



42G04NE0002 OM91-104 DOHERTY

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REPORT ON A
BASE AND PRECIOUS METAL
EXPLORATION PROGRAM ON
PELLETIER - DOHERTY TOWNSHIP PROPERTY

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January 1992



42G04NE0002 OM91-104 DOHERTY

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1.0 SUMMARY

The prospecting, geological mapping, stripping and diamond drilling programs carried out on the Pelletier-Doherty Township property were successful in finding mineralized zones and in evaluating there economic potential. A total of 540 samples were analyzed for base and precious metal. The most interesting results were found in trench W,E and L where very anomalous base metal assays were obtained. And where diamond drill hole 2 returned an assay of 3.4% Zinc over 20cm.

It is recommended that the area to the north east, which include a large number of conductors, should be investigated further by conventional prospecting, line cutting, geophysics and power stripping followed by diamond drilling of the best targets.

2.0 INTRODUCTION

This report describes the results of a base and precious metal exploration program carried out by Mr. Mauril Jean in 1991 on a property straddling Pelletier and Doherty townships. Reconnaissance exploration was also carried out in the surrounding area.

The property was staked following many years of reconnaissance exploration by Mr. Mauril Jean in the Hearst area. More specifically to the south of Hearst where during the last year over 200 percussion drill holes 10 to 16 feet deep were drilled along lumber roads and analyzed for precious and base metal. The results of this initial work led to the discovery of two new gold showings (0.037 and 0.018 Oz./ton gold).

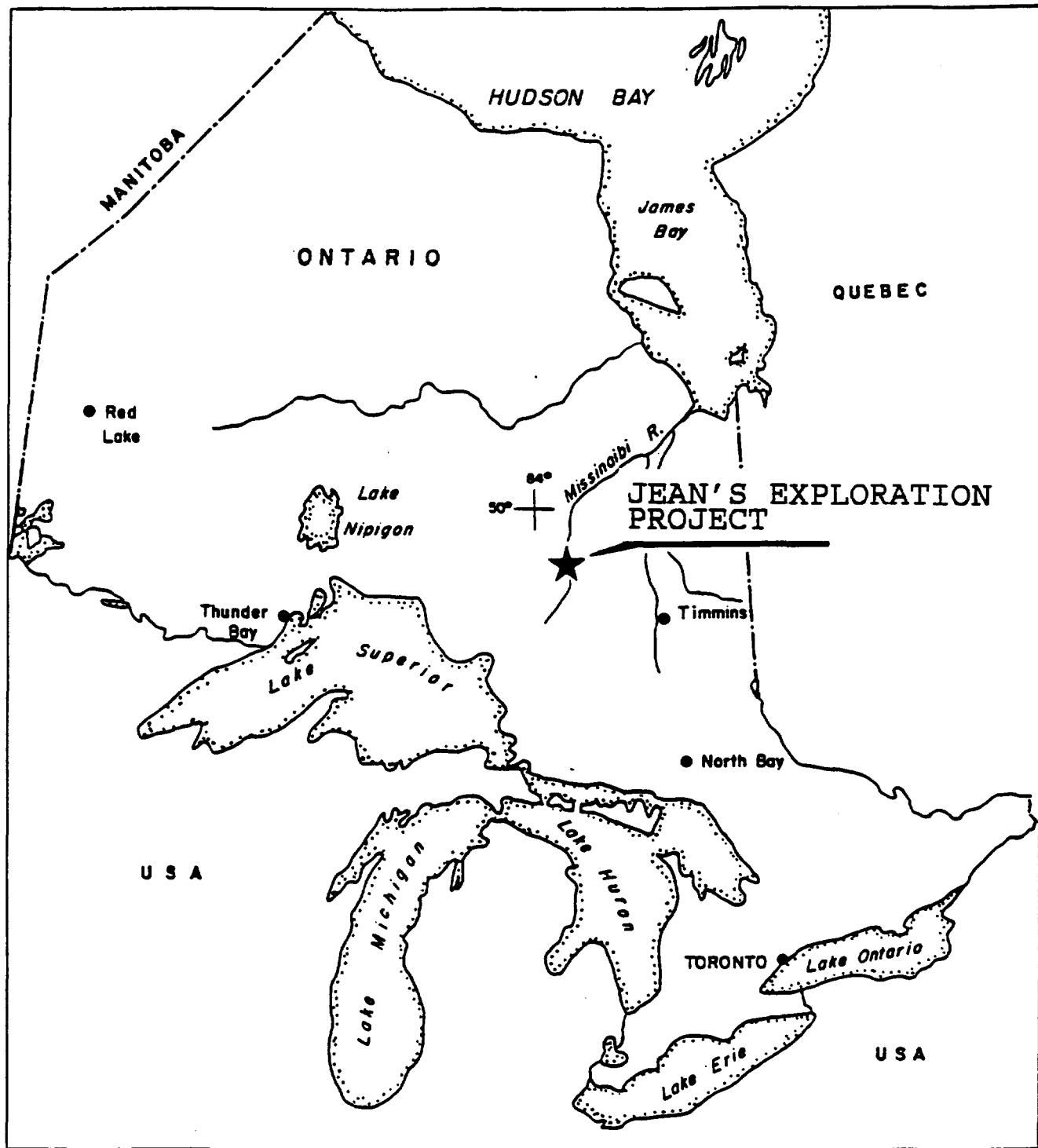
Reconnaissance exploration to the west and east of the property consisted in traversing and sampling areas where the OGS aeromagnetic and electromagnetic survey detected strong conductors.

The project was supervised by Mr. Mauril Jean assisted by Vernon M. Shein (Geologist) which carried out reconnaissance mapping and sampling plus mapped and sampled in detail some of the stripped areas. Mr. Jean was responsible for the heavy equipment and manual labour while Mr. Shein was responsible for the geological work. The present author mapped one stripped area, compiled the data and wrote the technical report because Mr. Shein relocated to British Columbia mid summer.

2.1 LOCATION & ACCESS

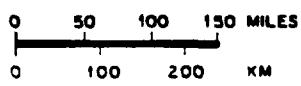
The property is located approximately 72 kilometers due south of Hearst in the townships of Pelletier and Doherty. Both townships are within the North Porcupine Mining Division and the District of Chochrane. The claim group is located in the north east corner of NTS map 42G/4 at longitude $33^{\circ} 35'$ latitude $48^{\circ} 14'$. See figure 1.
~~49+~~

Access to the property is excellent via Highway 583 due south of Hearst for 10 kilometers, then onto a well maintained all weather gravel logging road (Caithness) for 58 kilometers. From this point a secondary forest access gravel road going eastward crosses the property at approximately 4 Kilometers from the main road. A gate at the western boundary of Doherty township restricts access to persons specifically authorized by Domtar Incorporated.



JEAN'S EXPLORATION

LOCATION MAP



DATE April 1991 Fig. 1

2.2 PROPERTY

At the present time the property consists of 29 unpatented mining claims. Six claims lie in Pelletier and 23 in Doherty township. The claims are registered in the names of Yvon and Mauril Jean. See figure 4.

List of Claims

1129723	1129724	1129725
1129726	1129727	1129728
1129729	1129731	1129732
1129733	1160102	1160103
1160104	1160105	1160106
1160107	1160108	1160109
1160110	1160111	1176576
1176577	1176578	1176580
1176581	1176582	1176583
1176584	1176585	

2.3 PREVIOUS WORK

According to the Ontario Geological Survey "the history of mineral exploration in the area is minimal". Furthermore "there is no record of recent activity using modern exploration techniques and concepts"(Berger,B.R.,1986). During the flow through mining incentive program a number of large scale grass roots type exploration programs were carried out in the area. These programs covered the small green stone belts in the Wawa subprovince and large areas within the metasedimentary dominated terrain of the Quetico subprovince where previous exploration activity was sporadic and very limited in scope.

The following is a list summarizing the exploration and mapping activities in the area organized in chronological order.

1) 1875 Bell R.

The first recorded work in the area was by Rubert Bell of the Geological Survey of Canada. He carried out geological mapping along Missinaibi River while returning from James Bay to Lake Superior(Bell,R.1877).

2) 1903 to 1905 W.J.Wilson and W.H. Collins

Mapped the area along Big Pike Lake and the Missinaibi River as part of regional mapping program.

3) 1966 Ontario Department of Mines

Carried out a helicopter supported mapping program known as "Operation Kapuskasing" (Bennett, G. et al., 1967). This program was part of a compilation program which produced the 1 inch to 4 mile geological compilations series.

4) 1985 Berger B.R.

The most recent geological mapping was carried out by B.R. Berger of the Ontario Geological Survey. A series of detailed maps at a scale of 1 inch equals 1/4 mile were generated covering the Pike Lake greenstone belt.

5) 1985 Ministry of Northern Development and Mines

Sponsored an airborne geophysical survey which covered the Pelletier-Doherty township greenstone belt.

7) 1959 Lundberg Exploration Limited

Flew an airborne magnetic and electromagnetic survey over parts of Caithness and Pelletier Townships and staked claims covering a number of conductive zones.

7) 1960 Macassa Mines Limited

Optioned 49 unpatented mining claims located in Caithness and Doherty Township from Lundberg Exploration Limited. Rock samples collected by Macassa Mines Limited consisting of rusty rock containing disseminated magnetite, pyrite and pyrrhotite returned assays from nil gold to 0.02 oz/ton Au. Ground electromagnetic (Turam) and magnetic surveys were also done which located a number of weak conductors. No other work was reported and the claims were allowed to lapse.

8) 1974, 1976 and 1977 Steve Vukmiromich

Completed three diamond drill holes totalling 342 feet (104 m) southwest of Big Pike Lake. The holes encountered rocks interpreted by B.R. Berger of Ontario Geological Survey to be mafic metavolcanics and/or diorite. Minor amounts of pyrite, quartz and epidote were noted, however no assays were reported.

9) 1980 Steve Vukmiromich

Drilled one hole in Caithness Township. This hole totalled 30.1 m and was located to test a ground electromagnetic conductor previously defined by Macassa Mines Limited in 1960. The drill hole intersected pyroxenite, quartz and pyrrhotite, however no assays were reported.

10) 1980 Mike Wabano

Excavated several trench in Caithness Township. This area was again within the old Macassa property and presumably the trenches were within the vicinity of the ground conductors outlined by Macassa Mines Limited. Assays or rock types were not reported from this work.

11) 1985-1986 Kapuskasing Joint Venture

Staked 971 mining claims and carried out an airborne geophysical survey (VLF-EM and magnetometer). This was followed by detail prospecting, mapping, soil and rock sampling and stripping. A number of mineralized zones were found but no mineralization of economic interest was found.

3.0 DISCUSSION

3.1 REGIONAL AND LOCAL GEOLOGY

The property is located on a narrow greenstone belt in proximity of the Quetico and Wawa subprovinces (See Fig. 2). The boundary between the belts is poorly defined in this area. Early interpretations placed the Pike Lake greenstone belt within the Quetico subprovince. The recent geological compilation by the Ontario Geological Survey has included this belt in the more productive greenstone dominated terrain of the Wawa subprovince Pye, E.G. 1991 p485-539.

The narrow east north east striking greenstone belt consists of intercalated mafic volcanics, felsic pyroclastics and minor volcanogenic sediments. No reliable top determinations were found in this area. The few poorly defined pillow structures indicate a south facing sequence.

The Quetico Subprovince represents an east-west trending zone of highly deformed rocks fault bounded to the north and south. For the most part the rocks of this terrane consist of immature clastic sediments (quartz wacke) metamorphosed to upper amphibolite to lower granulite facies. These rocks are isoclinally folded about an east-west axis and are pervasively invaded by granitic bodies many of which are anatetic in origin. The granitic rocks characteristically contain abundant paragneiss inclusions which contain minerals such as muscovite, garnet and cordierite. Locally there are bodies of tonalite-granodiorite gneiss and thin units of mafic gneiss which possibly represent metavolcanics and/or mafic intrusions.

The Wawa Subprovince is located south of the Quetico Subprovince and underlies the property. This region is dominantly underlain by rocks of igneous and meta-igneous origin. In more detail this subprovince consists of a number of greenstone belts which are surrounded by areas of granitic and gneissic rocks.

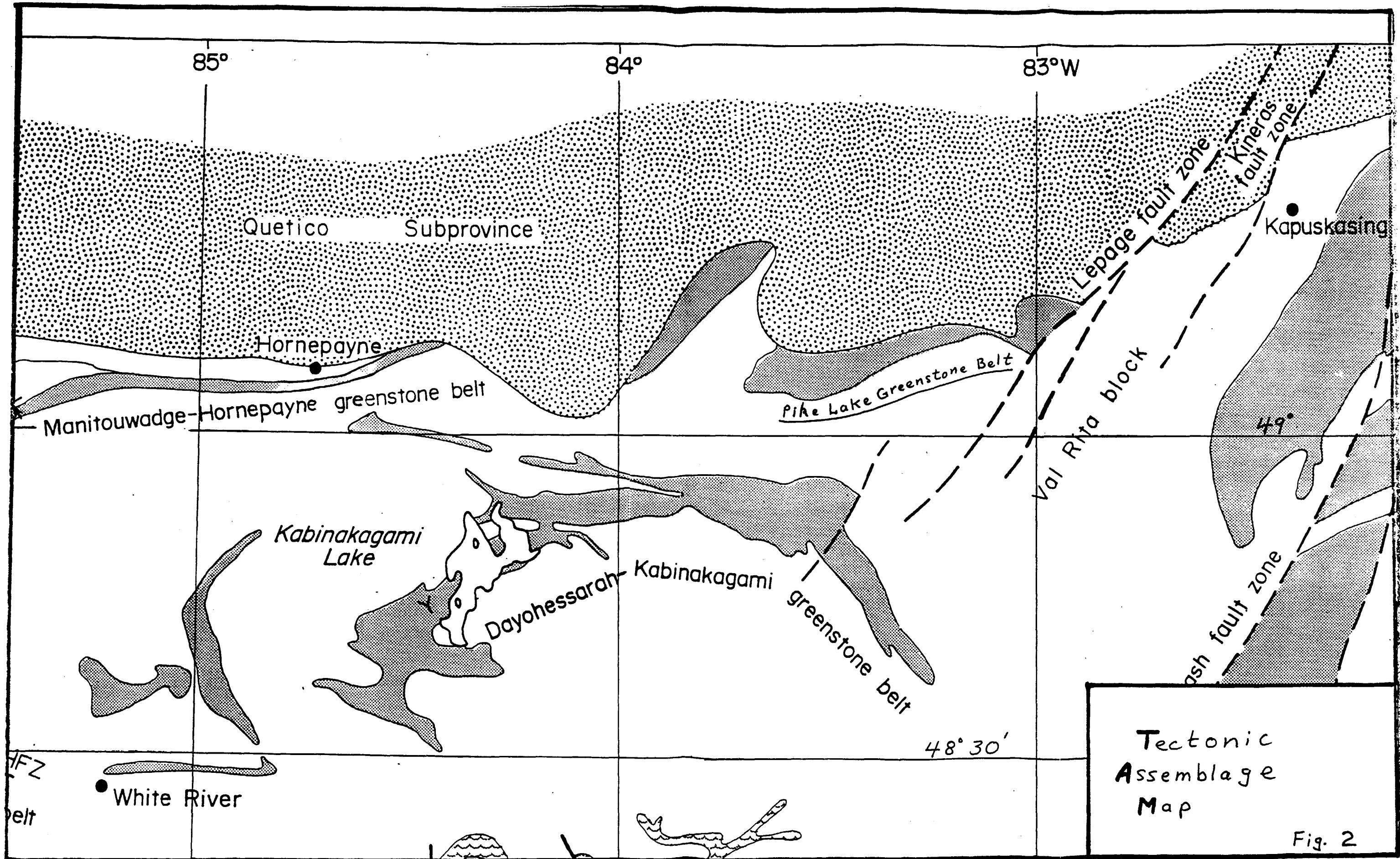


Fig. 2

3.2 PROPERTY GEOLOGY

The property covers the southern half of the greenstone belt at its western extremity. The northern claims are underlain by mafic volcanic rocks. Pillow structures were identified along the access road in the western part of the property however the strong E-W penetrative fabric evident through out the area has obliterated all stratigraphic top structures. At the southern end of the property a 400 to 600m wide biotite schist belt derived from a possible metasediment (greywacke) source, separates the basalts to the north from the felsic intrusive country rock to the south. See figure 3. The felsic volcanic rocks shown on Bergers geology map were not found on the property.

Shear zones have two predominant directions on the property. In the north east corner of the property the shear zones and foliation trend ENE while in the south east the shear zones and foliation trend ESE. A stock of intermediate composition located to the east is inferred to explain the anomalous foliation wrapping around the stock. No exposures of the intrusive was found but the airborne magnetic survey supports the conclusions reached based on the foliation pattern.

3.3 STRIPPING AND SAMPLING

3.3.1 Trenches 1,2,3,4,5,6,7,8 & 9

The trenches listed above were located on a strong shear zone with minor quartz veining, weak alteration and traces to 2% disseminated pyrite. Previous reconnaissance sampling ie. trench 1 had returned encouraging results (0.037 Oz/ton). Stripping and sampling along strike and across strike did not repeat the original anomalous result. See figure 6 .

3.3.2 Trenches 10,11

Trench 10 and 11 were excavated to investigate a weakly mineralized zone. Detail sampling did not locate anything of economic interest. See figure 7.

3.3.3 Trench W,E & L

Trench W, E, and L were excavated along a strong shear zone with narrow intensely altered sections (epidote and bleaching) which were variably mineralized with pyrite, sphalerite and chalcopyrite.

Epidote occurs as knots or boudins from 5 to 10cm in diameter and as zones of massive epidote 10 to 20cm wide and several meters long. parallel to foliation. Disseminated pyrite occurs through out the shear zone from less than 2% up to 15% locally. Sphalerite and chalcopyrite were observed at a number of locations usually as small grains. Zinc bloom developed on the exposures a few weeks after the trenches were excavated. The zinc oxide is common through out the length of the shear zone.

Assay results were interesting, attaining values of several thousand ppm Zinc and Copper. While precious metal results are at best only weakly anomalous. See figure 8a and 8b.

3.3.4 Trench DS

Trench DS was located across a large outcrop where mineralized zones were found. After stripping was done the mineralization was found to be of limited strike length and width. Samples collected from these zones returned anomalous values only. See Figure 9a.

3.3.5 Trench IF

This area was stripped to investigate a very strong magnetic anomaly. Weakly pyritized zones were sampled. Nothing of interest was found. See Figure 9a.

3.3.6 Grid B Reconnaissance Exploration

Prospecting over Grid B area found that the Anomalous Geochem samples found up ice from previously tested mineralized zones, interflow tuffs and graphitic schists were the sources of the geochemical anomaly. Since Zinc is a very mobile element and the mineralized zones are on a topo high sloping northward the anomaly was displaced northward by hydromorphic processes which post dates the glacial southerly transport.

3.3.7 Caithness Township Reconnaissance Exploration

Initial prospecting over this area did not return any significant results to date except for one area where the gold values were marginally anomalous.

A large number of conductors were located by the OGS airborne survey in this area. Prospecting will continue in an effort to locate and sample all the conductors and mineralized zones. See Figure 10.

3.4 Diamond Drilling

Diamond drill holes 1,2 & 3 were positioned to test the best mineralized zones found at surface in the shear zone in trench E and

L. The drill holes intersected the alteration zone but the mineralization did not improve significantly. The best results were found in drill hole 2, where an assay of 3.4% Zinc, 4 200ppm Copper, and 105ppb Gold was found in a 20cm wide altered zone containing 2 veins 4.0 & 5.0cm wide with up to 15% pyrite, pyrrhotite, sphalerite and chalcopyrite. The remainder of the samples returned anomalous results of several thousand ppm Zn and Cu similar to the surface results. See diamond drill logs, sections and assay results in Appendix I.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The prospecting, geological mapping, stripping and diamond drilling programs carried out on the Pelletier-Doherty Township property were successful in finding mineralized zones and in evaluating there economic potential. A total of 540 samples were analyzed for base and precious metal. Most were grab samples with some percussion drill hole dust and diamond drill core. The most interesting results were found in trench W,E and L where very anomalous base metal assays were obtained. And where diamond drill hole 2 returned one assay result of 3.4% Zinc over 20cm.

A large number of conductor were detected on the Oba-Kapusasing Airborne Geophysical Survey north east of the property. In light of the results in trench W,E and L where anomalous base metal results were obtained from a very weak conductor the strong conductors to the north east should be investigated for their base and precious metal potential. It is recommended that the area should be investigated further by conventional prospecting, line cutting, geophysics and power stripping followed by diamond drilling of the best targets.

RECONNAISSANCE GRAB SAMPLES

SAMPLE NO	Au ppb	Cu ppm	Zn ppm
F-25052	58	10	16
F-25053	0	20	20
F-25054	0	16	16
F-25055	0	24	30
F-25056	0	10	12
F-25057	0	22	18
F-25056	0	12	24
F-25059	58	16	16
F-25060	0	14	18
F-23486	0	30	20
F-23487	0	24	22
F-23488	0	6	10
F-23489	0	18	18
F-23490	0	6	10
F-23491	0	14	12
F-23492	0	4	10
F-23493	0	24	10
F-23494	0	8	8
F-23495	0	14	8
F-23459	82	21	34
F-23460	30	53	33
F-23461	12	22	13
F-23462	70	35	19
F-23463	27	24	19
F-23464	12	24	20
F-23465	14	50	22
F-25051	0	32	82
F-23466	22	112	56
F-23467	17	46	58

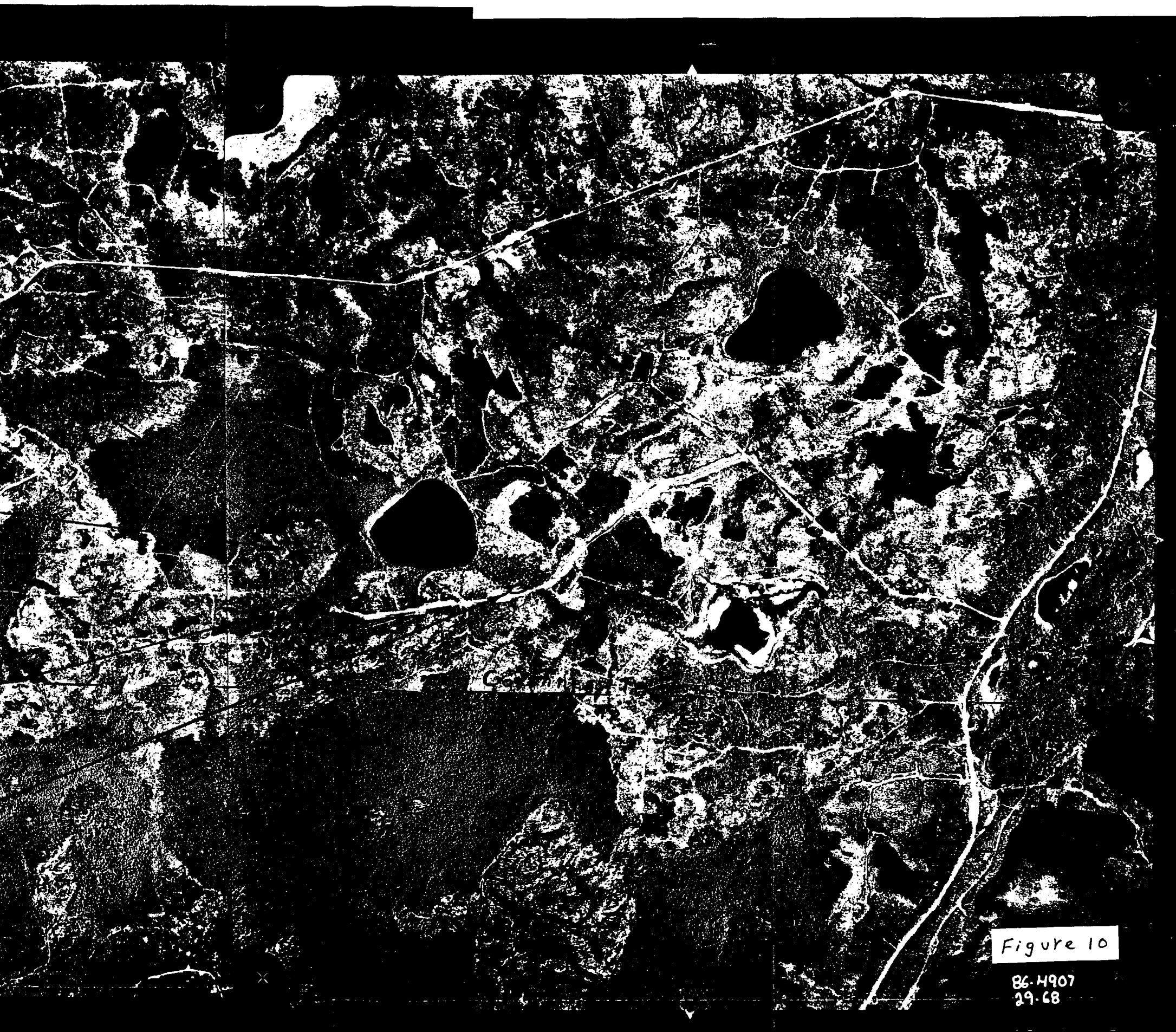


Figure 10

86-4907
29-68

5.0 BIBLIOGRAPHY

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Schacht, B. 1987: Interpretation Supplement to the Logistics and Processing Report of the Airborne VLF Electromagnetic and Magnetic Survey in the Kapuskasing Area Ontario for Homestake Consulting. Geoterrex Limited, Assessment Work Files Timmins Ontario.

APPENDIX I
Diamond Drill Logs

Diamond Drill Hole # 1

Date Started
Date Finished
Bearing 122°
Dip -60°
Depth 194.1m

Purpose: Test a gossan found at surface in stripped area E.

0-1.22 OVERBURDEN (Casing)

1.22-22.3 MAFIC VOLCANIC

dark grey green, medium to coarse grain, weakly foliated. The rock is composed of 80 to 90% chloritized hornblende and/or pyroxene and 10 to 20% white non descript powdery mineral. Nil reaction to 10% HCl, non magnetic and very soft. Strongly foliated sections within this unit is limited to narrow shear zones.

22.3-37.95 ALTERATION ZONE

bleached light grey to lime green strongly foliated with a number of narrow zones with intense epidotization, pyritization and sphalerite mineralization. The alteration zones are generally parallel to the foliation but some zones are fracture controled and are vein like. Epidote generaly occurs as knots from 5 to 10 cm in diameter associated with 5 to 20% pyrite disseminated in the zones above. Mineralization of economic interest include (sphalerite and chalcopyrite) found only in anomalous quantities.

37.95-41.50 GRANITE

orange pink, massive composed of 60% orange feldspar up to 3cm, 30% white feldspar and 7% quartz with less than 3% mafic minerals including muscovite flakes up to 1.5 cm.

41.5-163.7 MAFIC VOLCANIC

dark grey green, aphanitic, strongly foliated. The rock is composed of 80 to 90% chlorite schist with a number of minor granite and dioritic dikes. There is no reaction to 10% HCl except within and near narrow quartz carbonate veins. It is non magnetic and very soft. Strongly foliated sections within this unit exhibit pseudo bedding structures. Foliation is generaly @ 60° to core axis.

163.7-164.7 GRANITE

orange pink, massive composed of 60% orange feldspar up to 3cm, 30% white feldspar and 7% quartz with less than 3% mafic minerals including muscovite

flakes up to 1.5 cm. The lower contact between the granite and volcanics is sharp and @ 38° to core axis.

164.7-180.6 MAFIC VOLCANIC

dark grey green, aphanitic, strongly foliated. The rock is composed of 80 to 90% chlorite schist with a number of minor granite and dioritic dikes. There is no reaction to 10% HCl except within and near narrow quartz carbonate veins. It is non magnetic and very soft. Strongly foliated sections within this unit exhibit pseudo bedding structures. Foliation is generally @ 60° to core axis.

180.6-184.2 GRANITE

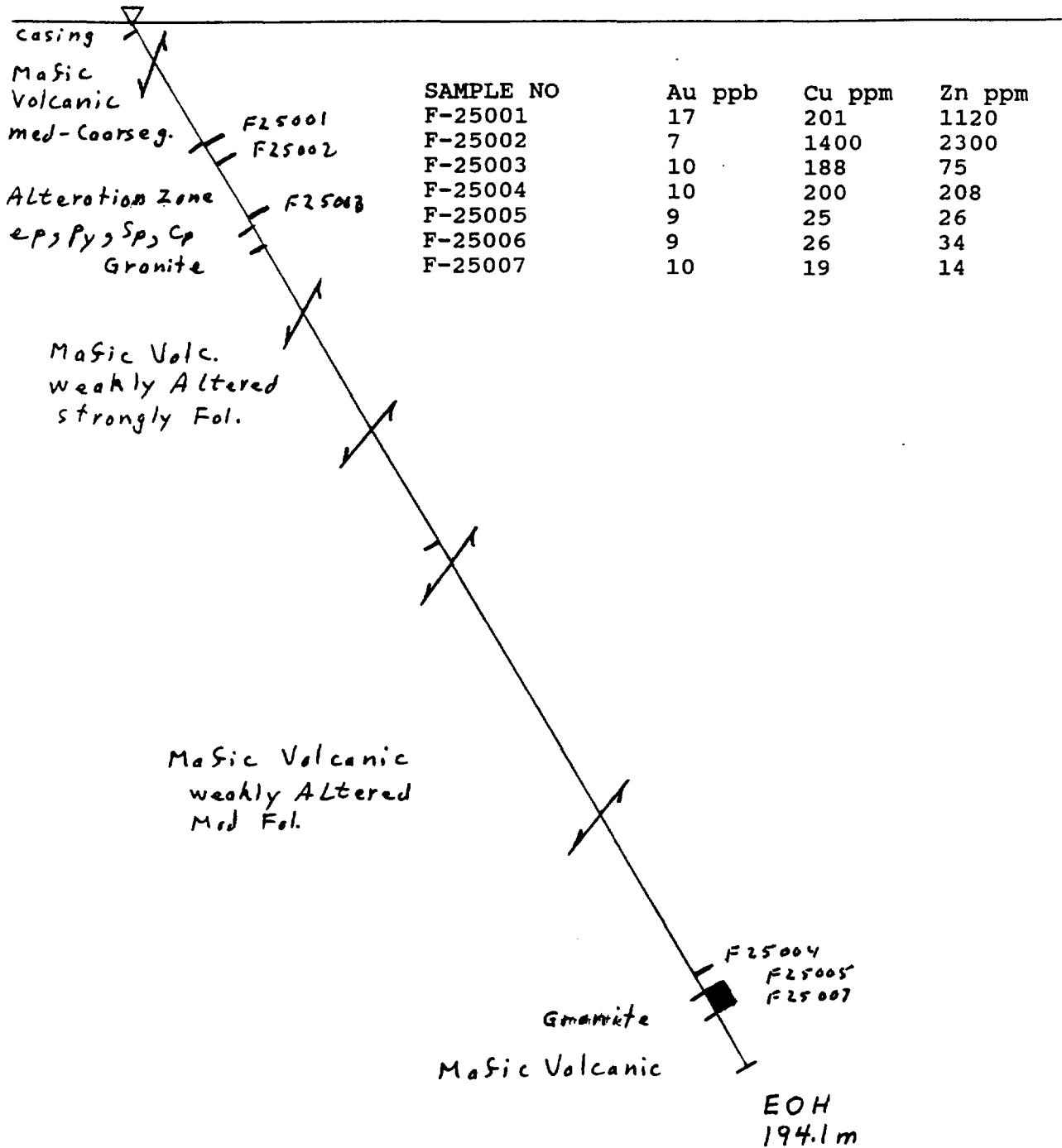
orange pink, massive composed of 60% orange feldspar up to 3cm, 30% white feldspar and 7% quartz with less than 3% mafic minerals including muscovite flakes up to 1.5 cm. Minor (1%) disseminated pyrite chalcopyrite and 0.5 mm garnets are found in this unit.

184.2-194.1 MAFIC VOLCANIC

dark grey green, aphanitic, strongly foliated. The rock is composed of 80 to 90% chlorite schist with a number of minor granite and dioritic dikes. There is no reaction to 10% HCl except within and near narrow quartz carbonate veins. It is non magnetic and very soft. Strongly foliated sections within this unit exhibit pseudo bedding structures. Foliation is generally @ 60° to core axis.

194.1- END OF HOLE

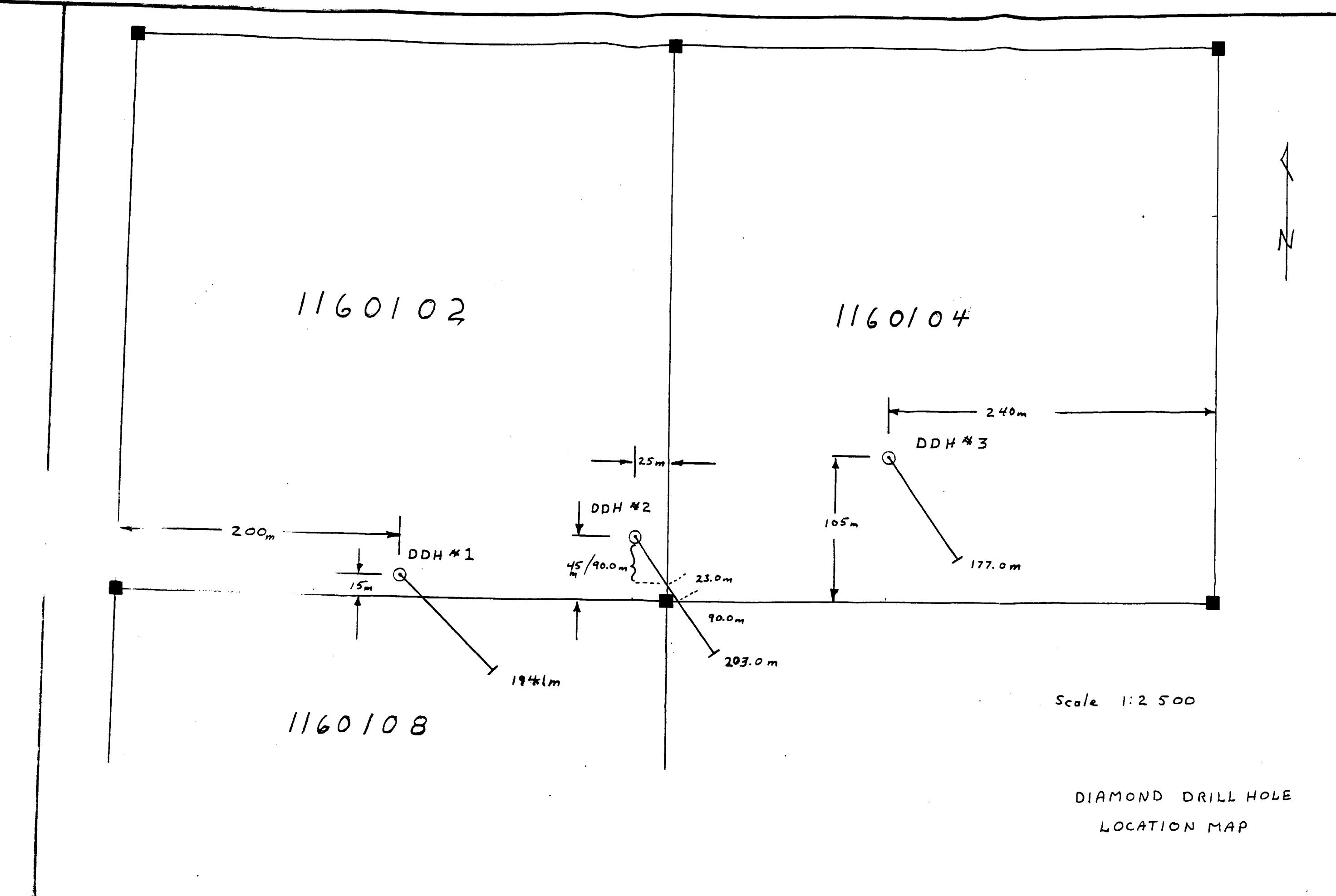
Hole # 1



Scale 1:100

Cross Section
Looking NE

DDH #1



Diamond Drill Hole # 2

Date Started
Date Finished
Bearing 134°
Dip -60°
Depth 203.0m

Purpose: Test a gossan found at surface in stripped area L.

0-1.22 OVERBURDEN (Casing)

1.22-12.8 MAFIC VOLCANIC

dark grey green, medium to coarse grain, weakly foliated. The rock is composed of 80 to 90% chloritized hornblende and/or pyroxene and 05 to 10% white non descript powdery mineral. Nil reaction to 10% HCl, non magnetic and very soft. Strongly foliated sections within this unit is limited to narrow shear zones. Foliation within narrow shear zones is at 50° to core axis.

12.8-40.1 ALTERATION ZONE

bleached light grey to lime green strongly foliated with a number of narrow zones with intense epidotization, pyritization and sphalerite mineralization. The alteration zones are generally parallel to the foliation but some zones are fracture controlled and are vein like. Epidote generally occurs as knots from 5 to 10 cm in diameter associated with 5 to 20% pyrite disseminated in the zones above. Mineralization of economic interest include (sphalerite and chalcopyrite) found only in anomalous quantities. Foliation varies from 60 to 65° to core axis

40.1-192.6 MAFIC VOLCANIC

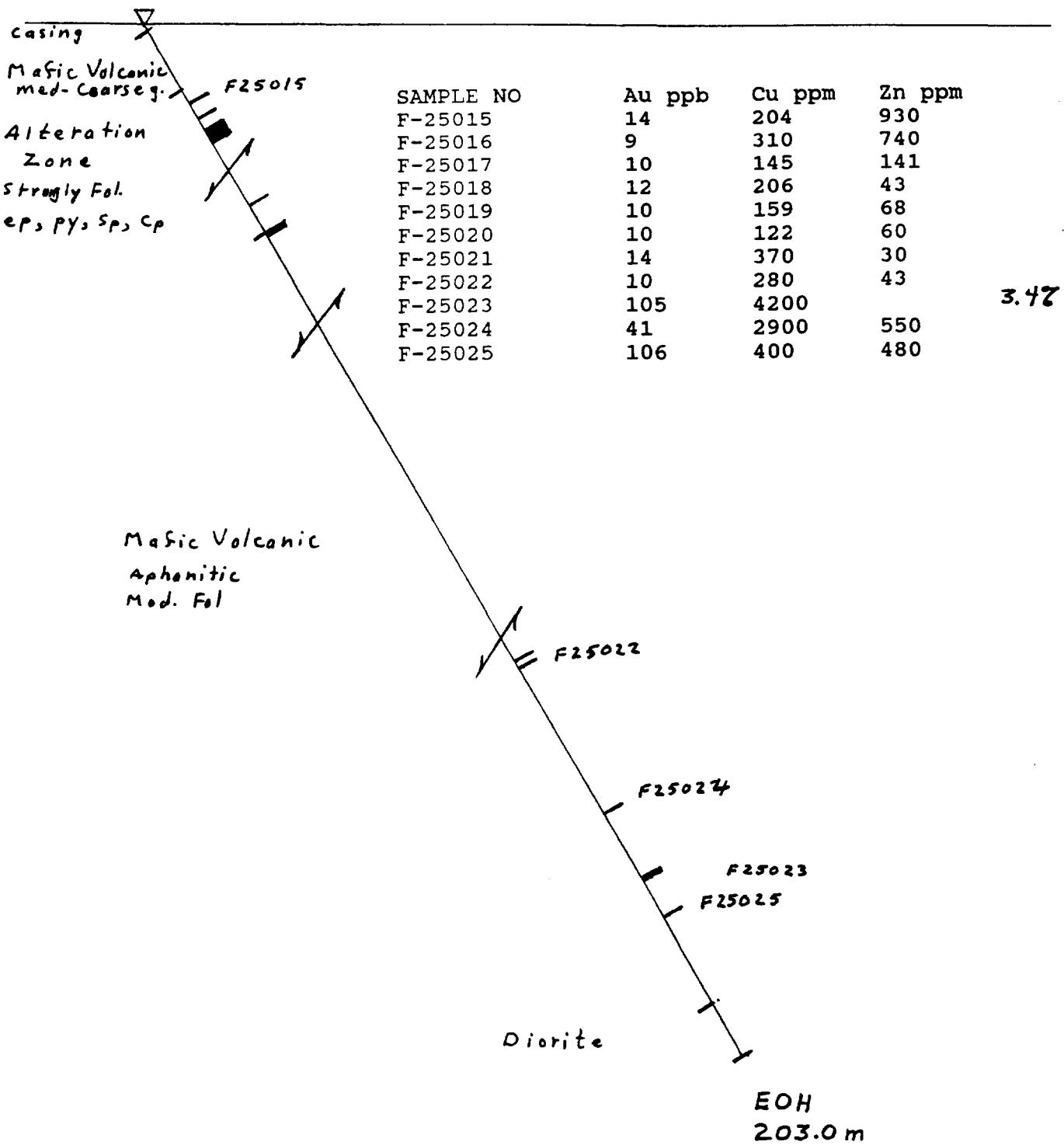
dark grey green, aphanitic, strongly foliated. The rock is composed of 80 to 90% chlorite schist with a number of minor granite and dioritic dikes. There is no reaction to 10% HCl except within and near narrow quartz carbonate veins. It is non magnetic and very soft. Strongly foliated sections within this unit exhibit pseudo bedding structures. Foliation varies from 60 to 65° to core axis.

192.6-203.0 DIORITE

this section is composed predominantly of diorite with numerous (15%) mafic volcanic zenoliths up to 60 cm in size but averaging 10 cm. The last meter is made up of mafic volcanic suggesting that the hole ended back in mafic volcanics.

203.0- END OF HOLE

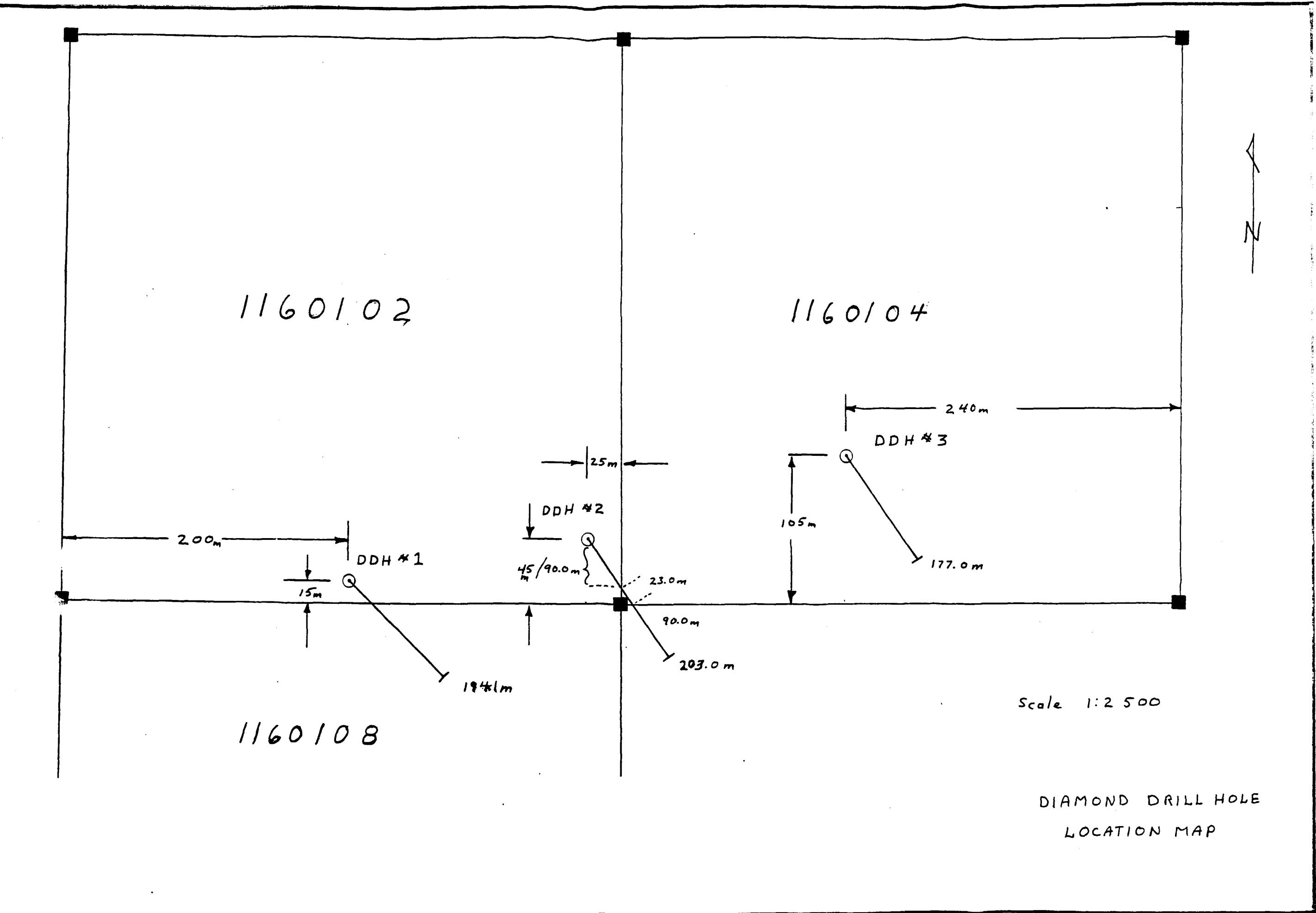
Hole # 2



Scale 1:100

Cross Section
Looking NE

DDH # 2



Diamond Drill Hole # 3

Date Started
Date Finished
Bearing 125°
Dip -60°
Depth 177.0m

Purpose: Test a gossan found at surface in stripped area L.

0-1.83 OVERBURDEN (Casing)

1.83-49.2 MAFIC VOLCANIC

dark grey green, medium to coarse grain, weakly foliated. The rock is composed of 80 to 90% chloritized hornblende and/or pyroxene and 05 to 10% white non descript powdery mineral. Nil reaction to 10% HCl, non magnetic and very soft. Strongly foliated sections within this unit is limited to narrow shear zones. Foliation within narrow shear zones is at 50° to core axis.

49.2-87.2 ALTERATION ZONE

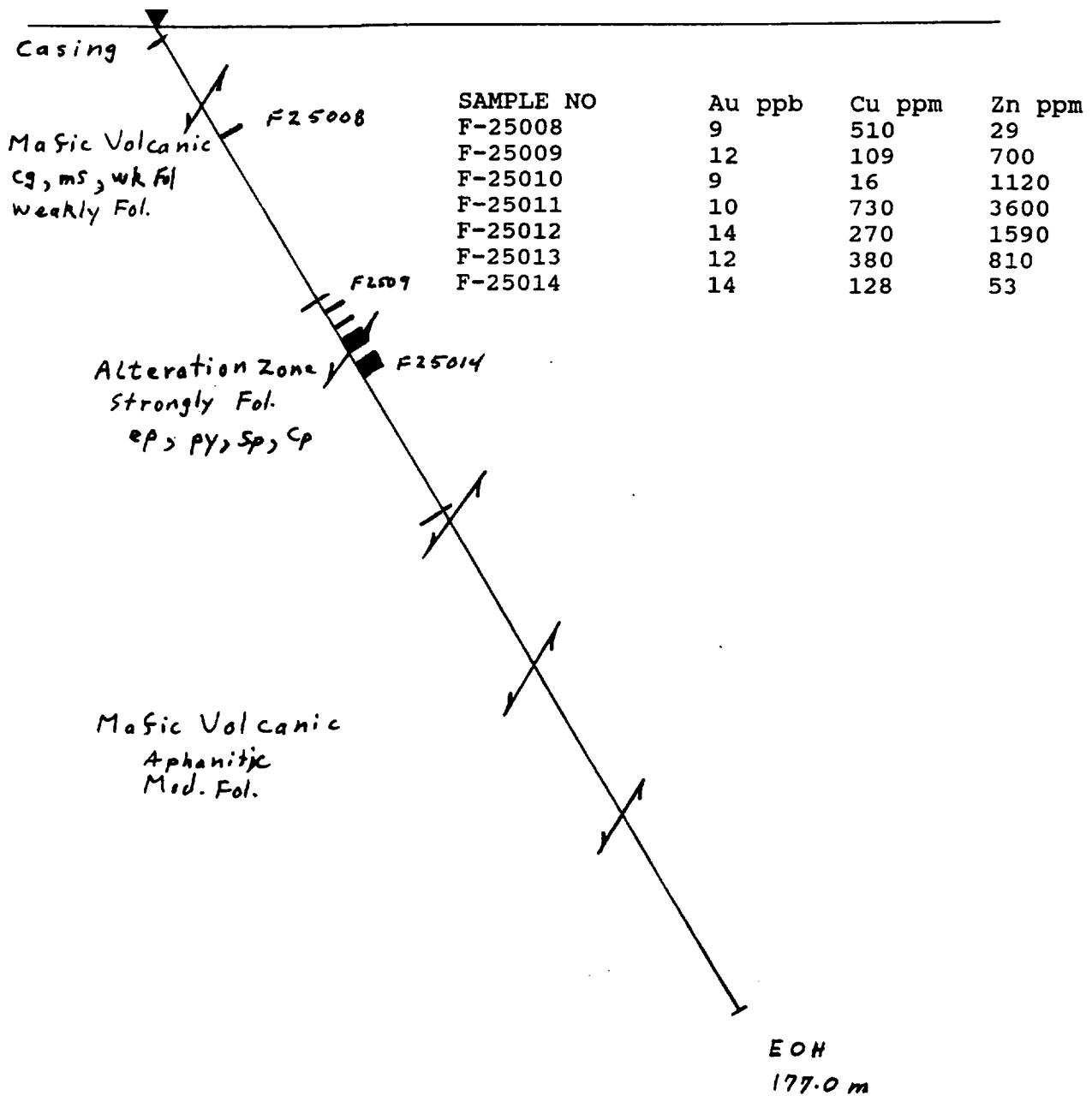
bleached light grey to lime green strongly foliated with a number of narrow zones with intense epidotization, pyritization and sphalerite mineralization. The alteration zones are generally parallel to the foliation but some zones are fracture controlled and are vein like. Epidote generally occurs as knots from 5 to 10 cm in diameter associated with 5 to 20% pyrite disseminated in the zones above. Mineralization of economic interest include (sphalerite and chalcopyrite) found only in anomalous quantities. Foliation varies from 60 to 65° to core axis

49.2-177.0 MAFIC VOLCANIC

dark grey green, aphanitic, strongly foliated. The rock is composed of 80 to 90% chlorite schist with a number of minor granite and dioritic dikes. There is no reaction to 10% HCl except within and near narrow quartz carbonate veins. It is non magnetic and very soft. Strongly foliated sections within this unit exhibit pseudo bedding structures. Foliation varies from 60 to 65° to core axis.

177.0- END OF HOLE

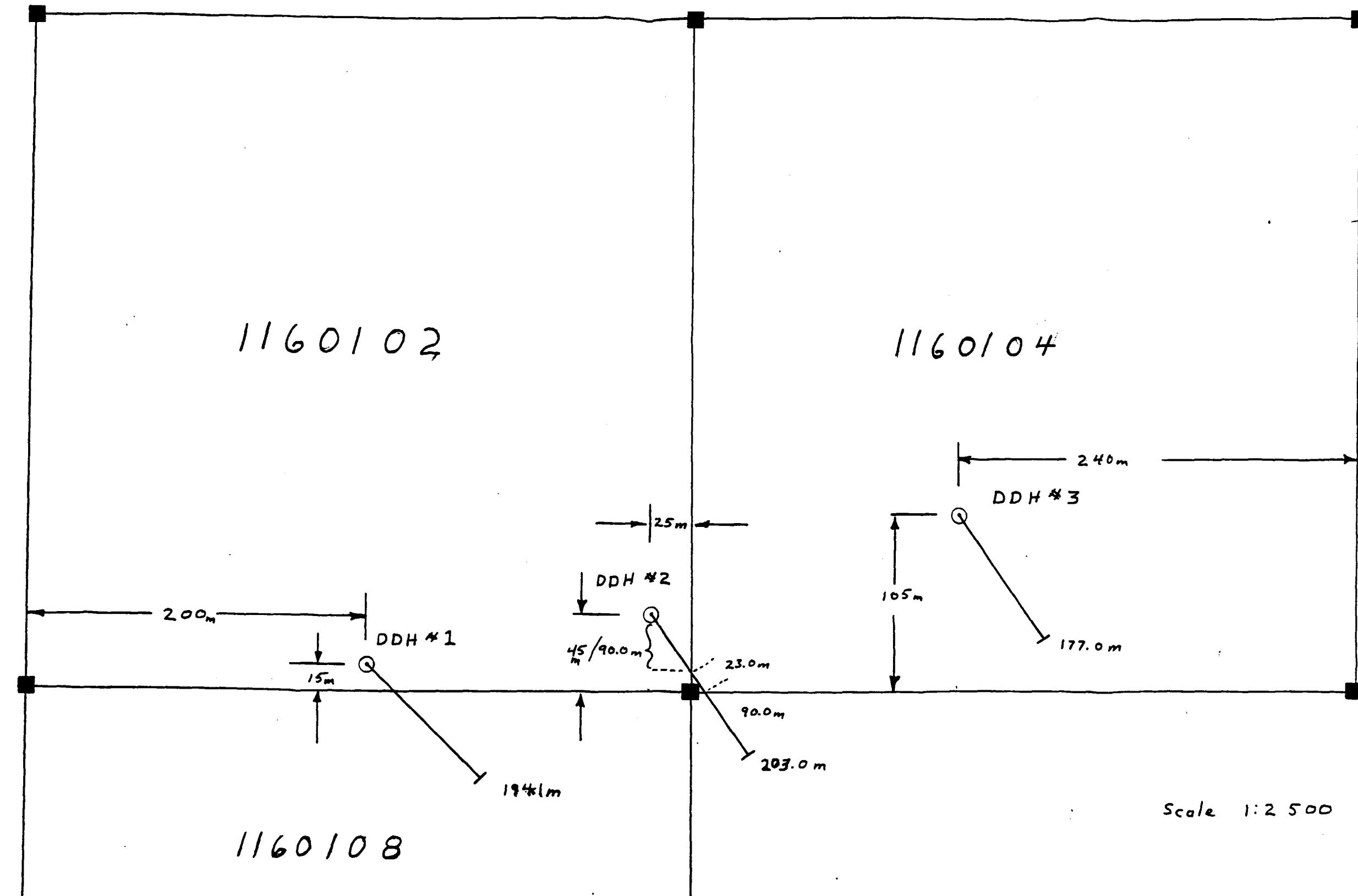
Hole #3



Scale 1:100

Cross Section
Looking NE

DDH #3



Scale 1:2 500

1160108

1160102

1160104

DIAMOND DRILL HOLE
LOCATION MAP

APPENDIX II
GRAB SAMPLE ASSAY RESULTS



BELL-WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187.
POJ 1KO

HAILEYBURY, ONTARIO

TEL: 672-3107
FAX: (705) 672-5843

Certificate of Analysis

NO.
0573

1

DATE:
November 26, 1991

SAMPLE(S) OF:
Rock (10)

RECEIVED:
November 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Oz. Gold	Ag ppm	Cu ppm	Zn ppm
F 25051	Trace	2.0	32	82
F 25052	0.002	ND	10	16
F 25053	Trace	2.0	20	20
F 25054	Trace	ND	16	16
F 25055	Trace	2.0	24	30
F 25056	Trace	ND	10	12
F 25057	Trace	2.0	22	18
F 25058	Trace	ND	12	24
F 25059	0.002	2.0	16	16
25060	Trace	2.0	14	18

NOTE: ND denotes not detected.

In accordance with long-established North American custom, unless it is specifically stated otherwise gold and silver values reported on these sheets have not been adjusted to compensate for losses and gains inherent in the fire assay process.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

PER _____



BELL-WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187,
POJ 1K0

HAILEYBURY, ONTARIO

TEL: 672-3107
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Certificate of Analysis

1

NO. 0560

DATE: November 21, 1991

SAMPLE(S) OF: Rock (10)

RECEIVED: November 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23486	Trace	8.0	30	20
F 23487	0.002	2.0	24	22
F 23488	Trace	ND	6	10
F 23489	Trace	2.0	18	18
F 23490	Trace	4.0	6	10
F 23491	Trace	2.0	14	12
F 23492	Trace	2.0	4	10
F 23493	Trace	6.0	24	10
23494	Trace	2.0	8	8
23495	Trace	2.0	14	8

NOTE: ND denotes not detected.



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NO. 0553

DATE: November 19, 1991

SAMPLE(S) OF: Rock (21)

RECEIVED: November 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23466	22	2.0	112	56
F 23467	17	2.0	46	58
F 23468	8	2.0	34	38
F 23469	10	ND	24	20
F 23470	14	2.0	32	36
F 23471	8	2.0	34	36
F 23472	8	2.0	38	28
F 23473	11	2.0	34	26
F 23474	7	ND	28	36
- 23475	8	ND	42	108
- 23476	23	2.0	50	42
F 23477	8	4.0	102	32
F 23478	11	2.0	232	30
F 23479	7	2.0	154	36
F 23480	7	4.0	74	84
F 23481	8	2.0	28	16
F 23482	49	ND	40	36
F 23483	12	ND	54	86
F 23484	14	ND	106	52
F 23485	10	2.0	102	94
JRV	10	ND	42	20

NOTE: ND denotes not detected.



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NO. 0543

DATE: November 13, 1991

SAMPLE(S) OF: Rock (7)

RECEIVED: November 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
23459	82	0.4	21	34
23460	30	0.8	53	33
23461	12	0.4	22	13
23462	70	0.8	35	19
23463	27	1.6	24	19
23464	12	2.0	24	20
23465	14	1.8	50	22



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NO. 0453

DATE: September 24, 1991

SAMPLE(S) OF: Core (25)

RECEIVED: September 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean Diesel Shop

Sample #	Au ppb	Cu ppm	Zn ppm	Zn %
F 25001	17	201	1120	
F 25002	7	1400	2300	
F 25003	10	188	75	
F 25004	10	200	208	
F 25005	9	25	26	
F 25006	9	26	34	
F 25007	10	19	14	
F 25008	9	510	29	
5009	12	109	700	
25010	9	16	1120	
F 25011	10	730	3600	
F 25012	14	270	1590	
F 25013	12	380	810	
F 25014	14	128	53	
F 25015	14	204	930	
F 25016	9	310	740	
F 25017	10	145	141	
F 25018	12	206	43	
F 25019	10	159	68	
F 25020	10	122	60	
F 25021	14	370	30	
F 25022	10	280	43	
F 25023	105	4200		3.40**
F 25024	41	2900	550	
F 25025	106	400	480	

NOTE: ** denotes checked.



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Certificate of Analysis

NO. 0373

1

DATE: August 13, 1991

SAMPLE(S) OF: Rock (10)

RECEIVED: August 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Pt ppb	Ag ppm	Cu ppm	Zn ppm
F 23449	15	43	2.2	198	3060
F 23450	12	39	2.4	2620	5480
F 23451	12	43	2.2	2600	5020
F 23452	36	33	2.0	1814	820
F 23453	15	39	2.4	1974	3680
F 23454	15	45	1.6	1522	3200
F 23455	12	36	2.0	1160	456
F 23456	14	38	2.0	1428	342
23457	10	36	2.4	1404	2360
23458	12	33	1.6	866	386



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Certificate of Analysis

O. 0365

DATE: August 07, 1991

SAMPLE(S) OF: Rock (13)

RECEIVED: August 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Pt ppb	Ag ppm	Cu ppm	Zn ppm
23435	21	43	1.2	128	145
23436	21	33	1.2	153	142
23437	17	38	1.0	174	119
23438	22	31	0.6	139	102
23439	19	27	0.6	113	460
23440	17	33	0.6	90	78
23441	21	34	1.2	406	1294
23442	19	34	1.4	914	268
13	70	36	2.0	1094	3220
23444	21	31	1.4	820	882
23445	24	39	1.6	880	372
23446	17	31	0.6	244	65
23447	19	33	1.4	406	81
23448	29	39	1.4	358	65



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Certificate of Analysis

NO. 0343

DATE: July 22, 1991

SAMPLE(S) OF: Rock (32)

RECEIVED: July 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Pt ppb	Ag ppm	Cu ppm	Zn ppm
F 23404	14	38	1.2	558	49
F 23405	15	24	1.4	830	314
F 23406	14	39	1.0	594	1434
F 23407	15	38	1.0	690	1448
F 23408	22	29	2.8	3020	4760
F 23409	24	34	2.2	1832	2520
F 23410	19	32	1.4	560	292
F 23411	15	32	1.4	662	288
F 23412	22	31	1.2	284	298
F 23413	21	39	1.8	554	436
F 23414	21	38	1.0	320	382
F 23415	17	41	1.0	372	308
F 23416	29	32	1.4	598	185
F 23417	22	50	1.6	674	296
F 23418	26	36	1.2	426	206
F 23419	17	29	0.8	328	140
F 23420	21	36	1.2	572	70
F 23421	22	41	1.4	352	494
F 23422	22	46	1.2	158	232
F 23423	17	27	0.8	178	64
F 23424	17	32	1.8	378	682
F 23425	15	27	1.0	152	378
F 23426	17	26	1.4	494	64
F 23427	15	36	1.0	175	262
F 23428	19	36	2.0	680	5620
F 23429	19	39	1.2	320	1190
F 23430	17	31	1.8	1260	874
F 23431	17	34	1.6	768	1088
F 23432	19	41	1.4	700	364
F 23433	21	32	1.0	532	336
F 23434	19	43	1.6	514	320
JRV	22	44	0.6	54	101



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1

NO. 0330

DATE: July 04, 1991

SAMPLE(S) OF: Rock (18)

RECEIVED: July 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample # _____
Pt
ppb

F 23257	21
F 23258	27
F 23259	31
F 23260	33
F 23261	27
F 23262	29
F 23263	24
F 23264	21
23265	15
F 23266	27
F 23267	29
F 23268	27
F 23269	21
F 23270	29
F 23271	26
F 23272	27
F 23273	34
F 23274	29



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NO. 0326

DATE: July 03, 1991

SAMPLE(S) OF: Rock (35)

RECEIVED: July 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Pt ppb	Pd ppb	Ag ppm	Cu ppm	Zn ppm
F 23369	14	14	12	3.2	354	2580
F 23370	9	14	14	2.2	248	514
F 23371	9	17	9	3.2	340	2200
F 23372	5	10	10	1.6	248	192
F 23373	7	15	7	1.8	107	826
F 23374	5	14	7	1.8	714	316
F 23375	24	17	10	3.6	474	1876
F 23376	7	17	7	1.6	280	368
F 23377	5	17	10	2.0	456	716
23378	5	15	7	1.4	186	346
23379	5	15	7	1.2	79	210
F 23380	9	17	7	1.4	86	224
F 23381	9	19	7	1.4	149	394
F 23382	7	21	5	1.8	312	736
F 23383	7	14	9	1.6	102	352
F 23384	9	15	12	1.6	157	296
F 23385	9	15	9	1.2	138	58
F 23386	7	14	9	1.6	172	284
F 23387	9	17	10	1.6	94	272
F 23388	7	10	7	3.0	174	736
F 23389	7	12	9	1.2	157	97
F 23390	7	15	7	2.0	540	71
F 23391	7	15	5	0.6	24	80
F 23392	7	17	5	1.4	195	196
F 23393	7	12	9	1.4	155	202
F 23394	5	14	5	1.8	378	9160
F 23395	7	15	7	1.4	486	578
F 23396	7	17	7	1.6	702	766
F 23397	33	14	10	0.6	95	276
F 23398	10	14	9	1.6	442	190
F 23399	7	14	7	1.8	478	388
F 23400	9	17	9	0.8	68	118
F 23401	12	19	9	1.4	300	84



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NO. 0322

1

DATE: June 27, 1991

SAMPLE(S) OF: Rock (28)

RECEIVED: June 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23341	5	1.6	726	720
F 23342	5	0.2	398	131
F 23343	7	0.2	762	129
F 23344	5	0.2	112	91
F 23345	5	0.2	289	169
F 23346	7	1.2	411	250
F 23347	7	0.6	294	1502
F 23348	9	1.2	200	5780
E 23349	5	0.2	229	186
23350	10	0.6	156	300
r 23351	5	ND	107	50
F 23352	5	0.4	233	2620
F 23353	5	0.2	287	1044
F 23354	7	1.2	526	3120
F 23355	7	0.2	106	340
F 23356	7	ND	105	284
F 23357	7	0.2	106	384
F 23358	5	0.8	155	1646
F 23359	10	2.4	580	2880
F 23360	12	1.0	574	1608
F 23361	9	1.0	592	1626
F 23362	5	1.4	530	844
F 23363	5	1.4	240	2680
F 23364	9	2.4	215	2780
F 23365	7	0.4	196	190
F 23366	5	1.8	646	1238
F 23367	12	0.8	187	1040
F 23368	7	0.2	243	770

NOTE: ND denotes not detected.



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Certificate of Analysis

NO. 0317

1

DATE: June 25, 1991

SAMPLE(S) OF: Rock (8)

RECEIVED: June 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23327	32	5.4	366	3100
F 23334	10	0.8	33	90
F 23335	7	0.8	103	42
F 23336	7	1.0	47	61
F 23337	5	0.6	71	45
F 23338	5	0.6	30	45
F 23339	9	1.0	55	60
F 23340	7	1.2	72	43



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Certificate of Analysis

1

NO. 0310

DATE: June 21, 1991

SAMPLE(S) OF: Rock (8)

RECEIVED: June 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23325	15	0.8	258	460
F 23326	5	0.4	188	516
F 23328	7	0.6	278	74
F 23329	5	0.4	338	53
F 23330	17	2.0	992	1840
F 23331	5	0.8	440	388
F 23332	5	0.2	192	37
F 23333	3	0.4	344	35



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NO. 0309

DATE: June 19, 1991

SAMPLE(S) OF: Rock (17)

RECEIVED: June 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23308	7	2.0	154	378
F 23309	14	2.6	544	1384
F 23310	7	2.0	182	944
F 23311	5	0.2	162	42
F 23312	10	ND	53	42
F 23313	7	2.0	324	400
F 23314	7	2.4	504	2460
F 23315	5	1.2	168	266
23316	9	2.2	39	128
23317	7	1.2	202	159
F 23318	7	1.6	310	131
F 23319	10	1.8	188	344
F 23320	12	2.2	182	330
F 23321	10	1.0	156	496
F 23322	7	1.0	292	78
F 23323	5	0.2	37	33
F 23324	10	2.4	1394	38



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NO. 0301

DATE: June 18, 1991

SAMPLE(S) OF: Rock (12)

RECEIVED: June 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23296	34	1.8	802	170
F 23297	22	1.6	792	81
F 23298	14	1.8	354	3620
F 23299	7	0.8	176	448
F 23300	56	2.6	812	3360
F 23301	10	1.8	288	714
F 23302	7	1.6	230	384
F 23303	14	1.2	89	130
23304	12	1.2	270	616
23305	12	0.6	70	596
F 23306	14	3.4	1300	5360
F 23307	29	7.2	414	5640



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NO. 0294

1

DATE: June 14, 1991

SAMPLE(S) OF: Rock (21)

RECEIVED: June 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23275	7	0.4	207	35
F 23276	14	0.4	397	188
F 23277	6	0.6	684	200
F 23278	4	0.4	300	35
F 23279	4	0.4	176	199
F 23280	6	0.6	382	652
F 23281	8	0.6	271	96
F 23282	6	1.2	317	554
F 23283	4	0.2	101	112
F 23284	4	0.6	620	88
F 23285	23	0.4	195	334
F 23286	22	0.4	156	330
F 23287	11	0.4	412	57
F 23288	10	0.2	397	42
F 23289	12	0.2	127	42
F 23290	15	3.2	856	3560
F 23291	8	1.0	135	284
F 23292	11	1.8	2808	6300
F 23293	— 19	3.2	388	1656
F 23294	43	7.6	296	4740
F 23295	11	1.0	254	278



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Certificate of Analysis

NO. 0289

1

DATE: June 11, 1991

SAMPLE(S) OF: Rock (18)

RECEIVED: June 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
23257	81	1.0	251	88
23258	67	0.8	301	53
23259	57	1.8	1004	137
23260	45	2.0	792	74
23261	39	1.6	410	109
23262	45	2.0	415	116
23263	39	1.8	398	84
23264	27	1.0	338	87
23265	41	1.2	379	57
23266	36	1.8	401	98
23267	34	1.6	392	115
23268	21	1.6	340	87
23269	22	1.6	351	73
23270	33	1.4	348	36
23271	12	0.8	183	76
23272	9	0.6	90	84
23273	48	1.2	214	264
23274	15	1.0	275	234



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Certificate of Analysis

NO. 0286

1

DATE: June 07, 1991

SAMPLE(S) OF: Rock (9)

RECEIVED: June 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23248	22	1.6	528	224
F 23249	15	1.6	766	226
F 23250	7	1.8	508	194
F 23251	7	1.6	784	688
F 23252	7	1.0	286	176
F 23253	5	1.0	418	276
F 23254	7	1.2	318	198
F 23255	7	1.6	374	118
23256	5	1.8	238	104


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Certificate of Analysis

NO. 0272

DATE: June 04, 1991

SAMPLE(S) OF: Rock (20)

RECEIVED: June 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23227	10	2.0	692	3740
F 23228	12	1.8	578	3480
F 23229	10	2.4	682	7940
F 23230	4	1.6	614	2044
F 23231	4	1.2	698	149
F 23232	4	1.2	262	4460
F 23233	19	1.4	456	192
F 23234	6	1.0	374	72
F 23235	10	1.4	468	138
F 23236	22	1.6	454	127
F 23238	8	1.2	282	372
F 23239	3	2.0	1816	928
F 23240	4	1.6	522	1562
F 23241	7	1.8	756	1394
F 23242	4	1.8	406	2800
F 23243	7	1.8	680	774
F 23244	4	1.6	786	1378
F 23245	7	1.0	173	117
F 23246	4	1.2	464	1136
F 23247	365**	1.2	1030	758

NOTE: ** denotes checked.



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Certificate of Analysis

1

NO. 0266

DATE: May 30, 1991

SAMPLE(S) OF: Rock (14)

RECEIVED: May 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23213	16	2.2	266	474
F 23214	8	0.8	90	408
F 23215	10	2.6	768	572
F 23216	7	1.0	378	1940
F 23217	4	0.4	129	71
F 23218	11	1.4	636	67
F 23219	8	2.4	1654	8300
F 23220	5	1.0	310	240
23221	7	1.8	754	69
23222	7	1.8	406	9960
F 23223	38	1.6	166	133
F 23224	8	0.8	268	91
F 23225	4	1.2	182	294
F 23226	4	0.6	134	2760



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1

NO. 0258

DATE: May 29, 1991

SAMPLE(S) OF: Rock (6)

RECEIVED: May 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23207	3	1.0	94	187
F 23208	3	1.0	28	109
F 23209	12	2.2	156	1076
F 23210	3	0.8	146	105
F 23211	3	1.2	106	107
F 23212	5	1.4	123	208



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Certificate of Analysis

NO. 0255

1

DATE: May 27, 1991

SAMPLE(S) OF: Rock (13)

RECEIVED: May 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23144	21	2.4	1044	2120
F 23145	9	1.8	752	3300
F 23146	5	0.4	298	846
F 23147	5	1.0	374	2440
F 23148	21	1.0	662	846
F 23149	26	1.2	432	1774
F 23150	19	1.4	398	1606
F 23201	4	0.4	66	93
23202	4	0.4	130	58
23203	5	0.4	91	61
F 23204	4	0.8	84	46
F 23205	5	0.4	93	38
F 23206	4	0.6	118	71



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1

NO. 0252

DATE: May 24, 1991

SAMPLE(S) OF: Rock (6)

RECEIVED: May 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
23138	10	2.0	1748	416
23139	12	1.6	1540	440
23140	9	1.0	1064	624
23141	7	1.2	764	684
23142	15	0.6	280	816
23143	12	0.4	546	678



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NO. 0242

1

DATE: May 22, 1991

SAMPLE(S) OF: Rock (10)

RECEIVED: May 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
23121	9	1.6	132	41
23122	9	2.0	1052**	2520**
23123	5	1.4	598	3500**
23124	3	1.2	502	97
23125	3	2.4	1328**	104
23126	7	0.6	354	182
23127	3	1.6	610	77
23128	3	2.0	540	36
23129	3	1.4	536	166
23130	3	3.2	1850**	36

** denotes checked.



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Certificate of Analysis

1

NO. 0245

DATE: May 22, 1991

SAMPLE(S) OF: Rock (6)

RECEIVED: May 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23131	24	1.6	712	1814
F 23132	10	1.8	912	750
F 23133	17	1.6	830	614
F 23134	21	1.2	330	1360
F 23135	14	1.8	950	598
F 23136	14	1.4	616	360


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NO. 0234

1

DATE: May 16, 1991

SAMPLE(S) OF: Rock (6)

RECEIVED: May 1991

SAMPLE(S) FROM: Mr. Mauril Jean, Jeans Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23115	17	1.2	304	1600
F 23116	15	1.2	392	1946
F 23117	11	1.0	300	1458
F 23118	7	0.6	188	137
F 23119	23	1.6	858	510
F 23120	18	1.2	340	986



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Certificate of Analysis

NO. 0231

1

DATE: May 14, 1991

SAMPLE(S) OF: Rock (22)

RECEIVED: May 1991

SAMPLE(S) FROM: Mr. V. Shein, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
F 23155	10	1.0	254	58
F 23156	5	0.4	79	30
F 23157	14	1.4	159	179
F 23158	7	0.2	191	21
F 23159	14	0.2	27	42
F 23160	9	0.2	38	25
F 23161	10	ND	98	18
F 23162	7	ND	22	15
F 23163	7	0.2	16	16
F 23164	5	0.6	26	45
F 23165	7	0.2	47	16
F 23166	9	0.2	25	14
F 23167	21	0.4	43	18
F 23168	7	1.0	51	134
F 23169	10	1.0	150	72
F 23170	19	0.2	46	18
F 23171	9	0.4	133	18
F 23110	9	1.0	98	382
F 23111	10	1.0	128	182
F 23112	9	0.8	54	1138
F 23113	10	0.6	61	45
F 23114	14	1.0	145	540

NOTE: N.D. denotes not detected.



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FAX: (705) 672-5843

Certificate of Analysis

NO. 0228

1

DATE: May 14, 1991

SAMPLE(S) OF: Rock (26)

RECEIVED: May 1991

SAMPLE(S) FROM: Mr. V. Shein, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
23081	12	1.4	604	254
23082	5	0.2	33	82
23083	29	0.8	454	64
23084	9	0.4	370	54
23085	12	0.8	430	73
23086	10	3.4	1334	228
23087	12	0.6	242	30
23088	15	0.4	258	43
23089	9	0.8	191	22
23090	10	1.4	85	31
23091	67	0.2	50	26
23092	7	0.6	39	32
23093	12	2.6	49	28
23094	15	5.6	105	498
23095	12	1.0	94	34
23096	5	0.6	56	36
23097	7	0.4	76	122
23098	5	0.2	119	74
23099	7	6.2	63	119
23100	5	0.8	75	81
23108	5	0.2	125	33
23109	7	4.0	113	18
23151	5	1.2	81	19
23152	9	0.6	290	25
23153	62	4.0	169	23
23154	12	0.2	98	29



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Certificate of Analysis

NO. 0221

DATE: May 08, 1991

SAMPLE(S) OF: Rock (10)

RECEIVED: May 1991

SAMPLE(S) FROM: Mr. V. Shein, Jean's Diesel Shop

sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
23072	27	1.4	146	6460
23073	15	0.8	77	252
F 23074	7	1.2	400	348
F 23075	10	1.4	658	193
23076	9	0.6	58	82
23077	5	2.0**	1136**	50**
F 23078	7	1.0	197	64
'079	17	1.8	430	46
23080	10	0.4	85	45
SR-03	0.043***	0.8	68	89
?3072				6560**

NOTE: ** denotes checked.

*** denotes oz./ton.



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Certificate of Analysis

1

IO. 0215

DATE: May 07, 1991

SAMPLE(S) OF: Rock (39)

RECEIVED: May 1991

SAMPLE(S) FROM: Mr. V. Shein, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
2030	10**	0.2	27	24
2031	5**	0.2	10	31
23042	15	ND	29	37
23043	12	ND	48	20
23044	21	ND	63	32
23045	19	0.2	282	234
23046	17	0.2	136	19
23047	12	ND	125	15
23048	14	1.0	474	62
23049	15	1.4	896	80
23050	14	0.8	38	63
23051	21	0.2	117	24
23052	12	0.6	115	44
23053	58	0.8	300	53
23054	29	0.4	149	36
23055	9	0.6	110	30
23056	9	0.4	252	77
23057	17	0.2	44	280
23058	15	0.6	209	75
23059	26	ND	8	17
23060	10	0.6	18	34
23061	9	0.4	142	40
23062	14	0.2	104	22
23063	127	0.4	102	30
23064	7	0.2	43	16
23065	10	ND	119	34
23066	7	0.6	66	18
23067	36	0.4	52	47
23068	9	0.4	54	30
23069	5	0.8	54	92
23070	27	0.8	61	52
23071	10	0.8	103	37
1	7	0.8	69	118

NOTE: ND denotes not detected.

* check's to follow.



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POJ 1KO

HAILEYBURRY, ONTARIO

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Certificate of Analysis

NO. 0215

2

DATE: May 07, 1991

SAMPLE(S) OF: Rock (39)

RECEIVED: May 1991

SAMPLE(S) FROM: Mr. V. Shein, Jean's Diesel Shop

sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
23102	7	0.6	38	66
23103	5	0.8	49	67
23104	5	0.6	37	63
23105	5	0.8	41	80
23106	3	0.6	71	90
23107	14	1.0	78	174

NOTE: ND denotes not detected.

Check's to follow.



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Certificate of Analysis

1

LO. 0211

DATE: May 03, 1991

SAMPLE(S) OF: Rock (10)

RECEIVED: May 1991

SAMPLE(S) FROM: Mr. V. Shein, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Zn ppm
3032	17	1.0	109	286
033	12	0.4	47	59
034	14	0.6	458	98
3035	15	0.2	65	30
036	15	1.2	71	158
037	14	1.0	286	25
3038	7	0.4	8	17
3039	9	1.4	175	49
	12	0.8	280	20
041	14	1.0	118	17

✓ ✓


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FAX: (705) 672-5843

Certificate of Analysis

NO. 0197

DATE: April 30, 1991

SAMPLE(S) OF: Rock (5)

RECEIVED: April 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Ni ppm
VMS-6	34	0.6	29	45
VMS-7	14	0.8	9	32
VMS-8	18	0.8	53	59
VMS-9	17	1.0	45	78
VMS-10	51	1.2	23	56



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TEL: 672-3107
FAX: (705) 672-5843

Certificate of Analysis

NO. 0196

1

DATE: April 30, 1991

SAMPLE(S) OF: Rock (29)

RECEIVED: April 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Cu ppm
F 23001	45	172
F 23002	10	114
F 23003	15	236
F 23004	6	206
F 23005	8	812
F 23006	30	316
F 23007	4	436
F 23008	7	77
F 23009	6	390
3010	6	2006
23011	7	77
F 23012	7	324
F 23013	18	556
23014	4	236
F 23015	6	1556
F 23016	6	51
23017	7	67
23018	4	96
F 23019	4	9
23020	3	15
23021	6	159
F 23022	4	1018
23023	3	54
23024	7	83
F 23025	6	38
F 23026	8	21
23027	10	161
23028	11	111
F 23029	12	294

ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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Certificate of Analysis

NO.

0191

SAMPLE(S) OF:

Rock (5)

1

DATE:

April 26, 1991

RECEIVED:

April 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Au ppb	Ag ppm	Cu ppm	Ni ppm
VMS-1	9	ND	47	48
VMS-2	10	1.4	71	96
VMS-3	24	1.6	950	30
VMS-4	21	0.4	494	78
VMS-5	14	0.6	394	56

NOTE: ND denotes not detected.



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Certificate of Analysis

NO. 0140

DATE: March 21, 1991

SAMPLE(S) OF: Rock (4)

RECEIVED: March 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel Shop

Sample #	Oz. Gold	Ag ppm	Cu ppm	Ni ppm
C-024	Trace	ND	450	60
C-25	Trace	ND	414	50
C-26	Trace	ND	430	56
C-27	Trace	ND	162	48

NOTE: ND denotes not detected.





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Certificate of Analysis

NO. 0108

DATE: February 28, 1991

SAMPLE(S) OF: Rock (14)

RECEIVED: February 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel

Sample #	Oz. Gold	Ag ppm	Cu ppm	Ni ppm
C-010	Trace	2.0	208	36
C-11	Trace	2.0	180	28
C-12	Trace	4.0	158	30
C-13	Trace	2.0	160	38
C-14	Trace	ND	120	18
C-15	Trace	2.0	106	20
C-16	Trace	4.0	130	28
C-17	0.002	6.0	132	24
CR-18	Trace	4.0	106	22
CR-19	Trace	6.0	76	36
20	Trace	2.0	42	24
CR-21	Trace	ND	112	32
CR-22	Trace	2.0	42	44
CR-23	Trace	2.0	254	26

IF
Trench

NOTE: ND denotes not detected.



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Certificate of Analysis

NO. 0100

DATE: February 25, 1991

SAMPLE(S) OF: Fines (6) Rock (3)

RECEIVED: February 1991

SAMPLE(S) FROM: Mauril Jean, Jean's Diesel

Sample #	Oz. Gold	Ag ppm	Cu ppm	Ni ppm
C-01	Trace	2.0	100	20
C-2	Trace	2.0	80	20
C-3	Trace	2.0	140	40
C-4	Trace	ND	120	40
C-5	Trace	2.0	80	20
C-6	Trace	2.0	60	20
C-7	Trace	2.0	80	40
C-8	Trace	2.0	180	40
C-9	Trace	2.0	680	60

denotes not detected.

ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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PER



42G04NE0002 OM91-104 DOHERTY

020

JEAN'S EXPLORATION PROJECT PROPOSAL

1.0 INTRODUCTION

The following exploration proposal is the result of many years of reconnaissance exploration by Mr. Mauril Jean in the Hearst area and more specifically to the south of Hearst during the last year where over 200 percussion drill holes 10 to 16 feet deep were drilled along lumber roads and analyzed for precious and base metal. The result of this initial work led to the discovery of two new gold showings (0.037 and 0.018 Oz./ton gold). See figure 5. A total of 29 claims were staked to cover the showings and staking is in progress to extend the block east and west. Additional blocks will be staked as work progresses to cover geochemical and airborne EM anomalies along this small greenstone belt which underlies part of Schofield, Caithness, Rykert, Pelletier, and Doherty Townships. The project will be supervised Mr. Mauril Jean assisted by Vernon M. Shein (Geologist). Mr. Jean will responsible for the heavy equipment and manual labour while Mr. Shein will be responsible for the geological, geophysical work and the reporting of the data.

2.0 LOCATION & ACCESS

The property is located approximately 72 kilometers due south of Hearst in the townships of Pelletier and Doherty. Both townships are within the North Porcupine Mining Division and the District of Chochrane. The claim group is located in the north east corner of topographic map 42G/4 at longitude 83° 35' latitude 48° 14'. See figure 1.

Access to the property is excellent via Highway 583 due south of Hearst for 10 kilometers, then onto a well maintained all weather gravel logging road (Caithness) for 58 kilometers. From this point a secondary forest access gravel road going eastward crosses the property at approximately 4 kilometers from the main road. A gate at the western boundary of Doherty township restricts access to persons specifically authorized by Domtar Incorporated. See figure 2.

3.0 PROPERTY

At the present time the property consists of 29 unpatented mining claims. Six claims lie in Pelletier and 23 in Doherty township. The claims are registered in the names of Yvon and Mauril Jean. The staking of approximately 15 additional claims is in progress. Another block of 10 claims will be staked in the near future 3 Km to the north west to cover a zinc soil geochemical anomaly with a coincident EM anomaly. Additional targets are being considered and will be staked as work progresses. See figure 2.

4.0 AGREEMENTS

At the present time the property is subject to one agreement only, between Mauril and Yvon which combines there respective claims as one group. Plans are being considered for option agreements with Junior companies based in Calgary to provide additional funding.

5.0 REGIONAL AND LOCAL GEOLOGY

The property is located on a narrow greenstone belt in proximity of the Quetico and Shebandowan-Wawa belts. The boundary between the belts is poorly defined in this area but the greenstone belt is believe to lie in the more productive greenstone dominated terrain of the Shebandowan-Wawa belt.

The narrow east north east striking greenstone belt consists of intercalated mafic volcanics, felsic pyroclastics and minor volcanogenic sediments. No reliable top determinations were found in this area but it is believed to face south.

The property covers the southern half of the greenstone belt at its western extremity. Most of the northern claims are underlain by mafic volcanic rocks. Strongly deformed pillow structures were identified along the access road in this area. A strong E-W structural fabric is also evident through out the area. At the southern end of the property a 200m belt of greywacke separates the basalts from a 300-400m thick unit of felsic pyroclastic rocks(tuffs and lapilli tuffs). Metamorphism in the area varies from upper greenschist to upper amphibolite grade metamorphism as is evident from the minor development of garnet porphyroblasts in many of the rock units. See figure 3

6.0 CONCLUSIONS AND RECOMMENDATIONS

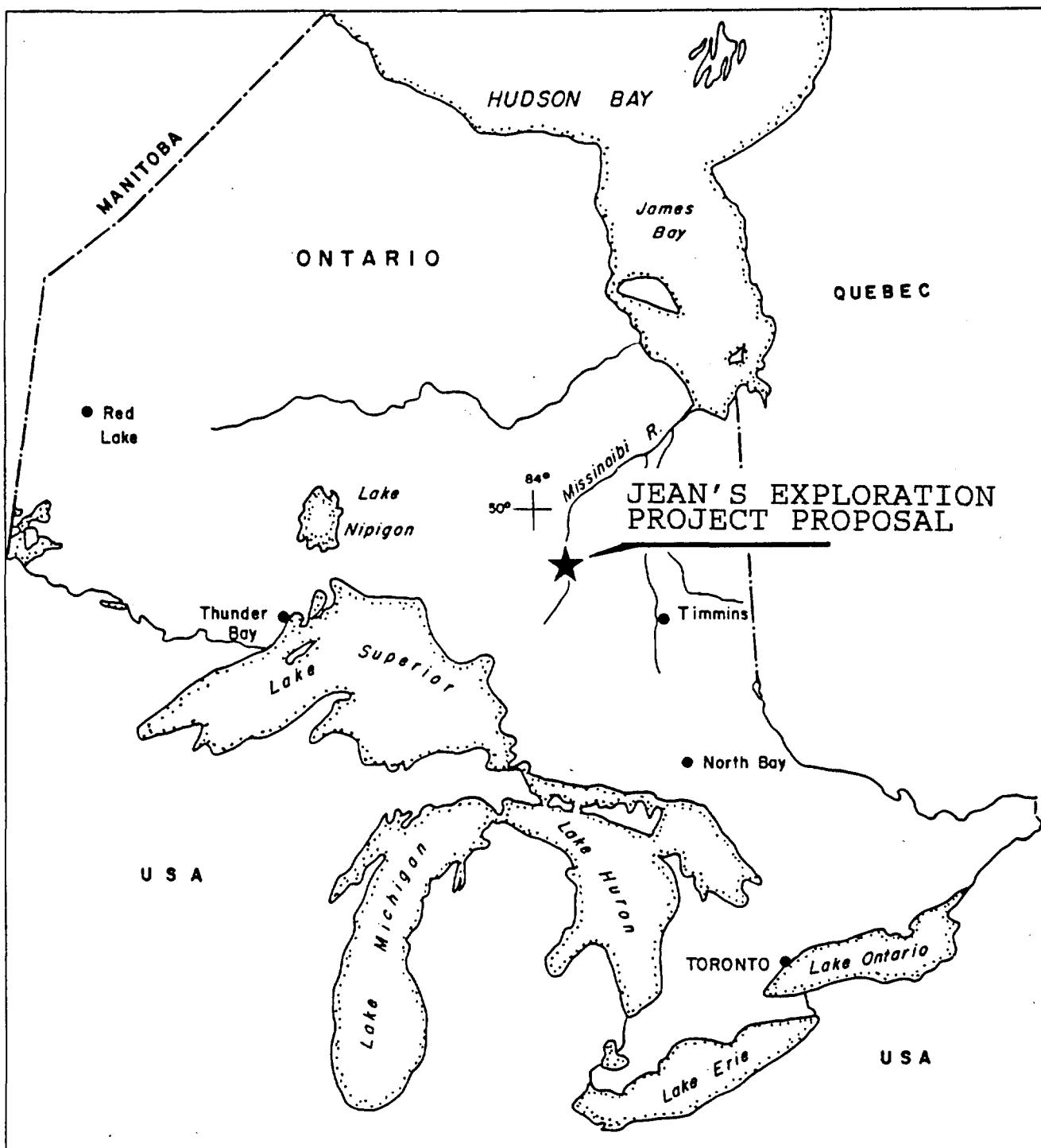
Approximately 200 reconnaissance percussion drill holes were drilled in 1990 which resulted in the discovery of two new gold showings. While assessment work file research resulted in the discovery of an unexplained zinc geochemical anomaly. See figures 5 and 6.

It is recommended that the three targets identified to date should be investigated further by conventional prospecting, line cutting, geophysics and power stripping followed by diamond drilling of the best targets. Other geophysical anomalies found on the Oba-Kapusasing Airborne Geophysical Survey should investigated for their base and precious metal potential.

Donald R. Bouchey

7.0 BIBLIOGRAPHY

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- Ontario Geological Survey 1986: Airborne Electromagnetic and Total Intensity Magnetic Survey, Oba-Kapuskasing Region; by Aerodat Limited for the Ontario Geological Survey, Geophysical/Geochemical Series Map 80830, Scale 1:20,000. Survey and Compilation, February and March, 1986.
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- Schacht, B. 1987: Interpretation Supplement to the Logistics and Processing Report of the Airborne VLF Electromagnetic and Magnetic Survey in the Kapuskasing Area Ontario for Homestake Consulting. Geoterrex Limited, Assessment Work Files Timmins Ontario.



0 50 100 150 MILES
0 100 200 KM

JEAN'S EXPLORATION

LOCATION MAP

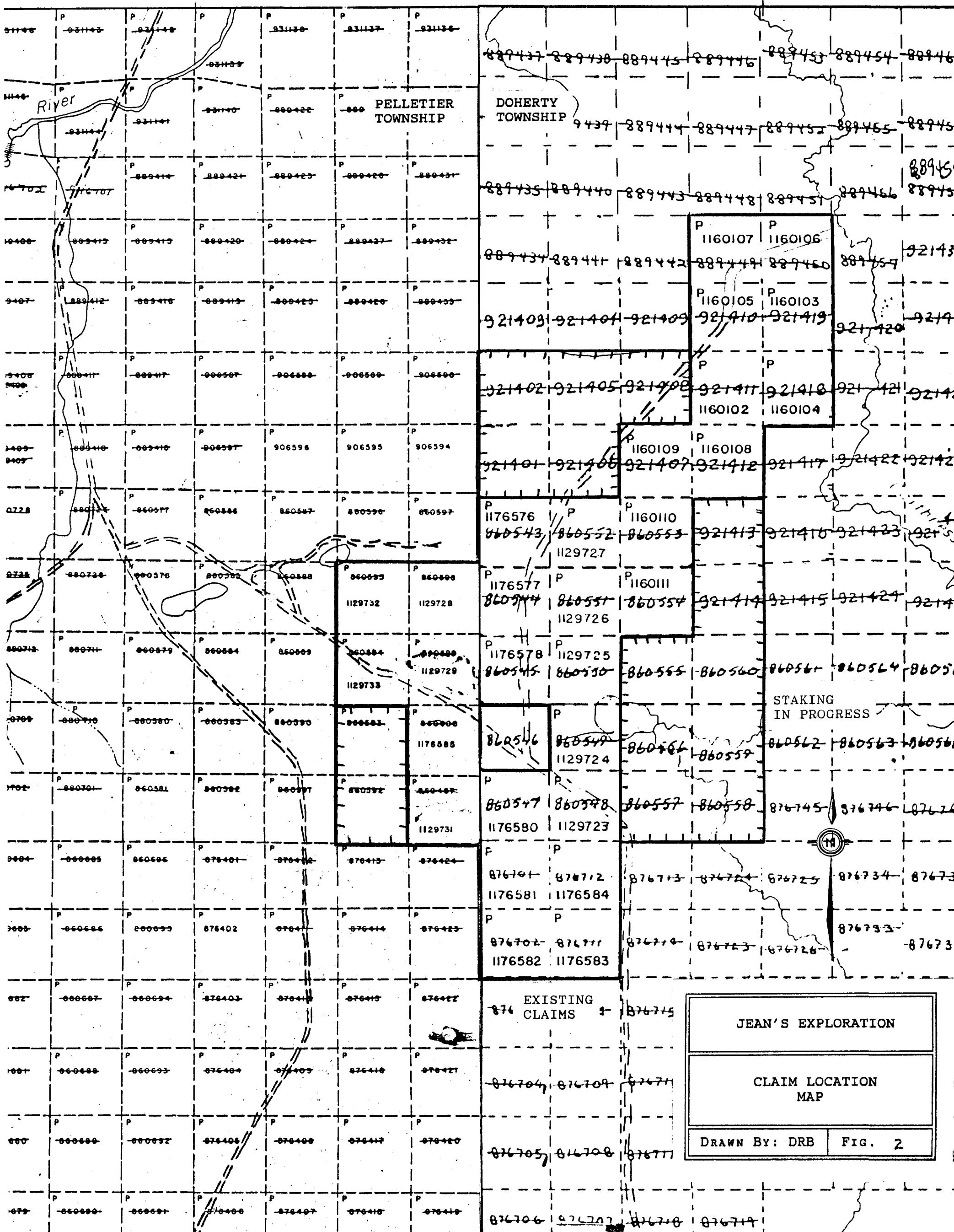
DATE April 1991 Fig. 1

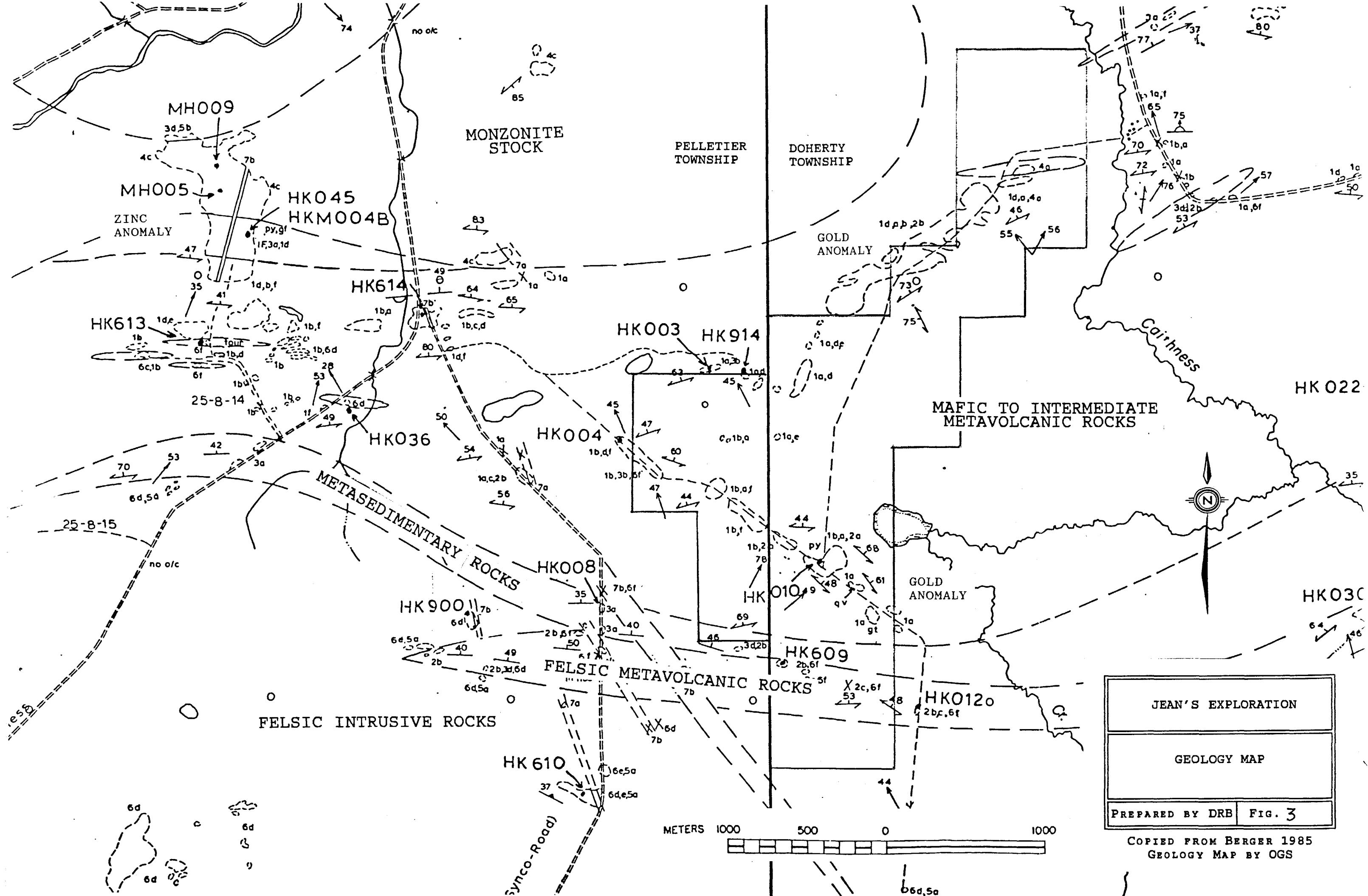
CAITHNESS
TOWNSHIP

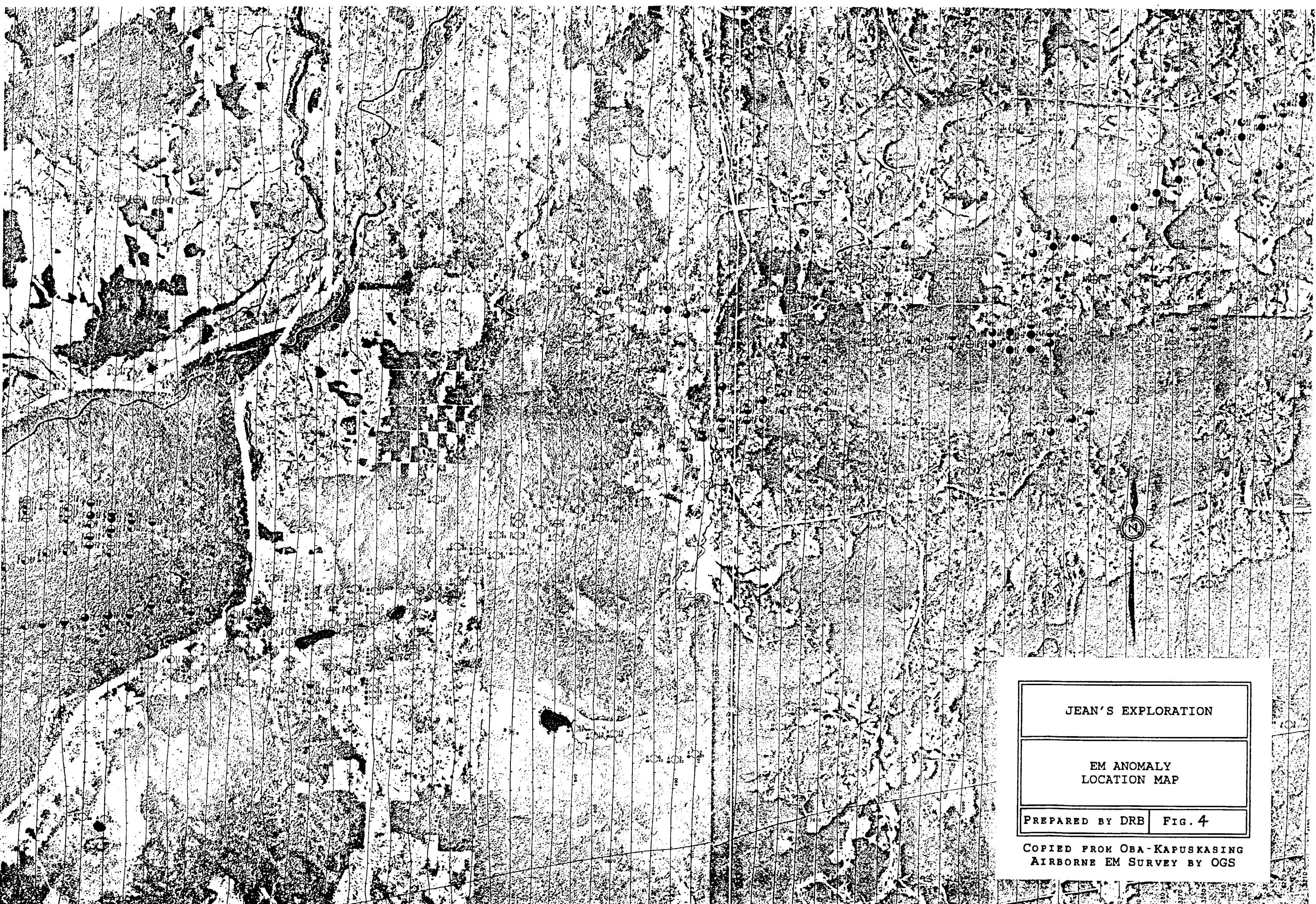
8 M

10 M

91





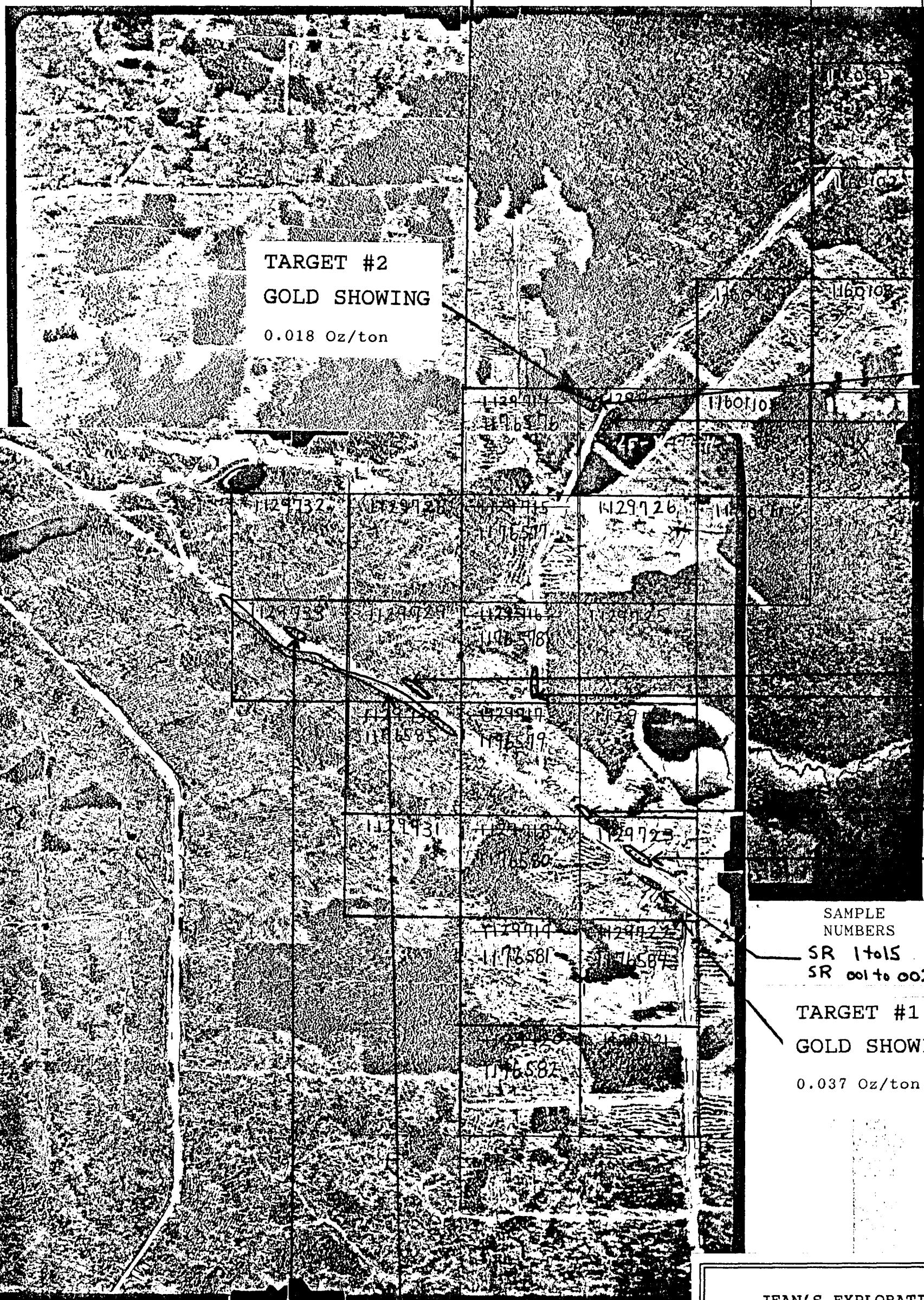


Mauril Jean M 24134
20 sets 1129714 to 1129733

Pelletier Township

North
Line between
township

Doherty Township



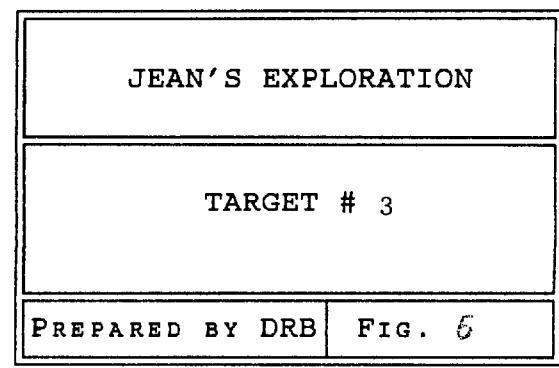
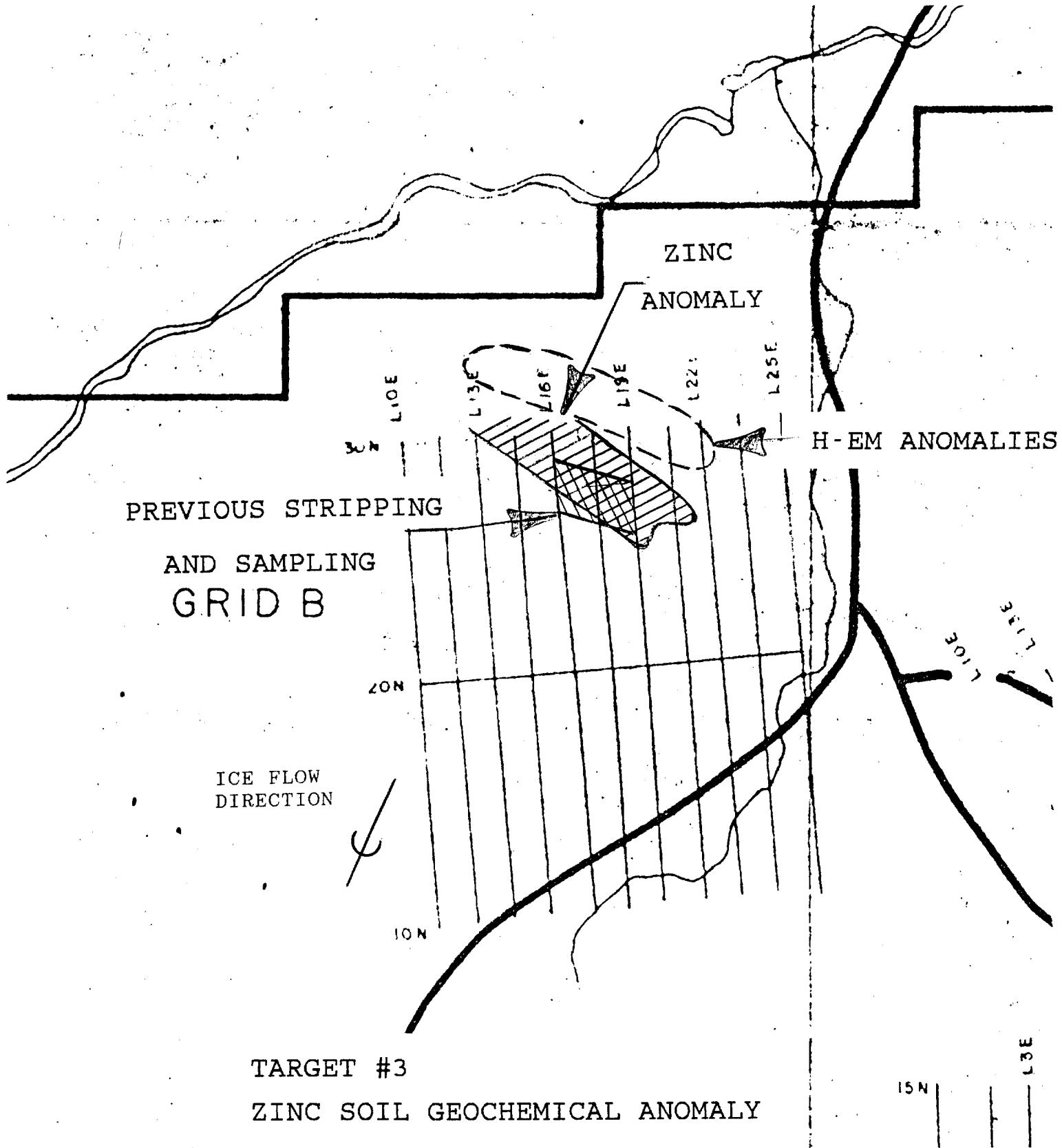
RD 9t011

ND 1t038

JEAN'S EXPLORATION

TARGET # 1 & 2

PREPARED BY DRB FIG. 5



COPY #2

JEAN'S DIESEL SHOP LTD.

Highway 11 West
P. O. Box 1480
Hearst, Ontario
P0L 1N0

WORK SCHEDULE FOR CAT 225 SHOVEL

Our estimate of cost is based on 12 hours per day
@ \$ 88.00 per hour = \$ 1,056.00 per day

This price includes operator and a pick up truck for transportation.

15 working days drainage, creek crossings
and rehabilitation of site @ \$ 1,056.00 = \$ 15,840.00

20 working days access to remote areas of
property @ \$ 1,056.00 = \$ 21,120.00

90 working days power stripping @ \$ 1,056.00 = \$ 95,040.00

TOTAL POWER STRIPPING AND ASSOCIATED COSTS = \$ 132,000.00

JEAN'S DIESEL SHOP LTD.

Highway 11 West
P. O. Box 1480
Hearst, Ontario
P0L 1N0

WORK SCHEDULE FOR DIAMOND DRILL

Our estimate of cost is based on a 20,000 foot diamond drilling program. We will be drilling an average of 150 ft per day using only one 12 hour shift.

This price includes a BB25 drill, drilling supplies, 380A Timberjack to tow the drill, one drill operator and helper with a pick up truck.

TOTAL COST 20,000 Ft. @ \$ 18.00 per foot	\$ 360,000.00
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JEAN'S DIESEL SHOP LTD.

Highway 11 West
P. O. Box 1480
Hearst, Ontario
P0L 1N0

LIST OF EQUIPMENT TO BE RENTED

The rental period is estimated to be 7 months.

3 - only Ford 4x4 pick up trucks @ \$ 1,044.00 per unit per month.	= \$ 21,924.00
1 - only Lister Petter electrical Plant 14Kv @ \$ 1,140.00 per month	= \$ 7,980.00
1 - only 150 CFM air compressor mounted on a trailer, with pressure hose, plugger and drill steel @ \$ 1,075.00 per month	= \$ 7,525.00
1 - only 45' storage van and built in office @ \$ 950.00 per month	= \$ 6,650.00
Mobilization Costs	= \$ 3,000.00
Demobilization Costs	= \$ 4,000.00
TOTAL RENTAL COSTS	= \$ 51,079.00

JEAN'S DIESEL SHOP LTD.

Highway 11 West
P. O. Box 1480
Hearst, Ontario
P0L 1N0

LIST OF PERSONNEL

The cost estimates are based on a 7 month work period except for the Geologist and an assistant/draftperson. They will be required for at least one month after the field work is completed to finish all maps and reports.

1 - Supervisor for Laborers and Heavy Equipment @ \$ 175.00 per day	= \$ 26,950.00
3 - Laborers	
1) pump operator to wash outcrops	
2) pneumatic plugger operator	
3) assistant/mechanic,welder,carpenter	
4) geologist assistant @ \$ 125.00 per day	= \$ 77,000.00
4 - Expediter & Draftperson @ \$ 100.00 per day for a period of 8 months	= \$ 17,600.00
5 - Geologist @ \$ 175.00 per day for 8 months	= \$ 30,800.00
<hr/>	
TOTAL COST OF PERSONNEL	= \$ 152,350.00

JEAN'S DIESEL SHOP LTD.

Highway 11 West
P. O. Box 1480
Hearst, Ontario
P0L 1N0

LIST OF EXPENSES

Pick Up truck expenses (gas, oil & maintenance) = \$ 15,000.00

Kilometerage @ \$ 0.10 per Km X 200 Km per day
X 22 days per mo. X 7 months = \$ 3,080.00

Compressor & electrical plant (gas, oil & maint) = \$ 15,000.00

Geochemical Analysis 2,000 @ \$ 20.00 = \$ 40,000.00

Drafting Supplies = \$ 3,000.00

Insurance for complete project (approx.) = \$ 4,800.00

Line cutting 60 Km @ \$ 250.00 per Km = \$ 15,000.00

Geophysics 30 Km @ \$ 135.00 per Km = \$ 4,050.00

TOTAL EXPENSES = \$ 99,930.00

TOTAL FOR THE EXPLORATION PROJECT = \$ 795,359.00

Overhead Allowance 5% = \$ 39,767.95
=====

GRAND TOTAL FOR THE EXPLORATION PROJECT = \$ 835,126.95

AREAS WITHDRAWN FROM DISPOSITION

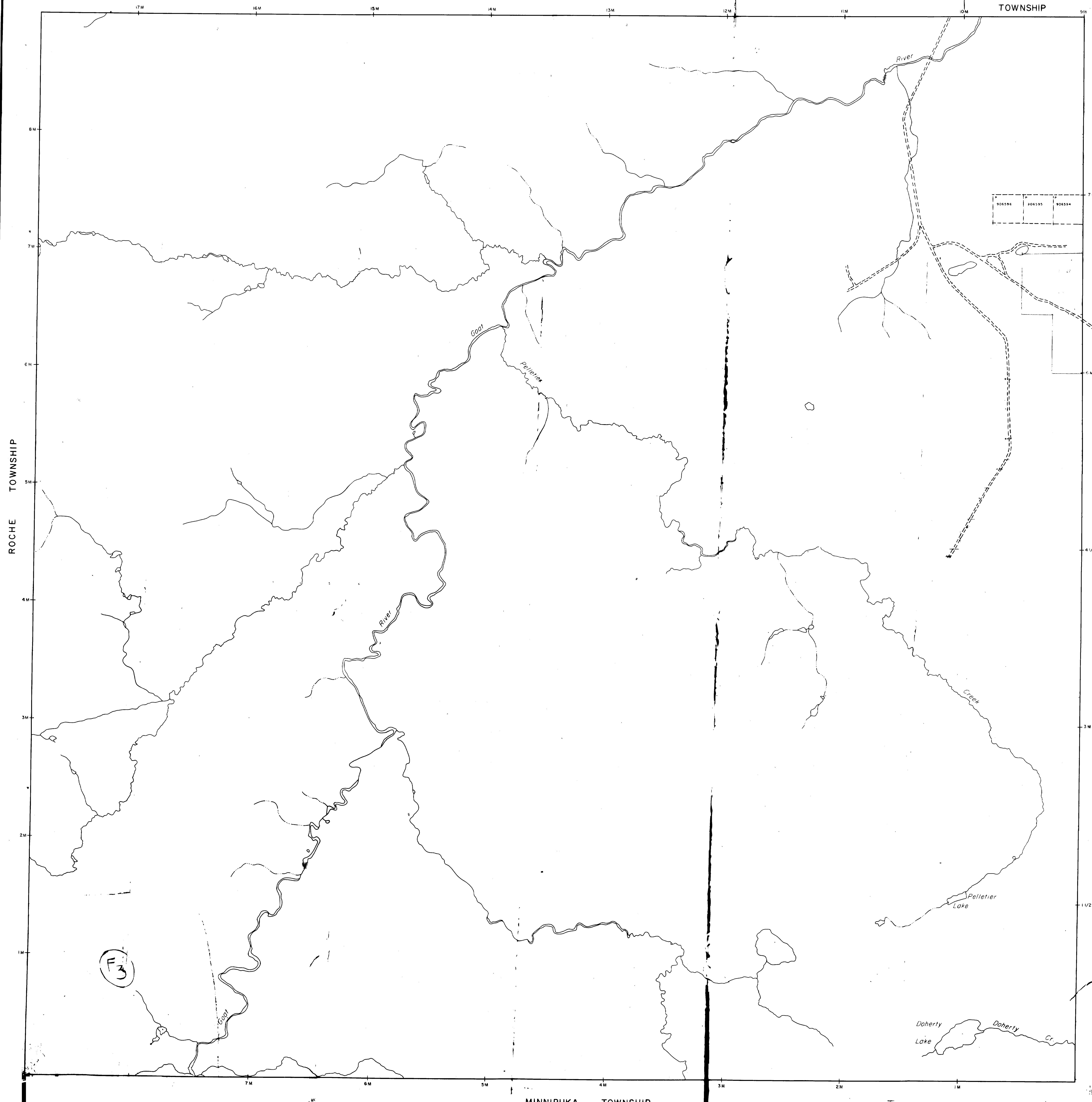
M.R.O. - MINING RIGHTS ONLY
 S.R.O. - SURFACE RIGHTS ONLY
 M.+S. - MINING AND SURFACE RIGHTS

Description Order No. Date Disposition File

SCHOLFIELD TOWNSHIP

TOWNSHIP

CAITHNESS TOWNSHIP



DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT

PATENT, SURFACE & MINING RIGHTS
 SURFACE RIGHTS ONLY
 MINING RIGHTS ONLY
 LEASE, SURFACE & MINING RIGHTS
 SURFACE RIGHTS ONLY
 MINING RIGHTS ONLY
 LICENCE OF OCCUPATION
 ORDER IN COUNCIL
 RESERVATION
 CANCELLED
 SAND & GRAVEL
 TRADE TERRAIN
 NOTE: THIS DOCUMENT IS NOT A PATENT. IT IS A VETTING IN WHICH A PART OF THE LANDS ACT HAS BEEN CHARGED. SEE SECTION 102 OF THE LANDS ACT, R.S.O. 1970, CHAP. T10, S. 63.

SCALE 1:20000

DOHERTY TOWNSHIP

MAY 28
 DATE OF
 MAP S. 11414, APR. 1994
 PROVINCIAL PLATE
 OFFICE - SU

TOWNSHIP

PELLETIER

M.N.R. ADMINISTRATIVE DISTRICT

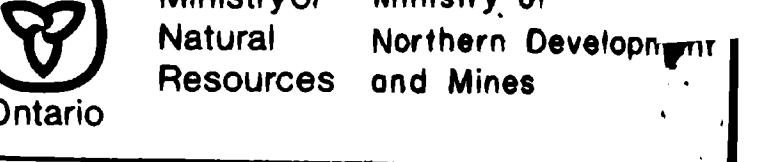
HEARST

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

ALGOMA



Date: SEPTEMBER, 1986
 Number: G-2343
 Checked by: [Signature]
 Approved by: [Signature]

G-2343



GWT DOHERTY

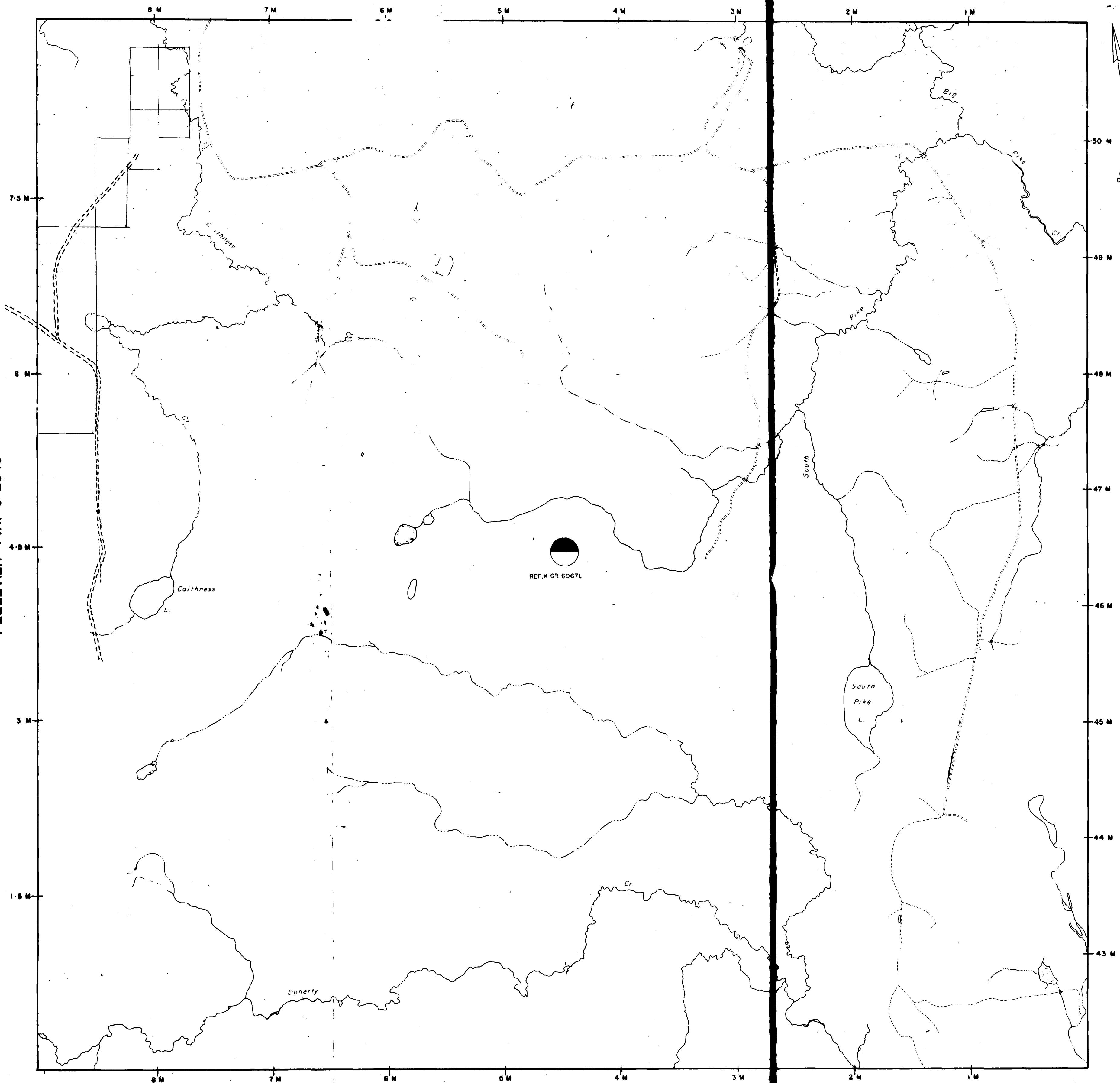
G-5205

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION
 M.R.O. - MINING RIGHTS ONLY
 S.R.O. - SURFACE RIGHTS ONLY
 M.+S. - MINING AND SURFACE RIGHTS

Description Order No. Date Disposition File

CAITHNESS TWP. G-2295



LEGEND

HIGHWAY AND ROUTE No.	
OTHER ROADS	
TRAILS	
SURVEYED LINES:	
TOWNSHIPS, BASE LINES, ETC.	
LOTS, MINING CLAIMS, PARCELS, ETC.	
UNSURVEYED LINES:	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC.	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON-PERENNIAL STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKEG	
MINES	
TRAVERSE MONUMENT	

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	■
LEASE, SURFACE & MINING RIGHTS	□
" SURFACE RIGHTS ONLY	□
" MINING RIGHTS ONLY	□
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	○○
RESERVATION	○○○
CANCELLED	○○○○
SAND & GRAVEL	○○○○○

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1912, VERIFIED IN ORIGINAL TENURE BY THE PUBLIC LANDS ACT, R.D.O. 1912, CHAP. 360, SEC. 62, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS
 FEET 1000 2000 3000 4000 5000 6000
 METRES 200 400 600 800 1000 1200

ALL THIS TOWNSHIP IS PATENTED FOR SURFACE RIGHTS ONLY.

THIS TOWNSHIP LIES WITHIN THE ALGOMA EASTERN RAILWAY LAND GRANT.

TOWNSHIP

DOHERTY

M.N.R. ADMINISTRATIVE DISTRICT

HEARST

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

ALGOMA

Ministry of Land
Natural Resources Branch
Ontario

Date: MARCH 19, 1984. Number:
Rec'd: May 13, 1984.

G-2302

DATE OF ISSUE

MAY 28 1988

PROVINCIAL RECORDING

OFFICE - SUDBURY



Figure 3

JEAN'S EXPLORATION

+ 49° 06' 3
83° 34,3'



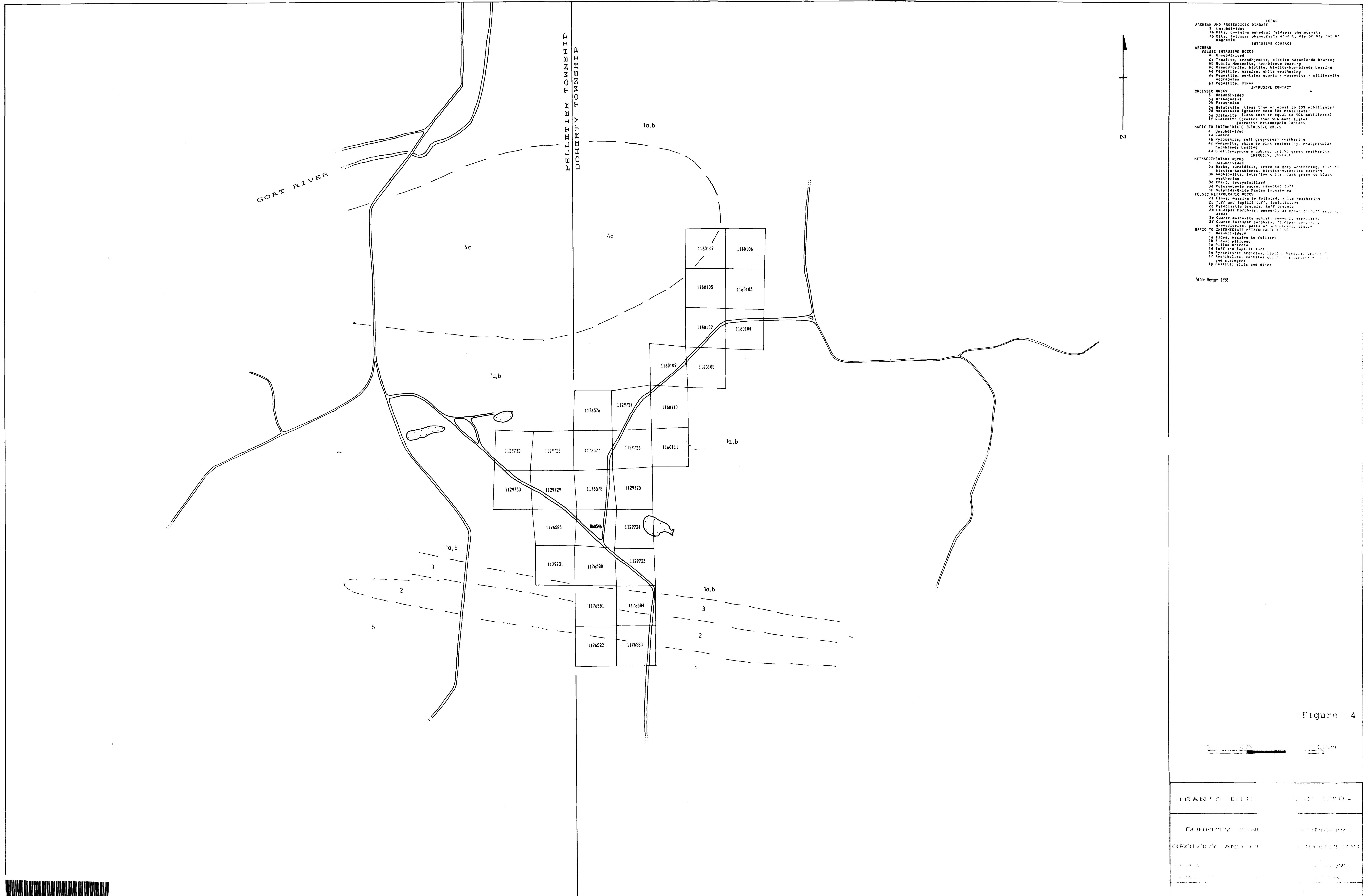
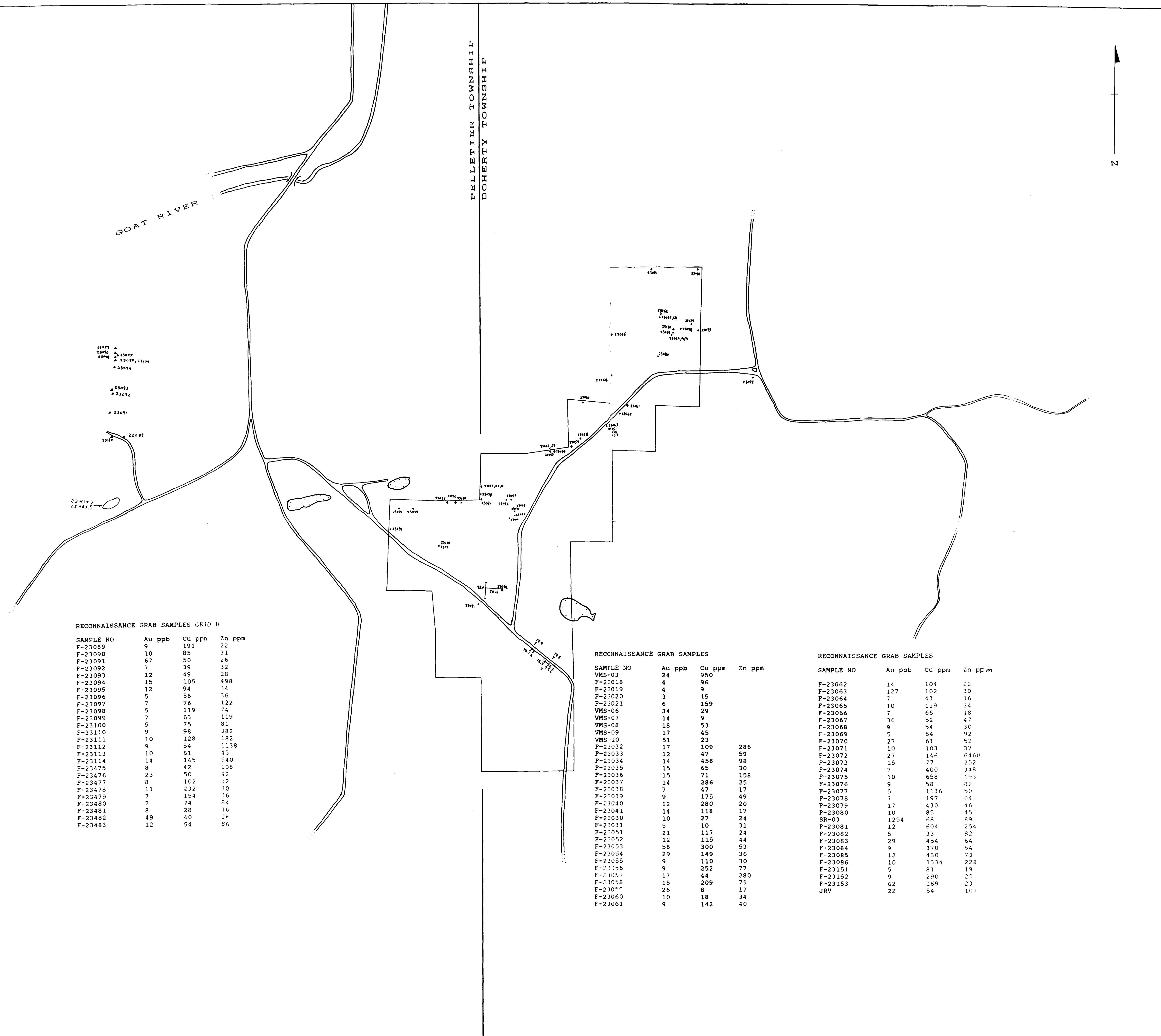


Figure 4



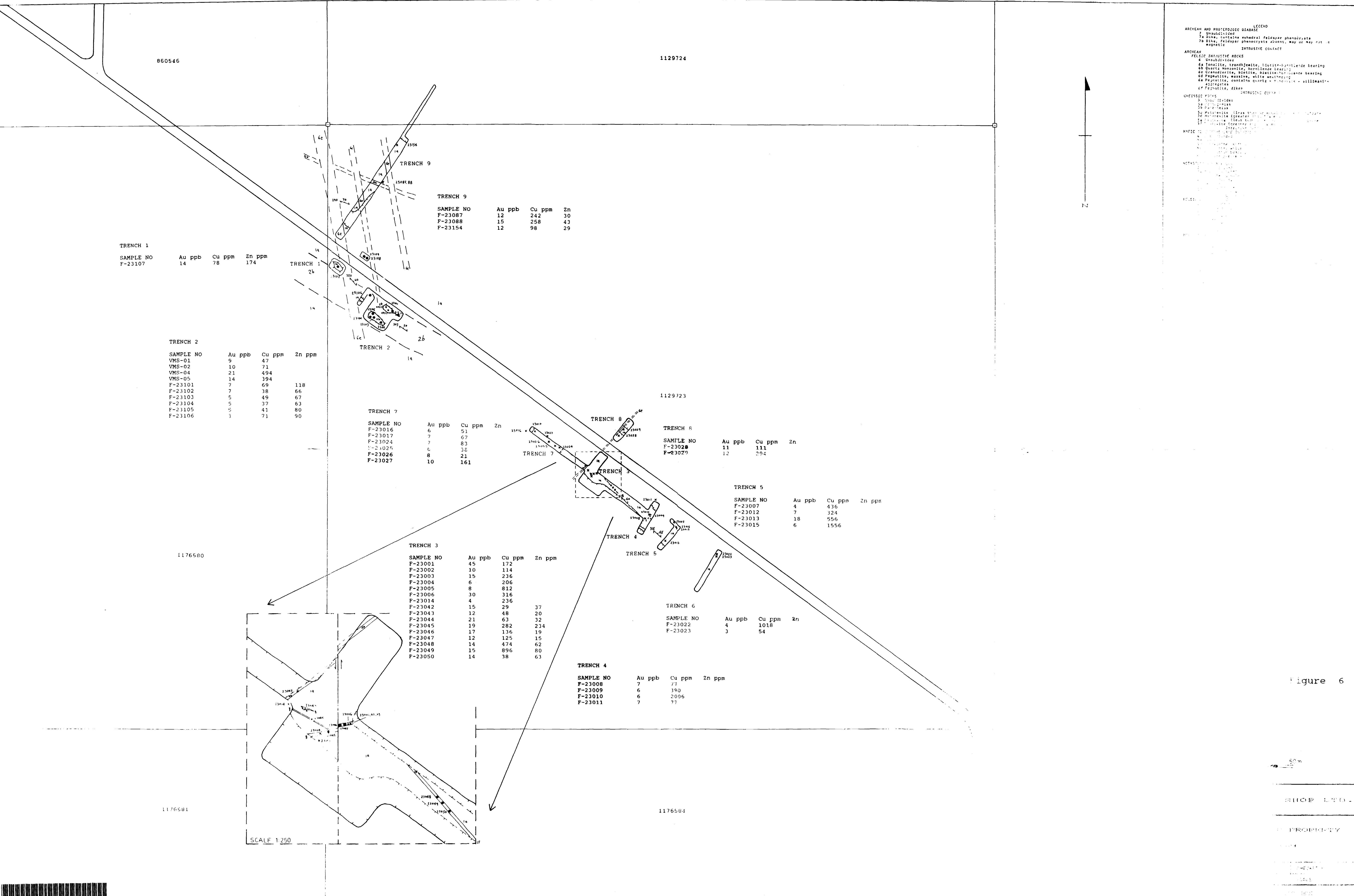


Figure 6

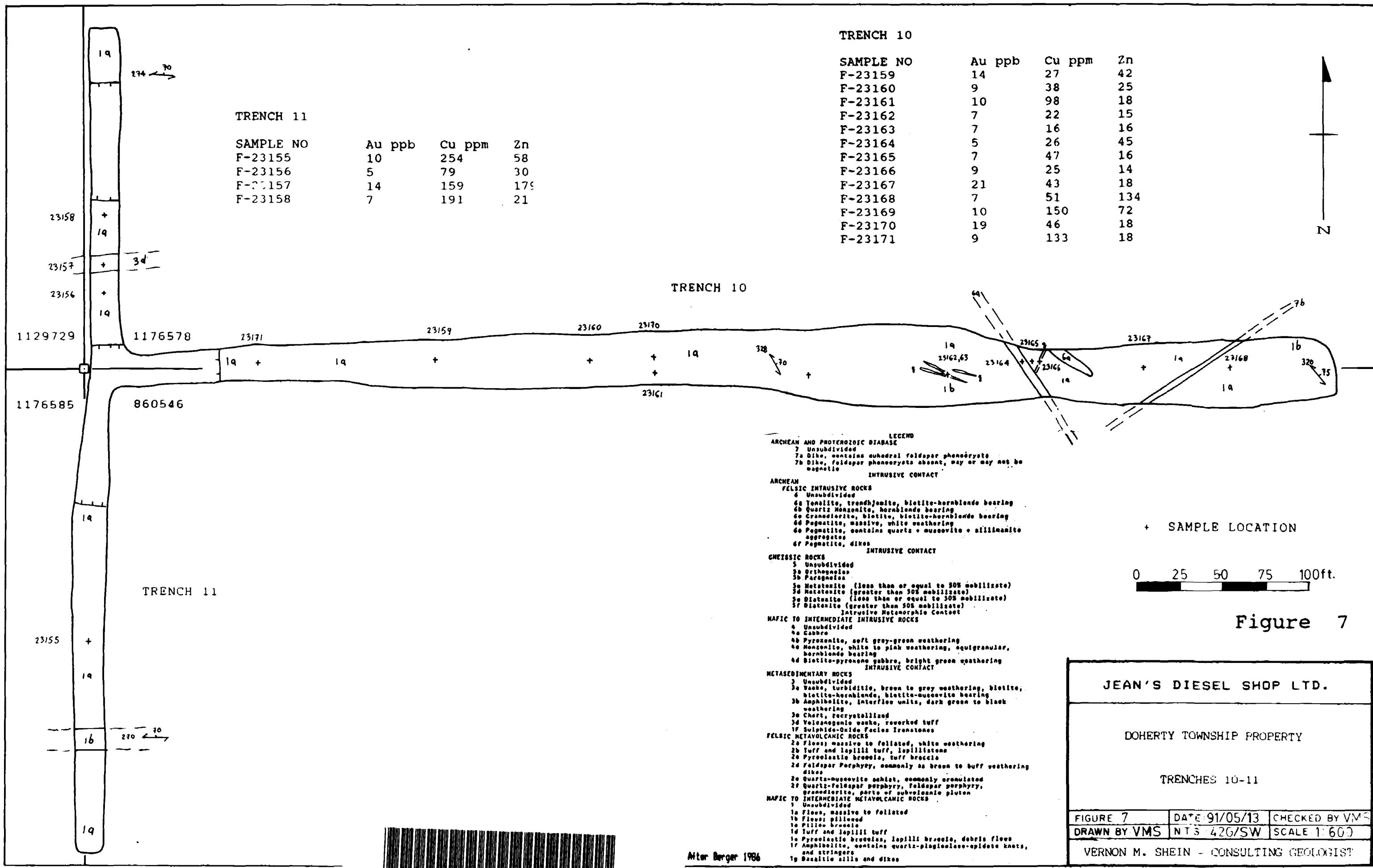


Figure 7

