



010

MINING LANDS SECTION

A REPORT ON THE REVERSE CIRCULATION  
OVERBURDEN DRILLING PROGRAM IN  
BOND TOWNSHIP  
WESTMIN RESOURCES LIMITED

2.4894

D. J. Robinson, Ph.D.

April, 1982



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#### MAPS

1. Property Map with Overburden Drill Locations	
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## 1. Summary and Recommendations

Anomalous Au tenors in till were encountered in each of the three target areas of the Bond Project referred to as the: Moose , Driftwood and Grindstone groups. Seventy-one till and/or clastic samples were collected from 16 overburden drill holes in the three areas. The average Au content in till is 177 ppb, excluding samples with greater than 1000 ppb; 12 samples contain >1000 ppb Au and 4 samples contain >10,000 ppb Au. Visible Au was also noted during the sample preparation in each of the three areas.

### Moose Anomaly

The Moose Anomaly is the first priority target area as three basal till samples were intersected in hole BO-82-12 containing >10,000 ppb Au. One grain of visible gold greater than 1000 microns was also recorded at the base of this hole. Six overburden drill holes are recommended north of BO-82-12, followed by a 1,000 ft. diamond drill hole, collared south of BO-82-12 drilling north at 45°.

### Driftwood Anomaly

Five overburden drill holes are recommended to follow-up anomalous Au concentrations in till, encountered in 5 of the 6 overburden drill holes on the Driftwood anomaly. Three samples with greater than 2500 ppb Au (in H.M.C.) were intersected in BO-82-7, including one sample containing >15,000 ppb Au. Visible gold was also recorded in three samples in this hole.

The gold source appears to be north (up ice) of a barren pyritic-graphitic argillite, previously tested by overburden and diamond drilling. Therefore further overburden drilling is recommended.

#### Grindstone Anomaly

One of 5 overburden drill holes completed in the Grindstone Anomaly intersected anomalous Au tenors in basal till including: BO-82-1-1 at 1150 ppb Au and BO-82-1-3 at 7750 ppb Au. One grain of visible gold was also noted in the later sample. One diamond drill hole is recommended to test a Max-Min II conductor located immediately north of BO-82-1.

## 2. INTRODUCTION:

In March 1982, 16 overburden drill holes were completed by Westmin Resources Limited on claims held in Bond township, Ontario (figures 1, 2); located "down-ice" from Max-Min II anomalies and/or coincident with anomalous concentrations of Au in till, defined in previous overburden campaigns. There are three priority target areas, referred to as the Moose-, Driftwood- and Grindstone groups (Map 1, back pocket).

The field program was carried out under contract to Bradley Bros. for W.R.L. from March 17 to 26, 1982. Total footage drilled was 1,919 ft., with an average depth of overburden at 120 ft. A minimum depth of 49 ft. was encountered in BO-82-4, on the Grindstone Group, and a maximum depth of 169 ft. in hole BO-82-7 on the Driftwood Group (Appendix III).

Till and/or gravel sections encountered in the drilling were collected at 5 ft. intervals and shipped to Overburden Management Ltd. in Ottawa for heavy mineral concentration. Heavy mineral concentrates were subsequently shipped to Bondar-Clegg Assayers for geochemical analyses for Cu-Pb-Zn-Ni-Ag-Au by atomic absorption methods. Bedrock chips were also collected in each hole and analyzed for the above base and precious metals.

## 3. LOCATION, ACCESS AND PROPERTY DESCRIPTION:

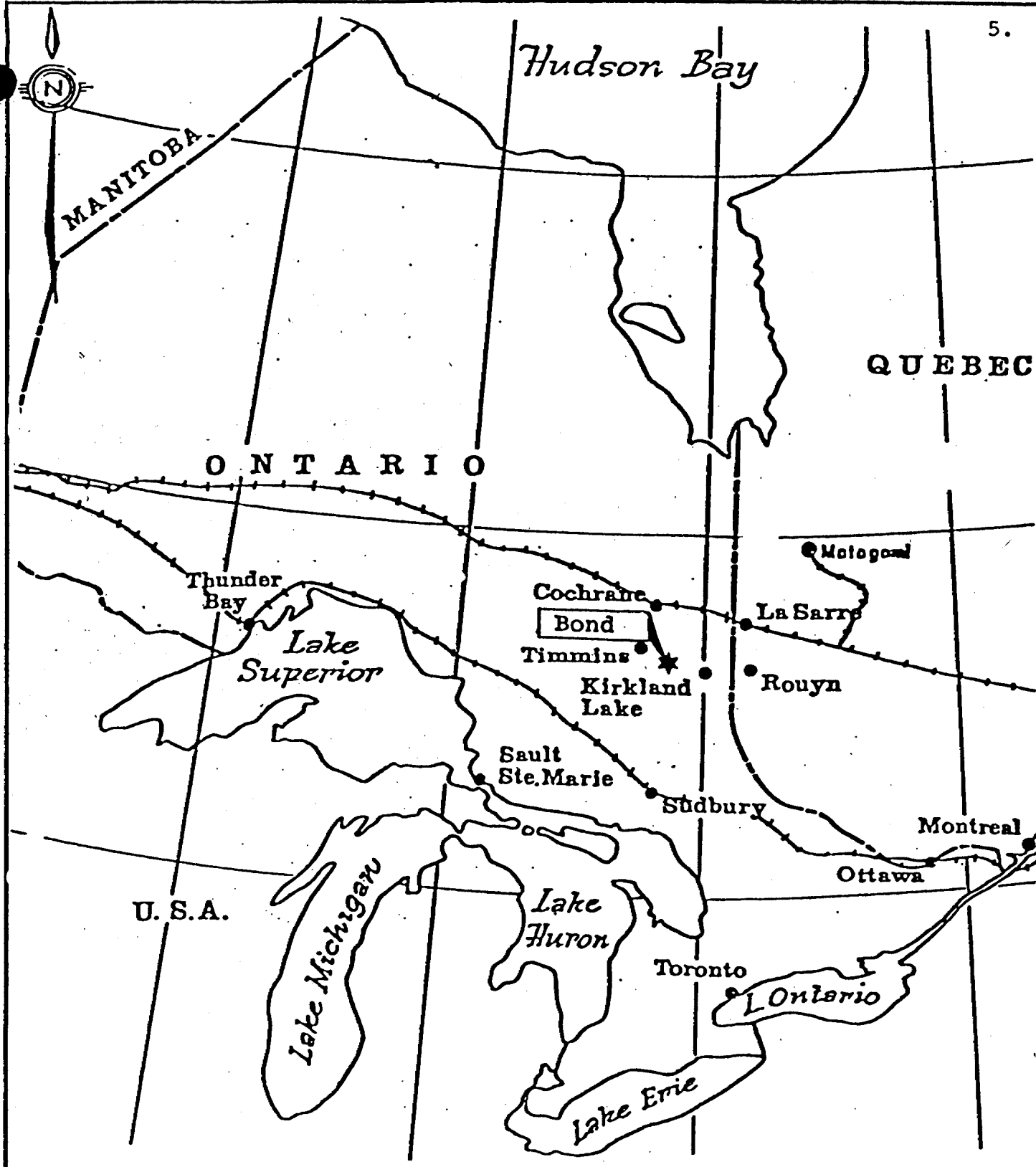
The project is situated in Bond township and is located approximately 45 kilometres east of Timmins, Ontario (figure 1). The property is centred within 48°28'30" latitude and 80°43'00"


longitude and consists of 86 contiguous mining claims (table 1; figure 2). Access to the property is facilitated by the Bond-Currie township boundary road, south of Shillington, or the Gibson Lake Road; both roads extend south from highway 101.

Drill hole locations are illustrated on Map 1, back pocket, and coincide with the following claims:

<u>Drill Hole</u>	<u>Claim</u>	<u>DEPTH</u>
BO-82-1	P.597120	31.1
BO-82-2	P.597120	32.0
BO-82-3	P.597120	27.1
BO-82-4	P.597120	14.9
BO-82-5	P.597121	20.4
BO-82-6	P.553495	28.7
BO-82-7	P.553495	51.5
BO-82-8	P.553495	47.9
BO-82-9	P.553490	29.3
BO-82-10	P.553490	44.2
BO-82-11	P.553490	40.9
BO-82-12	P.555202	48.8
BO-82-13	P.555202	39.6
BO-82-14	P.555202	38.4
BO-82-15	P.555201	45.7
BO-82-16	P.555201	44.2
		<u>584.7 meters</u>

The work is being filed under section 86-18 of the Mining Act. An assessment credit of 2,613 days (\$15/day, max. 60 days/cl.) is submitted against these claims (Appendix II).



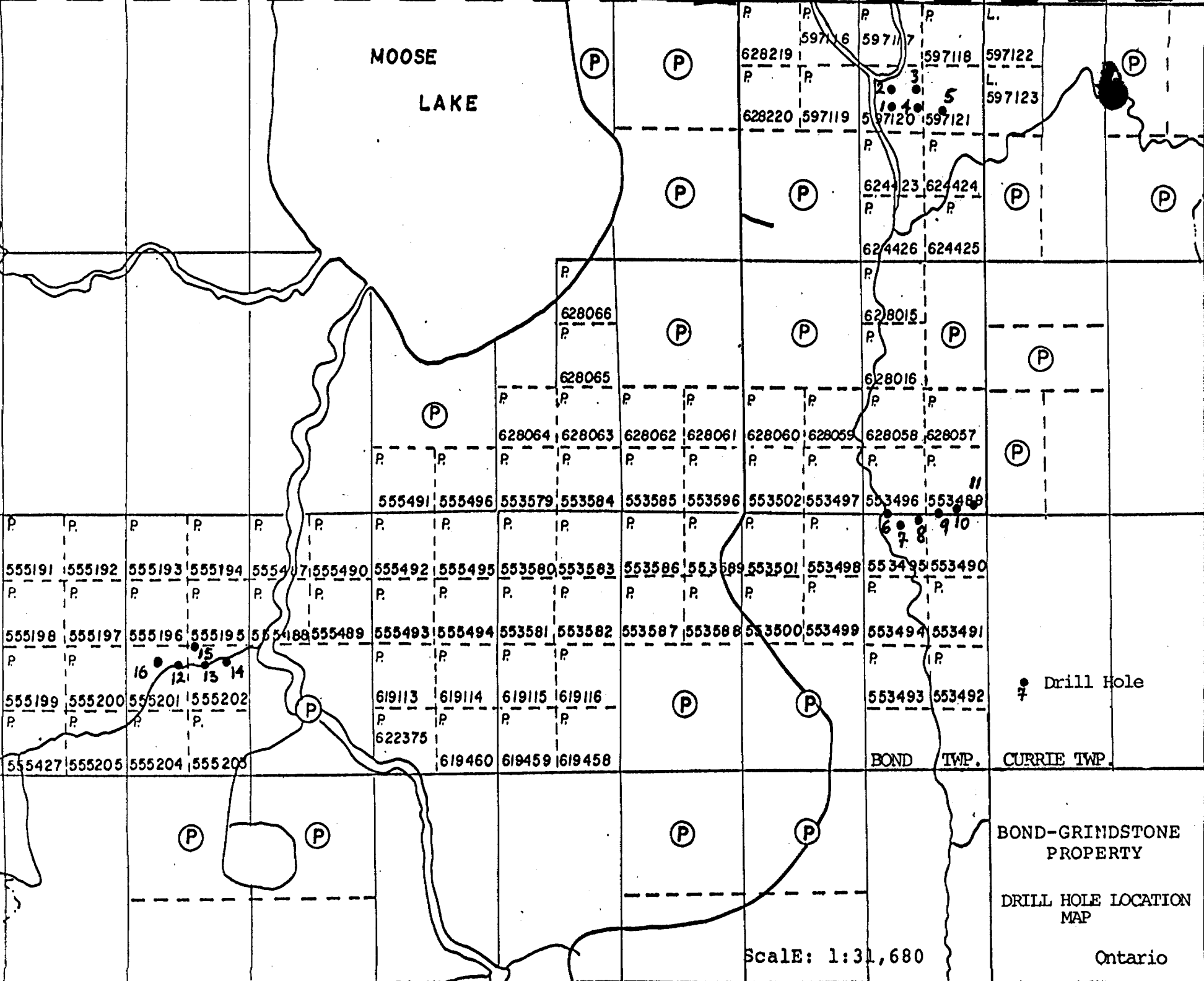
 <b>Westmin Resources Limited</b> EASTERN CANADA MINING DIVISION	
BOND PROJECT LOCATION MAP Figure 1	
Work by <b>D.J. Robinson</b>	Scale
Date <b>March, 1982.</b>	NTS <b>42A7/10</b>







# MOOSE LAKE



● Drill Hole  
7

BOND TWP. CURRIE TWP.

BOND-GRINDSTONE PROPERTY

DRILL HOLE LOCATION MAP

Scale: 1:31,680

Ontario

555191	555192	555193	555194	555487	555490	555492	555495	553580	553583	553586	553589	553501	553498	553495	553490
555198	555197	555196	555195	555488	555489	555493	555494	553581	553582	553587	553588	553500	553499	553494	553491
555199	555200	555201	555202			619113	619114	619115	619116					553493	553492
555427	555205	555204	555205			622375		619460	619459	619458					

628219	597116	597117	597118	597122
628220	597119	597120	597121	597123

628066	628065	628064	628063	628062	628061	628060	628059	628058	628057
555491	555496	553579	553584	553585	553596	553502	553497	553496	553489

624423	624424	624426	624425
--------	--------	--------	--------

628015	628016
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BOND - GRINDSTONE PROPERTY - PROPERTY STATUS

Equity: Westmin Resources Limited 100%

Location: Bond and Currie Townships, Porcupine and Larder Lake Mining Division, Ontario.

Property: 86 Mining Claims

<u>Claims</u>	<u>Assessment Work Done</u>	<u>Option Payment</u>
P.553489-553502 (14)	March 5, 1983	-----
P.553579-553589 (11)	March 5, 1983	-----
P.553596 (1)	March 5, 1983	-----
P.555191-555205 (15)	Feb. 27, 1983	-----
P.555427 (1)	March 5, 1983	-----
P.555487-554496 (10)	March 5, 1983	-----
P.597116-597121 (6)	Jan. 30, 1982	-----
L.597122-597123 (2)	Feb. 2, 1982	-----
P.619113-619116 (4)	Sept. 1, 1982	-----
P.619458-619460 (3)	Sept. 1, 1982	-----
P.622375 (1)	Sept. 1, 1982	-----
P.624423-624426 (4)	Sept.14, 1982	-----
P.628015-628016 (2)	Sept.14, 1982	-----
P.628057-628066 (10)	Sept.14, 1982	-----
P.628219-628220 (2)	Sept.14, 1982	-----

## Results

Till and bedrock samples were analyzed for base and precious metals which are tabulated in Appendix V and graphically illustrated in figures 3, 4 and 5. Generally, the concentration of Cu-Pb-Zn-Ni in the heavy mineral separates is very low with very few anomalous samples (figure 3). Four samples including; BO-82-8-4, BO-82-11-2, BO-82-12-10 and BO-82-13-1 contain anomalous concentrations of base metals in till that are of interest. BO-82-8-4 immediately overlies a graphitic argillite containing minor amounts of sphalerite and chalcopyrite. Sample BO-82-11-2 is situated near the top of the till section, which implies a distal source. BO-82-12-10 is a basal till sample associated with a large Au anomaly and warrants follow-up with both reverse circulation and diamond drilling. BO-82-13-01 is a basal till sample located 400 ft. along strike of BO-82-12-10 on the Moose Group and requires further work.

## Precious Metals

Each of the three areas; Grindstone-, Driftwood-, and Moose Groups host anomalous concentrations of Au in till. The average concentration of Au in heavy mineral concentrate, excluding samples with greater than 1000 ppb Au, is 177 ppb. A total of 24 samples contain >250 ppb Au and 5 samples contain >5000 ppb Au (figure 4). Visible gold was also recognized in each of the three areas tested, while concentrating the heavy metals on a Wilfrey shaking table (Appendix IV).

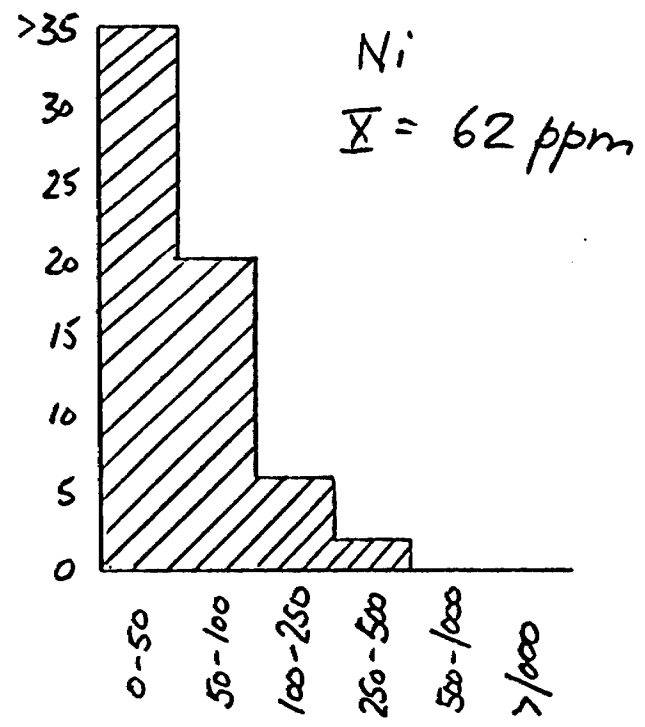
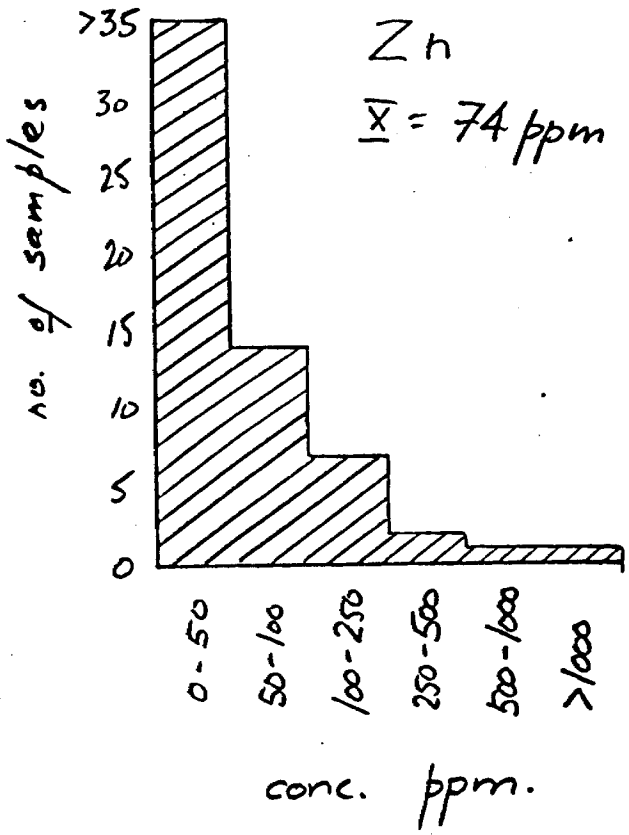
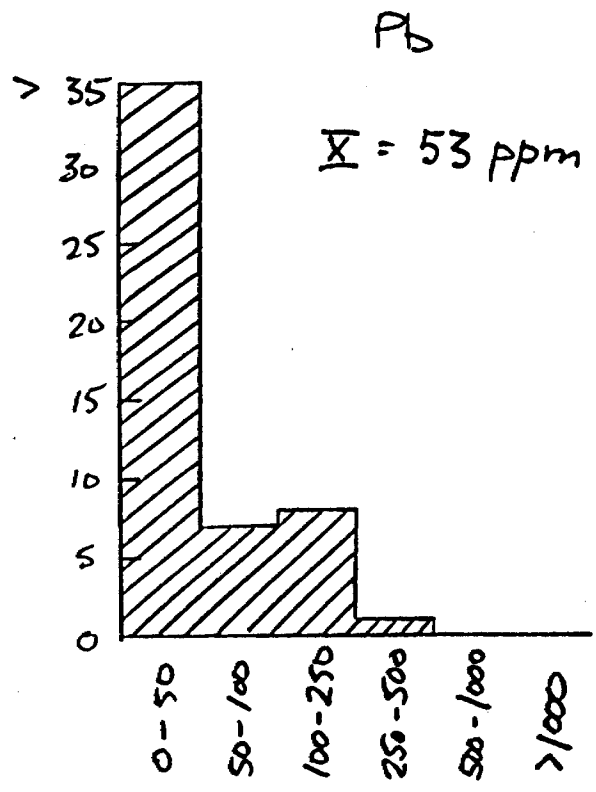
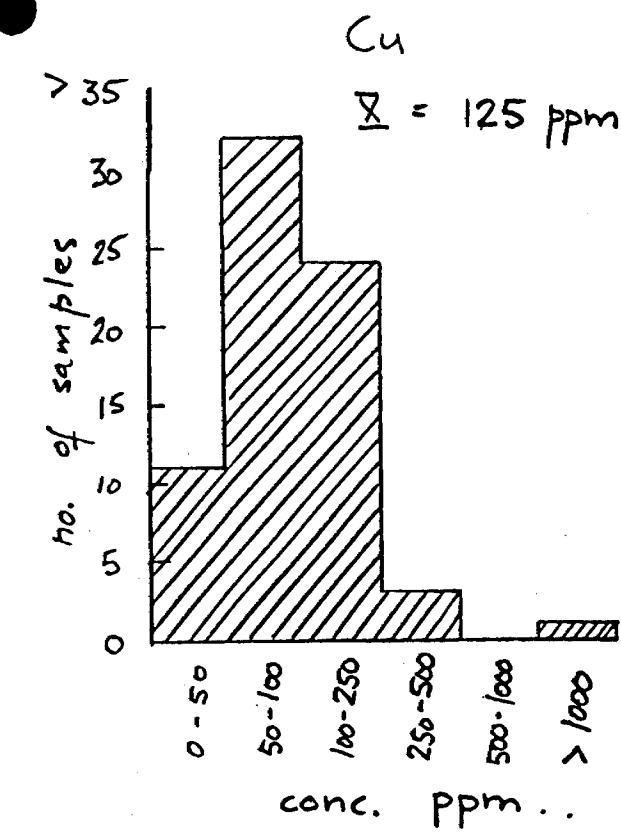


Figure 3 Concentration of base metals in till (H.M.C.) Bond Project

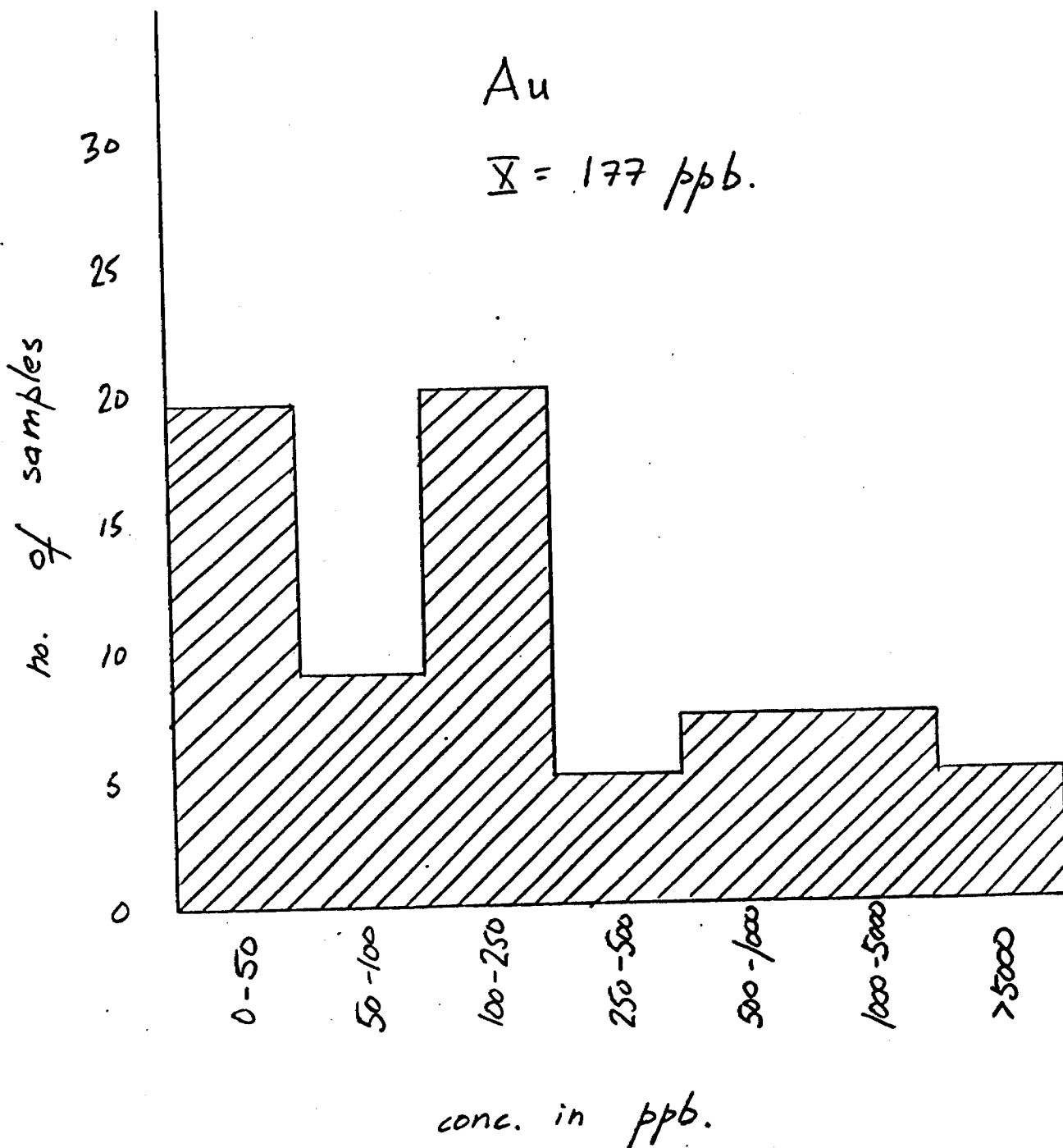


Figure 4 Concentration of Au in basal till (H.M.C.)  
Bond Project

### Grindstone Anomaly

Anomalous concentrations of Au were intersected in two samples; BO-82-1-1 and BO-82-1-3, down-ice from a Max-Min II conductor on the Grindstone anomaly. One grain of visible gold was also noted in the later sample, which immediately overlies bedrock. The till in this region is very thin, generally < 10 ft., overlying mafic volcanic rocks and a N-S striking diabase dyke. The remaining four O.B. drill holes did not intersect any anomalous concentrations of base- or precious metals. One diamond drill hole is recommended to test the Max-Min II conductor, immediately north of hole BO-82-1.

### Driftwood Anomaly

Anomalous concentrations of Au in till were encountered in 7 samples, from 5 of the 6 overburden drill holes completed on the Driftwood anomaly. Till samples range in Au tenor from 695 ppb (BO-82-8-1) to >15,000 ppb (BO-82-7-7). Samples BO-82-6-2, 7-3, 7-5, 9-2 and 9-3 also contained >1000 ppb Au in the heavy mineral concentrate. Visible gold was recorded in 4 samples, 3 of which occur in hole #7. Three of the 6 O.B. drill holes intersected a graphitic-pyritic argillite, barren of base- and precious metals, and the remaining holes encountered immediate to mafic volcanic rocks. Five overburden drill holes are recommended to follow-up the Au dispersion train.

### Moose Anomaly

Anomalous concentrations of Au in till were intersected in 11 samples, ranging in concentration from 380 ppb Au to >15,000 ppb Au (in H.M.C.). Overburden hole BO-82-12 is of particular interest as 5 samples contain anomalous Au tenors, 3 of which are >10,000 ppb. Furthermore, 1 grain of visible gold >1000 $\mu$  was also encountered in BO-82-12-10. This overburden hole duplicates results from Tillex hole 73-25-67 which also intersected 3 basal till samples containing >10,000 ppb Au. Bedrock in Westmin hole BO-82-12 (Appendix III) is a highly altered limonitic felsic (sub?)-volcanic porphyry. Hole BO-82-16, located 400 ft. west of #12 also encountered anomalous concentrations in Au in five samples, ranging from 390 to 3150 ppb Au. Three grains of visible gold were also recorded in sample BO-82-16-3. Holes 13 and 15 located east and northeast of BO-82-12 (figure 5; map, back pocket) each contained 1 anomalous sample including; BO-82-13-1 (1665 ppm Cu and 1.8 ppm Ag) and BO-82-15-1 (550 ppb Au).

The Moose anomaly is a first priority target and both overburden and diamond drilling are recommended. Six overburden holes are recommended north of BO-82-12 to "cut-off" the Au dispersion train, followed by a 1,000 ft. drill hole, collared south of BO-82-12 drilling north at 45°.

ASSESSMENT CREDIT

Total cost against assessment \$39,199.38

Total footage 1,919 ft.

Total days credit as per Section 86-18 2,613.29  
 (\$15.00/day, max. 60 days)

Total days credit against claims is  
 60 days per claim

Credit is being applied against the  
 following claims:

	<u>No. of Days</u>
P597116-121      6 cls. x 60 days	360
L597122-123      2 cls. x 60 days	120
P628219-220      2 cls. x 20 days	40
P553489-502      14 cls. x 40 days	560
P553579-589      11 cls. x 40 days	440
P553596            1 cl. x 40 days	40
P555487-496      10 cls. x 40 days	400
P555191-205      15 cls. x 40 days	600
P555427            1 cl. x 40 days	40
62 cls.	2600 days



APPENDIX I

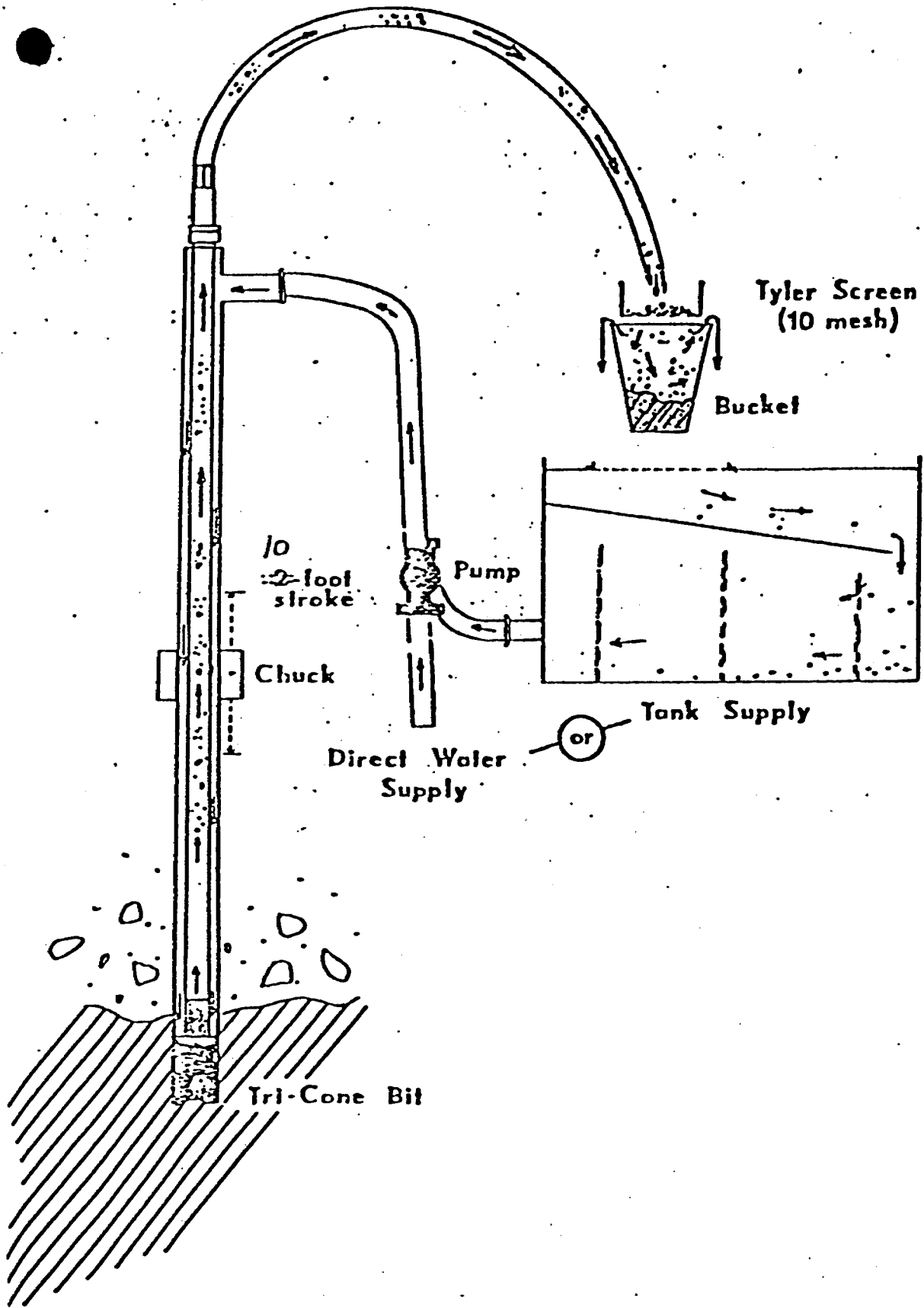


FIGURE 5 Schematic Section of Dual Tube Drilling System

DESCRIPTION OF OVERBURDEN AND  
BEDROCK DRILLING AND SAMPLING:

The equipment was a Longyear drill converted to dual tube reverse circulation. It is mounted on a Nodwell FN-160 carrier. Power for the drill is taken from the drill engine with aid of hydraulics. The drilling string comprised 9 foot sectional dual-tube rods of 2 15/15" size and a standard tricone 15/16 bit. Rapid and reliable penetration and recovery of glacial overburden is achieved with a combination of air and water and a 20 foot continuous feed.

Water is pumped down between the outer and inner tubes to exit near the bit cone. The resultant mixture of water and sediment is returned up the centre tube of the drill string and discharges through a 1 foot diameter steel funnel (cyclone) into a + 300 gallon water recovery tank, thus allowing for recycling of drill water.

Silt, sand and gravel are collected below the discharge cyclone in 5 gallon plastic pails which rest upon a steel grate lying on the top of the recovery tank. The clay size fraction is allowed to overflow the pail into the tank. Figure 5 which is reproduced from G.S.C. Open File #116, 1972, is a schematic version of this sampling system.

A 10 mesh Tyler screen is placed over the bucket to allow the geologist to continuously log the nature of the coarser drift particles, i.e. sand, gravel and till chunks, and a portion of the

● +10 mesh fraction may be temporarily retained for field geological examination. In normal practice, however, the +10 mesh fraction is dumped into the bucket at the end of each run so that all sediment, exclusive of clay fines, are available for laboratory investigation. Samples are bagged from each run at periodic intervals and transported to a central laboratory.

Drilling continues below the glacial drift section into bedrock for depths of 1 ft. to 5 ft. The +10 mesh bedrock chips, which are up to 1/2" in diameter, are collected on the Tyler screen during drilling and kept separately from -10 mesh bedrock fines which pass into the sample bucket.

#### LABORATORY TEST WORK:

The samples, as received from the drill, are sent to the Overburden Management Ltd., in Ottawa, for heavy metal separation. The samples are passed through a 10 mesh screen and the -10 mesh part (most of the sample) is passed over a shaking table and the heavys and lights are separated. The heavy fraction is dried, mixed with a solution of methylene iodide of 3.35G and the heavy part of the heavys are collected. A 3/4 split of the heavy segment is then sent to Bondar-Clegg Laboratory for analysis of copper, zinc, lead, nickel, silver, and gold.

Bedrock chips from each hole are also collected, examined and analysed.

APPENDIX II

## Cost Summary

## A. Bradley Bros.

1. Drilling time	\$218.00 hr. x 95 1/2 hrs.	\$20,819.00
2. Mechanical time	\$175.00 hr. x 0 hrs.	
3. Button bits	\$725.00 each x 7	5,075.00
4. Drill rods/Adapter		570.00
5. Mobilization and demobilization		400.00
	plus 15% materials	846.75

## B. Salaries

1. Project Geologist		3,000.00
2. Geological Consultant	\$175.00 day x 14	2,450.00

## C. Meals and Accommodation

1. Meals		500.00
2. Motel		363.80

## D. Transportation

1. Truck rental		800.00
2. Skidoo rental		180.00
3. Commercial airfares		222.50

## E. Sample Preparation

1. Overburden Management Ltd.		
samples x \$24.00 sample		3,651.95
2. Shipping expenses		
3. Sample bags, buckets, sieves, etc.		320.38
4. Bondar-Clegg and Co. geochem.		
5. X-Ray Assay - whole rock analyses		

Total:	\$39,199.38
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APPENDIX III

Overburden Drill Logs  
Holes BO-82-1 to BO-82-16  
Bond Township, Ontario



DATE 17-2-82 HOLE No. 80-82-1 GEOLOGIST \_\_\_\_\_ DRILLER \_\_\_\_\_

HOLE LOCATION \_\_\_\_\_

BIT No. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_

HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES						
				PPM Cu	PPM Pb	PPM Zn	PPM Ni	PPM Ag	PPM Au	
55			Glaciolacustrine clay of L. Barlow - Ojibway							
60										
65										
70										
75										
80										
85		TOTAL STR. 14	contact with sandy till @ 83-84' dominantly greenish lithologies 85-87' - till with somewhat more sand. 84-89' : till with "sandy partings"	87	40	48	32	0.4	1150	
90		80-82-1-1	89' - sample BO-82-1-1 90' - Red granitic rock more abundant - till is purplish	50	16	36	32	0.4	260	
95		80-82-1-2	94' - greenish till again sample BO-82-1-2							
		80-82-1-3	96-97' - till above BR-BO-82-1-3 97' - Bedrock: Grained diabase 97-102' - diabase	75	12	33	29	0.2	7750	
100			1 grain V.G. 600x350 μ	141	5	76	43	<.1	<5	



DATE 11-2-82 HOLE NO. BO-82-1 GEOLOGIST \_\_\_\_\_ DRILLER 3/3  
 HOLE LOCATION \_\_\_\_\_  
 BIT NO. \_\_\_\_\_ FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DEPTH	GRAPHIC LOG	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSES				
105			DIABASE Hole bottomed in diabase @ 102' Sample <u>BO-82-1-4</u> (Bedrock)					

*Den Robinson*

CLIENT: \_\_\_\_\_ DATE: 12-3-82 HOLE # 50-82-2  
 GEO./SAMPLER: ROBINSON/STEWART TWP.: BOND. PROV.: ONT  
 CONTRACTOR/  
 DRILLER : ROGER FIELD  
 LOCATION: L20W/8+503  
 BIT NO.: J 000 387 NTS: 42 A/7 GRINDSTONE ANOM.  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses
		Muskeg 0-4'	
5		Glaciolacustrine	
10		Clay - L. Barlow-Ojibway 4-101'	
15			
20			
25			
30			
35			
40			
45			
50			

Hole No.	Page No.
50-82-2	1

CLIENT: \_\_\_\_\_ DATE: \_\_\_\_\_ HOLE # 80-82-2  
 GEO./SAMPLER: \_\_\_\_\_ TWP.: \_\_\_\_\_ PROV.: ONT  
 CONTRACTOR/  
 DRILLER : \_\_\_\_\_ FIELD  
 LOCATION: \_\_\_\_\_  
 BIT NO.: \_\_\_\_\_ NTS: \_\_\_\_\_

Log (inches)	Sample No.	Overburden Description	Notes & Analyses
55 60 65 70 75 80 85 90 95 100		Glaciolacustrine Clay	

Hole No.	Page No.
80-82-2	2

CLIENT: \_\_\_\_\_ DATE: \_\_\_\_\_ HOLE # BO-82-2  
 GEO./SAMPLER: \_\_\_\_\_ TWP.: \_\_\_\_\_ PROV.: \_\_\_\_\_  
 CONTRACTOR/ DRILLER : \_\_\_\_\_ FIELD LOCATION: \_\_\_\_\_  
 BIT NO.: \_\_\_\_\_ NTS: \_\_\_\_\_

Log (inches)	Sample No.	Overburden Description	Notes & Analyses						
			Cu	Pb	Zn	Ni	Ag	Au	
		Glaciolacustrine clay → 101'							
	B0-82-2-1	Till 101'-about 103' silt-clay matrix; clay pellets in till; abundant diabase clasts in pyrite	55	16	31	22	0.3	5	
105	B0-82-2-2 (-10M)	BR green volcanic - schistose	58	4	36	44	<.1	<5	
110	B0-82-2-2B (+10M)	Hole began 7:30 a.m. finished: 10:30 a.m. 3 hrs.							

*Den Robinson*

Hole No.	Page No.
B0-82-2	3

CLIENT: WESTMIN RES. LTD. DATE: 19-3-82 HOLE # 80-82-3  
 GEO./SAMPLER: ROBINSON / STEWART TWP.: SAND PROV.: ONT  
 CONTRACTOR/ DRILLER: ROGER FIELD LOCATION: L 12W / 4S  
 BIT NO.: J 000 387 NTS: 42 A 7/10 GRINDSTONE ANOM.

Log (inches)	Sample No.	Overburden Description	Notes & Analyses
0-2'		Muskeg	Drilling began at 11:20 a.m. stopped at 12:35 p.m.
2-83'		= Glaciolacustrine clay of L.Barlow Ojibway	
83-85'		Till 83-85' silty matrix	
89'		Hole bottomed at 89' in volcanic(?) or fine-grained diabase mafic	
	80-82-3-1		
	80-82-3-2 (-10)		
	80-82-3-20 (+10)		

ppm					ppb	
Cu	Pb	Zn	Ni	Ag	Au	
66	12	34	24	0.2	120	
122	5	60	42	<.1	<5	

Hole No.	Page No.
80-82-3	1

*Don Robinson*

CLIENT: WESTMIN RES. LTD. DATE: 18-3-82 HOLE # 80-82-4  
 GEO./SAMPLER: ROBINSON / STEWART TWP.: BOND PROV.: ONT.  
 CONTRACTOR/DRILLER: ROGER FIELD LOCATION: L12W / 8+00S  
 BIT NO.: J 000 387 NTS: A2 A/7 GRINOSTONE  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses																						
0-2'		Muskeg	Hole began - 1:20pm finished - 3:00pm																						
2-44'		GLACIOLACUSTRINE CLAY L. BARLOW - OSIBWAY																							
35-36'		small boulder																							
44' to ~46'		SANDY TILL																							
44' to ~46'	80-B2-4-1	Rare clay coatings on clasts. Clay coatings more common about 1' beneath.																							
44' to ~46'	80-B2-4-2 (-10)																								
44' to ~46'	80-B2-4-20 (+10)																								
		Bedrock = (?) fine grained mafic volcanic																							
			<table border="1"> <tr> <td colspan="2">ppm</td> <td colspan="2">ppb</td> </tr> <tr> <td>Cu</td> <td>Pb</td> <td>Zn</td> <td>Ni</td> <td>Ag</td> <td>Au</td> </tr> <tr> <td>117</td> <td>20</td> <td>37</td> <td>26</td> <td>0.3</td> <td>15</td> </tr> <tr> <td>54</td> <td>6</td> <td>25</td> <td>180</td> <td>&lt;1</td> <td>&lt;5</td> </tr> </table>	ppm		ppb		Cu	Pb	Zn	Ni	Ag	Au	117	20	37	26	0.3	15	54	6	25	180	<1	<5
ppm		ppb																							
Cu	Pb	Zn	Ni	Ag	Au																				
117	20	37	26	0.3	15																				
54	6	25	180	<1	<5																				

Don Robinson

Hole No.	Page No.

1/1

CLIENT: WESTMIN RES. LTD. DATE: 18-3-82 HOLE # 80-82-5  
 GEO./SAMPLER: ROBINSON/STEWART TWP.: BOND PROV.: ONT  
 CONTRACTOR/DRILLER: ROGER FIELD LOCATION: LSW/9S Grindstone  
 BIT NO.: J 000 387 NTS: 42 A/7  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses					
0-1'		MUSKEG	Begin 3:15					
1-55'		glaciolacustrine clay - L. Barlow - Ojibway	End 5:15					
55-57'		gradational contact 55-57' = outwash gravel						
57-59'	80-82-5-1	water-sorted silty till	120	21	35	21	0.2	95
59-63'	80-82-5-2	boulder to 63' silty till; many till pellets	79	20	26	18	0.4	<5
63'+	80-82-5-3 (-10)	BR (? Fine grained volcanic or sediment)	60	<2	22	275	<1	<5
	80-82-5-3D (+10)		Cu Pb Zn Ni Ag Au					
			ppm			ppb		

Den Robinson

Hole No.	Page No.

CLIENT: WESTMIN RES. LTD. DATE: 19.3.82 HOLE: # Bo-82-6  
 GEO./SAMPLER: ROBINSON/STEWART TWP.: BOND PROV.: ONT  
 CONTRACTOR/DRILLER: BRADLEY FIELD: L20W/163  
 LOCATION: HOLLINGER ANOMALY  
 BIT NO.: J 000 384 NTS: 42 A/7 120 yds W of River (approx)  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses					
0-2'		MUSKEG						
2-70'		GLACIOLACUSTRINE CLAY						
70-76'		till - sandy matrix						
76-78'		No Return						
78-79'	Bo-82-6-1	till - fine sand - silt matrix - abund.						
79-81'	Bo-82-6-2	79' - grav. v. pl. (fill?) = no matrix 1 grain V.G. 400µ + granite bldr.						
81-85'	Bo-82-6-3	85' - gravel - s.o.s. (slow return) to 94' abundant silty till pellets - extends on clasts						
85-90'	Bo-82-6-4							
90-100'	Bo-82-6-5 (-10) -5SD (+10)							

PPM						3 PPB
Cu	Pb	Zn	Ni	Ag	Au	
55	15	34	31	0.2	20	
89	18	43	31	0.3	4750	
49	18	38	29	0.2	5	
38	19	28	22	0.2	120	
31	16	24	14	0.2	5	
37	14	28	20	0.2	45	
134	4	48	53	<.1	5	

Hole No.	Page No.

Don Robinson



CLIENT: WESTMIN RES. LTD. DATE: 19.3.82 HOLE # 80-82-7  
 GEO./SAMPLER: ROBINSON/STENACT TWP.: BOND PROV.: ONT.  
 CONTRACTOR/DRILLER: ROGER FIELD LOCATION: L16W/20-21S  
 BIT NO.: J 000 382 NTS: 42 A/7 HOLLINGER ANOMALY  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses
0-22'		wood chips and clay - poor return	
22-111'		green and gray glaciolacustrine clay	

Hole No.	Page No.

CLIENT: \_\_\_\_\_ DATE: \_\_\_\_\_ HOLE # B0-82-7  
 GEO./SAMPLER: ROBINSON / STENSTADT TWP.: BOND PROV.: ONT.  
 CONTRACTOR/DRILLER: ROGER FIELD LOCATION: L16W / 20-21S  
 BIT NO.: J000 382 NTS: \_\_\_\_\_ HOLLINOR ANOMALY

Log (inches)	Sample No.	Overburden Description	Notes & Analyses					
		clay to 111'	ppm					
			Cu Pb Zn Ni Ag					Ppb Au
110								
	B0-82-7-1	111-116' clay pebble till	47	24	44	36	0.2	10
	B0-82-7-2	111' - massive clay layer 116-120' - sandy till w pebbles	51	25	32	36	0.1	70
120	B0-82-7-3	sandy till w pebbles in sand matrix >50% mv's	51	20	33	32	0.2	2500
	B0-82-7-4	sand-pebble-clay till - matrix dominant clay layer	57	10	50	32	0.4	40
130		clay layer						
	No sample	clay layer						
140		clay						
	No sample							
		1grain V.G. 400 x 300 μ	ppm					
			Cu Pb Zn Ni Ag					Ppb Au
150	B0-82-7-5	149-154' sand-gravel sandy matrix - polyminetic	37	14	22	24	0.3	3300
	B0-82-7-6	154-160' s.o.s. rare clay coated pebbles 2gms V.G. 500 μ 450 μ	77	26	39	34	0.4	20
160	B0-82-7-7	160-165' pebbly-sandy till clay till balls coarse sand matrix.	72	137	104	42	4.7	15000
	B0-82-7-8	165-169' Bedrock porphyritic Andesite - 10 - wt. fspar xtals 2-10mm size fig. med. green. mv +10	132	75	134	93	<.1	15
170			27	6	65	52	<.1	<5

Den Robinson

Hole No.	Page No.

CLIENT: WESTMIN RES. LTD. DATE: 20.3.82 HOLE # B0-82-8

GEO./SAMPLER: STEWART/ROBINSON TWP.: BOND PROV.: ONT.

CONTRACTOR/  
DRILLER : BRADLEY  
ROGER FIELD  
LOCATION: L12W/18S

BIT NO.: J 000 382 NTS: 42 A/7  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses
		<p>0-2' Muskeg + woodchips</p> <p>2-108' green and gray glaciolacustrine clay</p>	

Hole No.	Page No.
B0-82-8	1

CLIENT: \_\_\_\_\_ DATE: 20.3.92 HOLE # 80-B2-B  
 GEO./SAMPLER: STEWART/ROBINSON TWP.: BUND PROV.: ONT.  
 CONTRACTOR/DRILLER: ROGER FIELD LOCATION: L12W/18S  
 BIT NO.: J000382 NTS: \_\_\_\_\_

Log (Inches)	Sample No.	Overburden Description	Notes & Analyses																	
		GLACIOFLUVIAL CLAY To 108'																		
110		108-110' - clay-silt till 110'-112' - sandy till	} <u>Erratic Return</u>																	
120	108'-121' 80-B2-B-1	112-121' - sand and gravel - outwash or very sandy till																		
		121'-128' - Fine grained till - abundant in clay-silt matrix - exten. → WATERLAIN TILL?																		
		128-130' HARD GRAY CLAY	62	48	52	37	<.1	695												
130		130-137' TILL - As above (POOR RETURN)	71	30	48	40	<.1	30												
140	80-B2-B-2 130-137'	137-140' Mafic schist boulder																		
		140-141' - GRAVEL (outwash or coarse till)	165	30	42	44	0.4	105												
	80-B2-B-3 137-144'	141-142' - Boulder of andesitic xtal diff.																		
150		142-157' - Gravel and sand - poor * outwash or coarse till return No till pellets or exten. (transitional w silty till) -	364	80	330	483	1.4	85												
160	80-B2-B-4 157'	Break (?) @ 157' - Carbonaceous slate or argillite & common pyrite.	<table border="0"> <tr> <td>Cu</td><td>Pb</td><td>Zn</td><td>Ni</td><td>Ag</td><td>Au</td> </tr> <tr> <td colspan="3">} <u>pp</u></td> <td colspan="3">} <u>pp</u></td> </tr> </table>						Cu	Pb	Zn	Ni	Ag	Au	} <u>pp</u>			} <u>pp</u>		
Cu	Pb	Zn	Ni	Ag	Au															
} <u>pp</u>			} <u>pp</u>																	
<p>Note - poor return throughout hole attributes for small sample density and large sample interval.</p>																				

*Den Robinson*

Hole No.	Page No.
80-B2-B	2

CLIENT: WESTMIN RES. LTD. DATE: 20-21/3/82 HOLE # 80-82-9  
 GEO./SAMPLER: STEWART / ROBINSON TWP.: COND PROV.: ONT.  
 CONTRACTOR/DRILLER: ROGER FIELD LOCATION: L12W/20S  
 BIT NO.: 000 383 NTS: 42 A/7  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses					
		0-2' MUSKOG.						
		2-68' glaciolacustrine clay						
			ppm					
			Cu Pb Zn Ni Ag					Au
		70-74' 80-82-9-1	42	20	34	26	<1	95
		74-75' silty till with pellets of fill and cobbles 75'- fill grades to hard gray clay 76-80' fill - same as above - more abundant coarse material	150	23	44	42	<1	750
		80-90' vy. hard gray clay	73	18	40	33	<1	2425
		89-90' - silty till again - as above						
		90' 80-82-9-3						
		91' 80-82-9-4						
		92' - BEOROCK - chlorite schist to 96' = few qz carb. veins	45	<2	56	153	<1	<5

Den Robinson

Hole No.	Page No.

CLIENT: WESTMIN RES. LTD. DATE: 21-22/3/82 HOLE # 80-82-10

GEO./SAMPLER: STEWART / ROBINSON TWP.: BOND PROV.: ONT.

CONTRACTOR/DRILLER: ROGER FIELD LOCATION: L4W/125 HOLLINGER ANOMALY

BIT NO.: J 000 383 NTS: 42 A/7  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses					
0-2'		Muskeg						
2-42'		gray varved glaciolacustrine clay L. Barlow - Ojibway						
42-42.5'		cs sandy till few cutans						
42.5-50'		POOR RETURN - Much H <sub>2</sub> O lost in openwork gravel No till pellets - no cutans - outwash?						
42-60'	80-82-10-1	58' Transitional contact with silty till - abundant till pellets and cutans on clasts.						
60-70'	80-82-10-2	S.O.S to 84', w occasional sand + gravel lenses.						
70-80'	80-82-10-3							
80-90'	80-82-10-4	84-89' Hard, vy. compacted varved gray clay. 89-92' silty till - as above -						
92-115'		Hard, vy. compacted varved gray clay.						

ppm						ppb	
Cu	Pb	Zn	Ni	Ag	Au		
48	24	40	28	<.1	80		
46	27	40	24	<.1	70		
39	34	32	22	<.1	130		
50	16	47	20	<.1	130		

Hole No.	Page No.
80-82-10	1/2

CLIENT: \_\_\_\_\_ DATE: 01-22/3/82 HOLE # 80-82-10  
 GEO./SAMPLER: Smart - Robinson TWP.: BAND PROV.: ONT.  
 CONTRACTOR/ DRILLER : Roger FIELD LOCATION: L4w/125 Hollinger Arrom.  
 BIT NO.: J 000 363 NTS: \_\_\_\_\_

Log (inches)	Sample No.	Overburden Description	Notes & Analyses											
		Hard glaciolacustrine clay												
100			<table border="1"> <thead> <tr> <th>Cu</th> <th>Pb</th> <th>Zn</th> <th>Ni</th> <th>Ag</th> <th>Au</th> </tr> </thead> </table>						Cu	Pb	Zn	Ni	Ag	Au
Cu	Pb	Zn	Ni	Ag	Au									
	115-120' 80-82-10-5	115-116' Diabase boulder 116' sandy till	81	20	52	28	0.3	100						
120	120-126' 80-82-10-6	Sandy till-cutans common on clasts	307	28	76	34	0.6	150						
130	126-132' 80-82-10-7		127	225	220	60	1.0	240						
	132-138' 80-82-10-8	138.5-140' - silty till to many till pellets and cutans	70	59	76	42	0.5	725						
140	(-10) 80-82-10-9													
	(-10) 80-82-10-10	145'-Base of hole BR-graphitic slate or argillite to abundant (5-20%) pyrite.	32	265	395	61	0.5	10						
150														

*Den Robinson*

Hole No.	Page No.
80-82-10	2/2

CLIENT: WESTMIN RES. LTD. DATE: 22-23/3/02 HOLE # 11

GEO./SAMPLER: Stewart - Robinson TWP.: BOND PROV.: ONT.

CONTRACTOR/DRILLER: BRADLEY FIELD LOCATION: LOW/105 Hollinger Area.  
Cooper

BIT NO.: J 000 052 NTS: 42 A/7  
A/10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses					
0-2'		Muskeg						
2-32'		Varved gray uncompactd glaciolaustrine clay L. Barlow - Ojibway						
32-38'	32-38'	Sandy till - less matrix than below.	<div style="display: flex; justify-content: space-around;"> <span>Cu</span><span>Pb</span><span>Zn</span><span>Ni</span><span>Ag</span><span>Au</span> </div>					
38-42'	30-82-11-1 38-42'	Silty till - abundant silty till pellets and coarse <del>or</del> clasts.	85	325	370	71	<1	100
42-46'	30-82-11-2		146	132	1360	42	0.9	725
46-50'	43-50'	Blk. of mafic schist	39	44	60	30	<1	40
50-55'	30-82-11-3 50-60'	Blk. - mafic schist	66	37	72	42	<1	40
55-70'	30-82-11-4	Silty till, as above.	57	32	56	40	<1	120
70-71'	70-80'	Hard gray clay						
71-73'	30-82-11-5	Silty till, as above.						
73-107'	70-80'	Hard, compacted, varved glaciolaustrine clay.	61	30	49	29	<1	5
107-100'	30-82-11-6							

Hole No.	Page No.

C. 1072



CLIENT: \_\_\_\_\_ DATE: 22-23/3/02 HOLE # 80-82-11  
 GEO./SAMPLER: Stewart - Robinson TWP.: BOND PROV.: ONT.  
 CONTRACTOR/DRILLER: RUGER FIELD LOCATION: LOW/105  
 BIT NO.: J 000 2052 NTS: \_\_\_\_\_

Log (inches)	Sample No.	Overburden Description	Notes & Analyses					
			PPM					PPB
			Cu	Pb	Zn	Ni	Ag	Au
		Hard gray clay						
	107-109'	Boulder						
110	80-82-11-7	109-111' sandy till; till pellets, but no cutans	154	31	91	43	0.3	10
	112'-120'	111-113' Diabase boulder						
	113-116'	sandy till						
120	80-82-11-8	116-125' Silty till, as above	121	35	100	44	0.3	240
	120-125'							
	80-82-11-9		118	71	92	51	0.4	15
	125-127'	Sandy till						
	80-82-11-10		173	171	170	182	0.9	15
130	130-134'	127-134' Bedrock-graphitic argillite or slate						
	80-82-11-11 (-10)	(-10)						
	80-82-11-10 (+10)	(+10)	44	190	225	47	<.1	<5
140		~15% vs. pyrite.						

*Den Robinson*

Hole No.	Page No.

CLIENT: WESTMIN RES. LTD. DATE: 24-25/3/82 HOLE # B0-92-12  
 GEO./SAMPLER: Stewart - Robinson TWP.: BOND PROV.: ONT.  
 CONTRACTOR/DRILLER: Roger FIELD LOCATION: L 22W/115  
 BIT NO.: A 000 049 NTS: 42 A / 7  
A / 10

Log (inches)	Sample No.	Overburden Description	Notes & Analyses
0-2'		Muskeg	
0-96'		Varved gray and brown glaciolacustrine clay L.Barlow-Ojibway	
96-97'		Granitic boulder	
96-		Sandy till-few silty till pellets and numerous cutans -Numerous wood chips in return.	

Hole No.	Page No.
12	1

CLIENT: \_\_\_\_\_ DATE: 24-20/082 HOLE # 80-82-12  
 GEO./SAMPLER: Stewart - Robinson TWP.: BOND PROV.: ONT.  
 CONTRACTOR/DRILLER: Roeer FIELD LOCATION: L 22W/11S  
 BIT NO.: A 000 049 NTS: \_\_\_\_\_

Log (inches)	Sample No.	Overburden Description	Notes & Analyses												
			136	55	58	96	0.6	560							
		80-82-12-1 96-101' 101-102' - diabase bldr.													
	102-108' 80-82-12-2	102+ vy. sandy till numerous wood chips	80	36	42	51	<.1	200							
110	108-112' 80-82-12-3	mostly sand @ 109' 112' - sand and pea gravel - well sorted - no cobbles or till pellets probably outwash / glacialfluvial	77	55	60	48	<.1	390							
	113-118' 80-82-12-4	115-116' - log? - all wood chips (sampled)	149	48	48	67	<.1	270							
120	118-123' 80-82-12-5	sand and gravel as above	182	62	94	113	<.1	110							
	123-130' 80-82-12-6	clay ball 120'	234	91	34	98	<.1	220							
130	130-135' 80-82-12-7	clay ball 133'	158	210	120	124	1.2	14730							
	135-140' 80-82-12-8	139' - small pyrite-rich bldr.	150	90	44	109	1.3	10000							
140	140-145' 80-82-12-9	141' - very rusty-colored natural horizons 142' - gravel again	279	165	148	158	0.6	380							
	145-150' 80-82-12-10	145-146' - green clayey cuttings w/ abundant pyrite 147' - reddish cuttings - 1 gram V.G. > 1000 µ	140	210	550	294	12.6	> 15000							
150	150-160' 80-82-12-11	Rusty brown clayey muck, occas. rich in qt chips. Few rock frags.	63	<2	92	238	<.1	<5							
160	BASE 80-82-12-12	158' - Rock chips >> than clayey muck. Rock chips only. - altered volcanic w/ limonite-hematite, carb., etc.													

Cu Pb Zn Ni Ag Au  
 ppm ppb

Den Robinson

Hole No.	Page No.
12	2



DATE 25-7-82 HOLE No. 75-B2-13 GEOLOGIST Stewart DRILLER John  
 HOLE LOCATION L 13W/11S MOOSE CREEK ARIZ.  
 BIT No. + size 2 1/2 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES						
				Cu	Pb	Zn	Ni	Ag	Au	
110			Glaciolacustrine clay to 117'							
120		117-124'	117-120' very sandy till-cutans but no till pellets							
		80-82-13-1	124-126' - No return	1665	73	47	52	1.8	75	
130		124-130'	(+10 Mesh) BR= Andesitic flow?	87	3	76	132	<.1	<.5	
		80-82-13-2	(-10 Mesh)							
		80-82-13-3								

Don Robinson



DATE 05-2-82 HOLE NO. 30-82-14 GEOLOGIST Stewart DRILLER Roger

HOLE LOCATION MOOSE CREEK ANDM.

BIT No. 1000 c30 FOOTAGE ON BIT \_\_\_\_\_

HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES						
				Cu	Pb	Zn	Ni	Ag	Au	
110'			Glaciolacustrine clay to 114'							
		30-82-14-1	outwash-sorted (glaciofluvial?)							
		114-119'	sand+gravel-no cutans or till							
120'		410 PESH	pellets	83	28	40	71	<1	100	
		30-82-14-2	Bedrock - intermediate (andes.?)							
		30-82-14-3	volcanic flow	4	<2	51	160	<1	<5	
130'		10 PESH								

Den Robinson





DATE 26.3.82 HOLE NO. 80-82-15 GEOLOGIST Stewart DRILLER Boyer  
 HOLE LOCATION 1<sup>st</sup> Creek Area. LNW/ds  
 BIT No. A 90 517 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES						
				Cu	Pb	Zn	Ni	Ag	Au	
110			100-118' Varved clay as above							
			Sandy till(?) - cutans but no till pellets							
120	▲ ▲ ▲	118-126'		86	25	36	40	<1	55	
	▲ ▲ ▲	Eo-82-15-1	Sandy till-cutans + till pellets							
130	▲ ▲ ▲	126-134'		79	20	35	54	<1	75	
	▲ ▲ ▲	80-82-15-2	130' very sandy - rapid return - better sorted and more well rounded than above-outwash sand							
	▲ ▲ ▲	134-139'		139	25	37	82	<1	230	
	▲ ▲ ▲	80-82-15-3								
140	X	80-82-15-4	+10 Msd BR-white-green felsic volcanic	9	<2	5	11	<1	<5	
	X									
150		80-82-15-5	-10 Msd							

Den Robinson

MOOSE GROUP

DATE 25-3-82 HOLE NO. 50-32-16 GEOLOGIST Stuart DRILLER Roger  
 HOLE LOCATION L 28W/10S  
 BIT NO. A 600 549 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER NTS 42A/7  
 \_\_\_\_\_ H/10

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES						
				Cu	Pb	Zn	Ni	Ag	Au	
0-2'			Muskeg							
2-92'			Varved gray glaciolacustrine clay							
92-100'		92-100'	Outwash - rapid return, well-sorted sand - well rounded.							
98-100'		50-32-16-1	silty till-till pellets and cutans							
						ppm				ppb
				Cu	Pb	Zn	Ni	Ag		Au
				89	28	35	51	<1		500

DATE 25-3-82 HOLE NO. 20-82-16 GEOLOGIST Stewart DRILLER Rover  
 HOLE LOCATION V 28W/103  
 BIT No. 1 200048 FOOTAGE ON BIT \_\_\_\_\_  
 HOURS MOVE \_\_\_\_\_ HOURS DRILL \_\_\_\_\_ OTHER \_\_\_\_\_

DEPTH	GRAPHIC LOG	SAMPLE No.	DESCRIPTIVE LOG	ANALYSES					
				Cu	Pb	Zn	Ni	Ag	Au
		100-105'	Silty till to 102-103' vy. loose - uncomputed	112	39	35	71	<.1	130
		20-82-16-2	~105' - sandy till cutans - no till pellets						
		105-110'	107-108' becoming vy. sandy - rapid return	91	48	40	64	<.1	960
110		20-82-16-3	better rounding and sorting than till outwash						
		110-115'	3 grams V.G. 200x50µ 250x150µ	100	33	30	74	<.1	3150
		20-82-16-4	113-115' granitic bldr.						
		115-120'		78	25	28	57	<.1	1500
120		20-82-16-5	125-138' - sandy outwash - as above						
		120-125'	1 gram V.G. better.	88	26	28	74	0.4	110
		20-82-16-6	250x300µ.						
		125-130'		129	23	60	95	<.1	105
130		20-82-16-7							
		130-135'		118	26	36	91	<.1	40
		20-82-16-8							
		135-140'	138-139' - Numerous wood chips	231	44	33	129	<.1	390
140		20-82-16-9	141' - white clayey pellets in return						
		139-145'		6	<2	3	6	<.1	170
		20-82-16-10	+10 Mesh Bedrock - appears pegmatitic						
		20-82-16-11	-10 Mesh musc. + qb + flds. + epid. pink - green - white.						
150									

Don Robinson

APPENDIX IV

Overburden lab sheets for heavy mineral concentrates.

List of abbreviations used on lab data sheets.

Tr	Trace
Cobs	Cobbles
Pebs	Pebbles
GClS	Gritty clay balls
SCLs	Smooth clay balls
V/S	Volcanic and/or sedimentary rocks
Gr	Granitic rocks
Lime	Limestone



## OVERBURDEN DRILLING MANAGEMENT LIMITED

3 CLEOPATRA DRIVE, NEPEAN, ONTARIO K2G 3M9 (613) 226-1774

April 12, 1982

D. J. Robinson  
Westmin Resources  
1414-390 Bay St.  
Toronto, Ont.  
M5H 2Y2

Dear Sir:

Please find enclosed the lab data sheets for sample series BO-82-1-1 - 11-8, processed for heavy mineral concentrates.

The heavies were sent to Bondar Clegg on this date with your instructions.

We will store the mags, 1/4's and light fractions until further instructions.

Sincerely,

J. Switzer

OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

Sample Number	Weight (kg. wet)			Weight (grams dry)				Grains V.G.	Description		Classification
	Table Split	+10 Rock Chips	-10 Table Feed	Table Conc	M.I. Lights	Non-mag	Mag		+ 10	Matrix	
B0-82 1-1	9.8	14	8.4	151.1	120.5	30.6	18.8	0	Pebbs 5% Lime 5% Gr. 90% v/s	Unsorted grey	TILL
1-2	9.6	1.3	8.3	176.	117.2	41.5	17.3	0	Pebbs tr. Lime 20% Gr. 80% v/s	"	TILL
1-3	8.4	16	6.8	193.9	138.1	36.1	19.7	Abraded 600x350	"	"	TILL
2-1	11.7	2.3	9.4	143.3	101.5	28.6	13.2	0	Cobs 10% Lime 10% Gr. 80% v/s	"	TILL
3-1	8.0	2.2	5.8	198.4	170.3	18.9	9.2	0	Pebbs tr. Lime 30% Gr. 70% v/s	"	TILL
4-1	8.5	1.6	6.9	134.5	90.8	31.7	12.0	0	Cobs tr. Lime 10% Gr. 80% v/s	"	TILL
5-2	6.2	NIL	6.2	97.2	69.1	18.6	9.5	0	NIL	Sorted fine med. with clay grey	SAND
6-1	6.2	1.9	4.3	30.5	15.4	11.1	4.0	0	Pebbs tr. Lime 40% Gr. 60% v/s	Unsorted beige with silt	TILL
6-2	9.9	3.8	4.1	113.5	76.3	24.1	13.2	450x400 450x350	Cobs tr. Lime 50% Gr. 50% v/s	Unsorted grey-beige with silt	TILL
6-6	5.7	0.3	5.4	115.8	52.1	43.9	19.8	0	Cobs tr. Lime 40% Gr. 60% v/s	Sorted med-fine beige	SAND
7-1	5.7	1.8	3.9	200.3	189.8	7.4	3.1	0	Cobs tr. Lime 45% Gr. 55% v/s	Unsorted grey-beige with clay	TILL
7-2	13.1	4.8	8.3	120.7	101.4	13.5	5.8	0	Cobs tr. Lime 40% Gr. 60% v/s	"	TILL
2-3	10.5	2.5	8.	152.4	122.8	20.3	9.3	0	"	"	TILL
7-4	13.9	4.5	9.4	196.	180.0	12.1	3.9	0	"	"	TILL
7-5	14.1	4.5	9.6	49.1	23.7	18.1	7.3	1 grain 480x300A	Cobs 1% Lime 40% Gr. 55% v/s	Unsorted grey with silt	TILL
7-6	15.4	5.8	9.6	48.	21.2	16.1	10.7	0	Cobs 1% Lime 45% Gr. 50% v/s	"	TILL
3082 5-1	14.3	3.6	10.7	147.	117.1	21.9	8.0	0	Cobs tr. Lime 40% Gr. 60% v/s	"	TILL
6-3	8.7	2.4	6.3	91.2	53.4	26.1	11.7	0	Cobs tr. Lime 30% Gr. 70% v/s	"	TILL
6-4	11.0	0.9	10.1	174.3	121.2	38.7	14.4	0	Cobs tr. Lime 30% Gr. 70% v/s	Sorted med-fine beige	SAND

## OVERBURDEN DRILLING MANAGEMENT LIMITED

## LABORATORY SAMPLE LOG

Sample Number	Weight (kg. wet)			Weight (grams dry)				Grains V.G.	Description		Classification
	Table Split	+10 Rock Chips	-10 Table Feed	Table Conc	M.I. Lights	Non-mag	Mag		+ 10	Matrix	
Bo 82 6-5	13.2	0.6	12.6	83.5	30.9	37.6	150	0	Cobs 40% Gr. 60% v/s	Sorted med. → coarse beige	SAND
7-7	15.2	4.3	10.9	159.9	131.1	17.3	11.5	2 grains 500 x 950 A 350 x 250 A	Cobs 35% Gr. 65% v/s	Unsorted grey with silt	TILL
7-8	9.9	2.5	7.4	104.5	95.5	6.0	3.0	0	Cobs 95% v/s	green-grey	BEDROCK
8-1	4.4	0.8	3.6	63.3	55.6	5.7	2.0	0	Pebbs 50% Gr. 50% v/s	Unsorted grey with clay	TILL
8-2	4.7	1.5	3.2	111.9	102.1	7.1	2.7	0	Cobs tr. Lime 5% Gr. 95% v/s	"	TILL
8-3	9.8	1.2	8.6	131.2	101.6	20.1	9.5	0	Cobs tr. Lime 30% Gr. 70% v/s	"	TILL
8-4	2.5	0.4	2.1	35.2	24.5	8.8	1.9	0	Cobs 20% Gr. 80% v/s	Unsorted grey-black with silt	TILL
9-1	15.1	2.3	12.8	238.3	157.8	55.8	24.7	1 grain 400 x 400 A	Cobs tr. Lime 50% Gr. 50% v/s	Unsorted grey with clay	TILL
9-2	6.5	1.2	5.3	98.3	72.2	17.3	8.8	0	Cobs 20% GCL'S 50% Gr. 30% v/s	"	TILL
9-3	13.5	0.6	12.9	272.4	212.7	46.4	15.3	1 grain 350 x 200 A	Pebbs tr. Lime 50% Gr. 50% v/s	"	TILL
10-1	11.1	1.6	9.5	150.9	94.7	44.0	15.2	0	Cobs tr. Lime 60% Gr. 35% v/s	Unsorted grey-beige with clay	TILL
10-2	8.9	0.9	8.	102.9	62.9	30.1	9.9	0	Granules	Sorted grey-beige	SAND
10-3	13.3	0.3	13.	160.3	83.1	55.1	22.1	0	Granules	Sorted grey-beige	SAND
10-3	6.4	0.4	6.	111.3	85.1	20.1	6.1	0	Pebbs tr. Lime 50% Gr. 50% v/s	Unsorted grey-beige with clay	TILL
10-5	5.4	1.1	4.3	87.7	60.9	16.6	10.2	0	Cobs 20% Gr. 80% v/s	"	TILL
10-6	8.2	1.1	7.1	138.6	103.7	22.2	12.7	0	Cobs 15% Gr. 85% v/s	"	TILL
10-7	12.3	1.6	10.7	131.	80.7	24.7	15.6	0	Cobs 40% Gr. 60% v/s	"	TILL
10-8	13.9	1.9	12.	110.	69.1	26.3	14.6	0	Cobs tr. Lime 35% Gr. 65% v/s	"	TILL
11-1	6.2	0.6	5.6	65.5	38.3	20.7	6.5	0	Cobs tr. Lime 45% Gr. 50% v/s	"	TILL
11-2	8.4	0.6	7.8	107.2	55.3	35.1	16.8	0	Cobs tr. Lime 10% Gr. 90% v/s	"	TILL

OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

Sample Number	Weight (kg. wet)			Weight (grams dry)				Grains V.G.	Description		Classification
	Table Spill	+10 Rock Chips	-10 Table Feed	Table Conc	M.I. Lights	Non-mag	Mag		+ 10	Matrix	
Bo-82											
11-3	7.0	0.5	6.5	129.5	76.3	36.0	17.2	0	Cobs tr.Lime 10%Gr. 90%v/s	Unsorted grey-beige with clay	TILL
11-9	8.0	0.7	7.3	82.1	61.3	13.3	7.5	0	Cobs 5%Lime 45%Gr. 50%v/s	Unsorted grey	TILL
11-10	5.6	0.8	4.8	230.9	128.2	100.2	2.5	0	Cobs 1%Lime 12%Gr. 85%v/s	Unsorted beige (black bedrock)	TILL/BEDROCK
12-1	8.2	0.9	7.3	183.1	126.8	28.7	17.6	0	Cobs 2%Lime 45%Gr. 50%v/s	Unsorted grey	TILL
-2	9.2	0.8	8.4	155.1	70.8	28.6	55.7	0	Cobs 5%Lime 45%Gr. 50%v/s	Unsorted grey-beige	TILL
-3	9.5	0.5	9.0	132.1	115.2	12.8	4.1	0	Cobs 15%Lime 50%Gr. 35%v/s	"	TILL
-4	9.5	0.7	8.8	140.7	109.0	22.0	9.7	0	Cobs 10%Lime 60%Gr. 30%v/s	"	TILL
-5	8.9	<0.1	8.9	109.3	80.1	20.9	8.3	0	Granules	Sorted grey-beige	SAND
-6	8.9	<0.1	8.9	93.3	65.3	17.1	10.9	0	Granules	"	SAND
-7	4.6	0.2	4.4	63.4	41.4	16.2	5.8	0	Cobs 5%Lime 25%Gr. 70%v/s	Unsorted grey-beige	TILL
-8	9.0	1.2	7.8	96.6	65.8	22.4	8.4	0	Cobs 5%Lime 30%Gr. 65%v/s	"	TILL
-9	9.8	0.3	9.5	121.4	91.2	20.7	9.5	0	"	Unsorted grey with yellow clay	TILL
-10	5.1	0.8	4.3	98.4	96.4	1.7	0.3	1 grain >1000µd	Cobs 2%Lime 10%Gr. 85%v/s	Unsorted orange with yellow clay	TILL
13-01	9.2	0.8	8.4	114.9	101.4	10.2	3.3	0	Cobs 5%Lime 15%Gr. 80%v/s	Unsorted green grey with clay	TILL
14-01	8.8	<0.1	8.8	121.4	89.3	22.2	9.9	0	Granules	Sorted grey med. with clay	SAND
15-01	8.6	<0.1	8.6	134.3	98.8	26.2	9.3	0	Granules	"	SAND
-02	9.5	<0.1	9.5	122.8	88.4	24.0	10.4	0	Granules	Sorted med.coarse grey	SAND
-03	8.1	0.1	8.0	119.9	94.3	19.4	6.2	0	Granules	"	SAND
16-01	8.1	<0.1	8.1	161.4	124.5	25.9	11.0	0	Granules	Sorted med.fine grey with clay	SAND



OVERBURDEN DRILLING MANAGEMENT LIMITED

LABORATORY SAMPLE LOG

Sample Number	Weight (kg. wet)			Weight (grams dry)				Grains V.G.	Description		Classification
	Table Split	+10 Rock Chips	-10 Table Feed	Table Conc	M.I. Lights	Non-mag	Mag		+ 10	Matrix	
Bo-82											
16-02	7.0	0.1	6.9	141.0	102.9	23.4	14.7	0	Granules	Sorted med. fine with clay grey	SAND
-03	9.4	<0.1	9.4	134.9	77.3	35.4	22.2	2 grains 250 & 300 A	"	Sorted coarse with clay grey	SAND
-04	9.0	0.2	8.8	107.2	74.6	21.1	11.5	0	Peb's tr. Lime 40% Gr. 50% v/s	Unsorted grey with clay	TILL
-05	9.4	0.2	9.2	183.2	144.6	26.1	12.5	1 grain 250 & 300 A	Peb's tr. Lime 45% Gr. 50% v/s	"	TILL
-06	9.2	0.2	9.0	167.8	116.5	33.0	18.3	0	Peb's tr. Lime 50% Gr. 50% v/s	"	TILL
-07	8.8	<0.1	8.8	188.5	144.7	26.2	17.6	0	Granules	Sorted coarse with clay grey	SAND
-08	9.1	0.1	9.0	156.0	124.1	22.0	9.9	0	"	"	SAND
-09	9.1	0.2	8.9	219.7	175.7	28.4	15.6	0	"	"	SAND
11-4	12.5	0.5	12.0	163.8	83.6	42.3	37.9	0	Peb's tr. Lime 40% Gr. 60% v/s	Unsorted grey with clay	TILL
-5	12.4	<0.1	12.4	111.5	84.0	21.0	6.5	0	Granules	Sorted med. grey-beige with grey clay	SAND
-6	4.9	<0.1	4.9	140.4	123.6	13.6	3.2	0	Granules	Sorted fine grey-beige with clay	SAND
-7	12.6	1.3	11.3	190.9	109.9	43.1	37.9	0	Cob's tr. Lime 40% Gr. 55% v/s	Unsorted blue grey with lighter clay	TILL
-8	13.6	1.5	12.1	128.8	87.0	27.2	14.6	0	Cob's tr. Lime 30% Gr. 65% v/s	"	TILL



BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: (613) 237-3110 TELEX: 053-4455

## Geochemical Lab Report

REPORT: 112-0369

FROM: WESTMIN RESOURCES LIMITED

SUBMITTED BY: B. AVERJIL

DATE: 20-APR-82 PROJECT:

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
Cu	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption		HEAVY MINERAL CONC.	PULVERIZE -200
Pb	2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption			
Zn	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption			
Ni	2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption			
As	.1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption			
Au	5 PPB	AQUA REGIA	Fire Assay AA			

REPORT COPIES TO: D.J. ROBINSON

INVOICE TO: D.J. ROBINSON

REMARKS: < MEANS LESS THAN  
> MEANS GREATER THAN

DETECTION LIMITS FOR GOLD  
10 gram sample! 5 ppb.  
5 gram sample! 10 ppb.  
1 gram sample! 50 ppb.

Sample Wt. 10 g. unless otherwise stated.

NOTE:

Check concentration/sample weight ratio  
for effective detection level.



**BONDAR-CLEGG & COMPANY LTD.**

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z6 PHONE: (613) 237-3110 TELEX: 053-4455

## Geochemical Lab Report

REPORT: 112-0370

FROM: WESTMIN RESOURCES LIMITED

SUBMITTED BY: B. AVERILL

DATE: 20-APR-82 PROJECT:

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
Cu	1 PPM	HNO <sub>3</sub> -HCL HOT EXTR	Atomic Absorption		RED ROCK	PULVERIZE -200
Pb	2 PPM	HNO <sub>3</sub> -HCL HOT EXTR	Atomic Absorption			
Zn	1 PPM	HNO <sub>3</sub> -HCL HOT EXTR	Atomic Absorption			
Ni	2 PPM	HNO <sub>3</sub> -HCL HOT EXTR	Atomic Absorption			
As	.1 PPM	HNO <sub>3</sub> -HCL HOT EXTR	Atomic Absorption			
AU	5 PPB	AQUA REGIA	Fire Assay AA			

REPORT COPIES TO: D.J. ROBINSON

INVOICE TO: D.J. ROBINSON

REMARKS: < MEANS LESS THAN

DETECTION LIMITS FOR GOLD  
10 gram sample: 5 ppb.  
5 gram sample: 10 ppb.  
1 gram sample: 50 ppb.

Sample Wt. 10 g. unless otherwise stated.

**NOTE!**

Check concentration/sample weight ratio  
for effective detection level.

# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z6 PHONE: (613) 237-3110 TELEX: 053-4455

## Geochemical Lab Report

REPORT: 112-0369 PROJECT:

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ni PPM	As PPM	Au PPM	wt/Au gm	NOTES
RO-82-1-1		87 ✓	40	48	32	0.4	1150 ✓		
RO-82-1-2		50 ✓	16	36	32	0.4	260 ✓		
RO-82-1-3		75 ✓	12	33	29	0.2	7750 ✓		
RO-82-2-1		55 ✓	16	31	22	0.3	5		
RO-82-3-1		66 ✓	12	34	24	0.2	120 ✓		
RO-82-4-1		117 ✓	20	37	26	0.3	15		
RO-82-5-1		120 ✓	21	35	21	0.2	95 ✓		
RO-82-5-2		79 ✓	20	26	18	0.4	5		
RO-82-6-1		55 ✓	15	34	31	0.2	20	6.80	
RO-82-6-2		89 ✓	18	43	31	0.3	4750 ✓		
RO-82-6-3		49	18	38	29	0.2	5		
RO-82-6-4		38	19	28	22	0.2	120 ✓		
RO-82-6-5		31	16	24	14	0.2	5		
RO-82-6-6		37	14	28	20	0.2	45		
RO-82-7-1		47	24	44	36	0.2	10	4.30	
RO-82-7-2		51 ✓	25	32	36	0.1	70 ✓	7.20	
RO-82-7-3		51 ✓	20	33	32	0.2	2500 ✓		
RO-82-7-4		57 ✓	10	50 ✓	32	0.4	40	7.10	
RO-82-7-5		37	14	22	24	0.3	3300 ✓		
RO-82-7-6		77 ✓	26	39	34	0.4	20		
RO-82-7-7		72 ✓	137 ✓	104 ✓	42	4.7	>15000 ✓		
RO-82-7-8		132 ✓	75	134 ✓	93 ✓	<.1	15	3.00	
RO-82-8-1		62 ✓	48	52 ✓	37	<.1	695 ✓	3.10	
RO-82-8-2		71 ✓	30	48	40	<.1	30	3.50	
RO-82-8-3		165 ✓	30	42	44	0.4	105 ✓		
RO-82-8-4	A	364 ✓	80	330 ✓	483 ✓	1.4	85 ✓	5.30	
RO-82-9-1		42	20	34	26	<.1	95 ✓		
RO-82-9-2		150 ✓	23	44	42	<.1	750 ✓		
RO-82-9-3		73 ✓	18	40	33	<.1	2425 ✓		
RO-82-10-1		48	24	40	28	<.1	80 ✓		



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Geochemical Lab Report

REPORT: 112-0349 PROJECT:

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	CU PPM	Pb PPM	Zn PPM	NI PPM	AS PPM	AU PPB	WT/AU GM	NOTES
BO-82-10-2		46	27	40	24	<.1	70		
BO-82-10-3		39	34	32	22	<.1	130		
BO-82-10-4		50	16	47	28	<.1	130		
BO-82-10-5		81	20	52	28	0.3	100		
BO-82-10-6		307	28	76	34	0.6	150		
BO-82-10-7		127	225	220	80	1.0	240		
BO-82-10-8		70	59	76	42	<.1	110		
BO-82-11-1		85	325	370	71	<.1	100		
BO-82-11-2	3	146	132	1360	42	0.5	725		
BO-82-11-3		39	44	60	30	<.1	5		
BO-82-11-4		66	37	72	42	<.1	40		
BO-82-11-5		57	32	56	40	<.1	120	7.80	
BO-82-11-6		61	30	49	29	<.1	5	7.20	
BO-82-11-7		154	31	91	43	0.3	10		
BO-82-11-8		121	35	100	44	0.3	240		
BO-82-11-9		118	171	92	51	0.4	15	7.10	
BO-82-11-10		173	171	170	182	0.9	15		
BO-82-12-1		136	55	58	96	0.6	560		
BO-82-12-2		80	36	42	51	<.1	200		
BO-82-12-3		77	55	60	48	<.1	390	7.00	
BO-82-12-4		149	48	48	67	<.1	270		
BO-82-12-5		182	62	94	113	<.1	110		
BO-82-12-6		234	91	34	98	<.1	220		
BO-82-12-7		158	210	120	124	1.2	14130	9.20	
BO-82-12-8		150	90	44	109	1.3	10000		
BO-82-12-9		279	165	148	158	0.6	380		
BO-82-12-10	2	140	210	550	294	12.6	>15000	0.20	
BO-82-13-01	1	1665	73	47	52	1.8	75	3.30	
BO-82-14-01		83	28	40	71	<.1	100		
BO-82-15-01		86	25	36	40	<.1	550		

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## Geochemical Lab Report

REPORT: 112-0369 PROJECT:

PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ni PPM	Ag PPM	Au PPB	wt/AU GR	NOTES
BO-82-15-02		79 ✓	20	35	54 ✓	<.1	75 ✓		
BO-82-15-03		139 ✓	25	37	82 ✓	<.1	230 ✓		
BO-82-16-01		89 ✓	28	35	51 ✓	<.1	500 ✓		
BO-82-16-02		112 ✓	39	35	71 ✓	<.1	130 ✓		
BO-82-16-03		91 ✓	48	40	64 ✓	<.1	960 ✓		
BO-82-16-04		100 ✓	33	30	74 ✓	<.1	3150 ✓		
BO-82-16-05		78 ✓	25	28	57 ✓	<.1	1500 ✓		
BO-82-16-06		88 ✓	26	28	74 ✓	0.4	110 ✓		
BO-82-16-07		129 ✓	23	60 ✓	95 ✓	<.1	105 ✓		
BO-82-16-08		118 ✓	26	36	91 ✓	<.1	40		
BO-82-16-09		231 ✓	44	33	129 ✓	<.1	390 ✓		

8860      3763      5244      4408  
 $\bar{x} = 125$     $\bar{x} = 53$     $\bar{x} = 74$     $\bar{x} = 62.$

91080  
 $\bar{x} = 1203 \text{ ppb.}$   
 $\bar{x} = >1000$   
           samples  
           = 177 ppb.  
 10425



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764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: (613) 237-3110 TELEX: 053-4455

## Geochemical Lab Report

REPORT: 112-0370 PROJECT:

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ni PPM	As PPM	AU PPM	WT/AU GM	NOTES
BO-82-1-4		141	5	76	43	<.1	<5		
BO-82-2-2		58	4	36	144	<.1	<5		
BO-82-3-2		122	5	60	42	<.1	<5		
BO-82-4-2		54	6	25	180	<.1	<5		
BO-82-5-3		60	<2	22	275	<.1	<5		
BO-82-6-7		134	4	48	53	<.1	5		
BO-82-7-8		27	6	65	52	<.1	<5		
BO-82-9-4		45	<2	56	153	<.1	<5		
BO-82-10-9		32	265	395	61	0.5	10		
BO-82-11-11		44	190	225	47	<.1	<5		
BO-82-12-11		63	<2	92	238	<.1	<5		
BO-82-13-03		87	3	76	132	<.1	<5		
BO-82-14-03		4	<2	51	160	<.1	<5		
BO-82-15-05		9	<2	5	11	<.1	<5		
BO-82-16-11		6	<2	3	6	<.1	170		

Appendix VI

Nature of the Glacial Overburden  
Bond Twp. Drilling Program, March 1982

R. A. Stewart  
Dept. of Geology  
Univ. of Western Ontario



### Introduction:

This report summarized the findings of the overburden drilling program conducted in Bond Township during March, 1982. The purpose is to characterize the glacial overburden as to its genesis to elucidate the provenance of any geochemical anomalies in the glacial sediments.

### Grindstone Anomaly:

Five holes were drilled in this area; depths to bedrock varied between 49' and 105' (avg. 82'). The stratigraphy in the area is simple: varved silt and clay of Lake Barlow-Ojibway (Vincent and Hardy, 1979) overlies a thin (3' to 16'; avg. 7') layer of silty to sandy till and/or glaciofluvial sediment. The till was identified by silt and clay skins (cutans) on clasts, numerous silty till pellets, the presence of striations on stones, and an overall more angular texture of the sediment as compared to the water-sorted (glaciofluvial) material. The latter was identified according to the following attributes: very rapid return of large quantities of sandy sediments; an absence of cutans and till pellets, overall better sorting (dominance of one grain size range) and rounding.

This stratigraphy was observed in section in a test pit near Pamour Mines' Goldhawk property (Plate 1). The till appears to be of subglacial origin. The matrix is rich in fine sand and coarse silt. Polished and striated clasts are common, and their fabric is generally parallel to striations on the underlying bed-

rock (a talc-chlorite schist). The till is likely either a lodgement till, in which particles from the basal debris zone in the glacier are plastered against the substratum, or basal melt-out till, which originates as material is released downward by melting onto the substratum.

The provenance of the sediment in such subglacial tills is for the most part local, deriving mainly from bedrock within a few hundred metres of a given sampling point. In this study it was hoped that mineralized sediment would originate from bedrock with a geophysical signature. Rare, rounded limestone clasts ( 5%) were observed in most samples, and presumably derived from carbonate rocks in the James Bay Lowlands.

In the section examined (Plate 1), the "basal" till (in reference to its stratigraphic position, rather than genesis) grades conformably upward into coarse sand. This may reflect the decay and withdrawal of the ice sheet from the bed of till, after which meltwater deposition of sand proceeded. Vigorous currents were restricted to areas of the lake proximal to the ice margin. As the glacier backwasted to the north, glaciolacustrine conditions prevailed as Lakes Barlow and Ojibway formed. During the existence of these lake phases, the varved silt and clay (overlying the basal clastic sediments) were deposited. It is clear that this fining-upward sequence can be related directly to the backwasting of the ice sheet with concomitant proglacial (ice-marginal) lake formation.

### Driftwood Anomaly:

The generalized stratigraphy of the glacial sediments in this area is presented in Figure 2. Uncompacted, gray, varved silt and clay of Lake Barlow-Ojibway, 32' to 111' thick (avg. 72') caps the sequence. The next lower unit is a silty till, with occasional sandy interbeds, and may be bouldery. The texture of the matrix of the unit is noticeably finer than the till resting immediately on bedrock. Cutans on clasts on clasts are the rule, silty till pellets are common, and particles are angular. The thickness of this till varies between 5' and 39', averaging 21'. The sandy interbeds appear to be either very sandy till or outwash.

Underly this silty till is a very hard, resistant clay unit, green to gray in color, which is rhythmically laminated. Thicknesses range from 9' to 34' (avg. 22'). The unusual resistance of this glaciolacustrine material to drilling suggests that it is more highly compacted than the uppermost varves of Lake Barlow-Ojibway, through which the drill rods penetrated under their own weight. Possibly, this unit was overridden by the glacier which deposited the silty upper till (Figure 3). This hypothesis accounts for two observations: the fine texture of the upper silty till, and the compactness of the underlying clay ("super clay"). The silty-till would owe its fine texture to incorporated glaciolacustrine silt and clay. As these glaciolacustrine sediments were compressed and deformed by the glacier, they became better consolidated as compared to those of the latest

lacustrine (Barlow-Ojibway) event in the area.

The provenance of the upper silty till and associated coarser clastics will probably be more "distal" than the basal till resting on bedrock. The basal till, along with the "superclay" above it, would have mantled much of the local landscape prior to the deposition of the upper silty till. Thus the area of bedrock available to glacier erosion would be more limited than during the deposition of the basal till. The provenance of the clast lithologies of the upper silty till would be local only with respect to local topographic bedrock highs nearby. The "total" provenance of this unit is local in that much of the underlying superclay seems to have been incorporated into it.

A basal till, 2' to 23' (avg. 12') thick, resting on bedrock, completes the succession. It is very sandy, with few cutans and till pellets. Often the till is transitional with interbedded current-sorted sand of probable glaciofluvial origin. The latter is distinguished by its lack of till pellets and cutans on clasts, and by better rounding and sorting relative to the till. The provenance of the basal till, as with its counterpart in the other two anomaly areas, will reflect principally local bedrock types.

#### Moose Anomaly:

Gray, varved silt and clay of Lakes Barlow-Ojibway is the uppermost unit in the area, and varies between 86' and 118' (avg. 105') in thickness (Figure 4). A 1'-thick sand bed was encountered in these sediments at a depth of 22' in one hole (BO-82-15).

The varved glaciolacustrine clays are underlain by a thin sandy till (absent in holes BO-82-13, 14) and/or well-sorted glaciofluvial sand. This basal clastic section is 4' to 40' thick, averaging 18'. It is thinnest in holes BO-82-13 and 14 (4' and 5'), and thickest in hole BO-82-12 (40'). The thin till layer will be an excellent prospecting medium, and its provenance will be restricted to mainly local rock types. The glaciofluvial sand and gravel, however, will derive from multiple sources (including underlying till), often more far removed from the sampling point. This material, when deposited on top of bedrock, will reflect more the underlying substrata than outwash which has aggraded above it: the latter will contain reworked glacial alluvium and bedrock from further upstream.

This hypothesis assumes a constantly aggrading bed of outwash with a "receding" source, that is, the ice sheet with its associated meltwater currents. Shifting streams may erode bedrock knobs in one area, depositing the sediment in valleys elsewhere, for example. Provenance is clearly more difficult to decipher when dealing with subsurface glaciofluvial sediments, than with tills. Tills, deposited more or less directly from glacier ice, or predictable in their derivation to a higher degree than are glaciofluvial materials.

The glaciofluvial sands often contain wood chips, suggesting that these sediments may have been deposited during an interstadial or interglacial period, when the area was ice-free. Without concrete age determinations, further speculations regarding the magnitude of this event are unwarranted.

In hole BO-82-12, the lower 19' of sediment above bedrock comprises rusty yellow mud, which contains abundant quartz fragments. Overlying it is the wood-bearing sand. Possibly, if the latter unit represents a non-glacial interval, the underlying severely decomposed bedrock may be a pre or interglacial regolith developed during the same interval of climatic amelioration.

Summary:

The glacial stratigraphy in the Grindstone and Moose anomaly areas apparently records a single glacial advance and retreat; the result was a basal till overlain by glaciolacustrine silt and clay. A possible regolith was encountered in hole BO-82-12 in the Moose area. Wood chips in the overlying sandy sediments suggest that the area may have been exposed to subaerial conditions during a more hospitable climatic regime.

A multiple sequence of glacial advance and retreat is possibly reflected by the two tills and intervening glaciolacustrine sediments in the Driftwood anomaly area. The basal sandy till owes its coarse texture to glacial abrasion of Archean igneous-volcanic-sedimentary bedrock. Glaciolacustrine sedimentation followed, after which these lake beds were overridden during a second glacial readvance. The resulting upper silty till has a fine texture due to the incorporated glacial lake deposits. Final withdrawal of the ice sheet from the area was followed by the concomitant development of Lakes Barlow-Ojibway. This final event resulted in the deposition of the varved silt and clay which forms the uppermost unit in Bond Township.

## References:

Vincent, J.S., and Hardy, L., 1979, The evolution of  
Glacial Lakes Barlow and Ojibway, Quebec  
and Ontario: Geol. Survey Canada Bulletin  
316, 18p.

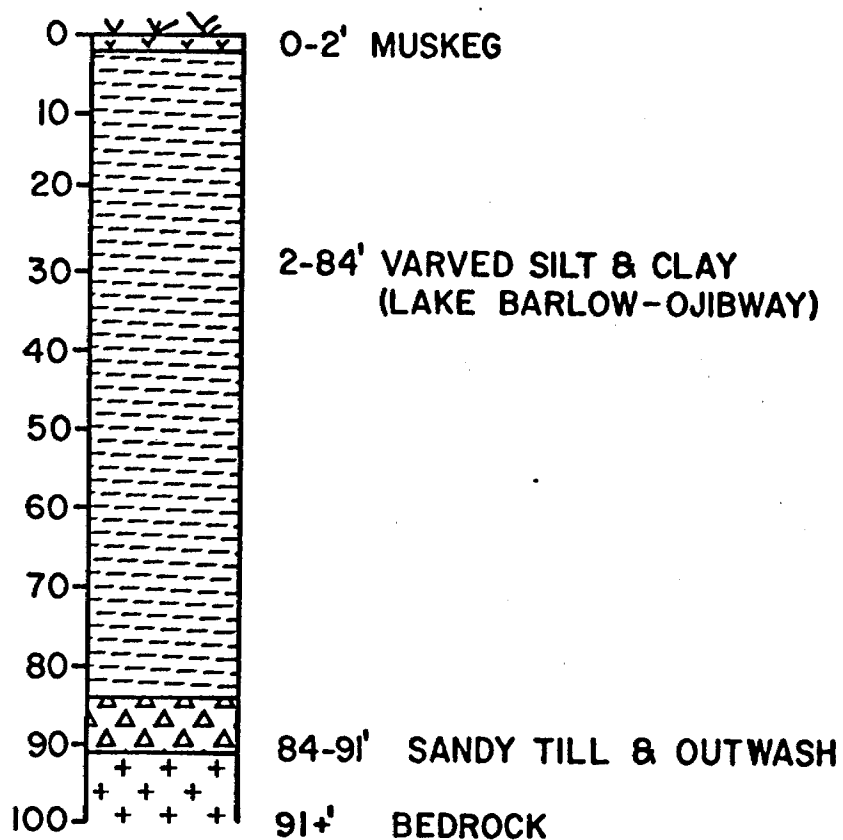


Figure 1: Generalized stratigraphic column of the Grindstone River anomaly area, showing average thicknesses of units.



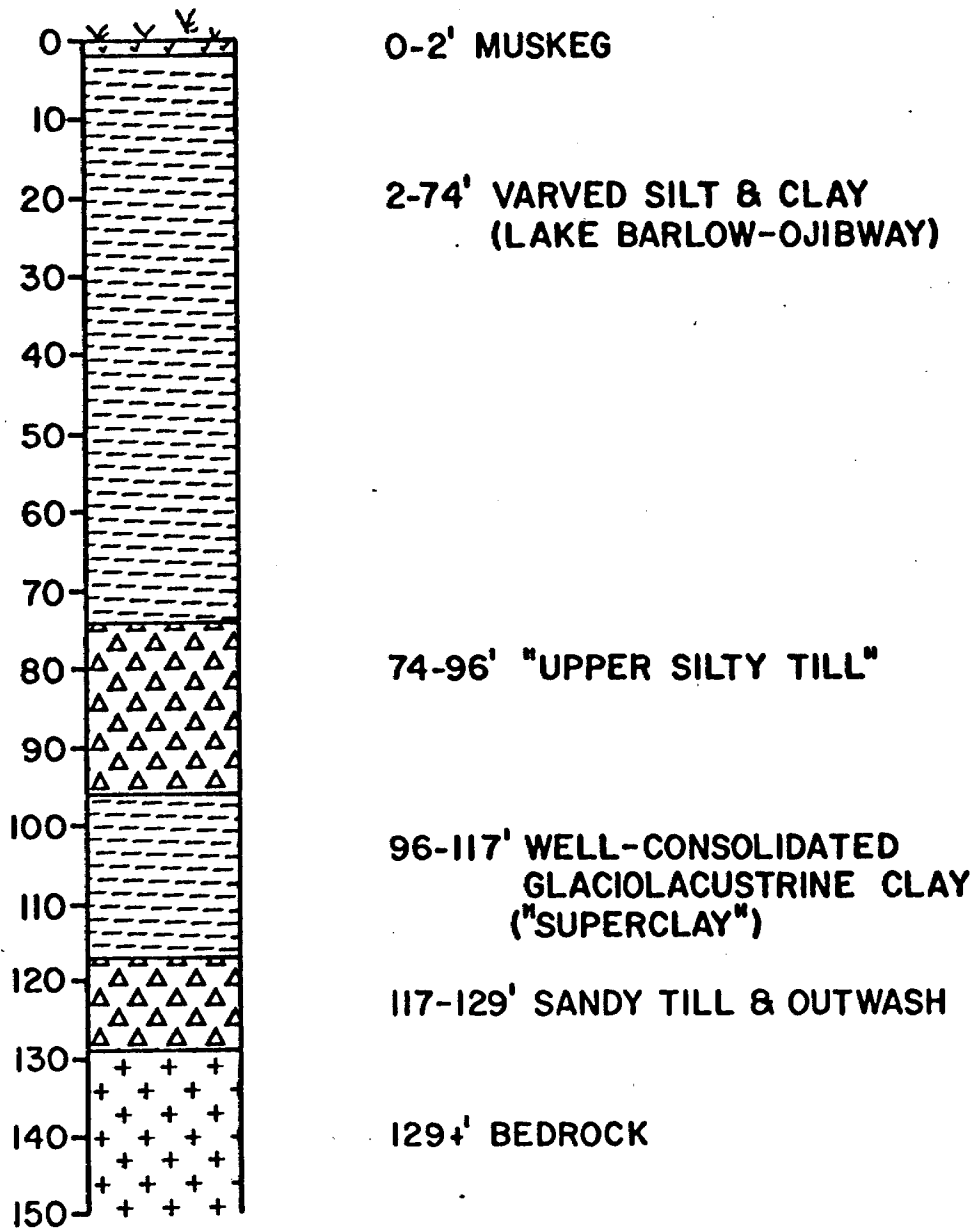


Figure 2: Generalized stratigraphic column of the Driftwood anomaly area, showing average thicknesses of units.

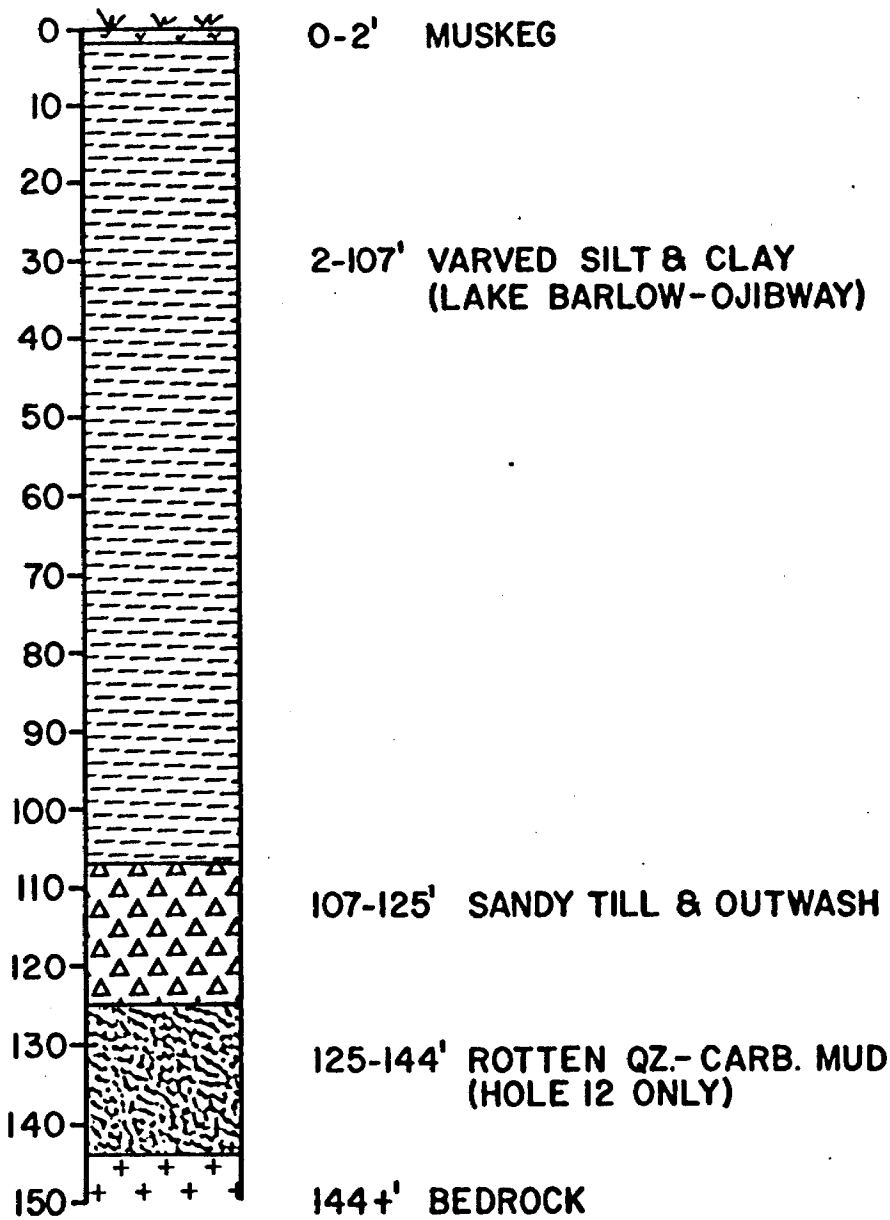
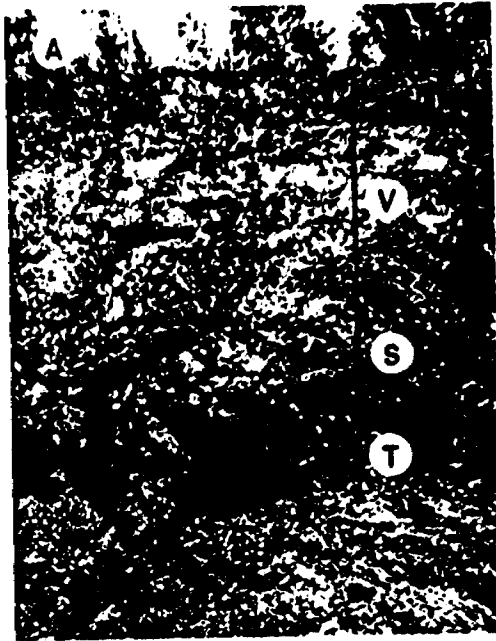


Figure 3: Generalized stratigraphic column of the Moose anomaly area, showing average thicknesses of units.

- Plate 1: Stratigraphy of the glacial and glaciolacustrine deposits at a test pit about 500m northwest of Pamour Porcupine Mines' Goldhawk property.
- 1A: Lodgement(?) till (T), about 75 cm thick, at base of section overlies bedrock (talc-chlorite schist). Well-sorted, massive to current-bedded glaciolacustrine sand(s) is in apparent conformable contact with the till. Varved silt and clay (V) of Lake Barlow-Ojibway caps the sequence. Shovel is about 1m long.
- 1B: Close-up of lodgement till (T), overlain by massive glaciolacustrine sand(s). Hammer is about 30 cm long; hammer head rests on bedrock. Till has a silty sand matrix and abundant clasts.
- 1C: Varved silt and clay of Lake Barlow-Ojibway. Summer beds are light gray; winter beds are dark gray. Keys are about 6 cm high.

PLATE I



# COPY

CONTRACT DIAMOND DRILLING

Westrain Resources Limited  
Suite 1414 - 390 Bay Street,  
Toronto, Ontario M5K 2Y2

HOLE NO.

TO COVER DIAMOND DRILLING FOR

March 16 to 26, 1982

FROM

TO

FOOTAGE COMPLETED

Bond Township

Mobilization -  
40 miles

€

\$5.00

\$200 00

#1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16

0'	92'	92'
0'	117'	117'
0'	91'	91'
0'	49'	49'
0'	68'	63'
0'	101'	101'
0'	169'	169'
0'	157'	157'
0'	96'	96'
0'	144'	144'
0'	134'	134'
0'	160'	160'
0'	134'	134'
0'	124'	124'
0'	150'	150'
0'	144'	144'

Equipment rental -  
95½ hours

8

218.00

20,819 00

Down the hole consumables:

7 Tricone bits € \$725.00 - \$5075.00

1 Adapter 570.00 - 570.00

\$5645.00

Plus 158

846.75

6,491 75

Moving from main site  
to Gibson Road with truck  
40 miles

€

5.00

200 00

Demobilization -  
40 miles

€

5.00

200 00

\$27,910 75

# BRADLEY BROS. LIMITED

March 31, 1982

①

CONTRACT DIAMOND DRILLING

Westmin Resources Limited  
Suite 1414 - 390 Bay Street,  
Toronto, Ontario M5H 2Y2

HOLE NO.	TO COVER DIAMOND DRILLING FOR March 16 to 26, 1982				
	FROM	TO	FOOTAGE COMPLETED		
	<u>Bond Township</u>				
	Mobilization - 40 miles		@ \$5.00		\$200 00
#1	0'	92'	92'		
2	0'	117'	117'		
3	0'	91'	91'	PRECIOUS METALS	
4	0'	49'	49'		
5	0'	68'	68'		
6	0'	101'	101'	BOND 221	
7	0'	169'	169'		27,910 75
8	0'	157'	157'		
9	0'	96'	96'		
10	0'	144'	144'		
11	0'	134'	134'		
12	0'	160'	160'		
13	0'	134'	134'		
14	0'	124'	124'		
15	0'	150'	150'	DR. R.	27,910 75
16	0'	144'	144'		
	Equipment rental - 95½ hours		@ 218.00		20,819 00
	Down the hole consumables:				
	✓ 7 Ericone bits @ \$725.00		- \$5075.00 ✓		
	1 Adapter 570.00		- 570.00		
			<u>\$5645.00</u> ✓		
	Plus 15%		<u>846.75</u>		6,491 75 ✓
	Moving from main site to Gibson Road with truck 40 miles		@ 5.00		200 00
	Demobilization - 40 miles		@ 5.00		200 00
					<u>\$27,910 75</u>



Westmin Resources Limited  
Toronto, Ontario

CONTROL NO. 0181

TO THE BANK OF MONTREAL  
MAIN BRANCH  
VANCOUVER, B.C.

WESTMIN  
RESOURCES LTD. \$73,796 and 11 cts

DATE April 27, 1982

PAY  
TO THE  
ORDER OF

BRADLEY BROS. LIMITED  
98, 14th Street  
P.O. Box 367  
NORANDA, Quebec  
J9X 5A9

00331-001  
COMPENSATION SPECIALE  
SPECIAL CLEARING  
00331-001

AMOUNT \$ 73,796.11  
Westmin Resources Limited

*[Handwritten signature]*

⑆00040⑆001⑆

1091⑆113⑆

⑆0007379611⑆



Westmin Resources Limited  
Toronto, Ontario

CONTROL NO. **0181**

TO THE BANK OF MONTREAL  
MAIN BRANCH  
VANCOUVER, B.C.

**WESTMIN RESOURCES LTD. \$73,796 and 11 cts**

DATE **April 27, 1982**

AMOUNT \$ **73,796.11**  
Westmin Resources Limited

PAY TO THE ORDER OF

**BRADLEY BROS. LIMITED**  
98, 14th Street  
P.O. Box 367  
NORANDA, Quebec  
J9X 5A9

*[Handwritten Signature]*  
**NOT NEGOTIABLE**

EMITTANCE VOUCHER - DETACH BEFORE DEPOSITING CHEQUE

**0181**

EXPLANATION	BALANCE
Invoice dated March 31, 1982	\$27,910.75
Invoice dated March 31, 1982	46,245.36
Debit Memo No. 0012	<u>(360.00)</u>
	<u><b>\$73,796.11</b></u>  CB155



Westmin Resources Limited  
Toronto, Ontario



JOURNAL ENTRY VOUCHER

JEV NO: 19

MONTH OF MARCH

1982

(2)

BRANCH

FE #	GL	SUB	ACCOUNT TITLES AND EXPLANATORY NARRATIVE	DEBIT	CREDIT
	✓	✓	CB - SUPP OF DOCUMENTS - ADMIN	858 13.46	
		✓	INT'L ATOMIC ENERGY ✓	858 49.75	
		✓	WORLD MINES REG ✓	858 108.39	
	✓		U.S. AIR CANADA - ENROUTE - DETOUR	827 313.20	
	✓		USV		484.80
			TO RECORD BRANCH COSTS THRU USV		
			FOR THE MONTH OF MAR 1982.		
	✓	✓	EXPLORATION - DETOUR	311 2655.00	
		✓		848 1,900.00	
		✓	BOND	848 800.00	
	✓	✓	ADMINISTRATION	945	2,655.00
	✓	✓		940	2,700.00
			MARCH 1982 EQUIPMENT RENTALS		
	✓		USV		1040.00
	✓	✓	ADMINISTRATION	945	1040.00
			USV EQUIP RENTALS ETC MARCH		
			1982		

PREPARED BY J. Lewis

APPROVED BY R. A. [Signature]

DATE MAR 30 1982

Field Equipment Additions

<u>ITEM</u>	<u>COST</u>	<u>RENTAL RATE</u>	<u>PROJECT</u>
77 Sratts (+ Duty & Royalty) (\$3,685)	see below *		
Scuba Gear	2,600		
Scint Underwater Housing	683		
Scint Cases	811		
Snowmobile (Alpine)	2,575	- Traded In Feb. 16, 1979	
Traeger Radio (SSB50C) & Antennas	2,214		
Browning #308 Serial #1B035	290		
McPhar Crystal Package	4,680		
1976 2 HP Johnson O/B )			
1976 2 HP Johnson O/B )	1,010		
1976 6 HP Johnson O/B )			
Johnson O/B (Carter Boat) 4 H.P.	421		
Spectra Acquisition System	13,960		
Alpha Cups	10,000		
9) Sratts Scintillometers (\$21,437)	25,122 *		
Grumman 17' Boat (Bannerman) )			
Grumman 19' Boat (Bannerman) )	2,074		
Grumman 17' Boat (Mountain Shop)	519		
Smit Drill (SN 77114) + Rods, Core board, etc..	1,998		
200 Radon Detector (1240)	3,950	200	RL
Radon Cells	200		
Smit Drill (SN 77136) + Rods & Bits	1,226		
Diving Equipment	416		
Scuba Equipment	982		
Stereomicroscope	1,350		
Soil Probe RD X 356	262		
POH 3 Microscope Comb.	5,470		
<u>TRUCK</u>	7,037	800	Bond.
78 <u>1978 Field Equipment Additions</u>			
(a) Binocular 8x20 & Monocular 8x20	735		
Guncraft - 4 Gun Cases	118		
RDX 318 Metal Hand Pump	111		
Accessories for Probe	1,263		
McPhar: Mod. Marine 6x4 Probe System	386		
(2) = RDX-356 29" Probes	504		
Sutherlands Marine & Equip-Chain Saw	177		
McPhar-Down Hole Probe & Accessories	1,591		

3



Westmin Resources Limited  
Toronto, Ontario

CONTROL NO. 0161

TO THE BANK OF MONTREAL  
MAIN BRANCH  
VANCOUVER, B.C.

WESTERN MINES LTD. \$180 and 00 Cts

DATE April 15, 1982

AMOUNT \$ 180.00  
Westmin Resources Limited

*R.H. McMillan*

*P. Lewis*

PAY TO THE ORDER OF

INGAMAR EXPLORATIONS LIMITED  
Cedar Hill  
CONNAUGHT, Ontario  
PON 1AO

⑆00040⑆00⑆ 109⑆⑆⑆⑆⑆⑆⑆⑆ ⑆00000⑆18000⑆

#15511179

#15511179

010-20550  
BANK OF MONTREAL  
TORONTO REGIONAL  
PAY CENTRE  
APR 22 1982  
010-20550

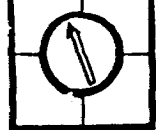
010-20550  
C.I.B.C.  
E/1A CENTRE  
TOR. ONT.  
AP 22 1982

⑆00040⑆00⑆

FOR DEPOSIT ONLY  
— TO THE CREDIT OF —  
INGAMAR EXPLORATIONS LIMITED  
Acct. No. 48-01016

# INGAMAR EXPLORATIONS LIMITED

CEDAR HILL CONNAUGHT, ONTARIO P0N 1A0



CHARGE TO <i>PRECIOUS METALS</i>				
ACCOUNT	SUBSIDIARY LEDGER	SIR FEATURE	ATE.	AMOUNT
	<i>BOND</i>	<i>310</i>		<i>180 00</i>
REC'D BY <i>P/IST</i>			CHK'D. BY <i>DR.</i>	APPROVED FOR PAY <i>[Signature]</i>
				<i>180 00</i>

Westmin Resources Ltd  
 Suite 1414  
 390 Bay Street  
 TORONTO, Ontario  
 M5H 2Y2

UNIT #

**RE: RENTAL OF SKIDOO & SLEIGH**

4 day rental of skidoo @ \$40.00 per day

4 day rental of sleigh @ \$5.00 per day

TOTAL-----

160.0

20.0

180.0



Westmin Resources Limited

Toronto, Ontario

CONTROL NO.

0190

4

TO THE BANK OF MONTREAL  
MAIN BRANCH  
VANCOUVER, B.C.

WESTMIN RESOURCES LTD. \$361 and 50cts

DATE April 27, 1982

AMOUNT \$ 361.50

Westmin Resources Limited

*R.A. McMillan*

NOT NEGOTIABLE

PAY TO THE ORDER OF

PRIORITY TRAVEL LIMITED  
68 Yonge Street  
TORONTO, Ontario  
M5E 1L1

REMITTANCE VOUCHER - DETACH BEFORE DEPOSITING CHEQUE

0190

EXPLANATION

BALANCE

Invoice No.	47991	dated	Mar. 29, 1982	
"	"	"	Mar. 8, 1982	
"	"	"	Mar. 10, 1982	
"	"	"	Mar. 29, 1982	
"	"	"	Apr. 19, 1982	
"	"	"	Apr. 23, 1982	

\$ (152.30)
111.25
111.25
(152.30)
190.10
253.50

\$361.50

CB154



Westmin Resources Limited  
Toronto, Ontario

WESTMIN RESOURCES LIMITED

BANK OF MONTREAL

BANK OF MONTREAL  
DATA CENTER  
TORONTO  
APR 27 1982

BANK OF MONTREAL  
DATA CENTER  
TORONTO  
APR 28 1982

WESTMIN RESOURCES LTD.  
TORONTO, ONTARIO

08th 1982



**PRIORITY TRAVEL LIMITED**

68 YONGE STREET, TORONTO, CANADA M5E 1L1  
(416) 366-3519

N<sup>o</sup> 47813

PASSENGER

**ORIGINAL INVOICE**

D. J. Robinson

DESTINATION

*PRECIOUS METALS*

ONTO TIMMINS

STMIN RESOURCES LIMITED

EXXITE 1414

BAY ST.

ONTO

ARIO

CLASSIFICATION	DATE	AMOUNT
BOND	827	111.25
REC'D. BY P115	CASH BY DR	111.25

SUPPLIER:	AIR CANADA
Date of Travel	Ticket No.
MAR13/82	014 3605 948 272
Amount	\$111.25

TERMS : NET CASH

DATE

R.10th 1982

PASSENGER

R. Stewart

DESTINATION

Onto Timmins

STMIN RESOURCES LIMITED

EXXITE 1414

BAY ST.

ONTO

ARIO



**PRIORITY TRAVEL LIMITED**

68 YONGE STREET, TORONTO, CANADA M5E 1L1  
(416) 366-3519

N<sup>o</sup> 47839

**ORIGINAL INVOICE**

*PRECIOUS METALS*

CLASSIFICATION	DATE	AMOUNT
BOND	827	111.25
REC'D. BY P115	CASH BY DR	111.25

SUPPLIER:	AIR CANADA
Date of Travel	Ticket No.
MAR. 13th 82	014 3605 948 291
Amount	\$111.25

TERMS : NET CASH

5



Westmin Resources Limited  
Toronto, Ontario

CONTROL NO. 0217

TO THE BANK OF MONTREAL  
MAIN BRANCH  
VANCOUVER, B.C.

WESTMIN  
RESOURCES LTD. \$2,512 and 45cts

DATE May 17, 1982

PAY  
TO THE  
ORDER OF

OVERBURDEN DRILLING MANAGEMENT LTD.  
3 Cleopatra Drive  
NEPEAN, Ontario  
K2G 3M9

AMOUNT \$ 2,512.45  
Westmin Resources Limited

*R. H. McMill*

NOT NEGOTIABLE

EMITTANCE VOUCHER - DETACH BEFORE DEPOSITING CHEQUE

0217

EXPLANATION

BALANCE

Invoice dated April 6, 1982  
" " April 13, 1982

\$1,760.45  
752.00

\$2,512.45

CB155



Westmin Resources Limited  
Toronto, Ontario



OVERBURDEN DRILLING MANAGEMENT LIMITED

3 CLEOPATRA DRIVE, NEPEAN, ONTARIO K2G 3M9 (613) 226-1774

April 13, 1982

Westmin Resources Limited  
Ste. 1414-390 Bay St.  
Toronto, Ont.  
M5H 2Y2

Re: B0 Service Sample processing-Final Invoice

31 overburden samples  
prepare heavy mineral  
concentrates plus Au  
count @24.00/sample

= \$744.00 ✓

Expenses: as per  
attached receipt  
(Speedy to Bondar Clegg)

8.00 ✓

\$752.00 ✓

Yours truly,

*Nancy Averill*  
Nancy Averill  
General Manager  
NA/he

PRECIOUS METALS

Bond 335

752.00

P116

DR.

R

752.00





6

**Westmin Resources Limited**  
Toronto, Ontario  
**WESTMIN RESOURCES LTD. \$1,139 and 50cts**

CONTROL NO. **0234**

TO THE BANK OF MONTREAL  
MAIN BRANCH  
VANCOUVER, B.C.

DATE **May 28, 1982**

AMOUNT: **1,139.50**  
Westmin Resources Limited

PAY  
TO THE  
ORDER OF

**BONDAR-CLEGG & COMPANY LTD.**  
764 Belfast Road  
OTTAWA, Ontario  
K1G 0Z5

*[Signature]*  
**NOT NEGOTIABLE**

REMITTANCE VOUCHER - DETACH BEFORE DEPOSITING CHEQUE

**0234**

EXPLANATION	BALANCE
Invoice No. F03078 dated Apr. 20, 1982	\$ 940.75
" F03080 " Apr. 20, 1982	198.75
	<u>\$1,139.50</u>
	CB156



Westmin Resources Limited  
Toronto, Ontario

# BONDAR-CLEGG & COMPANY LTD.

4 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

Westmin Resources Limited  
1414-390 Bay Street  
Toronto, Ontario  
M5H 2Y2  
Attention: D. Robinson

INVOICE: **F 03080**

DATE: April 20, 1982

REPORT NO: 112-0370

PROJECT:

15	Analyses of Copper	@\$1.90	\$28.50
15	Analyses of Lead	@ .90	13.50
15	Analyses of Zinc	@ .90	13.50
15	Analyses of Nickel	@ .90	13.50
15	Analyses of Silver	@ .90	13.50
15	Analyses of Gold	@ 6.00	90.00
15	Sample Preparations	@ 1.75	26.25
		TOTAL	<u>\$198.75</u> ✓

PRECIOUS METALS			
		AMOUNT	
BOND	335	198	75
P117	DR.		(198 75)

# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

INVOICE: **F 03078**

Westmin Resources Limited  
1414-390 Bay Street  
Toronto, Ontario  
M5H 2Y2  
Attention: D. Robinson

DATE: April 20, 1982

REPORT NO: 112-0369

PROJECT:

71	Analyses of Copper	@\$1.90	\$134.90
71	Analyses of Lead	@ .90	63.90
71	Analyses of Zinc	@ .90	63.90
71	Analyses of Nickel	@ .90	63.90
71	Analyses of Silver	@ .90	63.90
71	Analyses of Gold	@ 6.00	426.00
71	Sample Preparations	@ 1.75	124.25
		TOTAL	<u>\$940.75</u> ✓

PRECIOUS METALS

BOND	335	940	75

P117 DR. RW 940.75

mk

*Wm*

THIS IS A PROFESSIONAL SERVICE  
ACCOUNTS DUE WHEN RENDERED





**OVERBURDEN DRILLING MANAGEMENT LIMITED**

192 POWELL AVENUE, OTTAWA, ONTARIO K1S 2A5 - (613) 822-0202

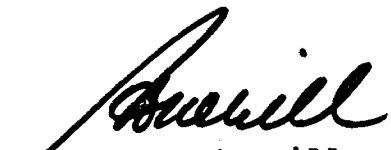
March 01, 1982

To: Westmin Resources  
390 Bay Street  
Suite 1414  
Toronto, Ontario  
M5H 2Y2

Re: Overburden Drilling Program

Bond-	Field Supplies: as per attached list	230.00 ✓
Detour	Expenses: sample shipping, as per attached	<u>120.35</u> ✓
		<b>\$350.35 ✓</b>

Yours truly,

  
Nancy Averill  
General Manager

CHARGE TO PRECIOUS METALS				
ACCOUNT	SUBSIDIARY	S.H.	AGE	AMOUNT
	LEADER	DATE		
	BOND	305		230.00
	DETOUR	330		120.35
P113 CRVR 1/16				350.35



42A10SE0134 2.4894 CURRIE

900

1983 05 06

2.4894

Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

RE: Overburden Drilling Program on Mining Claims  
P 553490 et al in the Township of Bond 42A/105E

The Overburden Drilling Program Survey assessment work credits  
as shown on the attached statement have been approved as of the  
above date. 16 ch

Please inform the recorded holder of these mining claims and  
so indicate on your records.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1380

R. Pichette:sc

Encls:

cc: Westmin Resources Limited  
Toronto, Ontario  
Attention: Mrs. S. Kuprejanov

cc: Resident Geologist  
Timmins, Ontario

J Robinson

61 pages

Surf  
geology

To estab. map

Bill Geochemists  
Henry Nield Geochemists

Columnar notes  
multi hole log  
Drill hole notes

Recorded Holder <b>WESTMIN RESOURCES LIMITED</b>
Township or Area <b>BOND TOWNSHIP</b>

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Section 77(19) _____ days Section 86(18) <b>see across</b> _____ days <b>Geological</b> _____ days <b>Geochemical</b> _____ days  Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	<p>\$37,399.38 spent on reverse circulation overburden drilling on Mining Claims P 597120, P 597121, P 553490, P 553495, P 555201 and P 555202.</p> <p>2493 assessment work days are allowed which may be grouped in accordance with Section 76(6) of the Mining Act RSO 1980.</p> <p><b>For Mining Recorder's use:</b>            The work assignment for each of the above listed 6 claims is 415 days per claim.</p>

**Special credits under section 86 (15a) for the following mining claims**

**No credits have been allowed for the following mining claims**

not sufficiently covered by the survey                       Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 86(18)-60:



your file 2.4894

553489



Ontario

Ministry of  
Natural  
Resources

Notification of recording  
of assessment work credits

**RECEIVED**

MAY - 5 1983

**MINING LANDS SECTION**

Lands Administration Branch  
Mining Lands Section  
Ministry of Natural Resources  
Room 1617, Whitney Block  
Queen's Park, Toronto  
M7A 1W3

Date of recording of work: June 25, 1982

Recorded holder: Westmin Resources Limited

Address: 390 Bay Street, Suite 1414,  
Toronto, Ontario M5H 2Y2

Township or Area: BOND TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	40 days on each:
Electromagnetic _____ days	P-553489 to 502 incl.
Magnetometer _____ days	P-553579 to 589 incl.
Radiometric _____ days	P-553596
Induced polarization _____ days	P-555191 to 205 incl.
	P-555427
	P-555487 to 496 incl.
	20 days on each:
	P-628219 to 220 incl.
	60 days on each:
	P-597116 to 121 incl.
Section <sup>77 19</sup> <del>68 (48)</del> Overburden Drilling _____ days	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input type="checkbox"/>	Ground <input type="checkbox"/>

Notice to recorded holder:

Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.

Reports and maps are being forwarded to the Lands Administration Branch with this letter.

Mining Recorder  
Regional Mining Recorder  
c.c. Westmin Resources Limited

1983 05 03

2.4894

Mining Recorder  
Ministry of Natural Resources  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

RE: Overburden Drilling Program on Mining Claims  
P 553490 et al in the Township of Bond.

---

The Overburden Drilling Program Survey assessment work credits as shown on the attached statement have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1380

R. Pichette:sc

Encls:

cc: Westmin Resources Ltd  
Toronto, Ontario  
Attn: Mrs. S. Kuprejanov.

cc: Resident Geologist  
Kirkland Lake, Ontario

(P)

1983 05 03

Recorded Holder WESTMIN RESOURCES LIMITED
Township or Area CURRIE

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days 77(19) Section <del>86(18)</del> <u>see across</u> _____ days <b>Geological</b> _____ days <b>Geochemical</b> _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input type="checkbox"/>  <input type="checkbox"/> Credits have been reduced because of partial coverage of claims.  <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	<p>\$1,800 spent on reverse circulation overburden drilling on Mining Claims P 597120 to 121, P 553495, P 553490, P 555201 to 202.</p> <p>120 assessment work days are allowed which may be grouped in accordance with Section 76(6) of the Mining Act RSO 1980.</p> <p>For Mining Recorder's use:</p> <p>The work assignment for each of the above listed 6 claims is 10 days per claim.</p>

**Special credits under section 86 (15a) for the following mining claims**

**No credits have been allowed for the following mining claims**

not sufficiently covered by the survey                       Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 86(18)-60:



Sept 17/82

Ministry of  
Natural  
Resources

Notification of recording  
of assessment work credits

Recording Office  
4 Gov't Road East  
Kirkland Lake, Ontario  
P2N 1A2

Lands Administration Branch  
Mining Lands Section  
Ministry of Natural Resources  
Room 6450, Whitney Block  
Queen's Park, Toronto  
M7A 1W3

**RECEIVED**

JUL 20 1982

**MINING LANDS SECTION**

Date of recording of work: June 25 1982  
Recorded holder: Westmin Resources Limited  
Address: 390 Bay Street, Suite 1414  
Toronto Ontario M5H 2Y2  
Township or Area: Currie

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	
Electromagnetic _____ days	L 597122
Magnetometer _____ days	L 597123
Radiometric _____ days	
Induced polarization _____ days	
Section <del>66 (18)</del> <sup>77 (19)</sup> 60 _____ days	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input type="checkbox"/>	Ground <input type="checkbox"/>

Notice to recorded holder:

- Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.
- Reports and maps are being forwarded to the Lands Administration Branch with this letter.

Mining recorder

c.c. Westmin Resources Limited  
attention R H McMillan

Mining Lands Comments


To: Geophysics

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
-----------------------------------	---	------	-----------

To: Geology - Expenditures *Mr. Kustra*

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date <i>Jan 20/83</i>	Signature <i>Kustra</i>
--	---	-----------------------	-------------------------

To: Geochemistry

Comments

*LD*

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
-----------------------------------	---	------	-----------

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1982 07 06

2.4894

Mining Recorder  
Ministry of Natural Resources  
4 Government Road East  
P.O. Box 984  
Kirkland Lake, Ontario  
P2N 1A2

Dear Sir:

We have received data for Overburden Drilling Program survey submitted on mining claims P 533490 et al in the Township of Bond.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3

J. Skura/sc

c.c. Westmin Resources Limited  
Toronto, Ontario  
Att: Mrs. S. Kuprejanov



Westmin Resources Limited  
Suite 1414, 390 Bay Street  
Toronto, Ontario, Canada  
M5H 2Y2  
416 364-8116 Telex: 06-22072

A handwritten signature in black ink, possibly reading "M. J. Robinson", written over a diagonal line.

**RECEIVED**

June 22, 1982.

JUN 24 1982

**MINING LANDS SECTION**

Ontario Ministry of Natural Resources,  
Lands Admin. Branch,  
Room 6450,  
Whitney Block,  
Queen's Park,  
Toronto, Ontario.  
M7A 1X1.

Attention: Mr. F. Matthews

Dear Sir:

Please find enclosed in duplicate a Report on the Reverse Circulation Overburden Drilling Program, Bond Township, by D. J. Robinson.

We would like to apply overburden drilling as indicated on the forms "Report of Work".

Also are enclosed invoices, cheques, and cancelled cheques. Few cheques have not come back from the bank and if you would require the acknowledgement of their cancellation, please let me know.

Thank you.

Yours truly,

WESTMIN RESOURCES LIMITED

A handwritten signature in black ink, appearing to read "S. Kuprejanov".

(Mrs.) S. Kuprejanov,  
Administrative Geologist.

SK/hmc  
Encls.



Ministry of Natural Resources

RECEIVED

JUN 24 1982

MINING LANDS SECTION THE MINING ACT REPORT OF WORK

A separate form is required for each type of work to be recorded.

To the Recorder of LARDER LAKE Mining Division
Westmin Resources Limited T-778
name of Recorded Holder Prospector's Licence
390 Bay Street, Suite 1414, Toronto, Ontario M5H 2Y2
Post Office Address
do hereby report the performance of 120 days of Overburden Drilling type of work

not before reported to be applied on the following contiguous claims

Table with 6 columns: Claim No., Days, Claim No., Days, Claim No., Days. Includes entries for L.597122 (60 days), L.597123 (60 days), and P.555201.

All the work was performed on Mining Claim (s) P.597120, P.597121, P.553495, P.553490, P.555202 (In the case of geological and/or geophysical survey (s) where more than 18 claims are involved attach a schedule)

READ CAREFULLY: THE FOLLOWING INFORMATION IS REQUIRED BY THE MINING RECORDER.

- For Manual Work, Stripping or Opening up of Mines, Sinking Shafts or Other Actual Mining Operations - Names and addresses of the men who performed the work and the dates and hours of their employment.
For Diamond and other Core Drilling - Footage, No. and angle of holes and diameter of core. Name and address of owner or operator of drill. Dates when drilling was done. Signed core log and sketch in duplicate.
For Compressed Air or Other Power Driven or Mechanical Equipment Type of drill or equipment. Names and addresses of men engaged in operating equipment and the dates and hours of their employment.
For Power Stripping - Type of equipment. Name and address of owner or operator. Amount expended. Dates on which work was done. Proof of actual cost must be submitted within 30 days of recording.
With each of the above types of work sketches are required to show the location and extent of the work in relation to the nearest claim post. In the case of diamond or other core drilling the sketch must be submitted in duplicate.
For Geophysical, Geological, Geochemical Surveys and Expenditure Credits - the name of author of report. Covering dates of survey (linecutting & office). Type of instrument used. Total amount of expenditure. Technical reports, maps, expenditure breakdown, receipts must be filed in duplicate with the Minister within 60 days of recording.
For Land Survey - the name and address of Ontario Land surveyor.

The Required Information is as Follows: (Attach a list if this space is insufficient)

Footage: 1,919 ft
Operator: Bradley Bros. Ltd., 98, 14th Street, Noranda, Quebec, J9X 5A9
Cost: \$39,199.38
Work was carried out between March 17 - 26, 1982

Date June 20, 1982
Signature of Recorded Holder or Agent

The Mining Act Certificate Verifying Report of Work

R. H. McMillan
390 Bay Street, Suite 1414, Toronto, Ontario M5H 2Y2
(Post Office Address)

- hereby certify:
1. That I have a personal and intimate knowledge of the facts set forth in the report of work annexed hereto, having performed the work or witnessed same during and/or after its completion.
2. That the annexed report is true.

Dated June 20, 1982
Signature

THE PENALTY FOR MAKING A FALSE STATEMENT IN THIS REPORT AND/OR CERTIFICATE IS \$500. OR SIX MONTHS IMPRISONMENT OR BOTH





A separate form is required for each type of work to be recorded.

THE MINING ACT REPORT OF WORK

To the Recorder of Porcupine Mining Division

I, Westmin Resources Limited T-778 name of Recorded Holder Prospector's Licence

390 Bay Street, Suite 1414, Toronto, Ontario M5H 2Y2 Post Office Address

do hereby report the performance of 2,480 days of Overburden Drilling type of work

not before reported to be applied on the following contiguous claims

Table with 6 columns: Claim No., Days, Claim No., Days, Claim No., Days. Rows include P.553489-502 (40/each 560), P.553579-589 (40/each 440), P.553596 (40), P.555487-496 (40/each 400), P.597116-121 (60/each 360), P.628219-220 (20/each 40).

All the work was performed on Mining Claim (s) P.553490, P.555202, P.555201 (In the case of geological and/or geophysical survey (s) where more than 18 claims are involved attach a schedule)

READ CAREFULLY: THE FOLLOWING INFORMATION IS REQUIRED BY THE MINING RECORDER.

- For Manual Work, Stripping or Opening up of Mines, Sinking Shafts or Other Actual Mining Operations - Names and addresses of the men who performed the work and the dates and hours of their employment. For Diamond and other Core Drilling - Footage, No. and angle of holes and diameter of core. Name and address of owner or operator of drill. Dates when drilling was done. Signed core log and sketch in duplicate. For Compressed Air or Other Power Driven or Mechanical Equipment Type of drill or equipment. Names and addresses of men engaged in operating equipment and the dates and hours of their employment. For Power Stripping - Type of equipment. Name and address of owner or operator. Amount expended. Dates on which work was done. Proof of actual cost must be submitted within 30 days of recording. With each of the above types of work sketches are required to show the location and extent of the work in relation to the nearest claim post. In the case of diamond or other core drilling the sketch must be submitted in duplicate. For Geophysical, Geological, Geochemical Surveys and Expenditure Credits - the name of author of report. Covering dates of survey (linecutting & office). Type of instrument used. Total amount of expenditure. Technical reports, maps, expenditure breakdown, receipts must be filed in duplicate with the Minister within 60 days of recording. For Land Survey - the name and address of Ontario Land surveyor.

The Required Information is as Follows: (Attach a list if this space is insufficient)

Footage: 1,919 ft
Operator: Bradley Bros. Ltd., 98,14th Street, Noranda, Quebec, J9X 5A9
Cost: \$39,199.38
Work was carried out between March 17 - 26, 1982

Date June 20, 1982 Signature of Recorded Holder or Agent

The Mining Act Certificate Verifying Report of Work

I, R. H. McMillan 390 Bay Street, Suite 1414, Toronto, Ontario M5H 2Y2 (Post Office Address)

hereby certify:

- 1. That I have a personal and intimate knowledge of the facts set forth in the report of work annexed here-to, having performed the work or witnessed same during and/or after its completion. 2. That the annexed report is true.

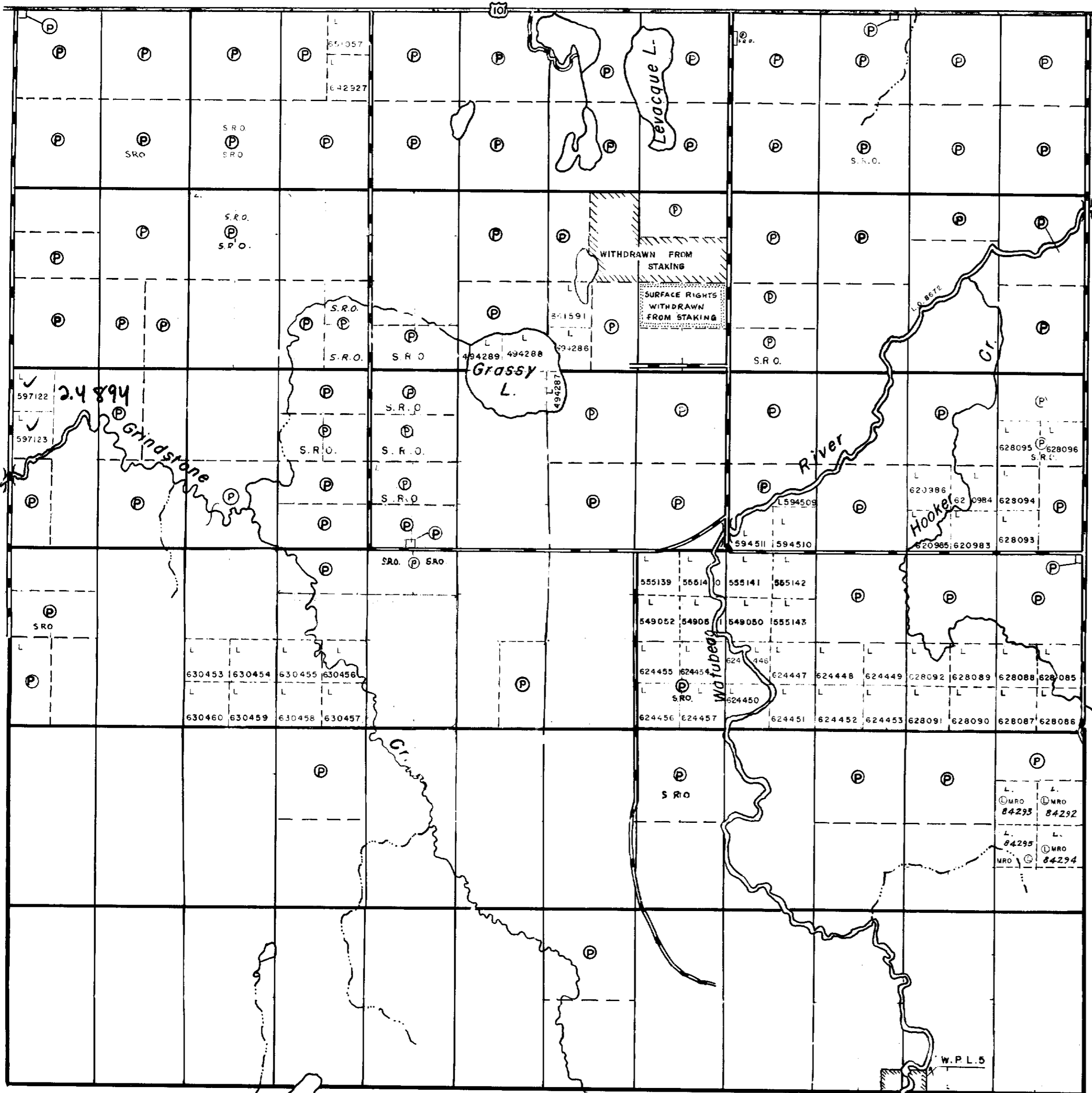
Dated June 20 19 82 Signature

THE PENALTY FOR MAKING A FALSE STATEMENT IN THIS REPORT AND/OR CERTIFICATE IS \$500. OR SIX MONTHS IMPRISONMENT OR BOTH

Taylor Twp.

Bond Twp.

Bowman Twp.



VI

V

IV

III

II

I

12 11 10 9 8 7 6 5 4 3 2 1

Egan Twp.

THE TOWNSHIP OF

# CURRIE

DISTRICT OF COCHRANE

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

## LEGEND

- PATENTED LAND Ⓟ
- CROWN LAND SALE LEASES Ⓢ or Ⓞ
- LOCATED LAND Ⓛ
- LICENSE OF OCCUPATION Loc.
- MINING RIGHTS ONLY L.O.
- SURFACE RIGHTS ONLY M.R.O.
- ROADS S.R.O.
- IMPROVED ROADS — — — — —
- KING'S HIGHWAYS — — — — —
- RAILWAYS — — — — —
- POWER LINES — — — — —
- MARSH OR MUSKEG — — — — —
- MINES — — — — —

## NOTES

AREA MARKED THUS Files: 11593, 21312  
 WITHDRAWN FROM STAKING UNDER SEC. 39(D) OF MINING ACT  
 400' Surface rights reservation around all lakes and rivers.

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970).  
 Order No. File Date Disposition

DATE OF ISSUE  
**JAN 26 1983**  
 Ministry of Natural Resources  
 TORONTO

PLAN NO.- M.341

ONTARIO  
 MINISTRY OF NATURAL RESOURCES  
 SURVEY AND MAPPING BRANCH



HWY 101

VI



V

IV

III

II

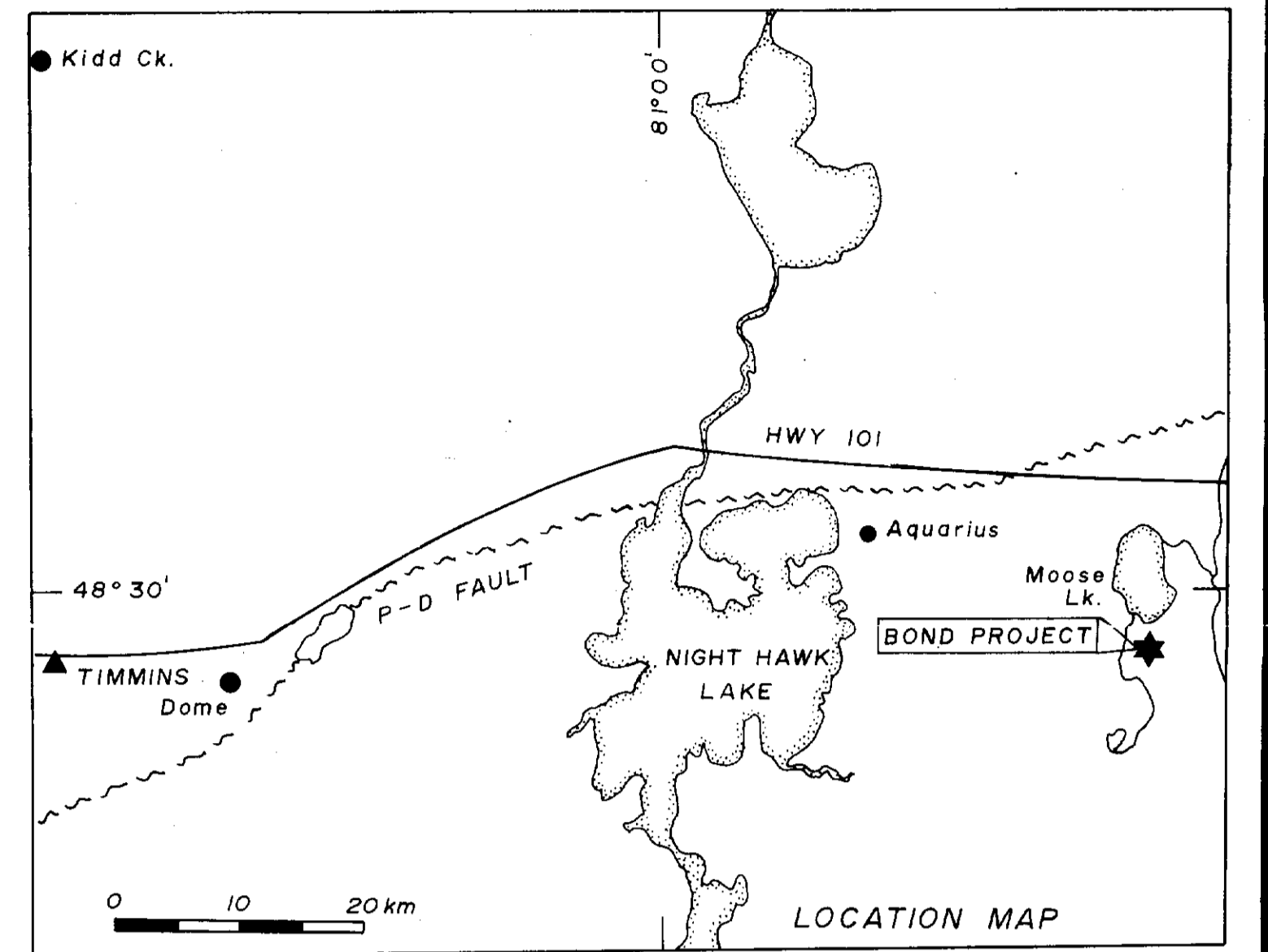
I

MOOSE LAKE

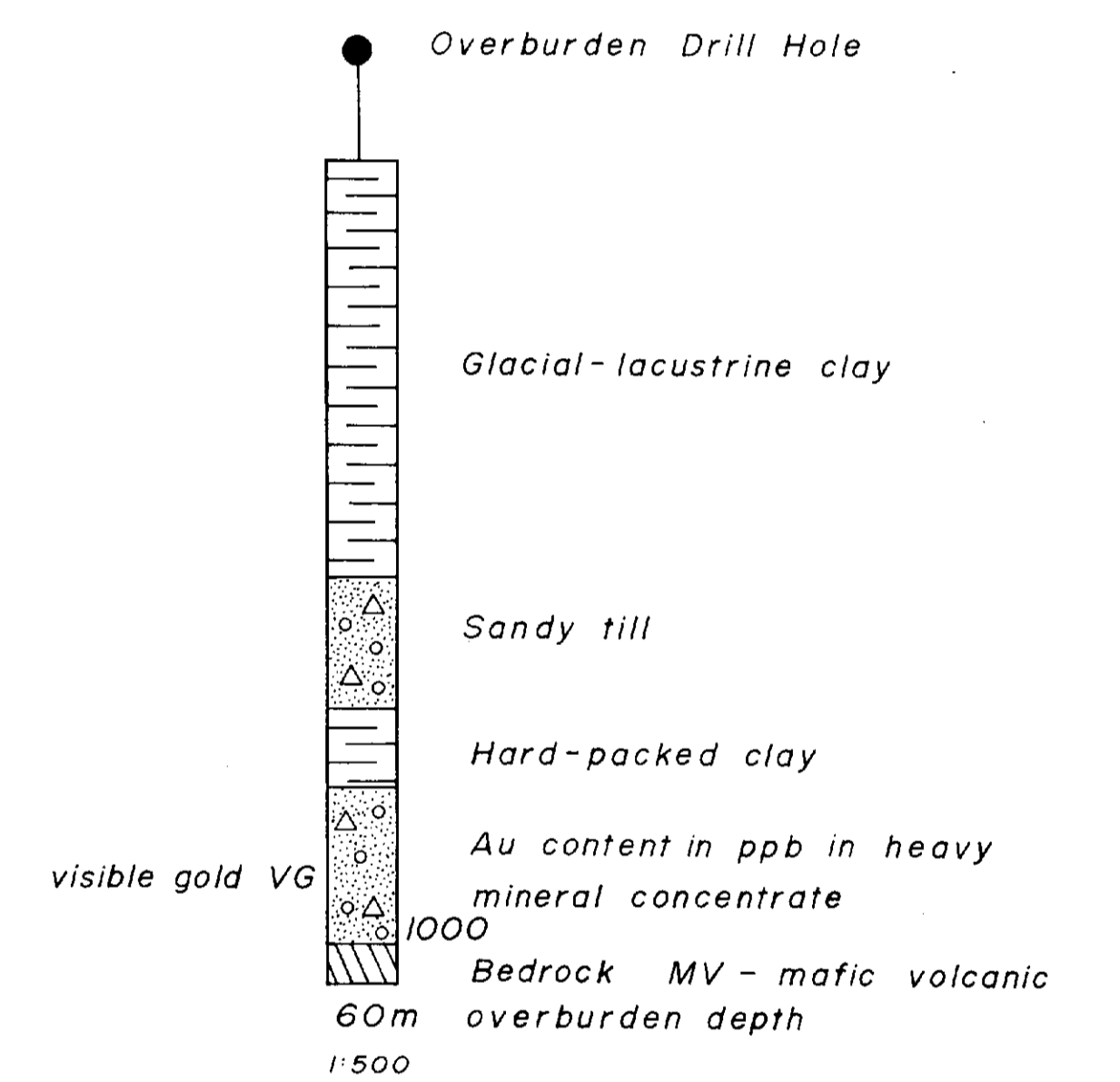
GRINDSTONE

DRIFTWOOD

MOOSE



EXPLANATION



WESTMIN RESOURCES LTD.

BOND PROJECT  
OVERBURDEN DRILLING

D.J.R.	BOND TSP	
NTS 42A7	MAY 1982	1:15830

