

ASSESSMENT REPORT

PART I

TITLE: 1980 GEOCHEMICAL SOIL SAMPLE SURVEY FOR Cu, Pb, Zn, AND LINECUTTING ON THE MCLAUGHLIN RIDGE PROPERTY, PORT ALBERNI, BRITISH COLUMBIA.

PART II

1980 INDUCED POLARIZATION AND RESISTIVITY SURVEY OF THE ROGER'S CREEK GRID, MCLAUGHLIN RIDGE PROPERTY.

CLAIMS INVOLVED : OETS, OETS 2, CAM, DEBBIE 1,2,3,
LUCY 1,2,3, LINDA 1,2

TOTAL UNITS : 161

LOCATION : ALBERNI AND NANAIMO MINING DIVISIONS
49° 13'N LATITUDE
124° 41'W LONGITUDE
92F/2E AND 92F/7E N.T.S. MAP NOS.

OWNER AND OPERATOR OF CLAIMS: WESTMIN RESOURCES LIMITED
(COMPANY NAME CHANGED FROM WESTERN MINES LIMITED)

REPORT BY : G. BENVENUTO

WORK PERIOD : MAY 29-31 AND JULY 16-OCTOBER 21, 1980



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SUMMARY

The Oets, Oets 2, Cam, Debbie 1,2,3, Lucy 1,2,3 and Linda 1,2 claims were staked by Westmin Resources Limited between April 25, 1979 and May 28, 1980, about 10 km east of Port Alberni, Vancouver Island, British Columbia. They form 161 units and a major part of the McLaughlin Ridge property of 217 units held by Westmin Resources Limited. The claims are underlain by heterolithic volcanic rocks of the Upper Paleozoic Sicker Group except in the northern part of the area where a portion of the Sicker Group is unconformably overlain by Cretaceous conglomerates and sandstones of the Nanaimo Group.

1704 soil and silt samples were collected along a 50m by 200m grid pattern on the Cam, Debbie 1, Lucy 1,2,3 and Linda 1,2 claims between May 29 and October 21, 1980, and analyzed for copper, lead and zinc. 14 soil samples contain anomalous concentrations of copper (200 to 540 ppm); 18 samples contain anomalous zinc (207 to 1270 ppm); 2 samples contain anomalous lead (58 and 122 ppm). Nine of these samples define three areas of soil elongate northwesterly or northerly. These nine samples and twelve others collected from scattered sites define a roughly rectangular area of 3.5 square kilometers in Debbie 1, and Lucy 1,3 that warrants follow-up geologic mapping and prospecting.

A total of 34.1 km of grid lines and baselines were cut between October 7 and 21, 1980 in Oets, Oets 2, Debbie 1,2,3 and Lucy 1,2,3 in preparation for a reconnaissance-scale induced polarization survey. A geophysical survey on one of the five grids cut, the Roger's Creek grid across the corners of Oets, Oets 2, and Debbie 2,3 claims, was conducted between October 26 and November 19, 1980. 8 km of grid lines were surveyed using the gradient array and a receiver electrode spacing of either 25m or 50m. Measurements indicate the presence of a narrow zone of low apparent resistivities that is in part coincident with Roger's Creek and probably marks the locations of a major northwesterly trending fault. Measurements also delineate a broad, arcuate northwest to north-trending zone of high polarizability that is in part coincident with a narrower zone of low apparent resistivities and spans the entire length of the grid.

The geophysical response in this zone might be explained by the presence of a relatively narrow central zone of more concentrated metallic mineralization surrounded by a large halo of much more disseminated metallics.

PART I

I. INTRODUCTION

A. LOCATION: 92 F2/E AND 92 F7/E

The McLaughlin Ridge property is located on southeastern Vancouver Island, British Columbia, about 10 air-kilometres southeast of Port Alberni (Figure 1). The property encompasses the northwest part of McLaughlin Ridge between Cameron River to the northeast and east and China Creek to the south, and the Summit Lake area. The portion of the property involved in the soil survey and linecutting comprises 40 square kilometres and extends from 49° 15.3' N to 49° 10.0' N latitude and from 124° 43.2' W to 124° 38.7' W longitude.

B. ACCESS

The northern part of the property is easily accessible via the Parksville-Port Alberni Highway No. 4 and is situated between 18 and 22 km from Port Alberni. The southern part is accessible from Port Alberni by a logging road along China Creek (Figure 1). The central portion is accessible by the Cameron Main logging road and the Yellow Creek logging road system.

C. PHYSIOGRAPHY AND GEOLOGY

The McLaughlin Ridge divides the property into rugged northeast-west- and southwest-facing slopes with relief of up to 1000m. Numerous northerly and northwesterly trending creeks drain from the rather flat-topped ridge into the prominent valleys followed by the Cameron River to the northeast and China Creek to the south.

The Oets and Oets 2 claims, which form the northern part of the property, encompass part of the drainage divide between the Cameron River on the east and the Alberni Valley on the west. This area contains several northeast-trending creeks, small lakes and swamps that separate several hills and ridges of moderate relief up to 400m.

The vegetation is characterized by dense immature to mature forest growth of Douglas Fir that surrounds eight prominent logging slashes. The China Creek and Roger's Creek valleys contain narrow bands of mature Alder trees.

Most of the property is underlain by Upper Paleozoic metavolcaniclastic rocks and pillowed basalts and andesites of the Sicker Group. The centre half of the Oets and Oets 2 claims is underlain by a belt of Cretaceous conglomerates, sandstones and shales of the Nanaimo Group that unconformably overlies the Sicker Group.

D. PROPERTY DEFINITION

Westmin Resources Limited (prior to March 26, 1981, Western Mines Limited) of 1103 - 595 Burrard Street, Vancouver, B.C. is the current owner and operator of the Oets, Oets 2, Debbie 1,2,3, Cam, Lucy 1,2,3 and Linda 1,2 claims, which contain from 6 to 20 units. These claims, together with the Lily 1,2, Jenny and Loupy claims, also held by Westmin Resources Limited, form the McLaughlin Ridge property (Figure 2). The claims and claim groups are listed with recording information in Table 1.

D. PROPERTY DEFINITION (CONT'D)

Two claims encompassed by the perimeter of the McLaughlin Ridge property are not held by Westmin Resources: Crown Land Grant L215G held by John McGoran of Vancouver, B.C., and the Yellow claim held by Silver Cloud Mines Ltd. of Surrey, B.C.

TABLE 1
CLAIMS INFORMATION

CLAIM GROUP	CLAIM	UNITS	RECORD DATE	RECORD NO.	EXPIRY DATE
DEB-OETS	OETS	20	JUNE 28, 1979	487 (6)	JUNE 28, 1982
	OETS 2	12	AUG. 3, 1979	507 (8)	AUG. 3, 1982
	CAM	6	JUNE 20, 1980	980 (6)	JUNE 20, 1981
	DEBBIE 1	20	MAY 2, 1979	451 (5)	MAY 2, 1982
	DEBBIE 2	12	MAY 2, 1979	452 (5)	MAY 2, 1982
	DEBBIE 3	20	MAY 2, 1979	453 (5)	MAY 2, 1982
LULIN	LUCY 1	15	MAY 2, 1979	372 (5)	MAY 2, 1981
	LUCY 2	12	MAY 2, 1979	373 (5)	MAY 2, 1981
	LUCY 3	16	MAY 2, 1979	374 (5)	MAY 2, 1982
	LINDA 1	16	MAY 2, 1979	454 (5)	MAY 2, 1981
	LINDA 2	12	MAY 2, 1979	455 (5)	MAY 2, 1981

E. PROPERTY HISTORY - MINING AND STAKING

Small-scale placer mining and production from gold-bearing quartz veins along several of the tributaries of China Creek are recorded for infrequent intervals between 1862 and 1936. In the Yellow claim, along Mineral Creek, Vancouver Island Gold Mines Ltd., between 1933 and 1936 produced 403 tons of ore containing 303 oz. of gold and 52 oz. of silver, from quartz veins in sheared andesite flows and tuffs (Stevenson, 1944).

Westmin Resources Limited first became involved in mineral exploration in the area in February, 1973, when G.H. Scott staked the Amy claim of 12 units (area covered by the north third of Debbie 1 and south third of Debbie 2). In March, 1973, J. Szakacas staked the Sam claim for Keywest Resources Ltd. in the area surrounding Mineral Creek (Assessment Report No. 5443). Later, in August, 1976, G. Crooker re-staked the Amy claim and enlarged Western Mines holdings to include the Sultan, Rupert and Dog claims (covered approximately by the present Debbie 1,2 and Lucy 1,2 claims). In that same month, R. Tschach of Western Mines re-staked the southern part of the Sam claim as the Shannon and Tasha claims (covered by southeast Linda 1 and Jenny).

Geochemical soil and geologic mapping surveys were conducted at a reconnaissance scale by Western Mines in 1973 and 1976 on their claims (Assessment Reports Nos. 4875, 5594, 6153). These early surveys outlined

E. PROPERTY HISTORY - MINING AND STAKING (CONT'D)

several areas of high concentrations of copper and zinc in the soils. Re-evaluation of these results led Western Mines to re-stake an area of 217 units - the McLaughlin Ridge property (Assessment Reports submitted on soil sampling from Debbie 1,2,3, Lucy 1,2,3, Linda 1,2, Oets, Oets 2, Lily 1,2, Jenny and Loupy claims in 1980).

F. SUMMARY OF WORK DONE

1. GEOCHEMICAL SOIL SAMPLE SURVEY

1704 soil and silt samples were collected on the Debbie 1, Lucy 1,2,3, Linda 1,2 and Cam claims with a mattock from the "B"-soil horizon, from May 29 to 31 and July 16 to October 21, 1980. The soil samples were taken at 50m intervals along grid lines spaced 200m apart. The grid lines are oriented at 058° azimuth, which is at right angles to the regional northwesterly strike of schistosity and layering in the Sicker Group volcanic rocks.

The soil sampling survey in 1980 is a reconnaissance-scale survey designed to follow up the soil sampling along claim lines and east-west lines dividing the Debbie 1,2,3 and Lucy 1,2 claims into two or three parts, that was conducted between May 23 and June 26, 1979.

The soil and silt samples were analyzed at Min-En Labs Limited, 705 West 15th Street, North Vancouver, B.C. At the lab, the samples were dried at 95°C and screened by an 80 mesh sieve. 1.0 grams of the sample was digested in a nitric and perchloric acid solution for 6 hours, then analyzed by an atomic absorption spectrophotometer using a CH₂H₂ -air Flame, for copper, lead and zinc (results are reported in parts per million - ppm, Figure 3).

2. LINECUTTING AND ROAD IMPROVEMENTS

A total of 34.1 km of grid lines and baselines were cut between October 7 and 21, 1980, in preparation for a reconnaissance-scale induced polarization survey. The lines were cut by axe to a width of about 1m through the undergrowth and dead fall; no trees over 7cm diameter were cut in areas of mature or semi-mature forest and no trees at all were cut in the planted logging slashes. The linecutting was done by Martinson Linecutting and Staking Ltd. of 6860 Fairmont Street, Powell River, B.C.

Five grids were cut: Summit Main Grid (6.6 km), Summit Lake grid (3.1 km), Roger's Creek Grid (10.5 km), Yellow Creek Main Grid (8.8 km) and Yellow Creek 100 Grid (5.1 km) (see Figure 4 in pocket which shows grid and base lines of all the grids on a topographic map at a scale of 1:10,000). The grids are located in the Oets, Oets 2, Debbie 1,2,3 and Lucy 1,2,3 claims and are oriented at approximately right angles to layering and schistosity in the area of the grid. The spacing between the grid lines is 100m in areas of particular geologic interest and 200m in the more distal portions of these areas. The grid lines vary from a length of 1500m to 600m depending in part on topographic constraints, but average 800 to 1000m long.

An induced polarization survey had been planned along all the grids for the Fall of 1980. However, due to excessive rainfall and other factors, only the geophysical survey along the Roger's Creek grid was completed. A geophysical survey is planned for the remaining four cut grids in 1981.

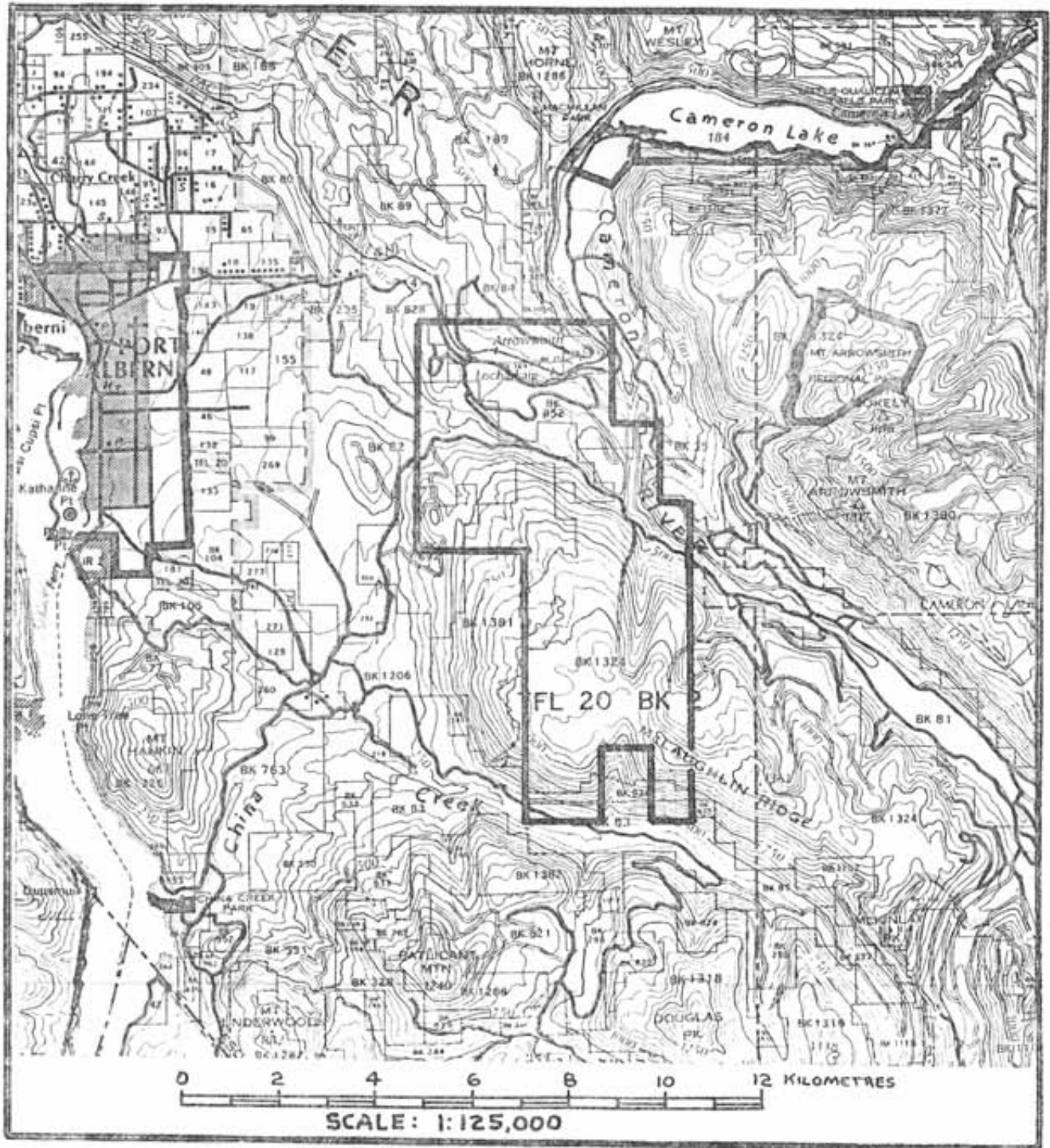
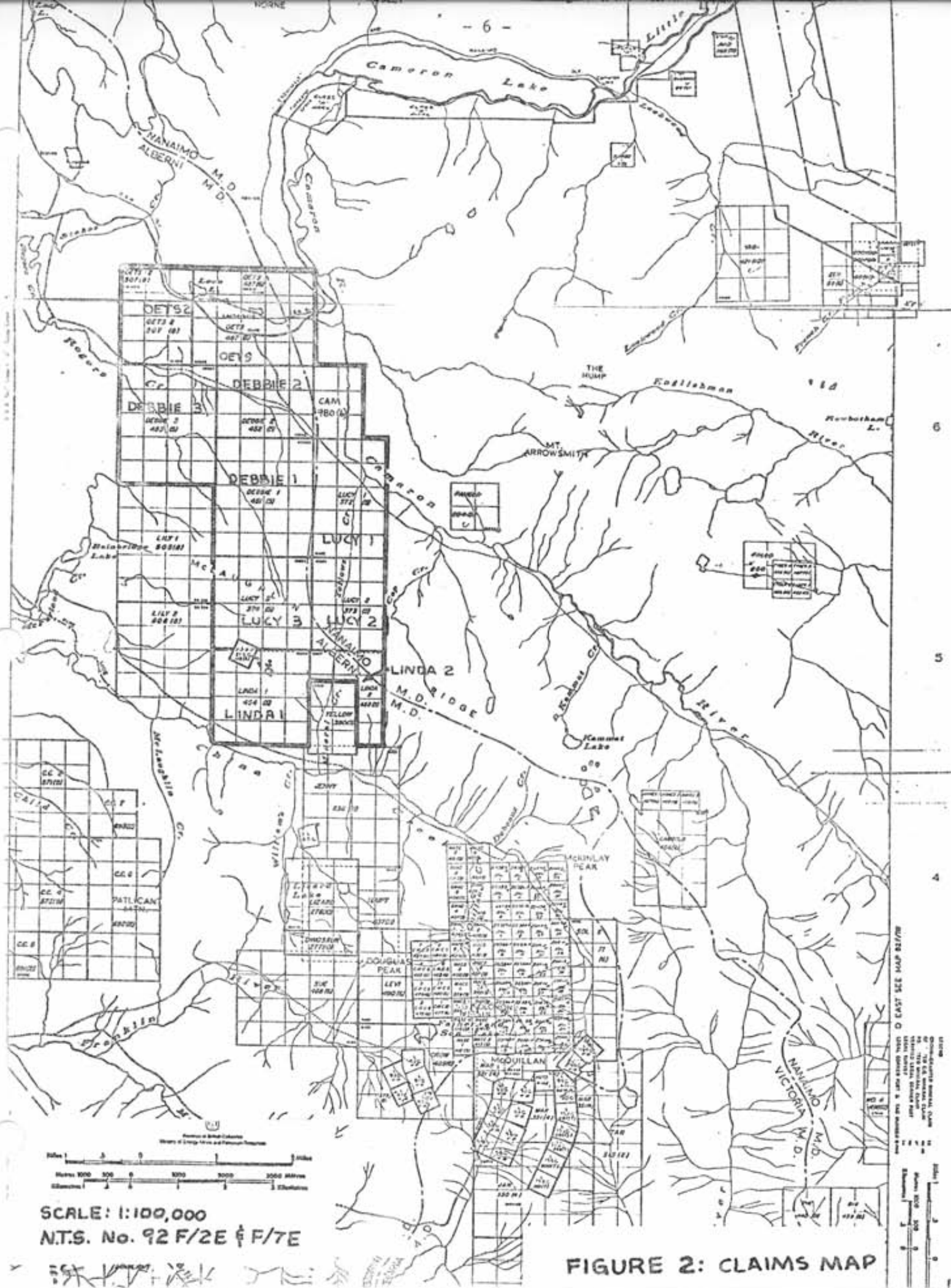


FIGURE 1: LOCATION MAP



SCALE: 1:100,000
 N.T.S. No. 92 F/2E & F/7E

FIGURE 2: CLAIMS MAP

2. LINECUTTING AND ROAD IMPROVEMENTS (CONT'D)

On September 18, 1980, Rayner and Bracht Limited of 4442 Tenth Avenue, Port Alberni, B.C., was contracted to clear the Yellow Creek 100 road (Figure 4) of obstructions with a bulldozer (under permit from the Fish and Wildlife Branch of the B.C. Ministry of Environment). The bulldozer cleared a large tree trunk from the road and filled in several small washouts in order to provide access to the area of the Yellow Creek 100 grid for the linecutters and geophysical survey crew.

3. GEOPHYSICAL SURVEY (CONTRACT PV-1099)

Between October 26 and November 18, 1980, Phoenix Geophysics Ltd. of 214-244 West Hastings Street, Vancouver, B.C., under the direction of Paul Cartwright, conducted an induced polarization and resistivity survey on the Roger's Creek grid. The grid stretches across Roger's Creek in the area of the intersection between the Summit Main and Cameron Main logging roads and cuts across corners of the Oats, Oats 2, and Debbie 2,3 claims. The grid comprises 10, 800m long lines spaced 100 to 100m apart and along a bearing of 048°. About a third of the grid crosses the steeply to moderately dipping slopes of the Roger's Creek valley, marked by a series of small bluffs and cliffs.

The geophysical survey utilized the gradient array; the receiver electrode spacing was 25m along the grid lines spaced 100m apart and 50m along grid lines spaced 200m apart. The unusually long survey time of 24 days for a total of 8 km of grid lines resulted from a number of factors including nearly daily precipitation, steep topography and equipment failures.

A discussion of the results of the geophysical survey are contained within a separate part of this report submitted by Paul Cartwright of Phoenix Geophysics Ltd. (Part II).

II. DETAILED TECHNICAL DATA AND INTERPRETATION OF THE GEOCHEMICAL SOIL SURVEY

The purpose of the geochemical soil survey is to delineate areas within the Cam, Lucy 1,2,3, Debbie 1 and Linda 1,2 claims which might contain anomalously high concentrations of copper, lead or zinc in the bedrock and thereby provide a preliminary basis for possible detailed geochemical and geologic surveys in the future.

RESULTS

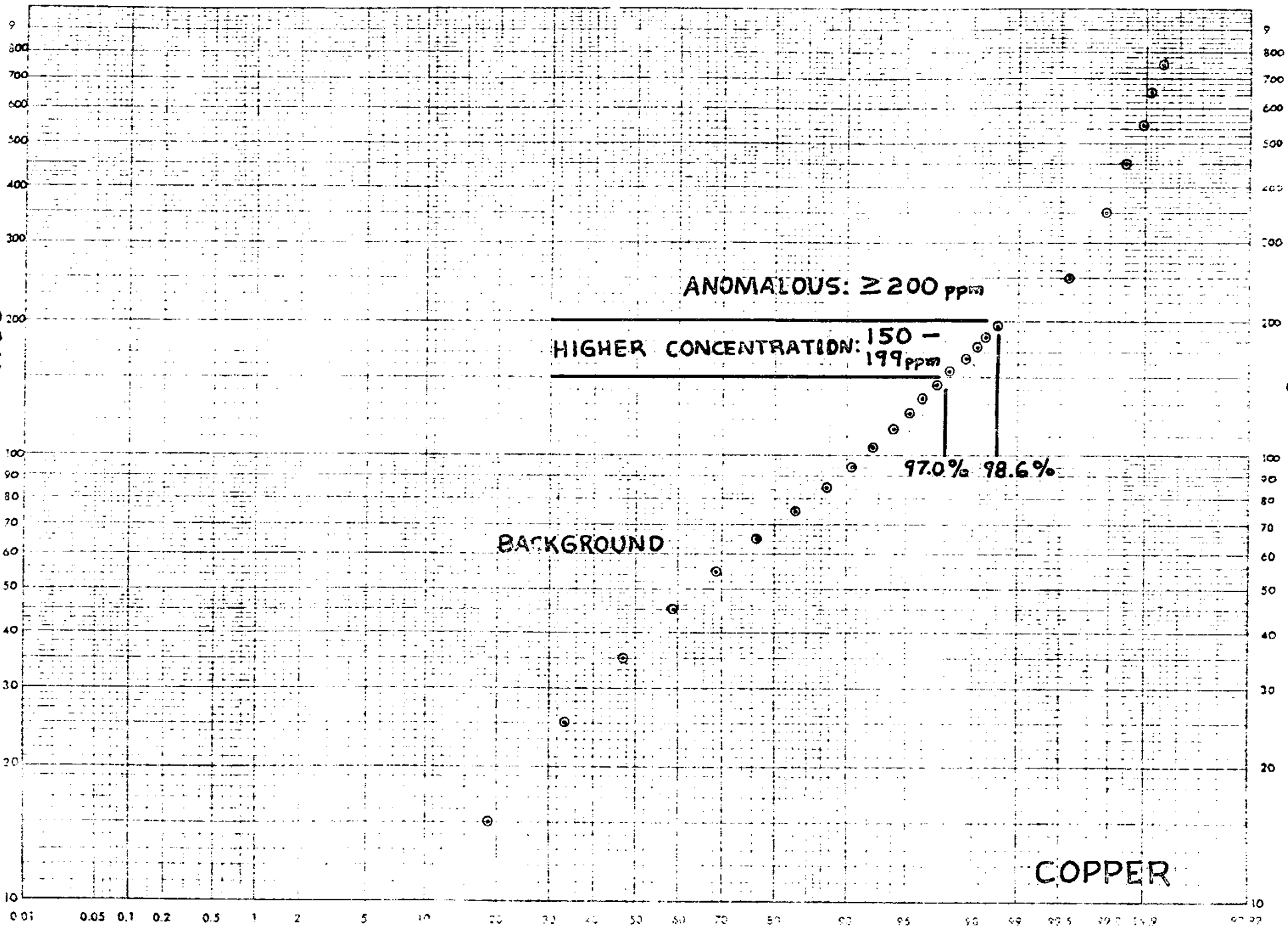
The results of the analyses of soil samples show that the concentrations of copper in the soil range from 3 to 540 ppm, that of lead from 1 to 122 ppm and that of zinc from 8 to 1270 ppm. A visual inspection of the logarithmic probability plots for the concentrations of copper, lead and zinc in from 2013 to 4575 soil samples collected by Western Mines from the claims in the McLaughlin Ridge property in 1979 and 1980 (see Figures 5:A,B,C) suggest the following significant levels of concentration (Table 2).

TABLE 2

	COPPER		LEAD		ZINC	
	PPM	CUMULATIVE %	PPM	CUMULATIVE %	PPM	CUMULATIVE %
BACKGROUND AND HIGH CONCENTRATION	0-199	98.6	0-49	99.5	0-199	98.4
ANOMALOUS	≥ 200		≥ 50		≥ 200	

LOGARITHMIC PROBABILITY OF COPPER CONCENTRATION IN SOILS FIGURE 5:A

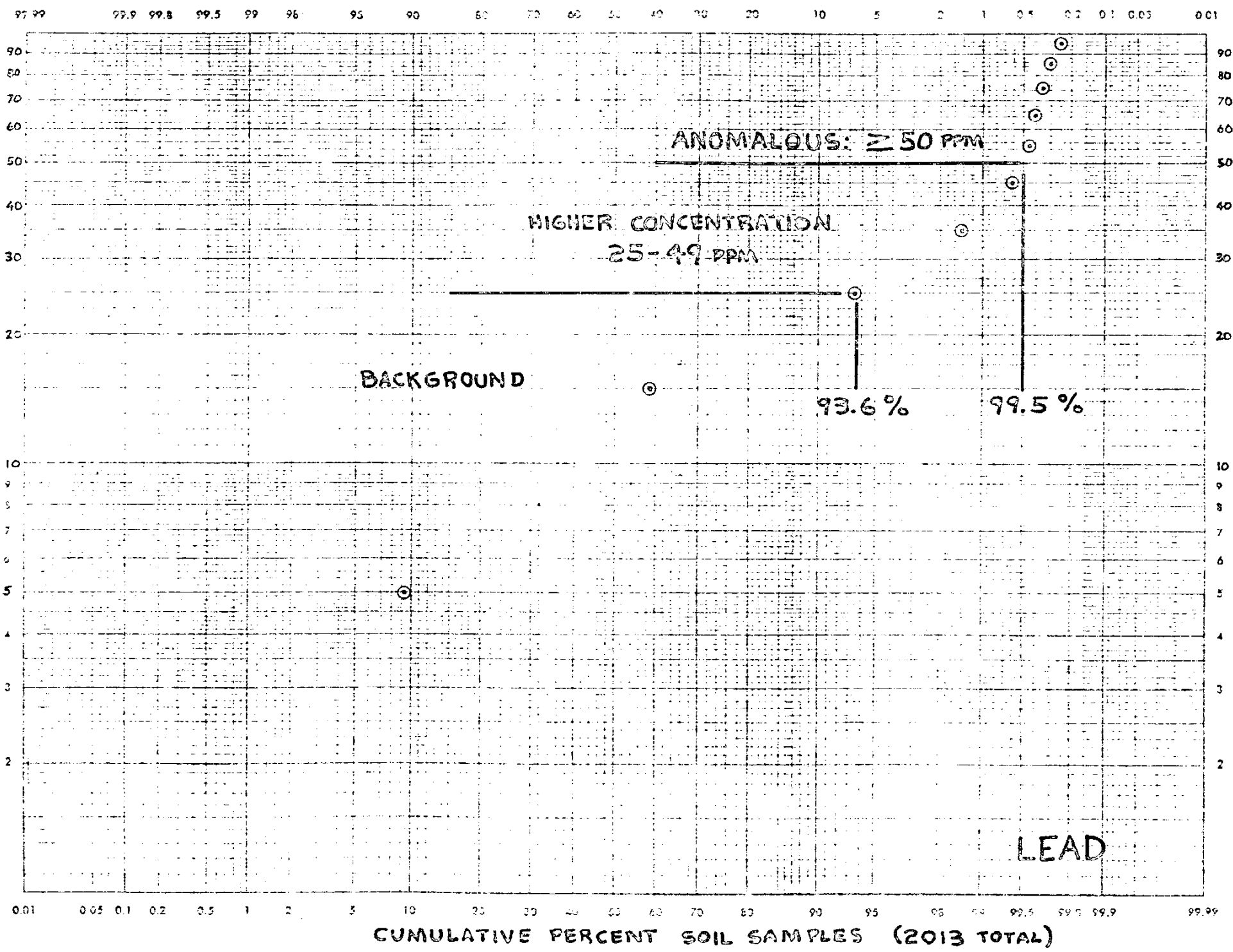
99.99 99.9 99.5 99 98 25 90 80 70 60 50 40 30 20 10 5 2 0.5 0.2 0.1 0.05 0.01



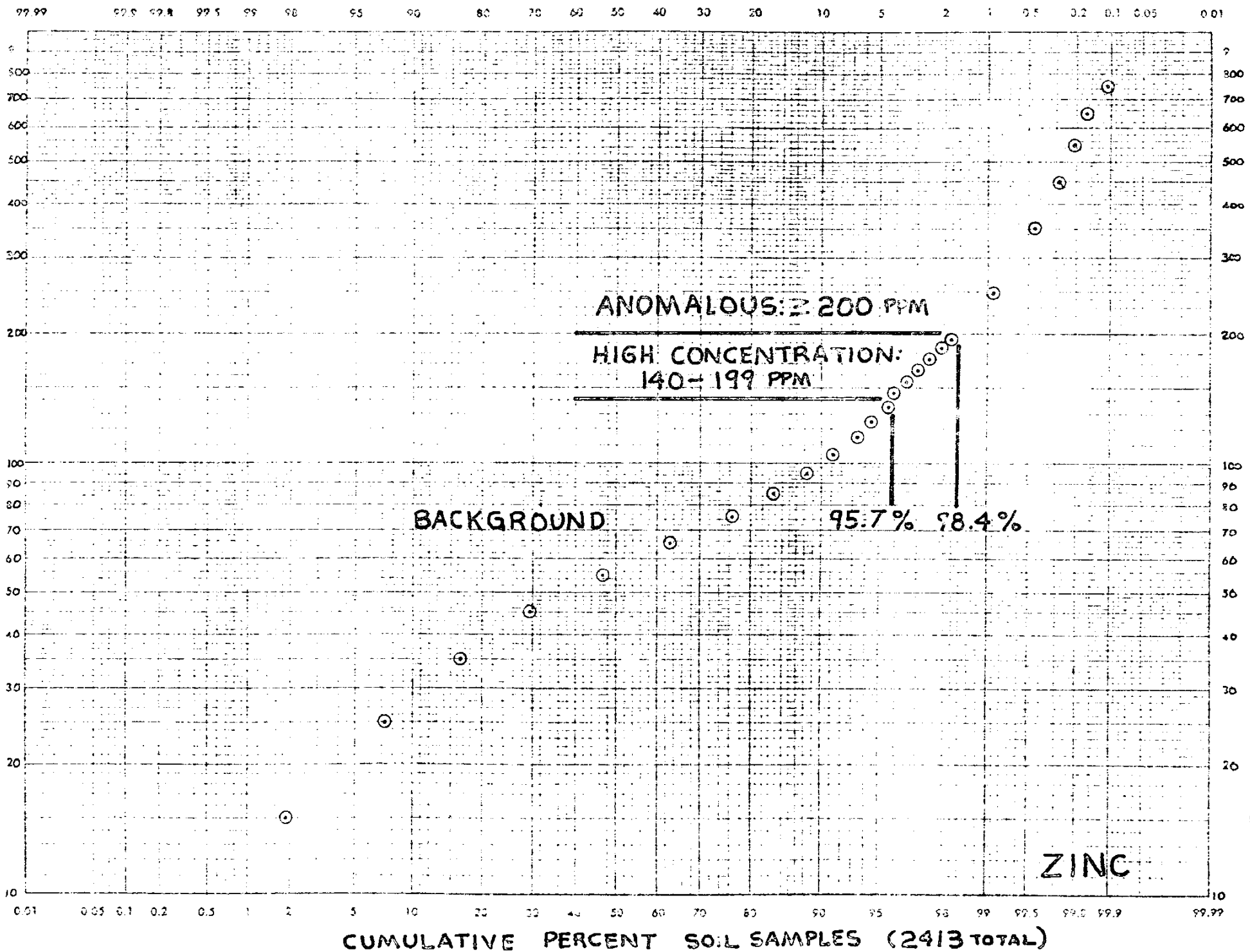
CUMULATIVE PERCENT SOIL SAMPLES (4575 TOTAL)

COPPER

LOGARITHMIC PROBABILITY OF LEAD CONCENTRATION IN SOIL SAMPLES
P.P.M. LEAD
FIGURE 5:B



LOGARITHMIC PROBABILITY OF ZINC CONCENTRATION IN SOIL SAMPLES
P.P.M. ZINC
FIGURE 5:C



Figures 3:A and B show the concentrations of copper, lead and zinc at each soil sample site on topographic maps at a scale of 1:5,000 of the Cam, Lucy 1,2,3, Debbie 1 and Linda 1,2 claims. Also shown in the figures are the contour lines that enclose those sample sites from which soil samples with anomalous concentrations of copper, lead or zinc were collected.

A total of 14 soil samples contain anomalous concentrations of copper that range from 200 to 540 ppm. Three of these samples were collected in Linda 1, four in Lucy 3, three in Lucy 1 and four in Debbie 1. Two soil samples collected contain anomalous lead (58 and 122 ppm); both are from Lucy 1. 18 soil samples contain anomalous zinc which ranges from 207 to 1270 ppm; two samples were collected in Linda 1, three samples in Lucy 3, three samples in Lucy 1, nine samples in Debbie 1 and one sample in Cam. Two soil samples contain both anomalous copper and zinc and only one sample contains anomalous copper, lead and zinc.

Nine of the 29 soil samples containing anomalous concentrations of copper and/or zinc, define three areas of soil that are longer than the spacing between grid lines - 200m. In northeastern Debbie 1, four samples with anomalous zinc (one also contains anomalous copper) define a narrow area along Yellow Creek Main road that is over 400m long and elongate in a northwesterly direction, approximately parallel to schistosity in the region. A second area, located in Debbie 1 200m east of the first area, contains two samples with anomalous zinc and one with very high zinc (199 ppm). This narrow area is more than 600m long, also elongate northwesterly. The third area straddles the boundary between Debbie 1 and Lucy 3 and contains three samples with anomalous copper. They define a narrow area more than 600m long that is elongate in a northerly direction.

These three areas, and 12 soil samples collected from scattered sites define a roughly rectangular area of about 3.5 square kilometres in Debbie 1, western Lucy 1 and northern Lucy 3 which warrant follow-up geologic mapping and prospecting. The fact that the samples containing anomalous copper and/or zinc in this area were, in general, collected from relatively widely scattered areas, suggests the occurrence of minor and sporadic sulphide mineralization in the bedrock over a relatively large area. One soil sample, of particular interest, contains 254 ppm copper, 122 ppm lead and 585 ppm zinc. This sample was collected in central Lucy 1 from a talus-covered slope between Yellow Creek and Yellow Creek 100 road. The bedrock source of these anomalous concentrations may be upslope to the west and difficult to locate; but nonetheless follow-up prospecting is warranted.

The remaining 8 soil samples containing anomalous copper or zinc were collected from relatively widely separated areas in Lucy 3 and Linda 1 and do not clearly define exploration targets. Soil sampling in Lucy 2 and Linda 2 suggests that the presence of near-surface bedrock mineralization of copper, lead or zinc is unlikely, because soil samples from that area do not contain anomalous copper, lead or zinc.

REFERENCE

STEVENSON, J.S., 1944, Geology and Ore Deposits of the China Creek Area, Vancouver Island, British Columbia, Report of Minister of Mines, 1944, pp. A.142 - G.161.

WESTMIN RESOURCES LIMITED

EXPLORATION

VANCOUVER ISLAND REGION

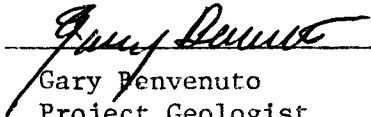
STATEMENT OF QUALIFICATIONS

I, Gary Louis Benvenuto, of the town of Campbell River, British Columbia, hereby certify that:

1. I am a geologist, residing at 4125 Discovery Drive, #7, in Campbell River, B.C. with a business address of Westmin Resources Limited, P.O. Box 8000, Campbell River, B.C.
2. I graduated with a B.Sc. degree in geology from California State University at Los Angeles in 1972 and with a Ph.D. degree in geology from Queen's University, Kingston, Ontario in 1978.
3. I am an associate member of the Geological Association of Canada.
4. I have practiced exploration geology with Cominco Ltd. from May to October, 1979 and with Westmin Resources Limited from January, 1980 to present.

Dated: April 29, 1981

Signed: _____


Gary Benvenuto
Project Geologist
Westmin Resources Limited

APPENDIX A

DETAILED EXPENDITURES FOR GEOCHEMICAL SOIL SAMPLING SURVEY, ROAD WORK, LINECUTTING AND INDUCED POLARIZATION SURVEY, INVOLVING CAM, LINDA 1,2, LUCY 1,2,3, OETS, OETS 2 AND DEBBIE 1,2,3 CLAIMS: WORK PERIOD: JULY 16 TO NOVEMBER 18, 1980.

I. GEOCHEMICAL SOIL SAMPLING SURVEY

A. WORK PERIODS, NUMBER OF SOIL SAMPLES COLLECTED

CLAIM	UNITS	NUMBER SOIL AND SILT SAMPLES COLLECTED	WORK PERIOD	MAN-DAYS
LINDA 1	16	282	JULY 16-31) 37
LINDA 2	12	142	JULY 27-AUG. 10	
LUCY 1	15	311	AUG. 7-SEPT. 2	33
LUCY 2	12	248	JULY 29-AUG. 30	27
LUCY 3	16	225	SEPT. 26-OCT. 7	21
CAM	6	148	MAY 29-31	9
DEBBIE 1	20	348	SEPT. 10-25	31

B. WAGES AND TYPE OF WORK

1. Gary Benvenuto: Senior Geologist, 4 days supervision and orientation:
4 days @ \$89.00/day: \$ 356.00 Wages
2. Thomas Mauer: Geological Assistant, 3 days orientation, 36½ days soil sampling; 39½ days @ \$52.00/day: \$2,054.00 Wages
3. Philip Bégin: Geological Assistant, 3 days orientation, 32½ days soil sampling; 35½ days @ \$49.00/day: \$1,740.00 Wages
4. Raymond Kinder: Geological Assistant, 1 day orientation, 8 days soil sampling; 9 days @ \$49.00/day: \$ 441.00 Wages
5. Michael Wei: Geological Assistant, 3 days soil sampling;
3 days @ \$49.00/day: \$ 147.00 Wages
6. Richard Mitchell: Geological Assistant, 3 days soil sampling;
3 days @ \$47.00/day: \$ 141.00 Wages
7. Daniel Seydel: Geological Assistant, 2 days orientation, 32 days soil sampling; 34 days @ \$49.00/day: \$1,666.00 Wages
8. Stephen Perry: Geological Assistant, 2 days orientation, 32 days soil sampling; 34 days @ \$49.00/day: \$1,666.00 Wages

\$8,211.00 TOTAL WAGES

C. ACCOMMODATION AND MEALS

1. Accommodation: \$12.00/man-day x 162 man-days: \$1,944.00
2. Food: \$15.15/man-day x 162 man-days: \$2,454.00

\$4,398.00 TOTAL COST

D. TRANSPORATION

\$24.30/day truck rental, gasoline and minor repairs for one truck
for transportation to, from and within claims x 80 days:
\$1,944.00 TOTAL COST

E. GEOCHEMICAL SOIL SAMPLE SURVEY ANALYSES

- 1. 1704 soil and silt samples analyzed for Cu, Pb, Zn @ \$3.85/sample
(includes \$0.60/sample for sample preparation):
\$6,560.00 SUBTOTAL COST
- 2. Freight charges from Port Alberni to Vancouver:
\$ 65.00 SUBTOTAL COST
\$6,625.00 TOTAL COST

F. FIELD EQUIPMENT

Sample bags, thread, flagging, field books, miscellaneous:
\$ 350.00 TOTAL COST

G. REPORT PREPARATION

- 1. Drafting of geochemical soil survey map (Figure 3:A and B) by
William Watkins: 4 days @ \$73.00/day: \$ 292.00 SUBTOTAL
- 2. Preparation of Assessment Report: 6 days @ \$90.00/Day:
\$ 540.00 SUBTOTAL
\$ 832.00 TOTAL COST

H. TOTAL COST OF GEOCHEMICAL SOIL SURVEY AND ASSESSMENT

REPORT: \$22,360.00

Cost per soil sample: \$22,360.00/1704 samples: \$13.12

I. APPORTIONMENT OF GEOCHEMICAL SOIL SURVEY COSTS TO CLAIMS FOR ASSESSMENT WORK

CLAIM	UNITS	NO. SAMPLES COLLECTED	SURVEY COSTS
LINDA 1	16	282	\$3,700.
LINDA 2	12	142	\$1,863.
LUCY 1	15	311	\$4,081.
LUCY 2	12	248	\$3,254.
LUCY 3	16	225	\$2,953.
CAM	6	148	\$1,942.
DEBBIE 1	20	848	\$4,567.

II. PHYSICAL WORK

A. ROAD IMPROVEMENTS (Bulldozer work to clear Yellow Creek 100 Road, Lucy 1 claim, September 18, 1980)

Total cost of bulldozer work: \$ 274.00
 Half day supervision by Gary Benvenuto, Sr. Geologist
 ½ day x \$89.00/day: \$ 45.00 Wages
 Total cost of road improvements: \$319.00 (to be applied to Lucy 1)

B. LINECUTTING (in preparation for geophysical survey; work period October 7 to 21, 1980)

Total cost of linecutting: \$5,577.00
 Total number of kilometres of line cut: 34.1 km
 Cost of linecutting per kilometre: \$5,577.00/34.1 km: \$163.55/km

COST OF LINECUTTING PER CLAIM

CLAIM	UNITS	LENGTH OF LINES CUT (km)	COST
OETS	20	9.12	\$1,492.
OETS 2	12	2.95	\$ 482.
DEBBIE 1	20	4.60	\$ 752.
DEBBIE 2	12	0.78	\$ 128.
DEBBIE 3	20	7.35	\$1,202.
LUCY 1	15	4.00	\$ 654.
LUCY 2	12	4.325	\$ 707.
LUCY 3	16	0.975	\$ 160.

III. INDUCED POLARIZATION GEOPHYSICAL SURVEY (Roger's Creek Grid, Work Period: October 25 to November 18, 1980)

A. Cost of Survey as billed by Phoenix Geophysics Ltd.: \$9,193.15 SUBTOTAL

B. Additional costs incurred by Westmin Resources Limited

1. Wages

a. Stephen Perry, Geological Assistant to act as geophysical crew member, 14 days @ \$45.00/day: \$ 630.00 SUBTOTAL
 b. Matt Mason, Geological Assistant to act as geophysical crew member, 7 days @ \$62.40/day: \$ 437.00 SUBTOTAL
\$1,067.00 TOTAL WAGES

2. Meals & Accommodation for all Crewmen

a. Meals: \$15.15/man-day x 77 man-days: \$1,167.00 SUBTOTAL
 b. Accommodation: \$12.00/man-day x 77 man-days: \$ 924.00 SUBTOTAL
\$2,091.00 TOTAL COST

3. Transportation

\$24.30/day truck rental, gasoline and minor repairs for one
4 x 4 truck for transportation to and from grid of geo-
physical survey crew x 25 days: \$ 608.00 TOTAL COST

C. TOTAL COST OF GEOPHYSICAL SURVEY: \$12,959.00

D. COST OF GEOPHYSICAL SURVEY PER KILOMETER:
\$12,959/8.93 km: \$ 1,451.20/km

E. APPORTIONMENT OF COST OF GEOPHYSICAL SURVEY TO CLAIMS
FOR ASSESSMENT WORK

CLAIM	UNITS	NO. KILOMETRES OF GRID LINES	COST
OETS 2	12	1.85 km	\$2,685.
DEBBIE 2	12	0.78 km	\$1,132.
DEBBIE 3	20	6.30 km	\$9,142.

IV. APPORTIONMENT OF COSTS OF GEOCHEMICAL SOIL SURVEY, ROAD IMPROVEMENT, LINECUTTING AND GEOPHYSICAL SURVEY

CLAIM GROUP	CLAIMS IN GROUP	UNITS	COSTS OF SOIL AND GEOPHYSICAL SURVEYS PER CLAIM	COST OF LINECUTTING AND ROADWORK	TOTAL COST OF SURVEYS AND PHYSICAL WORK	P.A.C. WITHDRAWAL	YEARS APPLIED
DEB-OETS	OETS	20	-	\$1,492.	\$23,524.	- \$4,676.	1
	OETS 2	12	\$2,685.	\$ 482.			2
	CAM	6	\$1,942.	-			4
	DEBBIE 1	20	\$4,567.	\$ 752.			2
	DEBBIE 2	12	\$1,132.	\$ 128.			2
	DEBBIE 3	20	\$9,142.	\$1,202.			3
LULIN	LUCY 1	15	\$4,400.	\$ 654.	\$17,691.	- \$3,509.	3
	LUCY 2	12	\$3,254.	\$ 707.			3
	LUCY 3	16	\$2,953	\$ 160.			2
	LINDA 1	16	\$3,700.	-			2
	LINDA 2	12	\$1,863.	-			2

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	3. Presentation of Results		2
	4. Discussion Of Results		3
	5. Summary and Recommendations		4
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		Dwg.I.P.P. 2102	
		Dwg.I.P.P. 2103	

PHOENIX GEOPHYSICS LIMITED

NOTES ON THE THEORY, METHOD OF FIELD OPERATION, AND PRESENTATION OF DATA FOR THE INDUCED POLARIZATION METHOD

Induced Polarization as a geophysical measurement refers to the blocking action or polarization of metallic or electronic conductors in a medium of ionic solution conduction.

This electro-chemical phenomenon occurs wherever electrical current is passed through an area which contains metallic minerals such as base metal sulphides. Normally, when current is passed through the ground, as in resistivity measurements, all of the conduction takes place through ions present in the water content of the rock, or soil, i.e. by ionic conduction. This is because almost all minerals have a much higher specific resistivity than ground water, The group of minerals commonly described as "metallic", however, have specific resistivities much lower than ground waters. The induced polarization effect takes place at those interfaces where the mode of conduction changes from ionic in the solutions filling the interstices of the rock to electronic in the metallic minerals present

in the rock.

The blocking action or induced polarization mentioned above, which depends upon the chemical energies necessary to allow the ions to give up or receive electrons from the metallic surface, increases with the time that a d.c. current is allowed to flow through the rock; i.e. as ions pile up against the metallic interface the resistance to current flow increases. Eventually, there is enough polarization in the form of excess ions at the interfaces, to appreciably reduce the amount of current flow through the metallic particle. This polarization takes place at each of the infinite number of solution-metal interfaces in a mineralized rock.

When the d.c. voltage used to create this d.c. current flow is cut off, the Coulomb forces between the charged ions forming the polarization cause them to return to their normal position. This movement of charge creates a small current flow which can be measured on the surface of the ground as a decaying potential difference.

From an alternate viewpoint it can be seen that if the direction of the current through the system is reversed repeatedly before the polarization occurs, the effective resistivity of the system as a whole will change as the frequency of the switching is changed. This is a consequence of the fact that the amount of current flowing through each metallic interface depends upon the length of time that current has been passing through it in one direction.

The values of the per cent frequency effect or F.E. are a measurement of the polarization in the rock mass. However, since the measurement of the degree of polarization is related to the apparent resistivity of the rock mass it is found that the metal factor values or M.F. are the most useful values in determining the amount of polarization present in the rock mass. The MF values are obtained by normalizing the F.E. values for varying resistivities.

The induced polarization measurement is perhaps the most powerful geophysical method for the direct detection of metallic sulphide mineralization, even when this mineralization is of very low concentration. The lower limit of volume per cent sulphide necessary to produce a recognizable IP anomaly will vary with the geometry and geologic environment of the source, and the method of executing the survey. However, sulphide mineralization of less than one per cent by volume has been detected by the IP method under proper geological conditions.

The greatest application of the IP method has been in the search for disseminated metallic sulphides of less than 20% by volume. However, it has also been used successfully in the search for massive sulphides in situations where, due to source geometry, depth of source, or low resistivity of surface layer, the EM method cannot be successfully applied. The ability to differentiate ionic conductors, such as water filled shear zones, makes the IP method a useful tool in checking EM

anomalies which are suspected of being due to these causes.

In normal field applications the IP method does not differentiate between the economically important metallic minerals such as chalcopyrite, chalcocite, molybdenite, galena, etc., and the other metallic minerals such as pyrite. The induced polarization effect is due to the total of all electronic conducting minerals in the rock mass. Other electronic conducting materials which can produce an IP response are magnetite, pyrolusite, graphite, and some forms of hematite.

In the field procedure, measurements on the surface are made in a way that allows the effects of lateral changes in the properties of the ground to be separated from the effects of vertical changes in the properties. Current is applied to the ground at two points in distance (X) apart. The potentials are measured at two points (X) feet apart, in line with the current electrodes is an integer number (n) times the basic distance (X).

The measurements are made along a surveyed line, with a constant distance (nX) between the nearest current and potential electrodes. In most surveys, several traverses are made with various values of (n); i.e. (n) = 1,2,3,4, etc. The kind of survey required (detailed or reconnaissance) decides the number of values of (n) used.

In plotting the results, the values of apparent resistivity, apparent per cent frequency effect, and the apparent metal factor

measured for each set of electrode positions are plotted at the intersection of grid lines, one from the center point of the current electrodes and the other from the center point of the potential electrodes. (See Figure A.) The resistivity values are plotted at the top of the data profile, above the metal factor values. On a third line, below the metal factor values, are plotted the values of the percent frequency effect. The lateral displacement of a given value is determined by the location along the survey line of the center point between the current and potential electrodes. The distance of the value from the line is determined by the distance (nX) between the current and potential electrodes when the measurement was made.

The separation between sender and receiver electrodes is only one factor which determines the depth to which the ground is being sampled in any particular measurement. The plots then, when contoured, are not section maps of the electrical properties of the ground under the survey line. The interpretation of the results from any given survey must be carried out using the combined experience gained from field results, model study results and the theoretical investigations. The position of the electrodes when anomalous values are measured is important in the interpretation.

In the field procedure, the interval over which the potential differences are measured is the same as the interval over which the electrodes are moved after a series of potential readings has been made.

One of the advantages of the induced polarization method is that the same equipment can be used for both detailed and reconnaissance surveys merely by changing the distance (X) over which the electrodes are moved each time. In the past, intervals have been used ranging from 25 feet to 2000 feet for (X). In each case, the decision as to the distance (X) and the values of (n) to be used is largely determined by the expected size of the mineral deposit being sought, the size of the expected anomaly and the speed with which it is desired to progress.

The diagram in Figure A demonstrates the method used in plotting the results. Each value of the apparent resistivity, apparent metal factor, and apparent per cent frequency effect is plotted and identified by the position of the four electrodes when the measurement was made. It can be seen that the values measured for the larger values of (n) are plotted farther from the line indicating that the thickness of the layer of the earth that is being tested is greater than for the smaller values of (n); i.e. the depth of the measurement is increased.

The IP measurement is basically obtained by measuring the difference in potential or voltage (ΔV) obtained at two operating frequencies. The voltage is the product of the current through the ground and the apparent resistivity of the ground. Therefore in field situations where the current is very low due to poor electrode contact, or the apparent resistivity is very low, or a combination of the two effects; the value of (ΔV) the change in potential will be too small to be measurable. The symbol "TL" on the data plots indicates this situation.

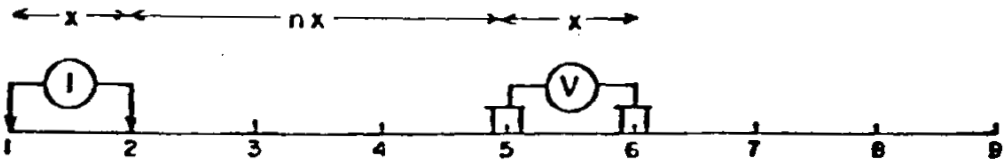
In some situations spurious noise, either man made or natural, will render it impossible to obtain a reading. The symbol "N" on the data plots indicates a station at which it is too noisy to record a reading. If a reading can be obtained, but for reasons of noise there is some doubt as to its accuracy, the reading is bracketed in the data plot ().

In certain situations negative values of Apparent Frequency Effect are recorded. This may be due to the geologic environment or spurious electrical effects. The actual negative frequency effect value recorded is indicated on the data plot, however, the symbol "NEG" is indicated for the corresponding value of Apparent Metal Factor. In contouring negative values the contour lines are indicated to the nearest positive value in the immediate vicinity of the negative value.

The symbol "NR" indicates that for some reason the operator did not attempt to record a reading although normal survey procedures would suggest that one was required. This may be due to inaccessible topography or other similar reasons. Any symbol other than those discussed above is unique to a particular situation and is described within the body of the report.

PHOENIX GEOPHYSICS LIMITED.

METHOD USED IN PLOTTING DIPOLE-DIPOLE
INDUCED POLARIZATION AND RESISTIVITY RESULTS



Stations on line x = Electrode spread length
 n = Electrode separation

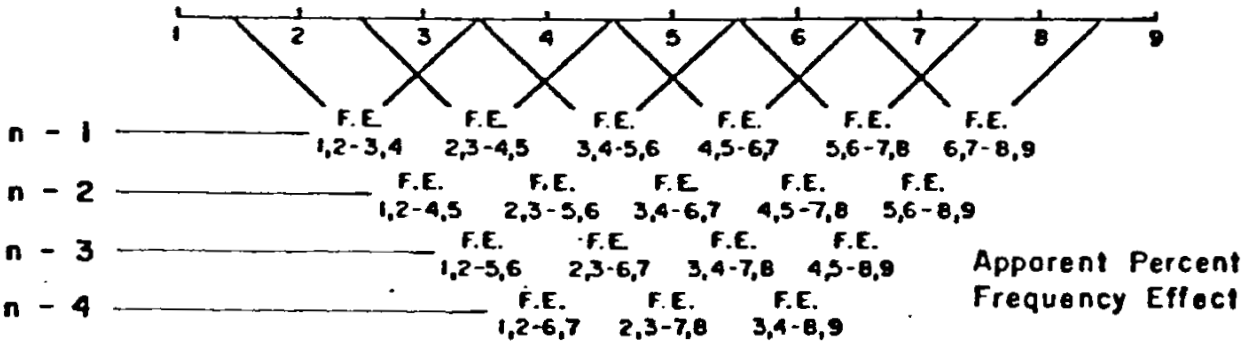
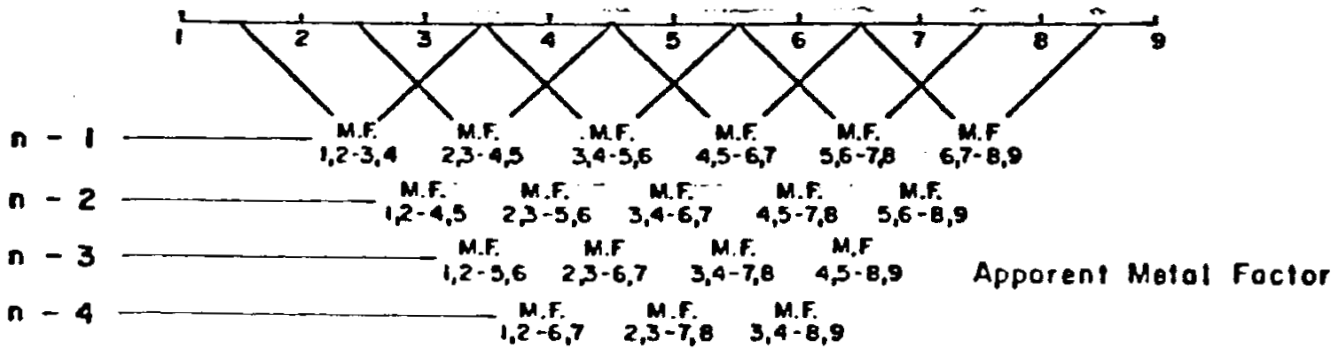
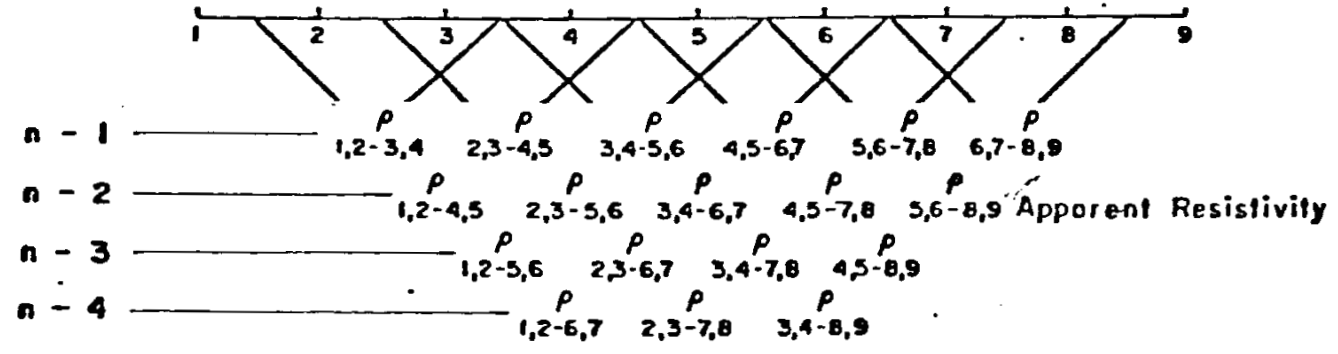


Fig. A

PHOENIX GEOPHYSICS LIMITED

REPORT ON THE
INDUCED POLARIZATION
AND RESISTIVITY SURVEY
ON THE
RODGER'S CREEK GRID
ALBERNI MINING DIVISION,
BRITISH COLUMBIA
FOR
WESTERN MINES LIMITED

1. INTRODUCTION

An Induced Polarization and Resistivity survey has been completed on the Rodger's Creek Grid on behalf of Western Mines Limited.

The property is located approximately 10 kilometers east of the community of Port Alberni, British Columbia and access is via logging roads to the center of the area of interest.

Previous work has resulted in the outlining of an area of geologic interest and the collection of several soil samples containing anomalous concentrations of zinc and high concentrations of copper. The present survey was planned in order to outline any metallic sulphides which might be present in the area of interest.

N.T.S. coordinates of the grid area are $49^{\circ}14.2'$ north latitude and $124^{\circ}38.6'$ west longitude.

Field work was carried out during November 1980, under the direction of Mr. D. Labrecque, geophysical crew leader. Phoenix Model IP-1 Induced Polarization and Resistivity equipment was utilized, operating at frequencies of 2.5 Hz, and 0.31 Hz.

Initially, dipole-dipole array was attempted to make the measurements, but a number of problems, especially the extremely rugged terrain, and continuous wet weather rendered this array impractical. The survey was then switched to gradient array and much better progress was made.

2. DESCRIPTION OF THE CLAIMS

The property consists of the following claims:

<u>Claim Name</u>	<u>Record Number</u>	<u>Anniversary Date</u>
OETS	487(6)	June 28, 1982
OETS 2	507(8)	August 3, 1982
DEBBIE 2	452(5)	May 2, 1982
DEBBIE 3	453(5)	May 2, 1982

3. PRESENTATION OF RESULTS

The gradient array IP results and apparent resistivity results are plotted as contoured plan maps, Dwg. I.P.P. 2102, and Dwg. I.P.P. 2103 respectively. Both maps are drawn at a scale of 1:5,000.

Topographic and grid information on the above plans was taken from maps provided by the staff of Western Mines Ltd.

4. DISCUSSION OF RESULTS

The most striking feature evident in the apparent resistivity data from the Rodger's Creek Grid area is a well-defined region of low apparent resistivity values, which can be seen striking from the southeastern corner of the grid area to the northwestern corner. A creek valley is roughly coincident with the zone of low resistivities, and it seems almost certain that this trend marks the presence of a major fault structure.

A well defined zone of anomalous polarizability values, designated Zone A, cuts across the northern end of the interpreted fault, in the area between Line 5+00N and Line 7+00N, just west of the baseline. This anomalous IP zone forms an arc shaped trend which is seen on all of the grid lines. Most interesting signatures are indicated on the northern end of the zone, where the highest magnitude frequency effect readings are noted coincident with a distinct zone of low resistivity values. In this area the IP trend is up to several hundred meters in width, while the resistivity zone is considerably narrower. This suggests that the source may consist of a relatively narrow central zone of more concentrated metallic mineralization, surrounded by a large halo of much more disseminated material.

A somewhat similar picture is outlined by the data recorded near the southern edge of the grid, although in this case the zone of lower resistivity values is displaced to the east of the high frequency effect measurements.

Another discontinuous trend of weakly anomalous polarizability is marked as Zone B, and is outlined to the east of Zone A discussed above. The source of Zone B is indicated to be quite shallow and very narrow. The absence of coincident low resistivity values suggests the source material

is disseminated in nature.

5. SUMMARY AND RECOMMENDATIONS

Gradient array was eventually used to systematically survey the Rodger's Creek Grid with the Induced Polarization and Resistivity method. This array proved to be much more practical in the rugged terrain and wet weather conditions encountered in the area, than the dipole-dipole array initially attempted. It is recommended that further reconnaissance work in the area also use gradient, with dipole-dipole being used to provide detail on specific lines before drill testing.

A number of interesting features have been outlined by the present geophysical survey.

Resistivity data suggests the presence of a major fault traversing the property in a northwesterly direction, as marked by a large valley bottom.

The most significant trend detected by the present survey is designated as Zone A and consists of anomalously high polarizability readings together with lower than background resistivity values. As this zone is open on both ends, it is recommended that further work take the form of additional surveying to more fully define the northern and southern extensions of the zone, with priority given to completing coverage over the strongest response, the northern end, first.

Zone B is a very much smaller indication seen as weakly anomalous polarizability values only. No further work would be recommended at this time.

PHOENIX GEOPHYSICS LIMITED

Paul A. Cartwright

Paul A. Cartwright, B.Sc.
Geophysicist

Philip G. Hallof

Philip G. Hallof, Ph.D. P.Eng.
Geophysicist



Expiry Date: February 25, 1982

Dated: March 23, 1981

ASSESSMENT DETAILS

PROPERTY: Rodger's Creek Grid

MINING DIVISION: Alberni

SPONSOR: Western Mines Limited

PROVINCE: British Columbia

LOCATION: Port Alberni Area

TYPE OF SURVEY: Induced Polarization
& Resistivity

OPERATING MAN DAYS:	31.0	DATE STARTED: Oct. 24/80	Nov. 6/80
		↓	↓
EQUIVALENT 8 HR. MAN DAYS:	46.5	DATE FINISHED: Nov. 5/80	Nov. 18/80
CONSULTING MAN DAYS:	4.0	NUMBER OF STATIONS:	544
DRAFTING MAN DAYS:	5.0	NUMBER OF READINGS:	540
TOTAL MAN DAYS	55.5	KM. OF LINE SURVEYED:	17.6

CONSULTANTS:

Paul A. Cartwright, 4238 West 11th Avenue, Vancouver, B.C.
Philip G. Hallof, Suite 3505, 2045 Lakeshore Blvd. W. Toronto, Ontario.

FIELD TECHNICIANS:

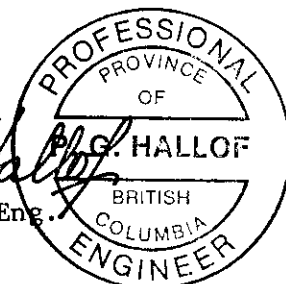
D. Labrecque, 524 Taschereau Est., Rouyn, Quebec.
S. Henshall, 9 Roscoe Avenue, Trenton, Ontario.
P.A. Cartwright, 4238 West 11th Avenue, Vancouver, B.C.

CARTOGRAPHERS:

R.C. Norris, 45-1204 Sunrise Ave., Toronto, Ontario.
R.J. Pryde, R.R.#1, Sharon, Ontario.

PHOENIX GEOPHYSICS LIMITED

Philip G. Hallof
Philip G. Hallof, Ph.D., P.Eng.
Geophysicist



Dated: March 23, 1981

Expiry Date: February 25, 1982

- 7 -

STATEMENT OF COST

Western Mines Ltd., - IP Survey
Port Alberni, B.C.

CREW: D. Labrecque - S. Henshall - P.A. Cartwright

PERIOD: October 24, 1980 - November 5, 1980

6½ Operating Days	@ \$590.00/day	\$3,835.00	
1 Organization Day	@ \$225.00/day	225.00	
1 Travel Day	@ \$225.00/day	225.00	
2½ Bad Weather Days	@ \$225.00/day	562.50	
2 Breakdown Days	@ N.C.	N.C.	
		<hr/>	
		\$4,847.50/2	\$2,423.75

PERIOD: November 6, 1980 - November 18, 1980

9 Operatind Days	@ \$590.00/day	\$5,310.00	
3 Organization Days	@ \$225.00/day	675.00	
1 Travel Day	@ \$225.00/day	225.00	
		<hr/>	
		\$6,210.00	6,210.00

EXPENSES:

Bus Tickets	\$ 20.20		
Fueld and Oil	13.15		
Groceries & meals enroute	39.57		
Supplies	99.28		
Telephone	98.98		
Freight	96.00		
	<hr/>		
	367.18		
	+15%	55.08	
		<hr/>	
		422.26	422.26
			<hr/>
			\$9,056.01

P.Cartwright Visit - November 6, 1980 - November 11, 1980

6 Days	@ N.C.	N.C.	
Vehicle Expense		\$ 70.00	
Fuel		21.00	
Meals		12.25	
Ferry		26.00	
		<hr/>	
		119.25	
	+15%	17.89	
		<hr/>	
			137.14
			<hr/>
			\$9,193.15

STATEMENT OF ACCOUNT - Western Mines Ltd. - cont'd.

PHOENIX GEOPHYSICS LIMITED

Philip G. Hallof

Philip G. Hallof, Ph.D. P.Eng.
Geophysicist



Expiry Date: February 25, 1982

Dated: March 23, 1981

CERTIFICATE

I, Paul A. Cartwright, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a geophysicist residing at 4238 West 11th Avenue, Vancouver, B.C.
2. I am a graduate of the University of British Columbia, B.C. with a B.Sc. Degree.
3. I am a member of the Society of Exploration Geophysicists.
4. I have been practising my profession about 10 years.
5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly, in the property or securities of Western Mines Limited, or any affiliate.
6. The statements made in this report are based on a study of published geological literature and unpublished private reports.
7. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

Dated at Vancouver

This 23rd day of March, 1981



Paul A. Cartwright, B.Sc.

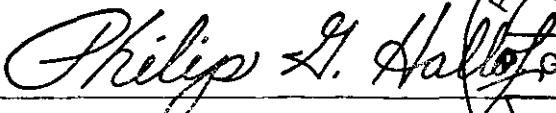
CERTIFICATE

I, Philip George Hallof, of the City of Toronto, Province of Ontario, do hereby certify that:

1. I am a geophysicist residing at Suite 3505, 2045 Lake Shore Blvd.W., Toronto, Ontario.
2. I am a graduate of the Massachusetts Institute of Technology with a B.Sc. Degree (1952) in Geology and Geophysics, and a Ph.D. Degree (1957) in Geophysics.
3. I am a member of the Society of Exploration Geophysicists and the European Association of the Exploration Geophysicists.
4. I am a Professional Geophysicist, registered in the Province of Ontario, the Province of British Columbia and the State of Arizona.
5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly, in the property or securities of Western Mines Limited, or any affiliate.
6. The statements made in this report are based on a study of published geological literature and unpublished private reports.
7. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

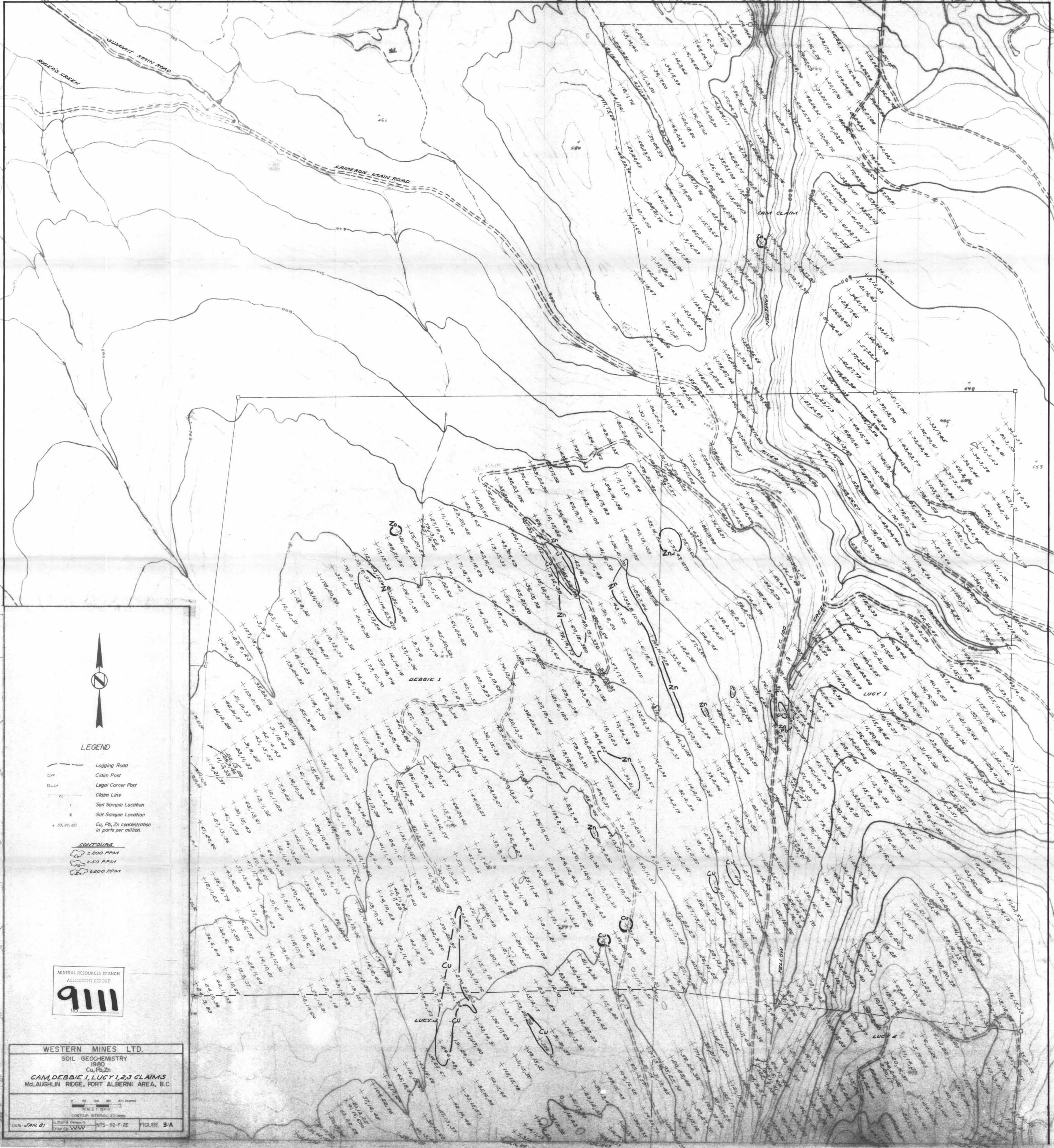
Dated at Toronto

This 23rd day of March, 1981


Philip G. Hallof, Ph.D. P.Eng.



Expiry Date: February 25, 1982



LEGEND

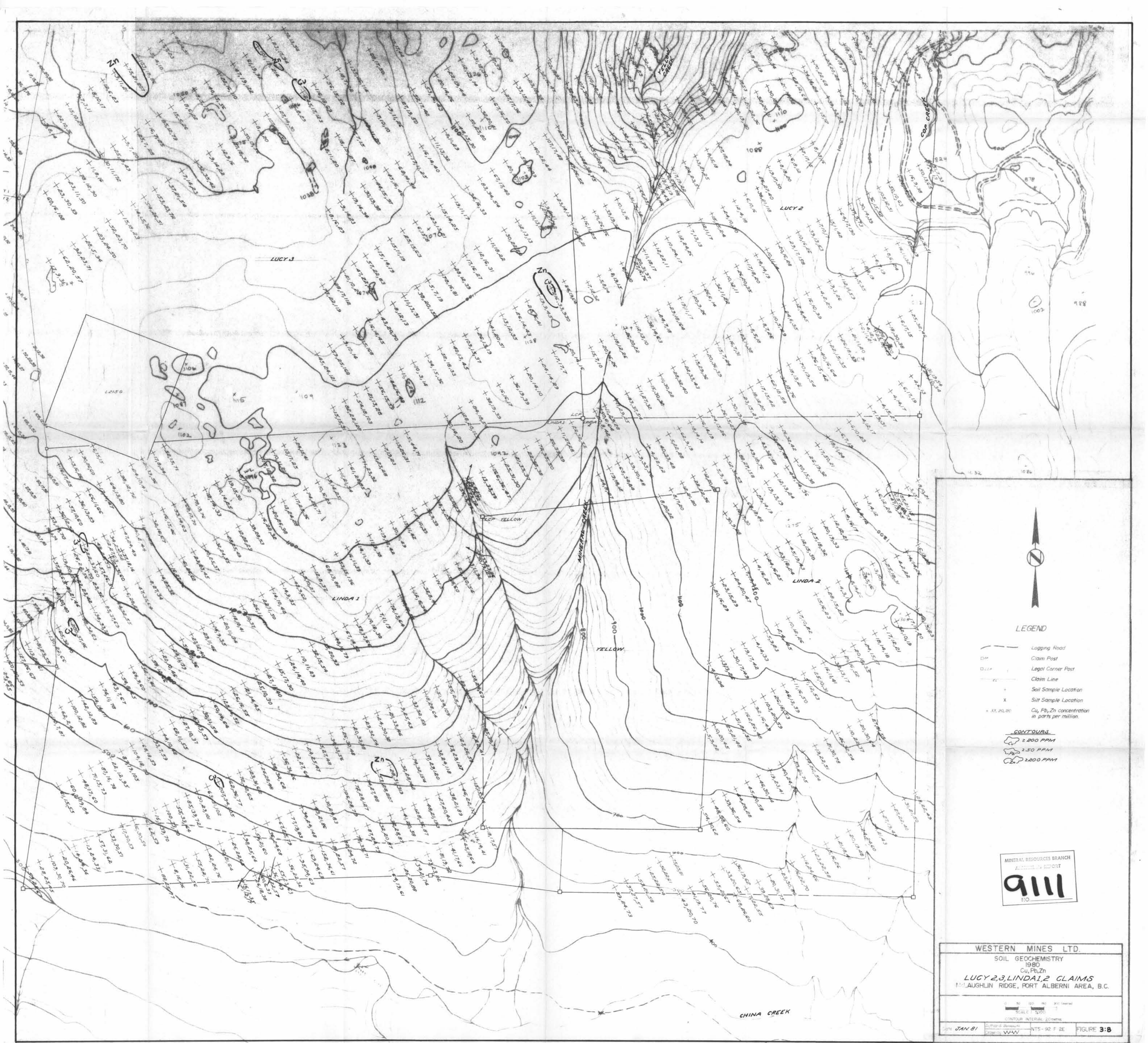
- Logging Road
- Claim Post
- Legal Corner Post
- Claim Line
- Soil Sample Location
- Silt Sample Location
- Cu, Pb, Zn concentration in parts per million.

CONTOURS
 2000 PPM
 250 PPM
 200 PPM

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
9111

WESTERN MINES LTD.
 SOIL GEOCHEMISTRY
 1980
 Cu, Pb, Zn
CAM, DEBBIE 1, LUCY 1, 2, 3 CLAIMS
 McLAUGHLIN RIDGE, FORT ALBERNI AREA, B.C.

Scale 1:5000
 Contour Interval 20 Meters
 Date JAN 81
 Project WAW
 NTS-92-F-2E
 FIGURE 3-A



LEGEND

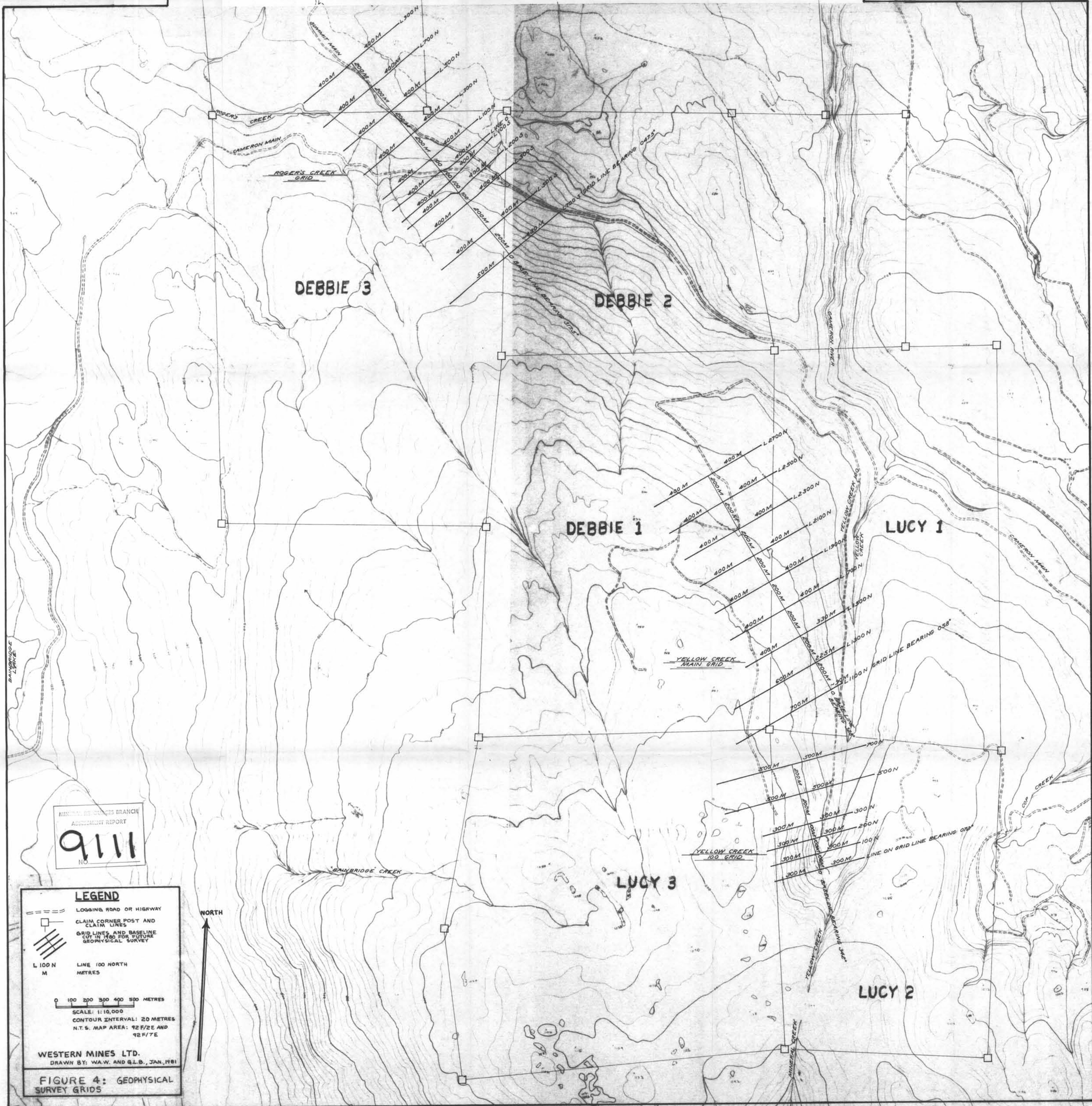
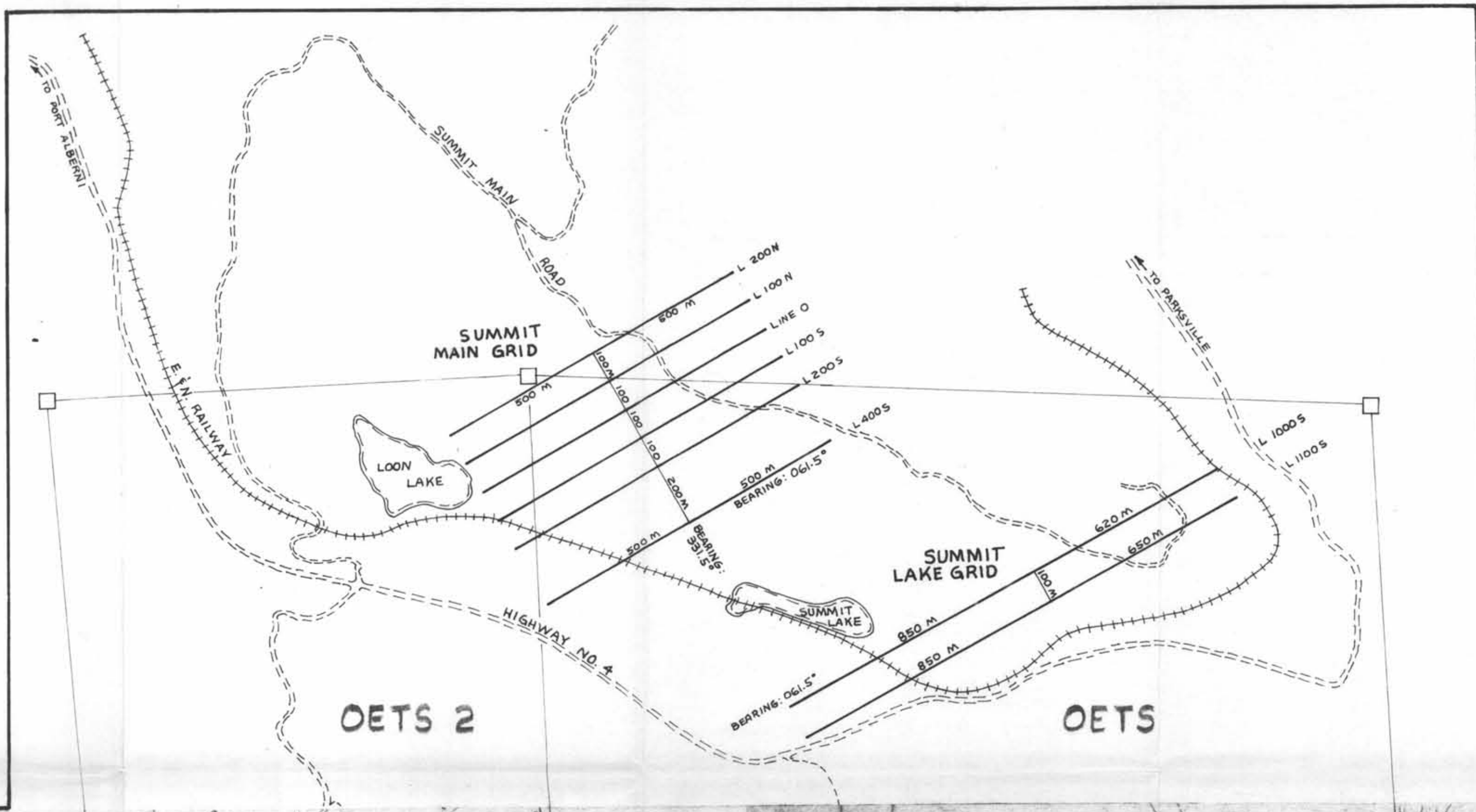
- - - Logging Road
- Claim Post
- Legal Corner Post
- Claim Line
- Soil Sample Location
- x Silt Sample Location
- + 43, 20, 20 Cu, Pb, Zn concentration in parts per million.

CONTOURS
 200 PPM
 250 PPM
 200 PPM

MINERAL RESOURCES BRANCH
 ALBERTA REPORT
9111
 NO.

WESTERN MINES LTD.
 SOIL GEOCHEMISTRY
 1980
 Cu, Pb, Zn
 LUCY 2, LINDA 1, 2 CLAIMS
 McLAUGHLIN RIDGE, PORT ALBERNI AREA, B.C.

SCALE: 1:50,000
 CONTOUR INTERVAL: 20 METERS
 JAN 81
 NTS-92 F 2E
 FIGURE 3-B



MINERAL SERVICES BRANCH
ASSESSMENT REPORT
9111
NO.

LEGEND

- LOGGING ROAD OR HIGHWAY
- CLAIM CORNER POST AND CLAIM LINES
- GRID LINES AND BASELINE CUT IN 1980 FOR FUTURE GEOLOGICAL SURVEY

L 100 N
M LINE 100 NORTH METRES

0 100 200 300 400 500 METRES
SCALE: 1:10,000
CONTOUR INTERVAL: 20 METRES
N.T.S. MAP AREA: 42 F/2E AND 42 F/7E

WESTERN MINES LTD.
DRAWN BY: W.A.W. AND G.L.B., JAN, 1981

FIGURE 4: GEOPHYSICAL SURVEY GRIDS

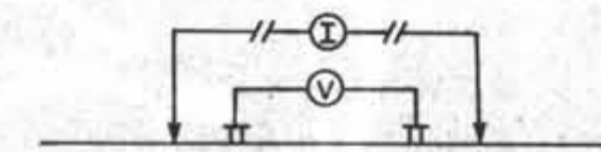
PHOENIX GEOPHYSICS LIMITED
 INDUCED POLARIZATION AND RESISTIVITY SURVEY
 PLAN MAP

for

WESTERN MINES LIMITED
 RODGER'S CREEK GRID, ALBERNI M.D.
 BRITISH COLUMBIA

SCALE
 1:5000

GRADIENT ARRAY



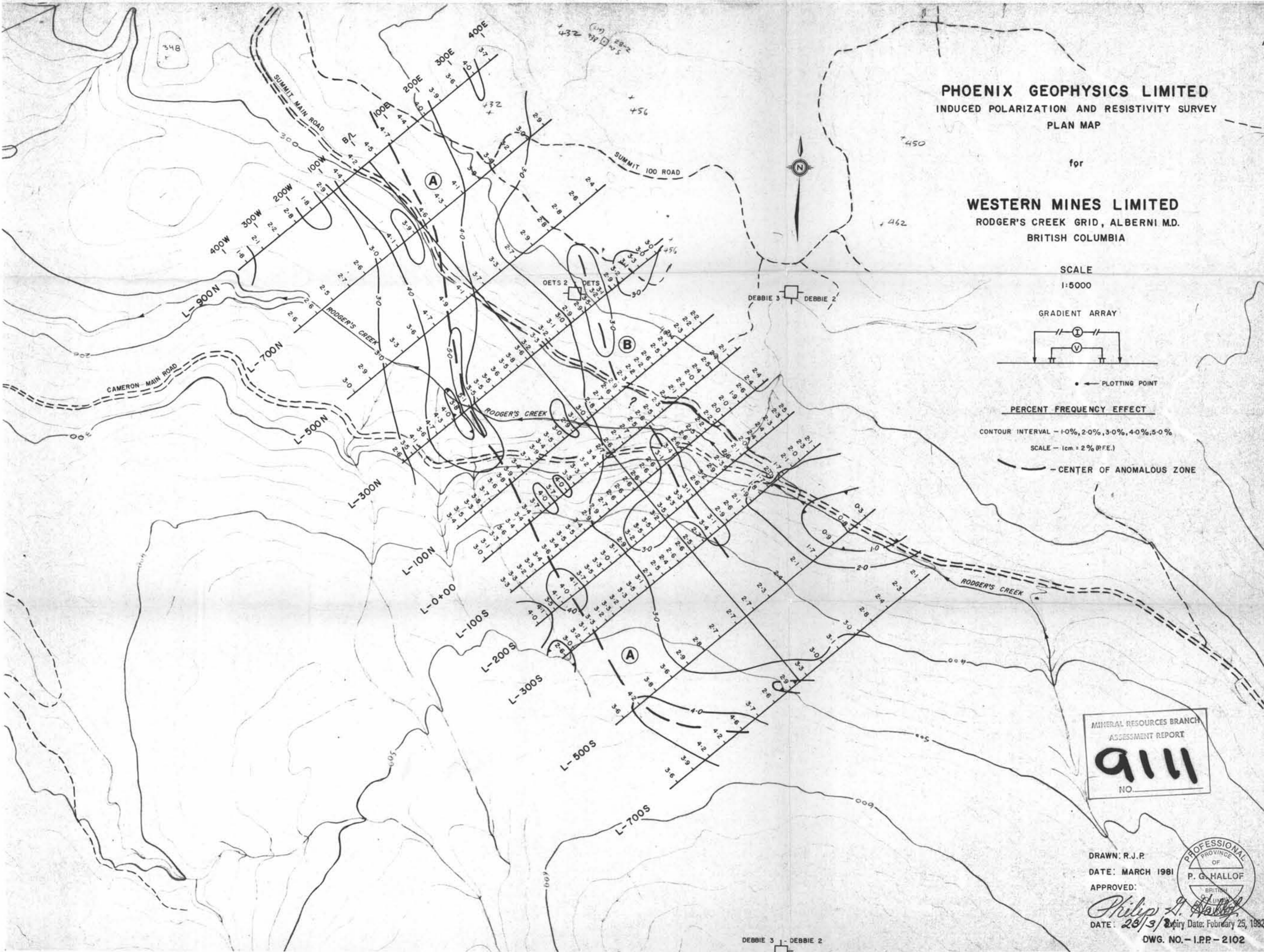
• ← PLOTTING POINT

PERCENT FREQUENCY EFFECT

CONTOUR INTERVAL - 1.0%, 2.0%, 3.0%, 4.0%, 5.0%

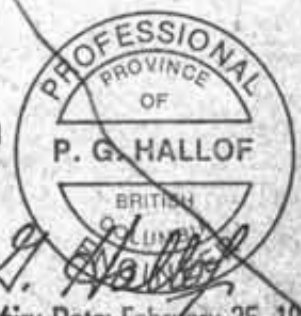
SCALE - 1cm = 2% (P.F.E.)

--- CENTER OF ANOMALOUS ZONE



MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
9111
 NO.

DRAWN: R.J.P.
 DATE: MARCH 1981
 APPROVED:
Philip A. Hallof
 DATE: 26/3/81 Expiry Date: February 25, 1982
 DWG. NO. - I.P.P. - 2102



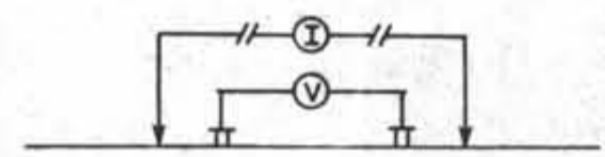
DEBBIE 3 - DEBBIE 2

PHOENIX GEOPHYSICS LIMITED
 INDUCED POLARIZATION AND RESISTIVITY SURVEY
 PLAN MAP

for
WESTERN MINES LIMITED
 RODGER'S CREEK GRID, ALBERNI M.D.,
 BRITISH COLUMBIA

SCALE
 1:5000

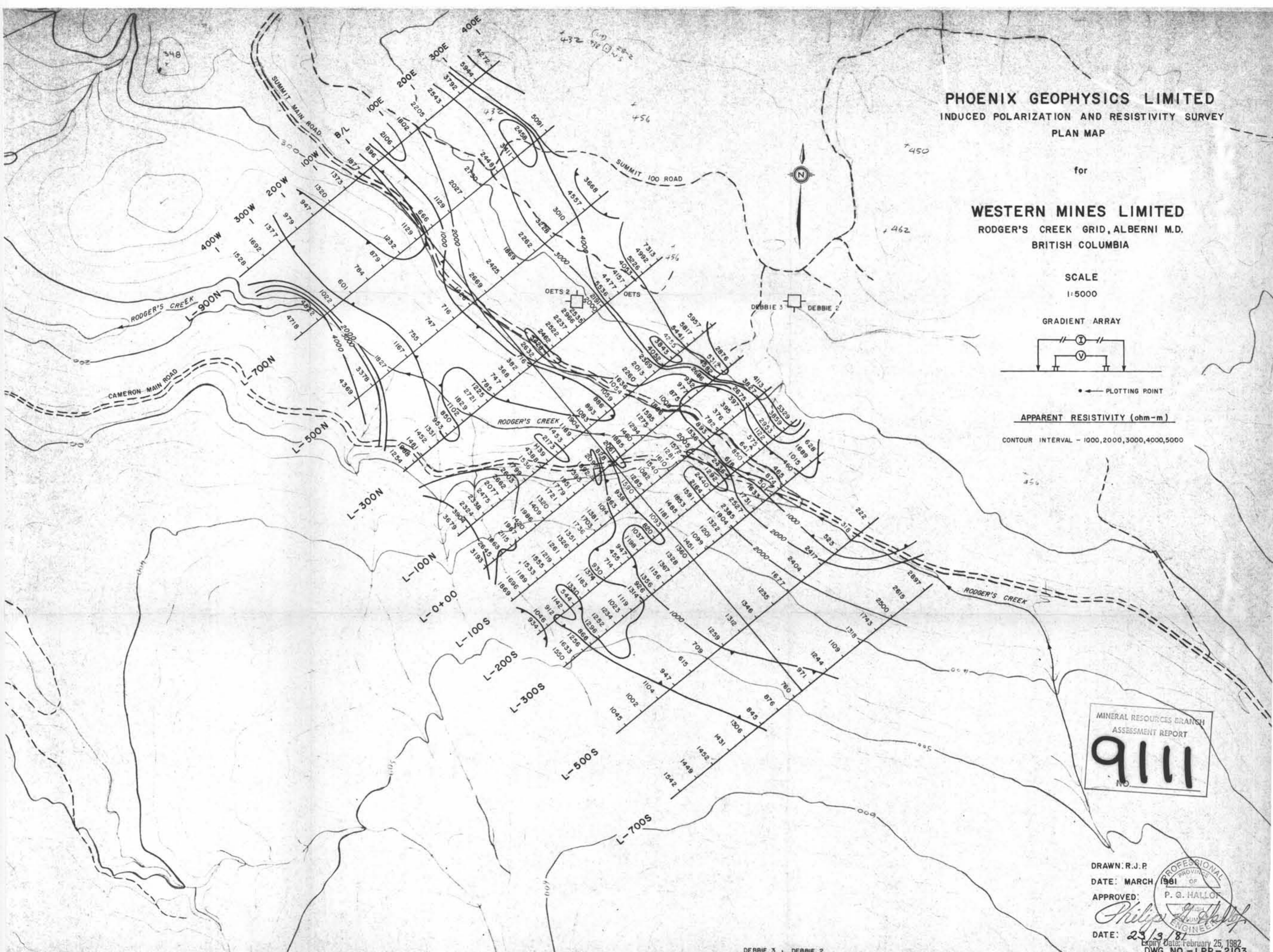
GRADIENT ARRAY



• ← PLOTTING POINT

APPARENT RESISTIVITY (ohm-m)

CONTOUR INTERVAL - 1000, 2000, 3000, 4000, 5000



MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
9111
 NO.

DRAWN: R.J.P.
 DATE: MARCH 1961
 APPROVED: *Philip G. Hall*
 DATE: 25/3/87
 P. G. HALLOP
 PROFESSIONAL ENGINEER
 EXPIRY DATE: FEBRUARY 25, 1982
 DWG. NO. - I.P.P. - 2103

DEBBIE 3 DEBBIE 2