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BARKERVILLE PROJECT '77-#198-
#6314

DESCRIPTION OF SULPHIDE SHOWINGS AND

GEOCHEMISTRY OF SOILS

A report prepared to
accompany filing of
assessment work

NTS 93 A 14

R.V. Longe

May 1977

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

NO.________________

SUMMARY

235 soil samples and 40 rock samples were collected in the vicinity of Cunningham Creek to the east of Roundtop Mountain in July and August 1976. The purpose of the sampling was to confirm the presence of areas of anomalous lead in soils reported by Coast Interior Ventures Ltd. in 1972 (B.C. Assessment Report 3521) and to establish the relationship between these geochemical anomalies and certain apparently conformable sulphide showings and mineralized quartz veins.

It is concluded that a significant proportion of the geochemical anomolies are most probably due to conformable bodies of lead and zinc sulphides.

This report is prepared for assessment purposes. For further details see the report "Barkerville Project - 1976". (Riocanex Vancouver Office Bound Report No. 493)

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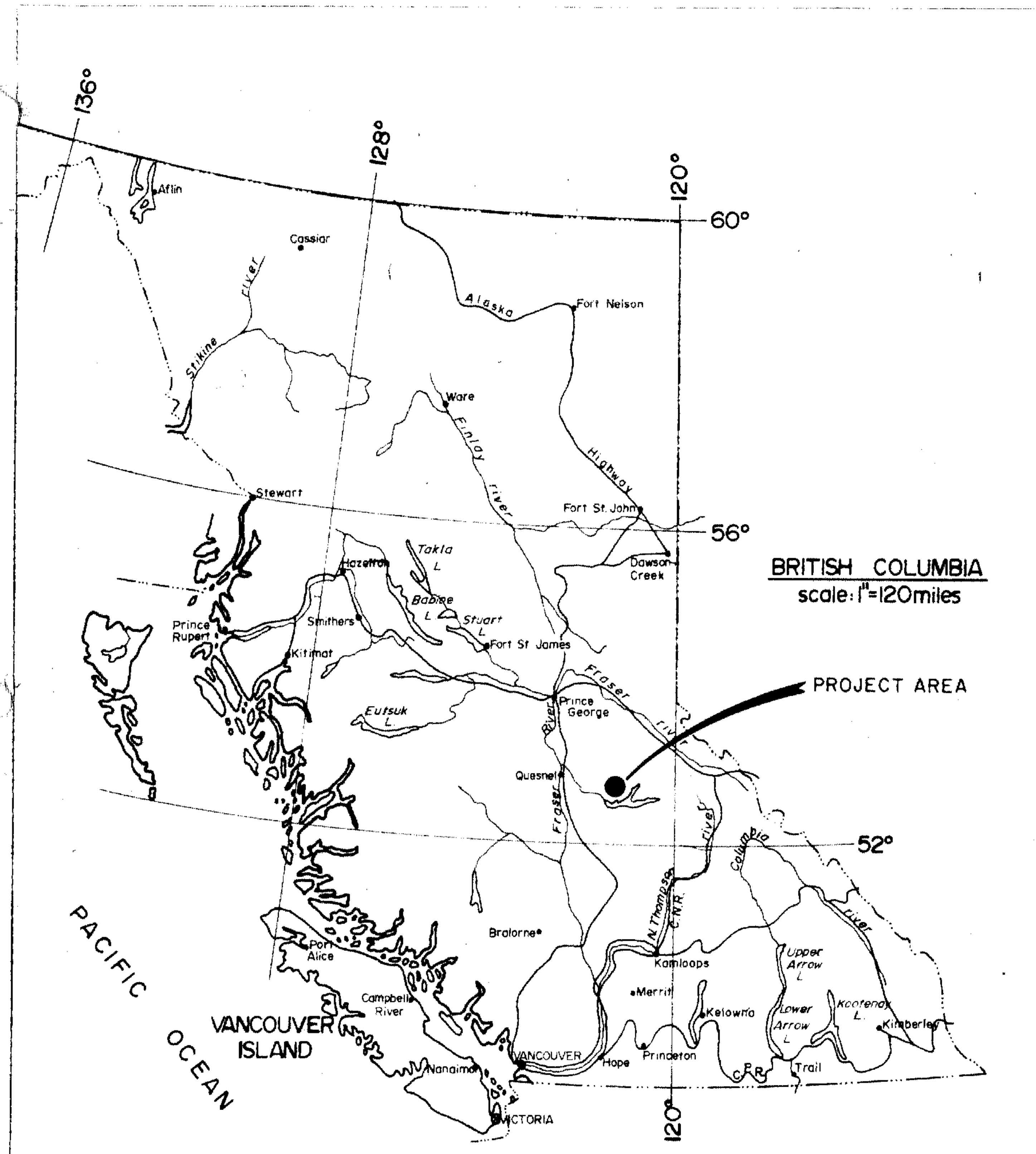

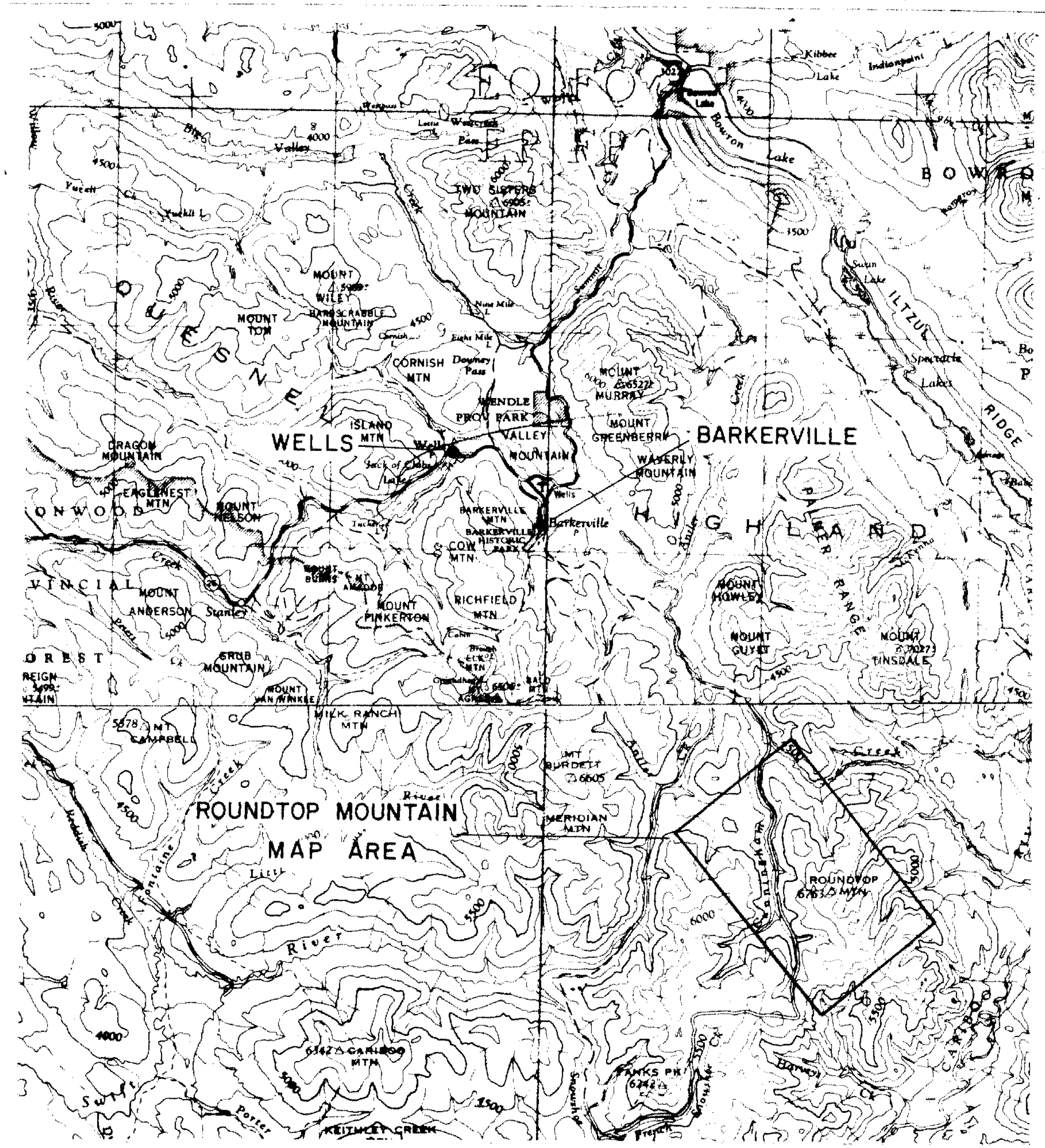

SCALE 1:250000

Miles 4 0 4 8 12 Miles

Kilometres 6 0 6 12 16 Kilometres

RIO TINTO CANADIAN EXPLORATION LTD.		
BARKERVILLE PROJECT		
#6314 LOCATION MAP FIGURE 1		
JAN. 77	R.V.L. /y.m.	DWG. L.-6450

1. INTRODUCTION

During 1975, information that galena was abundant among the heavy minerals found in placer concentrates of the Barkerville gold camp suggested the possibility of finding strata-related lead-zinc bodies among the black shales of the area. A pilot stream-sampling project undertaken in 1975 indicated the Midas Formation, a black shale unit of unknown age also known as "Isaac", to be anomalously rich in base metals. Further, the vicinity of Roundtop Mountain was shown by the same programme to be a source of lead and zinc. The main thrust of the programme in 1976 was to determine whether lead and zinc in the Roundtop Mountain anomaly was due to background concentration in shales, to sulphide minerals in quartz veins, or to conformable sulphide bodies. The programme was helped greatly by an earlier soil sampling programme undertaken by Coast Interior Ventures Ltd. in 1971 which had led to identification of a number of anomalous areas, and which had exposed at least one conformable body of galena. By the end of 1976 several showings of conformable sulphide bodies had been identified.

The sulphide showings and soil anomalies appear to form two parallel belts, one in a black shale unit, the other associated with limestones in phyllitic schists. The former is regarded as the most promising because it occurs in pyritic shales and because it is associated, in one location, with barite. Grades in both belts are encouraging but with the exception of one showing (on Anomaly A) all widths are sub-economic. All showings have been exposed by previous work. The greater part of the area covered by the soil anomalies remains unexplored.

The work described in the report was carried out by R. and N. Wilson under supervision of the writer.

2. LOCATION AND ACCESS

The area under investigation lies in central British Columbia 80 km east of Quesnel, and 150 km southeast of Prince George. (Figure 1).

Access to Wells and Barkerville is by paved road from Quesnel. Barkerville and Roundtop Mountain are connected by a logging road now being upgraded but in 1976 frequently impassible. Light planes can land on an airstrip between Wells and Barkerville. Helicopters can land in natural and artificial clearings in the Roundtop Mountain area.

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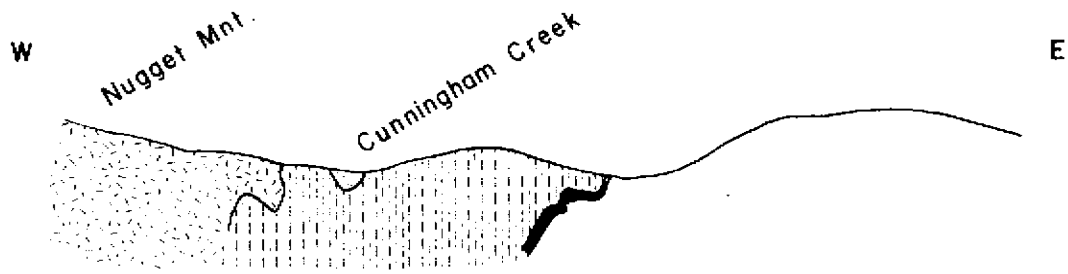
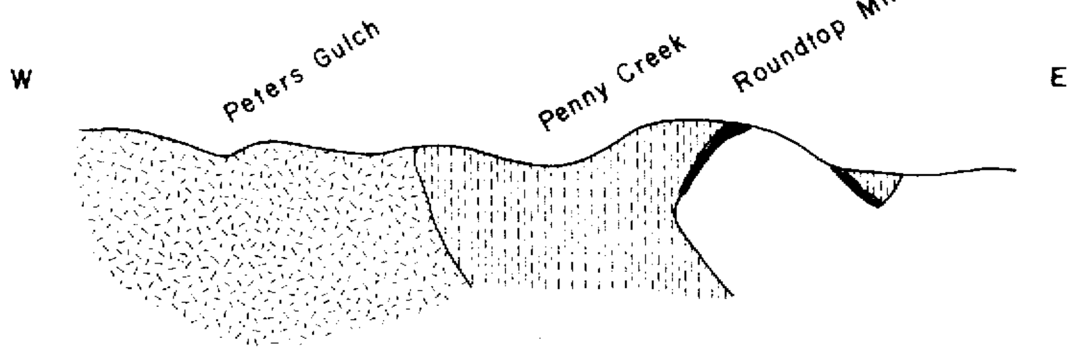
3. REGIONAL GEOLOGY

A belt of black shales trends NNW-SSE through Wells, Barkerville, and Roundtop Mountain. This unit, known as the Midas Formation, is overlain by the Snowshoe Formation in an anticline in the vicinity of Wells and as part of a monoclinal sequence near Roundtop Mountain. These two stratigraphic units were deduced by B. C. Dept. of Mines geologists Holland (1954) and Sutherland Brown (1963) to be Paleozoic. More recently, in a regional programme, Campbell et al (1973) of the Geological Survey of Canada renamed these formations "Isaac" and "Kasa" respectively. Accompanying this divergent terminology there has been a divergence of views on the stratigraphy and structure of the area. According to Campbell the Midas (G.S.C. term 'Isaac') is younger than the Snowshoe (G.S.C. term 'Kasa') and both are Proterozoic. In 1976 Riocanex did no work to resolve this question. However the amount of detailed work by Holland and Sutherland Brown in the Roundtop Mountain and Wells areas makes their stratigraphic interpretation (though not necessarily their estimate of age) the most probable. Accordingly Riocanex is using the terms "Midas" and "Snowshoe" instead of the G.S.C. terms used to date.

Geologic Sections Through Roundtop Map Area



Section through Antler Creek north of Roundtop map area, simplified from Sutherland - brown (1957)



Section through Copper Creek (south end of Roundtop map area) simplified from Holland (1954)

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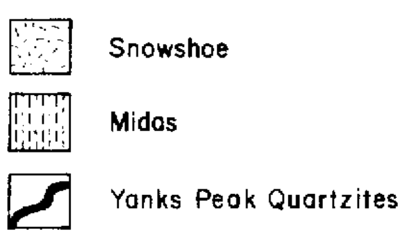


Scale 1" = 1 mile approx.

FIGURE 2

D.W.G. G-6444

4. LOCAL GEOLOGY

The Midas Formation strikes NNW-SSE through the centre of the map area (Figure 5). This formation is flanked on the southwest by brown phyllitic schists of the Snowshoe Formation under which it most probably dips. To the northeast of the Midas lies the Yankee Bell Formation, of grey and green phyllitic schists and fine grained quartzites. Separating these two formations is a thin unit of a distinctive white quartzite known as the Yanks Peak Formation. The entire sequence is tightly folded. Sutherland Brown (1957) estimates the thickness of the Midas Formation to be between 500 and 1,000 ft. Figure 2 is a simplification of sections by Sutherland Brown (1957) and Holland (1954). While the westerly dipping succession suggested by Sutherland Brown for the area immediately north of the Roundtop map area appears to hold for the north end of the map sheet, at the south end, the succession appears to dip to the east and may therefore be overturned (Holland, 1954).

Beyond a few rock descriptions no geological mapping was carried out by Riocanex in 1976. The few observations that were made (Figure 5) in the course of geochemical sampling provide no cause to question the main features of geologic maps published by the B.C. Dept. of Mines (Holland, 1954, Sutherland Brown 1957). The structure is evidently complex. For this reason firm conclusions will not be possible before geologic mapping in 1977.

5. HISTORY AND PREVIOUS WORK

The valley between Roundtop Mountain and Nugget Mountain has been the scene of gold mining from placer operations since 1885. Gold mining from quartz veins began in the vicinity of the Cariboo Hudson mine at the head of Peter's Gulch 1922. Minor quantities of scheelite have been produced from conformable bodies in the neighbourhood of the Cariboo Hudson mine.

Base metal exploration has been confined to work by Coast Interior Ventures Ltd. between 1971 and 1974. Coast Interior's programme was directed mainly at high grade silver-gold quartz veins and was therefore less than fully effective as a search for base metals. Because the silver-gold bearing quartz veins contained galena, lead values in soil samples were used as a guide to such veins. Coast Interior's soil geochemistry covered 130 line km and approximately 60% of the area shown in Figure 5. Their programme also included an I.P. survey and approximately 1,000 metres of diamond drilling, aimed largely at finding extensions to mineralized quartz veins.

The Coast Interior geochemical survey developed 11 anomalies labelled A to K (Figures 7 and 14). Of these, Anomaly C was tested by trenching and diamond drilling and was found to be due, in part at least, to a mineralized quartz vein. Anomaly B was investigated by geophysics and diamond drilling but the source of the anomaly was not found. The south end of Anomaly A was partially investigated by extensive trenching and bodies of limestone-bearing galena were exposed. A twelfth anomaly (named X) was identified by Riocanex from geochemical data provided by Coast Interior and confirmed by soil sampling during 1976.

In more recent years (1973-76) Resourcex of Calgary have carried out extensive soil sampling on some of the Crown Grants south of Roundtop Mountain. J. Hajek, under contract to Kerr Addison Ltd., has sampled rocks in the area with the intention of finding large-tonnage gold deposits.

6. RESULTS OF 1976 FIELD WORK

Field work in 1976 in the Roundtop Mountain area had three aims:

i To determine the source of the 1975 geochemical anomalies in lead, zinc, and copper in Trehouse, Craze, and Penny Creeks.

ii To determine the source of the soil anomalies developed by Coast Interior;

iii In the event of conformable sulphide showings being found, to determine whether or not soil geochemistry could be used to distinguish between anomalies due to mineralized quartz veins and anomalies due to conformable sulphide bodies.

The answer to the first question was not determined. The work however, established that the stream anomalies in Trehouse, Craze, and Penny Creeks, were very probably due to conformable sulphides. Reasons for reaching these conclusions are:

i Two soil anomalies, (G and X) appear to be similiar similar to one another and to lie on strike with conformable lead and zinc bodies to the north (the Vic, Beamish, and Evening showings). (Figure 5);

ii The presence of barite on this trend very close to the probable source of the stream anomalies adds to the likelihood that the source is a conformable body of lead and zinc sulphides;

iii The soil anomalies (G and X) at the apparent source of the stream anomalies in Trehouse and Craze Creeks have similar geochemical characteristics to Anomaly A to the east of Cunningham Creek, part of which has been shown to be due to conformable lead-bearing, sulphide bodies.

The second task, to determine the source of the soil anomalies, was partially accomplished. The south end of Anomaly A was shown to be due to conformable lead-zinc mineralization. Anomaly C was shown to contain a mineralized quartz vein. All but one of the remainder were confirmed as genuine anomalies but they were in most cases unexplained. Nevertheless, their general trend on strike with one another, their similarity to one another and to Anomaly A, their presence on strike with conformable sulphide bodies, and the association of some of them with barite suggest that most of the anomalies are due to conformable sulphide bodies.

The third task came to be of lower priority once it had been established that the main anomalies were probably due to conformable sulphide bodies and therefore, regardless of the presence of mineralized quartz veins, worth further investigation.

6.1 Geochemical Soil Sampling

Soil sampling in 1976 consisted of collecting soil samples within those parts of the Coast Interior grid reported (Dept. of Mines Assessment Report 3521) to contain greater than 105 ppm Pb. Samples were collected in the B horizon at an average depth of 10 cm.

The samples (235) were analysed in the Riocanex geochemical laboratory in North Vancouver for lead, zinc, copper, silver, barium, nickle, cadmium, and cobalt. Analytical methods are described in Appendix I.

During 1976 Riocanex confirmed ten of the eleven Coast Interior anomalies. The eleventh (Anomaly I) did not appear to exist at the location reported. The twelfth anomaly ('X') was developed by Riocanex from high values at the edge of the Coast Interior grid.

Results are tabulated in Table 1 and plotted in Figures 7 to 14.

Because they were collected at a shallow depth, lead values are generally lower than in samples collected by Coast Interior. Despite containing less lead the majority are deemed to be anomalous on the basis of their absolute values. Coverage was inadequate to permit contouring of results.

The purpose of analysing for eight elements was to permit attempts (not described in this report) to detect correlation and distinctions between the anomalies.

	UER	LEAD	ZINC	COPPER	SILVER	CADMIUM	COBALT	BARIUM
A	7613254.0	78.0	88.0	22.0	.4	.6	12.0	220.0
A	7613256.0	116.0	127.0	33.0	.5	1.0	21.0	130.0
A	7613258.0	45.0	90.0	18.0	0.	.6	5.0	60.0
A	7613260.0	128.0	165.0	36.0	.2	.6	20.0	50.0
A	7613262.0	115.0	130.0	35.0	.3	.6	19.0	120.0
A	7613263.0	71.0	50.0	16.0	.5	.8	7.0	80.0
A	7613264.0	405.0	170.0	36.0	.6	1.5	27.0	80.0
A	7613265.0	163.0	140.0	39.0	.2	.3	19.0	180.0
A	7613266.0	143.0	137.0	37.0	.6	.9	18.0	180.0
A	7613267.0	28.0	46.0	14.0	.4	.2	5.0	40.0
A	7613269.0	89.0	96.0	19.0	.6	.6	9.0	120.0
A	7613271.0	57.0	128.0	31.0	.3	.3	13.0	30.0
A	7613272.0	46.0	44.0	18.0	.6	.2	8.0	40.0
A	7613273.0	42.0	52.0	22.0	.3	.4	7.0	70.0
A	7613274.0	26.0	52.0	20.0	.1	.3	7.0	20.0
A	7613275.0	122.0	78.0	23.0	1.5	.8	14.0	170.0
A	7613276.0	63.0	77.0	20.0	.3	.2	7.0	40.0
A	7613277.0	113.0	85.0	22.0	.5	.6	9.0	160.0
A	7613278.0	106.0	93.0	25.0	.7	.3	8.0	60.0
A	7613279.0	150.0	125.0	33.0	.8	.9	22.0	160.0
A	7613280.0	40.0	65.0	15.0	.2	0.	7.0	20.0
A	7613281.0	180.0	74.0	19.0	.5	0.	8.0	40.0
A	7613282.0	30.0	33.0	7.0	.3	0.	3.0	60.0
A	7613283.0	365.0	110.0	19.0	1.0	.3	11.0	20.0
A	7613284.0	20.0	65.0	25.0	.2	0.	9.0	40.0
A	7613285.0	68.0	143.0	29.0	.4	.2	12.0	20.0
A	7613286.0	260.0	145.0	38.0	.8	.2	14.0	80.0
A	7613288.0	14.0	36.0	13.0	.3	.2	7.0	40.0
A	7613289.0	245.0	205.0	51.0	.2	.6	20.0	100.0
A	7613291.0	120.0	112.0	26.0	.2	.3	10.0	80.0
A	7613293.0	67.0	96.0	30.0	.3	.2	11.0	140.0
A	7613294.0	46.0	60.0	24.0	4.4	0.	8.0	70.0
A	7613296.0	24.0	65.0	16.0	.4	0.	5.0	80.0
B	7613223.0	36.0	71.0	21.0	.2	.1	11.0	180.0
B	7613225.0	65.0	82.0	48.0	.4	.4	18.0	260.0
B	7613227.0	21.0	42.0	20.0	.2	0.	7.0	340.0
B	7613229.0	22.0	48.0	17.0	.1	.8	6.0	240.0
B	7613231.0	350.0	147.0	31.0	.7	.4	18.0	320.0
B	7613233.0	10.0	21.0	11.0	0.	0.	4.0	50.0
B	7613235.0	40.0	76.0	24.0	.1	.1	10.0	150.0
B	7613237.0	20.0	45.0	16.0	.2	0.	6.0	60.0
B	7613239.0	47.0	120.0	34.0	.1	.1	13.0	190.0
B	7613241.0	41.0	69.0	20.0	.1	.1	12.0	180.0
B	7613243.0	58.0	60.0	19.0	.4	.2	7.0	160.0
B	7613245.0	40.0	127.0	35.0	.6	.4	17.0	380.0
B	7613247.0	31.0	71.0	26.0	.1	0.	11.0	60.0

SOIL ANOMALY	SAMPLE NUMBER	LEAD	ZINC	COPPER	SILVER	CADMIUM	COBALT	BARIUM
J	7613342.0	18.0	40.0	17.0	.1	0.	7.0	140.0
J	7613343.0	86.0	57.0	125.0	1.5	1.4	22.0	160.0
J	7613344.0	39.0	60.0	24.0	0.	0.	12.0	80.0
J	7613345.0	360.0	66.0	131.0	1.9	1.2	40.0	60.0
J	7613346.0	62.0	86.0	90.0	.4	1.3	19.0	100.0
J	7613347.0	68.0	50.0	68.0	.3	.3	46.0	50.0
J	7613348.0	96.0	94.0	31.0	.1	.3	13.0	30.0
K	7613334.0	32.0	94.0	24.0	.6	.3	12.0	60.0
K	7613335.0	14.0	32.0	23.0	.4	.1	8.0	20.0
K	7613336.0	790.0	385.0	36.0	.8	.8	16.0	150.0
K	7613337.0	5100.0	1400.0	115.0	17.6	7.4	18.0	40.0
K	7613339.0	5200.0	6900.0	320.0	9.6	83.0	61.0	70.0
MID	7613521.0	26.0	59.0	19.0	.1	0.	8.0	200.0
MID	7613521.1	30.0	80.0	26.0	.1	.1	17.0	280.0
MID	7613521.2	27.0	92.0	31.0	.3	.2	15.0	200.0
MID	7613521.3	10.0	30.0	22.0	.1	.2	5.0	160.0
MID	7613521.4	21.0	38.0	26.0	.1	.2	7.0	150.0
MID	7613521.5	27.0	45.0	27.0	.1	.2	11.0	280.0
MID	7613521.6	50.0	84.0	60.0	.4	.4	27.0	180.0
MID	7613521.7	26.0	84.0	24.0	.1	.3	17.0	290.0
MID	7613521.8	17.0	39.0	29.0	.1	.2	6.0	150.0
MID	7613521.9	27.0	71.0	24.0	.1	.2	17.0	260.0
MIK	7613408.0	28.0	38.0	15.0	.1	0.	4.0	360.0
MIK	7613410.0	105.0	660.0	47.0	.8	1.2	17.0	520.0
MIK	7613419.0	24.0	73.0	39.0	.2	0.	11.0	880.0
Q26	7613526.1	69.0	140.0	54.0	0.	.4	26.0	0.
Q26	7613526.2	72.0	136.0	54.0	0.	.5	28.0	0.
Q26	7613526.3	79.0	155.0	56.0	0.	.3	32.0	0.
Q26	7613526.4	68.0	145.0	56.0	0.	.4	29.0	0.
Q26	7613526.5	72.0	152.0	55.0	.1	.4	30.0	0.
Q26	7613526.6	89.0	165.0	53.0	0.	.4	26.0	0.
Q33	7613433.1	6.0	25.0	11.0	.3	.2	2.0	160.0
Q33	7613433.2	12.0	43.0	12.0	.8	.2	6.0	200.0
Q33	7613433.3	15.0	46.0	15.0	.3	.2	6.0	80.0
Q33	7613433.4	17.0	44.0	15.0	1.7	.2	6.0	100.0
Q33	7613433.5	4.0	26.0	10.0	.8	.2	2.0	120.0
Q33	7613433.6	23.0	56.0	32.0	3.3	.6	13.0	160.0
Q38	7613438.1	20.0	62.0	59.0	.5	0.	22.0	140.0
Q38	7613438.2	18.0	66.0	52.0	.7	0.	22.0	220.0
Q38	7613438.3	28.0	64.0	74.0	.4	0.	27.0	180.0
Q38	7613438.4	37.0	72.0	61.0	.7	0.	24.0	300.0
Q38	7613438.5	15.0	62.0	62.0	1.3	0.	26.0	200.0
Q38	7613438.6	220.0	155.0	49.0	.7	.2	19.0	160.0
Q39	7613439.1	36.0	46.0	21.0	.4	0.	9.0	60.0
Q39	7613439.2	13.0	32.0	14.0	1.1	0.	5.0	120.0

SOIL ANOMALY	SAMPLE NUMBER	LEAD	ZINC	COPPER	SILVER	CADMIUM	COBALT	BARIUM
Q39	7613439.4	42.0	34.0	10.0	.4	0.	6.0	140.0
Q39	7613439.5	290.0	76.0	19.0	.8	0.	14.0	80.0
Q39	7613439.6	49.0	42.0	9.0	.1	0.	6.0	120.0
SNO	7613530.0	19.0	52.0	25.0	.2	.2	10.0	140.0
SNO	7613530.1	25.0	54.0	17.0	.1	0.	12.0	160.0
SNO	7613530.2	28.0	78.0	23.0	.3	.3	11.0	160.0
SNO	7613530.3	30.0	47.0	17.0	0.	0.	8.0	220.0
SNO	7613530.4	25.0	56.0	15.0	0.	.2	7.0	180.0
SNO	7613530.5	33.0	100.0	23.0	.3	.6	15.0	290.0
SNO	7613530.6	27.0	97.0	24.0	.3	.5	14.0	250.0
SNO	7613530.7	27.0	81.0	29.0	.2	.4	17.0	230.0
SNO	7613530.8	19.0	76.0	29.0	.4	.4	17.0	70.0
SNO	7613530.9	24.0	104.0	33.0	.3	.6	17.0	140.0
X	7613384.1	116.0	235.0	30.0	.5	1.5	35.0	400.0
X	7613385.0	9.0	18.0	11.0	.4	.2	1.0	140.0
X	7613387.0	55.0	32.0	11.0	1.4	.2	3.0	60.0
X	7613391.0	143.0	395.0	32.0	1.1	1.4	13.0	320.0
X	7613393.1	54.0	158.0	15.0	.1	0.	0.	300.0
X	7613395.0	960.0	170.0	31.0	.1	.3	4.0	320.0
X	7613397.0	48.0	44.0	7.0	.1	.2	1.0	280.0
X	7613399.0	33.0	18.0	12.0	.4	.2	0.	460.0
X	7613401.0	29.0	30.0	7.0	.1	.2	1.0	300.0
X	7613403.0	57.0	158.0	47.0	.4	0.	29.0	550.0
X	7613405.0	162.0	310.0	52.0	3.3	1.0	11.0	520.0
X	7613464.0	295.0	500.0	61.0	.8	2.6	37.0	300.0
X	7613466.0	47.0	50.0	15.0	.4	0.	7.0	350.0
X	7613467.0	37.0	265.0	16.0	3.4	6.5	9.0	520.0
X	7613468.0	59.0	103.0	18.0	.1	.2	8.0	150.0
X	7613469.0	20.0	10.0	6.0	.5	.1	1.0	260.0
X	7613470.0	88.0	150.0	18.0	.1	.2	11.0	300.0
X	7613471.0	23.0	670.0	76.0	.9	5.6	114.0	520.0
X	7613472.0	47.0	104.0	14.0	.1	.2	9.0	220.0
X	7613473.0	15.0	25.0	10.0	.1	.1	2.0	300.0
X	7613474.0	54.0	106.0	18.0	.1	.1	10.0	260.0
X	7613475.0	25.0	12.0	15.0	.8	.1	0.	1200.0
X	7613476.0	74.0	180.0	14.0	.3	.2	11.0	140.0
X	7613477.0	31.0	200.0	56.0	.4	1.6	21.0	800.0
X	7613478.0	56.0	130.0	28.0	.9	.2	14.0	240.0
X	7613479.0	560.0	125.0	28.0	.5	.4	6.0	360.0
X	7613480.0	27.0	210.0	16.0	1.3	1.6	14.0	350.0
X	7613481.0	22.0	30.0	10.0	0.	0.	6.0	260.0
X	7613482.0	15.0	80.0	21.0	.4	.3	12.0	200.0
X	7613483.0	13.0	50.0	61.0	3.0	.3	3.0	730.0
X	7613484.0	29.0	53.0	13.0	1.0	.3	4.0	320.0
X	7613485.0	173.0	520.0	14.0	.1	.2	8.0	240.0
X	7613486.0	69.0	140.0	18.0	.2	.3	7.0	330.0

BARKERVILLE SOIL GEOCHEM RESULTS SORTED BY ANOMALY

SOIL ANOMALY	SAMPLE NUMBER	LEAD	ZINC	COPPER	SILVER	CADMIUM	COBALT	BARIUM
X	7613487.0	89.0	145.0	10.0	.1	.2	1.0	160.0
X	7613488.0	68.0	420.0	32.0	.6	1.2	34.0	450.0
X	7613489.0	7.0	6.0	3.0	.2	0.	0.	390.0
X	7613491.0	19.0	6.0	2.0	.2	.1	0.	250.0
X	7613493.0	9.0	19.0	8.0	.2	.1	2.0	140.0
X	7613495.0	4.0	12.0	4.0	.1	0.	1.0	180.0
X	7613497.0	8.0	24.0	7.0	.4	0.	2.0	220.0
X	7613499.0	79.0	148.0	17.0	.1	.2	9.0	260.0
X	7613501.0	380.0	2600.0	41.0	.5	9.2	28.0	770.0

239 SORTED RECORDS RETURNED FOR PROCESSING

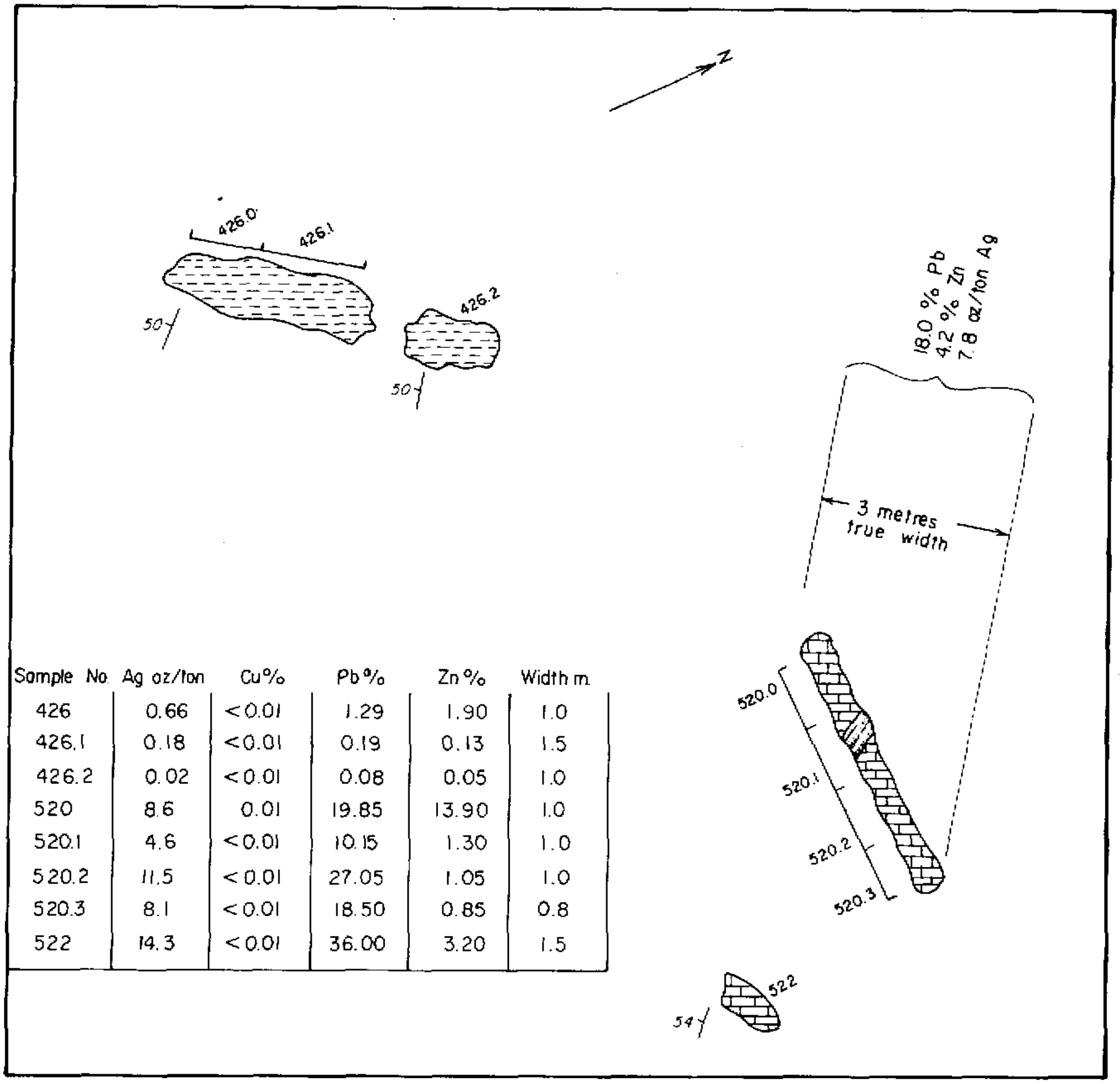
239 RECORDS SELECTED FOR PROCESSING FROM 1085 RECORDS READ

```
*****   PROGRAM FINISHED   *****
SRU'S:74.4
!UNLOAD
!DROP,LIST XQTSRT,BARKER.CC
XQTSRT-XQT/LIBS DROPPED
BARKER.CC-PNC/LIBS  DROPPED
!OFF
USAGE ON 04/11/77 AT 18:43:28
SRU'S:145.5     ELAPSED TIME: 00:06:03
```

ANOMALY	NUMBER	LEAD	ZINC	COPPER	SILVER	CADMIUM	COBALT	BARIUM
B	7613249.0	19.0	50.0	16.0	.1	0.	9.0	100.0
B	7613251.0	28.0	60.0	23.0	.1	0.	9.0	60.0
B	7613253.0	68.0	145.0	54.0	1.6	1.6	22.0	750.0
B	7613255.0	38.0	106.0	31.0	.2	.1	19.0	250.0
B	7613257.0	56.0	99.0	47.0	.5	.4	22.0	320.0
B	7613259.0	62.0	98.0	67.0	1.3	.5	19.0	280.0
C	7613200.0	46.0	410.0	42.0	.5	1.3	28.0	940.0
C	7613202.0	31.0	125.0	43.0	.5	.1	14.0	630.0
C	7613204.0	95.0	230.0	39.0	.7	.6	17.0	730.0
C	7613206.0	54.0	155.0	38.0	0.	0.	19.0	460.0
C	7613208.0	8.0	48.0	15.0	.1	0.	8.0	560.0
C	7613211.0	110.0	155.0	73.0	1.8	1.2	30.0	540.0
C	7613213.0	91.0	205.0	49.0	0.	.2	26.0	450.0
C	7613215.0	63.0	155.0	45.0	.2	.2	21.0	380.0
CRZ	7613452.0	54.0	66.0	22.0	.8	.2	6.0	170.0
CRZ	7613452.1	28.0	100.0	27.0	.2	.3	10.0	220.0
CRZ	7613455.0	395.0	2030.0	34.0	.7	7.5	33.0	0.
CRZ	7613461.0	70.0	130.0	17.0	.2	1.8	13.0	370.0
CRZ	7613462.0	35.0	73.0	15.0	.7	0.	9.0	300.0
D	7613297.0	19.0	124.0	22.0	.4	.3	13.0	180.0
D	7613299.0	33.0	50.0	12.0	0.	.1	7.0	130.0
D	7613300.0	22.0	29.0	9.0	.2	0.	3.0	60.0
D	7613301.0	360.0	182.0	41.0	.3	1.0	21.0	80.0
D	7613302.0	215.0	128.0	46.0	.2	.6	23.0	100.0
D	7613303.0	885.0	250.0	40.0	1.4	2.0	21.0	100.0
D	7613304.0	335.0	160.0	42.0	.3	.7	25.0	140.0
D	7613304.1	53.0	77.0	44.0	0.	.1	21.0	40.0
D	7613305.0	49.0	92.0	35.0	.1	.3	19.0	40.0
D	7613307.0	45.0	110.0	39.0	.1	.4	20.0	140.0
DPS	7613104.0	0.	0.	0.	0.	0.	0.	0.
E	7613220.0	13.0	39.0	17.0	.1	.1	5.0	250.0
E	7613222.0	79.0	106.0	25.0	.1	.3	17.0	200.0
E	7613224.0	81.0	104.0	33.0	.2	.4	18.0	220.0
E	7613226.0	81.0	98.0	33.0	.2	.3	18.0	180.0
E	7613228.0	122.0	130.0	42.0	.3	.6	28.0	180.0
E	7613230.0	143.0	88.0	35.0	.6	.5	21.0	160.0
E	7613232.0	104.0	78.0	28.0	.5	.4	13.0	190.0
E	7613234.0	122.0	84.0	28.0	.5	1.0	19.0	40.0
E	7613236.0	65.0	65.0	30.0	.6	1.0	14.0	150.0
E	7613238.0	9.0	58.0	20.0	.1	.1	8.0	50.0
EVS	7613525.1	90.0	520.0	49.0	0.	2.4	24.0	220.0
EVS	7613525.2	56.0	325.0	38.0	.1	1.6	23.0	280.0
EVS	7613525.3	55.0	260.0	26.0	.1	.6	14.0	200.0
EVS	7613525.4	55.0	295.0	33.0	.1	1.3	21.0	260.0
EVS	7613525.5	53.0	275.0	36.0	0.	.9	20.0	0.
EVS	7613525.6	55.0	345.0	40.0	0.	1.4	23.0	240.0

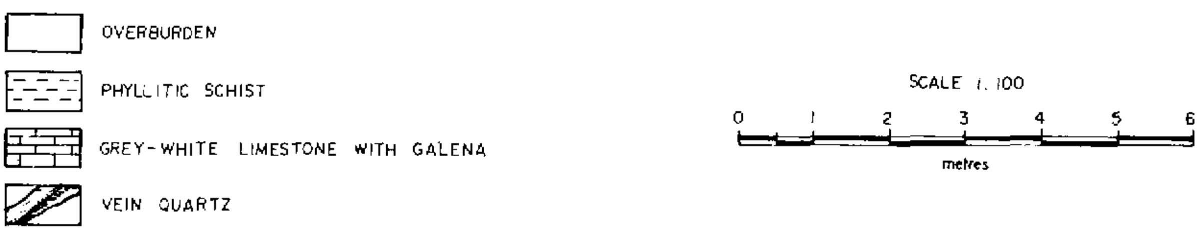
SOIL ANOMALY	SAMPLE NUMBER	LEAD	ZINC	COPPER	SILVER	CADMIUM	COBALT	BARIUM
EVS	7613525.7	57.0	310.0	37.0	0.	1.0	20.0	260.0
EVS	7613525.8	52.0	395.0	30.0	.1	1.4	20.0	170.0
F	7613372.0	53.0	145.0	21.0	.2	1.3	29.0	300.0
F	7613374.0	23.0	75.0	22.0	0.	0.	10.0	120.0
F	7613376.0	86.0	82.0	31.0	.4	0.	13.0	180.0
F	7613378.0	19.0	74.0	22.0	.1	.2	23.0	70.0
F	7613380.0	230.0	145.0	18.0	0.	.2	21.0	80.0
F	7613382.0	137.0	185.0	63.0	.3	1.3	25.0	220.0
F	7613386.0	69.0	190.0	32.0	.6	.7	20.0	340.0
F	7613388.0	86.0	122.0	17.0	0.	.2	7.0	120.0
F	7613390.0	39.0	76.0	9.0	.1	0.	5.0	80.0
F	7613392.0	61.0	142.0	18.0	0.	.3	10.0	140.0
G	7613352.0	60.0	64.0	12.0	.1	0.	6.0	60.0
G	7613354.0	59.0	40.0	21.0	.9	.1	4.0	200.0
G	7613356.0	34.0	50.0	19.0	.2	0.	12.0	30.0
G	7613357.0	55.0	146.0	23.0	.1	.4	17.0	220.0
G	7613358.0	93.0	315.0	32.0	0.	.2	19.0	100.0
G	7613359.0	167.0	205.0	28.0	.5	.8	16.0	320.0
G	7613360.0	144.0	200.0	52.0	.5	.6	23.0	90.0
G	7613361.0	69.0	76.0	21.0	1.2	.2	6.0	110.0
G	7613362.0	47.0	85.0	24.0	0.	.1	8.0	120.0
G	7613363.0	165.0	265.0	24.0	.9	.8	16.0	280.0
G	7613364.0	95.0	215.0	65.0	.1	.5	21.0	220.0
G	7613365.0	111.0	118.0	17.0	.2	.5	7.0	500.0
G	7613371.0	158.0	465.0	106.0	.1	1.8	42.0	370.0
G	7613373.0	36.0	122.0	21.0	.1	0.	11.0	70.0
H	7613311.0	8.0	34.0	12.0	.1	0.	6.0	20.0
H	7613313.0	14.0	53.0	16.0	.1	.1	5.0	40.0
H	7613316.0	3.0	27.0	12.0	.1	0.	3.0	20.0
H	7613318.0	60.0	105.0	18.0	.3	.2	6.0	70.0
H	7613320.0	59.0	67.0	15.0	1.7	.2	5.0	80.0
H	7613322.0	40.0	55.0	16.0	.3	0.	8.0	60.0
H	7613324.0	150.0	160.0	24.0	.5	.4	11.0	80.0
H	7613326.0	87.0	70.0	18.0	.3	0.	6.0	50.0
H	7613328.0	34.0	90.0	22.0	.3	.2	8.0	30.0
H	7613330.0	10.0	42.0	19.0	.1	0.	5.0	20.0
H	7613332.0	225.0	130.0	18.0	1.7	1.0	14.0	100.0
I	7613319.0	9.0	26.0	13.0	.1	0.	4.0	20.0
I	7613321.0	20.0	62.0	33.0	1.0	0.	16.0	120.0
I	7613323.0	19.0	58.0	25.0	.1	0.	16.0	60.0
I	7613325.0	18.0	54.0	29.0	.4	.3	14.0	90.0
I	7613327.0	18.0	55.0	27.0	.4	.2	11.0	90.0
I	7613329.0	16.0	54.0	20.0	.6	0.	12.0	90.0
I	7613331.0	17.0	46.0	18.0	.3	0.	7.0	140.0
J	7613340.0	50.0	40.0	66.0	1.2	.8	8.0	120.0
J	7613341.0	68.0	78.0	30.0	.2	.2	16.0	70.0

A2 SHOWING (LUNCH TRENCH)
PLAN VIEW



Sample No.	Ag oz/ton	Cu%	Pb%	Zn%	Width m.
426	0.66	<0.01	1.29	1.90	1.0
426.1	0.18	<0.01	0.19	0.13	1.5
426.2	0.02	<0.01	0.08	0.05	1.0
520	8.6	0.01	19.85	13.90	1.0
520.1	4.6	<0.01	10.15	1.30	1.0
520.2	11.5	<0.01	27.05	1.05	1.0
520.3	8.1	<0.01	18.50	0.85	0.8
522	14.3	<0.01	36.00	3.20	1.5

#6314

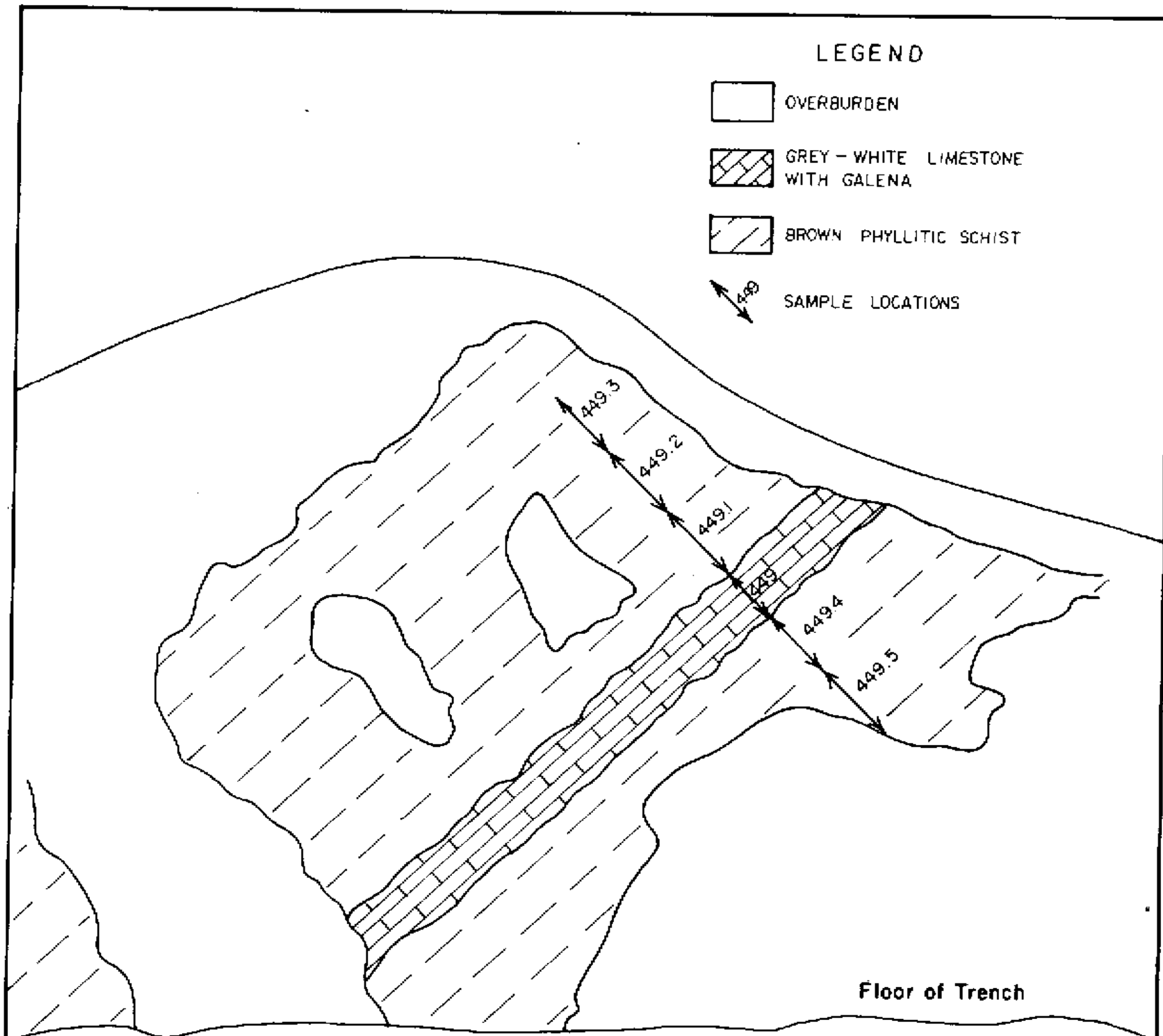


D.W.G. G.-6447

From drawings by R. & N. Wilson

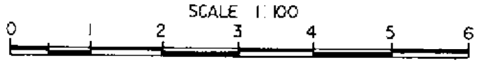
FIGURE 4

A1 SHOWING (MAIN GALENA SEAM)
VIEW OF TRENCH WALL (WEST SIDE)



Sample No.	Ag oz/ton	Cu %	Pb %	Zn %	Width m.
449	29.2	< 0.01	46.40	6.20	1.0
449.1	0.10	0.02	0.20	0.15	1.0
499.2	0.06	0.02	0.12	0.11	1.0
449.3	0.04	0.02	0.13	0.11	1.0
449.4	0.04	0.02	0.12	1.10	1.0
449.5	0.09	0.02	0.05	0.07	1.0

SCALE 1:100



D.W.G. G.-6446

#6314

From drawings by R. & N. Wilson

FIGURE 3

6.2 Sulphide Showings

Seven small showings of apparently conformable sulphide bodies were found. Grades in lead and zinc are encouraging at all showings. Silver values are high in showings on Anomaly A only. Only one showing, theA2 on Anomaly A, exceeds minimum widths for underground mining. Lengths are in most cases unexplored but all showings, with the exception of A1 and A2, give the impression of being of limited length.

Sulphide showings fall into two groups: Those within the Midas Formation and those within the overlying Snowshoe Formation. Those in the Midas Formation are conformable bodies of galena and sphalerite in black, graphitic, locally pyritic shales. Galena mineralization (e.g. Vic showing) is fine grained and massive. The sulphide bodies exposed at the south end of Anomaly A are different. They occur in the Snowshoe Formation and consist of blebs of very coarse grained galena scattered throughout a limestone bed enclosed in pyritic and phyllitic brown schists.

Descriptions of the sulphide showings follow. See Figure 5 for location and Appendix I for detailed information.

6.2.1 Vic Showing

Massive, fine grained, galena and sphalerite occur as a conformable body associated with a quartzitic lens in black graphitic shales of the Midas Formation. The width is variable but ranges up to 0.3 m. The sulphide zone persists discontinuously for approximately 6 m. Average grade of three separate grab samples are 10.7% Pb; 12.9% Zn; and 1.2 oz/ton Ag. The showing was exposed during placer operations on the Cunningham Creek. It has since been blasted to a depth of about 0.6 m by persons unknown. This is regarded as an encouraging showing because of its occurrence within black pyritic shales.

6.2.2 Beamish Showing

This showing is believed to be the one reported by S. Holland*as a 3 ft wide conformable body of galena. No sulphide body of this dimension can be seen now. Two or three tons of rock have been removed with the aid of blasting. Minor amounts of galena and sphalerite can be found in the blast pits which appear to have been following a zone which is approximately conformable. Conformable boudins of quartz are associated with sulphides. The host rock is a pyritic black shale with the pyrite evidently following the bedding.

The length appears to have been about 4 m, the width is now no more than 0.15 m. Grades in grab samples indicated only minor amounts of zinc and lead.

* Discussions, 1976

6.2.3 Slide Showing

This showing is reported as a lead zinc "replacement" body by W. Thomson, long-time prospector in the area and vendor of the Thomson Option. Apparently it is similar in some respects to the Vic and Beamish showings. Many years ago an adit, now concealed by talus, was used to explore the showing for gold.

6.2.4 Evening Showing

Massive, dark coloured sphalerite occurs conformably in black shales of the Midas Formation. The occurrence is exposed in a small hand trench long since sloughed in. A length of no more than 1 m is exposed. The width appears to 0.5 m but may be more. Grades from a chip sample are 17.8% Zn, 1.7% Pb, and 0.59 oz/ton Ag.

The showing is outside the area covered by the Coast Interior soil sample grid. Geochemical samples run by Riocanex over the showing leave some doubt as to whether or not the occurrence would have been detected by the Coast Interior sampling which used determinations for lead and copper but not for zinc. The showing is approximately on strike with the G and X anomalies.

6.2.5 Al Showing

This showing (Figure 3) consists of a conformable body of galena-rich limestone exposed in a trench put in by Coast Interior. Thickness is 1 m. Grades over this metre are 46.4% Pb; 6.2% Zn; 29.2 oz/ton Ag. Values in beds of brown phyllitic schists of the Snowshoe Formation above and below the mineralized limestone bed are minor. Limestone, which is unmineralized but otherwise similar, occurs in nearby trenches.

6.2.6 A2 Showing

This showing (Figure 4) is similar in appearance to the A1 showing and (at a regional scale) is approximately on strike with it. A galena-bearing limestone body is exposed by hand trenching. The galena occurs as large coarse grained blebs scattered throughout the limestone. A quartz vein cuts the limestone in the middle of the trench. The trench has not been extended far enough to place limits on the width. A true width of 3 m is exposed. Grades are 18% Pb; 4.2% Zn; 7.8 oz/ton Ag.

This showing has been exposed by R. Miller, prospector, and vendor of the Miller Option since Coast Interior ceased working in the area.

Continuation of the galena-bearing limestone immediately to the north is improbable: trenching there by Coast Interior did not expose sulphides. However, general continuity of this type of mineralization in a northerly direction seems a likely explanation for the A and E soil anomalies.

6.2.7 Penny Creek Replacement Zone

A minor occurrence of conformable pyrite in schists of the Snowshoe Formation is associated with a massive quartz vein.

6.2.8 Ten Dollar Showing

This is a conformable body of pyrrhotite, and galena with minor chalcopyrite and sphalerite associated with quartz in phyllitic schists of the Snowshoe Formation. The body is a lens and persists for no more than 2.5 m. Maximum width is 20 cm. Grades from chips taken along the length of the showing are 34.1% Pb; trace Zn; 11.7 ozs/ton Ag.

6.2.9 Bralco Showing

Sphalerite is found in wisps and streaks in a brown weathering limestone very close to the contact of the Midas and Snowshoe Formations. The sphalerite-bearing limestone was taken from a dump beside a water-filled shaft estimated to have been 6-10 m deep. Width and length of the sulphide zone are not known. The occurrence is assumed to be a small lens. Grades of two grab samples average 5.3% Pb; 15% Zn; 0.9 ozs/ton Ag.

TABLE 2

Sample No.	Pb%	Zn%	Ag oz/T	Showing
7606210	19.3	10.2	0.42	Vic
7606210.2	8.7	14.5	0.69	"
7606210.1	3.2	14.0	2.3	"
7606211	0.01	0.03	Tr.	Beamish
7606212	0.65	0.42	Tr.	"
7613525.0	1.7	17.85	0.59	Evening
7613532	34.1	0.05	11.7	Ten Dollar
7613449.0	46.4	6.2	29.2	A1
7613449.1	.20	0.15	Tr.	
7613449.2	.12	0.11	Tr.	
7613449.3	.13	0.11	Tr.	
7613449.4	.12	1.1	Tr.	
7613449.5	.05	.07	Tr.	
7613426.0	1.29	1.90	0.66	A2
7613426.1	0.19	0.13	0.18	
7613426.2	0.08	0.05	0.02	
7613520.0	19.85	13.90	8.6	
7613520.1	10.15	1.3	4.6	
7613520.2	27.05	1.05	11.5	
7613520.3	18.50	0.85	8.1	
7613522	36.00	3.20	14.3	
7613528	0.18	0.05	0.1	Penny Creek
7606214	9.0	26.2	1.8	Bralco
7606215	1.7	3.8	-	

7. CLAIMS

The area of the stream anomalies, the soil geochemical anomalies and the sulphide showings is mostly covered by a total of 137 2-post claims and M.G.S. units held directly or under option by Riocanex. See Figure 15.

Holdings at present are:

Claims owned by Rio:

Nine, totalling 82 units.

Claims held under option from Coast Interior Ventures Ltd:

39 two-post claims.

Claims held under option from R.J. Miller:

12 two-post claims.

Claims held under option from W.E. Thomson:

4 two-post claims.

For description of claims see Table 3.

TABLE 3

DESCRIPTION OF CLAIMS

Owned By Riocanex:

CLAIM NAME	RECORD NUMBER	DATE RECORDED	ASSESSMENT DUE DATE
PENNY	255	10 Sep 76	10 Sep 77
CRAZE	256	10 Sep 76	10 Sep 77
TREE	259	17 Sep 76	17 Sep 77
BOOZE	275	08 Nov 76	08 Nov 77
MID	278	08 Nov 76	08 Nov 77
SIM	279	08 Nov 76	08 Nov 77
WEE	280	08 Nov 76	08 Nov 77
NUG	276	08 Nov 76	08 Nov 77
LEAF	277	08 Nov 76	08 Nov 77

Owned By R.J. Miller:

CLAIM NAME	RECORD NUMBER	DATE RECORDED	ASSESSMENT DUE DATE	RENTAL DUE DATE
PARK 11,12	53549-50	27 Aug 69	27 Aug 78	27 Aug 77
PARK 1-10	71845-54	27 Sep 74	27 Sep 77	

Owned by W.E. Thomson:

CLAIM NAME	RECORD NUMBER	DATE RECORDED	ASSESSMENT DUE DATE
BON 1-4	47807-10	30 Sep 68	30 Sep 80

Owned by Coast Interior Ventures Ltd.:

CLAIM NAME	RECORD NUMBER	DATE RECORDED	ASSESSMENT DUE DATE	RENTAL DUE DATE
PARK 13,14,15	53551-53 (K)	27 Aug 69	27 Aug 78	27 Aug 77
ROUNDTOP 1	42783	20 Jun 67	20 Jun 77	
" 3	42785	20 Jun 67	20 Jun 77	
" 10-26	54138-54 (K)	25 Aug 69	25 Aug 77	
" 27 (Frl) & " 28 (Frl)	53291-92 (K)	30 Aug 69	30 Aug 77	
RT 41,42,43,44	54134-37 (M)	15 Sep 69	15 Sep 77	
BASE METAL 1-5	54167-71	25 Aug 69	25 Aug 77	
" " 6,7	53289-90	30 Aug 69	30 Aug 77	
" " 8,9,10	54241-43	14 Oct 69	14 Oct 77	
BON FRACTION	54240 (N)	14 Oct 69	14 Oct 78	14 Oct 77

CONCLUSIONS

1) The Midas and Snowshoe formations in the vicinity of Roundtop Mountain contain bodies of galena and sphalerite which appear to be conformable.

2) The areas indicated in B.C. Assessment Report 3521 to be anomalously rich in lead are confirmed as such.

3) Further areas of anomalous lead enrichment have been outlined.

4) A significant proportion, possibly the majority, of soil anomalies appear to be attributable to conformable bodies of lead and zinc sulphides.

R.V. Longe

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R.V. Longe

June 1977

APPENDIX I

Analytical Methods

SAMPLE PREPARATION AND ANALYSIS

Sample Preparation

Samples were dried at a 110°C, seived through an 80 mesh stainless steel screen. The minus 80-mesh fraction was used for analysis.

Analytical Methods for Pb, Zn, Cu, Ag, Ni, Cd, Co

0.6 gm from the minus 80-mesh fraction was combined with 2 ml HNO_3. This was heated for half an hour at 95°C, cooled and 1.0 ml of HCl was added. After heating at 95°C for 1.5 hours the mixture was diluted to 12 ml with a $AlCl_3$ solution. Analysis was by atomic absorption.

Analytical Methods, for Barium

Barium analysis was carried out by X-Ray fluorescent methods at Bondar & Clegg laboratories in Ottawa.

APPENDIX II

Cost Statement

COST STATEMENT
BARKERVILLE PROJECT
DESCRIPTION OF SULPHIDE SHOWINGS AND GEOCHEMISTRY OF SOILS
May 17 - September 5, 1976

SALARIES & WAGES			
R. Wilson	17-20 May 28 Jun-5 Sep (40 days @ $42/day)	$1,680.00	
N. Wilson	17-20 May 28 Jun-5 Sep (67 days @ $33/day)	2,211.00	
R. Longe	18-20 May 28-29 Jun, 27-29 Jul, 18,27-29 Aug, 31 Aug-2 Sep (25 days @ $83/day)	2,075.00	
C. Spence	29 Jul (1 day @ $100/day)	100.00	
R. Kuchinski	18-31 Aug (14 days @ $29/day)	406.00	
M. Kwasnica	18 Aug-3 Sep (17 days @ $30/day)	510.00	
W. Mihm	30 Aug-3 Sep (5 days @ $30/day)	150.00	
			$7,132.00
EMPLOYEE BENEFITS			1,426.40
FOOD & ACCOMMODATION			1,835.73
RIO TINTO FIELD EQUIPMENT	(169 man days @ $3/man day)		507.00
GEOCHEMICAL ANALYSIS			
Transportation		$ 29.25	
Bondar-Clegg		42.00	
Rio Tinto Lab			
	506 soil samples @ $3/ea	1,518.00	
	127 soil samples @ $4.05/ea	514.35	
	67 soil samples @ $4.65/ea	311.55	
	205 soil samples @ $5.25/ea	1,076.25	
	9 rock core samples @ $4.70/ea	42.30	
	1 rock sample	4.10	
	9 rock pulp samples @ $4.75/ea	42.75	
			3,580.55
SUPPLIES			400.98
FEES & LICENCES			10.00
FUEL			200.00
TRAVEL			
Fixed-Wing		$ 347.00	
Helicopter		2,979.00	
Avis Rent-A-Car		157.33	
Redhawk Trucks		1,095.69	
Coquitlam Honda Trail Bikes		428.00	
Other		98.85	
			5,105.87
REPORT PREPARATION			3,071.38
TOTAL			$23,269.91

APPENDIX III

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

R. V. Longe

ACADEMIC

1961 B.A.	Natural Sciences Tripos, (Geological Sciences)	Cambridge University
1965 M.Sc.	Geology	McGill University

PRACTICAL

1969-present	Rio Tinto Canadian Exploration Ltd. Vancouver BC Geologist involved in various aspects of mineral exploration in B.C., Yukon, and Alaska.
1967 (summer)	Amax Exploration Geological mapping of Guichon Batholith, B. C.
1965-1966 (summers)	Selco Exploration Ltd., Geological Mapping of Archean Greenstone belt south of James Bay, Ontario
1964	West African Selection Trust Diamond exploration in Ivory Coast and Mali, West Africa
1962-1963	Consolidated African Selection Trust Ltd., Mine Geologist, Akwatia, Ghana
1961	Serra Leone Selection Trust Ltd., Geologist, reserve development department Yangema Mine, Sierra Leone

STATEMENT OF QUALIFICATIONS:

Robert George Wilson

Education:

BSc. (Geology) 1976 University of British Columbia

Experience:

1976 Rio Tinto Canadian Exploration Limited
- Mapping and geochemical sampling in south and central B.C.

1975 Cominco Limited (temporary)
- Mapping and prospecting in carbonates, MacKenzie Mountains, N.W.T.

1974 Cominco Limited (temporary)
- Mapping and prospecting in carbonates, MacKenzie Mountains, N.W.T.

1973 Texas Gulf Incorporated (temporary)
- Sampling and prospecting in south and central B.C. and Yukon

STATEMENT OF QUALIFICATIONS:

Norma Joan Wilson (née Pawlowski)

Education:

BSc. (Biology) 1974 University of British Columbia
BSc. (Geology) 1976 University of British Columbia

Experience:

1976 Rio Tinto Canadian Exploration Ltd (temporary)
- Mapping and geochemical sampling, south and central B. C.

1975 Cominco Limited (temporary)
- Logging core and mapping on the Bathurst Norsemines property, N.W.T.

LEGEND

B — AREA OF ANOMALOUS LEAD VALUES IN SOILS (ORIGINAL DATA BY COAST INTERIOR VENTURES LTD.)

•1.6 — P.P.M. CADMIUM

1:10,000

METRES 0 200 400 600 1000 METRES

N.T.S. 93 A 14

6314 M-9

FIGURE 13

RIO TINTO CANADIAN EXPLORATION LIMITED (1)
BARKERVILLE PROJECT
ROUNDTOP MOUNTAIN CADMIUM VALUES IN SOILS
R.L./altair · May-1977 · DWG. GC-8435

FIGURE 14

LEGEND

B — AREA OF ANOMALOUS LEAD VALUES IN SOILS (ORIGINAL DATA BY COAST INTERIOR VENTURES LTD.)

•22 P.P.M. COBALT

1:10,000

METRES 0 200 400 600 1000 METRES

6314 M-10

N.T.S. 93 A 14

RIO TINTO CANADIAN EXPLORATION LIMITED (2)		
BARKERVILLE PROJECT		
ROUNDTOP MOUNTAIN COBALT VALUES IN SOILS		
R.L./altair	May - 1977	DWG. GC-8436

FIGURE II

LEGEND

B — AREA OF ANOMALOUS LEAD VALUES IN SOILS (ORIGINAL DATA BY COAST INTERIOR VENTURES LTD.)

• 280 P.P.M. BARIUM

1:10,000

METRES 0 200 400 600 1000 METRES

N.T.S. 93 A 14

6314 M-7

RIO TINTO CANADIAN EXPLORATION LIMITED (3)		
BARKERVILLE PROJECT		
ROUNDTOP MOUNTAIN BARIUM VALUES IN SOILS		
R.L./altair	May - 1977	DWG. GC-8433

LEGEND

B — AREA OF ANOMALOUS LEAD VALUES IN SOILS (ORIGINAL DATA BY COAST INTERIOR VENTURES LTD.)

•30 p.p.m. Nickel

METRES 0 200 400 600 1000 METRES

1:10,000

N.T.S. 93 A 14

6314 M-8

FIGURE 12

RIO TINTO CANADIAN EXPLORATION LIMITED (4)		
BARKERVILLE PROJECT		
ROUNDTOP MOUNTAIN NICKEL VALUES IN SOILS		
R.L./altair	May-1977	DWG. GC-8434

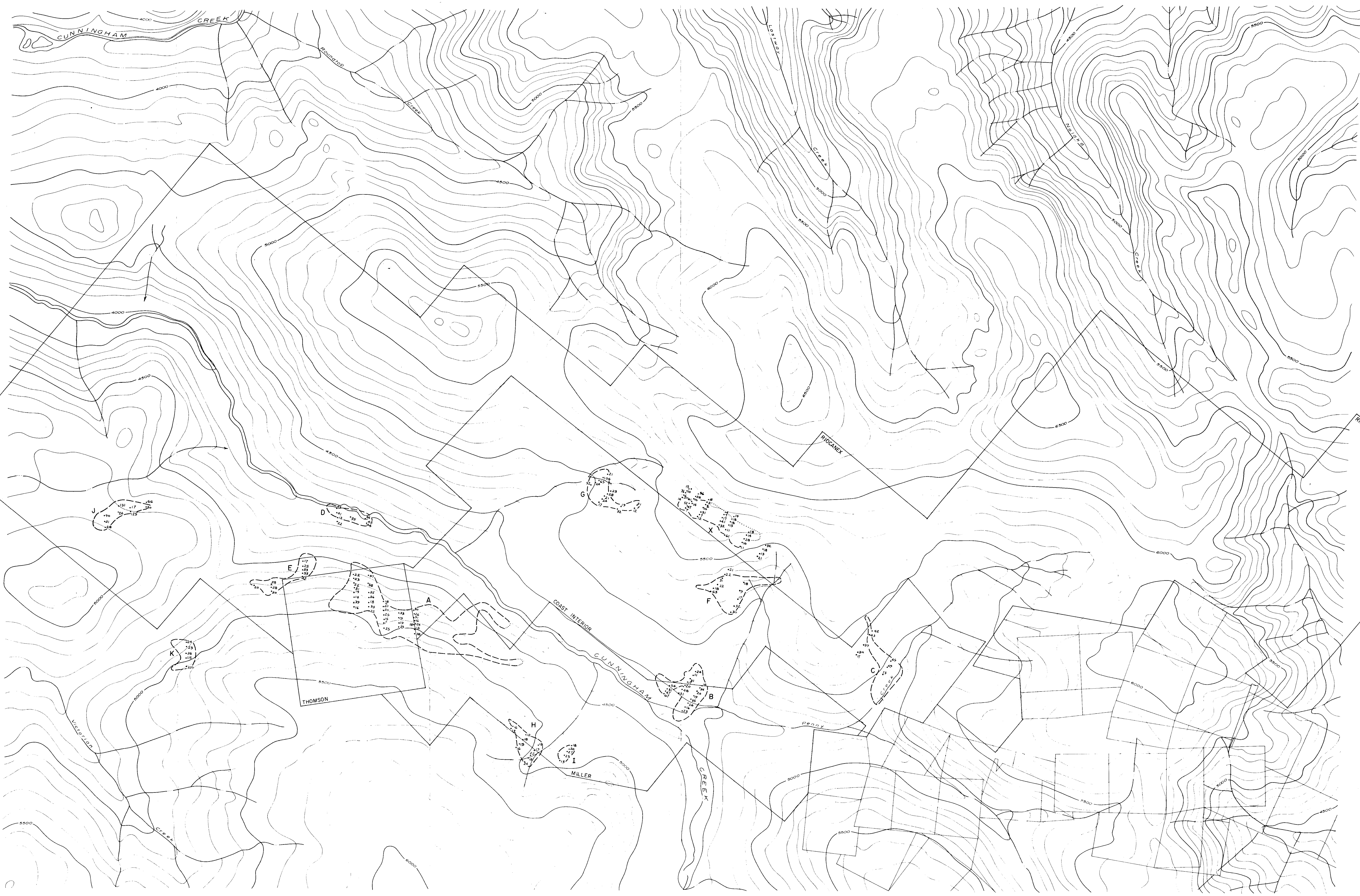


FIGURE 9

LEGEND

B — AREA OF ANOMALOUS LEAD VALUES IN SOILS (ORIGINAL DATA BY COAST INTERIOR VENTURES LTD.)

•35 p.p.m. Copper

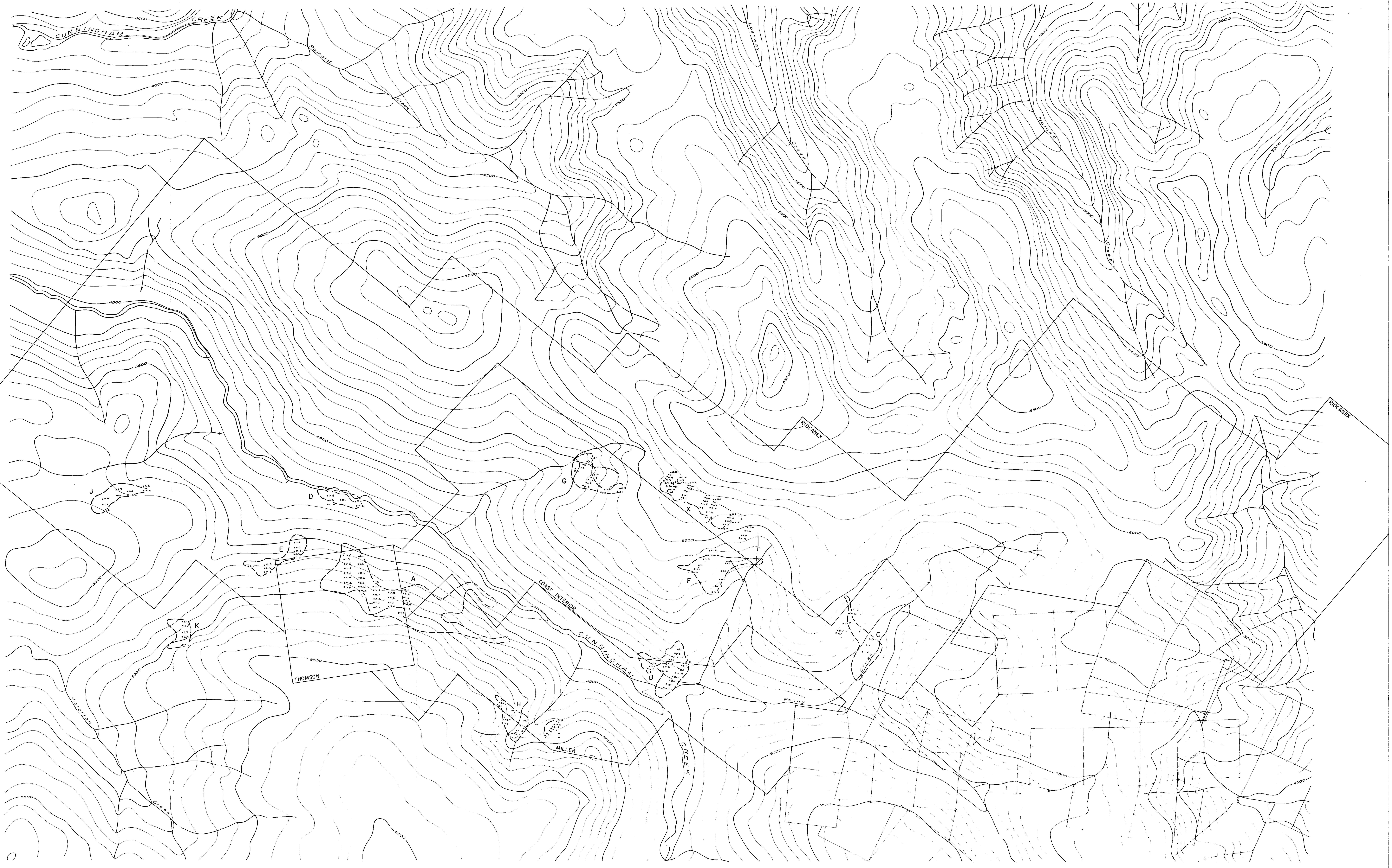
1:10,000

METRES 0 200 400 600 1000 METRES

N.T.S. 93 A 14

6314 M-5

RIO TINTO CANADIAN EXPLORATION LIMITED (5)		
BARKERVILLE PROJECT		
ROUNDTOP MOUNTAIN COPPER VALUES IN SOILS		
RL/altair	May - 1977	DWG. GC-8431



LEGEND

B — AREA OF ANOMALOUS LEAD VALUES IN SOILS (ORIGINAL DATA BY COAST INTERIOR VENTURES LTD.)

•1.0 — P.P.M. SILVER

1:10,000

METRES 0 200 400 600 1000 METRES

N.T.S. 93A/14

6314 M-6

FIGURE 10

RIO TINTO CANADIAN EXPLORATION LIMITED (6)

BARKERVILLE PROJECT

ROUNDTOP MOUNTAIN

SILVER VALUES IN SOILS

RL Zallar	May-1977	DWG. GC-8432

LEGEND

B — AREA OF ANOMALOUS LEAD VALUES IN SOILS (ORIGINAL DATA BY COAST INTERIOR VENTURES LTD.)

• 87 p.p.m. Lead

1:10,000

METRES 0 200 400 600 1000 METRES

6314 M-3

N.T.S. 93 A 14

FIGURE 7

RIO TINTO CANADIAN EXPLORATION LIMITED (7)		
BARKERVILLE PROJECT		
ROUNDTOP MOUNTAIN		
LEAD VALUES IN SOILS		
RL./altair	May - 1977	DWG. GC-8429

LEGEND

B — AREA OF ANOMALOUS LEAD VALUES IN SOILS (ORIGINAL DATA BY COAST INTERIOR VENTURES LTD.)

•265 p.p.m. Zinc

1:10,000

METRES 0 200 400 600 1000 METRES

6314 M-4

N.T.S 93 A 14

FIGURE 8

RIO TINTO CANADIAN EXPLORATION LIMITED (8)		
BARKERVILLE PROJECT		
ROUNDTOP MOUNTAIN ZINC VALUES IN SOILS		
R.L./altair	May - 1977	DWG. GC - 8430

FIGURE 5

LEGEND

..... Rock outcrops - Lithologies
1) black shale or schist
2) phyllitic schist
3) limestone

..... Sulphide showing

..... Strike and dip of foliation and bedding

..... Midas Formation (Sutherland Brown 1957, Holland 1954)

..... Barite occurrence

..... Perimeter of claims owned by or optioned to Rio Canex.

..... Geochemical Anomalies

1:10,000

METRES 0 200 400 600 1000 METRES

N.T.S. 93 A 14

6314 M-1

RIO TINTO CANADIAN EXPLORATION LIMITED (9)

ROUNDTOP MOUNTAIN

GEOLOGY AND SULPHIDE SHOWINGS

DECEMBER, 1976	RW NW / tf	DWG. G. - 8503

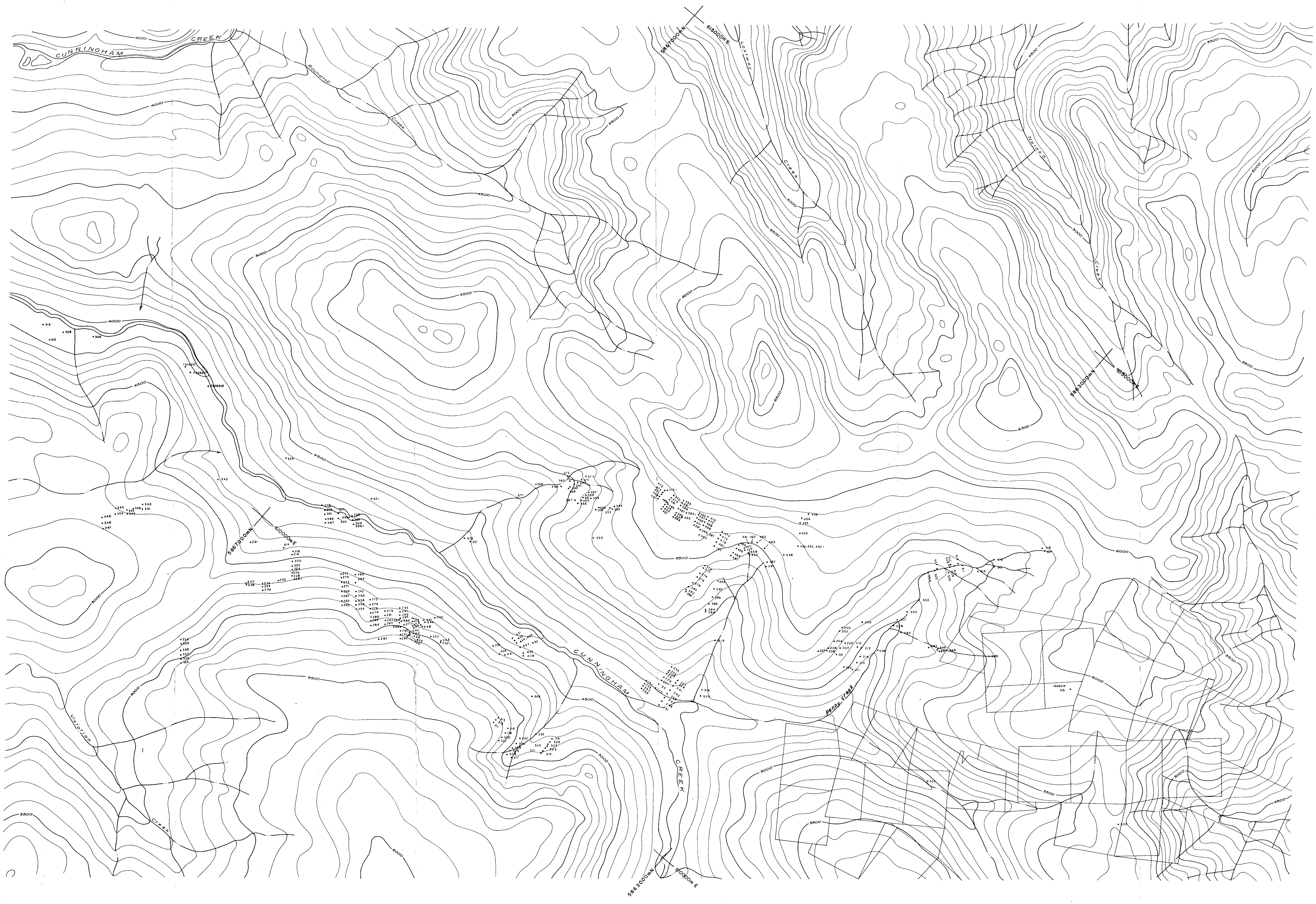


FIGURE 6

LEGEND

• 290 .... Sample and Station Location Numbers
(all three digit numbers preceded by 7613)

1:10,000

METRES 0 200 400 600 1000 METRES

N.T.S. 93 A 14

6314 M-2

RIO TINTO CANADIAN EXPLORATION LIMITED (10)		
ROUNDTOP MOUNTAIN		
SAMPLE and STATION NUMBERS - 1976		
OCT. 1976	R.W. NW/t.f.	DWG. GC/8455

FIGURE 15

LEGEND

- Rio Tinto Claims Sept. 1976
- observed claim posts
- ground held by others (owners noted).
- LCP Legal Corner Post.

1: 10,000

METRES 0 200 400 600 1000 METRES

N.T.S. 93 A 14

6314 M-11

RIO TINTO CANADIAN EXPLORATION LIMITED (11)		
ROUNDTOP MOUNTAIN		
CLAIM MAP		
NOV. 1976	RW NW/tf	DWG. C-8458