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**CORDIALE RESOURCES INC.
BRAGG-NEWMAN PROPERTY
BRAGG AND NEWMAN TOWNSHIPS, ONTARIO**

**REVERSE CIRCULATION OVERBURDEN DRILLING
AND HEAVY MINERAL GEOCHEMICAL SAMPLING**

RECEIVED

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PREPARED BY: MINING LANDS SECTION

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OVERBURDEN DRILLING MANAGEMENT LIMITED

JUNE, 1988

2.0

INTRODUCTION

2.1

Project Outline

From February 14 to 20, 1988, Cordiale Resources Inc. ("Cordiale") conducted a 19 hole reverse circulation drilling program for the purpose of heavy mineral geochemical sampling of Quaternary overburden and chip sampling of the Precambrian bedrock subcrop on its Bragg-Newman mineral property in the Burntbush - Casa-Berardi region on the northwestern edge of the Abitibi Greenstone Belt in northeastern Ontario. The property is 70 km northeast of the town of Cochrane, 65 km south of Placer-Dome's Detour gold mine, 25 km west of the Newmont-Golden Shield gold occurrences in Noseworthy and Hoblitzell Townships, and 75 km west of the three Golden Pond gold deposits that Inco and Golden Knight are developing for production in Casa-Berardi Township, Quebec (Figs. 1, 2).

The principal objectives of the drilling program were to test the overburden-covered property for glacially dispersed mineralization indicative of subcropping shear-hosted gold deposits of the Golden Pond type and to delineate zones of intense bedrock deformation and/or alteration that could host deposits at depth or along strike. The program was of reconnaissance scale with an emphasis on positioning holes close to or on favourable geological and/or geophysical targets.

Cordiale contracted Heath and Sherwood Drilling (1986) Inc. ("Heath and Sherwood") of Kirkland Lake, Ontario to perform the drilling and Overburden Drilling Management Limited ("ODM") of Nepean, Ontario to manage the program. Geologists S. Averill and D. Holmes of ODM prepared the hole layout in consultation with G. Prior of Norwin Resources Inc., representative of Cordiale. Geologists I. Pollquin and K. Day together with geotechnician H. Eder spotted, logged (Appendix A) and sampled the drill holes and supervised the drilling and road preparation.

Twenty-four drill holes were proposed but due to budget considerations only nineteen holes were drilled, all of which penetrated the entire overburden section and were extended approximately 1.5 metres into bedrock. In total, 176 overburden and 19 bedrock samples were collected (Table 1).

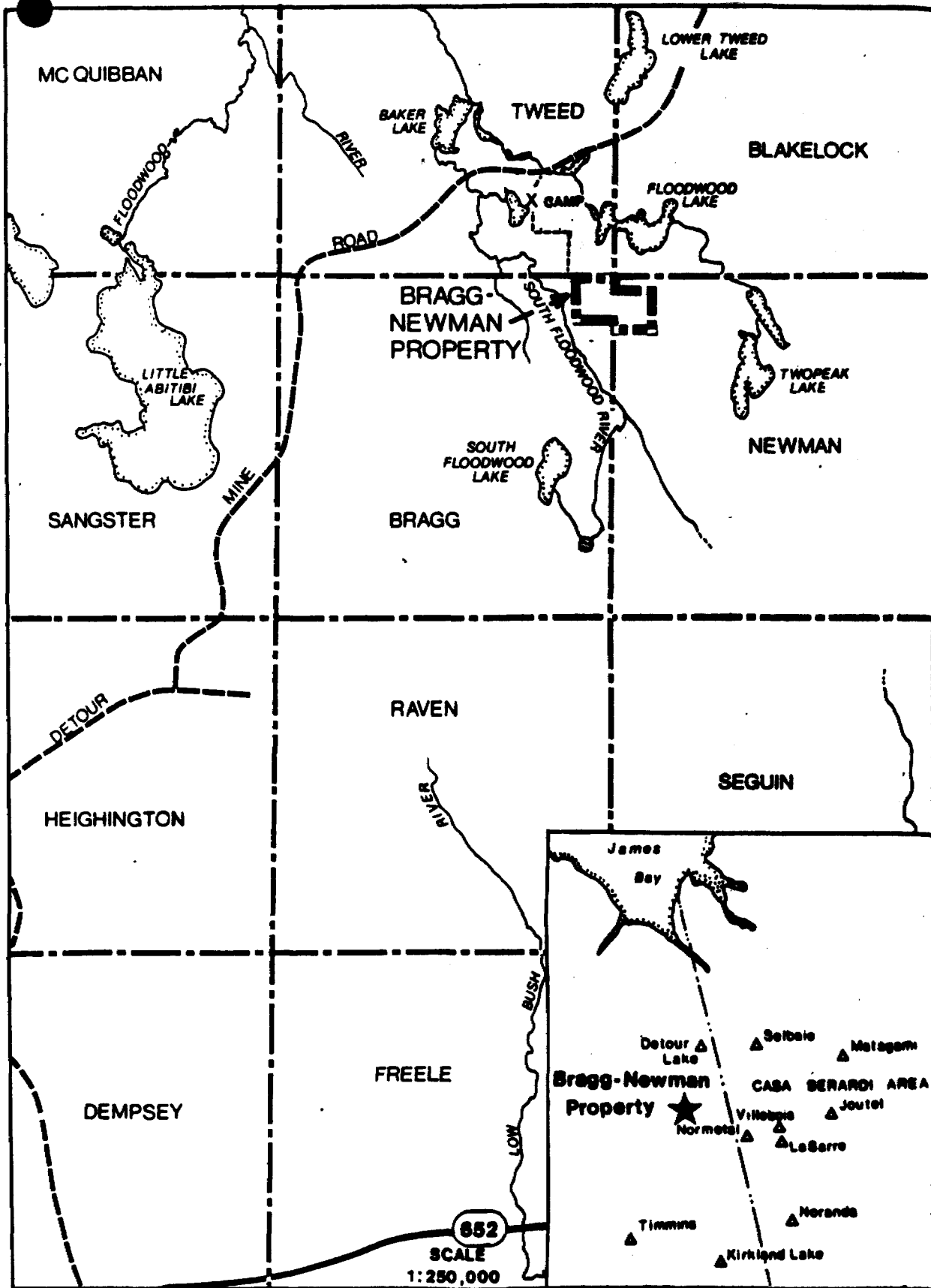


Figure 1 - Bragg-Newman Property Location

<u>Hole Number</u>	<u>Grid Co-ordinates</u>	<u>Metres Drilled</u>		<u>Hole Depth (metres)</u>	<u>Samples Collected</u>	
		<u>Overburden</u>	<u>Bedrock</u>		<u>Overburden</u>	<u>Bedrock</u>
CBN-88- 01	3+00E;25+75N	30.2	1.3	31.5	16	1
02	1+00E;20+25N	42.0	1.5	43.5	17	1
03	5+00E;20+00N	35.6	1.4	37.0	16	1
04	10+00E;23+25N	12.6	1.6	14.2	2	1
05	12+00E;18+25N	27.8	1.7	29.5	10	1
06	9+00E;15+50N	34.5	2.0	36.5	12	1
07	2+00E;11+50N	14.5	1.5	16.0	2	1
08	2+00E; 6+25N	11.2	1.4	12.6	2	1
09	6+00E; 7+25N	11.8	1.4	13.2	7	1
10	11+00E; 6+75N	10.0	1.5	11.5	4	1
11	14+00E; 8+25N	6.0	1.5	7.5	2	1
12	14+00E; 4+50N	3.0	1.5	4.5	2	1
13	14+00E;11+50N	21.0	1.5	22.5	4	1
14	16+00E;14+50N	29.5	1.5	31.0	16	1
15	17+00E; 6+50N	36.6	1.6	38.2	11	1
16	17+00E; 0+00	19.5	1.5	21.0	11	1
17	20+00E;14+00N	34.2	2.3	36.5	15	1
18	21+00E; 6+50N	38.6	1.4	40.0	24	1
19	23+00E;10+00N	<u>23.0</u>	<u>1.5</u>	<u>24.5</u>	<u>3</u>	<u>1</u>
		441.6	29.6	471.2	176	19

Table 1 - Drilling and Sampling Statistics

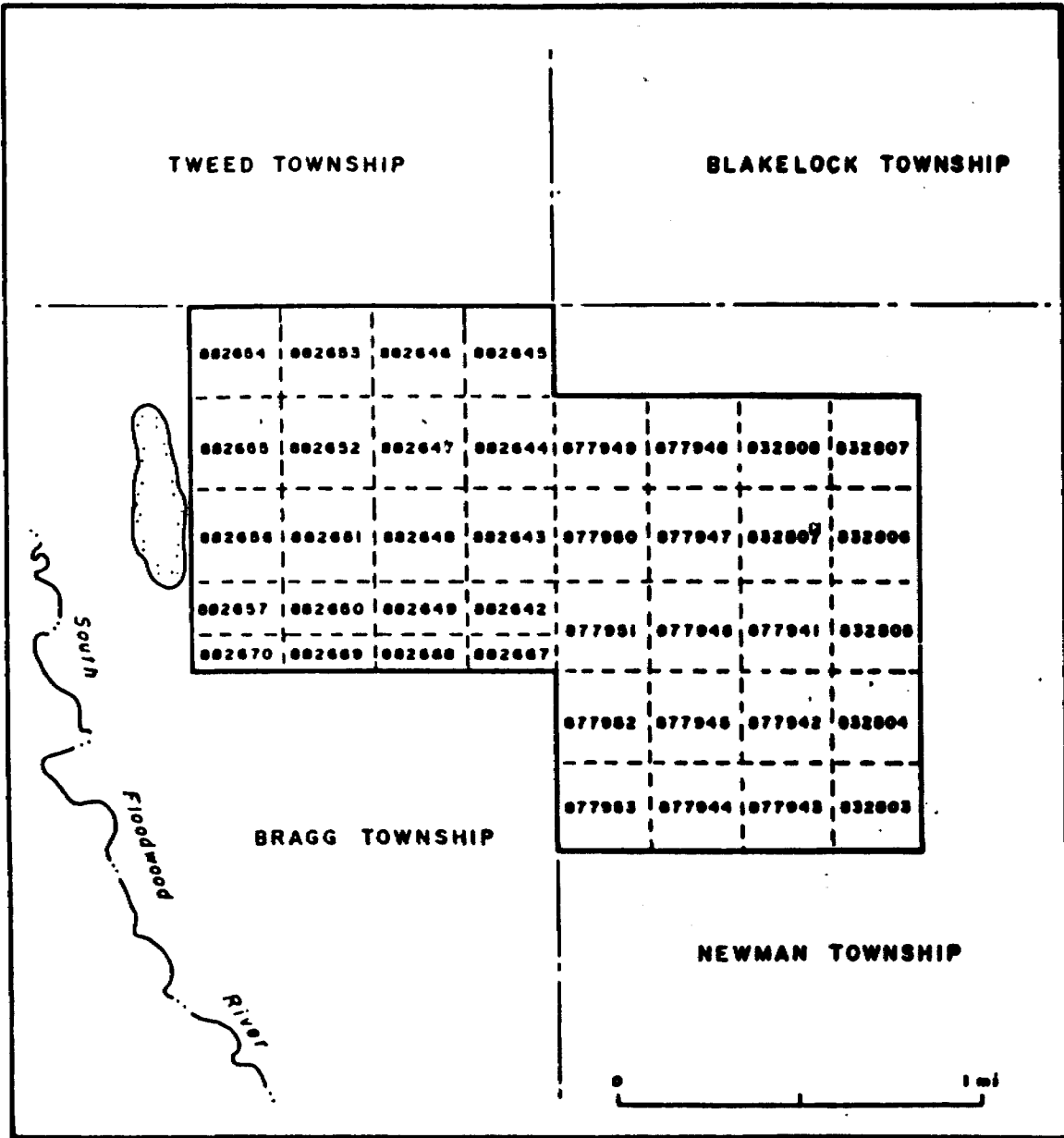


Figure 4 - Bragg-Newman Property Claim Map

2.6

Project Costs

Budgeted and actual costs for the 1988 drilling program are presented in Table 2. The budget figure of \$75,314.00 (\$156.90/metre, \$47.84/foot) was based on the following assumptions:

1. Twenty-four holes totalling 480 m; average 20 m per hole.
2. Drilling productivity at 7 m per operating hour.
3. An average bit life of 60 m.
4. A total of 144 overburden samples (average 6 samples per hole).

Nineteen holes were drilled averaging 24.8 m or 24 percent over the budget estimate. Although the overburden was deeper than expected, drilling productivity was 6.0 m/hour, essentially as budgeted. Bit life averaged 79 m or 32 percent higher than the budget estimate. The total number of overburden samples was 176 or 22 percent higher than the budget estimate. Actual costs were \$73,866.52, similar to the budgeted figure of \$75,314.00, because the reduced number of holes drilled and the good bit performance offset the increased hole depth and number of overburden samples per hole.

3.0

DRILLING AND SAMPLING

3.1

Drill Hole Pattern

The major directions of ice flow were 170-180 degrees for the main Late Wisconsinan ice sheet and 220-240 degrees for the Late Illinoian ice sheet. VLF conductors suggestive of bedding parallel shear zones on the property trend east-west, and since any gold mineralization would be expected to occur in these shear zones, it follows that any gold dispersal trains should trend roughly perpendicular to the bedrock strata. Gold dispersal trains from known deposits oriented perpendicular to glaciation normally have a down-ice length of 400-1000 m (Table 3) and a cross-ice width of 300-400 m (including low-grade fringes related to the anomalous alteration haloes that enclose most gold deposits).

<u>Service</u>	<u>Company</u>	<u>Budget</u>			<u>Actual</u>		
		<u>\$ Total</u>	<u>\$/Metre</u>	<u>\$/Foot</u>	<u>\$Total</u>	<u>\$/Metre</u>	<u>\$/Foot</u>
1. Pre-drilling	ODM	1,000.00	2.08	0.64	1,034.00	2.19	0.67
2. Drilling Operations and road clearing	H&S	46,670.00	97.24	29.65	45,446.20	96.45	29.40
3. Field supervision, logging, sampling	ODM	9,630.00	20.06	6.12	8,106.50	17.20	5.24
4. Sample shipping and processing	Various, ODM	5,312.00	13.15	4.00	7,217.57	15.32	4.67
5. Analytical	Bondar-Clegg	3,702.00	7.70	2.35	4,062.25	8.63	2.63
6. Report	ODM	<u>8,000.00</u>	<u>16.67</u>	<u>5.08</u>	<u>8,000.00</u>	<u>16.97</u>	<u>5.17</u>
TOTALS		75,314.00	156.90	47.84	73,866.52	156.76	47.78

Table 2 - Budgeted and Actual Costs for the Bragg-Newman Reverse Circulation Drilling Program

The Bragg-Newman holes were drilled 300-400 m apart along generally east-west but very irregular drill hole traverses with an average 500 m separation. The drill traverses are sub-perpendicular to both ice paths, maximizing the probability of intersecting a dispersion train. The irregularities in the traverses increase the probability of intersecting east-west trending bedrock horizons and stratigraphically-controlled buried valleys that could influence glacial dispersal patterns. In addition, the traverses were routed so as to position drill holes directly over or immediately down-ice from the strongest segments of the VLF conductor axes.

3.2 Drilling Equipment

Heath and Sherwood's drill rig employed an Acker MP drill head with a 3 metre feed cylinder. The drill, together with all its ancillary equipment including air compressor, water pump and logging and sampling facilities, was unitized and enclosed on the bed of a Nodwell Model 160 tracked carrier for all-terrain mobility and all-weather operation.

The rig employed an air compressor with a rated capacity of 300 cfm at 160 psi and a water pump having a capacity of 20 gpm at 600 psi. Water flow was normally restricted to 4-5 gpm to improve recovery of fines. The rig was equipped with a 12 volt DC Cool White fluorescent fixture that simulates natural sunlight for accurate sample logging. All equipment except the air compressor and Nodwell carrier was operated hydrostatically from a central diesel engine.

The rig carried twenty-two 10-foot drill rods. The holes were logged in metres using the approximate conversion factor of 3 metres to 10 feet. This resulted in the logged hole depth (Appendix A) being 1.6 percent less than true depth.

Heath and Sherwood supported the drill rig with a GoTrac GT-1000 muskeg tractor equipped with a 400-gallon water tank. Road clearing was subcontracted by Heath and Sherwood to Northland Exploration Ltd. of Timmins, Ontario who used a wide-pad Caterpillar bulldozer.

APPENDIX A
REVERSE CIRCULATION DRILL HOLE LOGS

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Feb 14 1988 HOLE NO CAN-FR-01 LOCATION 300 E; 73 + 75 N
 GEOLOGIST J. Piquin DRILLER G. Houng BIT NO. 1175209 BIT FOOTAGE 0-31.5
 SHIFT HOURS _____ MOVE TO HOLE Feb 13th, 1988
 _____ TO _____ DRILL 7:00- 11:10
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 CONTRACT HOURS _____ DRILLING PROBLEMS _____
 _____ OTHER _____
 MOVE TO NEXT HOLE 11:10- 11:30

Elevation 2415.0m

New bit

page 1 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG					
0-0.5				Organics (peat)	Examination of character split 880107 TEB				
0.5-3.8				COCHERANE TILL - beige gritty clay matrix with occasional pebbles - matrix is highly reactive to HCl	sample 01-11	land	beige, medium grained (50µ), well sorted, no clasts		
					01-13	land	beige, medium grained (50µ), well sorted, no clasts.		
3.8-4.0				granodioritic boulder	01-14	land and Till	predominantly beige, medium sand (250-500µ), fine sand (100-250µ) some pebbly clast		
3.8-30.2				MATHESON TILL - gradational contact with overlying till	01-15	Till	gray-beige, silt matrix (50-100µ) pebbly, some clasts smeared with silty matrix		
				5.5-7.2 - very soft gray clay	01-16	Till	gray-beige, fine sand (100-200µ) and silt (50-100µ) matrix, locally gritty clay lumps; pebbly clasts, 1% limst clasts, buff to tan colored.		
7.2-26.4				till same as before clay unit, decrease in volcanics/ sediments to 50%, 50% granitoids	Note: contact of Ojibway II sediments and Matheson Till at approx 23.5 metres				

OVERBURDEN DRILLING MANAGEMENT LIMITED
 REVERSE CIRCULATION DRILL HOLE LOG

DATE Feb 14 19 88 HOLE NO CR11-28-01 LOCATION _____
 GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____
 SHIFT HOURS _____ MOVE TO HOLE _____
 _____ TO _____ DRILL _____
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE _____

page 2 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21			12	- at 25.0 - gray, soft clay pellets
22			13	26.4- 27.2 - mafic volcanic boulder
23			14	27.2- 27.4 - till same as before boulder
24			15	27.4- 28.0 - granitic boulder
25			16	28.0- 30.2 gray silty clay
26				30.2- 31.5- BEDROCK
27				- dark green in colour
28				- quartz veins
29				- 5% calcite
30				- 2% disseminated pyrite
31				- massive to weakly foliated
32				- very fine grained
33				MAFIC VOLCANIC
34				31.5 E.O.H.
35				
36				
37				
38				
39				
40				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Feb. 14 19 88 HOLE NO CBN-88-02 LOCATION 100 E; 20+25 N
 GEOLOGIST L. Bluzina DRILLER G. Hwang BIT NO. H75205 BIT FOOTAGE 31.6-75.0
 SHIFT HOURS _____ MOVE TO HOLE _____ 11:10- 11:30
 _____ TO _____ DRILL _____ 11:30- 3:05
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE _____

Elevation: 500m

page 1 of 3

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0-3.0			01	<p>COCHRANE TILL</p> <ul style="list-style-type: none"> - oxidized beige clay matrix, gritty, with occasional pebbles. - clast composition: 20% uddams, 10% granitoids, 10% detritstone.
3.0-31.4				<p>OSIBWAY II SEDIMENTS</p> <ul style="list-style-type: none"> - gradational contact with overlying till 3.0-9.8 - beige/gray silty clay, very soft, not gritty - no mac clasts present - at 5.0 colour of clay is gray 9.8-15.4 - interbedded gravel with fine sand, pebbles and granules are rounded to subrounded, resembles a till, but seems to be layered.
15.4-17.8			03	<p>gray silt, absence of clasts, occasional gray clay pellets, soft</p>
17.8-18.2			04	<p>same as before silt unit</p>
18.2-23.0			05	<p>gray silt with clay pellets.</p>
02-08				<p>Examination of character split 00607 TEB sample 02-08 sand beige, well sorted, medium grained (500µ) no clast.</p>
02-11				<p>02-11 sand and clay beige, fine grained (150-200µ) sand and 10-20% pure gray clay lumps. (disrupted beds)</p>
02-13,14				<p>02-13,14 sand beige, well sorted, coarse grained (500-600µ) no clast</p>
02-15,16				<p>02-15,16 Till gray to gray-beige, fine sand (100-200µ) matrix, pebbly clast</p>
<p>Note: contact of Osibway II sediments and McArthur Till at 37.5 metres.</p>				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Feb 14 1968

HOLE NO CBU-26-07 LOCATION _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

SHIFT HOURS _____
TO _____

MOVE TO HOLE _____

TOTAL HOURS _____

DRILL _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

CONTRACT HOURS _____

OTHER _____

MOVE TO NEXT HOLE _____

PAGE 2 OF 3

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21			06	
22			07	
23				23.6-26.8 - gravel, pebbles and granules, clast composition: 70% granitoids, 30% volcanic sediments, some fine gray sand.
24			08	
25				26.8-29.2 - coarse gray sand
26				29.2-31.4 - fine gray sand and clay pellets, with some granules
27				
28			09	31.4-42.0 MATHESON TILL
29				- gradational contact with overlying silt
30				- fine, gray, silt/sand matrix, pebbles
31			10	- clast composition: 80% volcanic sediments, 20% granitoids
32				- gray clay pellets, soft
33				- +10 mesh is not abundant
34			11	- pure clay from 33.8-34.0
35				at 35.0 - till is very cobby, resembles a gravel
36			12	
37				
38			13	
39				
40			14	

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE Feb. 14 19 88

HOLE NO CBU-88-02 LOCATION _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

SHIFT HOURS
_____ TO _____

MOVE TO HOLE _____

TOTAL HOURS _____

DRILL _____

MECHANICAL DOWN TIME _____

CONTRACT HOURS _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

page 3 of 3

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
42.0				<p>42.0- 43.5 BEDROCK</p> <ul style="list-style-type: none"> - olive green in colour - very fine grained - oxidized along planes of foliation - well faulted - at 42.5 - presence of a light green clay - 1-2% disseminated calcite - degree of oxidation increases at 43.0 - changing colour of bedrock to orange/brown <p>MAFIC VOLCANIC</p> <p>43.5 E.O.H.</p>
43.0				
44.0				
45.0				
46.0				
47.0				
48.0				
49.0				
50.0				
51.0				
52.0				
53.0				
54.0				
55.0				
56.0				
57.0				
58.0				
59.0				
60.0				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE February 19 66 HOLE NO CBN-92-05 LOCATION 500 E. 20400 N.
 GEOLOGIST J. J. Quinn DRILLER J. H. Hays BIT NO. 115205 BIT FOOTAGE 252-1136
 SHIFT HOURS _____ MOVE TO HOLE 5.10-9.45
 _____ TO _____ DRILL 4:45-5.10 7.00-9.30 (FID 15)
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER get bulldozer out of creek
 _____ MOVE TO NEXT HOLE _____

Elevation 298.7m

POSC. 1 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0-0.5				Organics (Peat)
0.5-5.0				CAHRAWE TILL - beige gritty clay matrix with occasional pebbles, 70% volcanics / sediments, 10% granitoids, 20% limestone
5.0-12.4				OSIBWAY II SEDIMENTS - gradational contact with overlying till - pure, soft silty clay, gray few pebbles
12.4-35.6				MATHESON TILL - fine gray sand silt matrix - abrupt contact with overlying clay unit - reworked; clast composition: 60% granitoids, 40% volcanics / sediments

Examination of character splits 880609 TEB
Sample 03-09 Sand
beige, fine to medium grained (20-500µ)
sand, well sorted, no silt
03-10 Till and sand
gray-beige to beige, fine sand matrix (100-250µ), some medium sand (250-500µ) low percentage
03-11 Till
gray-beige, fine sand (10-150µ) matrix, some silt present (50-100µ) local gritty clay lumps pebbly silt
Note: Contact of Ojibway II sediments and Matheson Till at 25.0 metres

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE 11/15 1988 HOLE NO CR-88-14 LOCATION 1000E, 23+25 N
 GEOLOGIST L. D. G. W. DRILLER G. HONG BIT NO. H75-302 BIT FOOTAGE 0-14.3
 SHIFT HOURS _____ MOVE TO HOLE _____
 _____ TO _____ DRILL _____
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE 11:00 - 11:40

Elevation 300m

New bit

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0-0.5				Organics (Peat)
0.5-2.4			01	COCHRANE TILL - beige silty clay matrix reacts with acid, occasional pebbles, 60% volcanics / sediments, 10% granitoids, 30% limestone
2.4-10.0				OSTBURY II SEDIMENTS gradational contact with overlying till - soft gray dense silty clay
10.0-12.6			02	MATHESON TILL - abrupt contact with overlying clay - fine gray silt sand matrix pebbles - clast composition: 60% volcanics / sediments 40% granitoids
12.6-14.3			03	BEDROCK - blue and white - fine grained - massive to weakly foliated - 10% calcite - quartz or dolomite

Examination of character split 000909 TSS
 sample 09-02 Pebbly sand
 beige; fine sand (40-50%) comprising 50% of sample, well sorted, no silt or coarse sand, 50% of sample well rounded pebbles.
 No till as described in field, glaciofluvial sediment.

METHESON

10 0 304

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE 19 HOLE NO 15-02-03 LOCATION 15 02 E, 15 25 N
 GEOLOGIST K. S. S. S. DRILLER G. H. H. BIT NO. H75206 BIT FOOTAGE 11.2-43.7
 SHIFT HOURS TO MOVE TO HOLE
 TOTAL HOURS DRILL 11:40 - 2:35
 CONTRACT HOURS MECHANICAL DOWN TIME
 DRILLING PROBLEMS
 OTHER
 MOVE TO NEXT HOLE

Elevation 300m

page 1 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0-1.5				Organics (Peat)
1.5-2.6				COCHRANE TILL - gray beige Britty clay matrix with occasional pebbles
2.6-16.0				OSIBWAY II SEDIMENTS - soft, gray silty clay
16.0-27.9				MATHESON TILL - abrupt contact with overlying clay - 16.0-20.0 - clay and fine silty gray matrix, clay is hard and very dry - pebbles, clast composition: 50% volcanics (sediments), 50% granitoids at 20.0 - no more clay in till - very stony
27.9-30.0		01		
30.0-32.0				
32.0-34.0				
34.0-36.0				
36.0-38.0				
38.0-40.0				
40.0-42.0				
42.0-44.0				
44.0-46.0				
46.0-48.0				
48.0-50.0				
50.0-52.0				
52.0-54.0				
54.0-56.0				
56.0-58.0				
58.0-60.0				
60.0-62.0				
62.0-64.0				
64.0-66.0				
66.0-68.0				
68.0-70.0				
70.0-72.0				
72.0-74.0				
74.0-76.0				
76.0-78.0				
78.0-80.0				
80.0-82.0				
82.0-84.0				
84.0-86.0				
86.0-88.0				
88.0-90.0				
90.0-92.0				
92.0-94.0				
94.0-96.0				
96.0-98.0				
98.0-100.0				

Examination of character split 05-01 TEB, sample 05-01 hard
 beige, medium grained (200-500µ)
 well sorted
 05-06 hard
 beige, medium grained (200-500µ)
 well sorted
 05-07 Till and hard
 gray-beige to beige, abundant fine sand (100-200µ), matrix, somewhat local pitty, gray clay lumps.
 05-09 Till
 gray-beige, fine sand (100-200µ) local pitty, clay lumps, minor silt (10-20µ) angular clasts.
 Note: contact between Osibway till and Matheson Till would be approximately at 23.5m.

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE 22.12.1962 HOLE NO CB1-5200 LOCATION 900 E; 15 + 50 N
 GEOLOGIST J. P. ... DRILLER G. H. ... BIT NO. 175-222 BIT FOOTAGE 137-820
 SHIFT HOURS _____ MOVE TO HOLE 235-505
 _____ TO _____ DRILL 305-500
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE _____

Elevation 320m

page 1 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG						
1				0-0.2 ORGANICS (Peat)	Examination of character split 000609 TBS					
2			01	0.2-2.6 LOCHRANE SEDIMENTS	Sample 06-02 Till					
3				- Gray beige silty clay matrix with occasional pebbles	gray-beige, fine sand matrix (100-200µ) angular clast non-into					
4				2.6-18.0 OSIBWAY II SEDIMENTS	NOTE: As logged in field, assuming remainder of section to be correct.					
5				- gradational contact with overlying till						
6				- soft, pure gray silty clay with occasional pebbles						
7										
8				18.0-34.5 MATHESJO TILL						
9				- abrupt contact with overlying till						
10				- fine gray silt sand matrix, pebbles and granules						
11				- clast composition: 60% volcanics/sediments, 40% granitoids						
12										
13										
14										
15										
16										
17										
18										
19			02							
20			03							

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE 19
 SHIFT HOURS
 TO
 TOTAL HOURS
 CONTRACT HOURS

HOLE NO. LOCATION
 GEOLOGIST DRILLER BIT NO. BIT FOOTAGE
 MOVE TO HOLE
 DRILL
 MECHANICAL DOWN TIME
 DRILLING PROBLEMS
 OTHER
 MOVE TO NEXT HOLE

page 2 of 2

DEPTH METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21	△		01	
22	△		02	
23	△		03	
24	△		04	
25	△		05	
26	△		06	
27	△		07	
28	△		08	
29	△		09	
30	△		10	
31	△		11	
32	△		12	
33	△		13	
34	△			
35	△			
36	△			
37	△			
38	△			
39	△			
40	△			

34.5-36.5 BEDROCK
 - light green and white
 - mixed with olive green clay
 - very soft, well foliated
 - quartz, biotite or muscovite

SUBMERSED ANDIOLITE
 WEATHERED METAVOLCANIC
 36.5 EOW

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE 10-11-77 19 77 HOLE NO B-07-07 LOCATION 200 E, 11+50 N
 GEOLOGIST L. P. ... DRILLER G. ... BIT NO. 175206 BIT FOOTAGE 500-510
 SHIFT HOURS _____ MOVE TO HOLE 7:07-10:00
 _____ TO _____ DRILL 10:00-10:40
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE _____

Elevation 301m

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0-1.0				0-1.0 ORGANICS (Peat)
1.0-3.4			01	1.0-3.4 LOCHRAHE TILL - gray silty clay matrix with occasional pebbles, 80% volcanics / sediments, 10% granitoids, 10% limestone
3.4-13.0				3.4-13.0 OSIBWAY II SEDIMENTS - soft, gray, silty clay with occasional pebbles at 11.5-12.0 - clay becomes silty, increase in pebbles 12.0-13.0 - poor recovery of sample, could be silt that is washed away (only few granules in the sieve)
13.0-14.5			02	13.0-14.5 MATHESON TILL - gradational contact with overlying clay - fine gray silt sand matrix, pebbles and granules, clast composition: 50% volcanics / sediments, 50% granitoids
14.5-16.0			03	14.5-16.0 BEDROCK - dark gray, almost black - fine grained - moderately fractured - 2-3m disseminated white - quartz veins at 15.0

Examination of character split 000000 TBS
 Sample 07-02 Till
 gray - beige, fine grained (100-200µ)
 sand matrix, well-sorted, silt
 (50-100µ) and medium sand
 (250-500µ) component, pebbly det
 Note: correct as happens field.

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE 1988-08-19 HOLE NO 211-08-08 LOCATION TOPE: 10+25 N
 GEOLOGIST WILLIAM DRILLER G. HOLTZ BIT NO. M5272 BIT FOOTAGE 600-1066
 SHIFT HOURS 3:30-4:30 MOVE TO HOLE _____
 _____ TO _____ DRILL 4:00-5:00 END OF SHIFT _____
 TOTAL HOURS _____ MECHANICAL DOWN TIME 11:40-3:30 Repair hydraulics, change
 _____ DRILLING PROBLEMS both pumps and 3000 gal
 CONTRACT HOURS _____ OTHER clean tank
 _____ MOVE TO NEXT HOLE _____

Elevation 301m

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0-1.5				Organics (Peat)
1.5-3.2				LOCARADE TILL - silty gray clay matrix with occasional pebbles, 80% volcanics / sediments 10% granitoids, 10% limestone
3.2-10.2				OSTBWAY II SEDIMENTS - silty clay, gray with occasional pebbles
10.2-11.2				* MATHESON TILL - abrupt contact with overlying contact - fine, gray sand/silt matrix - pebbles and cobbles - clast composition: 80% volcanics / sediments, 20% granitoids
11.2-12.6				BEDROCK - dark gray and white - white: calcite veins, 20% - very fine grained - moderately fractured - 1-2% disseminated pyrite
				Metasediment TOPE 25 N

Examination of character split across TSS
 sample 08-02 found
 medium sand matrix (200-500µ)
 minor fine sand (100-200µ), rounded
 silty silt
 Note: No Matheson Till intersected in this drill hole only Ojibway II sediments and Carleton Place Till

* note, because till sample was too small to see till into hole

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE Feb 17 1982 HOLE NO CBN-83-79 LOCATION 600 E; 7+28 N
 GEOLOGIST L. Pousy DRILLER G. H. H. H. BIT NO. 1175209 BIT FOOTAGE 0-13.2
 SHIFT HOURS _____ MOVE TO HOLE 9:00-10:00
 _____ TO _____ DRILL 10:00-11:45
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 MOVE TO NEXT HOLE 11:45-1:00

Elevation 300m

DEPTH METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0-0.5				ORGANICS (Peat)
0.5-3.2				CAMRANE TILL - gray beige gritty clay matrix with occasional pebbles, 70% volcanics, 10% granitoids, 20% limestone
2.0-2.3				granodiorite boulder
2.4				- clay matrix is gray at 2.4
3.2-3.6				OSIBWAY II SEDIMENTS - soft, gray, silty clay
3.6-11.8				MATHESON TILL 3.6-5.2 - fine, gray, sand/silt matrix, pebbles and cobbles - clast composition: 80% volcanics/sediments, 20% granitoids 5.2-6.0 - metasediment boulder 6.0-7.6 - very stony, mostly cobbles 7.6-11.8 - soft gritty clay lumps mixed with till
11.8-13.2				BEDROCK - dark gray to black - very soft / powdery gray

Examination of character split 00160780
 sample 09-00 Pebbly sand
 beige, medium grained (200-500µ) sand, rounded pebbly clasts
 sample 09-01 Till
 gray-beige, fine sand matrix (100-200µ) and silt (50-100µ) matrix
 local gritty gray clay lumps
 earthy clasts.
 Note: contact of Osibway II sediment and Matheson Till at 7.6m based on description of samples in field log.

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE April 19 86 HOLE NO LD-85-10 LOCATION 1100E, 10425N
 GEOLOGIST Paulo DRILLER G. Hwang BIT NO. HT5208 BIT FOOTAGE 132.267
 SHIFT HOURS _____ MOVE TO HOLE 11:45-1:00
 _____ TO _____ DRILL 1:00-2:40
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE 2:40-3:30

Elevation 300m

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1		0-0.2		0-0.2 Organics (Peat)
2		0.2-2.0		0.2-2.0 COCHRANE TILL - beige silty clay matrix with occasional pebbles - clast composition: 80% volcanics / sediments, 10% granitoids, 10% limestone
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

2.0-10.0 OSTIBWAY II SEDIMENTS
 2.0-5.2 - interbedded fine
 to medium beige sand with
 gravel
 - pebbles are rounded to
 subrounded
 - layers are approximately
 0.4m
 - clast composition: 80%
 granitoids, 20% volcanics /
 sediments
 - only pebbles with no matrix,
 then a fine gray sand
 - cobbles and boulders
 7.8-10.0 - only coarse sand
 and gravel
 10.0-11.5 BEDROCK
 - very fine grained
 - dark gray
 - very soft powdery gray
 chips
 - well faulted
 - 1-2% disseminated
 carbonate

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE Sept 19 83 HOLE NO BW 82 11 LOCATION 16+07 E; 8+25 N
 GEOLOGIST J. P. S. MO DRILLER G. Houts BIT NO. 1175208 BIT FOOTAGE 247-52.7
 SHIFT HOURS _____ MOVE TO HOLE 2:40-3:30
 _____ TO _____ DRILL 3:30-4:00
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE _____

Elevation: 502m

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1				0-0.5 ORGANICS (peat)
2		0.5-1.0		0.5-1.0 COLLEAVE TILL - gray dense gritty clay matrix with occasional pebbles - colour changes to gray at 3.0m
3			01	
4				
5				4.0-6.0 MATHESON TILL - 4.0-4.2 - pure gray soft clay - gradational contact with overlying clay - fine gray silt sand matrix - pebbles - clast composition: 80% volcanics (bediments), 20% granitoids
6			02	
7			03	
8				
9				6.0-7.5 BEDROCK - buffish gray - very fine grained - very soft powdery gray mass - well faulted - oxidized along planes of faulting - quartz veins at 7.3 - maybe some siderite also
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Examination of character with 100008 TBS
 sample 11-02 Till
 gray - beige to locally gray - brown, fine sand (10-20%) matrix, clast of colluvial till contamination
 Note: Section as logged in the field

METAMORPHIC

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE 2017 19 28 HOLE NO CB-24-12 LOCATION 5+00 W ; 5+23 N (on picket)
 GEOLOGIST J. Paus DRILLER Carly BIT NO. IT5258 BIT FOOTAGE 32.2-56.7
 SHIFT HOURS _____ MOVE TO HOLE 4:00-4:15
 _____ TO _____ DRILL 4:15-4:45
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE _____

Elevation 303m

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG					
0-1.0		01		ORGANICS (Peat)	Examination of character split 000008 TEB				
1.0-2.0		02		COCHRANE TILL - gray basic silty clay matrix with occasional pebbles	Sample 12-02 <u>shard</u> medium sand (200-500µ) matrix <u>silty shard</u>				
2.0-5.0		03		MATHESON TILL - abrupt contact with overlying till - fine, gray, silt/sand matrix - clast composition: 90% volcanics/bediments, 10% granitoids - pebbles	Note: No Matheson Till intersected				
3.0-4.5				BEDROCK - pale gray - well faciated - oxidized along planes of faciation - 2-3% carbonate - very fine grained - quartz vein at 4.0					
				METASEDIMENT 4.5 E.O.H.					

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE 3-16 1982 HOLE NO BW-02-14 LOCATION 1400 E 16+50N
 GEOLOGIST J. P. GUNDRILLER 12 HOURS BIT NO. H75215 BIT FOOTAGE 195-225
 SHIFT HOURS _____ MOVE TO HOLE _____
 _____ TO _____ DRILL 10:40 - 1:30
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE 1:30 - 1:45

Elevation 310m

POSC 1052

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1				0-0.5 ORGANICS (Peat)
2				0.5-4.6 COCHRANE TILL - Gray bluish gritty clay matrix with occasional pebbles, 70% volcanics / sediments, 30% limestone
3		0.1		
4				4.6-7.0 OSTWAY II SEDIMENTS - Gray, soft, silty clay with occasional pebbles (near contact with underlying till)
5				
6		0.2		
7				7.0-29.5 MATHESON TILL - gradational contact with overlying clay unit - fine gray silt sand matrix, pebbles and cobbles, clast composition: 80% volcanics / sediments, 20% granitoids
8				
9		0.3		
10				9.6-10.0 granitic boulder
11		0.4		10.1-10.2 soft silty gray clay
12				11.0-11.4 - silty soft gray clay
13		0.5		
14				11.4-23.6 - till same as before boulder very cobbly.
15		0.6		
16				
17		0.7		
18				
19		0.8		
20				
		0.9		
		1.0		
		1.1		

Examination of character split 758 05009

sample 19-16 Silty sand
matrix of beige, fine sand (200-300µ) comprising 50% of sample, well sorted no silt or coarse sand, 50% well rounded pebbles.

19-14 Silty sand
matrix of beige, fine sand (200-300µ) predominantly, also medium (500-700µ) and coarse (500-1000µ) percent, locally pure medium gray clay lenses

(Note: probably finely interbedded sand, silt and clay when mixed would resemble till. Assuming remainder of section to be same.)

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE 2012 19 20

SHIFT HOURS _____
TO _____

TOTAL HOURS _____

CONTRACT HOURS _____

HOLE NO 230-22-4 LOCATION _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

MOVE TO HOLE _____

DRILL _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

page 2 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21	▲		11	
22	▲		12	
23	▲		13	23.6-23.8 - granitic boulder
24	▲		14	at 23.9 - gray clay grading into fine gray sand silt
25	▲		15	- fine gray sand interbedded with granules and pebbles, sand is more abundant, thickness of layers, 0.4m of sand, 0.2m of pebbles
26	▲		16	- sand is coarsening at 24.0-25.0
27	▲		17	- sand and granules
28	▲			28.0-29.5 gravel; no matrix, pebbles rounded to subrounded
29	▲			- clast composition: 80% volcanic/sediments, 20% granitoids
30	▲			- very slow drilling
31	▲			29.5-31.0 BEDROCK
32	▲			- black in colour
33	▲			- very fine grained
34	▲			- 2-3% disseminated carbonate
35	▲			- greyer in colour at 30.5
36	▲			- sparse veins
37	▲			- 2% disseminated quartz
38	▲			- weakly to moderately
39	▲			
40	▲			

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Feb 12 1988
SHIFT HOURS _____
TO _____
TOTAL HOURS _____
CONTRACT HOURS _____

HOLE NO CBC 84-15 LOCATION 1700 E ; 10+50N
GEOLOGIST J.P. Gifford DRILLER G. Hovey BIT NO. 115-215 BIT FOOTAGE 56.5-887
MOVE TO HOLE 130-145
DRILL 1.45-5:20
MECHANICAL DOWN TIME _____
DRILLING PROBLEMS _____
OTHER _____
MOVE TO NEXT HOLE _____

Elevation: 301 m

PASC 10f2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1				0-1.0 Organics (Peat)
2				1.0-16.0 OSIBWAY II SEDIMENTS
3				- soft, gray, silty clay
4				with few granules?
5				- poor recovery of this unit
6				(from 8.0-10.0)
7				16.0-36.6 MATHESON TILL
8				- abrupt contact with
9				overlying clay
10				- fine, gray, silt/sand
11				matrix
12				- pebbles
13				- clast composition 50% volcanic sediments, 50% granitoids
14				18.2-19.5 - some clay mixed with till
15				
16				
17			01	
18				
19			02	
20			03	

Examination of character splits over 08 TR 8
Sample 15-01 Pebbly sand
beige, fine grained (100µ) and medium grained sand (250-500µ) some with probably contamination from overlying unit, 20% well rounded chert pebbly
15-02 hard
beige, fine grained (100-200µ) and grey clay beds.
15-03 Pebbly sand
beige, fine sand (100µ) and medium sand (250-500µ) in equal proportions 20% well rounded pebbly chert
15-08,09 Pebbly sand
beige, medium grained (200-300µ) well sorted, 210% well rounded pebbly chert

Note: No Matheson Till, assuming samples 15-07,10 are also pebbly sand from Osibway II sediments

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE Feb 15 1998 HOLE NO BN-98-15 LOCATION _____
 GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____
 SHIFT HOURS _____ TO _____ MOVE TO HOLE _____
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 CONTRACT HOURS _____ DRILLING PROBLEMS _____
 OTHER _____
 MOVE TO NEXT HOLE _____

PASC. 2 of 2

DEPTH METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21	△		03	
22	△		04	
23	△		05	
24	△			24.0-28.0 - interbedded fine gray sand and gravel
26	○○○○			at 26.5 - poor recovery of sample (could be silt that is washed away)
28	△		06	
29	△		07	28.0-34.5 - fine gray sand/silt matrix
30	△			- pebbles
31	△		08	- last composition: 80% volcanics/sediments, 20% granitoids
32	△		09	34.5-36.6 - gravel and coarse sand
34	△		10	36.6-38.2 BEDROCK
35	○○○○			- dark green and white
36	○○○○		11	- very fine grained
37	○○○○			- massive to weakly faulted
38	○○○○		12	- quartz vein at 37.0
39				37.5
40				- 5% disseminated pyrite
				MAFIC VOLCANIC
				38.2 E.O.H.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE June 19 52 HOLE NO CB-84-16 LOCATION 1700E 9+00
 GEOLOGIST J. P. Quinn DRILLER G. Hous BIT NO. 175215 BIT FOOTAGE 22.7-18.7
 SHIFT HOURS _____ MOVE TO HOLE 3:30-3:40
 _____ TO _____ DRILL 3:20-5:00
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 _____ DRILLING PROBLEMS _____
 CONTRACT HOURS _____ OTHER _____
 _____ MOVE TO NEXT HOLE move drill to base line

Elevation 303m

page 1 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1	^ ^			0-1.5 organics (Peat)
2	^ ^		01	1.5-3.5 COARSE TILL - gray gritty clay matrix with few pebbles
3	Δ Δ			80% volcanics (sediments), 20% granitoids
4	Δ Δ		02	
5	Δ Δ			3.5-19.5 MATHESON TILL - abrupt contact with overlying till
6	Δ Δ		03	
7	Δ Δ			- fine, gray, silt/sand matrix
8	Δ Δ		04	- cobbles and pebbles
9	Δ Δ			- clast composition: 60% granitoids, 40% volcanics/sediments
10	Δ Δ		05	
11	Δ Δ		06	6.0-9.0 - coarse gray sand with granules
12	Δ Δ			9.0-15.0 - till same as before sand unit
13	Δ Δ		07	
14	Δ Δ		08	15.0 - dry gray clay
15	Δ Δ			17.0 - soft gritty gray clay
16	Δ Δ		09	
17	Δ Δ		10	18.5 - till becomes cobbly
18	Δ Δ			
19	Δ Δ		11	
20	Δ Δ		12	

Examination of abraded pebbles from TSS sample 16-02 Sabbly sand
 beige, fine grained (100-200µ)
 10% pebbly clasts

Note: contact of Ogishon II sediments and Matheson Till at 9.0 metres.

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE Feb 20 1992 HOLE NO CBU-28-17 LOCATION _____
 GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____
 SHIFT HOURS _____
 _____ TO _____ MOVE TO HOLE _____
 TOTAL HOURS _____ DRILL _____
 _____ MECHANICAL DOWN TIME _____
 CONTRACT HOURS _____ DRILLING PROBLEMS _____
 _____ OTHER _____
 _____ MOVE TO NEXT HOLE _____

page 2 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21	△		07	
22	△		08	
23	△		09	24.0-24.8 - pure, soft gray clay
24	△		10	24.8-33.0 - clayey till, fine, gray silt sand and clay matrix - pebbles, last composition: 80% volcanics / sediments, 20% granitoids
25	△		11	
26	△		12	33.0-34.2 MISSISSAUGA SEDIMENTS - gray clay with chips of metasediment
27	△		13	at 34.0 - only pure clay, dry and fissile
28	△		14	34.2-35.5 BEDROCK
29	△		15	34.2-35.5 - clay balls mixed in with bedrock chips
30	△			35.5-36.5 - pale green
31	△			- moderately fractured
32	△			- very fine grained
33	△			- 2-3% disseminated carbonate
34	△			- very soft
35	△			- 1-2% disseminated sulphides
36	△			
37	△			
38	△			
39	△			
40	△			

MAGIC TO INTERMEDIATE
VOLCANIC

36.5 E.O.A.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Feb 19 82
SHIFT HOURS _____
TO _____
TOTAL HOURS _____
CONTRACT HOURS _____

HOLE NO CB-02-12 LOCATION ELDER, W150N
GEOLOGIST J. P. GUNN DRILLER G. HONG BIT NO. 1175252 BIT FOOTAGE 0740.0
MOVE TO HOLE 10:50 11:15
DRILL 11:15-4:00
MECHANICAL DOWN TIME _____
DRILLING PROBLEMS bit was fused, pulled 6 rods out
OTHER leak in hydraulic hose, had to
MOVE TO NEXT HOLE be replaced

Elevation 302 m

New cut

page 1 of 2

METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1			01	0-3.0 COCHRANE TILL - beige gritty clay matrix with occasional pebbles
2			02	- 80% volcanics sediments, 10% granitoids, 10% limestones
3			03	3.0-38.6 MATHESON TILL abrupt contact with overlying till
4			04	- fine gray silt sand matrix
5			05	- pebbles
6			06	- clast composition 50% volcanics sediments, 50% granitoids
7			07	at 10.0 - clast composition changes to 80% volcanics sediments, 20% granitoids
8			08	13.5-14.8 - medium beige sand with granules
9			09	14.8-27.4 - fine beige sand grading into a till, same as before sand unit, cobby
10			10	
11			11	
12			12	
13			13	
14			14	
15			15	
16			16	
17			17	
18			18	
19			19	
20			20	

Examination of shatter splits 0001 08 T.E.S
sample 18-14 pebbly sand
beige, fine grained (100-200µ) some medium sand (200-500µ) 10-20% pebbly well rounded silt
Note: Assuming all overlying units to be the same.
sample 18-17 hard
beige, fine grained (100-200µ) well sorted no dust
sample 18-21, 23 Till
gray-beige, fine sand matrix (150-300µ), some silt (100-100µ) cobby silt
Note: Contact of Ojibway II sediments and Matheson Till at 33.0 metres

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Feb 12 1986
SHIFT HOURS _____
TO _____
TOTAL HOURS _____
CONTRACT HOURS _____

HOLE NO CB0-25-19 LOCATION _____
GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____
MOVE TO HOLE _____
DRILL _____
MECHANICAL DOWN TIME _____
DRILLING PROBLEMS _____
OTHER _____
MOVE TO NEXT HOLE _____

page 2 of 2

DEPTH METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21		13		Examination of slusher split shows TEB
22		14		
23		15		27.4-29.0 - coarse beige sand and gravel, sand is more abundant than the gravel
24		16		29.0-32.0 - fine to medium beige sand with occasional granules and pebbles interbedded with gravel layers, approximate thickness of layers is 0.1m
25		17		
26		18		
27		19		
28		20		32.0-33.0 - beige silt to fine sand with occasional granules
29		21		
30		22		33.0-38.6 - fill is same as before sand units
31		23		at 38.0 : last composition is 95% volcanics / sediments, 5% granitoids.
32		24		
33		25		38.6-40.0 BEDROCK
34		26		- dark gray in colour
35		27		- very fine grained
36		28		- quartz vein at 39.0
37		29		- 2-3% carbonates
38		30		- 1-2% disseminated pyrite
39		31		- soft gray clay pellets at 39.2 (probably coming from a fracture)
40		32		- at 39.8 - bedrock is oxidized to green but is still fresh inside (outside of chips are green)
				- well foliated
				40.0 EOH METASEDIMENT

**OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG**

DATE Feb 19 1962 HOLE NO. BW-22-4 LOCATION 2300 E 10+00 N
 GEOLOGIST L. P. Quinn DRILLER G. Harris BIT NO. 115232 BIT FOOTAGE 40.1-16.5
 SHIFT HOURS _____ MOVE TO HOLE 4:00-4:20
 _____ TO _____ DRILL 4:20-5:40
 TOTAL HOURS _____ MECHANICAL DOWN TIME _____
 CONTRACT HOURS _____ DRILLING PROBLEMS _____
 _____ OTHER _____
 _____ MOVE TO NEXT HOLE _____

Elevation 300m

page 1 of 2

METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0				0-1.0 Organics (Peat)
1				1.0-3.5 COCHRANE TILL
2			01	- Gray beige silty clay matrix with occasional pebbles
3				3.5-23.0 OSBURN II SEDIMENTS
4				3.5-14.0 - soft gray clay
5				-ROR recovery from 10.5-13.5
6				14.0-17.0 - interbedded gray clay and fine gray sand
7				17.0-20.0 - pure, soft gray clay
8				
9				
10				
11				
12				
13				
14				
15				
16			02	
17				
18				
19				
20				

OVERBURDEN DRILLING MANAGEMENT LIMITED
 REVERSE CIRCULATION DRILL HOLE LOG

DATE Feb 22 19 86

SHIFT HOURS
 TO

TOTAL HOURS

CONTRACT HOURS

HOLE NO. LR-52-19 LOCATION _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

MOVE TO HOLE _____

DRILL _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

page 2 of 2

METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG						
21										
22										
23			03	200-230 - mixture of fine to coarse gray sand with occurrence of gray clay pellets						
24			04	23.0-24.5 BEDROCK - black - very fine grained - well foliated - 10% carbonate - soft						
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

METASEDIMENT

24.5 E.O.H.

APPENDIX C
GOLD GRAIN COUNTS AND CALCULATED VISIBLE GOLD ASSAYS

CLASSIFICATION

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GOLD FROM SHAKING TABLE AND PANNING

Wt.

OF PANNINGS 9

NUMBER OF GRAINS

PANNED	Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR		DELICATE		TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS	
				T	P	T	P	T	P							
01-01	N															NO VISIBLE GOLD
01-02	N															NO VISIBLE GOLD
01-03	N															NO VISIBLE GOLD
01-04	N	75 X	75	15 C								1				
												<u>1</u>	<u>10.9</u>	<u>59</u>		
01-05	N															NO VISIBLE GOLD
01-06	N	75 X	100	18 C								1				
												<u>1</u>	<u>14.5</u>	<u>70</u>		
01-07	Y	25 X	50	8 C								1				
		50 X	50	10 C								1				
		50 X	100	15 C								1				
		75 X	75	15 C								1				
		125 X	175	29 C								1				
												<u>5</u>	<u>21.9</u>	<u>296</u>		EST. 1% PYRITE
01-08	N															NO VISIBLE GOLD
01-09	N	50 X	50	10 C								1				
												<u>1</u>	<u>23.7</u>	<u>8</u>		
01-10	Y	50 X	75	13 C								1				
		125 X	125	25 C								1				
												<u>2</u>	<u>19.6</u>	<u>167</u>		EST. 1% PYRITE
01-11	N															NO VISIBLE GOLD
01-12	N															NO VISIBLE GOLD
01-13	N	75 X	125	20 C								1				
												<u>1</u>	<u>22.7</u>	<u>66</u>		
01-14	Y	25 X	50	8 C								1				
		75 X	100	18 C								1				
		75 X	125	20 C								2				
		150 X	200	34 C								1				

OLD CLASSIFICATION

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VISIBLE GOLD FROM SHAKING TABLE AND PANNING

Ind. wt

NUMBER OF GRAINS

TOTAL # OF PANNINGS 9

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR		DELICATE		TOTAL	NON MAG	CALC V.G. ASSAY PPB	REMARKS		
					T	P	T	P	T	P	GMS	PPB						
CBN-88														5	15.5	763		
01-15	N		NO VISIBLE GOLD															
01-16	Y		50 X 75	13 C										1			EST. 1% PYRITE	
			100 X 125	22 C										1			200 GRAINS ARSENOPIRYTE	
														2	24.4	102		
02-01	N		NO VISIBLE GOLD															
02-02	N		NO VISIBLE GOLD															
02-03	N		NO VISIBLE GOLD															
02-04	N		100 X 100	20 C										1				
														1	14.5	103		
02-05	N		NO VISIBLE GOLD															
02-06	N		75 X 100	18 C										1				
														1	12.6	80		
02-07	N		75 X 100	18 C										1				
														1	17.1	59		
02-08	N		NO VISIBLE GOLD															
02-09	N		NO VISIBLE GOLD															
02-10	Y		25 X 25	5 C										1			EST. 1% PYRITE	
			25 X 75	10 C										1				
			50 X 50	10 C										2				
			50 X 75	13 C										1				
														5	34.0	29		
02-11	N		75 X 100	18 C										1				
														1	29.7	34		
02-12	Y		25 X 50	8 C										1			EST. 1% PYRITE	
			75 X 75	15 C										1				

OLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

ord1.wr1

TOTAL # OF PANNINGS 9

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR				DELICATE				TOTAL GMS	NON MAG GMS	CALC V.G. ASSAY		REMARKS
				T	P	T	P	T	P	T	P	PPB								
CBN-88		75 X 100	18 C	1										1						
		100 X 125	22 C	1										1						
														4	22.3	173				
02-13	N	50 X 75	13 C	1										1						
														1	26.2	14				
02-14	N	NO VISIBLE GOLD																		
02-15	N	NO VISIBLE GOLD																		
02-16	Y	50 X 100	15 C	1										1					EST. 28 PYRITE	
		100 X 125	22 C	1										1						
														2	19.1	145				
02-17	N	100 X 150	25 C	1										1						
														1	24.4	119				
03-01	N	NO VISIBLE GOLD																		
03-02	N	NO VISIBLE GOLD																		
03-03	Y	50 X 75	13 C	1										1					EST. 18 PYRITE	
		75 X 100	18 C	1										1						
		100 X 100	20 C	1										1						
		175 X 275	42 C	1										1						
														4	24.8	762				
03-04	N	75 X 125	20 C	1										1						
														1	21.2	71				
03-05	Y	25 X 50	8 C	1										1					EST. 28 PYRITE	
		75 X 150	22 C	1										1						
														2	22.8	97				
03-06	N	75 X 100	18 C	1										1						
														1	26.2	39				
03-07	N	125 X 125	25 C	1										1						

GOLD CLASSIFICATION

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VISIBLE GOLD FROM SHAKING TABLE AND PANNING

cord1.vr1

NUMBER OF GRAINS

TOTAL # OF PANNINGS 9

SAMPLE # PANNED

ABRADED IRREGULAR DELICATE TOTAL NON

CALC V.G.

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=====

=====

Y/N DIAMETER THICKNESS

T P T P T P

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=====

=====

CBN-88

1 25.6 113

GOLD CLASSIFICATION

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VISIBLE GOLD FROM SHAKING TABLE AND PANNING

10022MAR.WR1

TOTAL # OF PANNINGS 13

NUMBER OF GRAINS

SAMPLE #	PANNED	DIAMETER	THICKNESS	ABRADED				IRREGULAR				DELICATE				TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
				T	P	T	P	T	P	T	P								
CBN-88																			
03-08	Y	50 X 50	10 C		1									1				EST. 18 PYRITE	
		75 X 75	15 C	2	1									3					
														4	32.7	65			
03-09	Y	50 X 50	10 C		2									2				EST. 28 PYRITE	
		150 X 150	29 C	1										1					
		175 X 250	40 C	1										1					
														4	30.8	614			
03-10	Y	50 X 50	10 C		1									1				EST. 28 PYRITE	
		75 X 75	15 C	1	1									2					
		75 X 100	18 C	1	1									2					
														5	21.8	160			
03-11	N	75 X 75	15 C	1										1					
														1	20.7	31			
03-12	Y	50 X 50	10 C		1									1				EST. 18 PYRITE	
		50 X 75	13 C	1										1					
		75 X 100	18 C		1									1					
		100 X 125	22 C	1										1					
														4	18.0	205			
03-13	Y	25 X 50	8 C		1									1				EST. 18 PYRITE	
		50 X 75	13 C	1										1					
		75 X 75	15 C	1										1					
														3	17.4	63			
03-14	N	NO VISIBLE GOLD																	
03-15	N	NO VISIBLE GOLD																	
03-16	N	50 X 50	10 C	1										1					
														1	13.9	14			
04-01	N	NO VISIBLE GOLD																	
04-02	Y	50 X 75	13 C	1										1	2			EST. 18 PYRITE	
		100 X 150	25 C	1										1					

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

0052MAR.WR1

NUMBER OF GRAINS

TOTAL # OF PANNINGS 13

SAMPLE #	PANNED	DIAMETER	THICKNESS	ABRADED				IRREGULAR				DELICATE				TOTAL NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
				T	P	T	P	T	P	T	P	T	P	T	P			
CBN-88															3	19.6	186	
05-01	N	NO VISIBLE GOLD																
05-02	N	NO VISIBLE GOLD																
05-03	N	NO VISIBLE GOLD																
05-04	Y	50 X 100	15 C	1											1			EST. 50 GRAINS PYRITE 50 GRAINS ARSENOPYRITE
		100 X 125	22 C	1											1			
		100 X 225	31 C	1											1			
															3	19.8	454	
05-05	N	NO VISIBLE GOLD																
05-06	Y	50 X 100	15 C	1											1			EST. 0.25% PYRITE
		75 X 75	15 C	1											1			
		75 X 125	20 C		1										1			
															3	18.7	149	
05-07	N	NO VISIBLE GOLD																
05-08	N	75 X 75	15 C	1											1			
															1	20.7	31	
05-09	N	NO VISIBLE GOLD																
05-10	N	75 X 75	15 C	1											1			
															1	16.3	39	
06-01	N	NO VISIBLE GOLD																
06-02	N	NO VISIBLE GOLD																
06-03	N	NO VISIBLE GOLD																
06-04	N	100 X 175	27 C	1											1			
															1	24.3	157	
06-05	Y	25 X 25	5 C	1											1			EST. 20 GRAINS PYRITE 20 GRAINS ARSENOPYRITE
		25 X 50	8 C	1											1			
		50 X 50	10 C	1											1			

OLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

0002MAR.WR1

TOTAL # OF PANNINGS 13

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED		IRREGULAR		DELICATE		TOTAL GRAINS	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
				T	P	T	P	T	P				
CBN-88		100 X 150	25 C	1						1			
		125 X 125	25 C	1						1			
										<u>5</u>	<u>32.1</u>	<u>190</u>	
06-06	N	100 X 125	50 C	1						1			
										<u>1</u>	<u>28.4</u>	<u>1002</u>	
06-07	N	100 X 125	22 C	1						1			
										<u>1</u>	<u>27.0</u>	<u>79</u>	
06-08	Y	25 X 25	5 C					2		2			EST. 10 GRAINS PYRITE
		50 X 75	13 C	1						1			
		50 X 125	18 C				1			1			
										<u>4</u>	<u>26.5</u>	<u>54</u>	
06-09	N	NO VISIBLE GOLD											
06-10	Y	25 X 50	8 C						1	1			EST. 10 GRAINS PYRITE
		50 X 50	10 C	1						1			
		50 X 125	18 C	1						1			
										<u>3</u>	<u>15.2</u>	<u>85</u>	
06-11	N	50 X 75	13 C	1						1			
										<u>1</u>	<u>18.0</u>	<u>21</u>	
06-12	Y	50 X 50	10 C	1	1					2			EST. 1% PYRITE
		50 X 75	13 C		1		1			2			
		100 X 100	20 C	1						1			
										<u>5</u>	<u>18.4</u>	<u>143</u>	
07-01	N	NO VISIBLE GOLD											
07-02	Y	25 X 25	5 C		2					2			EST. 1% PYRITE
		25 X 50	8 C		2		1			3			
		50 X 50	10 C		1					1			
		50 X 75	13 C	2						2			
		75 X 75	15 C	1						1			
		75 X 100	18 C	1						1			
										<u>10</u>	<u>18.4</u>	<u>157</u>	

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

COCB2MAR.WR1

TOTAL # OF PANNINGS 13

NUMBER OF GRAINS

SAMPLE #	PANNED Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR				DELICATE				TOTAL MAG GMS	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
				T	P	T	P	T	P	T	P	T	P						
CBN-8E																			
08-01	N	50 X 75	13 C	1											1				
															1	10.6	35		
08-02	N	100 X 125	22 C	1											1				
															1	2.4	884		
09-01	N	NO VISIBLE GOLD																	
09-02	N	150 X 200	34 C	1											1				
															1	19.5	397		
09-03	N	NO VISIBLE GOLD																	

CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

Sample

NUMBER OF GRAINS

TOTAL # OF PANNINGS 4

SAMPLE # PANNED

 ABRADED IRREGULAR DELICATE TOTAL NON
 =====
 T P T P T P MAG CALC. V.G.
 GMS PPB REMARKS

CBN-88

09-04 N NO VISIBLE GOLD

09-05 N NO VISIBLE GOLD

09-06 N 75 X 100 18 C 1

1

 1 16.9 60

09-07 N NO VISIBLE GOLD

10-01 N NO VISIBLE GOLD

10-02 N NO VISIBLE GOLD

10-03 N NO VISIBLE GOLD

10-04 N NO VISIBLE GOLD

11-01 N NO VISIBLE GOLD

11-02 N 100 X 175 27 C 1

1

 1 20.3 188

12-01 N NO VISIBLE GOLD

12-02 N NO VISIBLE GOLD

13-01 Y 75 X 100 18 C 1
 125 X 175 29 C 1

1 EST. 1% PYRITE
 1

 2 22.4 265

13-02 Y 50 X 50 10 C 1
 50 X 75 13 C 1
 50 X 100 15 C 1
 75 X 75 15 C 1

1 EST. 1% PYRITE
 1
 1
 1

 4 21.5 86

13-03 N 50 X 50 10 C 1

1

 1 18.0 11

13-04 N NO VISIBLE GOLD

14-01 N NO VISIBLE GOLD

CLASSIFICATION

LIABLE GOLD FROM SHAKING TABLE AND PANNING

3030ar.wr!

TOTAL # OF PANNINGS 4

NUMBER OF GRAINS

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR				DELICATE				TOTAL	NON MAG GHS	CALC V.G.		REMARKS
					T	P	T	P	T	P	T	P	T	P	MAG	PPB					
CBN-88																					
14-02	N		NO VISIBLE GOLD																		
14-03	N		75 X 75	15 C	1											1					
																1	15.9	40			
14-04	N		150 X 175	31 C	1											1					
																1	18.7	333			
14-05	N		75 X 125	20 C	1											1					
																1	18.5	81			
14-06	N		75 X 75	15 C	1											1					
																1	19.4	33			
14-07	N		NO VISIBLE GOLD																		
14-08	N		NO VISIBLE GOLD																		
14-09	N		75 X 100	18 C	1											1					
																1	15.5	65			
14-10	N		NO VISIBLE GOLD																		
14-11	N		100 X 200	29 C	1											1					
																1	13.4	368			
14-12	Y		50 X 75	13 C	1											1					
			125 X 125	25 C	1											1					
																2	15.1	216	EST. 0.25% PYRITE		
14-13	N		NO VISIBLE GOLD																		
14-14	N		25 X 50	8 C	1											1					
																1	16.4	5			
14-15	Y		25 X 50	8 C	1											1					
			75 X 100	13 C	1											1					
																1			NO SULPHIDES		

100 CLASSIFICATION

SEEKING GOLD FROM SHAKING TABLE AND PANNING

Sample No 1

NUMBER OF GRAINS

TOTAL # OF PANNINGS 4

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR				DELICATE				TOTAL	NON MAG	GMS	CALC V.G.	ASSAY	REMARKS
					T	P	T	P	T	P	T	P	T	P	T	P						
CBN-8E																	2	12.1	90			
14-16	N		NO VISIBLE GOLD																			
15-01	N		NO VISIBLE GOLD																			
15-02	N		75 X	75	15 C																	
																	1					
																	1	18.2	35			
15-03	N		NO VISIBLE GOLD																			
15-04	N		NO VISIBLE GOLD																			
15-05	N		100 X	175	27 C																	
																	1					
																	1	15.5	267			
15-06	N		NO VISIBLE GOLD																			
15-07	N		NO VISIBLE GOLD																			
15-08	N		75 X	100	18 C																	
																	1					
																	1	17.3	58			

OLD CLASSIFICATION

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VISIBLE GOLD FROM SHAKING TABLE AND PANNING

108649AF.WR1

NUMBER OF GRAINS

TOTAL # OF PANNINGS 10

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR		DELICATE		TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS	
					T	P	T	P	T	P							
CEN-82																	
15-09	N		50 X 50	10 C	1							1					
												1	18.9	10			
15-10	N		NO VISIBLE GOLD														
15-11	N		75 X 75	15 C	1							1					
												1	16.4	39			
16-01	N		NO VISIBLE GOLD														
16-02	N		NO VISIBLE GOLD														
16-03	N		NO VISIBLE GOLD														
16-04	N		NO VISIBLE GOLD														
16-05	N		50 X 50	10 C	1							1					
												1	19.3	10			
16-06	Y		50 X 50	10 C	1							1				EST. 50 GRAINS PYRITE	
			50 X 125	18 C	1							1					
			100 X 100	20 C		1						1					
												3	22.1	122			
16-07	N		NO VISIBLE GOLD														
16-08	N		NO VISIBLE GOLD														
16-09	Y		50 X 50	10 C	1							1				EST. 20 GRAINS PYRITE	
			50 X 75	13 C	1							1					
			75 X 125	20 C	1							1					
												3	19.5	106			
16-10	Y		50 X 50	10 C		2						2				EST. 50 GRAINS PYRITE	
			50 X 100	15 C	1							1					
			75 X 75	15 C	1							1					
			75 X 100	15 C	1							1					
												5	19.5	137			
16-11	N		125 X 250	36 C	1							1					

GOLD CLASSIFICATION

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WHEEL GOLD FROM SHAKING TABLE AND PANNING

CCB&MAR. MR:

TOTAL # OF PANNINGS 10

NUMBER OF GRAINS

SAMPLE #	PANNED	Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR				DELICATE				TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
					T	P	T	P	T	P	T	P	T	P	T	P				
CBN-88																1	18.4	514		
17-01	N																			
17-02	N																			
17-03	N																			
17-04	N																			
17-05	N																			
17-06	N		75 X	100	18 C											1				
																1	16.6	61		
17-07	Y		50 X	50	10 C											1				EST. 2% PYRITE
			50 X	75	13 C						1					1				
			75 X	100	13 C							1				1				
			100 X	175	27 C											1				
																4	20.0	270		
17-08	N																			
17-09	N		75 X	100	13 C											1				
																1	19.1	53		
17-10	N		75 X	75	15 C											1				
																1	20.9	31		
17-11	N																			
17-12	N		50 X	75	13 C											1				
																1	20.4	18		
17-13	N																			
17-14	N		100 X	100	20 C											1				
																1	20.1	75		
17-15	Y		50 X	50	10 C											1				EST. 2% PYRITE
			50 X	75	13 C						1					1				

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

0064MAR.WR1

TOTAL # OF PANNINGS 10

NUMBER OF GRAINS

SAMPLE #	PANNED	DIAMETER	THICKNESS	ABRADED				IRREGULAR				DELICATE				TOTAL GMS	NON MAG GMS	CALC V.G. PPB	REMARKS
				T	P	T	P	T	P	T	P	T	P						
CEN-82		75 X 100	18 C	1											1				
		75 X 125	20 C	1	1										2				
															5	20.2	227		
18-01	N	NO VISIBLE GOLD																	
18-02	N	NO VISIBLE GOLD																	
18-03	N	NO VISIBLE GOLD																	
18-04	N	NO VISIBLE GOLD																	
18-05	N	NO VISIBLE GOLD																	
18-06	N	NO VISIBLE GOLD																	
18-07	N	NO VISIBLE GOLD																	
18-08	N	NO VISIBLE GOLD																	
18-09	N	NO VISIBLE GOLD																	
18-10	N	75 X 150	22 C	1											1				
															1	15.3	139		
18-11	N	NO VISIBLE GOLD																	
18-12	N	NO VISIBLE GOLD																	
18-13	N	NO VISIBLE GOLD																	
18-14	Y	25 X 50	8 C		1		1								2			EST. 1% PYRITE	
		50 X 50	10 C	1	1										2				
		100 X 125	22 C	1											1				
															5	18.1	148		
18-15	N	50 X 50	10 C				1								1				
															1	15.8	12		
18-16	Y	75 X 100	18 C	1											1			EST. 1% PYRITE	
		100 X 125	22 C	1											1				
		100 X 150	25 C	1											1				

GOLD CLASSIFICATION

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VISIBLE GOLD FROM SHAKING TABLE AND PANNING

COBOL MAP. WP1

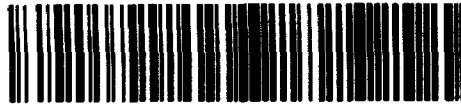
TOTAL # OF PANNINGS 10

NUMBER OF GRAINS

SAMPLE #	FANNED	Y/N	DIAMETER	THICKNESS	ABRADED				IRREGULAR		DELICATE		TOTAL	WOM	CALC	V.G.	REMARKS
					T	P	T	P	T	P	T	P					
CBN-88												3	17.0		355		
18-17	N		75 X 100	18 C					1			1					
												1	17.6		57		
18-18	Y		125 X 125	25 C					1			1				EST. 0.5% PYRITE	
												1	13.2		219		
18-19	N		75 X 75	15 C	1							1					
												1	23.6		27		
18-20	N		NO VISIBLE GOLD														
18-21	Y		25 X 25	5 C					1			1				EST. 1% PYRITE	
			75 X 100	18 C						1		1					
			125 X 150	27 C	1							1					
			125 X 225	34 C	1							1					
												4	21.3		592		
18-22	N		NO VISIBLE GOLD														
18-23	N		NO VISIBLE GOLD														
18-24	N		NO VISIBLE GOLD														
19-01	N		NO VISIBLE GOLD														
19-02	N		NO VISIBLE GOLD														
19-03	Y		25 X 75	10 C					1			1				EST. 0.5% PYRITE	
			50 X 75	13 C	1				1			2					
			75 X 100	18 C	1					1		2					
												5	16.7		177		



Ontario



42H08NW0039 2.11676 BRAGG

900

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

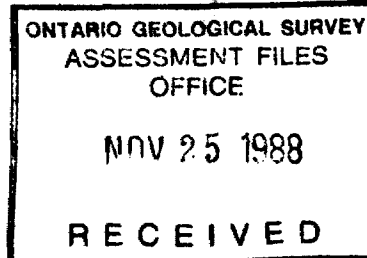
Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

November 14, 1988

Your file: W8808-391
Our file: 2.11676

Mining Recorder
Ministry of Northern Development and Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2



Dear Sir:

Re: Overburden Drilling submitted under Section 77(19) of
the Mining Act R.S.O. 1980 on Mining Claims L 882642 et al
in the Townships of Bragg and Newman

The enclosed statement of assessment work credits for Overburden Drilling has been approved as of the above date.

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

Yours sincerely,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

SH:p1
Enclosure (2)

cc: Resident Geologist
Kirkland Lake, Ontario

Casau Exploration Ltd.
Suite 704
850 West Hastings Street
Vancouver, B.C.
V6C 1E1
Attn: Mr. J.C. Stephen

Overburden Drilling Management
Suite 107
15 Capella Court
Nepean, Ontario
K2E 7X1



Recorded Holder
Casau Exploraiton Ltd.

Township of Area
XXXXX
Bragg and Newman Townships

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days	<p>\$73,866.00 SPENT ON OVERBURDEN DRILLING ON MINING CLAIMS:</p> <p>L 877941-45-50-52-53 882642-43-46-48-52-54-55-57-67-68-69-70</p> <p>4,924 DAYS CREDIT ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT R.S.O. 1980.</p>
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
<input type="checkbox"/> Man days <input type="checkbox"/> Airborne <input type="checkbox"/> <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.	

Special credits under section 77 (16) 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; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.



Ministry of
Northern Development
and Mines
Ontario

Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

DOCUMENT No.

W8808-37

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Overburden Management Mining Act

Type of Survey(s) Reverse Circulation Drilling		Township or Area Bragg-Newman
Claim Holder(s) Casau Exploration Ltd.		Prospector's Licence No. T4939
Address 704 - 850 West Hastings Street, Vancouver, B.C. V6C 1E1		
Survey Company Overburden Drilling Management	Date of Survey (from & to) 13 02 88 20 02 88 Day Mo. Yr. Day Mo. Yr.	Total Miles of line Cut
Name and Address of Author (of Geo-Technical report) 107-15 Capella Court, Nepean, Ontario, K2E 7X1		

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic - Radiometric - Other	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric - Other	
Man Days	Geophysical	Days per Claim
Complete reverse circulation and inter-totals	- Electromagnetic - Radiometric - Other	
Airborne Credits	Electromagnetic Magnetometer Radiometric	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.		

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	Bragg Twp			Newman Twp	
	882642	60		832803	60
	882643	60		832804	60
	882644	60		832805	60
	882645	60		832806	60
	882646	60		832807	60
	882647	60		832808	60
	882648	60		832809	60
	882649	60		877941	60
	882650	60		877942	60
	882651	60		877943	60
	882652	60		877944	60
	882653	60		877945	60
	882654	60		877946	60
	882655	60		877947	60
	882656	60		877948	60
	882657	60		877949	60
	882667	60		877950	60
	882668	60		877951	60
	882669	60		877952	60
	882670	60		877953	60

Expenditures (excludes power stripping)

Type of Work Performed Reverse Circulation Drilling
Performed on Claim(s) 877941, 877944, 945, 950, 951, 952, 953
882642, 643, 646, 648, 652, 654, 655, 657, 667
Calculation of Expenditure Days Credits Total Expenditures \$ 73,866 + 15 = 4924 Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date **Aug. 29, 1988**
Recorder Holder or Agent (Signature) *J. Stephen*

For Office Use Only

Total Days Cr. Recorded 2400	Date Recorded Sept 18 1988	Mining Recorder <i>He. [Signature]</i>
Date Approved or Recorded	Branch Director <i>Lee Bursard</i>	Chairman <i>Shakeman</i>

Certification Verifying Report of Work

I hereby certify 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 and the annexed report is true.

Name and Postal Address of Person Certifying
J.C. Stephen Casau Exploration Ltd. 704-850 West Hastings St. Vancouver, B.C. V6C 1E1

Date Certified **Aug. 29, 1988**
Certified by *J. Stephen*

Blakelock Twp (M.419)

Bragg Twp (M.426)

Tomlinson Twp (M.604)

THE TOWNSHIP OF
NEWMAN

DISTRICT OF
COCHRANE

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

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

NOTES

400' Surface Rights Reservation Around All
Lakes & Rivers.

AREAS WITHDRAWN FROM DISPOSITION

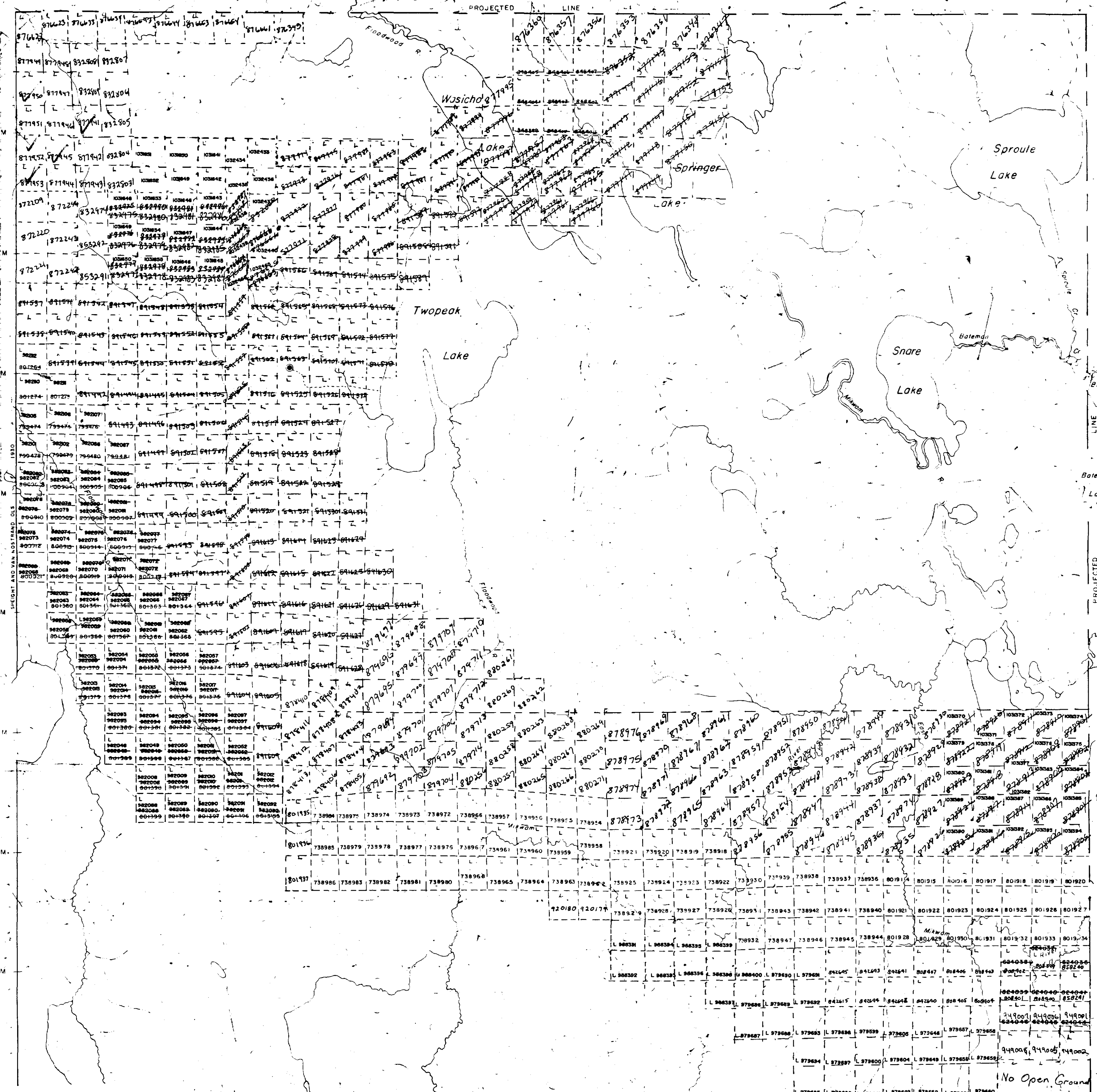
S.R. - SURFACE RIGHTS M.R. - MINING RIGHTS

Description	Order No.	Date	Disposition	File

DATE OF ISSUE
OCT 14 1988
LARDER LAKE
MINING DIVISION'S OFFICE

PLAN NO. M.556

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



LEGEND

HIGHWAY AND ROUTE NO.	○
TRAILS	—
STREETS	—
LOT LINES	—
LOTS, MINING CLAIMS, PARCELS, ETC.	—
UNSURVEYED LINES	—
BOUNDARY	—
SALES	—
MINING CLAIMS ETC.	—
RAILWAY AND RIGHT OF WAY	—
UTILITY LINES	—
CONFERENTIAL STREAM RIGHTS	—
SUBDIVISION OR COMPOSITE PLAN	—
RESERVATIONS	—
ORIGINAL SHORELINE	—
MARSH OR MUSKEGA	—
MINES	—
TRAVEL MONUMENT	—

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	○
SURFACE RIGHTS ONLY	○
MINING RIGHTS ONLY	○
LEASE SURFACE & MINING RIGHTS	○
LEASE SURFACE RIGHTS ONLY	○
LEASE MINING RIGHTS ONLY	○
LICENCE OF OCCUPATION	○
ORDER IN COUNCIL	○
RESERVATION	○
CANCELLED	○
SAND & GRAVEL	○

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO 1914 ARE SUBJECT TO THE PROVISIONS OF THE MINING ACT, R.S.O. 1950, CAP. 306, SEC. 43 SUBSEC. 1.

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE ROOFS FALLS MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS AND MANAGEMENT FOR THIS AREA CAN BE CONTACTED AT:

2 THIRD AVE.
COLLINGWOOD, ONT.
705-272-4365

DATE OF ISSUE
JUL 13 1988

SCALE
0 100 200 300 400 500 METERS

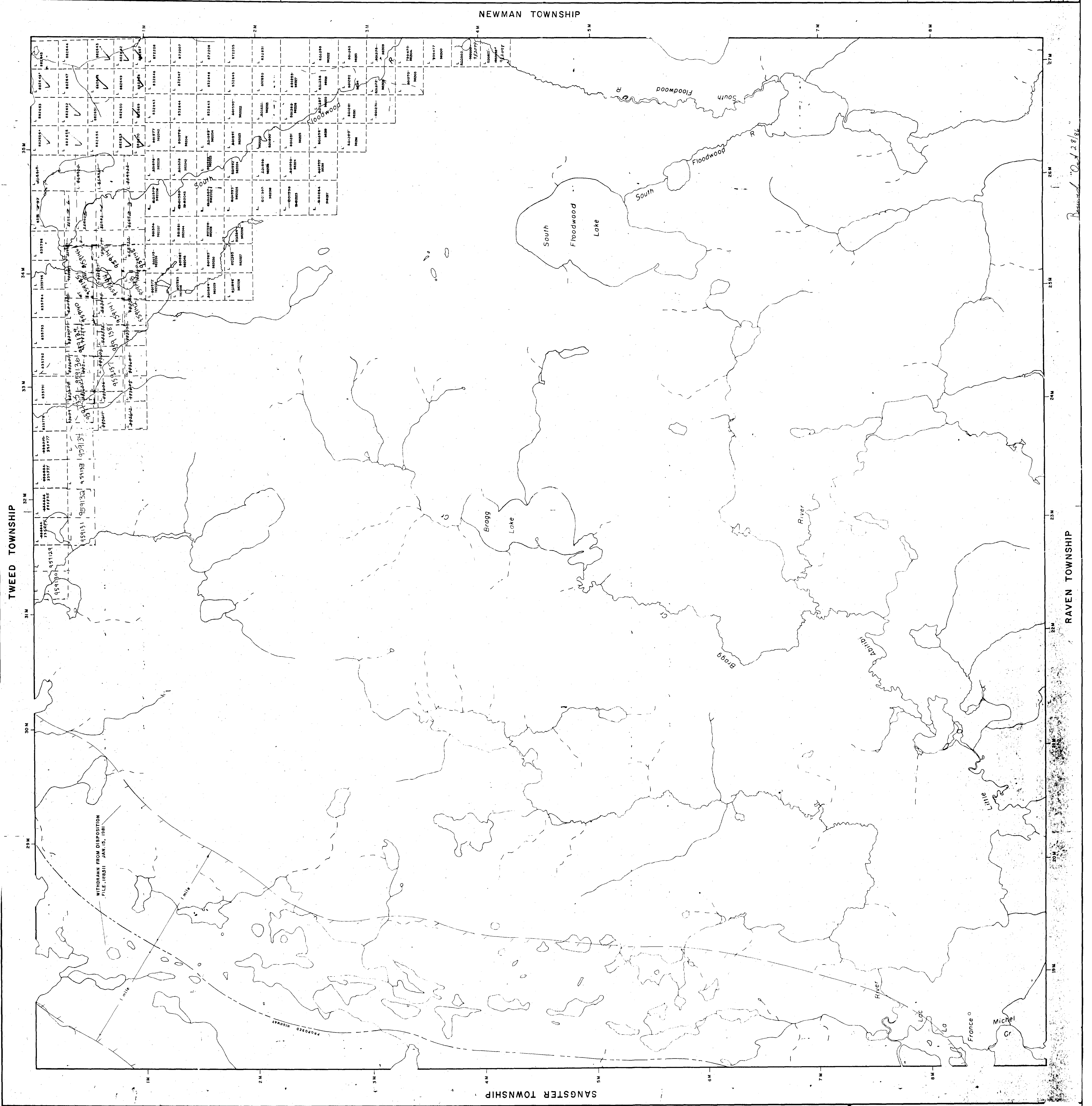
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TOWNSHIP
BRAGG
M. R. ADMINISTRATIVE DISTRICT
COCHRANE
MINING DIVISION
LARDER LAKE
LAND TITLES / REGISTRY DIVISION
COCHRANE

Ministry of Natural Resources
Ontario

1988
OCTOBER

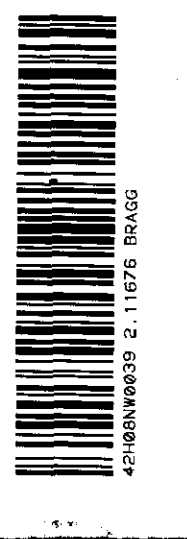
G-3480

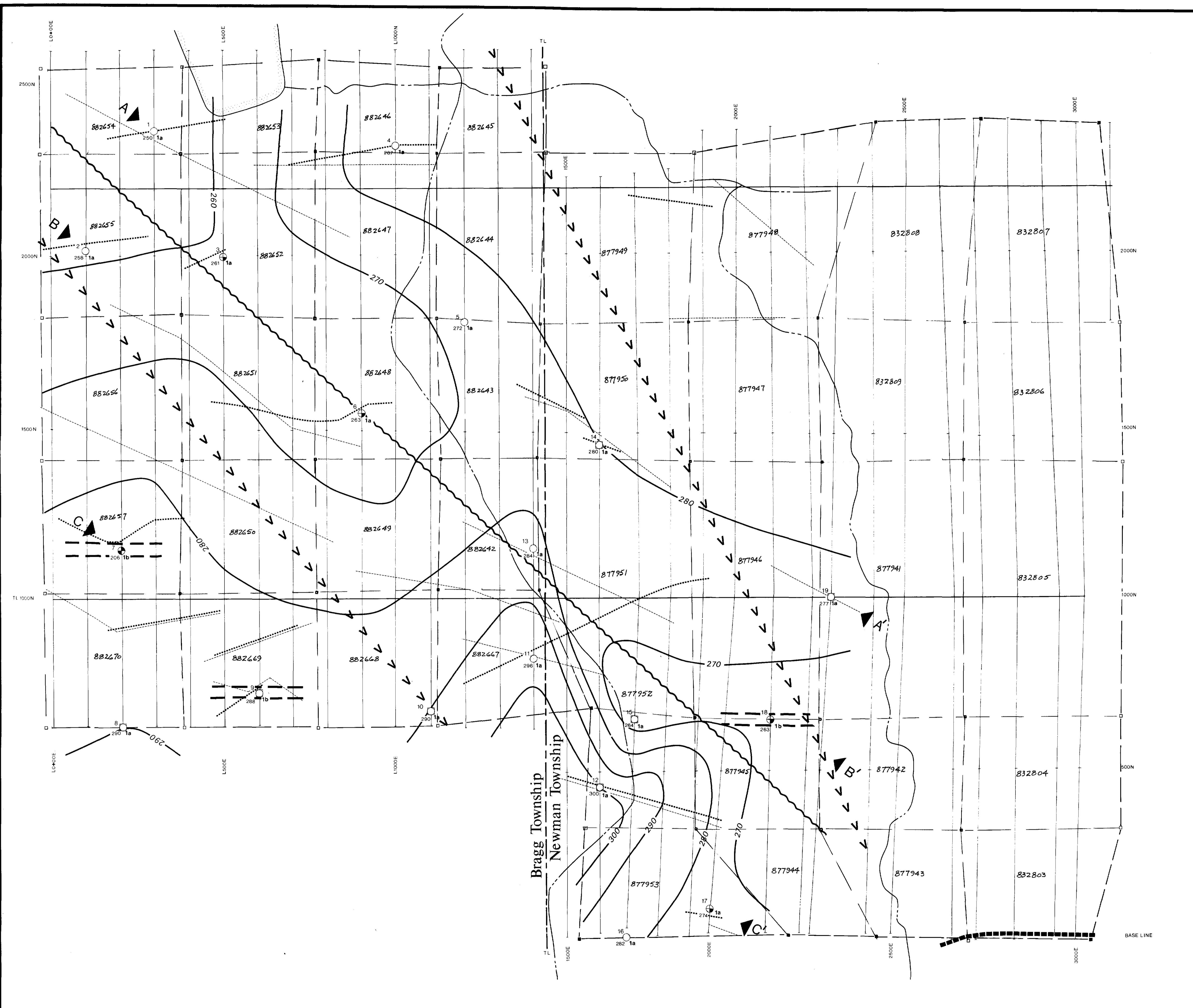


AREAS WITHDRAWN FROM DISPOSITION

Order No.	Date	Description	File

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





LEGEND

Bedrock Lithology

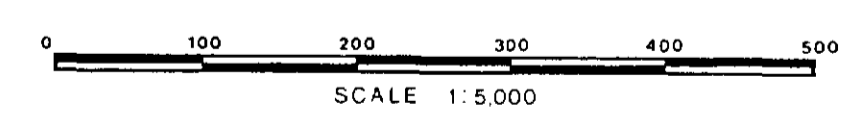
- 1 Pontiac Group Turbidites
- 1b - siltstone
- 1a - greywacke

Symbols

- 01 1988 reverse circulation drill hole No. CBN-88-01; bedrock intersection of subunit 1a; bedrock surface elevation of 250 metres ASL.
- Subunit contact
- Fault
- 280 Bedrock topographic contour; 10 meter intervals
- Axis of buried esker
- No Matheson till intersected
- Location of Quaternary Section A-A'
- Claim post; position observed, position approximate
- Property boundary
- Creek (position approximate)
- VLF-EM conductor axis
- VLF-EM field strength trend
- MaxMin-EM conductor axis

Heavy Mineral Gold Anomalies

- Ten or more visible gold grains or greater than 1,000 ppb gold
- Ten or more visible gold grains
- Greater than 1,000 ppb gold
- Stratigraphic continuity
- Pathfinder element
- Five or more delicate plus irregular gold grains
- Potentially significant



CORDIALE RESOURCES INC.

BRAGG - NEWMAN PROPERTY

Bragg and Newman Townships

Plan 1

GEOLOGICAL COMPILATION

2.11676

BY OVERBURDEN DRILLING MANAGEMENT LIMITED JUNE 1988