BILLITON CANADA LTD.

REPORT #927-85-01
on the
BURT PROJECT
KIRKLAND LAKE AREA, ONTARIO

D. Robertson
February, 1985

TABLE OF CONTENTS

1.0 INTRODUCTION

The purpose of this report is to provide a summary of information gained through a field programme carried out by Billiton Canada Ltd. (BCL) in October, 1984. The work consisted of a broadly spaced reverse circulation/diamond drilling reconnaissance programme and a study of quaternary deposits.

2.0 LOCATION, ACCESS AND INFRASTRUCTURE

The property is located approximately 20 kilometers southwest of the town of Kirkland Lake in the townships of Burt, Holmes and Eby. It is accessible via an all-weather secondary gravel road from Provincial Highway 66, about 20 road kilometers southwest of its intersection with Trans Canada Highway, Route 11 (Figure 1). An extensive system of bush and logging roads provides local access to the various parts of the property.

It is well located with regard to existing infrastructure. The main power transmission line between Kirkland Lake and Matachewan runs about 5 kilometers south of the property. The Ontario Northland Railway is 10 kilometers to the east. The mining towns of Kirkland Lake and Matachewan, 30 and 25 kilometers from the property respectively, provide housing and logistical facilities as well as a pool of skilled mine labour.

3.0 PROPERTY AND OWNERSHIP

The property consists of 248 contiguous unpatented mineral claims located in Burt, Holmes and Eby Twps. in the Larder Lake Mining Division of Ontario (Figure 2). The claims are listed in Table 1.

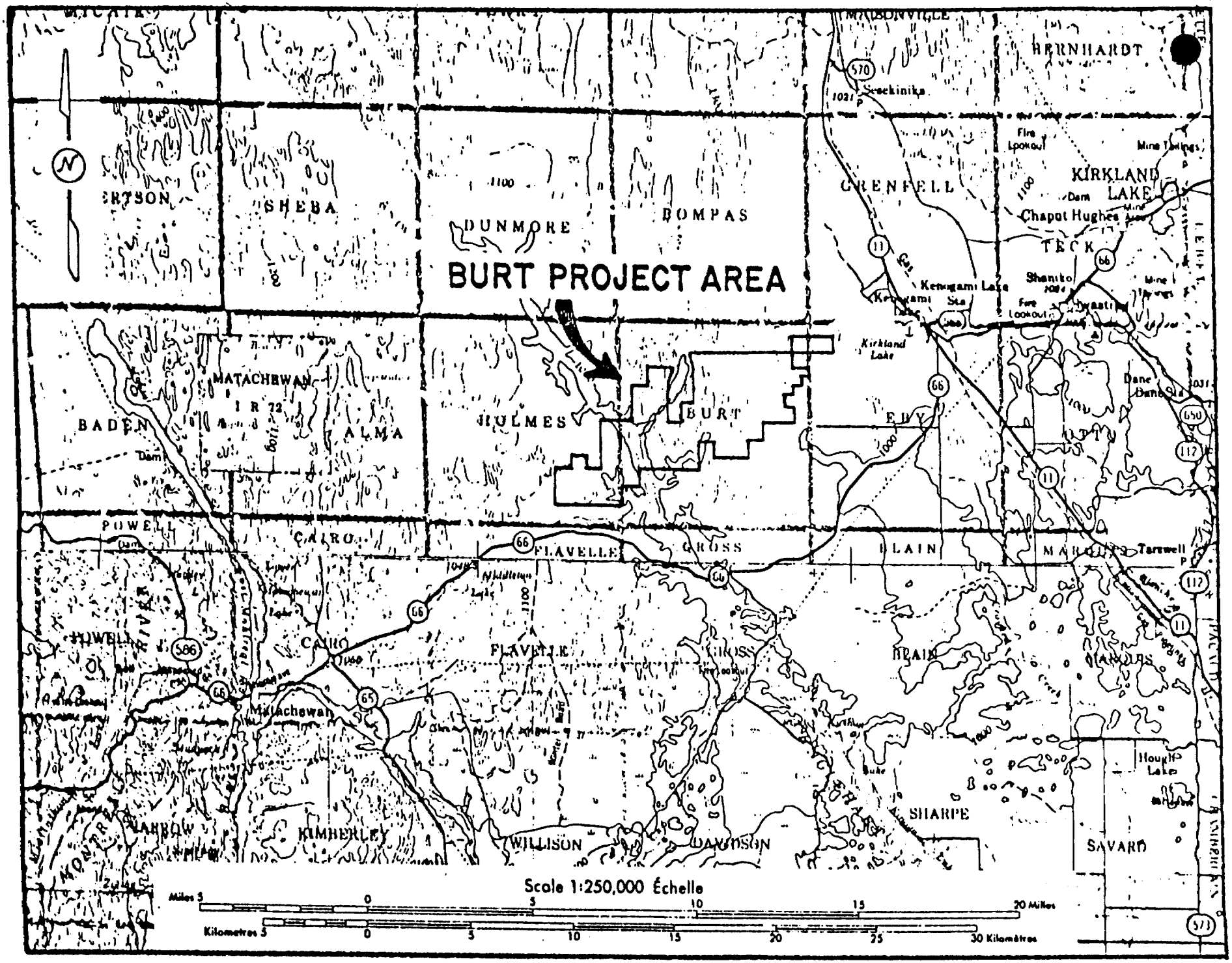


Figure 1: Location Map

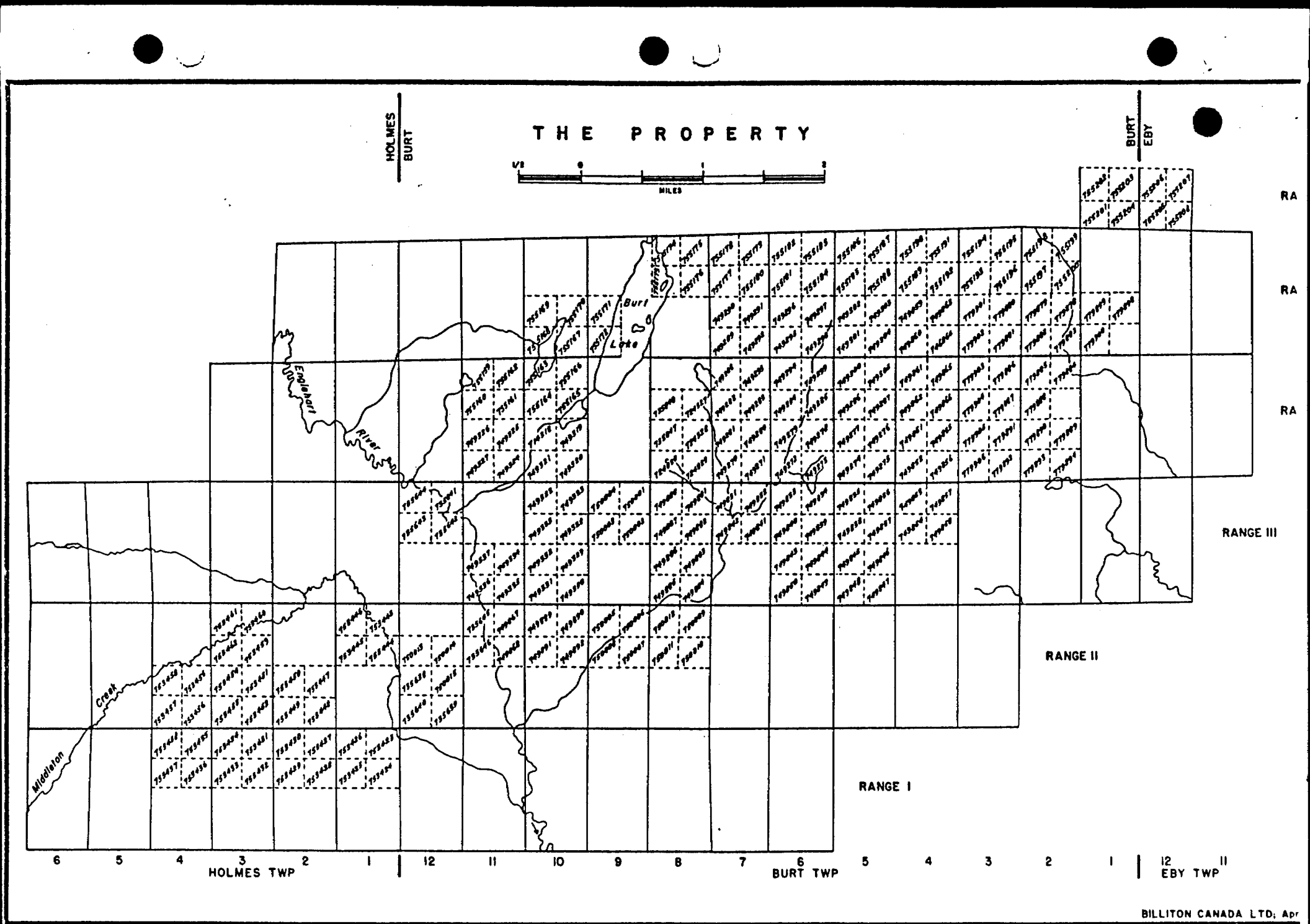

THE PROPERTY
HOLMES
BURT
BURT
EBY
MILES
Burt Lake
Englehart River
Middleton Creek
RANGE I
RANGE II
RANGE III
RA
RA
RA
6 5 4 3 2 1 12 11 10 9 8 7 6 5 4 3 2 1 12 11
HOLMES TWP
BURT TWP
EBY TWP
BILLITON CANADA LTD; Apr

Figure 2

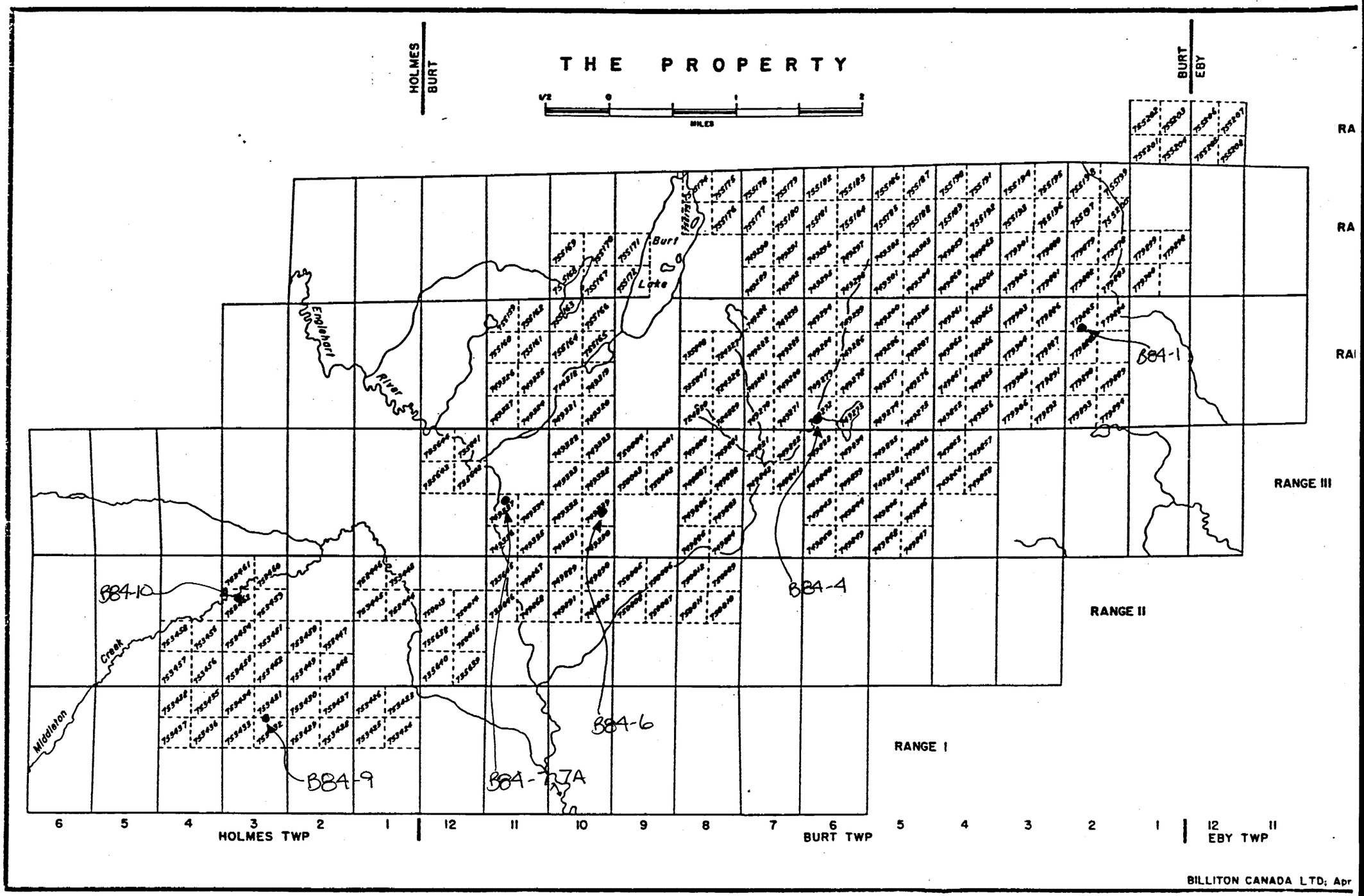

THE PROPERTY
HOLMES
BURT
BURT
EBY
MILES
Burt Lake
Indian
Englehart River
Middleton Creek
B84-1
B84-4
B84-6
B84-7A
B84-9
B84-10
RANGE III
RANGE II
RANGE I
6 5 4 3 2 1 12 11 10 9 8 7 6 5 4 3 2 1 12 11
HOLMES TWP
BURT TWP
EBY TWP
BILLITON CANADA LTD; Apr

Figure 2

4.0 PREVIOUS WORK

The first record of geological work in the area was published by H.C. Cooke of the Geological Survey of Canada (GSC) in 1919. The Burt project area was included as part of a much larger area mapped on a scale of one inch to one mile.

Aeromagnetic series maps at the same one inch to one mile scale based on a 1949 survey were published by the GSC in 1956.

A map of surficial deposits in the region at the reconnaissance scale of one inch to two miles was published by O.L. Hughes of the GSC in 1960.

The most detailed geological work on the Burt-Holmes area was published by the OGS in 1966. The mapping by J.C.G. Moore was produced on a scale of one inch to one half mile.

The most recent work in the area was done in 1983 by L.S. Jensen of the OGS as part of an ongoing stratigraphic synthesis of the Timmins-Kirkland Lake one inch to one mile sheet. This project which began in 1978 has been summarized in a series of brief OGS progress reports.

A multidisciplinary project funded by the Ontario Ministry of Northern Affairs and the Federal Department of Regional Economic Expansion called the Kirkland Lake Initiatives Program (KLIP) covered a large area to the immediate east of the Burt project area. A regional basal till sampling programme, a major part of the KLIP project, provides a useful data base for the Burt programme (Fortescue et al, 1984).

An airborne survey, flown by Kenting Earth Science Ltd. of Ottawa, consisting of a VLF electromagnetic survey and total field and vertical gradient magnetic surveys was completed for BCL, December 1983.

5.0 PROPERTY GEOLOGY

The detailed Archean geology of the Burt project area is not well understood due to extensive Pleistocene and Proterozoic cover. By extrapolation some geological units can be traced, using their geophysical characteristics, from areas of Archean outcrop adjacent to the property, onto the property (Figure 3). An airborne geophysical programme comprising total field and vertical gradient magnetic and VLF electromagnetic surveys flown by BCL in December 1983 was utilized in conjunction with published geological information to interpret Archean bedrock structural and lithological parameters.

Because of the general absence of outcrop of Archean rocks on the Burt property, much emphasis is placed on geophysics. While definite lithologic units cannot be outlined, it is possible to establish fairly accurately many structural and lithological features.

The Timiskaming Group sediments and alkalic volcanic rocks have been mapped along the Larder Lake fault zone to the east and west of the Burt project area. Magnetic and electromagnetic patterns in the intervening area are similar to those over the areas of known Archean geology. It is tentatively concluded therefore that the Timiskaming Group underlies a substantial portion of the Huronian and Cenozoic cover in the Burt project area.

The Proterozoic Gowganda formation is estimated to reach a thickness of 1000 m in Bompas Township (Jensen 1983). The generally accepted theory regarding a series of Proterozoic salients which extend northward from the main area of Proterozoic cover is that they occupy tectonically controlled paleovalleys or graben systems which were active during sedimentation (Long and Leslie, 1982). The geological mapping of

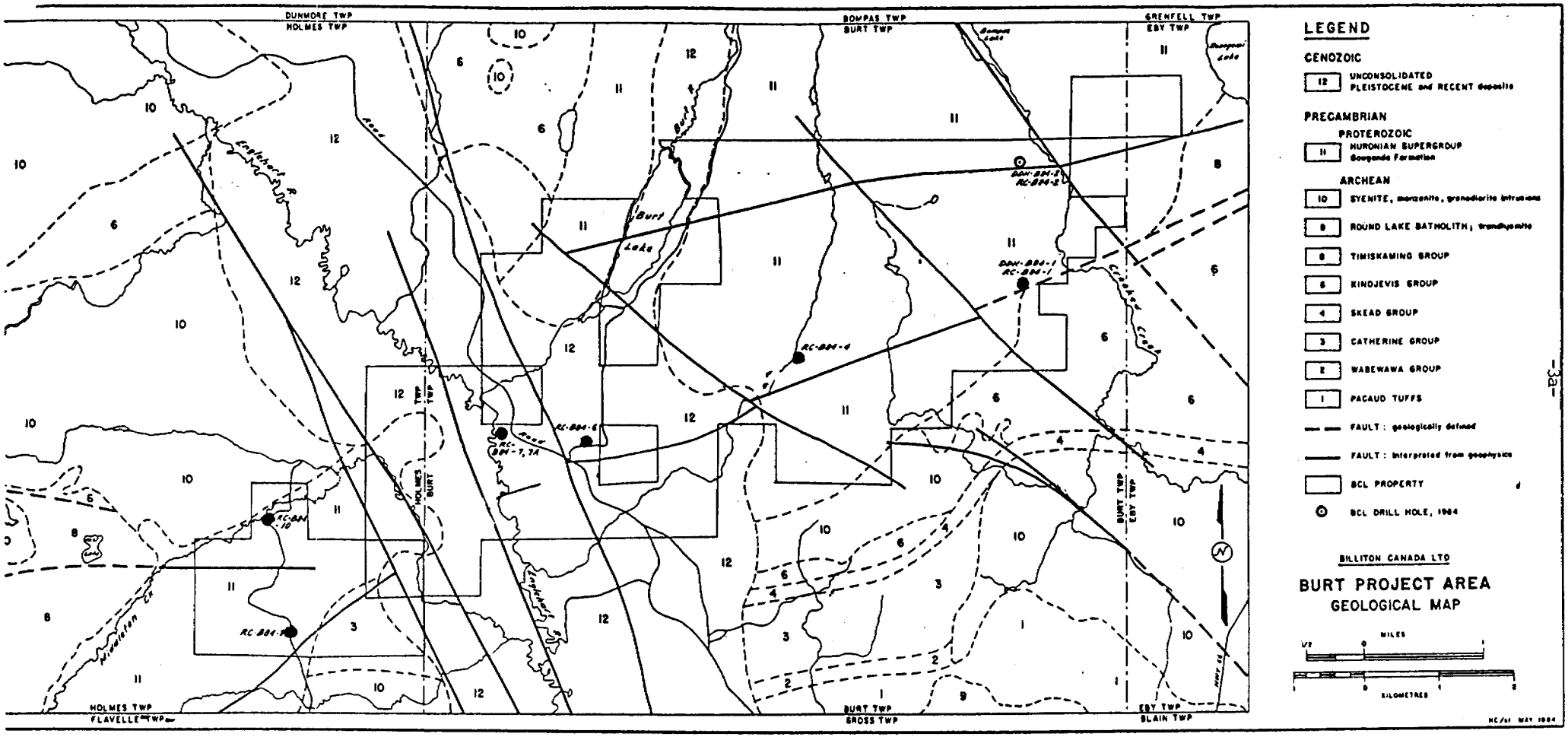

DUNMORE TWP
HOLMES TWP
BOWPAS TWP
BURT TWP
GRENFELL TWP
EBY TWP
Burt Lake
Crabbe Creek
RC-BH-6
RC-BH-1, 1A
RC-BH-10
HOLMES TWP
FLAVELLE TWP
BURT TWP
GROSS TWP
EBY TWP
BLAIN TWP
LEGEND
CENOZOIC
UNCONSOLIDATED
PLEISTOCENE and RECENT deposits
PRECAMBRIAN
PROTEROZOIC
HURONIAN SUPERGROUP
Gowganda Formation
ARCHEAN
SYENITE, monzonite, granodiorite intrusions
ROUND LAKE BATHOLITH; trondhjemite
TIMISKAMING GROUP
KINOJEVIS GROUP
SKEAD GROUP
CATHERINE GROUP
WABEWAWA GROUP
PACAUD TUFFS
FAULT : geologically defined
FAULT : interpreted from geophysics
BCL PROPERTY
BCL DRILL HOLE, 1984
BILLITON CANADA LTD
BURT PROJECT AREA
GEOLOGICAL MAP
MILES
KILOMETRES

Figure 3

Moore (1966) in Burt and Holmes Townships and of Grant (1964) in Bompas and Grenfell Townships suggests that the salient passing through the Burt project area is not of great thickness. A number of lines of evidence are available to suggest that the Gowganda formation ranges from thin to non-existent in the Burt project area.

5.1 Pleistocene Geology

The most prominent geomorphological feature of the Burt project area is the Englehart River valley which is a buried valley filled with extensive glaciofluvial and fluvial deposits of sand and gravel together with minor thin clay beds. It is interpreted as a spillway between Lake Ojibway and Lake Barlow formed during the recession of the Wisconsin ice sheet.

Away from the Englehart River and its tributaries sandy boulder till and varved clayey glaciolacustrine sediments predominate.

6.0 1984 EXPLORATION PROGRAMME

The Burt Project, while located astride one of the world's most productive auriferous tectonic features, required answers to a number of fundamental questions regarding basic exploration techniques. It was recognized at the outset that exploration would not be easy. In fact, in this area where gold has been continuously produced since 1911, if exploration were at all possible utilizing surficial prospecting methods little or no property would remain unpatented. The October programme was designed to provide background information regarding the area's Quaternary, Proterozoic and Archean structure and stratigraphy so that an objective assessment of ongoing exploration practicality can be made. The questions are as follows:

- Are there windows through the Proterozoic Gowganda Formation in overburden covered areas that will enable reverse circulation drilling/till geochemistry to be utilized effectively?

- What is the nature and extent of the Gowganda Formation in the Burt Project area? Is there a distinctive stratigraphic section that will enable reliable depth estimates to Archean basement to be made throughout the property by systematic surface mapping and scout drilling coupled with geophysical depth calculations? What geophysical and geochemical methods, if any, can be utilized to explore for gold deposits in Proterozoic covered areas?

- Is the geophysical interpretation/geological extrapolation of Archean stratigraphic and structural features correct? Are there any indications that the area may contain gold mineralization?

6.1 Reverse Circulation/Diamond Drilling Results

The drilling was designed to obtain information in different Quaternary geological settings primarily along bedrock structural features defined by BCL's 1983 airborne geophysical survey. Hole collar locations along the structures were defined by VLF-EM. Eight reverse circulation drill holes with a combined total footage of 1199 feet were completed. In addition, two diamond drill holes totalling 757 feet were put down.

Hole by hole results are briefly summarized. The original programme called for reverse circulation holes which were designated numerically, RC-B84-1 to 10. The ongoing results led to a modification of the program by deletion of holes RC-B84-3, 5 and 8 and to the addition of two diamond drill holes, DDH-B84-1 and 2 (Figure 3).

6.1.1 RC-B84-1, DDH B84-1

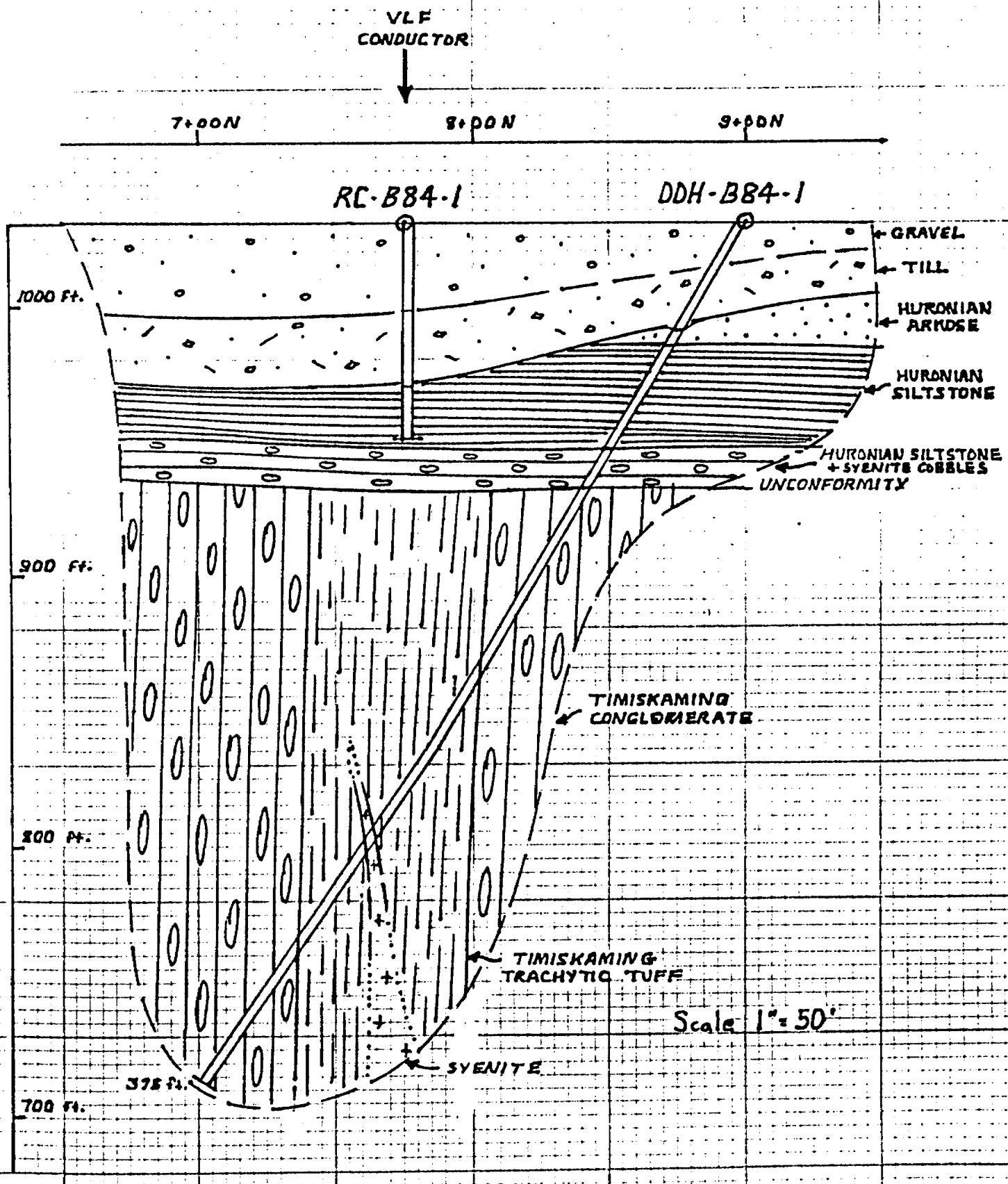
Located in an overburden covered area on the westward extension of the Larder Lake Fault Zone, defined by a strong VLF anomaly, hole RC-B84-1 encountered 30 feet of bouldery gravel, followed by 35 feet of till and entered Gowganda Formation siltstone at 65 feet. DDH-B84-1, a 60 degree angle hole on a bearing of 170 degrees, located 125 feet north of RC-B84-1 encountered Gowganda Formation bedrock at a hole depth of 47 feet (40 feet actual depth), the Gowganda Formation-Timiskaming Group unconformity at 115 feet (100 feet actual) and ended still in Timiskaming units at 375 feet. Results of both holes are presented in Section 1.

6.1.2 RC-B84-2, DDH-B84-2

The reverse circulation hole in this locality was collared on a VLF conductor in a swamp adjacent to an area of intermittent Gowganda Formation outcrop. The structure is interpreted as a possible westward extension of the Kirkland Lake Main Break. Gowganda Formation siltstone was encountered at 10 feet. Diamond drill hole DDH-B84-2 (-60 degree angle hole, bearing 170 degrees) located 125 feet north of RC-B84-2 was terminated at a hole depth of 383 feet without having penetrated the Gowganda Formation (Section 2). Several steeply dipping fault zones were encountered in the hole as well as minor quartz carbonate veining.

6.1.3 RC-B84-4

This hole is located about 2¼ miles west south west of hole RC-B84-1 on the Larder Lake Fault zone in an area of glaciolacustrine clay. Clays were encountered to a depth of 47 feet, followed by 3 feet of sandy gravel and Gowganda Formation siltstone bedrock.



SECTION 1 : Geological Cross Section, RC-B84-1 and DDH-B84-1

6.1.4 RC-B84-6

This hole was collared on the east side of the Englehart River Valley in an area of deep glaciolacustrine deposits. The hole penetrated 180 feet of interlayered sand, silt and clay, followed by 8.5 feet of gravel and entered Gowganda Formation feldspathic quartzite at 188.5 feet.

6.1.5 RC-B84-7 and 7A

Located on the Englehart River Flood Plain in the deepest part of the valley, both holes failed to penetrate overburden. Hole RC-B84-7 was abandoned due to sand caving at 250 feet and RC-B84-7A reached the depth capacity of the drill at 430 feet.

6.1.6 RC-B84-9

This hole was designed to test a VLF conductor in a sand covered area the presumed extension of the Larder Lake Fault Zone west of the Englehart River Lineament. It encountered 77 feet of sand and clay followed by 11 feet of sand and gravel and 19 feet of till. Gowganda Formation argillite bedrock was reached at 107 feet.

6.1.7 RC-B84-10

Located about 5000 feet north of RC-B84-9 near the north west corner of the claim group the hole encountered 34 feet of sand and clay followed by 12 feet of possible till and entered Gowganda Formation argillite bedrock at 46 feet.

6.2 Quaternary Geological Investigation

Terrain Analysis and Mapping Services Ltd. was contracted to provide an assessment of the Quaternary stratigraphy in the Burt Project area and to assist in the proceedural setting up and running of the

reverse circulation drilling. The contractor's summary is appended to this report.

7.0 DISCUSSION OF RESULTS

The theory that significant windows through the Huronian cover might exist in areas adjacent to the Englehart River Valley has been effectively disproved. If windows exist (which is still possible since at hole RC-B84-1 the Huronian is only 30 feet thick) they are of limited extent. Till geochemistry is therefore not an effective exploration method in these areas.

The nature of bedrock beneath the central portion of the Englehart River Valley is still unknown. Even assuming that the area is underlain by Archean subcrop the great depth of overburden renders traditional geochemical and geophysical methods impractical.

The Gowganda Formation attains thicknesses in excess of 400 feet in the northeastern part of the area as evidenced by DDH-B84-2 and local outcrops. The hole encountered a monotonous interbedded sequence of siltstone greywacke and arkose which could not be correlated with units logged in DDH-B84-1. Further outcrop and drill core examination revealed that considerably more brittle deformation is present than was expected in the Huronian. The theory that the Kirkland Lake Main Break passes through the area has not been disproved. The thickness of Gowganda cover, however, precludes the use of conventional exploratory techniques in the area.

8.0 CONCLUSIONS

It is clear that the Kirkland Lake-Larder Lake Fault Zone is a favourable area for gold mineralization. The Burt Project area has been demonstrated to contain a virtually unexplored section of that

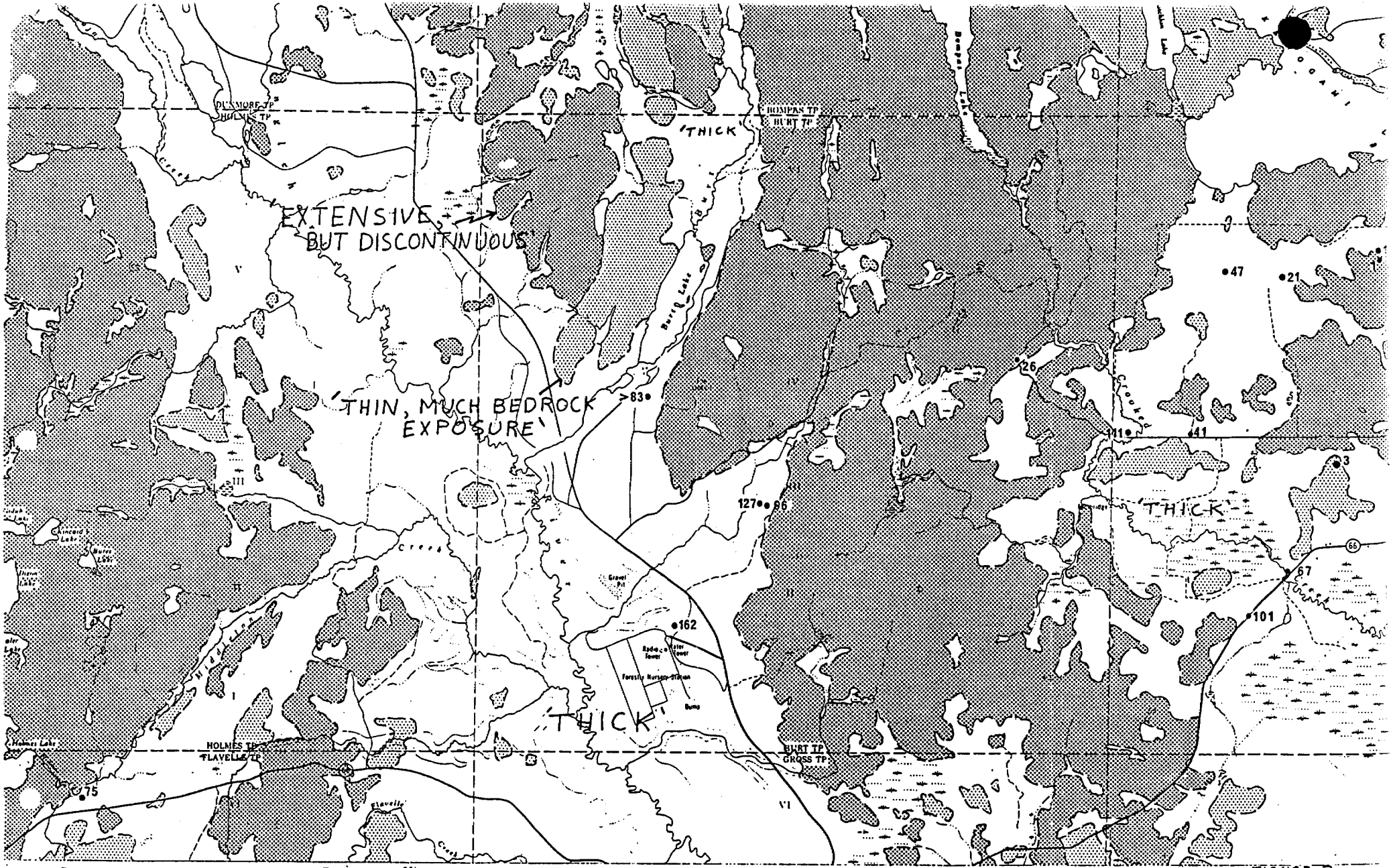
tectonic feature.

Ongoing exploration should concentrate on a mile wide swath along the Larder Lake Fault Zone between the eastern boundary of the property and the eastern margin of the Englehart River Valley (Figure 3). Exploration in other parts of the project area, including the northern margin, the Englehart River Valley and the western portion of the claim group should be undertaken only if significant mineralized zones are entering these areas.

A proposed programme should consist of linecutting and ground geophysics followed up by diamond drilling of structural and potentially mineralized targets.

Respectfully submitted,

Dennis Robertson.



DRIFT THICKNESS ESTIMATES SHOWN ON MAP

• 127 DRIFT THICKNESS (FT)

FIGURE 2
BAKER 1982

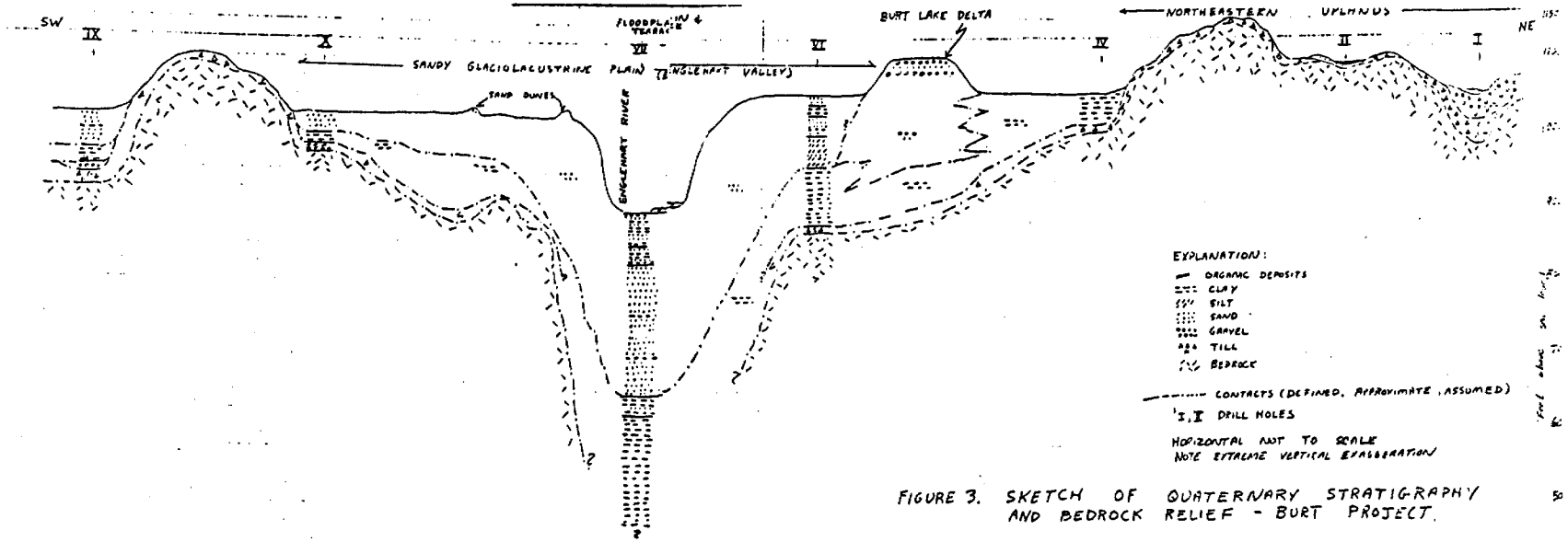


FIGURE 3. SKETCH OF QUATERNARY STRATIGRAPHY AND BEDROCK RELIEF - BURT PROJECT.

V.N.R OCT/84

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APPENDIX 1

TON EXPLORATION CANADA LTD.

REVERSE CIRCULATION DRILL LOG

RC HOLE NO: B 84 1

Project: BURT
Location: Recon Profile 1
Co-ordinates: Line 1
7 + 75N

Collar Elev: 1030 ft.
Bottom Elev: 950 ft.
Collar Declination: vertical
Collar Bearing: ---

Length: 80 ft.
Casing:
Core Size:
Drilled by: Heath & Sherwood

Page: 1 of 4
Commenced: October 6, 1984
Completed: October 7, 1984
Logged by: V. Rampton (overburden)
H. Coates (bedrock)

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
0	9	---	---	Deck to ground: 4 ft., Initially coarse-medium sand, very gritty; boulder at base: no				
9	15	6	x	Boulder to 9 ft. (Huronian); 9-10 ft. is fine-medium pb sand	2101	9	15	6
15	20	5		Gravel, bouldery: 12-15 ft. coarse-medium gray sand 85% Huronian siltstone: 15% int. volcanics, tr-qtz	2102	15	20	5
20	25	5		Gravel, sandy (coarse): sandier between 19-20 ft., gray 90% Huronian: 10% volcanics, tr-qtz	2103	20	25	5
25	30	5		Gravel, gray, coarse: any sand is coarse; gray-green 80% Huronian: 10% volcanics, 10% qtz, granite	2104	25	30	5
30	37	7		Till, gray, stoney, sandy, fine sand~10% 80% Huronian: 15% syenite, 5% misc.	2105	30	37	7

PROJECT: BURT HOLE NO: RC B84-1 PAGE: 2 OF 4

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
37	40	3		Till, light gray, sandy; fine sand~35%	2106	37	40	3
				90% Huronian siltstone: 5% int. intrusives; tr. qtz, felsic				
40	44	4		Till, very light gray, sandy; fine sand - 5%, md-30%	2107	40	44	4
				Huronian siltstone-80%; sandstone-10%; int. volcanics-5%;				
				tr-qtz, felsic volc, tuff, acid intrusive				
44	50	6		Till, very light gray, sandy; fine sand-30%, md-40%	2108	44	40	6
				80% Huronian: 10% sandstone; 5% qtz; 5% misc.				
50	55	5		Till, gray, sandy: 10% silt, 40% fine sand; 30% medium sand;	2109	50	55	5
				75% Huronian; 5% qtz vein; 10% sandstone; 10% misc.				
55	60	5		Till, gray, stoney, sandy: 20% fine sand: middle interval	2110	55	60	5
				much fine sand				
				70% Huronian: 10% qtz diorite, 15% dirty sandstone				

PROJECT: BURT HOLE NO: RC B84-1 PAGE: 3 OF 4

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
60	65	5		Till, stoney, sandy: 30% fine sand, 50% medium sand	2111	60	65	5
				85% Huronian, 10% sandstone: tr-qtz, syenite, felsic volcanic				
				rock at base?				
65	70	5		Rock: Huronian siltstone (chewed up and 30% fine, 30% medium)	2112	65	70	5

PROJECT: BURT HOLE NO: RC B84-1 PAGE: 4 OF 4

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED (%)	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
0	64	64	0	BW casing - pulled				
64	65	1	25%	Boulders				
65	67	2	75%	Huronian siltstone: Massive green siltstone. Blocky ground.				
				67 - quartz carbonate matrix autobrecciation				
67	71	4	0	Lost core. Probable fault zone.				
71	80	9	55%	Huronian siltstone: Massive green siltstone with				
				occasional coarse pink feldspar fragments.				
				Bedding 60° to core axis.				
				Blocky ground with 4 feet lost core.				

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REVERSE CIRCULATION LOG

RC HOLE NO: B84-4

Project: BURT | Collar Elev: 1050 ft. | Length: 55 ft. | Page: 1 of 1

Location: Recon. Profile 4 | Bottom Elev: 995 ft. | Commenced: October 9, 1984

Co-ordinates: Line 4 | Collar Declination: vertical | Completed: October 9, 1984

4+00S | Collar Bearing: --- | Drilled by: Heath & Sherwood | Logged by: V. Rampton/D. Robertson

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
0	5	---	---	Deck to ground.				
5	10	5		Clay, light brown, clods	---			
10	20	10		Clay, light grayish brown, clods	---			
20	30	10		Clay, light gray	---			
30	40	10		Clay, light gray: some large lumps (dry)	---			
40	47	7		Clay, light gray: some large lumps (dry)				
47	50	3	3	Gravelly, sandy, few gritty clods: coarse till? gray, sand, 80% fine-medium	2116	47	50	3
50	55	5	5	Bedrock, gritty siltstone	2117	50	55	5
				END OF HOLE.				

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REVERSE CIRCULATION LOG

RC HOLE NO: B84-6

Project: BURT | Collar Elev: 1025 ft. | Length: 197 ft. | Page: 1 of 4

Location: Recon. Profile 6 | Bottom Elev: 828 ft. | Commenced: October 9, 1984

Co-ordinates: Line 6 | Collar Declination: vertical | Completed: October 9, 1984

8+00N | Collar Bearing: --- | Drilled by: Heath & Sherwood | Logged by: V. Rampton/D. Robertson

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
0	5			Deck to ground				
5	10	5		Silt, sandy (fine), brown				
10	20	10		Sand, fine, silty, light brown				
20	22	2		Sand, fine, silty, light brown				
22	30	8		Clay, gray				
30	33	3		Clay, gray				
33	40	7		Sand, fine, silty, light brown, layers of gray clay				
40	50	10		Sand, fine, light brown; clay layer at 48 ft.				
50	60	10		Sand, fine, light brown; clay layer at 54 ft.				

PROJECT: BURT HOLE NO: B84-6 PAGE: 2 OF 4

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
60	70	10		Sand, fine, silty, bright brownish grey: clay layer at				
				3, 7, 9.				
70	80	10		Silt, fine, sandy, light gray: clay layer at 71 ft.				
80	90	10		Silt, fine, sandy, light gray: clayey below 87 ft.				
90	100	10		Silt, fine, light gray: clay layer 97-99 ft.				
100	101	1		Silt, fine, light gray				
101	110	9		Clay, gray				
110	120	10		Clay, gray; many lumps				
120	130	10		Clay, light gray to light brownish gray, lumpy				

PROJECT: BURT HOLE NO B84-6 PAGE 3 OF 4

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
130	140	10		Clay, light gray lumps				
140	150	10		Clay, light gray				
150	160	10		Clay, light gray				
160	170	10		Clay, light gray				
170	180	10		Clay, light gray; tr. grit at 176 ft.; also fine sand layer, gritty toward 186 ft.				
180	185	5	5	Gravel, as matrix? (clay balls at top); sandier near 185 ft. 95% gritty green-gray argillite, 5% dirty quartzite, granite epidote; much sand - fine - 40%; could be coarse till.	2118	180	185	5
185	188.5	3.5	3.5	Gravel, as matrix, sand, @ 187 ft., bouldry at 188 ft.; one rock type at 188.4 ft.; 65% feldspathic quartzite - 30% green argillite - 5% quartz, granite; sand, fine, 10%: could be coarse till but most likely gravel.	2119	185	188.5	3.5

PROJECT: BURT HOLE NO. B84-6 PAGE: 4 OF 4

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
188.5	190	1.5	.5	Boulder or bedrock? Bedrock	2120	188.5	190	1.5
				feldspathic quartzite to a gritty argillite 55/45				
190	195	5		Gravelly, sandy (coarse till?), one rock type: at 192 ft.	2121	190	195	5
				into granitic: at 195 ft. into fine gray greenish argillite?				
				or fractured rock?				
				(Bedrock with fracture - same as above)				
195	197	2		One rock type - a granitic? (dirty pink) sediment.	2122	195	197	2
				Feldspathic quartzite				
				END OF HOLE				

BILLITON ~~EXPLORATION~~ CANADA LTD.

REVERSE CIRCULATION LOG

RC HOLE NO. [redacted]-7

Project: BURT
Location: Englehart River
Co-ordinates: ---

Collar Elev: 910
Bottom Elev: 660 ft.
Collar Declination: vertical
Collar Bearing: ---

Length: 250 ft

Drilled by: Heath & Sherwood

Page: 1 of 5
Commenced: October 9, 1984
Completed: October 9, 1984
Logged by: V. Rampton/
D. Robertson

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
0	5	5		Deck to ground	---			
5	10	5		Clay, brown (alluvium)	---			
10	20	10		Clay, light gray brown: grades to light gray fine sand A at 13 ft.				
20	26	6		Fine silty gray sand: few wood chips at 25 ft. A				
26	30	4		Clay, light brownish gray L?				
30	35	5		Clay, light brownish gray L?				
35	40	5		Sand, fine gray L?				
40	47	7		Sand, fine, gray, organic fragments				
47	50	3		Clay, peaty				

PROJECT BURT HOLE NO B84-7 PAGE 2 OF 5

DEPTH (ft.)		INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA									
FROM	TO				SAMPLE	FROM	TO	INTERVAL						
50	54			Sand, fine gray, woody										
54	60			Clay, woody at top: much wood and shells (small clams and snails) at base										
60	66			Woody, shelly with interbedded clay and sand (interfacial or polyfacial?)										
66	70			Sand, fine, silty, gray										
70	75			Clay, gray										
75	80			Sand, fine, gray										
80	90			Sand, fine, gray: silty at 85-89 ft.										
90	100			Sand, fine, gray										

PROJECT: BURT HOLE NO: B84-7 PAGE: 3 OF 5

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
100	106			Sand, fine, gray				
106	110			Clay, light brownish gray				
110	120			Sand, fine light gray				
120	130			Sand, fine light gray; few clay layers				
130	140			Sand, fine light gray; few organics at 130-133 ft.				
140	150			Sand, fine light gray; clay at 148-149 ft.				
150	160			Sand, fine, gray				
160	170			Sand, fine, silty, gray: clay at 166-168 ft.				
170	180			Sand, fine silty, gray: organic detritus and wood at 172-180 ft.				

PROJECT: BURT HOLE NO: B84-7 PAGE: 4 OF 5

DEPTH (ft.) FROM	DEPTH (ft.) TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
180	190			Sand, fine, light gray, trace fine organic detritus				
190	200			Sand, fine, silty light gray, trace fine organic detritus: clay at 199 ft.				
200	207			Interbedded fine sandy silt and clay, gray				
207	210			Clay, gray				
210	220			Silt, fine sandy, gray				
220	221			Silt, fine sandy, gray				
221	226			Silt, gray and clay, gray				
226	230			Fine gray silty sand				
230	234			Silt and clay, gray				

PROJECT: BURT HOLE NO: B84-7 PAGE: 5 OF 5

DEPTH (ft.) FROM	DEPTH (ft.) TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
234	240			Fine silty sand, gray				
240	250			Sand, fine, silty; trace organics: clay at 241 and 249 ft.				
				END OF HOLE due to caving of sandy material				

BILLITON ~~EXPLORATION~~ CANADA LTD.

REVERSE CIRCULATION LOG

RC HOLE NO: [redacted]-7A

Project: BURT | Collar Elev: 1025 ft. | Length: 430 ft. | Page: 1 of 2

Location: Englehart River | Bottom Elev: 595 ft. | Commenced: October 10, 1984

Co-ordinates: 25 ft east of B84-7 | Collar Declination: vertical | Completed: October 10, 1984

Collar Bearing: --- | Drilled by: Heath & Sherwood | Logged by: V. Rampton/D.Robertson

DEPTH (ft.)		INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA									
FROM	TO				SAMPLE	FROM	TO	INTERVAL						
0	5	-		Deck to ground										
5	60	55		Sand, fine, clay, woody detritus occasionally										
60	250	190		Clay and silt and fine gray sand: trace organics										
250	255	5		Sand, fine gray: few clay layers										
255	260	5		Clay, gray: few sandy layers near top										
260	263	3		Clay and fine gray silty sand										
263	267	4		Fine gray silty sand										
267	270	3		Clay, gray										
270	278	8		Clay, gray										
278	280	2		Fine, gray sand										
280	290	10		Clay, gray										
290	300	10		Clay, gray										
300	310	10		Clay, gray: trace grit at base										
310	320	10		Clay, gray										
320	330	10		Clay, gray										
330	340	10		Clay, gray										
340	350	10		Clay, gray										
350	360	10		Clay, gray										

PROJECT: BURT HOLE NO B84-7A PAGE: 2 OF 2

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
360	370	10		Clay, gray				
370	380	10		Clay, gray				
380	390	10		Clay, gray				
390	400	10		Clay, gray: sandy at 395 ft				
400	410	10		Clay, gray: grits in upper half				
410	412	2		Clay, gray				
412	420	8		Clay, gray: fine sandy layer at top				
420	430	10		Clay, gray				
				END OF HOLE (reached drilling capacity of rig)				

BILLITON EXPLORATION CANADA LTD.

REVERSE CIRCULATION LOG

RC HOLE NO: B84-9

Project: BURT
Location: Recon. Profile 9
Co-ordinates: Line 9
5+75N

Collar Elev.: 1040 ft.
Bottom Elev.: 930 ft.
Collar Declination: vertical
Collar Bearing: ---

Length: 110 ft.
Drilled by: Heath & Sherwood

Page: 1 of 2
Commenced: October 11, 1984
Completed: October 11, 1984
Logged by: D. Robertson

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
0	5	5		Deck to ground				
5	10	5		Wood chips, thin fine silty sand, light brown				
10	20	10		Sand, fine, gray: clay first half				
20	30	10		Sand, fine gray: fine thin clay layer at top				
30	40	10		Sand, fine gray: fine near top				
40	50	10		Fine gray sand				
50	57	7		Sand, fine gray, one clay layer				
57	60	3		Clay, gray				
60	70	10		Clay, gray				
70	77	7		Clay, gray: sand layer at 73 ft.				
77	80	3		Sandy gravel: 30% medium/fine; 70% coarse and grit.	2123	77	80	3
				55% granite, 15%quartz diorite, 10% diorite, 15% argillate, 5% misc.				
80	88	8		Sandy to 84 ft, then gravel: 30% medium/fine; 70% coarse	2124	80	88	8
				and grit.				
88	90	2		Sandy till balls: 60% granite, 10% granodiorite	2125	88	90	2
				15% argillite, 10% int-acid volc. <10% mafic volc.				
				10% fine sand, 25% medium sand, 65% coarse and grit.				

PROJECT BURT HOLE NO B84-9 PAGE 2 OF 2

DEPTH (ft.) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
90	95	5		Till, gray: 10% fine, 90% coarse	2126	90	95	5
				50% granite, 35% argillite, 15% int mafic igneous, 5%				
95	100	5		Till, gray, very sandy at 98-100 ft.	2127	95	100	5
				35% argillite, 35% granodiorite, 10% granite, 10% gritty argillite, 10%				
				10% fines, 30% medium, 50% medium				
100	105	5		Till, gray, sandy, 15% fns, 35% med, 50% > med	2128	100	105	5
				40% argillite, 10% gritty argillite, 30% granitics, 10% , 10% misc.				
105	107	2		Till, gray, sandy, 20% fn, 40% med, 40% > med	2129	105	107	2
				50% argillite, 30% granitics, 10% feldspathic green 5% , 5% misc.				
107	110	3		Bedrock, argillite (95%) dark forest green (3% granitic)	2130	107	110	3
				Clean samples				
				108.5 - 110				
				END OF HOLE				

BILLITON ~~EXPLORATION~~ CANADA LTD.

REVERSE CIRCULATION LOG

Project: BURT

Location: Recon. Location 10

Co-ordinates: ---

Collar Elev. 1030 ft.

Bottom Elev. 981 ft.

Collar Declination: vertical

Collar Bearing: ---

Length: 49 ft.

Drilled by: Heath & Sherwood

Commenced: October 11, 1984

Completed: October 11, 1984

Logged by: V. Rampton/D. Robertson

DEPTH (ft) FROM	TO	INTERVAL	CORE RECOVERED ( )	DESCRIPTION	ASSAY DATA SAMPLE	FROM	TO	INTERVAL
0	5	5		To Deck				
5	10	10		Mainly wood and organics: fine gray sand at base				
10	20	10		No circulation: fine gray sand?				
20	24	4		Fine gray sand				
24	30	6		Fine gray sandy silt and clay				
30	34	4		Clay, gray				
34	40	6		Till? or very sandy gravel??				
40	42	2		Till? or very sandy gravel?? much medium sand	2131	40	42	2
42	46	4		Gravel, cs: 80% argillite, 10% hematitic argillite,	2132	42	46	4
				10% granite, cs gritty sand				
46	49	3		Bedrock: sample 48-49 dark greenish argillite (85% argillite	2133	46	49	3
				15%				
				END OF HOLE				

Ontario and Mines

(Geophysical, Geological, Geochemical and Expenditures)

2.9440 370/86

Mining

Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

Type of Survey(s)

OVERBURDEN DRILLING

Claim Holder

CHEVRON MINERALS LTD.

42A01SW0033 2.9440 BURT 900

Address

#1714-390 BAY STREET, TORONTO, ONTARIO M5H 2Y2

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
HEATH & SHERWOOD DRILLING	06 Day / 10 Mo. / 84 Yr. — 11 Day / 10 Mo. / 84 Yr.	

Name and Address of Author (of Geo-Technical report)

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical · Electromagnetic	
	· Magnetometer	
For each additional survey using the same grid: Enter 20 days (for each)	· Radiometric	
	· Other	
	Geological	
	Geochemical	

RECEIVED SEP 17 1986 MINING LANDS SECTION

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical · Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	749293	36.6
	749294	36.6
	749295	36.6
	749296	36.6
	749297	36.6
	749298	36.6
	749299	36.6
	749318	20
	749319	20
	749320	20
	749321	20
	749322	20
	749323	20
	749324	20
	749325	20
	749326	20
	749327	20
	749328	20
	749329	36.6
	749330	20
	749331	20
	749332	36.6
	749333	20

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	749334	36.6
	749335	20
	749336	20
	749337	36.6
	749843	36.6
	749844	36.6
	749845	36.6
	749846	36.6
	749847	36.6
	749848	36.6
	749849	36.6
	749850	36.6
	749854	36.6
	749858	36.6
	749867	20
	749868	20
	749881	36.6
	749882	36.6
	749883	36.6
	749884	36.6
	749885	36.6
	749886	36.6
	749887	20

Total number of mining claims covered by this report of work. 72

Expenditures (excludes power stripping)

Type of Work Performed

OVERBURDEN DRILLING

Performed on Claim(s)

L749337, L749329, L753462, L753432, L749272, L779885

Calculation of Expenditure Days Credits

Total Expenditures			Total Days Credits
$ 29,605.82	÷ 15	=	1973.72

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.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
1973.72	SEP 11 1986	
	Date Approved as Recorded	Branch Director
	Sept 16, 1986	

Date: September 5/86 Recorded Holder or Agent (Signature): S. Williams

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

K. W. Phillips, Falconbridge Metals Canada Inc. #1006, 141 Adelaide (West) Toronto

Date Certified	Certified by (Signature)
Sept 5th 1986	K. W. Phillips

1362 (85/12)

Ontario Ministry of Northern Development and Mines

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

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

Type of Survey: [redacted]ERBURDEN DRILLING

Township or Area: BURT TOWNSHIP

Claim Holder(s): CHEVRON MINERALS LTD.

Prospector's Licence No.: T-1690

Address: #1714-390 BAY STREET, TORONTO, ONTARIO M5H 2Y2

Survey Company: HEATH & SHERWOOD DRILLING

Date of Survey (from & to): Day | Mo. | Yr. | Day | Mo. | Yr.

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report):

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	749888	36.6
	749889	20
	749890	20
	750001	36.6
	750002	20
	750003	20
	750004	20
	750005	20
	750006	20
	750007	20
	750008	20
	750009	36.6
	750010	36.6
	750011	20
	750012	20
	750013	20
	750014	20
	750015	20
	735640 SP	14.4
	735641 SP	20
	735642 SP	20
	735643 SP	20
	735644 SP	20

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	724827 SP	36.6
	724828 SP	36.6
	724829 SP	11.52

Total number of mining claims covered by this report of work.

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total 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.

RECEIVED SEP 11 PM 5 16

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

Date	Recorded Holder or Agent (Signature)

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

Date Certified	Certified by (Signature)

1362 (85/12)

Chevron Canada Resources
Minerals Staff
Suite 1714 - 390 Bay Street, Toronto, Ontario M5H 2Y2 · Phone (416) 947-9166

September 24, 1986

S.E. Yundt, Director,
Land Management Branch,
Mining Lands Section,
Whitney Block, 6th Floor,
Queen's Park,
Toronto, Ontario
M7A 1W3

Dear Mrs Yundt:

Enclosed please find two copies of a Overburden Drill Report by Billiton Canada Ltd in Burt and Holmes Townships, Larder Lake Mining Division.

Sincerely,

W.E. Glenn

✓ 84-1	779885 ✓
~~84-2~~	
✓ 84-4	749272 ✓
✓ 84-6	749329 ✓
✓ 84-7	749337 ✓
✓ 84-7H	
✓ 84-9	X53313R ✓
✓ 84-10	X53462 ✓

JUL 2 1986

BURT TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING

SCALE 40 CHAINS TO ONE INCH

#30

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	CS.
LEASES	(L)
LICENSE OF OCCUPATION	L.O.
LOCATED LAND	Loc.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
CANCELLED	C.

Mining & Surface rights withdrawn from staking out, prospecting sale or lease, Sec 36, The Mining Act, R.S.O. 1980
Order No. NRW 24/82 Nov 29, 1982 1:40 pm

400' surface rights reservation along the shores of all lakes and rivers.

M.334

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970).

	Order No.	File	Date	Disposition
R1	W.7/74	104317	21/2/74	S.R.O.
R2	W.71/76	100581	15/12/76	S.R.O.
R3	NRW 33/79	139857	14/5/79	S.R.O.
R4	NRW 92/80	129365	9/7/80	S.R.O.
R5	W 24/82	188022	29/11/82	SR & MR

BOMPAS TWP.

HOLMES TWP.

FEBY TWP.

GROSS TWP.

VI V IV III II I

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

Portage

3 Miles

Burt Lake

Hwy 63

AREA WITHDRAWN FROM STAKING SECTION 42 MINING ACT

FILE 164586

T.S.R.V. TOWER SITE S.R.O. RESERVED

CABIN SITE

MNR Res. 25 Pt. No. 269 File 104748

Gravel File: 186049

D.H.O. PIT 1315

5906 16723 13767 15268 13768 38686 38685

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A01SW0033 2.9440 BURT

200

Dunmore Twp.

Kenaja Cr.

Englehart R.

Chief L.

Middleton Twp.

Burt Twp.

Goler L.

Holmes L.

Flavelle Twp.

VI

V

IV

III

II

I

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

THE TOWNSHIP OF HOLMES

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SEP 26 1986

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	C

NOTES

400' Surface rights reservation around all lakes & rivers

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
(N) SEC. 36/80	W. 24/82	29/11/82	S.R. & M.R.	LEB522

PLAN NO.- M.224

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

J.v.K.