CB 68022

Logged by D MEYER Depth to bedrock 94'

Sampler G. DUNCLAIR Total depth 100'

Sample screening +10 MESH

Remarks START 7:40  
FINISH 11:40

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Ba	Ag	As	Al (ppm)
			01	1ABR.	0-3': RECENT HUMUS 3'-4': LIGHT BROWN GRITTY CLAY 4'-7': CLAY-RICH TILL? 20-30%	55	36	20.1	4	85
	10		02	0	7'-14': COARSE GRAVELLY TILL WITH SANDY MATRIX 8' MAFIC VOLCANIC BOLDER 12' DIABASE/GABBRO BOLDER	47	24	20.1	4	415
	20		03	N.P.	14'-20': SILT AND FINE SAND WITH MINOR PEBBLES 25'-29' - GRAVELLY TILL LENS, MATRIX OF SAND WITH MINOR CLAY					
	30		04	N.P.						
	40									
	50				50'-65': SANDY GRAVEL TILL BECOMING MORE COARSE AT 60', MINOR CLAY CONTENT					
	60		05	1ABR.		149	136	0.6	38	575
	70		06		65'-76': SANDS AND GRAVELS 65'-70' - FINE GRAVEL AND SORTED SAND (POSSIBLY REPRESENTS TOP OF LOWER TILL SEQUENCE) 70' - MORE PROXIMAL GRAVEL 73' - MAFIC VOLCANIC FRAGMENTS WITH 10% PY 74'-76' - SAND + SILT					
	80		07							
	85			1ABR.	76'-77': LIGHT GREENISH CLAY					
	90		08		77'-80': SANDY COBBLY TILL 80'-83': CLAY-RICH (MEDIUM BROWN) SANDY TILL 83'-94': LIGHT GREY LACUSTRINE CLAY	98	66	0.1	25	200
	95				94' BEDROCK: FINE TO MEDIUM-GRAINED MAFIC VOLCANIC/TUFF, WEAKLY FOLIATED, LIGHT GREEN, MINOR Qtz USUALLY					
	100				100' E of H.					



OVERBURDEN DRILL LOG

Hole EC-86-009

Property/Area PETROMET (BARODUC OPTION) T-34 BRACKEN Date(s) APR 27 '86  
 Township PARHILL  
 Claim No. \_\_\_\_\_  
 Location 216000E, 16400 (FT.) S (NAD 83-84 GRID) Drilling Co. BRADLEY BROTHERS  
 Logged by D. MEYER Bit No. CB 6PC22  
 Sampler G. SANCHEZ Depth to bedrock 77'  
 Total depth 80'  
 Sample screening +10 MESH

Remarks START 1:15  
FINISH 2:45

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Zn	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub> (PPB)
					0-3': RECENT HUMUS					
					3'-8': UNWEED LIGHT BROWN/DARK BROWN CLAY					
	10		01	N.P.	5'-5': MEDIUM BROWN VERY CLAY-RICH, GRAVELLY TILL WITH MINOR SAND IN MATRIX					
	5				15'-18': SANDY FINE PEBBLY TILL					
	20		02	N.P.	11'-23': LIGHT GREY CLAY-RICH TILL					
					23'-26': SANDY PEBBLY TILL					
					26'-30': SAND					
	30				30'-32': SANDY, GRAVELLY TILL					
10	40		03	0	32'-40': CLAY-RICH TILL (SIMILAR TO ABOVE TILL WITH 60% GRITTY CLAY-BALLS)	74	18	0.2	3	25
	50		04	0	40'-68': SAND AND FINE GRAVEL					
	15				48'- RUSTY, FINE TO MEDIUM-GRAINED MAFIC VOLCANIC / GRAVEL FRAGMENTS	60	14	40.1	3	55
	50				52'- LIMESTONE PEBBLE					
	60		05	0	61'-70': PRESENCE OF LIGHT GREY CLAY CHIPS IN SANDY, GRAVEL TILL					
	70		06	0	70'-74': COARSE GRAVEL	124	118	40.1	19	90
	80		07		74'-77': VERY CLAY-RICH TILL, 50% GRITTY CLAY-BALLS AND FINE GRAVEL					
25	80				77' BEDROCK: CHLORITIC MEDIUM-GRAINED MAFIC VOLCANIC / LANTUSINE (GABBRO)	25	22	40.1	22	45
	90				80' EOPH.					



OVERBURDEN DRILL LOG

Hole EC-86-060

Property/Area ESTONMET (BAROQUE CREEK) / CASH BURN Date(s) APRIL 27, 28 / 86

Township CASH

Claim No. \_\_\_\_\_

Location L 10300 E, 29 S 50 S (MOUNTAIN PRIDE SANDS) Drilling Co. MAKLEY BROTHERS

Logged by D. MERRICK Bit No. CB 46020

Sampler E. SANCHEZ Depth to bedrock 59'

Total depth 62'

Sample screening +10 MESH

Remarks START 4:00 (APRIL 27)

FINISH 10:10 (APRIL 28)

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Zn	Al <sub>2</sub>	As	Al (PPM)
					0-5': RECENT HUMUS					
					5-15': UNPAVED CLAY, LIGHT TO DARK GREY					
	5		01	0	15'-25': SANDY GRAVELLY TILL, 5-10% LS.	235	118	1.0	60	45
	20				20-23' - CLAY-BEARING EQUIPMENT OF GRAVELLY TILL					
	30		02	0	25'-30': MEDIUM GREY CLAY GRADING TO LODGEMENT TILL AT 30'	104	52	0.3	21	35
	35		03		33'-35': SANDY FINE GRAVELLY LENS					
	40		04	0	35-45': LODGEMENT TILL, 15-20% FINE GRITTY CLAY BALLS IN FINE TO MEDIUM GRAVEL - MATRIX IS LIGHT GREY FINE SAND/SILT	148	152	0.5	14	4190
	50		05	0	45-52': COARSER, LESS CLAY PRESENT - APPARENTLY MORE LOCAL LITHOLOGIES					
	55		06		52-56' - COARSE, GRAVELLY TILL	250	128	0.5	33	35
	60		07	LAB.	56-59' - MEDIUM GREY GRITTY CLAY BALLS IN ABOVE TILL	390	32	0.7	23	280
	62		08		59' BEDROCK: DARK GREEN-BLACK FINE-GRAINED MAFIC VOLCANIC / GNEISS QUARTZ FRAGMENTS -> UZENS	82	42	40.1	2	<5
	62				62' EOPH.					



OVERBURDEN DRILL LOG

Hole ECR-011

Property/Area <u>PETROMET (BARODIE CROWN) / OSEA BENKUI</u>	Date(s) <u>APRIL 28 / 66</u>
Township <u>JARRET</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>2 9600E 22100N (P.S.) (MILLER-PRICE GRID S)</u>	Bit No. <u>CR 62020</u>
Logged by <u>L. MEYER</u>	Depth to bedrock <u>79'</u>
Sampler <u>G. JENSEN</u>	Total depth <u>83'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 10:00  
FINISH 12:55

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						G <sub>w</sub>	2 <sub>w</sub>	A <sub>g</sub>	A <sub>s</sub>	A <sub>w</sub> (H <sub>2</sub> O)
					0-3': HUMUS 3'-8': SLIGHTLY SANDY BROWN CLAY					
	10		01	0	8'-13': TILL: SANDY, PROBABLY VERY CLAYEY (15-20% GRITTY LIGHT BROWN CLAY CLUS)	303	70	0.1	14	25
5	20				13'-21': COARSE GRAVELLY AND COBBLY TILL 20' - DIABASE BOULDER					
	30		02	146R	21'-30': FINE GRAVELLY, SANDY TILL	38	25	0.1	2	320
10	40		03	0	30'-45': CLAY / SILT BALLS IN ABOVE TILL AND VERY SANDY	200	92	0.3	58	165
15	50		04	0	43'-49': VERY SANDY FINE GRAVELLY TILL WITH MORE PROXIMAL LITHOLOGIES (MAFIC VOLCANIC, IF) - MATRIX IS GREENISH SAND 55-65' - MORE COBBLY HORIZON 48-49' RUSTY COLOURED SAND	290	26	0.2	39	115
	60		05		60-61' DISTINCTIVE BOULDER OF PURPLISH G2-EIE TUFF / INTRUSIVE 63-64' NORITE BOULDER					
20	70		06	0	65'-71' - VERY SANDY FINE GRAVELLY TILL WITH LIMESTONE PEBBLES, LAMINAE OF OPTO 607. SAND	200	60	0.2	19	10
25	80		07		79' BEDROCK: FINE TO MEDIUM-GRAINED MAFIC VOLCANIC / TUFF - LITE WEATHERING, MINOR DISSEMINATED PY - DARK GREEN-BLACK	59	60	40.1	42	45
	83				83' Eq/H.					



# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EC-86-012

Property/Area <u>PETROMET (BARROQUE OPTION)/CASA BELMONT</u>	Date(s) <u>APRIL 22/86</u>
Township <u>CAMERON</u>	Drilling Co. <u>RAIXEY BROTHERS</u>
Claim No. _____	Bit No. <u>CB 58020</u>
Location <u>20000, 20000 (H.) S (ABSTIN-ARCE GLID S)</u>	Depth to bedrock <u>68'</u>
Logged by <u>D. MEYER</u>	Total depth <u>72'</u>
Sampler <u>G. SANCHEZ</u>	Sample screening <u>+10 MESH</u>

Remarks START 1:30  
FINISH 3:50

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub> (Pb)
					0-4': RECENT HUMUS					
	10		01	N.P.	4'-11': TILL: FINE PEBBLES AND MEDIUM BROWN SILTY CLAY BALLS					
	5				11-44': FINE GRAVELLY SANDY TILL / FLUVIOGLACIAL OUT-WASH					
	20		02	N.P.						
	30									
10	40		03	N.P.						
	15				44-46': MEDIUM GREY COMPACTED CLAY					
	50		04	0	46-50': MIXED, PEBBLY, SAND-RICH / CLAY, SAND-RICH TILL HORIZONS	58	34	40.1	33	410
					50-54': SANDY, GRITTY CLAY-RICH LODGEMENT TILL					
	60		05	0	54-62': DARK BROWN HARD CLAY (LAGOSTRINE)	45	66	0.1	11	10
	20				62-65': SANDY FINE GRAVELLY TILL					
	70		06		65-68': CLAY-BEARING EQUIVALENTS OF ABOVE TILL, 15-20% GREY, GRITTY CLAY BALLS	163	93	40.1	4	45
					68' BEDROCK: FINE-GRAINED INT-MAFIC VOLCANIC DARK GREEN, CHROCKITE LOCALLY					
	80				72' E of H.					





# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EC-86-013

Property/Area <u>PETROMET (SARCOUE OPTION)/CASA BERARDI</u>	Date(s) <u>APRIL 29/86</u>
Township <u>CHAMPLAIN</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>6 80+00 E, 10+00 (H) N (AGYTHA-PRICE SLIDS)</u>	Bit No. <u>CB 68225</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>68'</u>
Sampler <u>G. SINGH</u>	Total depth <u>72'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 7:50  
FINISH 9:45

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	Pb	Au (PPB)
	0-3'				0-3' RECENT HUMUS					
	3-12'				3-12': MEDIUM BROWN CLAY GRADING INTO MEDIUM BROWN CLAY / SILT-RICH FINE GRAVELLY TILL					
	10'		01	0	10' GRANODIORITE BOULDER	100	33	40.1	16	95
	12-21'				12'-21': LACUSTRINE CLAY, LIGHT GREY TO BUFF					
	21-25'				21'-25': FINE GRAVELLY CLAY / SAND-BEARING TILL WITH LIMESTONE FRAGMENTS					
	22-23'				22'-23' CLAY LAYER SAME AS ABOVE					
	25-39'		02	0	25'-39': FINE GRAVELLY / SANDY TILL? FLUVIDGLACIAL COLLUVIUM	2075	53	0.7	41	15
	29-30'				29-30' GRANODIORITE COBBLE					
	34'				34' PREDOMINATELY GRAVELLY, GRANODIORITE COBBLES WITH SAND					
	37-39'		03	0	37-39' GRANODIORITE BOULDER	1000	40	1.1	45	65
	39-53'		04	0	39'-53': LAYERS OF CLAY / SILT BALLS IN ABOVE TILL, MIXED WITH CLAY-BARREN LAYERS	460	70	0.7	38	130
	43'				43' - SOME FRAGMENTS OF PY-BEARING FELSIC VOLCANICS / INTRODUCES AND SOME PY-BEARING MAFIC VOLCANICS					
	47'		05	0	47' - MAFIC VOLCANIC BOULDER	280	250	0.4	89	55
	53-64'		06	0	53'-64': FINE TO MEDIUM GRAVELLY TILL, LIGHT BROWN SAND MATRIX AND MINOR CLAY-LOADING ON SOME FRAGMENTS	250	164	0.7	50	155
	64-67'		07	0	64'-67': CLAY-BEARING EQUIVALENT OF ABOVE TILL, VERY-CLAY-RICH	124	60	0.1	13	30
	67-68'				67-68'					
	68'		08		68' BEDROCK: MEDIUM-GRAINED INT. TO MAFIC VOLCANIC / TUFFITE FRAGMENTS AND MINOR PY	61	46	40.1	42	45
	72'				72' E.O.H.					



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## OVERBURDEN DRILL LOG

Hole PE-26-014

Property/Area <u>PETROMET (BARLOGIC OPTION) / (CASA BEXAR) 1</u>	Date(s) <u>APRIL 29/96</u>
Township <u>CARHILL</u>	
Claim No. _____	Drilling Co. <u>BRADY BROTHERS</u>
Location <u>LEONDOSE, 25000 (41) N (MONTREAL MINE GRIDS)</u>	Bit No. <u>8000082</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>152'</u>
Sampler <u>G. SINGAR</u>	Total depth <u>155'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 10:00  
FINISH 1:35

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Zn	Ag	Pb	As (PPM)
		▲ ▲ ▲ ▲ ▲ ▲			0-5': HUMUS					
		▨ ▨ ▨			5'-9': DARK BROWN CLAY					
	10	▨ ▨ ▨			9'-12': SAND & MINOR GRAVEL					
		▨ ▨ ▨			12'-15': LIGHT GREY CLAY					
5		▲ ▲ ▲ ▲ ▲ ▲	01	○	15'-35': CLAY-RICH (MED-GREY) GRAVELLY SILTY TILL 34' SOME FRAGMENTS OF HEAVILY Fe(O) RUSTED ROCK (RUSTY BLOBS UP TO 50%)	265	136	0.6	52	45
10		▲ ▲ ▲ ▲ ▲ ▲	02	○	35'-62': VERY SANDY, FINE GRAVELLY ABLATION TILL/ OUTWASH 53' FRAGMENTS OF MASSIVE PY	230	240	1.2	64	40
15		▲ ▲ ▲ ▲ ▲ ▲	03	○		240	220	1.2	76	90
		▲ ▲ ▲ ▲ ▲ ▲	04	○						
20		▲ ▲ ▲ ▲ ▲ ▲	05	○	62'-80': SANDY CLAY-BEARING EQUIVALENT OF ABOVE UNIT 65-70' - BECOMING VERY CLAY-RICH 70-75' - SANDY HORIZON 75-80' - CLAY IN ABOVE TILL	39	172	1.1	43	1950
		▲ ▲ ▲ ▲ ▲ ▲	06	1AER.						
25		▲ ▲ ▲ ▲ ▲ ▲	07	○	80-90': PEBBLY, CLAY-RICH TILL	92	49	40.1	45	125
		▲ ▲ ▲ ▲ ▲ ▲			90-93': DARK GREY CLAY, VERY HARD AND COMPACT					
30		▲ ▲ ▲ ▲ ▲ ▲	08	1AER.	93-101': SANDY GRAVELLY TILL WITH 10-20% SILTY CLAY BALLS	135	124	0.4	63	155





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## OVERBURDEN DRILL LOG

Hole EC-86-015

Property/Area <u>PETROMET (BAROQUE OPTION) / CASA BERARDI</u>	Date(s) <u>APRIL 29/EC</u>
Township <u>CALHEIL</u>	
Claim No. _____	Drilling Co. <u>BLADEY BROTHERS</u>
Location <u>L 6000 E, 16+00 (41) N (AGTIVE-RISE GRIDS)</u>	Bit No. <u>B 000082</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>100'</u>
Sampler <u>G. SACCAR</u>	Total depth <u>105'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 2:00  
FINISH 5:00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	ALL (PPB)
	0-3'				0-3': RECENT HUMUS					
	3-10'				3-10': MEDIUM-BROWN CLAY-RICH TILL (COCKRAVE) 4'-4.5' LS COBBLE					
	10-15'				10-15': LIGHT GREY LACUSTRINE CLAY					
	15-35'		01	0	15-35': FINE GRAVELLY SANDY TILL WITH 5% SILT-BALLS (LIGHT GREY) - NUMEROUS GREENISH-GREY CLAY-RICH LENSES	57	36	0.2	12	1090
	35-60'		02	0	35-60': FEWER CLAY LENSES AND LESS CLAY IN MATRIX OF TILL 53-54' MAFIC VOLCANIC BOULDER	184	370	0.3	29	110
	60-70'		03	0	60-70': MORE COARSE WITH SLIGHT CLAY COATING ON SOME GRAVEL - FRAGMENTS OF BANDED CHERT/MANGNETITE, BY IF @ 67'	300	180	0.6	80	360
	70-100'		04	0	70-100': FINE GRAVEL WITH SILTY/SANDY MATRIX 15-20% SILTY CLAY BALLS (GREY)					
	80-90'		05	0		240	48	0.8	63	25
	90-100'		06	0						
	100'		07	0	100' BEDROCK: FINE-GRAINED SCHISTOSE INT. TO MAFIC VOLCANIC MEDIUM GRAIN	316	136	0.3	22	15





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## OVERBURDEN DRILL LOG

Hole EC-66-016

Property/Area <u>PETROMET (CALCULUS OPTION) / CROSA BEKAKI</u>	Date(s) <u>APRIL 30/86</u>
Township <u>CARHILL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L. 3300 E, 16+00 (FF) N (ANTAR-MICE BUDS)</u>	Bit No. <u>RODOS P3</u>
Logged by <u>L. MEYER</u>	Depth to bedrock <u>61'</u>
Sampler <u>G. SINGH</u>	Total depth <u>69'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 7:10  
FINISH 9:30

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Pb	As	Au (PPM)
	0-3'				0-3': RECENT HUMUS					
	3-5'				3-5': VARVED CLAY					
	5-10'				5-10': MEDIUM-BROWN SANDY GRAVELLY TILL, CLAY-RICH					
	10-12'				10-12': LIGHT BROWN SILTY CLAY					
	12-25'				12-25': LIGHT BROWN SOFT CLAY					
	25-30'		01	1AB.	25-30': SANDY FINE PEBBLY TILL / ABLATION TILL OR FLUVIOLACIAL	124	54	40.1	47	55
	30-40'		02	SABR-270PY		90	40	40.1	26	110
	40-50'		03	0		121	36	0.2	15	270
	50-60'		04	0	60-63': COARSE GRAVELLY TILL - POSSIBLY MORE PROXIMAL LITHOLOGIES	315	560	0.5	14	10
	60-68'		05	0	68' BEDROCK: MAGNETITE-GRAPHITE I.F. WITH UP TO 30% DISSEMINATED, STRINGS AND MASSING PYRRO - BLACK, FINE-GRAINED	197	645	0.3	2	10
	68'				68' E of H.					



# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EC-86-07

Property/Area <u>2510MET (BARODUC OPTON)/CASABAYAKU</u>	Date(s) <u>APRIL 30/86</u>
Township <u>CARHILL</u>	
Claim No. _____	Drilling Co. <u>GRABER BROTHERS</u>
Location <u>24+00E, 9+50(N) N (ABUTTA-PRICE GRIDS)</u>	Bit No. <u>8000096</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>55'</u>
Sampler <u>G. SINGAR</u>	Total depth <u>57'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 10:00  
FINISH 10:40

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Pb	As	Au (PPB)
					0-7': RECENT HUMUS 7-8': CLAY 8-10': SANDY CLAYEY FINE GRAVELLY TILL  10'-35': LIGHT GREY SOFT LACUSTRINE CLAY  35-40': SAND WITH MINOR FINE GRAVEL  40-48': SANDY GRAVELLY TILL WITH 5% LIMESTONE FRAGMENTS  48'-55': SLIGHTLY MORE COARSE GRAVEL  55' BEDROCK: FINE TO MEDIUM GRAINED MAFIC TUFF - MEDIUM GREENS, ORE FRAGMENTS, WEAKLY FOLATED / SCHISTOSE 57' E of H.					
			01	0		211	96	0.4	22	35
			02			103	96	10.1	2	45



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## OVERBURDEN DRILL LOG

Hole SC 86-018

Property/Area <u>TECTOMET (BANQUE OPTION) CASA BEXAUI</u>	Date(s) <u>APRIL 30/86</u>
Township <u>CARHEU</u>	
Claim No. _____	Drilling Co. <u>BRANLEY BROTHERS</u>
Location <u>L 2000E, P. 55 (H. 1) N (167161-168615)</u>	Bit No. <u>B0000P3</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>38'</u>
Sampler <u>G. SINGH</u>	Total depth <u>45'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 11:00

FINISH 12:00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Zn	As	As	As (PPM)
	0-5				0-5': ROBB-BED GRAVEL + HUMUS					
	5-25				5-25': LIGHT GREY CLAY					
	25-37		01	0	25-37': SANDY FINE GRAVELLY TILL / FLUVIOGLACIAL 27-28' OXIDIZED LAYER, RUSTY REDDISH SAND + OXIDIZED RUSTY GRAVEL	32	16	40.1	42	10
	37-38				37' BEDROCK: 37-38': OXIDIZED, RUSTY ROCK					
	38-42		02		38': CLEANER BEDROCK: FINE-GRAINED MAFIC TUFF-SILICIFIED, Qtz STRANDERS WITH ASSOCIATED PY F22. 42': SEAM WITH SOME GRAVEL + SAND, MUCH OXIDIZED BEDROCK	74	105	40.1	2	45
	45				45' E of H.					





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## OVERBURDEN DRILL LOG

Hole EC-86-019

Property/Area <u>RETROFIT (BARQUE OPTION) CASA BEGNAI</u>	Date(s) <u>APRIL 30/86</u>
Township <u>CARLEIL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L 26 100E, 31+00 (Pt. A) (WEST TO ROAD)</u>	Bit No. <u>B000083, B000086</u>
<u>(AGITHA PRICE GRID S)</u>	Depth to bedrock <u>105'</u>
Logged by <u>D. MEYER</u>	Total depth <u>110'</u>
Sampler <u>G. SUXLAIN</u>	Sample screening <u>#10 MESH</u>
Remarks <u>START 12:15</u>	
<u>FINISH 3:45</u>	

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Almg
					0-3': ROAD BED					
					3'-5': HUMUS					
					5'-8': GRITTY CLAY					
					8'-18': LIGHT BROWN CLAY-RICH TILL					
					18'-35': VERY SANDY FINE PEBBLY ABLATION TILL / FLUVIO-GLACIAL OUTWASH					
			01	0		39	35	40.1	5	30
					35'-50': SAND WITH MINOR CLAY CHIPS					
			02							
					50'-65': MINOR FINE GRAVEL IN SAND					
					55'-65': 5% SILTY CLAY BALLS IN FINE SAND AND ASSOCIATED PEBBLES					
			03	0		220	144	1.1	87	185
					65'-105': GRAVEL BEDS OF FINE GRAVEL -CS. GRAVEL FLUVIOGLACIAL?					
			04							
					85' BOULDERS AND COBBLES					
					85'-87' BOULDER OF CS-GLAUCOPHANE MAFIC INTRUSIVE					
			05	0		330	152	0.8	76	485
			06	0		340	172	0.5	56	185
			07	0		329	182	0.5	44	30





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## OVERBURDEN DRILL LOG

Hole R-86-020

Property/Area <u>RETROMET (CAROLUE OTTAWA) / CASA BENTLEY</u>	Date(s) <u>APRIL 30 1966</u>
Township <u>CALHOUN</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L 40+350 E, 11+00 (Pt) N (NAD 84) GRID S-74)</u>	Bit No. <u>8000060</u>
Logged by <u>J. MEYER</u>	Depth to bedrock <u>121'</u>
Sampler <u>G. SWELAND</u>	Total depth <u>134'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 7:30  
FINISH 11:00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Zn	Ag	As	Al(M)
					0-3': ROAD BED					
					3-10': DARK BROWN CLAY + HUMUS					
					10-82': SANDY GRAVELLY ALLUVIAL TILL / FLUVIOGLACIAL OUTWASH WITH SANDY LENSES 1' FELSIC INTRUSIVE BOWDER 10' COBBLE OF FELSIC VOLCANIC WITH DISS. PY 20-25': FINE SAND AND MUD CLAY CHIPS					
			01	0		12	42	40.1	4	410
			02	0		83	34	40.1	23	165
			03	0		86	73	40.1	19	45
			04	0	82-90': 20% SILTY, LIGHT GRAY CLAY BARS IN ABOVE MATERIAL TILL?					
			04	0	87-88' MAFIC VOLCANIC BOWDER WITH 5% PY IN STRINGS	231	50	0.2	25	65
			05	1 ABR.	90-128' COBBLE, COARSE GRAVELLY TILL	240	200	0.4	77	130
			06	0		330	152	1.0	53	170







OVERBURDEN DRILL LOG

Hole ESP6022

Property/Area <u>PETROMET (BARQUE OTTAWA) / CASH BEYOND</u>	Date(s) <u>MAY 1, 2 / 86</u>
Township <u>CARROLL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L 21°00'E, 13+50(S.P.) N (NORANDA GRID 3-77)</u>	Bit No. <u>B000079</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>137'</u>
Sampler <u>G. SWANSON</u>	Total depth <u>155'</u>
	Sample screening <u>1/10 MESH</u>

Remarks START 1:15  
FINISH 4:40

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au
		AAA A A			0-2': HUMUS 2'-5': LT. TO RUSKY BROWN CLAY-RICH TILL 5'-10': SAND AND FINE PEBBLES  10'-40': 10-15% CLAY, SILT BALLS IN ABOVE SAND AND PEBBLES					
			01	0	40-60'. CS. GENERALLY COBBLE TILL WITH MATRIX OF GREY BUFF SAND/SILT.	190	90	0.3	41	215
			02	0	60-66': LT. GREY CLAY BALLS IN ABOVE TILL 66'-85': GREY SILT AND SAND GRAINS TO MORE GLAUCE PRESENT AT 75'	230	110	0.5	79	80
			03	0	85-110': SOME LIGHT GREY CLAY/SILT BALLS IN TILL, VERY SANDY	123	80	0.3	20	290











# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EC-16-026

Property/Area <u>PETROMET (BARROQUE OPTIM) / (CASA BERANI)</u>	Date(s) <u>MAY 3/06</u>
Township <u>CARNEGIE</u>	
Claim No. _____	Drilling Co. <u>GRABLE &amp; BROTHERS</u>
Location <u>L27100E, 1+65 (M.) S (ADDITIONAL PRICE GRID B)</u>	Bit No. <u>R0000P1</u>
Logged by <u>L. MEYER</u>	Depth to bedrock <u>142'</u>
Sampler <u>J. SANCHEZ</u>	Total depth <u>141'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 9:55  
FINISH 1:30

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	AL (PPB)
	0-5	Recent Humus			0-5': RECENT HUMUS					
	5-20	Light Brown Sandy Clay-rich Till			5'-20': LIGHT BROWN SANDY CLAY-RICH TILL					
	20-25	Light Grey Clay			20'-25': LIGHT GREY CLAY					
	25-30	Sandy Fine Gravel Till? Gravel is coarse locally + cobbles	01	0	25'-30': SANDY FINE GRAVEL TILL? GRAVEL IS COARSE LOCALLY + COBBLES	79	38	0.5	47	45
	30-40	Co. Gravel + cobbles			30'-40': CO. GRAVEL + COBBLES					
	40-55	Fine rounded pebbles and sorted sand	02	0	40'-55': FINE ROUNDED PEBBLES AND SORTED SAND	107	38	40.1	129	35
	55-60	Light Grey Clay balls in sandy fine gravelly till	03	0	55'-60': LIGHT GREY CLAY BALLS IN SANDY FINE GRAVELLY TILL	82	75	40.1	60	35
	60-70	Coarse Gravel and cobbles in till	04	1 ARR.	70'-100': COARSE GRAVEL AND COBBLES IN TILL					
	70-73	Up to 50% medium grey silty clay balls in medium gravelly sandy till	05		70'-73': UP TO 50% MEDIUM GREY SILTY CLAY BALLS IN MEDIUM GRAVELLY SANDY TILL	120	430	0.7	76	460
	73-100		06	8 ARR. 1 IRR.						
	100		07			126	181	0.6	26	970





# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EC-86-026

Property/Area <u>PETROMET (BAROQUE OPTION) / CASA DEKADA</u>	Date(s) <u>MAY 3/86</u>
Township <u>CARHEZ</u>	
Claim No. _____	Drilling Co. <u>LAKEY BROTHERS</u>
Location <u>16+00E (ABT101-PRICE GRID B)</u>	Bit No. <u>00000F1</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>23'</u>
Sampler <u>G. SANCHEZ</u>	Total depth <u>25'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 3:00  
FINISH 3:55

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPB)
	0-10	^ ^ ^ ^ ^ ^ ^ ^			0-10' HUMUS					
	10-20	[Horizontal lines]			10'-20' LIGHT GREY LACUSTRINE CLAY					
	20-23	[Dotted pattern]	01	0	20'-23' SANDY FINE TO MEDIUM GRAVELLY TILL	100	45	0.2	19	45
	23-25	[Diagonal lines]	02		23' BEDROCK: FINE-GRAINED DARK-GREEN INT. TO MAFIC VOLCANIC (AMPHIBOLITE) - MILK PY 25' Eo/H.	100	20	0.1	42	45



# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole SC86-027

Property/Area <u>PETROMET (BAROQUE OPTION)/CASA BEMEDI</u>	Date(s) <u>MAY 03:86</u>
Township <u>PARLET</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L 1600E, (MATERIAL-PRICE GRID 6)</u>	Bit No. <u>0000081</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>67'</u>
Sampler <u>G. SACCANI</u>	Total depth <u>69'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 4:15  
FINISH 5:00

M	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Zn	Ag	As	Au (PPM)
	0-4'				0-4': RECENT HUMUS					
	4-8'				4-8': SANDY CLAY (MEDIUM GREY)					
	8-42'				8-42': MEDIUM GREY LACUSTRINE CLAY					
	42-60'				42-60': VERY SANDY FINE GRAINED ALLUVIUM TILL / FINE-GRAINED OUTWASH					
	50-55'		01	0	50' CS. GRAVEL IN SANDY TILL?	57	58	40.1	31	210
	60-67'				60-67': CLAYEY SILTY CS. GRAVELLY TILL					
	67'		02 03	0	67' BEDROCK: FINE TO MEDIUM-GRAINED INT. TO MAFIC BEDROCK (AMPHIBOLITE)	52 61	30 31	0.3 40.1	13 42	45 45
	69'				69' End of					



# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole LC65028

Property/Area PETROMET (BAROQUE OPTIM)/CASA BEATEDL

Date(s) MAY 07/16

Township CARLETON

Claim No. \_\_\_\_\_

Drilling Co. BRADLEY BROTHERS

Location L 16+00 E 28+00 N (ABITIAH-PRICE GRIDS E)

Bit No. CB 62053

Logged by D. MEYER

Depth to bedrock 42'

Sampler G. SUGGARS

Total depth 47'

Sample screening +10 MESH

Remarks START 9:00

FINISH 10:05

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Zn	As	As	Pb (PPB)
	0-2'				0-2': RECENT HUMUS					
	2'-5'				2'-5': LIGHT BROWN CLAY-RICH TILL (COCHRANE)					
	5'-10'				5'-10': MEDIUM-GREY LACUSTRINE CLAY					
	10'-10'		01	1488	10'-10': FINE TO MEDIUM ROUNDED PEBBLES AND SORTED SAND (FLUVIOGLACIAL)					
	25'-05'				25'-05': CO. GRAVEL/COBBLES	90	40	0.2	26	155
	29'-30'				29'-30' - INT - FERROS VOLCANIC TUFFACEOUS SANDSTONE					
	30'-00'		02	0	40'-42': LIGHT GREY CLAYEY-SANDY GRAVELLY TILL	274	46	0.3	96	60
	42'		03		42': BEDROCK: FINE-GRAINED INT. TO MAFIC VOLCANIC - MED-GREEN, MASSIVE TO LOOSELY FOLIATED	22	130	20.1	4	25
	47'				47' EofH.					



# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EC96-229

Property/Area <u>PIETOMET (BARROUE OPTION) / CASA BERARDI</u>	Date(s) <u>MAY 04/86</u>
Township <u>CARHEIL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L 12 0002, 5 1002 A.) AS NEBRASKA GRID 374)</u>	Bit No. <u>CB 60053, CB 60055</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>48'</u>
Sampler <u>G. JUNGCLAIR</u>	Total depth <u>48'</u>
	Sample screening <u>1/10 MESH</u>

Remarks START 10:45

FINISH 1:00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Pb	As	Pb (PPB)
	0-4'				0-4': RECENT HUMUS					
	4-10'				4-10': DARK BROWN CLAY-RICH TILL					
	10-30'				10-30': FINE, SUBROUNDED PEBBLES AND SAND WITH FINE SAND LENSES					
	20-25'		C1	LAB. 170 PY	20-25': SAND	75	27	0.1	7	15290
	27-30'				27-30': SOME COARSE GRAVEL WITH SAND AND FINE PEBBLES					
	30-36'				30-36': LIGHT GREEN-GREY LACUSTRINE CLAY					
	36-40'				36-40': SILT					
	40-47'		O2	C	40-47': GRAVELLY-SANDY TILL? APPARENTLY MORE LOCAL LITHOLOGIES → MAFIC VOLCANIC / INTRUSIVE, MINOR GRANITE - SOME PY ID MAFIC VOLCANIC	234	98	0.6	57	150
	48'		O3		48': SLOW DRILLING → NEW BIT # CB 60055 - ROUGH DRILLING REAS - PRESUMED TO BE A CRACK IN BEDROCK: MEDIUM GREEN MAFIC TUFF / INTRUSIVE					
	48'				48' E of H.					



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## OVERBURDEN DRILL LOG

Hole EC-26-030

Property/Area <u>PETRONET (CARDUQUE OPTION)/CASA BEKARDI</u>	Date(s) <u>MAY 04, 05/86</u>
Township <u>CARMAIL</u>	Drilling Co. <u>BRADLEY BROTHERS</u>
Claim No. _____	Bit No. <u>CB 68055</u>
Location <u>2.200E 153+00(F.H.)N (ACRANIA GR10 J-74)</u>	Depth to bedrock <u>102'</u>
Logged by <u>D. MEYER</u>	Total depth <u>110'</u>
Sampler <u>G. SARGAN</u>	Sample screening <u>+10 MESH</u>

Remarks START 8:00  
FINISH 10:30

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Fe	As	Ag (PPB)
	0-3'	^ ^ ^			0-3': HUMUS					
	3-7'				3-7': MEDIUM BROWN CLAY					
	7-18'		01		7-18': RUSTY (OXIDIZED) FINE GRAVEL					
	18-32'		02		18-32': LIGHT GREY GRITTY, CLAYEY FINE PEBBLY TILL	290	106	0.4	40	390
	32-39'				32-39': GREY GREEN CLAY					
	39-55'		03		39-55': GRABING INTO GREY-GREEN VERY CLAYEY TILL (LODGE-MENT)					
	55-102'		04		55-102': MEDIUM TO COARSE GRAVELLY CLAY-POOR SANDY TILL - ALTERNATING FINE PEBBLY CLAY-RICH/COARSE PEBBLY CLAY-POOR LAYERS	210	124	0.6	100	15
	102-108'		05							
	108-110'		06		86-102': COARSE GRAVELLY, COBBLY TILL	120	54	0.4	40	10
	110-110'		07	1 AGR.		260	92	0.7	63	15







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## OVERBURDEN DRILL LOG

Hole 17-86-031

Property/Area <u>PETROMET (BAROQUE OPTION) / CASA ZENABADI</u>	Date(s) <u>MAY 05/86</u>
Township <u>CARMEL</u>	Drilling Co. <u>BRANEY BROTHERS</u>
Claim No. _____	Bit No. <u>CB 65049</u>
Location <u>L 1200E, 15100(N.) (APPROXIMATE GRID J-74)</u>	Depth to bedrock <u>60'</u>
Logged by <u>D. MEYER</u>	Total depth <u>65'</u>
Sampler <u>G. SINGH</u>	Sample screening <u>+10 MESH</u>

Remarks START 11:25

FINISH 1:05

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPB)
					0-5': RECENT HUMUS					
					3'-8': LIGHT BROWN CLAY-RICH TILL?					
	10				8'-35': FINE GRAVELLY TILL					
					8'-10': MAFIC VOLCANIC TILL					
	20		01	0		59	35	<0.1	10	65
	30				30'-35': LIGHT GREY CLAYEY TILL					
	40		02	2ABR 107gpy (175250 Au grain furnished)	35'-53': COARSE GRAVEL, COBBLES IN TILL INCLUDING SOME INT TO MAFIC VOLCANIC FRAGMENTS WITH SERULINE AND PYRITE	194	176	0.2	41	1490
	50		03	0	53'-56': FINE GRAVEL AND SAND	147	126	0.3	30	140
	60		04		56'-65': LODGEMENT TILL - 50% GRITTY CLAY BALLS AND GRAVEL CHIPS, MAFIC VOLCANIC FRAGMENTS					
	60				60' BEDROCK: FINE-GRAINED, SCHISTOSE INTERMEDIATE TO MAFIC VOLCANIC	75	130	<0.1	<2	<5
	70				- SLIGHTLY CHLORITIC, MINOR Qtz UCLINETS					
					65' EOPH.					



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## OVERBURDEN DRILL LOG

Hole EC-86032

Property/Area <u>PERIMET (VARIOUS OPTIONS) / CASA BEARDO</u>	Date(s) <u>MAY 05, 06 / 84</u>
Township <u>CARHILL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>6.800E, 6.423 (FT.) N (XPRADA GRID J-74)</u>	Bit No. <u>CB 68049, A000048</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>132'</u>
Sampler <u>G. SINGH</u>	Total depth <u>145'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 1:20  
FINISH 4:45

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (#6)
		▲ ▲ ▲			0-2': RECENT HUMUS					
		▲ ▲ ▲			2'-7': LIGHT BROWN CLAY-RICH TILL					
	10	▲ ▲ ▲			7'-36': FINE GRAVELLY SANDY TILL					
	20	▲ ▲ ▲	01	N.P.						
	30	▲ ▲ ▲			30'-50': LODGEMENT TILL, FINE TO MEDIUM PEBBLES AND GRAVEL FRAGMENTS WITH GREENISH-GREY CLAY					
	40	▲ ▲ ▲	02	146R		600	160	0.8	115	105
	50	▲ ▲ ▲			50'-60': COARSE GRAVEL WITH LITTLE OR NO MATRIX CLAY					
	60	▲ ▲ ▲	03		66'-65': 20-60% GRITTY CLAY BALLS (GREY-GREEN) AND FINE TO MEDIUM GRAVEL - NOTICED 2 MASSIVE PY FRAGMENTS					
	70	▲ ▲ ▲	04	0	65'-108': SANDY GRAVELLY TILL WITH CLAY-BEARING UNITS	176	78	0.6	42	80
	80	▲ ▲ ▲			70' - CS GRAVEL / COBBLES; MINOR CLAY COATING ON SOME FRAGMENTS					
	85	▲ ▲ ▲			72' - FINE PEBBLES AND SORTED SAND					
	90	▲ ▲ ▲	05	0	77-78' - GRANITE BOUNDER					
	95	▲ ▲ ▲			103' - SAND LENS	254	97	0.6	38	45
	100	▲ ▲ ▲			104' - GREENISH GRITTY CLAY					
	105	▲ ▲ ▲			108'-118' - CLAY					
	110	▲ ▲ ▲	06	0		236	75	0.4	35	120





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## OVERBURDEN DRILL LOG

Hole 54F-033

Property/Area <u>PETROMET (BAROQUE OPTION) / CASA ZERAC</u>	Date(s) <u>MAY 07/16</u>
Township <u>CARHEIL</u>	
Claim No. _____	Drilling Co. <u>BLADNEY BROTHERS</u>
Location <u>E 157+00E 41+50 (41) S (ANTIAL-PAKE GRID 4)</u>	Bit No. <u>A00004?</u>
Logged by <u>J. MEYER</u>	Depth to bedrock <u>44'</u>
Sampler <u>G. SANCHEZ</u>	Total depth <u>50'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 8:50  
FINISH 10:30

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	Pb	Au (PPB)
	0-2'	▲▲▲			0-2': RECENT HUMUS					
	2-7'	△△△			2-7': LIGHT BROWN CLAY-RICH TILL					
	7-20'				7-20': LIGHT GREY LACUSTRINE CLAY					
	20-28'	●●●	01	0	20-28': FINE TO MEDIUM GRAVELLY SANDY TILL					
	22-30'	●●●			22-30': 10-15% LIGHT GREY-GREENISH GRITTY CLAY BALLS	40	50	20.1	46	40
	28-36'				28-36': MEDIUM GREEN-GREY CLAY, HARD AND COMPACTED					
	33-34'				33-34': ASSORTED GRAVELLY TILL					
	36-39'	△△△	02	1 ABR.	36-39': LIGHT GREY CLAY-RICH TILL	48	21	20.1	5	40
	39-44'	●●●	03	0	39-44': COARSE GRAVEL AND COBBLES, PREDOMINANTLY MAFIC URBANICS	91	22	0.1	4	20
	44'				44' BEDROCK: LIGHT GREEN, INTERMEDIATE TO MAFIC VOLCANIC	94	92	20.1	3	25
	50'				50' Eof H.					



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## OVERBURDEN DRILL LOG

Hole EC-36-037

Property/Area <u>RETROFIT (BARROQUE COTTAGE) / (CASA ZERANO)</u>	Date(s) <u>MAY 07 / EC</u>
Township <u>FAIRFAX</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L160000E, 41+50 (H.1.5) (AG. TBL. PL. E. GRID)</u>	Bit No. <u>A000048</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>52'</u>
Sampler <u>G. SUDCLAK</u>	Total depth <u>55'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 10:40  
FINISH 12:05

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPB)
	0-6'				0-6': RECENT HUMUS					
	6-10'				6-10': LIGHT BROWN CLAY-RICH TILL					
	10-25'				10-25': LIGHT GREY-GREEN SOFT LACUSTRINE CLAY, SLIGHTLY GRITTY					
	25-33'				25-33': SAND AND FINE GRAVEL, FLUVIOGLACIAL OUTWASH					
	33-50'		01	0	33-50' FINE TO COARSE GRAVEL	165	110	40.1	33	80
	50-52'		02	0	50-52': DARK GREY-GREEN CLAY GRADING INTO DARK GREY CLAY-RICH TILL	108	62	0.4	16	40
	52-55'		03	1 AB.	52-55': BEDROCK: FINE-GRAINED MAFIC VOLCANIC - MASSIVE, CHLORITIC LOCALLY, 1-2% DISSEMINATED BY	157	20	0.1	6	70
	55'		04		55' E.O.P.	82	76	40.1	42	45



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## OVERBURDEN DRILL LOG

Hole 91-86-001

Property/Area <u>PETROMET (BARROUE OPTON) / CASA BEGAKAI</u>	Date(s) <u>MAY 07/86</u>
Township <u>74N2E</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>2 1/2 MILES SW 37100 (H.S.) (MONTI-PRICE SKIN 4)</u>	Bit No. <u>A 000048</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>70'</u>
Sampler <u>S. SURGALA</u>	Total depth <u>80'</u>
	Sample screening <u>-10 MESH</u>

Remarks STAKE 1-70

FINISH 3:40

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au(Ag)
	0-3'				RECENT HUMUS					
	3'-10'				LIGHT BROWN TO MEDIUM BROWN CLAY-RICH TILL					
	10'-30'				LIGHT GREY, VERY SOFT LACUSTRINE CLAY					
	30'-39'				FINE GRAVEL AND SAND					
	37'-39'				GREY-GREEN GRITTY CLAYEY FINE GRAVELLY TILL					
	39'-60'		01	0	COARSE GRAVELLY TILL, PREDOMINANCE OF MAFIC INCLUSIVES	101	54	1.0	38	205
	40'-41'				MAFIC VOLCANIC BODDER					
	60'-69'		02	1 ABR.	DARK GREEN-GREY CLAY	129	60	0.3	11	60
	66'-69'		03	2 ABR 1 DEL	GRAVELLY SANDY TILL	312	680	0.7	41	550
	69'-70'				CLAY LENS, LIGHT TO MED. GREY					
	70'		04		BEDROCK: SILICIFIED, SORCITIZED INTERMEDIATE TO MAFIC VOLCANIC	146	1424	0.2	10	45
					-5-10% DISSEMINATED AND STRUCK BY 94Y					
	80'				End of H.					



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## OVERBURDEN DRILL LOG

Hole FC-86-056

Property/Area <u>RETOMET (MAGNOLIA OPTION) (CASA BEGON)</u>	Date(s) <u>MAY 07, 08 / 06</u>
Township <u>CARLETON</u>	
Claim No. _____	Drilling Co. <u>HARVEY BROTHERS</u>
Location <u>E. SIDE OF R2100 (FAS) (AGRIUM-ALICE GRID 4)</u>	Bit No. <u>A000041</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>47'</u>
Sampler <u>G. SINGH</u>	Total depth <u>53'</u>
	Sample screening <u>#10 MESH</u>

Remarks START 9:40 (MAY 07)

FINISH 9:40 (MAY 08)

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Hg	As	Al (PPM)
	0-3'				0-3': RECENT HUMUS					
	3-10'				3-10': LIGHT BROWN CLAY / CLAY-RICH TILL					
	10-20'				10-20': LIGHT GREY CLAY					
	20-40'		01	0	20-40': MEDIUM-SIZED ROUNDED PEBBLES, SANDY FLUVIO-GLACIAL OUTWASH	182	51	0.6	29	15
	40-47'		02	.488	40-47': CLAYEY (LIGHT GREY) FINE TO COARSE GRAVELLY TILL	260	200	0.3	121	1530
	47-43'				42-43': MAFIC VOLCANIC BEDROCK					
	47'		03		47' BEDROCK: MEDIUM-GRAINED, CHLORITE, SERICITIC MAFIC TUFF - MEDIUM-GREENS, SOFT AND PINKY	62	81	0.2	2	45
	53'				53' E of H.					





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## OVERBURDEN DRILL LOG

Hole EC 26 007

Property/Area <u>PETROMET (BANDOLE OPTION) / CASA BEXARDI</u>	Date(s) <u>MAY 08/16</u>
Township <u>CARROLL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>5200 E 2500 (H. 15 (AGRIC. PRICE GRID))</u>	Bit No. <u>1000066</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>64'</u>
Sampler <u>G. SINGAR</u>	Total depth <u>75'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 2:00

FINISH 3:50

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPB)
	0-2'				RECENT HUMUS					
	2'-10'				LIGHT BROWN CLAYEY TILL					
	10'-25'		01	1 ABR.	SANDY, GRAVELLY TILL WITH MINOR LIGHT GREY GRITTY CLAY IN MATRIX	50	48	<0.1	18	65
	25'-26'				LIGHT GREY CLAY					
	26'-46'		02	4 ABR. 10% PY 2% ASPY (60%)	CLAY-RICH TILL	279	7900	7.3	31	55
	40'-50'				FINE GRAVELLY AND SAND TILL					
	60'-64'		03	1 ABR.	COARSE GRAVEL / COBBLE TILL 63' PROXIMATE LITHOLOGIES	305	360	1.2	97	55
	64'-75'		04		64' BEDROCK: GOSMAN ZONE? GREENISH-YELLOW SOFT CLAY 69' ROCK CHIPS: ULTRAMAFIC VOLCANIC WITH 20-30% PY - GRANITIC PINKISH LENSES - M. AND Qtz LENSING 75' E of H.	128	510	0.1	66	55



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## OVERBURDEN DRILL LOG

Hole EC-66-018

Property/Area <u>PENNYMET (BAROQUE OPTION) / (ASA BERARD)</u>	Date(s) <u>MAY 09/11</u>
Township <u>44-2</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L.H. 6005, 44x00 (41.5) S (ANITIL-PRICE GRID 4)</u>	Bit No. <u>8000086</u>
Logged by <u>D. MEYER</u>	Depth to bedrock <u>89'</u>
Sampler <u>G. SWOZAK</u>	Total depth <u>93'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 9:30  
FINISH 12:00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Ca	Zn	A <sub>1</sub>	A <sub>2</sub>	A <sub>2</sub> (ABS)
	0-10				0-10': HUMUS					
	10-17				10-17': CLAY					
	17-49		O1	O	17-49': SANDY GRAVELLY TILL, 5-10% SILTY/CLAYEY MATRIX, FINE GRAINER GRABING TO COARSE GRAVEL	100	25	<0.1	121	60
	49-75		O2	O	49-75': CLAY (LACUSTRINE)					
	75-85		O3	1ABR.	75-85': SANDY MEDIUM GRAVELLY TILL, LOCAL LITHOLOGIES - PREDOMINATELY MAFFIC VOLCANIC, INTRUSIVE, SOME MASSIVE PY FRAGMENTS	291	245	0.7	70	75
	85-93		O4		85-93': GRAPHIC MAFFIC TUFF WITH PY BLOBS 8' CHLORITE SCHIST -> GREEN GREY CLAY WITH 5-10% PY 84' BACK TO GRAPHITE WITH PY CLAYS, STRONGS	106	736	0.1	26	5
	93				93' EOPH					



# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole 2021-014

Property/Area <u>PETROMET (BAALDWIN OPTION) / CASA BELMONT</u>	Date(s) <u>MAY 09, 10 / 86</u>
Township <u>CARROLL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>149400E, 42100(N)S (MATERIAL PRICE \$610.4)</u>	Bit No. <u>8000086</u>
Logged by <u>J. METZ</u>	Depth to bedrock <u>102'</u>
Sampler <u>G. SUGGARS</u>	Total depth <u>105'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 12:45  
FINISH 3:26

M	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (Pb)
	0-5'				0-5': RECENT HUMUS					
	3-15'				3-15': CLAY-RICH TILL					
	15'-35'		01	N.P.	15'-35': SANDY, GRAVELLY TILL, LOCALLY WITH GRITTY CLAY - MAXIMAL LITHOLOGIES: BY OBTAINING MAFFIC TUFF ETC.					
	35'-58'		02	N.P.	35'-58': FINE ROUNDED GRAVEL AND SAND WITH SAND UNITS					
	40'		03	N.P.	40': FINE SAND AND SILT WITH MINOR FINE GRAVEL					
	45'		04	N.P.	45': MEDIUM TO COARSE GRAVEL AND SAND					
	58'-8'				58'-8': CLAY					
	84'-100'		05	0	84'-100': SANDY GRAVELLY TILL, COARSE PROXIMAL GRAVEL	187	51	0.6	22	80
	100'-102'		06	SAMP. 5/2/86	100'-102': CLAY-RICH IN ABOVE TILL	349	260	1.0	84	325





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## OVERBURDEN DRILL LOG

Hole EC-86-010

Property/Area <u>PETROMET (BARDOUCÉ OPTION) / CASA GENACLI</u>	Date(s) <u>MAY 09, 10/16</u>
Township <u>CARHEU</u>	
Claim No. _____	Drilling Co. <u>MARKS BROTHERS</u>
Location <u>2.40100E, 49.1500N, 5 (ARITH. - PRICE 6R.0.4)</u>	Bit No. <u>ROXO006, ROXO008</u>
Logged by <u>D. MEYER / C. SKELETON</u>	Depth to bedrock <u>137'</u>
Sampler <u>D. MEYER / P. SCHE</u>	Total depth <u>112'</u>
	Sample screening <u>#10 MESH</u>

Remarks START 4:05 (MAY 09) - HOLE STOPPED TO WAIT FM. CONDUCTOR → SUCCESSFULLY PENETRATED GRAPHITE ANGILOITE  
FINISH 12:00 (MAY 10) - EXCELLENT TILL SECTION

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	AL (PPB)
	0-2'				0-2': HUMUS					
	2'-25'		01	0	2'-25': CLAY TILL - COCHRANE? - MEDIUM BROWN, CLAY-RICH - GRAVELLY LAYER AT 5'	128	59	0.6	37	90
	25'-47'		02	1 ABR.	25'-47': INTERBEDDED LACUSTRINE GREY CLAY AND SAND AND GRAVEL	43	40	0.4	123	205
	47'-137'		03	0	47'-137': TILL	280	152	1.0	83	180
	47'-92'		04 (1) 04 (2)	0 1 ABR.	47'-92': GRAVELLY TILL, GENERALLY WITH MINOR CLAY-BALLS	150 170	116 80	0.8 0.1	64 25	175 4860
	47'-50'		05	0	- ABUNDANT VOLC. CLASTS 47'-50'	120	120	0.3	57	55
	65'-70'		06 (1)	0	- PY FRAGMENTALS 65'-70'	144	100	0.1	43	160
	50'-55', 74'		06 (2)	1 ABR.	- GREEN RHYOLITE CLASTS 75'-80'	150	104	0.6	72	85
	75'-92'		07	1 ABR.	75'-92': TILL MORE CLAYCY	260	132	0.5	59	435
	92'-117'		08 09	9 ABR. 270 PY 20 ABR. 8 ABR. 570 PY		160	164	1.0	75	5430
	117'-137'		10	0		113	130	0.7	57	495
	137'-150'		11	1 ABR.		135	146	0.1	43	125
	150'-170'		12	0		210	86	1.2	74	595
	170'-190'		13	1 ABR.	92'-117': CLAYCY TILL - RICH IN GRITTY CLAY BALLS	170	88	0.1	55	130
	190'-210'					113	80	0.1	50	355





# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole RC-96-041

Property/Area <u>PETROMET (BAROQUE OPTION) / CISA BEARDA</u>	Date(s) <u>MAY 10/16</u>
Township <u>CARHEIL</u>	
Claim No. _____	Drilling Co. <u>LEANEY BROTHERS</u>
Location <u>174000E, 32100 (H) S (AGITION-PRICE GRID 4)</u>	Bit No. <u>8500088</u>
Logged by <u>B. BRACKETON</u>	Depth to bedrock <u>134'</u>
Sampler <u>P. SOBIE</u>	Total depth <u>159'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 1:00 HOLE STOPPED TO HIT EM CONDUCTOR -> NOT ADEQUATELY EXPLAINED BY BEDROCK  
FINISH 4:00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPM)
	0-3'	▲ ▲ ▲ ▲			HUMUS					
	3-37'				GREY LACUSTRINE CLAY					
	37-53'		01	0	GLAUER, SOME COBBLES; MIXED COMPOSITION WITH ABUNDANT GRANULICS - WELL-WASHED, FEW FINES	240	84	0.8	87	15
			02	1 ABR.		600	196	1.6	176	8370
			03	0		580	1800	2.0	314	450
			04	0		450	136	0.7	171	80
	53-100'		05	0		230	96	0.9	162	55







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## OVERBURDEN DRILL LOG

Hole EC-86-072

Property/Area <u>PETROMET (BARROQUE CRTON) / CASA BERARDI</u>	Date(s) <u>MAY 11/86</u>
Township <u>CAMHEK</u>	
Claim No. _____	Drilling Co. <u>HADLEY BROTHERS</u>
Location <u>L. MERIDIE, 7+50 (H.) S (ACTUEL-PRICE GRID 4)</u>	Bit No. <u>8000574</u>
Logged by <u>G. CASERON</u>	Depth to bedrock <u>91'</u>
Sampler <u>P. SOBIE</u>	Total depth <u>95'</u>
	Sample screening <u>-10 MESH</u>

Remarks START 8:00 - HOLE STOPPED TO HIT EM CONDUCTOR → NOT EXPLAINED BY GEOSYS  
FINISH 10:30 - RELATIVE MAGNETIC HIGH EXPLAINED BY ULTRAMAFIC

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPB)
		AAA			0-2': HUMUS					
	10				2'-24': LACUSTRINE CLAY AND GRAVEL (INTERBEDDED, MAINLY CLAY)					
	20									
	30		01	0	24'-40': GRAVEL, RELATIVELY FINE, MIXED CLAST COMP. - BY TWO SILICIFIED VOLCANIC @ 32'	184	76	0.6	624	445
10	35		02	LABR.		150	52	0.7	71	4130
	40		03	0		85	26	0.1	47	885
	50		04	0	40'-91': TILL - GRAVELLY TILL (GRAVITATIONAL CONTACT WITH ABOVE) FROM 40'-53.5' - CLAY-RICH TILL 53.5'-75' - GRAVELLY TILL WITH ONLY MINOR CLAY 75'-90' - CLAYEY TILL 90'-91'	235	52	0.7	76	80
	55		05	LABR.		180	38	0.4	38	620
15	60		06	0		105	40	0.4	45	5
	65		07	0		80	38	0.1	23	30
	70		08	0	* MASSIVE BY FRAGMENTS 86-85' * NO INT. VOLCANICS 85'-90'	70	44	0.1	17	125
20	75		09	0		100	84	0.1	24	120
	80		10	0		85	32	0.1	11	345
	85		11	0		38	14	0.1	48	35
25	90		12	0		105	28	0.2	66	30
	95		13	0		220	84	0.2	107	60
	91'		14	LABR.	91' BEDROCK: VERY SOFT, GREENS, CHLORITIC ULTRAMAFIC 95' EoGH	278	110	0.7	47	225
						14	86	0.1	3	45





# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EGP-07

Property/Area <u>PEROMET (BANKQUE OPTION) CASA BERRADI</u>	Date(s) <u>MAY 11 1966</u>
Township <u>CARHEK</u>	
Claim No. _____	Drilling Co. <u>GRABER BROTHERS</u>
Location <u>L 16000E 17000 (4E) S (BANKQUE PRICE GRAD 4)</u>	Bit No. <u>600008</u>
Logged by <u>G. GRABER</u>	Depth to bedrock <u>57'</u>
Sampler <u>P. SOBIE</u>	Total depth <u>62'</u>
	Sample screening <u>#10 MESH</u>

Remarks TILL 2000 - (VERY POORLY DEVELOPED) TILL SECTION, USELESS FOR DEPTH EXPLANATION  
FINISH 4'00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPM)
	0-2'				HUMUS					
	2-20'				CLAY, LACUSTRINE GREY CLAY WITH SAND AND GRAVEL LENSES IN UPPER PORTION					
	20-57'		01	0	20-57': TILL - FREELY SAND TILL WITH GENERALLY MEDIUM CLAY, PARTICULARLY IN UPPER PORTION	116	40	0.2	29	25
			02	0	- WOOD CHIPS @ 49'					
			03	0	- TILL BECOMES SLIGHTLY COARSER TOWARDS 57'	156	98	0.6	32	45
			04							
			05	0		206	102	0.4	39	40
	57'		06		57' BEDROCK: DARK ARGILLITE, HEAVILY GRAPHITIC AND MINOR BY INTERBEDDED WITH MAFIC TUFF (?) (AMPHIBOLITE)	52	66	40.1	5	45
	62'				62' E of H.					



# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EC-96-015

Property/Area <u>PETROMET (BAROQUE CATION) / CASA BERARDI</u>	Date(s) <u>MAY 11, 12 '16</u>
Township <u>CACHEL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L 160+00E / 14+50 (A.S.) (ABITIBI-PRICE GRID 4)</u>	Bit No. <u>10000PH</u>
Logged by <u>G. GREGSON / D. MEYER</u>	Depth to bedrock <u>97'</u>
Sampler <u>P. SOBIE</u>	Total depth <u>102'</u>
	Sample screening <u>#10 MESH</u>

Remarks START 4:20 (MAY 11)  
FINISH 10:20 (MAY 12)

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Ag	As	Au (PPB)
	0-3'				0-3': HUMUS					
	3'-23'				3'-23': INTERBEDDED CLAY AND GRAVEL (MAINLY CLAY)					
	23'-62'				23'-62': TILL - GRAVELLY TILL IN UPPER PORTION BECOMES A CLAYEY TILL BY 30' NOTE - FISSILITY IN CLAY 35'-45' - GOOD COARSE CLAY-RICH TILL WITH ABUNDANT VOLCANIC CLASTS 45'-62' 59'-60': BOULDER OF MAFIC TUFF					
	01		01	0		172	26	40.1	49	175
	02		02	0		100	26	40.1	26	45
	03		03	4 ABR. 100% PY 150% PPY		600	92	0.2	72	50
	04		04	2 ABR. 100% PY 100% PPY		240	145	0.3	37	1105
	05		05	1 ABR.	62'-70': SAND AND SUB-ROUNDED FINE TO CS. GRAVEL 64' SERICITE-RICH MAFIC VOLCANIC COBBLE WITH DISSEMINATED PY	168	96	40.1	46	715
	06		06	1 ABR.		184	125	0.5	60	160
	07		07	0	70'-97': ALTERNATING LAYERS OF CLAY-RICH / CLAY-POOR TILL	138	67	40.1	212	70
	08		08	0	92' SHORDED, PY-BEARING ALTERED INT. VOLCANIC FRAGMENTS	110	48	40.1	31	95
	09		09	0	93'-94' PY-BEARING MAFIC VOLCANIC COBBLE	130	94	40.1	42	30
	10		10	0	96' MAFIC VOLCANIC BOULDER IN GOOD CLAY-RICH TILL	96	57	0.2	59	770
	11		11	1 ABR.	97' BEDROCK: BLACK FINE-GRAINED FOLIATED ARGILLITE	465	83	0.7	50	1110
	12		12	0	SEDIIMENT WITH 5+0% DISSEMINATED AND STRUNG PY. <u>GRANITIC</u>	577	116	0.7	35	115
	13		13		102' E of H.	80	39	40.1	196	45



# MPH Consulting Limited

## OVERBURDEN DRILL LOG

Hole EC100076

Property/Area <u>PETRONET (BAROQUE OPTION) / CASA BONARDI</u>	Date(s) <u>MAY 12/86</u>
Township <u>CARHEIL</u>	
Claim No. _____	Drilling Co. <u>BRADLEY BROTHERS</u>
Location <u>L 164000 E, D 505 700 S, ANTRAL-PRICE GRID 4</u>	Bit No. <u>80000RS</u>
Logged by <u>D MEYER</u>	Depth to bedrock <u>70'</u>
Sampler <u>P. SOBIE</u>	Total depth <u>75'</u>
	Sample screening <u>+10 MESH</u>

Remarks START 12:40  
FINISH 1:00

M.	Ft.	GRAPHIC LOG	SAMPLE No.	GRAINS Au	DESCRIPTIVE LOG	ANALYTICAL				
						Cu	Zn	Pb	As	Au (PPM)
	0-3'				RECENT HUMUS					
	3-7'				LIGHT MEDIUM-BROWN CLAY-RICH FINE PEBBLY TILL					
	7-45'				CLAY, LIGHT GREY, VERY SOFT AFTER 15'					
	45'-62'		01	0	FINE PEBBLY SANDY TILL WITH SANDY LAYERS AND LOCAL VARIATIONS IN GRAVEL SIZE	300	48	40.1	43	30
	50'-56'		02	0	COARSE GRAVEL AND COBBLES	462	40	40.1	49	45
	56'-62'		03	IRR.	SAND WITH MINOR GRAVEL	320	54	0.9	59	40
	59'-60'				INT. MAFIC VOLCANIC BOULDER					
	62-65'		04	0	SLIGHTLY CLAYEY TILL, SOME MED. GRAY GRITTY CLAY CHIPS IN MEDIUM TILL	115	42	40.1	48	120
	65'-70'		05	2 ABR. 2 DEL. 100 PPM	GOOD LOOSEMENT TILL WITH FRAGMENTS OF PY. BEARING GRAPHITE	577	200	1.2	98	35
	70'				BEDROCK: ARGILLITE / GRAPHITIC SEDIMENT WITH S-102 PY	285	315	0.5	70	20
	75'				E of H.					

APPENDIX D

Equivalent Calculations

EC-86-001

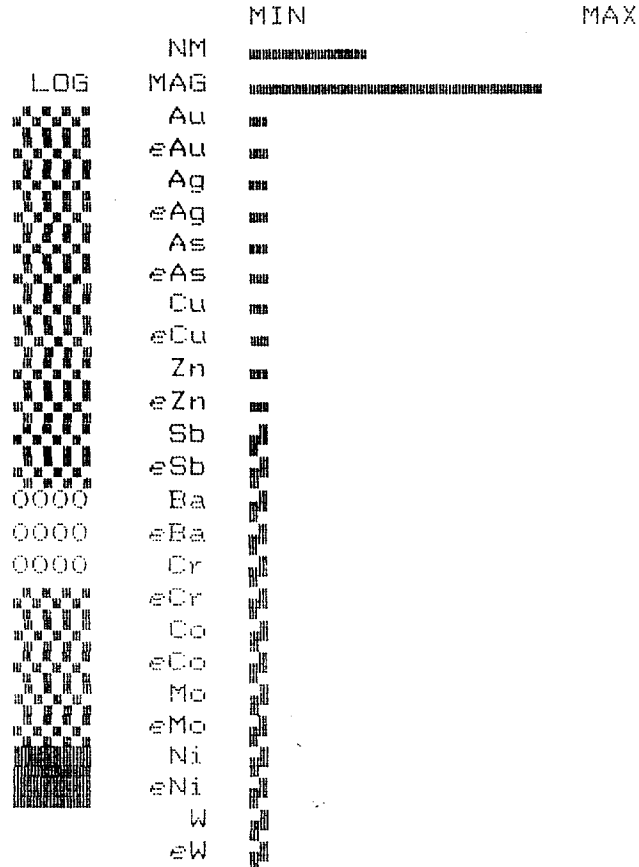
DEPARTURE (X) 12 LATITUDE (Y) 1.75 ELEVATION (Z) 0

O1

FROM 22 TO 25 TYPE 50 SS 10 BEDROCK 33

mg/kg NON MAG 3232 mg/kg MAG 3515 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (NON MAG), Concentration (MAG), and Concentration (MIN#1/2). Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W.



EC-86-001

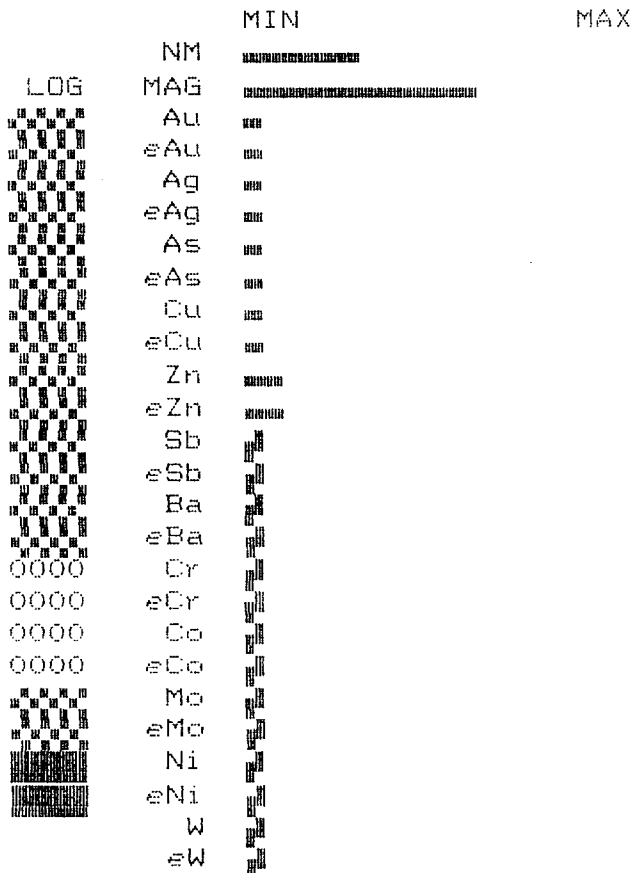
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 12 1.75 0

02

FROM TO TYPE SS BEDROCK  
 25 30 50 10 33

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3071 2869 0 0

Au: 300 ng/g	cAu: 4560 ng	eAu: 921 pg/g
Ag: .4 ug/g	cAg: 6.1 ug	eAg: 1.2 ng/g
As: 50 ug/g	cAs: 760 ug	eAs: 154 ng/g
Cu: 512 ug/g	cCu: 7782 ug	eCu: 1572 ng/g
Zn: 86 ug/g	cZn: 1307 ug	eZn: 264 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g







EC-86-002

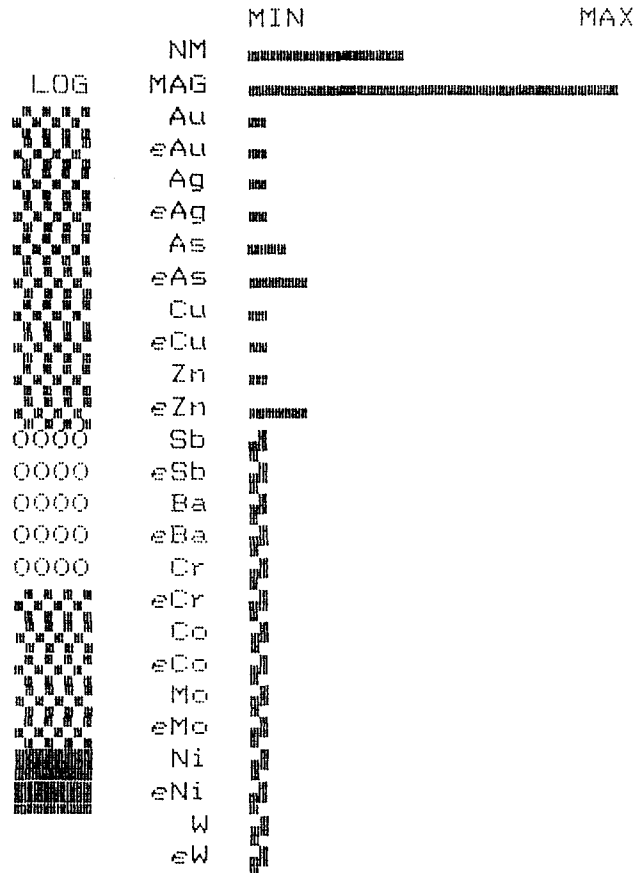
DEPARTURE (X) 24 LATITUDE (Y) 0 ELEVATION (Z) 0

01

FROM 33 TO 45 TYPE 40 SS 10 BEDROCK 57

mg/kg NON MAG 4412 mg/kg MAG 4588 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (ng/g or ug/g), and Unit. Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' values.



EC-86-002

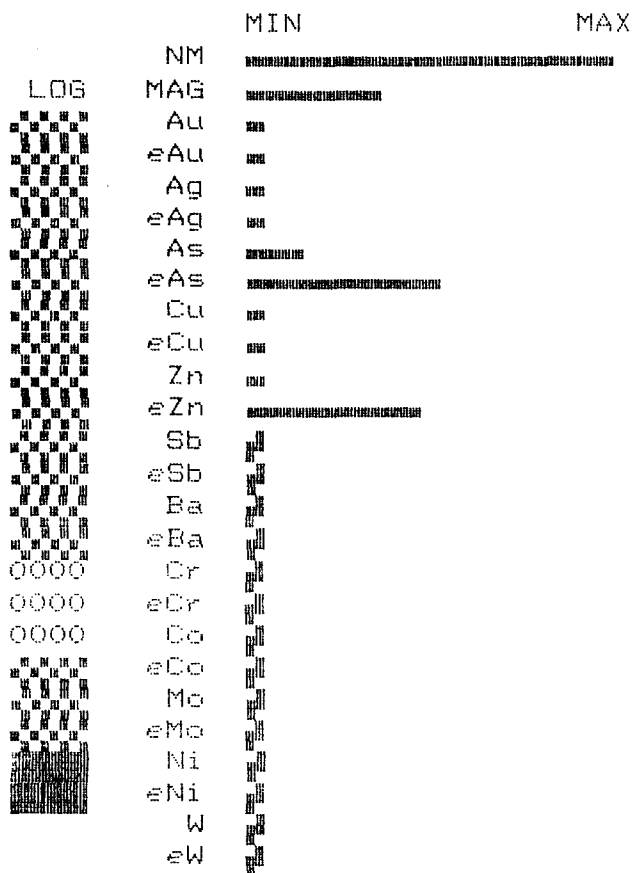
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
24 0 0

02

FROM TO TYPE SS BEDROCK  
 45 50 40 10 57

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 9846 1641 0 0

Au: 165 ng/g	cAu: 4752 ng	eAu: 1625 pg/g
Ag: .5 ug/g	cAg: 14.4 ug	eAg: 4.9 ng/g
As: 108 ug/g	cAs: 3110 ug	eAs: 1063 ng/g
Cu: 260 ug/g	cCu: 7488 ug	eCu: 2560 ng/g
Zn: 78 ug/g	cZn: 2246 ug	eZn: 768 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-002

DEPARTURE (X) 24 LATITUDE (Y) 0 ELEVATION (Z) 0

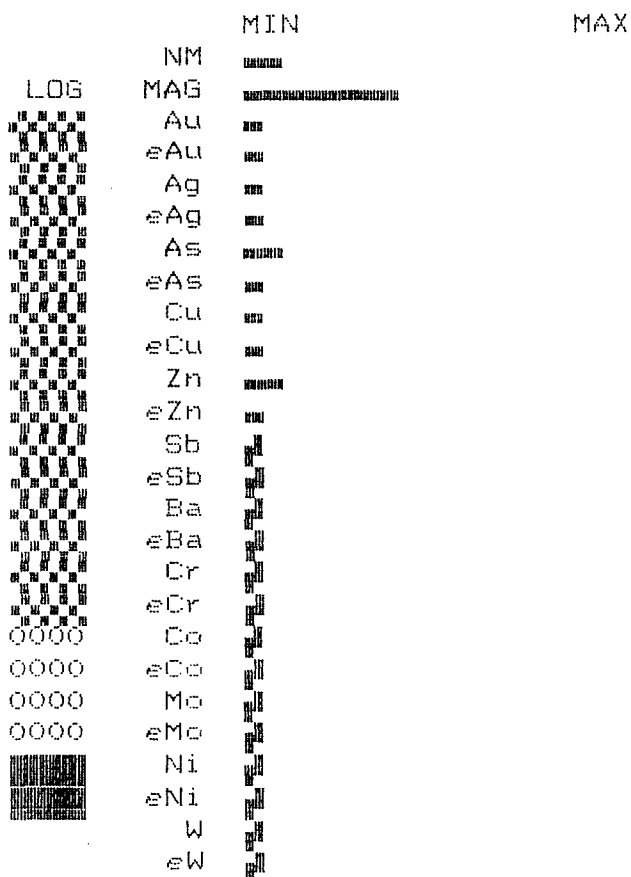
03

FROM 50 TO 57 TYPE 40 SS 20 BEDROCK 57

151 PYRITE

mg/kg NON MAG 1039 mg/kg MAG 1905 MIN#1 0 MIN#2 0

Table with 3 columns of element concentrations: Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W in various units (ng/g, ug/g, pg/g).



EC-86-018

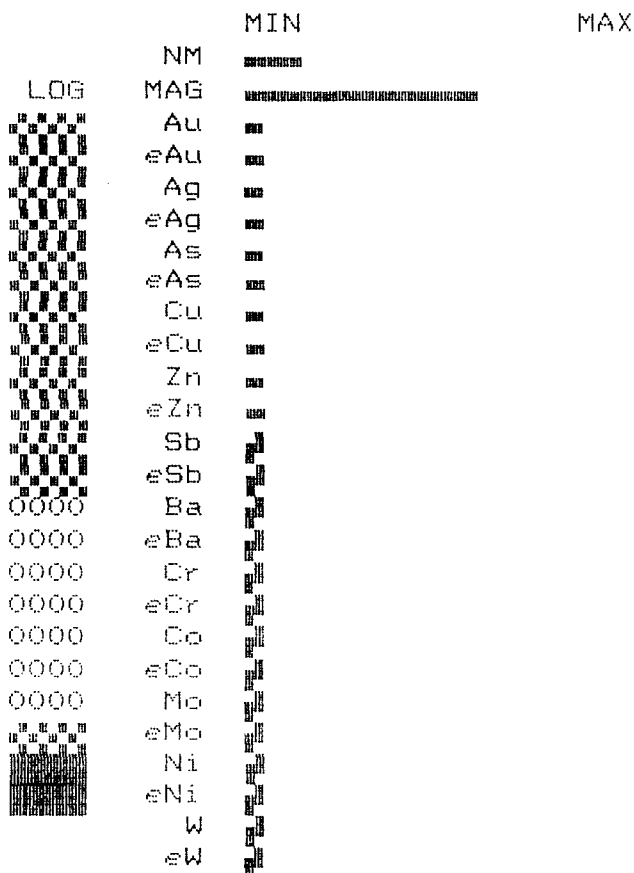
DEPARTURE (X)    LATITUDE (Y)    ELEVATION (Z)  
 20                      8.8                      0

01

FROM    TO    TYPE    SS    BEDROCK  
 25      37    80    10    38

mg/kg NON MAG    mg/kg MAG    MIN#1    MIN#2  
 1626              2797              0              0

Au: 10 ng/g	cAu: 100 ng	eAu: 16 pg/g
Ag: .05 ug/g	cAg: .5 ug	eAg: .1 ng/g
As: 1 ug/g	cAs: 10 ug	eAs: 2 ng/g
Cu: 32 ug/g	cCu: 320 ug	eCu: 52 ng/g
Zn: 16 ug/g	cZn: 160 ug	eZn: 26 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-021

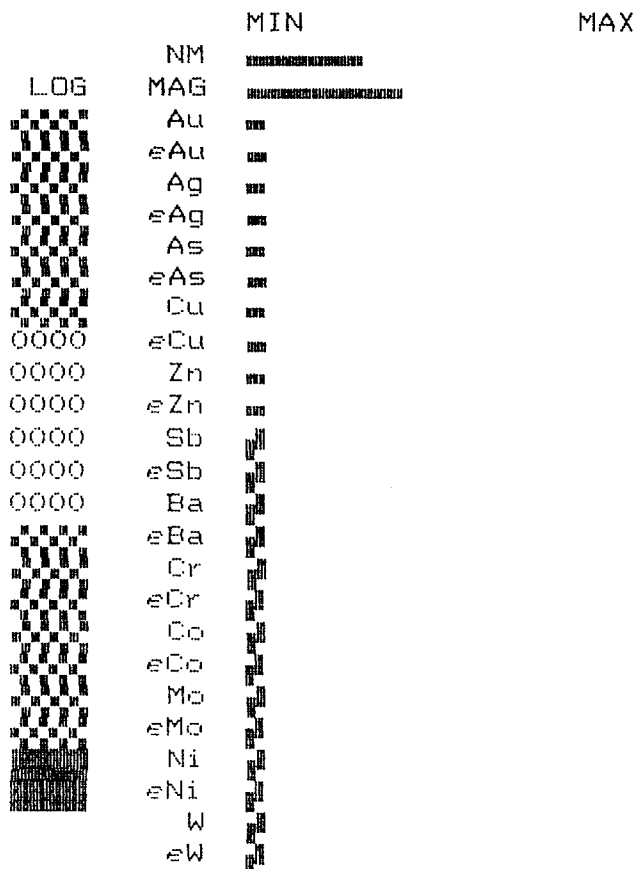
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 28 -10.5 0

O1

FROM TO TYPE SS BEDROCK  
 35 55 80 10 84

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3073 2065 0 0

Au: 170 ng/g	cAu: 3213 ng	eAu: 522 pg/g
Ag: .05 ug/g	cAg: .9 ug	eAg: .2 ng/g
As: 17 ug/g	cAs: 321 ug	eAs: 52 ng/g
Cu: 117 ug/g	cCu: 2211 ug	eCu: 360 ng/g
Zn: 49 ug/g	cZn: 926 ug	eZn: 151 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-021

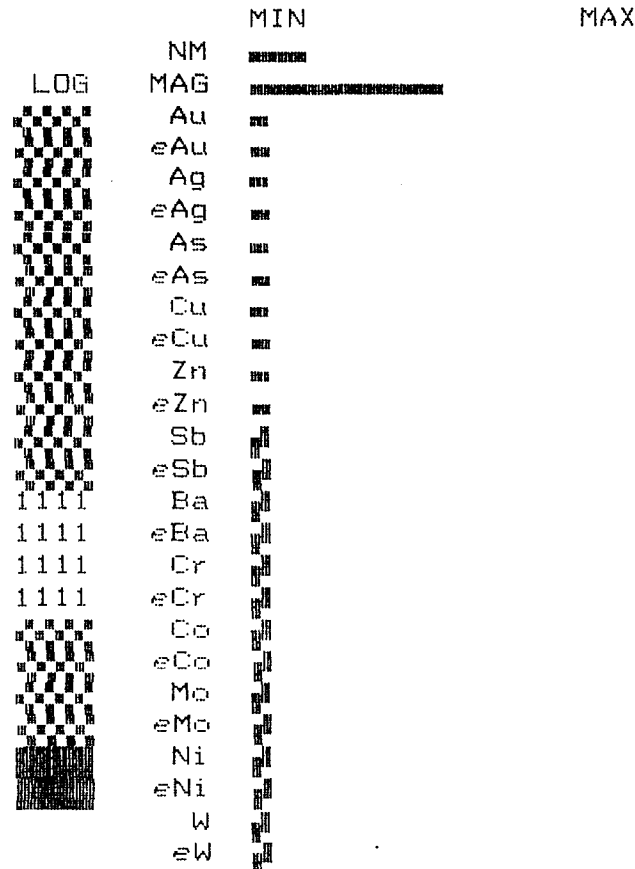
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 28 -10.5 0

02

FROM TO TYPE SS BEDROCK  
 55 70 80 10 84

mg/kg NON MAG mg/kg MAG VG MIN#2  
 1678 2416 1.3 0

Au: 20 ng/g	cAu: 214 ng	eAu: 34 pg/g
Ag: .6 ug/g	cAg: 6.4 ug	eAg: 1 ng/g
As: 29 ug/g	cAs: 310 ug	eAs: 49 ng/g
Cu: 165 ug/g	cCu: 1766 ug	eCu: 277 ng/g
Zn: 29 ug/g	cZn: 310 ug	eZn: 49 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-021

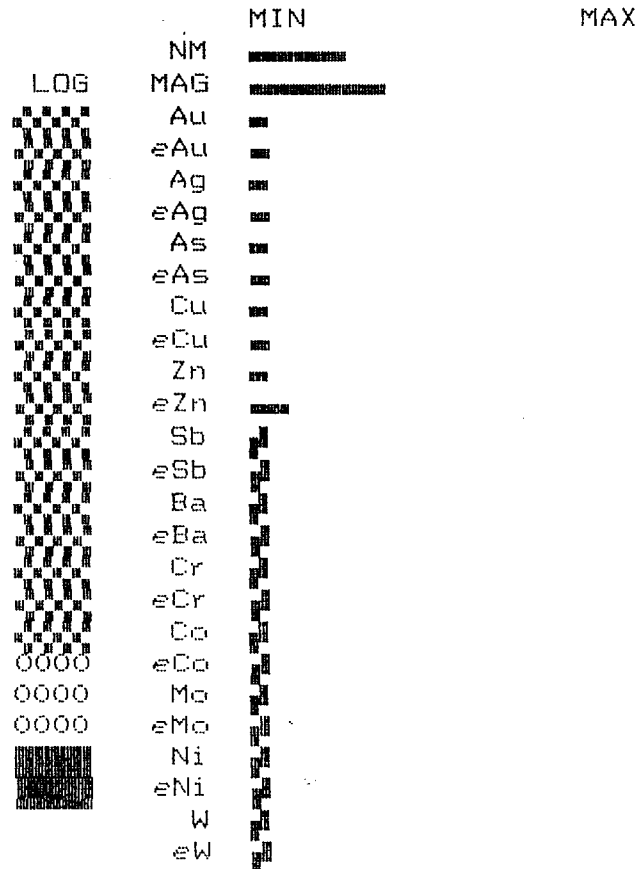
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 28 -10.5 0

03

FROM TO TYPE SS BEDROCK  
 76 84 80 20 84

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2959 1821 0 0

Au: 115 ng/g	cAu: 2093 ng	eAu: 340 pg/g
Ag: .6 ug/g	cAg: 10.9 ug	eAg: 1.8 ng/g
As: 43 ug/g	cAs: 783 ug	eAs: 127 ng/g
Cu: 240 ug/g	cCu: 4368 ug	eCu: 710 ng/g
Zn: 72 ug/g	cZn: 1310 ug	eZn: 213 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g







EC-86-029

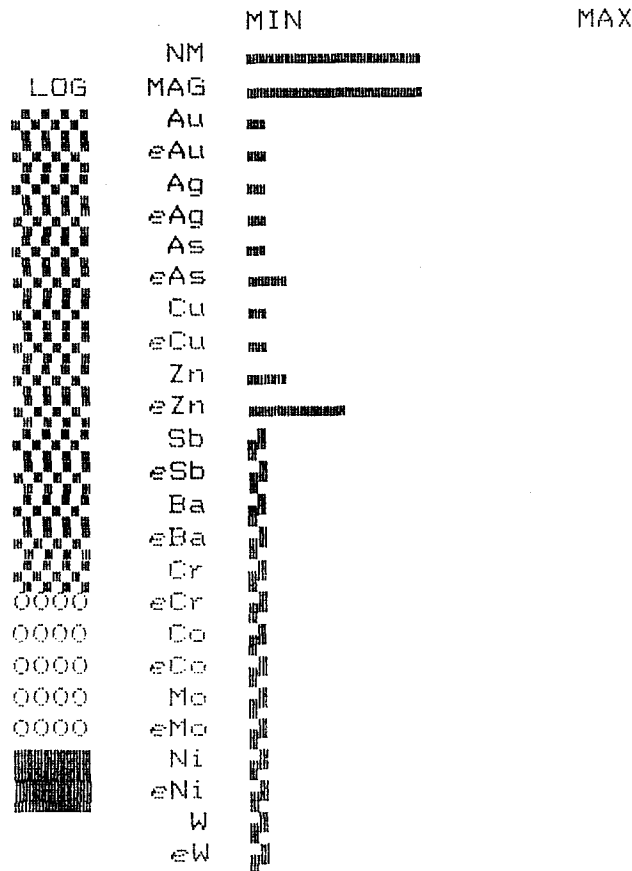
DEPARTURE (X) 12    LATITUDE (Y) 8    ELEVATION (Z) 0

02

FROM 40    TO 48    TYPE 80    SS 20    BEDROCK 48

mg/kg NON MAG 4686    mg/kg MAG 2152    MIN#1 0    MIN#2 0

Au: 150 ng/g	cAu: 3690 ng	eAu: 703 pg/g
Ag: .6 ug/g	cAg: 14.8 ug	eAg: 2.8 ng/g
As: 57 ug/g	cAs: 1402 ug	eAs: 267 ng/g
Cu: 234 ug/g	cCu: 5756 ug	eCu: 1096 ng/g
Zn: 98 ug/g	cZn: 2411 ug	eZn: 459 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-028

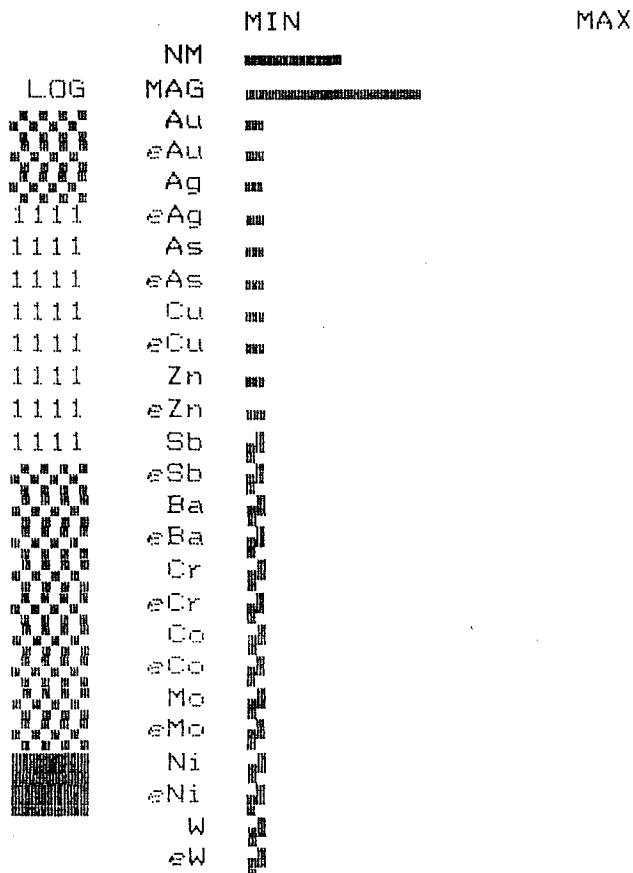
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O 1

FROM 10    TO 25    TYPE 50    SS 10    BEDROCK 42

mg/kg NON MAG 2667    mg/kg MAG 2172    VG 1.7    MIN#2 0

Au: 135 ng/g	cAu: 1674 ng	eAu: 360 pg/g
Ag: .2 ug/g	cAg: 2.5 ug	eAg: .5 ng/g
As: 26 ug/g	cAs: 322 ug	eAs: 69 ng/g
Cu: 90 ug/g	cCu: 1116 ug	eCu: 240 ng/g
Zn: 40 ug/g	cZn: 496 ug	eZn: 107 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-028

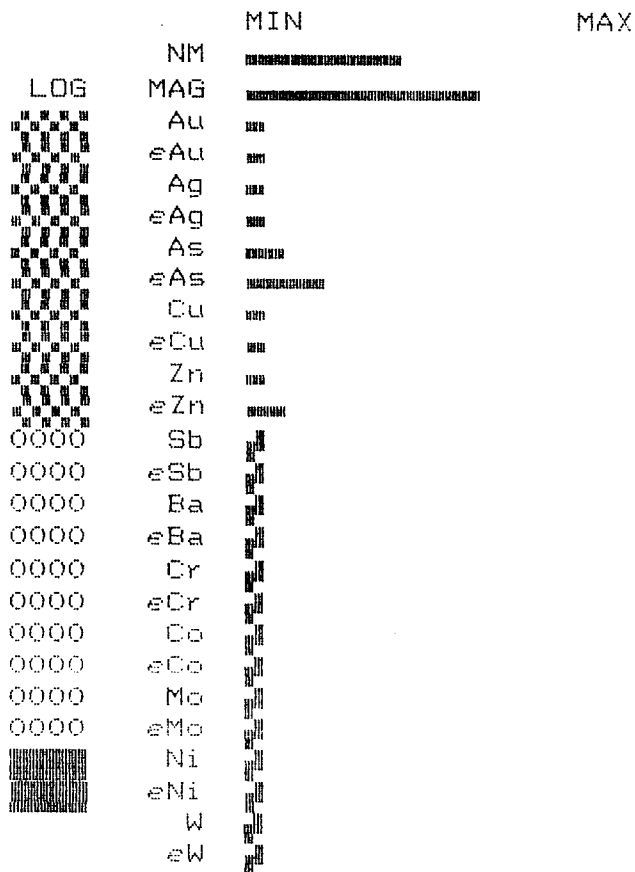
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02

FROM 25    TO 42    TYPE 80    SS 20    BEDROCK 42

mg/kg NON MAG 4176    mg/kg MAG 2961    MIN#1 0    MIN#2 0

Au: 60 ng/g	cAu: 1278 ng	eAu: 251 pg/g
Ag: .3 ug/g	cAg: 6.4 ug	eAg: 1.3 ng/g
As: 96 ug/g	cAs: 2045 ug	eAs: 401 ng/g
Cu: 274 ug/g	cCu: 5836 ug	eCu: 1144 ng/g
Zn: 46 ug/g	cZn: 980 ug	eZn: 192 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	eBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	eNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-031

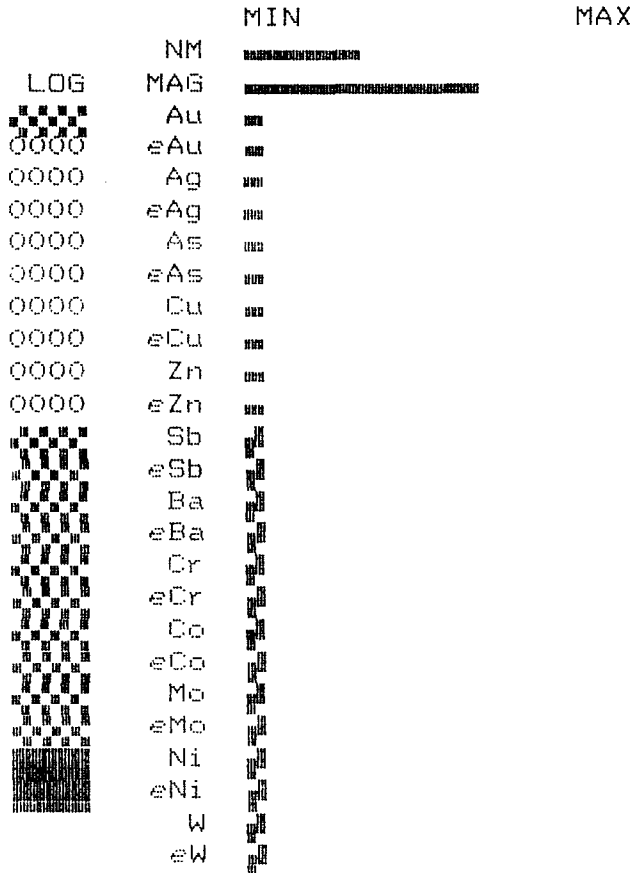
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O1

FROM 8 TO 30 TYPE 60 SS 10 BEDROCK 60

mg/kg NON MAG 3129 mg/kg MAG 2951 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (ng/g or ug/g), and Unit. Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding chemical symbols (c, e) and units.





EC-86-031

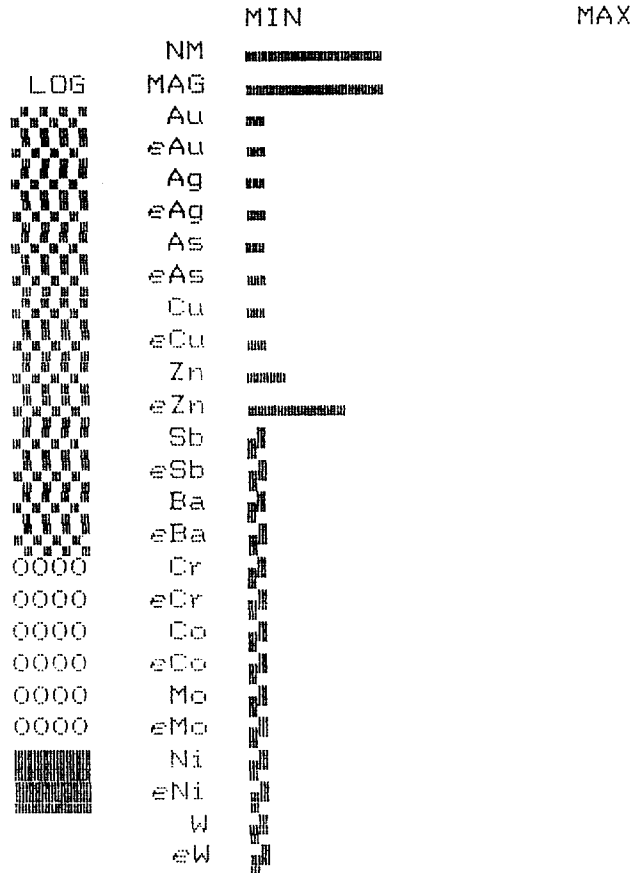
DEPARTURE (X) 12    LATITUDE (Y) 15    ELEVATION (Z) 0

03

FROM 45    TO 60    TYPE 80    SS 20    BEDROCK 60

mg/kg NON MAG 4034    mg/kg MAG 1705    MIN#1 0    MIN#2 0

Au: 140 ng/g	cAu: 3346 ng	eAu: 565 pg/g
Ag: .3 ug/g	cAg: 7.2 ug	eAg: 1.2 ng/g
As: 30 ug/g	cAs: 717 ug	eAs: 121 ng/g
Cu: 167 ug/g	cCu: 3991 ug	eCu: 674 ng/g
Zn: 120 ug/g	cZn: 2868 ug	eZn: 484 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g







EC-86-032

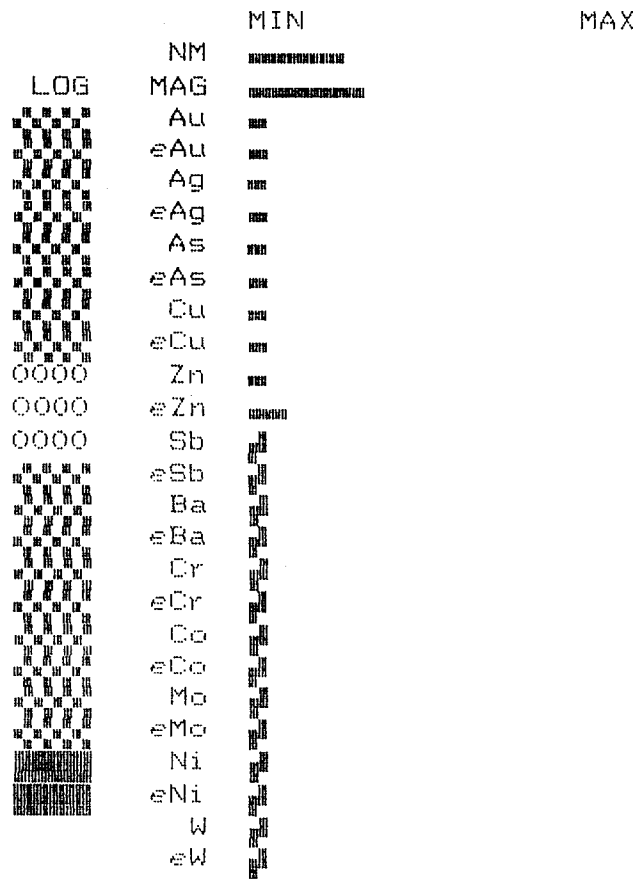
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
9 6.5 0

04

FROM TO TYPE SS BEDROCK  
65 77 60 10 132

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
2783 1633 0 0

Au: 80 ng/g	cAu: 1336 ng	eAu: 223 pg/g
Ag: .6 ug/g	cAg: 10 ug	eAg: 1.7 ng/g
As: 42 ug/g	cAs: 701 ug	eAs: 117 ng/g
Cu: 176 ug/g	cCu: 2939 ug	eCu: 490 ng/g
Zn: 78 ug/g	cZn: 1303 ug	eZn: 217 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-032

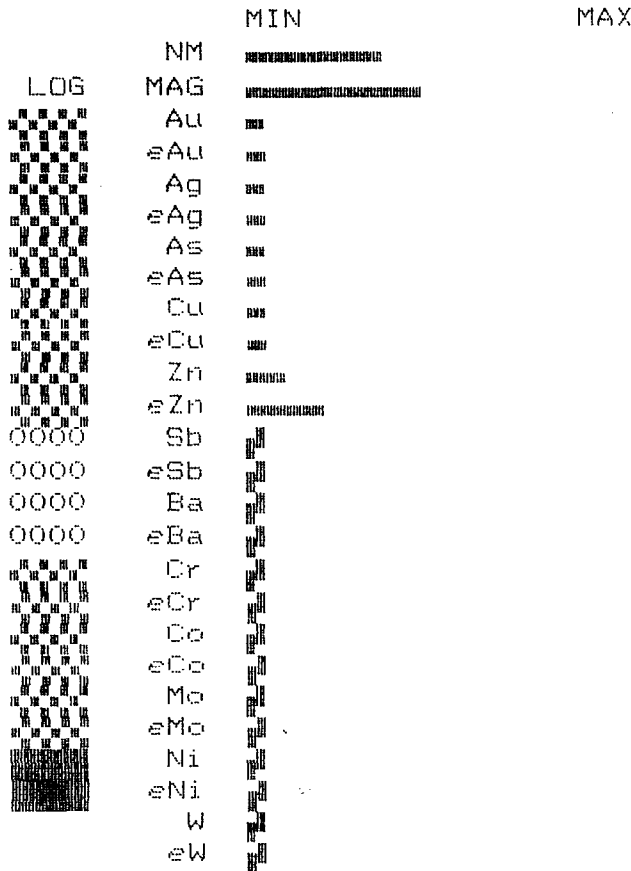
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
0 0 0

05

FROM TO TYPE SS BEDROCK  
77 95 60 10 132

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
3913 2251 0 0

Au: 45 ng/g	cAu: 1017 ng	eAu: 176 pg/g
Ag: .6 ug/g	cAg: 13.6 ug	eAg: 2.3 ng/g
As: 38 ug/g	cAs: 859 ug	eAs: 149 ng/g
Cu: 259 ug/g	cCu: 5853 ug	eCu: 1014 ng/g
Zn: 97 ug/g	cZn: 2192 ug	eZn: 380 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-032

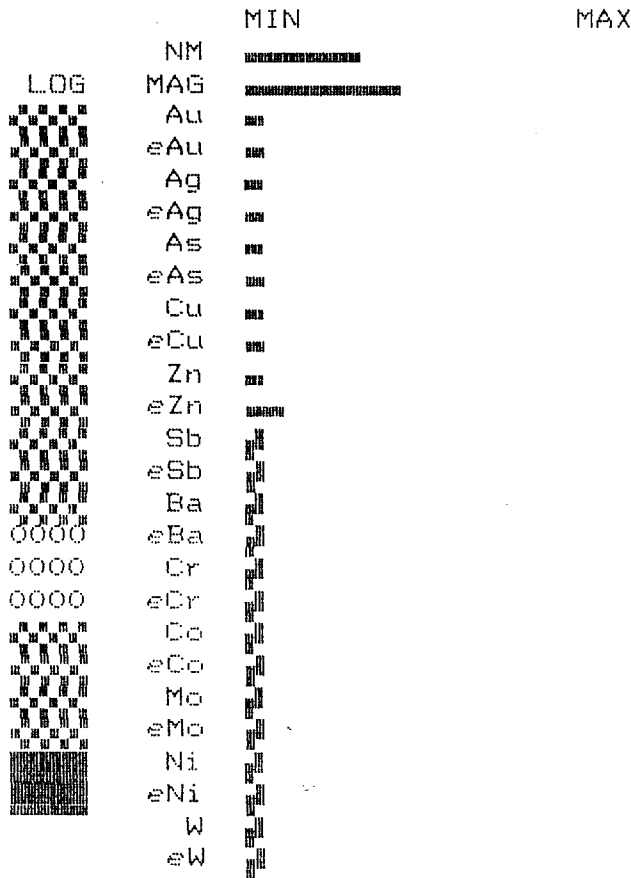
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 0 6.5 0

06

FROM TO TYPE SS BEDROCK  
 95 108 80 10 132

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3159 1928 0 0

Au: 120 ng/g	cAu: 1848 ng	eAu: 379 pg/g
Ag: .4 ug/g	cAg: 6.2 ug	eAg: 1.3 ng/g
As: 35 ug/g	cAs: 539 ug	eAs: 111 ng/g
Cu: 236 ug/g	cCu: 3634 ug	eCu: 746 ng/g
Zn: 75 ug/g	cZn: 1155 ug	eZn: 237 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-032

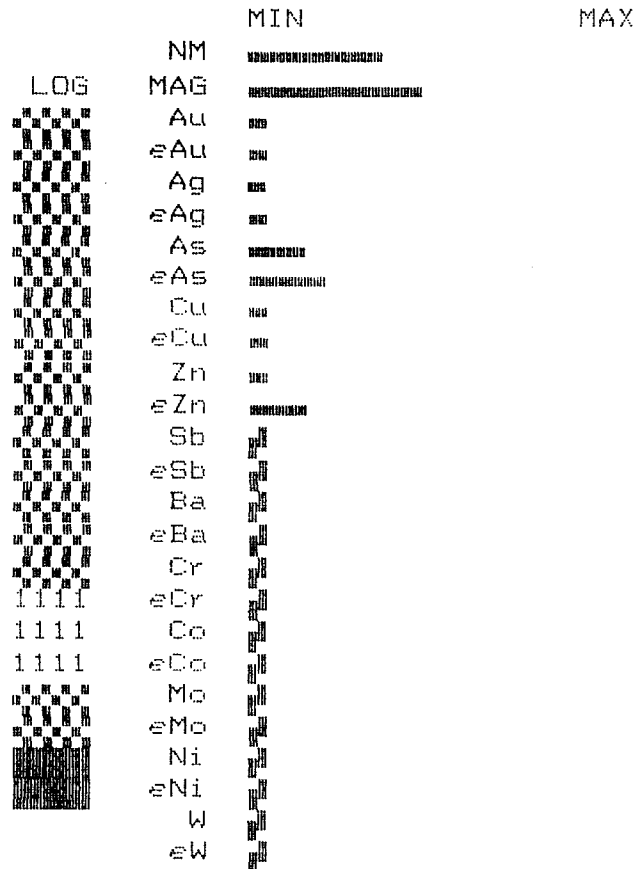
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
0 0 0

07

FROM TO TYPE SS BEDROCK  
108 125 80 20 132

mg/kg NON MAG mg/kg MAG VG MIN#2  
3771 2210 1.5 0

Au: 165 ng/g	cAu: 3267 ng	eAu: 622 pg/g
Ag: .5 ug/g	cAg: 9.9 ug	eAg: 1.9 ng/g
As: 113 ug/g	cAs: 2237 ug	eAs: 426 ng/g
Cu: 225 ug/g	cCu: 4455 ug	eCu: 849 ng/g
Zn: 75 ug/g	cZn: 1485 ug	eZn: 283 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-032

DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 0 6.5 0

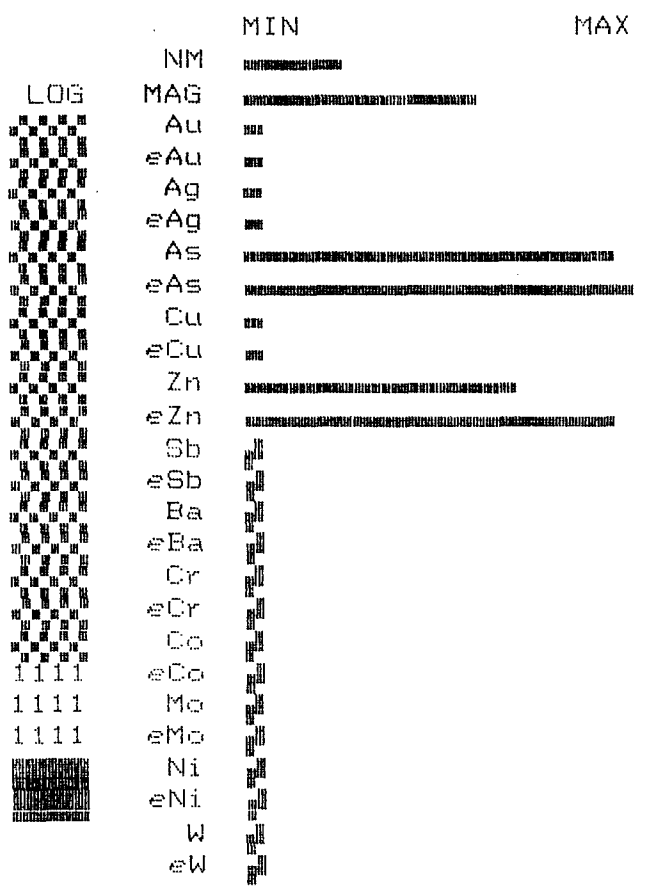
08

FROM TO TYPE SS BEDROCK  
 125 132 80 20 132

15% PYRITE

mg/kg NON MAG mg/kg MAG VG ASPY  
 3034 2805 1.8 1000

Au: 110 ng/g	cAu: 1452 ng	eAu: 334 pg/g
Ag: .1 ug/g	cAg: 1.3 ug	eAg: .3 ng/g
As: 645 ug/g	cAs: 8514 ug	eAs: 1957 ng/g
Cu: 343 ug/g	cCu: 4528 ug	eCu: 1041 ng/g
Zn: 545 ug/g	cZn: 7194 ug	eZn: 1654 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-044

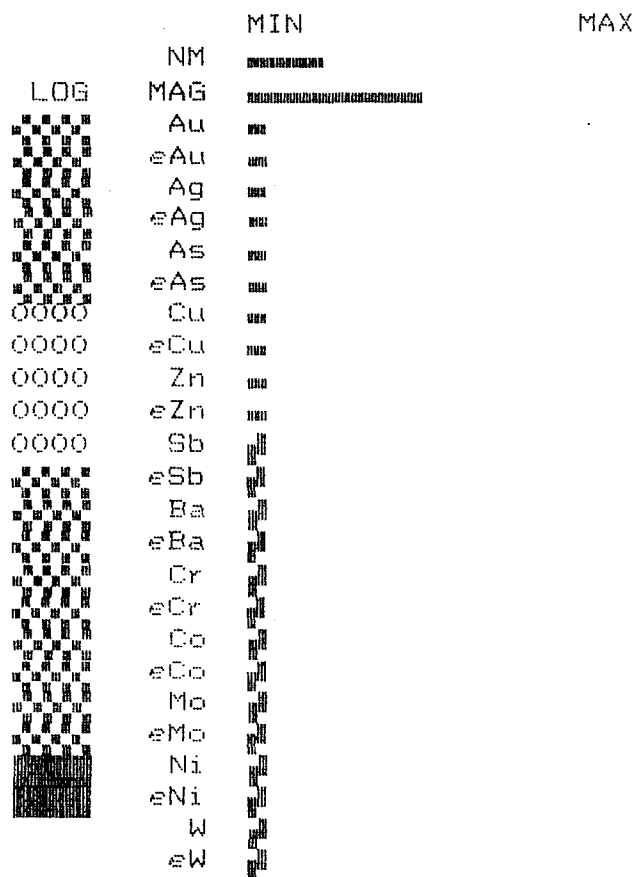
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
160 -17 0

01-2

FROM TO TYPE SS BEDROCK  
20 32 60 10 57

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
2345 2137 0 0

Au: 25 ng/g	cAu: 730 ng	eAu: 59 pg/g
Ag: .2 ug/g	cAg: 5.8 ug	eAg: .5 ng/g
As: 29 ug/g	cAs: 847 ug	eAs: 68 ng/g
Cu: 116 ug/g	cCu: 3387 ug	eCu: 272 ng/g
Zn: 40 ug/g	cZn: 1168 ug	eZn: 94 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-044

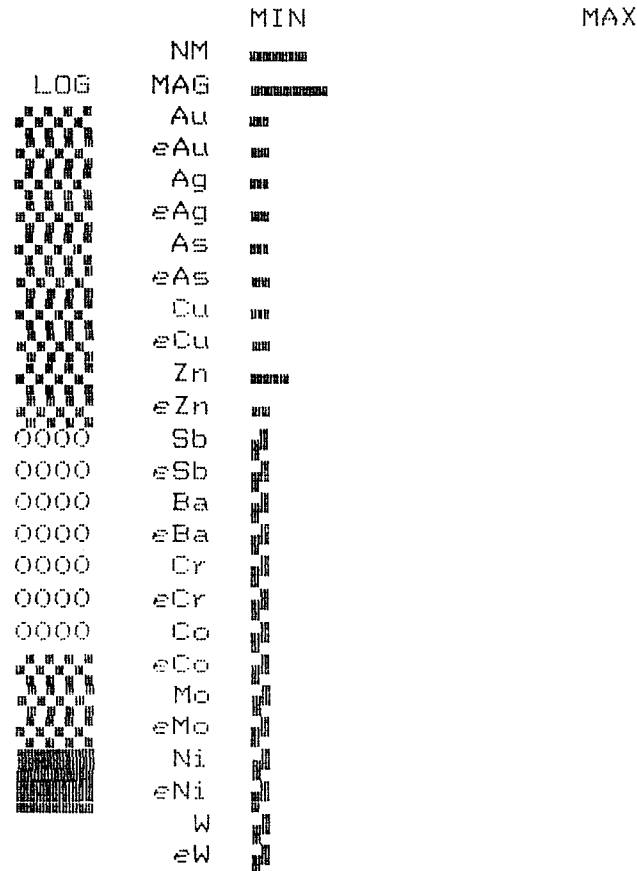
DEPARTURE (X) 160    LATITUDE (Y) -17    ELEVATION (Z) 0

03-4

FROM 32    TO 50    TYPE 80    SS 10    BEDROCK 57

mg/kg NON MAG 1646    mg/kg MAG 1055    MIN#1 0    MIN#2 0

Au: 45 ng/g	cAu: 878 ng	eAu: 74 pg/g
Ag: .6 ug/g	cAg: 11.7 ug	eAg: 1 ng/g
As: 32 ug/g	cAs: 624 ug	eAs: 53 ng/g
Cu: 156 ug/g	cCu: 3042 ug	eCu: 257 ng/g
Zn: 98 ug/g	cZn: 1911 ug	eZn: 161 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-044

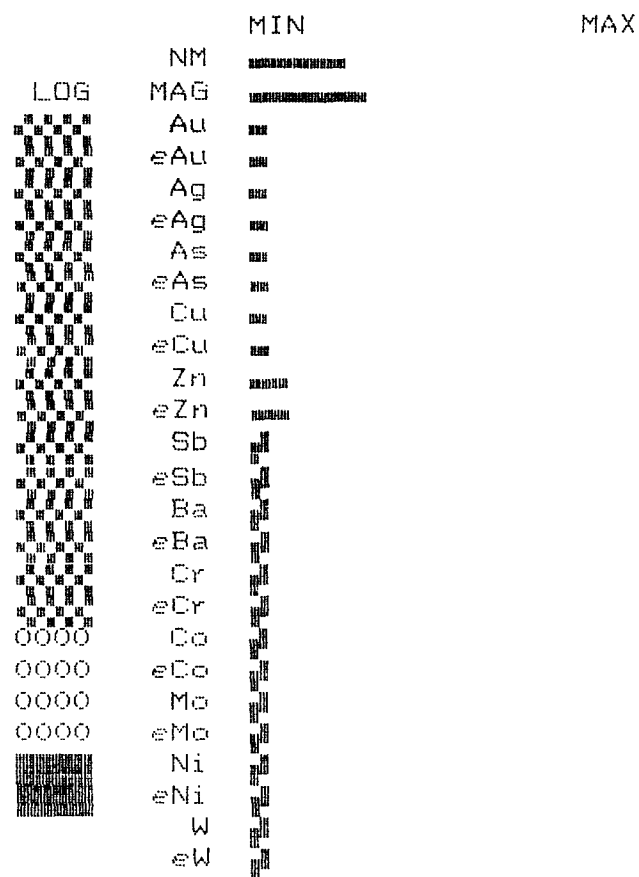
DEPARTURE (X) 160 LATITUDE (Y) -17 ELEVATION (Z) 0

05

FROM 50 TO 57 TYPE 80 SS 20 BEDROCK 57

mg/kg NON MAG 2578 mg/kg MAG 1476 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (mg/kg or ng/g), and Element. Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' forms.





EC-86-045

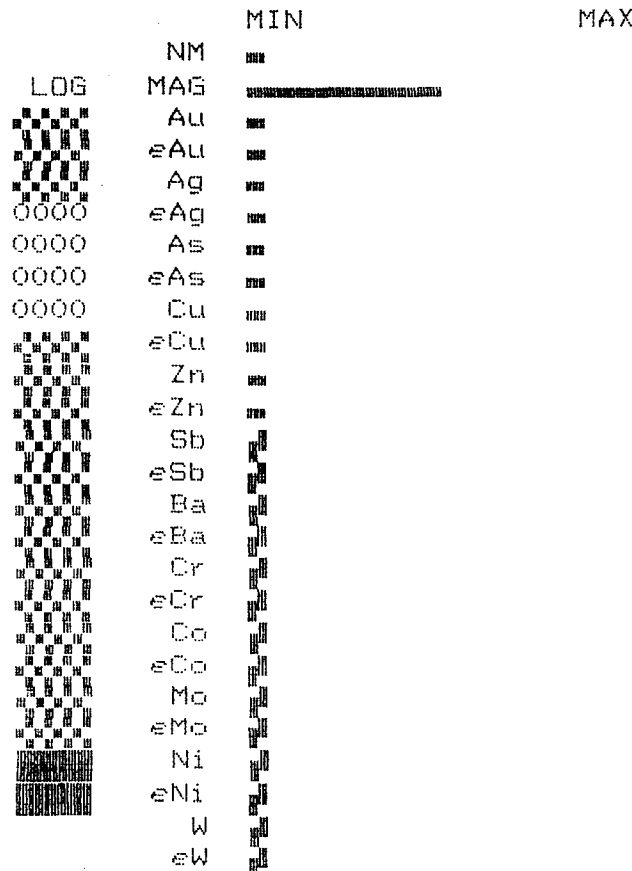
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 160 -14.5 0

01

FROM TO TYPE SS BEDROCK  
 23 35 60 10 97

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 855 2516 0 0

Au: 175 ng/g	cAu: 595 ng	eAu: 150 pg/g
Ag: .05 ug/g	cAg: .2 ug	eAg: 0 ng/g
As: 49 ug/g	cAs: 167 ug	eAs: 42 ng/g
Cu: 172 ug/g	cCu: 585 ug	eCu: 147 ng/g
Zn: 26 ug/g	cZn: 88 ug	eZn: 22 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-045

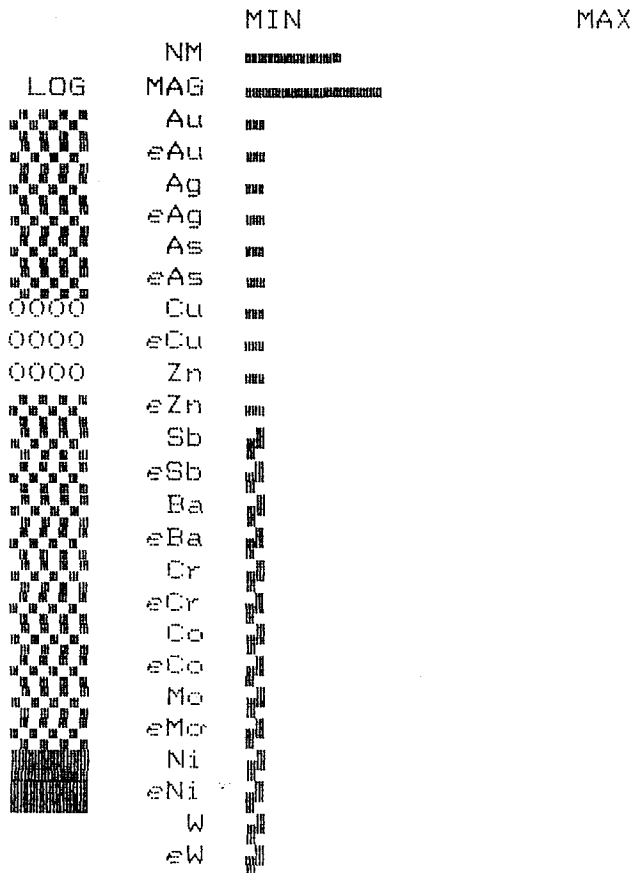
DEPARTURE(X) 160    LATITUDE(Y) -14.5    ELEVATION(Z) 0

02

FROM 35    TO 45    TYPE 80    SS 10    BEDROCK 97

mg/kg NON MAG 2685    mg/kg MAG 1730    MIN#1 0    MIN#2 0

Au: 45 ng/g	cAu: 671 ng	eAu: 121 pg/g
Ag: .05 ug/g	cAg: .7 ug	eAg: .1 ng/g
As: 26 ug/g	cAs: 387 ug	eAs: 70 ng/g
Cu: 100 ug/g	cCu: 1490 ug	eCu: 268 ng/g
Zn: 26 ug/g	cZn: 387 ug	eZn: 70 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-045

DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
160 -14.5 0

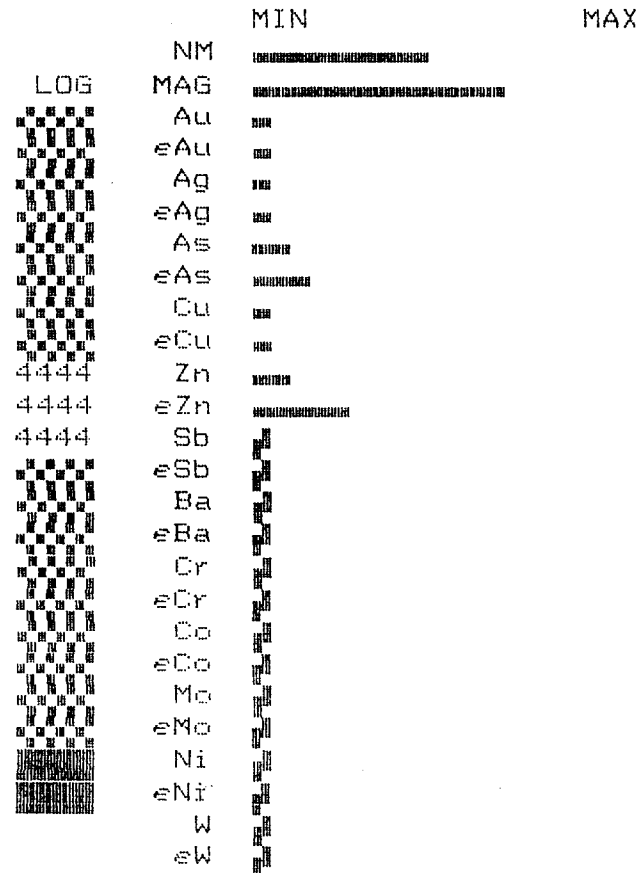
03

FROM TO TYPE SS BEDROCK  
45 55 80 10 97

10% PYRITE

mg/kg NON MAG mg/kg MAG VG ASPY  
4918 3186 5.5 150

Au: 50 ng/g	cAu: 1420 ng	eAu: 246 pg/g
Ag: .2 ug/g	cAg: 5.7 ug	eAg: 1 ng/g
As: 72 ug/g	cAs: 2045 ug	eAs: 354 ng/g
Cu: 600 ug/g	cCu: 17040 ug	eCu: 2951 ng/g
Zn: 92 ug/g	cZn: 2613 ug	eZn: 452 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-045

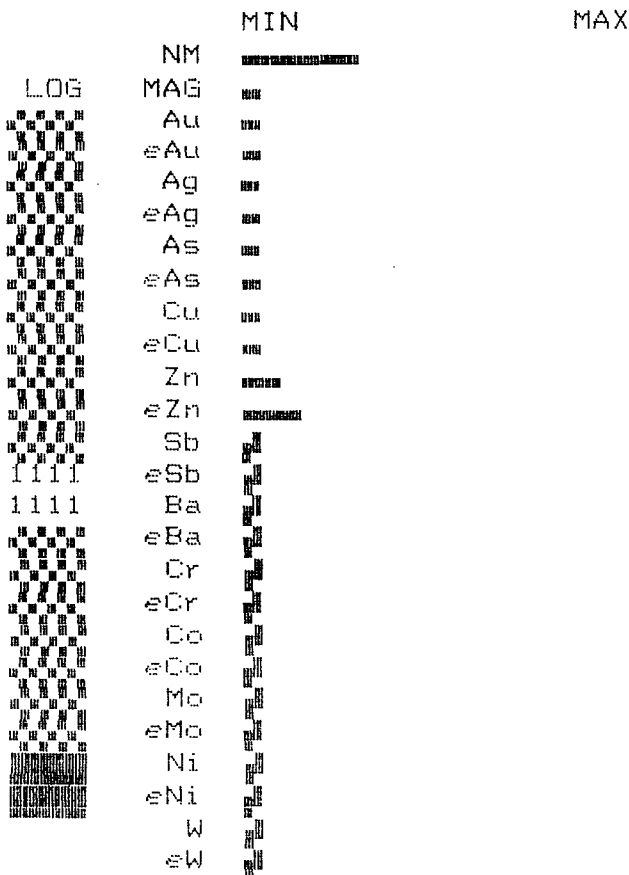
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
180 -14.5 0

05

FROM TO TYPE SS BEDROCK  
60 65 60 10 97

mg/kg NON MAG mg/kg MAG VG MIN#2  
3491 175 1.4 0

Au: 745 ng/g	cAu: 14826 ng	eAu: 2601 pg/g
Ag: .05 ug/g	cAg: 1 ug	eAg: .2 ng/g
As: 46 ug/g	cAs: 915 ug	eAs: 161 ng/g
Cu: 168 ug/g	cCu: 3343 ug	eCu: 587 ng/g
Zn: 96 ug/g	cZn: 1910 ug	eZn: 335 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-045

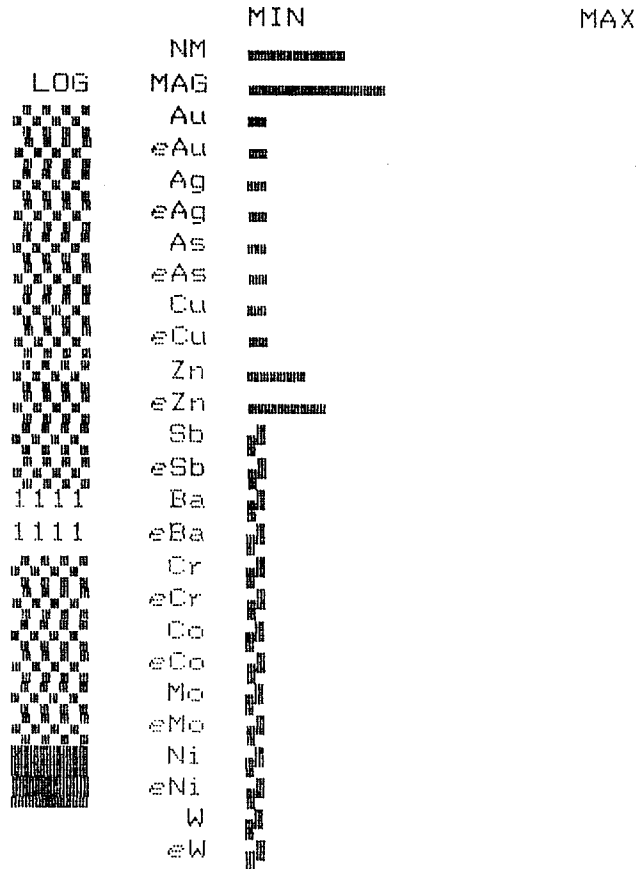
DEPARTURE (X) 160 LATITUDE (Y) -14.8 ELEVATION (Z) 0

06

FROM 65 TO 70 TYPE 60 SS 10 BEDROCK 97

mg/kg NON MAG 3035 mg/kg MAG 1789 VG 1.4 MIN#2 0

Table with 3 columns: Element, Concentration (mg/kg or ug/g), and Unit. Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' values.



EC-86-045

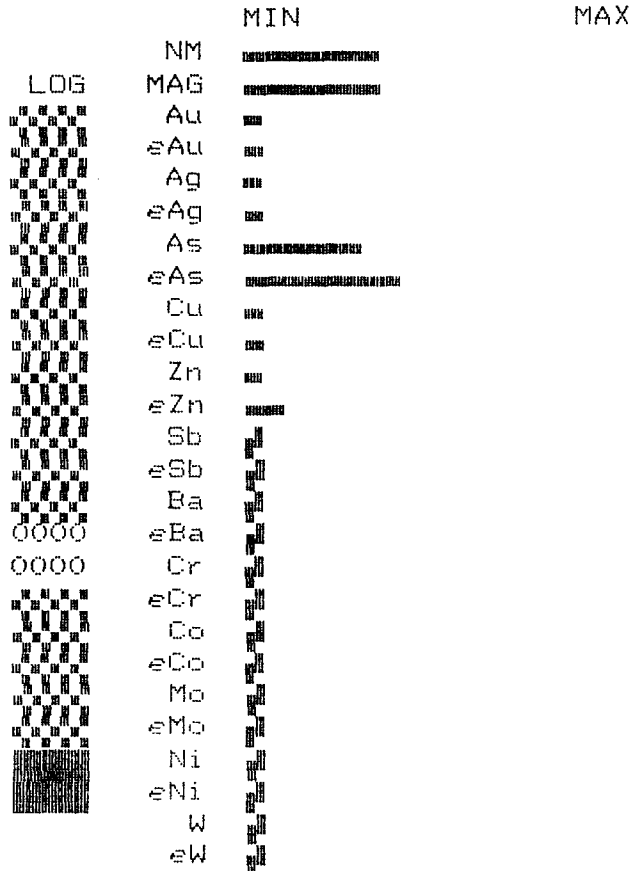
DEPARTURE (X) 160 LATITUDE (Y) -14.5 ELEVATION (Z) 0

07

FROM 70 TO 75 TYPE 80 SS 10 BEDROCK 97

mg/kg NON MAG 3721 mg/kg MAG 1672 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (ng/g or ug/g), and Element. Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' forms.



EC-86-045

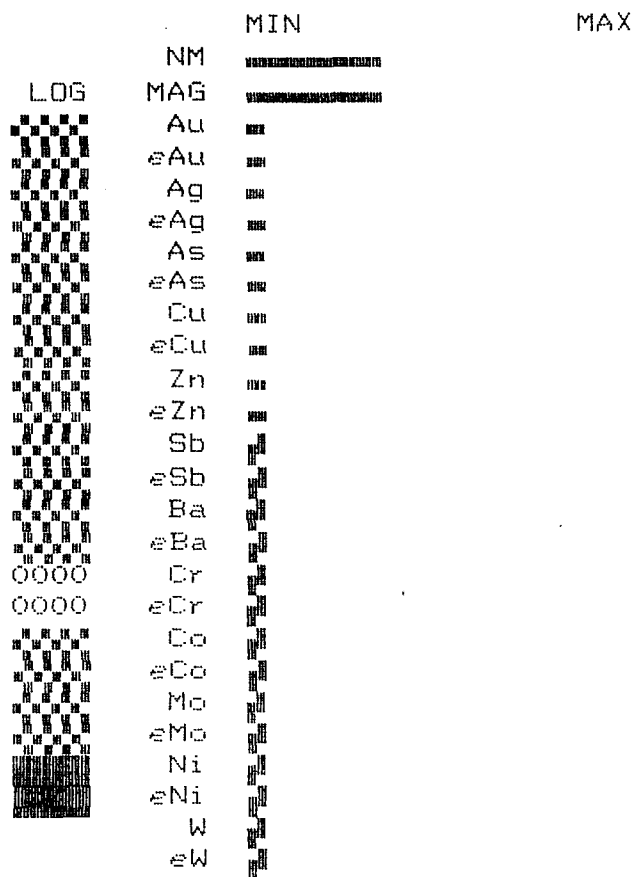
DEPARTURE (X) 160 LATITUDE (Y) -14.5 ELEVATION (Z) 0

08

FROM 75 TO 80 TYPE 80 SS 10 BEDROCK 97

mg/kg NON MAG 3833 mg/kg MAG 1667 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (NON MAG), Concentration (MAG), and Concentration (MIN#1/MIN#2). Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' forms.







EC-86-045

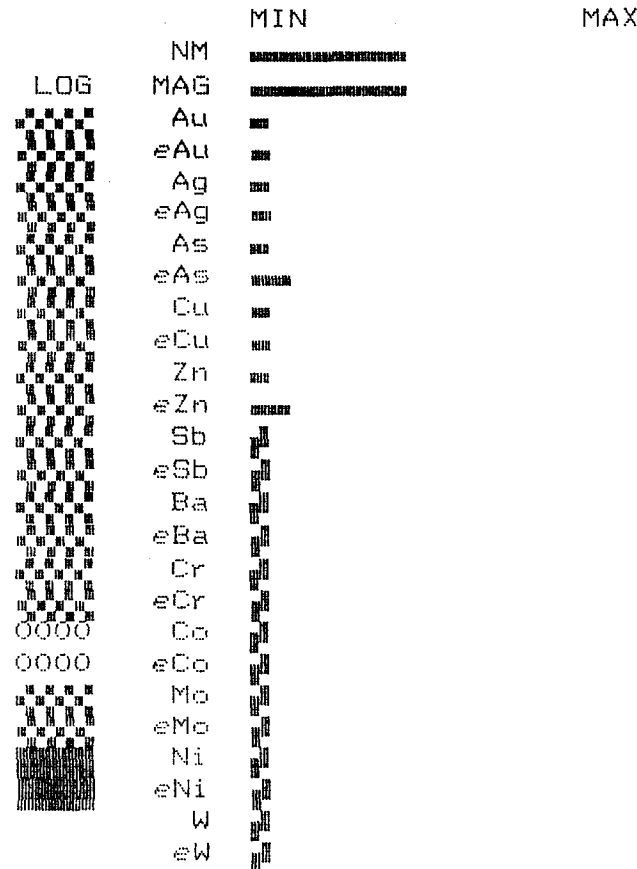
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 160 -14.8 0

10

FROM TO TYPE SS BEDROCK  
 85 90 80 20 97

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 4167 2017 0 0

Au: 770 ng/g	cAu: 19250 ng	eAu: 3208 pg/g
Ag: .2 ug/g	cAg: 5 ug	eAg: .8 ng/g
As: 59 ug/g	cAs: 1475 ug	eAs: 246 ng/g
Cu: 96 ug/g	cCu: 2400 ug	eCu: 400 ng/g
Zn: 57 ug/g	cZn: 1425 ug	eZn: 237 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-045

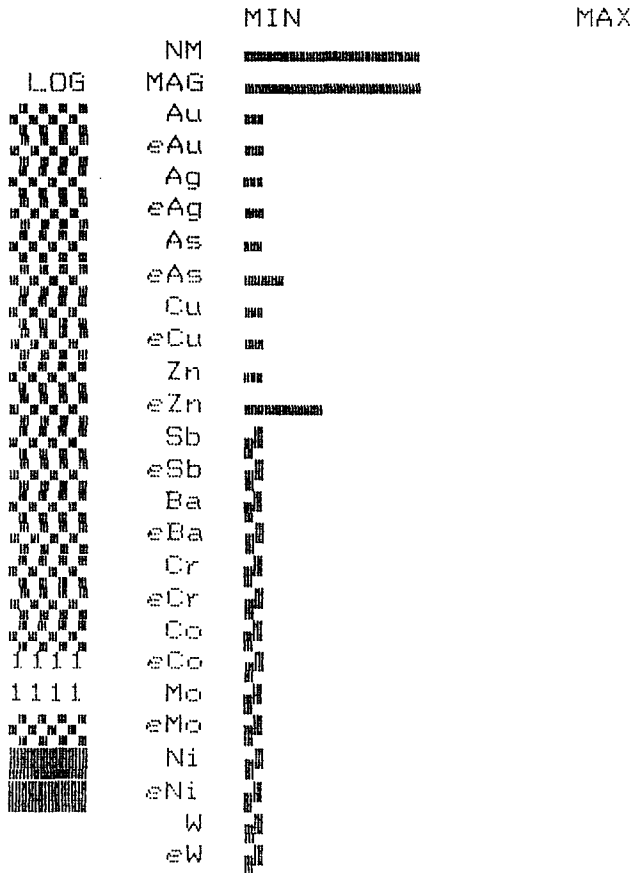
DEPARTURE (X) 160    LATITUDE (Y) -14.5    ELEVATION (Z) 0

1 1

FROM 90    TO 95    TYPE 80    SS 20    BEDROCK 97

mg/kg NON MAG 4803    mg/kg MAG 2313    VG 1.3    MIN#2 0

Au: 1110 ng/g	cAu: 33189 ng	eAu: 5332 pg/g
Ag: .7 ug/g	cAg: 20.9 ug	eAg: 3.4 ng/g
As: 50 ug/g	cAs: 1495 ug	eAs: 240 ng/g
Cu: 485 ug/g	cCu: 14502 ug	eCu: 2330 ng/g
Zn: 83 ug/g	cZn: 2482 ug	eZn: 399 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-045

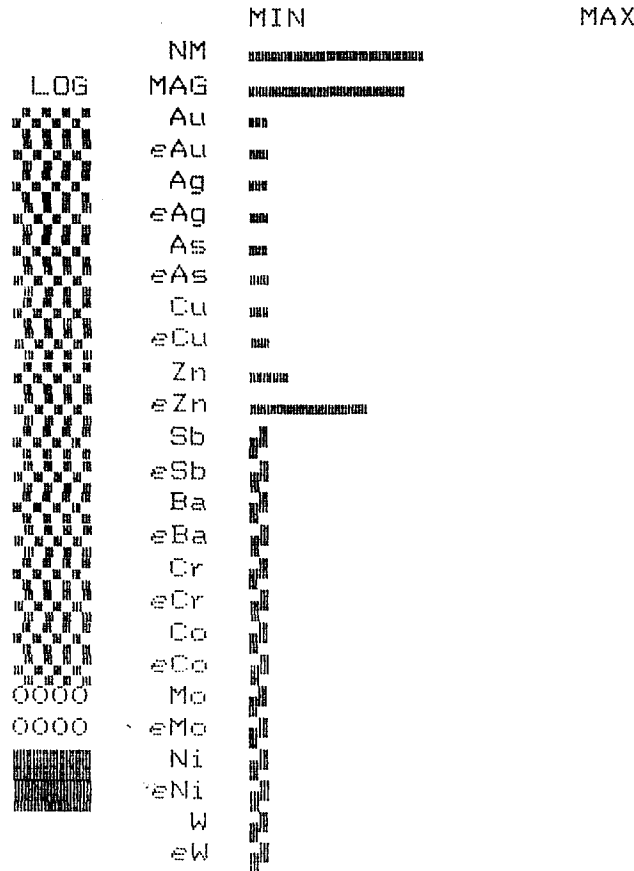
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 180 -14.8 0

12

FROM TO TYPE SS BEDROCK  
 95 97 80 20 97

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 4853 1867 0 0

Au: 115 ng/g	cAu: 1047 ng	eAu: 558 pg/g
Ag: .4 ug/g	cAg: 3.6 ug	eAg: 1.9 ng/g
As: 35 ug/g	cAs: 319 ug	eAs: 170 ng/g
Cu: 577 ug/g	cCu: 5251 ug	eCu: 2800 ng/g
Zn: 116 ug/g	cZn: 1056 ug	eZn: 563 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-046

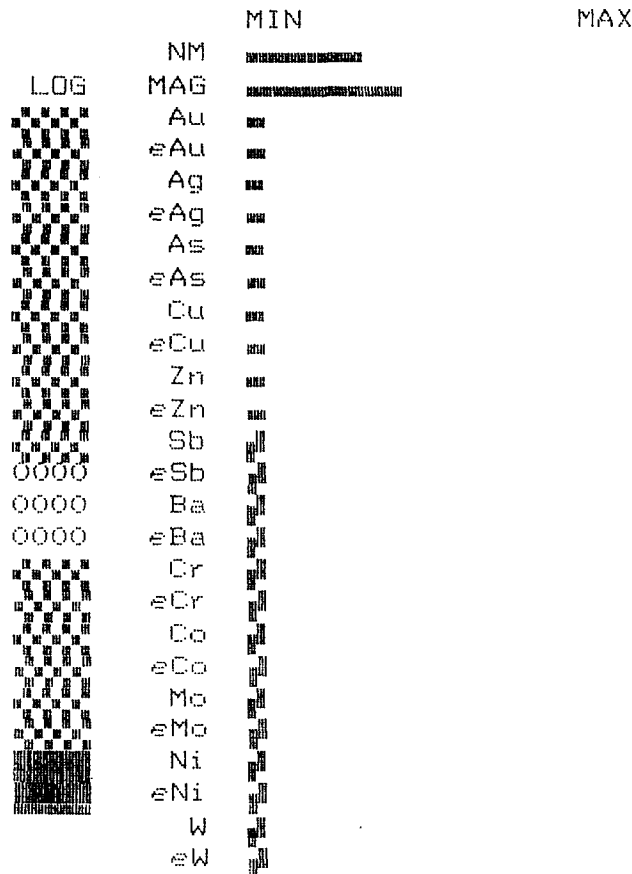
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
0 0 0

O1

FROM TO TYPE SS BEDROCK  
45 52 50 10 70

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
3215 1954 0 0

Au: 30 ng/g	cAu: 528 ng	eAu: 96 pg/g
Ag: .05 ug/g	cAg: .9 ug	eAg: .2 ng/g
As: 43 ug/g	cAs: 757 ug	eAs: 138 ng/g
Cu: 300 ug/g	cCu: 5280 ug	eCu: 964 ng/g
Zn: 48 ug/g	cZn: 845 ug	eZn: 154 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-046

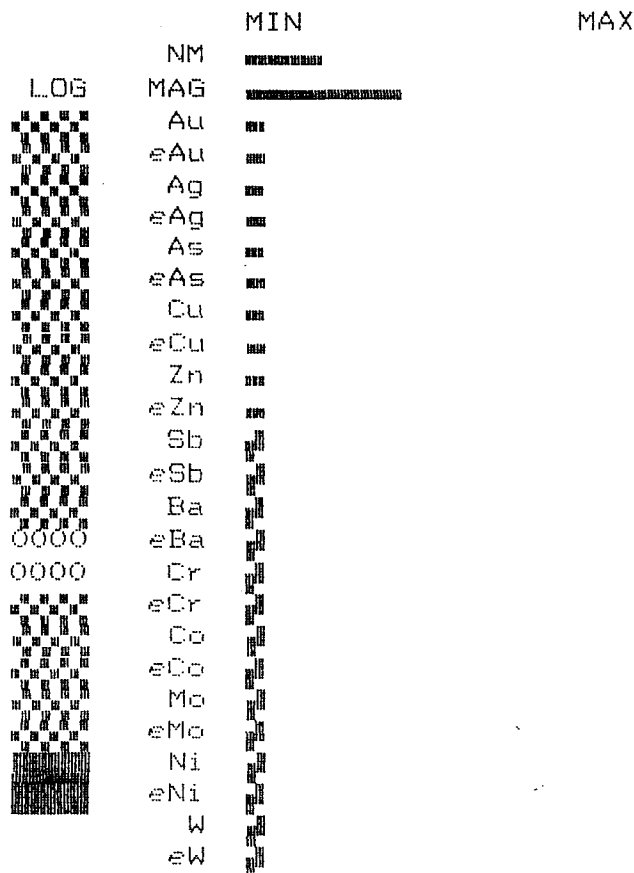
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 0 0 0

02

FROM TO TYPE SS BEDROCK  
 52 54 60 10 70

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2323 1899 0 0

Au: 45 ng/g	cAu: 518 ng	eAu: 105 pg/g
Ag: .05 ug/g	cAg: .6 ug	eAg: .1 ng/g
As: 49 ug/g	cAs: 564 ug	eAs: 114 ng/g
Cu: 460 ug/g	cCu: 5290 ug	eCu: 1069 ng/g
Zn: 40 ug/g	cZn: 460 ug	eZn: 93 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-046

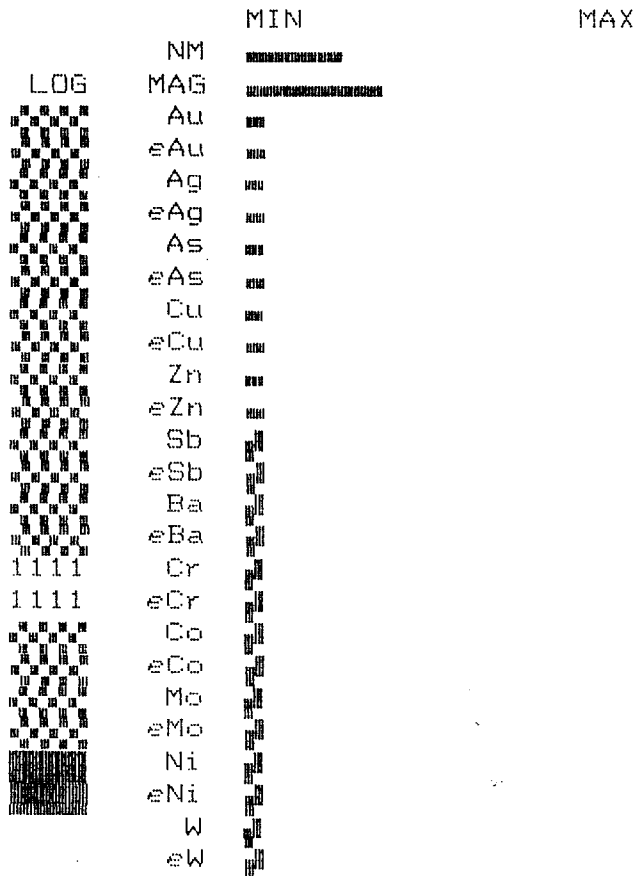
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
0 0 0

03

FROM TO TYPE SS BEDROCK  
54 59 40 10 70

mg/kg NON MAG mg/kg MAG VG MIN#2  
2996 1749 1.4 0

Au: 40 ng/g	cAu: 692 ng	eAu: 120 pg/g
Ag: .4 ug/g	cAg: 6.9 ug	eAg: 1.2 ng/g
As: 59 ug/g	cAs: 1021 ug	eAs: 177 ng/g
Cu: 320 ug/g	cCu: 5536 ug	eCu: 959 ng/g
Zn: 54 ug/g	cZn: 934 ug	eZn: 162 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-046

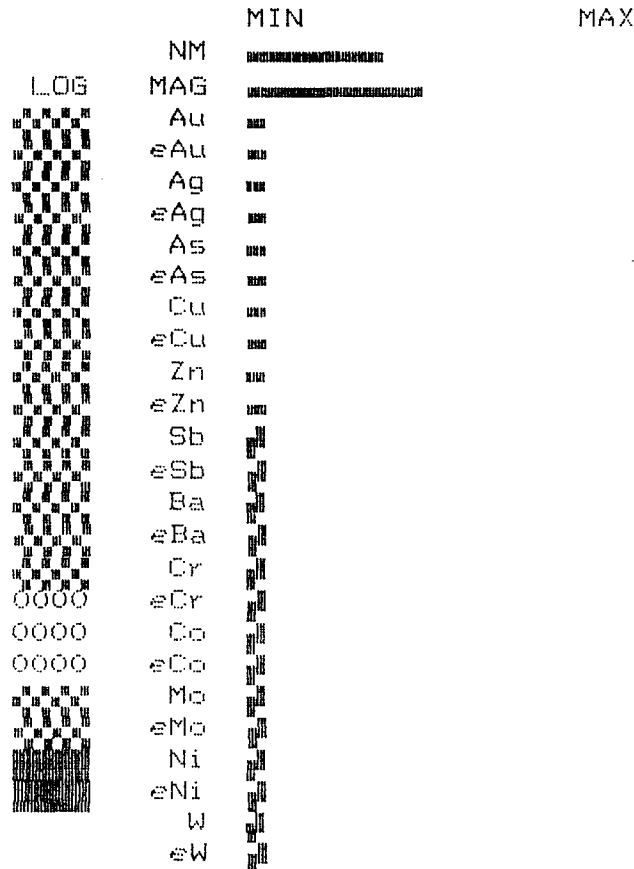
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 0 0 0

04

FROM TO TYPE SS BEDROCK  
 59 65 80 20 70

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3807 2222 0 0

Au: 120 ng/g	cAu: 2364 ng	eAu: 457 pg/g
Ag: .05 ug/g	cAg: 1 ug	eAg: .2 ng/g
As: 48 ug/g	cAs: 946 ug	eAs: 193 ng/g
Cu: 115 ug/g	cCu: 2266 ug	eCu: 438 ng/g
Zn: 42 ug/g	cZn: 827 ug	eZn: 160 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-046

DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
0 0 0

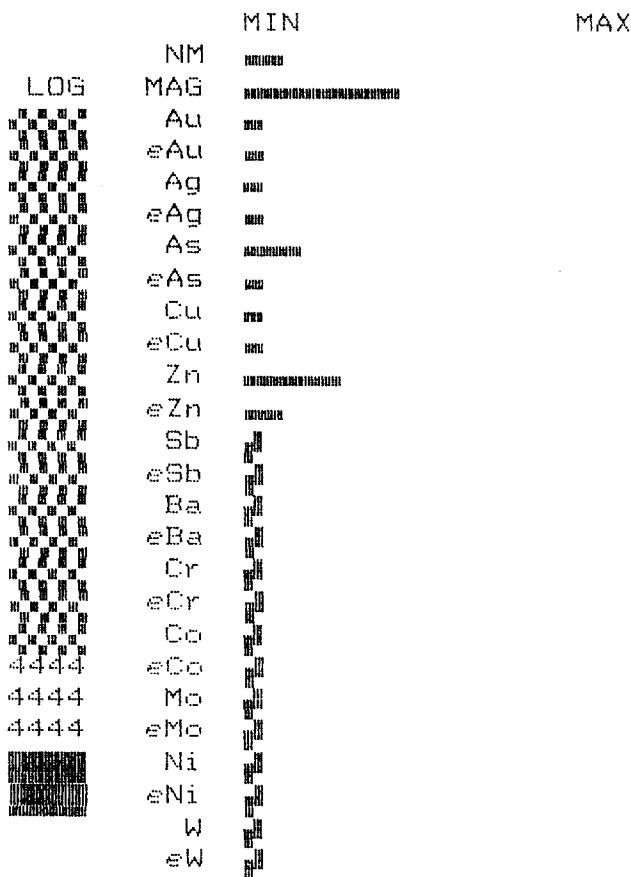
05

FROM TO TYPE SS BEDROCK  
65 70 80 20 70

95% PYRITE

mg/kg NON MAG mg/kg MAG VG ASPY  
1176 1961 6.3 100

Au: 35 ng/g	cAu: 210 ng	eAu: 41 pg/g
Ag: 1.2 ug/g	cAg: 7.2 ug	eAg: 1.4 ng/g
As: 98 ug/g	cAs: 588 ug	eAs: 115 ng/g
Cu: 577 ug/g	cCu: 3462 ug	eCu: 679 ng/g
Zn: 200 ug/g	cZn: 1200 ug	eZn: 235 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-047

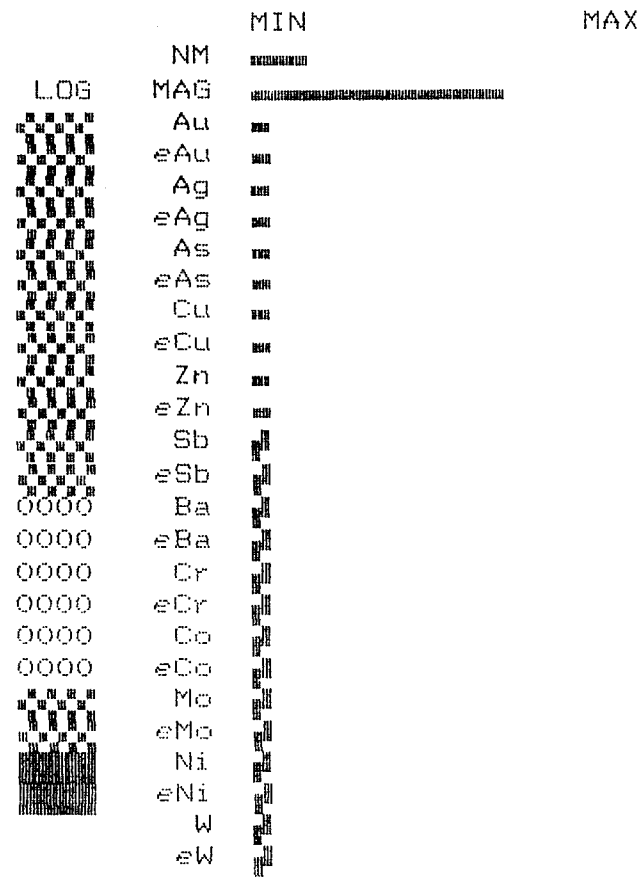
DEPARTURE (X) 148 LATITUDE (Y) 11 ELEVATION (Z) 0

O1

FROM 25 TO 35 TYPE 60 SS 10 BEDROCK 38

mg/kg NON MAG 2009 mg/kg MAG 3014 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (mg/kg or ug/g), and Unit. Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' values.



EC-86-047

DEPARTURE (X) 148 LATITUDE (Y) 11 ELEVATION (Z) 0

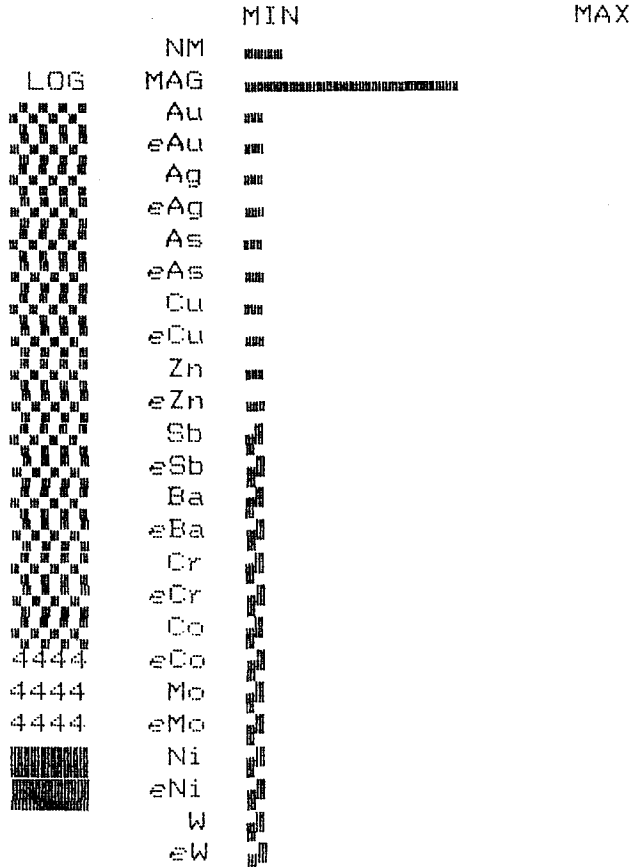
02

FROM 35 TO 38 TYPE 80 SS 20 BEDROCK 38

21 PYRITE

mg/kg NON MAG 1053 mg/kg MAG 2754 VG 5.6 ASPY 750

Table with 3 columns: Element, Concentration (NON MAG), Concentration (MAG), and Concentration (VG/ASPY). Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W.



EC-86-087

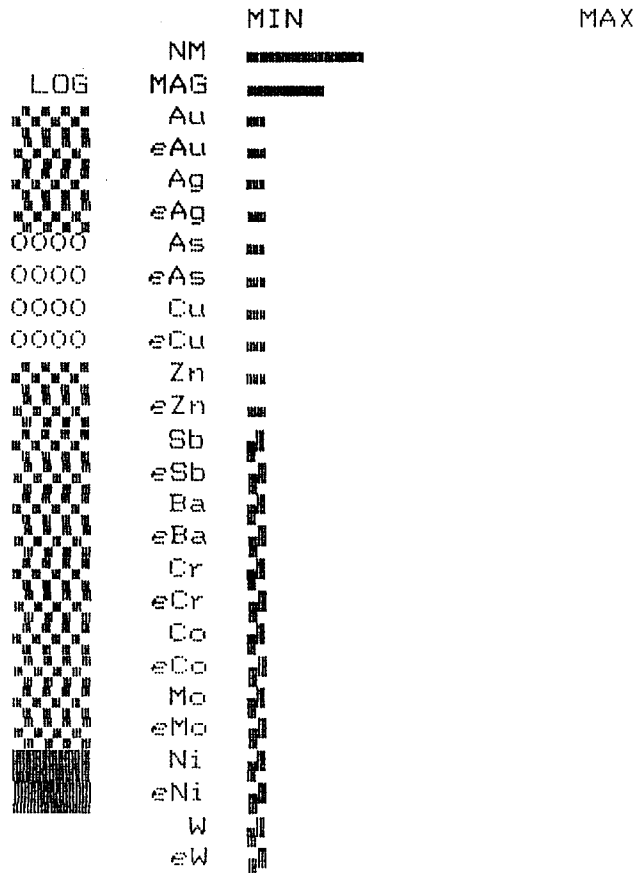
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
0 0 0

O1

FROM TO TYPE SS BEDROCK  
15 25 80 10 58

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
3360 998 0 0

Au: 15 ng/g	cAu: 210 ng	eAu: 50 pg/g
Ag: .05 ug/g	cAg: .7 ug	eAg: .2 ng/g
As: 19 ug/g	cAs: 266 ug	eAs: 64 ng/g
Cu: 72 ug/g	cCu: 1009 ug	eCu: 242 ng/g
Zn: 20 ug/g	cZn: 280 ug	eZn: 67 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-087

DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 0 0 0

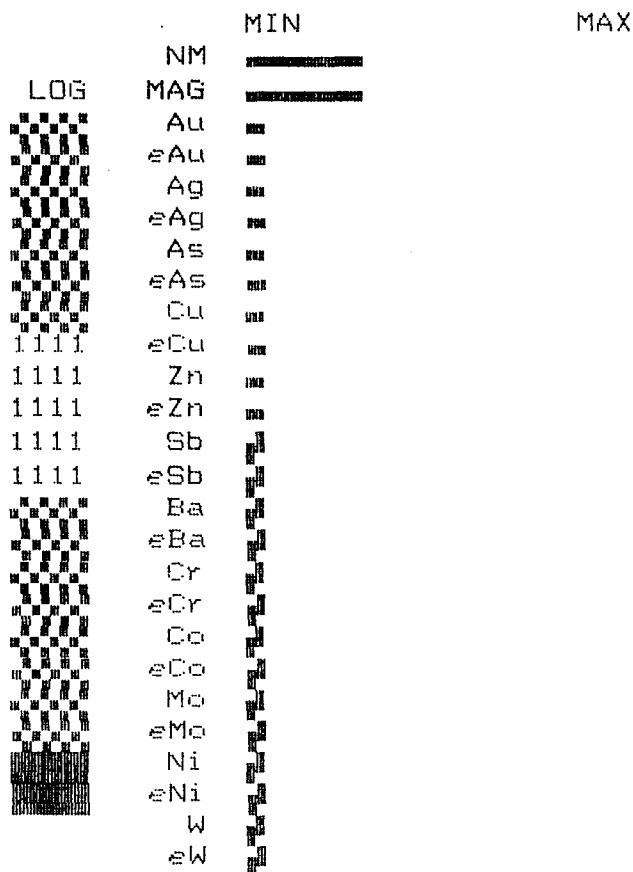
02

FROM TO TYPE SS BEDROCK  
 25 35 80 10 58

30% HEM 5% PY 1/4% ASPY

mg/kg NON MAG mg/kg MAG VG MIN#2  
 3558 1523 1.4 0

Au: 20 ng/g	cAu: 409 ng	eAu: 71 pg/g
Ag: .3 ug/g	cAg: 6.1 ug	eAg: 1.1 ng/g
As: 3 ug/g	cAs: 61 ug	eAs: 11 ng/g
Cu: 48 ug/g	cCu: 983 ug	eCu: 171 ng/g
Zn: 24 ug/g	cZn: 491 ug	eZn: 85 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-087

DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
0 0 0

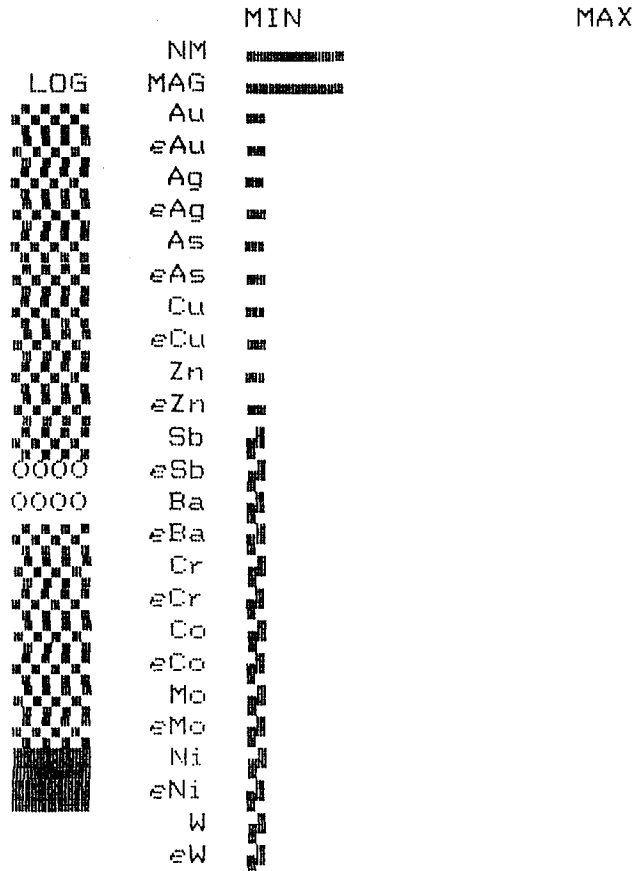
03

FROM TO TYPE SS BEDROCK  
35 40 80 10 58

SANDY 2% PY 30% HEM

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
2781 1357 0 0

Au: 405 ng/g	cAu: 6310 ng	eAu: 1126 pg/g
Ag: .2 ug/g	cAg: 3.1 ug	eAg: .6 ng/g
As: 4 ug/g	cAs: 62 ug	eAs: 11 ng/g
Cu: 58 ug/g	cCu: 904 ug	eCu: 161 ng/g
Zn: 22 ug/g	cZn: 343 ug	eZn: 61 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-087

DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 0 0 0

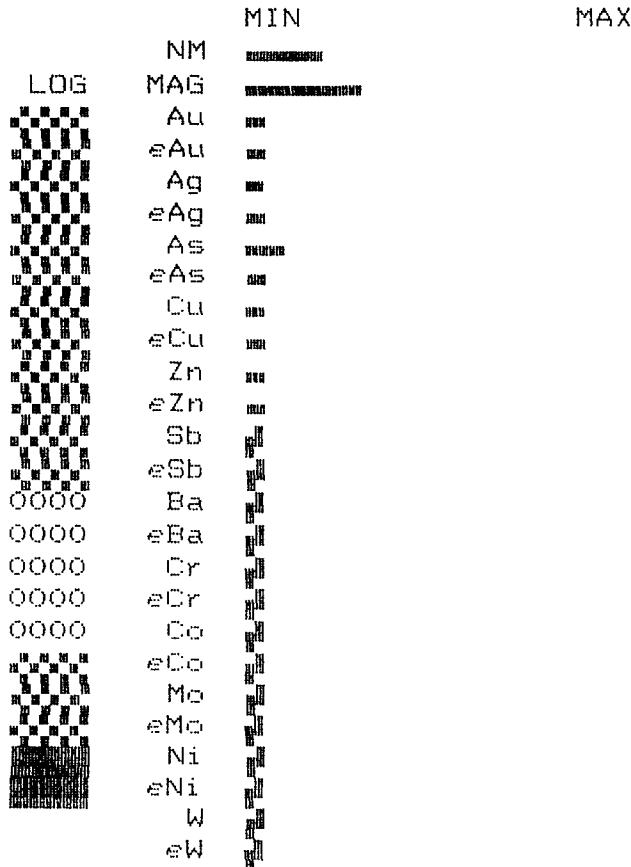
04

FROM TO TYPE SS BEDROCK  
 40 50 80 10 58

5% PY 35% HEM TR NARC

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2354 1419 0 0

Au: 420 ng/g	cAu: 5288 ng	eAu: 989 pg/g
Ag: .4 ug/g	cAg: 5 ug	eAg: .9 ng/g
As: 67 ug/g	cAs: 844 ug	eAs: 158 ng/g
Cu: 192 ug/g	cCu: 2417 ug	eCu: 452 ng/g
Zn: 48 ug/g	cZn: 604 ug	eZn: 113 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-087

DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
0 0 0

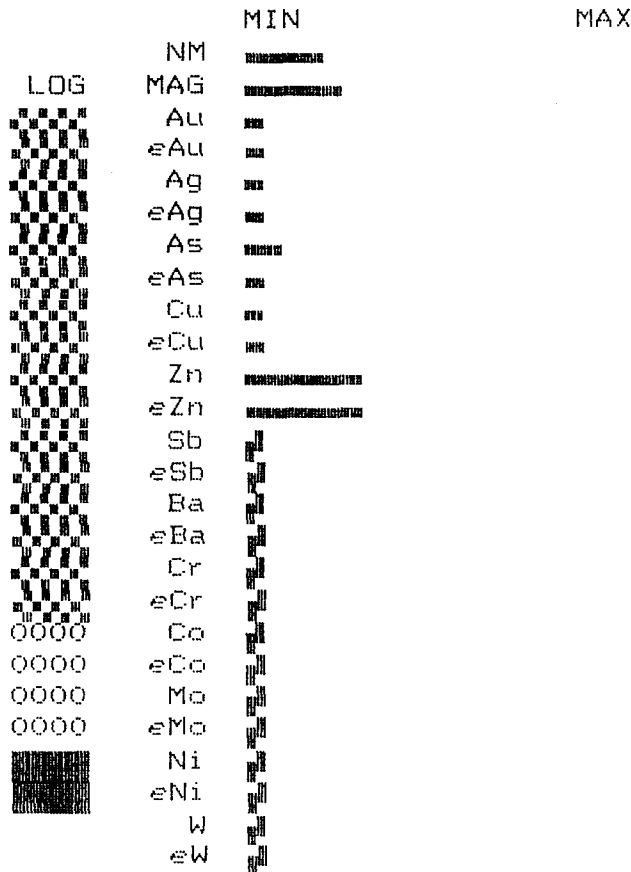
05

FROM TO TYPE SS BEDROCK  
50 58 80 20 58

SANDY

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
2327 1374 0 0

Au: 620 ng/g	cAu: 5983 ng	eAu: 1443 pg/g
Ag: .9 ug/g	cAg: 8.7 ug	eAg: 2.1 ng/g
As: 83 ug/g	cAs: 801 ug	eAs: 193 ng/g
Cu: 320 ug/g	cCu: 3088 ug	eCu: 745 ng/g
Zn: 240 ug/g	cZn: 2316 ug	eZn: 558 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-088

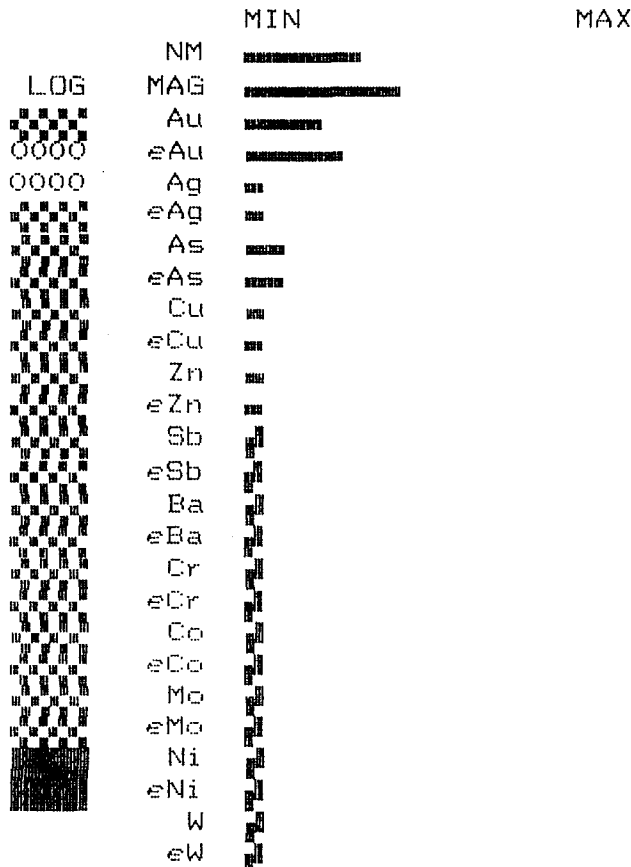
DEPARTURE (X) 35 LATITUDE (Y) 1 ELEVATION (Z) 0

O1

FROM 9 TO 12 TYPE 60 SS 10 BEDROCK 63

mg/kg NON MAG 3194 mg/kg MAG 2003 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (e.g., Au: 4500 ng/g), and Unit (e.g., ng/g). Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' values.





EC-86-088

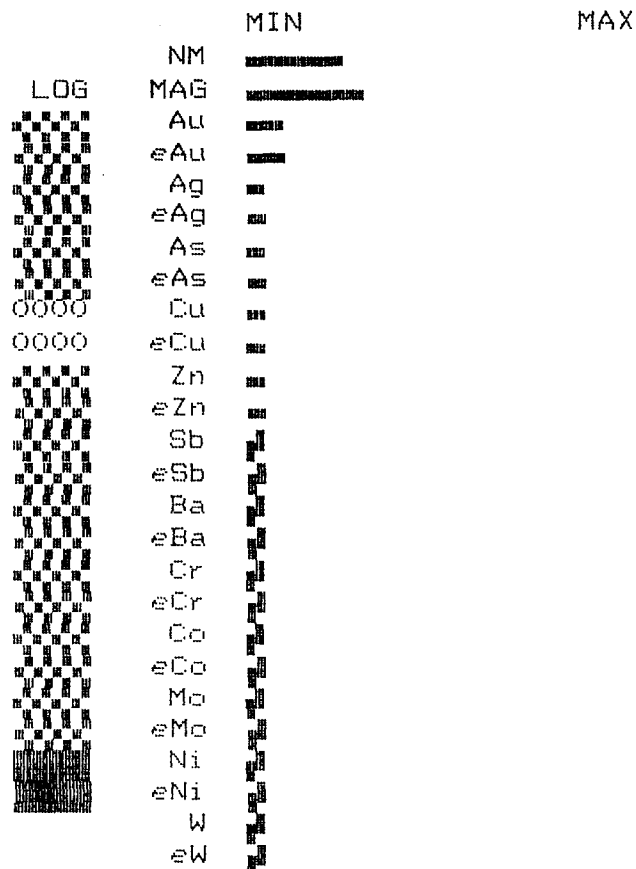
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 35 1 0

03

FROM TO TYPE SS BEDROCK  
 25 27 80 10 63

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2821 1546 0 0

Au: 2530 ng/g	cAu: 40581 ng	eAu: 7138 pg/g
Ag: .4 ug/g	cAg: 6.4 ug	eAg: 1.1 ng/g
As: 7 ug/g	cAs: 112 ug	eAs: 20 ng/g
Cu: 156 ug/g	cCu: 2502 ug	eCu: 440 ng/g
Zn: 52 ug/g	cZn: 834 ug	eZn: 147 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-088

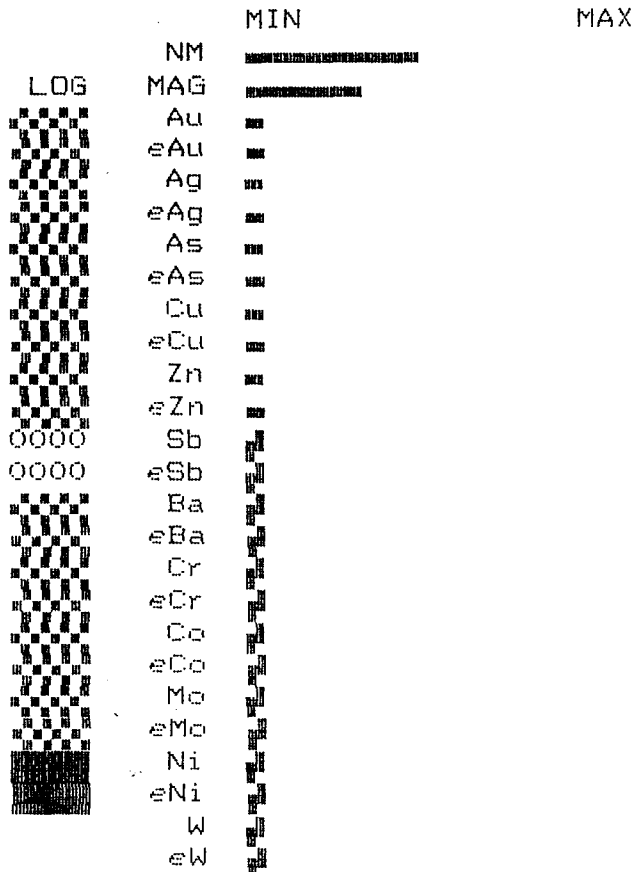
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 35 1 0

04

FROM TO TYPE SS BEDROCK  
 37 40 80 10 63

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 4900 1569 0 0

Au: 2.5 ng/g	cAu: 83 ng	eAu: 12 pg/g
Ag: .05 ug/g	cAg: 1.7 ug	eAg: .2 ng/g
As: 7 ug/g	cAs: 231 ug	eAs: 34 ng/g
Cu: 78 ug/g	cCu: 2574 ug	eCu: 382 ng/g
Zn: 20 ug/g	cZn: 660 ug	eZn: 98 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-088

DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
35 1 0

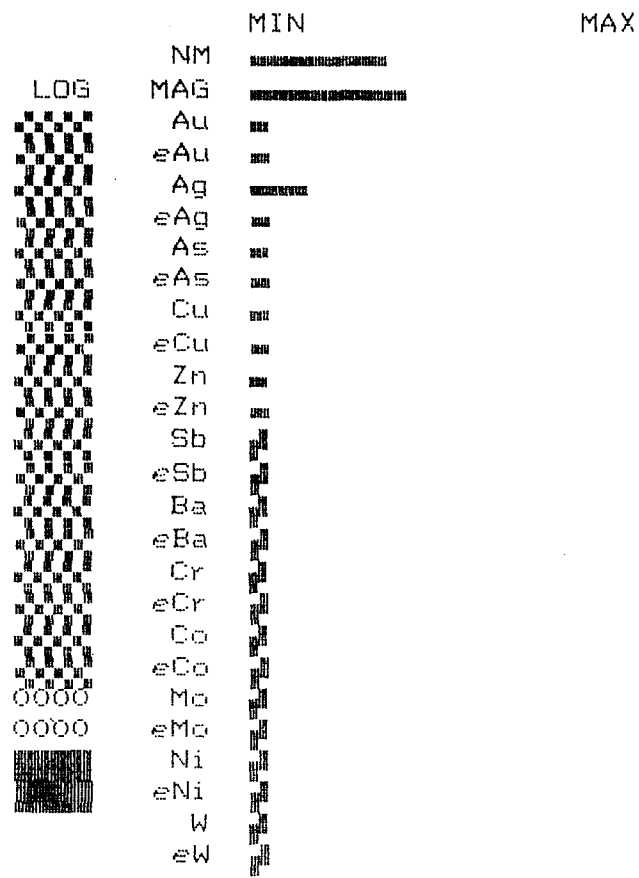
05

FROM TO TYPE SS BEDROCK  
60 63 80 20 63

5% PY 50% HEM 1/4% ASPY

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
3569 1903 0 0

Au: 1285 ng/g	cAu: 24389 ng	eAu: 4587 pg/g
Ag: 3.5 ug/g	cAg: 66.4 ug	eAg: 12.5 ng/g
As: 14 ug/g	cAs: 266 ug	eAs: 50 ng/g
Cu: 300 ug/g	cCu: 5694 ug	eCu: 1071 ng/g
Zn: 40 ug/g	cZn: 759 ug	eZn: 143 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-089

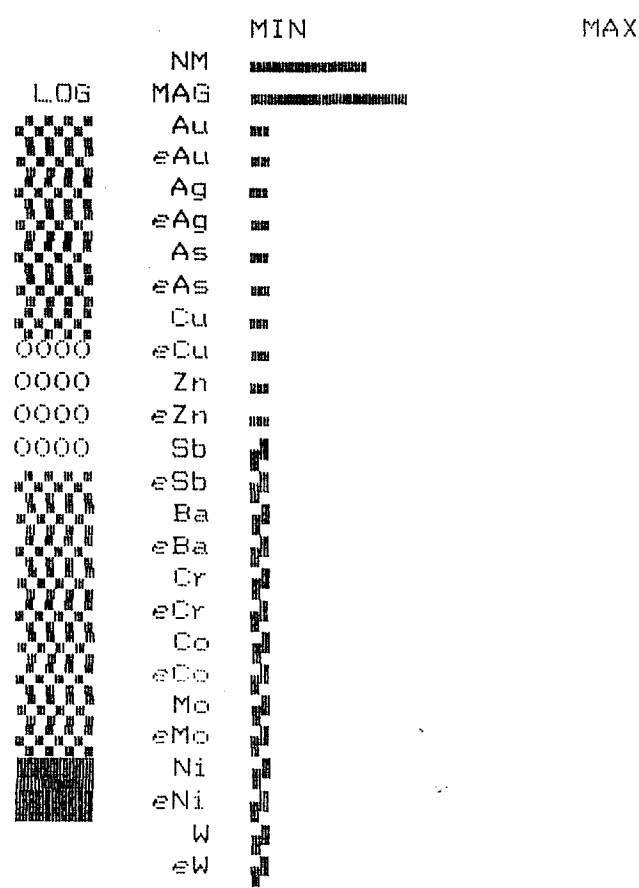
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 33 -1.75 0

O1

FROM TO TYPE SS BEDROCK  
 25 35 60 10 62

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3518 1938 0 0

Au: 2.5 ng/g	cAu: 55 ng	eAu: 9 pg/g
Ag: .05 ug/g	cAg: 1.1 ug	eAg: .2 ng/g
As: 23 ug/g	cAs: 505 ug	eAs: 81 ng/g
Cu: 110 ug/g	cCu: 2415 ug	eCu: 387 ng/g
Zn: 44 ug/g	cZn: 966 ug	eZn: 155 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-089

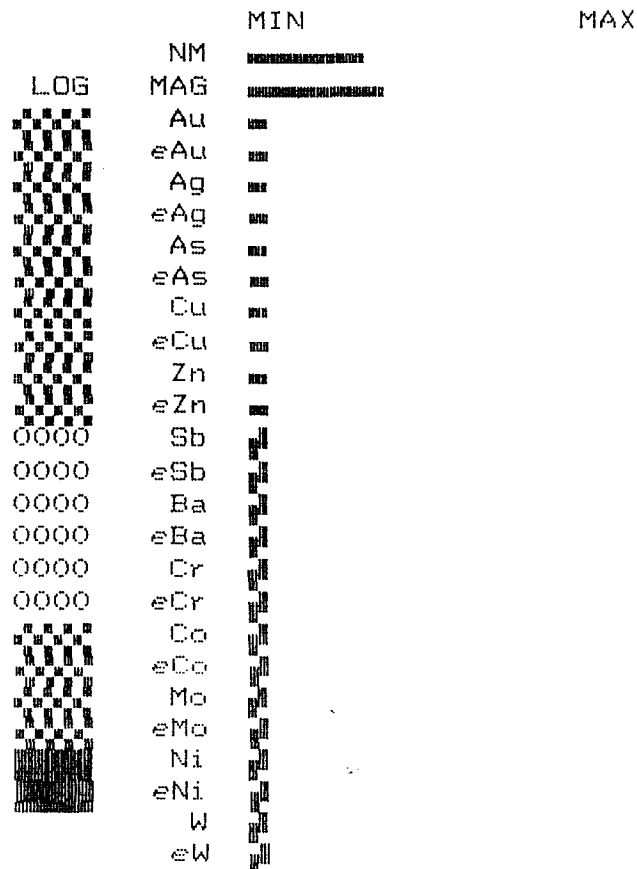
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
33 -1.75 0

02

FROM TO TYPE SS BEDROCK  
35 50 60 10 62

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
3350 1692 0 0

Au: 320 ng/g	cAu: 6794 ng	eAu: 1072 pg/g
Ag: .05 ug/g	cAg: 1.1 ug	eAg: .2 ng/g
As: 8 ug/g	cAs: 170 ug	eAs: 27 ng/g
Cu: 72 ug/g	cCu: 1529 ug	eCu: 241 ng/g
Zn: 20 ug/g	cZn: 425 ug	eZn: 67 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-089

DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
33 -1.78 0

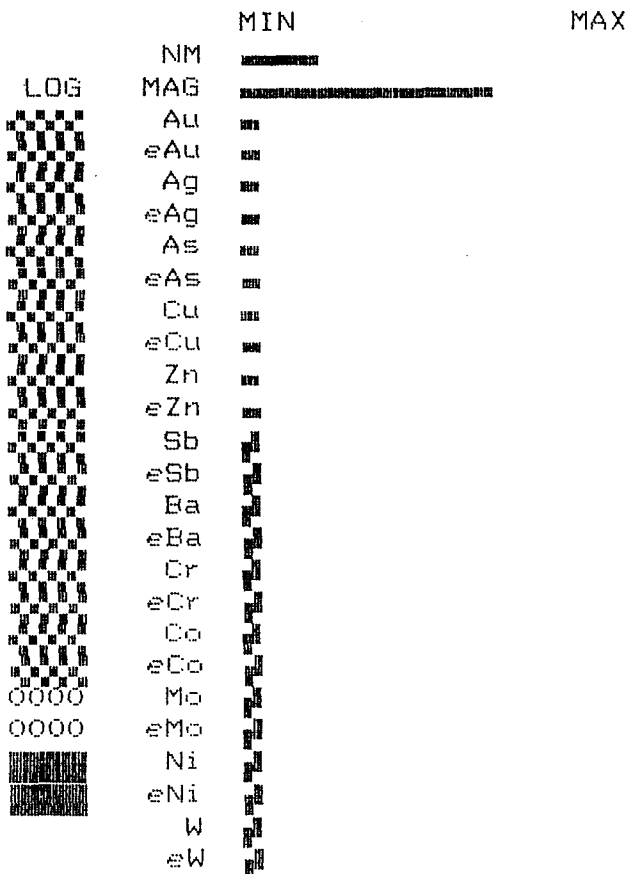
03

FROM TO TYPE SS BEDROCK  
60 62 80 20 62

<2% PYRITE 40% HEMATITE

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
2470 3203 0 0

Au: 65 ng/g	cAu: 890 ng	eAu: 161 pg/g
Ag: .1 ug/g	cAg: 1.4 ug	eAg: .2 ng/g
As: 6 ug/g	cAs: 82 ug	eAs: 15 ng/g
Cu: 166 ug/g	cCu: 2273 ug	eCu: 410 ng/g
Zn: 52 ug/g	cZn: 712 ug	eZn: 128 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-090

DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 31 1.5 0

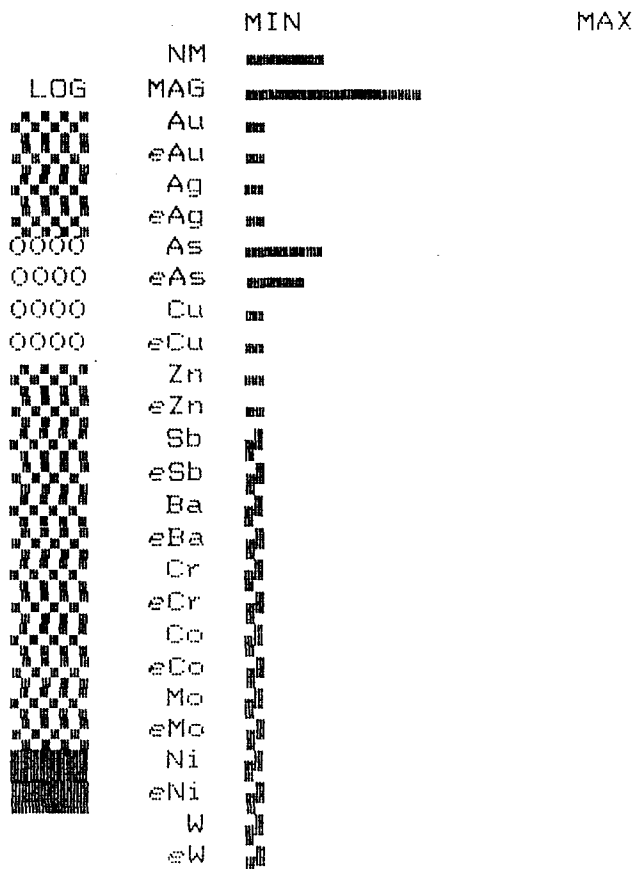
O1

FROM TO TYPE SS BEDROCK  
 22 34 80 10 82

SANDY GRAVELLY

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2393 2147 0 0

Au: 715 ng/g	cAu: 10432 ng	eAu: 1711 pg/g
Ag: .05 ug/g	cAg: .7 ug	eAg: .1 ng/g
As: 132 ug/g	cAs: 1926 ug	eAs: 316 ng/g
Cu: 270 ug/g	cCu: 3939 ug	eCu: 646 ng/g
Zn: 52 ug/g	cZn: 759 ug	eZn: 124 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g







EC-86-090

DEPARTURE(X) 31 LATITUDE(Y) 1.5 ELEVATION(Z) 0

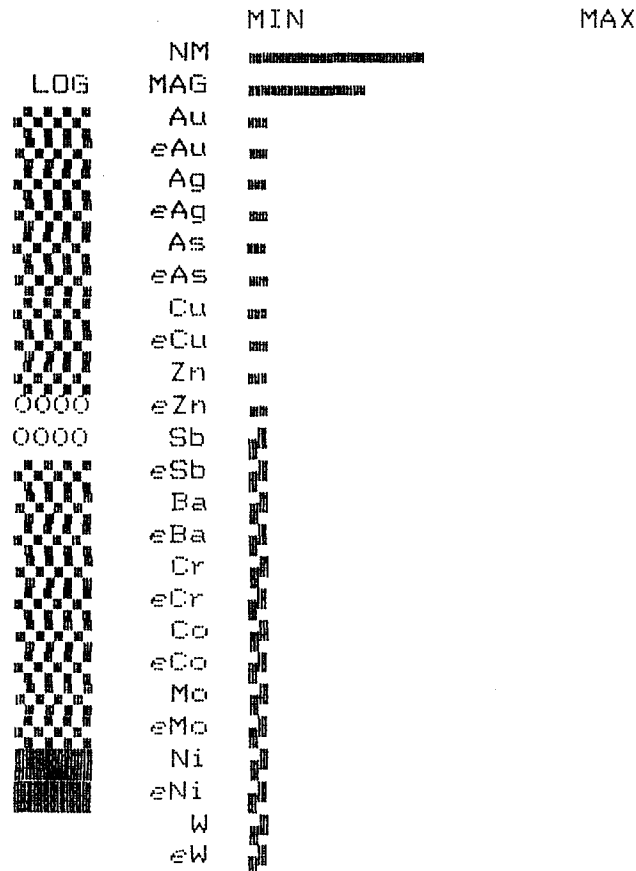
04

FROM 44 TO 49 TYPE 80 SS 10 BEDROCK 82

SANDY SILTY

mg/kg NON MAG 4837 mg/kg MAG 1621 MIN#1 0 MIN#2 0

Au: 5 ng/g	cAu: 80 ng	eAu: 24 pg/g
Ag: .05 ug/g	cAg: .8 ug	eAg: .2 ng/g
As: 30 ug/g	cAs: 480 ug	eAs: 145 ng/g
Cu: 108 ug/g	cCu: 1728 ug	eCu: 522 ng/g
Zn: 28 ug/g	cZn: 448 ug	eZn: 135 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-090

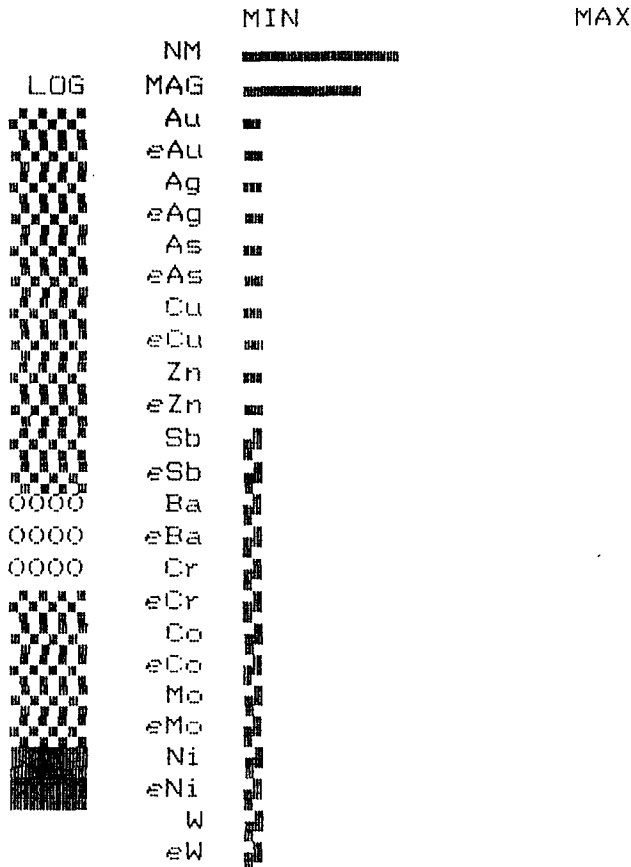
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
31 1.5 0

05

FROM TO TYPE SS BEDROCK  
55 65 80 10 82

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
4553 1448 0 0

Au: 245 ng/g	cAu: 7095 ng	eAu: 1116 pg/g
Ag: .2 ug/g	cAg: 5.8 ug	eAg: .9 ng/g
As: 1 ug/g	cAs: 29 ug	eAs: 5 ng/g
Cu: 60 ug/g	cCu: 1738 ug	eCu: 273 ng/g
Zn: 18 ug/g	cZn: 521 ug	eZn: 82 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-090

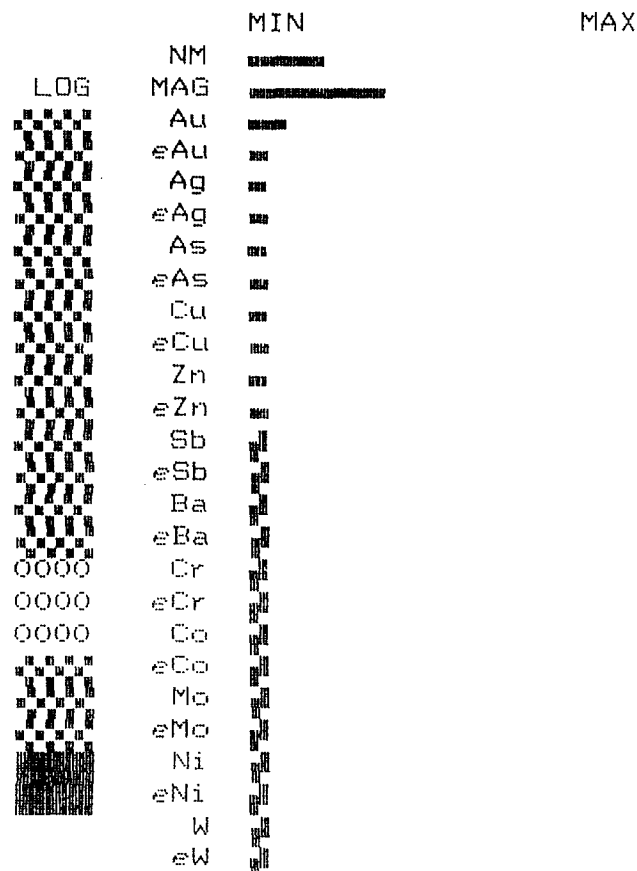
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 31 1.5 0

06

FROM TO TYPE SS BEDROCK  
 65 73 80 10 82

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2055 1806 0 0

Au: 2275 ng/g	cAu: 27277 ng	eAu: 4675 pg/g
Ag: .05 ug/g	cAg: .6 ug	eAg: .1 ng/g
As: 6 ug/g	cAs: 72 ug	eAs: 12 ng/g
Cu: 58 ug/g	cCu: 695 ug	eCu: 119 ng/g
Zn: 16 ug/g	cZn: 192 ug	eZn: 33 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-090

DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
31 1.5 0

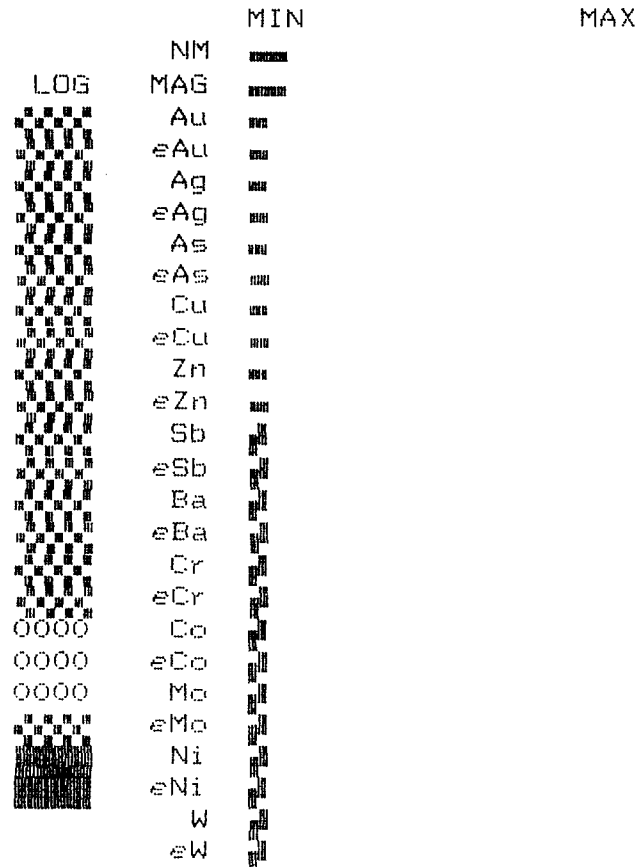
07

FROM TO TYPE SS BEDROCK  
73 79 80 20 82

60% PY TR ASPY 20% HEM

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
1431 553 0 0

Au: 60 ng/g	cAu: 520 ng	eAu: 86 pg/g
Ag: .6 ug/g	cAg: 5.2 ug	eAg: .9 ng/g
As: 37 ug/g	cAs: 321 ug	eAs: 53 ng/g
Cu: 1600 ug/g	cCu: 13872 ug	eCu: 2289 ng/g
Zn: 64 ug/g	cZn: 555 ug	eZn: 92 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-090

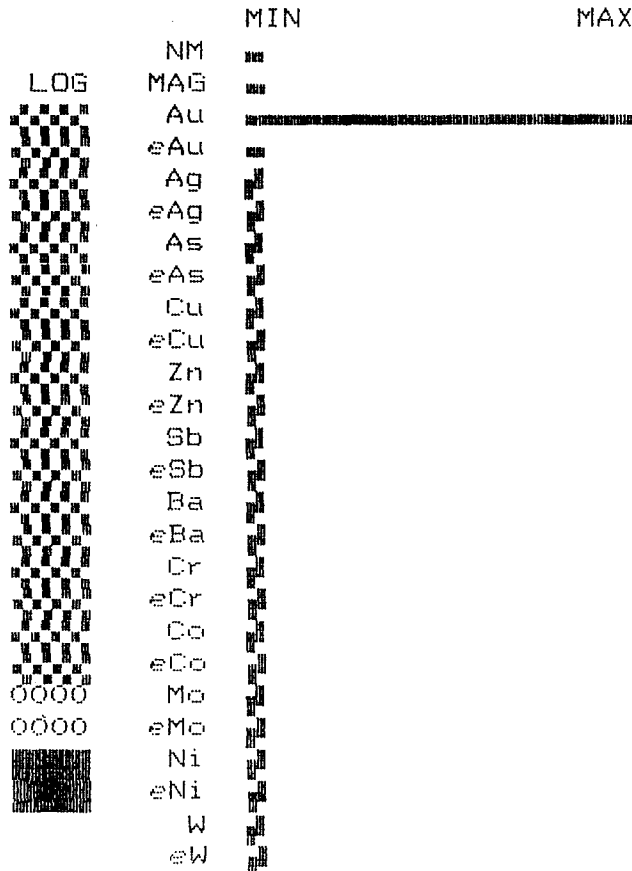
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
31 1.5 0

08

FROM TO TYPE SS BEDROCK  
79 82 80 20 82

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
5 42 0 0

Au: 19000 ng/g	cAu: 190 ng	eAu: 89 pg/g
Ag: 0 ug/g	cAg: 0 ug	eAg: 0 ng/g
As: 0 ug/g	cAs: 0 ug	eAs: 0 ng/g
Cu: 0 ug/g	cCu: 0 ug	eCu: 0 ng/g
Zn: 0 ug/g	cZn: 0 ug	eZn: 0 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-123

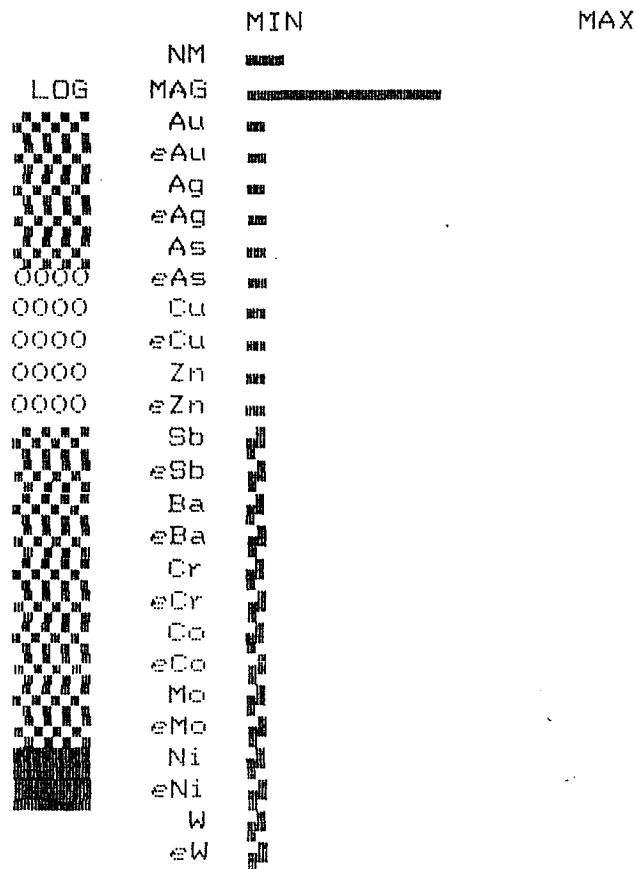
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
25 7 0

02-3

FROM TO TYPE SS BEDROCK  
35 55 60 10 104

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
1307 2327 0 0

Au: 15 ng/g	cAu: 225 ng	eAu: 20 pg/g
Ag: .4 ug/g	cAg: 6 ug	eAg: .5 ng/g
As: 50 ug/g	cAs: 750 ug	eAs: 65 ng/g
Cu: 99 ug/g	cCu: 1485 ug	eCu: 129 ng/g
Zn: 29 ug/g	cZn: 435 ug	eZn: 38 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-123

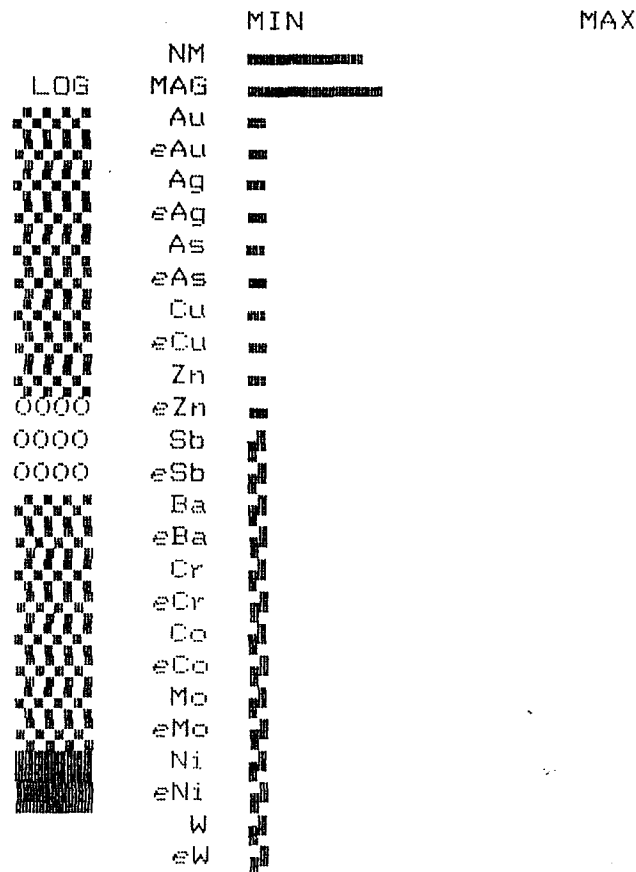
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
25 7 0

04

FROM TO TYPE SS BEDROCK  
55 65 80 10 104

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
3364 1790 0 0

Au: 5 ng/g	cAu: 96 ng	eAu: 17 pg/g
Ag: .05 ug/g	cAg: 1 ug	eAg: .2 ng/g
As: 13 ug/g	cAs: 249 ug	eAs: 44 ng/g
Cu: 128 ug/g	cCu: 2451 ug	eCu: 431 ng/g
Zn: 34 ug/g	cZn: 651 ug	eZn: 114 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-123

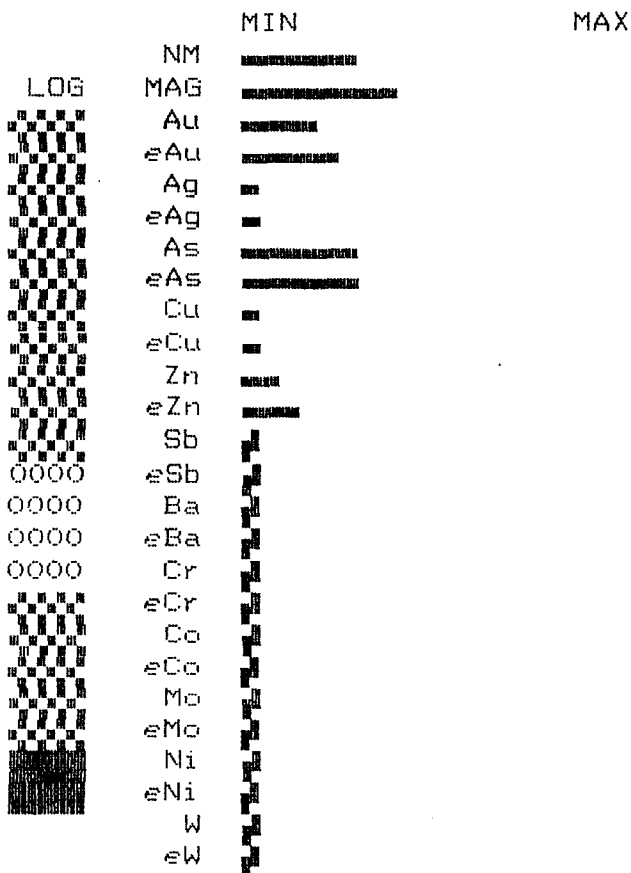
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 25 7 0

05-6

FROM TO TYPE SS BEDROCK  
 65 78 60 10 104

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3097 1890 0 0

Au: 4680 ng/g	cAu: 138060 ng	eAu: 14494 pg/g
Ag: 1.2 ug/g	cAg: 35.4 ug	eAg: 3.7 ng/g
As: 196 ug/g	cAs: 5782 ug	eAs: 607 ng/g
Cu: 375 ug/g	cCu: 11063 ug	eCu: 1161 ng/g
Zn: 89 ug/g	cZn: 2626 ug	eZn: 276 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-123

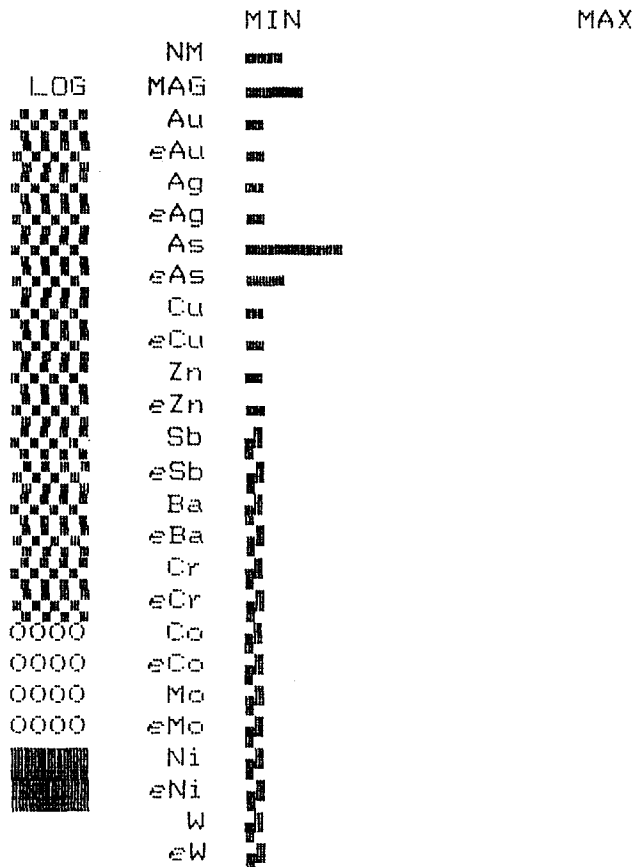
DEPARTURE (X)    LATITUDE (Y)    ELEVATION (Z)  
 25                                    7                                    0

09

FROM            TO        TYPE    SS    BEDROCK  
 89              104      60      20      104

mg/kg NON MAG    mg/kg MAG    MIN#1    MIN#2  
 1121              940            0            0

Au: 1525 ng/g	cAu: 12291 ng	eAu: 1709 pg/g
Ag: .05 ug/g	cAg: .4 ug	eAg: .1 ng/g
As: 191 ug/g	cAs: 1539 ug	eAs: 214 ng/g
Cu: 360 ug/g	cCu: 2902 ug	eCu: 403 ng/g
Zn: 40 ug/g	cZn: 322 ug	eZn: 45 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

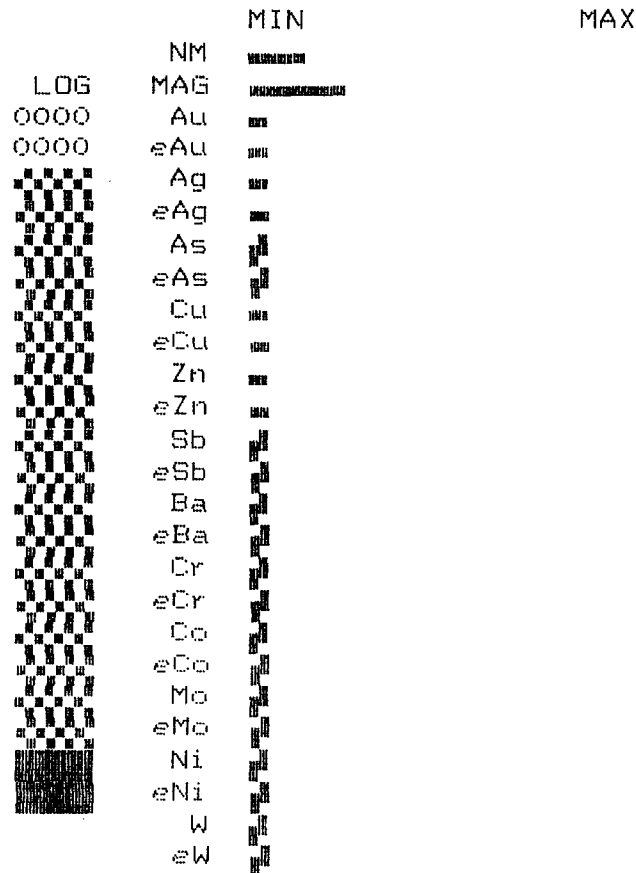
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 37.75 0 0

01-2

FROM TO TYPE SS BEDROCK  
 7 20 80 10 145

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 1960 1343 0 0

Au: 580 ng/g	cAu: 11252 ng	eAu: 1137 pg/g
Ag: .2 ug/g	cAg: 3.9 ug	eAg: .4 ng/g
As: 0 ug/g	cAs: 0 ug	eAs: 0 ng/g
Cu: 93 ug/g	cCu: 1804 ug	eCu: 182 ng/g
Zn: 22 ug/g	cZn: 427 ug	eZn: 43 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

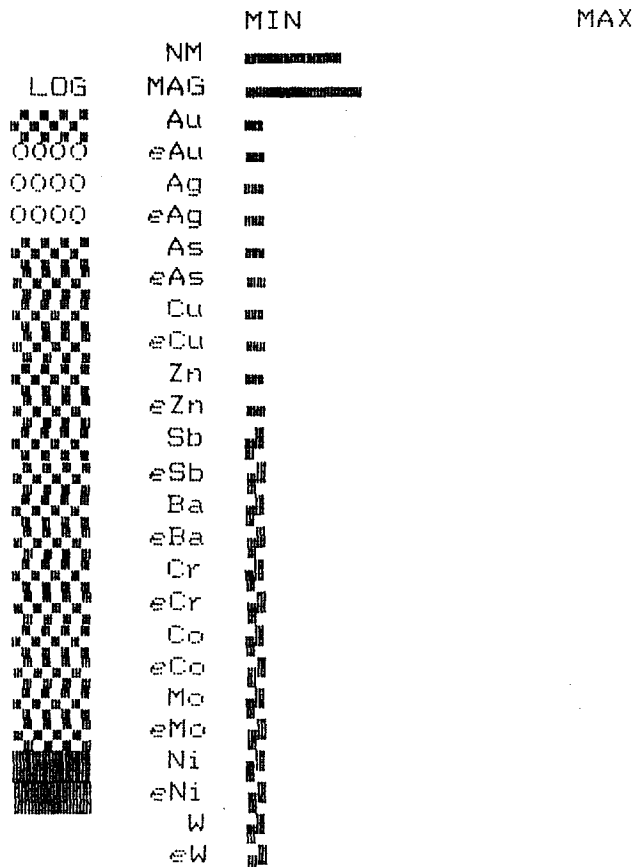
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 37.75 0 0

03

FROM TO TYPE SS BEDROCK  
 20 30 80 10 145

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2552 1471 0 0

Au: 225 ng/g	cAu: 2498 ng	eAu: 574 pg/g
Ag: .3 ug/g	cAg: 3.3 ug	eAg: .8 ng/g
As: 33 ug/g	cAs: 366 ug	eAs: 84 ng/g
Cu: 157 ug/g	cCu: 1743 ug	eCu: 401 ng/g
Zn: 41 ug/g	cZn: 455 ug	eZn: 105 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

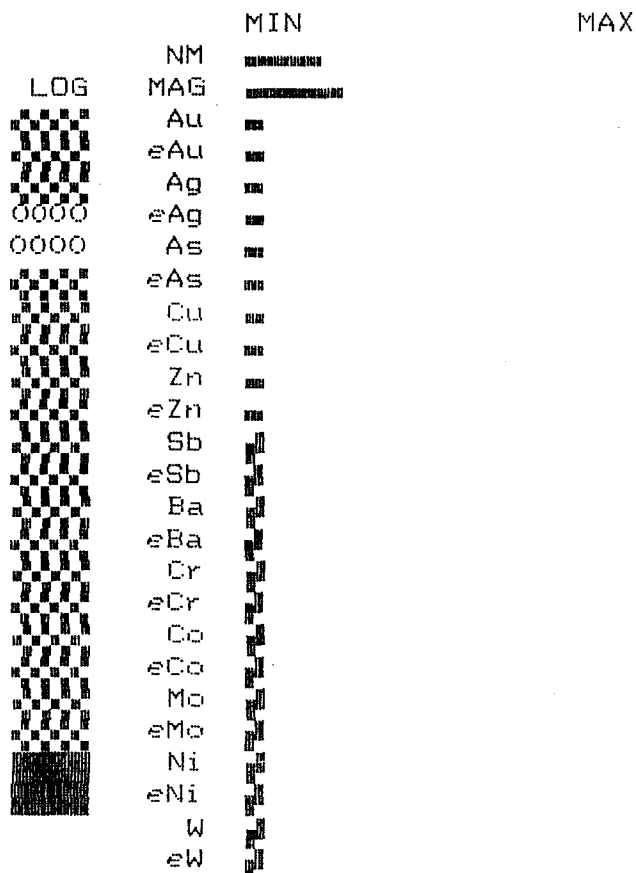
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 37.75 0 0

04

FROM TO TYPE SS BEDROCK  
 30 40 80 10 145

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2095 1333 0 0

Au: 680 ng/g	cAu: 5984 ng	eAu: 1425 pg/g
Ag: .4 ug/g	cAg: 3.5 ug	eAg: .8 ng/g
As: 17 ug/g	cAs: 150 ug	eAs: 36 ng/g
Cu: 148 ug/g	cCu: 1302 ug	eCu: 310 ng/g
Zn: 31 ug/g	cZn: 273 ug	eZn: 65 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-126

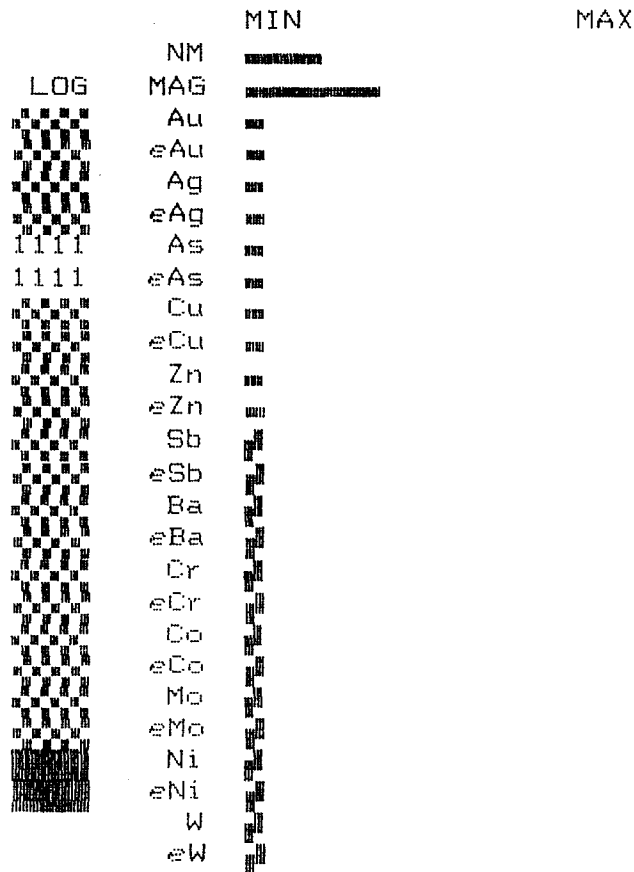
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 37.78 0 0

05

FROM TO TYPE SS BEDROCK  
 40 50 80 10 145

mg/kg NON MAG mg/kg MAG VG MIN#2  
 2256 1641 1.6 0

Au: 800 ng/g	cAu: 8800 ng	eAu: 1805 pg/g
Ag: .1 ug/g	cAg: 1.1 ug	eAg: .2 ng/g
As: 22 ug/g	cAs: 242 ug	eAs: 50 ng/g
Cu: 129 ug/g	cCu: 1419 ug	eCu: 291 ng/g
Zn: 57 ug/g	cZn: 627 ug	eZn: 129 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

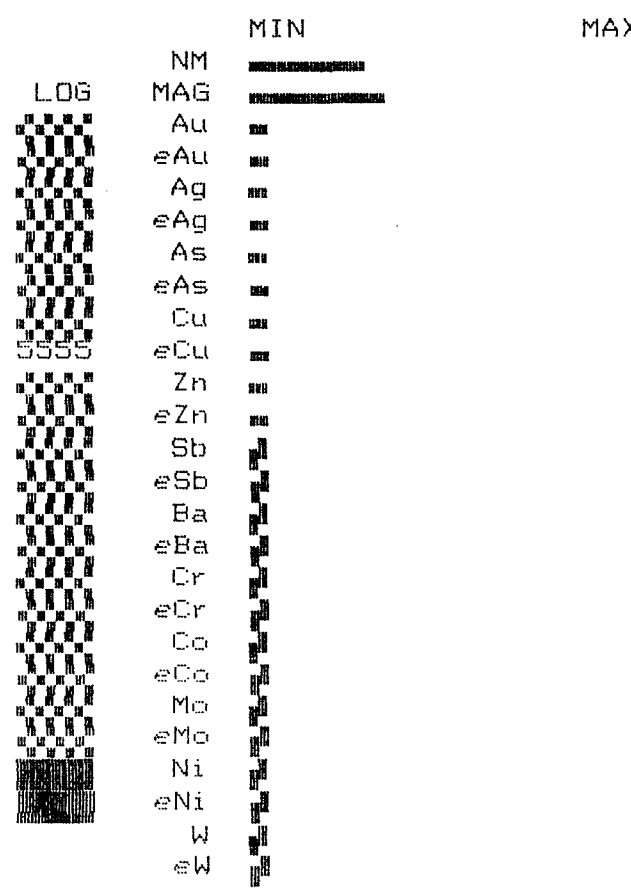
DEPARTURE (X) 37.75 LATITUDE (Y) 0 ELEVATION (Z) 0

06-7

FROM 60 TO 65 TYPE 60 SS 10 BEDROCK 145

mg/kg NON MAG 3345 mg/kg MAG 1825 VG PYRITE 3.1 30

Table with 3 columns: Element, Concentration (NON MAG), Concentration (MAG), and Concentration (VG PYRITE). Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W.



EC-86-126

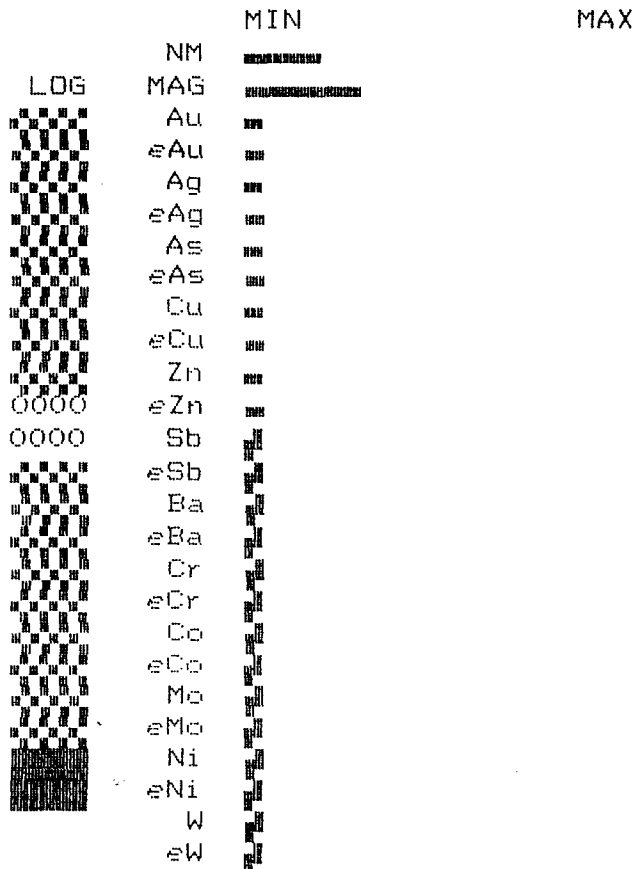
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 37.78 0 0

08

FROM TO TYPE SS BEDROCK  
 75 85 60 10 145

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2250 1583 0 0

Au: 15 ng/g	cAu: 162 ng	eAu: 34 pg/g
Ag: .05 ug/g	cAg: .5 ug	eAg: .1 ng/g
As: 10 ug/g	cAs: 108 ug	eAs: 23 ng/g
Cu: 9 ug/g	cCu: 97 ug	eCu: 20 ng/g
Zn: 12 ug/g	cZn: 130 ug	eZn: 27 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

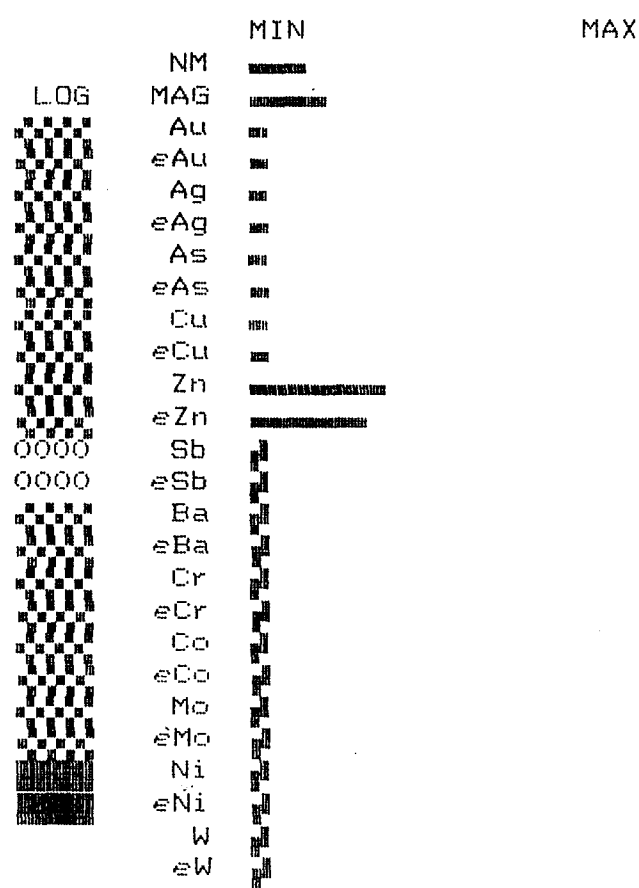
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
37.75 0 0

09

FROM TO TYPE SS BEDROCK  
85 94 60 10 145

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
1765 1014 0 0

Au: 75 ng/g	cAu: 705 ng	eAu: 132 pg/g
Ag: .05 ug/g	cAg: .5 ug	eAg: .1 ng/g
As: 3 ug/g	cAs: 28 ug	eAs: 5 ng/g
Cu: 62 ug/g	cCu: 583 ug	eCu: 109 ng/g
Zn: 294 ug/g	cZn: 2764 ug	eZn: 519 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

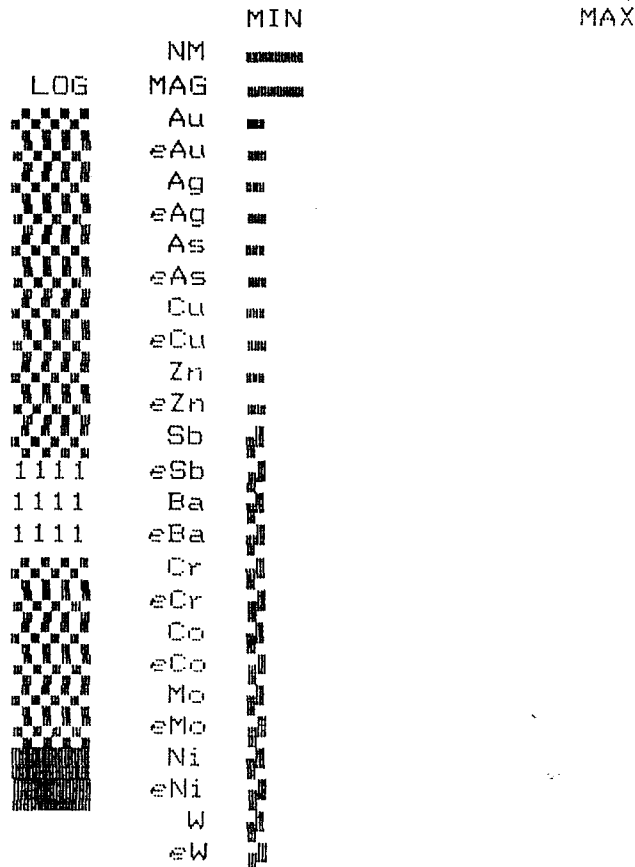
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
37.78 0 0

10

FROM TO TYPE SS BEDROCK  
94 105 80 10 145

mg/kg NON MAG mg/kg MAG VG MIN#2  
1558 900 1.4 0

Au: 1240 ng/g	cAu: 11160 ng	eAu: 1932 pg/g
Ag: .3 ug/g	cAg: 2.7 ug	eAg: .5 ng/g
As: 1 ug/g	cAs: 9 ug	eAs: 2 ng/g
Cu: 25 ug/g	cCu: 225 ug	eCu: 39 ng/g
Zn: 26 ug/g	cZn: 234 ug	eZn: 41 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

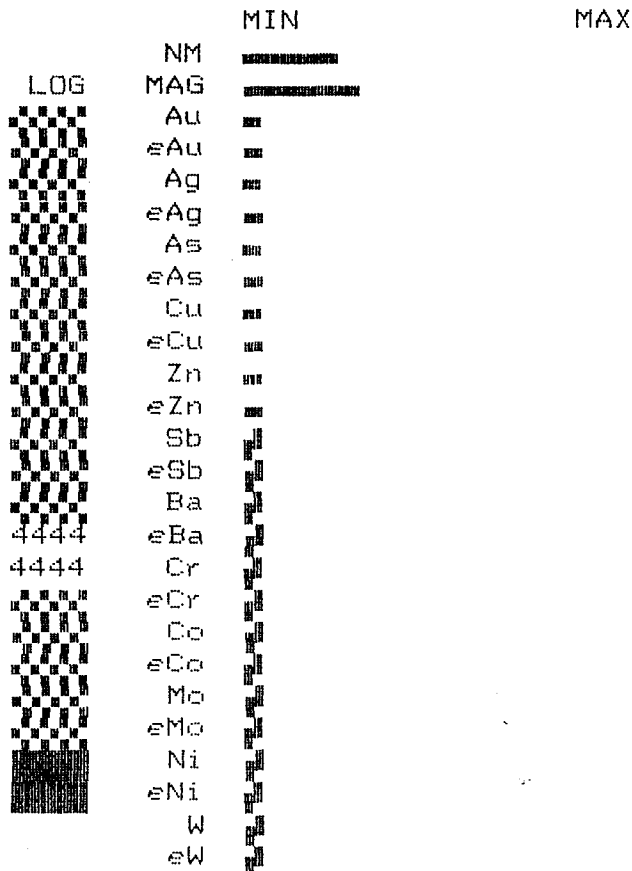
DEPARTURE (X)    LATITUDE (Y)    ELEVATION (Z)  
 37.75                            0                            0

1 1

FROM            TO    TYPE    SS    BEDROCK  
 105            115    60    10    145

mg/kg NON MAG    mg/kg MAG            VG    MIN#2  
 2703            1423            5.8    0

Au: 200 ng/g	cAu: 3000 ng	eAu: 541 pg/g
Ag: .1 ug/g	cAg: 1.5 ug	eAg: .3 ng/g
As: 8 ug/g	cAs: 120 ug	eAs: 22 ng/g
Cu: 89 ug/g	cCu: 1335 ug	eCu: 241 ng/g
Zn: 18 ug/g	cZn: 270 ug	eZn: 49 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

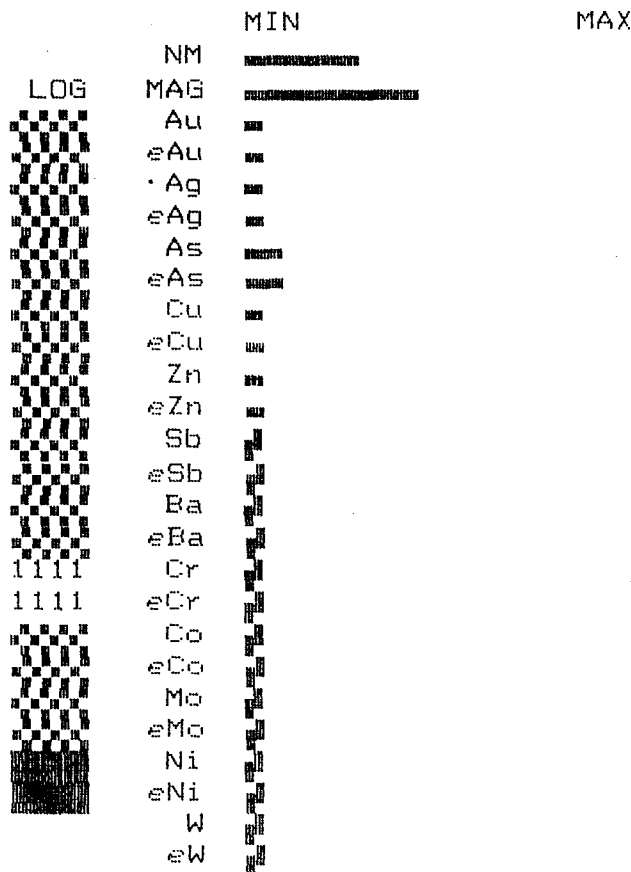
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
37.78 0 0

12

FROM TO TYPE SS BEDROCK  
115 120 80 10 145

mg/kg NON MAG mg/kg MAG VG MIN#2  
3111 2222 1.5 0

Au: 355 ng/g	cAu: 5964 ng	eAu: 1104 pg/g
Ag: .6 ug/g	cAg: 10.1 ug	eAg: 1.9 ng/g
As: 85 ug/g	cAs: 1428 ug	eAs: 264 ng/g
Cu: 158 ug/g	cCu: 2654 ug	eCu: 492 ng/g
Zn: 49 ug/g	cZn: 823 ug	eZn: 152 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 37.78 0 0

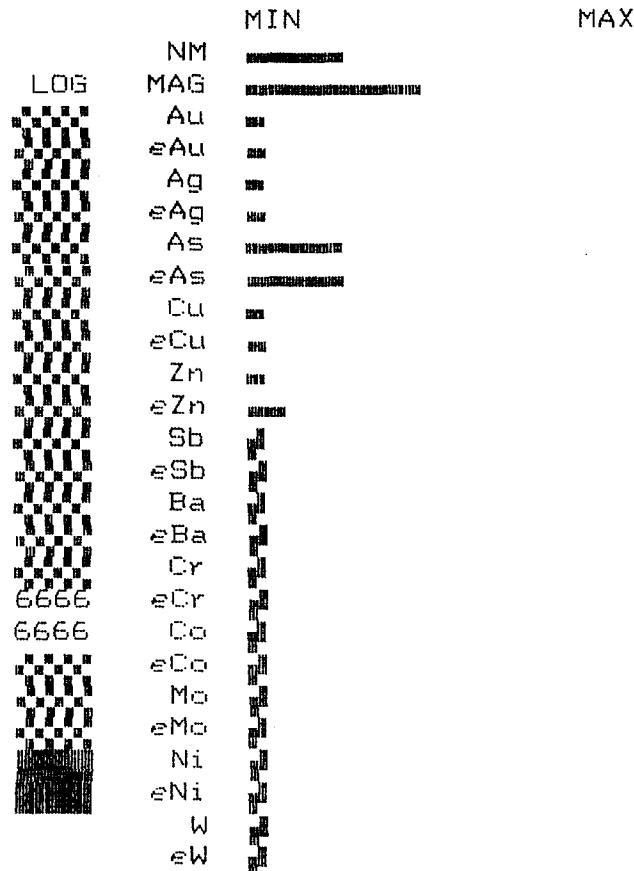
13

FROM TO TYPE SS BEDROCK  
 120 125 80 10 145

10% PYRITE

mg/kg NON MAG mg/kg MAG VG ASPY  
 2937 2288 8.6 20

Au: 40 ng/g	cAu: 652 ng	eAu: 117 pg/g
Ag: .7 ug/g	cAg: 11.4 ug	eAg: 2.1 ng/g
As: 185 ug/g	cAs: 3015 ug	eAs: 543 ng/g
Cu: 323 ug/g	cCu: 5265 ug	eCu: 949 ng/g
Zn: 70 ug/g	cZn: 1141 ug	eZn: 206 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-126

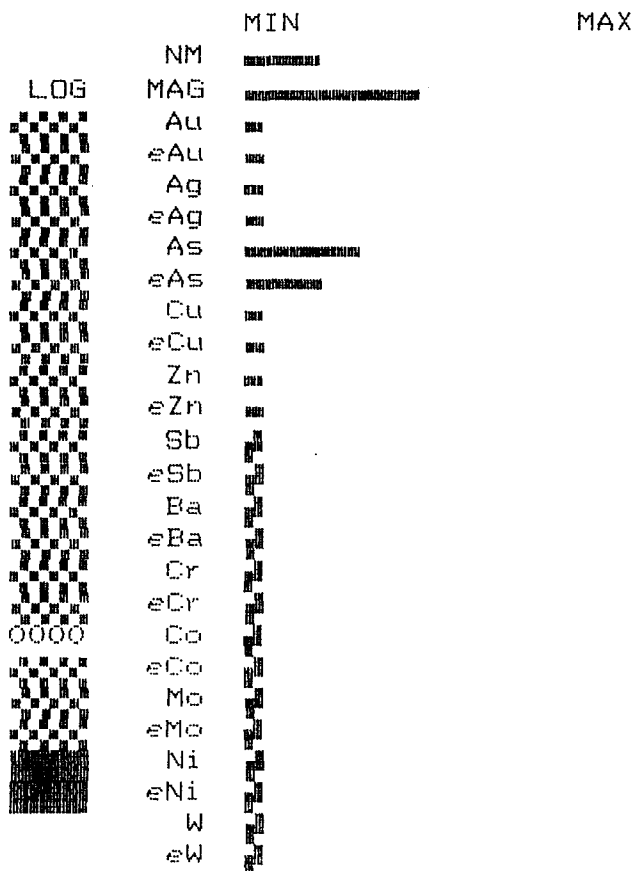
DEPARTURE (X)    LATITUDE (Y)    ELEVATION (Z)  
 37.75                            0                            0

14

FROM            TO    TYPE    SS    BEDROCK  
 125            130    80    10    145

mg/kg NON MAG    mg/kg MAG    MIN#1    MIN#2  
                  2283                   2192                   0                   0

Au: 140 ng/g	cAu: 1750 ng	eAu: 320 pg/g
Ag: .9 ug/g	cAg: 11.3 ug	eAg: 2.1 ng/g
As: 196 ug/g	cAs: 2450 ug	eAs: 447 ng/g
Cu: 268 ug/g	cCu: 3350 ug	eCu: 612 ng/g
Zn: 58 ug/g	cZn: 725 ug	eZn: 132 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

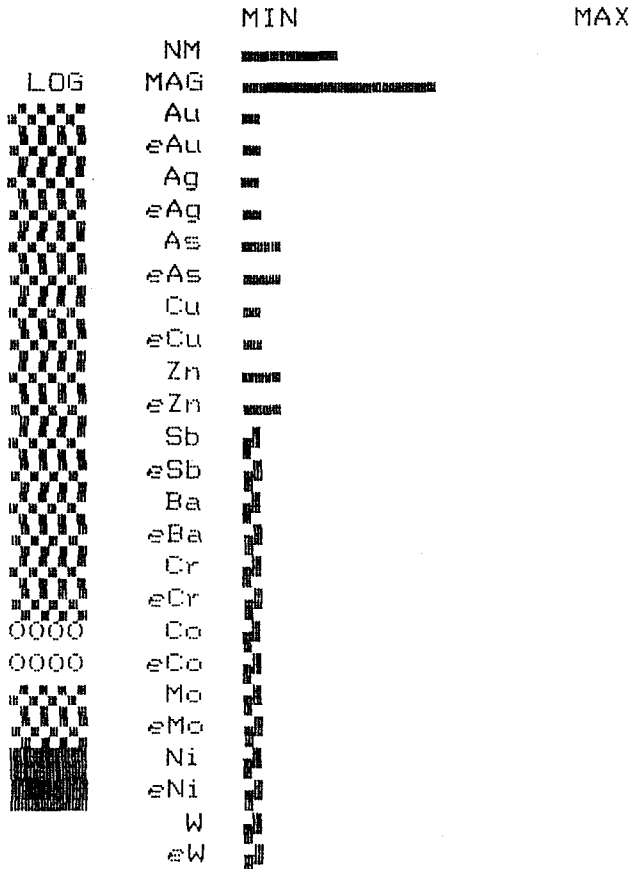
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 37.75 0 0

15

FROM TO TYPE SS BEDROCK  
 130 135 80 10 145

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3042 2375 0 0

Au: 20 ng/g	cAu: 292 ng	eAu: 61 pg/g
Ag: .5 ug/g	cAg: 7.3 ug	eAg: 1.5 ng/g
As: 75 ug/g	cAs: 1095 ug	eAs: 228 ng/g
Cu: 256 ug/g	cCu: 3738 ug	eCu: 779 ng/g
Zn: 86 ug/g	cZn: 1256 ug	eZn: 262 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
37.78 0 0

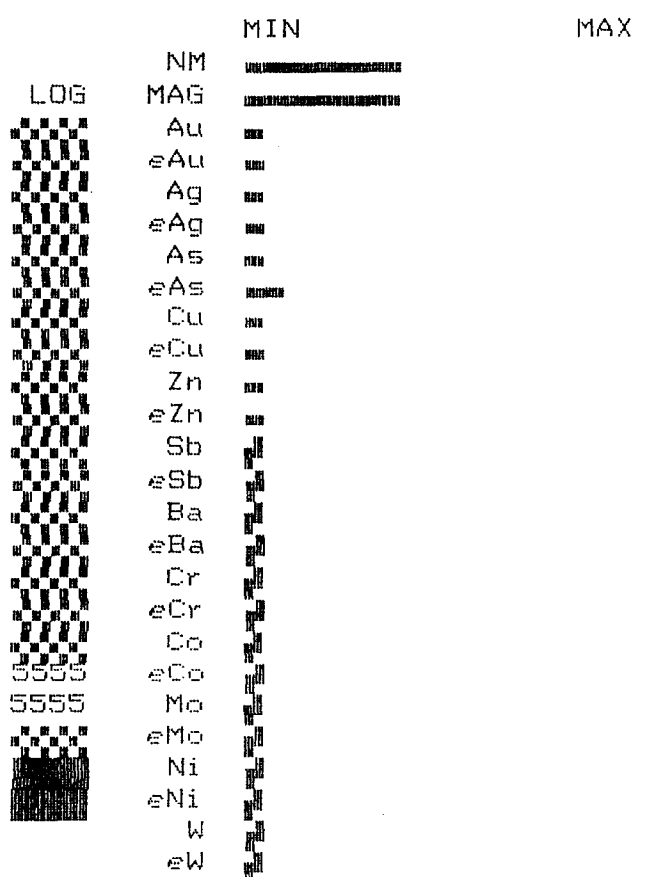
16

FROM TO TYPE SS BEDROCK  
135 140 80 20 145

15% PYRITE

mg/kg NON MAG mg/kg MAG VG MIN#2  
4521 1937 8.3 0

Au: 800 ng/g	cAu: 17360 ng	eAu: 3617 pg/g
Ag: .3 ug/g	cAg: 6.5 ug	eAg: 1.4 ng/g
As: 58 ug/g	cAs: 1259 ug	eAs: 262 ng/g
Cu: 189 ug/g	cCu: 4101 ug	eCu: 854 ng/g
Zn: 41 ug/g	cZn: 890 ug	eZn: 185 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-126

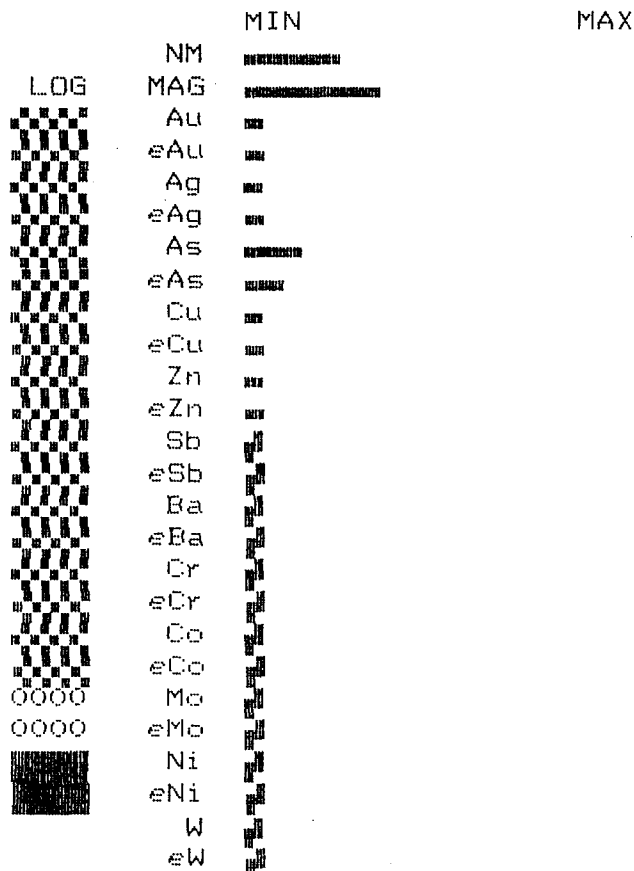
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
 37.75 0 0

17

FROM TO TYPE SS BEDROCK  
 140 145 80 20 145

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 2647 1711 0 0

Au: 60 ng/g	cAu: 798 ng	eAu: 159 pg/g
Ag: .7 ug/g	cAg: 9.3 ug	eAg: 1.9 ng/g
As: 107 ug/g	cAs: 1423 ug	eAs: 283 ng/g
Cu: 236 ug/g	cCu: 3139 ug	eCu: 625 ng/g
Zn: 50 ug/g	cZn: 665 ug	eZn: 132 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-141

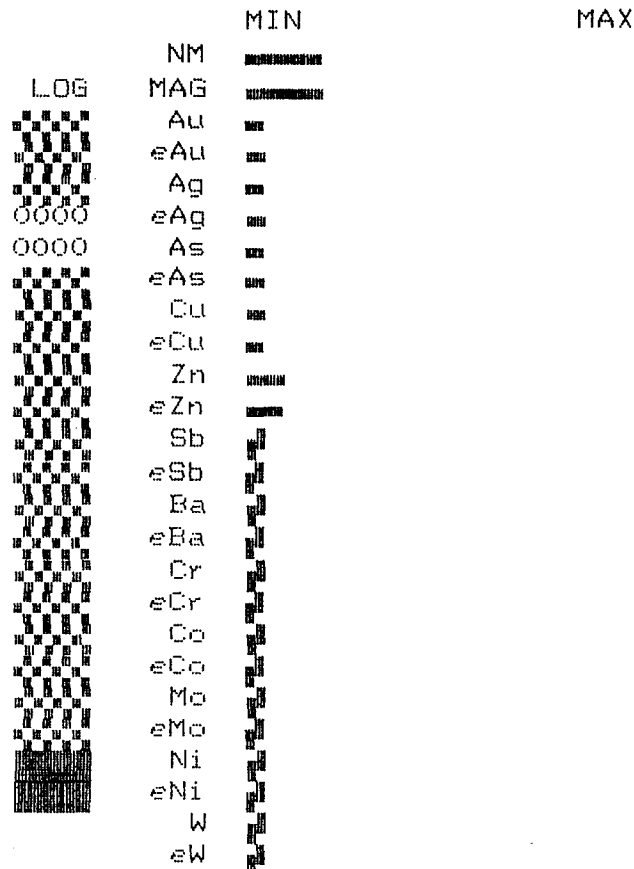
DEPARTURE (X) 27 LATITUDE (Y) 6.75 ELEVATION (Z) 0

01

FROM 19 TO 21 TYPE 60 SS 10 BEDROCK 77

mg/kg NON MAG 2418 mg/kg MAG 1085 MIN#1 0 MIN#2 0

Table with 3 columns: Element, Concentration (ng/g or ug/g), and Unit. Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' forms.



EC-86-141

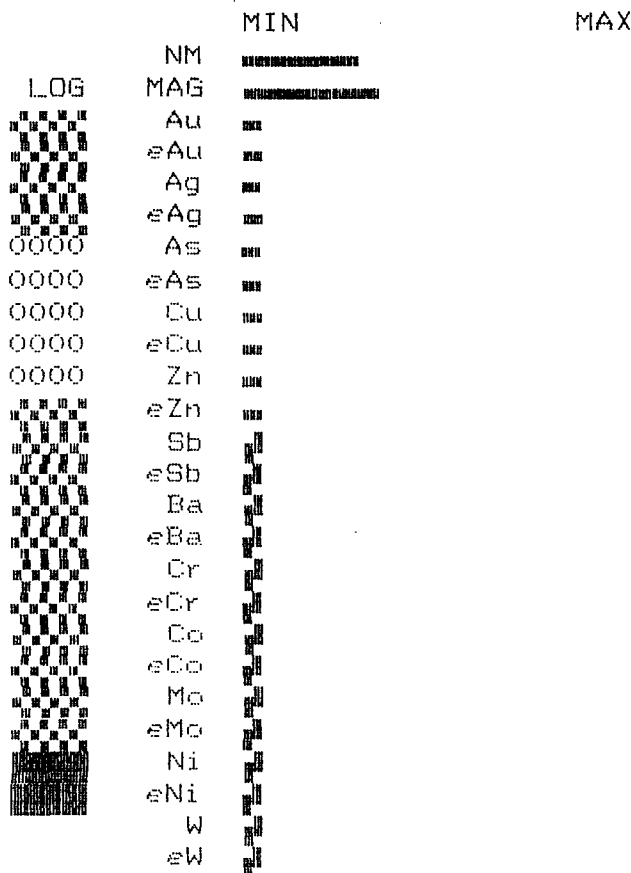
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 27 6.75 0

02

FROM TO TYPE SS BEDROCK  
 21 35 60 10 77

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3056 1785 0 0

Au: 10 ng/g	cAu: 149 ng	eAu: 31 pg/g
Ag: .4 ug/g	cAg: 6 ug	eAg: 1.2 ng/g
As: 36 ug/g	cAs: 536 ug	eAs: 110 ng/g
Cu: 146 ug/g	cCu: 2175 ug	eCu: 446 ng/g
Zn: 56 ug/g	cZn: 834 ug	eZn: 171 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-141

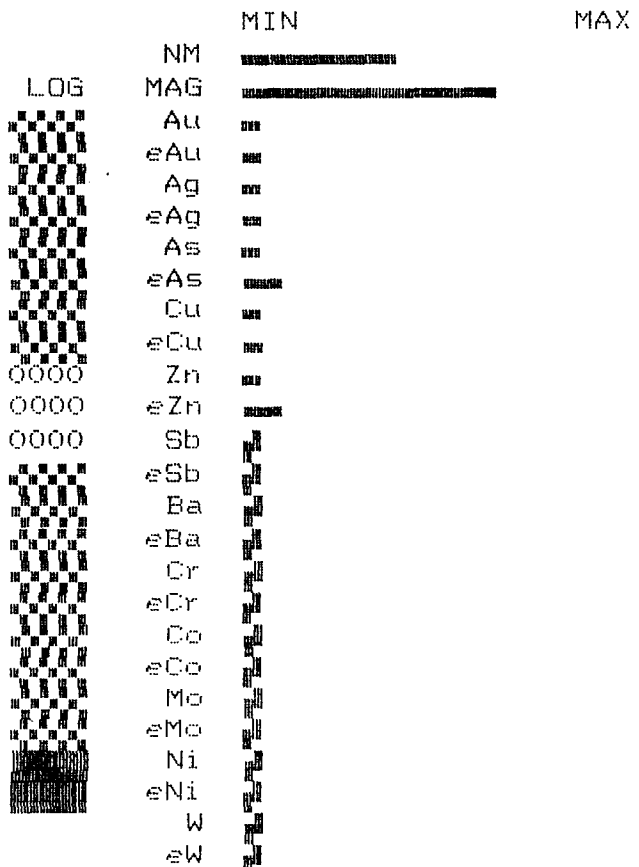
DEPARTURE (X) 27 LATITUDE (Y) 6.75 ELEVATION (Z) 0

03

FROM 35 TO 45 TYPE 60 SS 10 BEDROCK 77

mg/kg NON MAG 4148 mg/kg MAG 3052 MIN#1 0 MIN#2 0

Au: 130 ng/g	cAu: 1820 ng	eAu: 539 pg/g
Ag: .6 ug/g	cAg: 8.4 ug	eAg: 2.5 ng/g
As: 48 ug/g	cAs: 672 ug	eAs: 199 ng/g
Cu: 197 ug/g	cCu: 2758 ug	eCu: 917 ng/g
Zn: 54 ug/g	cZn: 756 ug	eZn: 224 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g



EC-86-141

DEPARTURE (X) 27 LATITUDE (Y) 6.75 ELEVATION (Z) 0

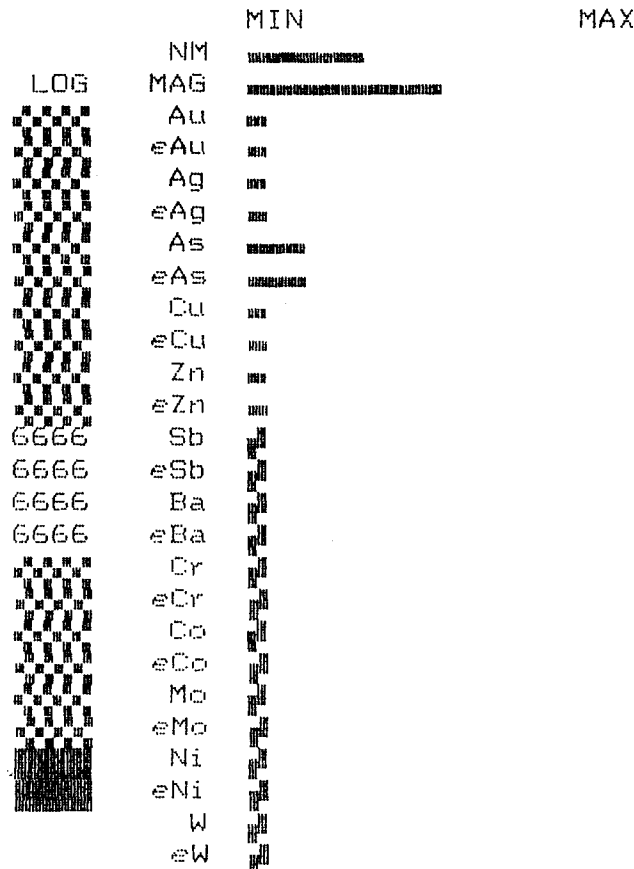
04

FROM 45 TO 55 TYPE 60 SS 10 BEDROCK 77

10% PYRITE 1/2% ASPY

mg/kg NON MAG 3074 mg/kg MAG 2333 VG 8.9 MIN#2 0

Table with 3 columns: Element, Concentration (ng/g or ug/g), and Element, Concentration (pg/g or ug/g). Rows include Au, Ag, As, Cu, Zn, Sb, Ba, Cr, Co, Mo, Ni, W and their corresponding 'c' and 'e' values.







EC-86-141

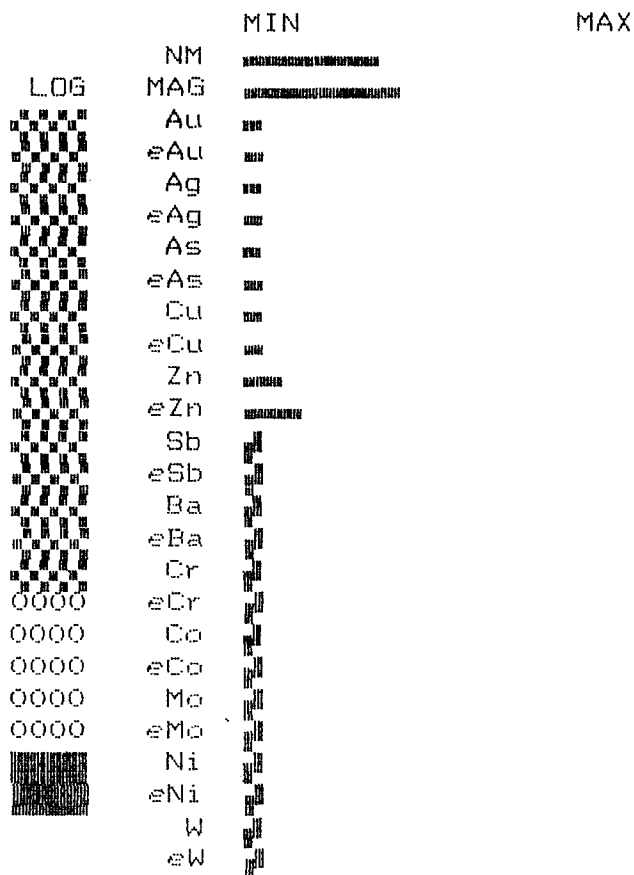
DEPARTURE(X) LATITUDE(Y) ELEVATION(Z)  
 27 6.75 0

06

FROM TO TYPE SS BEDROCK  
 65 77 80 20 77

mg/kg NON MAG mg/kg MAG MIN#1 MIN#2  
 3604 1937 0 0

Au: 5 ng/g	cAu: 87 ng	eAu: 18 pg/g
Ag: .3 ug/g	cAg: 5.2 ug	eAg: 1.1 ng/g
As: 54 ug/g	cAs: 934 ug	eAs: 195 ng/g
Cu: 177 ug/g	cCu: 3062 ug	eCu: 638 ng/g
Zn: 95 ug/g	cZn: 1643 ug	eZn: 342 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





EC-86-142

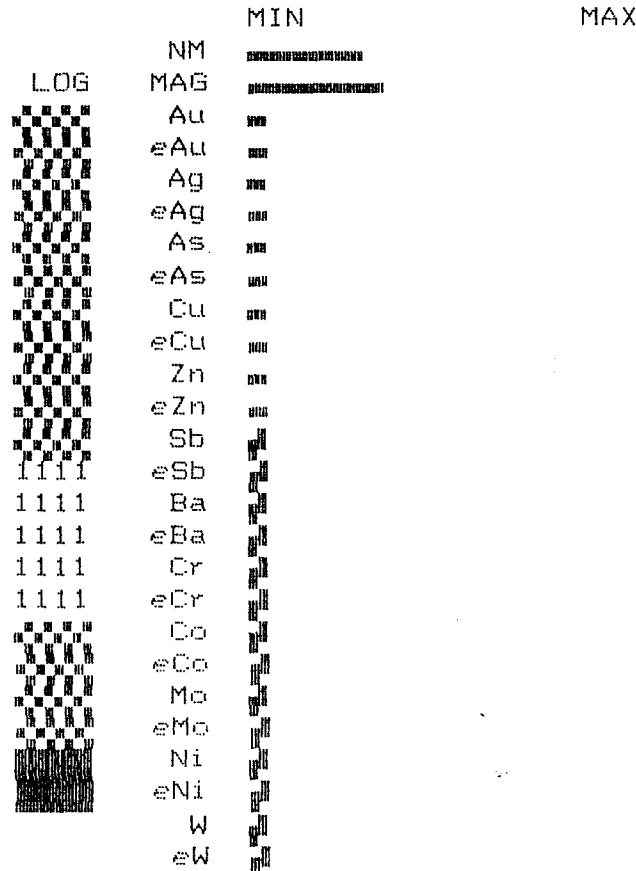
DEPARTURE (X) LATITUDE (Y) ELEVATION (Z)  
-27 8 0

02

FROM TO TYPE SS BEDROCK  
35 45 60 10 56

mg/kg NON MAG mg/kg MAG VG MIN#2  
3118 1849 1.7 0

Au: 250 ng/g	cAu: 3625 ng	eAu: 780 pg/g
Ag: .05 ug/g	cAg: .7 ug	eAg: .2 ng/g
As: 7 ug/g	cAs: 102 ug	eAs: 22 ng/g
Cu: 48 ug/g	cCu: 696 ug	eCu: 150 ng/g
Zn: 18 ug/g	cZn: 261 ug	eZn: 56 ng/g
Sb: 0 ug/g	cSb: 0 ug	eSb: 0 ng/g
Ba: 0 ug/g	cBa: 0 ug	eBa: 0 ng/g
Cr: 0 ug/g	cCr: 0 ug	eCr: 0 ng/g
Co: 0 ug/g	cCo: 0 ug	eCo: 0 ng/g
Mo: 0 ug/g	cMo: 0 ug	eMo: 0 ng/g
Ni: 0 ug/g	cNi: 0 ug	eNi: 0 ng/g
W: 0 ug/g	cW: 0 ug	eW: 0 ng/g





APPENDIX E

Report: Petrographic Analyses

BAR

856

PETROGRAPHIC REPORT  
ON "EC-86"  
DRILL CHIP SAMPLES  
FOR MPH TORONTO  
BY  
J.S. GETSINGER, Ph.D.

Sept. 16, 1986



## PETROGRAPHIC REPORT

by J.S. Getsinger, PhD *J.S. Getsinger*

For MPH - Toronto Date August 1986  
Project V99-TO-EC Collector \_\_\_\_\_  
Sample EC-86-02-04 Date Collected 1986

Rock Type: Actinolitic hornblende amphibolite

Hand Specimen: Drill chips up to 1 cm. Looks like amphibolite. Dark greenish-grey crystalline rock with prismatic crystal grains <0.5 by 2 mm in random metamorphic(?) texture. Minor disseminated pyrite (<1%). Local reaction of white vein mineral in HCl. Possibly weakly foliated.

Thin Section (Polished No):

<u>% (Approx.)</u>	<u>Minerals</u>
25-40%	Actinolitic Hornblende: $Z'$ to C = $10^\circ$ ; X = pale yellow, Y = green, Z = bluish green, (Z = Y>X); (-)2V = $75-85^\circ$ . Birefringence = 0.023. Radiating prismatic, idiomorphic to subidiomorphic grains in mainly random pattern with some orientation.
10%	Plagioclase Feldspar(?): Low birefringence, low relief, untwinned, with quartz.
<2%	Biotite: Reddish-brown.
10-20%	Chlorite: Low birefringence, parallel extinction, yellow to green pleochroism.
Trace	Epidote: (?) yellow pleochroism, medium-high relief.
2-3%	Opaques: Fine-grained, finely disseminated.
5-20%	Quartz: As veins and fine-grained aggregates.
<5%	Calcite: As late alteration on veins.

Rock Textures/Structures: Weak metamorphic foliation and compositional layering, but mostly random recrystallization of hornblende.

Protolith: Calc-silicate volcanoclastic or volcanic.

Alteration/Mineralization: Finely disseminated opaques are pyrite (in part).

Conditions of Formation: Metamorphism to epidote-amphibolite or amphibolite facies.





PETROGRAPHIC REPORT

by J.S. Getsinger, PhD *J. S. Getsinger*

For MPH - Toronto Date August 1986  
 Project V99-TO-EC Collector \_\_\_\_\_  
 Sample EC-86-04-02 Date Collected 1986

Rock Type: Volcanics and volcanoclastics

Hand Specimen: Drill chips up to 1 cm. Medium-grey, fine-grained with sparse pyrite associated with calcite veins. Local reaction to HCl. Locally magnetic: pyrrhotite and/or magnetite.

Thin Section (Polished No):

<u>% (Approx.)</u>	<u>Minerals</u>
30%	Plagioclase: Euhedral laths with common Carlsbad and some albite twins, saussuritized, maybe partly replaced by clinozoisite.
2-5%	Opagues: Finely disseminated; pyrite, pyrrhotite(?), magnetite(?).
65-70%	Groundmass: Fine-grained quartz(?), feldspar, opaque dust, calcite, sericite.
	(5%) Chlorite: Pale green pleochroic, possibly replacing former mafic minerals.

Veins:

80% Calcite.  
 15% Quartz.  
 Local Tourmaline: E = pale brown, O = bluish green to olive brown; O>E.  
 Muscovite: Colourless, high birefringent mica.  
 Chlorite.

Rock Textures/Structures: Original porphyritic volcanic texture is superimposed by carbonate ± silica alteration.

Protolith: Felsic to intermediate volcanic or crystal tuff.

Alteration/Mineralization: Disseminated sulphides ± magnetite; carbonate veins and alteration; silicification(?); tourmaline in carbonate veins.

Conditions of Formation: Volcanic origin with later carbonate/quartz vein alteration.



PETROGRAPHIC REPORT

by J.S. Getsinger, PhD J.S. Getsinger

For MPH - Toronto Date August 1986  
 Project V99-TO-EC Collector \_\_\_\_\_  
 Sample EC-86-10-08 Date Collected 1986

Rock Type: Hornblende amphibolite, calc-silicate, and quartz-biotite schist

Hand Specimen: Drill chips up to 1 cm. Dark greenish-grey amphibolite. Grain size <0.5 to 1 or 2 mm, 80%. Calcite vein material, reacts strongly in HCl, 10%. Lighter green, possibly calc-silicate rock, and minor quartz-mica schist, 10%. Rare grains of pyrite and/or pyrrhotite are weakly magnetic.

Thin Section (Polished No):

% (Approx.)	Minerals
-------------	----------

Amphibolite:

- 35-50% Hornblende: Subhedral, elongate prismatic amphibole. X = yellow, Y = green, Z = bluish-green, Z = Y>X; Z' to C = 16°; birefringence = 0.025; (-)2V = 80-85%, r>v.
- <5% Epidote: Replaces hornblende.
- 5% Biotite: Red-brown.
- 5-10% Chlorite: Replaces biotite or hornblende.
- 2% Opaques, finely disseminated.
- 10%(?) Plagioclase: (?).
- 10-15% Quartz: Interstitial.
- <5% Calcite: In veins.

Quartz-Biotite Schist:	
30-40%	Biotite, red-brown.
15-25%	Chlorite, after biotite.
5%	Epidote.
25-30%	Quartz ± feldspar.
2-3%	Opaques, finely disseminated.
Textures: Weakly foliated chlorite replaces biotite.	

Rock Textures/Structures: Somewhat foliated. Minerals are metamorphic.

Protolith: Mafic volcanic or volcanoclastic, or marl.

Alteration/Mineralization: Disseminated sulphides(?); calcite veins.

Conditions of Formation: Metamorphism to amphibolite facies.



## PETROGRAPHIC REPORT

by J.S. Getsinger, PhD

J.S. Getsinger

For MPH - Toronto Date August 1986  
Project V99-TO-EC Collector \_\_\_\_\_  
Sample EC-86-18-02 Date Collected 1986

Rock Type: Calcite-altered cherty tuff or calc-silicate sedimentary sequence

Lithochemistry: ICP: Ca, 5.41% (approximately); Fe, 8.34%; 2250 ppm Mn

Hand Specimen: Drill chips up to 1 cm. Medium-greenish grey, fine-grained. Reacts actively in HCl. Finely foliated. Abundant, tiny (0.1 mm?), light-coloured cleavage faces. Some calcite veinlets.

Thin Section (Polished No):

<u>% (Approx.)</u>	<u>Minerals</u>
(Proportions vary due to compositional layering(?) in rock.)	
30-50%	Quartz: Fine-grained mosaic.
30%	Calcite: Uniaxial(-), fizzes in HCl; locally pseudomorphs feldspar?
10-20%	Chlorite: Pale green pleochroic to darker green.
<5%	Muscovite/sericite.
Trace	Feldspar: Relict blocky grains.
2-3%	Opaques: Finely disseminated.

Rock Textures/Structures: Compositional layering, moderate foliation; replacement textures.

Protolith: Cherty tuff or marly sediment.

Alteration/Mineralization: Disseminated sulphides. Extensive carbonate alteration.

Conditions of Formation: Deposition in volcanic/sedimentary environment, followed by metamorphism, possibly deformation.



## PETROGRAPHIC REPORT

by J.S. Getsinger, PhD

J.S. Getsinger

For MPH - Toronto Date August 1986  
Project V99-TO-EC Collector \_\_\_\_\_  
Sample EC-86-22-08 Date Collected 1986

Rock Type: Chloritic phyllite and greenstone

Hand Specimen: Drill chips up to 1.5 cm. Fine-grained, greyish-green, foliated rock with small vugs (<1 mm). Texture is somewhat like phyllite, with micaceous cleavage. Sample does not react in HCl. Finely disseminated pyrite(?) is visible in some places.

Thin Section (Polished No):

<u>% (Approx.)</u>	<u>Minerals</u>
45-55%	Quartz: Fine-grained, mosaic.
30-40%	Chlorite: Pale green, dark green locally.
<5%	Sericite: After feldspar(?).
<5%	Carbonate: After feldspar(?).
Trace	Feldspar(?): Untwinned.
5-10%	Opagues, finely disseminated, including dark brown alteration products (hematite?), goethite).
Trace	Epidote.

Rock Textures/Structures: Compositional layering, foliation defined by chlorite.

Protolith: Probably volcanoclastic, volcanic greywacke to siltstone.

Alteration/Mineralization: Finely disseminated pyrite(?).

Conditions of Formation: Metamorphism to low greenschist facies of originally sedimentary or tuffaceous rock.



## PETROGRAPHIC REPORT

by J.S. Getsinger, PhD J.S. Getsinger

For MPH - Toronto Date August 1986  
Project V99-TO-EC Collector \_\_\_\_\_  
Sample EC-86-35-04 Date Collected 1986

Rock Type: Altered volcanics with sulphides; chert

Lithochemistry: ICP: 30 ppm As, 3.5 ppm Cd, 10.33% Fe, 2532 ppm Zn (indicates possible sphalerite)

Hand Specimen: Drill chips up to 2 cm. About 25% of grains are magnetic. Rock is fine-grained, light grey, with up to 10-15% sulphides - pyrite, pyrrhotite(?), (?) (black metallic, non-magnetic). Some vuggy sulphide textures. No reaction to HCl. Quartz grains up to 2 mm suggest rhyolitic composition.

Thin Section (Polished No):

<u>% (Approx.)</u>	<u>Minerals</u>
1 Grain	Massive pyrite/pyrrhotite(?) with interstitial pale chlorite.
2 Grains	Chert(?): Fine-grained quartz mosaic, with minor carbonate.
<u>Rest</u>	Altered volcanic or tuffaceous rock.
10-15%	Opagues: Disseminated, anhedral.
15-20%	Feldspar laths, altered to fine-grained aggregate of saussurite(?) (calcite ± epidote ± sericite).
10-20%	Chlorite(?): Low birefringence, very pale green phyllosilicate.
<5%	Clinopyroxene phenocrysts(?), altered.
<5%	Sericite ± clay minerals.
Trace	Calcite and/or Sphene.
5-10%	Quartz: Very fine-grained, in groundmass.
20-30%	Brownish alteration product, fine-grained, covers most of groundmass; may be from devitrified glass.

Rock Textures/Structures: Previously porphyritic volcanic texture is nearly obliterated by alteration.

Protolith: Felsic volcanic or volcanoclastic.

Alteration/Mineralization: Rock is completely saussuritized(?), or altered to fine-grained, high relief, feldspar replacement minerals.

Conditions of Formation: Volcanic/sedimentary environment of deposition. Hydrothermal alteration.



## PETROGRAPHIC REPORT

by J.S. Getsinger, PhD J. S. Getsinger

For MPH - Toronto Date August 1986  
Project V99-TO-EC Collector \_\_\_\_\_  
Sample EC-86-36-03 Date Collected 1986

Rock Type: Meta-ultramafic.

Lithochemistry: ICP: 635 ppm Cr, 5.61% Fe, 4.70% Mg, 276 ppm Ni.

Hand Specimen: Drill chips up to 6 mm. Light to medium greenish-grey grains. Non-magnetic. Soft (H<2.5) locally. No reaction in HCl. Grain size: approximately 1 mm or less; some grains show elongate cleavage faces.

Thin Section (Polished No ):

<u>% (Approx.)</u>	<u>Minerals</u>
5-10%	Carbonate: High birefringence, relief, U(-).
10-15%	Tremolite: Colourless clin amphibole, birefringence to 0.021.
40%	Serpentine(?) and/or Chlorite: Pale green, low birefringence phyllosilicate.
(10-20%)	Pyroxene-Orthopyroxene: Low birefringence, large blocky pseudomorphs, mostly replaced by talc + tremolite + serpentine in semi-bastite like texture.
20-25%	Talc: High birefringent colourless mica, random.
Trace	Clinopyroxene(?).
<2%	Opagues.

Rock Textures/Structures: Previous coarse crystalline granular texture is overprinted by randomly recrystallized metamorphic minerals.

Protolith: Ultramafic such as pyroxenite.

Alteration/Mineralization: Carbonatization(?).

Conditions of Formation: Thermal metamorphism of serpentized ultramafic.



## PETROGRAPHIC REPORT

by J.S. Getsinger, PhD J. S. Getsinger

For MPH - Toronto Date August 1986  
Project V99-TO-EC Collector \_\_\_\_\_  
Sample EC-86-37-04 Date Collected 1986

Rock Type: Metamorphosed mafic to ultramafic rock

Hand Specimen: Drill chips up to 1 cm, various colours. 20% Dark grey, graphitic sericite phyllite, with associated pyrite cubes in rusty aggregates. 80% rust-spotted, light greenish-grey, soft (H<2), fine-grained talc(?) schist. No reaction to HCl; non-magnetic.

Thin Section (Polished No ):

% (Approx.) Minerals

---

20% Graphitic Phyllite:

Opaque dust (25%), quartz (60%), muscovite (10%), feldspar(?).

<5% Massive sulphide/quartz vein.

70% Meta-ultramafic(?):

10% Quartz.  
5-10% Opaques: Disseminated.  
50% Chlorite/Serpentine: Low birefringence, palest green, parallel extinction.  
10-15% Talc(?) and/or Clay Minerals: Higher birefringent, finer grained.  
Trace Sphene.

<5% Amphibolite:

Actinolite: Pale green.

Plagioclase.

Rock Textures/Structures: Metamorphic recrystallization, random.

Protolith: Mafic to ultramafic rock.

Alteration/Mineralization: Metamorphism, serpentinization; disseminated and vein sulphide mineralization; quartz may be secondary.

Conditions of Formation: Low grade thermal metamorphism/hydrothermal alteration.



## PETROGRAPHIC REPORT

by J.S. Getsinger, PhD

J.S. Getsinger

For MPH - Toronto Date August 1986  
Project V99-TO-EC Collector \_\_\_\_\_  
Sample EC-86-44-06 Date Collected 1986

Rock Type: Metamorphosed mafic volcanic(?) rock (amphibolite)

Hand Specimen: Drill chips up to 1 cm. Dark grey, fine-grained, crystalline rock with local calcite veinlets; host rock does not react to HCl. Some chips are graphitic phyllite, with cleavage, possibly from a fault zone. Most look like fine amphibolite.

Thin Section (Polished No ):

<u>% (Approx.)</u>	<u>Minerals</u>
40-60%	Amphibole, actinolitic, radiating; pale bluish-green to yellow.
10-15%	Chlorite.
10%(?)	Quartz.
10-15%	Plagioclase; interstitial to amphibole, poorly twinned.
Trace	Epidote(?).
5-10%	Opaque dust, varying amounts, and finely disseminated grains, probably graphite ± sulphides.

Rock Textures/Structures: Radiating texture of amphibole. Network of graphitic fractures. Local kink-fold postdates amphibole.

Protolith: Mafic volcanic(?) rock, or intrusive.

Alteration/Mineralization: Amphibole replaces former mafic minerals. Opaques may include finely-disseminated sulphides.

Conditions of Formation: Greenschist facies metamorphism.





## PETROGRAPHIC REPORT

by J.S. Getsinger, PhD

*J. S. Getsinger*

For MPH - Toronto Date August 1986  
Project V99-TO-EC Collector \_\_\_\_\_  
Sample EC-86-83-06 Date Collected 1986

Rock Type: Silicic felsic porphyry

Hand Specimen: Drill chips up to 1 cm. Pale grey, finely crystalline, with euhedral feldspar laths up to 3 mm. Finely disseminated pyrite, and common sericite(?). Weak reaction to HCl. Non-magnetic. Feldspar is twinned, and may be plagioclase.

Thin Section (Polished No ):

<u>% (Approx.)</u>	<u>Minerals</u>
20-25%	K-feldspar (Alkali): Euhedral phenocrysts altered to sericite, Carlsbad and tartan twinning.
5%	Plagioclase: Smaller grains, albite twinning, also sericitized.
10-20%	Muscovite ± sericite.
40%	Quartz: Fine-grained mosaic in groundmass.
<5%	Biotite: Olive to brown.
Trace	Epidote.
<1%	Sphene?
<1%	Apatite.
<5%	Calcite.
1%	Opagues: Finely disseminated.

Rock Textures/Structures: Porphyritic texture with alkali feldspar phenocrysts is overprinted by sericite and surrounded by quartz mosaic.

Protolith: Rhyolitic porphyry.

Alteration/Mineralization: Hydrothermal alteration accompanied by some silicification.

Conditions of Formation: Felsic porphyry formed in subabyssal or volcanic environment; hydrothermally altered, silicified.



PETROGRAPHIC REPORT

by J.S. Getsinger, PhD

*J.S. Getsinger*

For MPH - Toronto Date August 1986  
 Project V99-TO-EC Collector \_\_\_\_\_  
 Sample EC-86-92-15B Date Collected 1986

Rock Type: Mixed, including hornblende amphibolite.

Hand Specimen: Drill chips up to 1.5 cm. Greenish-grey, fine to medium-grained crystalline rock with sulphur-yellow clay alteration and sulphides (pyrite, pyrrhotite?) (magnetic in part). Rocks are a variety of altered intrusives and amphibolite.

Thin Section (Polished No):

% (Approx.)	Minerals
10-30%	Hornblende: X = yellow, Y = green, Z = blue-green.
10-15%	Quartz: Mostly fine-grained mosaic. Some in veins.
5-15%	Epidote: Yellow pleochroic; Secondary after mafic minerals, probably phenocrysts.
10-20%	Plagioclase: Albite twinning; small or large grains.
1-2%	Sphene.
10-40%	Biotite: Pale yellow to dark olive green.
<5%	Opagues: Sulphides such as pyrite, pyrrhotite, visible in hand specimen; possible magnetite.

Veins	Quartz-Amphibole: Pale green, actinolitic amphibole in quartz vein material.
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1 Chip	Amphibolite
90%	Hornblende: X = pale yellow, Y = green, Z = blue-green. Zoned paler to darker green. Random texture.
10%	Feldspar ± Quartz: Interstitial.
<1%	Opagues.

Rock Textures/Structures: Compositional variation and weak layering, and possible foliation.

Protolith: Quartz-bearing, mafic calc-silicate sediments or volcanic and/or volcanoclastic rocks.

Alteration/Mineralization: Quartz-amphibole veining; disseminated sulphides.

Conditions of Formation: Metamorphic to upper greenschist/lower amphibolite facies and/or hydrothermal alteration.

6756



# Chemex Labs Ltd.

*Analytical Chemists    Geochemists    Registered Assayers*

212 Brooksbank Ave.  
North Vancouver, B.C.  
Canada V7J 2C1

Phone: (604) 984-0221  
Telex: 043-52597

CERTIFICATE OF ANALYSIS

TO : ROSSBACHER LABORATORY LIMITED  
  
2225 SOUTH SPRINGER AVENUE  
BURNABY, B.C.  
V5B 3N1

CERT. # : A0816905-001-A  
INVOICE # : 13618935  
DATE : 3-SEP-86  
P.O. # : NONE  
CST# :

Semi quantitative multi element ICP analysis.  
Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Co, Cr, Ga, La, Mg, K, Na, Sr, Ti, U and V can only be considered as semi-quantitative.

COMMENTS :

Sample description	Al %	Hg ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Pb ppm	K %	La ppm	Mg %	Mn ppm	Nb ppm	Na %	Ni ppm	Zn ppm	Pb ppm	Sr ppm	Tl %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm			
EC-86-18-02	3.69	0.4	20	20	<0.5	<2	5.41	<0.5	26	48	66	8.34	20	0.08	<10	1.85	2250	<1	<0.01	23	730	26	<10	23	0.04	<10	<10	292	<10	112	--	--
EC-86-35-04	1.85	0.4	30	10	<0.5	<2	0.35	3.5	43	128	146	10.33	<10	0.04	<10	1.35	1375	<1	0.03	53	230	16	<10	2	0.07	<10	<10	120	<10	2522	--	--
EC-86-36-03	3.02	0.2	10	<10	<0.5	<2	0.93	10.5	40	88	70	8.31	10	0.01	<10	4.70	552	<1	0.01	276	260	8	<10	3	0.02	<10	<10	100	<10	34	--	--

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