85-241(b)-13664

1984 EXPLORATION ACTIVITIES
CARIBOO GOLD PROJECT

ROUNDTOP MOUNTAIN AREA
August-September 1982

The following report pertains to all claims in the Roundtop Group. The Group is optioned by Suncor Inc.

Roundtop Group:

311	Fourth of July	575	International No. 7
312	International 3	575	International No. 1 Fraction
313	International 4	576	Surprise No. 6
314	International 1	576	Surprise No. 7
315	International 6	576	Sedan No. 4 Fraction
316	Dawn No. 2 Fraction	577	Surprise No. 4
317	Dawn Fraction	577	Surprise No. 1
318	Federal Fraction	578	Surprise No. 3
318	Federal No. 1	578	Surprise No. 2
319	International 2	579	Sedan No. 3
514	Peerless No. 3	579	Sedan No. 5
514	Hub Fraction	1479	International No. 8
514	Hub No. 2 Fraction	1480	International No. 5
514	Peerless No. 4 Fraction	3660	RT 1
570	Sedan 2	3661	RT 2
571	Peerless No. 2	3662	RT 3
572	Sedan No. 1	3663	RT 4
573	Peerless No. 1		

N.T.S. Sheet 93A/14
Centered on 52°53'30" 121°19'00"
In the Cariboo Mining Division

David L. Safton, B.Sc.
December 1984

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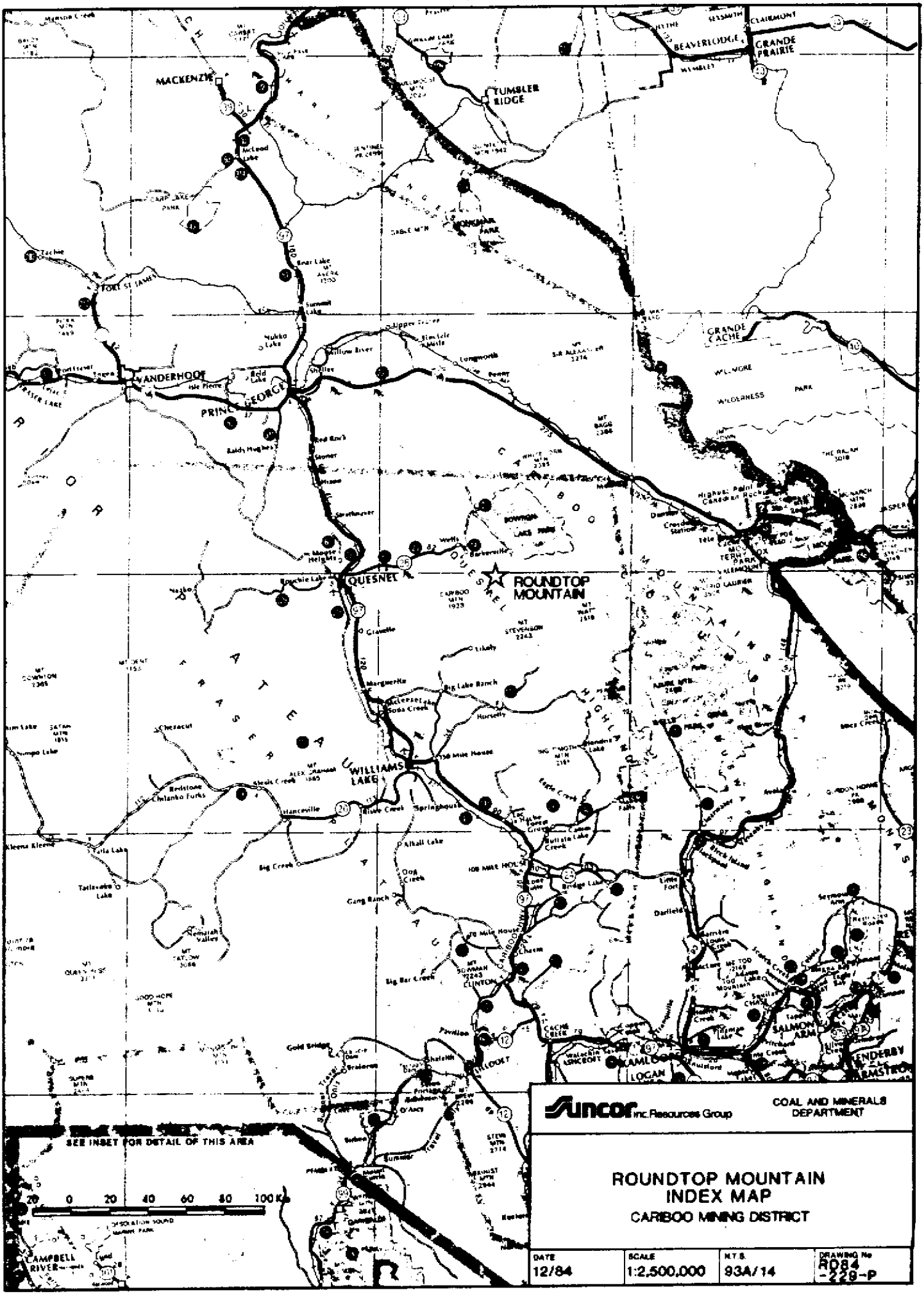
MACKENZIE
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GRANDE PRAIRIE
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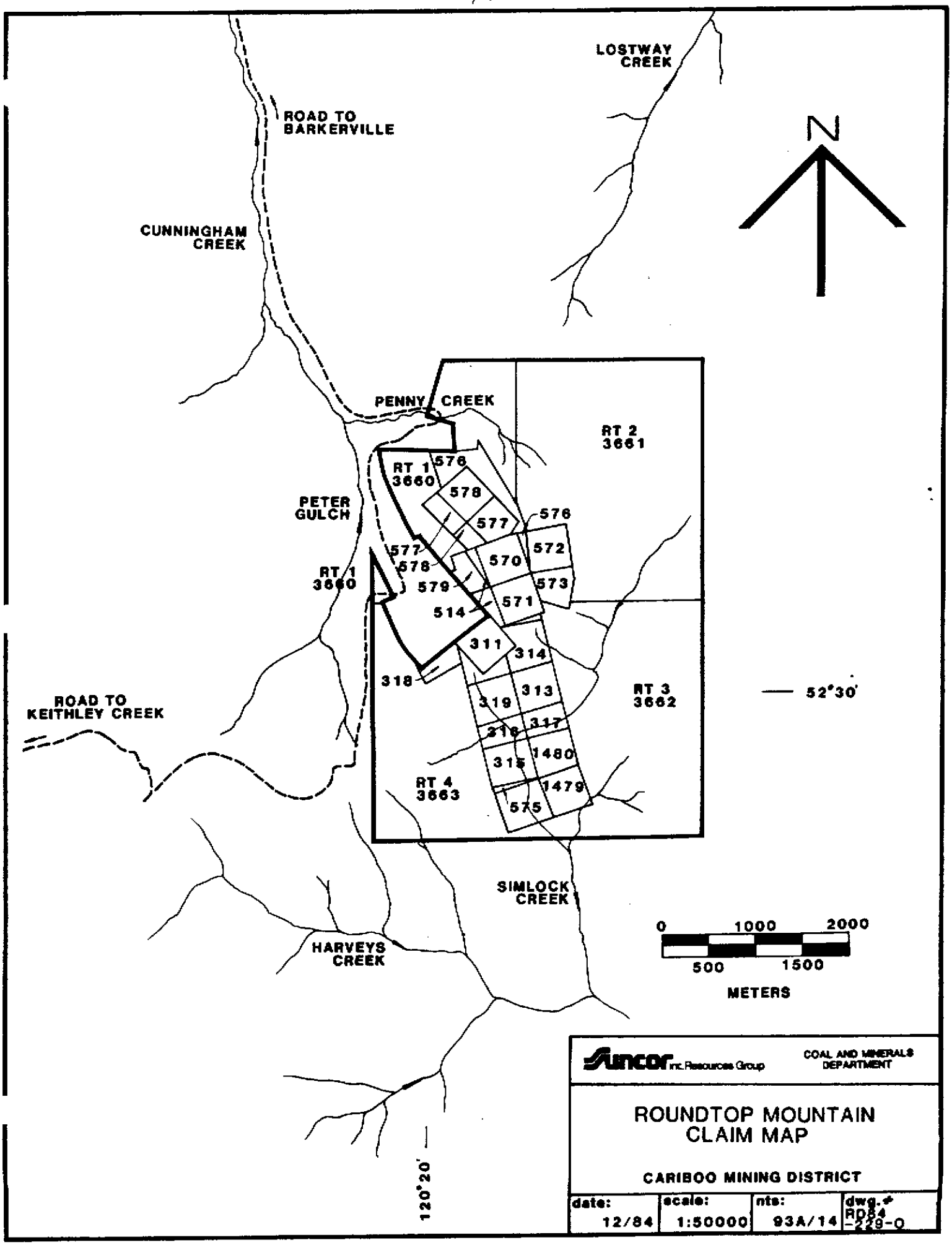
WILLIAMS LAKE
100 MILE HOUSE
CLINTON
KAMLOOPS
SALMON ARM
ENDERBY
LOGAN
SEE INSET FOR DETAIL OF THIS AREA
20 0 20 40 60 80 100 KM
CAMPBELL RIVER
Suncor Inc. Resources Group
COAL AND MINERALS DEPARTMENT
ROUNDTOP MOUNTAIN
INDEX MAP
CARIBOO MINING DISTRICT
DATE 12/84
SCALE 1:2,500,000
N.T.S. 93A/14
DRAWING No RD84-229-P



Suncor Inc. Resources Group — COAL AND MINERALS DEPARTMENT

ROUNDTOP MOUNTAIN CLAIM MAP

CARIBOO MINING DISTRICT

date:	scale:	nts:	dwg.#
12/84	1:50000	93A/14	RD84-229-0

INTRODUCTION

The Roundtop Group of claims is located in South Central B.C. approximately 85 km east of Quesnel and 23 km south of Wells. Claim group center is 4 km due south of Roundtop Mountain. The Roundtop Mountain and Yanks Peak property to the south comprise Suncor's Cariboo Gold Project. The property locations are displayed on Map 82-044.

The Quesnel Highlands, in which the two properties are located, marks a transition from the very rugged Cariboo Mountains to the east and the Interior or Fraser Plateau to the west. In general, topography is moderate to rugged with few bare cliffs but numerous steep wooded slopes (Plate 1). Heavy coniferous forest and dense undergrowth are supported by the annual 75-150 centimeters of precipitation. Temporary snowfall may occur in August to mid-September with actual accumulation starting near the end of September or early October. Most snow leaves the area by early July.

The Roundtop claim group may be accessed from Wells, B.C., via east-heading logging roads for 24 km and then an additional 17 km south on the historic Cunningham Pass Trail. The trail which originally joined Barkerville with Keithley Creek via Roundtop and Yanks Peak is in poor condition and is best travelled by 4 X 4 vehicles. With numerous highland meadows and the 4 X 4 trail adequate landing sites are available for helicopter access to the property.

PROPERTY HISTORY

In 1981 Suncor Inc. optioned the Roundtop property from Zelon Enterprises Ltd. Initially, the ground consisted of 924.59 acres of reverted crown grants. Towards the end of 1981 four more claims were acquired under the option agreement. This brought the total claim acreage to its present size of 5249.19 acres. In February of 1982 all claims optioned were regrouped to form the Roundtop Group.

The Cariboo District in general has attracted precious metal and to a lesser extent base metal exploration since the 1860's. District placer gold production up to 1950 amounted to 69,237 oz. (Holland 1954). Of this, Cunningham Creek, which in part drains the northern portion of the Roundtop Group via Penny and Peter Creeks, produced 12,893 oz, while Harveys Creek, which drains the southern portion via Simlock Creek, has produced 3,853 oz. (all figures Holland 1954).

In contrast to placer, lode gold production has amounted to only 5,204 oz. (Holland 1954). Most of this is attributed to Cariboo Hudson Mine which is located on the south side of the Pearce Gulch nearly enclosed by Suncor property (see Map 229-C). During 1938 and 1939 12,938 tons of ore were mined producing 5,186 ozs. of gold for an average grade of 0.40 oz/ton. Exploration for extensions to the ore zone was conducted in 1946 and 47 but no more ore was found. In 1983 and 1984 Imperial Metals Corporation of Vancouver conducted an extensive trenching and drill program over the Shasta Shear with some interesting results (detailed in Economic Geology section).

At the north end of the claim group, on the north side of Penny Creek, recent (1979, 80) underground exploration has been conducted on another northerly striking shear zone. The building and drift are still in reasonably good condition but no work has been done in at least the last four years.

North of the Bralco Cabin (Map 299-1) a shaft has been sunk on a sphalerite bearing zone of a limestone unit. No literature is

available on the old workings but Rio Tinto Canadian Exploration conducted an exploration program in the area between 1977 and 1979 (Hodgson, G. B. 1978). The Bralco Zinc showing was drilled in September and October of 1978 (Longe, R. V., 1979). During 1972 and 1974 Coast Interior Ltd. also conducted a base metal program in the Roundtop area (Timmins W. G. 1972). Suncor Inc. has completed precious metal exploration programs in the area in 1981, 82 and 84.

In light of the placer to lode gold production ratio, exploration for lode gold deposits in the area will continue. A more detailed evaluation of the economic history and potential of the area is supplied in the Economic Geology section.

1984 WORK SUMMARY

The 1984 Roundtop exploration program included grid establishment, geophysical and geochemical surveys and geological mapping. Both the gridding and the geophysical surveys were performed by Highrock Contracting of LaRonge, Saskatchewan.

A total of 43.6 line kilometers of grid were established between August 23 and August 29, 1984 by a ten man crew. Forty-two and one half line kilometers of magnetometer and 40.5 line kilometers of VLF geophysical survey were conducted over the grid. The geochemical survey consisted of 494 soil samples on the grid (229-D) and 16 rock samples from various locations with and bordering the property. A list of all samples and results is supplied in the Appendix. Geologic mapping was conducted at a scale of 1:5000 over the grid and in accessible areas bordering the property. All work on the property was performed between August 23 and September 16, 1984.

GENERAL GEOLOGY

The region has been mapped and remapped since the late 1800's. As a result new lithological and structural aspects have been continually brought to light. Consequently, the regional geological interpretation has been continually changing. Most recently, Struik (1982), has shown that the lithologies on the west side of the Pleasant Valley Thrust fault shows little or no correlation with the lithologies on the east side. Previously, units on both sides were considered members of the Cariboo Group. Struik has now defined an East and West Cariboo Group (Figure 1).

Lithologically, the Western Cariboo Group consists of a belt of NW-SE trending metasedimentary sequences which include Permian, Carboniferous, Devonian, and Hadrynian quartzites, micaceous quartzites, conglomerates, breccias, limestone calcareous phyllites and phyllites. Lesser amounts of volcanic metatuffs along with mafic and ultramafic intrusives do occur. In the Yanks Peak Area Holland (1954) divided these into the Yankee Belle, Yanks Peak, Midas and Snowshoe Formations. On the east side of the thrust Struik (1980) defined the Isaac, Cunningham, Yankee Belle, Yanks Peak, Midas Mural and Dome Creek formations. These consist of Cambrian and Hadrynian quartzites, phyllites limestones and dolostones. Stratigraphically above these are the Black Stuart, Guyet and Antler Formations. The Black Stuart and Guyet consist of slate, conglomerate, quartzite, greywacke, limestone and some basic volcanics. The Antler Formation is made up pillowed basalts, breccia chert, greywacke and gabbro sills.

Struik (1982) was able to find little or no correlation between the Yankee Belle, Yanks Peak and Midas Formations as defined by Holland (1954) on the west side of the fault and the same named units on the east side of the fault. This is the basis for the division of the Cariboo Group into East and West segments. The Tables of Formations for the east and west sides of the fault have been modified after Struik (1982) Campbell et al, (1973) and Brown (1963).

REGIONAL STRUCTURE

Structure in the area is dominated by three features. First, as mentioned, the east dipping Pleasant Valley Thrust Fault separates the East and West Cariboo Groups (Figure x). The thrust trends NW-SE and is extended to the west at its north end by the Pundata thrust. The second feature is the Lightning Creek Anticlinorium which lies to the south west of and essentially parallel to the thrust. In the project area the axis of the anticlinorium passes about 2 kilometers northest of Yanks Peak. The third and economically most important structural feature is the N-S trending faults that displace both the anticlinorium axis and the Pleasant Valley thrust fault. The faults have influenced mineralization in the Wells - Barkverville area at Island Mountain, Cariboo Gold Quartz, and Mosquito Creek. It is a northerly striking shear which hosted the mineralization at the Cariboo Hudson Mine at Roundtop Mountain.

TABLE OF FORMATIONS
CARIBOO LAKE AREA
WEST SIDE OF PLEASANT VALLEY THRUST

PERIOD	GROUP	FORMATION	LITHOLOGY	THICKNESS
Permian?	WESTERN		Unit(5) micaceous quartzite, phyllite, limestone, slate calcareous sandstones metavolcanics, amphibolite	?
		Snowshoe Fm		
Devonian?	CARIBOO	(Midas Fm)*	Unit(4) black siltite, phyllite, micaceous quartzite limestone, conglomerate breccia.	?
Hadrynian?	GROUP	(Yanks Peak Fm) (Yankee Belle Fm)	Unit(3) siltite, quartzite phyllite, micaceous quartzite. Unit(2) marble, calcareous sandstone, quartzite calcareous phyllite, phyllite. Unit(1) micaceous quartzite phyllite, schist.	?

*Formations in brackets are old terms, new terms have not been established.

2. TABLE OF FORMATIONS
CARIBOO LAKE AREA
EAST SIDE OF PLEASANT VALLEY THRUST

PERIOD	GROUP	FORMATION	LITHOLOGY	THICKNESS
Pennslvanian and Permian	SLIDE	Antler Fm.	Diorite, pillowed basalt chert, argillite, greywacke.	1100+ m
	MOUNTAIN	Black Stuart and Guyet Fm	Slate, conglomerate quartzite, greywacke, limestone,	350-450m
Ordovician	GROUP		dolostone, basalt, metatuff.	
Cambrian	EASTERN	Mural Fm	Limestone,	300+m
		Midas Fm	dolomite.	
and			Grey to black fine grained quartzite,	300+m
Hadrynian			limestone argillaceous schist, phyllite conglomerate.	
	CARIBOO	Yanks Peak Fm	Grey white silicified quartzite, conglomerate, rare limestone.	0-370m
		Yankee Belle Fm	Light grey brown phyllite quartz-chlorite schist, metasiltstone.	300-750m
	GROUP	Cunningham Fm	Fine grained grey to black limestone.	450-900m
		Isaac Fm	Grey calcareous phyllite, limestone.	300-600m

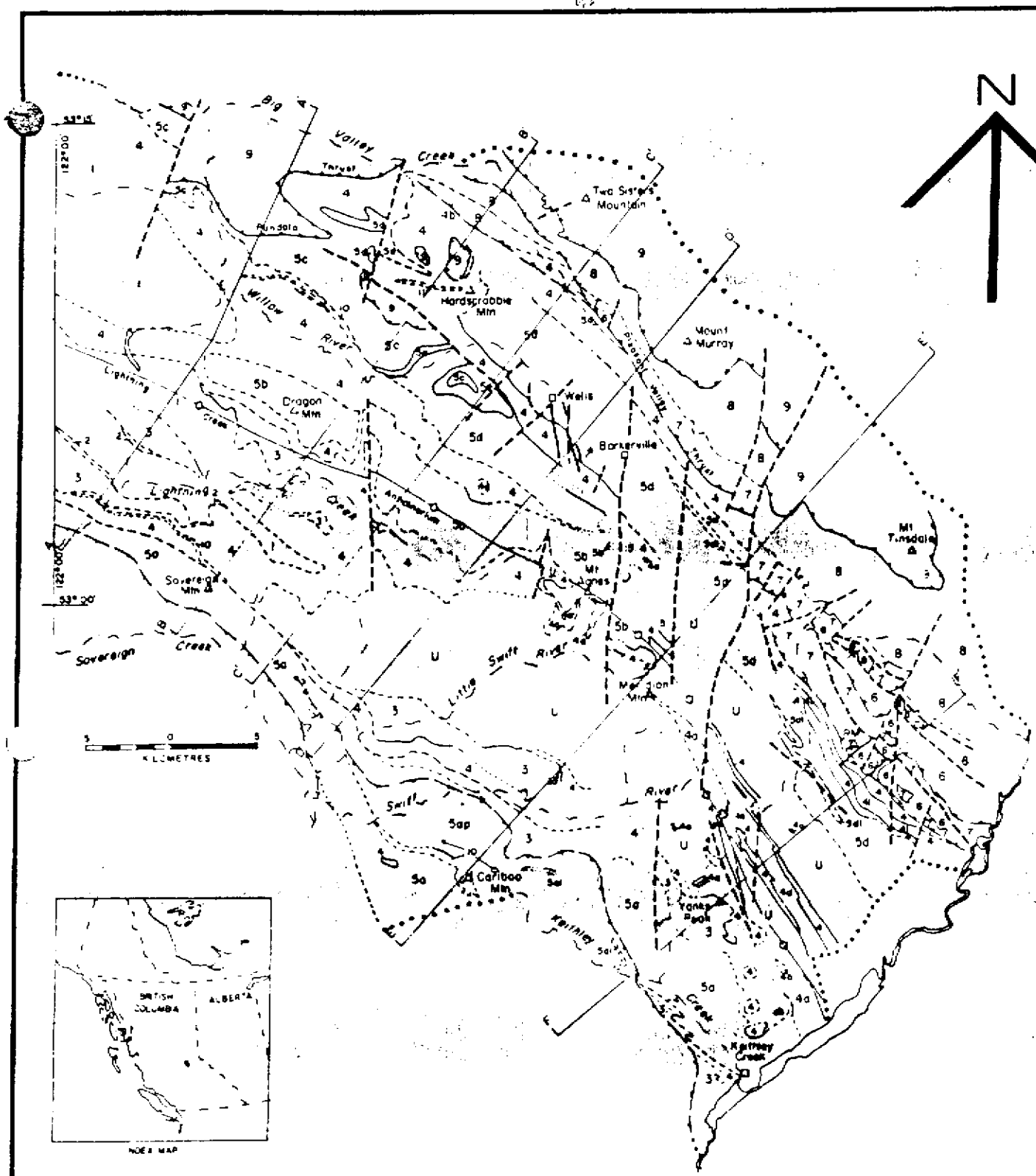


FIGURE 1: REGIONAL GEOLOGY

(FROM STRUIK 1982 GSC PAPER 82-1B, PAGE 118)

ROUNDTOP MOUNTAIN
RD84-229-N

LEGEND

LOWER PERMIAN

11 bioclastic limestone

PERMIAN

10 diorite, amphibolite, may include parts of 5e

PENNSLVANIAN AND PERMIAN

9 Antler Formation; diorite, basalt, chert greywacke, serpentinite, gabbro

CARBONIFEROUS? AND PERMIAN?

5 a, Ramos Creek Succession; micaceous quartzite, pelite, limestone, metatuff? a1, limestone, calcareous sandstone ap, phylite, quartzite, amphibolite b, Dragon Mountain Succession; micaceous quartzite, phylite c, Tom Creek Succession; micaceous quartzite, phylite d, Downey Creek Succession; micaceous quartzite, slate, limestone, metatuff? d1, marble, limestone, diorite, metavolcanic e; amphibolite

DEVONIAN? AND MISSISSIPPIAN?

4 black siltite, phyllite, micaceous quartzite, limestone a; conglomerate, quartzite b; breccia, muddy conglomerate 1; limestone, may be equivalent to 5d1

HADRYNIAN?

3 siltite, quartzite, phyllite a; quartzite

2 marble, calcareous sandstone, quartzite, calcareous phylite, phyllite

1 micaceous quartzite, phyllite, schist

U undifferentiated 1-5, mainly 48.5

ORDOVICIAN TO PERMIAN

8 Black Stuart and Guyet Formations; quartzite, phyllite, limestone

HADRYNIAN AND CAMBRIAN
Eastern Cariboo Group
Hadrynian and Cambrian

7 Yanks Peak, Midas and Mural Formations; quartzite, phyllite, limestone

Hadrynian

6 Isaac, Cunningham and Yankee Belle Formations; phyllite, limestone, dolostone, quartzite

Geological contact (defined, approx., assumed)
Fault (defined, approx. and assumed)
Thrust (defined, approx. and assumed)
RM

Figure 2: Legend to accompany Regional Geology
(From Struik 1982, GSC Paper 82-18 Page 119)

PROPERTY GEOLOGY

Seven and one half days were spent mapping over the grid and accessible areas bordering the grid and claim group. The main objective of the geological mapping was to delineate lithological units and structural features which would affect the geophysical surveys. All mapping was at a scale of 1:5000.

LITHOLOGIES

Holland (1954) mapped the contact between the "Midas" and Snowshoe Formations very near to what is now the western boundary of the claim group. With few adjustments this contact has been confirmed with the qualification that the name "Midas" is old terminology and is used only to maintain continuity with past reports (Map x).

Rocks of the Snowshoe Formation are typified by those in Plate 2. The picture was taken on line 7N at 7+25 west facing is southwest. Here massive silicified quartzite with extensive quartz veining crops out. Westward the quartzite is intercalated with quartz-chlorite schist and phyllites. Quartz lenses and veins in the Snowshoe rocks occasionally contain pyrite and galena and thus have been the target of extensive propsecting. The contact between the Snowshoe and "Midas" formation is marked by a basal pebbly quartzite found northwest and in the immediate area of the Bralco Cabin.

To the east of the contact the "Midas" formation has been broken into six units (Map x). These units are not necessarily distinct and may represent repetitions of each other. Unfortunately, the structural features give no indication of folds or fold axis location. Holland (1954) suggests that there is indeed repetition of the units and that the relatively constant strike and dip of bedding and foliation is indicitive of tight isoclinal folding.

Unit 5 consists of banded graphitic limestone along with chlorite and graphite phyllite. Replacement lead-zinc mineralization occurs in the limestone near Bralco Cabin. This will be elaborated on in the Economic Geology section. Going northeastwards, Unit 4 displays a noticeable decrease in limestone and an increase in chlorite-phyllite and quartz-chlorite-phyllite. Again graphite layers are present along with minor limestone and dirty quartzite. Unit 3 marks a return to the graphitic limestone lithology similar to Unit 5. Unit 6 displays a short interval of absolutley no carbonate development. The chlorite-sericite phyllite of which this unit consists is well exposed in the cat trenches between lines 2S and 0 at about 500 meters east.

Unit 2 consists mainly of massive and banded graphitic limestone with lesser amounts of chlorite-carbonate schist and red gritty quartzite. Unit 1 marks the eastern edge of the grid. The large outcrop towards the east end of lines 2N, O and 2S consists mainly of graphitic phyllite with some carbonate-sericite schist. Quartz lensing and veining do occur throughout Units 1 to 6 but not to the same extent as in the Snowshoe units. Also, lenses and veins with sulphide mineralization occur more frequently near the contact between the formations.

STRUCTURAL GEOLOGY

Structure in the area is complex and the inherent lack of outcrop makes resolution virtually impossible. The area is bounded on the east by the NNE trending Simlock Fault and on the west by the parallel Copper Creek Fault.

All measurements on foliation and bedding indicate a NW trend with moderate to steep dips NE. Holland (1954) suggests that this indicates tight isoclinal folding.

Faulting and shearing are of prime economic interest. The north trending Hudson shear hosts the Cariboo Hudson vein, and it appears as though Imperial Metals Corporation may have encountered similar mineralization in the Shasta Shear immediately to the west (Map x). There is no evidence for the continuation of either the Hudson or the Shasta Shears to the north. It is possible that they have been truncated by the east-west trending fault up Pearce Gulch.

At the north end of the claim group underground exploration has been conducted on a NNW trending shear on the north side of Penny Creek. This shear appears to cross Penny Creek and continue along the contact between the Snowshoe and "Midas".

ECONOMIC GEOLOGY

The Roundop area has seen varying levels of exploration activity and lode and placer gold production since the 1860's. Presently there are a number of placer operations on Peter Gulch and Cunningham Creek to the north of the property.

Cariboo Hudson Mine

Of the 5,204 oz. of lode gold produced in the Yanks Peak-Roundtop area 5,186 oz. have come from the Cariboo Hudson Mine (Holland 1954). The mine was in operation from 1936 to 1939, during this time 12,939 tons of ore were removed and 5,186 oz. of gold recovered for an average grade of 0.40 oz/ton. One sample taken from within the portal on the south side of Pearce Gulch assayed 8.19 oz. Au/ton, 8.09 oz. Ag/ton, 22.4% Pb, and 6.8% Zn. The sample, D.S. 320 (Map x) is 70-80% sulphides consisting mainly of galena and pyrite. The remaining 20-30% is a white to light grey quartz which is iron stained on its exposed surfaces. The mineralized zone was hosted by the north trending Hudson Shear. The shear contained only one ore body with stope length of 60m on the 200 level and 56m on the 250 level (Holland 1954).

Parallel shears exist to the east and west. Holland states that the Shasta Shear to the west was explored on the 200 level but that no ore was found. Imperial Metals Corporation of Vancouver have commenced drilling and revitalization of the existing drifts. Sketch Map x is the result of one half day reconnaissance. Drill hole results indicate on the property 152m of 0.36 oz. Au/ton over an average true thickness of 2 meters. Included in this are the southern most holes which encountered 2.66 oz. Au/ton and 8.63 oz. Ag/ton over a true thickness of 1 meter (George Cross News Letter July 5, 1984). Values of this nature would suggest semi-massive to massive sulphide mineralization similar to that found in the Cariboo Hudson portal. Obvious attempts to reach the mineralized zone by surface trenching have been made by Imperial Metals. Two chip samples D.S. 328 and D.S. 329 were taken from trenches 2 and 5 respectively (Map x).

The trenches are on the shear zone and up to 10 meters deep. The assay resutls from the samples were not significant. It would appear that the mineralized zone is some what deeper than the bottom of the trench.

To the north of the Bralco Cabin massive sphalerite mineralization occurs in the limestone of Unit 5. Sample D.S. 322 found as float about 25m to the west of a shaft sank on the mineralized zone assayed 36.6% Zn, 3.5% Pb and 0.67 oz/ton Ag. One grab sample obtained from the collar of the shaft assayed 10.41% Zn, 12.40% Pb and 4.24 oz/ton Ag (Hawkins, 1983). In an attempt to extend the mineralized zone Rio Tinto Canadian Exploration Ltd. completed a drilling and trenching program in the vicinity of the shaft in 1978 (Longe, R. V., 1977). The drill holes 78-8 and 78-9 were located to the east of the shaft. Hole 78-8 was drilled at an azmiuth of 235° with a dip of 45° to the horizontal. The hole was drilled 96.9 meters. Given this azmiuth, dip and drill hole length and the established dip and strike of the lithologies in the area the mineralized zone should have been encountered at about 50 meters. Limestone was intersected at this depth but no mineralization was found, the lithologies encountered are described in R. V. Longe, 1979.

GEOCHEMISTRY

A total of 494 soil samples was collected on the Roundtop Grid. The sample locations and numbers are displayed on Map 229-D. All soil samples were analysed for gold, silver, zinc and lead. Sixteen rock samples were taken within the grid and in areas near the property. These locations and numbers are on Map 229-C. All rock samples were assayed for gold, silver, lead and zinc. A list of all samples and results is included in the Appendix.

Soil samples were collected every 25 meters and where possible the B horizon was taken at a depth of 4-10cm. Samples were collected in Kraft 4" X 10" semi water proof paper sample bags and partially air dried before shipment. Samples were sent to Chemex Labs at 100, 2021 - 41st Avenue N.E., in Calgary. The analytical methods used on both the soil and rock samples are supplied in the Appendix. The analyses were performed or supervised by Mr. Ron Pang of Chemex Labs, Calgary.

CONCLUSIONS AND RECOMMENDATIONS

One area on the Roundtop property has been isolated as a target for further detailed exploration. Strong geochemical anomalies coincident with VLF conductors occur in the zone between lines 5N and 5S on the west side of the grid. This area was selected for grid soil sampling in 1984 on geochemistry results from 1981 and 82 and on VLF results from the 1984 survey. The objective of the 1984 soil sampling program was to first confirm the previous results and second to isolate and further delineate the existing anomaly.

Coincident silver, lead and zinc anomalies supported by Rio Tinto (1978) lead and zinc anomalies along with the two VLF conductors (Seattle) mark a possible mineralized zone trending NW-SE. This zone displays a close relation to the mapped contact between the "Midas" and Snowshoe Formations. Geological mapping has indicated a fault coincident with the contact at the north end of the grid this fault may continue following the contact through the area of interest influencing mineralization. Although drill targets could very nearly be established with the present information further geophysical information will help pinpoint possible targets.

RECOMMENDED WORK

An Induced Polarization and Max-Min survey over lines 3N to 6S inclusive on the west side of the grid will help isolate drill targets. Topography in this area is flat to a gentle south-west slope facilitating a quick and accurate survey.

In light of the results reported by Imperial Metals Corporation from their drill program on the Shasta Shear addition and extension of the grid in the south west sector is required. In order to cover a possible southern extension of the shear, lines 4, 6 and 8 west should be extended from their present 800 meters to 1900m. Lines 10 and 12 west should be extended to at least 1900 meters and if possible to 2300 meters. These lines should then be soil sampled: Lines 4, 6 and 8 west from 800 meters to 1900 meters and lines 10 and 12 from 300 meters east to the west end. A VLF EM-16 survey over the unsurveyed portion of the lines is also required.

Significant geochemical anomalies were encountered in the Penny Creek area, mainly outside of Suncor property. In order to determine the continuity of these anomalies (gold and silver) the grid should be soil sampled over lines 10 north to 17 north in their entirety.

The eastern side of the grid from line 10 north to at least 8 south warrants no further exploration. The 1981, 1982 exploration programs established no significant geochemical anomalies and the majority of VLF conductors are most likely caused by the numerous graphitic phyllite units and layers.

Mineralization in the area has proven to be patchy at best. Geochemistry and geophysics have indicated a possible zone of structurally controlled mineralization. The 1985 exploration program will finalize the evaluation of this zone, establish if other areas of interest exist and depending on the results facilitate a decision regarding the property's future.

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Geochemical Survey

APPENDIX

1. Claim Listing
2. Author's Qualifications
3. Field Staff List and Contractor
4. Daily Wage Calculation and Time Input
5. Geochemistry Analysis Costs
6. Total Property Expenditure
7. Sample Analysis Methods
8. Rock Assay Results
9. Soil Geochemistry Results
10. Report Maps

ROUNDTOP MOUNTAIN PROJECT

CLAIM LISTING

CARIBOO LAKE AREA

Cariboo Mining Division

RECORD #	CLAIM NAME	LOT #	UNITS	DATE ISSUED	HECTARES / ACRES	
311	Fourth of July	9818	1	Feb 08/77	20.90	51.65
312	International 3	3491	1	Feb 08/77	20.90	51.65
313	International 4	3492	1	Feb 08/77	20.54	50.76
314	International 1	3489	1	Feb 08/77	18.02	44.53
315	International 6	3486	1	Feb 08/77	20.90	51.65
316	Dawn #2 Fraction	3494	1	Feb 08/77	11.13	27.51
317	Dawn Fraction	3493	1	Feb 08/77	12.34	30.50
318	Federal Fraction	3509	1	Feb 08/77	8.92	22.03
318	Federal #1	3507	-	-	-	-
319	International 2	3490	1	Feb 16/77	8.32	20.57
514	Peerless #3	3499	1	Oct 31/77	10.08	24.92
514	Hub Fraction	3500	-	-	-	-
514	Hub #2 Fraction	3498	-	-	-	-
514	Peerless #4 Fraction	3508	-	-	-	-
570	Sedan 2	3501	1	Feb 06/78	20.90	51.65
571	Peerless #2	3502	1	Feb 06/78	20.90	51.65
572	Sedan #1	3503	1	Feb 06/78	20.90	51.65
573	Peerless #1	3504	1	Feb 06/78	13.99	34.57
575	International 7	3487	1	Feb 08/78	21.82	53.91
575	International 1 Fraction	3495	1	-	-	-

ROUNDTOP MOUNTAIN PROJECT

CLAIM LISTING

CARIBOO LAKE AREA

Cariboo Mining Division

RECORD #	CLAIM NAME	LOT #	UNITS	DATE ISSUED	HECTARES	ACRES
576	Surprise 6	10940	1	Feb 8/78	23.66	58.46
	Surpise 7	3512	-	-	-	-
	Sedan 4 Fraction	3505	-	-	-	-
577	Surprise 4	3511	1	Feb 8/78	24.37	60.22
	Surprise 1	3513	-	-	-	-
578	Surprise 3	3514	1	Feb 8/78	24.24	59.89
578	Surprise 2	3510	-	-	-	-
579	Sedan 3	3497	1	Feb 8/78	9.52	23.52
579	Sedan 5	3506	-	-	-	-
1479	International 8	3488	1	mar 10/80	20.90	51.65
1480	International 5	3485	1	Mar 10/80	20.90	51.65
3660	RT #1	-	15	Jun 19/81	375.0	926.70
3661	RT #2	-	20	Jun 19/81	500.0	1 235.60
3662	RT #3	-	20	Jun 19/81	500.0	1 235.60
3663	RT #4	-	15	Jun 19/81	375.0	926.70
7062	Placer Lease	-	2	Nov 2/81	41.80	103.30
7063	Placer Lease	-	2	Nov 2/81	41.80	103.30
				TOTAL	2 207.75	5 455.79

AUTHOR'S QUALIFICATIONS

David L. Safton, B.Sc. (Geol.)
204 - 39th Avenue S.W.
Calgary, Alberta
T2S OW5

B.Sc. (Geol.) University of Saskatchewan 1984

Work History

May 1984 - December 1984 Suncor Inc., Geologist
May 1983 - September 1983 Selco Inc., Assistant Geologist
May 1982 - September 1982 Suncor Inc., Assistant Geologist
April 1981 - September 1981 Suncor Inc., Field Assistant

David Safton

PROJECT STAFF LIST

Don Cross (B.Sc.)	Project Geologist	Calgary, Alberta
David Safton (B.Sc.)	Geologist	Calgary, Alberta
Tim Donnelly (B.Sc.)	Geologist	Edmonton, Alberta
Ron Smith	Prospector	LaRonge, Saskatchewan

CONTRACTOR

Highrock Contracting Ltd.
P.O. Box 450
LaRonge, Saskatchewan

President: R. H. Spooner

DAILY WAGE CALCULATION

	Salary/28 Days	Benefits as % Salary	Daily Wage Including Benefits
David Safton	2290.00	38%	113.00
Tim Donnelly	3300.00	38%	162.00
Ron Smith	3000.00	38%	148.00
Don Cross	4760.00	38%	235.00

Work Input

Activity	Crew			
	David Safton	Ron Smith	Tim Donnelly	Don Cross
Supervision				2
Mobilization and demobilization	1			
Field office and support work	2			
Field work	15	3	1	
Report preparation	20			
Total	38	3	1	2

GEOCHEMISTRY ANALYSIS COSTS

Rock Samples

Sample bag 8" X 13" plastic	0.20
Rock preparation	3.75
Au, Ag, Pb, Zn assay	16.30
Total cost per sample	20.25

Soil Samples

Kraft 4" X 6: hi-wet strength soil bags	0.08
Soil sample preparation	.80
Geochem Analysis Au, Ag, Pb, Zn	5.20
Total cost per sample	6.08

TOTAL PROPERTY EXPENDITURES

Salaries	38 days @ 113.00/day	4294.00
	3 days @ 148.00/day	444.00
	1 day @ 162.00/day	162.00
	2 days @ 235.00/day	470.00
Linecutting	43.6 km @ 325.00/km	14,170.00
Magnetic Survey	42.5 km @ 95.00/km	4,037.00
VLF Survey	40.5 km @ 110.00/km	2,500.00
Mobilization-Demobilization	(5000.00 ÷ 2)*	2,500.00
Truck Rental	22 days @ 30.00/day	660.00
Fuel	(783.00 ÷ 2)*	391.50
Accommodation	(890.00 ÷ 2)*	445.00
Food		300.00
Office supplies plus freight	(223.81 ÷ 2)*	111.91
Typing		
Drafting and Reproduction		
Geochemistry and Assay Analysis	Soils 495 X 6.08	3009.60
	Rock 16 X 20.75	324.00
	TOTAL PROJECT EXPENSES	$31319.01

*Item expenditure divided between Roundtop and Yanks Peak properties.

GEOCHEM BASE METALS

Procedure:

Sample wt. .5 gms into 18 X 150 mm test tube. Test tubes are placed into Aluminum Blocks 3 mls HCL plus 2 mls HNO_3 are now added. Blocks are placed on hot-plate at low heat for 1 hour, then medium heat for 1 hour more. Blocks are cooled and 1 ml of 20% Ammonium Acetate solution is added. Volume is now brought up to 10 mls with distilled water. Samples are then vortexed and allowed to settle for two hours. Base metals are run on Varian 475 Atomic Absorption Spectrometer.

Silver must be run two hours after settling.

METHOD FOR THE DETERMINATION OF GOLD BY FIRE ASSAY

PRECONCENTRATION AND ATOMIC ABSORPTION ANALYSES

1. A 1 assay ton (29.166g) sample is weighted into a 30 g crucible, 1 mg of Ag is added as a collected agent.

2. Enough flux, reducing or oxidizing reagent is added to produce a lead button.

3. The sample is transferred into an assay furnace and heated to 2000°F for 40-45 minutes.

4. The fusion is poured into an iron mould.

5. The slag is separated from the lead button in which Au and Ag has been alloyed.

6. The lead button is again transferred to a cupel in the assay furnace.

7. By heating slightly below melting point of Ag, Lead is eliminated either by vaporizing or absorbing into the cupel in about 40 minutes.

8. A bead which contains all the Au in the 1 assay ton sample is recovered on the cupel.

9. The bead is transferred to a 16 X 150 mm test tube, 1 ml of concentrated HNO_3, and 4 ml of 1:1 HCl are added to the tube.

10. The tube is heated on the hot plate for approximately 1 hour, or until all the residue is dissolved in the tubes.

11. The volume is adjusted to 10 ml with 1:1 HCl and the samples are mixed.

12. Samples are read on a Varian AA5 Atomic Absorption Spectrophotometer.

Sample Preparation

Rocks - crushed in jaw crusher, then through cone crusher, reducing size to 1/4 inch, mechanically split. Minimum 200 grams taken and pulverized to -200 mesh.

Soils - screened to -80 mesh, if insufficient material then entire sample must be pulverized to -200 mesh.

ROCK ASSAY RESULTS

Sample	Results							
	Au		Ag		Pb		Zn	
	PPB	Oz/Ton	PPM	Oz/Ton	PPM	%	PPM	%
DS 316	360	0.012	1.5		34		110	
DS 317	38		3.4		126		95	
DS 318	275		2.2		74		88	
DS 319	34		.6		10		72	
DS 320	719,000	8.19	283	8.09		22.40		6.80
DS 321	168		.6		226		83	
DS 322	127		28.8	0.67		3.5		36.6
DS 323	343	0.012	.9			0.10	254	
DS 324	94		.9		14		30	
DS 325	14		.2		92		391	
DS 328	17		.2		38		138	
DS 329	12		.2		24		66	
DS 330	12		.2		20		34	
DS 331	46		.2		18		77	
DS 332		<.003		5.6		8.15		<.01
DS 333		<.003		<.01		<.01		.02

NOTE
To convert to
g/tonne
multiply oz/ton x 34.28.

REPORT ON

GEOPHYSICAL SURVEYS

ROUND TOP MOUNTAIN AND YANKS PEAK AREAS

CARIBOO MINING DISTRICT, BRITISH COLUMBIA

for

SUNCOR INC.

JANUARY, 1985 F. DALIDOWICZ, P. ENG.

SUMMARY

A geophysical programme consisting of total field magnetometer surveys and VLF electromagnetic surveys was conducted over two areas known as "Round Top Mountain" and "Yanks Peak", both located in the Cariboo Mining District of British Columbia.

As a result of the magnetometer survey, both areas were found to be overall magnetically quiet reflecting the presence of non-magnetic sediments. There are, however, isolated "pockets" of erratic magnetic activity present on both grids. They do not correlate well with the anomalous distribution of gold in soils or with the numerous VLF-EM conductors.

As a result of the VLF-EM surveys, numerous conductive linears were outlined. They are found to inhabit all the mapped geological units within both areas. Some of these conductors are believed to relate to graphite. A minority of the conductors are suspected to be caused by topographic effects or operator error.

From the limited soil geochemical data obtained from the Round Top Mountain area, the VLF-EM conductors do not correlate with the anomalous gold distribution in soils.

Within the Yanks Peak Area, there are three clusters of soil samples anomalous in gold. Two are related to previous workings. Contamination is suspected to produce a portion of these anomalies. Both have VLF-EM conductors in the immediate area. These conductors continue for some distance beyond the influence of these workings.

A third cluster is not associated with any previous workings. A strong VLF-EM conductor also cuts across this area of interest.

There is a case presented for the emplacement of gold mineralization being structurally controlled and the intersection of north-south east-west structures is considered an important exploration target.

Before any drilling is to be undertaken, a programme of induced polarization, horizontal loop and VLF electromagnetic surveys is recommended to cover selected portions of areas within both survey grids.

TABLE OF CONTENTS

1. INTRODUCTION

A ground geophysical programme consisting of total field magnetics and VLF-electromagnetics was completed during the month of August, 1984 on two of Suncor's mineral exploration areas known as "Yanks Peak" and "Round Top Mountain". Both areas are located in the Cariboo Mining District of British Columbia.

The purpose of these geophysical surveys was to see if it is possible to correlate geophysical anomalies with the known gold occurrences in rock and to see if there is a direct correlation with soil geochemistry. Hopefully, these geophysical anomalies will aid in locating strategic drill targets.

The line cutting and the implementation of the geophysical surveys was undertaken on contract by R. Spooner of La Ronge, Saskatchewan.

Direct field supervision on Suncor's behalf was carried out under the direction of D. Safton, B.Sc. The overall project management was under the direction of D.B. Cross, B.Sc., (Senior geologist for Suncor Inc.).

This report discusses the interpretation of the geophysical data and specific recommendations are given.

This is part of an overall report that includes the discussions of the results of the soil geochemical survey and the geological mapping as authored by D. Safton, B.Sc., on behalf of Suncor Inc.

2. LOCATION AND ACCESS

The locations of the geophysical survey grids are presented in the report by D. Safton.

3. INSTRUMENTATION

For the ground magnetometer survey, a Geometrics model G-816 proton precession total field magnetometer was used.

The diurnal variations in the earth's magnetic field were monitored with the aid of a Canadian Mining Geophysics CMG-MR20 base station magnetometer.

The VLF electromagnetic survey was carried out using a Geonics VLF-EM 16 unit.

4. SURVEY PROCEDURES

4.1 Magnetics

At the start of each operating day, the base station's internal quartz clock is syncronized with the operator's watch. The base station prints out, on paper, the time of reading and the reading value. This value is taken at frequent intervals, usually between 10 to 30 seconds.

At each station along traverse, the operator records the reading value and the time of reading. This reading value is corrected for diurnal variations using the base station data. The amount of correction depends upon how much the field varied from a base station datum.

The magnetic readings are taken along lines at 25 meter intervals. Intermediate readings were also taken when there was a sudden change in the local magnetic relief.

4.2 VLF Electromagnetics

For the electromagnetic survey, both the dip angle (i.e. the vertical inphase component which is the tilt angle of the polarization ellipsoid) and the vertical out-of-phase component (ellipticity i.e. the short axis of the polarized ellipsoid as compared to the long axis) were taken.

For this survey, two transmitting stations were used, i.e. Seattle, Washington, NLK, transmitting at 24.8 kHz and Cutler, Maine, transmitting at 24.0 kHz.

Along traverse lines, readings were taken at 25 meter intervals. In places the operator took intermediate readings in order to discriminate between the presence of several near surface closely spaced conductors.

5. PRESENTATION OF DATA

All maps accompanying this report are presented at a scale of 1:5000. All stacked VLF-EM profile maps are plotted at a vertical scale of 1 cm = 25%. All Fraser Filter Data is contoured at and above the 20 unit level at an interval of 20 units.

For the Yanks Peak Area there are 11 accompanying geophysical maps.

Drawing # _____ contains the corrected posted magnetic data with magnetic contours superimposed and contoured at various intervals dependent upon the magnetic gradient.

Drawing #'s _____ and _____ contain the raw VLF-EM stacked profile data obtained using the Seattle, Washington transmitting station and the interpreted conductor axis.

Drawing #'s _____ and _____ contain the three point moving average stacked profiles obtained from data using the Seattle, Washington transmitting station and the interpreted conductor axis.

Drawing # _____ contains Fraser Filter data obtained using the Seattle, Washington transmitting station.

Drawing #'s _____ and _____ contain the raw VLF-EM stacked profile data obtained using the Cutler, Maine transmitting station and the interpreted conductor axis.

Drawing #'s _____ and _____ contain the three point moving average stacked profiles from data obtained using the Cutler, Maine transmitting station and the interpreted conductor axis.

Drawing # _____ contains the Fraser Filter data obtained using Cutler, Maine transmitting station.

For the Round Top Mountain area, there are also 11 accompanying geophysical maps.

Drawing # _____ contains the corrected posted magnetic data with magnetic contours superimposed and contoured at various intervals dependent upon the magnetic gradient.

Drawing #'s _____ and _____ contain the raw VLF-EM stacked profile data obtained using the Seattle, Washington transmitting station and the interpreted conductor axis.

Drawing #'s _____ and _____ contain the three point moving average stacked profiles obtained from data using the Seattle, Washington transmitting station and the interpreted conductor axis.

Drawing # _____ contains the Fraser Filter data obtained using the Seattle, Washington transmitting station.

Drawing #'s _____ and _____ contain the raw VLF-EM stacked profile data obtained using the Cutler, Maine transmitting station and the interpreted conductor axis.

Drawing #'s _____ and _____ contain the three point moving average stacked profiles obtained from data using the Cutler, Maine transmitting station and the interpreted conductor axis.

Drawing # _____ contains the Fraser Filter data obtained using the Cutler, Maine transmitting station.

6. GENERAL COMMENTS

6.1 Quality of VLF-EM Data

The raw VLF-EM data as presented on the stacked profile maps for both "Yanks Peak" and "Round Top Mountain" grids is considered noisy.

There are several reasons that noise in data would occur.

1. There is an inherent instrument noise, i.e. some instruments are harder to read than others. The audio nulls can be broader on some instruments.

2. If the instrument batteries are low, the signal is noisier which results in broader audio nulls.

3. There are always operator reading errors involved. Normally, a small error occurs dependent upon the skill of the operator. However, if the operator is careless or does not know how to properly read the instrument, then a larger more significant error can occur.

4. There is always the problem of geological noise. Some areas are harder to read than others.

Of the several stated variables, the two most important sources of error here are: 1) Geological Noise, 2) Operator reading error.

Both areas under study contain numerous interpreted conductors. In consultation with D. Safton, he commented that several of the VLF-EM conductive trends do follow graphitic units. They conform to the local geology and appear to be intercalated with the sedimentary sequence. As these graphitic units are in places exposed on surface, they influence the primary magnetic field over short distances along traverse. If several close-spaced conductors are present, the data may appear noisy, especially, if the geological environment is already hard to read.

Where there is an indication that several conductive bodies are present, the operator did at times tighten up the reading interval for better definition.

Visual examination of the raw stacked profile data shows that there are numerous one point "spikes" present that are observed as either "peaks" or "troughs". A one point anomalous value does not necessarily represent a response to a conductive body. Normally there is a "flow" rather than a "spike". The flow would represent a change of trend normally observed over several readings. These one point "spikes" are believed to be due primarily to operator error. This operator problem was magnified when the contractor re-read portions of lines that his operator initially read. The new data at times was found to be significantly different. In fact the dip angle readings had differences up to 30%. This information was obtained from the field books supplied by the contractor. This example is an extreme case as most of the data after filtering was found to be useable.

6.2 Three Point Moving Average

In order to eliminate or decrease the influence of these one point dip angle "spikes", a three point moving average filter

was applied to all VLF-EM data for both the dip angle and quadrature information.

This filter averages the values of three consecutive data points and assigns this filter value to be positioned at the middle point.

This filter does two things. First, it minimizes one point spikes. Secondly, it lowers the anomaly amplitudes (both peaks and troughs). This effect makes the interpreted VLF-EM conductors appear deeper.

This filter manipulation is summarized by the following formula:

$$F(I=1) = \frac{V(I) + V(I=1) + V(I=2)}{3}$$

where V is the raw data reading at the position I and F is the three point moving average value at the position I=1.

6.3 Fraser Filter

The Fraser Filter is a mathematical manipulation of raw dip angle data developed by D.C. Fraser (D.C. Fraser, Geophysics Vol. XXXXIV, No. 6, 1969) in order to present data in a contour format where the "crossover" or change of slope is emphasized as an anomalous positive contour "high".

This Fraser Filter is represented by the following formula:

$$F\frac{(I+1 + (I=2)}{2} = V(I=3) + V(I=2) - (V(I) + V(I=1))$$

where F is the Fraser Filter value at the plotting position $\frac{(I=1)+(I=2)}{2}$ and V is the raw dip angle reading and I is the station position.

There are two major weaknesses in the Fraser Filter formatted data.

1. The filter emphasizes the presence of strong VLF-EM conductors and has a tendency to filter out weaker ones especially when they are in the vicinity of the stronger VLF-EM conductors.

2. This filter is only used for inphase (dip angle) readings and ignores the quadrature information available.

This filter should only be presented in association with the stacked raw profile VLF-EM data.

6.4 Computer Contouring

The Z-Map software computer package made available through Virtual Computing Services of Calgary has been used by Suncor Inc. for the past two seasons to contour ground magnetic data. This package does not adequately take into account the presence of high frequency linear magnetic data.

This software package was also used to contour the Fraser Filter data.

The Fraser Filter contour trends should normally show some conductor continuity from line to line. The computer contouring however shows the presence of numerous discontinuous anomalies. They are generally represented as numerous "bulls-eyes".

Some of these computer contours were removed and portions of the grid was manually recontoured in order to establish conductor continuity.

7. INTERPRETATION

7.1 VLF-EM Survey

Visual examination of all VLF-EM maps accompanying this report for both "Round Top Mountain" and "Yanks Peak" grids show that the interpreted conductors do not honour any specific geological unit, but do follow the general geological trend.

These interpreted conductors can be broadly classified into 5 categories as follows:

1. Anomalies due to topographic effects,
2. One point "spikes" operator error?
3. Cultural effects due to water pipes, grounded fences, railway lines, etc.
4. Anomalies which have the anomalous quadrature profile following the anomalous inphase profile
5. Anomalies where the quadrature has a reverse shape to that of the anomalous inphase (dip angle profile).

Anomalies falling into categories 1 through 3 were screened on the initial raw stacked profile map.

The majority of the probable operator errors were one point anomaly "spikes" that were overall effectively eliminated by the "Three Point Moving Average Filter". The Fraser Filter also appears to effectively screen out these "spikes".

On the original raw data stacked VLF-EM maps, the anomalies interpreted to be probable operator error have a question mark assigned beside the anomaly location logo.

Topographic contour maps that contain both survey areas were inspected to see if some of the interpreted conductors were due to a change in topographic slope rather than due to genuine bedrock sources. On the raw stacked profile map, the word "topo" is written beside the anomaly logo. These are suspected to be due to topographic effects.

In the vicinity of old mine workings, there is always a possibility that the interpreted VLF-EM conductors may not be genuine, but are due to cultural effects such as water pipes, buried cables, railways, grounded fences, etc. These cultural effects were discussed with Mr. D. Safton. After examining the anomalies where potential contamination is believed to occur, it was concluded that the majority of the interpreted VLF-EM conductors are genuine and that probable cultural contamination is minimal.

The anomalies representing categories 4 and 5 dominate the Three Point Moving stacked profile data and the Fraser Filter Data.

There is a high probability that the interpreted conductors with a reported "reverse quadrature profile" can represent a significant increase in conductivity.

In the "Round Top Mountain" Area, mapped geological units #1, 2, 3 and 5 contain local concentrations of graphite.

In the "Yanks Peak" Area, Unit #1 is reported to contain graphitic sshists.

It is therefore postulated that there is a strong probability that the majority of the #5 conductors are due to the presence of stringer to massive graphitic sources.

On the raw and the three point average stacked profile maps, these anomalies are identified by the symbol Q.R. (quadrature reversal).

The VLF-EM receiver picks up signals within the 24 kHz range. It operates at a much higher frequency than the horizontal loop system and as a result this system can respond to a much larger range of conductivity contrasts. The #4 classified anomalies may be representative of the lower spectrum of these conductivity contrasts. Here the conductor sources could originate from such sources as faults or shears, geological contacts, poorer conducting sulphides and graphite.

7.2 Round Top Mountain - VLF-EM Soil Geochemistry

The soil geochemical data as presented for the "Round Top Mountain" survey grid does not cover the total grid area and therefore it is not possible to correlate all VLF-EM conductors with the geochemical data.

Examination of the soil geochemical data in conjunction with the electromagnetic data indicates that there is no direct correlation between anomalous gold in soils and the location of the interpreted conductors.

The majority of the VLF-EM conductors may not have any significant concentration of gold.

If gold is associated with sulphides, these sulphides may be disseminated and therefore will not be detectable with the electromagnetic system.

7.3 Round Top Mountain - Magnetics

Within this generally quiet magnetic area are isolated "pockets" of magnetic disturbances. Generally these magnetic features are narrow in width, of short strike length and at times irregular in shape. In many instances, they are one line one station anomalies. Overall, they do not correlate directly with either the longer more continuous VLF-EM conductors or with the geochemical data that is anomalous in gold.

7.4 Round Top Mountain - Structural Considerations

There is no direct correlation found between anomalous gold in soils with both the VLF-EM conductors or the magnetic anomalies. For this area, it appears that the VLF-EM conductors may not be the geophysical targets sought after.

There is some evidence to suggest that the emplacement of gold may be structurally controlled.

In the vicinity of the old Cariboo Hudson Mine, there are reported north-south east-west structures. The location of this old mine is near the intersection of two orthogonal fault systems (Refer to Round Top Mountain - Geology Map).

There are two old trenches reported within this area. One trench is located between Lines 3+00S and 4+00S. Here some sulphides are reported. The second is just north of Line 7+00N. Both trenches strike in a general east-west direction.

The only concentration of anomalous gold in soils located to the east of the base line is on Line 2+00N. This location is just north of an east-west trending fault.

If east-west structures are important in controlling gold emplacement, then it is probable that the traverse lines are not at an optimum orientation.

7.5 Yanks Peak VLF-EM Soil Geochemistry

Within the Yanks Peak Survey Grid, there are three areas that have a cluster of soil samples anomalous in gold (See Gold In Soil - Location Map).

There are two clusters associated with previous mine workings. One is in the vicinity of the old Snowshoe Gold Mine, while the second is near Jim Adit (Location on the Geological Map). The geochemical data presented from both locations may have been contaminated due to earlier mining activities.

There is a "reverse quadrature" VLF-EM conductor mapped using the Seattle, Washington transmitting station located very near the old Snowshoe Gold Mine. There is a possibility that the anomalous concentration of gold in soils may have originated from a portion of this conductive trend. However, its location may be a coincidence rather than a direct correlation. Firstly, the whole survey area is riddled with conductors and there is always the possibility that one conductor may be in an area containing

higher gold values in soil. Secondly, the conductive trend, as indicated on the Three Point Moving Average Stacked Profile Map and on the Fraser Filter Map, continues for some distance to the north and to the south of the mine area. There is no soil geochemical gold anomlies on adjacent lines to suggest that this conductor contains significant concentration of gold over any significant strike length.

Just to the west of the Jim Adit, there is another Seattle, Washington VLF-EM conductor that also shows a quadrature reversal. This conductor does not appear to continue to the north beyond this adit, but it does continue southwards beyond the boundaries of the survey area. Here, the same argument can be used as discussed for the conductor located near the Snowshoe Gold Mine.

The third sample cluster containing anomalous gold in soils is not associated with previous workings. On the Gold In Soil Location Map, this area is located east of the base line between Lines 7+00N and 9+00N.

A major "reverse quadrature" VLF-EM conductor mapped using the Seattle, Washington transmitting station cuts through this area (See Three Point Moving Average Stacked Profile and Fraser Filter Maps). This conductor continues to the north and to the south for some distance beyond the influence of the area containing anomalous gold in soils.

Again as discussed for the two other areas, the location of the VLF-EM conductor may be a coincidence, but as always there is no valid reason why significant concentration of gold may be localized within a conductor of long strike length.

7.6 Yanks Peak - Magnetics

Very little magnetic activity (relief) is present within this survey area. In fact, the area is predominantly featureless which reflects the presence of non-magnetic sediments.

There are several isolated, small, but erratically distributed magnetic bodies that are of short strike length and overall appear as one station, one line bullseye "highs". They do not correlate with the more continuous VLF-EM conductors.

There is a possible correlation with the two known mineral occurrences. Firstly, there is one magnetic anomaly present and is centered at Line 5+00N, Station 10+25W. This magnetic anomaly is at or very near the old Snowshoe Gold Mine. Cultural contamination is suspected to cause this anomaly.

There is one magnetic linear along the base line between Lines 2+00S and 3+00N. A portion of this linear is in the vicinity of the Jim Adit.

7.7 Yanks Peak - Structural Considerations

As with the "Round Top Mountain" Area, the emplacement of gold mineralization may be structurally controlled.

The old Snowshoe Gold Mine is near the intersection of two north-south east-west fault systems. These faults as shown on the Geological Map, continue for some distance across the survey area.

The third cluster of soil samples anomalous in gold are south of the east-west structure mentioned.

At this stage of the exploration programme, there is not enough evidence to say that some of the VLF-EM conductors correlate directly with soil geochemical information.

7.8 Structural Interpretation from Geophysical Data

Although numerous shears and faults were geologically mapped on both the "Round Top Mountain" Area and "Yanks Peak", the interpretation of the geophysical data did not establish or confirm the majority of these structures.

There are several reasons why the majority of faults and shears were not observed and interpreted from the geophysical data.

1. There are just too many conductors present in both areas and it is hard to correlate any specific conductor from line to line. It is therefore difficult to observe any major offset of the major conductors along strike.

2. The magnetic data is no help. The magnetic anomalies are too erratically distributed and are of limited strike length.

3. For faults and shears oriented in an east-west direction, the grid orientation is wrong. For the VLF-EM survey the survey grid should be read north-south in order to pick them up.

One east-west structure is interpreted to be present in the "Yanks Peak" Area. The location is shown on the Three Point Moving Average Stacked Profile Map obtained from data using the

Cutler Maine transmitting station. This interpreted structure is located between Lines 7+00N to 11+00N and is in good agreement with the fault geologically mapped.

8. RECOMMENDATIONS

Two senarios are proposed. First, if gold is associated with non-magnetic disseminated to stringer sulphides, then the VLF-EM system may not respond. Secondly, if the emplacement of gold mineralization is structurally controlled, the line orientation may not be optimal. It appears that several known gold occurrences are near the intersection of several shears or faults. East-west structures may be of importance.

The following recommendations are made:

1. Soil geochemistry should be carried out over the remainder of lines not previously surveyed.

2. Four subgrids should be established with all traverse lines spaced at 100 meters and oriented in both an east-west and north-south direction. All stations should be picketed at 10 meter intervals. These four subgrids are located as follows:

Yanks Peak Area:

Subgrid A from Line 2+00N to 8+00N and from Station 7+00W to 13+00W

Subgrid B from Line 0+00N to 4+00N and from Station 3+00E to 3+00W

Subgrid C from Line 6+00N to 11+00N and Station 2+00E to 7+00E

Round Top Mountain Area:

Subgrid D from Line 0+00N to 4+00N and from Station 3+00W to western boundary.

3. An induced polarization survey would aid in locating subsurface distribution of disseminated sulphides. As there are numerous VLF-EM conductors outlined, these conductors would effectively mask lower amplitude I.P. responses if a large electrode array is used. Such a case is presented when disseminated sulphides are located in the vicinity of massive VLF-EM conductors. Here an I.P. array with good resolution should be used. Proposed is a dipole-dipole array with an array spacing of "a" = 10 meters and n = 1, 2, 3, 4.

   This survey should be carried out on all 4 subgrids along both north-south and east-west line orientations.

4. A Max-Min survey should be carried out on all four subgrids along east-west traverse lines with station intervals at 10 meters. A cable separation of 50 meters and frequencies of 3555 and 888 Hz is recommended. The Max-Min survey would give information on the VLF-EM conductors such as conductor quality, depth to the top of the conductor and conductor dip. This basic information is difficult to obtain from VLF-EM surveys. This HEM survey would help in collaring potential drill targets.

5. A VLF-EM survey should be carried out on all subgrids along the north-south traverse lines. Both transmitting stations should be used. This survey may help to outline east-west structures.

9. CONCLUSIONS

The VLF electromagnetic survey showed that both "Round Top Mountain" and "Yanks Peak" survey areas are riddled with conductors. These conductors are located within all mapped geological units. Some of these conductors are suspected to be caused by operator error. The majority of the conductors mapped are believed to be genuine. Concentrations of stringer to massive graphite is suspected to be one of the conductive sources.

Magnetically, both areas are generally quiet reflecting the non-magnetic sedimentary environment. There are, however, isolated pockets of magnetic activity. These anomalies are erratic, of short strike length and do not correlate well with either the soil geochemical data anomalous in gold or with the more continuous VLF-EM conductors.

In the "Round Top Mountain" survey area, there is no direct correlation between the anomalous gold in soils and the VLF-EM conductors.

In the "Yanks Peak" survey area there are three clusters of soil samples anomalous in gold. Two are associated with previous workings. All three have strong VLF-EM conductors in the vicinity.

As the gold mineralization may be associated with disseminated to stringer sulphides, this mineralization may not be detectable with the VLF-EM system.

If the emplacement of gold mineralization is structurally controlled, it may not follow the local geological trend. If this is the case, then the traverse lines are not optimally oriented.

Four subgrids within both survey grids have been recommended for further geophysical work that consists of induced polarization surveys, Max-Min and VLF electromagnetic surveys.

Respectfully submitted,

F. Dalidowicz, P.Eng.

CERTIFICATE

I, F. Dalidowicz of Group 12, Box 50, R.R. #3, Bowmanville, Ontario, certify that:

1. I hold a Bachelor of Applied Science Degree from Queen's University in Kingston, Ontario and a Master of Science (Applied) degree in Mineral Exploration from McGill University in Montreal, Quebec.

2. I am a Member of the Association of Professional Engineers of the Province of Ontario and I have practised my profession continuously since graduation.

3. I have based my conclusions and recommendations on my experience and knowledge of interpretation and application of geophysical methods.

4. I hold no interest, directly or indirectly in these properties, other than professional fees, nor do I expect to receive any interest in these properties or in Suncor Inc., or any of its subsidiary companies.

Jan. 10, 1985

F. Dalidowicz, P.Eng.

RT 1

RT 2

RT 3

RT 4

D.S. 317
Au 38
Ag 3.4
Pb 126
Zn 95

D.S. 316
Au .012 oz/ton
Ag 1.5
Pb 34
Zn 110

D.S. 319
Au 34
Ag .6
Pb 10
Zn 72

D.S.325
Au14
Ag .2
Pb 92
Zn 391

D.S.324
Au 94
Ag .9
Pb 14
Zn 30

D.S.318
Au 275
Ag 2.2
Pb 74
Zn 88

D.S.332
Ag 5.6 oz/ton
Au .003 oz/ton
Pb 8.15%
Zn <.01%

D.S.323 ADIT
Au 343
Ag .9
Pb
Zn 254

BRALCO SHAFT
D.S.322
Ag .67 oz/ton
Au 360
Pb 3.5%
Zn 36.6%

BRALCO CABIN

D.S.321
Au 168
Ag .6
Pb 226
Zn 33

D.S.331
Au 46
Ag 0.2
Pb 18
Zn 77

D.S. 333
Au .003 oz/ton
Ag .01 oz/ton
Pb .01%
Zn .02%

CARIBOO-HUDSON ADIT

D.S. 320
Au 8.19 oz/ton
Ag 8.09 oz/ton
Pb 22.4%
Zn 6.8%

FOR DETAILS SEE IMPERIAL MAP

CARIBOO-HUDSON SIMLOCK ADIT

D.S.330
Au 12
Ag 0.2
Pb 18
Zn 77

ROAD TO BARKERVILLE

PENNY CREEK

PEARCE GULCH

SIMLOCK CREEK

PETER GULCH

ROAD TO YANKS PEAK

CROWN GRANTS

17N 16N 14N 12N 10N 8N 6N 4N 2N L0 2S 4S 6S 8S 10S 12S L14S

10+00W 9+00 8+00 7+00 6+00 5+00 4+00 3+00 2+00 1+00 0 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00E

329°T

N_T

GEOLOGICAL BRANCH
ASSESSMENT REPORT
17,664

LEGEND

- INTERIOR CLAIM BOUNDARY
- ROAD
- MINOR TRAIL OR PATH
- CABIN OR CABIN REMNANTS
- ADIT
- HAND DUG TRENCH
- HAND DUG PIT
- CAT TRENCH
- TAILINGS PILE
- SHAFT
- CLAIM BOUNDARY

ASSAY RESULTS

Au VALUES IN ppb UNLESS OTHERWISE STATED
Ag VALUES IN ppm UNLESS OTHERWISE STATED
Pb VALUES IN ppm UNLESS OTHERWISE STATED
Zn VALUES IN ppm UNLESS OTHERWISE STATED

METERS
100 50 0 100 200 300 400

Suncor Inc Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO GOLD PROJECT
1984

PAST WORKINGS (1)

ROUNDTOP GRID
CARIBOO, BRITISH COLUMBIA

DATE	SCALE	N.T.S.	DRAWING No.
OCTOBER 1984	1:5000	93A/14	RD84-229-C

IRON MAIDEN®
U.S.A. DESIGN PATENT 4139248 1979
CANADIAN IND. DESIGN REG. NO. 42524
CANADIAN PATENT 1065729 1979
® 1977
IRON MAIDEN® SYSTEMS CALGARY, ALBERTA, CANADA

IM 42

RT 1

RT 2

17N 16N 14N 12N 10N 8N 6N 4N 2N L0 2S 4S 6S 8S 10S 12S L14S

8+00E 7+00 6+00 5+00 4+00 3+00 2+00 1+00 2+00W 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00W

ROAD TO BARKERVILLE

PENNY CREEK

RT 1

PETER GULCH

PEARCE GULCH

ROAD TO YANKS PEAK

RT 4

RT 3

CROWN GRANTS

SIMLOCK CREEK

325FT

325FT

N.S. = NO SAMPLE

GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,664

LEGEND

1.2 SILVER GEOCHEM VALUES IN ppm
N.S. NO SAMPLE
ANOMALOUS SAMPLES
O .7–1.4 ppb
O > 1.4 ppb
CLAIM BOUNDARY
INTERIOR CLAIM BOUNDARY

METERS
100 50 0 100 200 300 400

Suncor Inc. Resources Group
COAL AND MINERALS DEPARTMENT

CARIBOO GOLD PROJECT
1984
SILVER IN SOIL ②
ROUNDTOP GRID
CARIBOO, BRITISH COLUMBIA

DATE	SCALE	N.T.S.	DRAWING No.
OCTOBER 1984	1:5000	93A/14	RD84-229-E

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IM 42

IRON MAIDEN® SYSTEMS CALGARY ALBERTA CANADA

RT 1

RT 2

RT 1

17N 16N 14N 12N 10N 8N 6N 4N 2N L0 2S 4S 6S 8S 10S 12S L14S

1+00E 2+00 3+00 4+00 5+00 6+00 7+00 8+00E

1+00W 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00W

ROAD TO BARKERVILLE

PENNY CREEK

PETER GULCH

PEARCE GULCH

ROAD TO YANKS PEAK

SIMLOCK CREEK

329°T

RT4

RT 3

CROWN GRANTS

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,664

LEGEND

26 GOLD GEOCHEM VALUES IN ppb

N.S. NO SAMPLE

ANOMALOUS SAMPLES

O 20-35 ppb

O > 35 ppb

CLAIM BOUNDARY

INTERIOR CLAIM BOUNDARY

METERS

100 50 0 100 200 300 400

Suncor Inc Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO GOLD PROJECT
1984
GOLD IN SOIL ③
ROUNDTOP GRID
CARIBOO, BRITISH COLUMBIA

DATE	SCALE	N.T.S.	DRAWING No.
OCTOBER 1984	1:5000	93A/14	RD84-229-F

RT 1

RT 2

RT 1

RT 3

RT 4

CROWN GRANTS

ROAD TO BARKERVILLE

PENNY CREEK

PETER GULCH

PEARCE GULCH

ROAD TO YANKS PEAK

SIMLOCK CREEK

329°T

329°T

17N
16N
14N
12N
10N
8N
6N
4N
2N
L0
2S
4S
6S
8S
10S
12S
L14S

0+00E
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00E

0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00W

LEGEND

41–106 Pb (ppm) VALUE ON LEFT
Zn (ppm) VALUE ON RIGHT

CLAIM BOUNDARY

INTERIOR CLAIM BOUNDARY

METERS
100 50 0 100 200 300 400

Suncor Inc. Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO GOLD PROJECT
1984

LEAD & ZINC IN SOIL

ROUNDTOP GRID
CARIBOO, BRITISH COLUMBIA

DATE	SCALE	N.T.S.	DRAWING No.
OCTOBER 1984	1:5000	93A/14	RD84-229-G

RD84-229-1

IM 42

IRON MAIDEN® SYSTEMS CALGARY, ALBERTA, CANADA

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CANADIAN PATENT 1063729 1979
® 1977

LEGEND

Midas Formation (Old Terminology)

1 Graphitic phyllite plus sericite carbonate schist
2 Limestone, graphitic limestone, graphitic phyllite, minor quartzite may be repitition of 3 and 5
3 Limestone, graphitic limestone, graphitic phyllite, may be repitition of 3
4 Quartz-chlorite schist and chlorite sericite phyllite, minor carbonaceous chlorite phyllite quartzite and limestone
5 Limestone, graphitic limestone, minor chloritic and graphitic phyllite
6 Grey-green chloritic-sericite to sericite-chlorite phyllite

Snowshoe Formation

7 Silicified quartzite, quartz chlorite schist to phyllite, minor pebbly quartzite, chlorite sericite phyllite and limestone
8 Mafic intrusives

Abbreviations Used:

qtz – quartz, qtzite – quartzite, chl – chlorite, ser – sericite, Lst – limestone, graph – graphitic, sch – schist, phyl – phyllite, cb – carbonate

Mineralization: py – pyrite, gn – galena, sp – sphalerite, Au – gold, Ag – silver,

ROAD TO BARKERVILLE
PENNY CREEK
PETER GULCH
ROAD TO YANKS PEAK
COPPER CREEK FAULT
PEARCE GULCH
SHASTA SHEAR
HUDSON SHEAR
SIMILOCK CREEK
BRALCO CABIN
CARIBOO HUDSON MINE
Au, Ag, sp, gn
CROWN GRANTS
RT 1
RT 2
RT 3
gabbroic intrusive (slightly serpentinized)
diorite intrusive

GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,664

SYMBOLS

- BEDDING strike and dip
- FOLIATION strike and dip
- GEOLOGICAL CONTACT – defined, approximate, assumed
- MINE SITE (abandoned)
- HAND DUG PIT OR TRENCH
- OUTCROP OUTLINE
- PATH OR TRAIL
- BOULDERS OR DEBRIS with little lateral displacement
- CLAIM BOUNDARY
- FAULT OR SHEAR and direction of relative movement
- INTERIOR CLAIM BOUNDARY
- DRILL HOLE (with azimuth and plunge)

METERS
100 50 0 100 200 300 400

Suncor Inc Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO GOLD PROJECT
1984
GEOLOGY (5)
ROUNDTOP GRID
CARIBOO, BRITISH COLUMBIA

DATE	SCALE	N.T.S.	DRAWING No.
OCTOBER 1984	1:5000	93A/14	RD84-229-1

RD 84-229-K

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CANADIAN PATENT 1065729 1979

RD 1977

IRON MAIDEN® SYSTEMS CALGARY, ALBERTA, CANADA

M 42

RT1

RT1

RT2

RT3

CROWN GRANTS

1683N 1600N 1500N 1400N 1300N 1200N 1100N 1050N 1000N 950N 900N 850N 800N 750N 700N 650N 600N 550N 500N 450N 400N 350N 300N 250N 200N 150N 100N 50N 0N 100S 150S 200S 250S 300S 350S 400S 450S 500S 550S 600S 650S 700S 750S 800S 850S 900S 950S 1000S 1050S 1100S 1150S 1200S 1250S 1300S 1350S 1400S

1000W 800W 600W 400W 200W 0E 200E 400E 600E 800E 1000E 1200E 1400E 1600E 1800E

LEGEND

- Magnetic Low
- +58259 Corrected Magnetic Reading
- +58259 Isomagnetic Contour Line
- Claim Boundary

Contour Interval 100 gammas

INSTRUMENTS

Base Station CMG-20
Field Magnetometer Geometrics G-816

329°
B.L. BEARING
N_T

METERS
100 50 100 200 300 400

Suncor Inc. Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO PROJECT
GMAG CORRECTED

TOTAL FIELD MAG SURVEY
ROUND TOP
CARIBOO MINING DISTRICT B.C.

DATE:	SCALE:	N. T. S.	HP85 FILE:	DRAWING #
841112	1:5000	93A/14	RTMG15	RD84-229-K

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,664

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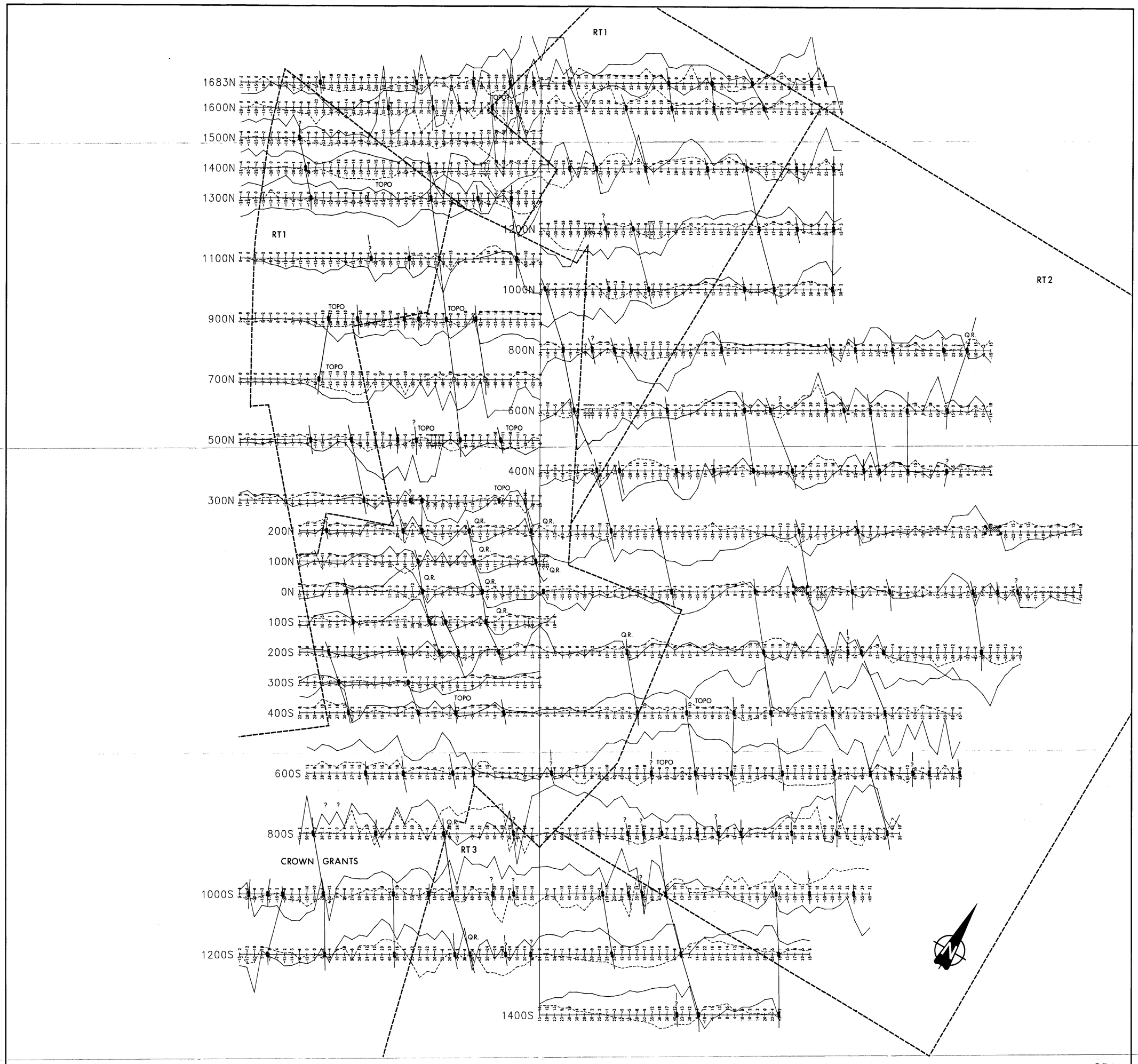
(RD) 1977

IRON MAIDEN® SYSTEMS CALGARY, ALBERTA, CANADA

IM 42



LEGEND

- Inphase
- Quadrature
- Interpreted Conductor Axis
- Interpreted Conductor Width
- TOPO — Topographic Effect
- ? — Operator Error
- Q.R. — Quadrature Reversal

TRANSMITTING STATION: NAA Cutler, Maine - 17.8 kHz
INSTRUMENT: Geonics VLF EM-16
VERTICAL SCALE: 1cm. = 20%

N

DIRECTION OF READING

TRANSMITTER STATION

METERS
100 50 100 200 300 400

Suncor Inc. Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO PROJECT (7)

VLF-EM SURVEY -CUTLER
ROUNDTOP MTN
CARIBOO MINING DISTRICT B.C.

DATE:	SCALE:	N.T.S.	HP85 FILE:	DRAWING #
841029	1:5000	93A/14	RTMV25	RD84-229-L-1

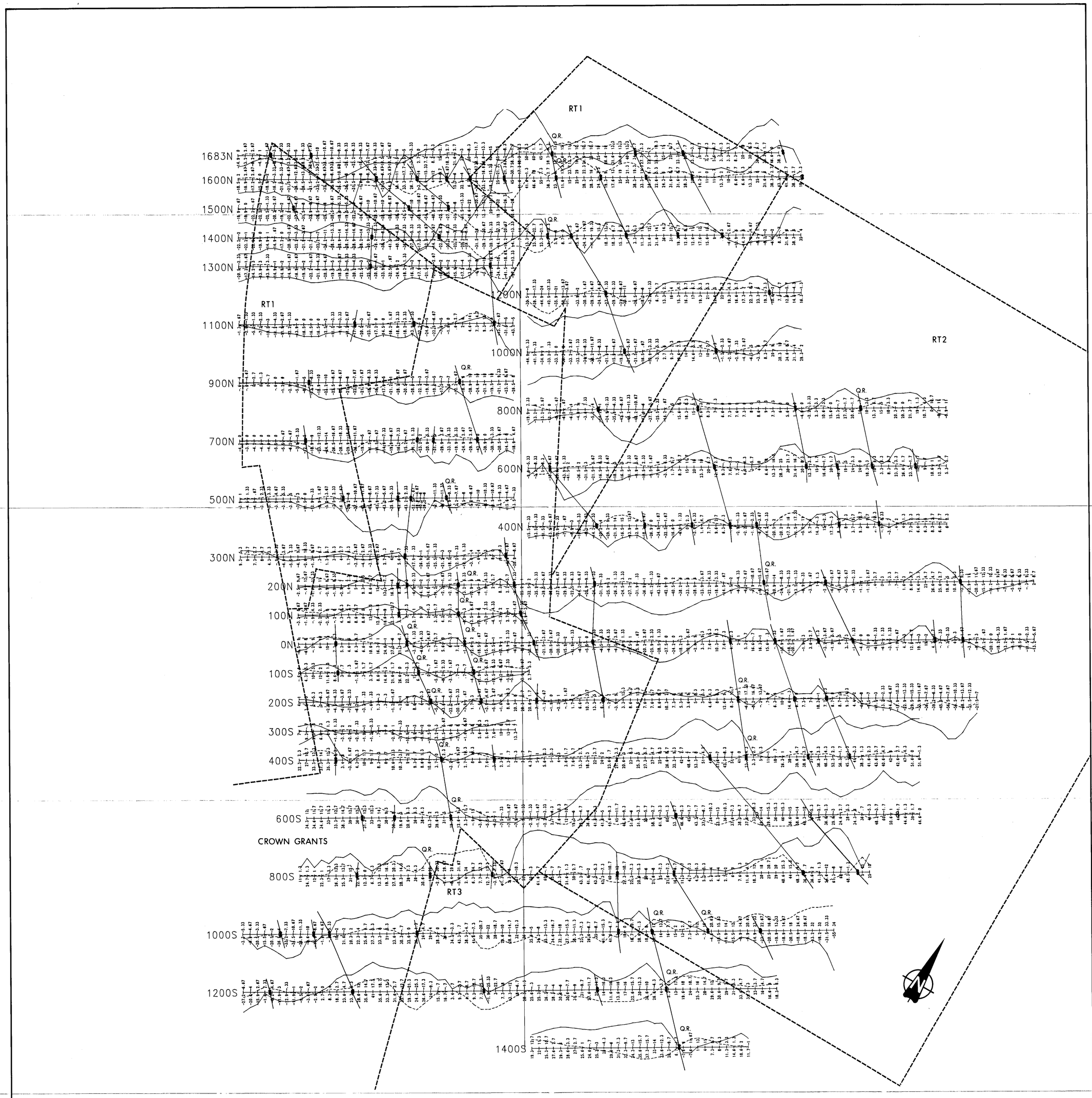
U.S.A. DESIGN PATENT 4139248 1979

CANADIAN IND. DESIGN REG. NO. 42524
CANADIAN PATENT 1065729-1979

(RD) 1977

IRON MAIDEN® SYSTEMS CALGARY, ALBERTA, CANADA

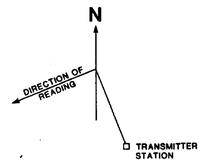
IM 42



LEGEND

- Inphase
- Quadrature
- Interpreted Conductor Axis
- Interpreted Conductor Width
- TOPO Topographic Effect
- ? Operator Error
- Q.R. Quadrature Reversal

TRANSMITTING STATION: NAA Cutler, Maine - 17.8 kHz
INSTRUMENT: Geonics VLF EM-16
VERTICAL SCALE: 1cm = 20%



METERS
100 50 100 200 300 400

Suncor Inc. Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO PROJECT
3 PT MOVING AVERAGE (8)

VLF-EM SURVEY -CUTLER
ROUNDTOP MTN
CARIBOO MINING DISTRICT B.C.

DATE:	SCALE:	N.T.S.	HP85 FILE:	DRAWING #
841029	1:5000	93A/14	RTMV2P	RD84-229-L-2

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CANADIAN PATENT 1065729-1979
RD 1977

IRON MAIDEN® SYSTEMS CALGARY, ALBERTA, CANADA

IM 42

RT 1

RT 2

RT 3

CROWN GRANTS

1600N 1500N 1400N 1300N 1200N 1100N 1000N 900N 800N 700N 600N 500N 400N 300N 200N 100N 0N 100S 200S 300S 400S 600S 800S 1000S 1200S 1400S

1000W 800W 600W 400W 200W 0E 200E 400E 600E 800E 1000E 1200E 1400E 1600E 1800E

LEGEND

+75 Station and filtered dip reading
Fraser Filter contour line
Claim Boundary
Contour Interval 20%

TRANSMITTING STATION: CUTLER, MAINE

Instrument - Geonics VLF EM-16

329°
Nт
B.L. BEARING

METERS
100 50 100 200 300 400

Suncor Inc. Resources Group COAL AND MINERALS DEPARTMENT

CARIBOO PROJECT
VLF-EM SURVEY CUTLER TX (9)

FRASER FILTER
ROUNDTOP MTN
CARIBOO MINING DISTRICT B.C.

DATE:	SCALE:	N. T. S.	HP85 FILE:	DRAWING #
841029	1:5000	93A/14	RTMF21	RD84-229-L-3

GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,664

RDS4-229-M-1

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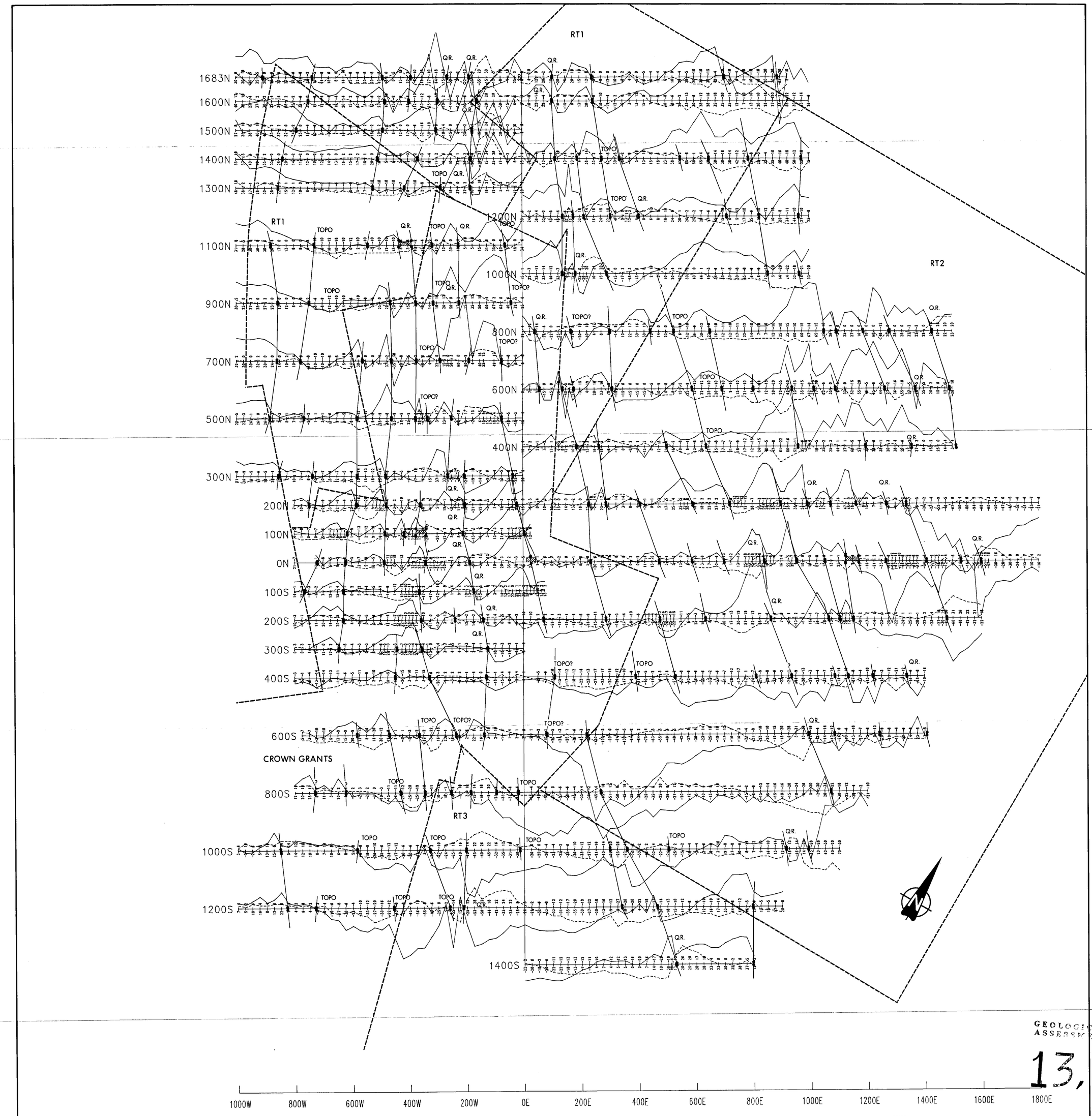
CANADIAN PATENT 1065729-1979

(RD) 1977

IRON MAIDEN® SYSTEMS CALGARY, ALBERTA, CANADA

IM 42



LEGEND

- Inphase
- Quadrature
- Interpreted Conductor Axis
- Interpreted Conductor Width
- TOPO — Topographic Effect
- ? — Operator Error
- Q.R. — Quadrature Reversal

TRANSMITTING STATION: NLK Seattle, Washington - 24.8 kHz
INSTRUMENT: Geonics VLF EM-16
VERTICAL SCALE: 1cm. = 20%

N
DIRECTION OF READING
TRANSMITTER STATION

METERS
100 50 100 200 300 400

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,664

Suncor Inc. Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO PROJECT (10)

VLF-EM SURVEY -SEATTLE
ROUNDTOP MTN
CARIBOO MINING DISTRICT B.C.

DATE:	SCALE:	N.T.S.	HP85 FILE:	DRAWING #
841022	1:5000	93A/14	RTMV12	229-M-1

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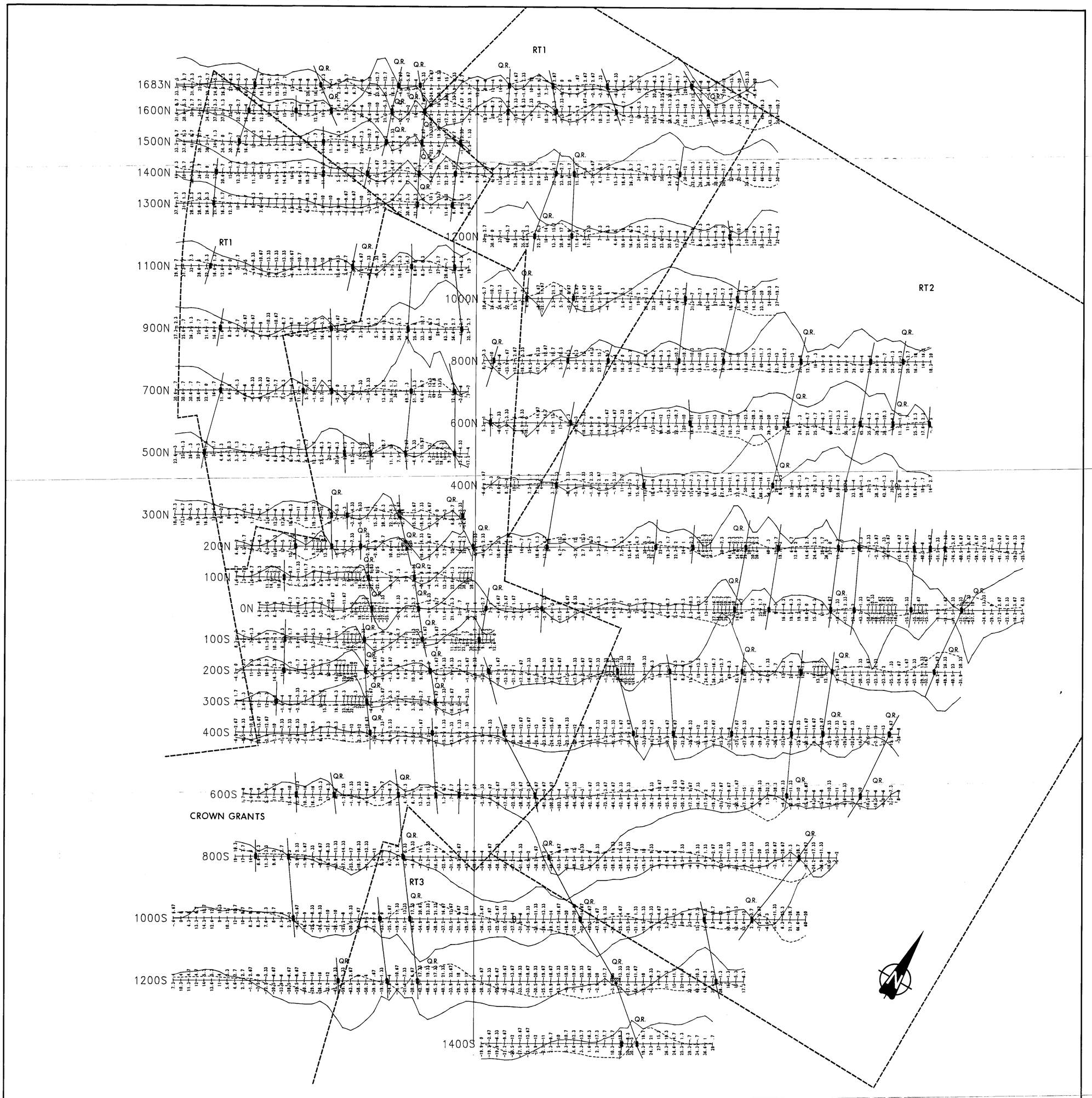
CANADIAN IND. DESIGN REG. NO. 42524
CANADIAN PATENT 1085729-1979

RD 1977

IRON MAIDEN® SYSTEMS CALGARY, ALBERTA, CANADA

®

IM 42



LEGEND

- Inphase
- Quadrature
- Interpreted Conductor Axis
- Interpreted Conductor Width
- TOPO — Topographic Effect
- ? — Operator Error
- Q.R. — Quadrature Reversal

TRANSMITTING STATION: NLK Seattle, Washington - 24.8 kHz.
INSTRUMENT: Geonics VLF EM-16
VERTICAL SCALE: 1cm. = 20%

N
DIRECTION OF READING
TRANSMITTER STATION

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,664

METERS
100 50 100 200 300 400

Suncor Inc. Resources Group — COAL AND MINERALS DEPARTMENT

CARIBOO PROJECT (11)
3 POINT MOVINGAVERAGE

VLF-EM SURVEY -SEATTLE
ROUNDTOP MTN
CARIBOO MINING DISTRICT B.C.

DATE:	SCALE:	N.T.S.	HP85 FILE:	DRAWING #
841022	1:5000	93A/14	RTMVTP	229-M-2

IM 42

RT1

RT1

RT 2

RT 3

CROWN GRANTS

1600N
1500N
1400N
1300N
1200N
1100N
1000N
900N
800N
700N
600N
500N
400N
300N
200N
100N
0N
100S
200S
300S
400S
600S
800S
1000S
1200S
1400S

1000W 800W 600W 400W 200W 0E 200E 400E 600E 800E 1000E 1200E 1400E 1600E 1800E

LEGEND

+75 Station and filtered dip reading
Fraser Filter contour line
----- Claim Boundary
Contour Interval 20%

TRANSMITTING STATION: SEATTLE, WASHINGTON

Instrument - Geonics VLF EM-16

329°
N_T
B.L. BEARING

METERS
100 50 100 200 300 400

Suncor Inc. Resources Group COAL AND MINERALS DEPARTMENT

CARIBOO PROJECT
VLF-EM SURVEY SEATTLE TX (12)

FRASER FILTER
ROUNDTOP MTN
CARIBOO MINING DISTRICT B.C.

DATE:	SCALE:	N.T.S.	HP85 FILE:	DRAWING #
841022	1:5000	93A/14	RTMF11	RD84-229-M-3