GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

GARY CLAIM GROUP - NORTH GRID

CLAIMS: Net 1, 58Fr, 59Fr, 61Fr, 77, 78, 80
Gary 1-3, 5-11, 13-21, 23, 25-27, 58
MAYO MINING DISTRICT

CLAIMS: Net 60Fr; Gary 63-75 (inclusive)
WATSON LAKE MINING DISTRICT

Macmillan Pass Area, Yukon Territory
N.T.S. 105-O-1

Lat. 63°04'N, Long 130°15'W

WORK PERIOD: June 8 - July 6, 1977

FOR

OGILVIE JOINT VENTURE

CLAIMS HELD IN TRUST BY

BRITISH NEWFOUNDLAND EXPLORATION LIMITED
704 - 602 West Hastings Street
Vancouver, B. C.

BY

J. D. Rowe, B.Sc.
Geologist

Supervised by: O. S. Hairsine, P.Eng.

CORDILLERAN ENGINEERING LIMITED
1418 - 355 Burrard Street
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NOVEMBER, 1977

[redacted]

061658

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*For Government Assessment Reports only

INTRODUCTION

This report describes the results of geological and geochemical surveys conducted by Cordilleran Engineering Limited, on the Gary Property - North during the period June 8 to July 6, 1977. This work was carried out for the Ogilvie Joint Venture whose claims are held in trust by British Newfoundland Exploration Limited.

The Gary Property - North is composed of the following mineral claims:

Mayo Mining District: Net 1, 58Fr, 58Fr, 61Fr, 77, 78, 80
Gary 1-3, 5-11, 13-21, 23, 25-27, 58

Watson Lake District: Net 60Fr, Gary 63-75 inclusive.

The claims straddle the Canol road at a point 110 air miles northeast of Ross River, Y.T. (N.T.S. 105-O-1; 63°04'N, 130°15'W).

Access is by truck or fixed-wing from Ross

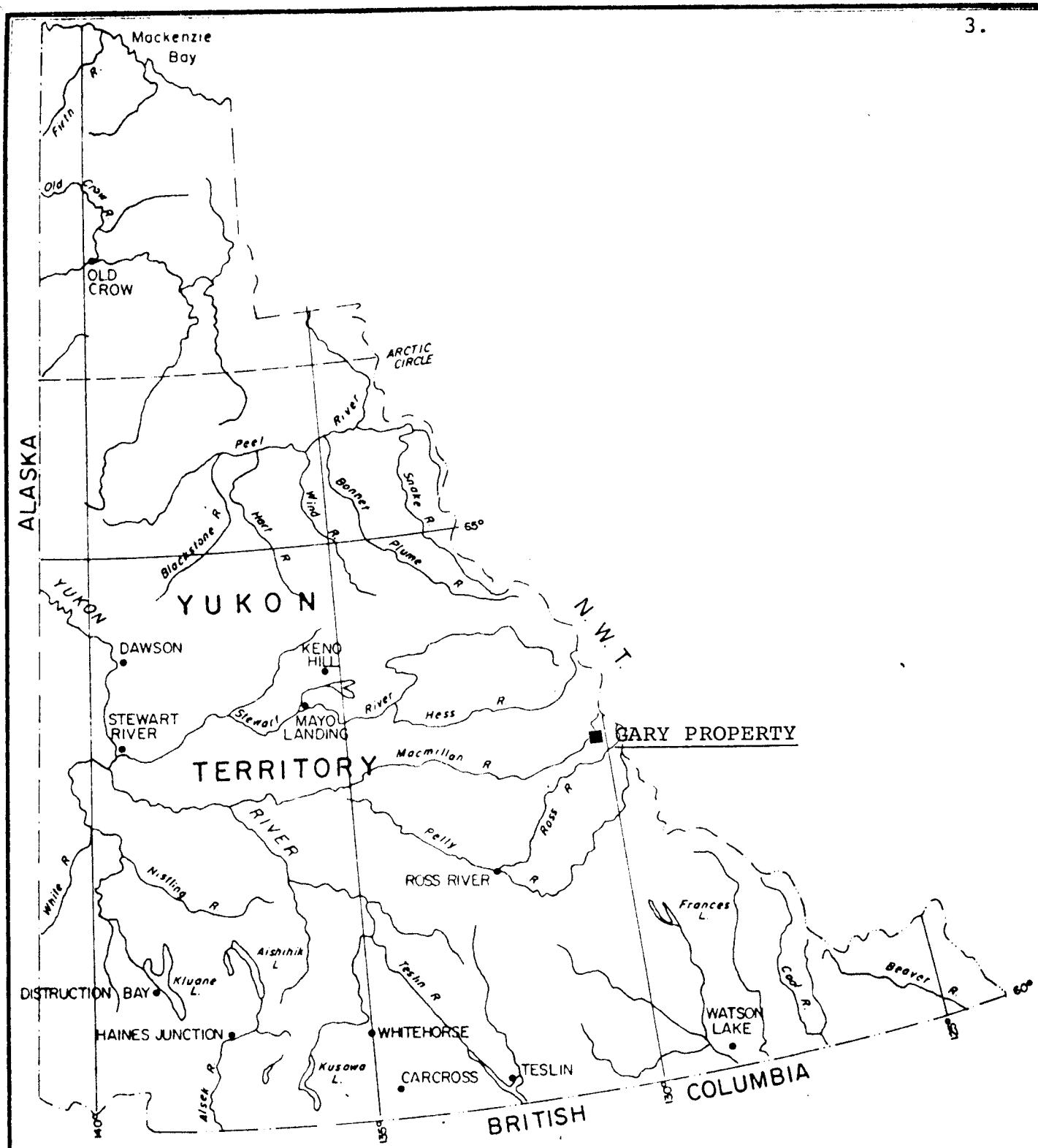
River. A base camp is located on the Ogilvie Joint Venture's Jason property five miles north of the Gary claim group.

Orthophotographs at a scale of 1 inch equals 500 feet were used as controls for the geological and geochemical surveys.

Outcrops are confined to a mountain slope in the northeast and a low hill in the southwest corner of the property. Most of the exposed rock in the southwest is on the Moose 1-4 mineral claims, which are not owned by the Ogilvie Joint Venture. The Macmillan River valley, blanketed by an unknown thickness of glacial till, separates the two outcrop areas.

The objective of the geological and geochemical survey was to locate areas of lead and zinc mineralization.

This report was written to comply with assessment requirements of the Yukon Quartz Mining Act.



LOCATION MAP

GARY PROPERTY

SCALE 0 20 40 60 80 100 MILES

BY

CORDILLERAN ENGINEERING LTD.
1418 - 355 BURRARD STREET
VANCOUVER 1, B.C.

FIGURE 1

GEOLOGY

General

The main similarity between rocks exposed in the northeast and the southwest is a bedded barite unit bound by a siliceous shale. Detailed mapping indicates that these bedded barite sequences are not stratigraphic equivalents. They occur in different lithologies that appear to be of different ages.

GEOLOGY (cont'd)

STRATIGRAPHY

The two outcrop areas on the property have distinct lithologies and are discussed separately.

Rocks in the southwest part of the property are siltstones, shales and bedded barite of Devonian to Mississippian age. These sediments are underlain by a black shale, Unit RRS, which may be Road River Formation of Ordovician age (see Figure 2). This shale is weakly to moderately siliceous, moderately carbonaceous, thinly to thickly laminated and fissile. It weathers a distinct blue-black to blue-grey color with local yellow and rusty limonite stains. From cross sections B-B' and C-C' on Plate 2 (Appendix "F") the Unit RRS appears to be 100 to 200 feet thick in this area.

Conformably overlying Unit RRS is Unit SB; a black siliceous shale 20 to 50 feet thick. It is highly siliceous, weakly carbonaceous, and contains disseminated blebs and thin laminations of white quartz with intergrown pyrite. Within five feet of the overlying bedded barite,

GEOLOGY - Stratigraphy (cont'd)

Unit B, the quartz is exchanged for barite, and disseminated pyrite decreases.

The siliceous rock appears to be a precipitate of silica-rich solutions associated with barium-rich brines. Contemporaneous deposition of a carbonaceous mud may have given Unit SB its black color and carbon content. A precipitate of clean white silica and pyrite appears to have dropped into this mud to form the irregular blebs and thin laminations.

In sharp contact with the shale is clean, white, bedded barite (Unit B). It has a saccharoidal texture, and thin light grey and white laminations. Locally it contains 10 to 15 per cent Fe_2O_3 in thin rust-coloured laminations, and silica content is generally low. There are interbeds of black siliceous shale 3 to 5 feet thick, similar to the underlying black shale (Unit SB). The sharp contacts suggest sudden changes in the depositional environment. The barite was probably precipitated from barium-rich brines in a quiet basinal environment on the sea floor. The barium may have originated from a volcanic source and been extruded in volcanic gases through exhalative vents. Subsequent extrusions

GEOLOGY - Stratigraphy (cont'd)

of gases may have caused bands of bedded barite to precipitate, with interbedded bands of siliceous black precipitate. Unit B increases rapidly in thickness to the west and to the south, from 5 feet to 150 feet over a distance of 700 feet. The thickening may be associated with the proximity to the exhalative vent; deposition being thickest at the vent, and thinning away from it.

Overlying Unit B is Unit SG, a grey siliceous shale. The shale appears to be a silica precipitate similar to Unit SB underlying the barite, but with only a minor amount of intermixed mud. It is medium grey, highly siliceous, and has abundant, finely disseminated, pyrite specks totalling 5 to 15 per cent. It is thinly laminated to thinly bedded, with interlaminated barite decreasing in abundance away from the bedded barite unit. The barite laminations contain minor limonite. The sharp contact with Unit B reflects a sudden change in depositional environment. The repetition of grey silica precipitate and barite laminations may be due to cyclic introductions of silica-rich and barium-rich solutions, or, may be caused by variations in the oxidizing conditions on the sea floor. Under more oxidizing conditions the SiO_2 may give way to $BaSO_4$, and the FeS to Fe_2O_3. It

GEOLOGY - Stratigraphy (cont'd)

appears that the amount of barium in solution gradually tapered off causing a decrease in the number of barite laminations. Unit SG varies from 20 to 150 feet thick, and appears to thin where the barite unit thickens. This could be explained by a facies change, whereby, in the middle of the basin, a thick succession of barite accumulated, while on the sides of the basin cyclic precipitation of barite and silica took place due to repeated changes in the depositional environment.

The sequence of precipitate rocks ends as sharply as it begins, and is overlain by black clastic rocks classified as Units 1A and 1B.

Unit 1A is a dark-grey to black silty shale. It is thinly to thickly laminated, low-to non-siliceous, low-to non-carbonaceous and contains minor disseminated pyrite. It is 100 to over 400 feet thick, and appears to increase in thickness to the south. The contact with Unit 1B is covered with overburden but the thickening of Unit 1A suggests an unconformable contact.

Unit 1B is an olive-grey siltstone (possibly

GEOLOGY - Stratigraphy (cont'd)

tuffaceous). It is thinly to thickly laminated, low-to non-siliceous, and contains 5 to 10 per cent finely disseminated limonite which appears to be weathered pyrite. The total thickness of Unit 1B is unknown; the only exposure being 100 feet on the east side of the hill.

Rocks in the northeastern part of the property are siltstones, shales, bedded barite, and a chert breccia unit. These sediments are Devonian to Mississippian in age, but may be younger than those exposed in the southwestern part of the property (see Plate 2, Cross Section A-A', Appendix "F").

The oldest rocks exposed are Unit 1A siltstones and shales; medium to dark grey, weakly to moderately siliceous, low-to non-carbonaceous, and thinly laminated to thinly bedded. Outcrops are massive and blocky. A granitic stock northeast of the property has metamorphosed most Unit 1A rocks in this area. Within 600 feet of the granite body the shales and siltstones are highly siliceous and contain abundant needle-shaped crystals of andalusite (variety: chiastolite) aligned parallel to bedding. A thickness of 500 feet of this unit is exposed.

GEOLOGY - Stratigraphy (cont'd)

Unit 1A is overlain by Unit 2 along a sharp, but irregular contact, which sometimes cuts across the underlying bedding. Unit 2 was produced by a turbidity current which probably ripped up underlying 1A beds, and all of Unit 1B if it was present in this area. Unit 2 rocks consist of subrounded to angular fragments of white chert and dark grey siliceous siltstone in a matrix of medium grey, moderately siliceous shale. The fragments are poorly sorted, varying from 1 millimetre to 10 centimetres in diameter. Near the granite body the rock is very hard and appears to have been silicified. The turbidite is very consistent in composition throughout. It varies from 100 to 200 feet in thickness, filling holes and channels in the underlying rocks.

In sharp contact with Unit 2 are Unit 3 siltstones and shales from 150 to 500 feet thick. They are medium to dark grey, weakly to moderately siliceous, thinly laminated to thinly bedded, moderately to highly carbonaceous and locally graphitic. Near Units 2 and B the unit becomes more carbonaceous and graphitic, but elsewhere it is similar to Unit 1A. Strong metamorphism of Unit 3 occurs near the granite, where the sediments are highly siliceous

GEOLOGY - Stratigraphy (cont'd)

with abundant needle-shaped crystals of andalusite aligned parallel to bedding.

About 200 feet above the base of Unit 3 is a barite bed similar to the one in the southwestern part of the property. The barite is underlain by Unit SBB, a siliceous, carbonaceous shale containing disseminated blebs and thin laminations of barite and disseminated specks of pyrite (not shown on Cross Section A-A'). It is about 10 feet thick and resembles the silica precipitate which underlies Unit B to the south. The barite is clean, white and crystalline, with thin laminations of limonite. Within the barite are local beds of siliceous black shale (SBB) 1 to 5 feet thick, with disseminated blebs and thin laminations of barite and up to 5 per cent pyrite. Unit B is 100 to 150 feet thick and relatively consistent in composition.

Rocks overlying the barite unit are only exposed in the extreme northern part of the map area. A dark grey, very siliceous silty shale, Unit SBB, overlies the barite and is about 50 feet thick. It has up to 10 per cent thinly laminated barite and less than 1 per cent disseminated pyrite. Within this unit, approximately 20 feet above the barite, is

GEOLOGY - Stratigraphy (cont'd)

a coarsely crystalline, grey, limestone bed a few inches thick. Above the limestone the thin laminations of barite give way to laminations of white quartz.

Overlying Unit SBB are approximately 200 feet of Unit 3 siltstones and shales.

Overlying Unit 3 is a silica precipitate, Unit SG, 150 feet thick, with local interbeds of very fine sandstone. The sandstone is medium dark grey, moderately siliceous, moderately carbonaceous, with local andalusite crystals. The precipitate rocks are medium to dark grey, 95 per cent silica, 3 to 5 per cent very finely disseminated pyrite and form beds 1 to 20 feet thick. The silica precipitate rocks are similar in appearance to the rocks overlying the barite unit exposed in the southwestern part of the property.

Barite in the southwest occurs at the base of Unit 1, and in the northeast near the base of Unit 3. This indicates that very similar depositional environments occurred at different periods in the stratigraphic succession. Unit 3 rocks are similar to Unit 1 rocks, so are difficult to differentiate. They are divided by 200 feet of Unit 2

GEOLOGY - Stratigraphy (cont'd)

only in the north part of the property. It appears that after the calming of the unstable conditions which originated the turbidite (Unit 2), the original depositional environment returned. From regional examination it appears that the turbidite flow, or flows, had a source to the northeast, as they thin and pinch out to the southwest.

GEOLOGY (cont'd)

STRUCTURE

The two outcrop areas of the property have distinct structures and will be discussed separately. They are both mapped on Plate 2 (Appendix "F").

Rocks in the southwest part of the property have been folded to form an anticline, trending approximately 150 degrees. Both limbs of the fold dip steeply to the southwest. The west limb is offset by a fault which trends parallel to the fold axis. The strata on the west side of the fault has been uplifted relative to that on the east side, from 200 to 500 feet. There may have been some horizontal movement along the fault, but direction or displacement is not discernable.

The barite exposed in the west limb on the east side of the fault is steeply dipping and tightly folded on a small scale. It appears to be near the core of the anticline. The barite unit on the west side of the fault is dipping about 50 degrees to the southwest, but flattens

GEOLOGY - Structure (cont'd)

out near the fault, apparently due to drag along the contact. The barite (Unit B) on the west side of the fault is thicker than that on the east side, implying a thickening of the unit to the west which appears to be due to depositional controls. The barite unit in the west limb thins to the south and appears to pinch out. This also appears to be a depositional control, such as a facies change. This contrasts with the barite unit in the east limb which thickens to the south. For this reason it is possible that there has been horizontal displacement along the fault which divides the east and west limbs.

Rocks exposed in the northeast part of the property are folded to form a large, moderately open anticline. The axial plane trends approximately 120 degrees and dips steeply to the northeast. A few major faults are sub-parallel to the axial plane, and appear to be associated with the folding. Both folding and faulting were probably influenced by the intrusion of a granitic stock northeast of the property. Rocks on the northeast limb of the anticline are cut off by the granite body and the southwest limb forms a dip slope. Small scale anticlines and synclines, in the order of 10 to 30 feet across, occur in the southwest

GEOLOGY - Structure (cont'd)

limb and appear to follow the style of the major folding.

The barite unit in the southwest limb is exposed in a creek cut on the mountain side. The bedding is sub-parallel to the slope for about 800 feet, but then the unit is folded and plunges into the air. Downslope is overburden covered but a solitary outcrop of bedded barite at the base of the mountain suggests that it is folded back over and dips below surface again.

Major faults sub-parallel to the axial plane appear to be reverse faults initiated by the intruding granite body. The fault blocks nearer the granite appear to have been pushed up over the footwall blocks. Displacements are in the order of 50 feet to over 200 feet.

Major faults perpendicular to the axial plane are traced by linear cuts and stream gulleys. Displacement on these faults appears to be predominantly vertical. A large northeast-trending fault just north of the claim block appears to have a large vertical displacement, the east side dropped down relative to the west. Unit 3 rocks are exposed

GEOLOGY - Structure (cont'd)

on the east side of this fault near the axis of the major northwest-trending fold. Unit 3 rocks on the west side dip consistently to the northeast and appear to represent the northeast limb of the fold. This suggests that movement on this fault has been horizontal as well as vertical, with the west side moving southwest relative to the east side.

GEOLOGY (cont'd)

MINERALIZATION

No visible lead or zinc mineralization was encountered. The silica precipitate units, bounding the barite units, contain from 1 to 15 per cent disseminated pyrite. The barite on the property is 70 to 80 per cent pure, with 20 to 30 per cent Fe_2O_3 and SiO_2. A gossanous zone in the bedded barite unit, exposed in a trench in the southwest part of the property, was analyzed and gave negligible values for lead and zinc.

GEOCHEMICAL SOIL SURVEY

GRIDS

The north grid, cut and secant chained in June, 1977 for an electromagnetic survey, was soil sampled. The base line was cut 8,500 feet true north, and cross lines were cut at 1,000 foot intervals, extending varying distances from the base line to the east and west. A total of 9.8 miles of line was cut, secant chained, and picketed at 100 foot stations. (Line cutting costs are not included in this report).

Flagged lines were established at 1,000 foot intervals between the cut lines using chain and compass control. Approximately 7.8 miles of line were run, with stations marked at 200 foot intervals using orange flagging tied to the vegetation.

GEOCHEMICAL SOIL SURVEY (cont'd)

Sampling Method

Pits were dug with light mattocks to depths ranging from five to fifteen inches, but averaging about ten inches. Samples were taken from the B_1 horizon wherever it occurred. The soil is poorly developed, being formed from recent glacial debris. The B_1 horizon is generally absent so most of the samples were taken from the B_2 horizon. Samples from the A horizon were the best that could be obtained in areas of frozen or swampy ground.

At nine locations, pits were dug and sampled at various intervals to find the optimum sampling depth (see Figures 3 and 4).

Soil samples were taken at 200 foot intervals along the cut and the flagged lines. Samples were placed in Kraft "Hi wet-strength, open end" envelopes, and grid stations were marked on the envelopes with indelible felt pen.

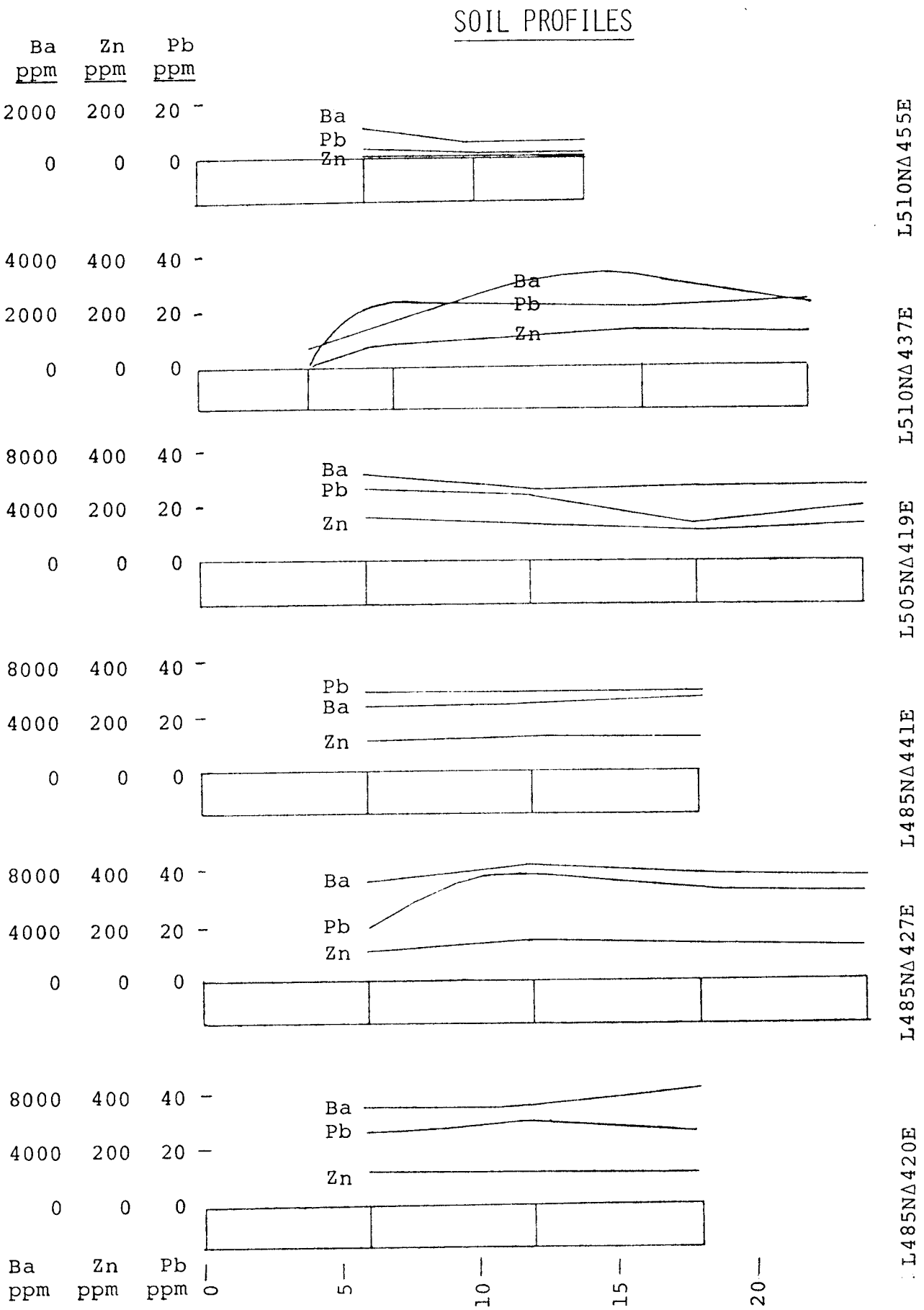

SOIL PROFILES
Ba ppm
Zn ppm
Pb ppm
2000 200 20
0 0 0
Ba
Pb
Zn
L510NΔ455E
4000 400 40
2000 200 20
0 0 0
Ba
Pb
Zn
L510NΔ437E
8000 400 40
4000 200 20
0 0 0
Ba
Pb
Zn
L505NΔ419E
8000 400 40
4000 200 20
0 0 0
Pb
Ba
Zn
L485NΔ441E
8000 400 40
4000 200 20
0 0 0
Ba
Pb
Zn
L485NΔ427E
8000 400 40
4000 200 20
0 0 0
Ba
Pb
Zn
L485NΔ420E
Ba ppm
Zn ppm
Pb ppm
0
5
10
15
20
Depth in inches

FIGURE 3.

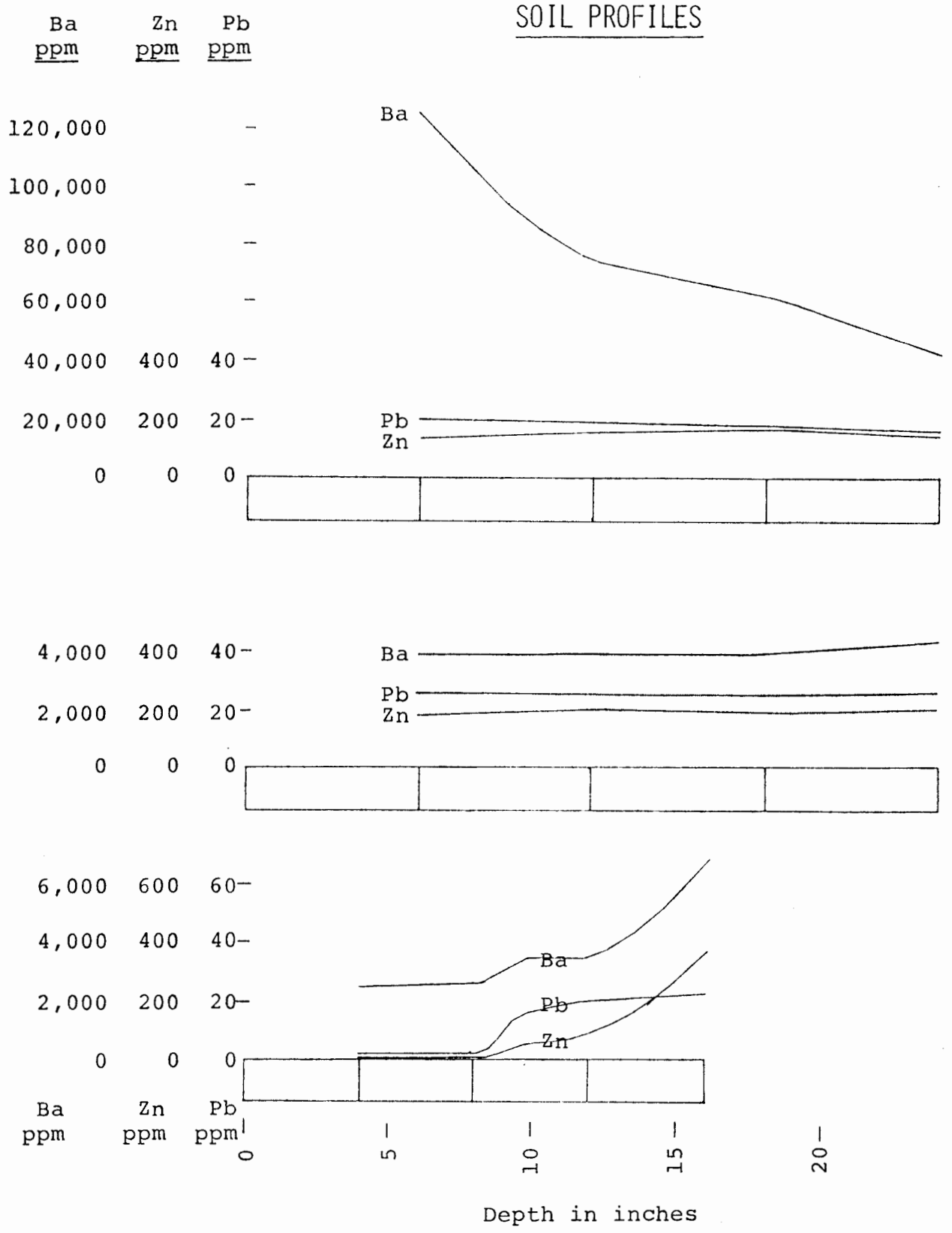

SOIL PROFILES
Ba ppm
Zn ppm
Pb ppm
120,000
100,000
80,000
60,000
40,000
20,000
0
400
200
0
40
20
0
Ba
Pb
Zn
L545N Δ425E
4,000
2,000
0
400
200
0
40
20
0
Ba
Pb
Zn
L545N Δ411E
6,000
4,000
2,000
0
600
400
200
0
60
40
20
0
Ba
Pb
Zn
L540N Δ417E
0
5
10
15
20
Depth in inches

FIGURE 4.

GEOCHEMICAL SOIL SURVEY (cont'd)

Sample Analysis

All soils were analyzed for lead, zinc, and total barium by Bondar-Clegg and Company Limited of 1500 Pemberton Avenue, North Vancouver, B.C.

Samples were placed in drying cabinets for a period of 24 to 48 hours. The material was then screened and sifted to obtain the -80 mesh fraction. A small amount of the -80 mesh material from each sample was digested in hot Lefort Aqua Regia solution for 2 1/2 hours. Following digestion, each sample was bulked with deionized H_2O, and analyzed with an Atomic Absorption Spectrophotometer to determine the parts per million of lead and zinc. A second small amount of the -80 mesh material from each sample was analyzed by X-ray fluorescence techniques to determine the parts per million of total barium.

GEOCHEMICAL SOIL SURVEY (cont'd)

PRESENTATION OF RESULTS

The lead, zinc and barium contents of soil samples are shown on Plates 3, 4 and 5 in Appendix "F". Areas with anomalous values are outlined by contours. Histograms for each element, with background and anomalous values indicated, appear on each of the foregoing plates.

Plate 6 (Appendix "F") is a compilation map depicting interesting geochemical anomalies and conductive zones as defined by an electromagnetic survey.

GEOCHEMICAL SOIL SURVEY (cont'd)

Discussion of Results

Analysis of the samples from the nine soil profile pits on the north grid appear to indicate that there is no B_1 horizon present in any of the sample locations (see Figures 3 and 4). The A horizon in one pit extends to 8 inches, but generally it is less than 6 inches. The optimum sampling depth appears to be from 10 to 15 inches. Values decrease below 15 inches in some of the samples.

Histograms prepared from the geochemical values indicate the following:

	Zn ppm	Pb ppm	Ba ppm
Background	< 200	< 30	< 5000
Possibly Anomalous	200 - 349	30 - 39	5000 - 9999
Probably Anomalous	350 - 499	40 - 49	10000 - 14999
Strongly Anomalous	≥ 500	≥ 50	≥ 15000

GEOCHEMICAL SOIL SURVEY
Discussion of Results (cont'd)

On the north grid two sub-parallel bands, possibly to strongly anomalous in barium, occur on opposite sides of the Canol Road (Plate 5, Appendix "F"). The bands on each side of the road are separated into two parallel zones strongly anomalous in barium. Isolated samples along the road in the valley bottom gave possibly to probably anomalous values for barium.

On the west side of the road possibly to probably anomalous zinc values occur on each side of the zone anomalous in barium (Plate 4, Appendix "F"). On the east side of the road a zone strongly anomalous in zinc trends northward across lines 535+00N, 540+00N, and 545+00N. It is along strike from a northward trending band, strongly anomalous in barium.

The only sample strongly anomalous in lead is located at the east end of line 510+00N. It has no coincident anomalous zinc or barium values, however, it is on strike with a strongly anomalous barium zone. Two samples at the

GEOCHEMICAL SOIL SURVEY
Discussion of Results (cont'd)

north end of the grid, are probably anomalous in lead and strongly anomalous in barium. Other samples with possibly anomalous values in lead are randomly distributed and have no association with zinc or barium anomalies.

Sampling of the central grid was carried out in 1976. Geochemical values for lead, zinc and barium were discussed in the Gary Property assessment report applied in 1976. Two fill-in lines, at 12+50S and 17+50S, were sampled in 1977 to help delineate an area anomalous in zinc. They confirmed an anomaly between Δ20W and Δ22W, with zinc values up to 2500 ppm.

Barium values from the 1977 samples are much higher than those from the 1976 sampling. This may be due to different analytical techniques. Samples taken in 1976 were analyzed by Barringer Research Laboratories located in Whitehorse, Y.T. Contours at 1500 ppm barium for the 1976 samples probably correspond with contours at 10,000 ppm barium for the 1977 samples.

CONCLUSIONS AND RECOMMENDATIONS

On the west side of the road two parallel zones strongly anomalous in barium appear to represent an extension of the folded barite horizon exposed in the southwest part of the property (Plate 6, Appendix "F").

On the east side of the road a band strongly anomalous in barium extends along strike from an exposure of bedded barite on line 535+00N. A parallel zone to the east, strongly anomalous in barium suggests folding of the barite unit.

Isolated samples in the valley containing possibly to probably anomalous values in barium may be due to glacial or gravity transported barite fragments from nearby exposures.

CONCLUSIONS AND RECOMMENDATIONS (cont'd)

On the west side of the road possibly to probably anomalous zinc values on each side of a zone anomalous in barium, suggest zinc mineralization in the rock type overlying the barite unit.

On the east side of the road a zone strongly anomalous in zinc extends along strike from a zone strongly anomalous in barium. This suggests that zinc mineralization occurs in a barite host rock, and the barium content decreases as the zinc content increases. Analysis of barite hosted zinc mineralization on the Jason Property north of this location indicated a similar correlation between zinc and barium concentrations.

Low lead values in the area are not discouraging, as previous experience on the Jason Property indicates that lead ions do not disperse well through a thick cover of glacial till.

The northward trending zone strongly anomalous in zinc on the east side of the Canol Road is considered a possible drill target. However, detailed soil sampling

CONCLUSIONS AND RECOMMENDATIONS (cont'd)

should be carried out prior to any drilling to confirm the anomaly and determine its areal extent. Between stations 430+00E and 445+00E from line 530+00N to 550+00N samples should be collected every 50 feet on lines spaced at 100 feet.

Respectfully submitted

CORDILLERAN ENGINEERING LIMITED

J. D. Rowe

J. D. Rowe, B.Sc.

O. S. Hairsine

O. S. Hairsine, P.Eng.

Vancouver, B.C.

November, 1977

APPENDIX "A"

P E R S O N N E L

PERSONNEL

G. L. Wesa	Crew Chief/ Geologist	Box 306 Lipton, Saskatchewan
J. D. Rowe	Geologist	R.R.#1 Okanagan Falls, B.C.
S. S. Jones	Soil Sampler	1566 Wilmont Place Victoria, B.C.
R. H. Hoffmann	Soil Sampler	19 Queen Wawa, Ontario
W. F. McKenzie	Soil Sampler	2585 Bellview West Vancouver, B.C.
P. R. Pitcher	Soil Sampler	2325 West 8th Ave. Vancouver, B.C.
B. W. Goodacre	Soil Sampler	1895 San Juan Ave. Victoria, B.C.
K. B. Williams	Bull Cook	1855 Arbutus #102 Vancouver, B.C.
L. Hewstan	Cook	Box 4396 Whitehorse, Y.T.

APPENDIX "B"

C L A I M R E C O R D S U M M A R Y

CLAIM RECORD SUMMARY (cont'd)

WATSON LAKE MINING DISTRICT

Claim Name	Grant Number	Renewal Date
Gary 63	Y 84402	October 11
Gary 64	Y 84403	October 11
Gary 65	Y 84404	October 11
Gary 66	Y 84405	October 11
Gary 67	Y 84406	October 11
Gary 68	Y 84407	October 11
Gary 69	Y 84408	October 11
Gary 70	Y 84409	October 11
Gary 71	Y 84410	October 11
Gary 72	Y 84411	October 11
Gary 73	Y 84412	October 11
Gary 74	Y 84413	October 11
Gary 75	Y 84414	October 11
Net 60Fr	YA 12302	December 20

CLAIM RECORD SUMMARY

MAYO MINING DISTRICT

Claim Name	Grant Number	Renewal Date
Net 1	YA 14843	December 22
Net 58 Fr	YA 14844	December 22
Net 59 Fr	YA 14845	December 22
Net 61 Fr	YA 14846	December 22
Net 77	YA 15144	November 21
Net 78	YA 15145	November 21
Net 80	YA 15147	November 21
Gary 1	Y 96250	November 21
Gary 2	Y 96251	November 21
Gary 3	Y 96252	November 21
Gary 5	Y 96253	November 21
Gary 6	Y 96254	November 21
Gary 7	Y 96255	November 21
Gary 8	Y 96256	November 21
Gary 9	Y 96257	November 21
Gary 10	Y 96258	November 21
Gary 11	Y 96259	November 21
Gary 13	Y 96260	November 21
Gary 14	Y 96261	November 21
Gary 15	Y 96262	November 21
Gary 16	Y 96263	November 21
Gary 17	Y 96264	November 21
Gary 18	Y 96265	November 21
Gary 19	Y 96266	November 21
Gary 20	Y 96267	November 21
Gary 21	Y 96269	November 21
Gary 23	Y 96270	November 21
Gary 25	Y 96272	November 21
Gary 26	Y 96273	November 21
Gary 27	Y 96274	November 21
Gary 58	Y 97711	November 21

APPENDIX "C"

C E R T I F I C A T E S

CORDILLERAN ENGINEERING LIMITED

MINERAL EXPLORATION
MANAGEMENT AND
ENGINEERING CONSULTANTS

1418 - 355 BURRARD STREET
VANCOUVER, B. C.
V 6 C 2 G 8
TELEPHONE (604) 681 - 8381

WRITER'S CERTIFICATE

I, Jeffrey D. Rowe of Okanagan Falls, British Columbia hereby certify that:

1. I am a geologist residing at R.R.#1 Devon Drive, Okanagan Falls, B.C., and employed by Cordilleran Engineering Limited of 1418 - 355 Burrard Street, Vancouver, B.C. V6C 2G8.

2. I received a Bachelor of Science degree from the Faculty of Geology at the University of British Columbia, Vancouver, B.C. (1975).

3. I am the author of this report which is based on field work conducted during June 8 and July 6, 1977 on behalf of the Ogilvie Joint Venture.

4. I have no beneficial interest in the Ogilvie Joint Venture nor do I expect to receive any.

CORDILLERAN ENGINEERING LIMITED

J. D. Rowe, B.Sc.
Geologist

November, 1977
Vancouver, B.C.

CORDILLERAN ENGINEERING LIMITED

MINERAL EXPLORATION
MANAGEMENT AND
ENGINEERING CONSULTANTS

1418 - 355 BURRARD STREET
VANCOUVER, B. C.
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TELEPHONE (604) 681 - 8381

SUPERVISOR'S CERTIFICATE

I, Owen S. Hairsine of Port Moody, British Columbia hereby certify that:

1. I am a geological engineer residing at 1069 Cecile Drive, Port Moody, B.C.

2. I am employed by Cordilleran Engineering Limited of 1418 - 355 Burrard Street, Vancouver, B.C.

3. I received a Bachelor of Science degree from Michigan Technological University, Houghton, Michigan in 1969 and have practiced my profession since that time.

4. I am a member of the Association of Professional Engineers of the Province of British Columbia.

5. I supervised the writing of this report and the field work upon which it is based.

6. I have no beneficial interest in the Ogilvie Joint Venture or the mineral claims described in this report, nor do I expect to receive any.

CORDILLERAN ENGINEERING LIMITED

O. S. Hairsine, P.Eng.
Geologist

November, 1977
Vancouver, B.C.

APPENDIX "D"

G E O C H E M I C A L L A B R E P O R T S

APPENDIX "D"

BONDAR-CLEGG & COMPANY LTD.

1500 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-54554

Geochemical Lab Report

Extraction Pb,Zn; Hot Aqua Regia

Method Pb,Zn; Atomic Absorption Ba; X.R.F.

Fraction Used

Report No. 27 - 401 PROJECT: OJV-GARY

From Cordilleran Engineering Ltd.

Date June 30 19 77

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm	
L465N - 395E	16	176	4730		L470N - 403E	11	76	1960	
397E	28	200	2210		405E	26	159	3990	
399E	15	94	2420		407E	22	152	4950	
401E	12	36	1390		409E	12	48	2250	
403E	38	90	2080		411E	24	224	14440	
405E	6	22	710		413E	23	160	20360	
407E	2	2	590		415E	27	118	21730	
409E	32	90	6140		417E	35	208	7300	
411E	20	123	5490		419E	26	164	5780	
413E	19	89	17510		421E	32	136	2710	
415E	24	220	13910		423E	28	98	2320	
417E	26	223	8780		425E	26	100	3090	
419E	30	240	6800		427E	21	110	2930	
421E	18	170	3420		429E	25	148	2230	
423E	25	170	2300		431E	21	148	2890	
425E	16	140	780		433E	24	208	3670	
427E	27	208	1740		435E	20	152	2320	
429E	26	169	1840		437E	22	169	3720	
431E	24	200	2310		439E	24	121	2820	
433E	24	168	2330		441E	17	83	2660	
435E	26	152	2910		443E	24	114	4920	
437E	26	160	2820		445E	16	104	3620	
439E	28	160	4000						
441E	28	164	3280						
443E	26	139	3820						
445E	22	124	3790						
L470N - 395E	32	179	5780						
397E	19	104	2390						
399E	21	104	3500						
401E	12	44	1300		cc Cordilleran - Ross River				

BONDAR-CLEGG & COMPANY LTD.
1500 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-54554

Geochemical Lab Report

Extraction Pb,Zn;Hot Aqua Regia

Method Pb,Zn;Atomic Absorption Ba; X.R.F.

Fraction Used

Report No. 27 - 426 PROJECT: OJV - GARY

From Cordilleran Engineering Ltd.

Date July 5 1977

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm	
L475N - 395E	25	355	2680		L480N - 403E	16	83	2320	
397E	16	175	2270		405E	28	112	4060	
399E	28	156	3670		407E	7	36	1590	
401E	20	192	2630		409E	22	140	8920	
403E	22	195	3350		411E	24	200	7000	
405E	28	230	3620		413E	23	168	5880	
407E	24	300	7220		415E	26	141	16020	
409E	24	135	10190		417E	29	120	9500	
411E	28	151	9890		419E	26	129	7700	
413E	22	111	6540		421E	24	132	9020	
415E	9	125	2830		423E	32	188	4980	
417E	24	120	6410		425E	30	120	5100	
419E	37	98	7700		427E	27	103	2740	
421E	28	104	6830		429E	29	93	2910	
423E	28	128	2720		431E	27	122	3680	
425E	30	123	3560		433E	24	88	3420	
427E	29	126	3220		435E	26	92	3350	
429E	25	123	4830		437E	25	121	2810	
431E	30	56	2620		439E	19	130	8440	
433E	20	100	1980		441E	24	117	5680	
435E	26	133	2480		443E	26	130	2640	
437E	34	158	3630		445E	24	107	2260	
439E	16	79	1790		L485N - 395E	22	157	3460	
441E	24	116	3420		397E	24	168	3800	
443E	26	139	2870		399E	28	352	2130	
445E	26	152	2480		401E	24	87	6210	
L480N - 395E	21	227	3790		403E	27	153	4560	
397E	24	340	2140		405E	22	140	9910	
399E	26	400	4180		407E	20	108	1550	
401E	28	197	3180		409E	21	132	11090	

BONDAR-C EGG & COMP. NY LTD.

APPENDIX "D" iii

Geochemical Lab Report

Report No. 27 - 426

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm	
L485N - 411E	24	113	19720		L490N - 431E	25	139	7730	
413E	22	141	6060		433E	22	92	4990	
415E	29	188	4750		435E	22	94	10110	
417E	24	148	6020		437E	26	124	5170	
419E	28	127	7050		439E	23	93	5320	
421E	26	130	7230		441E	16	120	3420	
423E	29	136	4880		443E	18	97	3410	
425E	23	152	5640		445E	24	116	4330	
427E	30	113	3970						
429E	29	120	6610						
431E	30	113	7500						
433E	32	123	5490						
435E	26	116	3140						
437E	32	117	2680						
439E	24	120	2680						
441E	26	123	3400						
443E	22	105	2590						
445E	21	188	4540						
L490N - 395E	23	160	1940		cc Cordilleran - Ross River				
399E	26	196	3470						
401E	20	95	7660						
403E	23	149	23500						
405E	18	59	15650						
407E	22	84	18440						
409E	21	104	23160						
411E	20	123	8880						
413E	20	126	17250						
415E	26	99	7920						
417E	20	93	3490						
419E	28	124	7790						
421E	22	104	3760						
423E	29	127	3450						
425E	28	116	4830						
427E	24	88	2760						
429E	30	100	3210						

BONDAR-CLEGG & COMPANY LTD.

1500 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-54554

Geochemical Lab Report

Extraction Pb,Zn, Hot Aqua Regia

Method Pb,Zn, Atomic Absorption; Ba, X.R.F.

Fraction Used

Report No. 27 - 471 PROJECT: OJV-Gary

From Cordilleran Engineering Ltd.

Date July 12, 19 77

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm	
L495N 395E	28	212	1740		L500N 405E	26	168	39610	
397E	24	210	2610		407E	23	108	13400	
399E	23	141	3040		409E	22	152	9810	
401E	25	211	16180		411E	22	127	12570	
403E	9	44	5510		413E	34	172	8010	
405E	15	88	9240		415E	32	163	6210	
407E	26	130	11420		417E	12	68	2960	
409E	19	77	10330		419E	26	113	12720	
411E	12	76	9960		421E	32	158	4280	
413E	20	119	23400		423E	24	153	19550	
415E	22	108	14700		425E	24	145	12620	
417E	29	132	5120		427E	27	187	5750	
419E	27	128	7850		429E	26	176	6050	
421E	30	119	3310		431E	25	136	4230	
423E	26	128	3780		433E	2	16	790	
425E	40	184	3420		435E	31	190	2420	
427E	26	186	5440		437E	18	119	2110	
429E	25	133	4600		439E	29	173	4100	
431E	8	39	1350		L505N 395E	28	203	2560	
433E	3	8	880		397E	16	56	3830	
435E	20	216	8750		399E	26	450	24420	
437E	23	181	3340		401E	19	103	2230	
439E	24	160	2670		403E	17	80	5900	
441E	3	8	780		405E	26	255	2990	
443E	32	520	5490		407E	21	156	9580	
L500N 395E	18	60	1740		409E	20	144	3210	
397E	27	168	3600		411E	22	168	21560	
399E	26	264	2910		413E	31	156	12620	
401E	20	219	3030		415E	28	192	13400	
403E	28	156	5390		417E	23	158	6160	

BONDAR-C .EGG & COMP/ NY LTD.

APPENDIX "D" v.

Geochemical Lab Report

Report No. 27 - 471 Page No. 2

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm	
L505N 419E	24	151	4400		L515N 423E	24	183	4100	
421E	32	196	4020		425E	24	180	3570	
423E	30	174	6030		427E	24	240	3260	
425E	31	176	8940		L520N 395E	23	148	14890	
427E	10	56	1360		397E	28	115	5630	
429E	25	164	6860		399E	21	129	11050	
431E	24	132	3490		401E	28	192	7480	
433E	24	144	8490		403E	2	7	980	
L510N 395E	26	600	4270		405E	26	360	3770	
397E	32	364	2840		407E	25	232	3730	
399E	15	100	2640		409E	20	297	3370	
401E	26	124	16490		411E	21	360	4180	
403E	35	176	11170		413E	27	260	3530	
405E	21	103	3080		415E	15	146	3360	
407E	36	204	5770		417E	28	200	1790	
409E	22	182	7980		419E	18	176	2360	
411E	26	133	3750		421E	2	4	700	
413E	23	206	5220		423E	22	208	6420	
415E	24	204	6700		425E	20	182	6550	
417E	25	297	4060		427E	30	340	2640	
419E	38	164	6550						
421E	27	204	4740						
423E	20	204	5230						
425E	14	116	2430						
427E	24	176	5990						
429E	31	161	9080						
L515N 405E	26	116	2060						
407E	24	152	2070		cc Cordilleran Enginnering - Ross River				
409E	14	206	2460						
411E	8	88	2180						
413E	17	88	3820						
415E	20	77	2160						
417E	14	113	1890						
419E	25	178	8630						
421E	27	160	4880						

BONDAR-CLEGG & COMPANY LTD.
1500 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-54554

Geochemical Lab Report

Extraction Pb,Zn; Hot Aqua Regia
Method Pb,Zn; Atomic Absorption
Fraction Used

Report No. 27 - 514 PROJECT: OJV-GARY
From Cordilleran Engineering Ltd.
Date July 13 1977

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm	
L505N 435E	25	435	3370		L515N 443E	2	9	680	
437E	20	180	2460		445E	8	70	11360	
439E	22	151	2470		447E	4	53	1140	
441E	2	4	690		449E	2	7	790	
443E	2	10	610		451E	16	177	3660	
445E	15	106	1960		453E	2	2	690	
L510N 433E	32	293	2770		455E	2	1	620	
435E	21	207	3230		L520N 429E	26	245	4180	
437E A	2	9	710		431E	21	162	2990	
437E B	24	87	1690		433E	9	54	1490	
437E C	22	134	3250		435E	17	180	9820	
437E D	24	121	2270		437E	14	730	108100	
439E	19	181	5470		439E	24	164	7740	
441E	20	306	2320		441E	14	88	5670	
443E	5	22	1810		443E	2	2	560	
445E	6	61	1110		445E	26	102	121800	
447E	7	146	2590		447E	19	76	34040	
449E	12	207	1690		449E	7	113	157830	
451E	4	7	680		451E	4	33	9900	
453E	64	158	2310		453E	2	14	1680	
455E A	4	14	1160		455E	2	68	5360	
455E B	2	4	730		L525N 425E	10	72	1280	
455E C	2	2	660		427E	16	320	5180	
L515N 429E	28	366	3627		429E	21	160	3100	
431E	30	410	5010		431E	8	28	990	
433E	18	620	35400		433E	2	2	570	
435E	24	206	4210		435E	25	98	41980	
437E	18	104	13840		437E	6	218	377000	
439E	24	207	18930		439E	13	138	5200	
441E	21	194	26940		441E	16	298	1950	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 27 - 514

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.				
L525N 443E	11	225	10880						
445E	8	252	165300						
447E	4	175	96200						
449E	8	204	1430						
451E	6	330	720						
453E	2	38	520						
L530N 439E	15	154	780						
443E	2	10	670						
447E	12	249	890						
449E	6	38	830						
451E	13	300	1020						
453E	2	17	520						
455E	2	308	220		cc Cordilleran - Ross River				

BONDAR-CLEGG & COMPANY LTD.
1500 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-54554

Geochemical Lab Report

Extraction Pb,Zn; Hot Aqua Regia

Method Pb,Zn; Atomic Absorption

Fraction Used

Report No. 27 - 565 PROJECT: OJV GARY

From Cordilleran Engineering Ltd.

Date July 18, 1977

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm	
L485N - 420E A	26	121	7000		L535N - 411E	36	360	2720	
420E B	30	121	7180		413E	31	350	4770	
420E C	26	108	8230		415E	36	320	4790	
427E A	20	114	7100		417E	< 2	< 2	2400	
427E B	39	150	8200		419E	30	180	4960	
427E C	33	132	7850		421E	22	73	3240	
427E D	32	126	7460		423E	< 2	< 2	2390	
441E A	28	108	4760		425E	17	86	3210	
441E B	28	121	4910		427E	34	104	3320	
441E C	28	122	5140		429E	30	360	3990	
L505N - 419E A	26	164	6260		431E	24	116	28700	
419E B	24	128	5180		433E	12	237	96000	
419E C	14	105	5420		435E	17	660	59060	
419E D	20	133	5340		437E	14	580	8390	
L525N - 411E	27	350	4610		439E	16	420	2740	
413E	30	316	4630		449E	10	92	2370	
415E	33	360	6540		L540N - 411E	24	212	3820	
417E	22	278	4220		413E	27	310	4110	
419E	4	20	2600		415E	23	168	3850	
421E	< 2	84	2420		417E A	< 2	3	2470	
423E	26	92	3680		417E B	< 2	2	2520	
L530N - 417E	27	268	5990		417E C	16	54	3470	
419E	26	188	4220		417E D	20	92	3470	
421E	7	28	2660		417E E	22	368	6700	
427E	23	292	4670		419E	< 2	4	2500	
429E	21	330	3160		421E	2	4	2400	
431E	22	285	2970		423E	10	38	2780	
433E	22	72	5840		427E	2	4	2350	
435E	16	88	146500		429E	32	206	4610	
437E	20	280	2270		431E	2	5	2390	

BONDAR- LEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 27 - 565

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.				
L540N - 433E	18	1360	2680						
435E	< 2	7	2680						
439E	14	173	151400						
443E	22	144	3290						
L545N - 411E	27	176	3920						
411E Profile 6"	26	183	3850						
411E Profile12"	25	200	3990						
411E Profile 18"	25	194	3950						
411E Profile 24"	26	206	4390						
413E	26	96	3190						
415E	18	124	3670						
417E	26	216	4130						
419E	21	81	3590						
421E	41	88	15050						
423E	2	3	2560						
425E	25	148	93400						
425E Profile 6"	20	140	124800						
425E Profile 12"	19	152	74800						
425E Profile 18"	18	162	61200						
425E Profile 24"	16	148	42600						
429E	26	68	3090						
433E	33	144	3680						
437+50E	4	3200	2890						
L550N - 411E	4	12	2560						
413E	24	230	12860						
415E	16	84	5300						
417E	5	36	3350						
423E	26	136	11680						
BL 425	43	124	9220		cc Cordilleran - Ross River				

BONDAR-CLEGG & COMPANY LTD.
1500 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-54554

Geochemical Lab Report

Extraction: Ba; Multy Acid
Pb,Zn; Hot Aqua Regia

Method: Atomic Absorption

Fraction Used:

Report No. 27 - 1308

From: Cordilleran Engineering Ltd. OJV-Gary/Central

Date: Sept. 30 19 77

SAMPLE NO.	Pb ppm	Zn ppm	Ba ppm		SAMPLE NO.	Pb	Zn	Ba ppm	
L12+50S - 0+00W (A)	18	180	6000		L17+50E - 8W	10	252	2100	
0+00W (B)	16	172	7300		10W	19	230	6700	
0+00W (C)	17	184	6800		12W	20	192	7500	
0+00W (D)	17	170	6500		14W	22	320	4900	
2+00W	16	130	4500		16W	18	300	5800	
4+00W	28	210	3300		18W	14	420	2450	
6+00W	20	220	1750		20W	21	500	7300	
8+00W	12	290	2700		22W	12	2500	2200	
10+00W	12	450	1700		24W	22	540	4600	
12+00W	18	328	3200		26W	26	274	5400	
14+00W	18	520	6500		28W	21	178	7500	
16+00W	10	82	5450		30W	20	284	2850	
18+00W	20	166	7300		32W	12	70	1900	
20+00W	19	820	4900		34W	13	108	1650	
22+00W	20	220	6900		36W	24	180	3100	
24+00W	18	292	3800		38W	14	740	1750	
28+00W	20	450	1700		40W	24	244	1900	
30+00W	20	92	1600						
32+00W	11	38	1250						
34+00W	22	70	1700						
36+00W	12	32	2300						
38+00W	16	136	1525						
40+00W (A)	14	204	1425						
40+00W (B)	10	180	1500						
40+00W (C)	13	188	1700						
40+00W (D)	12	260	1700						
L17+50E - 0W	16	112	4600						
2W	12	92	3250						
4W	11	192	3950						
6W	14	126	1600						
			[illegible]						

cc Cordilleran Ross River

APPENDIX "E"

AFFIDAVIT OF EXPENSES

CANADA)
) in the matter of a geological and geochemical report on behalf of the Ogilvie Joint Venture
TO WIT:)

I, Owen S. Hairsine, agent for Cordilleran Engineering Limited

of city of Vancouver, Province of British Columbia

do solemnly declare, - geological mapping, prospecting and geochemical sampling were conducted on the Gary Claim Group (Net 60 Fr, Gary 63-75 mineral claims), Watson Lake Mining District, Y.T., during the period June 8 - July 6, 1977.

The costs of this work were as follows:

	NORTH GRID
Consulting Fees	$ 648.75
Salaries	2,146.08
Fixed-Wing Aircraft	252.14
Assays	518.50
Geochemical Analysis	1,026.15
Travel	283.50
Freight, Truck Rental	261.42
Camp supplies and food	500.00
	$5,636.54

And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of The Canada Evidence Act.

Declared before me at Vancouver)
province of)
in the British Columbia this)
30 day of November 19 77)

O. S. Hairsine

A Commissioner for Oaths for Yukon Territory OR Notary Public for

APPENDIX "F"

PLATES

SCALE: 1" = 500'

PLATE 1	Claim Map
PLATE 2	Geology Map
PLATE 3	Lead Geochemical Map
PLATE 4	Zinc Geochemical Map
PLATE 5	Barium Geochemical Map
PLATE 6	Compilation Map

EXPLANATION

GARY 75 — CLAIM NAME
CLAIM POST LOCATION

CUT LINES

FLAGGED LINES

NOTE : GARY PROPERTY MINERAL CLAIMS ARE GARY AND NET.

OGILVIE JOINT VENTURE

CLAIM MAP

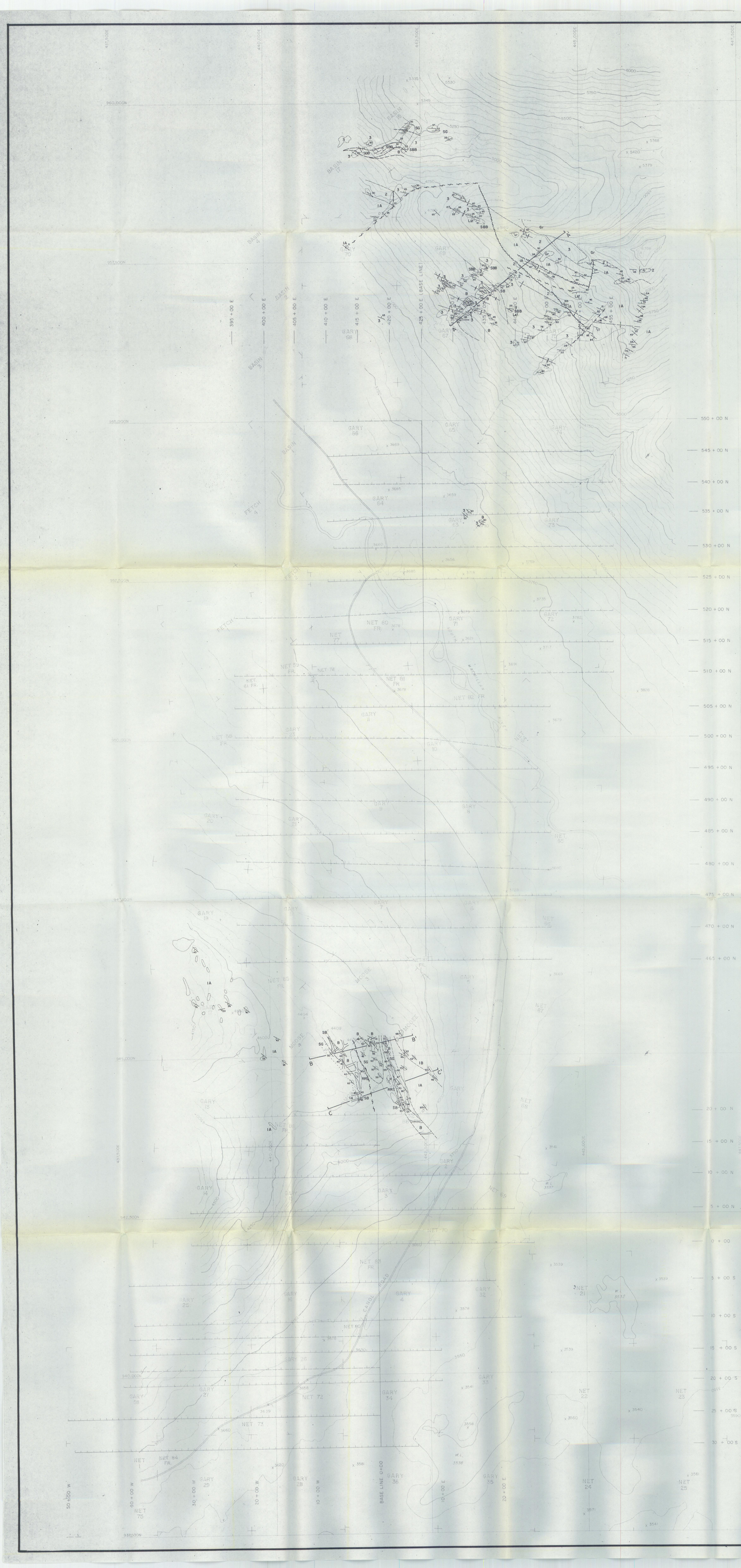
GARY PROPERTY
NORTH AND CENTRAL GRIDS
MACMILLAN PASS AREA, (N.T.S. 105-O-1)
MAYO AND WATSON LAKE MINING DISTRICTS, YUKON TERRITORY
LAT: 63° 04' N LONG: 130° 15' W

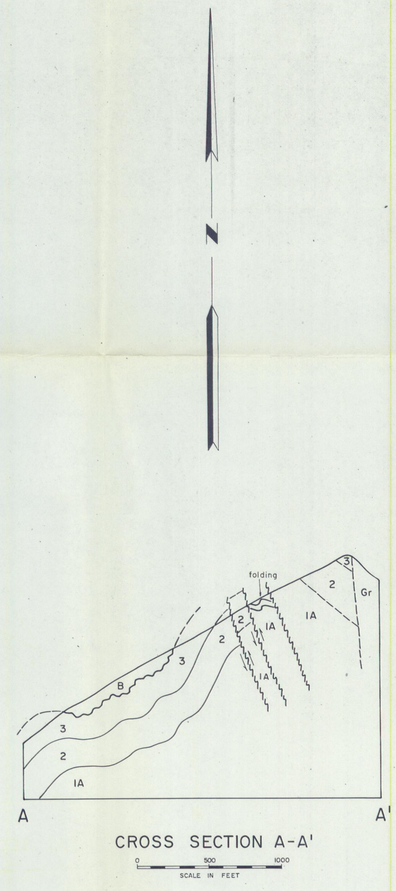
500 0 500 1000 1500
SCALE IN FEET

BY
CORDILLERAN ENGINEERING LTD.
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

NOVEMBER, 1977

PLATE I





CROSS SECTION A-A'

0 500 1000
SCALE IN FEET

LEGEND

Cretaceous	Gr	GRANITIC INTRUSIVE – Coarse crystalline, large phenocrysts of quartz and feldspar.	Thickness unknown
Deposition sequence associated with the bedded barite. Found within Units 1 and 3. Suggests similar deposition environments at different times in the stratigraphic succession.	SG	SILICEOUS GREY SHALE – Appears to be a silica precipitate with low mud content colouring it light to medium dark grey. It is thickly laminated to thinly bedded, and has abundant finely disseminated pyrite specks throughout. Thinly interbedded barite occurs near the contact with bedded barite. Locally it contains interbeds of very fine, moderately siliceous, moderately carbonaceous sandstone.	0 – 150 feet
	B	BEDDED BARITE – Thinly laminated, coarse grained, clean white barite. Variable silica content. Very thin laminations of limonite 1 – 10%. Local thin interbeds of siliceous grey or black shale.	5 – 150 feet
	SBB	SILICEOUS BLACK SHALE – with thin laminations and elongate blebs of barite.	0 – 30 feet
	SB	SILICEOUS BLACK SHALE – Appears to be a silica precipitate similar to SG type rocks, buf with a content of carbonaceous mud giving the black colour. There are local disseminated spots of white silica, and thin white quartz stringers generally parallel to bedding. Abundant disseminated pyrite is associated with quartz, and intergrown with silica spots.	0 – 50 feet
Devonian – Mississippian	3	SILTSTONE AND SHALE – Thinly laminated to thinly bedded, medium to dark grey, moderately to highly siliceous, moderately to highly carbonaceous (locally graphitic near the bedded barite). Metamorphosed near the granitic body. Abundant Andalusite needles and strong silicification near the granite.	150 – 500 feet
	2	CHERT PEBBLE BRECCIA (Turbidite) — Sub rounded to angular fragments of white chert, black siliceous argillite, and black non siliceous argillite in a matrix of medium dark grey, moderately siliceous shale. Poorly sorted fragments – 1mm to 10cm wide.	200 feet
	1B	TUFFACEOUS (?) SILTSTONE – Olive grey, moderately siliceous, thinly laminated to thinly bedded, non carbonaceous.	0 – 100 feet
	1A	SILTSTONE AND SHALE – Medium to dark grey, thinly laminated to thinly bedded. Alternate medium and dark grey laminations on weathering surfaces (Pinstripe texture), moderately to non siliceous, and low to non carbonaceous. Metamorphosed near the granite body. Abundant Andalusite needles and strong silicification near the granite.	100 – 500 feet
Ordovician	RRS	DARK GREY TO BLACK SHALE – low to moderately siliceous, moderately to highly carbonaceous, very thinly to massively bedded. Local finely disseminated pyrite, and yellow stains on weathered surfaces.	unknown

OUTCROP BOUNDARY

GEOLOGICAL CONTACT (Approximate, Inferred)

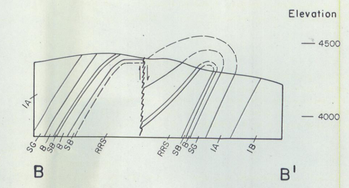
BEDDING ATTITUDE

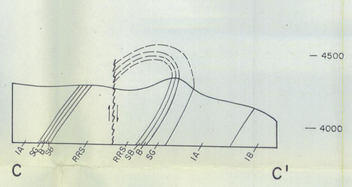
FOLIATION ATTITUDE

FOLD AXIS ATTITUDES (Anticline, Syncline)

FAULT (Actual Contact, Approximate Contact)

TRENCH





CROSS SECTIONS B-B', C-C'

0 500 1000
VERTICAL AND HORIZONTAL SCALE IN FEET

OGILVIE JOINT VENTURE

GEOLOGICAL MAP

GARY PROPERTY

NORTH AND CENTRAL GRIDS

MACMILLAN PASS AREA, (N.T.S. 105-O-1)

MAYO AND WATSON LAKE MINING DISTRICTS, YUKON TERRITORY

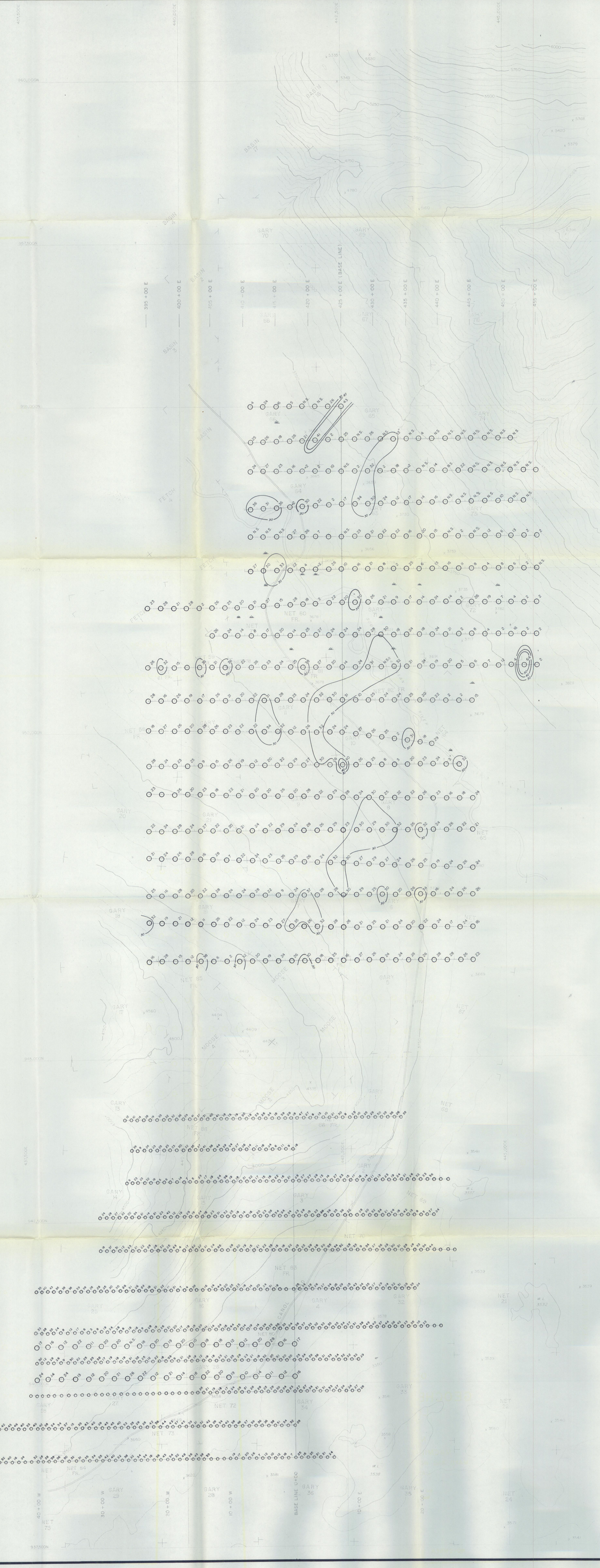
LAT: 63° 04' N LONG: 130° 15' W

500 0 500 1000 1500
SCALE IN FEET

BY
CORDILLERAN ENGINEERING LTD.
1418 – 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

NOVEMBER, 1977

PLATE 2



N

NORTH GRID

CENTRAL GRID

EXPLANATION

23 — SOIL SAMPLE LOCATION AND LEAD VALUE IN P.P.M. (PARTS PER MILLION)

N.S. — NO SAMPLE

LEAD CONCENTRATION IN P.P.M.

BACKGROUND	< 30
POSSIBLY ANOMALOUS	30 — 39
PROBABLY ANOMALOUS	40 — 49
STRONGLY ANOMALOUS	≥ 50

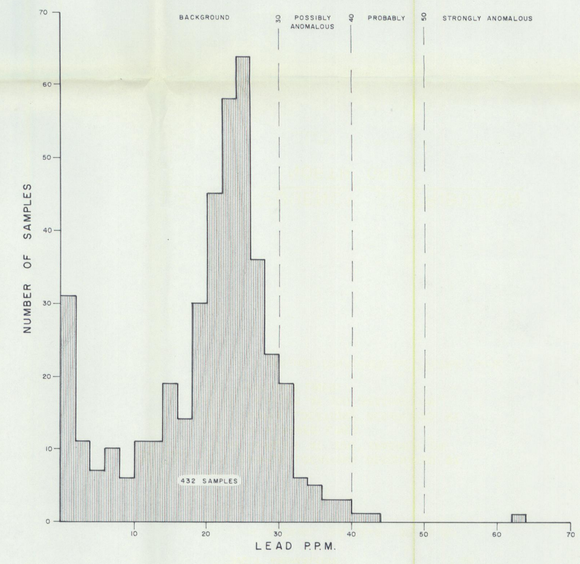
CONTOUR INTERVAL FOR LEAD: 30, 40, 50

SWAMP

NOTE: 1977 SAMPLE LOCATIONS DESIGNATED BY LARGE CIRCLES AT 200' SPACINGS ON CUT AND FLAGGED LINES
1976 SAMPLE LOCATIONS DESIGNATED BY SMALL CIRCLES AT 100' SPACINGS ON PRE - 1977 CUT LINES.

NO LEAD VALUES CONTOURED ON CENTRAL GRID

LEAD FREQUENCY DISTRIBUTION
NORTH GRID



OGILVIE JOINT VENTURE

GEOCHEMICAL SOIL SAMPLES

LEAD VALUES IN P.P.M.

GARY PROPERTY

NORTH AND CENTRAL GRIDS

MACMILLAN PASS AREA, (N.T.S. 105-O-1)

MAYO AND WATSON LAKE MINING DISTRICTS, YUKON TERRITORY

LAT: 63° 04' N LONG: 130° 15' W

500 0 500 1000 1500

SCALE IN FEET

BY
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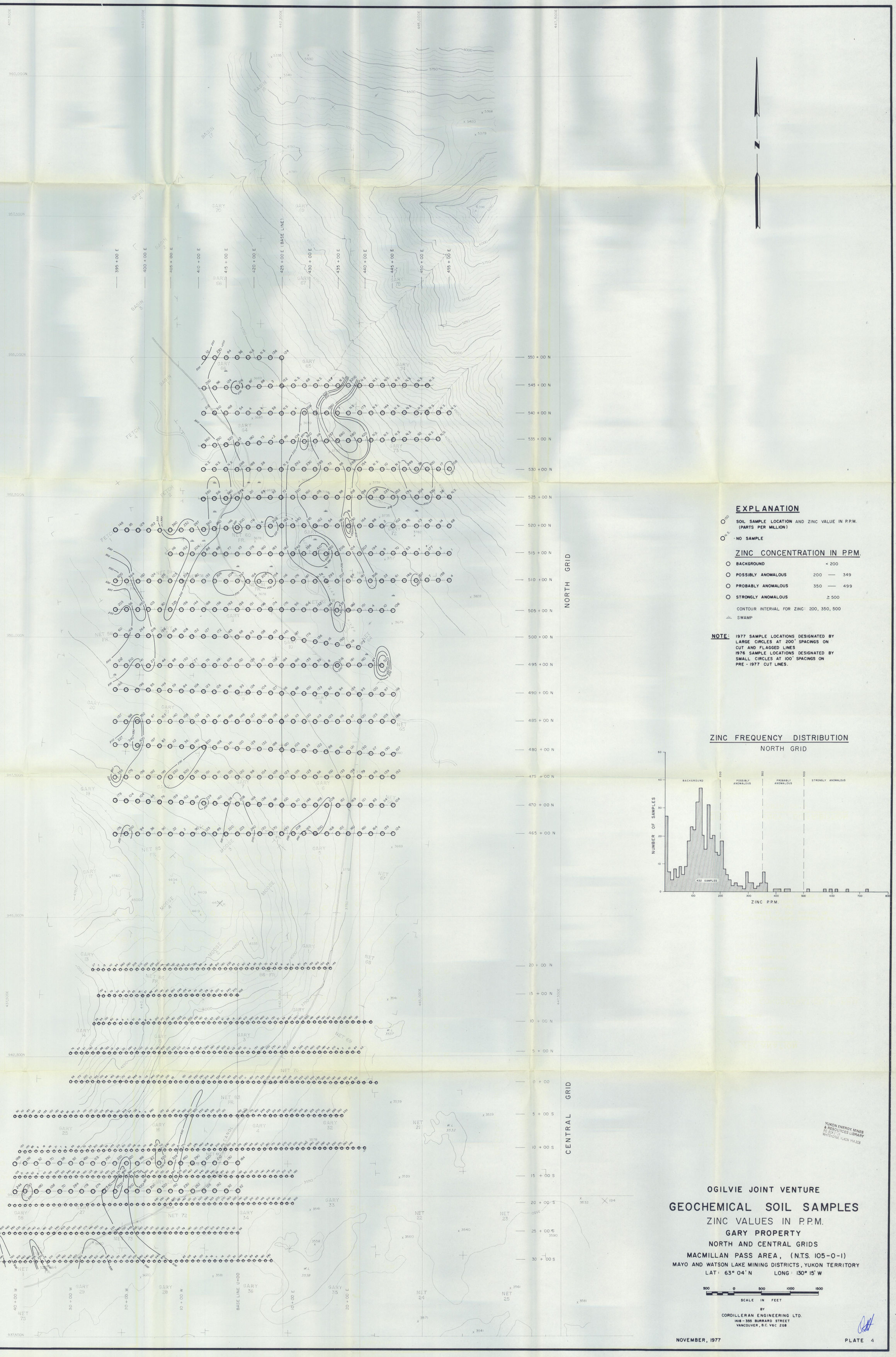
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

NOVEMBER, 1977

PLATE 3



EXPLANATION

150 — SOIL SAMPLE LOCATION AND ZINC VALUE IN P.P.M. (PARTS PER MILLION)

N.S. — NO SAMPLE

ZINC CONCENTRATION IN P.P.M.

BACKGROUND	< 200	
POSSIBLY ANOMALOUS	200 —	349
PROBABLY ANOMALOUS	350 —	499
STRONGLY ANOMALOUS	≥ 500	

CONTOUR INTERVAL FOR ZINC: 200, 350, 500

SWAMP

NOTE: 1977 SAMPLE LOCATIONS DESIGNATED BY LARGE CIRCLES AT 200' SPACINGS ON CUT AND FLAGGED LINES
1976 SAMPLE LOCATIONS DESIGNATED BY SMALL CIRCLES AT 100' SPACINGS ON PRE - 1977 CUT LINES.

ZINC FREQUENCY DISTRIBUTION

NORTH GRID

OGILVIE JOINT VENTURE

GEOCHEMICAL SOIL SAMPLES

ZINC VALUES IN P.P.M.

GARY PROPERTY

NORTH AND CENTRAL GRIDS

MACMILLAN PASS AREA, (N.T.S. 105-O-1)

MAYO AND WATSON LAKE MINING DISTRICTS, YUKON TERRITORY

LAT: 63° 04' N LONG: 130° 15' W

500 0 500 1000 1500

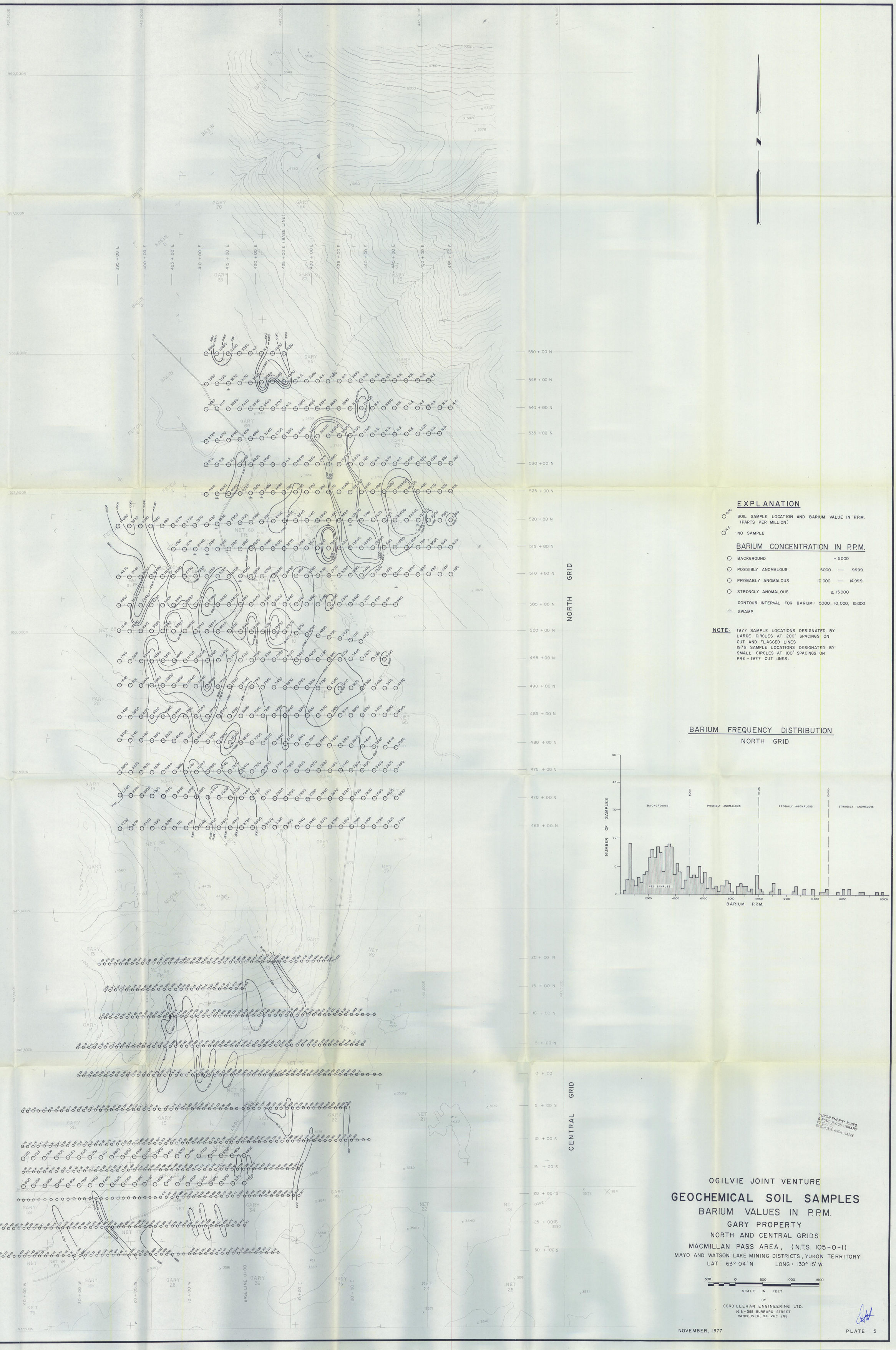
SCALE IN FEET

BY

CORDILLERAN ENGINEERING LTD.
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

NOVEMBER, 1977

PLATE 4



EXPLANATION

○ 500 — SOIL SAMPLE LOCATION AND BARIUM VALUE IN P.P.M. (PARTS PER MILLION)

○ N.S. — NO SAMPLE

BARIUM CONCENTRATION IN P.P.M.

○	BACKGROUND	< 5000
○	POSSIBLY ANOMALOUS	5000 — 9999
○	PROBABLY ANOMALOUS	10 000 — 14 999
○	STRONGLY ANOMALOUS	≥ 15000

CONTOUR INTERVAL FOR BARIUM: 5000, 10,000, 15,000

SWAMP

NOTE: 1977 SAMPLE LOCATIONS DESIGNATED BY LARGE CIRCLES AT 200' SPACINGS ON CUT AND FLAGGED LINES
1976 SAMPLE LOCATIONS DESIGNATED BY SMALL CIRCLES AT 100' SPACINGS ON PRE-1977 CUT LINES.

BARIUM FREQUENCY DISTRIBUTION
NORTH GRID

OGILVIE JOINT VENTURE

GEOCHEMICAL SOIL SAMPLES

BARIUM VALUES IN P.P.M.

GARY PROPERTY

NORTH AND CENTRAL GRIDS

MACMILLAN PASS AREA, (N.T.S. 105-O-1)

MAYO AND WATSON LAKE MINING DISTRICTS, YUKON TERRITORY

LAT: 63° 04' N LONG: 130° 15' W

500 0 500 1000 1500

SCALE IN FEET

BY

CORDILLERAN ENGINEERING LTD.
1418 - 355 BURRARD STREET
VANCOUVER, B.C. V6C 2G8

NOVEMBER, 1977

PLATE 5

EXPLANATION

GEOCHEMICAL SOIL SURVEY – NORTH GRID

ANOMALIES

- LEAD – VALUES ≥ 40 ppm
- ZINC – VALUES ≥ 500 ppm
- BARIUM – VALUES ≥ 10,000 ppm

	Pb	Zn	Ba
BACKGROUND	< 30	< 200	< 5000
POSSIBLY ANOMALOUS	30 – 39	200 – 349	5000 – 9999
PROBABLY ANOMALOUS	40 – 49	350 – 499	10,000 – 14,999
STRONGLY ANOMALOUS	≥ 50	≥ 500	≥15,000

GEOCHEMICAL SOIL SURVEY – CENTRAL GRID

ANOMALIES

- ZINC – VALUES > 500 ppm
- BARIUM – VALUES > 3000 ppm

NOTE: PRE – 1977 SOIL SAMPLES ON CENTRAL GRID NOT CONTOURED FOR LEAD.

ELECTROMAGNETIC SURVEY – NORTH & CENTRAL GRIDS

- MODERATELY TO HIGHLY CONDUCTIVE MATERIAL
- POORLY TO MODERATELY CONDUCTIVE MATERIAL

NORTH GRID

395 + 00 E | 400 + 00 E | 405 + 00 E | 410 + 00 E | 415 + 00 E | 420 + 00 E | 425 + 00 E (BASE LINE) | 430 + 00 E | 435 + 00 E | 440 + 00 E | 445 + 00 E | 450 + 00 E | 455 + 00 E

550 + 00 N | 545 + 00 N | 540 + 00 N | 535 + 00 N | 530 + 00 N | 525 + 00 N | 520 + 00 N | 515 + 00 N | 510 + 00 N | 505 + 00 N | 500 + 00 N | 495 + 00 N | 490 + 00 N | 485 + 00 N | 480 + 00 N | 475 + 00 N | 470 + 00 N | 465 + 00 N

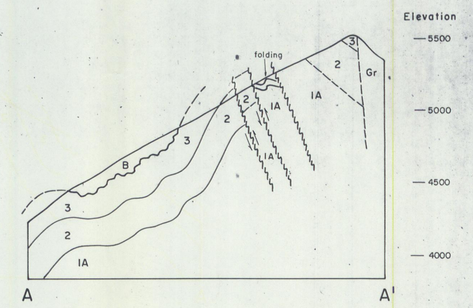
CENTRAL GRID

20 + 00 N | 15 + 00 N | 10 + 00 N | 5 + 00 N | 0 + 00 | 5 + 00 S | 10 + 00 S | 15 + 00 S | 20 + 00 S | 25 + 00 S | 30 + 00 S

50 + 00 W | 40 + 00 W | 30 + 00 W | 20 + 00 W | 10 + 00 W | BASE LINE 0+00 | 10 + 00 E | 20 + 00 E

960,000N | 947,500N | 945,000N | 942,500N | 940,000N | 937,500N

437,500E | 440,000E | 442,500E | 445,000E | 447,500E



CROSS SECTION A-A'

0 500 1000 SCALE IN FEET

LEGEND

Cretaceous	Gr	GRANITIC INTRUSIVE – Coarse crystalline, large phenocrysts of quartz and feldspar.	Thickness unknown
Deposition sequence associated with the bedded barite. Found within Units 1 and 3. Suggests similar deposition environments at different times in the stratigraphic succession.	SG	SILICEOUS GREY SHALE – Appears to be a silica precipitate with low mud content colouring it light to medium dark grey. It is thickly laminated to thinly bedded, and has abundant finely disseminated pyrite specks throughout. Thinly interbedded barite occurs near the contact with bedded barite. Locally it contains interbeds of very fine, moderately siliceous, moderately carbonaceous sandstone.	0 – 150 feet
	B	BEDDED BARITE – Thinly laminated, coarse grained, clean white barite. Variable silica content. Very thin laminations of limonite 1 – 10%. Local thin interbeds of siliceous grey or black shale.	5 – 150 feet
	SBB	SILICEOUS BLACK SHALE – with thin laminations and elongate blebs of barite.	0 – 30 feet
	SB	SILICEOUS BLACK SHALE – Appears to be a silica precipitate similar to SG type rocks, buf with a content of carbonaceous mud giving the black colour. There are local disseminated spots of white silica, and thin white quartz stringers generally parallel to bedding. Abundant disseminated pyrite is associated with quartz, and intergrown with silica spots.	0 – 50 feet
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	1B	TUFFACEOUS (?) SILTSTONE – Olive grey, moderately siliceous, thinly laminated to thinly bedded, non carbonaceous.	0 – 100 feet
	1A	SILTSTONE AND SHALE – Medium to dark grey, thinly laminated to thinly bedded. Alternate medium and dark grey laminations on weathering surfaces. (Pinstripe texture), moderately to non siliceous, and low to non carbonaceous. Metamorphosed near the granite body. Abundant Andalusite needles and strong silicification near the granite.	100 – 500 feet
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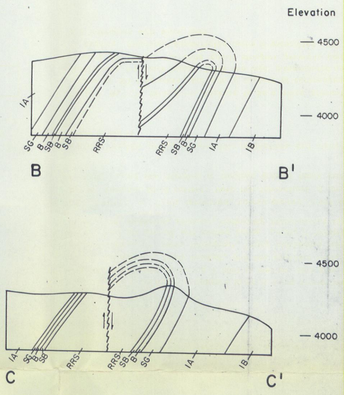
- OUTCROP BOUNDARY
- GEOLOGICAL CONTACT (Approximate, Inferred)
- BEDDING ATTITUDE
- FOLIATION ATTITUDE
- FOLD AXIS ATTITUDES (Anticline, Syncline)
- FAULT (Actual Contact, Approximate Contact)
- TRENCH



CROSS SECTIONS B-B', C-C'

0 500 1000 VERTICAL AND HORIZONTAL SCALE IN FEET

OGILVIE JOINT VENTURE

COMPILATION MAP

GARY PROPERTY

NORTH AND CENTRAL GRIDS

MACMILLAN PASS AREA, (N.T.S. 105-O-1)

MAYO AND WATSON LAKE MINING DISTRICTS, YUKON TERRITORY

LAT: 63° 04' N LONG: 130° 15' W

500 0 500 1000 1500 SCALE IN FEET

BY
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VANCOUVER, B.C. V6C 2G8

NOVEMBER, 1977

PLATE 6