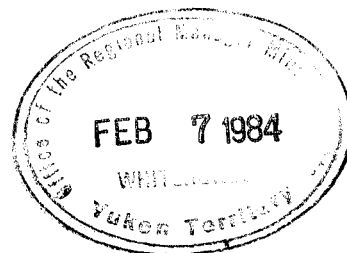


GETTY CANADIAN METALS, LIMITED

CLEAR LAKE DESIGNATED AREA

ASSESSMENT REPORT

---



Title: Diamond Drilling SUE Claims  
Author: D.R. Hawke  
Date: December 1983  
Commodities: Pb-Zn-Ag  
Location: Latitude: 62°49'N  
Longitude: 135°05'W  
Claim Sheet No.: 105L 14

091511

TABLE OF CONTENTS

	<u>Page</u>
Summary and Conclusions .....	1
Claims List .....	1
Location and Access .....	2
Physiography and Climate .....	3
General Geology .....	3
Diamond Drilling .....	4
References .....	5

APPENDICES

Appendix A	-	Statement of Qualifications
Appendix B	-	Diamond drill logs
Appendix C	-	Statement of Expenditures

LIST OF FIGURES

Figure 1	Clear Lake Designated Area Location
Figure 2	Clear Lake Designated Area Claims

### Summary and Conclusions

This report describes the results of diamond drilling that was carried out on the Clear Lake Designated Area claims during September-November 1983.

Two holes were drilled (83-33A and 83-40) to test the down dip continuity of the massive sulphides comprising the Clear Lake deposit. Both holes failed to intersect massive sulphide material. The Clear Lake deposit is situated within the Designated Area claims and is hosted by a series of Devonian-Mississippian argillites, cherts and sandstones. The deposit is similar to other massive sulphides shale hosted Pb-Zn-Ag deposits in the Selwyn Basin.

### Claims List

The Clear Lake Designated area is composed of twenty-one (21) contiguous Yukon Mineral claims as listed in Table 1.

TABLE 1

<u>CLAIM NAME</u>	<u>GRANT NUMBER</u>	<u>DUE DATE</u>
SUE 611	Y81261	December 11, 1988
612	Y81262	December 11, 1988
613	Y81263	December 11, 1988
614	Y81264	December 11, 1988
615	Y81265	December 11, 1988
616	Y81266	December 11, 1988
635	Y81285	December 11, 1985
2010	YA22730	December 11, 1985
2011	YA22731	December 11, 1985
2012	YA22732	December 11, 1985
2013	YA22733	December 11, 1985
2014	YA22734	December 11, 1985
2015	YA22735	December 11, 1985
2018	YA22946	December 11, 1985
2019	YA22947	December 11, 1985
2026	YA22746	December 11, 1985

<u>CLAIM NAME</u>	<u>GRANT NUMBER</u>	<u>DUE DATE</u>
SUE 2028	YA22747	December 11, 1985
3003F	YA59692	December 11, 1985
3004F	YA59693	December 11, 1985
3005F	YA59694	December 11, 1985
3040F	YA61583	December 11, 1985

LOCATION AND ACCESS

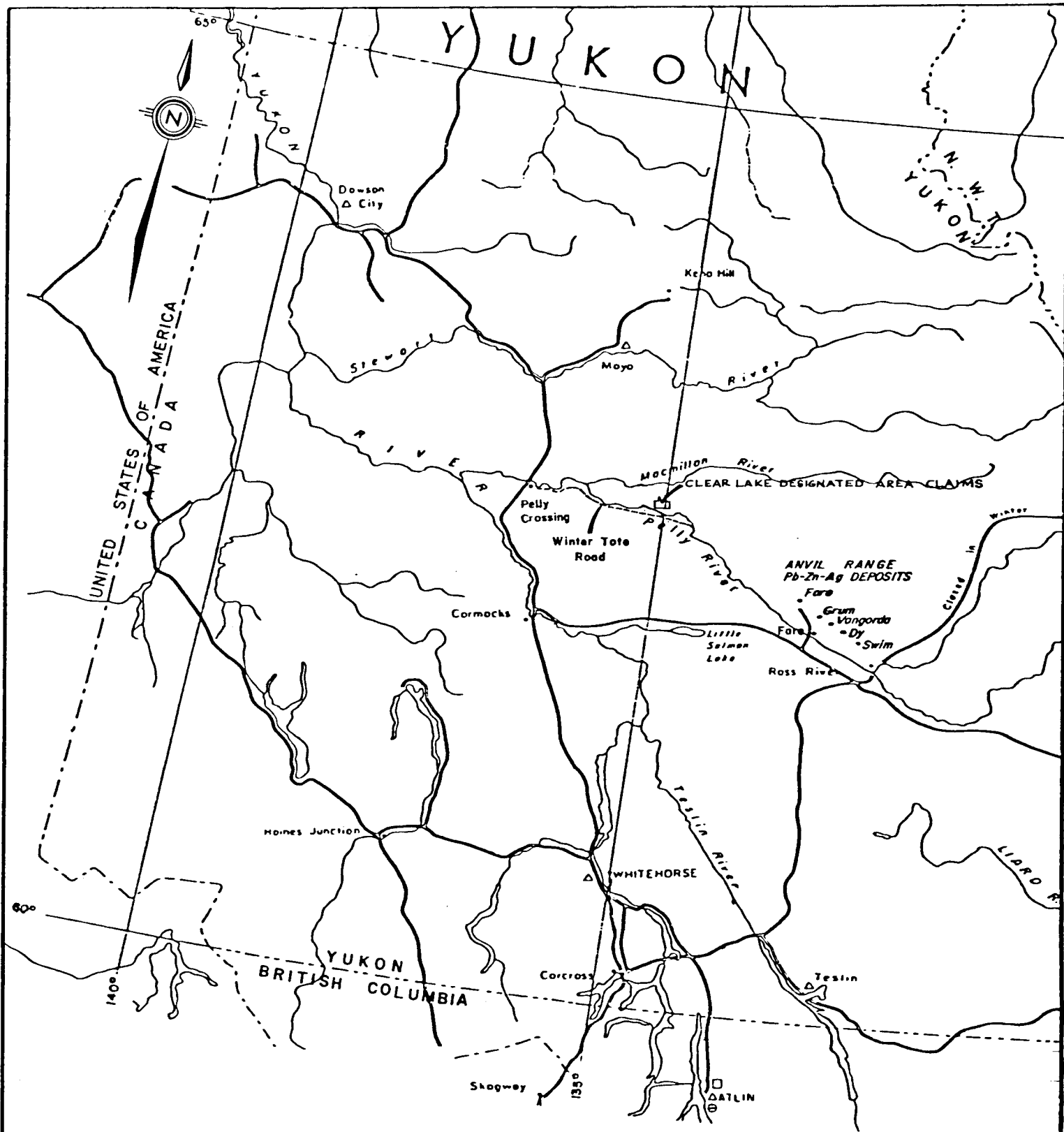
The Clear Lake Designated Area is situated in the southwest part of the claim block held by the MacMillan Joint Venture (figure 1).

The centre of the property is located at approximately  $62^{\circ}49'N$  latitude and  $135^{\circ}05'W$  longitude on the Glenlyon map sheet #105L.

Access to the property can be gained in three ways:

- (a) by fixed wing aircraft from Whitehorse or Minto, distances of 145 and 45 miles respectively.
- (b) by helicopter from a base in Carmacks, 50 miles southwest;  
and
- (c) by a 40 mile winter tote road from Pelly Crossing.

Internal access within the Clear Lake Designated Area is provided by roads suitable for 4-wheel drive vehicles.



**MACMILLAN JOINT VENTURE**  
**CLEAR LAKE DESIGNATED AREA**  
**LOCATION MAP**

DRAWN BY: L. CONNOR	DATE: JAN., 1984
CHECK'D BY: D.R. HAWKE	DRAW'G No.
NTS.	SCALE: 1" to 50 miles.

**Getty Canadian Metals, Ltd.**

Figure: 1

### Physiography and Climate

The claims are situated within a series of gently rolling hills and ridges referred to as the Tummel Basin. Elevations range from 1,760' ASL at Pelly River to 2,400' ASL on the hilltops.

The climate is sub-arctic with long cold winters and short cool summers. Temperatures range from  $-40^{\circ}\text{F}$  to  $80^{\circ}\text{F}$ . Annual precipitation is 20 - 30 inches.

### General Geology

The area of interest is situated along the northwest edge of the Selwyn Basin which is a known region of Pb-Zn-Ag mineralization. The centre of claim group lies approximately 4500 feet south of the Tintina Fault. The Designated Area claims are underlain by a sequence of Devonian-Mississippian argillites, siltstones-sandstones and chert with a small volcanic rock component, which hosts a stratiform, massive sulphide, Pb-Zn-Ag deposit (Clear Lake Deposit). These rocks are mostly covered by up to 100 feet of glacial till; therefore the geology is constructed from diamond drill hole data and geophysical survey information.

The deposit is similar to shale hosted deposits in the MacMillan Pass and Kechika Trough areas of the Selwyn Basin.

Other mapping in the general area was done by R.B. Campbell (1967) while Roddick and Green (1961) and Templeton-Kluit (1972) mapped areas to east and southeast respectively.

## Diamond Drilling

The 1983 diamond drill program on the Designated Areas was carried out by crews from E. Caron Diamond Drilling Ltd. of 7 Roundel Road, Whitehorse, Yukon. The work was done during the period September 11, 1983 to November 11, 1983. All core is stored on the property. Drill logs for holes 83-33A and 83-40 are attached as Appendix B (see figure 2 for location).

A statement of expenditures for this drilling is included in Appendix C.

Hole 83-33A was an extension of hole 83-33 and it was drilled to test the down dip extension of the massive sulphides after a re-interpretation of the data suggested that hole 82-33 may have stopped short of the target. No massive sulphides were intersected in hole 83-33A.

Hole 83-40 was designed as a down dip test of the massive sulphides. This hole failed to intersect any massive sulphide material.

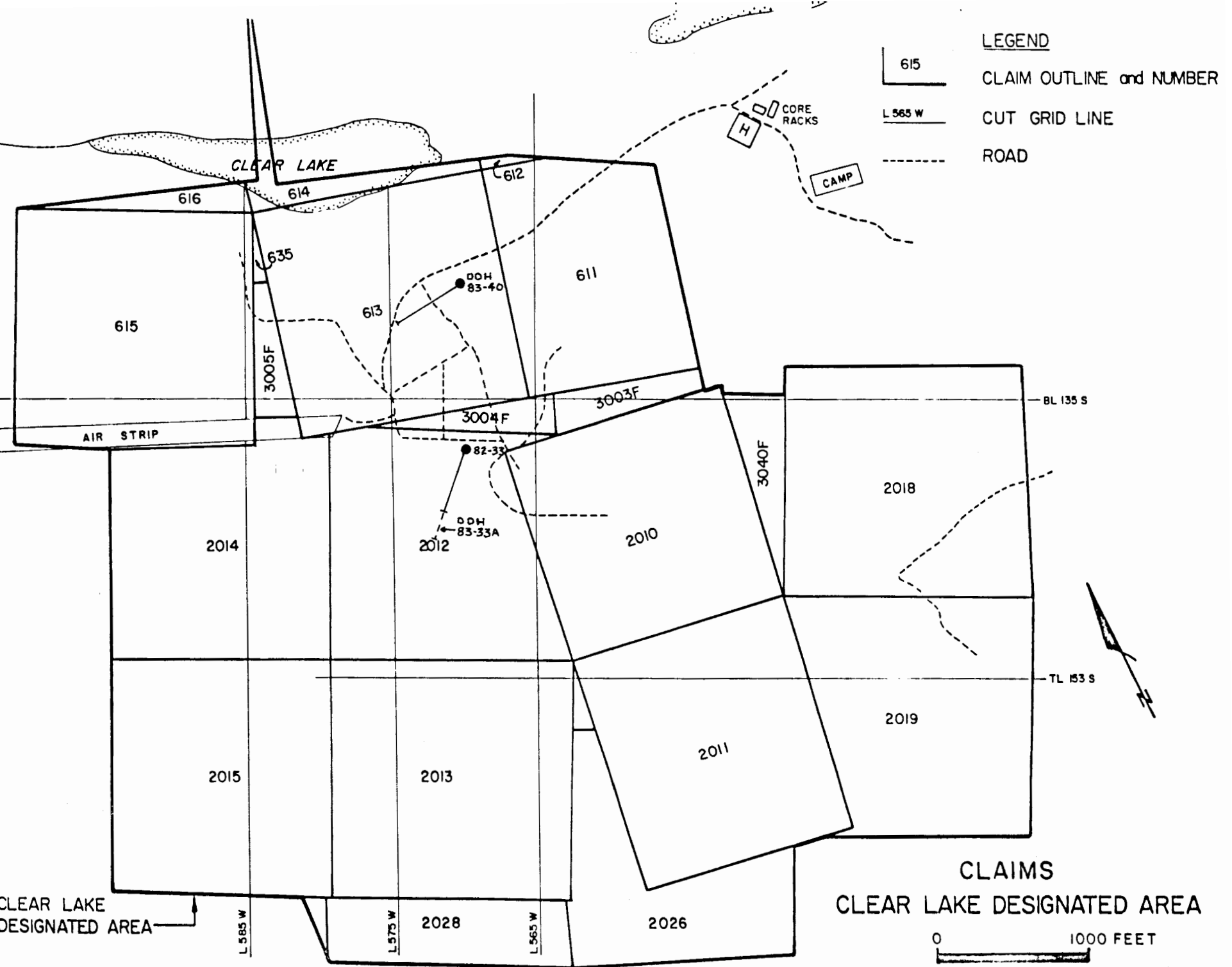


FIGURE: 2

REFERENCES

1. Campbell, R.B. (1967), Geology of Glenlyon Map Area. Yukon Territory (105L); Geol. Survey of Canada, Memoir 352.
2. Roddick, J.A. & Green, L.H., (1961), Tay River, Yukon Territory; Geol. Survey of Canada, Map 13-1961.
3. Templeton-Kluit, D.J. (1972), Geology and Origin of the Faro, Vangorda and Swim Concordant Zinc-Lead Deposits, Central Yukon Territory; Geol. Survey of Canada, Bulletin 208.

APPENDIX A

Statement of Qualifications

I, D.R. Hawke, hereby certify that:

- (1) I am a geologist residing at 107-150 E 5th Street, North Vancouver, B.C.
- (2) I received an honours B. Sc. degree in Geology from Laurentian University in Sudbury, Ontario in 1973 and I have been practising my profession since that time.
- (3) I am the author of this report and supervised the program described herein.
- (4) I am employed as a geologist by Getty Mines, Limited.

APPENDIX C

STATEMENT OF EXPENDITURES

CLEAR LAKE DESIGNATED AREA

SUE CLAIMS

DIAMOND DRILLING

<u>Hole Number</u>	<u>Cost</u>
83-33A	\$19,915.50
83-40	\$45,548.75
	<hr/>
Total .....	\$65,464.25



Sept. 30, 1983

Invoice #-1411

Drill #13

IN ACCOUNT WITH

Getty Mines Ltd.  
700 West Pender St.  
Suite 509  
Vancouver, B.C.  
V6C 1G8

Drilling Charges Sept. 16-30, 1983:

(Clear Lake)

Hole 83/40/60/NQ

<u>Moving</u>			
36 man hrs.	@ \$ 27.00 per hr.	\$	972.00
<u>Testing</u>			
4 tests @ 67.50 ea.		\$	270.00
2 tests @ 79.50 ea.		\$	159.00
			<u>\$ 429.00</u>
<u>Coring</u>			
650-1500 = 850 ft.	@ \$ 22.50 per ft.	\$19,125.00	
1500-1726 = 226 ft.	@ \$ 26.50 per ft.	<u>\$ 5,989.00</u>	<u>\$25,114.00</u>
			\$26,515.00

Hole 83-42/50/NW

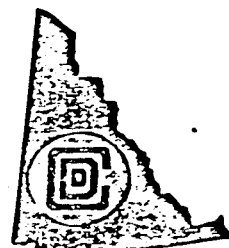
<u>Moving</u>			
57 man hrs.	@ \$ 27.00 per hr.	\$	1,539.00
<u>Freezing Waterline</u>			
55 man hrs.	@ \$ 27.00 per hr.	\$	1,485.00
<u>Testing</u>			
1 test	@ \$ 67.50 ea.	\$	67.50
<u>Casing</u>			
0-50 = 50 ft.	@ \$ 28.00 per ft.	\$	1,400.00
<u>Coring</u>			
50-645 = 595 ft.	@ \$ 22.50 per ft.	<u>\$13,387.50</u>	<u>\$17,879.00</u>

Hole 83-42/50/NW

Oct.1/83 - Demob

<u>Moving</u>			
28 man hrs.	@ \$ 27.00 per hr.	\$	756.00
<u>Waterline</u>			
2 man hrs.	@ \$ 27.00 per hr.	\$	54.00
<u>Testing</u>			
1 test	@ \$ 67.50 ea.	\$	67.50
<u>Stand-by</u>			
6 man hrs.	@ \$ 27.00 per hr.	\$	162.00

NOV 3 1983





Sept. 15, 1983

Invoice #- 1398

IN ACCOUNT WITH:

Getty Mines Limited,  
700 West Pender St.,  
Suite 509,  
Vancouver, B.C.

Drilling Charges Sept. 1 - 15, 1983:

(Clear Lake, Y.T.)

Hole 83-39/55/NQ

<u>Moving</u>			
4 man hrs.	@ \$ 27.00 per hr.	=	\$ 108.00
<u>Testing</u>			
4 tests	@ \$ 67.50 each	= \$	270.00
1 test	@ \$ 79.50 each	= \$	79.50
<u>Coring</u>			
1061 - 1500 - 439 ft.	@ \$ 22.50 per ft.	= \$	9,877.50
1500 - 1772 = 272 ft.	@ \$ 26.50 per ft.	= \$	7,208.00
			<u>\$17,085.50</u>
			\$17,543.00

Hole 83-40/60/NQ

<u>Moving</u>			
118 man hrs.	@ \$ 27.00 per hr.	=	\$ 3,186.00
<u>Casing</u>			
5 man hrs.	@ \$ 27.00 per hr.	= \$	135.00
2½ mach. hrs.	@ \$ 18.50 per hr.	= \$	46.25
<u>Waterline</u>			
16 man hrs.	@ \$ 27.00 per hr.	=	\$ 432.00
<u>Testing</u>			
3 tests	@ \$ 67.50 each	=	\$ 202.50
<u>Casing</u>			
0 - 74 = 74 ft.	@ \$ 28.00 per ft.	=	\$ 2,072.00
<u>Coring</u>			
74 - 650 = 576 ft.	@ \$ 22.50 per ft.	=	\$12,960.00
			<u>\$19,033.75</u>

NOV 3 1983





November 15, 1983

Invoice #1432

IN ACCOUNT WITH:

Getty Mines Limited,  
Suite 509,  
700 West Pender St.  
Vancouver, B.C.

Drilling Charges November 1 - 15, 1983:

(Clear Lake, Y.T.)

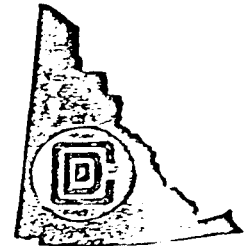
Hole 82-33/60/NQ

<u>Moving</u>			
227 man hrs.	@ \$ 27.00 per hr.	=	\$ 6,129.00 ✓
<u>Drilling and Entering Old Hole</u>			
26 man hrs.	@ \$ 27.00 per hr.	= \$	702.00
13 mach. hrs.	@ \$ 18.50 per hr.	= \$	240.50
<u>Reaming Cave</u>			
44 man hrs.	@ \$ 27.00 per hr.	= \$	1,188.00
22 mach. hrs.	@ \$ 18.50 per hr.	= \$	407.00
<u>Waterline and Pump Man</u>			
137 man hrs.	@ \$ 27.00 per hr.	=	\$ 3,699.00 ✓
<u>Mud Time</u>			
8 man hrs.	@ \$ 27.00 per hr.	= \$	216.00
4 mach. hrs.	@ \$ 18.50 per hr.	= \$	74.00
<u>Testing</u>			
4 man hrs.	@ \$ 27.00 per hr.	= \$	108.00
2 mach. hrs.	@ \$ 18.50 per hr.	= \$	37.00
<u>Travelling Time</u>			
9½ man hrs.	@ \$ 27.00 per hr.	=	\$ 256.50 ✓
<u>Coring</u>			
1112 - 1431 = 319 ft.	@ \$ 21.50 per ft.	=	\$ 6,858.50 ✓
			\$19,915.50 ✓

Hole 83-47/60/NQ

<u>Moving</u>			
54 man hrs.	@ \$ 27.00 per hr.	=	\$ 1,458.00 ✓
<u>Casing</u>			
4 man hrs.	@ \$ 27.00 per hr.	= \$	108.00
2 mach. hrs.	@ \$ 18.50 per hr.	= \$	37.00
<u>Waterline and Pump Man</u>			
48 man hrs.	@ \$ 27.00 per hr.	=	\$ 1,296.00 ✓
<u>Mud Time</u>			
4 man hrs.	@ \$ 27.00 per hr.	= \$	108.00
2 mach. hrs.	@ \$ 18.50 per hr.	= \$	37.00
			\$ 145.00 ✓

*D.R. Hunter*





November 15, 1983

Invoice # -1432

IN ACCOUNT WITH:

Getty Mines Limited,  
Suite 509,  
700 West Pender St.  
Vancouver, B.C.

Drilling Charges November 1 - 15, 1983:

(Clear Lake, Y.T.)

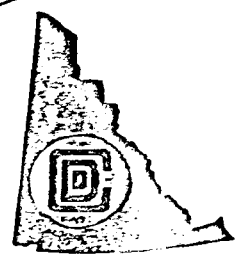
Hole 82-33/60/NQ

<u>Moving</u>			
227 man hrs.	@ \$ 27.00 per hr.	=	\$ 6,129.00 ✓
<u>Drilling and Entering Old Hole</u>			
26 man hrs.	@ \$ 27.00 per hr.	= \$	702.00
13 mach. hrs.	@ \$ 18.50 per hr.	= \$	240.50
<u>Reaming Cave</u>			
44 man hrs.	@ \$ 27.00 per hr.	= \$	1,188.00
22 mach. hrs.	@ \$ 18.50 per hr.	= \$	407.00
<u>Waterline and Pump Man</u>			
137 man hrs.	@ \$ 27.00 per hr.	=	\$ 3,699.00 ✓
<u>Mud Time</u>			
8 man hrs.	@ \$ 27.00 per hr.	= \$	216.00
4 mach. hrs.	@ \$ 18.50 per hr.	= \$	74.00
<u>Testing</u>			
4 man hrs.	@ \$ 27.00 per hr.	= \$	108.00
2 mach. hrs.	@ \$ 18.50 per hr.	= \$	37.00
<u>Travelling Time</u>			
9½ man hrs.	@ \$ 27.00 per hr.	=	\$ 256.50 ✓
<u>Coring</u>			
1112 - 1431 = 319 ft.	@ \$ 21.50 per ft.	=	\$ 6,858.50 ✓
			\$19,915.50 ✓

Hole 83-47/60/NQ

<u>Moving</u>			
54 man hrs.	@ \$ 27.00 per hr.	=	\$ 1,458.00 ✓
<u>Casing</u>			
4 man hrs.	@ \$ 27.00 per hr.	= \$	108.00
2 mach. hrs.	@ \$ 18.50 per hr.	= \$	37.00
<u>Waterline and Pump Man</u>			
48 man hrs.	@ \$ 27.00 per hr.	=	\$ 1,296.00 ✓
<u>Mud Time</u>			
4 man hrs.	@ \$ 27.00 per hr.	= \$	108.00
2 mach. hrs.	@ \$ 18.50 per hr.	= \$	37.00
			\$ 145.00 ✓

*D.R. Hunter*





Sept. 15, 1983

Invoice #- 1398

IN ACCOUNT WITH:

Getty Mines Limited,  
700 West Pender St.,  
Suite 509,  
Vancouver, B.C.

Drilling Charges Sept. 1 - 15, 1983:

(Clear Lake, Y.T.)

Hole 83-39/55/NQ

Moving

4 man hrs. @ \$ 27.00 per hr. = \$ 108.00

Testing

4 tests @ \$ 67.50 each = \$ 270.00

1 test @ \$ 79.50 each = \$ 79.50 \$ 349.50

Coring

1061 - 1500 - 439 ft. @ \$ 22.50 per ft. = \$ 9,877.50

1500 - 1772 = 272 ft. @ \$ 26.50 per ft. = \$ 7,208.00 \$17,085.50 \$17,543.00

Hole 83-40/60/NQ

Moving

118 man hrs. @ \$ 27.00 per hr. = \$ 3,186.00

Casing

5 man hrs. @ \$ 27.00 per hr. = \$ 135.00

2½ mach. hrs. @ \$ 18.50 per hr. = \$ 46.25 \$ 181.25

Waterline

16 man hrs. @ \$ 27.00 per hr. = \$ 432.00

Testing

3 tests @ \$ 67.50 each = \$ 202.50

Casing

0 - 74 = 74 ft. @ \$ 28.00 per ft. = \$ 2,072.00

Coring

74 - 650 = 576 ft. @ \$ 22.50 per ft. = \$12,960.00 \$19,033.75

NOV 3 1983





Sept. 30, 1983

Invoice #-1411

Drill #13

IN ACCOUNT WITH

Getty Mines Ltd.  
700 West Pender St.  
Suite 509  
Vancouver, B.C.  
V6C 1G8

Drilling Charges Sept. 16-30, 1983:

(Clear Lake)

Hole 83/40/60/NQ

Moving

36 man hrs. @ \$ 27.00 per hr. \$ 972.00

Testing

4 tests @ 67.50 ea. \$ 270.00

2 tests @ 79.50 ea. \$ 159.00 \$ 429.00

Coring

650-1500 = 850 ft. @ \$ 22.50 per ft. \$19,125.00

1500-1726 = 226 ft. @ \$ 26.50 per ft. \$ 5,989.00 \$25,114.00 \$26,515.00

Hole 83-42/50/NW

Moving

57 man hrs. @ \$ 27.00 per hr. \$ 1,539.00

Freezing Waterline

55 man hrs. @ \$ 27.00 per hr. \$ 1,485.00

Testing

1 test @ \$ 67.50 ea. \$ 67.50

Casing

0-50 = 50 ft. @ \$ 28.00 per ft. \$ 1,400.00

Coring

50-645 = 595 ft. @ \$ 22.50 per ft. \$13,387.50 \$17,879.00

Hole 83-42/50/NW

Oct. 1/83 - Demob

Moving

28 man hrs. @ \$ 27.00 per hr. \$ 756.00

Waterline

2 man hrs. @ \$ 27.00 per hr. \$ 54.00

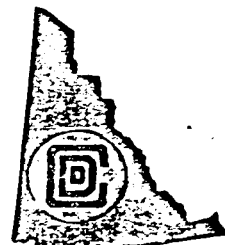
Testing

1 test @ \$ 67.50 ea. \$ 67.50

Stand-by

6 man hrs. @ \$ 27.00 per hr. \$ 162.00

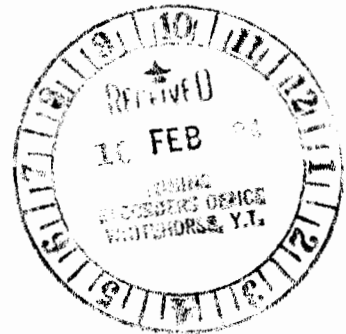
NOV 3 1983



GETTY CANADIAN METALS, LIMITED

MACMILLAN JOINT VENTURE

ASSESSMENT REPORT



Title: Linecutting and Overburden Drilling  
Author: D.R. Hawke  
Date: January 1984  
Commodities: Pb-Zn-Ag  
Location: Latitude: 62°49'N  
Longitude: 135°05'W  
Claim Sheet#: 105L 14/15

091511

## TABLE OF CONTENTS

	<u>Page</u>
SUMMARY AND CONCLUSIONS	1
INTRODUCTION	1
LOCATION AND ACCESS	2
PHYSIOGRAPHY AND CLIMATE	2
GENERAL GEOLOGY	3
1983 WORK PROGRAM	4
Linecutting	4
Overburden Drilling	5

## APPENDICES

APPENDIX I	Statement of Qualifications
APPENDIX II	Overburden Drill Hole Logs
APPENDIX III	Statement of Expenditures

## LIST OF FIGURES

FIGURE 1	MacMillan Joint Venture - Location
FIGURE 2	General Geology
FIGURE 3	Grid Location map
FIGURE 4	Linecutting-Overburden Drilling Map Areas 1 & 3
FIGURE 5	Linecutting-Overburden Drilling Map Areas 2, 4, & 9

- FIGURE 6            Linecutting-Overburden Drilling Map  
                              Areas 5 & 6
- FIGURE 7            Linecutting-Overburden Drilling Map  
                              Area 7
- FIGURE 8            Linecutting-Overburden Drilling Map  
                              Area 8
- FIGURE 9            Linecutting-Overburden Drilling Map  
                              Grid 5E
- FIGURE 10           Linecutting-Overburden Drilling Map  
                              Grid 3W
- FIGURE 11           Linecutting-Overburden Drilling Map  
                              Grid 5W

## SUMMARY AND CONCLUSIONS

During the period June-September 1983 linecutting and overburden drilling work was carried out on twelve (12) selected areas within the MacMillan Joint Venture claim group. A total of 99.0 line miles of grid line was cut and chained and 69 overburden holes were drilled. The objective of this work was to help evaluate targets selected by previous data compilation work.

Efforts to drill to bedrock were only partially successful and penetration of the drill rods were hampered by permafrost, boulders in the overburden and highly indurated till layers. This system proved to be of limited use in evaluating geophysical targets over much of the MacMillan Joint Venture claims area. A larger overburden drilling system would provide enhanced penetration which would markedly improve the value of this type of work for geophysical target evaluation.

## INTRODUCTION

The MacMillan Joint Venture claim group is located about 150 miles north of Whitehorse, Yukon near the confluence of the Pelly and MacMillan Rivers. The joint venture participants are Getty Canadian Metals, Limited and Essex Minerals Canada Ltd.

Linecutting and overburden drilling were carried out during July-September to evaluate targets selected during previous compilation work.

The work described in this report was conducted under the supervision of the author, D.R. Hawke.

#### LOCATION AND ACCESS

The MacMillan Joint Venture claim group, centered at about  $62^{\circ}41'N$  latitude,  $134^{\circ}41'W$  longitude, is located east of the confluence of the MacMillan and Pelly Rivers in the Detour Lakes area, central Yukon Territory (see figure 1). Access can be gained by three ways:

- (i) via fixed-wing aircraft from Whitehorse or Pelly Crossing, distances of 160 and 40 miles respectively. A dirt airstrip, 150' wide and 3,000' long, situated immediately west of the Clear Lake deposit, can accommodate planes up to a DC-3.
- (ii) via helicopter from a base in Carmacks, a distance of 50 miles.
- (iii) via winter tote road from Pelly Crossing, road distance of approximately 40 miles.

Access during the 1983 exploration programme was via fixed-wing aircraft and helicopter.

#### PHYSIOGRAPHY AND CLIMATE

The Venture area covers a series of gently rolling hills and ridges, surrounded by numerous small lakes and swamps referred to

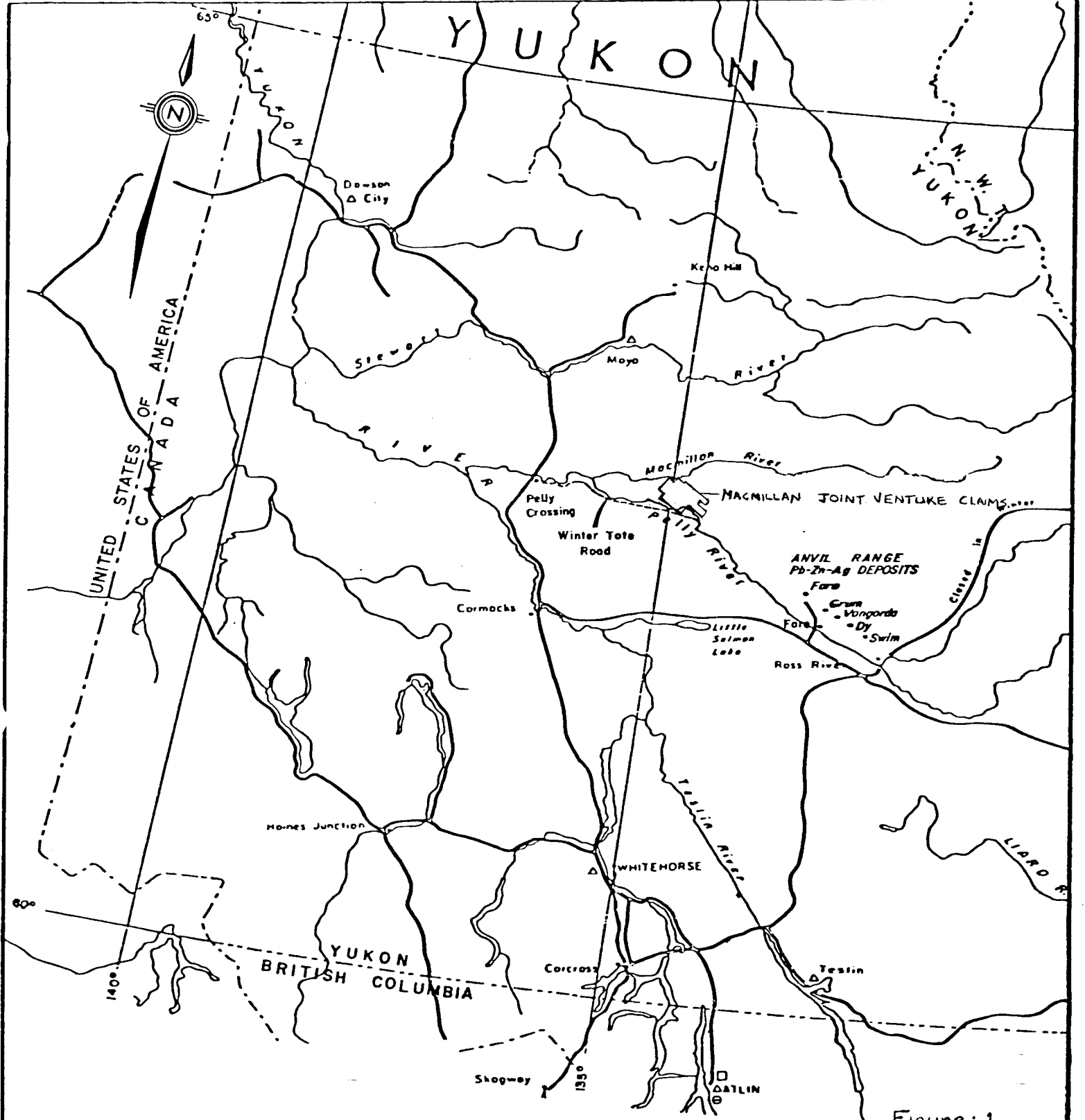

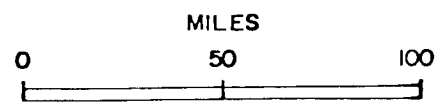
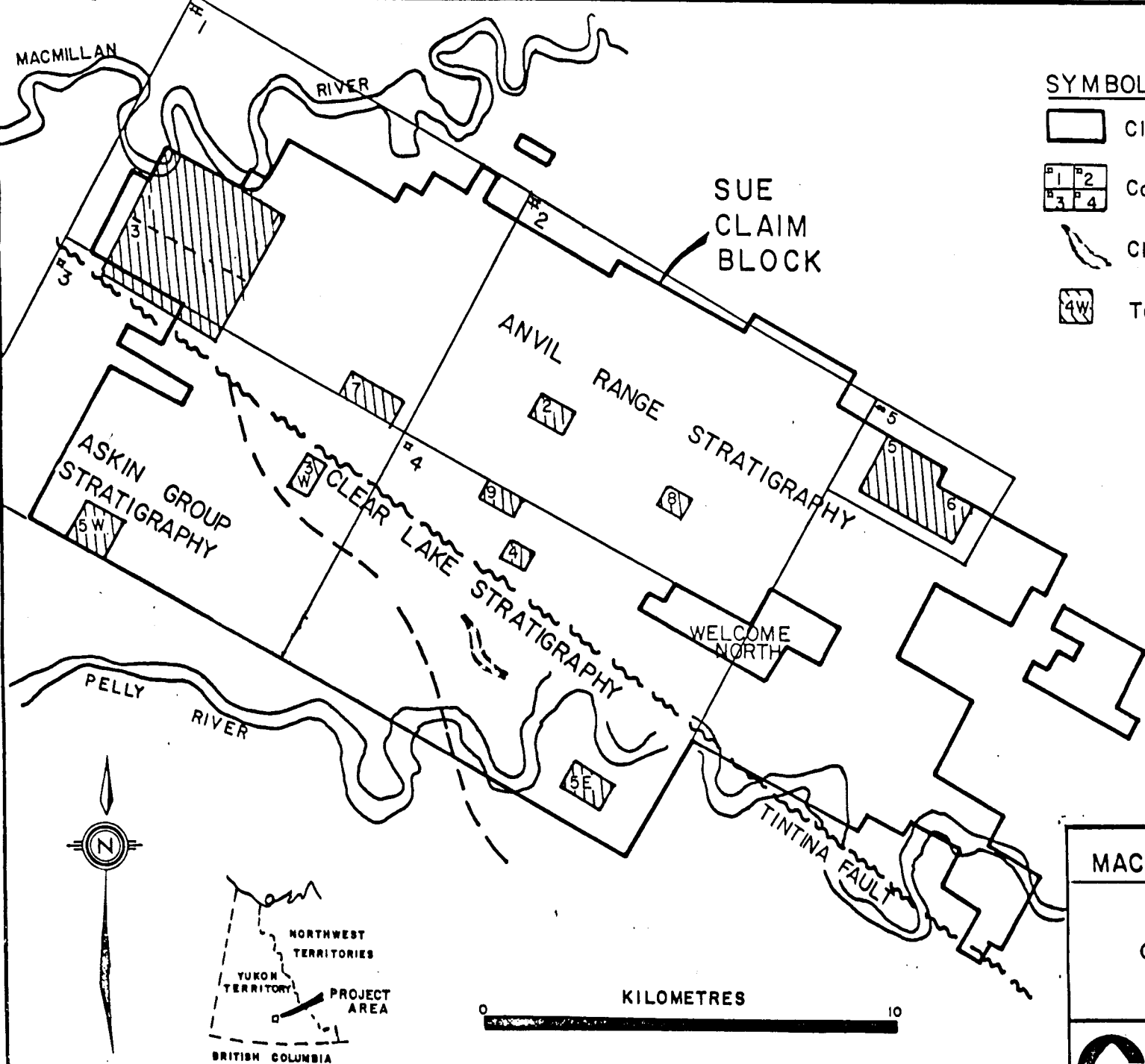


Figure: 1

<b>MACMILLAN JOINT VENTURE</b>	
<b>LOCATION MAP</b>	
	DRAWN BY L. CONNOR CHECK'D BY D.R. HAWKE N.T.S.
	DATE JAN., 1984 DRAWING No SCALE: 1" to 50 miles.
<b>Getty Canadian Metals, Ltd.</b>	





**SYMBOLS**





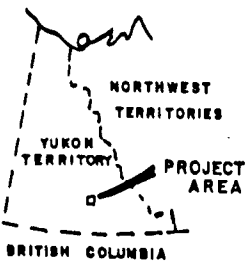
-  Claim boundary
-  Compilation map boundary
-  Clear Lake deposit
-  Target area

Figure: 2

MACMILLAN JOINT VENTURE

---

GENERAL GEOLOGY



0 10  
KILOMETRES

	DRAWN BY:	DATE: FEBRUARY, 1983
	CHECK'D BY:	DRAW'G No.
	N.T.S.:	SCALE:

**Getty Canadian Metals, Ltd.**

as the Tummel Basin. Elevations range from 1,760' ASL at Pelly River to 2,400' ASL on the hill tops.

#### GENERAL GEOLOGY

The claims lie along the northwest edge of the Selwyn Basin, a known region of Pb-Zn-Ag mineralization. They straddle the Tintina Fault and are underlain by three distinct suites of rocks (see figure 2).

The Anvil Range Stratigraphy, north of the Tintina Fault, is composed of variably calcareous graphitic phyllites, mixed calcareous phyllites and mafic to intermediate metavolcanic rocks which are equivalent to the Mt. Mye, Vangorda and Menzie Creek formations respectively. The transition zone between the Vangorda and Mt. Mye formation hosts the highly productive Pb-Zn deposits of the Anvil Mine District situated 60 miles to the southeast. These rocks have been regionally metamorphosed to the lower or middle greenschist facies and have undergone several phases of deformation resulting in many small scale folds which form complex interference patterns. Despite this, the Anvil Range Stratigraphy appears to form an essentially southwest-facing, homoclinal, structurally intact, package.

South of the Tintina Fault Askin Group rocks outcrop and they are composed mainly of Mid-Devonian(?) dolostones and quartzites with

minor argillite. These rocks show little of the intense small scale deformation that characterizes the Anvil Range rocks.

Unconformably(?) overlying the Askin Group is the Clear Lake Stratigraphy, a sequence of Devonian-Mississippian argillite, siltstone and chert with a small volcanic rock component which hosts the Clear Lake Pb-Zn-Ag deposit. Structurally the rocks exhibit much small scale folding; however, they appear to form an essentially intact northeast facing assemblage.

#### 1983 WORK PROGRAM

A total of twelve separate areas (figure 2) were selected to receive detailed followup work during 1983, in order to further evaluate and define the targets contained therein preparatory to diamond drilling. A statement of expenditures to support the work described herein is included as Appendix I.

#### Linecutting

This work was carried out in order to provide control for subsequent detailed geophysical-geochemical-geological surveys.

Grid lines were cut at intervals of 400-500 feet in each of the twelve work areas. This work was carried out by a four-man crew from

Coureur De Bois Ltd., P.O. Box 4448, Whitehorse, Yukon, during the period July-August, 1983. The amount of linecutting carried out in each area is listed in Table 1. The location of the grids with respect to the claims is shown in Figure 3. Detailed line maps for each work area are shown in Figures 4 to 11.

### Overburden Drilling

The objective of this work was to obtain samples of the basal tills in each area to test for anomalous base metal content, possibly associated with geophysical targets. The overburden drilling was carried out during August-September by Marlow Drilling Services, Suite 816, 55 University Avenue, Toronto, Ontario. The drill equipment is composed of a hydraulic percussion hammer drill, a Prospectorpac portable hydraulic power pack, 1½" diameter-1 meter drill rods, flow through sampling bits and hydraulic extractor jacks. The rods (with sampler attached) are hammered into the ground using the hydraulic percussion hammer until the desired sampling depth is reached. In order to retrieve the sample, the rods must be removed from the hole and the sampler emptied each time. Drilling continued on each hole until further penetration was not possible due to the presence of bedrock, large boulders and cobbles in the overburden or extremely indurated till layers.

A summary of the amount of drilling completed in each work area is given in Table 1. The location of the holes are shown on figures 4 to 11 and copies of the logs are attached as Appendix II.

MACMILLAN JOINT VENTURE PROJECT  
LINECUTTING AND OVERBURDEN DRILLING SUMMARY

TABLE I

<u>WORK AREA</u>	<u>LINECUTTING (Mi)</u>	<u>NO. OF HOLES</u>	<u>METRES DRILLED</u>
Areas 1 & 3 (Grid 17W)	33.7	27	148.8
Area 2	4.1	3	17.8
Area 4	6.4	6	24.8
Area 5	12.3	14	50.2
Area 6	8.3	7	23.8
Area 7	4.0	2	7.3
Area 8	2.8	-	-
Area 9	5.0	2	13.2
Grid 3W	4.9	-	-
Grid 5E	7.2	1	22.2
Grid 5W	10.3	4	8.5
TOTALS	99.0	66	531.9

A field laboratory was established to provide rapid analytical results to aid in planning possible detailed follow-up holes. The laboratory employed the standard Bloom total heavy metal detecting field kit using Dithizone and a buffer solution, with accessory materials for the preparation of these solutions. This test has a detection limit of approximately 10 ppm. A small split (approximately 0.25 gm) of sample is measured and placed in a test tube. The tube is then held over a flame and heated to glowing red to oxidize the sample to facilitate the scavenging of the metal ions by the buffer solution. After cooling, 10 mls. of field buffer solution are added. The tube is subsequently capped and shaken 50 times uniformly. After allowing the sample to settle out for a few minutes, 1 ml. of solution is extracted and placed in another test tube for the final test.

To the 1 ml. of buffer solution containing metal ions another 2 mls. of buffer is added. One ml. of 0.001% field Dithizone solution is added to the test tube and the tube is shaken 20 times uniformly. The colour of the initially blue-green coloured Dithizone is now noted, and if the end colour of blue to blue-green is observed the test is completed. If the solution is pink to purple in colour additional Dithizone solution is added in 1 ml., 2 ml., and 4 ml. increments until the end-point colour is reached. The total heavy metal in ppm is calculated by multiplying the total mls. of Dithizone solution used by a factor of 10. The results are recorded on the maps (figures 4 - 11) next to each sample site location.

The results indicate that no strong total heavy metal anomalies were detected.

## REFERENCES

1. Campbell, R.B. (1967), Geology of Glenlyon Map Area. Yukon Territory (105L); Geol. Survey of Canada, Memoir 352.
2. Roddick, J.A. & Green, L.H., (1961), Tay River, Yukon Territory; Geol. Survey of Canada, Map 13-1961.
3. Templeton-Kluit, D.J. (1972), Geology and Origin of the Faro, Vangorda and Swim Concordant Zinc-Lead Deposits, Central Yukon Territory; Geol. Survey of Canada, Bulletin 208.

APPENDIX I

Statement of Qualifications

I, D.R. Hawke, hereby certify that:

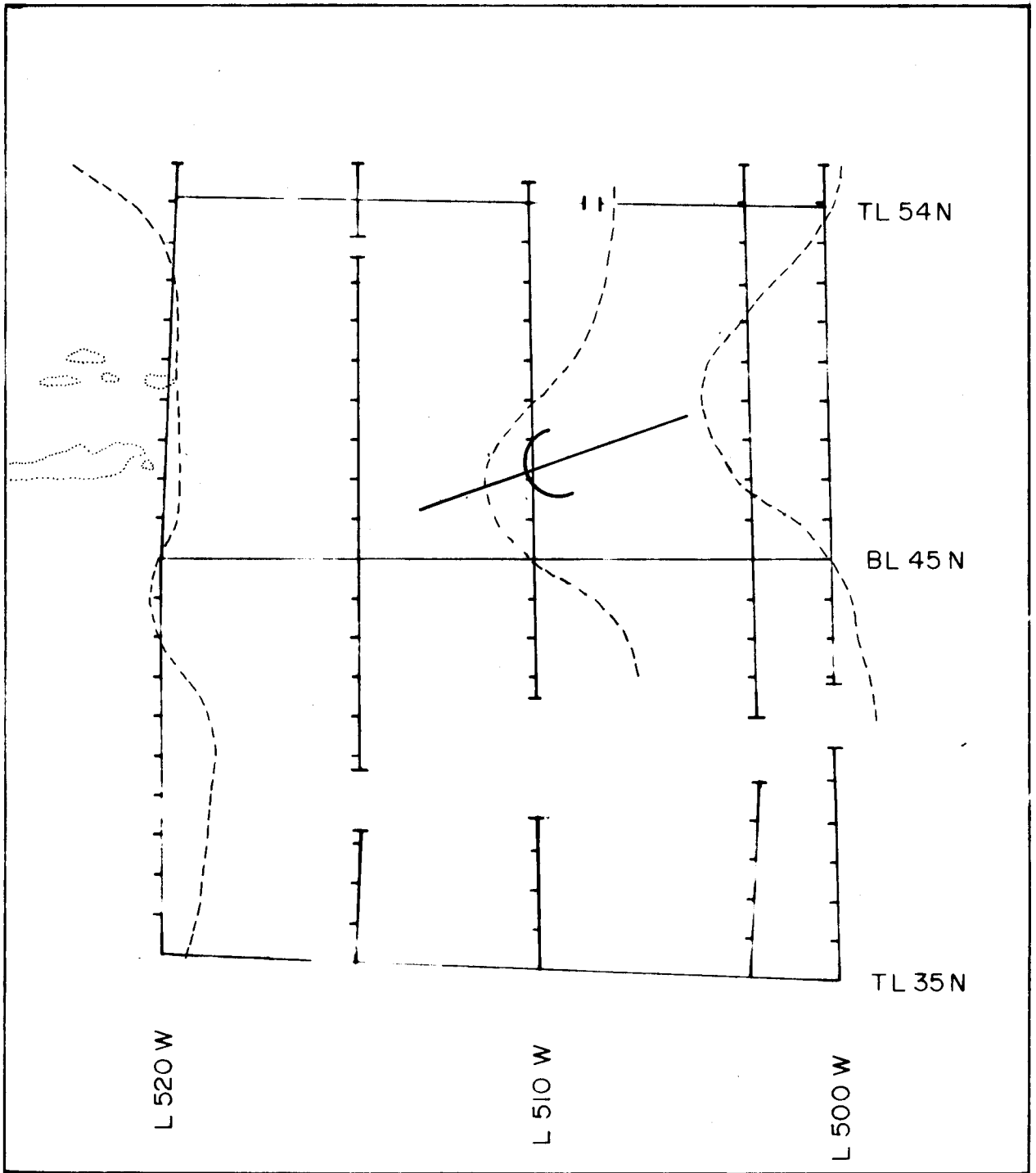
- (1) I am a geologist residing at 107-150 E 5th Street, North Vancouver, B.C.
- (2) I received an honours B. Sc. degree in Geology from Laurentian University in Sudbury, Ontario in 1973 and I have been practising my profession since that time.
- (3) I am the author of this report and supervised the program described herein.
- (4) I am employed as a geologist by Getty Mines, Limited.

OVERBURDEN DRILL PROGRAM SAMPLE CODES

---

---

<u>CODE</u>	<u>DESCRIPTION</u>
CL	Clay - fine sorted sediment, mainly clay, but may contain layers of silt to fine sand, possibly of glaciolacustrine origin
SS	Sorted Sediment - generally sand but may contain layers of silt, glaciofluvial or glaciolacustrine in origin.
GT	Grey Till - generally compact basal till
OT	Brown Till - probably oxidized grey, basal till
T	Till - poorly sorted non-compact oxidized material of glacial origin but possibly reworked.
AT	Ablation Till
OW	Outwash - till reworked by water action - may be recent alluvium
BR	Bedrock
FG	Fluvial Gravel



SURFICIAL GEOLOGY  
 AREA 8  
 MACMILLAN JOINT VENTURE  
 1983

FIELD COPY

NOTE: PROFILES PLOTTED LOOKING WEST WITH LINE AS ZERO

—(C)— ICE DIRECTION

⋯ OUTCROP

SCALE : 1" = 400'

----- TOPOGRAPHIC PROFILE  
 (1" = 100' VERTICAL)

— GRID LINE

PAYDIRT MINERAL EXPLORATION (G. OVENS)

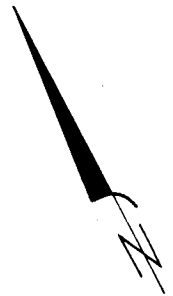


Figure: 8

# CLEAR LAKE PROJECT

091511

# DIAMOND DRILL RECORD

Hole Number 83-33A Azimuth 235° Dip -60° Elevation 2336.7' Core Size NQ  
 Northing 6 961 257.55 Easting 491 986.21 Picket Line Coordinates \_\_\_\_\_  
 Started Nov. 7, 1983 Completed Nov. 11, 1983 Logged By D. HAWKE  
 Length 1112' - 1431' (319') Contractor CARON DRILLING Core Stored ON SITE Claim Sue 2012

Hole Objective To test interpretation that 82-33 was short of target.

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Scale (ft) 1" = 10'  
 Lithology  
 Mineralization  
 Alteration  
 Bedding  $\angle$ 's  
 Shears, fract.

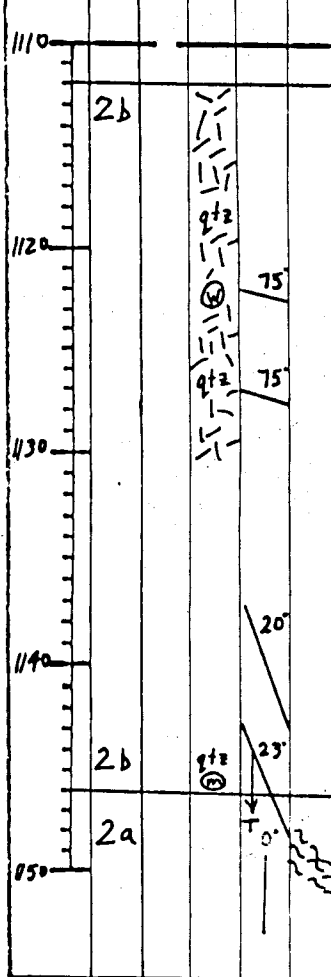
Method \_\_\_\_\_  
 Points \_\_\_\_\_

## CORE QUALITY

## ASSAYS

FOOTAGE RUNS			% Core Recov.	% R.Q.D.	FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length	Tag No.				

## DESCRIPTIVE LOG



1112' End of Hole 82-33  
 1112'-1146' ARGILLITE (2b)  
 Black argillite with minor parallel laminated grey sandstone interbeds. Sandstone beds are broken and contorted.  
 1112'-1129' weak quartz stockwork  
 1127' bedding at 75° to C.A.  
 1129'-1136' highly graphitic along fractures.  
 1141' bedding at 20° to C.A.  
 1143' cross-bedding in sandstone indicates younging direction down hole.  
 1144' bedding at 23° to C.A.  
 1144'-1146' moderate quartz stockwork  
 1146'-1417' ARGILLITE (2a)  
 Massive black argillite; moderately carbonaceous. Few sandstone bands.  
 1149' bedding at 0° to C.A.  
 1150'-1151' black fault gouge.

1112	1115	3.0	92	13								
1115	1125	10.0	100	76								
1125	1131	6.0	100	28								
1131	1136	5.0	72	14								
1136	1146.8	10.8	96	65								

See Following Page





# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-33A

Logged By D. HAWKE

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale  
Lithology  
Mineralization  
Alteration  
Bedding  $\angle$ 's  
Shears, fract.

## DESCRIPTIVE LOG

## CORE QUALITY

## ASSAYS

FOOTAGE RUNS			% Core Recov.	% R.Q.D.	FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length	Tag No.			

ARGILLITE (2a) Cont'd.

1248	1258	10.0	100	28							
------	------	------	-----	----	--	--	--	--	--	--	--

1258' bedding at 50° to C.A.

1258	1268	10.0	98	30							
------	------	------	----	----	--	--	--	--	--	--	--

1271' bedding at 30° to C.A.

1268	1278	10.0	100	30							
------	------	------	-----	----	--	--	--	--	--	--	--

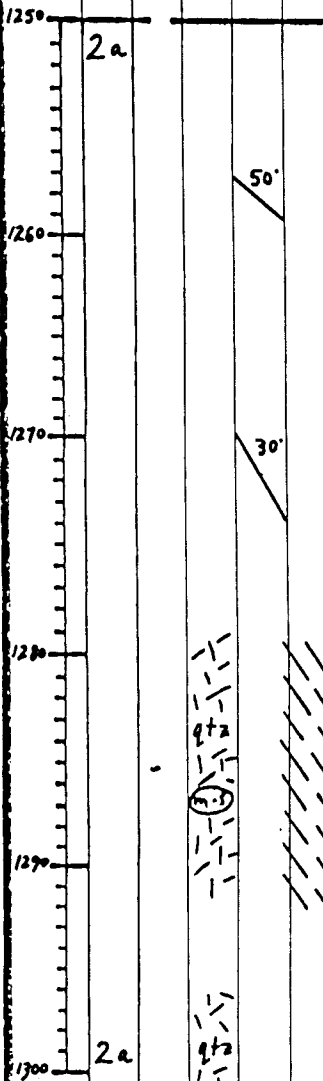
1279'-1290' rock is broken and contorted; moderate to strong quartz stockwork.

1278	1288	10.0	100	29							
------	------	------	-----	----	--	--	--	--	--	--	--

1288	1298	10.0	100	36							
------	------	------	-----	----	--	--	--	--	--	--	--

1297'-1306' moderate quartz stockwork.

See Following Page



# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-33A

Logged By D. HAWKE

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
 Points \_\_\_\_\_  
 \_\_\_\_\_

Scale  
 Lithology  
 Mineralization  
 Alteration  
 Bedding L's  
 Shears, fract.

## CORE QUALITY

## ASSAYS

### FOOTAGE RUNS

%  
Core  
Recov.

%  
R. R. D.

### FOOTAGE

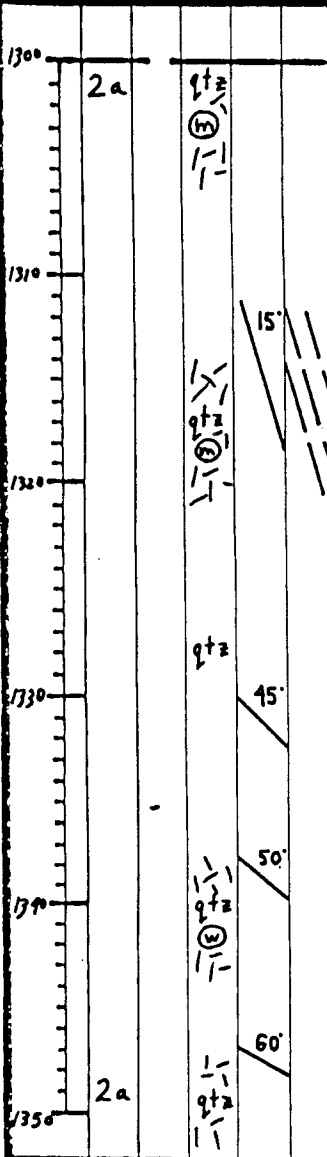
%  
Zn

%  
Pb

Oz/T  
Ag

Average  
Grades

## DESCRIPTIVE LOG



ARGILLITE (2a) Cont'd.

1298 1308 10.0 100 72

1314' bedding at 15° to C.A.  
 1314'-1316' core badly broken  
 1316'-1321' moderate quartz stockwork.

1308 1316 8.0 94 45

1327'-1328' contains 2 parallel 5-10mm  
 thick quartz veins: complexly folded.

1316 1326 10.0 100 59

1331' bedding at 45° to C.A.

1326 1333 7.0 96 35

1338' bedding at 50° to C.A.  
 1341'-1343' weak quartz stockwork

1333 1343 10.0 100 42

1347' bedding at 60° to C.A.  
 1348'-1359' moderate to strong  
 quartz stockwork.

1343 1353 10.0 100 48

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-33A

Logged By D. HAWKE

## GRAPHIC LOG

## LOCATION SURVEY DATA

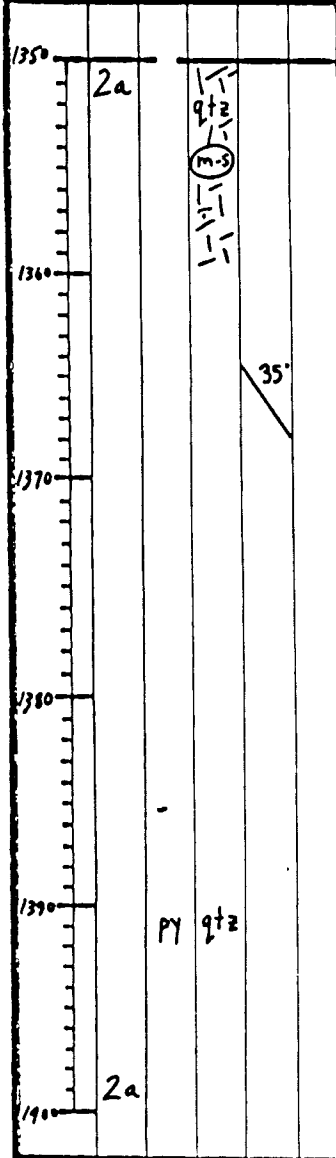
## GENERAL COMMENTS

Method \_\_\_\_\_  
 Points \_\_\_\_\_  
 \_\_\_\_\_

Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.

## DESCRIPTIVE LOG

CORE QUALITY					ASSAYS						
FOOTAGE RUNS			% Core Recov.	% P. R. S.	FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length	Tag No.			



ARGILLITE (2a) Cont'd.

1366' bedding at 35° to C.A.

1391' 2mm wide quartz vein with a few irregular masses of crystalline pyrite.

See Previous Page											
1353	1363	10.0	100	38							
1363	1373.6	10.6	100	42							
1373.6	1384	10.4	100	63							
1384	1395.5	11.5	98	52							
See Following Page											



# CLEAR LAKE PROJECT

091511

# DIAMOND DRILL RECORD

Hole Number 83-40 Azimuth 266° Dip -60° Elevation 2274.6' Core Size NQ  
 Northing 6961538.8 Easting 492157.9 Picket Line Coordinates \_\_\_\_\_  
 Started SEPT. 11/83 Completed SEPT. 24/83 Logged By G. NORMAN  
 Length 1726.5' Contractor CARON DIAMOND DRILLING Core Stored ON SITE Claim Sue 613

Hole Objective To test the down dip extension of the sulphides intersected in hole 82-37.

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Scale (ft.) 1" = 10'  
 Lithology  
 Mineralization  
 Alteration  
 Bedding ∠'s  
 Shears, fract.

Method \_\_\_\_\_  
 Points \_\_\_\_\_

## DESCRIPTIVE LOG

0-50' OVERBURDEN

## CORE QUALITY

## ASSAYS

FOOTAGE RUNS			% Core Recov.	FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length		From	To	Length				

0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale  
Lithology  
Mineralization  
Alteration  
Bedding L's  
Shears, fract.

## DESCRIPTIVE LOG

## CORE QUALITY

## ASSAYS

### FOOTAGE RUNS

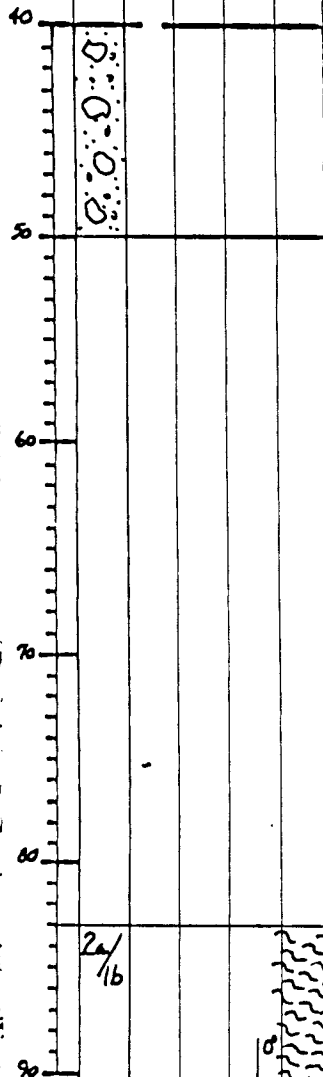
%  
Core  
Recov.  
%  
R.Q.D.

### FOOTAGE

%  
Zn  
%  
Pb  
Oz/T  
Ag  
Average  
Grades

From To Length

From To Length Tag No.



OVERBURDEN Cont'd

50' - 83' No Core

70 83 13 2 0

See Following Page

83' - 107' SANDSTONE (16) / ARGILLITE (2a)

Black carbonaceous argillaceous sandstone with interbeds of argillite

50' - 107' Fault - broken and gougey rock

Hole Number \_\_\_\_\_

Logged By \_\_\_\_\_

### GRAPHIC LOG

### LOCATION SURVEY DATA

### GENERAL COMMENTS

Scale  
Lithology  
Mineralization  
Alteration  
Bedding  $\angle$ 's  
Shears, fract.

Method \_\_\_\_\_  
Points \_\_\_\_\_

### CORE QUALITY

### ASSAYS

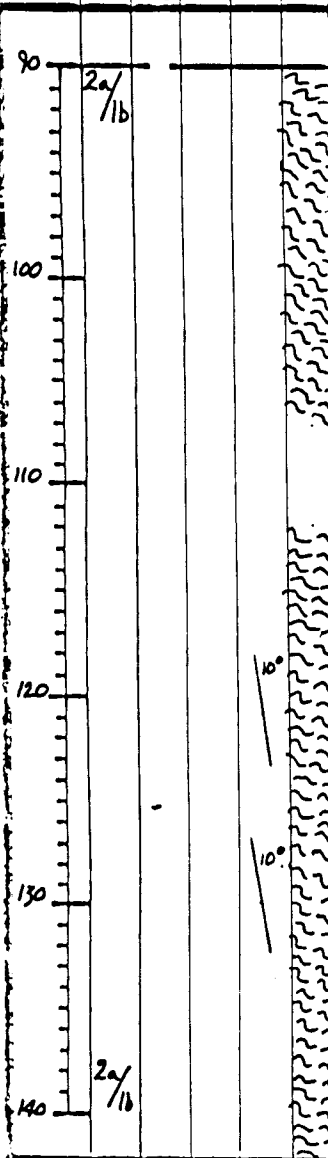
### DESCRIPTIVE LOG

#### FOOTAGE RUNS

%  
Core  
Recov.  
%  
R.Q.D.

#### FOOTAGE

%  
Zn  
%  
Pb  
Oz/T  
Ag  
Average  
Grades



ARGILLITE (2a) / SANDSTONE (1b) Cont'd

From	To	Length	% Core Recov.	% R.Q.D.	From	To	Length	Tag No.	% Zn	% Pb	Oz/T Ag	Average Grades
83	103	20	0	0								
103	106.5	3.5	100	0								
106.5	112	5.5	100	33								
112	121	9	46	0								
121	128	7	67	0								
128	130	2	58	0								
130	137	7	36	0								
	See Following Page											

118'-151.5' Black carbonaceous silty/sandy argillite with black argillaceous sandstone interbeds. The rock is very broken and sheared.

112'-152' Fault zone.

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

Scale	Lithology	Mineralization	Alteration	Bedding $\angle$ 's	Shears, fract.
140	2a/ 1b				
150					
160					
170					
180	2a/ 1b				
190	2e				

## LOCATION SURVEY DATA

Method Sperry Sun Magnetic Single Shot  
 Points Depth Dip Bearing  
146' -60° 268.5°

## DESCRIPTIVE LOG

ARGILLITE (2a)/SANDSTONE (1b) Cont'd

152'-157' Black carbonaceous silty/sandy argillite

157'-163' Black fine-grained massive sandstone bed

158'-163' Faulted section - gouge sections  
 159'-160' and 163'-165'

163'-170' Laminated fine-grained sandstone with strong quartz-carbonaceous veining.

183'-256' ARGILLITE (2e)  
Black argillite with thin calcareous bands and thin grey white limestone bands. Some pyrite as fracture fillings, disseminations, veins and possible bands.

## GENERAL COMMENTS

### CORE QUALITY

FOOTAGE RUNS			% Core Recov.	% R.Q.D.
From	To	Length		
137	147	10	25	0
147	151.5	4.5	78	0
151.5	160	8.5	82	0
160	163	3	83	0
163	167	4	100	19
167	170	3	86	11
170	175	5	100	28
175	181	6	100	26
181	191	10	100	40

### ASSAYS

FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length				

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS:

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.
-------	-----------	----------------	------------	-------------	----------------

## CORE QUALITY

## ASSAYS

### FOOTAGE RUNS

%  
Core  
Recov.

%  
R.Q.D.

### FOOTAGE

%  
Zn

%  
Pb

Oz/T  
Ag

Average  
Grades

From

To

Length

%  
Core  
Recov.

%  
R.Q.D.

From

To

Length

Tag  
No.

%  
Zn

%  
Pb

Oz/T  
Ag

Average  
Grades

## DESCRIPTIVE LOG

190	2e				
200					
210	Py				
220	Py				
230	Py				
240	2e				

ARGILLITE (2e) Cont'd

See Previous Page

191 197.5 6.5 100 26

197.5 203 5.5 100 50

203 208.5 5.5 85 52

208' 1.5" bands of grey white limestone

208.5 210 1.5 100 61

209' Pyrite (71%) appears as fracture fillings.

210 215 5 97 48

221' 1mm conformable pyrite band

215 219 4 96 23

222' - 237.5' Black argillite with pyrite as disseminations veins and possible bands.

219 223 4 100 27

223 226 3 94 33

226 227.5 1.5 100 0

227.5 232 4.5 100 28

237.5' - 256' Black argillite with thin calcareous bands. Strong pyritic section at 252'.

232 238 6 94 11

See Following Page

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale  
Lithology  
Mineralization  
Alteration  
Bedding L's  
Shears, fract.

## DESCRIPTIVE LOG

## CORE QUALITY

## ASSAYS

FOOTAGE RUNS			% Core Recov.	% R.Q.D.	FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length	Tag No.			

240	2e										
250	2e	Py <sup>+</sup>									
	1b										
260											
270											
280	1b										
	2b										
290	2b										

ARGILLITE (2e) Cont'd

256'-280' SANDSTONE (1b)  
Very fine grained black laminated sandstone with a large portion brecciated and sheared.

257'-262' Shear breccia zone  
262'-272' Shear breccia zone  
276'-277' Breccia zone

280'-303' ARGILLITE (2b)  
Black carbonaceous argillite  
minor siliceous or cherty beds at 284' and 286'

238	242	4	67	0							
242	247	5	100	23							
247	257	10	100	30							
257	262	5	100	13							
262	268.5	6.5	92	40							
268.5	272	3.5	93	0							
272	279	7	95	54							
279	286	7	98	39							
286	295	9	94	80							



# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale  
Lithology  
Mineralization  
Alteration  
Bedding L's  
Shears, fract.

## DESCRIPTIVE LOG

## CORE QUALITY

## ASSAYS

### FOOTAGE RUNS

%  
Core  
Recov.

%  
R.Q.D.

### FOOTAGE

%  
Zn

%  
Pb

Oz/T  
Ag

Average  
Grades

From To Length

From To Length Tag No.

From To Length Tag No.

Zn Pb Ag

Average Grades

CHERTY ARGILLITE (2d) Cont'd

See Previous Page

344.5 348 3.5 98 24

348 358.5 10.5 99 59

358.5 367.5 9 98 51

367.5 377 9.5 100 54

377 384 7 91 38

384 394.5 10.5 98 48

361'-362.5' Calcite vein with a trace of sphalerite  
& pyrite.

367.5'-382' ARGILLITE (2a)

Black silicified argillite

372'-379' Shear zone with quartz-sericite and  
graphitic quartz-siderite breccia

382'-396.5' MAFIC VOLCANIC FLOW (7)

Light green very fine-grained rock with very fine-grained  
mafics in aphanitic ground mass. A weak banding is

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

**GRAPHIC LOG**

Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.
-------	-----------	----------------	------------	-------------	----------------

**LOCATION SURVEY DATA**

Method \_\_\_\_\_  
 Points \_\_\_\_\_  
 \_\_\_\_\_

**GENERAL COMMENTS** \_\_\_\_\_  
 \_\_\_\_\_

390	7				
	7	Py			
	7b				
400	1b				
	2a	SPY			
410	2a				
	2d				
420					
430		Py			
	2d				
440					

**DESCRIPTIVE LOG**

MAFIC VOLCANIC FLOW (7) Cont'd  
 Conspicuous as well as calcite filled vesicles.  
 Graphitic? black streaks appear along some fractures & disseminated bands of pyrite at 393.5'.  
 Sheared contact with Sandstone.

396.5' - 403.5' SANDSTONE (1b)  
 Grey black fine-grained sandstone bedding at 20° to core axis at 397.5'

403.5' - 415' ARGILLITE (2a)  
 Hard (siliceous) black argillite with a 1" band of massive pyrite & traces of sphalerite at 407.5'.  
 408' 1½" band of light green fine-grained sheared rock (mafic volcanic flow?)

415' - 447' CHERTY ARGILLITE (2d)  
 Black massive cherty argillite.  
 410' - 420.5' Fault shear zone breccia quartz veins  
 3" gouge at 412'.

**CORE QUALITY**

**ASSAYS**

FOOTAGE RUNS					% Core Recov.	% R.Q.D.	FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length	Tag No.	From			To	Length	Tag No.					
394.5	403	8.5		100	29									
403	408	5		88	18									
408	414	6		100	17									
414	418.5	4.5		100	0									
418.5	423	4.5		89	19									
423	432.5	9.5		100	36									
432.5	438	5.5		91	9									

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number B3-40

Logged By G. NORMAN

### GRAPHIC LOG

### LOCATION SURVEY DATA

### GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale	Lithology	Mineralization	Alteration	Bedding $\angle$ 's	Shears, fract.
-------	-----------	----------------	------------	---------------------	----------------

### CORE QUALITY

### ASSAYS

FOOTAGE RUNS			% Core Recov.	% R.Q.D.	FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length				

### DESCRIPTIVE LOG

440	2a											
				30°								
	1b											
450	2a											
			S									
			S									
			S									
460			S									
			S									
			S									
470			S									
			S									
			S									
480			S									
			S									
			S									
490	2a		S									

CHERTY ARGILLITE (2d) Cont'd

420.5' - 429' Section unfaulted with conformable pyrite bands

429' - 491.5' Fault zone - with brecciated quartz-siderite and pyrite veins.

447' - 449' SANDSTONE (1b)

Laminated fine-grained grey-black sandstone

449' - 518' ARGILLITE (2a)

454.3' - 491.5' Fault breccia zone containing fragments of silicified argillite with specks of sphalerite.

3" of pyrite at 462.5'. Weak veins of pyrite occur from 454.3' - 470.0'

471.5' - 489' Brecciated quartz-siderite veins with graphite and traces of sphalerite.

491.5' - 518' Black silicified unbrecciated argillite with thin (3") light green volcanic band with bands of pyrite at 40° to core axis. (bedding?)

438	448	6	100	38								
448	454	6	92	19								
454	458	4	100	0								
458	467.5	9.5	94	37								
467.5	474.5	7	91	26								
474.5	480	5.5	100	11								
480	490.5	10.5	100	20								

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

Scale	Lithology	Mineralization	Alteration	Bedding $\angle$ 's	Shears, fract.
490	2a		S		$\nabla$
			S		
			S		
500			S	46°	
			S		
			S		
510	2a				
	7	PY			
		PY			
	7				
520	1b		S	26°	
		PY			
			S		
			S		
530					
	1b				
540					

## LOCATION SURVEY DATA

Method	Sperry	Sun	Magnetic	Single Shot
Points	Depth	Dip	Bearing	
	536'	-61.5°	267°	

## GENERAL COMMENTS

### CORE QUALITY

FOOTAGE RUNS			% Core Recov.	% R.Q.D.
From	To	Length		

### ASSAYS

FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length	Tag No.				

## DESCRIPTIVE LOG

ARGILLITE (2a) Cont'd

See Previous Page

490.5 495 4.5 85 28

495 505 10 91 28

513' Light green volcanic band at 30° to core axis and a 1/2" pyrite band stratigraphically above it.

505 511 6 93 50

513'-518' Black unsilicified argillite

511 518 7 100 27

518'-525.5' MAFIC VOLCANIC FLOW (7)

Light green fine-grained amygdaloidal volcanic (andesite) with pyrite bands and cross cut by calcite and pyrite veins.

518 528.5 10.5 100 38

525.5'-541' SANDSTONE (1b)

Very fine-grained black silicified sandstone with minor laminations up to 1" thick.

528.5 539 10.5 98 64

See Following Page

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_  
\_\_\_\_\_

Scale \_\_\_\_\_  
Lithology \_\_\_\_\_  
Mineralization \_\_\_\_\_  
Alteration \_\_\_\_\_  
Bedding  $\angle$ 's \_\_\_\_\_  
Shears, fract. \_\_\_\_\_

## CORE QUALITY

## ASSAYS

### FOOTAGE RUNS

% Core Recov. % R.Q.D.

### FOOTAGE

% Zn % Pb Oz/T Ag Average Grades

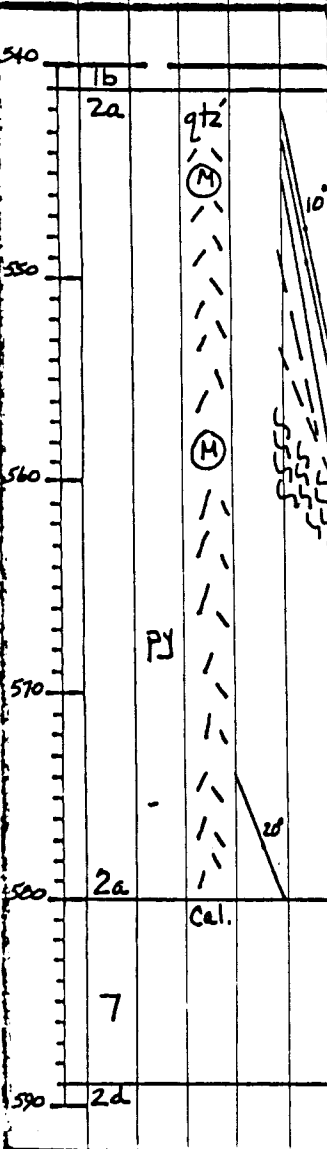
From To Length

From To Length Tag No.

From To Length Tag No.

% Zn % Pb Oz/T Ag Average Grades

## DESCRIPTIVE LOG



SANDSTONE (1b) Cont'd  
*Thin pyrite bands at 530' and 540'.*

541'-580' ARGILLITE (2a)  
*Black silicified argillite or cherty argillite with fine quartz stockwork.*

547'-562' FAULT Shear Zone at 15°-10° to C.A.

559.5'-562' fault gouge.

568' Thin pyrite band.

580'-589' MAFIC VOLCANIC FLOW (7)  
*Light green fine-grained amygdaloidal volcanic flow. Strongly amygdaloidal (calcite-filled) at stratigraphic upper contact, then becoming only weakly amygdaloidal throughout the*

From	To	Length	% Core Recov.	% R.Q.D.	From	To	Length	Tag No.	% Zn	% Pb	Oz/T Ag	Average Grades
539	549.5	10.5	98	68								
549.5	555	5.5	94	53								
555	562	7	100	25								
562	568	6	100	27								
568	577	9	90	32								
577	587	10	100	55								
See Following Page												

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

## DESCRIPTIVE LOG

## CORE QUALITY

## ASSAYS

### FOOTAGE RUNS

%  
Core  
Recov. R.-Q.-D.

### FOOTAGE

%  
Zn %  
Pb Oz/T  
Ag Average  
Grades

From

To

Length

%  
Core  
Recov.

R.-Q.-D.

From

To

Length

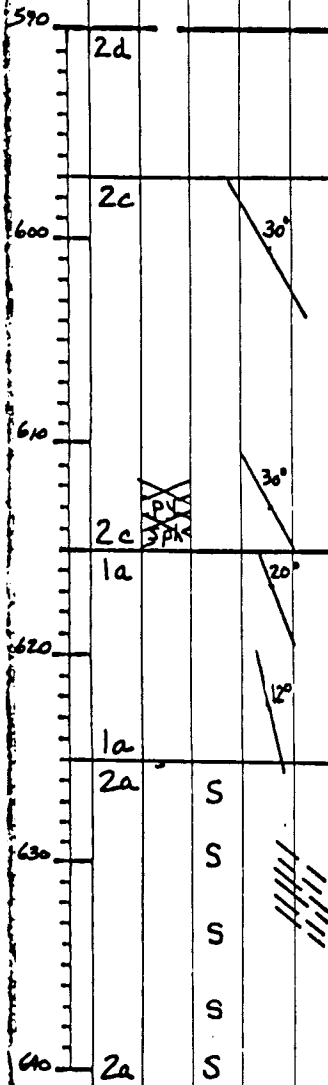
Log  
No.

%  
Zn

%  
Pb

Oz/T  
Ag

Average  
Grades



MAFIC VOLCANIC FLOW (7) Cont'd  
remainder of the unit. Two bands of pyrite at 582' and 587' are 4" and 6" thick respectively. Also, small bands of carbonate at 580' are conspicuous (bedding?).

589'-597' CHERTY ARGILLITE (2d)  
Black massive cherty argillite.

597'-615' ARGILLITE (2c)  
Black moderately siliceous silty argillite, weakly laminated.

613' Weak pyrite-sphalerite veining.

615'-625' SANDSTONE (1a)  
Black very fine-grained massive bedded sandstone.

625'-724' ARGILLITE (2a)  
Black silicified argillite moderately to strongly graphitic with possibly some cherty sections.

631'-634.5' Fault

From	To	Length	% Core Recov.	% R.-Q.-D.
587	597	10	97	66
597	606	7	100	37
606	616	10	100	48
616	626	10	100	51
626	634	8	87	32
634	636.5	2.5	80	0
See Following Page				

From	To	Length	Log No.	% Zn	% Pb	Oz/T Ag	Average Grades

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.
640	2a		S		
650			S		
		Sph	qtz sid		
660			S		
		Sph			
670			S		
680			S		
			S		
690	2a		qtz sid		

## DESCRIPTIVE LOG

ARGILLITE (2a) Cont'd.

633'-650' Very black graphitic section.

650'-667' As above, with moderate to strong quartz-siderite veining and minor traces of sphalerite.

662'-666' Shear zone

689' Some gypsum or anhydrite veins cross cut argillite.

683'-697.5' Fault zone

688'-693' breccia zone

section 688'-693' fault is parallel to core axis with moderate quartz-siderite veining & minor disseminated sphalerite within quartz-siderite from 693'-700'

## CORE QUALITY

FOOTAGE RUNS			% Core Recov.	% R.Q.D.
From	To	Length		

## ASSAYS

FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length	Tag No.				

636.5	642	5.5	100	32			
642	644	2	92	0			
644	650	6	100	15			
650	657.5	7.5	100	37			
657.5	666	6.5	100	36			
666	676	10	98	13			
676	678	2	88	21			
678	682	4	100	23			
682	688	6	100	44			

See Following Page

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG					
Scale	Lithology	Mineralization	Alteration	Bedding $\angle$ 's	Shears, fract.
690	2a	sph	stz		
700		sph			
710		sph			
720		sph			
730	2a 3 2a	py sph			10'
740	2a				

LOCATION SURVEY DATA			
Method	<u>Sperry Sun Magnetic Single Shot</u>		
Points	<u>Depth</u>	<u>Dip</u>	<u>Bearing</u>
	<u>736'</u>	<u>-62°</u>	<u>269.5°</u>

DESCRIPTIVE LOG		
<u>ARGILLITE (2a) Cont'd</u>		
701.5' - 724' black silicified argillite, possibly some cherty argillite at 714'. Strongly sheared from 702'-703', but moderately sheared throughout the remainder of the section. Strong graphite on shear planes. Strong quartz-siderite stockwork with disseminated brown-orange sphalerite in minor spotty amounts to 721'.		
<u>724' - 725' BRECCIA/CONGLOMERATE (3)</u> Breccia with fragments of limestone & siltstone		
<u>725' - 813' ARGILLITE (2a)</u> Black silicified argillite as at 625'-724'		

GENERAL COMMENTS \_\_\_\_\_

CORE QUALITY					ASSAYS						
FOOTAGE RUNS			% Core Recov.	% R.G.D.	FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length	Tag No.			
688	697.5	9.5	90	8							
697.5	703	5.5	100	34							
703	708	5	100	0							
708	713	5	98	15							
713	721	8	93	23							
721	722	1	100	0							
722	727	5	92	20							
727	730.5	3.5	95	14							
730.5	736	5.5	94	24							
736	739.5	3.5	91	12							
See following page											

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG					LOCATION SURVEY DATA			GENERAL COMMENTS											
Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.	Method	Points	CORE QUALITY			ASSAYS								
								From	To	Length	% Core Recov.	% R.Q.D.	From	To	Length	Tag No.	% Zn	% Pb	Oz/T Ag
DESCRIPTIVE LOG																			
740	2a							ARGILLITE (2a) Cont'd											
								739.5	742.5	3	92	0							
								742.5	746	3.5	100	26							
								746	751	5	93	15							
								751	754.5	3.5	100	16							
								754.5	760.5	6	92	0							
								760.5	764	3.5	93	0							
								764	773	9	100	30							
								773	778	5	100	68							
								778	782.5	4.5	94	18							
								782.5	787	4.5	96	65							
								See following page											

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG						LOCATION SURVEY DATA					GENERAL COMMENTS									
Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.	Method Points					CORE QUALITY					ASSAYS				
						From	To	Length	% Core Recov.	% R.Q.D.	From	To	Length	Tag No.	% Zn	% Pb	Oz/T Ag	Average Grades		
DESCRIPTIVE LOG																				
ARGILLITE (2a) Con't																				
790	2a																			
						790'-798.5'														
						unsilicified section of argillite														
						798.5'-811'														
						silicified argillite with weak quartz-siderite, with a trace of shalerite at 808'.														
						798.5-800'														
						Fault														
						810'-811'														
						Fault														
						811'-813'														
						Large quartz vein.														
	2a																			
	1a					813'-820'														
						SANDSTONE (1a)														
						Massive fine-grained medium grey-black sandstone bed with strong quartz-siderite veining. Shearing occurs parallel to core axis.														
	1b																			
						820'-846.5'														
						SANDSTONE (1b)														
						Black very fine-grained laminated sandstone with contorted bedding														
						823.5'-829														
						Fault														
	1b																			
						Brecciated zone with strong quartz-siderite veining.														
840																				

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG

Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.
-------	-----------	----------------	------------	-------------	----------------

LOCATION SURVEY DATA

Method \_\_\_\_\_

Points \_\_\_\_\_

GENERAL COMMENTS \_\_\_\_\_

840	lb				
850	2a/ 2b				
860					
870					
880					
890	2a/ 2b				

DESCRIPTIVE LOG

SANDSTONE (1b) Cont'd  
844.5' - 846.5' Sheared

846.5' - 950' ARGILLITE (2b)  
Black argillite with minor sandstone bands.  
846.5' - 856' Shear - Fault Zone  
Sheared zone with gouge at 856'.  
Minor pyrite stringers within zone  
858.5 - 863 breccia zone, sheared at 15° to core axis at 862'  
867' - 871' - soft black massive argillite  
871' - 872' - Fault, strong quartz-siderite veining  
875.5' - 895.5' black argillite with weak to moderate quartz-siderite veins. Sheared from 880' to 884'. There is a speck of sphalerite at 880'.

CORE QUALITY					ASSAYS						
FOOTAGE RUNS			% Core Recov.	% R.Q.D.	FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length	Tag No.			
836.5	846.5	10	100	65							
846.5	857	10.5	100	19							
857	867	10	100	27							
867	877	10	100	57							
877	887	10	100	30							
See following page											

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

LOCATION SURVEY DATA  
 Method Sperry Sun Magnetic Single Shot  
 Points Depth Dip Bearing  
936' -62.5° 267°

## GENERAL COMMENTS

Scale  
 Lithology  
 Mineralization  
 Alteration  
 Bedding L's  
 Shears, fract.

## DESCRIPTIVE LOG

ARGILLITE (2a/2b) Cont'd

895.5' - 913' weak sand banding starting -  
and weak siderite veining.

921.5' weak quartz-siderite veining  
with a speck of galena.

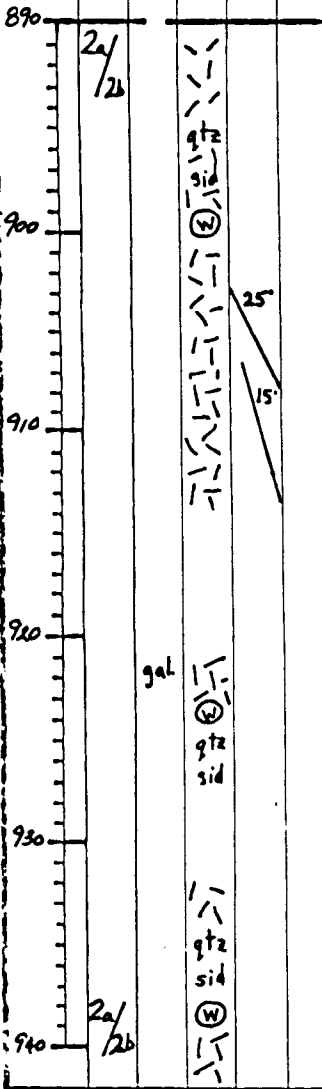
## CORE QUALITY

FOOTAGE RUNS			% Core Recov.	% R.Q.D.
From	To	Length		

## ASSAYS

FOOTAGE				% Zn	% Pb	% Cu/T Ag	Average Grades
From	To	Length	Tag No.				

887	897	10	100	44				
897	907	10	99	28				
907	917	10	100	65				
917	927	10	100	54				
927	937	10	100	44				
See Following Page								

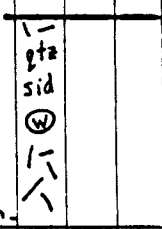
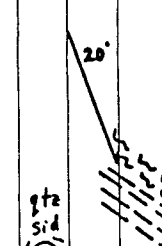
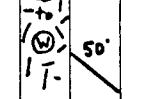
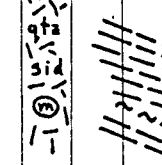


# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG						LOCATION SURVEY DATA				GENERAL COMMENTS										
Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.	Method Points				CORE QUALITY					ASSAYS					
						FOOTAGE RUNS		% Core Recov.	% R.Q.D.	FOOTAGE			% Zn	% Pb	Oz/T Ag	Average Grades				
DESCRIPTIVE LOG						From	To	Length			From	To	Length	Tag No.						
940						<u>ARGILLITE (2a/2b) Cont'd</u>														
950						937	947	10	100	45										
950'-950'						2a/2b sph. 														
950'-950'						932'-950' Black argillite with very minor quartz-siderite veins. Specks of sphalerite at 950' in quartz-siderite vein.														
960						947	957	10	98	78										
960						2b 20' 														
960						950'-1,157' <u>ARGILLITE (2b)</u> Black argillite with minor sandstone bands & some 1' massive sandstone beds. Contains weak quartz-siderite veins scattered throughout with the odd speck of sphalerite.														
970						957	962	5	97	0										
970						50' 														
970						950'-968.5' Sandy argillite with minor argillite fragments and sandstone bands.														
980						959'-960' Fault														
980						960'-962' Shear zone														
980						962'-967' moderate to weak quartz-siderite veining														
990						972	982.5	10.5	100	32										
990																				
990						982.5	993	10.5	100	20										

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale \_\_\_\_\_  
Lithology \_\_\_\_\_  
Mineralization \_\_\_\_\_  
Alteration \_\_\_\_\_  
Bedding  $\angle$ 's \_\_\_\_\_  
Shears, fract. \_\_\_\_\_

## CORE QUALITY

## ASSAYS

## DESCRIPTIVE LOG

### FOOTAGE RUNS

%  
Core  
Recov.

%  
R.Q.D.

### FOOTAGE

%  
Zn

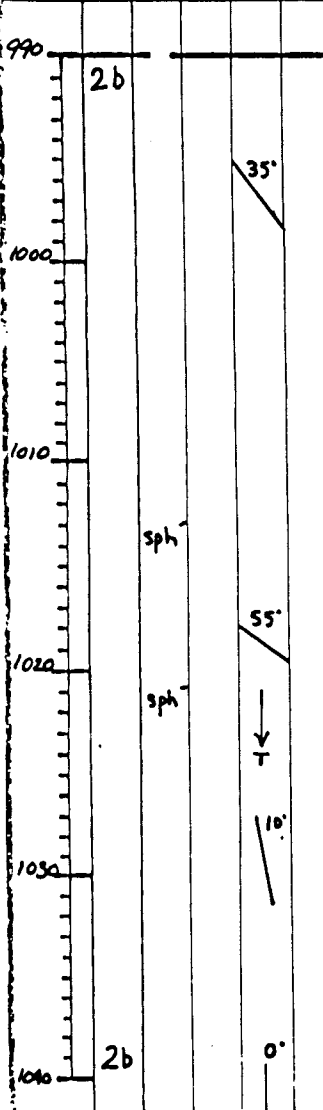
%  
Pb

Oz/T  
Ag

Average  
Grades

From To Length

From To Length Tag No.



ARGILLITE (2b) Cont'd

968.5' - 985' Black argillite with massive sandstone bed from 970'-971'

979' - 984' - Fault/Shear zone

983' - 983.5' gouge, moderate quartz-siderite veining

985' - 1,013' - minor sandstone bands

1,013.5' - 1,015.7' Sandy bands with argillite clasts with up to 2" speck of sphalerite with quartz-siderite vein.

1,021' - 1,038' Black argillite with minor quartz-siderite, with 1" thick cross bedded sandstone beds which indicate beds young down hole. There is a speck of sphalerite at 1,021.5'

From	To	Length	% Core Recov.	% R.Q.D.
993	1003	10	98	18
1003	1013.5	10.5	100	21
1013.5	1024	10.5	100	48
1024	1034.5	10.5	100	31
1034.5	1041	6.5	100	0

From	To	Length	Tag No.	% Zn	% Pb	Oz/T Ag	Average Grades

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

Scale	Lithology	Mineralization	Alteration	Bedding $\angle$ 's	Shears, fract.
1040 1050 1060 1070 1080 1090	2b			0° 15° 20° 0° 20°	

## LOCATION SURVEY DATA

Method \_\_\_\_\_  
Points \_\_\_\_\_

## DESCRIPTIVE LOG

ARGILLITE (2b) Con't'd  
 1,038'-1,055' Black argillite with laminated sandstone beds indicates bedding top as up hole at 1,051'.  
 1,055'-1,091.5' Very weak quartz-siderite veining

## GENERAL COMMENTS

\_\_\_\_\_

## CORE QUALITY

FOOTAGE RUNS			% Core Recov.	% R.Q.D.
From	To	Length		
1041	1051	10	100	26
1051	1059	8	95	10
1059	1069	10	100	55
1069	1078	9	100	37
1078	1087	9	100	55

## ASSAYS

FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length	Tag No.				

See Following Page

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG					LOCATION SURVEY DATA					GENERAL COMMENTS										
Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.	Method Points	DESCRIPTIVE LOG							CORE QUALITY			ASSAYS			
														FOOTAGE RUNS			% Core Recov.	% R.Q.D.	FOOTAGE	
							From	To	Length			From	To	Length	Tag No.					
1140	2b				30°															
1150	2b																			
1160	2a																			
1170	2a																			
1180	2b 2c																			
1190	2b 2c																			

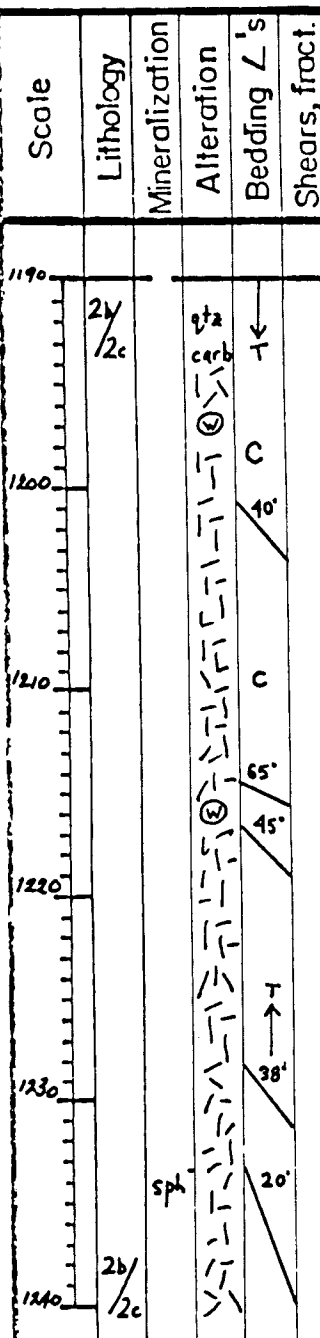
# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG



## LOCATION SURVEY DATA

Method \_\_\_\_\_  
Points \_\_\_\_\_

## DESCRIPTIVE LOG

ARGILLITE (2b, 2c) Cont'd

1,190' Cross bedding within thin sandstone interbeds indicates that beds are younging down hole.

1,197'-1,215' Some contorted laminated sandstone interbeds with black argillite.

1,224'-1,225' Coarse to fine-grained graded sandstone bed indicates younging of strata up hole.

1,234' Speck of sphalerite.

## GENERAL COMMENTS

### CORE QUALITY

FOOTAGE RUNS			% Core Recov.	% R.A.D.
From	To	Length		

### ASSAYS

FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length	Tag No.				

1190	1200	10		98	8				
1200	1210	10		99	13				
1210	1218	8		99	0				
1218	1228	10		100	26				
1228	1233	5		88	20				
1233	1243	10		100	43				

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG					LOCATION SURVEY DATA					GENERAL COMMENTS														
Scale	Lithology	Mineralization	Alteration	Bedding $\angle$ 's	Shears, fract.	Method Points					CORE QUALITY					ASSAYS								
											FOOTAGE RUNS			% Core Recov.	% R.Q.D.	FOOTAGE				% Zn	% Pb	% Cu/T	Average Grades	
DESCRIPTIVE LOG										From	To	Length			From	To	Length	Tag No.						
1240	2b 2c		sp.	30°		ARGILLITE (2b/2c) Cont'd																		
						1,245' Speck of sphalerite within quartz-carbonate vein.																		
						1,247'-1,252.5' TUFF (6)					1243	1248.5	5.5	100	35									
1250	6		py	55°		Light grey, fine-grained tuff with minor fine banded pyrite.																		
	2a					1,252.5'-1,277' ARGILLITE (2a)					1248.5	1258.5	10	100	33									
						Black argillite with a minor tuffaceous component, some disseminated or banded pyrite, sections sheared or brecciated.																		
1260						1,252'-1,254' Fault breccia					1258.5	1269	10.5	100	33									
						1,257'-1,258' Tuffaceous argillite with odd tuff fragment and 5% disseminated pyrite																		
1270						1,258'-1,261' Argillite, sheared and silicified by quartz-siderite veining. Small sphalerite bleb (1/2" diameter) at 1,259'					1269	1276.5	7.5	100	44									
	2a					1,269' Thin pyrite bands.																		
	2e					1,277'-1,316' ARGILLITE (2e)					1276.5	1286	9.5	98	57									
						Black calcareous argillite, argillaceous limestone and thin interbeds of grey limestone																		
1280						1,286'-1,304' Fine conformable pyrite bands & blebs.					1286	1294	8	100	60									
1290	2e																							

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.
1290	2e				
1300				15'	
1310				6'	
1320	2e				
1330	2a	py			
		py			
1330		py	S	35'	
		sph	S		
			S		
1340	2a	sph			

## LOCATION SURVEY DATA

Method Sperry Sun Magnetic Single Shot  
 Points Depth Dip Bearing  
1336' -62.5' 270'

## DESCRIPTIVE LOG

ARGILLITE (2e) Cont'd  
1,299'-1,301' Grey laminated limestone bed 2" thick.  
1,303' Pyrite veins & conformable pyrite bands.  
1,306.5'-1,307.5' Breccia zone  
1,310' Minor pyrite veins  
1,312'-1,315' 10% banded pyrite  
1,316'-1,356.5' ARGILLITE (2a)  
Black argillite with silicified zones and sections of banded conformable pyrite up to 10% A 6" chert bed at 1,317.5'  
1,318'-1,320.5 5-10% banded conformable pyrite  
1,320.5'-1,329.5' Argillite with 1% banded conformable pyrite  
1,329.5'-1,330.4' Silicified or cherty zone with ~ 1% pyrite  
1,331' sphalerite bleb within quartz-siderite vein

## GENERAL COMMENTS

### CORE QUALITY

FOOTAGE RUNS			% Core Recov.	% P.Q.D.
From	To	Length		
1294	1302	8	98	82
1302	1312	10	100	64
1312	1319.5	7.5	86	58
1319.5	1330	10.5	98	56
1330	1335	5	100	45
1335	1345	9	100	55

### ASSAYS

FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length	Tag No.				

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.
-------	-----------	----------------	------------	-------------	----------------

## DESCRIPTIVE LOG

## CORE QUALITY

## ASSAYS

### FOOTAGE RUNS

%  
Core  
Recov.

%  
R.Q.D.

### FOOTAGE

%  
Zn

%  
Pb

Oz/T  
Ag

Average  
Grades

From To Length

From To Length Tag No.

From To Length Tag No.

Zn

Pb

Ag

Average Grades

1340	2a	py		15	
		py			
1350	2a				
	2d				
1360	2a	py			
	4	sph	py		
1370	2a	py		15	
				10	
1380	2a			5	
1390	4				

ARGILLITE (2a) Cont'd  
1,332'-1,333' *Silicified zone.*  
1,338' *Sphalerite bleb within quartz-siderite vein.*  
1,340.5'-1,356.5' *Moderately hard argillite with 5-10% banded conformable pyrite to 1,343' and less than 1% pyrite from 1,343' to 1,356.5'*  
1,356.5'-1,360' CHERTY ARGILLITE (2d)  
*Grey black massive siliceous (cherty) argillite.*  
1,360'-1,366.5' ARGILLITE (2a)  
*Moderately hard black argillite with less than 1% disseminated pyrite.*  
1,366.5'-1,372.5' CHERT (4)  
*Black chert with moderate to weak quartz-sphalerite stockwork*  
1,372.5'-1,387.5' ARGILLITE (2a)  
*Black argillite with < 1% fine disseminated pyrite*  
1,387.5'-1,396' CHERT (4)  
*Massive black chert with an occasional quartz vein*

		<i>See Previous Page</i>			
1345	1352	7	88	60	
1352	1362	10	100	73	
1362	1372	10	98	61	
1372	1382.5	10.5	100	66	
1382.5	1391.5	9	94	46	

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale  
Lithology  
Mineralization  
Alteration  
Bedding L's  
Shears, fract.

## DESCRIPTIVE LOG

## CORE QUALITY

## ASSAYS

### FOOTAGE RUNS

%  
Core  
Recov.

%  
R.Q.D.

### FOOTAGE

%  
Zn

%  
Pb

Oz/T  
Ag

Average  
Grades

From

To

Length

Tag  
No.

From

To

Length

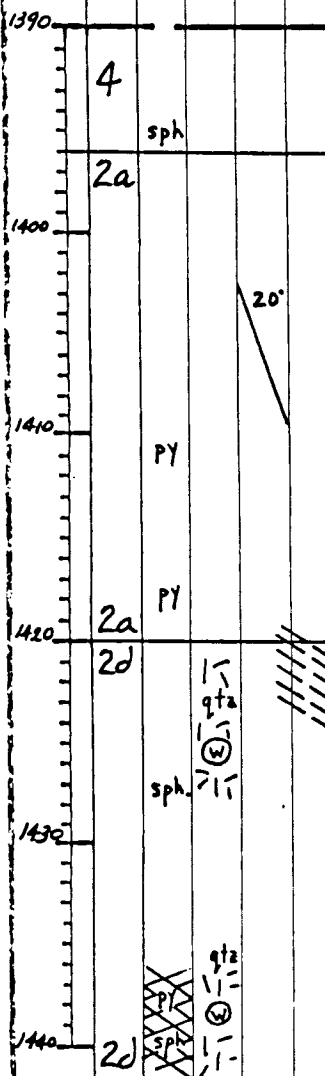
Tag  
No.

Zn

Pb

Oz/T  
Ag

Average  
Grades



CHERT (4) Cont'd  
with sphalerite (eq. at 1,395.5').

1,396'-1,420' ARGILLITE (2a)  
Black moderately soft argillite with fine disseminated pyrite blebs. Some weak banding at 1,406' at 20° to core axis. Locally, pyrite stockworks, and bands up to 10% (ave 1%) from 1,411.5' - 1,420'.

1,420'-1,442' CHERTY ARGILLITE (2d) SILICIFIED (2a)  
Cherty argillite and silicified argillite locally with weak quartz-sphalerite veining and quartz-pyrite-sphalerite veining; less than 1% sphalerite (< 1/2" vein at 1,441.)

From	To	Length	% Core Recov.	% R.Q.D.
1391.5	1398	6.5	100	27
1398	1403.5	5.5	94	23
1403.5	1414	10.5	99	52
1414	1424.5	10.5	95	28
1424.5	1434	9.5	93	33
1434	1440	6	100	24

From	To	Length	Tag No.	% Zn	% Pb	Oz/T Ag	Average Grades

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale	Lithology	Mineralization	Alteration	Bedding $\angle$ 's	Shears, fract.
-------	-----------	----------------	------------	---------------------	----------------

## DESCRIPTIVE LOG

## CORE QUALITY

## ASSAYS

FOOTAGE RUNS			% Core Recov.	% R. Q. D.	FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length	Tag No.				

1440	2a/2b																		
	2a	py		80°															
						1,442'	1,455'	ARGILLITE (2a)	1440	1448	8	99	24						
						Black argillite with fine bands and blebs of pyrite (1-2%) to 1,446', less than 1% from 1,446' to 1,455'.													
1450		py		30°					1448	1455	7	86	41						
	2a																		
	4		9/12																
1460		py	⊙			1,455'	1,466.5'	CHERT (4)	1455	1463.5	8.5	100	50						
						Grey massive chert with strong quartz stockwork. Bands of pyrite up to 15-20% at 1,459'.													
	4																		
1470	2a	py				1,466.5'	1,472'	ARGILLITE (2a)	1463.5	1474	10.5	100	24						
						Black moderately hard argillite with pyrite blebs and minor pyrite veins (< 1% pyrite).													
	2a/4	py																	
1480		py		30°		1,472'	1,518'	ARGILLITE (2a) / CHERT (4)	1474	1484	10	100	55						
						Black argillite with thin bands of grey chert ~ 1" thick. Appear to be closely associated with very fine-grained laminated pyrite bands up to 2" to 6" thick. (Up to 15-20% pyrite by volume over section).													
1490	2a/4								1484	1491	7	99	19						

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG						LOCATION SURVEY DATA			GENERAL COMMENTS																
Scale	Lithology	Mineralization	Alteration	Bedding $\angle$ 's	Shears, fract.	Method	Points		GENERAL COMMENTS	CORE QUALITY				ASSAYS											
						Sperry Sun Magnetic Single Shot	Depth	Dip		Bearing	FOOTAGE RUNS	% Core Recov.	% R.Q.D.	FOOTAGE		% Zn	% Pb	Oz/T Ag	Average Grades						
							1536'	-61°	268°		From	To	Length			From	To	Length	Tag No.						
1490	2a/4					<u>ARGILLITE (2a) / CHERT (4) Cont'd</u>																			
						1,484'-1,490' Sheared parallel to core axis.																			
						1,483'-1,496' Banded pyrite up to 10% by volume																			
						1,496'-1,504' Banded pyrite up to 1% by volume.				1491	1501.5	10.5	100	66											
1500						1,504'-1,518' Argillite and chert with 1-3% banded pyrite																			
1510																									
1520	2f					<u>1,518'-1,650' ARGILLITE (2f)</u>																			
						Argillaceous limestone, limestone and calcareous limestone interbeds; minor non-calcareous argillite																			
						1,518'-1,525' Grey, laminated to massive limestone with sphalerite-pyrite vein at 1,531'																			
						1,532'-1,533' Calcareous argillite																			
						1,533'-1,540' Fault zone - brecciated quartz veins and argillite				1527.5	1538	10.5	98	33											
1530						1,540'-1,549' Grey laminated to massive limestone																			
1540	2f																								

# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

## GRAPHIC LOG

## LOCATION SURVEY DATA

## GENERAL COMMENTS

Method \_\_\_\_\_  
Points \_\_\_\_\_

Scale  
Lithology  
Mineralization  
Alteration  
Bedding L's  
Shears, fract.

## CORE QUALITY

## ASSAYS

FOOTAGE RUNS			% Core Recov.	% R.Q.D.	FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length			From	To	Length	Tag No.				

## DESCRIPTIVE LOG

ARGILLITE (2f) Cont'd

1,549'-1,575' Black argillaceous limestone to strongly calcareous argillite

1540	1550	10	100	42								
------	------	----	-----	----	--	--	--	--	--	--	--	--

1550	1557.5	7.5	100	46								
------	--------	-----	-----	----	--	--	--	--	--	--	--	--

1557.5	1567	9.5	100	75								
--------	------	-----	-----	----	--	--	--	--	--	--	--	--

1567	1577	10	100	75								
------	------	----	-----	----	--	--	--	--	--	--	--	--

1577	1587	10	98	77								
------	------	----	----	----	--	--	--	--	--	--	--	--

See Following Page

1540

2f

10'

1550

1560

1570

20'

1580

1590

2f



# CLEAR LAKE PROJECT

# DIAMOND DRILL RECORD

Hole Number 83-40

Logged By G. NORMAN

GRAPHIC LOG					
Scale	Lithology	Mineralization	Alteration	Bedding L's	Shears, fract.
1640	2f				
1650	2f				
1660	2e				
1670					
1680					
1690	2e				

## LOCATION SURVEY DATA

Method \_\_\_\_\_  
 Points \_\_\_\_\_  
 \_\_\_\_\_

## DESCRIPTIVE LOG

ARGILLITE (2f) Cont'd  
 1,641.5' 3" limestone band

ARGILLITE (2e)  
 1,650'-1,726.5' Black argillite and calcareous argillite with thin grey limestone bands and minor argillaceous limestone.  
 1,656'-1,661' Grey limestone bed.  
 1,661'-1,716' Black non-calcareous argillite

## GENERAL COMMENTS

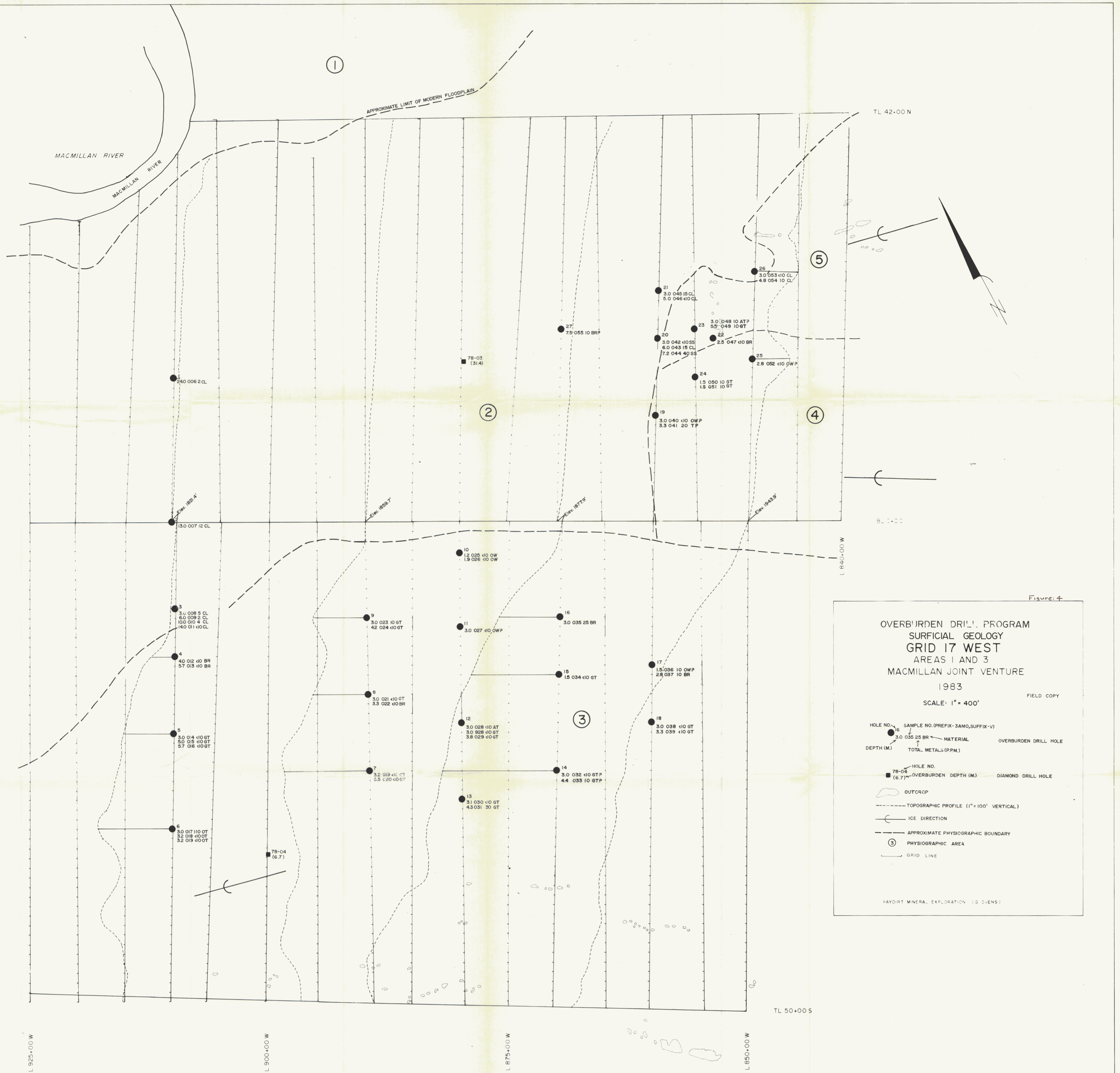
### CORE QUALITY

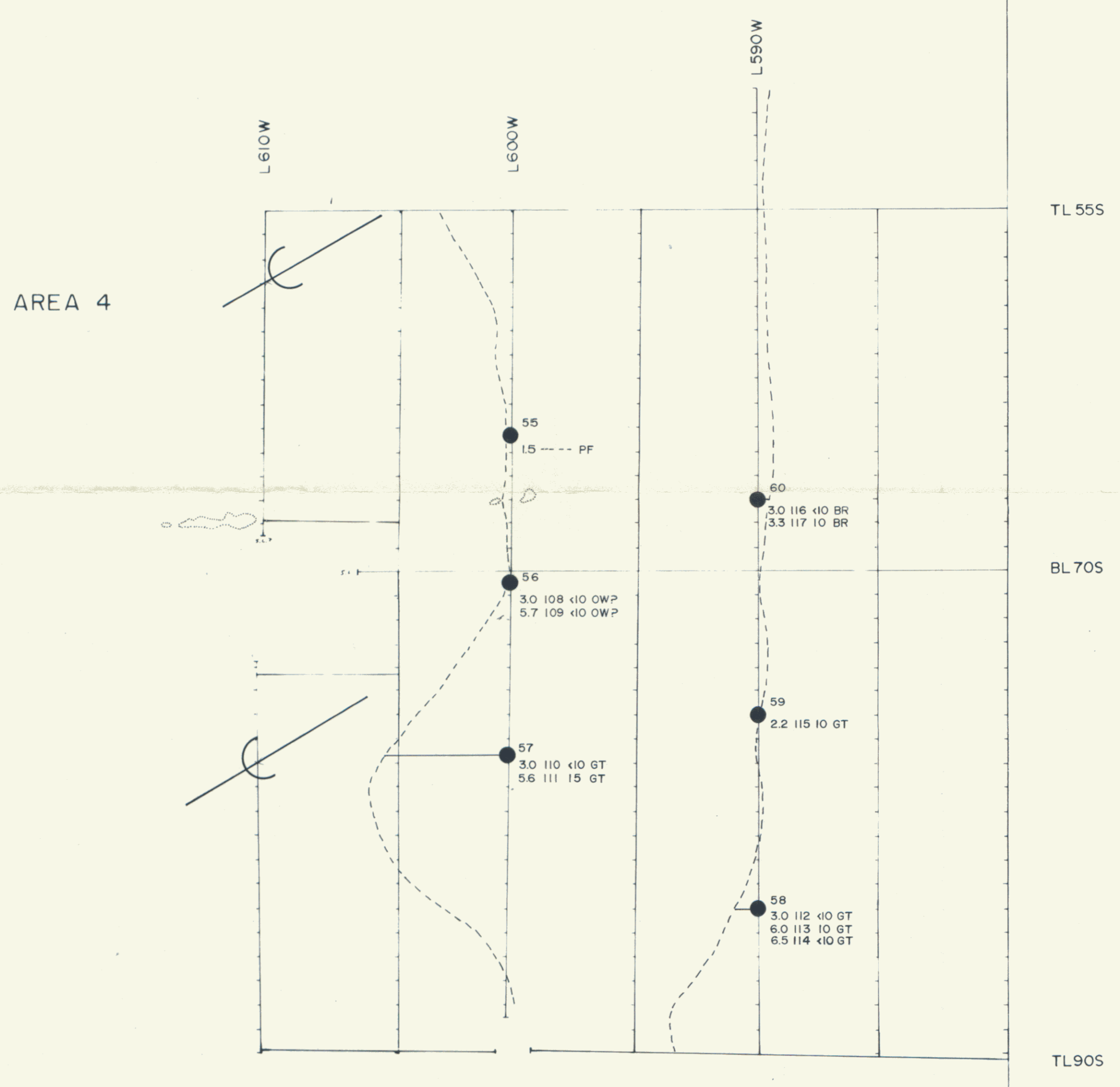
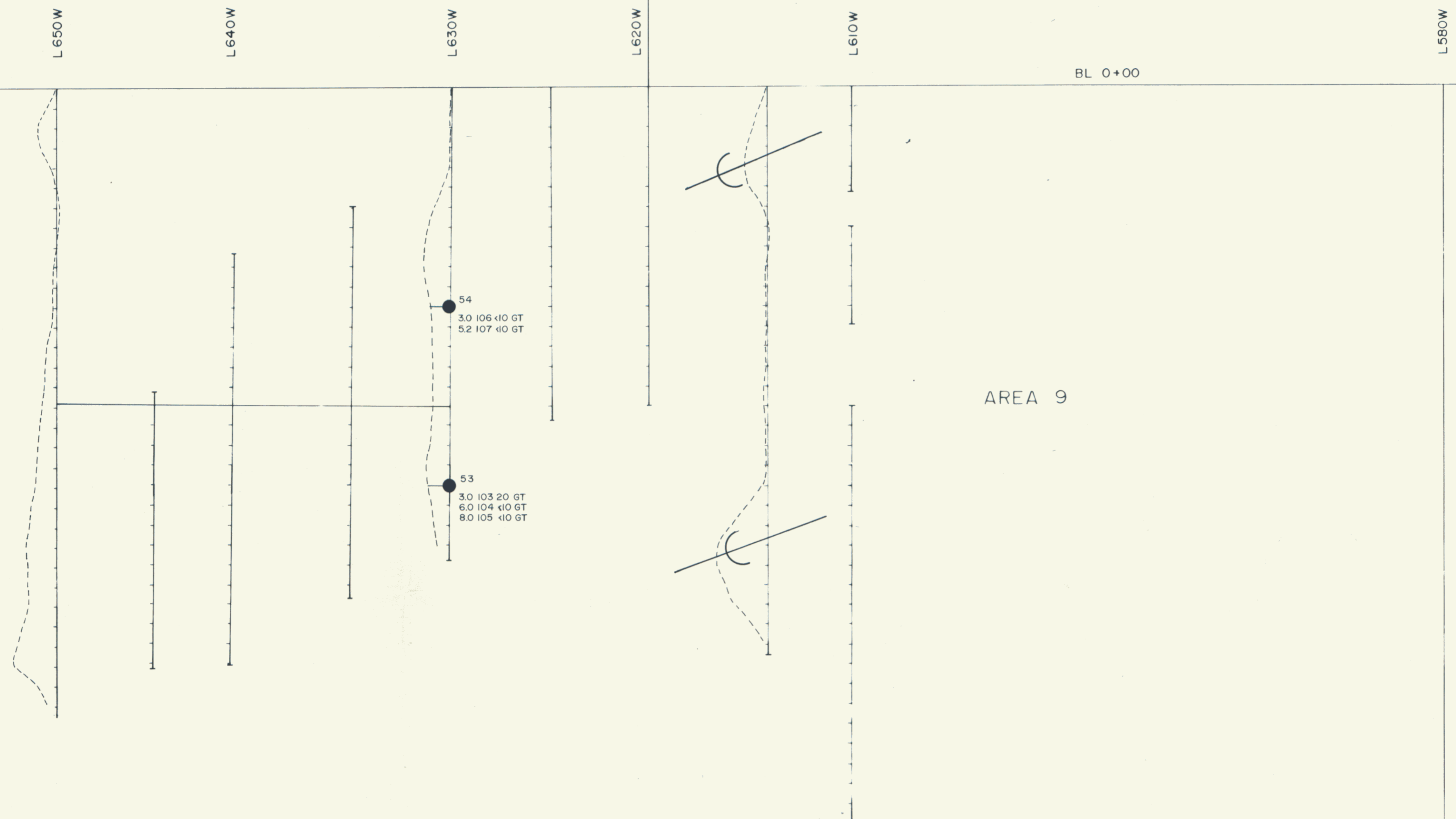
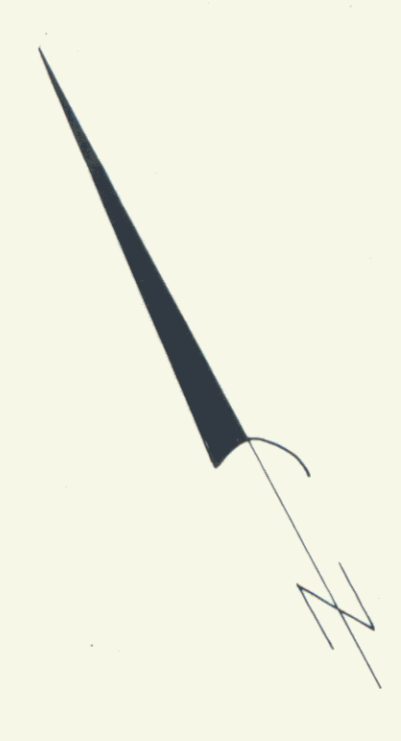
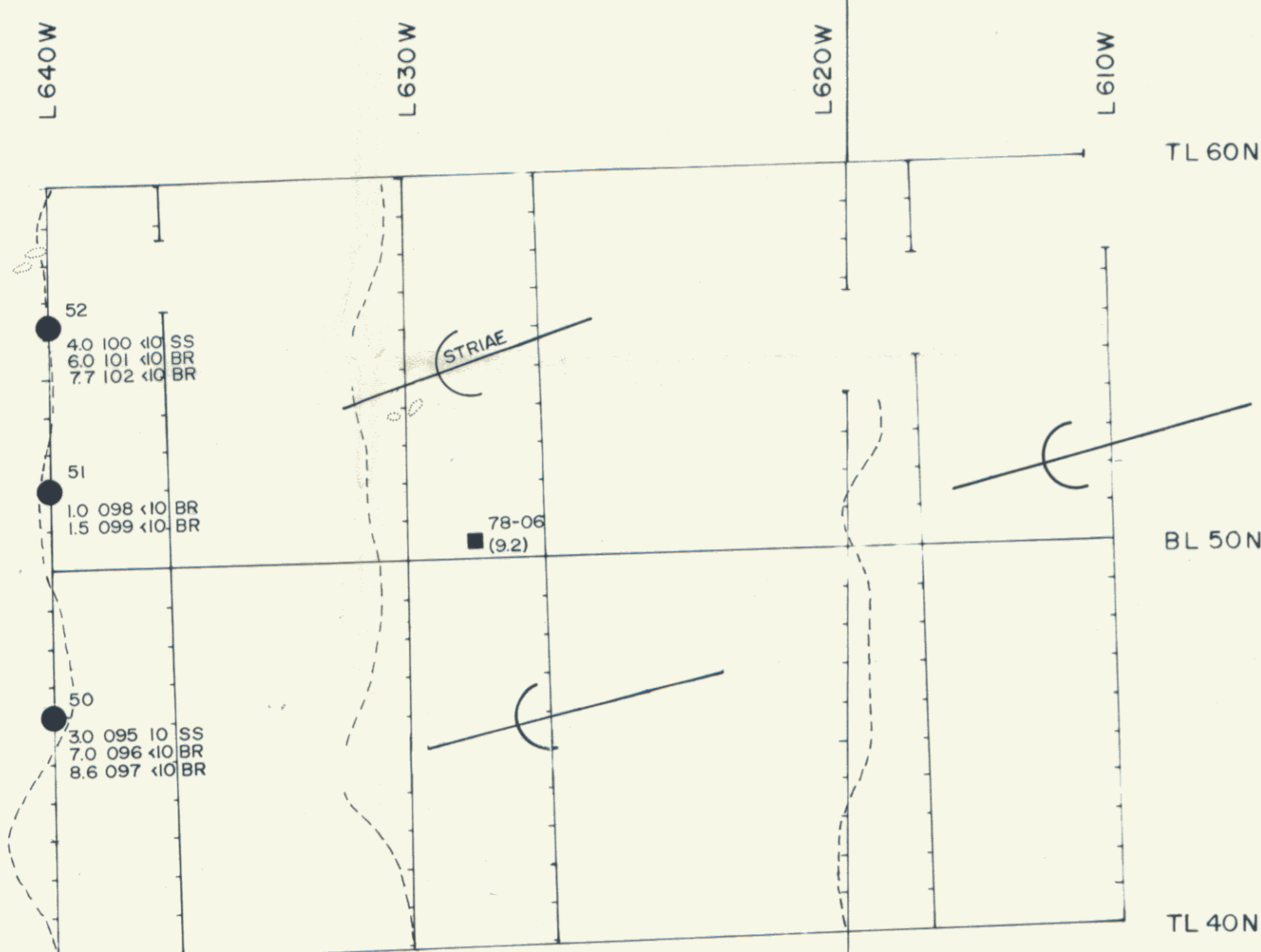
FOOTAGE RUNS			% Core Recov.	% R. Q. D.
From	To	Length		
1635	1645.5	10.5	100	63
1645.5	1656	10.5	99	41
1656	1663.5	7.5	100	20
1663.5	1674	10.5	99	64
1674	1684.5	10.5	100	60
1684.5	1695	10.5	98	52

### ASSAYS

FOOTAGE				% Zn	% Pb	Oz/T Ag	Average Grades
From	To	Length	Tag No.				







**OVERBURDEN DRILL PROGRAM**  
**SURFICIAL GEOLOGY**

GRID G8 (AREA 2)  
 GRID G23 (AREA 9)  
 GRID 43 (AREA 4)

**MACMILLAN JOINT VENTURE**  
 1983

FIELD COPY  
 SCALE: 1"=400'

HOLE NO. → SAMPLE NO. (PREFIX-SAMG, SUFFIX-V)  
 3.0 055 25 BR ← MATERIAL OVERBURDEN  
 DEPTH (M) TOTAL METALS (PPM) DRILL HOLE

78-04 → HOLE NO. OVERBURDEN (6.7) → DEPTH (M) DIAMOND DRILL HOLE

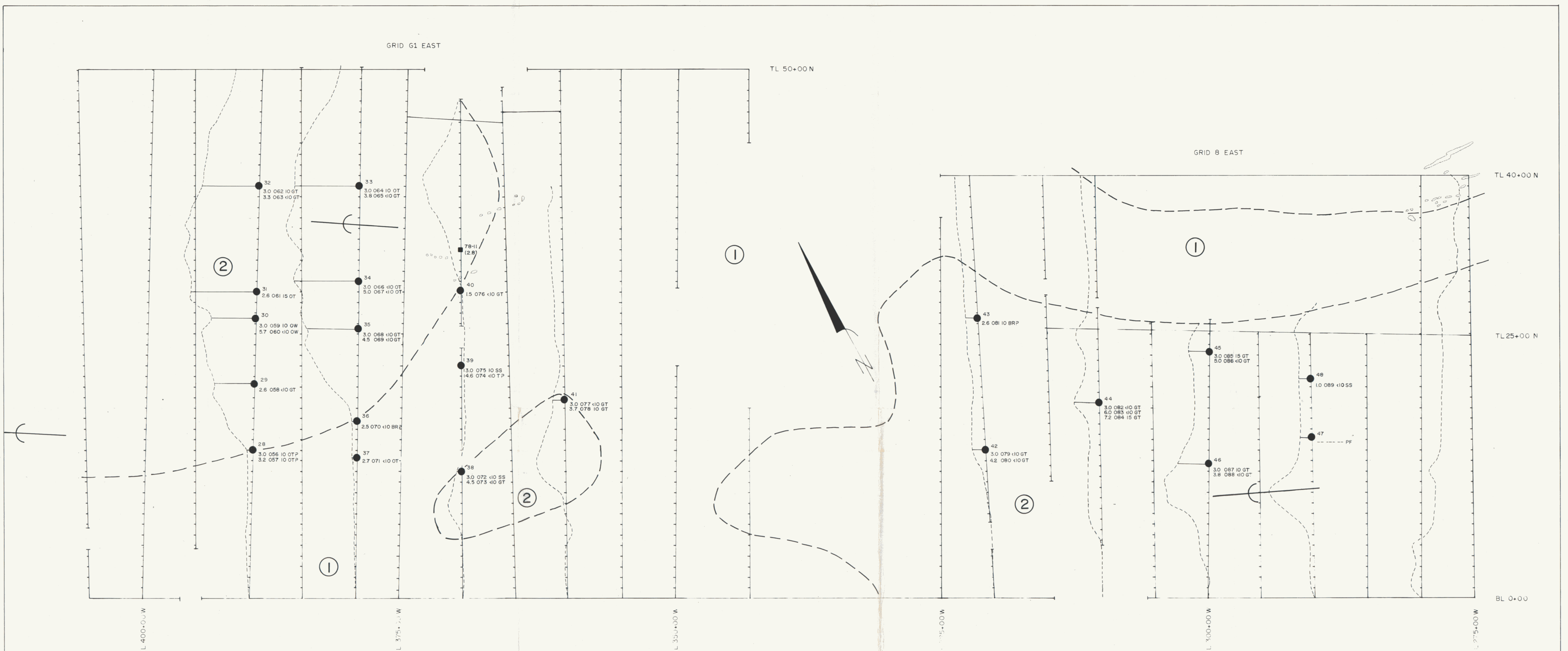
○ OUTCROP

--- TOPOGRAPHIC PROFILE (1"=100' VERTICAL)

↻ ICE DIRECTION

GRID 1148  
 PAYDIRT MINERAL EXPLORATION (G OVENS)

Figure 5



**OVERBURDEN DRILL PROGRAM  
SURFICIAL GEOLOGY**

AREAS 5 AND 6  
GRIDS G1 EAST, 8 EAST

MACMILLAN JOINT VENTURE  
1983  
SCALE: 1"=400' FIELD COPY

091511 Figure 6

HOLE NO. 16  
DEPTH (M.) 3.0

SAMPLE NO. (PREFIX-3AMO,SUFFIX-V)  
3.0 035 25 BR

MATERIAL  
TOTAL METALS (PPM)

OVERBURDEN DRILL HOLE

HOLE NO. 78-04  
OVERBURDEN (6.7)

DEPTH (M.)

DIAMOND DRILL HOLE

OUTCROP

TOPOGRAPHIC PROFILE (1"=100' VERTICAL)

ICE DIRECTION

APPROXIMATE PHYSIOGRAPHIC BOUNDARY

PHYSIOGRAPHIC AREA

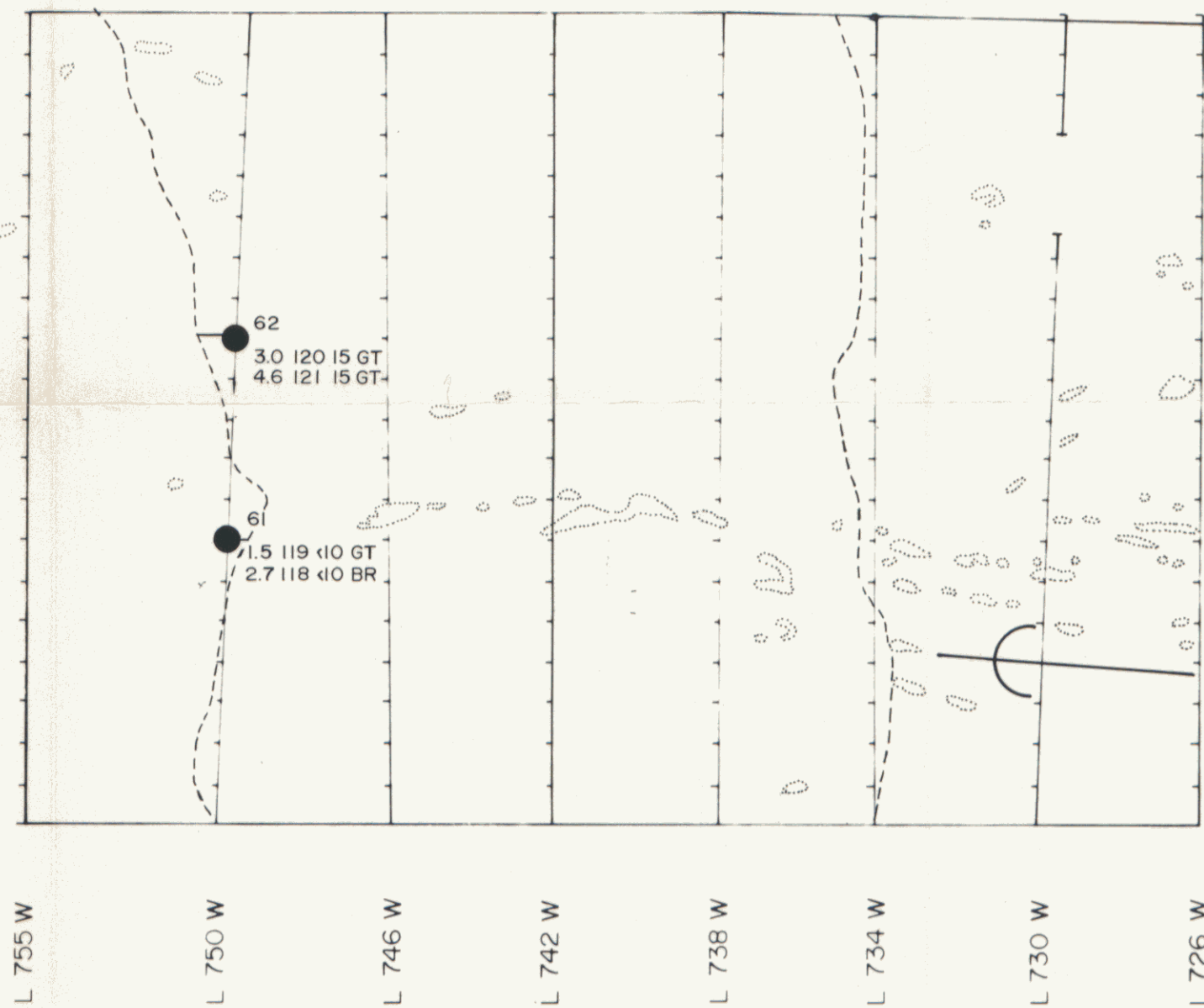
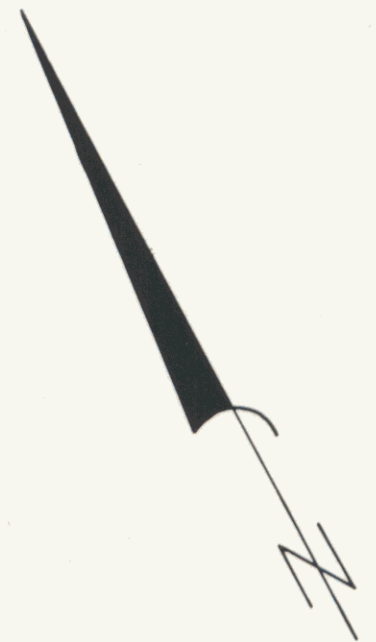
GRID LINE

PAYDIRT MINERAL EXPLORATION (G. OVENS)

OVERBURDEN DRILL PROGRAM: SURFICIAL GEOLOGY  
AREA 7  
MACMILLAN JOINT VENTURE  
1983

Figure: 7

FIELD COPY



TL 20 N

BL 0+00

L 755 W  
L 750 W  
L 746 W  
L 742 W  
L 738 W  
L 734 W  
L 730 W  
L 726 W

SCALE: 1" = 400'

HOLE NO. → 16  
 ↓  
 3.0 035 25 BR ← MATERIAL  
 ↑  
 DEPTH (M.)      TOTAL METALS (PPM.)

○ OUTCROP

--- TOPOGRAPHIC PROFILE  
 (1" = 100' VERTICAL)

— ICE DIRECTION

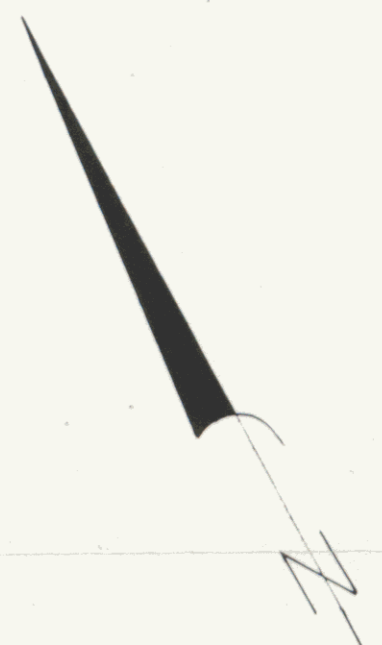
— GRID LINE

PAYDIRT MINERAL EXPLORATION (G. OVENS)

OVERBURDEN DRILL PROGRAM  
SURFICIAL GEOLOGY  
GRID 5 EAST  
MACMILLAN JOINT VENTURE  
1983

Figure: 9

FIELD COPY



SCALE: 1" = 400'

HOLE NO. 16      SAMPLE NO. (PREFIX-3AMO, SUFFIX-V)  
 3.0 035 25 BR      MATERIAL

DEPTH (M.)      TOTAL METALS (PPM.)

OUTCROP

----- TOPOGRAPHIC PROFILE  
 (1" = 100' VERTICAL)

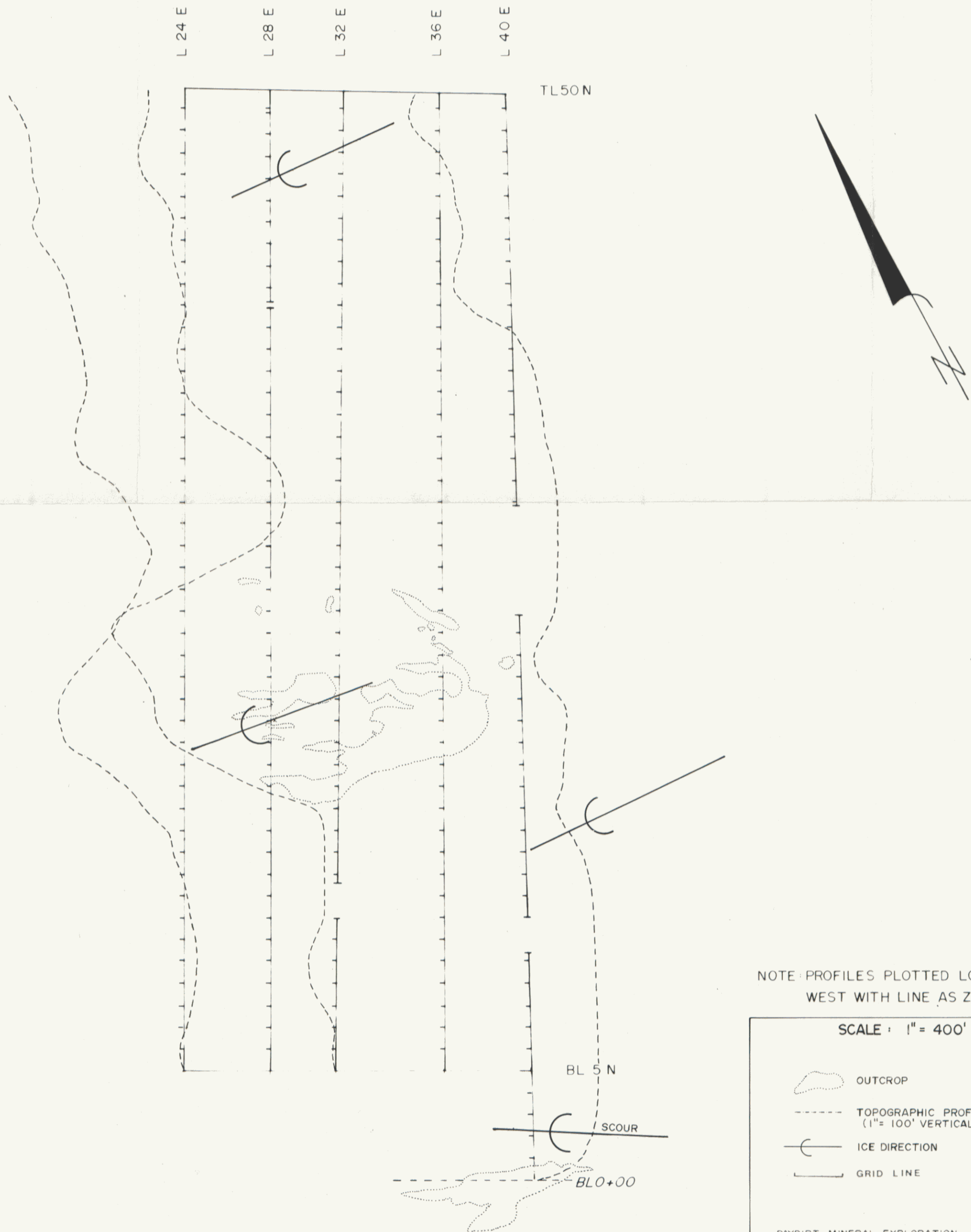
----- GRID LINE

PAYDIRT MINERAL EXPLORATION (G. OVENS)

SURFICIAL GEOLOGY  
GRID 3 WEST  
MACMILLAN JOINT VENTURE  
1983





Figure: 10

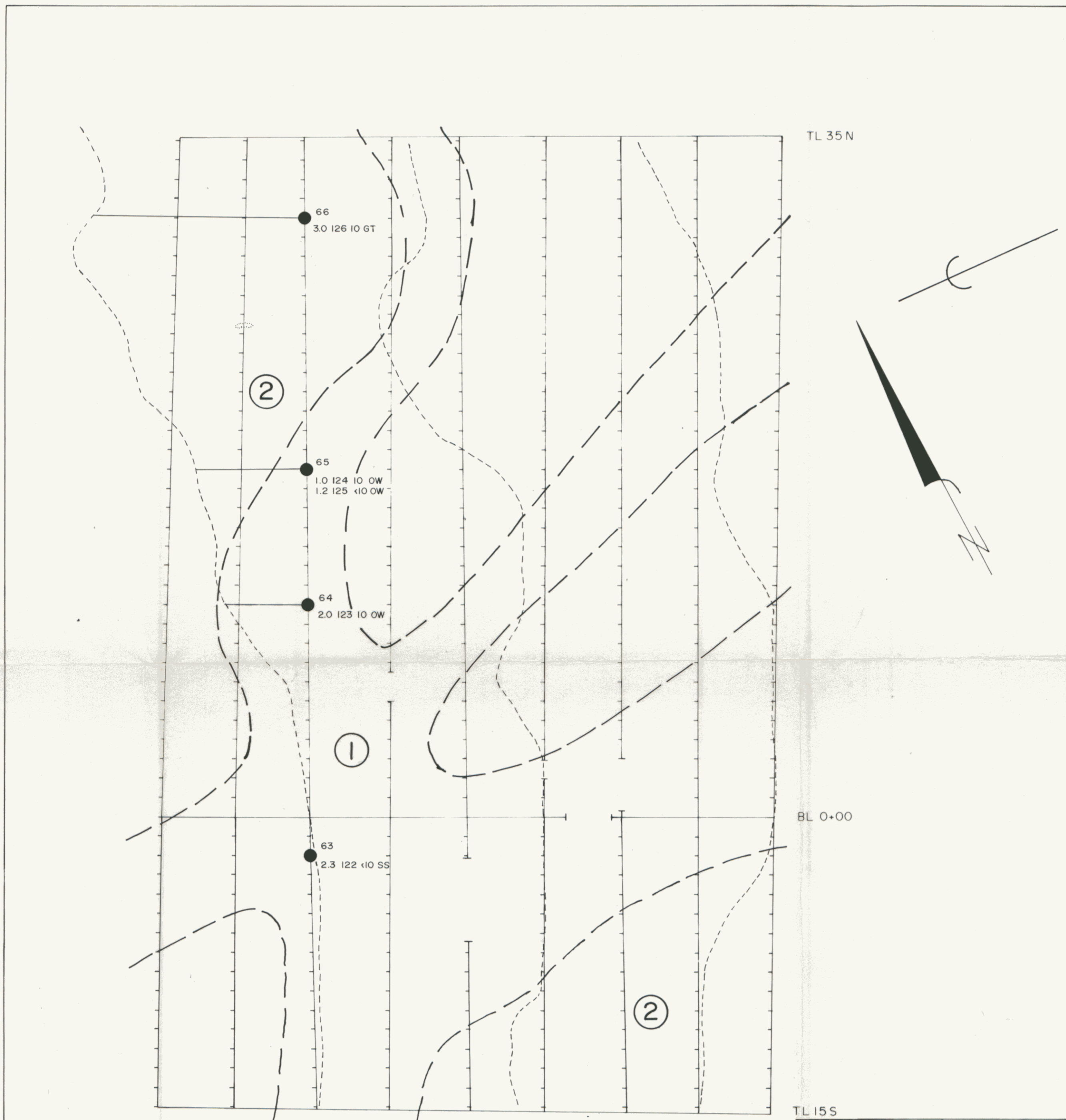
FIELD COPY



NOTE: PROFILES PLOTTED LOOKING WEST WITH LINE AS ZERO

SCALE: 1" = 400'

-  OUTCROP
-  TOPOGRAPHIC PROFILE (1" = 100' VERTICAL)
-  ICE DIRECTION
-  GRID LINE



OVERBURDEN DRILL PROGRAM : SURFICIAL GEOLOGY

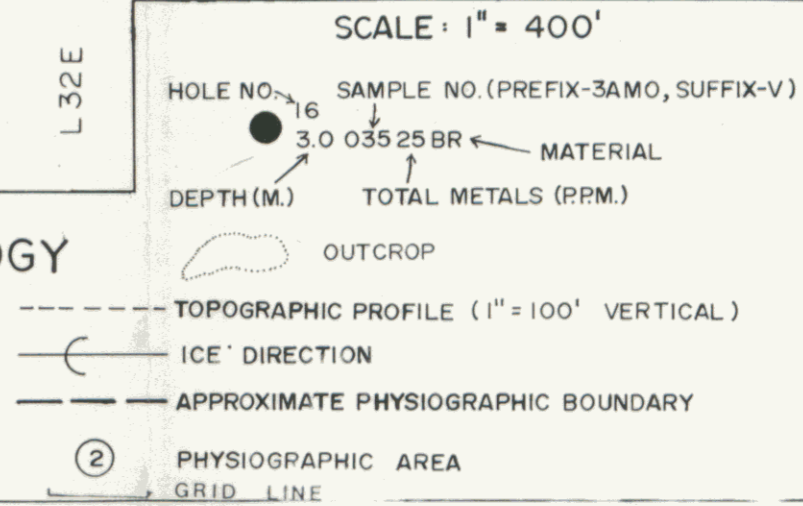
GRID 5 WEST  
MACMILLAN JOINT VENTURE

1983

Figure: 11

FIELD COPY

091511



PAYDIRT MINERAL EXPLORATION (G. OVENS)