THE WOODBINE PROSPECT
BOUNDARY GROUP
1983 EXPLORATION

SKEENA, M.D.

NTS 104B/1

LATITUDE - 56° 05'
LONGITUDE - 130° 02'

by: M. Monahan & L. Wilson

Operator: Esso Resources Canada Limited

Date: November 7, 1983

0630K

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RECOMMENDATIONS

A three hole diamond drilling program is proposed to test gold and silver mineralization in the No. 2 Portal area.

SUMMARY

Geological mapping, an I.P. survey, trenching, chip amd panel sampling were completed on the Woodbine Prospect in 1983.

These surveys delineated a zone of silver and gold mineralization in the No. 2 Portal area. This mineralization consists of precious metals associated with basemetal sulphides in a brecciated andesite flow.

INTRODUCTION

The Woodbine Prospect consists of 19 Reverted Crown Grants, one mineral claim and 5 staked fractions (Table 1). These claims cover 248 acres and Esso Resources Canada Limited is the registered owner.

Geological mapping, prospecting, an I.P. survey, trenching, chip and panel sampling were completed in June, July and August 1983. The purpose of this work was to examine previously known silver and gold mineralization and assess the properties' precious metal potential.

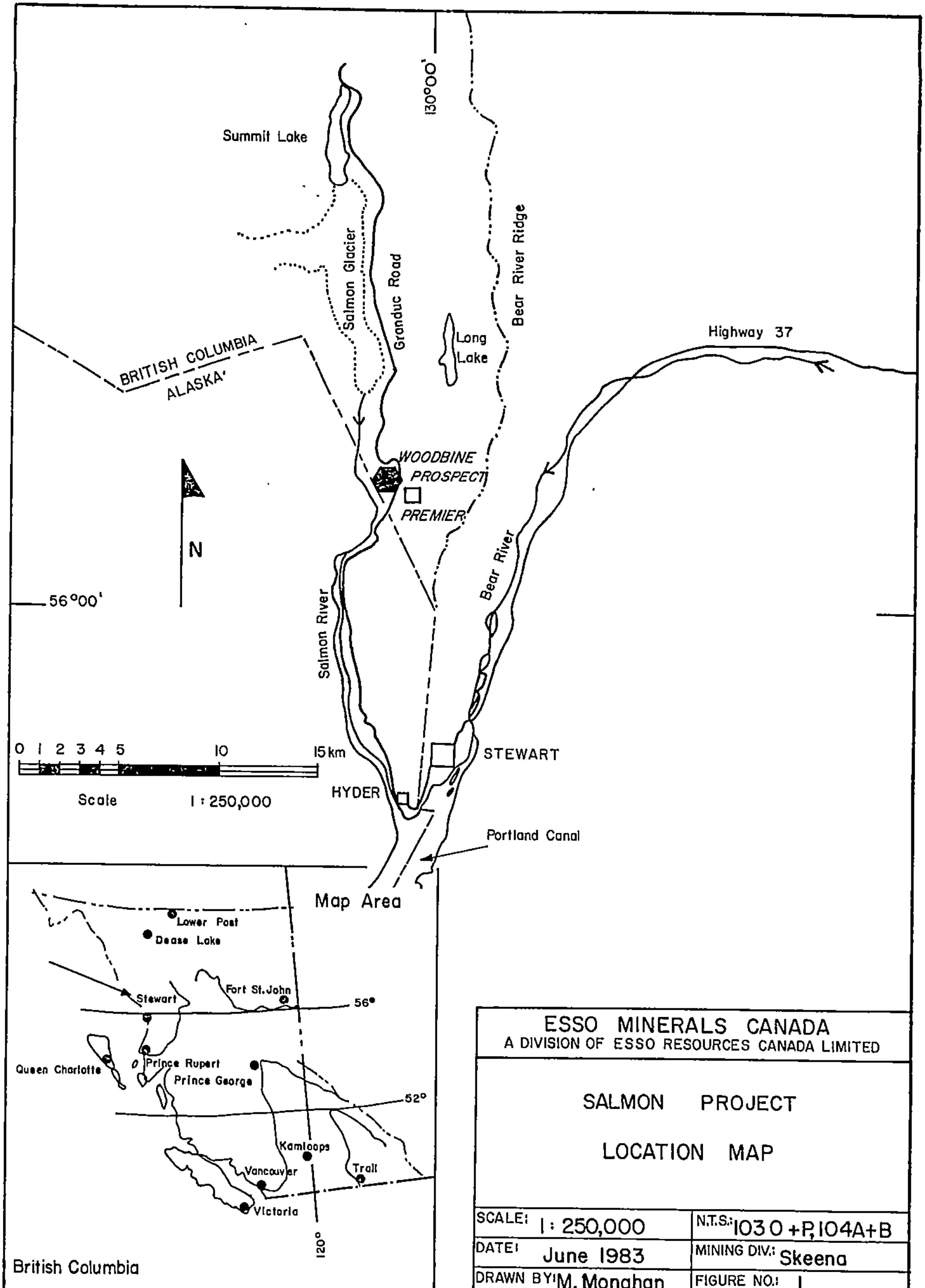
Location and Access

The Woodbine Prospect is located 16 km north of Stewart B.C. in NTS 104B/1 (Figures 1 & 2). The property is bounded by the Alaska - B.C. border on the west and by the British Silbak Premier property to the south and southeast. To the north and northeast are contiguous claims also owned by Esso Resources Canada Limited.

The Granduc road passes through the eastern part of the property. Therefore the entire property is accessible by foot. The terrain varies from gently rolling to extremely steep. The property ranges in elevation from 180 m to 755 m and is entirely below treeline.

Property History

There is very little information available regarding the early exploration on the Woodbine property. There is a mention in the 1904 B.C. Ministry of Mines Annual Report that prospecting had taken place here in the previous year.



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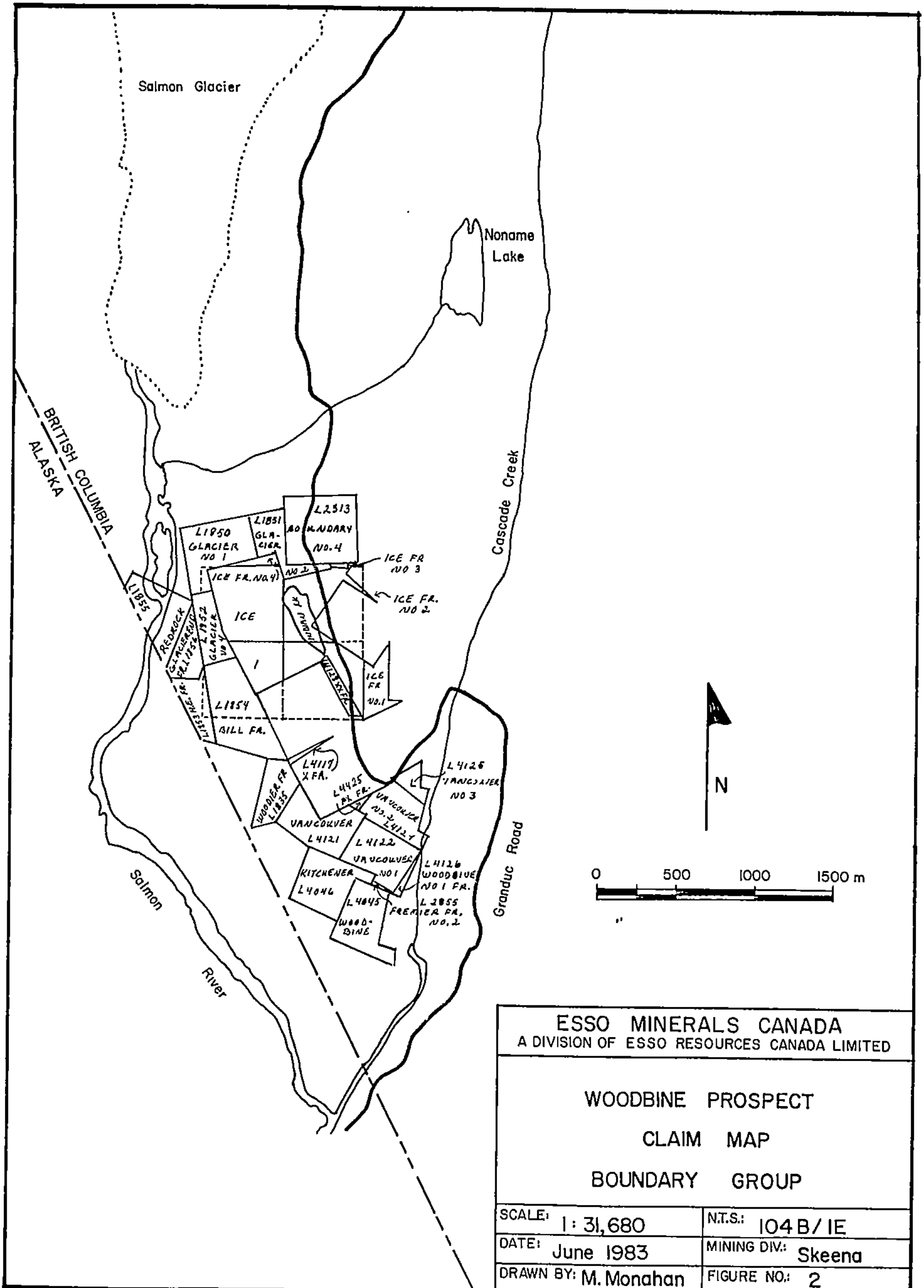
SALMON PROJECT

LOCATION MAP

SCALE: 1 : 250,000	N.T.S.: 103 O + P, 104A + B
DATE: June 1983	MINING DIV.: Skeena
DRAWN BY: M. Monahan	FIGURE NO.: 1



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WOODBINE PROSPECT
CLAIM MAP
BOUNDARY GROUP

SCALE: 1: 31,680	N.T.S.: 104 B/ IE
DATE: June 1983	MINING DIV.: Skeena
DRAWN BY: M. Monahan	FIGURE NO.: 2

TABLE 1 - WOODBINE PROPERTY BOUNDARY GROUP

CLAIM NAME & #	RECORD NO	RECORDING DATE	TYPE OF CLAIM	LOT #	NO UNITS	HECTARES	ANNUAL ASSESS	ASSESS DUE BEFORE
VANCOUVER #2;	699	AUG 30/78	RCG	4124		14.96	200	AUG 30/88
VANCOUVER #3 &		AUG 30/78		4125				AUG 30/88
PX FR		AUG 30/78		4425				AUG 30/88
VANCOUVER #1 &	700	AUG 30/78		4122		12.17	200.00	AUG 30/88
WOODBINE #1 FR		AUG 30/78		4126				AUG 30/88
KITCHENER &	701	AUG 30/78		4046		24.79	200.00	AUG 30/88
VANCOUVER		AUG 30/78		4120				AUG 30/88
WOODBINE	702	AUG 30/78		4045		13.03	200.00	AUG 30/88
HC FR &	698	SEPT 5/78		1853		24.35	200.00	SEPT 5/88
BILL FR &		SEPT 5/78		1854				SEPT 5/88
X FR		SEPT 5/78		4117				SEPT 5/88
XX FR	729	SEPT 5/78		4128		3.53	200	SEPT 5/88
GLACIER	730	SEPT 5/78		1849		18.78	200	SEPT 5/88
GLACIER #1	731	SEPT 5/78		1850		14.56	200	SEPT 5/88
GLACIER #2	732	SEPT 5/78		1851		8.98	200	SEPT 5/88
GLACIER #4 &	733	SEPT 5/78		1852		24.89	200	SEPT 5/88
RED ROCK &		SEPT 5/78		1855				SEPT 5/88
GLACIER END FR		SEPT 5/78		1856				SEPT 5/88

CLAIM NAME & #	RECORD NO	RECORDING DATE	TYPE OF CLAIM	LOT #	NO UNITS	HECTARES	ANNUAL ASSESS	ASSESS DUE BEFORE
BOUNDARY #4	734	SEPT 5/79		2313		20.91	200	SEPT 5/88
ICE #1	1830	SEPT 18/79	MINERAL CLAIM		4	53.05	800.00	SEPT 18/88
ICE FR #1	1831	SEPT 18/79	STAKED FR			5.93	200.00	SEPT 18/88
ICE FR #2	1832	SEPT 18/79	STAKED FR			0.15	200.00	SEPT 18/88
ICE FR #3	1833	SEPT 18/79	STAKED FR			0.33	200.00	SEPT 18/88
ICE FR #4	1834	SEPT 18/79	STAKED FR			0.36	200.00	SEPT 18/88
WOODIER FR	1835	SEPT 18/79	STAKED FR			7.12	200.00	SEPT 18/88
						247.89		
						612.3 acres		

Later, between 1926 and 1928, the Woodbine Gold Mining Co. Ltd. completed 900 m of underground exploration drifting. This work was completed to follow gold and silver mineralization located on surface. In 1929 they completed a drill program to test for additional mineralization below the workings. The results of this drilling were sufficient enough to allow for further follow-up work. In 1930 they started sinking a winze, but this work was stopped due to insufficient water pumping capacity. This extensive working is now referred to as the No. 2 Portal.

The Blue Jay Gold Mining Co. Ltd. completed trail cutting in 1928. This trail lead to the No. 1 Portal area on the present Woodbine grid. In 1929 they drove the No. 1 adit approximately 50 m to intersect gold mineralization found on surface.

In 1980 and 1981 Houston International Minerals Corp. (HIMCO) conducted geological mapping, soil sampling and fluxgate magnetometer surveys on the property. In addition they repaired the collapsed No. 2 Portal and drained the workings.

GEOLOGY

Regional Geology

The volcanic and sedimentary rocks of the Salmon River Valley are sub-divided into two assemblages which are separated by a north-south striking, east dipping, low angle fault (Table 2).

In the hanging wall of the fault are mostly argillites and red-green coloured epiclastic rocks of the Middle Jurassic Bowser Lake Group. In the foot wall are Lower Jurassic or older volcanic and sedimentary rocks of the Hazelton Group.

Most of the precious metal showings in the Salmon River Valley are in the Lower Jurassic or older volcanic rocks.

TABLE 2 - STRATIGRAPHY OF THE SALMON RIVER VALLEY

TERTIARY

Intrusive Rocks

Unit 15	Andesite dykes, microdiorite dykes.
Unit 14	Hyder quartz monzonite, granodiorite

__________Intrusive Contract__________

MIDDLE JURASSIC

Bowser Lake Group

Unit 13	Siltstone, argillite, wacke, minor conglomerate
Unit 12	Red, green, purple, epiclastic conglomerate, sandstone and siltstone.

__________Fault Contact__________

LOWER JURASSIC - UPPER TRIASSIC

Intrusive Rocks

Unit 10	Texas Creek porphyritic granodiorite
Unit 9	Grandodiorite porphyry and porphyritic dacite and andesite dykes and sills ("Premier" porphyry)

__________Intrusive Contact__________

LOWER JURASSIC OR OLDER

Unit 5	Green andesite tuff, lapilli tuff, flows, with some pyritic zones, pervasive silica-sericite altered zones.
Unit 4	Green andesite tuff, lapilli tuff, some with hematitic matrix. Some red wacke.
Unit 3	Green andesite felspar crystal tuff, lapilli tuff, and flows. Pyritic, pervasive silica-sericite altered zones.
Unit 2	Black dacite lapilli tuff, cherty dacite tuff, argillite.
Unit 1	Undifferentiated rocks of uncertain stratigraphic position: green andesite and dacite lapilli tuff, flows, tuff.

These volcanic, sedimentary and epiclastic rocks have undergone two periods of intrusive activity.

The Lower Jurassic to Upper Triassic Texas Creek Intrusion intrudes the Hazelton Group. This intrusion is a feldspar-hornblende porphyritic granodiorite and granodiorite porphyry. Numerous dykes and sills of a Texas Creek granodiorite variety are found in Hazelton Group rocks.

The largest intrusion in the area are the Cretaceous-Eocene Coast Range Batholith, located at the southern end of the Salmon River Valley.

See McGuigan, 1983 for an indepth discussion of the Salmon River Valley geology.

Local Geology

The Woodbine grid and underground workings were mapped in detail by the HIMCO geologist. Their work is very good and therefore the grid and workings were not remapped.

The Woodbine Prospect is underlain by Unit 3 Premier volcanics. These volcanics have been intruded by a number of Unit 14 Hyder granodiorite and Unit 15 andesite dykes (Map 1).

The Unit 3 volcanics consist of andesite flows and tuffs. The flows vary from massive fine grain andesite to feldspar-hornblende porphyritic andesite. The hornblende phenocrysts are up to 4 mm and the phenocrysts can be 1 cm in size. They occur in a fine grain green chloritic matrix. In the Premier Mine porphyritic units similar to these are referred to as the "Premier Porphury".

The andesite flow units have been locally brecciated (Figure 4). This brecciation appears to be a flow top feature. The breccia fragments vary in size from a few centimetres to 50 cm and larger. The fragments are generally in a carbonate ± chlorite ± quartz matrix. The brecciation intensity is quite variable. The Woodbine mineralization is found within three brecciated horizons.

The andesite tuff units vary from a fine grain weakly foliated tuff to a lapilli tuff with 3 cm lapilli. The fine grain tuff is the predominate lithology. These units appear to be quite thick due to the fact that no bedding tops were observed in them.

The volcanic rocks are cut by three Hyder granodiorite dykes which strike at approximately 135° and dip to the southwest. They range between 15 and 60 m in width. They are generally medium grain equigranular and hornblende bearing.

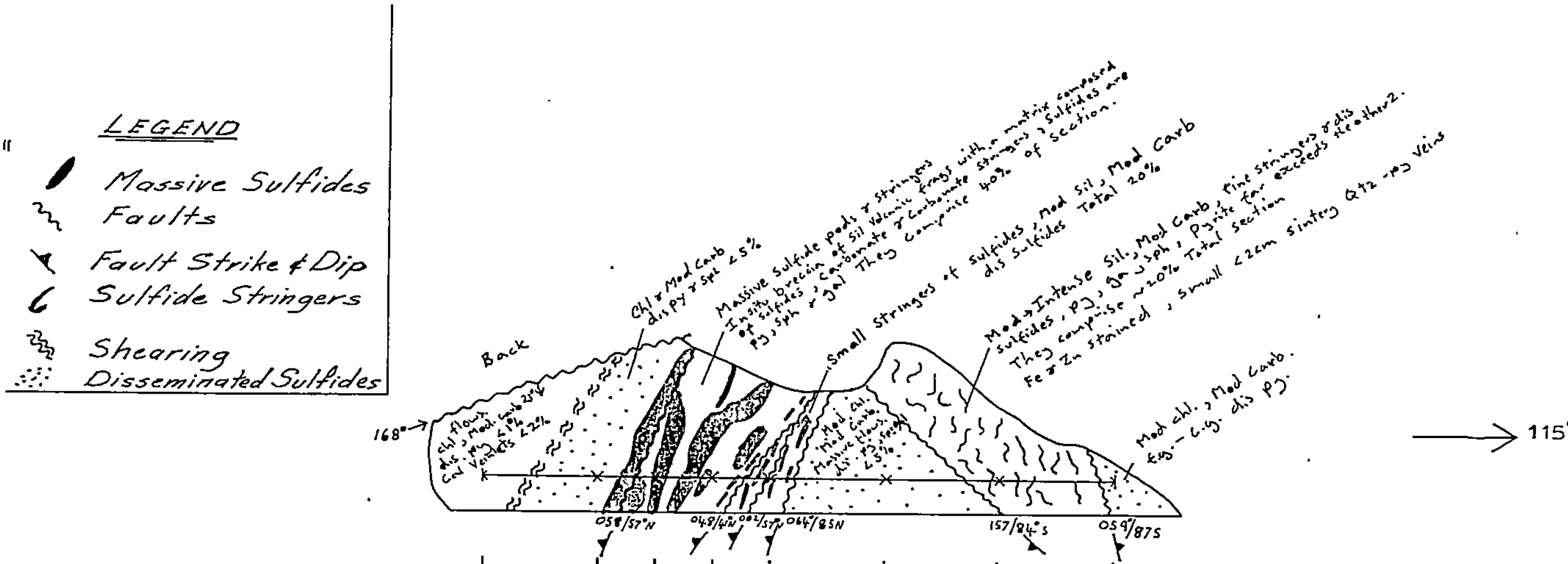
The andesite dykes are green and very fine grain. They are generally narrow and discontinuous features. These dykes are distinctive from the andesite flows in that they are finer grained and are unaltered. The andesite dykes are the youngest rock type on the grid because they cross-cut all the other units.

Structure

There are no indications of any major folds or complex structures on the property. The only bedding orientations found are in the No. 2 Portal area. They indicate that the flows strike at 115° and dip 75° to the north. This is approximately at right angle to the strike of the flow-tuff contact that runs the length of the grid. There are a number of faults mapped both underground and on surface, but there appears to be limited movement along them.

Alteration

The alterations associated with the No. 1 and No. 2 Portal showings are very similar. The sulfides are in carbonate veins or have carbonate in massive sulfide veins. There is also minor quartz in the mineralized veins. The brecciated fragments have been weakly silicified in the No. 2 portal showings and moderately silicified in the No. 1 Portal showing. As well the brecciated fragments have been weakly to moderately carbonatized.



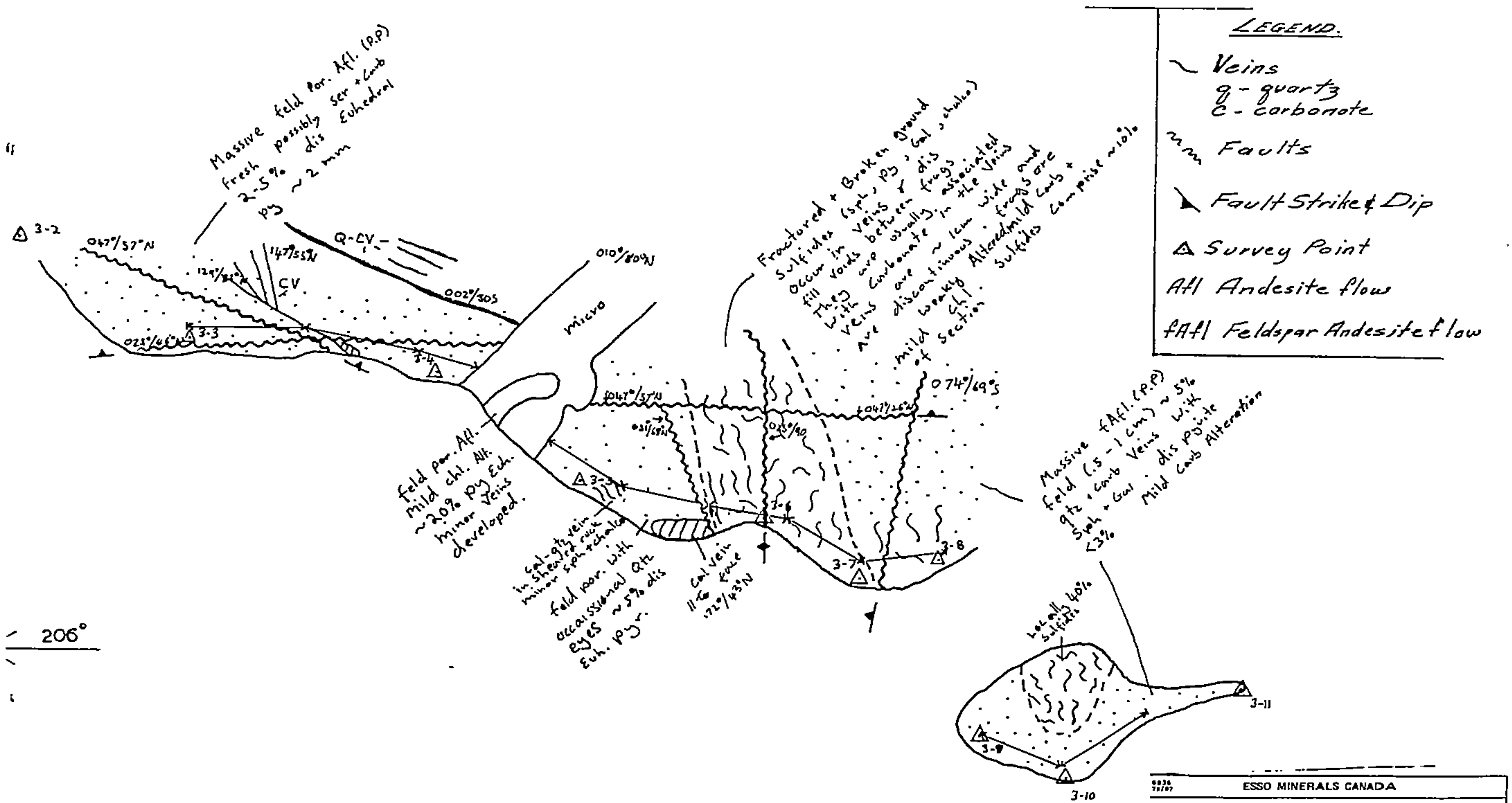
Assay No's prefixed by 104	32	31	26	27	28	29	30
Assay Values Au (g/tonne)	1.03	2.15	5.00	1.88	4.38	1.79	1.95
Ag (g/tonne)	30.8	177.9	177.9	222.4	119.7	34.2	10.3

ESSO MINERALS CANADA

WOODBINE PROSPECT
TRENCH ABOVE ADIT 1

Project No ______ NTS 104B-1
Lat. 56°05' Long 130°02'
Scale 1:100 (0 1 2 Metres)
Base Map ______

To Accompany A Report Dated Oct. 1983
By M. Monahan (FIGURE 3)



Sample Nos. Prefixed by 104	33	34	35	36	37	38	39	40	41	42
Assay Values Au (g/tonnes)	0.1	.17	.21	.24	.21	.27	2.43	.21	.24	.17
Ag (g/tonnes)	17.8	8.9	8.2	82.8	15 0	65.7	101.3	670	26.0	19.1

ESSO MINERALS CANADA

WOODBINE PROSPECT

FACE-CUT ABOVE ADIT 2

Project No ________ NTS 104B-1

Lat 56°05' Long 130°02'

Scale 1:100 (0 1 2 3 Metres)

Base Map ________

To Accompany A Report Dated Oct. 1983

By M Monahan (FIGURE 4)

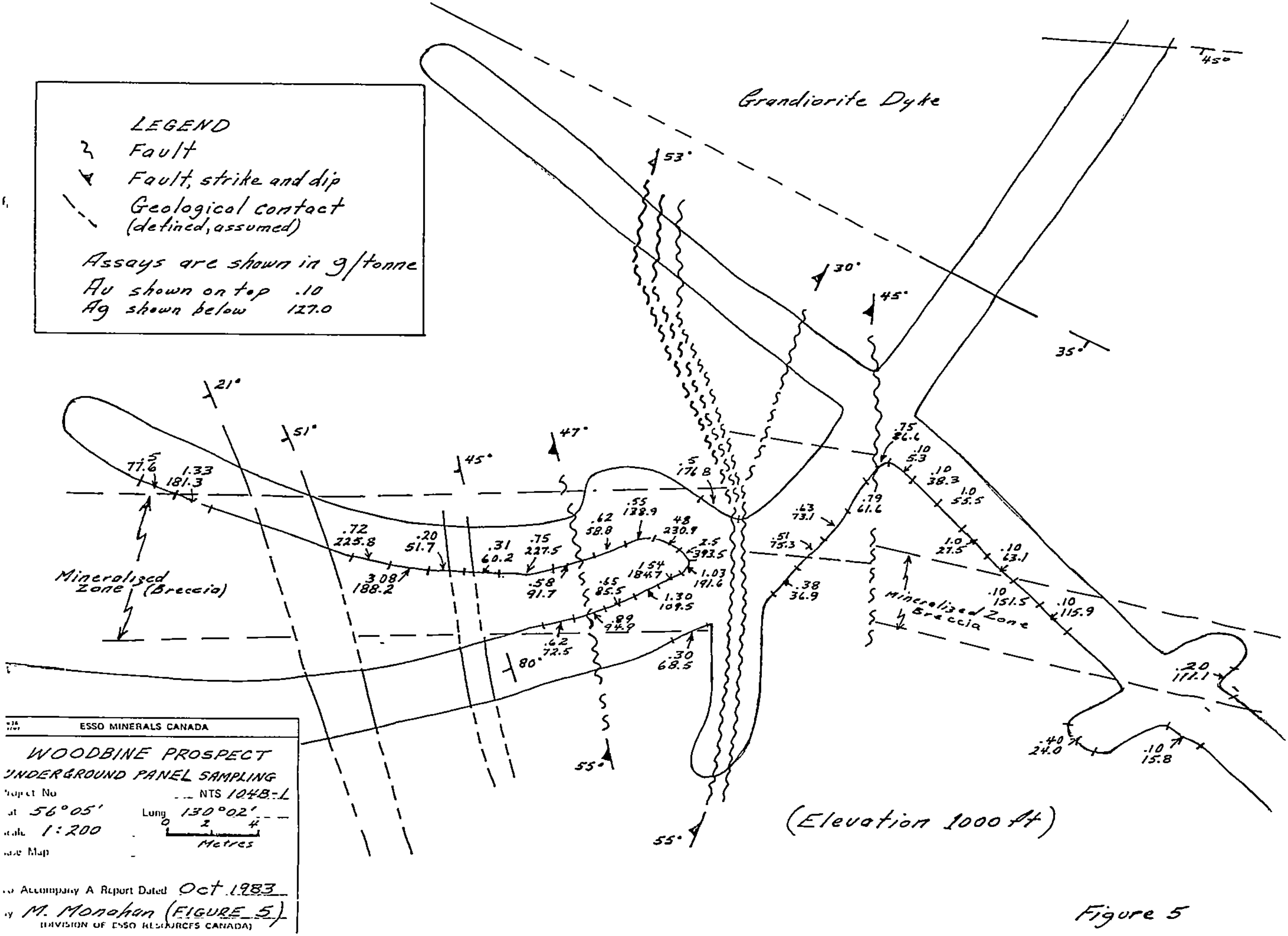
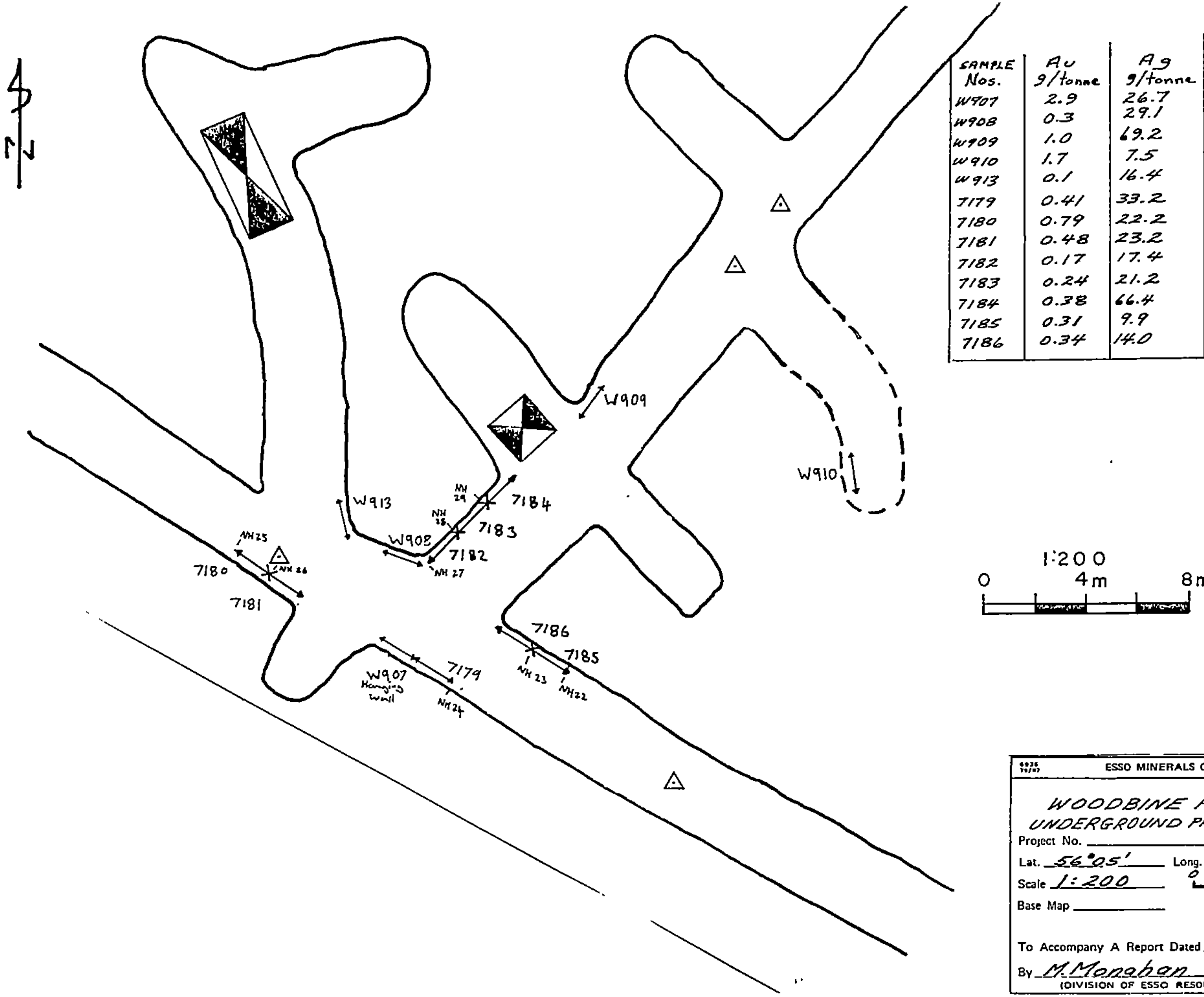

LEGEND
Fault
Fault, strike and dip
Geological contact
(defined, assumed)
Assays are shown in g/tonne
Au shown on top .10
Ag shown below 127.0
Grandiorite Dyke
Mineralized Zone (Breccia)
Mineralized Zone Breccia
(Elevation 1000 ft)
53°
30°
45°
45°
35°
21°
51°
45°
47°
80°
55°
55°
.5
77.6
1.33
181.3
.72
225.8
.20
51.7
.31
60.2
.75
227.5
3.08
188.2
.58
91.7
.62
58.8
.55
138.9
.48
230.9
2.5
393.5
1.54
184.7
1.03
191.6
.65
85.5
1.30
109.5
.89
94.9
.62
72.5
.30
68.5
.5
176.8
.43
73.1
.51
75.3
.38
36.9
.79
61.6
.75
86.6
.10
5.3
.10
38.3
1.0
55.5
1.0
27.5
.10
63.1
.10
151.5
.10
115.9
.20
111.1
.40
24.0
.10
15.8
ESSO MINERALS CANADA
WOODBINE PROSPECT
UNDERGROUND PANEL SAMPLING
Project No
NTS 104B-1
Lat 56°05'
Long 130°02'
Scale 1:200
0 2 4
Metres
Base Map
To Accompany A Report Dated Oct 1983
By M. Monahan (FIGURE 5)
(DIVISION OF ESSO RESOURCES CANADA)

Figure 5



SAMPLE Nos.	Au g/tonne	Ag g/tonne
W907	2.9	26.7
W908	0.3	29.1
W909	1.0	69.2
W910	1.7	7.5
W913	0.1	16.4
7179	0.41	33.2
7180	0.79	22.2
7181	0.48	23.2
7182	0.17	17.4
7183	0.24	21.2
7184	0.38	66.4
7185	0.31	9.9
7186	0.34	14.0

ESSO MINERALS CANADA

WOODBINE PROSPECT
UNDERGROUND PANEL SAMPLING

Project No. ____ NTS 104B-1

Lat. 56°05' Long. 130°02'

Scale 1:200 — 0 2 4 Metres

Base Map ____

To Accompany A Report Dated Oct. 1983

By M. Monahan
(DIVISION OF ESSO RESOURCES CANADA)

Having made these observations a very detailed alteration mapping survey was completed to determine if there were alterations patterns on the grid (Map 2). Therefore four alteration (carbonatization, chloritization, sericitization and silicification) and their intensities were recorded.

The results of this survey are very inconclusive. There is no correlation between the silicification and carbonatization. There is however a weak trend of silicification which encompasses the No. 1 and No. 2 Portal showings.

MINERALIZATION

No. 2 Portal

There are two showings in the No. 2 Portal area. Both consist of base metal sulphides in a brecciated flow matrix. The matricies are predominately composed of carbonate but may contain chlorite and quartz. The sulphides occur in pods and stringers in the matrix. Sphalerite is the predominate sulphide with pyrite and minor galena and chalcopyrite. The sulphides can constitute 30-40% of a brecciated zone but generally amount to between 1 and 10%.

The main mineralized breccia is well exposed in the underground workings (Figure 5). Twenty three 5'4" by 5'4" panel samples were taken this year and HIMCO collected 13 in 1981. The best section grades 1.08 gm Au/tonne and 200 gm Ag/tonne across 7 m. An additional 9 panels were collect to delineate additional mineralization found by HIMCO (Figure 6). This mineralization is higher in gold values than the main zone. This years sampling returned low gold and silver values and this area requires no further work.

A face-cut was blasted in the cliffs above the No. 2 Portal (Figure 4). This face-cut is 14 m long and it exposes a series of porphyritic andesite flows and a flow breccias. The flows generally contain between 2 and 5% pyrite and are feldspar porphyritic. The brecciated flow is weakly mineralized with sphalerite and galena. These basemetal sulphides occur in the carbonate matrix as small stringers and disseminations. The brecciated section contains approximately 10% sulphides. Ten chip samples were collected from the face-cut. The best sample assayed 2.43 gm Au/tonne and 101.3 gm Ag/tonne on 2 m. This zone is not found in the underground workings.

No. 1 Portal

The other showing, on the Woodbine grid, is exposed by an old trench in the No. 1 Portal area (Map 1, Figure 3). The showing consists of massive sulphides veins, pods and stringers in brecciated andesite flows. Sphalerite and pyrite predominate and there is also minor galena and chalcopyrite. The sulphides comprises 40% of the 2 m mineralized section. Carbonate and quartz are gangue minerals in the veins. Also there are stringer and disseminated sulphides in the adjacent rocks. The trench is 12 m in length. Seven chip samples were collected for a length of 11 m. This section grades 2.48 gm Au/tonne and 88.0 gm Ag/tonne. Within this section a 4 m interval assayed 3.91 gm Au/tonne and 160 gm Ag/tonne.

Previous workers have attempted to intersect this zone by driving 2 adits. The No. 1 adit should have hit the mineralization approximately 20 m below surface. This working was not inspected in 1983 due to uncertain ground conditions. The No. 1 Portal working was driven to undercut the showing at approximately 100 m below the surface. It did not encounter any mineralization, probably due to it not being driven far enough to hit the target.

Reconnaissance Traverses

Reconnaissance traverses, were completed to the south and west of the grid (Map 3). The intrusive and volcanices in these areas are a continuation of those found on the Woodbine grid. The major difference is that these rocks are unaltered. The volcanices have undergone the pervasive mild chloritic alteration which is characteric of the Unit 3 rocks, but lacks any silicification or carbonatization.

Summary - Conclusions

The Woodbine mineralization occurs in brecciated Premier porphyritic flows. The gold and silver values are associated with base metal sulphides which occur in the brecciated flow matrixes. The basemetals sulphides are sphalerite, pyrite, galena and chalcopyrite. The rocks hosting the mineralization have undergone variable degree of carbonatization and silicification. This may be very useful in locating additional mineralization.

The I.P. survey indicates that the andesite tuff units have a very low sulphide content and therefore additional exploration in these areas is not warranted. The I.P. survey did pick up a response that may be associated with the main No. 2 Portal mineralized horizon.

Recommendations

A three hole diamond drill program is proposed to test the depth and lateral extent of this mineralization. The first drill hole, WB-1 (azimuth 197°, dip -50°, total depth 300'), will be collared at L0+00, 0+55'E on the Woodbine grid. This hole should intersect the mineralized horizon approximately 200' beneath the underground workings. If WB-1 does not intersect mineralization the drill program will be terminated.

If WB-1 is successful, WB-2 (azimuth 197°, dip -45°, total depth 200') will be collared at L1+60'S, 0+40'W on the Woodbind grid. This diamond drill hold should intersect the mineralized breccia at 80'. If WB-2 is successful WB-3 (azimuth 197°, dip -45°, total depth 300') will be collared at L0+10'N, 0+65'W. This drill hole should intersect the mineralized breccia at approximately 245'.

If this drill program runs to completion, 800' of drilling will be expended.

Maurice Monahan

Maurice Monahan

CERTIFICATION

I, Maurice E. Monahan, of 7207 - 8th Street N.W., Calgary, Alberta, certify and declare that I am a graduate of Acadia University with a B.Sc. degree in geology. Since graduating in 1978, I have worked in Alberta, British Columbia, Manitoba, Northwest Territories and Saskatchewan. I have been employed in the Minerals Exploration Department of Esso Minerals Canada, a division of Esso Resources Canada Limited for the past four and a half years.

I have no interest direct or indirect in the property reported herein, nor do I expect to receive any such interest.

Maurice Monahan

Maurice Monahan

REFERENCES

Grove, E.W. (1971); Geology and Mineral Deposits of the Stewart area, B.C. Department of Mines and Petroleum Resources, Bulletin No. 58.

McGuigan, P.J. (1983); 1982 Summary Report, Salmon Indian Project, Company Report, Esso Resources Canada Limited.

APPENDIX I

EXPENDITURES AND PERSONNEL

WOODBINE EXPENDITURES

Mandays

Geology		
M. Monahan	32 days @ 200.00/day	6400.00
N. Hughes	30 days @ 98.40/day	2952.00
M. Beaudoin	2 days @ 122.32/day	244.64
R. Beckett	2 days @ 300.00/day	600.00
P. Hardisty	1 day @ 86.44/day	86.44
A. Jette	1 day @ 87.36/day	87.36
J.P. Survey		
L. Wilson	4 days @ 300.00/day	1200.00
P. Hardisty	2 days @ 84.44	172.88
A. Jette	3 days @ 87.36	262.08
S. Rider	2 days @ 104.00	208.00
J. Spare	3 days @ 87.36	262.08
Pannel Sampling		
N. Hughes	6 days @ 98.40	590.40
P. Hardisty	2 days @ 86.44	172.88
J. Spare	1 day @ 87.36	87.36
D. Thompson	3 days @ 86.44	226.71
Trenching		
J. Spare	2 days @ 87.36	174.72
A. Jette	2 days @ 87.36	174.72
Commissary	86 mandays @ $40.00/day	3,440.00
Helicopter	1 hour @ $673.00	673.00
Truck Rental	½ month @ 1063.00/month	531.50
Explosives		50.00
Plugger Rental	2 days @ 24.93/day	48.97
Plugger Steel and Bits		113.10
Analysis	51 samples Au & Au @ 17.50	892.50
I.P. Equipment Rental		715.03
		20,364.37
Report and Map Preparation		1,000.00
	TOTAL	21,364.37

APPENDIX II

I.P. SURVEY

TEST I. P. SURVEY

WOODBINE GRID
SALMON RIVER PROJECT

June, 1983

L. Wilson
Esso Minerals Canada

SUMMARY AND RECOMMENDATIONS

A time domain I.P. test survey was carried out on the Woodbine Grid, Salmon River Project, from June 21 - 23, 1983. The purpose of the survey was to locate areas of favourable alteration and sulphide mineralization in Lower Jurassic volcanic rocks.

Five lines were surveyed using the dipole-dipole I.P. method (Map 3). Three anomelous zones, labelled A - C on Map 3, have been mapped as sulhpide-bearing, altered, andesite flows. Further I.P. surveying over zones A and B is not practical because of the steep slopes and/or cliffs in the area.

A fourth zone, Zone D, may also represent sulphide-bearing, altered, andesite flows. This zone warrants further investigation. Additional I.P. surveying may be required, depending on the results of geological mapping currently being conducted in the area.

Zone E appears to be related to a minor fault in altered, andesite tuffs and is not considred to be of primary importance.

PURPOSE OF SURVEY

A time domain I. P. test survey was carried out on the Woodbine Grid, Salmon River Project, to locate areas of favourable alteration and sulphide mineralization in Lower Jurassic volcanic rocks.

EQUIPMENT AND PROCEDURES

A Scintrex time domain IP system was used, consisting of an IPC8/250 watt IP and DC resistivity transmitter and an IPR 10A digital time domain IP receiver.

In time domain IP, current is introduced into the ground by means of grounded electrodes (Fig. 1), which results in the polarization of electrical charges at the boundaries of discrete metallic minerals, such as sulphides and also clay minerals, that may occur in pore spaces in the rock volume being energized. When the external current flow is interrupted the polarized electrical charges return to their former states in a finite period of time. This phenomenon can be observed by measuring the voltage of the ground. Over a period of time, the polarization voltage observed decays to its background value. Its amplitude and period of decay is an indication of the amount of polarizable material as well as a crude indicator of the type of polarizable material detected. The current waveform induced in the ground and the resulting voltages set up are shown in Fig. 2.

The transmitter used was a battery powered unit rated at 250 watts. Current was induced into the ground by means of two current electrodes (C_1, C_2) of a dipole-dipole array (Fig. 3); the resulting voltages set up in the ground were measured across potential electrodes P_1 and P_2. The minimal separation between electrodes "x" was 20m; measurements at each current electrode set up were made for up to five multiples (n=1, 2, 3, 4 and 5) of the separation "x". By increasing the separation between current and potential electrode pairs, a greater volume of rock was sampled, thus measurements reflect a greater depth of exploration for each successive increase in separation.

The transmitter cycle time was set at 2 secs "current on" and 2 secs "current off" after which the current polarity was reversed and the cycle repeated. During the "current off" portion of the cycle, 3 slices of the decay curve were sampled with the M_3 value being plotted.

The quantities measured were chargeability, defined as:

$$M = \frac{Vs}{Vp} \times 1000 \frac{mV}{V}$$

where M - chargeability
Vs- secondary or polarization voltage measured during the "current off" part of the cycle.
Vp- primary ground voltage measured during the "current on" part of the cycle:

and apparent resistivity is defined as:

$$\rho a = G \frac{Vp}{It} \text{ ohm-m}$$

where ρ a is apparent resistivity
Vp - is the primary voltage measured during the "current on" part of the cycle
It - is the transmitter current
G - geometric factor dependant on type of electrode array and its size.

The data was plotted in a psuedo section format (Fig. 1) at a scale of 1:1000 and the interpreted anomalies are plotted on Map 3 at a scale of 1:500.

METHOD USED IN PLOTTING DIPOLE-DIPOLE INDUCED POLARIZATION AND RESISTIVITY RESULTS

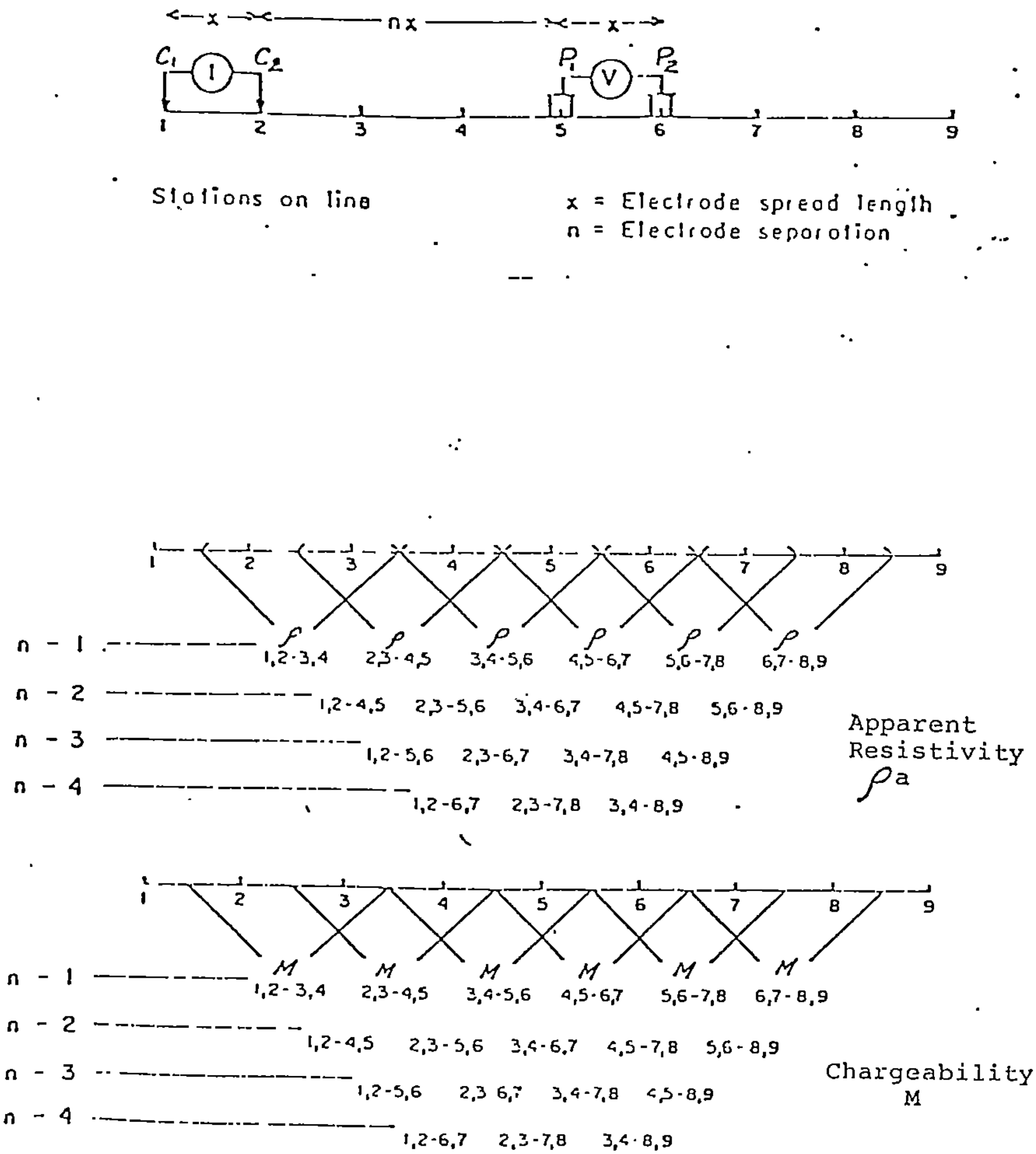


Fig. 1

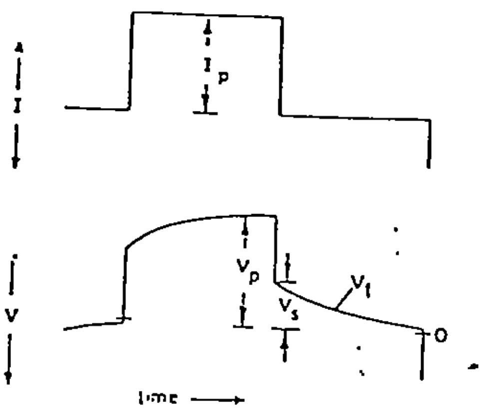


Fig. 2 The IP pulse or time-method waveforms, ideally due to a long-period pulse, showing the induced primary current I_p being detected as a maximum primary voltage V_p. When current is turned off, voltage drops to a secondary level V_s and the transient voltage V_t decays with time. A theoretical measure of chargeability, M, is $M = V_s/V_p$. after Summer, 1976.

SURVEY RESULTS

Five lines (Lines 0, 1S, 2S, 6S, 8S) were surveyed using the dipole-dipole I.P. method. The survey lines are oriented perpendicular to the topographical contours. Surveying is limited along the east end of the survey lines because of the steep slopes and/or cliffs in the area.

The tuffaceous andesites generally show a medium to high apparent resistivity (> 1000 ohm-m.) together with a low I.P. effect (< 10 millivolts/volt).

The andesite flows and/or intrusives - similar to the Premier porphyry, a term derived at the Premier Mine - show a high apparent resistivity (> 2000 ohm-m.) together with medium to high background I.P. effect (10 - 20 millivolts/volt).

Three anomalous zones, labelled A - C on Map 3, have been mapped as sulphide-bearing, altered, andesite flows. A fourth anomaly, Zone D, may represent a similar source. These zones are characterized by a high I.P. effect (> 30 millivolts/volt) and a high resistivity (> 2000 ohm-m.).

Zone E is coincident with a minor fault in altered, andesite tuffs.

A line by line analysis is contained in the Appendix to this report.

<u>ZONE A</u>: This zone, indicated on the east end of Lines 1S and 2S, is open to the north and south. The survey data suggests the source of the I.P. anomaly outcrops immediately to the east in an area mapped as sulphide-bearing, altered,

andesite flows. Zone A appears to have good depth extent. This zone is characterized by a high, apparent resistivity (> 2000 ohm-m.) and a high I.P. effect (> 30 millivolts/volt).

ZONE B: This zone, observed on Line 0, is open to the north and east. This zone is characterized by high apparent resistivity (> 2000 ohm-m.) and a medium to high I.P. effect (15 - 30 millivolts/volt). The observed, anomalous I.P. response improves at depth. This anomaly is coincident with a narrow outcrop of sulhpide-bearing, sericitic, andesite flows. This outcrop parallels the survey line for roughly 30 metres.

ZONE C: Zone C is open to the north and south of Line 6S. The survey data on Line 8S suggests the zone does not extend this far south, however. Zone C is characterized by a high apparent resistivity and high I.P. effect and is mapped as a sulphide-bearing, carbonate-altered, andesite flow.

ZONE D: This zone outcrops/subcrops west of the surveyed portion of Line 0. The survey data suggest a source similar to that observed for Zones A, B and C. This anomaly warrants further investigation. Additional I.P. surveying may be warranted, depending on the results of geological mapping currently being carried out in the area.

ZONE E: This zone is observed for one dipole set up only. This anomalous response is coincident with a minor fault in altered, andesite tuffs. Zone E occurs in a broader zone of high resistivity and medium high I.P. effect indicative of sulphide-bearing, altered, andesite flows.

CONCLUSIONS AND RECOMMENDATIONS

Five anomalous zones, labelled A - E on Map 3, have been identified. Zones A, B and C have been mapped as sulphide-bearing, altered, andesite flows. Zone D is probably due to a similar source and warrants further investigation. Additional I.P. surveying is recommended, depending on the results of geological mapping currently being carried out in the area. Zone E is coincident with a minor fault in tuffaceous andesites and is not considered to be of primary importance.

L. Wilson

L. Wilson
Geophysicist

REFERENCES

J. S. Sumner — Principles of Induced Polarization for Geophysical Exploration

Elsevier Scientific Publishing Co; Amsterdam 1976

QUALIFICATIONS OF AUTHOR

Lloyd M. Wilson received his B.A. (Honors) degree in Mathematics from Memorial University of Newfoundland in 1971. From May, 1971 to October, 1973, Mr. Wilson worked full-time in oil and gas exploration for Amoco Canada Petroleum Co. Ltd. in Calgary, Alberta, specializing in gravity, magnetics and seismic methods. Since then he has had nine years of experience as a mineral exploration geophysicist - three with Geoterrex Limited (1973 - 1976) in Ottawa and six with Esso Minerals Canada in Toronto. For the past three years he has been in charge of project planning, geophysical field activities, project reports and the training and supervision of student personnel for Esso Minerals Canada. He is a member of the Society of Exploration Geophysicists, the Prospectors and Developers Association, CIMM (Toronto Branch) and KEGS.

LINE BY LINE ANALYSIS

DIPOLE-DIPOLE I.P. SURVEY

WOODBINE GRID

LINE 0

The zone of high apparent resistivity and low chargeability from approximately 40W - 160W is interpreted as unmineralized, altered, tuffaceous andesites.

A zone of low resistivity is observed from 10W to 40W marking a change from altered, tuffaceous andesites on the west to sulphide-bearing, altered, andesite flows on the east. Within this anomalous area of high I/P./chargeability effect east of the base line and even higher zone of anomalous chargeability is observed at depth on N3 to N5 from 10W to the east and of the survey line. This zone, labelled Zone B, is coincident with a narrow outcrop of sulphide-bearing, sericitic, andesite flows. This outcrop parallels the survey line for roughly 30 metres. The anomalous I.P. response suggests this outcrop is more highly mineralized (ie. sulphide-bearing) at depth.

The anomalously high chargeability readings observed on the west end of Line 0, suggest a source similar to Zone B or Zone A (Lines 1S and 2S). The source of this anomaly, labelled Zone D, outcrops west of the surveyed portion of the line.

LINE 1S

The apparent resistivity along this line is generally high for the N1 to N3 readings, with a slight decrease in resistivity on the N4 and N5 readings.

A significant change in I.P./chargeability effect occurs at about 30W. The area east of 30W is anomalous, with a zone of even higher chargeabilities east of 40E. The response suggests a source outcropping immediately east of the survey portion of the line in an area mapped as sulphide-bearing, altered, andesite flows. This zone, labelled Zone A, appears to have good depth extent.

LINE 2S

The resistivity is generally high along the survey line with the exception of the band of low apparent resistivities observed at about 20W.

A change in chargeabilities occurs at about 30W. The area east of 30W is anomalous with a zone of even higher chargeabilities observed at depth (on the N4 and N5 readings) from 30W to 20E and higher up in the section (N1 - N3) east of 20E. The anomalously high response suggests a source outcropping/subcropping in the vicinity of 70E - 80E, coinciding with mapped sulphide-bearing, altered, andesite flows. This zone occurs along strike from that observed on the east end of Line 1S and is labelled Zone A. Zone A appears to have good depth extent. The high chargeabilities observed on N4 and N5 west of the base line indicate either a deeper, separate feature from Zone A or a westerly-southwesterly dip for Zone A.

LINE 6S

The apparent resistivities are generally high along this survey line with the exception of the zone of low resistivity from approximately 20W to 60W.

A zone of anomalously high chargeabilities is observed at about 110W and is mapped as sulphide-bearing, carbonate-altered, andesite flows. This zone, labelled Zone C, has been mapped to the south and north of line 6S. The survey results for Line 8S suggests Zone C does not extend this far south.

LINE 8S

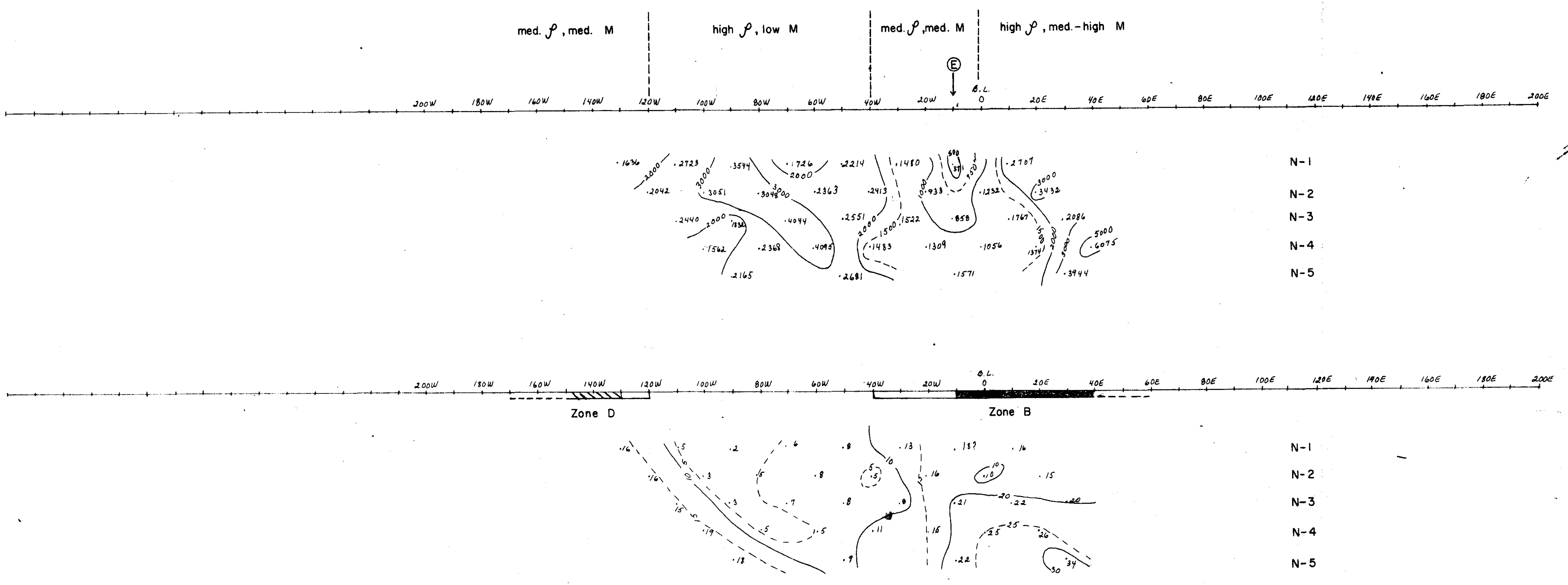
Again, resistivities along this line are generally high, with the exception of the low to medium resistivity values in the vicinity of 30W - 10E.

The I.P./chargeability effect shows a change from low ($<$ 10mV/V) to medium high (10 - 20 mV/V) about 70W. The high resistivity and high chargeabilities east of 70W are interpreted to represent sulphide-bearing, altered, andesite flows with minor tuffs.

The anomalously high chargeabilities, observed for one dipole setup in the vicinity of 10E, are coincident with a minor fault in altered, andesite tuffs.

I. P. PSEUDOSECTIONS

Line 0
Line 1S
Line 2S
Line 6S
Line 8S



LINE 0+00

I.P. SURVEY

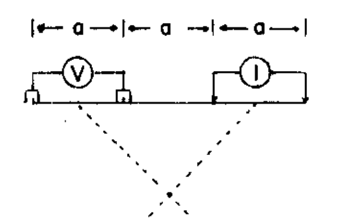
SYSTEM: SCINTREX TX: IPC-8 (250 Watt)

PULSE DURATION 2 SEC ON - 2 SEC OFF

RX: IPR-10A

MEASURING CHANNELS: M1, M3, M5

OPERATORS: A. Jetté, J. Spore, L. Wilson



PLOTTING POINT

a = 20metres

ρa APPARENT RESISTIVITY (ohm - m)

C.I. = 1, 1.5, 2, 3, 5, 7.5

low: < 1000

med.: 1000-2500

high: > 2500

M3 CHARGEABILITY (mV/V)

C.I.: 5, 10, 15...

low: < 10

med.: 10-30

high: > 30

ANOMALIES:

DEFINITE

PROBABLE

POSSIBLE

GEOLOGICAL BRANCH ASSESSMENT REPORT

12,235

ESSO MINERALS CANADA

DIV'N OF ESSO RESOURCES CANADA LIMITED

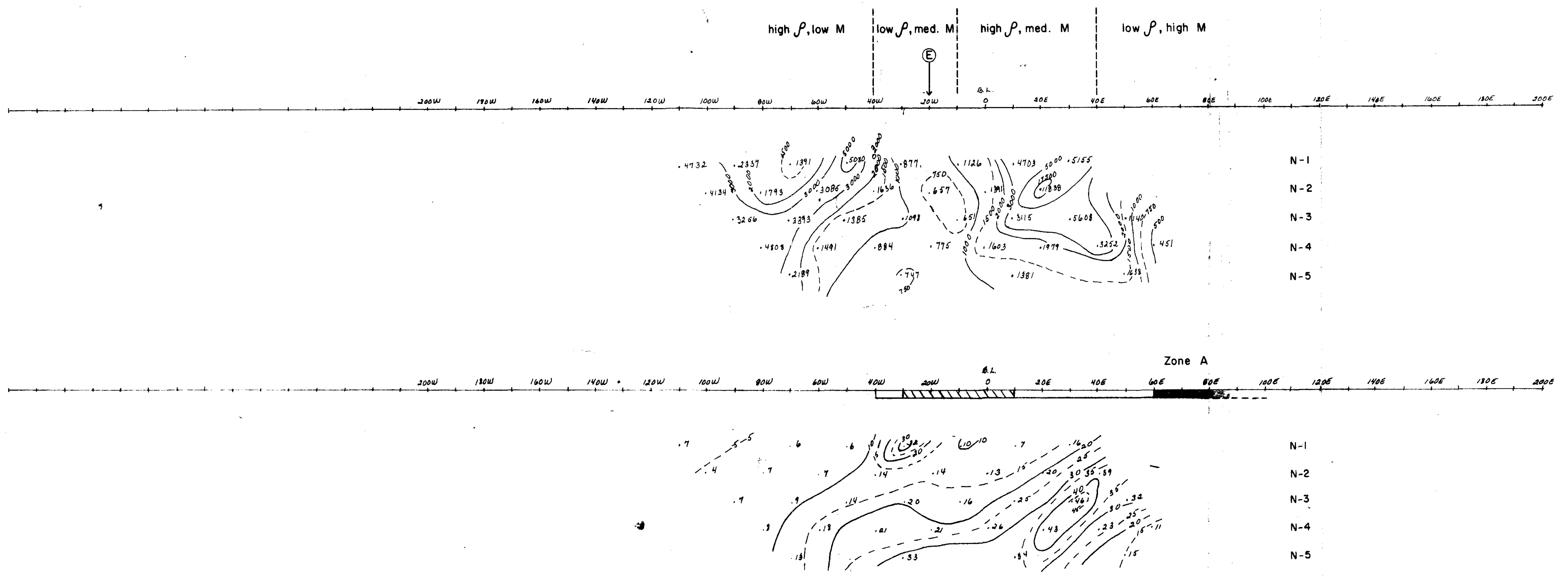
PROSPECT: WOODBINE

DIPOLE-DIPOLE I.P. SURVEY

ACCOUNT Nº	FILE Nº	TORONTO
DRAWN BY: L. Wilson	DATE June 1983	NTS 104B/1E
DWG. Nº	MAP Nº	
SCALE 1:1000		

To Accompany A Report By: L. Wilson

Dated: June 1983



LINE 2+00S

I.P. SURVEY

SYSTEM: SCINTREX Tx: IPC-8 (250 Watt)

PULSE DURATION 2 SEC ON - 2 SEC OFF

RX: IPR-10A

MEASURING CHANNELS: M1, M3, M5

OPERATORS: A. Jetté, J. Spare, L. Wilson

PLOTTING POINT

a = 20 metres

ρ_a APPARENT RESISTIVITY (ohm-m)

C.I. = 1, 1.5, 2, 3, 5, 7.5

low < 1000

med 1000 - 2500

high > 2500

M_3 CHARGEABILITY (mV/V)

C.I. = 5, 10, 15...

low < 10

med. 10 - 30

high > 30

ANOMALIES:

- DEFINITE
- PROBABLE
- POSSIBLE

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,235

ESSO MINERALS CANADA
DIV'N OF ESSO RESOURCES CANADA LIMITED

PROSPECT: WOODBINE

DIPOLE-DIPOLE I.P. SURVEY

ACCOUNT Nº	FILE Nº	TORONTO
DRAWN BY: L. Wilson	DATE June 1983	NTS 104B/1E
DWG. Nº	MAP Nº	

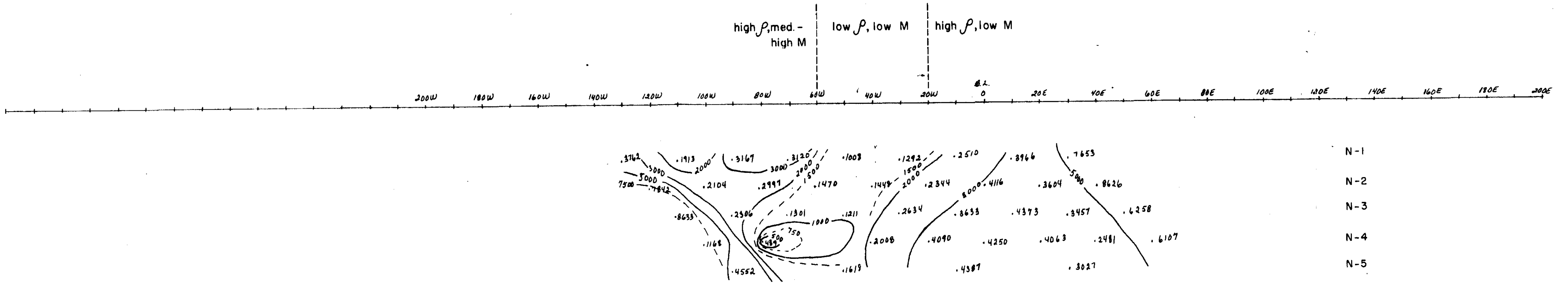
SCALE 1:1000

To Accompany A Report By: L. Wilson

Dated: June 1983

LINE 6+00S

I.P. SURVEY



ρ_a APPARENT RESISTIVITY

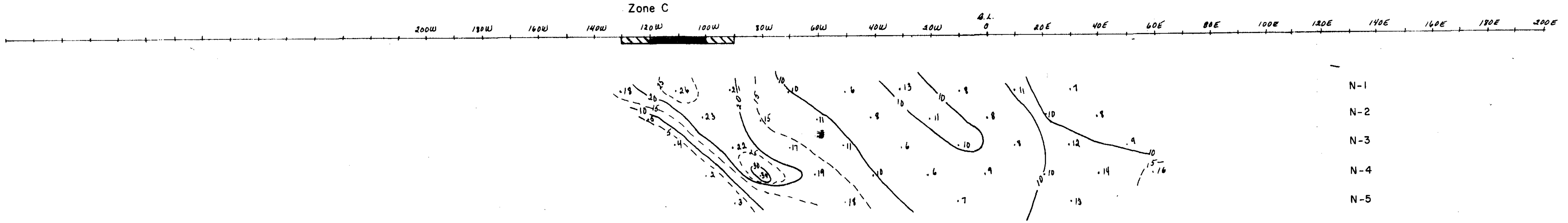
(ohm - m)

C.I. = 1, 1.5, 2, 3, 5, 7.5

low: < 1000

med.: 1000 - 2500

high: > 2500



M_3 CHARGEABILITY (mV/V)

C.I. = 5, 10, 15....

low: < 10

med.: 10 - 30

high: > 30

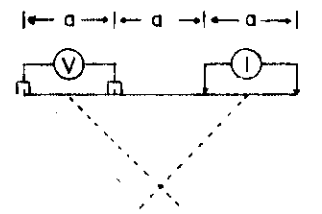
SYSTEM: SCINTREX Tx: IPC-8 (250 Watt)

PULSE DURATION 2 SEC ON - 2 SEC OFF

RX: IPR-10A

MEASURING CHANNELS: M1, M3, M5

OPERATORS: A. Jetté, J. Spare, L. Wilson



PLOTTING POINT

a = 20 metres

ANOMALIES:

DEFINITE

PROBABLE

POSSIBLE

12,235

ESSO MINERALS CANADA

DIV'N OF ESSO RESOURCES CANADA LIMITED

PROSPECT: WOODBINE

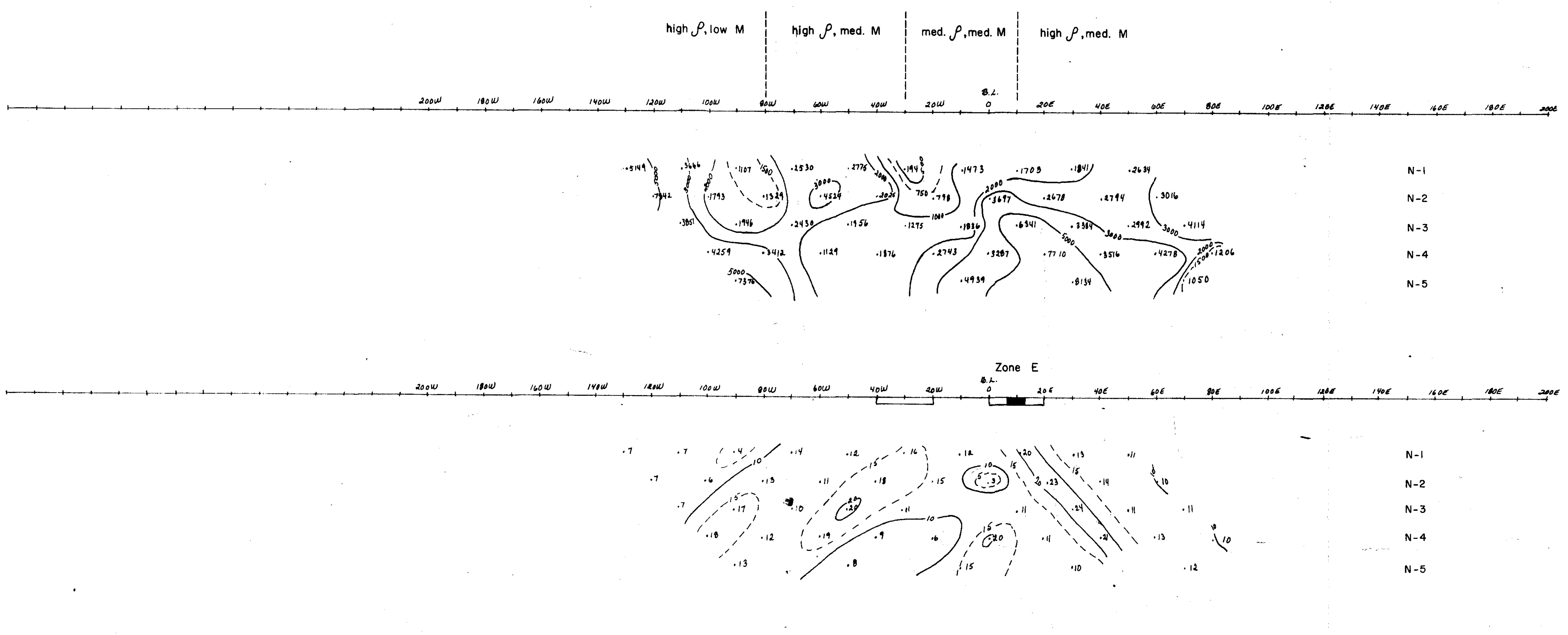
DIPOLE-DIPOLE I.P. SURVEY

ACCOUNT Nº	FILE Nº	TORONTO
DRAWN BY: L. Wilson	DATE June 1983	NTS 104B/1E
DWG. Nº	MAP Nº	

SCALE 1:1000 0 50m.

To Accompany A Report By: L. Wilson

Dated: June 1983



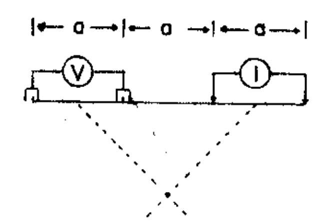
LINE 8+00S

I.P. SURVEY

SYSTEM: SCINTREX TX: IPC-8 (250 Watt)
PULSE DURATION 2 SEC ON - 2 SEC. OFF
RX: IPR-10A
MEASURING CHANNELS: M1, M3, M5
OPERATORS: A. Jetté, J. Spare, L. Wilson

ρ_a APPARENT RESISTIVITY (ohm-m)
C.I. = 1, 1.5, 2, 3, 5, 7.5
low: < 1000
med.: 1000 - 2500
high: > 2500

M_3 CHARGEABILITY (mV/V)
C.I. = 5, 10, 15...
low: < 10
med.: 10 - 30
high: > 30



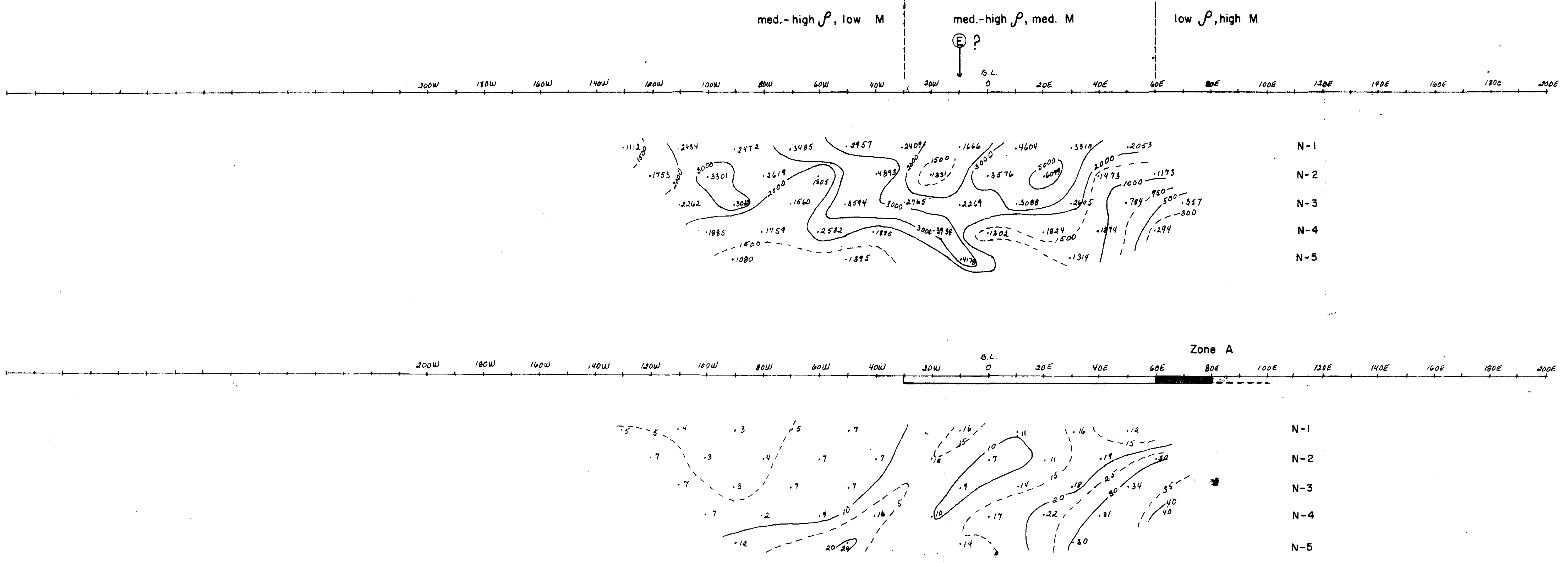
ANOMALIES:
DEFINITE
PROBABLE
POSSIBLE

ESSO MINERALS CANADA
DIV'N. OF ESSO RESOURCES CANADA LIMITED
PROSPECT: WOODBINE
DIPOLE-DIPOLE I.P. SURVEY

ACCOUNT Nº	FILE Nº	TORONTO
DRAWN BY: L. Wilson	DATE June 1983	NTS 104B/1E
DWG. Nº	MAP Nº	

SCALE 1:1000 (0 — 50m.)

To Accompany A Report By: L. Wilson
Dated: June 1983



LINE 1+00S

I.P. SURVEY

SYSTEM: SCINTREX Tx: IPC-8 (250 Watt)

PULSE DURATION 2 SEC ON - 2 SEC OFF

RX: IPR-10A

MEASURING CHANNELS: M1, M3, M5

OPERATORS: A. Jetté, J. Spare, L. Wilson

ρ APPARENT RESISTIVITY (ohm-m)

C.I.: 1,1.5,2,3,5,7.5

low: < 1000

med.: 1000-2500

high: > 2500

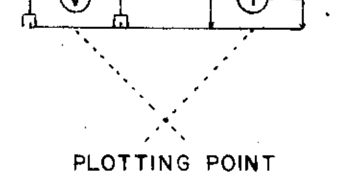
M_3 CHARGEABILITY (mV/V)

C.I.: 5, 10, 15...

low: < 10

med.: 10-30

high: > 30



a = 20 metres

ANOMALIES:

DEFINITE

PROBABLE

POSSIBLE

GEOLOGICAL BRANCH ASSESSMENT REPORT

12,235

ESSO MINERALS CANADA
DIV'N OF ESSO RESOURCES CANADA LIMITED

PROSPECT: WOODBINE

DIPOLE-DIPOLE I.P. SURVEY

ACCOUNT Nº	FILE Nº	TORONTO
DRAWN BY: L. Wilson	DATE June 1983	NTS 104B/1E
DWG. Nº	MAP Nº	
SCALE 1:1000 0 — 50m.		
To Accompany A Report By: L. Wilson		
Dated: June 1983		

APPENDIX III

ASSAYS

WP-6777

WOODBINE ASSAYS

SAMPLE #	Au	Ag
10426	5.00	177.9
10427	1.88	222.4
10428	4.38	119.7
10429	1.79	34.2
10430	1.95	10.3
10431	2.15	177.9
10432	1.03	30.8
10433	.10	17.8
10434	.17	8.9
10435	.21	8.2
10436	.24	82.8
10437	.21	15.0
10438	.27	65.7
10439	2.43	101.3
10440	.21	67.0
10441	.24	26.0
10442	.17	19.1

SAMPLE #	Au	Ag
10526	.48	230.9
10527	.55	138.9
10528	.62	58.8
10529	.58	91.7
10530	.75	227.5
10531	.31	60.2
10532	.20	51.7
10533	3.08	188.2
10534	.72	225.8
10535	1.33	181.3
10536	1.03	191.6
10537	1.54	184.7
10538	1.30	109.5
10539	.65	85.5
10540	.89	94.4
10541	.62	72.5
10542	.92	4.1
10543	.34	.6
10544	.75	86.5
10545	.79	61.5
10546	.44	24.2
10547	.82	121.8
10548	.51	75.2
10549	.38	36.9
10550	.55	77.6

SAMPLE #	Au	Ag
7178	.92	53.7
7179	.41	33.2
7180	.79	22.2
7181	.48	23.2
7182	.17	17.4
7183	.24	21.2
7184	.38	66.4
7185	.31	9.9
7186	.34	14.0

AREA "A"

T.N.

SCALE
0 — 100 Meters

Magnetometer: Scintrex Fluxgate, Mo 707011 Se 7605203, MF-2/100

* Magnetic vertical field: Differences referred to Stn 7+75 E 3+50 S set at -30 Gammas.

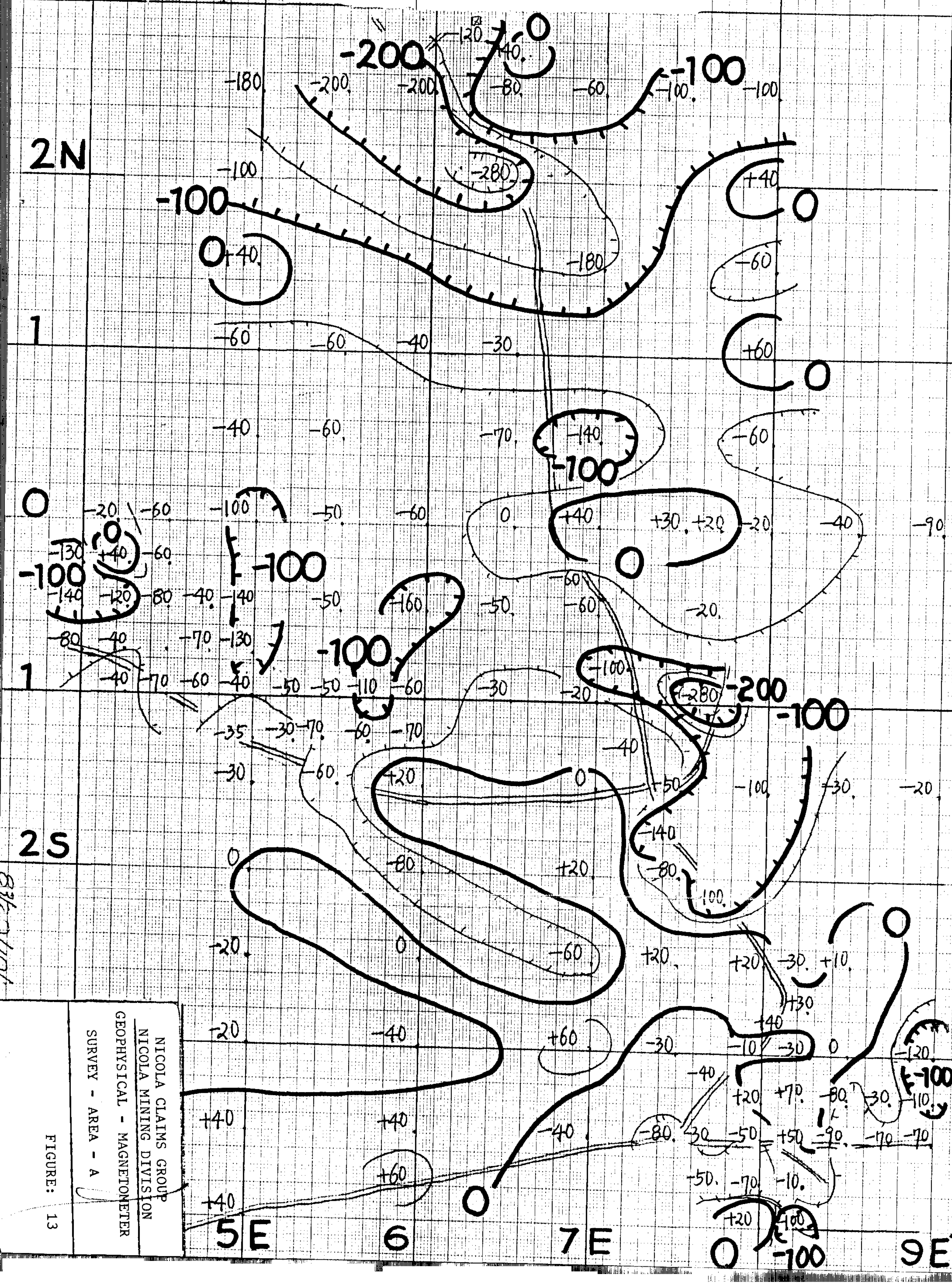
MAGNETIC CONTOUR MAP

+40: Vertical Field in Gammas
Contour interval 50 Gammas

Magnetics High, Above 0 Gammas

Magnetics Low, Below -100 Gammas

Note: FOR LOCATIONS SEE FIG: 6

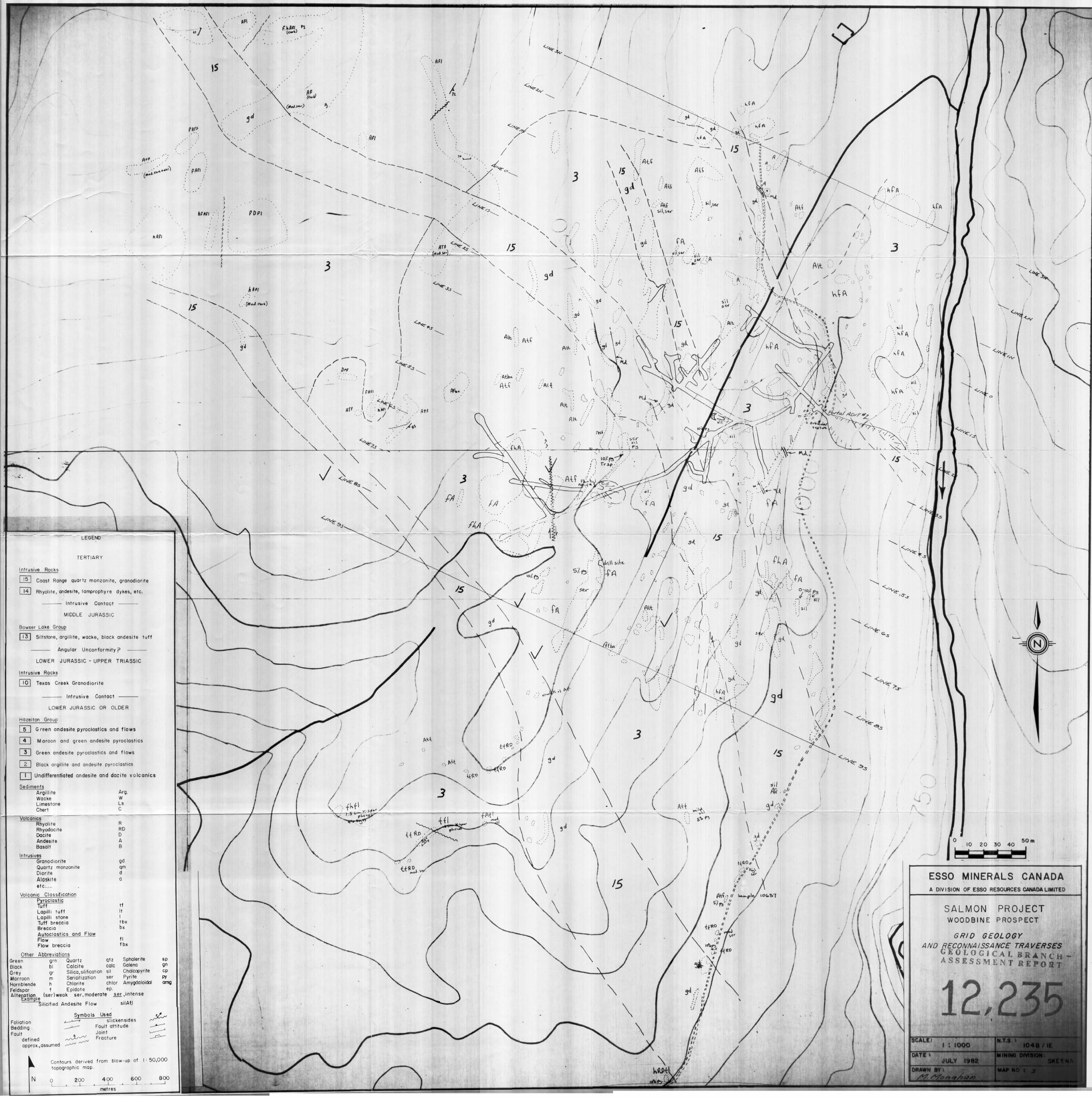


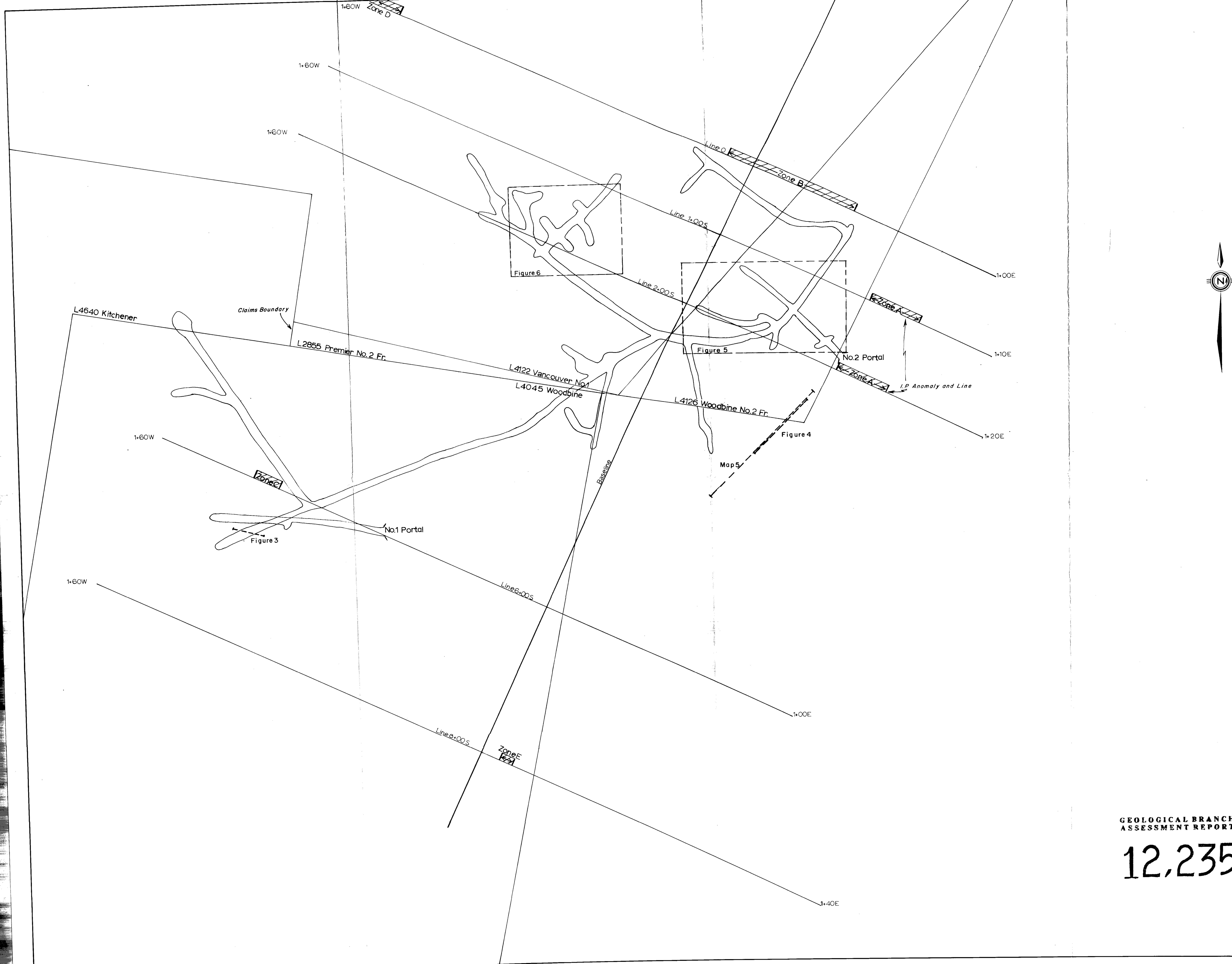
NICOLA CLAIMS GROUP
NICOLA MINING DIVISION
GEOPHYSICAL - MAGNETOMETER
SURVEY - AREA - A

FIGURE: 13


LINE 2 N
LINE 1 N
LINE 0
LINE 1 S
LINE 2 S
LINE 3 S
LINE 4 S
LINE 5 S
LINE 6 S
LINE 7 S
LINE 8 S
LINE 9 S
LINE 3 N
N
Wagon Road
Claims Boundary
CASCADE CREEK
Assay House
Pump House
Water Tank
old cabin
portal adit 1
portal adit 2
drill site
EXPLANATION
Upper Triassic (200 M.Y.) Eocene (46-49 M.Y.) Miocene(?)
15 Andesite dikes and sills
Fine to medium grained, hornblende rich, dikes and sills
14 Hyder Quartz Monzonite (Granodiorte)
Medium to coarse grained, hypidomorphic-granular, biotite-hornblende rich pluton with 1-1000 foot wide dikes in mapped area. Outcrops are white to light grey-green, generally unfoliated and sometimes propylitically altered.
10 Texas Creek Granodiorite
Green, medium grained, hypidomorphic-granular, hornblende granodiorite with 0-2%, 5-15 mm., potassium feldspar phenocrysts. Outcrops generally are foliated and propylitically altered with abundant chlorite, calcite and epidote.
HAZELTON GROUP
VOLCANICS
Upper Triassic/Lower Jurassic (>200 M.Y.)
3b Andesite flows and fragmentals/silicified andesites
Light to dark green andesitic rocks ranging from fine-grained flows, to feldspar-hornblende-and/or quartz porphyritic flows, to crystal and lithic tuff, lapilli, and volcanic breccia sized fragmentals.
3a Pyritic, quartz-sericite tuff
Fine grained, white to grey, quartz-feldspar tuff with 5-30% disseminated, fine grained pyrite and ubiquitous sericite.
3 Premier Porphyry/silicified Premier Porphyry
Green, feldspar-quartz-and/or hornblende andesite porphyry. Phenocrysts include 0-10%, 5-25 mm. euhedral to subhedral potassium feldspars; 0-20%, 2-15 mm. euhedral quartz; 0-10%, 1-10 mm. green hornblende laths. The Premier Porphyry forms dikes and sills and typically is propylitically altered. The type local is in the Premier Mine Glory Hole.
VOLCANICLASTICS
Upper Triassic/Lower Jurassic (>200 M.Y.)
2 Argillaceous andesite fragmentals
Green, andesitic, tuff and lapilli fragmentals with 0-50% dark brown to black, fine grained argillaceous to carbonaceous material as matrix, veinlets, and lithic fragments.
1 Argillite
Dark brown to black, fine grained, sometimes pyritic, argillite.
SYMBOLS
Outcrop
Strike and dip of bedding
Strike and dip of foliation
Strike and dip of joints
Strike and dip of quartz or sulfide veins
Strike and dip of calcite veins
Contact; dashed where inferred
Fracture, with dip
Fault, with dip
Tread and plunge of lineation
Claim boundary
Claim corner
Adit or tunnel
Mine dump
Shaft
Buildings
Breccia fragmental or fault breccia
Lapilli fragmental
Tuff fragmental
Orbicular texture
Greater than 10% pyrite
MAPPED BY H.I.M.C.O. GEOLOGIST AUG. 1980
50 25 0 50 100 150 200
SCALE IN FEET
GEOLOGICAL BRANCH ASSESSMENT REPORT
12,235
ESSO MINERALS CANADA
A DIVISION OF ESSO RESOURCES CANADA LIMITED
SALMON PROJECT
WOODBINE PROSPECT
GRID GEOLOGY MAP
Project No. Mining Division SKENNA
Latitude 56°05' Longitude 130°02'
NTS 104B-1
0 5 10 15 20 25 Metres
Scale 1:500
To Accompany A Report By M. MONAHAN
Dated NOV. 7 1983
Map No. 1.

EXPLANATION
Upper Triassic (200 M.Y.) Eocene (46-49 M.Y.) Miocene(?)
15 Andesite dikes and sills
Fine to medium grained, hornblende rich, dikes and sills
14 Hyder Quartz Monzonite (Granodiorte)
Medium to coarse grained, hypidomorphic-granular, biotite-hornblende rich pluton with 1-1000 foot wide dikes in mapped area. Outcrops are white to light grey-green, generally unfoliated and sometimes propylitically altered.
10 Texas Creek Granodiorite
Green, medium grained, hypidomorphic-granular, hornblende granodiorite with 0-2%, 5-15 mm., potassium feldspar phenocrysts. Outcrops generally are foliated and propylitically altered with abundant chlorite, calcite and epidote.
HAZELTON GROUP
VOLCANICS
Upper Triassic/Lower Jurassic (>200 M.Y.)
3b Andesite flows and fragmentals/silicified andesites
Light to dark green andesitic rocks ranging from fine-grained flows, to feldspar-hornblende-and/or quartz porphyritic flows, to crystal and lithic tuff, lapilli, and volcanic breccia sized fragmentals.
3a Pyritic, quartz-sericite tuff
Fine grained, white to grey, quartz-feldspar tuff with 5-30% disseminated, fine grained pyrite and ubiquitous sericite.
3 Premier Porphyry/silicified Premier Porphyry
Green, feldspar-quartz-and/or hornblende andesite porphyry. Phenocrysts include 0-10%, 5-25 mm. euhedral to subhedral potassium feldspars; 0-20%, 2-15 mm. euhedral quartz; 0-10%, 1-10 mm. green hornblende laths. The Premier Porphyry forms dikes and sills and typically is propylitically altered. The type local is in the Premier Mine Glory Hole.
VOLCANICLASTICS
Upper Triassic/Lower Jurassic (>200 M.Y.)
2 Argillaceous andesite fragmentals
Green, andesitic, tuff and lapilli fragmentals with 0-50% dark brown to black, fine grained argillaceous to carbonaceous material as matrix, veinlets, and lithic fragments.
1 Argillite
Dark brown to black, fine grained, sometimes pyritic, argillite.
SYMBOLS
Outcrop
Strike and dip of bedding
Strike and dip of foliation
Strike and dip of joints
Strike and dip of quartz or sulfide veins
Strike and dip of calcite veins
Contact; dashed where inferred
Fracture, with dip
Fault, with dip
Tread and plunge of lineation
Claim boundary
Claim corner
Adit or tunnel
Mine dump
Shaft
Buildings
Breccia fragmental or fault breccia
Lapilli fragmental
Tuff fragmental
Orbicular texture
Greater than 10% pyrite
MAPPED BY H.I.M.C.O. GEOLOGIST AUG.1980
ALTERATION MAP By M. Monahan 1983
SCALE IN FEET
ALTERATION LEGEND
SILICA
CARBONATE
CHLORITE
SERICITE
1. Weak
2. Moderate
3. Intense
ESSO MINERALS CANADA
A DIVISION OF ESSO RESOURCES CANADA LIMITED
SALMON PROJECT
WOODBINE PROSPECT
ALTERATION MAP
Project No.
Mining Division SKENNA
Latitude 56°05'
Longitude 130°02
NTS 104B-1
Scale 1:500
Metres
To Accompany A Report By M. MONAHAN
Dated NOV.7 1983
Map No. 2
12,235
CASCADE CREEK
N


LEGEND
TERTIARY
Intrusive Rocks
15 Coast Range quartz monzonite, granodiorite
14 Rhyolite, andesite, lamprophyre dykes, etc.
Intrusive Contact
MIDDLE JURASSIC
Bowser Lake Group
13 Siltstone, argillite, wacke, black andesite tuff
Angular Unconformity?
LOWER JURASSIC - UPPER TRIASSIC
Intrusive Rocks
10 Texas Creek Granodiorite
Intrusive Contact
LOWER JURASSIC OR OLDER
Hazelton Group
5 Green andesite pyroclastics and flows
4 Maroon and green andesite pyroclastics
3 Green andesite pyroclastics and flows
2 Black argillite and andesite pyroclastics
1 Undifferentiated andesite and dacite volcanics
Sediments
Argillite Arg.
Wacke W
Limestone Ls
Chert C
Volcanics
Rhyolite R
Rhyodacite RD
Dacite D
Andesite A
Basalt B
Intrusives
Granodiorite gd
Quartz monzonite qm
Diorite d
Alaskite a
etc.....
Volcanic Classification
Pyroclastic
Tuff tf
Lapilli tuff lt
Lapilli stone l
Tuff breccia tbx
Breccia bx
Autoclastics and Flow
Flow fl
Flow breccia fbx
Other Abbreviations
Green grn Quartz qtz Sphalerite sp
Black bl Calcite calc Galena gn
Grey gr Silica, silification sil Chalcopyrite cp
Marroon m Sericitization ser Pyrite py
Hornblende h Chlorite chlor Amygdaloidal amg
Feldspar f Epidote ep.
Alteration (ser) weak ser, moderate ser, intense
Example
Silicified Andesite Flow silAfl
Symbols Used
Foliation
Bedding
Fault
defined
approx., assumed
slickensides
Fault attitude
Joint
Fracture
Contours derived from blow-up of 1:50,000 topographic map.
N
0 200 400 600 800
metres
0 10 20 30 40 50 m
ESSO MINERALS CANADA
A DIVISION OF ESSO RESOURCES CANADA LIMITED
SALMON PROJECT
WOODBINE PROSPECT
GRID GEOLOGY
AND RECONNAISSANCE TRAVERSES
GEOLOGICAL BRANCH ASSESSMENT REPORT
12,235
SCALE: 1 : 1000
N.T.S.: 104B/1E
DATE: JULY 1982
MINING DIVISION: SKEENA
DRAWN BY: M. Monahan
MAP NO: 3
Portal ADIT #2
drill site
LINE 95



GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,235

ESSO MINERALS CANADA

A DIVISION OF ESSO RESOURCES CANADA LIMITED

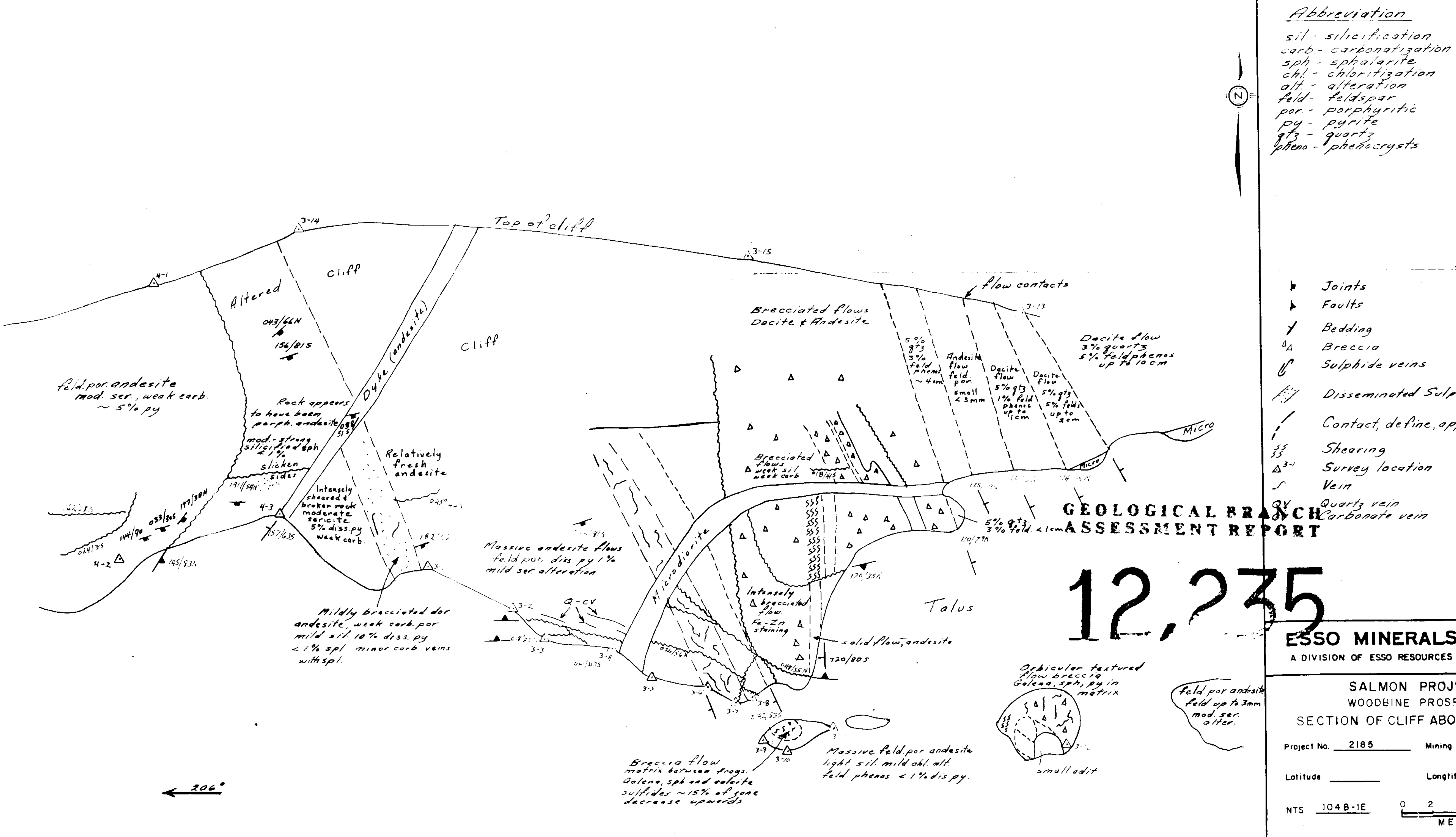
SALMON PROJECT

WOODBINE PROSPECT

LOCATION MAP

I.P. LINES, FIGURES, MAPS

SCALE: 1:500	N.T.S.: 104 B-1
DATE: Nov. 7 1983	MINING DIVISION: SKEENA
BY: M. MONAHAN	MAP NO.: 4



GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,235

ESSO MINERALS CANADA
A DIVISION OF ESSO RESOURCES CANADA LIMITED

SALMON PROJECT
WOODBINE PROSPECT
SECTION OF CLIFF ABOVE No. 2 ADIT

Project No. 2185 Mining Division SKEENA

Latitude ______ Longtitude ______

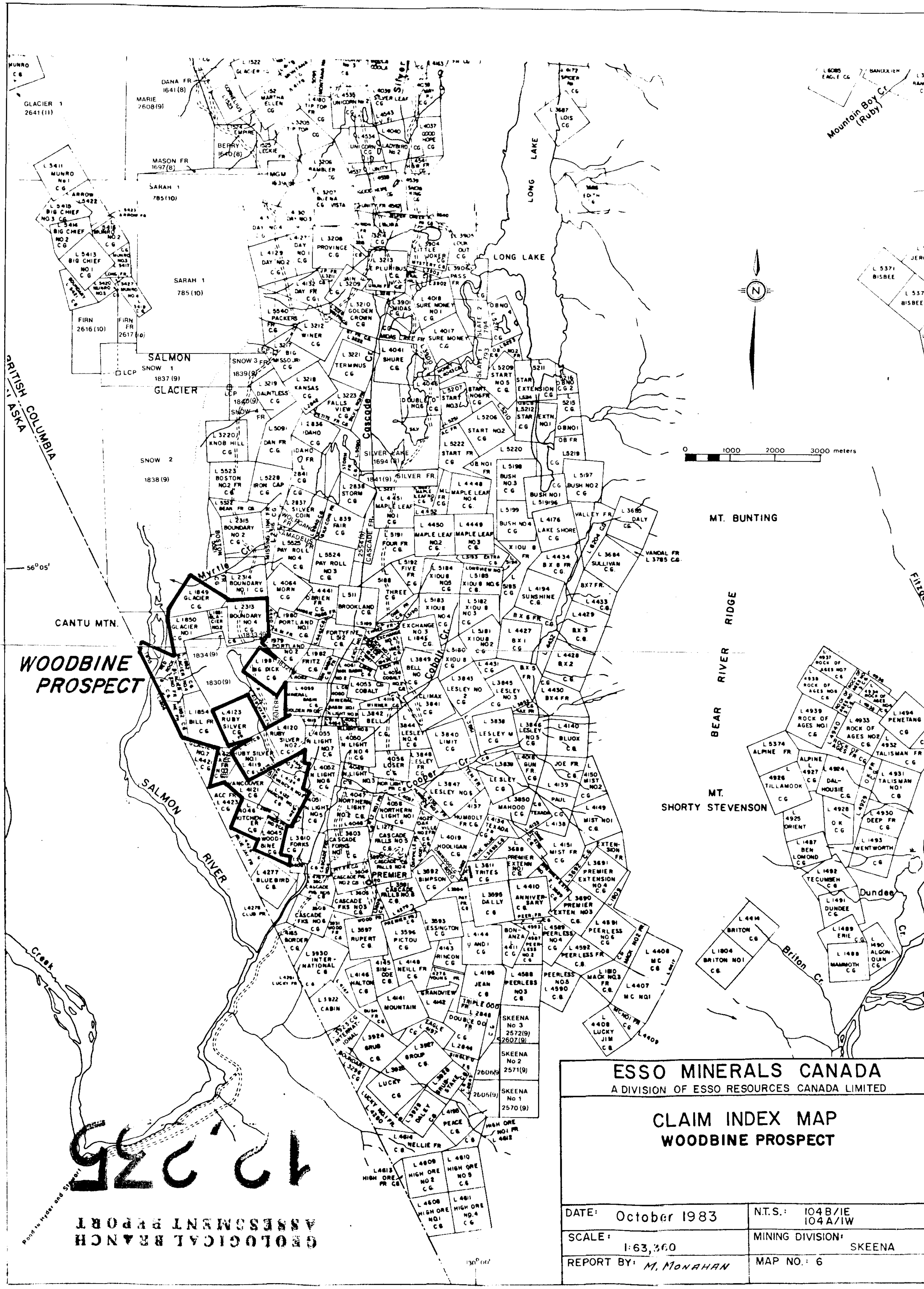
NTS 104 B-1E

0 2 4 6 8 10
METRES

To Accompany A Report By: M. MONAHAN

Dated: Nov. 7/83

Map No. 5



ESSO MINERALS CANADA
A DIVISION OF ESSO RESOURCES CANADA LIMITED

CLAIM INDEX MAP
WOODBINE PROSPECT

DATE: October 1983	N.T.S.: 104 B/1E 104 A/1W
SCALE: 1:63,360	MINING DIVISION: SKEENA
REPORT BY: M. MONAHAN	MAP NO.: 6