



32E13NE0022 63.4622 HOPPER LAKE

010

8
2

Westmin Resources Limited
Report on 1985 Exploration
Nash Creek Claims, Ontario.

N.T.S. 32 E/13

Latitude $49^{\circ} 54' N$

Longitude $79^{\circ} 31' W$

January 1986

Paul R. J. Nicholls, P.Eng.



32E13NE0022 63.4622 HOPPER LAKE

010C

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File: NASHEXPL

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1.0 Summary:

Two short drill holes tested the northernmost conductor on the Nash Creek claims. The hole intersected chalcopyrite and sphalerite associated with pyrrhotite in graphitic tuffs. The best values returned ranged up to 5700 ppm zinc and 660 ppm Cu (with 2.4 ppm Ag). The conductor was intersected but the horizon was not fully tested.

2.0 Recommendations:

Anomalous base and precious metal values associated with two conductive trends have been defined by the work to date. Diamond drilling along these two conductive horizons should be completed in the future.

3.0 Introduction:

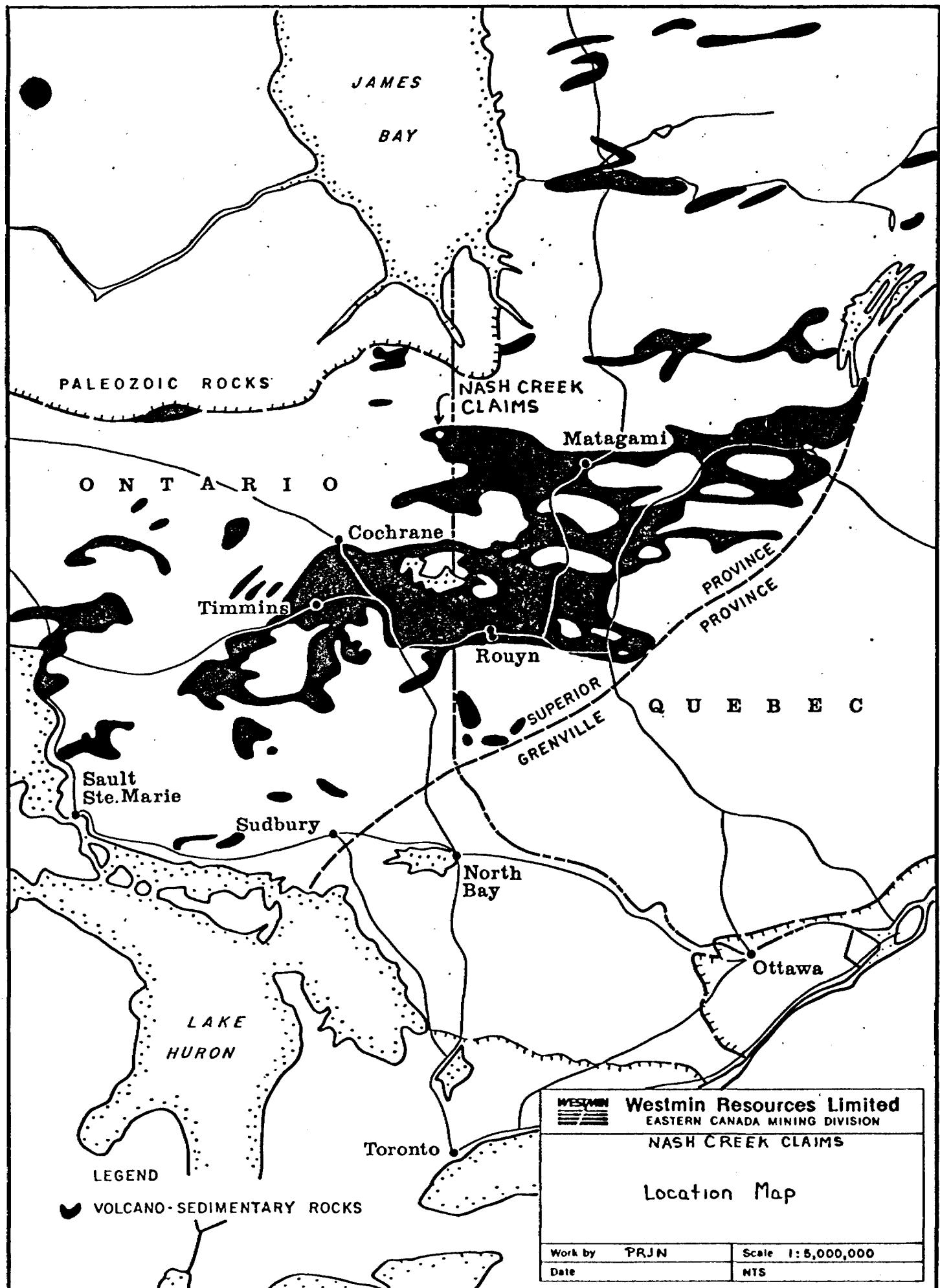
The Nash Creek Claims were staked in 1979 as part of the Detour Gold Project. Geological mapping, ground geophysics and diamond drilling has identified two stratigraphic horizons with anomalous Au and base metal content. In February 1985, two short x-ray drill holes were completed to test the northern horizon and the claims were surveyed. The following report deals with 1985 work.

3.1 Location and Access:

The Nash Creek claims are located in the Detour Lake Area of northeastern Ontario (NTS: 32 E/13, Figure 1) approximately 135 kilometres north of Cochrane. The property is accessible via winter roads from the Detour Mine which is linked to Cochrane by an all-weather gravel road.

3.2 Claim Status:

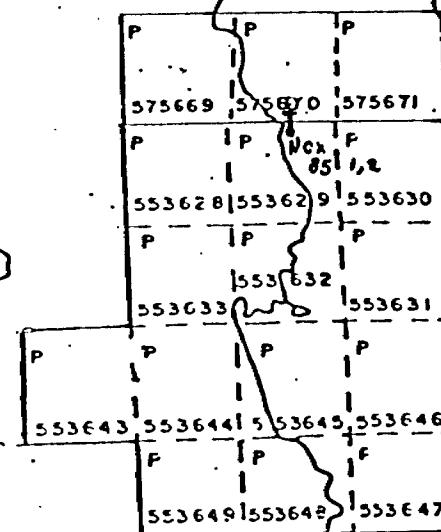
At the completion of 1985 the sixteen claims (Table 1, Figure 2) within the Nash Creek claims block had received enough assessment credits to be taken to lease.





OF
PROVINCE
OF
ONTARIO

Detour



SCALE
633.6 316.8 0 316.8 633.6 950.4 metres

WESTMIN RESOURCES LIMITED

NASH CREEK CLAIM GROUP

CLAIM MAP

Drill Hole Location Map

Ontario

32-E-13

DATE: May 1985

SCALE: 1:31,680

Table 1
Claim Status

Nash Creek Project

Location: Lower Detour Lake Area, Porcupine Mining
Division, Ontario.
N.T.S. 32 E/13

Property: 16 Mining Claims; Area of 256 ha.

Claim No.	Date Recorded	Work Due	Balance Work Due (days)
P.553628	4 Jan. 1980	4 Jan. 1986	Nil
P.553629	4 Jan. 1980	4 Jan. 1986	Nil
P.553630	4 Jan. 1980	4 Jan. 1986	Nil
P.553631	4 Jan. 1980	4 Jan. 1986	Nil
P.553632	4 Jan. 1980	4 Jan. 1986	Nil
P.553633	4 Jan. 1980	4 Jan. 1986	Nil
P.553643	4 Jan. 1980	4 Jan. 1986	Nil
P.553644	4 Jan. 1980	4 Jan. 1986	Nil
P.553645	4 Jan. 1980	4 Jan. 1986	Nil
P.553646	4 Jan. 1980	4 Jan. 1986	Nil
P.553647	4 Jan. 1980	4 Jan. 1986	Nil
P.553648	4 Jan. 1980	4 Jan. 1986	Nil
P.553649	4 Jan. 1980	4 Jan. 1986	Nil
P.575669	21 July 1980	21 July 1986	Nil
P.575670	21 July 1980	21 July 1986	Nil
P.575671	21 July 1980	21 July 1986	Nil

3.3 Previous Work:

Since 1980 the Nash Creek claims have been covered by the following work:

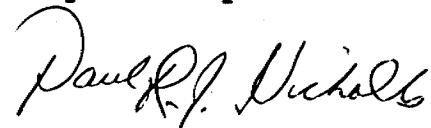
- 1980: A Questor airborne Input electromagnetic and magnetic survey flown over the property identified two conductive trends with 4-6 channel anomalies. Geological mapping indicated that the property was underlain by predominantly mafic volcanic flows with some thin felsic horizons (Rockingham, 1980).
- 1981: Line-cutting was completed over the property with lines spaced at 100 metres (Rockingham, 1981).
- 1982: In 1982 a Max-Min survey located several conductors on the property. The northernmost conductive horizon was tested by one diamond drill hole NC-82-1 that intersected 0.46 g/ton Au over 3 metres. The gold intersection was contained within a sulphidic felsic tuff horizon (Rockingham, 1982).
- 1983: One drill hole (NC-83-2) tested a second conductive horizon and intersected 0.6 g/ton Au over 1.5 metres associated with a thin highly conductive band of pyrrhotite within the mafic flows (Rockingham, 1982).
- 1984: Limited Max-Min II coverage completed on the property to detail some of the Max-Min II anomalies.

1985 Program:

In February 1985, R. Kozy of Larder Lake, Ontario completed two short x-ray drill holes to test the northernmost conductor (Figure 3) under an outcrop where anomalous values of Au had been returned from surface sampling.

The drill holes (Appendix 1) intersected intermediate volcanic flows and tuffs, and graphitic tuffs. The graphitic rocks contained anomalous amounts of copper and zinc (up to 600 ppm and 5700 ppm respectively) (Appendix 2) but no significant values for Au were returned. The holes intersected the conductor but may not have completely tested the horizon.

Respectfully submitted:



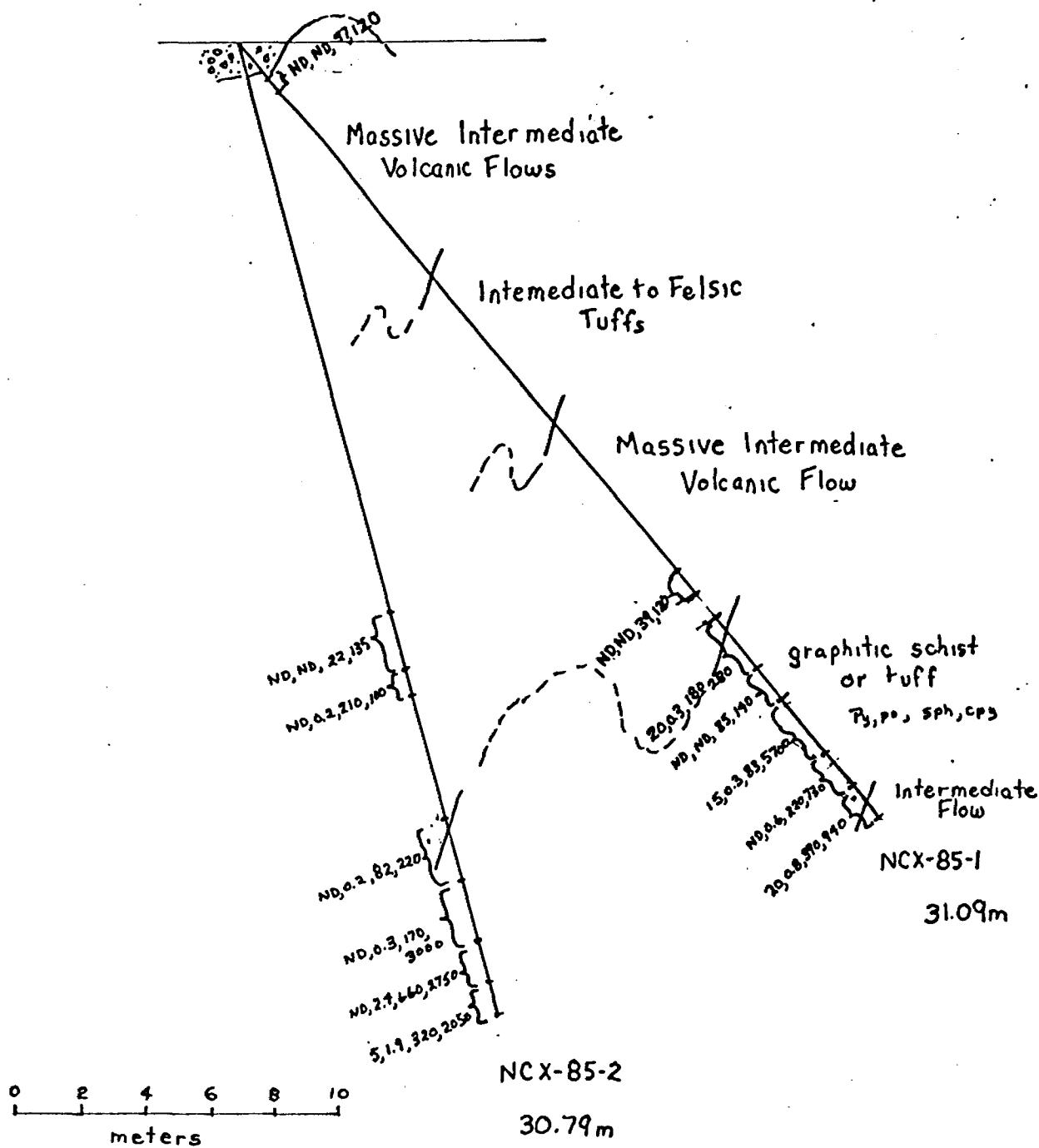
Paul R. J. Nicholls, P.Eng.



South

North

61°30' W, 51°40' N



 Westmin Resources Limited EASTERN CANADA MINING DIVISION	
Nash Creek Claims	
Section 6130W (Looking west)	
XRAY DRILL RESULTS	
Work by	PRJ N
Date	April 1985
Scale	1:200
NTS	32 E 13

Selected Bibliography

- Rockingham, C.J. 1980: A Report on the Detour Gold Project, Northeastern Ontario, N.T.S. 32 E/13, L/4
- Rockingham, C.J. 1981: A Progress Report on the Detour Gold Project, Northeastern Ontario, N.T.S. 32 E/13, L/4, Westmin Resources Limited Private Report
- Rockingham, C.J. 1982: Report on 1982 Field Work, Detour Gold Project, Ontario, N.T.S. 32 E/13, L/4, Westmin Resources Limited Private Report
- Rockingham, C.J. 1983: Report on the Nash Creek Claims Detour Lake Area, Ontario, N.T.S. 32 E/13, Westmin Resources Limited Private Report

Certification

I, Paul R. J. Nicholls, of 40 Albert Street South, Box 1605,
Stouffville, Ontario, L0K 1L0, certify the following:

- 1) I have practised my profession for nine years.
- 2) I hold an Honours B.Sc., in Geological Engineering obtained from Queen's University, Kingston, Ontario, in 1976.
- 3) I am a Registered Professional Engineer in the Province of Ontario.
- 4) I am a member of the Canadian Institute of Mining and Metallurgy and Geological Association of Canada.
- 5) I have conducted work and reviewed all data presented.
- 6) I have no financial interests in the property covered by this report.

January 1986.

Paul R. J. Nicholls
Paul R. J. Nicholls, P.Eng.



Appendix 1

Drill Logs of X-Ray Holes

NCX-85-1 and 2

PROPERTY NASH CREEK, ONTARIO

PAGE 1

LOCATION 6+30W 5+40N BEARING 000° HOLE NO. NCX-85-1
 LOGGED BY P. Nicholls ELEVATION _____ DIP -50° FINAL DEPTH 31.09m (102')
 STARTED February 24, 1985 TESTS (CORRECTED) No Tests
 FINISHED February 28, 1985
 CASING 1.4m (pulled out) X-RAY DRILL
 CORE SIZE 2.22cm (7/8")

FROM m	TO m	DESCRIPTION
0	1.4	Overburden
1.4	9.4	Felsic Volcanic - light grey, fine grained, highly siliceous rock, quartz eyes up to 2mm are common, massive to poorly foliated, feldspar amydules present @1.4 - 1.8m - rusty section - weathered - sulphides along fractures @4.0 - 0.5cm quartz vein at 45° to core axis
9.4	15.2	Intermediate to felsic - fine grained, massive to poorly foliated tuff - 10-15% mafic content generally as chloritic wisps - foliation at 40° to core axis @13.2-13.4m - rusty section - no fresh sulphide minerals observed
15.2	23.5	Felsic Volcanic - light grey fine grained massive siliceous unit with quartz eyes, and amydules @21.9-22.1m - rusty section
23.5	24.7	Graphitic Tuff - fine grained - medium to dark grey well laminated rock - siliceous and graphitic bands alternate, bands of graphite up to 2cm, pyrrhotite rich bands are common in section - banding at 40-50° to core axis
24.7	26.5	Felsic Volcanic - light grey siliceous, quartz-eye fine grained felsic volcanic @ 26.0m - 1-2cm rusty section

PROPERTY NASH CREEK, ONTARIO

PAGE 2

LOCATION 6+30W 5+40N BEARING 000° HOLE NO. NCX-85-1
 LOGGED BY P. Nicholls ELEVATION DIP -50° FINAL DEPTH 31.09m (102')
 STARTED February 24, 1985 TESTS (CORRECTED) No Tests
 FINISHED February 28, 1985
 CASING 1.4m (pulled out) X-RAY DRILL
 CORE SIZE 2.22cm (7/8")

FROM m	TO m	DESCRIPTION
26.5	30.0	Graphitic Tuff - fine grained, well banded unit similar to section 23.5-24.7m @28.5-29.3m - massive graphite minor pyrrhotite, trace sphalerite
30.0	31.09	Felsic Volcanic - fine grained, massive, light grey tuff, minor graphite pyrrhotite common filling fractures (5-% over section) which are oriented at various angles to the core axis.
31.09		END OF HOLE

PROPERTY NASH CREEK ONTARIO

PAGE 1

LOCATION 6+30W 5+40N BEARING 000° HOLE NO. NCX-85-2
 LOGGED BY P. Nicholls ELEVATION _____ DIP -65 FINAL DEPTH 30.79m (101')
 STARTED February 28, 1985 TESTS (CORRECTED) None
 FINISHED March 2, 1985
 CASING 1m (pulled out) X-RAY DRILL
 CORE SIZE 2.22cm (7/8")

FROM M	TO M	DESCRIPTION
0	1.0	Overburden
1.0	24.8	Felsic Volcanic - light grey fine grained siliceous rock with quartz eyes and possible amydules, generally massive - minor tuffaceous bands @14.3m, 20.2-20.6m - rusty section - no fresh sulphides observed @20.6m - 0.3m of core lost.
24.8	30.79	Graphitic Schists - fine grained dark grey laminated to massive graphitic rocks, graphite laminated with cherty layers or can be massive banding at 20° to core axis @24.8-28.0m - minor pyrite and pyrrhotite present @28.0-30.79m - 5-10% sulphides present in section predominately pyrite and pyrrhotite (up to 30% in small sections) with sphalerite and chalcopyrite.
30.79		END OF HOLE

APPENDIX 2

Geochemical Data for X-Ray Holes

NCD-85-1 and 2.

BARRINGER MAGENTA304 CARLINGVIEW DRIVE
REXDALE, ONTARIO
M9W 5G2
(416) 675-38703750 - 18TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-9701FILE: T5-0130
DATE: 31/03/85
MATRIX: AQ REG

WESTMIN RESOURCES (P. NICHOLS)

WO NO: 85-0130

PAGE: 1

SAMPLE ID	FROM	TO	AU PPB	AG PPM	CU PPM	ZN PPM
NCX-81-1	1.5	1.8	<5	<.2	47	120
NCX-85-1	21.0	22.0	<5	<.2	39	120
NCX-85-1	23.5	25.0	20	.3	180	280
NCX-85-1	25.0	26.2	<5	<.2	35	140
NCX-85-1	26.2	28.4	15	.3	83	5700
NCX-85-1	28.4	29.6	<5	.6	220	730
NCX-85-1	29.6	31.09	20	.8	390	940
NCX-85-2	18.0	19.8	<5	<.2	22	135
NCX-85-2	20.0	20.6	<5	.2	210	100
NCX-85-2	24.6	26.5	<5	.2	82	220
NCX-85-2	26.5	28.4	<5	.3	170	3000
NCX-85-2	28.4	29.6	<5	2.4	660	2750
NCX-85-2	29.6	30.8	5	1.9	320	2050



32E13NE0022 63.4622 HOPPER LAKE

020

Westmin Resources Limited

Tie On Claims

Report on 1985 Diamond Drilling

N.T.S. 32 E/13

Latitude: $49^{\circ} 59' 30''$

Longitude: $79^{\circ} 43' 30''$

January 1986

Paul R. J. Nicholls, P.Eng.



32E13NE0022 63.4622 HOPPER LAKE

020C

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File: TIEDDREP

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Figure 5 Section 1+25W Geochemistry	in pocket

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1.0 Summary:

Hole TO-85-1 completed to a depth of 169.5 metres in March 1985 intersected laminated metasedimentary rocks. Quartz ankerite and tourmaline veins were intersected at 38.0 metres. A significant Ag value (403 g/t) was returned from a sludge sample (26.2 - 29.3 metres). Anomalous Cu (10,000 ppm), Pb (120 ppm), and Zn (5300 ppm) values were also returned from this section. Core from this section returned low values when it was split. The Ag-base metal association may indicate the presence of sulphosalts as is the case in the Placer Eastmain deposit.

2.0 Recommendations:

Final recommendations will be made at a later date.

3.0 In 1980 nine claims were staked by Westmin Resources along the southwestern boundary of the Detour Lake Mine property within a kilometre of the open pit.

Since 1980 overburden drilling and ground geophysical surveys (VLF-EM, Max-Min II and magnetometer) have been conducted on the property.

A bedrock trough believed to be related to the weathering of softer or altered rocks was outlined in the northern portion of the claim block. In 1985 one drill hole was completed to test the anomaly. The following report deals with the results of the drilling.

3.1 Location, Access and Topography:

The Tie On claims are located in northeastern Ontario (N.T.S. 32 E/13, L/4) approximately 135 kilometres north of Cochrane, Ontario (Figure 1) and about two kilometres south of the Detour Mine (current reserves of 10 million tonnes at 4 g/tonne Au).

An all-weather road linking the Detour mine and Cochrane provides easy access to the property.

Topographic relief on the property is low.

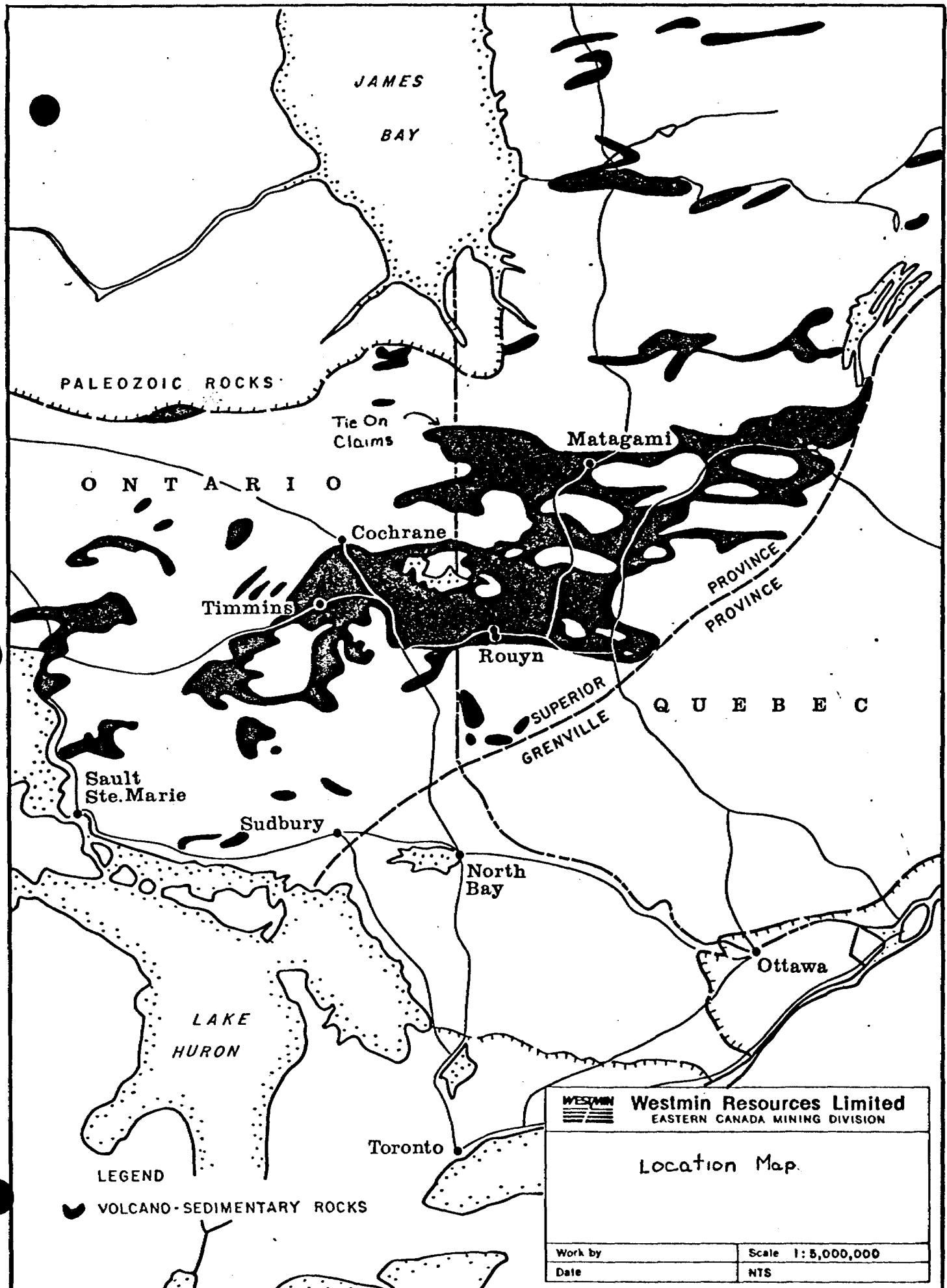


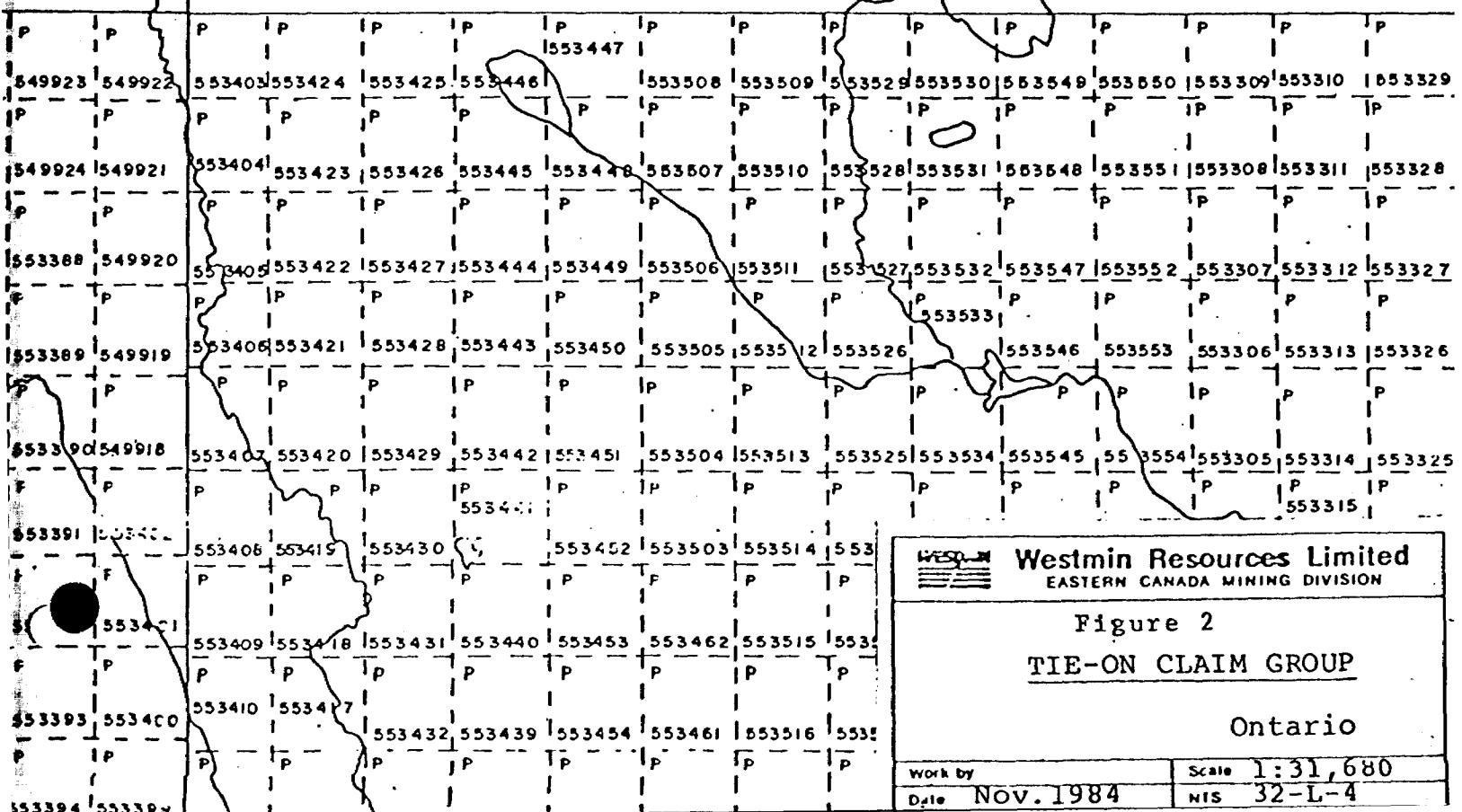
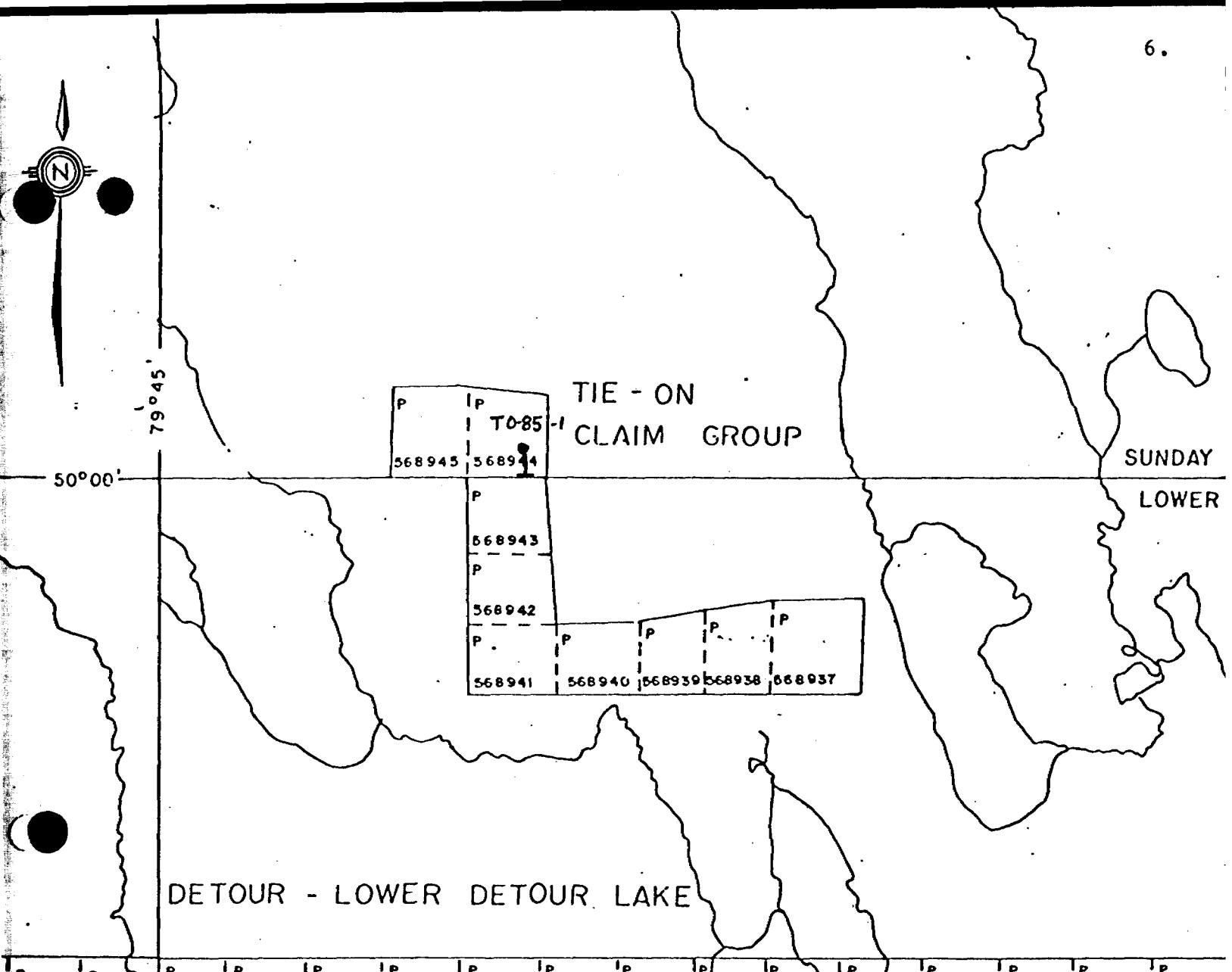
Table 1
Claim Status

Tie On Claim Group - Detour Project

Location: Sunday Lake Area (M.3003), Porcupine
Mining District, Ontario.
N.T.S. 32 L/4

Property: 9 Mining Claims, Area of 360 acres (144 ha)

Claims	Date Recorded	Lease Due	Balance Work Due
P.568937	June 2, 1980	June 2, 1986	Nil
P.568938	June 2, 1980	June 2, 1986	Nil
P.568939	June 2, 1980	June 2, 1986	Nil
P.568940	June 2, 1980	June 2, 1986	Nil
P.568941	June 2, 1980	June 2, 1986	Nil
P.568942	June 2, 1980	June 2, 1986	Nil
P.568943	June 2, 1980	June 2, 1986	Nil
P.568944	June 2, 1980	June 2, 1986	Nil
P.568945	June 2, 1980	June 2, 1986	Nil



3.2 Property Status:

Sufficient work has now been completed on the property to take the claims to lease (Figure 2, Table 1).

3.3 Previous Work:

Exploration conducted on the Tie On claims prior to 1985 is summarized below.

- 1) 1981: Five overburden drill holes were completed along the boundary between the Westmin and Amoco claims. Two of these holes (AMO-81-65 and 61) returned anomalous values in Au (14,460 - 15,000 ppb) from till located 2 - 7 metres above bedrock. A third hole returned a value of 7,550 ppb Au from a schistose mafic volcanic boulder 8.2 metres above the bedrock. The weight of this sample was low (1 gram versus 10 grams needed) and its significance may be suspect. The anomalous samples (above) are from the lowest till sheet and are in close proximity to the bedrock which suggests that the source of the Au is much closer to the property than is the Detour Mine. Whole rock geochemistry and visual analysis of the bedrock chips from the drilling suggest that the area is underlain by either turbiditic wackes or intermediate tuffs.
- 2) 1983: Magnetometer and VLF-EM surveys were completed over the property utilizing a flagged grid (Rockingham, 1983). The magnetic gradient on the property is essentially flat with value ranging from 57,400 to 57,660 gammas over most of the property where values of up to 57,950 gammas were recorded. The VLF-EM survey located one moderate east-west conductor in the two northernmost claims.
- 3) 1984: A cut grid was established as control for Max-Min II survey coverage of the property (Kent, 1984). A moderate out-of-phase anomaly coincident with the 1983 VLF anomaly was identified in the two northernmost claims. This anomaly was interpreted as a bedrock trough reflecting the presence of softer or more altered rocks.

4.0 1985 Diamond Drilling:

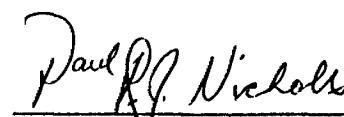
During March 1985 one drill hole totalling 169.6 m (Appendix 1), Drill Logs, Figure 3) was completed on the Tie On Claims. The purpose of the hole was to test the bedrock trough located by Max-Min II and VLF-EM surveys and to provide geological information.

4.1 Results:

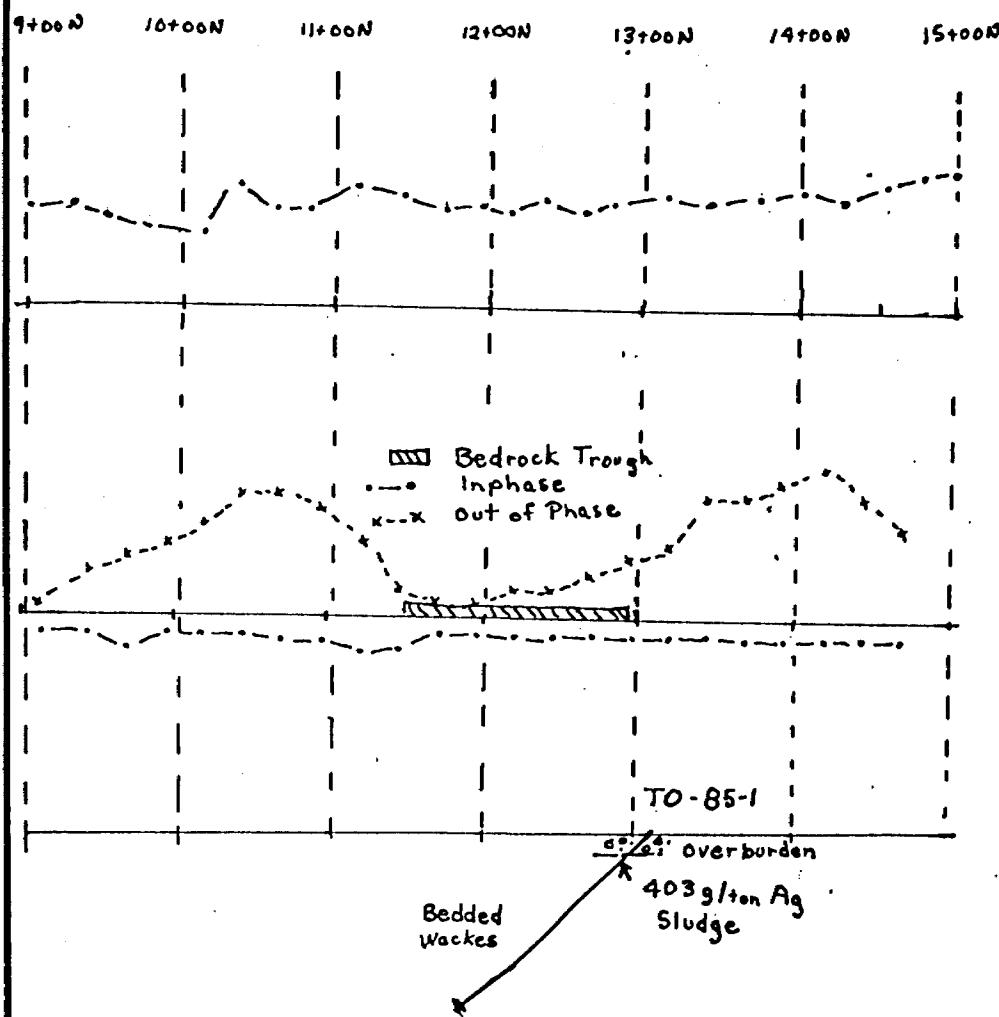
The drill hole (TO-85-1) completed to a depth of 169.5 metres (Figures 4, 5 and 6) encountered 18.3 metres of overburden (12.7 metres vertical) and intersected laminated metasedimentary rocks throughout its length with exception of a quartz feldspar porphyry horizon. Quartz veins are common throughout the hole and generally contain minor calcite, and amphiboles. Tourmaline and ankerite rich veins were noted at 38.0 metres (Appendix 1).

The results of geochemical analysis of core samples (Appendix 2) were discouraging with all samples returning negligible results for Au and Ag. Geochemical analysis of the sludge samples (Appendix 3) returned one significant Ag value from a section between 26.2 and 29.3 metres returned a value of 125 ppm (upper detection limit of metres). The sample was fire assayed and returned a value of 403 g/ton Ag. Subsequently the sample was analyzed for base metal content and returned significant values of Cu (10,000 ppm), Pb (120 ppm), and Zn (5,300 ppm). The section of core corresponding to this anomalous sludge sample was split in September 1985 and returned low values.

Respectfully submitted:



Paul R. J. Nicholls, P.Eng.



Ground
Magnetometer
Profile

Max Min II
Profile
(1777 Hz)

Geologic
Section

	Westmin Resources Limited EASTERN CANADA MINING DIVISION	
Tie On Claims		
Geophysics and General Geology Section 1+25 W (Looking West)		
Work by	P.R.J.N.	Scale 1:5000
Date	April 1985	NTS 32E-13, L-9

Figure 3-

Certification

I, Paul R. J. Nicholls, of 40 Albert Street, South, Box 1605, Stouffville, Ontario, LOH 1LO, certify the following:

- 1) I have practised my profession for nine years.
- 2) I hold an Honours B.Sc., in Geological Engineering obtained from Queen's University, Kingston, Ontario, in 1976.
- 3) I am a Registered Professional Engineer in the Province of Ontario.
- 4) I am a member of the Canadian Institute of Mining and Metallurgy and Geological Association of Canada.
- 5) I have conducted work and reviewed all data presented.
- 6) I have no financial interests in the property covered by this report.

Paul R.J. Nicholls
Paul R. J. Nicholls, B.Sc., P.Eng.

January 1986.



Appendix 1

Drill Log Hole TO-85-1

APPENDIX 2

Geochemical Results for Hole T0-85-1

BARRISTER MAGENTA

304 CARLINGVIEW DRIVE
REXDALE, ONTARIO
M9W 5G2
(416) 675-3870

3750 - 19TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-9701

FILE: T5-0131S
DATE: 09/04/85
MATRIX: AR REG

WESTMIN RESOURCES (P. J. NICHOLLS)

WO NO: 85-0131S

PAGE: 1

SAMPLE ID	FROM (feet)	TO	AG PPM	AU PPB	AG-FA GM/TON	AU-FA GM/TON
D-85-1	60	86	.8	<5	---	---
D-85-1	86	96	125	<5	403.0	<.33
D-85-1	106	116	14.5	<5	---	---
D-T0-85-1	346	356	.4	<5	---	---
D-T0-85-1	356	366	.7	<5	---	---
D-T0-85-1	376	386	1.2	<5	---	---
D-T0-85-1	386	396	4.6	<5	---	---
D-T0-85-1	396	406	8.0	<5	---	---
D-T0-85-1	416	426	10.0	<5	---	---
D-T0-85-1	436	446A	7.5	<5	---	---
D-T0-85-1	436	446B	17.5	<5	---	---
D-T0-85-1	446	456	1.0	<5	---	---
D-T0-85-1	456	466	1.2	<5	---	---
D-T0-85-1	466	476	.6	<5	---	---
D-T0-85-1	476	486	.5	<5	---	---
D-T0-85-1	486	496	.3	<5	---	---
D-T0-85-1	496	506	.4	<5	---	---
D-T0-85-1	506	516	1.5	<5	---	---
D-T0-85-1	516	526	.6	<5	---	---
D-T0-85-1	526	536	<.2	<5	---	---
D-T0-85-1	536	546	.2	<5	---	---
D-T0-85-1	546	556	.3	<5	---	---
D-85-22	126	136	3.2	<5	---	---
D-85-22	136	146	.5	<5	---	---
D-85-22	146	156	.5	<5	---	---
D-85-22	156	166	1.2	<5	---	---
D-85-22	166	176	.5	<5	---	---
D-85-2	176	186	1.2	<5	---	---
D-85-22	186	196	.5	<5	---	---
D-85-2	196	206	.4	<5	---	---
D-85-2	206	216	.9	<5	---	---
D-85-2	216	226	<.2	<5	---	---
D-85-2	226	236	.3	<5	---	---
D-85-2	236	246	1.2	<5	---	---
D-85-2	246	256	.3	<5	---	---
D-85-2	256	266	.5	<5	---	---
D-85-2	266	276	1.2	<5	---	---
D-85-2	276	286	.6	<5	---	---
D-85-2	286	296	.5	<5	---	---
D-85-2	296	306	.5	<5	---	---
D-85-2	306	316	.5	<5	---	---
D-85-2	316	326	.8	<5	---	---
D-85-2	326	336	.9	<5	---	---
D-85-2	336	346	.4	<5	---	---
D-85-21	286	296	.2	<5	---	---

Sludge Samples

BARRIER MAGENTA

304 CARLINGVIEW DRIVE
REXDALE, ONTARIO
M9W 5G2
(416) 675-3870

3750 - 19TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-9701

FILE: T5-0131
DATE: 09/04/85
MATRIX: AG REG

WESTMIN RESOURCES

(P. J. NICHOLLS)

WO NO: 85-0131

PAGE: 1

SAMPLE ID	AG PPM	AU PPM	AG-FA GM/TON	AU-FA GM/TON
TO-85-1-7119	<.2	<5	---	---
TO-85-1-7120	<.2	<5	---	---
TO-85-1-7121	<.2	<5	---	---
TO-85-1-7122	<.2	<5	---	---
TO-85-1-7123	<.2	<5	---	---
TO-85-1-7124	<.2	<5	---	---
TO-85-1-7125	<.2	<5	---	---
TO-85-1-7126	<.2	<5	---	---
TO-85-1-7127	<.2	<5	---	---
TO-85-1-7128	<.2	<5	---	---
TO-85-1-7129	<.2	<5	---	---
TO-85-1-7131	<.2	<5	---	---

Core Samples



32E13NE0022 63.4622 HOPPER LAKE

030

Detour Lake Project
South Detour Claims
Report on 1985 Diamond Drilling

N.T.S. 32 E/13
Latitude $49^{\circ} 56'$ - $49^{\circ} 59'$ N
Longitude $79^{\circ} 39'$ - $79^{\circ} 47' 30''$ W

February 1986.

Paul R. J. Nicholls, P.Eng.



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File: SDETDD

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1.0 Summary and Conclusions:

The South Detour property is located seven km south of the Detour Gold Mine (current reserves 10 million tonnes at 4.0 g/tonne) and is underlain by similar geology. On the property a mixed assemblage of mafic volcanics, ultramafic rocks, gabbro, felsic porphyry and clastic sedimentary rock contains interlayers of felsic tuffs, sulphide and cherty iron formation. Prominent alteration assemblages include extensive development of talc, chlorite, and carbonate in the northern part of the property. Gold has been encountered in surface sampling of a quartz-tourmaline-fuchsite vein (3 g/tonne) and in diamond drill holes (.8 g/tonne over 2 m in core, 3 g/tonne over 3 m in sludge). 12 of

Because of extensive overburden on the property overburden drilling and geophysics are the main exploration tools. Four highly anomalous overburden anomalies (values to more than 15,000 ppb Au in H.M.C.) are prime targets as are approximately 40 weak EM conductors.

To date, Westmin has completed 890 line km of airborne electromagnetic survey in the Detour camp of which approximately 300 km are over this claim block. Ground work has included approximately 500 km of linecutting and 490 km of Max-Min II (HLEM) magnetometer and geological surveys. Twenty-one diamond drill holes (3359 m) and 72 reverse circulation drill holes have been completed over the entire claim group.

The next phase of exploration on this property should be drill-testing of the targets defined to date. A twenty-one hole drill programme (4,000 m) with surveying of 75-100 claims would have an overall cost estimated at \$600,000.

2.0 Recommendations:

In order to more fully evaluate the Detour-Lower Detour Lake claim block the following programme is recommended.

- 1) Induced Polarization surveys should be carried out in selected areas in order to discriminate between weak conductors and conductive overburden. A total of 30 line km is proposed.

Cost

$$\text{I.P.} - 30 \text{ km at } \$1,000/\text{km} = \$30,000$$

- 2) A diamond drilling programme of 3,500 m - 4,000 m should be undertaken with special emphasis on geophysical targets within the ultramafic-mafic part of the volcanic pile. The specific targets and their geophysical characteristics are summarized in Table 2.

Cost

$$4,000 \text{ m at } \$100/\text{m} = \$400,000$$

- 3) The claims will have approximately 200 assessment days claim when the 1984 work is filed. Those claims that cover the ultramafic stratigraphy should be taken to lease.

Cost

$$\text{Legal Survey 75 claims at } \$1,000/\text{claim} = \$75,000$$

The total cost of the above programme, including supervision and overhead costs, is estimated at \$600,000.

Table 1
Proposed 1985 Drilling
Detour-Lower Detour Claims

Target Grid Location	Target
L5E 22+40N	2 mho conductor in ultramafic part of section
L7E 20+25N	2 mho conductor in ultramafic part of section
L19E 2+40N	15 mho conductor 7,000 gamma correlation
L20E 22+30N	2-15 mho conductor in ultramafic part of section
L24E 2+20N	5 mho conductor 250 gamma correlation
L24E 21+00N	2 mho conductor in ultramafic part of section
L35E 13+75N	10 mho conductor with magnetic correlation on contact of lahar
L35E 8+75N	5 mho conductor 100 gamma correlation
L38E 29+50N	2-15 mho conductor on north contact of ultramafic sill
L46E 19+00N	2 mho conductor in ultramafic part of section
L52E 16+40N	2 mho conductor with ultramafic part of section
L57E 18+00N	As above
L58E 29+50N	2 mho conductor on north contact of ultramafic sill
L62E 22+50N	Postulated source area of gold in basal till samples
L68E 16+90N	2 mho conductor within ultramafic part of section
L68E 10+53N	Deepen hole D-83-11 to test altered tuff-paraconglomerate contact and sulphide iron formation - 3 g/t sludge along strike
L69+00E 10+00N 180°	
L70+00E 10+00N 180°	
L70E 10+00N	As above
L72E 10+00N	As above
L81+00E 23+00N 0+00	
L82+00E 5+00N 0+00	
L90E 8+20N	2 mho conductor in magnetic low on contact of lahar
L127+75E 10+00N	2 mho conductor along strike from strike from altered felsic volcanics intersected in hole D-85-20
L136+00E 5+75N 000°	
Deepen D83-11 to 250 m	

3.0 Introduction:

The Detour Lake Project was initiated by Westmin Resources Limited in 1979 to explore for a stratabound gold deposit similar to the Detour Lake Mine. The South Detour claims were acquired on the basis of government aeromagnetic maps (McMillan and Rockingham, 1979) which indicated that the area was underlain by rocks stratigraphically equivalent to those hosting the Detour Lake Mine. This preliminary interpretation has been refined by airborne and ground geophysical surveys; geological mapping; and overburden drilling and diamond drilling programmes that have been conducted on the property since its acquisition. In 1985, four diamond drill holes were completed on the property and 167 humus samples were collected on selected portions of the property (Appendix 4). The following report deals with the results of this programme.

4.0 Location, Access and Topography:

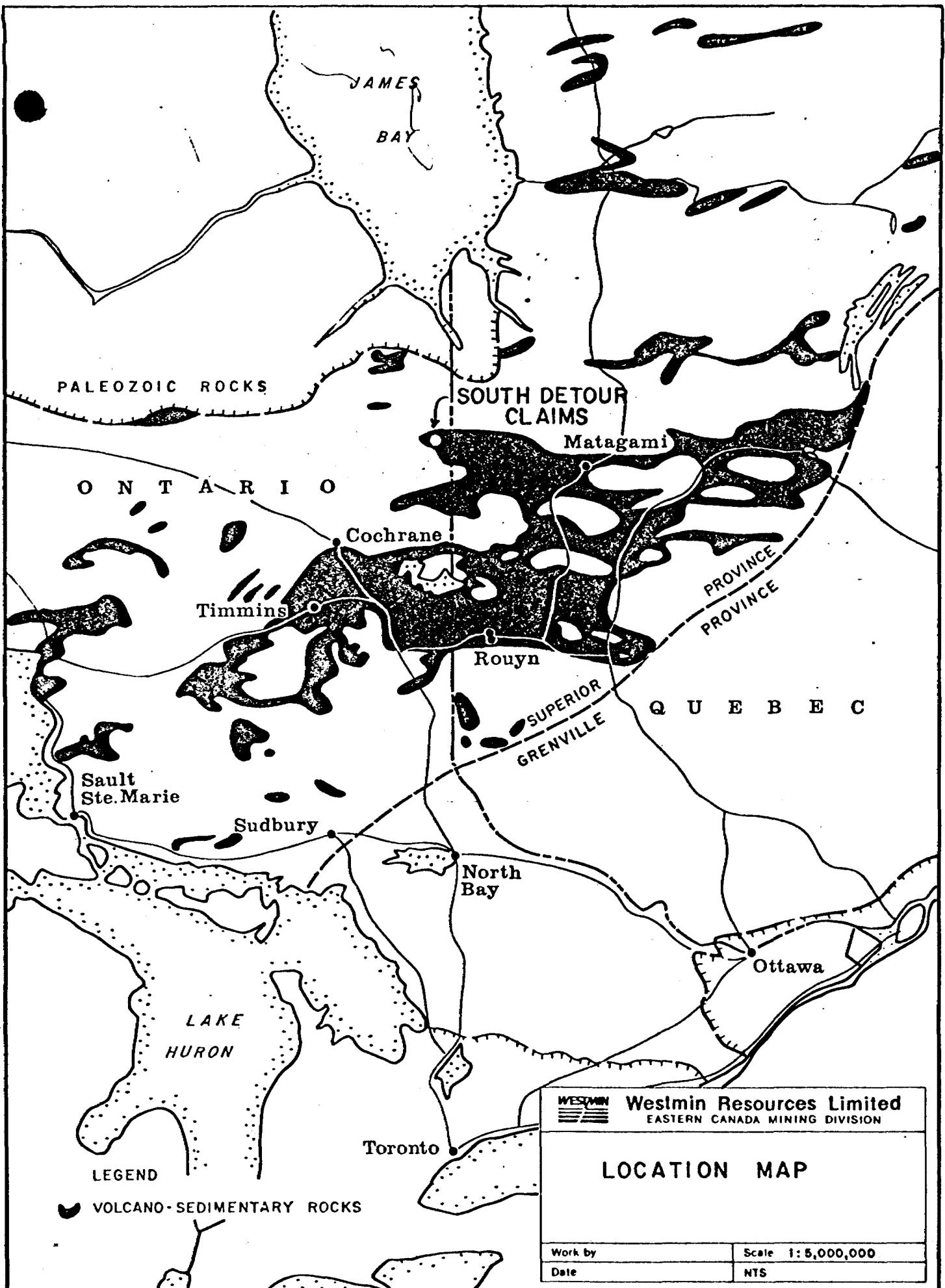
The South Detour claims (Figure 1) are located in northeastern Ontario (latitude 49° 56' - 49° 59' N, longitude 79° 39' - 79° 47' 30") approximately 130 kilometres NNE of Cochrane, Ontario and 5 kilometres south of the Detour Lake. Access is available all year by fixed-wing aircraft or by all terrain vehicles from the mine site along the winter road.

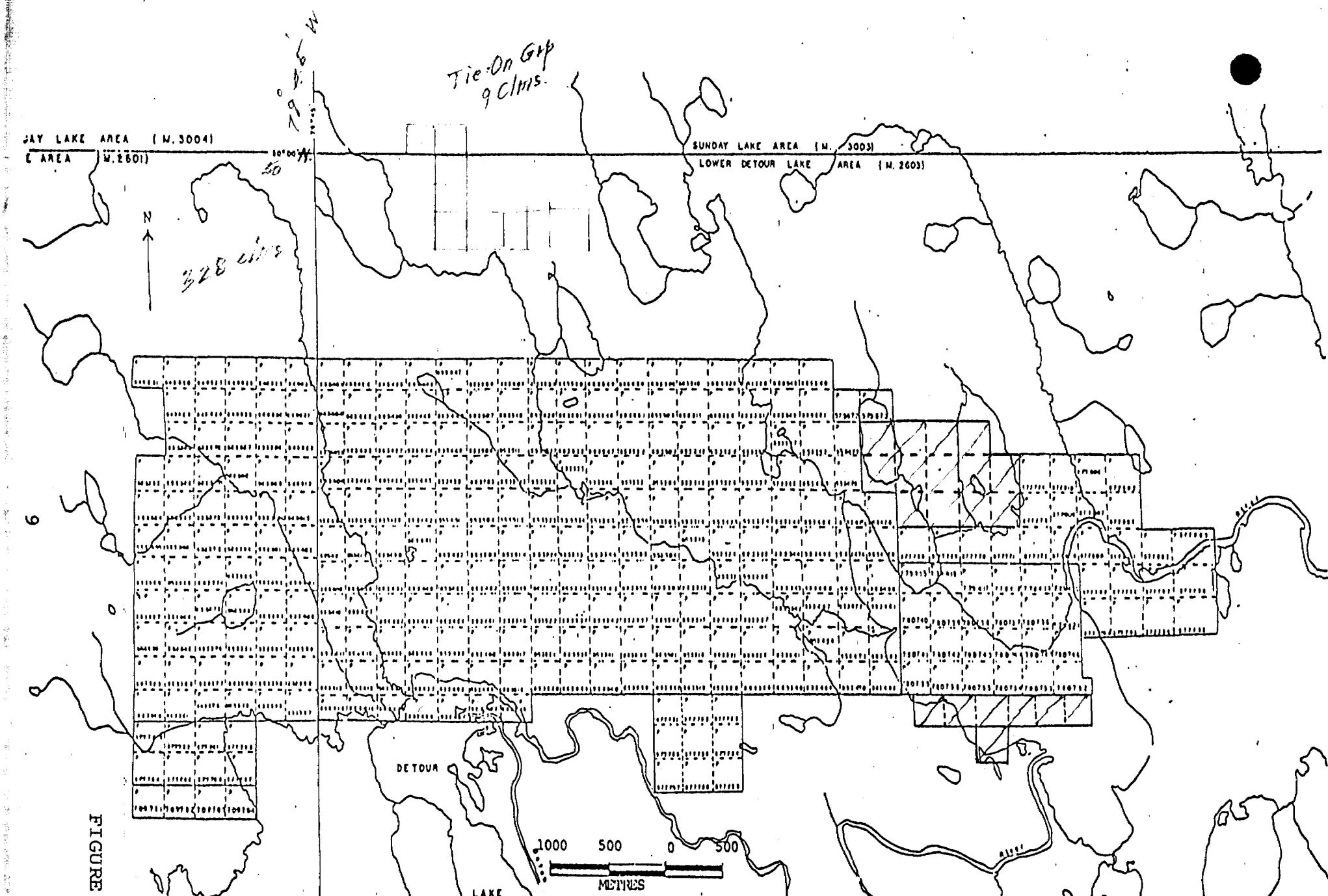
Topographic relief on the property is generally less than 10 m with much of the property covered by muskeg. Several small streams cross the property with drainage to the south and southeast.

5.0 Property Status:

The Lower Detour claim block (Figure 2) consists of 334 claims covering 5,344 hectares.

At the completion of the 1985 programme most of the assessment credits for the South Detour claim block have been fulfilled. A total of 4,834 days assessment credits and a legal survey are required to take the claim block to lease. A detailed summary of the claim status is shown in Table 2.





SOUTH DETOUR PROJECT
Claim Map

Table 2

South Detour Project

Property Status

Location: Hopper Lake Area (G.1636),
Lower Detour Lake Area (G.1647)
Porcupine Mining District, Ontario.
N.T.S. 32 E/13

Property: 334 Claims; 5,344 ha

Claim Name Number	Recorded Date	Balance Work Due	Lease Due	Extension To
P.549918-549931	4 Jan. 1980	Nil	4 Jan. 1986	2 Jan. 1987
P.553303-553483	4 Jan. 1980	Nil	4 Jan. 1986	2 Jan. 1987
P.553503-553562	4 Jan. 1980	Nil	4 Jan. 1986	2 Jan. 1987
P.575672-575673	10 Oct. 1980	Nil	10 Oct. 1986	
P.577751-577774	10 July 1980	Nil	10 July 1986	
P.577792-577810	10 July 1980	Nil	10 July 1986	
P.709761-709764	25 Mar. 1983	Nil	25 Mar. 1989	
P.779415-779421	25 Nov. 1983	256.62	25 Nov. 1989	
P.780735-780746	25 Nov. 1983	666	25 Nov. 1989	
P.780752-780756	25 Nov. 1983	192	25 Nov. 1989	
P.837154-837159	28 Mar. 1985	919	28 Mar. 1991	
P.868263-868276	7 Oct. 1985	2800	7 Oct. 1991	

348 Claims

4,833.62 days

6.0 Previous Work:

Prior to the claim block being staked by Westmin Resources portions of the property had been staked by a number of companies namely;

Penarroya 1971-1972 (File 2.812)

Penarroya conducted ground VHEM and fluxgate magnetometer surveys on five geophysical anomalies within the present claim block. The Penarroya anomalies correspond to the Westmin anomalies as follows:

Penarroya	Westmin
H East	INPUT #10
H West	Formation conductor
#21	INPUT 7
J	INPUT 3
K	INPUT 2A
L	INPUT 2B

One of these conductors was diamond drill-tested (Anomaly L) although no assessment record or drill core is available.

Inco 1971 (Lower Detour Lake DDH Report 15)

One hole of 115 m tested the formation conductor near the Taylor Base Line intersecting graphitic metasediments and mafic tuff.

Amoco 1974-1976 (File 2.2139 Hopper Lake DDH Report 25-1)

Ground geophysical surveys (EM and magnetometer) evaluated the claims and one drill hole of 132 m tested the formation conductor near the Taylor Base Line west of the Inco hole. This also intersected graphitic metasediments and mafic tuff.

Noranda 1974-76 (Files 2.1833, 2.2137, and 2.2157)

File 2.2157 reports on the electromagnetic and magnetic surveys on what is now the east end of the Westmin claims north of the Taylor Base Line. 2.1833 and 2.2137 report on the geophysical surveys over what is now the northwest corner of the Westmin property. In both cases geophysical conductors were detected, that in general correspond to conductors located by Westmin geophysical surveys. No follow-up diamond drilling was reported by Noranda.

Since 1980, Westmin Resources has completed several exploration programmes on the property.

Westmin 1980 (Questor, 1980; Rockingham, 1980)

An airborne Mark VI INPUT survey conducted by Questor on behalf of Westmin detected ten discrete conductors on the property as well as a large formation conductor that is essentially coincident with the Taylor Base Line. Geological mapping and prospecting were also undertaken with special emphasis on stripping moss off outcrop and chip sampling quartz veins and sulfide occurrences.

Westmin 1981 (Rockingham, 1981)

Westmin conducted an overburden reverse circulation drill programme with 60 holes being drilled on this property.

Westmin 1982 (Rockingham, 1982; Nutter, 1982).

Nine diamond drill holes (2071 m) tested Max-Min II (HLEM) conductors and thirteen reverse circulation drill holes were completed to further define anomalous values reported from the 1981 work.

Westmin 1983

The Max-Min II HLEM and magnetometer surveys were completed over the western portion of the block and a further eight holes were drilled (1228 m) on this property.

Westmin 1984

Max-Min II and magnetometer surveys were completed over the eastern portion of the claim block.

The results of this work are summarized in Figures 3a, and b.

7.0 Property Geology:

Limited outcrop exposure has necessitated the use of ground geophysics in conjunction with geological mapping and diamond drilling to provide an interpretation of the property geology (Figure 3).

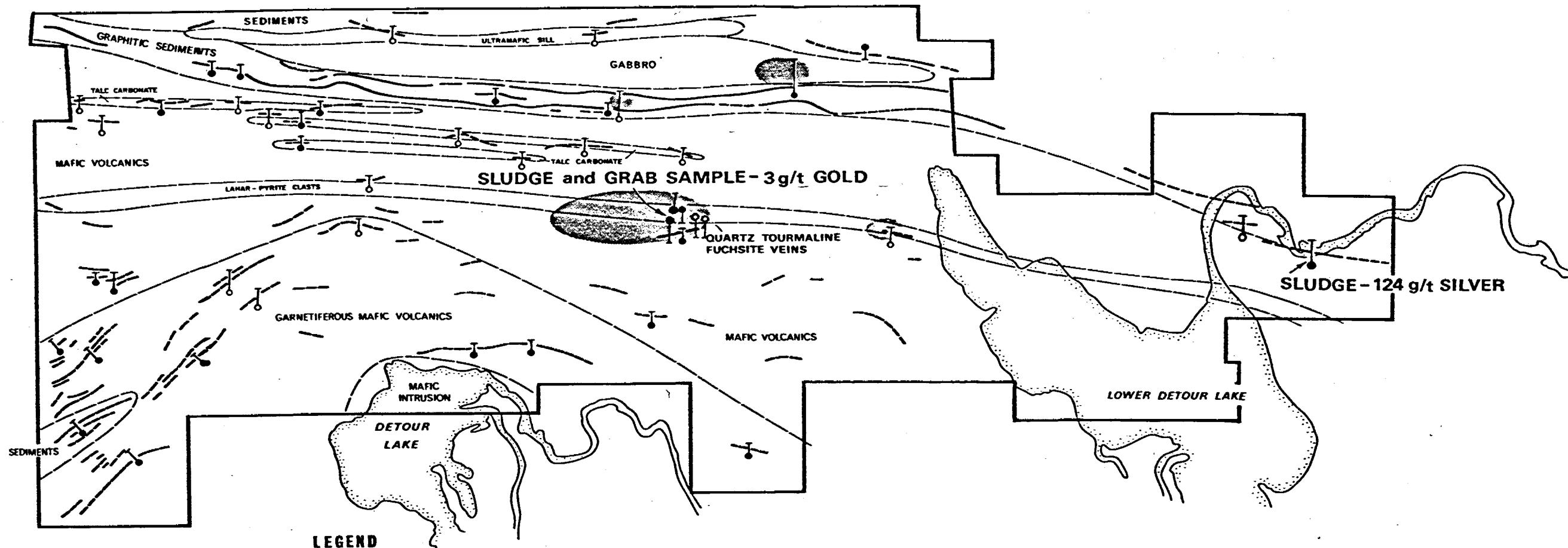
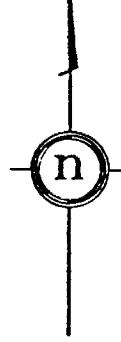
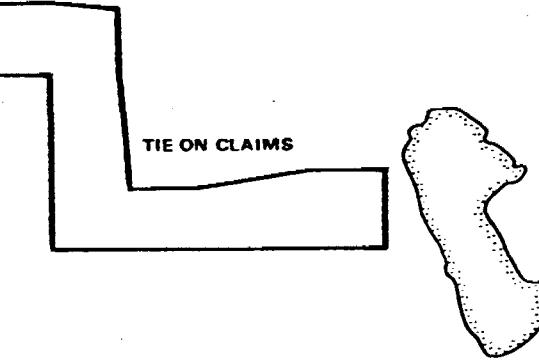
The rock types underlying the property range from ultramafic flows and sills to turbiditic wackes summarized in Table 3 in the order they would be encountered in a north-south traverse.

1) Horizon 1 - The contact between the quartz eye gabbro and graphitic sediments to the south may have economic significance as felsic volcanic rocks associated with this contact and the graphitic rocks; and have been found to contain green micas, quartz ankerite veins and arsenopyrite. Also anomalous Au values returned from till samples have been defined down-ice from or at this contact.

2) Horizon 2 - Below the graphitic rocks talc chlorite and talc carbonate rocks are found intercalated with mafic volcanics over 500 metres of section. These ultramafics have been shown to contain stringer and conformable zones of pyrrhotite, pyrite and chalcopyrite. Geochemically anomalous Au values (up to 615 ppb Au) have been returned from one hole.

3) Horizon 3 - A continuous thin paraconglomerate unit (200 metres) extends across the central portion of the property. The unit is composed of heterolithic fragments in a mafic matrix and has been interpreted as a lahar. Pink crystal tuffs and intrusive quartz feldspar porphyry units containing quartz-tourmaline veins have been defined. Anomalous Au values from surface sampling and sludge samples have returned values of up to 3 g/t from the veins.

DETOUR MINE
10 MILLION TONNES at 3.9 g/t GOLD



LEGEND

- HLEM conductors
 - > 50 mhos
 - - - < 50 mhos
- Diamond drill hole
- Proposed diamond drill hole
- (---) Possible source area of anomalous gold in basal till
- Geological contact

WESTMIN Resources Limited
EASTERN CANADA MINING DIVISION

SOUTH DETOUR

COMPILATION MAP

Work by C.J.R.	Scale 1:50,000
Date April '85	NTS 32E / 13

Table 3

Geological Units Underlying South Detour
Claim Block (from North to South)

Lithology	Thickness (m)	Remarks
Turbidites and Wackes	>1000	-underly northern 200-300 metres of claim block
Serpentinized mafic sill	100-150	-highly magnetic with strike length of 5.0 km -may mark southern contact wackes
Quartz-eye gabbro sill	200-250	-magnetic high on northern contact - no geology for area between sills -locally carbonated and may contain quartz-tourmaline veins
Graphitic Sediments	300	-can be traced across property to the Quebec border (18 km) -felsic volcanic units are present and can contain green mica, arsenopyrite, quartz and quartz tourmaline veins
Ultramafic Rocks	500	-thin lenses of ultramafic talc carbonate and talc chloritic schists are interlayered with mafic volcanics -chalcopyrite, pyrrhotite and pyrite in veins and 4 beds have been found in this horizon
Mafic Volcancis	200	-mixed package of flows and tuffs
Heterolithic paraconglomerate	100-300	-felsic and mafic clasts in a mafic matrix - possible lahar - unit contains crystal tuff and QFP units which hosts quartz-tourmaline + green mica veins - anomalous sludge and surface sample
Mafic Volcanics	200	-mixed package of mafic flows and tuffs
Garnet rich mafic flows	600-800	-garnet-rich mafic flows with minor interflow sediments
Diorite		-intrusives

8.0 1985 Diamond Drilling:

In February and March 1985 five (one abandoned in overburden) diamond drill holes (totalling 918.25 m) were completed on the South Detour claims (Appendix 1). The drill holes were completed to test various geochemical and geophysical anomalies and will be discussed below.

D-85-18 (Figures 4, 5, and 6)

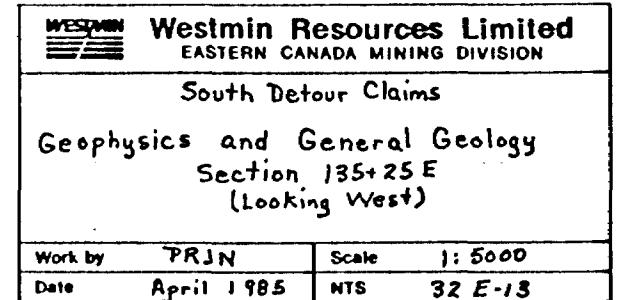
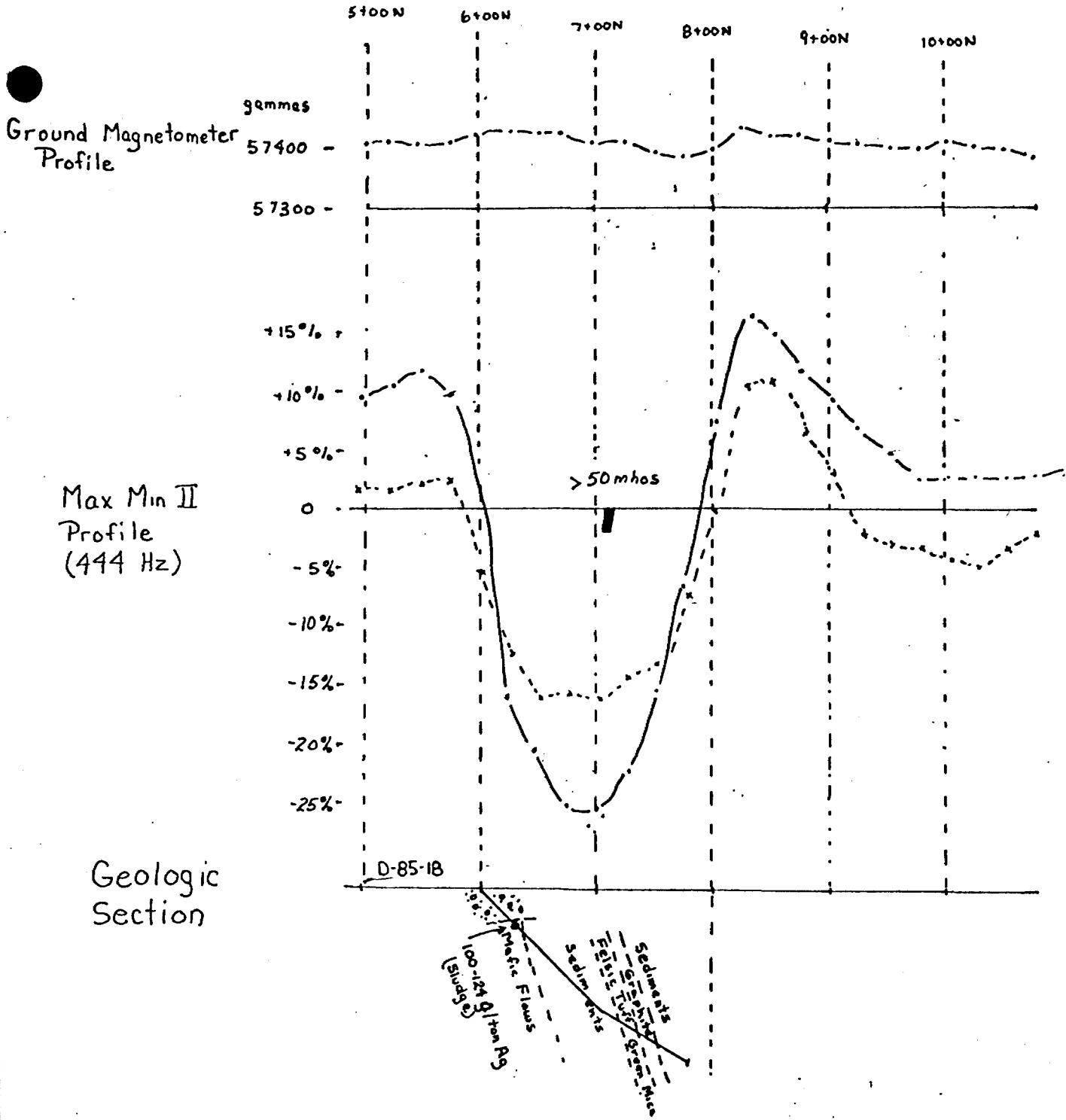
Hole D-85-18 collared at 135+25E, 6+00N was drilled to test a highly conductive (>50 mhos) portion of a weakly conductive stratigraphic horizon. The drill hole intersected (from south to north) brecciated and carbonated mafic volcanics, tuffaceous metasediments, massive felsic volcanics graphitic schists (conductor), and metasediments. The massive felsic volcanic rocks (172.9 - 198.8 metres) are considered highly significant in that green mica, intense quartz and quartz-ankerite veining, and arsenopyrite, are associated with this unit. These mineral assemblages are commonly associated with felsic volcanic hosted Au deposits. No anomalous Au or Ag values were returned from sludge or core samples from this section.

The other significant unit encountered by Hole D-85-18 was the mafic volcanics (39.6 - 47.1 metres) which were brecciated and calcite rich. Sludge samples taken from this section returned highly anomalous Ag and base metal values (up to 124 g/t Ag). This section of core was split in September 1985 and returned low values.

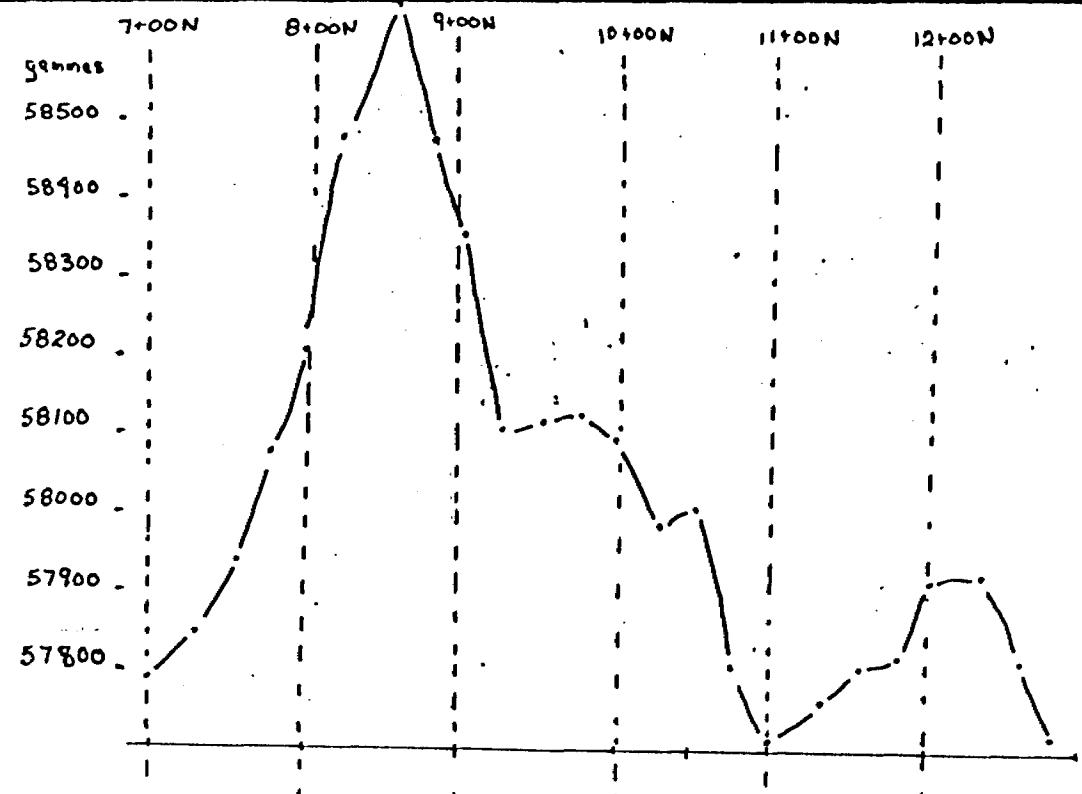
D-85-19 and 20 (Figures 7, 8, 9, 10, 11 and 12)

Drill holes D-85-19 and 20 completed in the area where a 3 g/t Au value was obtained from quartz and quartz tourmaline veins.

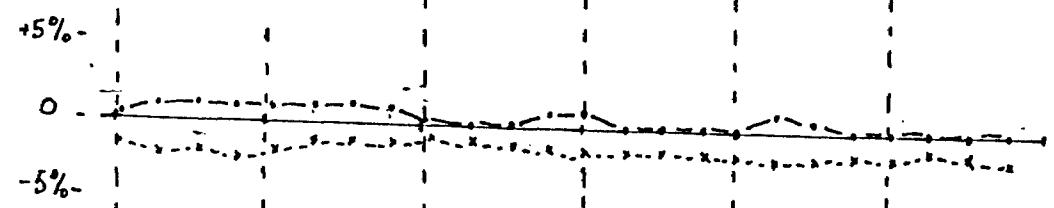
Hole D-85-19 (68+00E, 10+23N) drilled north intersected the heterolithic paraconglomerate over its length. This conformable crystal tuff horizons hosting quartz and quartz tourmaline veins (minor green mica) were intersected within the upper section of the hole. No geochemically anomalous values were returned from this section. Near the bottom of the hole (at 203.0 m) a narrow bleached section with a trace of green mica returned a value of 100 ppb Au.



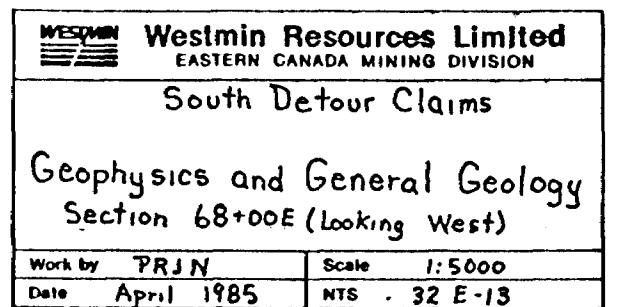
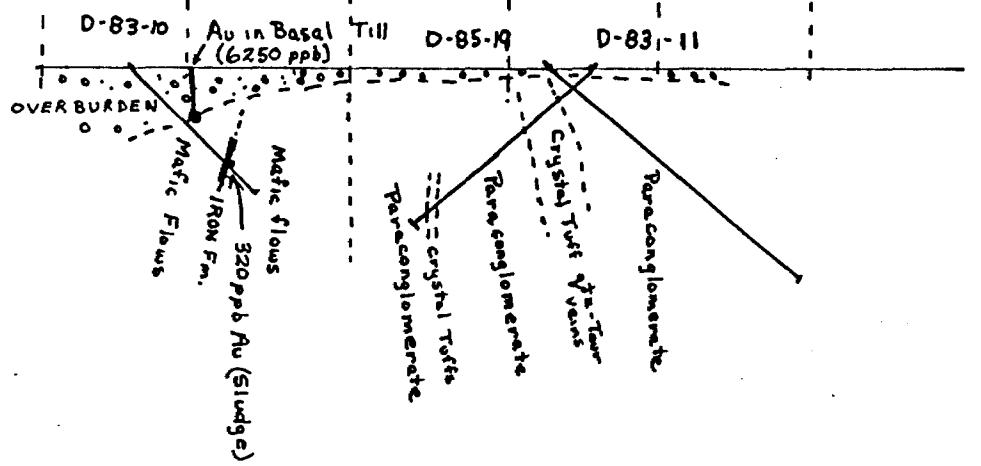
Ground
Magnetometer
Profile



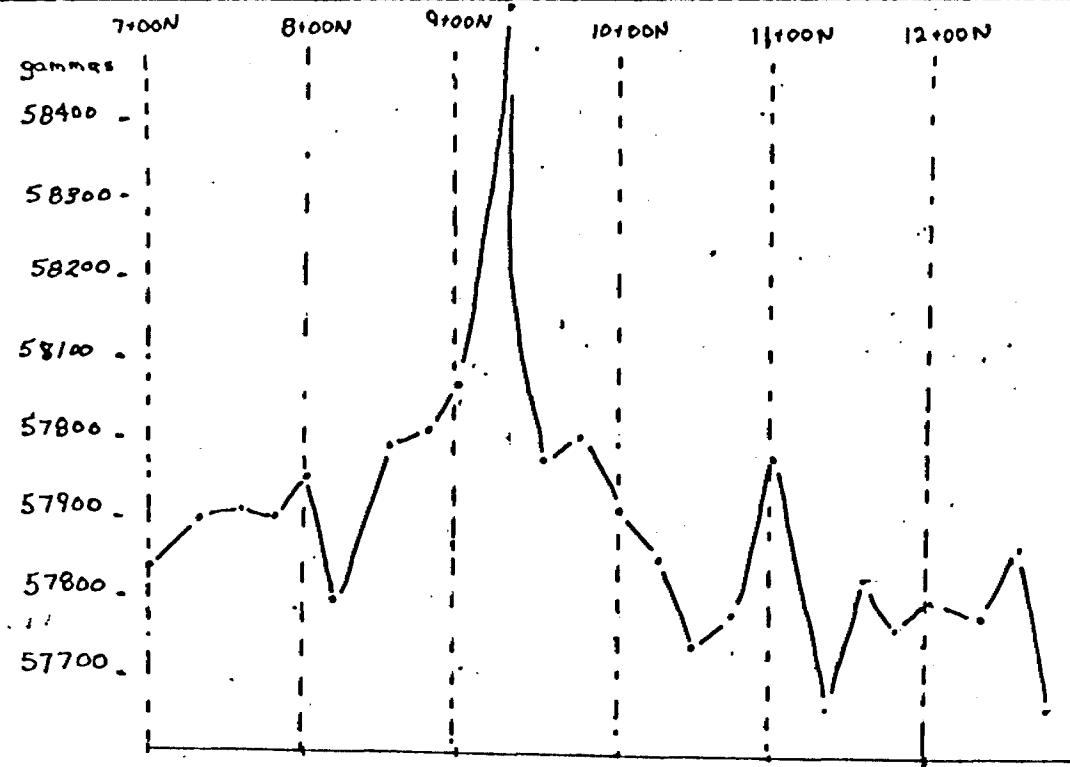
Max Min II
Profile
(222 Hz)



Geologic
Section



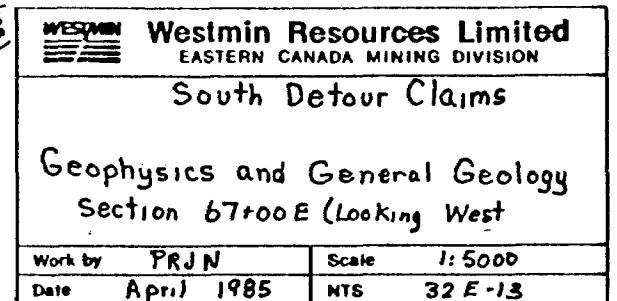
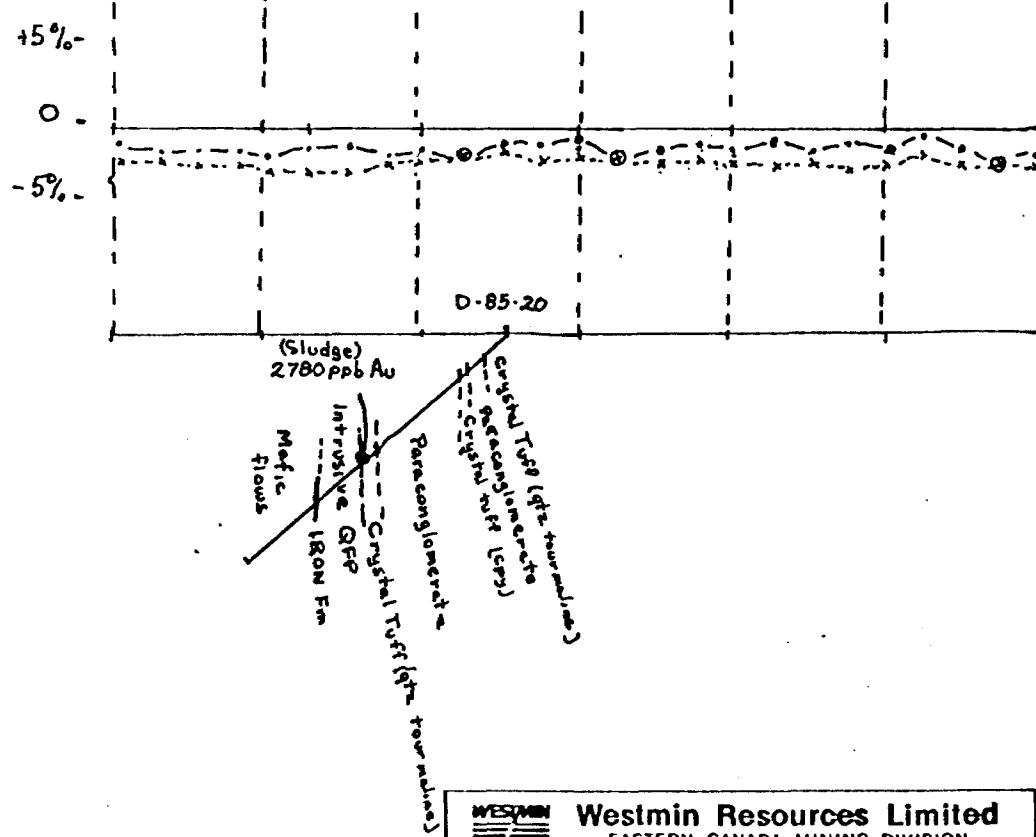
Ground
Magnetometer
Profile



Max Min II
Profile
(222 Hz)

— Inphase
x--x Out of phase

Geologic
Section



Hole D-85-20 (67+00E, 9+60N drilled south) tested the southern contact of the paraconglomerate. The hole intersected the paraconglomerate and several horizons of crystal tuff which contained quartz tourmaline and quartz veins in the upper 124 metres of the hole. A coarse-grained intrusive quartz feldspar porphyry was intersected between 134.5 and 159.1 metres. At the lower contact of the intrusive a 1-metre banded sulphide rich horizon overlying magnetite rich mafic flows was intersected.

Anomalous Au values (up to 2780 ppb) from sludge samples were returned from the contact between the intrusive quartz feldspar porphyry and overlying crystal tuff. A quartz calcite vein intersected in Hole D-83-10 returned a value of 325 ppb from a similar stratigraphic position.

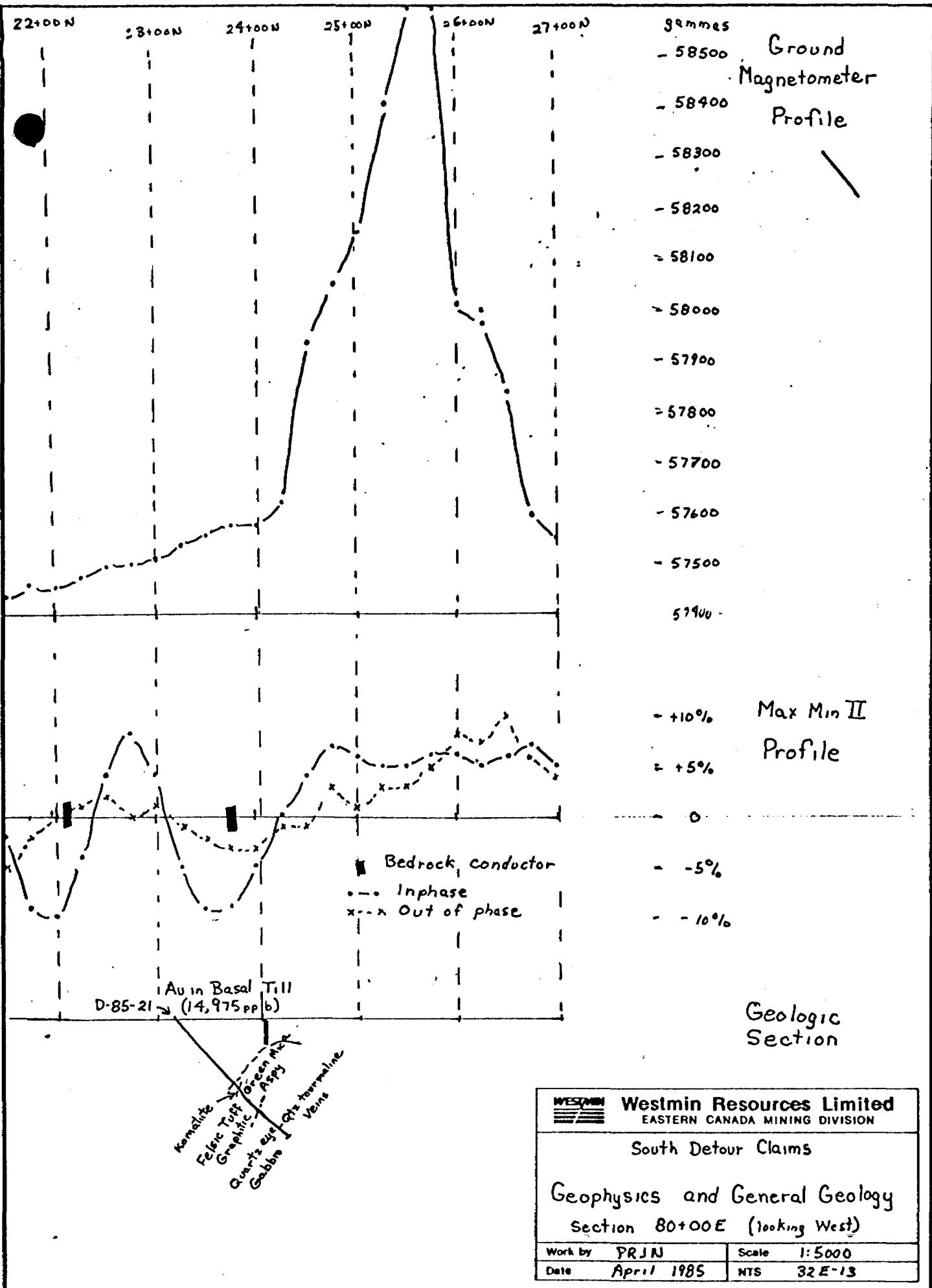
D-85-21 (Figures 13, 14, 15)

Hole D-85-21 (80+00E, 23+20N drilled north) was completed to test a weak portion of a strong formation conductor in close proximity to a strongly anomalous Au value (14,975 ppb) in basal till obtained during the 1981 overburden drill program. The hole intersected a thin horizon of carbonated mafic rock, felsic graphitic tuffs and quartz-eye gabbro.

Whole rock geochemistry indicates that the carbonated mafic rock is of komatiitic affinity. Arsenopyrite, green mica, biotite and brown carbonate are intersected in the felsic volcanics just above the blue quartz-eye gabbro. No anomalous geochemical responses were returned from the drill hole.

Respectfully submitted by:


Paul R. J. Nicholls
Paul R. J. Nicholls, P.Eng.



Selected Bibliography

- Johns, G.W., 1982; Geology of the Burntbush-Detour Lakes Area, District of Cochrane; O.G.S. Report 199, 82 p. Accompanied by Map 2453, scale 1:100,000.
- McMillan, R.H. and Rockingham, C.J., 1979; Detour Project - a proposal to acquire a land position in a new gold mining camp. Report for Western Mines Ltd.
- Nutter, G.E., 1982; A report on 1982 overburden drilling, Detour gold project, Ontario. (N.T.S. 32 E/13, L/4). Report for Westmin Resources Ltd.
- Questor, 1980; Airborne electromagnetic survey, Western Mines Ltd., Detour Lake area, Ontario. Project #22006.
- Rockingham, C.J., 1980; A report on the Detour gold project, Ontario, (N.T.S. 32 E/13, L/4). Report for Westmin Resources Ltd.
- Rockingham, C.J., 1981; A report on 1981 work Detour gold project, Ontario (N.T.S. 32 E/13, L/4). Report for Westmin Resources Ltd.
- Rockingham, C.J., 1982; A report on 1982 field work Detour gold project, Ontario. (N.T.S. 32 E/13, L/4). Report for Westmin Resources Ltd.

Certification

I, Paul R. J. Nicholls, of 40 Albert Street, South, Box 1605, Stouffville, Ontario, LOH 1LO, certify the following:

- 1) I have practised my profession for ten years.
- 2) I hold an Honours B.Sc., in Geological Engineering obtained from Queen's University, Kingston, Ontario, in 1976.
- 3) I am a Registered Professional Engineer in the Province of Ontario.
- 4) I am a member of the Canadian Institute of Mining and Metallurgy and Geological Association of Canada.
- 5) I have conducted work and reviewed all data presented.
- 6) I have no financial interests in the property covered by this report.

February 1986.

Paul R.J. Nicholls

Paul R. J. Nicholls, B.Sc., P.Eng.



Appendix 1

Drill Logs

Appendix 2

Sample Record Sheets

SAMPLE RECORD SHEET
CORE SAMPLES

PROPERTY - SOUTH DETOUR

D-85-18 -HOLE NO.
? -PAGE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS					DESCRIPTIONS
				Au ppb	Au-Fa oz/ton	Ag ppm	Ag-Fa oz/tor		
6565	175.0	176.5	1.5	< 5	-	< .2	-		
6566	173.75	175.0	1.25	< 5	< .01	< .2	< .01		
6567	182.3	183.8	1.5	< 5	< .01	< .2	< .01		
6568	183.8	185.3	1.5	< 5	< .01	< .2	< .01		
6569	185.3	186.8	1.5	< 5	< .01	< .2	< .01		
6570	186.8	188.3	1.5	5	< .01	< .2	< .01		
6571	192.9	194.2	1.3	< 5	< .01	< .2	< .01		
6572	191.2	192.7	1.5	< 5	< .01	< .2	< .01		
6573	194.1	195.6	1.5	< 5	< .01	< .2	< .01		
6574	195.6	197.1	1.5	< 5	< .01	< .2	< .01		
6575	197.1	197.35	.25	< 5	< .01	< .2	< .01		
6576	199.2	200.3	1.1	< 5	< .01	< .2	< .01		
6577	200.3	201.8	1.5	< 5	-	< .2	-		
6578	201.8	203.3	1.5	< 5	-	< .2	-		
6579	203.3	204.8	1.5	< 5	-	< .2	-		
6580	204.8	206.3	1.5	< 5	-	< .2	-		
6581	206.1	207.6	1.5	< 5	-	< .2	-		
6582	207.6	209.1	1.5	< 5	-	< .2	-		

SAMPLE RECORD SHEET
CORE SAMPLES

PROPERTY - SOUTH DETOUR

D-85-18 -HOLE NO.
1 -PAGE

PROPERTY - SOUTH DETOUR

SAMPLE RECORD SHEET

CORE SAMPLES

D-85-19 -HOLE NO.

1 -PAGE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS					DESCRIPTIONS
				Au ppb	Au-Fa oz/ton	Ag ppm	Ag-Fa oz/ton		
8488	4.9	6.4	1.5	<5	-	.2	-		
8489	6.4	7.9	1.5	<5	-	.2	-		
8490	7.9	9.4	1.5	<5	-	.2	-		
8491	10.8	12.3	1.5	<5	-	<.2	-		
8492	12.3	13.8	1.5	<5	-	<.2	-		
8493	13.8	15.3	1.5	<5	-	<.2	-		
8494	15.3	16.4	1.1	<5	-	<.2	-		
8495	19.8	20.8	1.0	<5	-	.2	-		
8496	38.6	39.8	1.2	<5	-	.2	-		
8497	43.1	44.5	1.4	<5	-	.2	-		
8498	44.5	45.9	1.4	<5	-	<.2	-		
8499	45.9	47.4	1.5	<5	-	.2	-		
8500	53.1	54.6	1.5	<5	-	<.2	-		
6501	54.6	56.1	1.5	<5	-	<.2	-		
6502	56.1	57.6	1.5	<5	-	<.2	-		
6503	57.6	58.5	0.9	<5	-	<.2	-		
6504	58.5	59.5	1.0	<5	-	<.2	-		
6505	62.4	63.4	1.0	<5	-	<.2	-		

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SAMPLE RECORD SHEET
CORE SAMPLES

PROPERTY - SOUTH DETOUR

D-85-19-HOLE NO.
2-PAGE

SAMPLE RECORD SHEET
COKE SAMPLESD-85-20 -HOLE NO.
1 -PAGE

PROPERTY- SOUTH DETOUR

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS					DESCRIPTIONS
				Au ppb	Au-Fa oz/ton	Ag ppm	Ag-Fa oz/ton		
6518	146.5	148.8	2.3	< 5	-	<.2	-		
6519	151.6	153.5	1.9	< 5	-	<.2	-		
6520	153.5	155.1	1.6	< 5	-	<.2	-		
6521	155.1	156.4	1.3	< 5	-	<.2	-		
6522	156.4	157.9	1.5	< 5	-	<.2	-		
6523	4.9	6.0	1.1	5	-	.2	-		
6524	6.0	7.5	1.5	< 5	-	<.2	-		
6525	7.5	9.0	1.5	50	<.01	<.2	<.01		
6526	9.0	10.5	1.5	< 5	-	<.2	-		
6527	10.5	12.0	1.5	< 5	-	<.2	-		
6528	15.0	15.7	0.7	< 5	-	.2	-		
6529	17.2	18.7	1.5	< 5	-	<.2	-		
6530	18.7	19.2	0.5	< 5	-	<.2	-		
6531	19.2	19.8	0.6	< 5	-	<.2	-		
6532	42.0	43.5	1.5	< 5	-	.2	-		
6533	43.5	44.9	1.4	< 5	-	.2	-		
6534	44.9	46.4	1.5	15	<.01	.3	<.01		
6535	46.4	47.9	1.5	110	<.01	<.2	<.01		

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SAMPLE RECORD SHEET

PROPERTY - SOUTH DETOUR

COK_E SAMPLES

D-1 20-HOLE NO.
2-PAGE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS					DESCRIPTIONS
				Au ppb	Au-Fa oz/ton	Ag ppm	Ag-Fa oz/ton		
6536	47.9	49.4	1.5	< 5	-	<.2	-		
6537	49.4	50.9	1.5	< 5	-	<.2	-		
6538	50.9	51.9	1.0	< 5	-	<.2	-		
6539	78.0	79.5	1.5	< 5	-	.2	-		
6540	83.9	85.1	1.2	< 5	-	.2	-		
6541	124.8	127.0	2.2	< 5	-	<.2	-		
6542	127.0	128.5	1.5	< 5	-	<.2	-		
6543	128.5	131.5	3.0	< 5	-	<.2	-		
6544	131.5	134.5	3.0	< 5	-	<.2	-		
6545	134.5	136.0	1.5	< 5	-	<.2	-		
6546	136.0	137.5	1.5	< 5	-	<.2	-		
6547	137.5	139.0	1.5	< 5	-	<.2	-		
6548	139.0	140.5	1.5	< 5	-	<.2	-		
6549	140.5	142.0	1.5	< 5	-	<.2	-		
6550	142.0	143.5	1.5	< 5	-	<.2	-		
6551	143.5	145.0	1.5	< 5	-	<.2	-		
6552	145.0	146.5	1.5	130	<.01	.2	<.01		
6553	157.9	159.1	1.2	<5	-	<.2	-		

SAMPLE RECORD SHEET

CORE SAMPLES

D-85-20 -HOLE NO.

3 -PAGE

PROPERTY— SOUTH DETOUR

SAMPLE RECORD SHEET

D-85-21 -HOLE NO.
1 -PAGE

PROPERTY- SOUTH DETOUR

SAMPLE NO.	FROM m	TO m	LENGTH m	ASSAYS			DESCRIPTIONS
				Au ppm	Ag ppm		
6588	87.2	88.7	1.5	< 5	<.2		
6589	88.7	90.2	1.5	< 5	<.2		
6590	90.2	91.7	1.5	< 5	<.2		
6591	91.7	93.2	1.5	< 5	<.2		
6592	92.5	94.0	1.5	< 5	<.2		
6593	94.0	95.5	1.5	< 5	<.2		
6594	95.5	97.0	1.5	< 5	<.2		
6595	97.0	98.5	1.5	< 5	<.2		
6596	98.5	100.0	1.5	< 5	<.2		
6597	100.0	101.5	1.5	< 5	<.2		
6598	101.5	103.0	1.5	< 5	<.2		
6599	103.0	104.5	1.5	< 5	<.2		
7104	105.8	107.3	1.5	< 5	<.2		
7105	104.3	105.8	1.5	< 5	<.2		
7106	107.3	108.8	1.5	< 5	<.2		
7107	108.8	110.3	1.5	< 5	<.2		
7108	110.1	111.6	1.5	< 5	<.2		
7109	111.6	113.1	1.5	< 5	<.2		
7110	113.1	114.6	1.5	< 5	<.2		

Appendix 3

Analytical Reports

BARRINGER MAGENTA

CARLTON DRIVE
REXDALE, ONTARIO
M9W 5G2
(416) 675-38703700 10TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-8701FILE: T5-0105
DATE: 81/03/85
MATRIX: AR REG

WESTMIN RESOURCES

(P. J. NICHOLLS)

NO NO: 85-0105

PAGE: 1

SAMPLE ID	AU PPB	AU-FA OZ/TON	AG PPM	AG-FA OZ/TON	SAMPLE ID	AU PPB	AU-FA OZ/TON	AG PPM	AG-FA OZ/TON
6501	.5	---	<.2	---	6546	.5	---	<.2	---
6502	.5	---	<.2	---	6547	.5	---	<.2	---
6503	.5	---	<.2	---	6548	.5	---	<.2	---
6504	.5	---	<.2	---	6549	.5	---	<.2	---
6505	.5	---	<.2	---	6550	.5	---	<.2	---
6506	.5	---	<.2	---	6551	130	---	<.2	---
6507	.5	---	<.2	---	6552	.5	---	<.2	---
6508	.5	---	<.2	---	6553	.5	---	<.2	---
6509	.5	---	<.2	---	6554	.5	---	<.2	---
6510	.5	---	<.2	---	6555	.5	---	<.2	---
6511	.5	---	<.2	---	6556	.5	---	<.2	---
6512	.5	---	.9	---	6557	.5	---	<.2	---
6513	.5	---	.9	---	6558	.5	---	<.2	---
6514	.5	---	.9	---	6559	.5	---	<.2	---
6515	.5	---	.9	---	6560	.5	---	<.2	---
6516	.5	---	.3	---	6561	.5	---	<.2	---
6517	100	<.01	<.2	<.01	6562	.5	---	<.2	---
6518	.5	---	<.2	---	6563	.5	---	<.2	---
6519	.5	---	<.2	---	6564	.5	---	<.2	---
6520	.5	---	<.2	---	8449	.5	---	<.2	---
6521	.5	---	<.2	---	8450	.5	---	<.2	---
6522	.5	---	<.2	---	8451	.5	---	<.2	---
6523	.5	---	<.2	---	8452	.5	---	<.2	---
6524	.5	---	<.2	---	8453	.5	---	<.2	---
6525	50	<.01	<.2	<.01	8454	.5	---	<.2	---
6526	.5	---	<.2	---	8455	.5	---	<.2	---
6527	.5	---	<.2	---	8456	.5	---	<.2	---
6528	.5	---	<.2	---	8457	.5	---	<.2	---
6529	.5	---	<.2	---	8458	.5	---	<.2	---
6530	.5	---	<.2	---	8459	.5	---	<.2	---
6531	.5	---	<.2	---	8460	.5	---	<.2	---
6532	.5	---	<.2	---	8461	.5	---	<.2	---
6533	.5	---	<.2	---	8462	.5	---	<.2	---
6534	15	<.01	<.3	<.01	8463	.5	---	<.2	---
6535	110	<.01	<.2	<.01	8464	.5	---	<.2	---
6536	.5	---	<.2	---	8465	.5	---	<.2	---
6537	.5	---	<.2	---	8466	.5	---	<.2	---
6538	.5	---	<.2	---	8467	.5	---	<.2	---
6539	.5	---	<.2	---	8468	.5	---	<.2	---
6540	.5	---	<.2	---	8469	.5	---	<.2	---
6541	.5	---	<.2	---	8470	.5	---	<.2	---
6542	.5	---	<.2	---	8471	.5	---	<.2	---
6543	.5	---	<.2	---	8472	.5	---	<.2	---
6544	.5	---	<.2	---	8473	.5	---	<.2	---
6545	.5	---	<.2	---	8474	.5	---	<.2	---

C. S. M. 11/11/85

BARRINGER MAGENTA

CARLIS
REXDALE, ONTARIO
M9W 6G2
(416) 675-3870

DRIVE
3100 18TH STR.
SUITE 105
CALGARY, ALBERTA
T2E 8V2
(403) 276-9701

FILE: T5_0105
DATE: 01/03/85
MATRIX: AQ REG

WESTMIN' RESOURCES

(P. J. NICHOLLS)

S. Detmu

WO NO: 85-0105

PAGE: 2

SAMPLE ID	AU PPB	AU-FA OZ/TON	AG PPM	AG-FA OZ/TON
8475	<5	---	<.2	---
8476	<5	---	<.2	---
8477	<5	<.01	<.2	<.01
8478	<5	<.01	<.2	<.01
8479	<5	<.01	<.2	<.01
8480	<5	<.01	<.2	<.01
8481	<5	<.01	<.2	<.01
8482	<5	<.01	<.2	<.01
8484	<5	<.01	<.2	<.01
8485	<5	<.01	<.2	<.01
8486	<5	<.01	<.2	<.01
8487	<5	<.01	<.2	<.01
8488	<5	---	<.2	---
8489	<5	---	<.2	---
8490	<5	---	<.2	---
8491	<5	---	<.2	---
8492	<5	---	<.2	---
8493	<5	---	<.2	---
8494	<5	---	<.2	---
8495	<5	---	<.2	---
8496	<5	---	<.2	---
8497	<5	---	<.2	---
8498	<5	---	<.2	---
8499	<5	---	<.2	---
8500	<5	---	<.2	---

V

BARRINGER MAGENTA

104 CALNEW DR
BEDFORD, ONTARIO
M9W 5G2
(416) 676-38709TH S
SUITE 105
CALGARY, ALBL
T2E 6V2
(403) 276-9701FILE: TS_0007
DATE: 14/01/85
MATRIX: AQ REG.

WESTMIN RESOURCES	(P. NICHOLS)	PROJ: SUNDAY LAKE		WO NO: 85-0007	PAGE# 1	
SAMPLE ID	AU PPB	AG PPM		SAMPLE ID	AU PPB	AG PPM
8401	MISSING	<.2		SL84-5-12	MISSING	.4
8402	MISSING	<.2		SL84-5-13	MISSING	.6
8403	MISSING	<.2		SL84-5-14	MISSING	.4
8404	MISSING	<.2		SL84-5-15	MISSING	.2
8405	MISSING	<.2		SL84-5-16	MISSING	.6
8406	MISSING	<.2		SL84-5-17	MISSING	<.3
8407	MISSING	<.2		SL84-5-18	MISSING	<.2
8408	MISSING	<.2		SL84-5-19	MISSING	<.2
8409	MISSING	<.2		SL84-5-20	MISSING	<.2
8410	MISSING	<.2		SL84-5-21	MISSING	<.2
8411	MISSING	<.2		SL84-5-22	MISSING	2.0
8412	MISSING	<.2		SL84-5-23	MISSING	<.2
8413	MISSING	<.2		SL84-5-24	MISSING	9.4
8414	MISSING	<.2		SL84-5-25	MISSING	4.2
8415	MISSING	<.2		SL84-4-1	MISSING	1.6
8416	MISSING	<.2		SL84-4-2	MISSING	<.2
8417	MISSING	<.2		SL84-4-3	MISSING	<.3
8418	MISSING	<.2		SL84-4-4	MISSING	<.9
8419	MISSING	<.2		SL84-4-5	MISSING	1.6
8420	MISSING	<.2		SL84-4-6	MISSING	1.5
8421	MISSING	<.2		SL84-4-7	MISSING	.8
8422	MISSING	<.2		SL84-4-8	MISSING	1.5
8423	MISSING	<.2		SL84-4-9	MISSING	1.1
8424	MISSING	<.2		SL84-4-10	MISSING	4.9
8425	MISSING	<.2		SL84-4-11	MISSING	1.5
8440	MISSING	<.2		SL84-4-12	MISSING	.9
8441	MISSING	<.2		SL84-4-13	MISSING	1.2
8442	MISSING	<.2		SL84-4-14	MISSING	1.3
8443	MISSING	<.2		SL84-4-15	MISSING	1.2
8444	MISSING	<.2		SL84-4-16	MISSING	1.2
8445	MISSING	<.2		SL84-4-17	MISSING	.3
8446	MISSING	<.2		SL84-4-18	MISSING	.2
8447	MISSING	<.2		SL84-4-19	MISSING	.2
8448	MISSING	<.2		SL84-4-20	MISSING	.2
SL84-5-1	MISSING	<.2				
SL84-5-2	MISSING	<.2				
SL84-5-3	MISSING	<.2				
SL84-5-4	MISSING	<.2				
SL84-5-5	MISSING	<.2				
SL84-5-6	MISSING	<.2				
SL84-5-7	MISSING	<.2				
SL84-5-8	MISSING	<.2				
SL84-5-9	MISSING	<.2				
SL84-5-10	MISSING	<.2				
SL84-5-11	MISSING	<.3				

S. Detour

BARRINGER MAGENTA

304 CARLINGVIEW DRIVE
REXDALE, ONTARIO
M9W 5G2
(416) 675-3670

3750 17TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-8701

FILE# T5_0105S
DATE# 08/04/85
MATRIX# AQ REG

WESTMIN RESOURCES

(P. J. NICHOLLS)

WO NO: 85-0105S

PAGE: 1

SAMPLE ID	FROM	TO	AG PPM	AU PPB	AG-FA GM/TON	AU-FA GM/TON
84-2	557	567	125	<5	171	,07<TRACE<.33
SL85-1	130	137	86.0	<7	100	<1.0
SL85-1	137	147	100	<5	124	<0.5
SL85-1	147	157	11.3	<15	---	---
SL85-1	157	167	<.2	<5	---	---
SL85-1	167	177	3.8	25	---	---
SL85-1	177	187	4.7	10	---	---
SL85-1	187	197	17.0	<5	---	---
SL85-1	197	207	<.2	<5	---	---
SL85-1	207	217	3.1	15	---	---
SL85-1	217	227	2.2	<5	---	---
SL84-5	567	577	66.0	<5	---	---
SL84-5	577	587	37.0	<5	---	---
SL84-5	587	597	35.0	<5	---	---
SL84-5	597	607	9.0	<5	---	---
SL84-5	607	617	4.5	<5	---	---
SL84-5	617	627	6.0	<5	---	---
SL84-5	637	647	12.0	<5	---	---
SL84-5	647	657	4.7	<5	---	---
SL84-5	657	667	2.5	<5	---	---
SL84-5	667	677	4.4	<5	---	---
SL84-5	677	687	2.4	<5	---	---
SL84-5	687	697	2.9	<5	---	---
SL84-5	697	707.	3.0	<5	---	---
SL84-5	697	707.	1.1	<5	---	---
SL84-5	717	727	13.0	<5	---	---
D85-18	227	237	1.5	<5	---	---
D85-18	237	247	10.0	<5	---	---
D85-18	247	257	4.1	<5	---	---
D85-18	257	267	.6	<5	---	---
D85-18	267	277	.9	<5	---	---
D85-18	277	287	.9	<5	---	---
D85-18	287	297	2.6	<5	---	---
D85-18	327	337	.3	<5	---	---
D85-18	337	347	.3	<5	---	---
D85-18	347	357	.5	<5	---	---
D85-18	357	367	1.0	<5	---	---
D85-18	377	387	.4	<5	---	---
D85-18	387	397	1.4	<5	---	---
D85-18	397	407	.4	<5	---	---
D85-18	407	417	1.2	<5	---	---
D85-18	417	427	.4	<5	---	---
D85-18	437	447	.4	<5	---	---
D85-18	447	457	<.2	<5	---	---
D85-18	457	467	<.6	<5	---	---

BARRINGER MAGENTA

304 CARLINGVIEW DRIVE
REXDALE, ONTARIO
M9W 5G2
(416) 875-3870

375 17TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 8Y2
(403) 276-9701

FILE# T5_0105S
DATE 08/04/85
MATRIX# AR REG

WESTMIN RESOURCES (P. J. NICHOLLS) WO NO: 85-0105S

PAGE: 2

SAMPLE ID	FROM	TO	AG PPM	AU PPB	AG-FA GM/TON	AU-FA GM/TON
D85-19	14	26	<.6	<5	---	---
D85-19	26	36	<.2	<5	---	---
I85-19	36	46	<.2	<5	---	---
D85-19	46	56	<.2	<5	---	---
D85-19	106	116	<.3	<5	---	---
D85-19	196	206	<.5	13	---	---
I85-19	216	226	<.5	<15	---	---
I85-19	296	306	<2.0	<50	---	---
D85-19	316	326	<1.0	<25	---	---
D85-19	336	346	<2.0	<50	---	---
D85-19	436	446	<.2	<5	---	---
D85-19	476	486	13.0	<15	---	---
D85-19	506	516	4.7	<15	---	---
D85-19	586	596	5.3	<5	---	---
D85-20	16	26	1.4	185	---	---
D85-20	26	36	2.6	5	---	---
D85-20	36	46	.8	5	---	---
D85-20	46	0	.8	12	---	---
D85-20	56	66	.8	<5	---	---
D85-20	66	76	<.2	<5	---	---
D85-20	76	86	.4	<5	---	---
D85-20	86	96	.2	<5	---	---
I85-20	96	106	.6	<5	---	---
D85-20	106	116	.6	<5	---	---
D85-20	116	126	<.2	<5	---	---
D85-20	126	136	.4	<5	---	---
I85-20	136	146	<.2	<5	---	---
D85-20	146	156	<.2	<5	---	---
D85-20	156	166	<.2	295	---	---
D85-20	166	176	<.2	<5	---	---
D85-20	176	186	<.2	<5	---	---
D85-20	186	196	<.2	<5	---	---
D85-20	196	206	<.2	<5	---	---
D85-20	206	216	<.2	<5	---	---
D85-20	216	226	<.2	20	---	---
D85-20	226	236	1.0	<5	---	---
D85-20	246	256	.4	<5	---	---
HOLE20	426	436	.9	2780	15.0	1.0<TRACE<5.
HOLE20	446	456	8.8	1560	<10.0	1.0<TRACE<5.
HOLE20	456	466	1.5	625	<10.0	.5<TRACE<2.

55

BARRINGER MAGENTA

LINQVIEW
REXDALE, ONTARIO
M9W 5G2
(416) 676-38703750 - REET
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-9701FILE: TS_01315
DATE: 30/04/85
MATRIX: AR REG

WESTMIN RESOURCES (P. J. NICHOLLS)

WO NO: 85-01315

PAGE: 1

SAMPLE ID	FROM	TO	AU PPB	AG PPM	AU-FA GM/TON	AG-FA GM/TON	CU PPM	ZN PPM	FR PPM
D-85-1	60	86	<5	.8	---	---	---	---	---
D-85-1	86	96	<5	125	<.3	403.0	10100	5300	120
D-85-1	106	116	<5	14.5	---	---	---	---	---
D-T0-85-1	346	356	<5	.4	---	---	---	---	---
D-T0-85-1	356	366	<5	.7	---	---	---	---	---
D-T0-85-1	376	386	<5	1.2	---	---	---	---	---
D-T0-85-1	386	396	<5	4.6	---	---	---	---	---
D-T0-85-1	396	406	<5	8.0	---	---	---	---	---
D-T0-85-1	416	426	<5	10.0	---	---	---	---	---
D-T0-85-1	436	446A	<5	7.5	---	---	---	---	---
D-T0-85-1	436	446B	<5	17.5	---	---	---	---	---
D-T0-85-1	446	456	<5	1.0	---	---	---	---	---
D-T0-85-1	456	466	<5	1.2	---	---	---	---	---
D-T0-85-1	466	476	<5	.6	---	---	---	---	---
D-T0-85-1	476	486	<5	.5	---	---	---	---	---
D-T0-85-1	486	496	<5	.3	---	---	---	---	---
D-T0-85-1	496	506	<5	.4	---	---	---	---	---
D-T0-85-1	506	516	<5	1.5	---	---	---	---	---
D-T0-85-1	516	526	<5	.6	---	---	---	---	---
D-T0-85-1	526	536	<5	<.2	---	---	---	---	---
D-T0-85-1	536	546	<5	.2	---	---	---	---	---
D-T0-85-1	546	556	<5	.3	---	---	---	---	---
D-85-22	126	136	<5	3.2	---	---	---	---	---
D-85-22	136	146	<5	.5	---	---	---	---	---
D-85-22	146	156	<5	.5	---	---	---	---	---
D-85-22	156	166	<5	1.2	---	---	---	---	---
D-85-22	166	176	<5	.5	---	---	---	---	---
D-85-22	176	186	<5	1.2	---	---	---	---	---
D-85-22	186	196	<5	.5	---	---	---	---	---
D-85-2	196	206	<5	.4	---	---	---	---	---
D-85-2	206	216	<5	.9	---	---	---	---	---
D-85-2	216	226	<5	<.2	---	---	---	---	---
D-85-2	226	236	<5	.3	---	---	---	---	---
D-85-2	236	246	<5	1.2	---	---	---	---	---
D-85-2	246	256	<5	.3	---	---	---	---	---
D-85-2	256	266	<5	.5	---	---	---	---	---
D-85-2	266	276	<5	1.2	---	---	---	---	---
D-85-2	276	286	<5	.6	---	---	---	---	---
D-85-2	286	296	<5	.5	---	---	---	---	---
D-85-2	296	306	<5	.5	---	---	---	---	---
D-85-2	306	316	<5	.5	---	---	---	---	---
D-85-2	316	326	<5	.8	---	---	---	---	---
D-85-2	326	336	<5	.9	---	---	---	---	---
D-85-2	336	346	<5	.4	---	---	---	---	---
D-85-21	286	296	<5	.2	---	---	---	---	---

BARRINGER MAGENTA

LINGVILLE
E, ONTARIO
M9W 5G2
(416) 675-38703750 - REET
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-9701FILE: 85-01315
DATE: 30/04/85
MATRIX: AG REG

WESTMIN RESOURCES (P. J. NICHOLLS)

WO NO: 85-01315

PAGE: 2

SAMPLE ID	FROM	TO	AU PPB	AG PPM	AU-FA GM/TON	AG-FA GM/TON	CU PPM	ZN PPM	PB PPM
D-85-21	296	306	<5	.4	---	---	---	---	---
D-85-21	306	316	<5	.3	---	---	---	---	---
D-85-21	316	326	<5	.6	---	---	---	---	---
D-85-21	326	336	<5	11.0	---	---	---	---	---
D-85-21	336	346A	<5	<.2	---	---	---	---	---
D-85-21	336	346B	<5	18.0	---	---	---	---	---
D-85-21	346	356A	<5	.2	---	---	---	---	---
D-85-21	346	356B	<5	3.8	---	---	---	---	---
D-85-21	356	366A	<5	<.2	---	---	---	---	---
D-85-21	356	366B	<5	1.7	---	---	---	---	---
D-85-21	366	376	<5	<.2	---	---	---	---	---
D-85-21	376	386	<5	<.2	---	---	---	---	---
D-85-21	386	396	<5	.4	---	---	---	---	---
D-85-21	396	406	<5	<.2	---	---	---	---	---
D-85-21	406	416	<5	<.2	---	---	---	---	---
D-85-21	416	426	<5	<.2	---	---	---	---	---
D-85-21	466	476	<5	<.2	---	---	---	---	---
D-85-21	476	486	<5	<.2	---	---	---	---	---
D-85-21	486	496	<5	<.2	---	---	---	---	---
D-85-21	496	506	<5	<.2	---	---	---	---	---
D-85-21	506	516	<5	.3	---	---	---	---	---
D-85-21	516	526	<5	<.2	---	---	---	---	---
D-85-21	526	536	<5	<.2	---	---	---	---	---
SLUDGE	--	--	<5	7.0	---	---	---	---	---

57

BAKING SULFATE MAGENTA

FORT MCMURRAY, ALBERTA
MOW RD2
(416) 675-3870SUITE 100
CALGARY, ALBERTA
T2E 8V2
(403) 276-9701LETTER: 01
MATRIX: AQ REG

WESTMIN RESOURCES (P. J. NICHOLLS) NO. NO: 85-0131 PAGE: 1

SAMPLE ID	AU PPM	AG PPM	AU-FA GM/TON	AG-FA GM/TON
TO-85-1-7119	<5	<.2	---	---
TO-85-1-7120	<5	<.2	---	---
TO-85-1-7121	<5	<.2	---	---
TO-85-1-7122	<5	<.2	---	---
TO-85-1-7123	<5	<.2	---	---
TO-85-1-7124	<5	<.2	---	---
TO-85-1-7125	<5	<.2	---	---
TO-85-1-7126	<5	<.2	---	---
TO-85-1-7127	<5	<.2	---	---
TO-85-1-7128	<5	<.2	---	---
TO-85-1-7129	<5	<.2	---	---
TO-85-1-7131	<5	<.2	---	---
R-84-4-7132	<5	<.2	---	---
B-84-4-7133	<5	<.2	---	---
B-84-4-7134	<5	<.2	---	---
R-84-4-7135	<5	<.2	---	---
R-84-4-7136	<5	<.2	---	---
R-84-4-7137	<5	<.2	---	---
B-84-4-7138	<5	<.2	---	---
B-84-4-7139	<5	<.2	---	---
R-84-4-7140	40	<.2	---	---
B-84-4-7141	150	<.2	---	---
R-84-4-7142	<5	<.2	---	---
B-84-4-7143	<5	<.2	---	---
R-84-4-7144	<5	<.2	---	---
R-84-4-7145	<5	<.2	---	---
R-84-4-7146	<5	<.2	---	---
R-84-4-7147	800	<.2	.07<TRACE<.3	<.3
R-84-4-7148	<5	<.2	---	---
R-84-4-7149	<5	<.2	---	---
R-84-4-7150	10	<.2	---	---
R-84-4-7151	10	<.2	---	---

APPENDIX 4

South Detour Humus Sampling 1986



Inter-Office Memorandum

Date: February 7, 1986. Copies to:

To: R. H. McMillan

From: C. J. Rockingham

Subject: SOUTH DETOUR HUMUS SAMPLING

Attached is a listing of the 167 humus samples collected in September 1985 on the South Detour Lake property. The samples are sorted by grid and line, Grid D1 is the main grid, and Grid R1V is the extension of the main grid along the Detour River. All of the samples are characterized by uniformly low values in gold < 3 ppb, silver < 0.2 ppm, arsenic 7.5 ppm maximum value, copper 31 ppm maximum value and molybdenum 4 ppm maximum value. Lead and zinc appear to be anomalously high overall by comparison with other surveys we have conducted in similar terrains. These results are plotted on the attached maps and show contourable patterns at 90 ppm Zn with an east west trend parallel to the strike of the rocks. Lead values tend to be isolated but high lead is usually coincident with elevated zinc values. The significance of these anomalies is uncertain although it is possible that they are defining the northern contact of the paraconglomerate unit.

A handwritten signature in black ink, appearing to read "C. J. Rockingham".

C. J. Rockingham.

CJR/hmc
Encls.

<u>Data Type</u>	<u>Columns</u>	<u>Legend</u>	<u>Example</u>
Sample No.	1-9	Col. 1 - Project (Letter) Col. 2-3 - Year (last two digits) Col. 4-5 - Sampler (two initials) Col. 6-9 - Sample number	DB4PN001
Sample Location	10-22	Col.10-12 - Grid designation (alpha or numeric) Col.13-22 - Grid coordinate	153 1125N 1550W
Survey Type	23	Reconnaissance - R Detail - D	
Geology	24-26		Geology legend
Rock Unit	24-25		
Certainty of Mapping	26	Defined (area of outcrop) - D Interpreted (near outcrop) - I Assumed - A	Granite - GR Gneiss - GN Felsic Volcanic - FV Mafic Volcanic - MV Ultra Mafic Vol. - UV Mafic Intrusive - MI Felsic Intrusive - FI Ultramafic Intrusive - UI Sedimentary Rocks - SD Iron Formation - IF
Description of Sample Site Landscape	27-31		
	27	Hill Top - H; Gentle Slope - G; Steep Slope - S; Inflection or Break-In Slope - I; Valley - V; Plateau or Plateau - P.	
Drainage	28	Dry Soil - D; Moist Soil - M; Saturated - S.	
Sample Depth	29-30	Sample Depth in cm, i.e. 32	
Environment	31	Wooded area with conifers - C; Wooded area with deciduous trees - D; Wooded area Mixed forest - M; Grassland - G; Alders - A; Swamp - S; Logged area - L.	

(Page 2)

<u>Data Type</u>	<u>Columns</u>	<u>Legend</u>	<u>Example</u>
Description of Sample Media	32-44		
Composition	32-36	Composition of sample estimated for content of Gravel (32), Sand (33), Silt (34), Clay (35), and Organics (36), ranked 1 to 9 must add to 10.	10% Gravel, 20% Sand, 30% Clay, 40% Organics, would be 12034
Colour	37-38		
Tone	37	Light - L; Medium - M; Dark - D; Mottled - S;	
Base	38	White - W; Grey - G; Black - BK; Brown - B; Yellow - Y; Orange - O; Red - R.	
Soil Horizon	39	Organic Layer - A; Intermediate Zone - B; Broken Bedrock - C	
Overburden and Soil Type	40	Till - T; Lake Deposit - L; Stream Deposit - S; Esker - E; Residual Soil - R; Peat - P; Talus Fines - F.	
Glacial Float	41-43		
Type	41-42	See Geology Legends	
Shape	43	Angular - A; Sub-Angular - B; Sub-rounded - S; Rounded - R.	
Contamination	44	Mn Precipitate - 1 Fe Precipitate - 2 Mine Dump - 3 Caliche - 4 Mill Tailings - 5 Old Camp Site - 6 Fuel Cache - 7 Others - 8	
Duplicate Status	45	Duplicate Sample Yes - Y No - N	

((If duplicate put original sample number in remarks)).

SAMPLE #	REFERENCE # (BARRINGER)	REPORT								T	GEOL SITE	MEDIA	DUPLICATE	
		Au PPB	Ag PPM	As PPM	Cu PPM	Zn PPM	Pb PPM	Mo PPM	LOA %					LOCATION
D85-CR-0005		3<	0.2<	1.6	8	62	16	1<	79.2	RIV-0500N-3900E D	SD-I	P-S-15-C	-00009-LB-A-	- -
D85-CR-0006		3<	0.2<	2.0	6	59	33	1<	96.7	RIV-0450N-4025E D	SD-I	P-S-15-C	-00009-LB-A-	- -
D85-CR-0007		3<	0.2<	2.9	7	81	57	1<	94.6	RIV-0462N-4025E D	SD-I	P-S-15-C	-00009-LB-A-	- -
D85-CR-0008		3<	0.2<	2.1	5	64	30	1<	97.5	RIV-0475N-4025E D	SD-I	P-S-15-C	-00009-LB-A-	- -
D85-CR-0009		3<	0.2<	1.2	4	69	54	1<	96.9	RIV-0487N-4025E D	SD-I	P-S-15-C	-00009-LB-A-	- -
D85-CR-0010		3<	0.2<	1.9	6	52	36	1<	94.7	RIV-0500N-4025E D	SD-I	P-S-15-C	-00009-LB-A-	- -
D85-CR-0011		3<	0.2<	2.3	7	53	58	1<	95.4	RIV-0375N-4150E D	SD-I	P-S-10-C	-00009-DB-A-	- -
D85-CR-0012		3<	0.2<	3.0	9	56	29	1<	85.2	RIV-0387N-4150E D	SD-I	P-S-10-C	-00009-DB-A-	- -
D85-CR-0013		3<	0.2<	3.3	6	61	70	1<	94.7	RIV-0400N-4150E D	SD-I	P-S-15-C	-00009-DB-A-	- -
D85-CR-0014		3<	0.2<	3.0	5	85	41	1<	94.0	RIV-0412N-4150E D	SD-I	P-S-10-C	-00009-DB-A-	- -
D85-CR-0015		3<	0.2<	3.0	5	101	46	1<	95.2	RIV-0425N-4150E D	SD-I	P-S-15-C	-00009-DB-A-	- -

BARRINGER MAGENTA

304 CARLINGVIEW DRIVE
REXDALE, ONTARIO
M9W 5G2
(416) 675-3870

3750 - 19TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 8V2
(403) 276-0701

FILE: TS-0644
DATE: 26/10/85
MATRIX: HUMUS

6.2153

WESTMIN RESOURCES	(R. MCMILLAN/C. ROCKINGHAM)		PROJ:	S.	DETOUR	WO NO: 85-0644X			GE: 1
SAMPLE ID	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	MO PPM	AS PPM	LOA %	
D85-CR-0001	7	72	64	<.2	<3	<1	3.7	92.7	
D85-CR-0002	7	100	33	<.2	<3	<1	2.1	94.9	
D85-CR-0003	10	66	35	<.2	<3	<1	3.7	72.0	
D85-CR-0004	10	66	22	<.2	<3	<1	1.6	85.6	
D85-CR-0005	8	62	16	<.2	<3	1	1.6	79.2	
D85-CR-0006	6	59	33	<.2	<3	<1	2.0	96.7	
D85-CR-0007	7	81	57	<.2	<3	<1	2.9	94.6	
D85-CR-0008	5	64	30	<.2	<3	<1	2.1	97.5	
D85-CR-0009	4	69	54	<.2	<3	<1	1.2	96.9	
D85-CR-0010	6	52	36	<.2	<3	<1	1.9	94.7	
D85-CR-0011	7	53	58	<.2	<3	<1	2.3	95.4	
D85-CR-0012	9	56	29	<.2	<3	<1	3.0	85.2	
D85-CR-0013	6	61	70	<.2	<3	<1	3.3	94.7	
D85-CR-0014	5	85	41	<.2	<3	<1	3.0	94.0	
D85-CR-0015	5	101	46	<.2	<3	<1	3.0	95.2	
D85-CR-0016	9	76	55	<.2	<3	<1	2.4	97.2	
D85-CR-0017	8	64	52	<.2	<3	<1	2.3	96.3	
D85-CR-0018	5	66	35	<.2	<3	<1	1.0	96.4	
D85-CR-0019	9	62	25	<.2	<3	<1	2.6	86.1	
D85-CR-0020	12	74	25	<.2	<3	1	1.7	84.9	
D85-CR-0021	10	52	29	<.2	<3	1	1.7	85.3	
D85-CR-0022	9	84	90	<.2	<3	<1	4.5	82.6	
D85-CR-0023	9	93	57	<.2	<3	<1	5.5	74.1	
D85-CR-0024	10	92	71	<.2	<3	<1	4.9	73.9	
D85-CR-0025	9	97	55	<.2	<3	<1	2.9	85.3	
D85-CR-0026	15	120	42	<.2	<3	1	4.5	81.5	
D85-CR-0027	17	67	17	<.2	<3	<1	.9	76.4	
D85-CR-0028	18	66	32	<.2	<3	<1	3.8	73.6	
D85-CR-0029	14	80	12	<.2	<3	<1	1.6	78.8	
D85-CR-0030	13	49	22	<.2	<3	<1	1.9	29.5	
D85-CR-0031	9	83	6	<.2	<3	<1	1.8	15.4	
D85-CR-0032	9	38	6	<.2	<3	<1	1.6	35.7	
D85-CR-0033	4	62	14	<.2	<3	<1	2.0	63.6	
D85-CR-0034	2	63	10	<.2	<3	<1	.7	95.4	
D85-CR-0035	6	89	26	<.2	<3	<1	3.0	91.0	
D85-CR-0036	7	79	4	<.2	<3	<1	1.2	90.2	
D85-CR-0037	7	90	10	<.2	<3	<1	1.8	89.7	
D85-CR-0038	6	55	14	<.2	<3	<1	2.4	92.7	
D85-CR-0039	16	65	16	<.2	<3	<1	3.0	38.3	
D85-CR-0040	8	92	28	<.2	<3	<1	3.2	90.3	
D85-CR-0041	4	105	20	<.2	<3	<1	2.2	97.2	
D85-CR-0042	10	67	81	<.2	<3	<1	3.2	40.7	
D85-CR-0043	31	105	13	<.2	<3	<1	2.3	42.2	
D85-CR-0044	10	47	14	<.2	<3	<1	3.2	13.9	
D85-CR-0045	13	80	7	<.2	<3	1	1.4	79.7	

BARRINGER MAGENTA

CARLIN DRIVE
REEDALE, ONTARIO
M9W 5G2
(416) 675-3870375 STRE
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-9701FILE: T5...
DATE: 26/10/85
MATRIX: HUMUS

WESTMIN RESOURCES (R. MCMILLAN/C. ROCKINGHAM) PROJ: WO NO: 85-0644X

PAGE: 2

SAMPLE ID	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	MO PPM	AS PPM	LOA %
D85-CR-0046	11	93	23	<.2	<3	<1	3.8	60.6
D85-CR-0047	22	98	25	<.2	<3	<1	3.2	45.0
D85-CR-0048	12	71	22	<.2	<3	<1	3.2	45.6
D85-CR-0049	6	48	12	<.2	<3	<1	2.3	91.8
D85-CR-0050	6	42	6	<.2	<3	<1	.9	91.8
D85-CR-0051	5	82	7	<.2	<3	<1	2.1	92.8
D85-CR-0052	8	57	19	<.2	<3	<1	3.3	79.9
D85-CR-0053	6	86	16	<.2	<3	<1	2.4	91.7
D85-CR-0054	23	82	13	<.2	<3	<1	1.6	75.9
D85-CR-0055	19	100	35	<.2	<3	<1	3.1	31.4
D85-CR-0056	11	110	16	<.2	<3	<1	1.3	33.4
D85-CR-0057	11	97	30	<.2	<3	<1	3.0	40.4
D85-CR-0058	5	23	7	<.2	<3	<1	.9	5.59
D85-CR-0059	23	68	14	<.2	<3	<1	3.0	4.51
D85-CR-0060	21	80	12	<.2	<3	<1	1.0	73.4
D85-CR-0061	21	71	19	<.2	<3	<1	2.1	65.2
D85-CR-0062	13	55	22	<.2	<3	<1	1.7	75.3
D85-CR-0063	9	100	67	<.2	<3	<1	3.8	96.0
D85-CR-0064	17	98	49	<.2	<3	<1	3.5	92.2
D85-CR-0065	5	90	1	<.2	<3	<1	.8	91.5
D85-CR-0066	5	70	9	<.2	<3	<1	1.1	94.0
D85-CR-0067	7	78	13	<.2	<3	<1	2.9	90.8
D85-CR-0068	9	78	3	<.2	<3	<1	2.5	87.1
D85-CR-0069	8	104	46	<.2	<3	<1	5.5	86.8
D85-CR-0070	12	64	6	<.2	<3	<1	.5	87.8
D85-CR-0071	16	77	17	<.2	<3	1	5.2	64.1
D85-CR-0072	17	97	17	<.2	<3	<1	3.7	76.5
D85-CR-0073	13	90	10	<.2	<3	<1	1.5	30.1
D85-CR-0074	11	93	28	<.2	<3	<1	3.9	68.4
D85-CR-0075	4	84	16	<.2	<3	<1	1.9	92.4
D85-CR-0076	5	61	6	<.2	<3	<1	3.4	88.0
D85-CR-0077	6	63	20	<.2	<3	<1	2.0	87.9
D85-CR-0078	10	82	33	<.2	<3	<1	4.5	90.3
D85-CR-0079	7	67	29	<.2	<3	<1	1.1	93.2
D85-CR-0080	21	94	22	<.2	<3	<1	4.0	64.9
D85-CR-0081	20	54	17	<.2	<3	<1	2.7	60.3
D85-CR-0082	10	96	39	<.2	<3	<1	2.8	72.1
D85-CR-0083	20	78	14	<.2	<3	<1	7.5	16.0
D85-CR-0084	25	105	28	<.2	<3	<1	3.1	27.2
D85-CR-0085	12	95	17	<.2	<3	<1	2.4	74.5
D85-CR-0086	10	70	26	<.2	<3	1	7.5	78.7
D85-CR-0087	24	110	22	<.2	<3	<1	3.1	36.9
D85-CR-0088	11	51	22	<.2	<3	<1	2.4	18.6
D85-CR-0089	8	35	48	<.2	<3	<1	1.7	48.1
D85-CR-0090	11	79	23	<.2	<3	<1	2.0	67.3

L9

CARLTON DRIVE
REXDALE, ONTARIO
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(416) 675-3870

37TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 8V2
(403) 276-9701

FILE: T5
DATE: 26/10/85
MATRIX: HUMUS

BARRINGER MAGENTA

WESTMIN RESOURCES	(R. MCMILLAN/C. ROCKINGHAM)		PROJ:			WD NO: 85-0644X	PAGE: 3	
SAMPLE ID	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	MO PPM	AS PPM	LOA %
D85-CR-0091	11	56	9	<.2	<3	<1	2.4	89.9
D85-CR-0092	6	61	3	<.2	<3	<1	6.9	83.9
D85-CR-0093	3	105	14	<.2	<3	<1	1.4	96.8
D85-CR-0094	11	63	1	<.2	<3	<1	1.1	89.1
D85-CR-0095	10	54	1	<.2	<3	<1	1.0	88.6
D85-CR-0096	5	104	30	<.2	<3	<1	2.5	96.9
D85-CR-0097	4	160	41	<.2	<3	<1	1.7	98.3
D85-CR-0098	4	92	10	<.2	<3	<4	1.1	92.6
D85-CR-0099	10	52	13	<.2	<3	<1	1.7	88.7
D85-CR-0100	14	59	14	<.2	<3	<1	1.5	80.2
D85-CR-0101	15	61	13	<.2	<3	<1	2.5	12.1
D85-CR-0102	15	83	26	<.2	<3	<1	2.4	33.9
D85-CR-0103	10	71	135	<.2	<3	<1	2.5	66.1
D85-CR-0104	---	---	---	<.2	<3	<1	---	---
D85-CR-0105	4	33	46	<.2	<3	<1	1.7	26.0
D85-CR-0106	4	12	32	<.2	<3	<1	1.7	4.01
D85-CR-0107	10	120	67	<.2	<3	<1	2.1	92.0
D85-CR-0108	9	68	78	<.2	<3	<1	1.6	58.9
D85-CR-0109	10	105	65	<.2	<3	<1	1.6	96.9
D85-CR-0110	11	105	119	<.2	<3	<1	2.7	95.0
D85-CR-0111	9	110	68	<.2	<3	<1	.9	96.3
D85-CR-0112	19	89	110	<.2	<3	<1	2.4	74.5
D85-CR-0113	9	130	115	<.2	<3	<1	2.1	96.0
D85-CR-0115	11	170	64	<.2	<3	<1	3.1	93.8
D85-CR-0116	11	100	97	<.2	<3	<1	3.0	92.1
D85-CR-0117	11	91	48	<.2	<3	<1	5.6	91.8
D85-CR-0118	12	120	78	<.2	<3	<1	3.2	89.8
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D85-CR-0120	8	57	38	<.2	<3	<1	2.9	75.0
D85-CR-0121	13	120	80	<.2	<3	<1	2.0	94.7
D85-CR-0122	13	93	125	<.2	<3	<1	1.4	95.9
D85-CR-0123	11	120	113	<.2	<3	<1	2.1	94.1
D85-CR-0124	8	66	33	<.2	<3	<1	1.2	40.7
D85-CR-0125	9	110	61	<.2	<3	<1	3.8	90.6
D85-CR-0126	5	20	43	<.2	<3	<1	1.5	18.6
D85-CR-0127	7	110	58	<.2	<3	<1	2.7	71.3
D85-CR-0128	5	48	33	<.2	<3	<1	2.3	40.7
D85-CR-0129	11	80	123	<.2	<3	<1	2.4	87.9
D85-CR-0130	13	73	38	<.2	<3	<1	3.4	94.8
D85-CR-0131	7	150	19	<.2	<3	<1	3.8	94.3
D85-CR-0132	7	104	17	<.2	<3	<1	2.5	94.4
D85-CR-0133	8	81	32	<.2	<3	<1	5.0	93.7
D85-CR-0134	9	79	28	<.2	<3	<1	2.7	83.7
D85-CR-0135	12	64	45	<.2	<3	<1	3.6	81.9
D85-CR-0136	11	76	35	<.2	<3	<1	1.7	69.7

BARRINGER MAGENTA

30 CARLINGVIEW DRIVE
RELDALE, ONTARIO
M9W 5G2
(416) 675-3670

375 10TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 8V2
(403) 278-9701

FILE# T5-0644
DATE 26/10/85
MATRIX HUMUS

WESTMIN RESOURCES	(R. MCMILLAN/C, ROCKINGHAM) PROJ:				WD NO# 85-0644X			
SAMPLE ID	CU FPM	ZN FPM	PB FPM	AG FPM	AU FPPB	MO FPPM	AS FPPM	LOA %
D85-CR-0137	10	82	23	<.2	<3	<1	3.7	89.0
D85-CR-0138	8	80	29	<.2	<3	<1	2.8	82.9
D85-CR-0139	11	86	36	<.2	<3	<1	4.7	92.5
D85-CR-0140	6	33	28	<.2	<3	<1	1.6	30.7
D85-CR-0141	11	105	59	<.2	<3	<1	3.8	91.4
D85-CR-0142	14	160	86	<.2	<3	<1	3.5	92.4
D85-CR-0143	14	62	25	<.2	<3	<1	3.3	44.6
D85-CR-0144	9	23	3	<.2	<3	<1	.9	28.8
D85-CR-0145	10	86	74	<.2	<3	<1	3.1	84.1
D85-CR-0146	2	16	1	<.2	<3	<1	.3	11.5
D85-CR-0147	7	81	39	<.2	<3	<1	2.4	91.7
D85-CR-0148	6	31	9	<.2	<3	<1	.7	58.7
D85-CR-0149	8	71	16	<.2	<3	<1	1.9	95.5
D85-CR-0150	5	40	13	<.2	<3	<1	1.3	70.6
D85-CR-0151	9	67	49	<.2	<3	<1	2.6	95.6
D85-CR-0152	6	27	14	<.2	<3	<1	1.5	40.9
D85-CR-0153	8	105	55	<.2	<3	<1	2.9	95.2
D85-CR-0154	8	74	54	<.2	<3	<1	2.1	62.9
D85-CR-0155	6	39	29	<.2	<3	<1	1.2	41.7
D85-CR-0156	3	25	7	<.2	<3	<1	.8	64.3
D85-CR-0157	8	82	38	<.2	<3	<1	3.1	94.9
D85-CR-0158	4	39	13	<.2	<3	<1	1.2	60.1
D85-CR-0159	2	11	3	<.2	<3	<1	.6	18.4
D85-CR-0160	8	67	26	<.2	<3	<1	2.1	95.9
D85-CR-0161	9	48	13	<.2	<3	<1	1.1	88.9
D85-CR-0162	6	69	23	<.2	<3	<1	1.5	97.3
D85-CR-0163	5	76	29	<.2	<3	<1	1.2	96.9
D85-CR-0164	8	34	17	<.2	<3	<1	.7	41.7
D85-CR-0165	19	24	7	<.2	<3	<1	1.4	15.4
D85-CR-0166	52	44	7	<.2	<3	<1	1.2	10.3
D85-CR-0167	17	57	17	<.2	<3	<1	1.7	58.3

PAGE: 4



32E13N E0022 63.4622 HOPPER LAKE

040

Westmin Resources Limited
Report on 1984 and 1985
Diamond Drill Programmes
Sunday Lake Claims
Detour Lake Gold Project, Ontario.

N.T.S. 32 E/13, L/4
Latitude 50° 00' N
Longitude 79° 35' W

Paul R. J. Nicholls, B.Sc., P.Eng.

February 1986.

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32E13NE0022 63.4622 HOPPER LAKE

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File: DDSUNREP	

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1.0 Summary and Conclusions:

Diamond drilling has shown that the Sunday Lake claims are underlain by stratigraphy similar to that at the Detour Lake Mine.

Thin basaltic komatiite horizons intersected near the bottom of Hole SL-84-5 are considered significant as they show that the ultramafic rocks intimately associated with the Detour Lake Mine are present on the Sunday Lake Claim Block. One sludge sample returned a value of 171 grams Ag from a cherty horizon immediately south of the komatiites. Core recovery from this section was less than 20 percent.

More drilling is required to test this zone as well as other targets on the property.

2.0 Recommendations:

The Sunday Lake claims cover geological units along strike from and similar to those at the Detour Lake Mine and should be more fully evaluated by diamond drilling.

To conduct this evaluation the following programme is recommended.

1) Two diamond drill holes 250 m deep on Line 11+00E, and 5+00E (1+40N) and 5+00E (1+40N) Az 180 dip -50 should test the conductor along strike from komatiitic rocks and anomalous Ag intersected in Hole SL-84-5.

2) A diamond drill hole 150 m deep on Line 32+00E at 3+00N Az 180 dip -50 should test the second discrete Max-Min II/I.P. anomaly.

3) The southern contact of the magnetic high should be tested by a 200 metre hole at Line 22+00E at 3+25N. This hole would test stratigraphy up-ice from an anomalous Au value (2635 ppb) obtained in the overburden drilling.

4) A fence of four 300 m holes should be completed north of the anomalous gold values obtained in overburden drill Hole DO-81-83. This series of holes should start at 13+00N on Line 56+00E or Line 52+00E (Az 180 -50) and test the magnetic high and weak Max-Min anomalies.

5) The discrete Max-Min conductor at Line 46+00E, 11+00N should be tested by a 200 metre drill hole.

6) An additional 150 metre hole should be wedged from SL-84-5 to intersect the komatiites and zone which returned the high Ag value. The hole will be extended to complete geologic section.

At the completion of this programme all of the claims in this block will be able to be taken to lease upon filing of the work and it is recommended that a perimeter survey covering the entire claim block be completed.

The cost of the programme including drilling (2,400 m), claim surveys, and supervision, overhead, assays, and report writing, etc., is estimated to be \$450,000.

3.0 Introduction:

Westmin Resources Limited initiated the Detour Lake Project in late 1979 to explore for a stratabound gold deposit similar to the Detour Lake Mine (Amoco-Campbell Red Lake). The properties acquired, including the Sunday Lake claims were projected to be underlain by stratigraphically equivalent rocks to those hosting the Detour Lake Mine on the basis of government aeromagnetic maps. This interpretation, has been refined by airborne and ground geophysical surveys, geologic mapping, overburden and diamond drilling completed between 1980 and 1984. Anomalous gold in basal till (up to 10,350 ppb Au) was found in three areas.

In December 1984, 474.7 metres of diamond drilling was completed in order to evaluate the westernmost anomaly and to gain geologic information. An additional 51.8 m was completed in February 1985. The following report deals with the 1984 and 1985 drilling programmes.

3.1 Location, Access and Topography:

The Sunday Lake claims are located in Northern Ontario (latitude 50 00'N, longitude 79 35'W, N.T.S. 32 L/4) approximately 140 kilometres north of the towns of Cochrane, Ontario and La Sarre, Quebec (Figure 1).

Access to the property is facilitated by an all-weather road from Cochrane to the Detour Lake Mine and by tractor road from the mine property.

Topographic relief on the property is generally less than 10 metres with much of the eastern part of the property covered by muskeg. The central portion of the property is traversed by two small rivers with drainage to the south. Mature forest of spruce and poplar cover the western part of the claim group.

3.2 Property Status:

The property consists of 78 claims (Figure 2) located in the Porcupine Mining District of Ontario (Claims Sheets M.3003 and M.2603). The 1984 drill program has given sufficient assessment credits to fulfill all assessment requirements for the claim group. The claims may be taken to lease in 1990-91 once they have been surveyed.

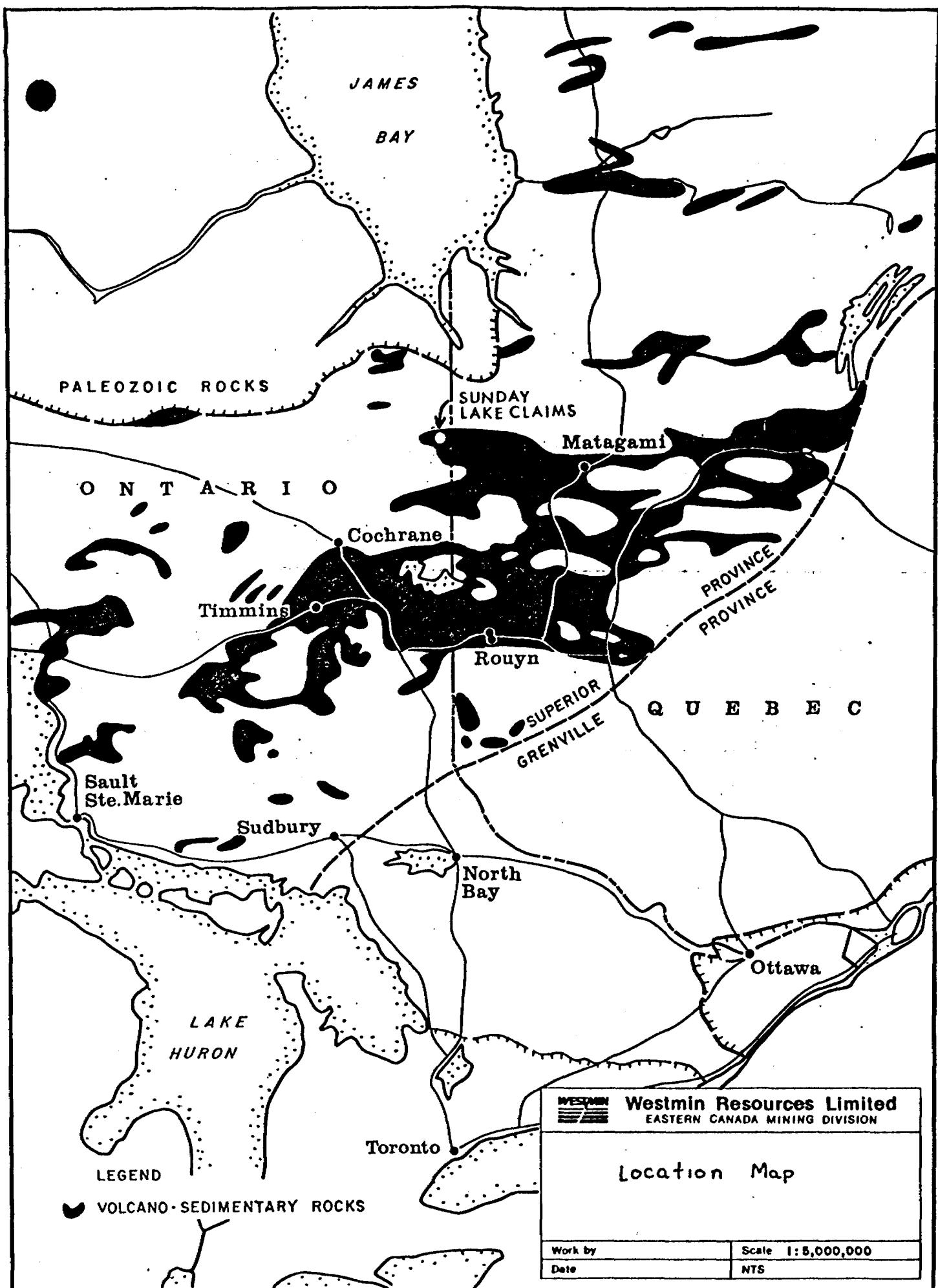
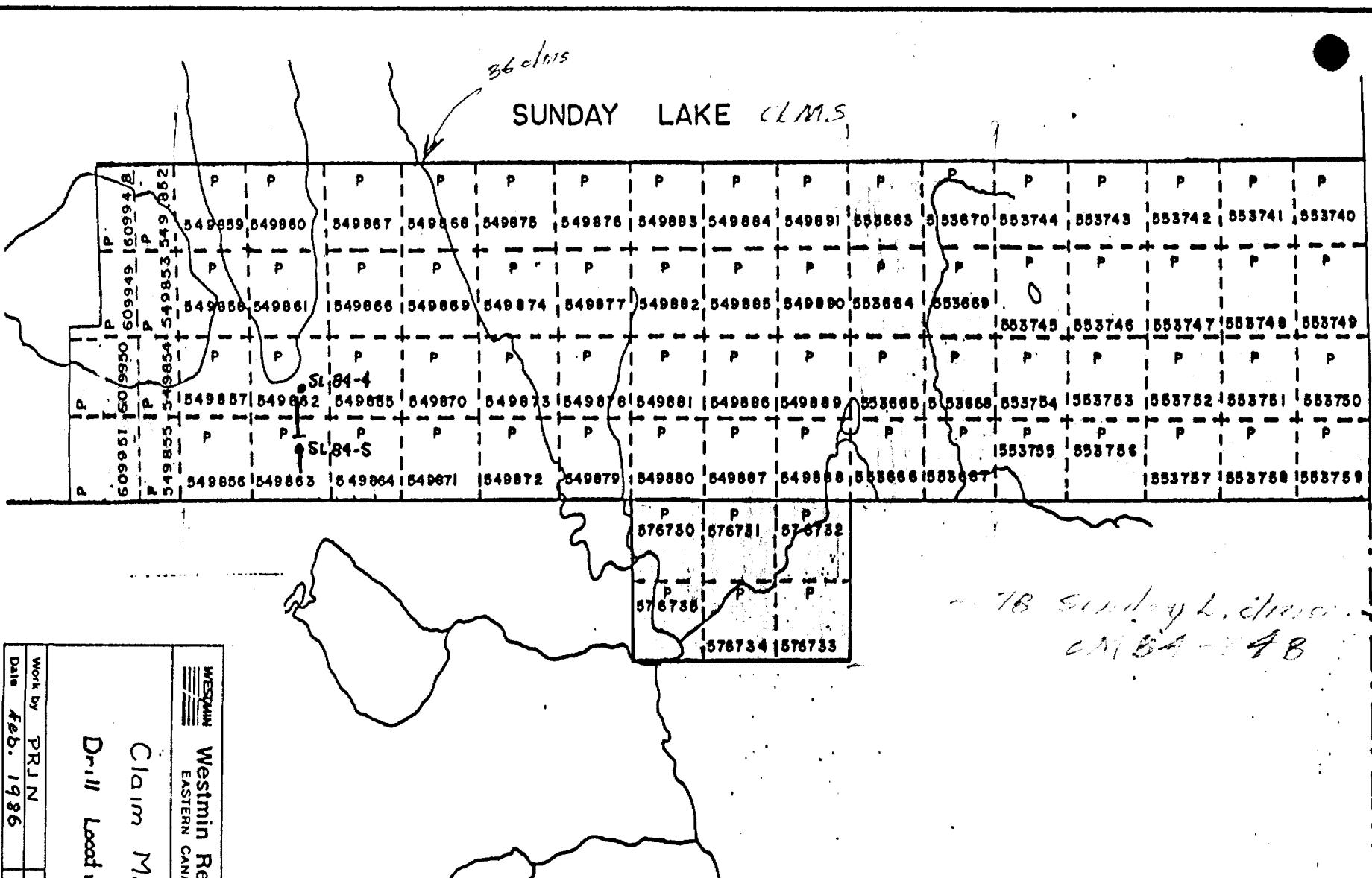


Figure 1

Table 1
Land Status

Claims	Anniversary Date	Assessment Days Filed	Extension To
P.553740-759 incl.	Jan. 4, 1986	200+	Jan. 2, 1987
P.553663-670 incl.	Jan. 4, 1986	200+	Jan. 2, 1987
P.549852-891 incl.	Jan. 4, 1986	200+	Jan. 2, 1987
P.576739-735 incl.	Dec.30, 1986	200+	
P.609948-951 incl.	Mar.20, 1987	200+	

Claims require legal survey to go to lease. All other assessment requirements have been fulfilled.



Work by	PRJN	Scale	1:31,680
Date	Feb. 1986	NTS	32-E-13, L-4

Claim Map

Drill Location

Figure 2

3.3 Previous Work:

Exploration conducted on the Sunday Lake claims prior to November 1984, is summarized below:

1) 1980: An airborne, magnetic and electromagnetic survey (Questor, 1980) located two four-channel anomalies on the south-eastern and south-central portions of the property. Geologic mapping in the area located no areas of outcrop.

2) 1981: A reverse circulation overburden drilling program consisting of 27 holes was conducted over the property to delineate any anomalous gold values in the till that were possibly related to an economic deposit and to aid in the definition of the bedrock stratigraphy. The program was successful in locating one strongly anomalous area on the eastern portion of the property (10,350 ppb Au in Hole SO-81-82) as well as several above background (900 - 1400 ppb Au) values and one anomalous (2,365 ppb Au) value on the western side of the property.

3) 1982: A program of line-cutting, ground magnetometer VLF-EM and Max-Min II surveys were conducted over the eastern portion of the property (Lines 42+00 to 64+00E) in the vicinity of the anomalous Au value (10,350 ppb Au) and INUT conductor. Several conductors were defined by the ground geophysics. Three diamond drill holes tested the strongest conductors and intersected graphitic zones associated with felsic volcanic and sedimentary rocks (Rockingham, 1982) that are stratigraphically below the mafic volcanics that host the Detour Lake Mine.

4) 1983: The program consisted of line-cutting, ground magnetometer, and VLF-EM, to extend geophysical coverage to most of the property area. Numerous VLF-EM conductors were located and an easterly trending magnetic high was traced across the property.

5) February-May 1984: The program consisted of line-cutting (10 kilometres) on the northeastern portion of the property (Lines 42+00E to 64+00E, 0+00N to 15+00N), VLF-EM (15 km), magnetometer survey (24 km), a Max-Min II survey coverage over most of the claim group and an induced polarization survey of selected lines (22 km) was completed.

3.4 1984-85 Drill Programme:

In December 1984 and February 1985, two BQ diamond drill holes (totalling 526.5 metres) were completed on the Sunday Lake property (Figure 3). Sludge samples were collected at intervals of 3.05 m or 6.1 metres. The core was logged with respect to lithology, structure and mineralization. All core and sludge samples were sent to Barringer Magenta (Toronto) to be analysed for Au and Ag.

4.0 Geology:

4.1 Regional Geology

The Detour Project Area is located in the northern part of the Archean Abitibi greenstone belt of the Superior Structural Province. This part of the greenstone belt is folded into a major east-west striking anticline. The core of the anticline is a thick sequence of turbiditic wackes. The northern limb of the anticline is composed primarily of basalts with two known sub-volcanic intrusives. While the southern limb appears to be more complex with two major volcanic units and minor units of volcanic conglomerate, graphitic sediments, and ultramafic rocks.

The Detour Lake Mine and the Sunday Lake claims are located on the northern limb of the anticline. Extensive drilling in the mine area has defined the volcanic stratigraphy of the northern limb (Jackson, 1980).

Arkosic sediments and felsic volcanics represent the basal sequence and are overlain by mafic tuffaceous rocks and minor sediments (300 metres). The mafic tuffs are overlain by a sequence of variolitic mafic volcanics (90 metres) and a second horizon of mafic tuffs (30 metres). A thin layer (3 - 90 metres) of ultramafic flows and tuffs overlies the mafic tuffs and is in turn overlain by a thin continuous cherty tuff horizon. The uppermost unit is a thick sequence of basalts. The Au deposit is centred on the cherty tuff horizon.

5.0 Diamond Drilling:

In December 1984 and February 1985 two diamond drill holes (SL84-4 and 5) totalling 526.5 metres were completed on the Sunday Lake claims. The purpose of the drill holes (Figure 4) was to test the following:

- 1) A weak to moderate conductor (L8+00E, 0+10N) with magnetic correlation that was defined by Max-Min II and Induced Polarization surveys.
- 2) A weak Induced Polarization chargeability anomaly (L8+00E, 3+75N).
- 3) The strong magnetic high that trends across the property.
- 4) The volcanic stratigraphy up ice from slightly anomalous basal till samples obtained in the 1981 overburden drill program in order to gain geologic information and possibly intersect an auriferous horizon with no geophysical signature (i.e. non-conductive).

5.1 Results

5.1.1 Geology:

The two drill holes (Figures 3 and 4) completed the southern portion of a fence of holes recommended in May 1984 (Rockingham and Nicholls) and intersected lithologies ranging from mafic volcanic flows in the north to basaltic komatiites, and felsic and mafic tuffs in the south (Table 2, Appendix 1 - drill logs).

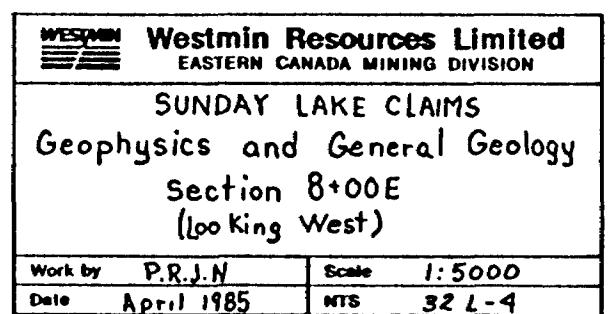
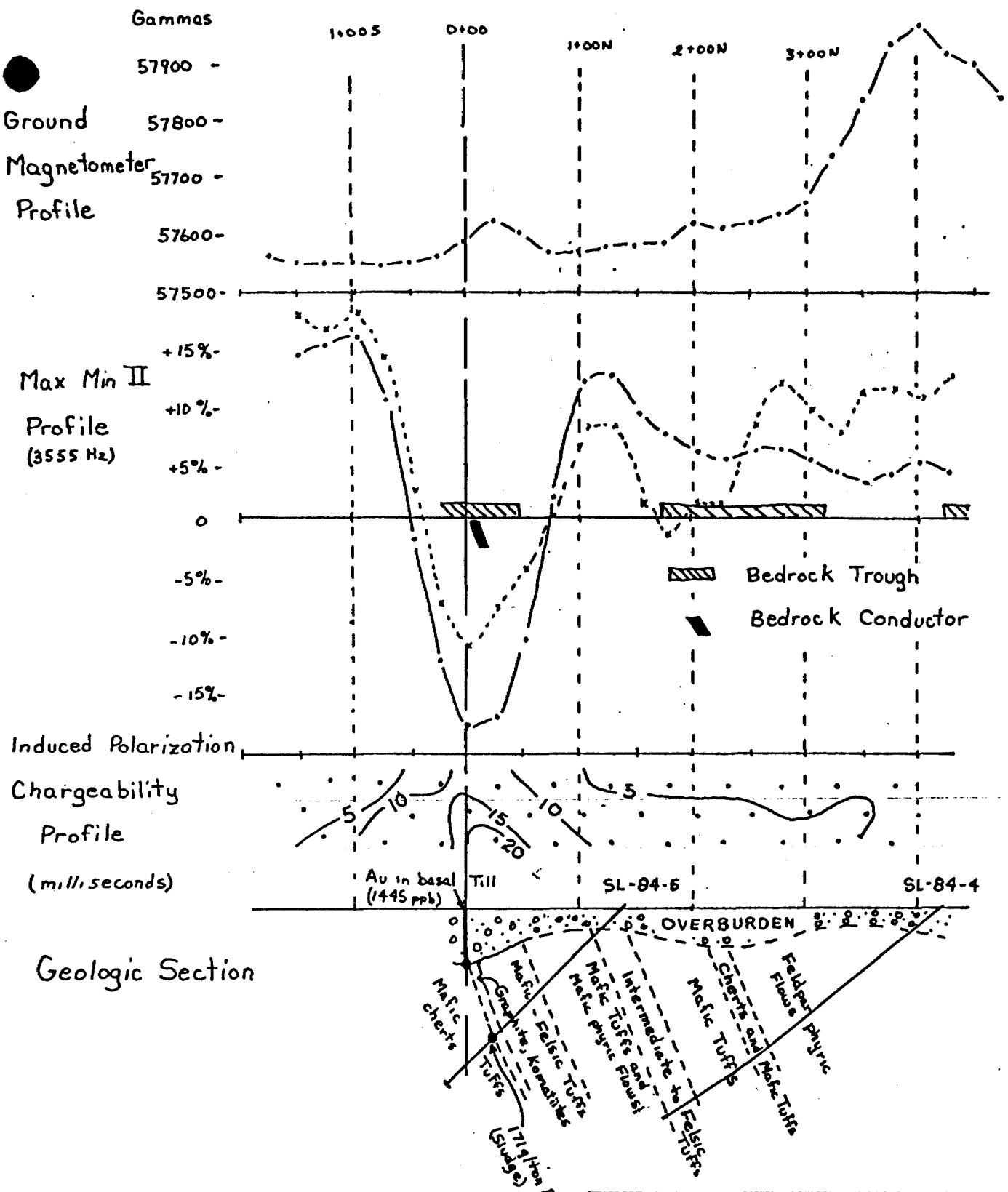


Table 2 - Summary of Lithologies
1984-1985 Drilling

Hole No.	Metreage From	To	Lithology and Comments
SL-84-4	0	25.6	Overburden with some boulders.
	25.6	165.2	Mafic volcanic flows, massive to pillowied, feldspar phryic, pyrite cubes, minor interflow sediment.
	165.2	169.75	Intermediate to felsic volcanic tuffs and feldspar porphyry. Porphyry is brecciated with minor pyrite and chlorite in veins.
	169.75	196.7	Mixed mafic flows and tuffs.
	196.7	213.1	Mafic tuffs with three thin cherty horizons. Chert horizons can contain up to 2% pyrrhotite.
	213.1	268.3	Mafic tuffs banded chloritic, minor biotite sections. Pyrrhotite rich chert horizon at 266.3 - 266.6 m.
	268.3	304.87	Felsic crystal tuff and feldspar porphyry with minor mafic tuffs.
		304.87	End of hole.
	0	21.34	Overburden.
	21.34	36.0	Felsic crystal tuff. Similar to that in bottom of SL-84-4.
SL-84-5	36.0	47.25	Mafic tuff - fragments up to 0.3 x 1.0 cm.
	47.25	47.95	Mafic flow - calcite filled amygdales.
	47.95	87.9	Massive mafic volcanic - mottled rock with fine-grained matrix dark green elongate to oval shaped masses - fine grained banded tuff horizons present. May be similar to above fragmental or possibly coarse flow.
	87.9	101.9	Banded mafic tuff finely laminated. Crystal tuffs and porphyries contain blue quartz eyes.
	101.9	161.8	Mixed sequence of banded mafic tuffs, felsic crystal tuffs, and feldspar porphyries.
	161.8	168.6	Graphitic tuffs (pyrrhotite).
	168.6	169.9	Basaltic komatiite.
	169.9	172.8	40-50 percent calcite in matrix.
	172.8	175.9	Mafic tuff. Well foliated with minor arsenopyrite.
	175.9	176.9	Chert (?). Only 18 percent core recovery. 171 /t Ag from sludge. Carbonated komatiite. Similar to above.
	176.9	221.6	Mafic tuffs with chert horizon. Well foliated to fragmental mafic rocks.

Stratigraphic tops indicators generally indicate that the stratigraphy faces north although one indicator in SL-84-5 gave a contradictory facing direction. Measured core angles and dip of conductor indicate that the rocks dip to the north at approximately 70 degrees. This correlates with stratigraphic interpretations put forward for the Detour Mine Area (Johns, 1982, Jackson, 1976).

The Sunday Lake property appears to be at the same general stratigraphic position as the Detour Lake mine which is marked by a transition from predominantly tuffaceous rocks overlain by massive to pillow mafic flows.

Whole rock geochemistry (Figure 5) has identified a basaltic komatiite horizon near the bottom of SL-84-5. The komatiitic rocks are carbonated and are associated with graphitic tuffs and felsic rocks. One felsic unit immediately below the komatiites gave very poor core recovery and returned a highly anomalous Ag value from a sample (171 g/t).

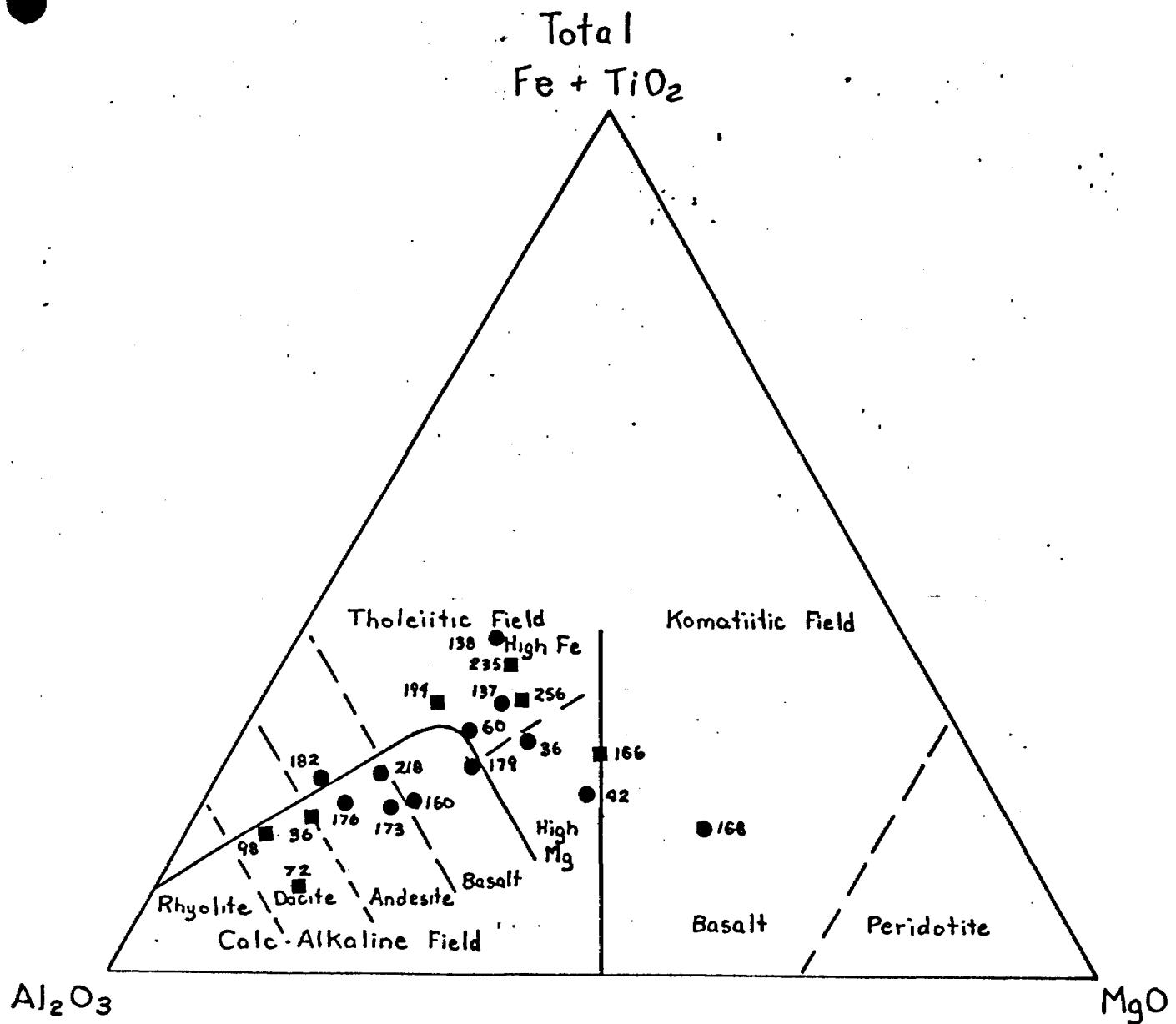
5.1.2 Geochemistry:

In general the geochemical results from sludge and core samples were discouraging. However a significant value for Ag (171 g/t) in a sludge sample was obtained from 169.8 m to 172.9 m in Hole SL-84-5. This value coincides with a section where only 20 percent of the core was recovered.

Respectfully submitted:

Paul R.J. Nicholls
Paul R. J. Nicholls, P.Eng.





Legend

Sample Location

Hole Number	Depth(m)
SL-84-5	●
SL-84-4	■

 Westmin Resources Limited EASTERN CANADA MINING DIVISION	
Sunday Lake Claims	
Cation Plot	
Work by	PRJN
Date	Scale
	NTS

Selected Bibliography

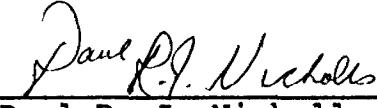
- Jackson, A., 1980: Discovery - Case History of the Detour Lake Gold Deposit. Paper presented at the 1980 CIM Toronto.
- Johns, G.W., 1982: Geology of the Burntbush-Detour Lake Area, District of Cochrane, Ontario. Geological Survey Report 199, 82 p. accompanied by Map 2453, Scale: 1:100,000.
- Nicholls, P.R.J. 1983: Summary of Exploration for Sunday Lake Claims, Detour Lake Gold Project, Ontario. Westmin Resources Limited Private Report.
- Nicholls, P.R.J. 1984: Summary of 1983 Exploration for Sunday Lake Claims, Detour Lake Gold Project, Ontario. Westmin Resources Limited Private Report.
- Rockingham, C.J. and McMillan, R.H., 1979: Detour Project: A Proposal to Acquire a Land Position in a New Gold Mining Camp. Westmin Resources Limited Private Report.
- Rockingham, C.J. 1980: A Report on the Detour Gold Project Northeastern Ontario, N.T.S. 32 E/13, L/4. Westmin Resources Limited Private Report.
- Rockingham, C.J. 1981: A Progress Report on the Detour Gold Project, Northeastern Ontario, N.T.S. 32 E/13, L/4. Westmin Resources Limited Private Report.
- Rockingham, C.J. and Nicholls, P.R.J. 1984: Summary of 1984 Geophysical Surveys for the Sunday Lake Claims, Detour Lake Gold Project, Ontario.
- Questor, 1980: Airborne Electromagnetic Survey Detour Lake Area Project 22006. Westmin Resources Limited Private Report.

Certification

I, Paul R. J. Nicholls, of 40 Albert Street, South, Box 1605, Stouffville, Ontario, LOH 1LO, certify the following:

- 1) I have practised my profession for ten years.
- 2) I hold an Honours B.Sc., in Geological Engineering obtained from Queen's University, Kingston, Ontario, in 1976.
- 3) I am a Registered Professional Engineer in the Province of Ontario.
- 4) I am a member of the Canadian Institute of Mining and Metallurgy and Geological Association of Canada.
- 5) I have conducted work and reviewed all data presented.
- 6) I have no financial interests in the property covered by this report.

February 1986.


Paul R. J. Nicholls, P.Eng.



Appendix 1

Drill Logs

PROPERTY SUNDAY LAKE

PAGE 1

LOCATION 8+00E 4+23N BEARING 180° HOLE NO. SL84-4
 LOGGED BY P. Nicholls ELEVATION _____ DIP -45° FINAL DEPTH 304.87m
 STARTED December 4, 1984 TESTS (CORRECTED) Acid Tests
 FINISHED December 10, 1984 30.5m - 42°
 CASING _____ 46.4m - 38°
 CORE SIZE BQ 122.0m - 37°
 213.0m - 37°
 304.8m - 33°

FROM ft	TO m	DESCRIPTION
0	25.6	Overburden
25.6	27.43	Bedrock - triconed - no core recovered
27.43	165.2	Mafic Volcanic Flows (with minor interflow and tuffaceous horizons) <ul style="list-style-type: none"> - predominantly dark grey green, medium grained basalts containing feldspar irregular to rounded masses up to 1mm (may be gabbroic in part) - calcite filled amydules locally present (45-50m) - generally appears massive but pillowled between 130m-150m - Interflow and tuffaceous horizons were observed at <ul style="list-style-type: none"> 27.43- 27.8 - intermediate to mafic composition, sharp contact with flow @ 60° to core axis 37.0 - 37.5 - fine grained mafic tuff with epidote in a vein 42.25m - thin band of epidotized interflow sediment @ 45° to core axis 41.4 - 42.25- mafic tuff with minor disseminated pyrite 51.7m - 10cm band with bedding @ 70° to core axis 63.1 - 64.7 - intermediate composition with pyrite as disseminations and thin (1mm) layers, bedding @ 70° to core axis 75.2 - 75.4 - intermediate to mafic 77.65- 77.8 - interflow sediments - carbonate 80.45- 80.9 - calcite along bedding

HOLE NO.

PROPERTY SUNDAY LAKE

PAGE 2

LOCATION 8+00E 4+23N BEARING 180° HOLE NO. SL84-4
 LOGGED BY P. Nicholls ELEVATION DIP -45° FINAL DEPTH 304.87m
 STARTED December 4, 1984 TESTS (CORRECTED) Acid Tests
 FINISHED December 10, 1984
 CASING
 CORE SIZE BQ

FROM M	TO M	DESCRIPTION
27.43	165.2	<p>Mafic Volcanic Flows (Continued)</p> <p>121.1 - 124.7 - silica rich section almost cherty - brecciated - disseminated pyrite or pyrite as thin bands</p> <p>159.1 - 159.5 - mafic sediment - calcite along bedding @ 70° to core axis, minor pyrite</p> <ul style="list-style-type: none"> - <u>Fractures and Veining:</u> - Calcite filled fractures common throughout section - Quartz-calcite-hematite filled fractures observed at 29.7-30.0m, 33.1-33.56m, 33.9-34.9m, 37.9-38.1m. Various orientations - may be a late fracture system - Quartz + calcite, chlorite veins at 39.22m <ul style="list-style-type: none"> - 1cm, quartz vein @ 55° to core axis 45.50m - minor quartz veining 55.3 - 56.85 - barren white quartz veins 70° to core axis 63.9 - 64.1 - barren quartz calcite veins 74.28 - 74.48 - quartz calcite veins parallel to core axis, minor pyrite 77.35 - 77.6 - quartz, calcite, chlorite vein 85.6 - 85.9 - quartz, calcite veins 155.6 - 156.0 - vuggy quartz calcite veins up to 1.5cm with minor disseminated pyrite
165.2	167.25	<p>Intermediate Tuff - medium green fined grained laminated to massive tuff - laminations at 60-70° to core axis - small fragments are locally visible (1mm x 4mm)</p> <ul style="list-style-type: none"> - graded beds and small scours indicate tops up the hole - carbonate veins common (calcite)

PROPERTY SUNDAY LAKE

PAGE 3

LOCATION 8+00E 4+23N BEARING 180° HOLE NO. SL84-4
 LOGGED BY P. Nicholls ELEVATION _____ DIP -45° FINAL DEPTH 304.87m
 STARTED December 4, 1984 TESTS (CORRECTED) Acid Tests
 FINISHED December 10, 1984
 CASING _____
 CORE SIZE BQ

FROM m	TO m	DESCRIPTION
167.25	169.75	Feldspar Porphyry - intermediate composition light to medium green grey colour, generally fine grained - in part looks tuffaceous - feldspars irregular (1mm) - pyrite in quartz chlorite stringers 168.86-169.3
169.75	172.7	Mafic Tuff - medium to dark grey green laminated to brecciated in appearance laminations at 70° to core axis
171.1	171.6	Diabase - fine grained medium to dark grey intrusive - sharp contacts with surrounding rocks
172.7	196.7	Mixed Mafic Flows and Tuffs (+Diabase) <ul style="list-style-type: none"> - Flow units are similar to above with feldspars may be finer grained - tuffs are generally fine grained and may be laminated @ 70° to core axis - Flow units observed - 172.7-173.8, 175.1-175.8, 180.9-181.4, 188.4-196.7 - Tuff units 173.8-175.1, 175.8-180.9 (fragments up to lcm thick not well laminated - chaotic with pyrrhotite at 177.2 (lcm) and 180.7), 181.4-188.4 (tuff or brecciated flow unit with numerous calcite veins (minor quartz) @ 60-80° to core axis, pyrrhotite occurs in thin bands in section) - Diabase 178.95-179.85 - possible sill contacts at 70-80° to core axis - light to medium grey colour fine grained - irregular contacts
196.7	197.45	Cherty Horizon - dark grey fine grained massive cherty (silica rich) horizon - has a brecciated appearance with minor pyrite - tuffaceous horizon at upper and lower contacts have attitude of 65° to core axis. <ul style="list-style-type: none"> - quartz calcite vein (lcm) observed at 197.15m

PROPERTY SUNDAY LAKE

PAGE 4

LOCATION 8+00E 4+23N BEARING 180° HOLE NO. SL84-4
 LOGGED BY P. Nicholls ELEVATION DIP -45° FINAL DEPTH 304.87m
 STARTED December 4, 1984 TESTS (CORRECTED)
 FINISHED December 10, 1984
 CASING
 CORE SIZE BQ TESTS (CORRECTED)
30.5m - 42°
46.4m - 38°
122.0m - 37°
213.0m - 37°
304.8m - 33°

FROM M	TO M	DESCRIPTION
197.45	198.75	Tuff - fine grained laminated mafic tuff.
198.75	199.65	Diabase - fine grained medium grey rock with flakes of biotite visible locally discordant contacts
199.65	202.4	Mafic Tuffs - fine grained medium green locally banded @ 80° to core axis
202.4	203.9	Cherty Horizon - dark grey fine grained siliceous and massive. Po up to 1% in section and occurs in fine fractures at various attitudes.
203.9	212.7	Mixed Mafic Flows and Tuffs - generally fine grained, dark green massive rock with some laminated sections - calcite filled fractures common - brecciated section with quartz, calcite and chlorite veins with minor pyrrhotite 206.4-206.65 - biotite rich section (10%) @ 204.6-206m
212.7	213.2	Cherty Horizon - similar to above with only minor pyrrhotite
213.2	268.3	Mafic Tuffs - generally fine grained medium green laminated to massive mafic tuffs, laminations at 70° to core axis - graded beds indicate tops up the hole - minor fragmental sections (258-266.15) - biotite rich bands are locally present. Minor pyrite and pyrrhotite in section. - Flow units observed at 251.8-254.1 (feldspars up to 1mm), 236-239.4, 243-246 (fine grained) - Diabase Dykes - 224.65-225.3, 226.6-227.2, 227.75-229 - calcite veins common - Cherty horizon - well laminated, fine grained 266.3-266.6 light grey to brown grey chert - laminations @ 75° to core axis - 1.5cm band of pyrrhotite at 266.45, pyrrhotite also occurs as fine laminations.

PROPERTY SUNDAY LAKE

PAGE 5

LOCATION 8+00E 4+23N BEARING 180° HOLE NO. SL84-4
 LOGGED BY P. Nicholls ELEVATION _____ DIP -45° FINAL DEPTH 304.87m
 STARTED December 4, 1985 TESTS (CORRECTED) _____
 FINISHED December 10, 1984 30.5m - 42°
46.4m - 38°
122.0m - 37°
213.0m - 37°
304.8m - 33°
 CASING _____
 CORE SIZE BQ

FROM M	TO M	DESCRIPTION
268.3	276.5	Feldspar Porphyry - fine grained medium grey rock with feldspar phenocrysts up to 1mm, feldspars generally irregular but do show rectangular cross sections and may comprise up to 20% of the rock - quartz "eyes" may also be present - upper and lower contacts appear gradational.
276.5	303.76	Intermediate Tuff - light to medium grey green fine grained tuff, sections can contain 5-10% feldspars similar to above - chlorite rich sections (banded) are common. Quartz veins with calcite in sections 280.15-280.4, 285.9-286, 294.1, 294.15
303.76	304.5	Mafic Tuff - fine grained dark green tuff
304.5	304.87	Intermediate Tuff - fine grained lighter green
304.87		END OF HOLE

HOLE NO.

PROPERTY SUNDAY LAKE

PAGE 1

LOCATION L8+00E 1+40N BEARING 180° HOLE NO. SL-84-5

LOGGED BY P. Nicholls ELEVATION DIP -45° FINAL DEPTH 169.80 m

STARTED December 14, 1984 TESTS (CORRECTED)

FINISHED December 16, 1984

CASING

CORE SIZE

FROM m	TO m	DESCRIPTION
0	21.34	Overburden
21.34	21.95	Bedrock - triconed no core recovered
21.95	36.00	Intermediate to Felsic Tuff - fine grained grey tuff, 5-10% feldspar crystals with subhedral to irregular shapes rock generally banded with bands oriented at 65-70° to core axis. - barren white quartz veins generally /cm at 22.4, 23.9, 26.22, 27.12, 28.4, 30.6 - quartz chlorite veins with minor pyrrhotite at 35.67 - 36.0
36.00	47.25	Mafic Tuff - light to medium green rock with darker green fragments. - fragments are generally more mafic and range up to 0.3 x 1 cm in size. - some small sections are well laminated with bands at 65-70° to core axis.
47.25	47.95	Mafic Flow - dark green massive basalt, generally fine grained with rounded feldspars up to 6 mm in size (amydules).
47.95	87.9	Massive Mafic Tuff or Flow - medium green coloured matrix hosting dark green mafic fragments or stretched crystals - mottled appearances - matrix generally fine grained with fragments? - generally 2mm x 5mm - fragments? are mainly elongate but some have an oval appearance - matrix supported 47.95 - 51.7 fragments comprise 20% of rock, minor laminated sections with banding at 65-70° to core axis

HOLE NO.

PROPERTY SUNDAY LAKE

PAGE 2

LOCATION L8+00E 1+40N BEARING 180° HOLE NO. SL-84-5
 LOGGED BY P. Nicholls ELEVATION _____ DIP -45° FINAL DEPTH 169.80 m
 STARTED December 14, 1984 TESTS (CORRECTED) _____
 FINISHED December 16, 1984
 CASING _____
 CORE SIZE _____

FROM	TO	DESCRIPTION
47.95	87.9	<p>51.7 - 81.4 fragments comprise up to 50% of rock.</p> <ul style="list-style-type: none"> - thin felsic bands at 56.1 (chert, <3cm) 74.8 (5mm @ 70° to core axis) - quartz veins at 55.5 (1cm, minor sulphides), 71.1 - 71.3, 71.95 (3mm) 72.4, 80.95 (1cm), 74.7 - fine grained mafic tuff with no fragments, 69.4 - 69.7 banded at 70° to core axis. <p>81.4 - 87.9 mafic tuff with 20 - 30% fragments.</p>
87.9	101.9	<p>Banded Mafic Tuffs - fine grained med-dark green tuffs banded to massive with banding at 65-70° to core axis - thin bands of felsic volcanic</p> <ul style="list-style-type: none"> - Intermediate to felsic crystal tuff 90.64 - 91.25 m - laminated fine grained grey rock with 5 - 10% feldspar crystals - Intermediate to felsic laminated tuff 92.05 - 94.10 m - grey-white laminated fine grained rock with bands oriented at 60 - 70° to core axis - Pyritic Mafic Tuff - banded medium (94.45 - 95.5) to dark green tuff - pyrite occurs as fine laminations biotite rich layers present - Hematite found along joint planes oriented @ 30° to core axis. - Pyrite cubes disseminated in section 99.2 - 101.1

PROPERTY SUNDAY LAKE

PAGE 3

LOCATION L8+00E 1+40N BEARING 180° HOLE NO. SL-84-5
 LOGGED BY P. Nicholls ELEVATION _____ DIP -45° FINAL DEPTH 169.80 m
 STARTED December 14, 1984 TESTS (CORRECTED) _____
 FINISHED December 16, 1984
 CASING _____
 CORE SIZE _____

FROM m	TO m	DESCRIPTION
101.9	109.9	Intermediate to felsic crystal tuff <ul style="list-style-type: none"> - fine grained grey siliceous rock with 10 - 15% feldspar crystals (<1mm) - blue quartz eyes (<1mm) - generally banded @ 65 - 70° to core axis
109.9	111.7	Banded Mafic Tuff - fine grained dark green banded tuff 109-111.1 - chaotic banding, folds soft sedimentary deformation <ul style="list-style-type: none"> - pyritic and biotite rich (up to 10 - 15%)
111.7	116.3	Intermediate to Felsic Crystal Tuff <ul style="list-style-type: none"> - fine grained grey crystal tuff with feldspar crystal tuff with feldspar crystals and blue quartz eyes - disseminated pyrite and quartz veining in section 115.7 - 116.3
116.3	119.5	Banded Mafic Tuffs <ul style="list-style-type: none"> - fine grained medium to dark green mafic tuff - banded at 60 - 70° to core axis
119.5	130.1	Feldspar Porphyry - fined grained grey rock with feldspars up to 2mm <ul style="list-style-type: none"> - feldspars are subhedral to irregular in shape - minor mafic tuffs layers - contacts are irregular and discordant (probable intrusive)

HOLE NO.

PROPERTY SUNDAY LAKE

PAGE 4

LOCATION L8+00E 1+40N BEARING 180° HOLE NO. SL-84-5

LOGGED BY P. Nicholls ELEVATION DIP -45° FINAL DEPTH 169.80 m

STARTED December 14, 1984 TESTS (CORRECTED)

FINISHED December 16, 1984

CASING

CORE SIZE

FROM m	TO m	DESCRIPTION
130.1	137.5	Mafic Tuff - fine grained medium green rock with some dark green fragments - generally massive (may be in part a flow unit)
137.5	145.4	Banded Mafic Tuff - dark green banded tuff - fine grained with banding at $60 - 70^{\circ}$ to core axis 137.5 - 140.7 - pyrite cubes up to 3mm are scattered through section 144.9 - 145.4 - pyrite as bands up to 2mm and in quartz vein oriented at 45° to core axis
145.4	148.4	Intermediate to felsic laminated tuff - fine grained grey with bands at 60° to core axis 145.65 - 145.80 - pyrrhotite in fractures and veins (5%)
148.8	157.0	Feldspar Porphyry - fined grained grey rock with subhedral feldspar crystals up to 2mm - discordant contacts at top and bottom
157.0	160.7	Intermediate to felsic tuff - fine grained grey massive to banded with banding at $60 - 70^{\circ}$ to core axis 157.4 - 157.6 - pyrite
160.7	161.8	Intermediate to Felsic Tuff - fine grained massive dark grey possibly graphitic.
161.8	162.3	Massive Graphite - black

HOLE NO.

PROPERTY SUNDAY LAKE

PAGE 5

LOCATION L8+00E 1+40N BEARING 180° HOLE NO. SL-84-5

LOGGED BY P. Nicholls ELEVATION DIP -45° FINAL DEPTH 169.80 m

STARTED December 14, 1984 TESTS (CORRECTED)

FINISHED December 16, 1984

CASING

CORE SIZE

FROM m	TO m	DESCRIPTION
162.3	168.3	<p>Intermediate to Felsic Tuff</p> <ul style="list-style-type: none"> - fine grained grey - Massive graphitic horizons at 162.9 - 162.95, and 163.3 - Pyrrhotite and pyrite in veins and fractures (up to 10%) with graphite at 163.3 - 163.5 - Brecciated rock with abundant quartz veining 164 - 165.2
168.3	168.6	Massive Graphite
168.6	169.8	Basaltic Komatiite - fine to medium grained massive light brown rock - granular appearance - heavily carbonated (calcite)
169.8		END OF HOLE

PROPERTY SUNDAY LAKE

PAGE 1

LOCATION 8+00E 1+40N BEARING 180° HOLE NO. SL-84-5
 (ext)

LOGGED BY P. Nicholls ELEVATION _____ DIP -45° FINAL DEPTH 221.6

STARTED February 14, 1985 TESTS (CORRECTED) _____

FINISHED February 15, 1985

CASING 21.95m

CORE SIZE BQ

FROM M	TO M	DESCRIPTION
169.8	169.9	Carbonated Basaltic Komatiite - massive - light to medium grey - green rock - granular appearance - heavily carbonated - medium grained
169.9	172.8	Mafic Tuff - well laminated; fine grained - medium grey green rock with minor felsic layers - rusty appearance locally - possible small xtal of Aspy at 171.6
172.8	175.9	Chert - fine grained quartz rich unit - core recovery for this section 18%
175.9	176.9	Carbonated Basaltic Komatiite - massive medium grained heavily carbonated rock similar to above
176.9	189.6	Mafic Tuff - fine grained - poorly to well laminated - medium to dark green rock - calcite common in matrix and as fine fractures - locally pyritic - quartz vein with rusty colouring at 177m (1cm) - white massive chert horizons are common in this unit 181.8-182.3 - qtz calcite pyrite veins 183.4-184.0 - less veining 187.1-187.4 - no veining 188.3-188.6 - no veining 188.9-189.4 - minor qtz-calcite veining

HOLE NO.

PROPERTY SUNDAY LAKE

PAGE 2

LOCATION 8+00E 1+40N BEARING 180° HOLE NO. SL-84-5
 (ext)

LOGGED BY P. Nicholls ELEVATION DIP -45° FINAL DEPTH 221.6

STARTED February 14, 1985 TESTS (CORRECTED)

FINISHED February 15, 1985

CASING 21.95m

CORE SIZE BQ

FROM m	TO m	DESCRIPTION
189.4	191.5	Mafic Fragmental? - generally fined grained, dark grey green rock with felsic layers - in upper section the layers appear to be fragmental in nature - lower in section - the layers appear more sedimentary than fragmental and are carbonate rich.
191.5	191.6	Breccia - a chaotic carbonate cemented breccia with fragments similar to above unit - fragments are sub angular to subrounded and there is no orientation. (intraformational breccia) strat tops down hole?
191.6	221.6	Mafic Tuffs - fine grained medium grey-green rock - well to poorly laminated - calcite common in laminations and in fine veins - some small sections may be feldspar phyric flows (feldspars 1mm) - other sections appear sedimentary as if reworked - cherty sections 203.5-204, 206.6-208.1 minor qtz calcite veining - quartz vein (80cm) with limonite stains at 213.9
221.6		END OF HOLE

HOLE NO.

APPENDIX 2

Sample Record Sheets and
Geochemical Values

SAMPLE-RECORD SHEET
SLU E SAMPLES

SL- -4 -HOLE NO.
1 -PAGE

PROPERTY - SUNDAY LAKE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS				DESCRIPTIONS
				Au ppb	Ag ppm			
SL-84-4-1	27.43	35.36		< 5	1.6	✓		
SL-84-4-2	35.36	41.46		< 5	.2			
SL-84-4-3	41.46	47.56		< 5	1.3			
SL-84-4-4	45.52	50.91		< 5	.9			
SL-84-4-5	50.91	57.01		< 5	.6			
SL-84-4-6	57.01	63.10		< 5	1.5			
SL-84-4-7	63.10	69.20		< 5	.8			
SL-84-4-8	69.20	75.30		< 5	.5			
SL-84-4-9	75.30	81.40		< 5	1.1			
SL-84-4-10	81.40	87.50		< 5	4.9			
SL-84-4-11	87.50	93.59		< 5	1.5			
SL-84-4-12	93.59	99.69		< 5	.9			
SL-84-4-13	99.69	105.79		< 5	.3			
SL-84-4-14	105.79	111.89		< 5	.2			
SL-84-4-15	111.89	117.98		< 5	.7			
SL-84-4-16	117.98	124.08		< 5	.3			
SL-84-4-17	124.08	130.18		< 5	.3			
SL-84-4-18	130.18	136.28		< 5	.2			

PROPERTY - SUNDAY LAKE

SAMPLE RECORD SHEET
CO. SAMPLEST 4-4-HOLE NO.
1-PAGE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS					DESCRIPTIONS
				Au ppb	Ag ppm				
8401	37.8	38.4	0.6	< 5	<.2				
8402	45.12	45.8	0.62	10	.2				
8403	54.0	55.0	1.0	< 5	<.2				
8404	63.1	64.2	1.1	< 5	<.2				
8405	77.0	77.8	0.8	< 5	<.2				
8406	85.4	86.4	1.0	< 5	<.2				
8407	88.2	89.2	1.0	< 5	<.2				
8408	89.2	90.2	1.0	< 5	<.2				
8409	121.8	122.8	1.0	< 5	<.2				
8410	122.8	123.8	1.0	< 5	<.2				
8411	123.8	124.8	1.0	< 5	<.2				
8412	155.6	156.6	1.0	< 5	<.2				
8413	168.86	169.36	0.5	< 5	<.2				
8414	177.0	178.0	1.0	< 5	<.2				
8415	181.4	182.0	0.6	< 5	<.2				
8416	182.0	183.0	1.0	< 5	<.2				
8417	184.0	185.0	1.0	< 5	<.2				
8418	202.4	203.9	1.5	< 5	<.2				

SAMPLE RECORD SHEET
CC. SAMPLES

S - 4-4 -HOLE NO.
2 -PAGE

PROPERTY - SUNDAY LAKE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS						DESCRIPTIONS
				Au ppb	Ag ppm					
8419	206.4	207.0	0.6	< 5	< .2					
8420	266.2	266.7	0.5	< 5	< .2					

SAMPLE RECORD SHEET
SLU E SAMPLES

SL 1-5 -HOLE NO.
1 -PAGE

PRO. TY- SUNDAY LAKE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH	ASSAYS					DESCRIPTIONS
				Au (ppb)	Ag (ppm)				
SL-84-5-1	21.95	26.52		< 5	<.2				
SL-84-5-2	26.52	32.62		< 5	<.2				
SL-84-5-3	32.62	38.72		< 5	<.2				
SL-84-5-4	38.72	44.82		< 5	<.2				very little sludge
SL-84-5-5	44.82	50.91		Missing					no sludge
SL-84-5-6	50.91	57.01		< 5	<.2				
SL-84-5-7	57.01	63.11		< 5	X .3				
SL-84-5-8	63.11	69.21		< 5	<.2				
SL-84-5-9	69.21	75.30		< 5	X .2				
SL-84-5-10	75.30	81.40		< 5	<.2				
SL-84-5-11	81.40	87.50		< 5	X .3				very little sludge
SL-84-5-12	87.50	93.60		< 5	X .4				
SL-84-5-13	93.60	99.70		< 5	X .6				very little sludge
SL-84-5-14	99.70	105.80		< 5	X .4				
SL-84-5-15	105.80	111.90		< 5	X .2				
SL-84-5-16	111.90	118.00		< 5	X .6				

SAMPLE RECORD SHEET

CO SAMPLES

SL-5 -HOLE NO.
1 -PAGE

PROPERTY- SUNDAY LAKE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS					DESCRIPTIONS
				Au ppb	Ag ppm				
8440	35.67	36.0	0.33	<5	<.2				
8441	55.32	55.57	0.29	<5	<.2				
8442	94.45	95.5	1.05	<5	<.2				
8443	109.6	111.1	1.5	<5	<.2				
8444	115.6	116.4	0.8	<5	<.2				
8445	144.9	145.9	1.0	<5	<.2				
8446	148.4	148.7	0.3	<5	<.2				
8447	163.1	163.8	0.7	<5	<.2				
8448	164.0	165.2	1.2	<5	<.2				
8449	142.4	143.7	1.3	<5	<.2				
8450	143.7	144.9	1.2	<5	<.2				
8451	145.9	146.9	1.0	<5	<.2				
8452	146.9	148.4	1.5	<5	<.2				
8453	160.7	163.1	2.3	<5	X	.2			
8454	163.5	164.0	0.5	<5	<.2				
8455	165.2	166.7	1.5	<5	<.2				
8456	166.7	168.1	1.4	<5	<.2				
8457	168.1	169.1	1.5	<5	<.2				

SAMPLE RECORD SHEET
CC SAMPLE

SL -5-HOLE NO.
2-PAGE

PROF. CY- SUNDAY LAKE

SAMPLE NO.	FROM (m)	TO (m)	LENGTH (m)	ASSAYS				DESCRIPTIONS
				Au ppb	Ag ppm			
8458	170	171.5	1.5	<5	X .2			
8459	174.3	175.9	1.6	<5	<.2			
8460	175.9	177.0	1.1	<5	<.2			
8461	177.0	178.0	1.0	<5	<.2			
8462	178.0	179.0	1.0	<5	<.2			
8463	179.0	180.0	1.0	<5	<.2			
8464	180.0	181.0	1.0	<5	<.2			
8465	181.0	182.0	1.0	<5	X .2			
8466	182.0	182.8	0.8	<5	<.2			
8467	182.8	183.8	1.0	<5	<.2			
8468	183.8	184.8	1.0	<5	<.2			
8469	205.1	206.1	1.0	<5	<.2			
8470	206.1	207.1	1.0	<5	<.2			
8471	208.0	209.0	1.0	<5	<.2			
8472	207.1	208.0	0.9	<5	<.2			

APPENDIX 3

Lab Analysis Sheets

BARRINGER MAGENTA

204 CARLINGVIEW DRIVE
DALE,
M9W 5G2
(416) 675-38703750 - 19TH STREET
SUITE 200
CALGARY, ALBERTA
T2E 6V2
(403) 276-9701FILE: T5_0007
DATE: 14/01/85
MATRIX: AQ REG.

WESTMIN RESOURCES

(P. NICHOLS)

PROJ: SUNDAY LAKE

WO NO: 85-0007

GE: 1

SAMPLE ID	AU PPB	AG PPM	SAMPLE ID	AU PPB	AG PPM
8401	<5	<.2	SL84-5-12	<5	.4
8402	10	<.2	SL84-5-13	<5	.6
8403	<5	<.2	SL84-5-14	<5	.4
8404	<5	<.2	SL84-5-15	<5	.2
8405	<5	<.2	SL84-5-16	<5	.6
8406	<5	<.2	SL84-5-17	<5	3.2
8407	<5	<.2	SL84-5-18	<5	<.2
8408	<5	<.2	SL84-5-19	<5	9.4
8409	<5	<.2	SL84-5-20	<5	4.2
8410	<5	<.2	SL84-5-21	150	<.2
8411	<5	<.2	SL84-5-22	<5	2.0
8412	<5	<.2	SL84-5-23	<5	<.2
8413	<5	<.2	SL84-5-24	<5	1.1
8414	<5	<.2	SL84-5-25	<5	4.9
8415	<5	<.2	SL84-4-1	<5	1.5
8416	<5	<.2	SL84-4-2	<5	.2
8417	<5	<.2	SL84-4-3	<5	1.3
8418	<5	<.2	SL84-4-4	<5	.9
8419	<5	<.2	SL84-4-5	<5	.6
8420	<5	<.2	SL84-4-6	<5	1.5
8421	<5	<.2	SL84-4-7	<5	.8
8422	<5	<.2	SL84-4-8	<5	1.1
8423	<5	<.2	SL84-4-9	<5	4.9
8424	<5	<.2	SL84-4-10	<5	1.5
8425	<5	<.2	SL84-4-11	<5	1.5
8440	<5	<.2	SL84-4-12	<5	.9
8441	<5	<.2	SL84-4-13	<5	3.2
8442	<5	<.2	SL84-4-14	<5	7.3
8443	<5	<.2	SL84-4-15	<5	7.3
8444	<5	<.2	SL84-4-16	<5	7.3
8445	<5	<.2	SL84-4-17	<5	3.2
8446	<5	<.2	SL84-4-18	<5	3.2
8447	<5	<.2	SL84-4-19	<5	3.2
8448	<5	<.2	SL84-4-20	<5	3.2
SL84-5-1	<5	<.2			
SL84-5-2	<5	<.2			
SL84-5-3	<5	<.2			
SL84-5-4	<5	<.2			
SL84-5-5	MISSING	<.2			
SL84-5-6	MISSING	<.2			
SL84-5-7	<5	<.3			
SL84-5-8	<5	<.2			
SL84-5-9	<5	<.2			
SL84-5-10	<5	<.3			
SL84-5-11	<5	<.3			

BARRINGER MAGENTA

CARLTON DRIVE
BEDALE, ONTARIO
M9W 5G2
(416) 675-3870

30TH STR
SUITE 105
CALGARY, ALBERTA
T2E 8V2
(403) 276-9701

FILE: T5_0105
DATE: 01/03/85
MATRIX: AG REG

WESTMIN RESOURCES	(P. J. NICHOLLS)						WO NO: 85-0105				AGE: 1
SAMPLE ID	AU PPB	AU-FA OZ/TON	AG PPM	AG-FA OZ/TON	SAMPLE ID	AU PPB	AU-FA OZ/TON	AG PPM	AG-FA OZ/TON		
6501	<5	---	<.2	---	6546	<5	---	<.2	---		
6502	<5	---	<.2	---	6547	<5	---	<.2	---		
6503	<5	---	<.2	---	6548	<5	---	<.2	---		
6504	<5	---	<.2	---	6549	<5	---	<.2	---		
6505	<5	---	<.2	---	6550	<5	---	<.2	---		
6506	<5	---	<.2	---	6551	<5	---	<.2	---		
6507	<5	---	<.2	---	6552	130	---	<.01	---		
6508	<5	---	<.2	---	6553	<5	---	<.2	---		
6509	<5	---	<.2	---	6554	<5	---	<.2	---		
6510	<5	---	<.2	---	6555	<5	---	<.2	---		
6511	<5	---	<.2	---	6556	<5	---	<.2	---		
6512	<5	---	.9	---	6557	<5	---	<.2	---		
6513	<5	---	.9	---	6558	<5	---	<.2	---		
6514	<5	---	.9	---	6559	<5	---	<.2	---		
6515	<5	---	.9	---	6560	<5	---	<.2	---		
6516	100	---	.3	---	6561	<5	---	<.2	---		
6517	<5	<.01	<.2	---	6562	<5	---	<.2	---		
6518	<5	---	<.2	---	6563	<5	---	<.2	---		
6519	<5	---	<.2	---	6564	<5	---	<.2	---		
6520	<5	---	<.2	---	8449	<5	---	<.2	---		
6521	<5	---	<.2	---	8450	<5	---	<.2	---		
6522	<5	---	<.2	---	8451	<5	---	<.2	---		
6523	<5	---	<.2	---	8452	<5	---	<.2	---		
6524	<5	---	<.2	---	8453	<5	---	<.2	---		
6525	50	<.01	<.2	<.01	8454	<5	---	<.2	---		
6526	<5	---	<.2	---	8455	<5	---	<.2	---		
6527	<5	---	<.2	---	8456	<5	---	<.2	---		
6528	<5	---	<.2	---	8457	<5	---	<.2	---		
6529	<5	---	<.2	---	8458	<5	---	<.2	---		
6530	<5	---	<.2	---	8459	<5	---	<.2	---		
6531	<5	---	<.2	---	8460	<5	---	<.2	---		
6532	<5	<.01	<.2	---	8461	<5	---	<.2	---		
6533	<5	<.01	<.2	---	8462	<5	---	<.2	---		
6534	<5	<.01	<.2	<.01	8463	<5	---	<.2	---		
6535	110	<.01	<.2	<.01	8464	<5	---	<.2	---		
6536	<5	---	<.2	---	8465	<5	---	<.2	---		
6537	<5	---	<.2	---	8466	<5	---	<.2	---		
6538	<5	---	<.2	---	8467	<5	---	<.2	---		
6539	<5	---	<.2	---	8468	<5	---	<.2	---		
6540	<5	---	<.2	---	8469	<5	---	<.2	---		
6541	<5	---	<.2	---	8470	<5	---	<.2	---		
6542	<5	---	<.2	---	8471	<5	---	<.2	---		
6543	<5	---	<.2	---	8472	<5	---	<.2	---		
6544	<5	---	<.2	---	8473	<5	---	<.2	---		
6545	<5	---	<.2	---	8474	<5	---	<.2	---		

SUNDAY

SUN 4-5
Deferred

BARRINGER MAGENTA60 CARLINGVIEW DRIVE
REXDALE, ONTARIO
M9W 5G2
(416) 675-38703750 17TH STREET
SUITE 105
CALGARY, ALBERTA
T2E 6V2
(403) 276-9701FILE: T5-0105
DATE: 81/03/85
MATRIX: AQ REG

WESTMIN RESOURCES

(P. J. NICHOLLS)

WD NO: 85-0105

PAGE: 2

SAMPLE ID	AU PPB	AU-FA OZ/TON	AG PPM	AG-FA OZ/TON
8475	<5	---	<.2	---
8476	<5	---	<.2	---
8477	<5	<.01	<.2	<.01
8478	<5	<.01	<.2	<.01
8479	<5	<.01	<.2	<.01
8480	<5	<.01	<.2	<.01
8481	<5	<.01	<.2	<.01
8482	<5	<.01	<.2	<.01
8484	<5	<.01	<.2	<.01
8485	<5	<.01	<.2	<.01
8486	<5	<.01	<.2	<.01
8487	<5	<.01	<.2	<.01
8488	<5	---	<.2	---
8489	<5	---	<.2	---
8490	<5	---	<.2	---
8491	<5	---	<.2	---
8492	<5	---	<.2	---
8493	<5	---	<.2	---
8494	<5	---	<.2	---
8495	<5	---	<.2	---
8496	<5	---	.2	---
8497	<5	---	.2	---
8498	<5	---	.2	---
8499	<5	---	.2	---
8500	<5	---	<.2	---

APPENDIX 4

Whole Rock Analyses

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755

TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: WESTMIN RESOURCES LIMITED

ATTN: PAUL NICHOLLS

25 ADELAIDE STREET EAST, SUITE 1400
TORONTO, ONTARIO
M5C 1Y2

CUSTOMER NO. 605

DATE SUBMITTED
11-JAN-85

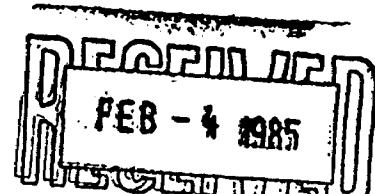
REPORT 23534

REF. FILE 19148-D2

14 S.CORES

WERE ANALYSED AS FOLLOWS:

WRMAJ %	METHOD	DETECTION LIMIT
WRMIN PPM	WR	0.010
	WR	10.000



WESTMIN RESOURCES LIMITED	
EASTERN CANADA EXPLORATION	
RM	<i>[Signature]</i>
SK	
EN	
PN	<i>[Signature]</i>
CR	
DR	
GL	
HM	
FILE Sunday Lake	

Paul note 845-168.8 wt for basic

Gashow Assay

DATE 31-JAN-85

X-RAY ASSAY LABORATORIES LIMITED
CERTIFIED BY *[Signature]*

X	X	RRRRR	A	LL
XX	XX	RR RR	AAA	LL
XX	XX	RR RR	AA AA	LL
XXX		RR RR	AA AA	LL
XXX		RRRRR	AAAAAAA	LL
XX	XX	RR RR	AA AA	LL
XX	XX	RR RR	AA AA	LLLLLL
X	X	RR R	AA AA	LLLLLL

XRF - WHOLE ROCK ANALYSIS

WESTMIN RESOURCES LIMITED
 Attn: PAUL NICHOLLS
 25 ADELAIDE STREET EAST, SUITE 1400
 TORONTO, ONTARIO
 MSC 1Y2

CUSTOMER No. 605

DATE SUBMITTED
 11-JAN-85

REPORT 23534

REF. FILE 19148

DATE REPORTED 31-JAN-85

XRF W. R. A. SUMS INCLUDE ALL ELEMENTS DETERMINED.
 FOR SUMMATION ELEMENTS ARE CALCULATED AS OXIDES.

X-RAY ASSAY LABORATORIES			31-JAN-85		REPORT 23534 REFERENCE FILE 19148								PAGE 1	
SAMPLE	1 SiO2	3 AL2O3	10 CAO	6 MGO	11 NA2O	12 K2O	4 FE2O3	8 MNO	2 TiO2	13 P2O5	5 CR2O3	14 LOI	SUM	
SL-84-4-36.1M	66.8	14.6	3.99	1.98	3.88	1.39	4.99	0.06	0.68	0.19	<0.01	1.62	100.3	
SL-84-4-72.2M	66.5	14.6	3.77	2.21	3.79	1.49	5.36	0.06	0.68	0.18	<0.01	1.77	100.5	
SL-84-4-98.8M	67.2	15.2	3.49	1.28	4.25	1.98	4.11	0.05	0.76	0.19	<0.01	1.47	100.1	
SL-84-4-166.1M	47.9	11.7	9.43	9.10	2.83	0.67	11.6	0.20	0.78	0.20	0.06	5.00	99.5	
SL-84-4-194.4M	55.1	14.1	9.21	3.88	1.96	0.41	12.4	0.20	1.04	0.11	0.02	2.00	100.5	
SL-84-4-223.2M	42.5	12.1	10.7	5.45	0.65	2.34	15.8	0.26	1.10	0.09	0.02	8.00	99.0	
SL-84-4-256.7M	46.9	12.9	10.3	6.27	1.70	0.10	13.5	0.24	1.35	0.12	0.02	6.54	100.0	
SL-84-5-36.2M	47.3	15.4	9.38	7.89	1.83	0.40	13.6	0.20	1.27	0.11	0.01	3.08	100.5	
SL-84-5-42.25M	48.4	13.2	9.19	9.61	3.10	0.61	9.79	0.17	0.71	0.28	0.09	4.39	99.6	
SL-84-5-60.2M	49.4	15.4	11.2	5.67	1.96	0.18	12.3	0.17	1.30	0.10	0.04	2.62	100.4	
SL-84-5-137.4M	46.2	12.2	12.1	5.33	1.78	0.22	12.5	0.20	1.18	0.10	<0.01	8.54	100.4	
SL-84-5-138.3M	45.7	12.4	7.78	4.92	2.26	0.65	17.0	0.24	1.99	0.13	<0.01	6.77	99.9	
SL-84-5-160.7M	59.7	14.2	4.39	3.96	4.79	0.14	6.60	0.10	0.58	0.12	0.01	5.54	100.2	
SL-84-5-168.8M	47.5	10.9	5.61	14.1	0.08	0.01	8.56	0.22	0.34	0.07	0.17	12.6	100.2	

7 9
FeO NiO.

SAMPLE	RB	SR	Y	ZR	NB
--------	----	----	---	----	----

SL-84-4-36.1M	50	360	30	230	30
---------------	----	-----	----	-----	----

SL-84-4-72.2M	50	390	20	220	20
---------------	----	-----	----	-----	----

SL-84-4-98.8M	50	390	40	240	30
---------------	----	-----	----	-----	----

SL-84-4-166.1M	20	140	10	30	30
----------------	----	-----	----	----	----

SL-84-4-194.4M	10	120	20	80	10
----------------	----	-----	----	----	----

SL-84-4-223.2M	70	120	20	30	20
----------------	----	-----	----	----	----

SL-84-4-256.7M	20	120	20	50	20
----------------	----	-----	----	----	----

SL-84-5-36.2M	10	120	20	60	10
---------------	----	-----	----	----	----

SL-84-5-42.25M	20	170	<10	80	10
----------------	----	-----	-----	----	----

SL-84-5-60.2M	10	90	10	60	10
---------------	----	----	----	----	----

SL-84-5-137.4M	30	160	10	50	20
----------------	----	-----	----	----	----

SL-84-5-138.3M	50	100	30	90	20
----------------	----	-----	----	----	----

SL-84-5-160.7M	10	230	<10	130	20
----------------	----	-----	-----	-----	----

SL-84-5-168.8M	10	10	30	10	<10
----------------	----	----	----	----	-----

X-RAY ASSAY LABORATORIES LIMITED
1885 LESLIE STREET, DON MILLS, ONTARIO N3B 3J4
PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: WESTMIN RESOURCES LIMITED
ATTN: PAUL NICHOLLS
25 ADELAIDE STREET EAST, SUITE 1400
TORONTO, ONTARIO
M5C 1Y2

CUSTOMER NO. 605

DATE SUBMITTED
20-MAR-85

REPORT 23972

REF. FILE 19593-A5

6 SAMPLES

WERE ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
WRMAJ %	WR	0.010
WRMIN PPM	WR	10.000

DATE 08-APR-85

X-RAY ASSAY LABORATORIES LIMITED
CERTIFIED BY *[Signature]*

SAMPLES WITH LOW SUMS HAVE BEEN REPEATED WITH NO CHANGE

WE HAVE CHECKED FOR THE FOLLOWING ELEMENTS:

CU, ZN, NI, PB, CO, AS, U, MO

OF WHICH AS WAS FOUND
IN GREATER THAN TRACE/MINOR QUANTITIES

THE MATRIX CORRECTION PROGRAM DOES NOT ACCOUNT FOR
THE PRESENCE OF THESE ELEMENTS

X	X	RRRRR	A	LL
XX	XX	RR RR	AAA	LL
XX	XX	RR RR	AA AA	LL
XXX		RR RR	AA AA	LL
XXX		RRRRR	AAAAAAA	LL
XX	XX	RR RR	AA AA	LL
XX	XX	RR RR	AA AA	LLLLLLL
X	X	RR R	AA AA	LLLLLLL

XRF - WHOLE ROCK ANALYSIS

WESTMIN RESOURCES LIMITED
 Attn: PAUL NICHOLLS
 25 ADELAIDE STREET EAST, SUITE 1400
 TORONTO, ONTARIO
 MSC 1Y2

CUSTOMER No. 605
 DATE SUBMITTED
 20-MAR-85

REPORT 23972 REF. FILE 19593 DATE REPORTED 08-APR-85

XRF W. R. A. SUMS INCLUDE ALL ELEMENTS DETERMINED.
 FOR SUMMATION ELEMENTS ARE CALCULATED AS OXIDES.

X-RAY ASSAY LABORATORIES			08-APR-85			REPORT 23972 REFERENCE FILE 19593						PAGE 1	
SAMP	SiO ₂	Al ₂ O ₃	CaO	MgO	Na ₂ O	K ₂ O	Fe ₂ O ₃	MnO	TiO ₂	P ₂ O ₅	Cr ₂ O ₃	LOI	SUM
D-85-21-87.8	39.3	8.81	14.1	12.6	<0.01	0.02	8.63	0.26	0.30	0.09	0.16	15.0	99.3
NEX-85-1-7.9	50.6	13.3	6.58	5.20	1.52	0.99	9.24	0.19	0.82	0.17	<0.01	11.1	99.7
SL-84-5-173	60.3	14.2	4.30	3.42	4.19	0.94	6.03	0.07	0.57	0.17	0.03	4.54	98.8
SL-84-5-176.3	60.5	15.3	3.53	2.50	3.15	1.94	6.81	0.10	0.65	0.11	0.01	3.85	98.5
SL-84-5-182	56.7	14.5	5.71	2.00	3.10	2.38	6.08	0.12	0.69	0.08	0.01	4.31	95.7
SL-84-5-218.9	59.8	15.0	2.64	3.30	2.78	2.12	8.31	0.07	0.60	0.17	0.02	3.39	98.3

X-RAY ASSAY LABORATORIES

03-APR-85

REPORT 23972

REFERENCE FILE 19593

PAGE 2

SAMPLE	RB	SR	Y	ZR	NB
D-85-21-37.8	20	400	<10	20	20
NEX-85-1-7.9	30	90	20	80	20
SL-84-5-173	30	380	10	130	20
SL-84-5-176.3	60	330	20	100	<10
SL-84-5-182	80	210	20	90	10
SL-84-5-218.9	90	360	10	110	10

WESTMIN



32E13NE0022 63.4622 HOPPER LAKE

OMA-5-C-348

900 87

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

SEE FILES:

① D.D. Record:

Hole # TO-85-1 (Tie on Claims) LOWER DETOUR LK
P. Nicholls for Westmin Res. DD. #22
Mar. '85.

② D.D. Record: Hole # D85-18

to D85-21

South Detour Property, P. SUNDAY LK
Nicholls for Westmin. ⇒ D.D. # 34

LEGEND

INTRUSIVE ROCKS

- [B] BIOTITE
- [7] GRANITE
 - a Quartz and/or feldspar porphyry
- [6] GABBRO AND ULTRAMAFIC INTRUSIVE ROCKS
 - c Gabbro
 - d Granite
 - e Amphibolite
 - f Peridotite
 - g Porphyritic gabbro

METAVOLCANIC & METASEDIMENTARY

- [5] IRON FORMATION
 - a Sulphide
 - b Silicates
 - c Oxides
- [4] CLASTIC METASEDIMENT
 - a Shale
 - b Conglomerate
 - c Graphitic sediments
 - d Turbidites

IGNEOUS TO INTERMEDIATE VOLCANICS

- [5a] Flow
 - [5b] Tuff
 - [5c] Lenticular tuff
 - [5d] Autoclastic breccia
 - [5e] Pillow
 - [5f] Amphibolite
 - [5g] Porphyritic feldspar phenocrysts
 - [5h] Recrystallized
 - [5i] Garnet bearing
 - [5k] Biotite bearing
 - [5m] Variolitic
 - [5n] Gabbronoritic flow
 - [5o] Vesicular
 - [5p] Polycrystalline
- [6] ULTRAMAFIC
 - a Serpentinitized
 - b Cumulate texture
 - c Pyroxenite
 - d Dark carbonate
 - e Olivite bearing
 - f Chlorite bearing

SYMBOLS

/ / qtz Vein, with dominant minerals listed

/ / py Sulphide mineralization with minerals listed

↑ Stratigraphic facing direction

↓ Foliation, schistosity, bedding (core angle)

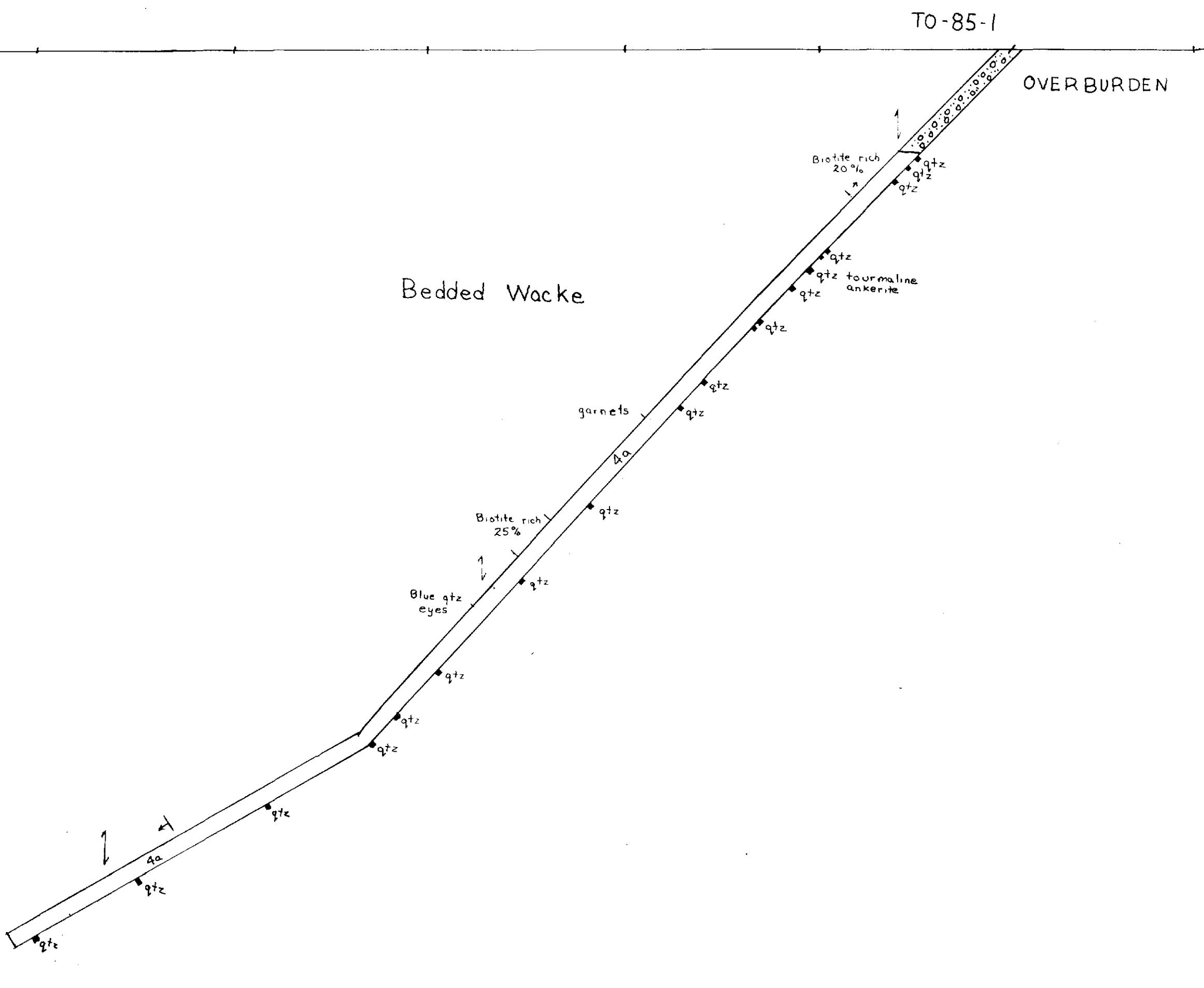
IGNEOUS TO INTERMEDIATE VOLCANICS

- [2a] Flow
- [2b] Tuff
- [2c] Lenticular tuff
- [2d] Autoclastic breccia
- [2e] Pillow
- [2f] Amphibolite
- [2g] Porphyritic feldspar phenocrysts
- [2h] Recrystallized
- [2i] Garnet bearing
- [2k] Biotite bearing
- [2m] Variolitic
- [2n] Gabbronoritic flow
- [2o] Vesicular
- [2p] Polycrystalline

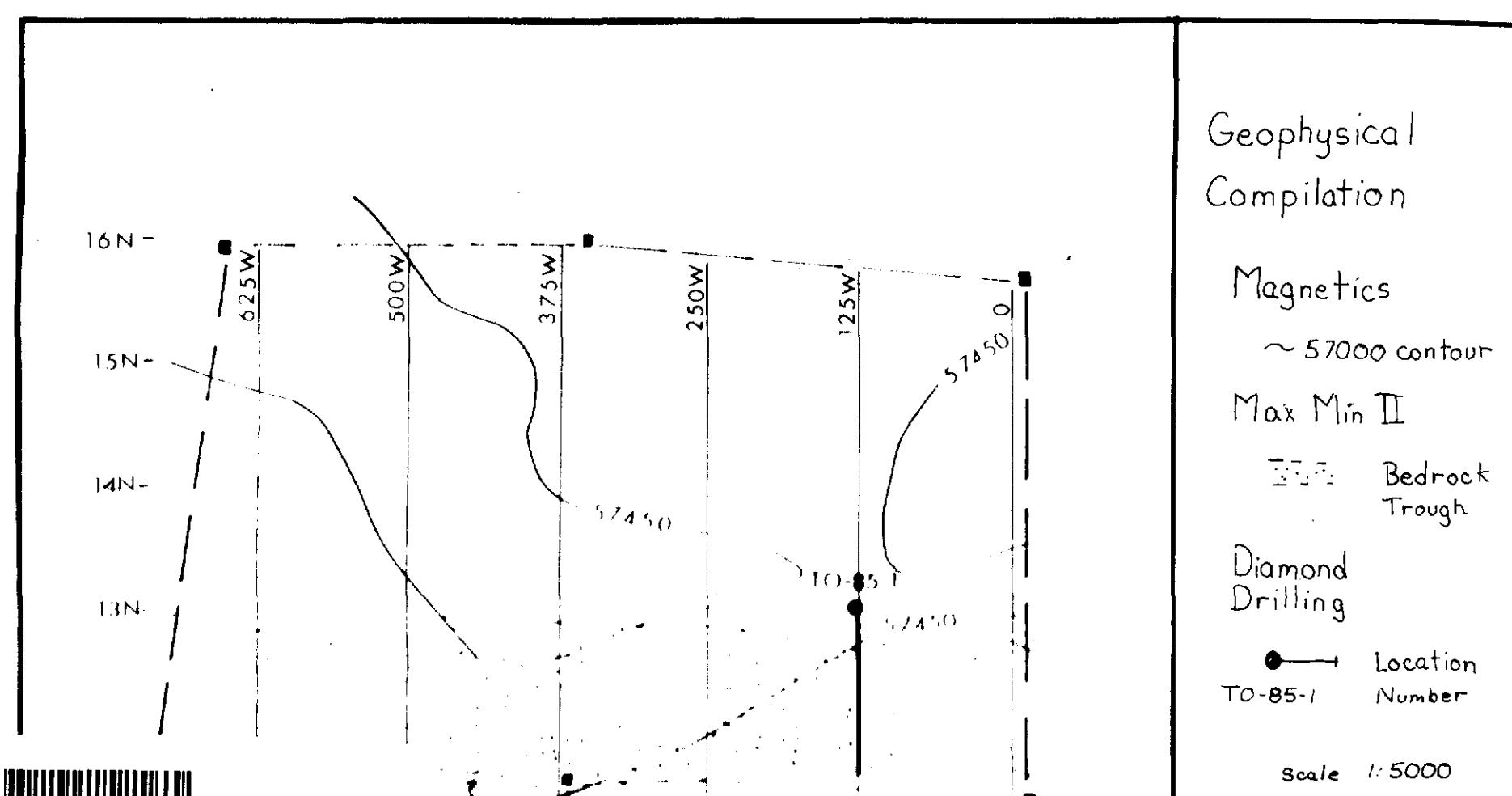
11+50N 11+75N 12+00N 12+25N 12+50N 13+00N 13+25N

TO-85-1

OVERBURDEN



169.5m



Geophysical Compilation

Magnetics

~57000 contour

Max Min II

—: Bedrock Trough

Diamond Drilling

● Location Number

TO-85-1

Scale 1:5000

FIGURE 4

0 10 20 30 40 50
METERS

WESTMIN Resources Limited
EASTERN CANADA MINING DIVISION

TIE-ON CLAIMS 1985

SECTION 1+25W (Looking West)

G E OLOGY 63.4622
0M84-348

Work by	PRJN	DJR	Scale	1:500
Date	April 1985		NTS	32 E-13



200

32E13N0022 63.4622 HOPPER LAKE

11+50N 11+75N 12+00N 12+25N 12+50N 12+75N 13+00N 13+25N

TO-85-1

OVERBURDEN

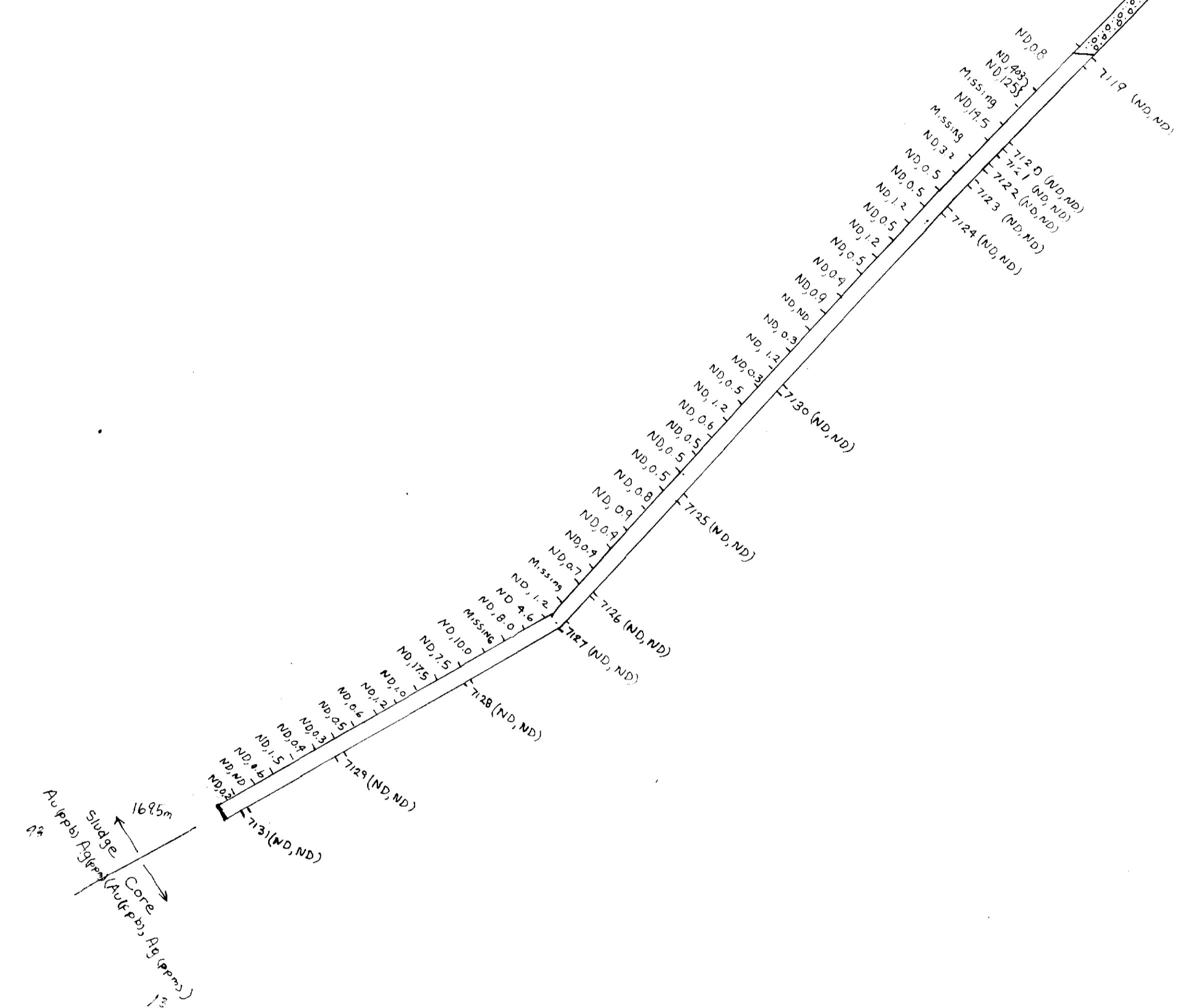
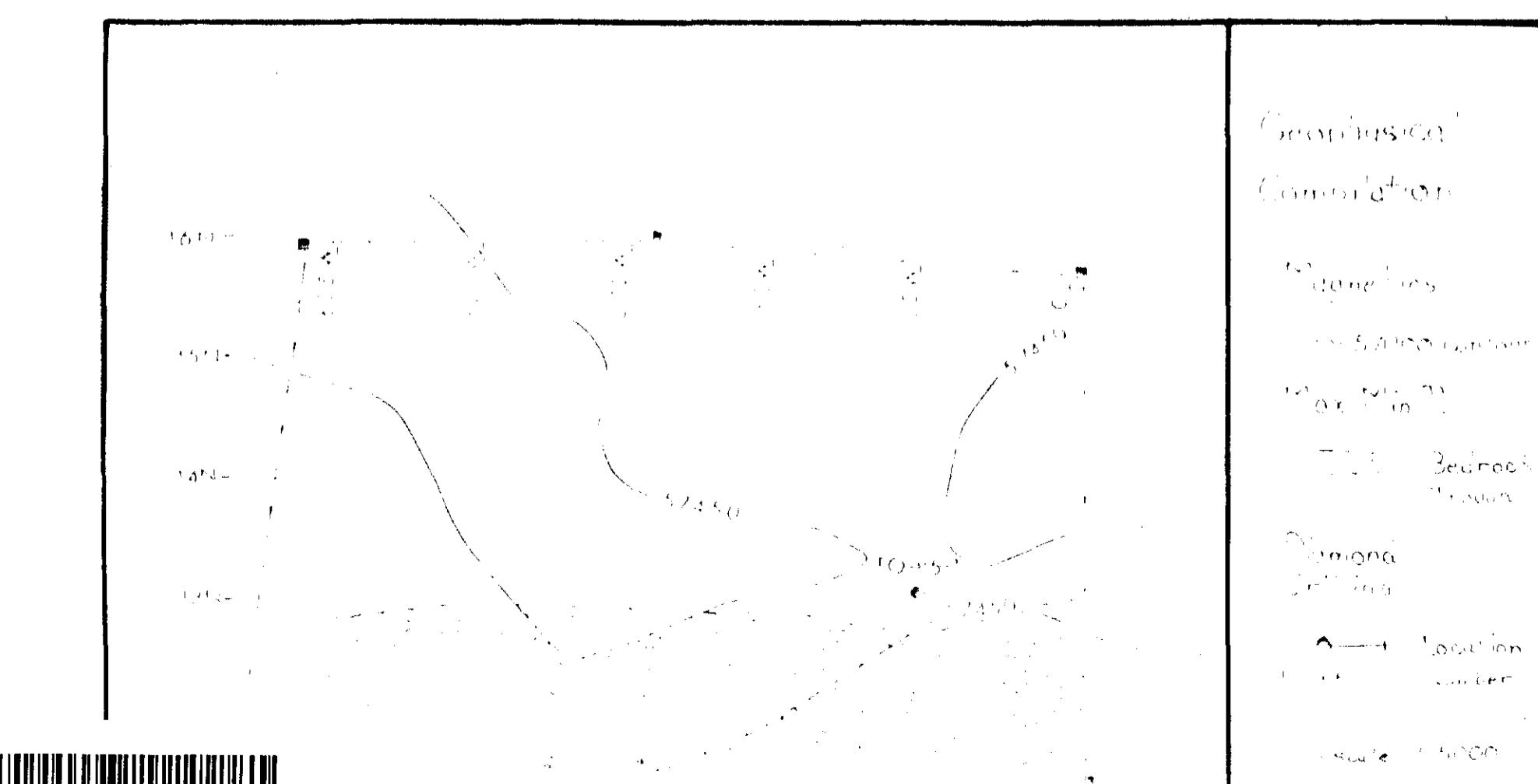


FIGURE 5



Westmin Resources Limited	
EASTERN CANADA MINING DIVISION	
63-4622	TIE-ON CLAIMS
OM84-348	1985
Section 1+25W (Looking West)	
G E O C H E M I S T R Y	
Work by PRJN	Scale 1:500
Date April 1985	NTS 32 L-4

D-85-18

6+00N 6+50N 7+00N 7+50N 8+00N

Overburden

Mafic

Flow

Chloritic
Brecciated
Sections
Intraformational
Brecciaqtz-calcite
Veins commonCalcite common
in bands and as
cementArgillite
(tuffaceous
component)

Tuff?

py

qtz-calcite

py

Calcite
(minor)qtz, and qtz-ankerite
Veins common

Aspy

trace py

green

mica

green

mica

py(10%)

nODULES

45°

45°

45°

45°

45°

45°

45°

45°

45°

45°

45°

45°

Intermediate
to Felsic Tuff
(sericite, common)

Graphic

schist

Argillite
(minor graphite)

229.87m



220

Geophysical
Compilation

Magnetics

Contours
Depression

Max Min II

Conductors

weak
strong10mhos
Conductivity

scale 1:5000

6+00N 6+50N 7+00N 7+50N 8+00N

LEGEND

INTRUSIVE ROCKS

- [8] DIABASE
- [7] GRANITE
 - 7a Quartz and/or feldspar porphyry
- [6] MAFIC AND ULTRAMAFIC IGNEOUS ROCKS
 - 6a Gabbro
 - 6b Diorite
 - 6c Amphibolite
 - 6d Pyroxenite
 - 6e Porphyritic gabbro

MAFIC TO INTERMEDIATE VOLCANICS

- 2a Flow
- 2b Tuff
- 2c Lepidite tuff
- 2d Autoclastic breccia
- 2e Pillow
- 2f Amphibolite
- 2g Porphyritic/feldspar phenocrysts
- 2h Recrystallized
- 2i Garnet-bearing
- 2k Ebitite-bearing
- 2m Variolitic
- 2n Retibritic textured flow
- 2o Vesicular
- 2p Polysulfurized

METAVOLCANIC & METASEDIMENTARY

- [5] IRON FORMATION
 - 5a Sulphide
 - 5b Silicates
 - 5c Oxide
- [4] CLASTIC METASEDIMENTS
 - 4a Greywacke
 - 4b Conglomerate
 - 4c Graphic sediments
 - 4n Turbidites

- [1] ULTRAMAFIC
 - 1c Serpentized
 - 1d Cumulate texture
 - 1c Pyroxenite
 - 1d Talc carbonate
 - 1e Biotite bearing
 - 1f Chlorite bearing

FELSIC TO INTERMEDIATE VOLCANICS

- 3a Flow
- 3b Tuff
- 3c Lepidite tuff
- 3d Pyroclastic breccia
- 3e Tuff breccia
- 3f Porphyritic
- 3g Garnet bearing
- 3h Quartz veins
- 3j Agglomerates

- A - Andesite
- B - Basalt
- C - Calc Alkaline
- D - Dacite
- F - Iron
- K - Kumatiite
- M - Magma
- R - Rhyolite
- T - Tholeite

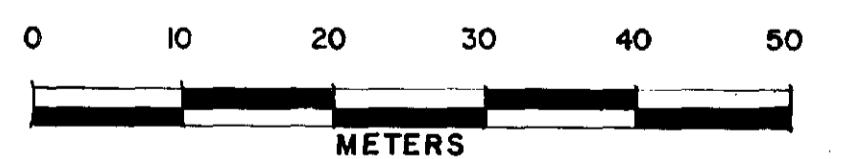
SYMBOLS

/ / qtz Vein with dominant minerals listed

/ / py Sulphide mineralization with minerals listed

1 Strigraphic facing direction

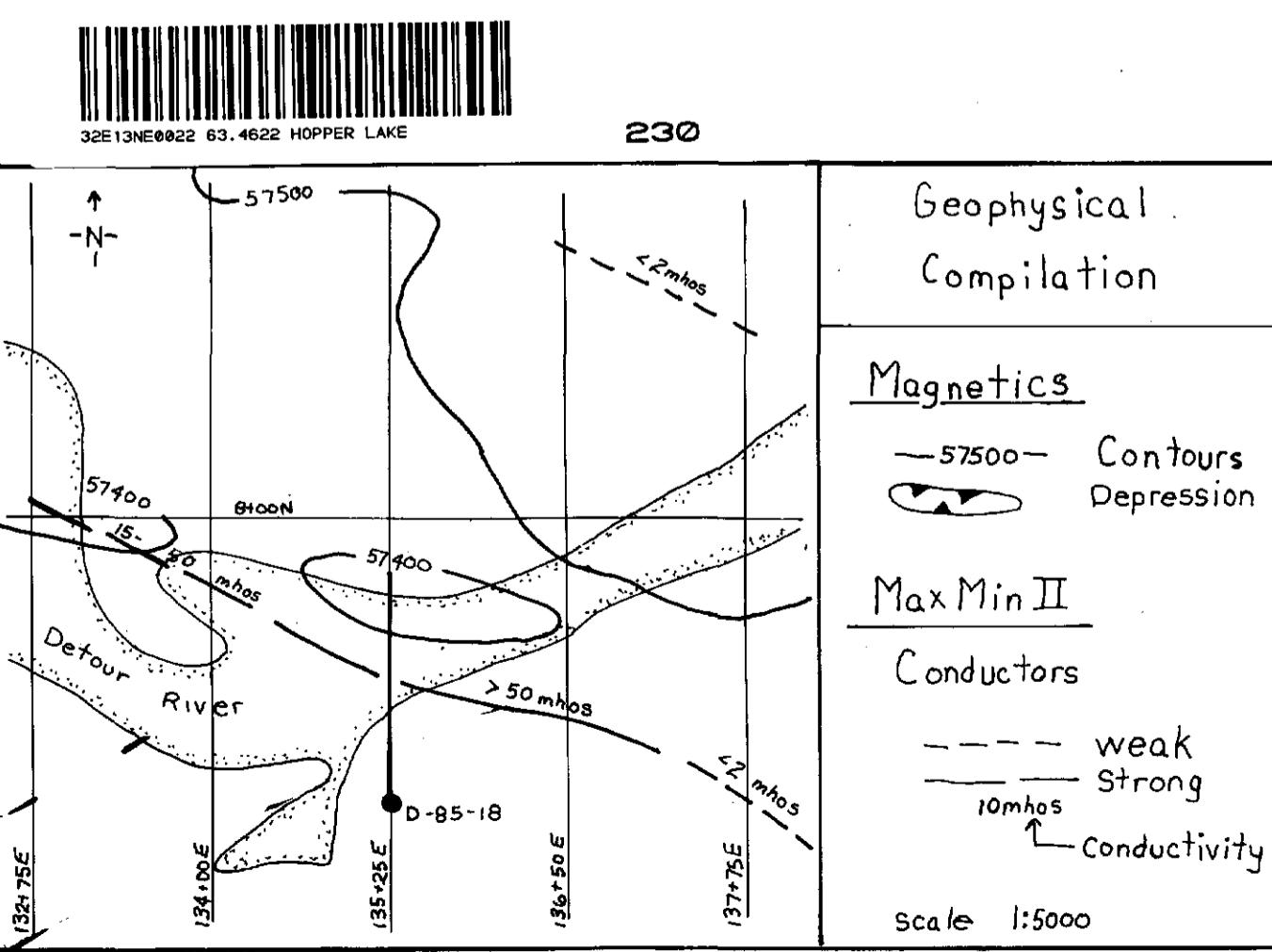
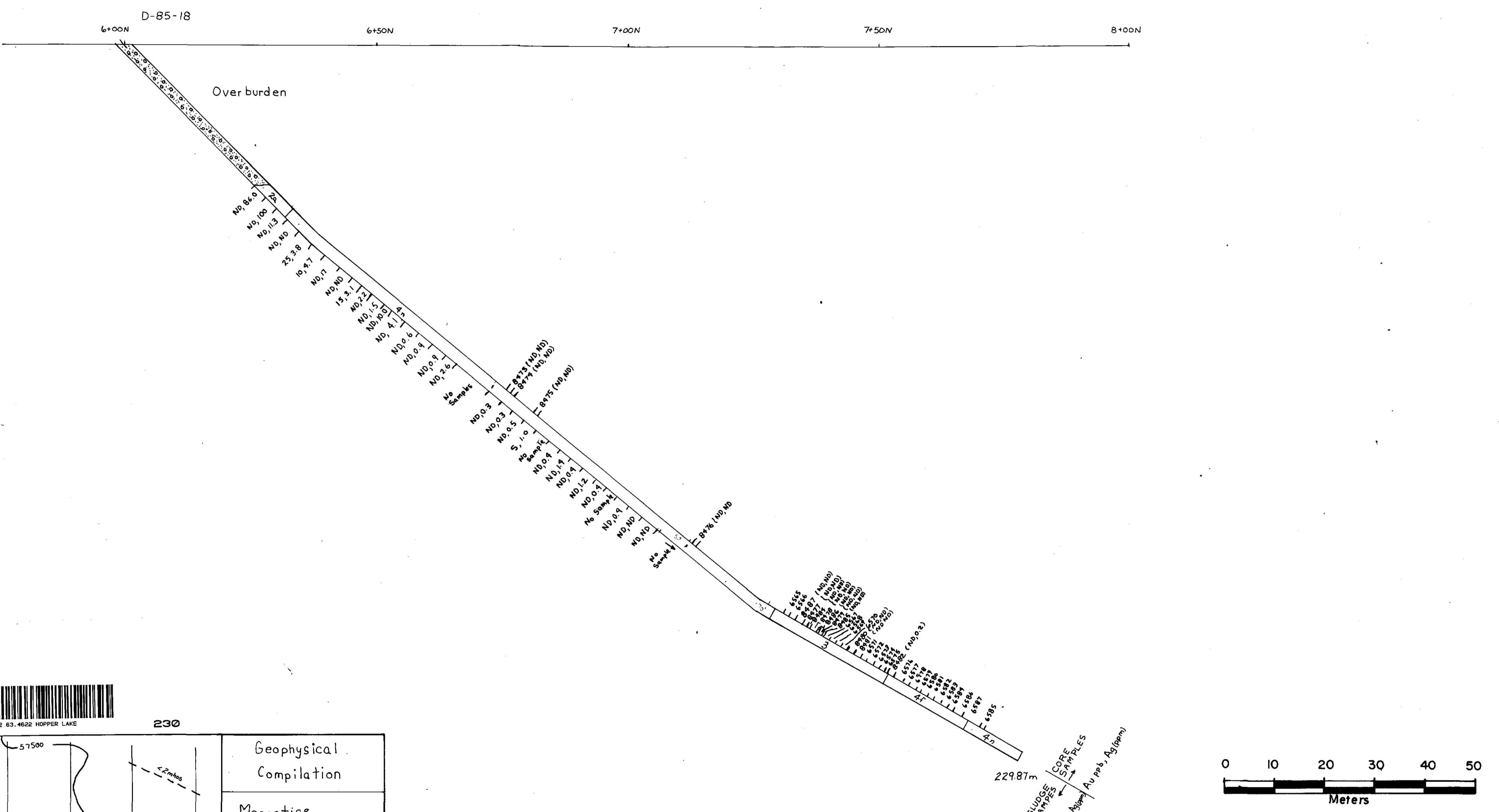
1 Foliation, schistosity, bedding (core angle)


WESTMIN **Westmin Resources Limited**
EASTERN CANADA MINING DIVISION
SOUTH DETOUR CLAIMS 63.4622
1985 OM84-348

Section 135+25E (Looking West)

GEOLOGY

Work by	PRJN	Scale	1:500
Date	April 1985	NTS	32 E-13



ND means below Detection Limits
Detection Limits

Av - 5 ppb
Ag - 0.2 ppm

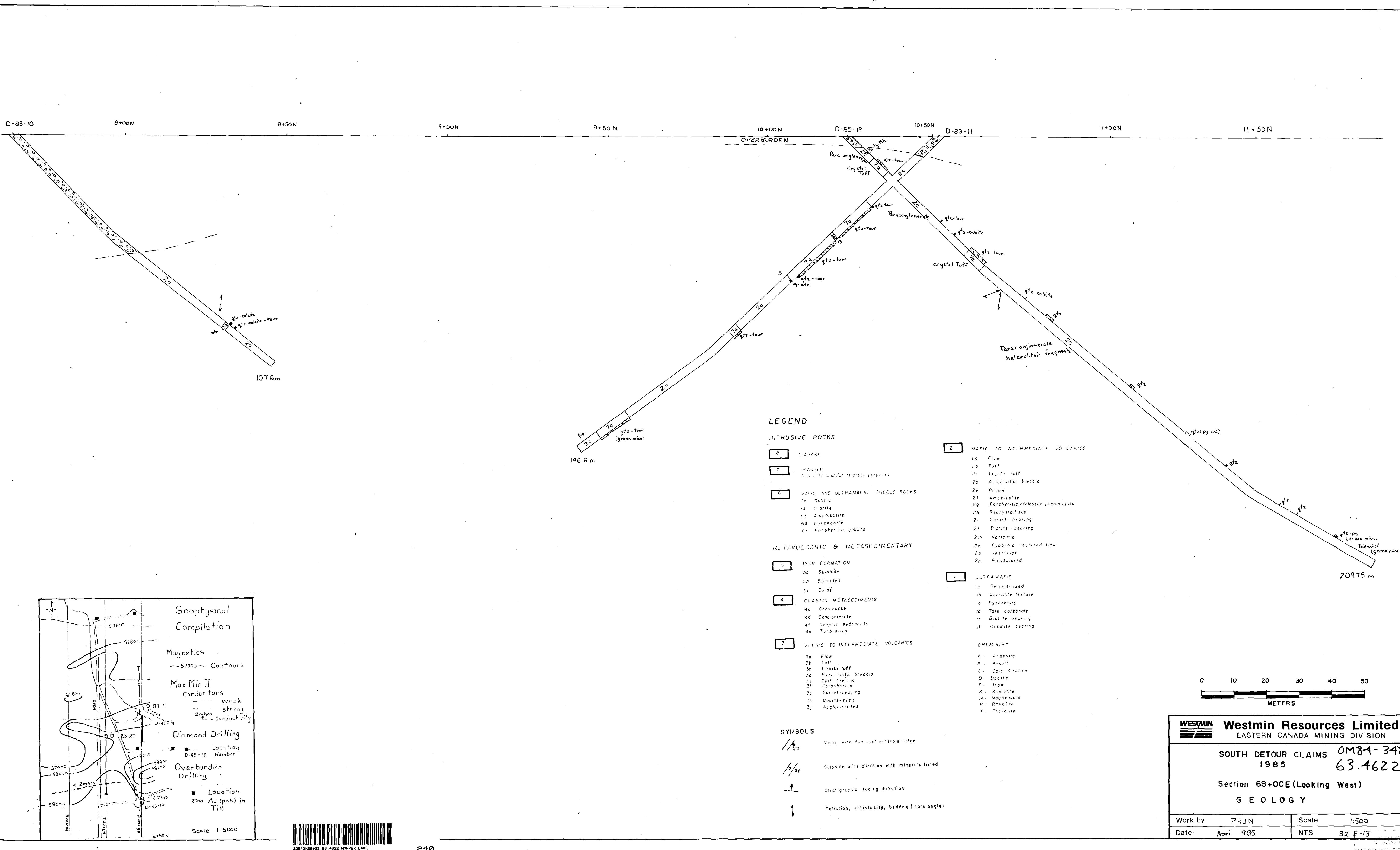
WESTMIN Resources Limited
EASTERN CANADA MINING DIVISION

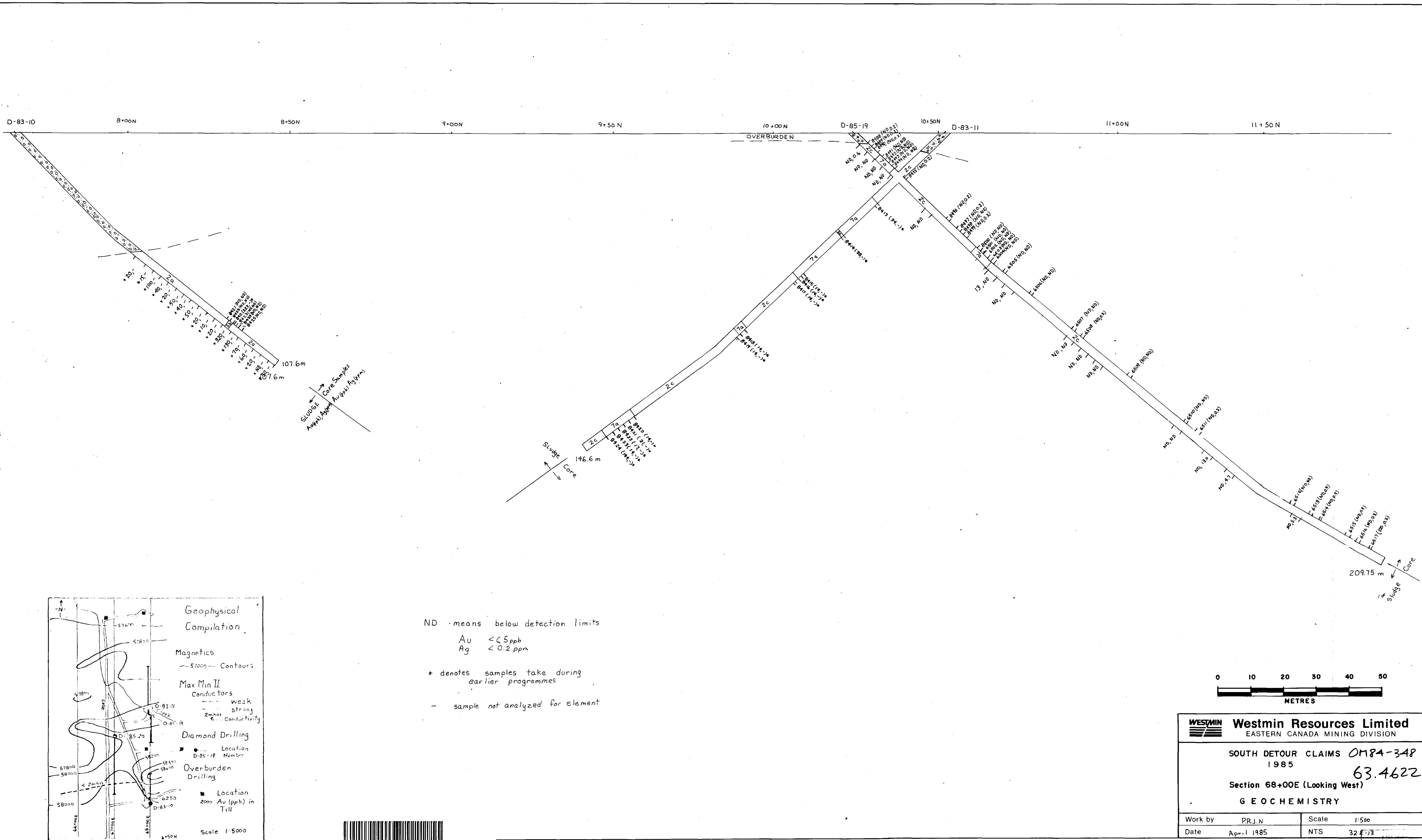
SOUTH DETOUR CLAIMS 63-4622
1985 OM84-348

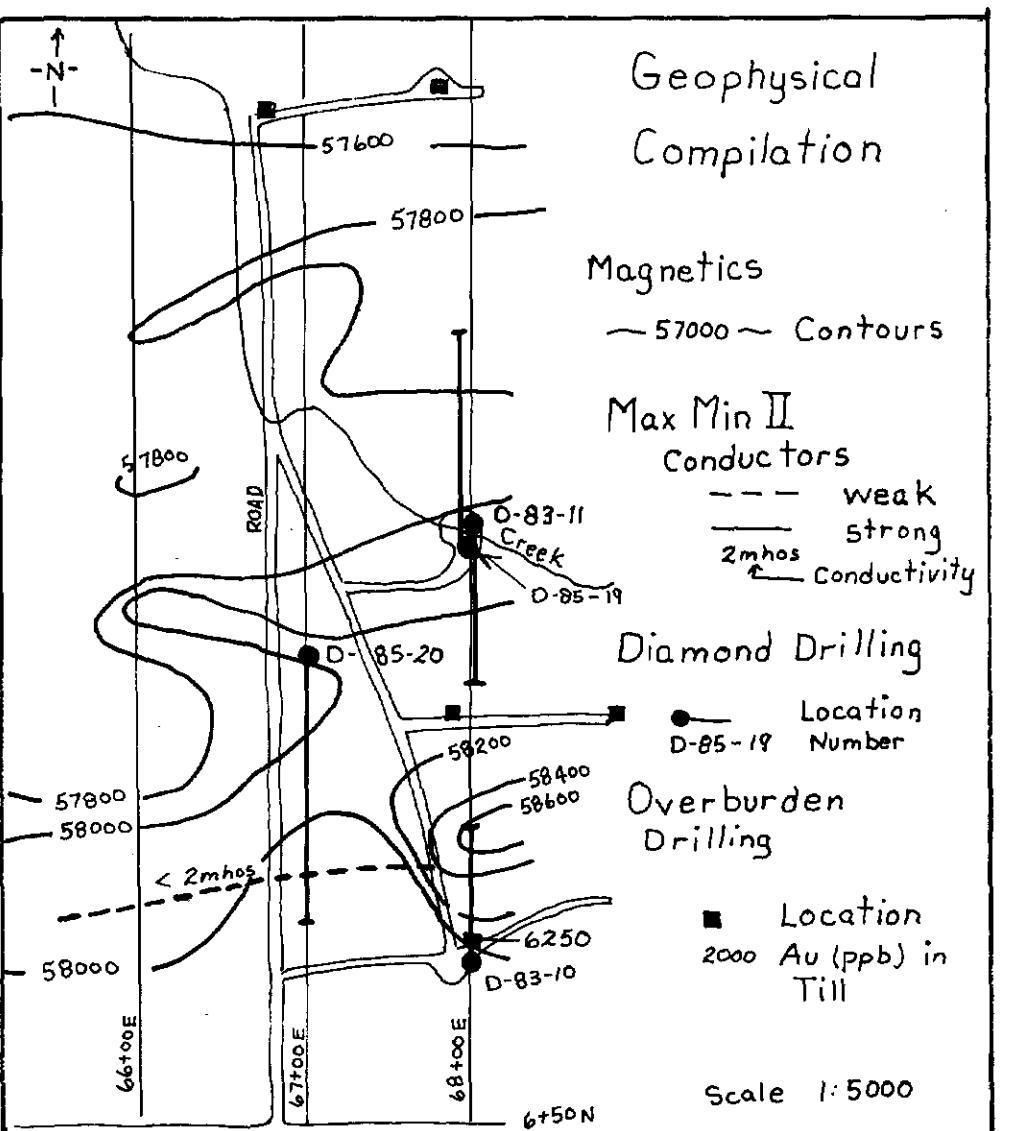
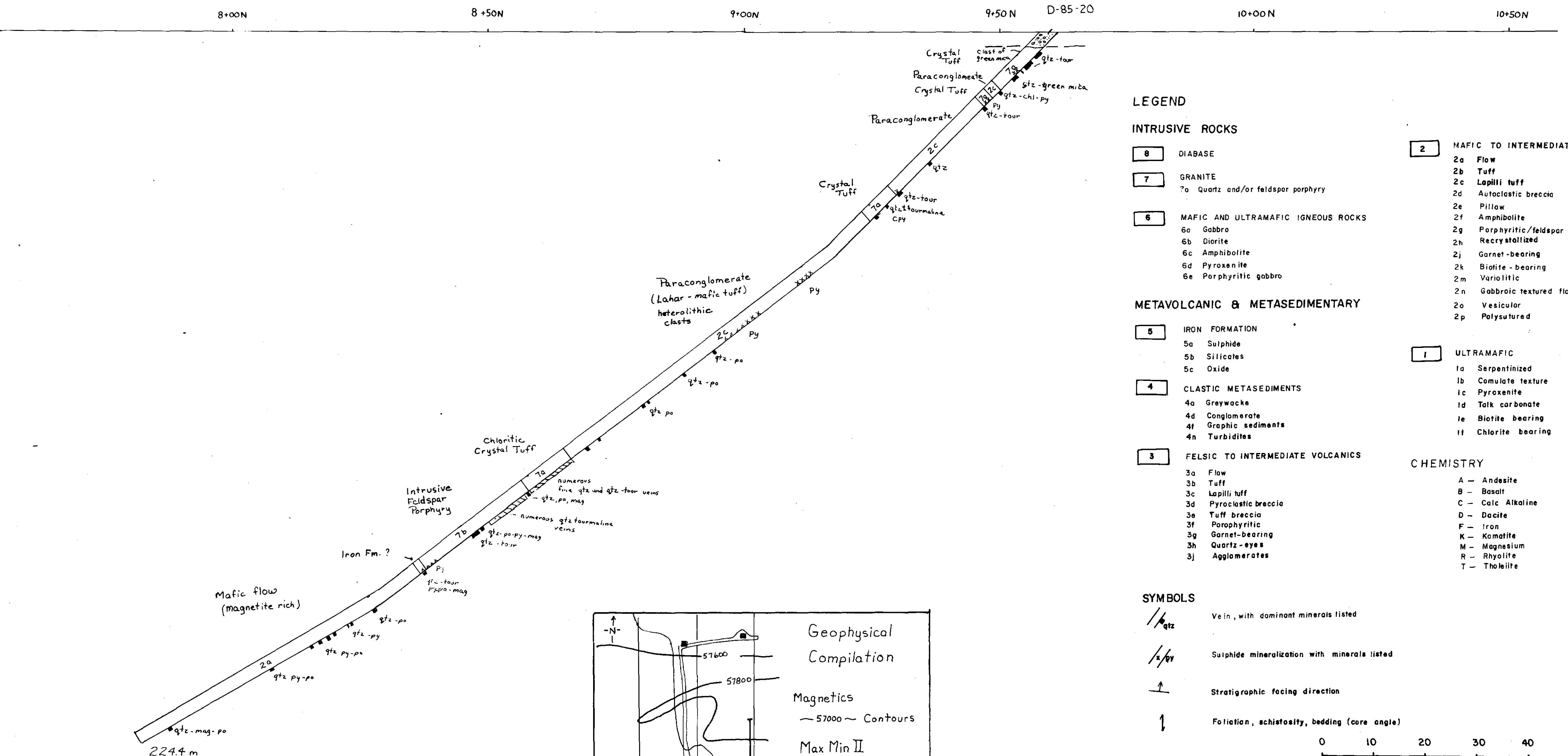
Section 135+25E (Looking West)

G E O C H E M I S T R Y

Work by	Scale 1:500
Date April 1985	NTS 32-E 13







LEGEND

INTRUSIVE ROCKS

- [8] DIABASE
- [7] GRANITE
 - 7a Quartz and/or feldspar porphyry
- [6] MAFIC AND ULTRAMAFIC IGNEOUS ROCKS
 - 6a Gabbro
 - 6b Diorite
 - 6c Amphibolite
 - 6d Pyroxenite
 - 6e Porphyritic gabbro

MAFIC TO INTERMEDIATE VOLCANICS

- 2a Flow
- 2b Tuff
- 2c Lapilli tuff
- 2d Autoclastic breccia
- 2e Pillow
- 2f Amphibolite
- 2g Porphyritic/feldspar phenocrysts
- 2h Recrystallized
- 2j Garnet-bearing
- 2k Biotite-bearing
- 2m Variolitic
- 2n Gabbroic textured flow
- 2o Vesicular
- 2p Polysutured

METAVOLCANIC & METASEDIMENTARY

- [5] IRON FORMATION
 - 5a Sulphide
 - 5b Silicates
 - 5c Oxide
- [4] CLASTIC METASEDIMENTS
 - 4a Greywacke
 - 4d Conglomerate
 - 4f Graphic sediments
 - 4n Turbidites
- [3] FELSIC TO INTERMEDIATE VOLCANICS

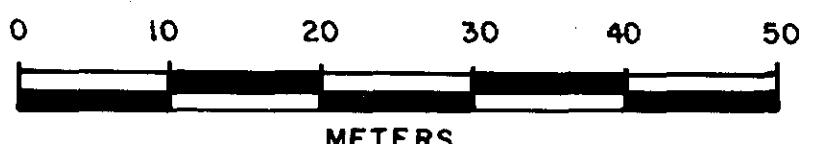
- 1 ULTRAMAFIC
 - 1a Serpentinized
 - 1b Cumulate texture
 - 1c Pyroxenite
 - 1d Talk carbonate
 - 1e Biotite bearing
 - 1f Chlorite bearing

CHEMISTRY

- A — Andesite
- B — Basalt
- C — Calc Alkaline
- D — Dacite
- F — Iron
- K — Komatiite
- M — Magnesium
- R — Rhyolite
- T — Tholeiite

SYMBOLS

- / \ qtz Vein, with dominant minerals listed
- / \ py Sulphide mineralization with minerals listed
- ↑ Stratigraphic facing direction
- ↓ Foliation, schistosity, bedding (core angle)



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EASTERN CANADA MINING DIVISION

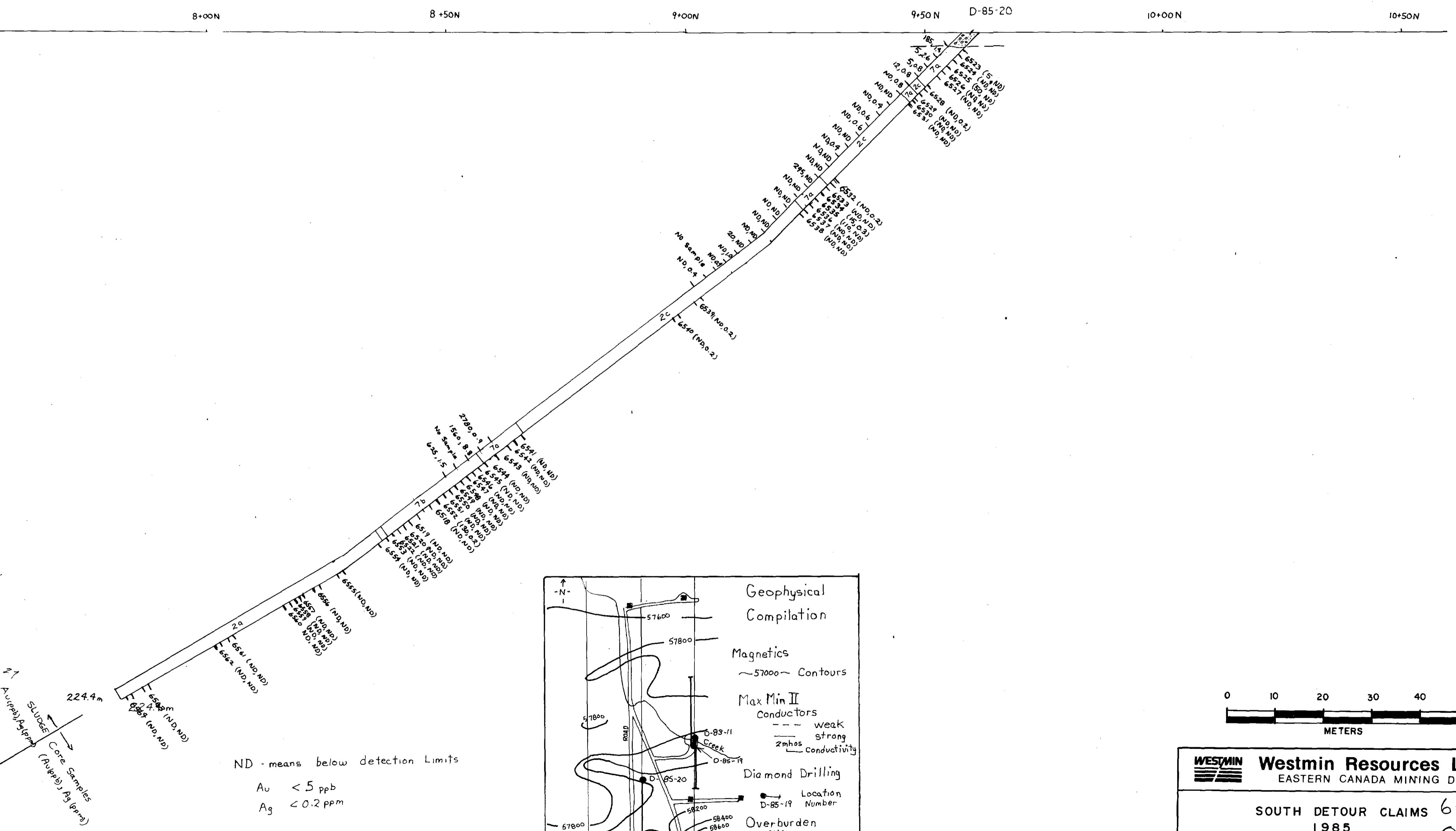
SOUTH DETOUR CLAIMS 63.4622
1985 OM84-348

Section 67+00E (Looking West)

GEOLGY

Work by PRJN	Scale 1:500
Date April 1985	NTS 32-E-13





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 EASTERN CANADA MINING DIVISION
 SOUTH DETOUR CLAIMS 63.4622
 1985 OM84-348
 Section 67+00E (Looking West)
GEOCHEMISTRY
 Work by PRJN Scale 1:500
 Date April 1985 NTS 32 E-13

LEGEND

INTRUSIVE ROCKS

[2]	MAFIC TO INTERMEDIATE VOLCANICS
2a	Flow
2b	Tuff
2c	Lapilli tuff
2d	Autoclastic breccia
2e	Floccular
2f	Amphibolite
2g	Felsic pyroxene/tfeldspar phenocrysts
2h	Recrystallized
2i	Garnet-bearing
2k	Pictorial-bearing
2m	Variolitic
2n	Gabbronoritic textured flow
2o	Vesicular
2p	Polytextured
[1]	ULTRAMAFIC
1a	Serpentinized
1b	Comictic texture
1c	Pyroxenite
1d	Talc carbonate
1e	Biotite-bearing
1f	Chlorite-bearing

METAVOLCANIC & METASEDIMENTARY

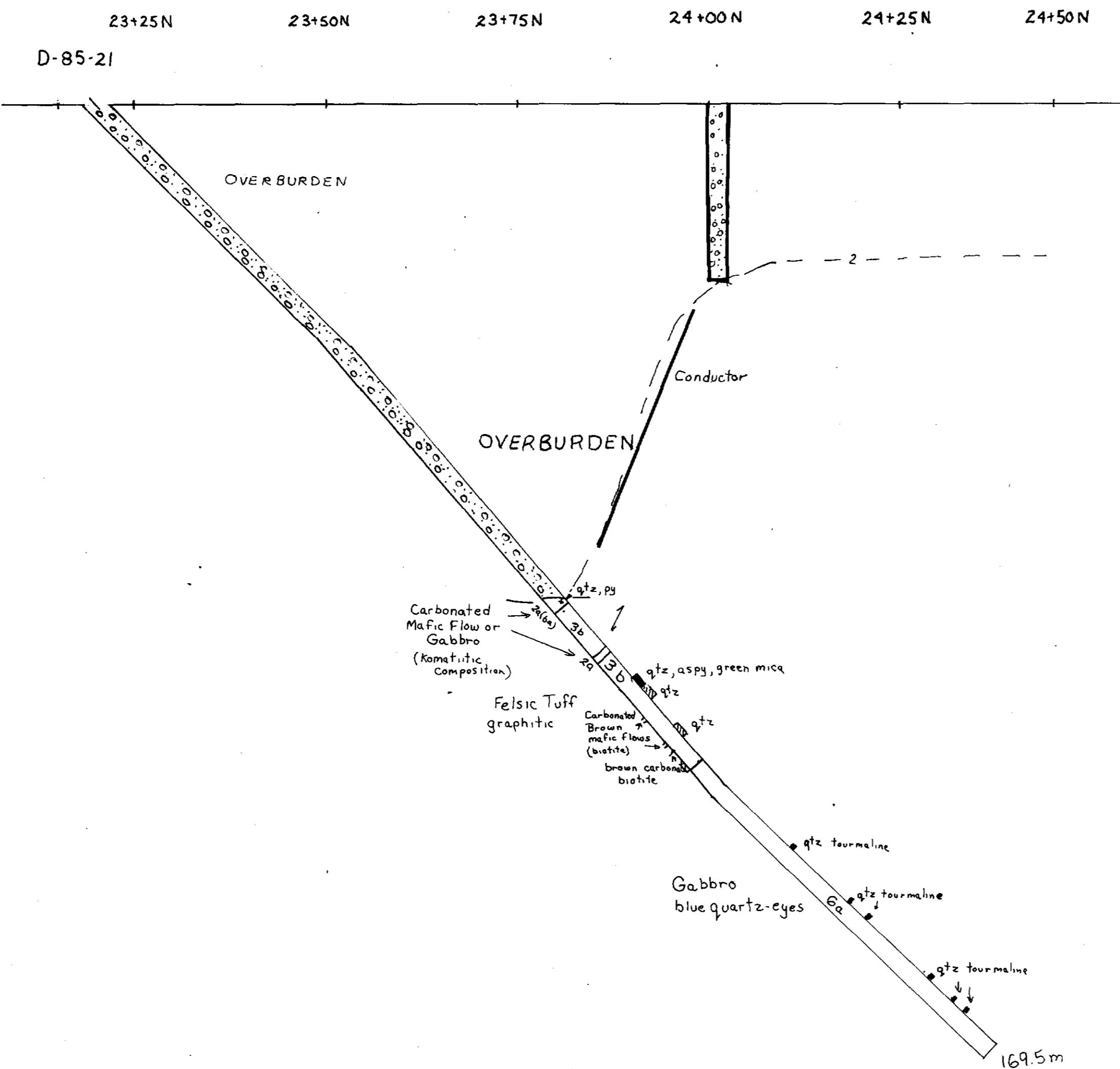
[5]	IRON FORMATION
5a	Sulphide
5b	Silicates
5c	Oxide
[4]	CLASTIC METASEDIMENTS
4a	Greenschist
4d	Conglomerate
4f	Graphic sediments
4n	Turbidites
[3]	FELSIC TO INTERMEDIATE VOLCANICS
3a	Flow
3b	Tuff
3c	Lapilli tuff
3d	Pyroclastic breccia
3f	Tuff breccia
3g	Felsic pyroxenite
3h	Garnet-bearing
3j	Quartz-eyes
3l	Asymmetric

CHEMISTRY

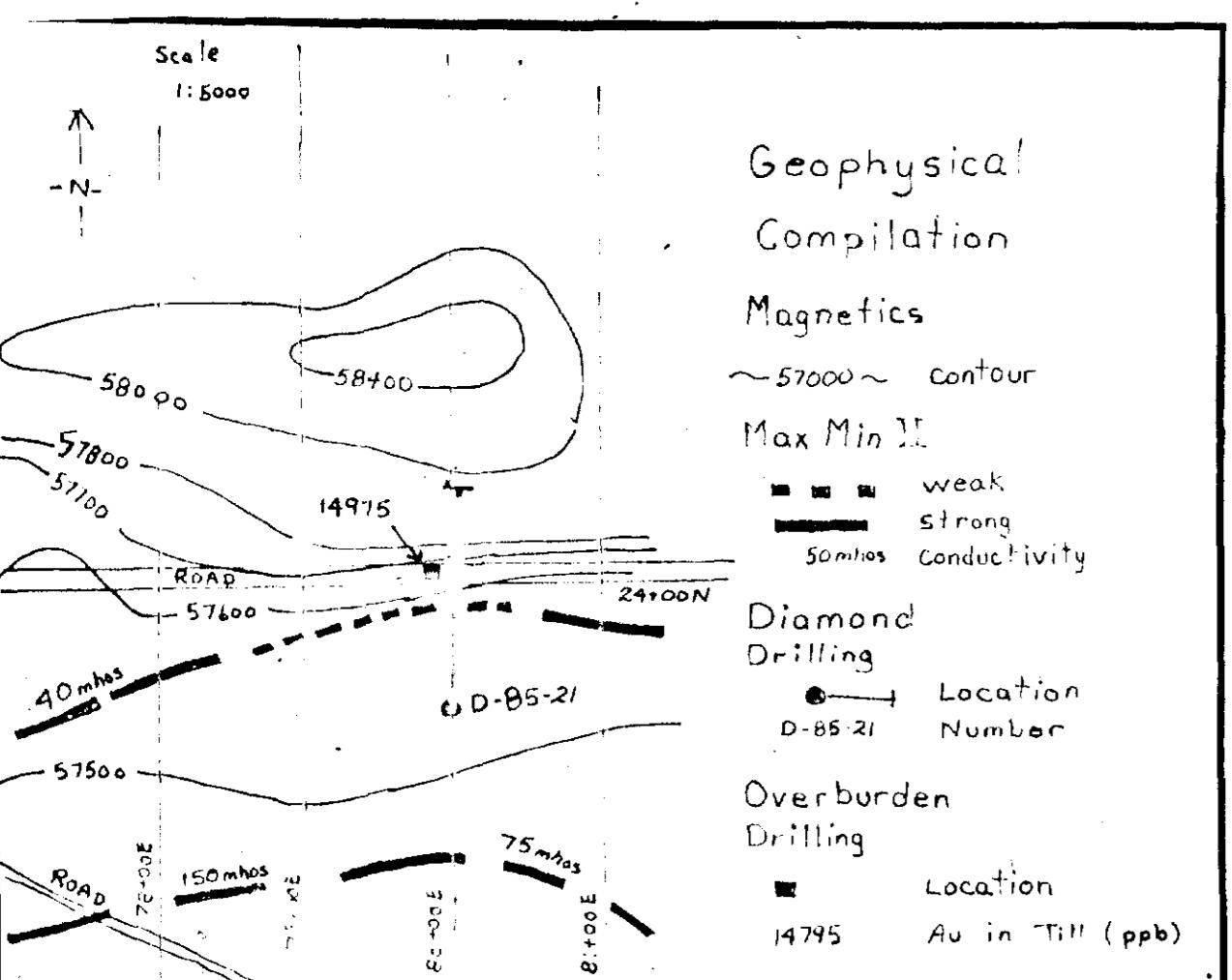
A	Andesite
B	Susalt
C	Calc Alkaline
D	Dacite
E	Iron
K	Kemomite
M	Magnesium
R	Rhyolite
T	Tholeite

SYMBOLS

/ / _{QZ}	Vein with dominant minerals listed
/ / _{Py}	Sulphide mineralization with minerals listed
—	Stratigraphic facing direction
↓	Foliation, schistosity, bedding (core angle)



280



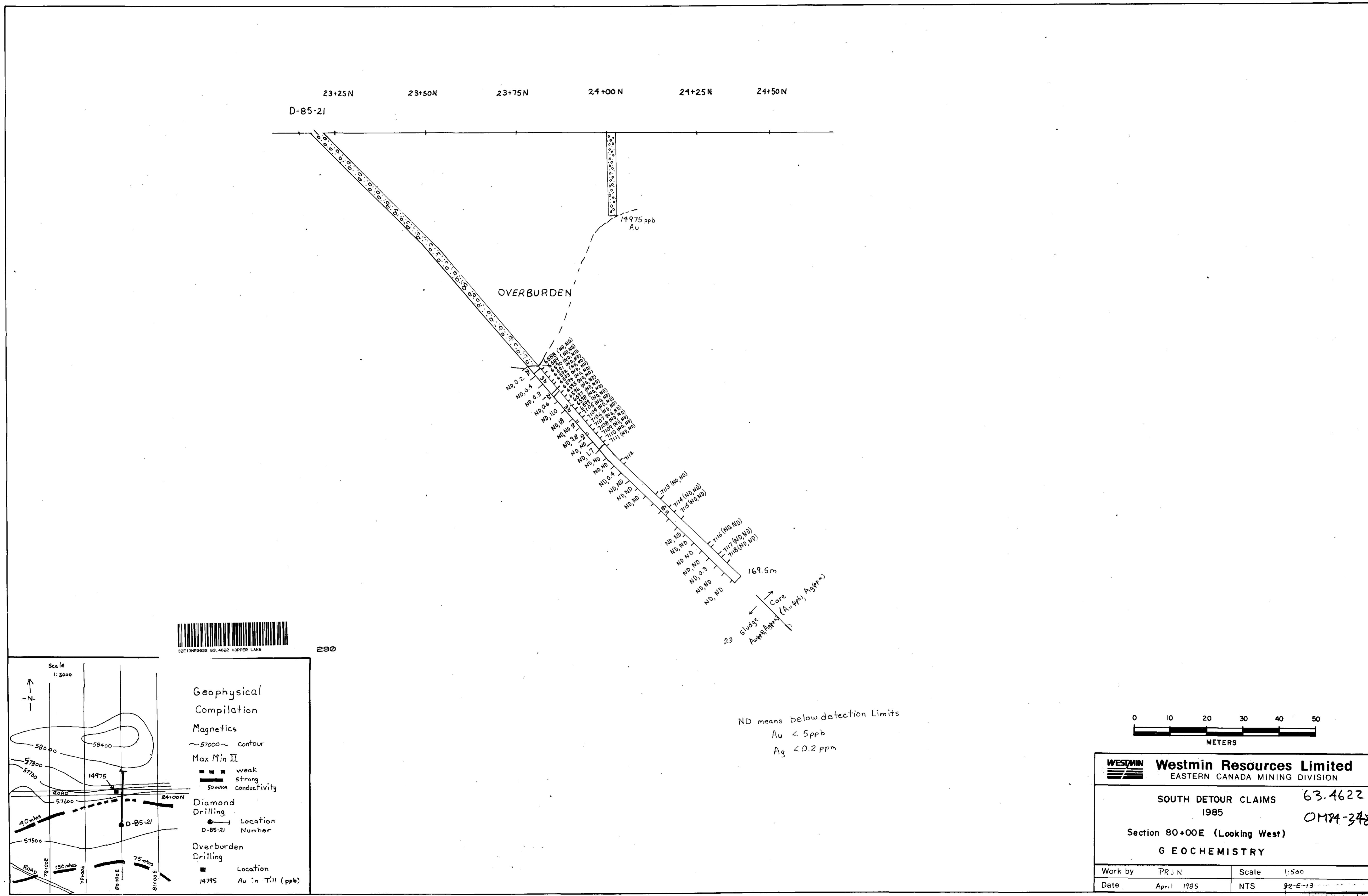
WESTMIN Resources Limited
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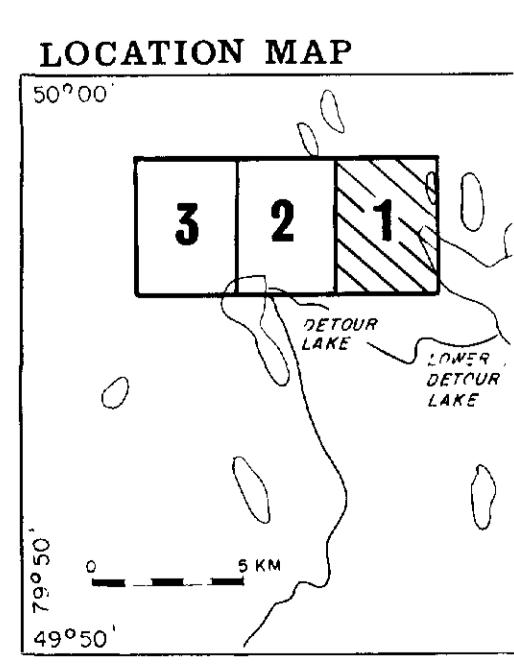
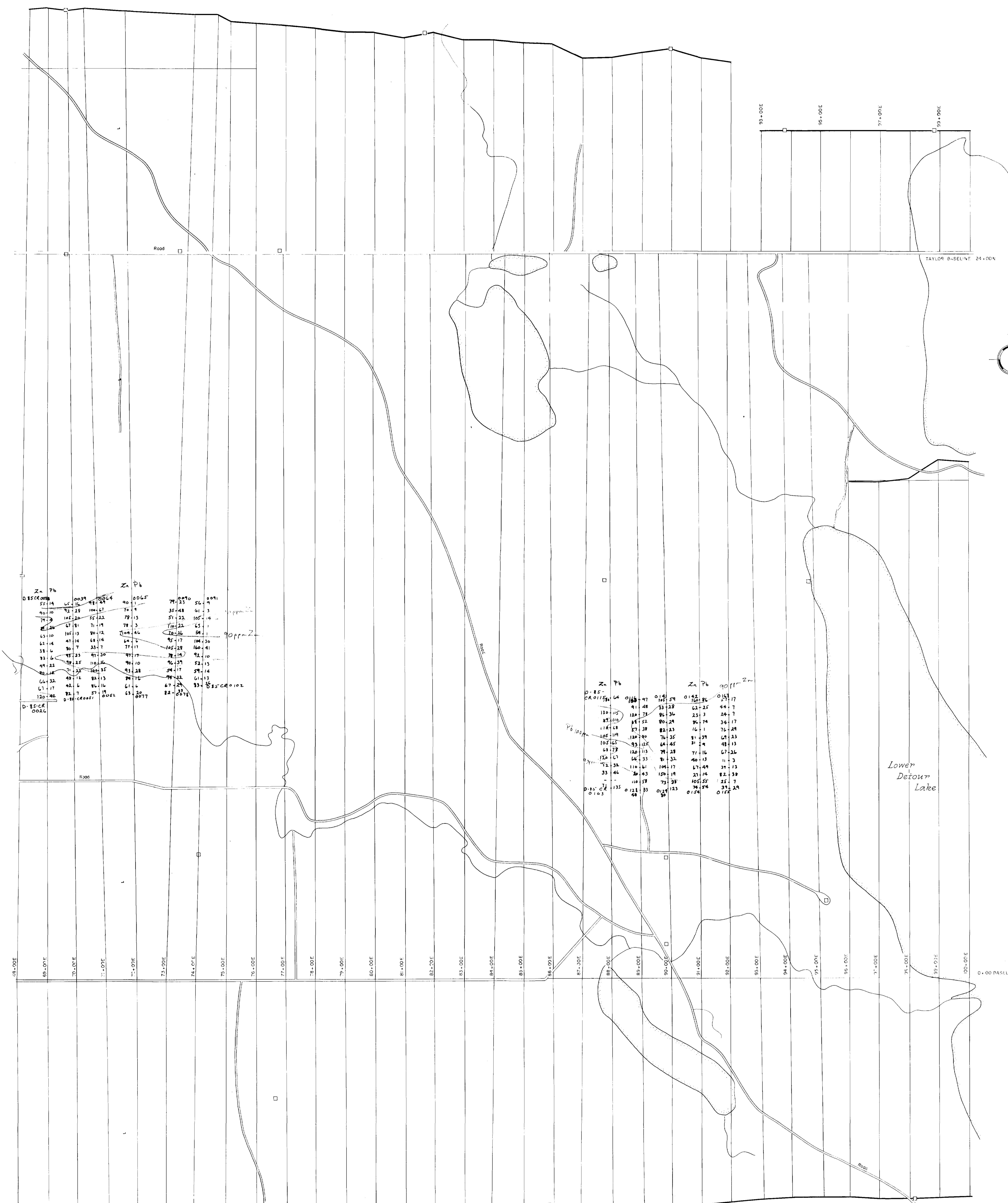
SOUTH DETOUR CLAIMS 63.4622
1985

Section 80+00E (Looking West)

GEOLGY

Work by	PRJN	Scale	1:500
Date	April 1985	NTS	32 E 13

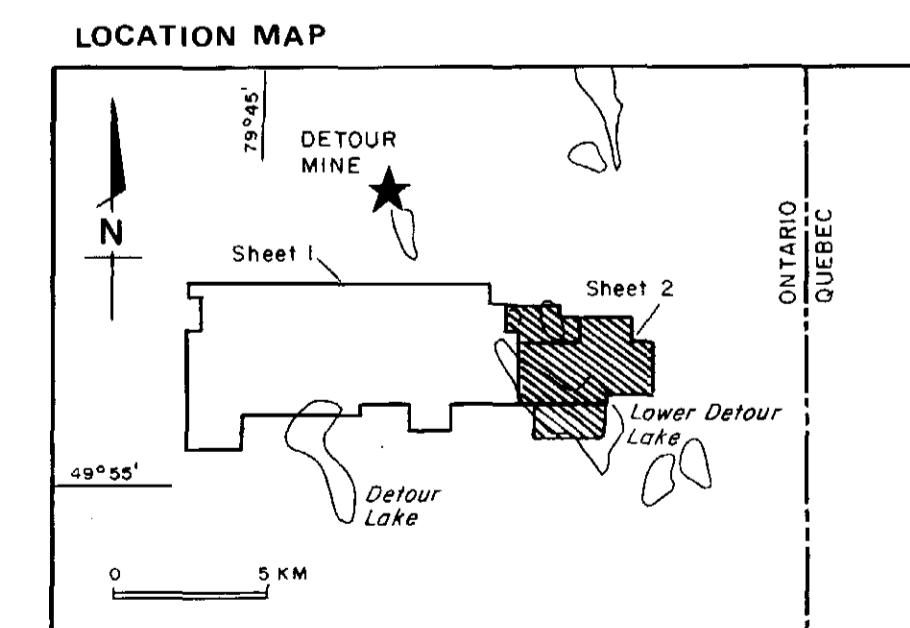
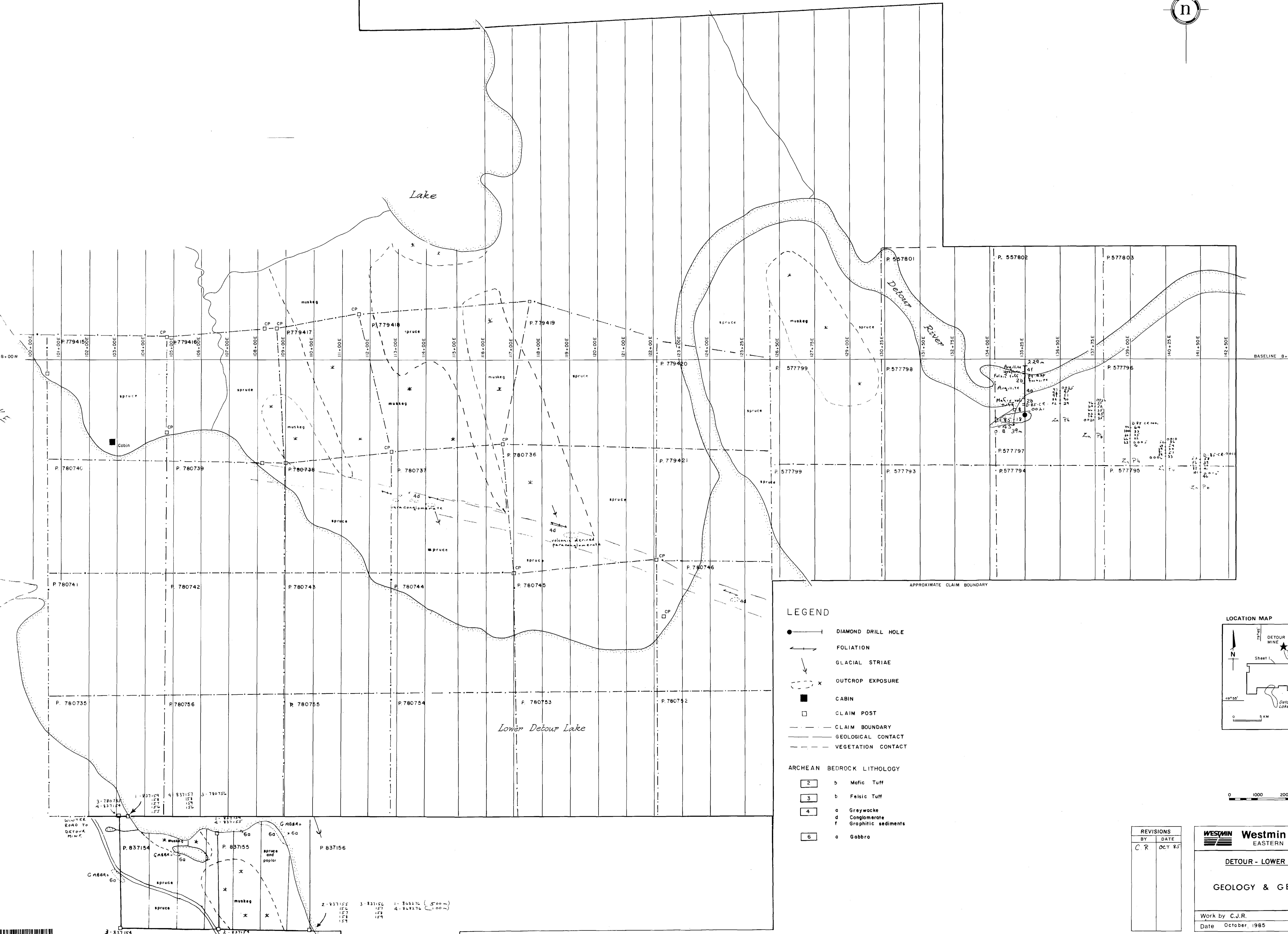
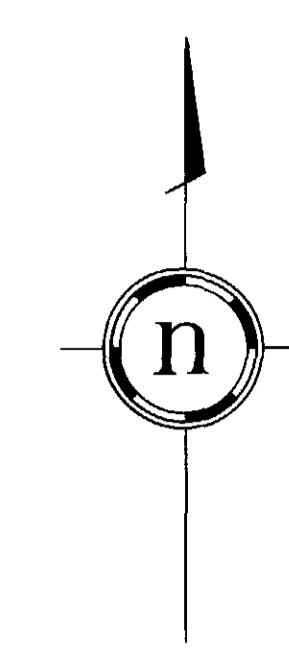




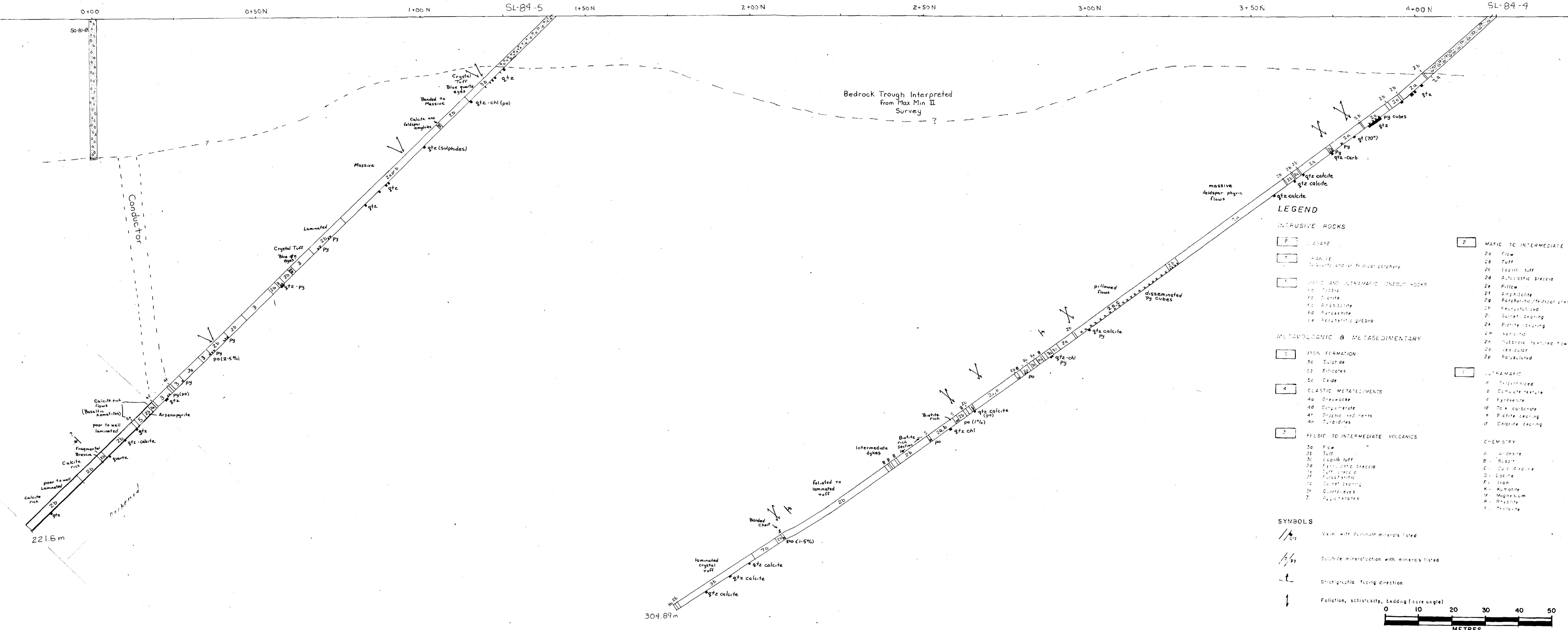
Revised by	Date
C.R.	OCT 85

(Au pb in humus)
D-85-CR - 0103
1985 samples

WESTMIN Westmin Resources Limited
EASTERN CANADA MINING DIVISION
DETOUR - LOWER DETOUR LAKE CLAIMS
HUMUS GEOCHEMISTRY
63-A622
OM84-348
Work by C.R. Scale 1:5000
Date JUNE 1983 NTS 32E/13



0 1000 2000 3000 4000 5000 METERS



Westmin Resources Limited EASTERN CANADA MINING DIVISION		
SUNDAY LAKE CLAIMS 63-4622 1985 OM84-348		
Section 8+00E (Looking West) GEOLOGY*		
Work by	P.R.J.N.	Scale 1:500
Date	April 1985	NTS 32 E-13, L-4



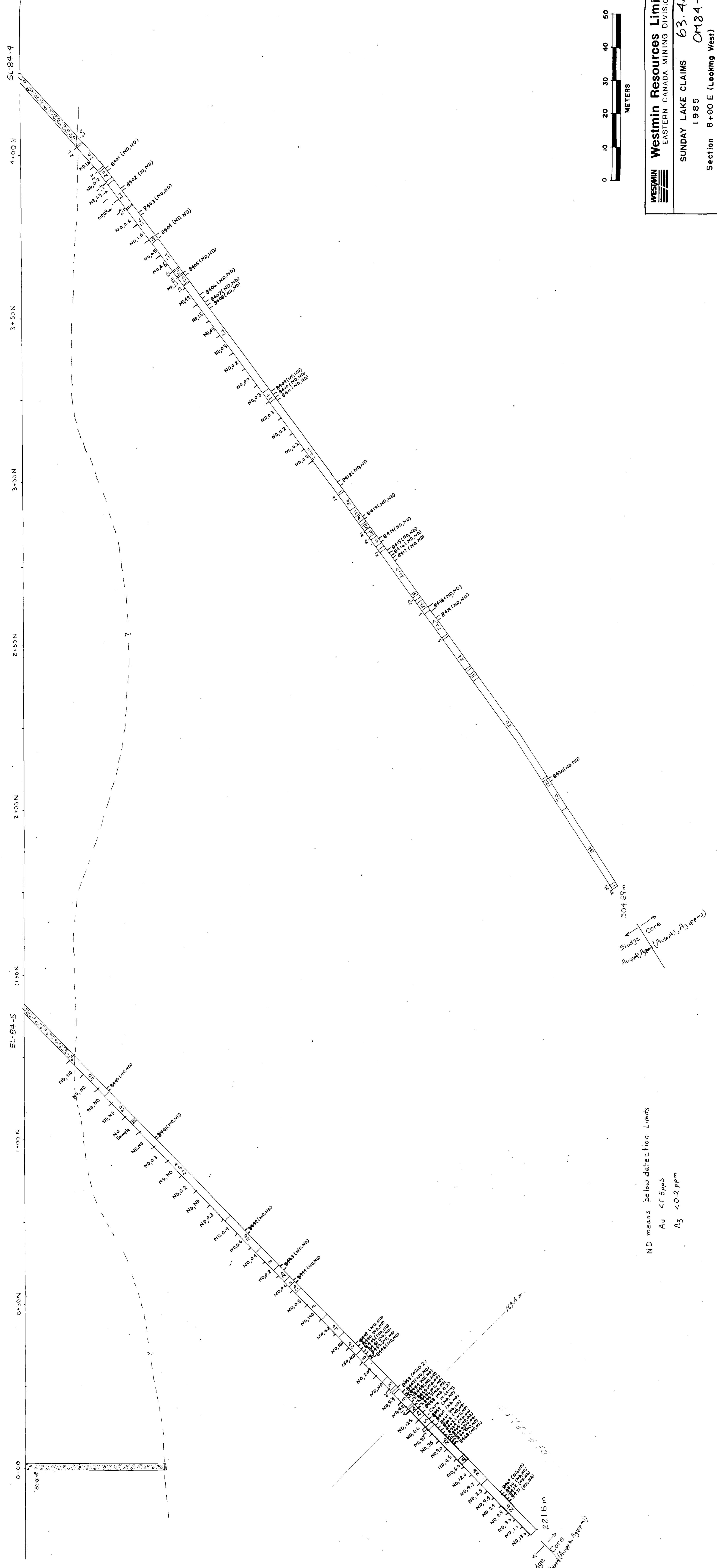


FIGURE 5