

GEOLOGICAL, GEOPHYSICAL and GEOCHEMICAL REPORT

on the

G.C. 1-12 and T.L. 1-12 MINERAL CLAIMS

MAMIT LAKE - TUNKWA LAKE AREA

KAMLOOPS and NICOLA MINING DIVISIONS

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NTS Sheet - 92I/7 and 10 UTM Grid - Zone 10

Latitude -  $50^{\circ} 30'$  North - 5596250

Longitude -  $120^{\circ} 50'$  East - 653650

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BETHLEHEM COPPER CORPORATION  
Suite 2100 - Guinness Tower  
1055 West Hastings Street  
Vancouver, B.C. V6E 2H8

August 18, 1978

R. J. Nethery, P. Eng.

**PART 1 OF 3**

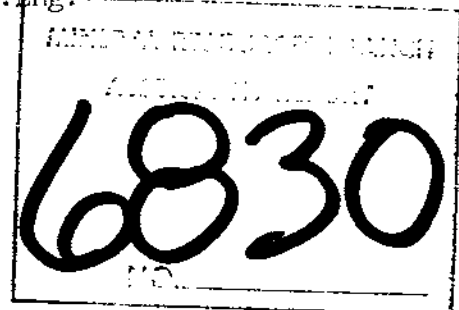


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VOLUME II - DRAWINGS

SECTION G - ILLUSTRATIONS

<u>Drawing No.</u>	<u>Title</u>	<u>Scale</u>
GP-78-2-1	General Location Plan	1:250,000
GP-78-2-2	Location Plan - Area 2 - N.T.S. 92I/7	1:50,000
GP-78-2-3	Location Plan - Area 2 - N.T.S. 92I/10	1:50,000
GP-78-2-4	Mineral Claims - Sheet 1	1:10,000
GP-78-2-5	Mineral Claims - Sheet 2	1:10,000
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GP-78-2-8	Geological Plan - Sheet 1	1:10,000
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GP-78-2-10	Geological Plan - Sheet 3	1:10,000
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GP-78-2-12	Geochemical Plan - Cu - Sheet 1	1:10,000
GP-78-2-13	Geochemical Plan - Cu - Sheet 2	1:10,000
GP-78-2-14	Geochemical Plan - Cu - Sheet 3	1:10,000
GP-78-2-15	Geochemical Plan - Cu - Sheet 4	1:10,000
GP-78-2-16	Geochemical Plan - Pb - Sheet 1	1:10,000
GP-78-2-17	Geochemical Plan - Pb - Sheet 2	1:10,000
GP-78-2-18	Geochemical Plan - Pb - Sheet 3	1:10,000
GP-78-2-19	Geochemical Plan - Pb - Sheet 4	1:10,000

VOLUME III - DRAWINGS

SECTION G - ILLUSTRATIONS (Contd.)

<u>Drawing No.</u>	<u>Title</u>	<u>Scale</u>
GP-78-2-20	Geochemical Plan - Zn - Sheet 1	1:10,000
GP-78-2-21	Geochemical Plan - Zn - Sheet 2	1:10,000
GP-78-2-22	Geochemical Plan - Zn - Sheet 3	1:10,000
GP-78-2-23	Geochemical Plan - Zn - Sheet 4	1:10,000
GP-78-2-24	Geochemical Plan - Mo - Sheet 1	1:10,000
GP-78-2-25	Geochemical Plan - Mo - Sheet 2	1:10,000
GP-78-2-26	Geochemical Plan - Mo - Sheet 3	1:10,000
GP-78-2-27	Geochemical Plan - Mo - Sheet 4	1:10,000
GP-78-2-28	I.P. Survey - Chargeability - Sheet 1	1:10,000
GP-78-2-29	I.P. Survey - Chargeability - Sheet 2	1:10,000
GP-78-2-30	I.P. Survey - Chargeability - Sheet 3	1:10,000
GP-78-2-31	I.P. Survey - Chargeability - Sheet 4	1:10,000
GP-78-2-32	I.P. Survey - Resistivity - Sheet 1	1:10,000
GP-78-2-33	I.P. Survey - Resistivity - Sheet 2	1:10,000
GP-78-2-34	I.P. Survey - Resistivity - Sheet 3	1:10,000
GP-78-2-35	I.P. Survey - Resistivity - Sheet 4	1:10,000

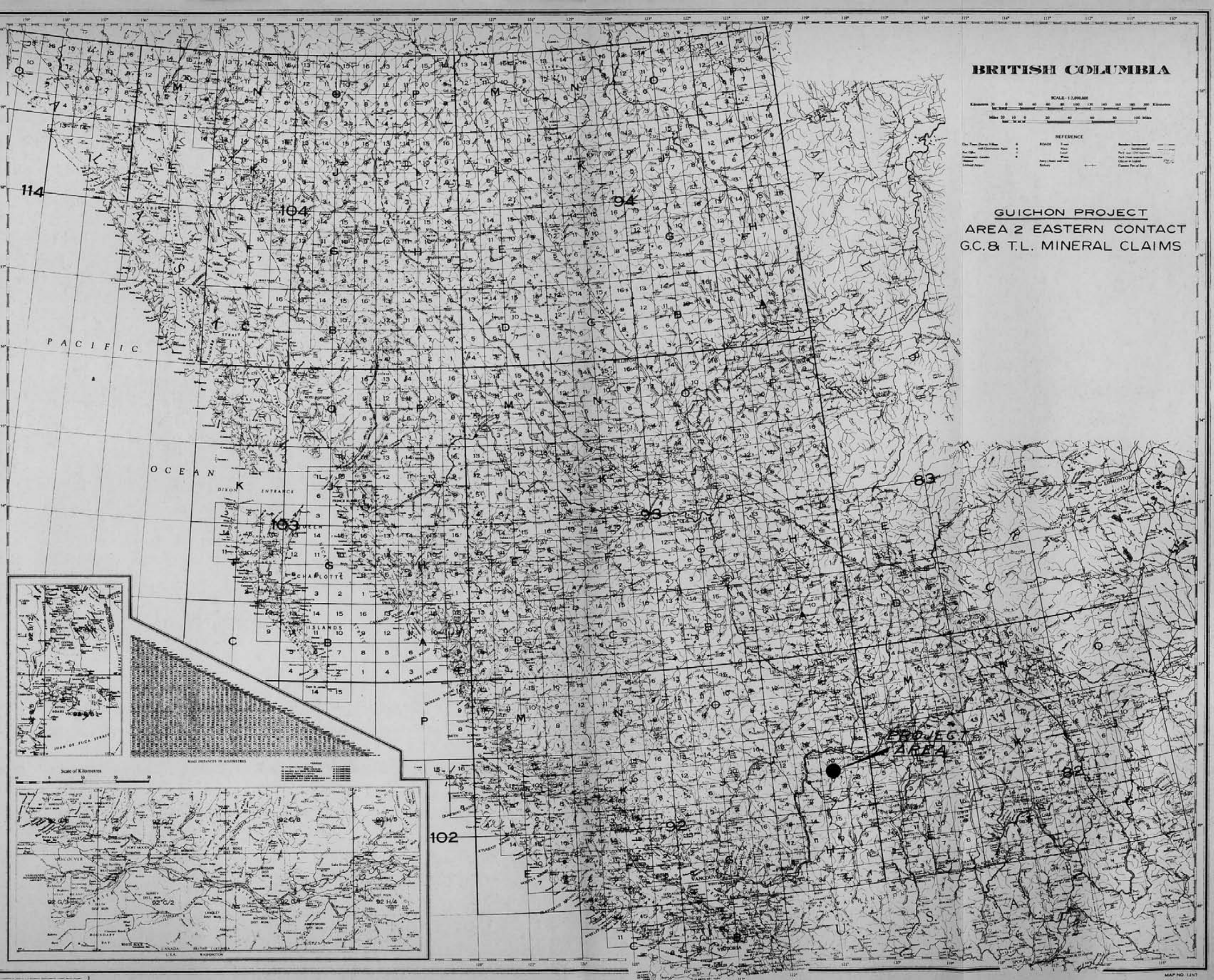
# BRITISH COLUMBIA



REFERENCE

Dist. From Shore	0	ROADS	Trunk	Boundary	International
0-100	1	1st Class	Main	1st Class	1st Class
100-200	2	2nd Class	Local	2nd Class	2nd Class
200-300	3	3rd Class	Unimproved	3rd Class	3rd Class
300-400	4	4th Class	Unimproved	4th Class	4th Class
400-500	5	5th Class	Unimproved	5th Class	5th Class
500-600	6	6th Class	Unimproved	6th Class	6th Class
600-700	7	7th Class	Unimproved	7th Class	7th Class
700-800	8	8th Class	Unimproved	8th Class	8th Class
800-900	9	9th Class	Unimproved	9th Class	9th Class
900-1000	10	10th Class	Unimproved	10th Class	10th Class

## GUICHON PROJECT AREA 2 EASTERN CONTACT G.C. & T.L. MINERAL CLAIMS



SECTION A - SUMMARY OF WORK

Introduction:

The Guichon Project, a joint venture of Bethlehem Copper Corporation, Gränges Exploration AB and Pacific Petroleum Ltd. was originally organized in early 1977 to carry out a regional exploration program along the perimeter of the Guichon batholith contact.

Field investigations carried out during 1977 were centred in the area immediately southeast of Ashcroft on the northwestern flank of the contact zone.

The area chosen for examination in 1978 was the eastern Guichon batholith contact extending from Mamit Lake on the south to Tunkwa Lake on the north. Mineral claim acquisition took place in June 1977 and during early 1978 a detailed review of all published data (geologic papers, assessment reports, etc.) was carried out. The 1978 field work commenced in early May and was completed in late July. It involved a program of geological mapping, induced polarization surveys and rock and soil geochemical sampling and analysis. Exploration coverage of certain areas of the mineral claims was not carried out due to work in years previous by other firms.

Location and Access:

The claim holdings are centred on the immediate west side of Logan Lake at geographic co-ordinates  $50^{\circ} 30'$  latitude and  $120^{\circ} 50'$  longitude. The U.T.M. grid reference is Zone 10, 5596250 North and 653650 East. The total area held, however, extends some 16 km south and 17 km northwest of the central point.



Access to the southern half of the property is gained from the Logan Lake - Merritt highway via numerous gravel roads. The northern portion is accessible via logging and mining exploration roads.

The location of the property and the individual mineral claims is shown on drawing nos. GP-78-2-1 to 3 which are enclosed in Section G.

Topography and Physical Environment:

The claims extend along the floor and western flank of the Guichon Creek valley from Mamit Lake in the south to Tunkwa Lake in the north. Elevations range from 975 m to 1370 m A.S.L. The relief is generally moderate.

The major drainage course through the area is Guichon Creek which flows from north to south and is fed by numerous smaller streams.

The area is located within the Interior dry belt and as such experiences low precipitation, the annual rate being approximately 35 cm.

Most of the claim area has a moderate forest cover with lodgepole pine and douglas fir being the predominant species.

Mineral Title:

The property was originally comprised of 27 modified grid claims totalling 471 units, all of which were staked and recorded in June 1977. Total area held was some 11775 hectares. The area was reduced by 10 claims (167 units) on June 24, 1978 when those areas of reduced exploration potential were allowed to expire. The reduced holdings now total 17 claims comprised of 304 units totalling 7600 hectares. Details of the mineral claim holdings are set out in Section F. The locations of the claims are shown on drawing nos. GP-78-2-2 to 7 which are appended in Section G.

Geology:

The claims are underlain on the west by Guichon batholith intrusives which are in contact on the east with Upper Triassic Nicola volcanics and sediments. This contact generally follows the Guichon Creek valley throughout the entire length of the claims. The Nicola - intrusive contact is overlain by Tertiary Kamloops volcanics near the northern border of the claim block. The intrusive rocks on the border of the batholith consist of a hybrid phase which varies from a dark mafic rock near the contact to a diorite-quartz diorite in more distant areas. This border phase is quite variable in width and it generally grades into quartz diorite further to the west. The intrusive contact zone shows for the most part only minor alteration of the feldspars (to sericite) and mafics (to chlorite), but certain areas do exhibit moderate alteration along with minor chalcopyrite and pyrite mineralization and they are generally related to adjacent faulting. The Nicola group in the contact region consists of meta volcanics and meta sediments. These rocks have been subjected to regional metamorphism but not to the degree of the Nicola rocks further to the south, therefore the well-known epidote streaked greenstone is not that prevalent in this assemblage.

The slightly anomalous I.P. readings on lines 190+00N and 175+00N occur in areas of glacial cover with the nearest outcrop lying 1500 meters to the west. This rock is a fresh appearing quartz diorite with wide spaced jointing and little alteration. Approximately 2000 meters to the east of the anomalous reading are outcrops of Nicola volcanics.

The geological mapping of the project area is shown on drawing nos. GP-78-2-8 to 11.



Geophysical Survey:

The firm of Glen E. White Geophysical Consulting and Services Ltd. was retained to carry on the Induced Polarization survey. Two I.P. units were utilized, the Hunttec Mark III 500 milliamp Lopo unit was used for areas assumed to be lightly drift covered, and the larger 2.5 kw unit was employed on the regions of deeper overburden. The lines were run east-west and spaced for the most part 500 meters apart; readings were taken every 100 meters along these lines. In certain areas of interest the line spacing was closed to 250 meters. The total length of the grid established and surveyed is 101.1 km. On the I.P. maps all values above the line indicate the reconnaissance Lopo unit and the values below the line, the 2.5 kw detail unit.

The results of the survey are appended in Section C and are shown on drawing nos. GP-78-2-28 to 35.

An area of significant readings is along line 190+00N from 50+00W to 46+00W; values here are approximately double background with the high being 9.2 milliseconds. A north-south line through 190+00N, 49+00W and extended north to line 195+00N and south to line 185+00N also had anomalous values. Line 175+00N has double background values for the last five stations, 49+00W to 44+00W.

Several pulse E.M. lines were completed over the anomalous I.P. zone on line 190+00N and also along lines 185+00N and 180+00N. The E.M. indicated that a bed-like conductor is continuous between lines 190+00N and 185+00N but does not reach line 180+00N. The conductive zone is traceable along line 190+00N for approximately 800 meters and appears to dip slightly (10 to 15°) to the east. This flat conductor is apparently deeper than the chargeability anomaly and has an indicated depth of 240 meters at station 190+00N, 49+00W.

A letter report by the geophysical consultant and its accompanying profiles are appended in Section C.

Geochemical Survey:

The soil geochemical survey covered the same lines and stations utilized by the I.P. survey and was carried out by the firm of Glen E. White Geophysical Consulting & Services Ltd. The soil samples were taken from the top of the "B" horizon and analyzed for Cu, Pb, Zn and Mo at the Kamloops Research and Assay laboratory.

Anomalous copper values can be traced over several stations on lines 290+00N, 292+50N and 295+00N but I.P. readings on these same lines are not anomalous. An irregular N.N.W. copper anomaly occurs from line 270+00N to 280+00N but I.P. readings in the area are not of interest. Most anomalous soil values were erratic in distribution and failed to form any pattern or trend and generally occur as one or two isolated high values.

A rock geochemical survey was carried out by Bethlehem field personnel and was designed to cover both sides of the Nicola-Guichon batholith contact. The survey avoided areas of known mineralization and previous drilling and was utilized primarily to pick up previously unknown above background zones. All samples were assayed for Cu, Pb, Zn and Mo at the Kamloops Research and Assay laboratory.

Anomalous copper values detected along line 255+00N resulted in extension of this line to the west, plus the addition of two I.P. lines, one 250 meters to the north and the other an equal distance to the south. Also, a high copper reading (917 ppm) at sample location 009 near station 315+00N, 103+00W warranted the addition of two I.P. lines. Other rock geochemical results which are slightly above background proved to lack the necessary accompanying alteration or I.P. verification.

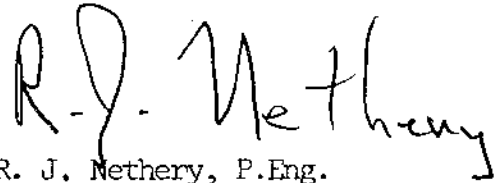
The total geochemical survey involved the taking and analysis of 1138 soil samples and 410 rock samples. The results of the survey are appended in Section D and displayed on drawing nos. GP-78-2-12 to 27.

Conclusions and Recommendations:

The geochemical soil values are erratic in distribution and form interesting patterns in only two areas, both of which were not verified by the I.P. Survey. The rock geochemistry highs were also not associated with any anomalous I.P. readings.

The area of interest, as detected by the I.P. survey, is located on sheet 2 (drawing nos. GP-78-2-29 and 33) and runs from line 175+00N to 190+00N. Supplementary pulse E.M. testing over the anomalous area indicates a slight easterly dipping conductive zone that is traceable along line 190+00N for approximately 800 meters and is also detectable on line 185+00N. This moderately flat conductor is indicative of a sedimentary structure, possibly a conductive clay bed.

Respectfully submitted,

Handwritten signature of R. J. Nethery in cursive script.

R. J. Nethery, P.Eng.

SECTION B - STATEMENT OF EXPENDITURES

Expense Period - April 1 to August 18, 1978

A. Consultant (see accompanying invoices)

1. Glen E. White Geophysical Consulting and Services Ltd. -  
Induced polarization surveys and soil sampling

Invoice dated May 18, 1978	-	\$ 5,988.00	
Invoice dated June 1, 1978	-	6,494.78	
Invoice dated June 21, 1978	-	5,832.00	
Invoice dated July 6, 1978	-	5,592.00	
Invoice dated July 24, 1978	-	2,616.00	
Invoice dated August 3, 1978	-	1,567.50	
Invoice dated August 23, 1978	-	1,187.50	
		<hr/>	
		\$29,277.78	\$29,277.78

TOTAL CONSULTANT'S FEES \$29,277.78

B. Contractors (see accompanying invoices)

1. McWilliam, Whyte, Goble and Associates - land registry  
title searches to determine land and mineral ownership

Invoice dated June 19, 1978	-	\$ 320.00	\$ 320.00
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2. Kamloops Research and Assay Laboratory

Invoice No. 1576 dated May 23, 1978	-	\$ 725.75	
Invoice No. 1588 dated May 29, 1978	-	570.25	
Invoice No. 1593 dated June 5, 1978	-	623.75	
Invoice No. 1606 dated June 12, 1978	-	564.00	
Invoice No. 1610 dated June 19, 1978	-	539.75	
Invoice No. 1614 dated June 23, 1978	-	394.00	
Invoice No. 1616 dated June 27, 1978	-	120.25	
Invoice No. 1624 dated July 1, 1978	-	558.00	
Invoice No. 1636 dated July 15, 1978	-	162.75	
Invoice No. 1640 dated July 20, 1978	-	209.00	
		<hr/>	
		\$4,467.50	\$ 4,467.50

3. Altair Drafting Services Ltd.  
 - drafting @ \$12.00/hour

May 1978	- 37 hours	- \$ 444.00	
June 1978	- 26 hours	- \$ 312.00	
July 1978	-100 hours	- \$1,200.00	
August 1978	- 36 hours	- \$ 432.00	
	<u>199 hours</u>	<u>- \$2,388.00</u>	\$2,388.00

- printing

May 1978	-	\$ 70.56	
June 1978	-	2.35	
July 1978	-	237.30	
August 1978	-	326.97	
		<u>\$ 637.18</u>	\$ 637.18

TOTAL CONTRACTOR EXPENSES \$7,812.68

C. Bethlehem Expenditures - April 1 to August 18, 1978

1. Personnel

R.E. Anderson - Exploration Manager  
 8 days in general project supervision  
 @ \$185.00/day \$1,480.00

R.J. Nethery - Project Geologist

May 3, 10, 11, 17-19, 23, 24, 26, 30, 31 (11 days)  
 June 1, 2, 5-9, 12-16, 19-23, 26-28 (20 days)  
 July 3-7, 10-14, 17, 18, 21, 24, 25, 31 (16 days)  
 August 1, 2, 8 (3 days)  
 50 days @ \$115.33/day \$5,766.50

J.G. Collins - Field Supervisor

May 3, 10, 11, 17-19, 23, 24, 26, 30, 31 (11 days)  
 June 1, 2, 5-9, 12-16, 19-23, 26-28 (20 days)  
 July 10-14 (5 days)  
 36 days @ \$79.46/day \$2,860.56

Personnel (continued)

B. Kynoch - Field Assistant

May 8-12, 15-19, 23-26, 29-31 (17 days)

June 1, 2, 5-9, 12-16, 19-23 (17 days)

34 days @ \$52.09/day \$1,771.06

M. Fisher - Field Assistant

May 8, 10-12, 15-19 ( 9 days)

9 days @ \$49.43/day \$ 444.87

D. Mazurkewich - Field Assistant

May 15-19, 23-26, 29-31 (12 days)

June 1, 2, 5-9, 12-16, 19-23, 26-30 (22 days)

July 4-7, 10-12 ( 7 days)

41 days @ \$49.43/day \$2,026.63

D. Denton-Howes - Field Assistant

July 4-7, 10-12 ( 7 days)

7 days @ \$47.83/day \$ 334.81

E. Andersen - Property Agent

10 days in general supervision, data completion and  
report preparation

10 days @ \$90.09/day \$ 900.90

A. Emo - Secretary

3 days @ \$47.83/day \$ 143.49

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Total Personnel \$15,728.82

2. Transportation

R. J. Nethery - Ford F-100 4WD Pickup 47 days @ \$30.00/day	\$1,410.00
J. G. Collins - Ford F-250 4WD Pickup 31 days @ \$35.00/day	\$1,085.00
Field Assistants - Ford F-100 2WD Pickup 46 days @ \$30.00/day	\$1,380.00
Total Transportation	<u>\$3,875.00</u>

3. Lodging and Meals

R. J. Nethery - expenses for the week ending:-

May 6, 1978	\$ 129.25	
May 13, 1978	171.33	
May 20, 1978	162.80	
May 27, 1978	131.00	
June 3, 1978	134.05	
June 10, 1978	186.23	
June 17, 1978	108.39	
June 24, 1978	109.99	
July 1, 1978	91.78	
July 8, 1978	151.54	
July 15, 1978	105.51	
July 22, 1978	59.68	
	<u>\$1,541.55</u>	\$1,541.55

B. Kynoch - expenses for the week ending:-

May 13, 1978	\$ 50.44	
May 20, 1978	71.44	
May 27, 1978	27.00	
June 3, 1978	26.98	
June 10, 1978	34.71	
June 17, 1978	49.70	
June 24, 1978	26.68	
	<u>\$ 286.95</u>	\$ 286.95



Lodging and Meals (continued)

M. Fisher - expenses for the week ending:-

May 13, 1978	\$ 96.91	
May 20, 1978	87.80	
	<u>\$ 184.71</u>	\$ 184.71
Total Lodging and Meals		<u>\$2,013.21</u>

4. Communications - telephone charges

May 1978	\$ 54.93	
June 1978	58.68	
July 1978	117.98	
	<u>\$ 231.59</u>	\$ 231.59

TOTAL BETHLEHEM EXPENDITURES \$21,848.62

TOTAL PROJECT EXPENDITURES \$58,939.08

D. Distribution of Expenditures

1. General Expenses (to be distributed to the geological, geophysical and geochemical costs on a proportionate basis)

- general supervision, title searches, drafting and report preparation \$11,588.27

2. Geological Expenses -

Labour	\$5,766.50
Transport	\$1,410.00
15.16% of general expenses	<u>\$1,756.32</u>
Total Geological	\$8,932.82

Area mapped - 105 square km

∴ Unit cost - \$85.07/km<sup>2</sup>

3. Geophysical Expenses

Consultant's Fees	\$29,277.78
61.83% of general expenses	\$ 7,165.22
	<hr/>
Total geophysical	\$36,443.00
No. of km surveyed	100.1
•• Average unit cost	\$ 364.07/km

4. Geochemical Expenses

Assaying	\$ 4,467.50
Labour	4,577.37
Transport	1,380.00
Lodging and Meals	471.66
23.01% of general expenses	2,666.73
	<hr/>
Total geochemical	\$13,563.26
No. of samples	1,548
•• Unit cost	\$ 8.76/sample

*Gen E. White* GEOPHYSICAL CONSULTING & SERVICES LTD.

8251 Beckwith Road, Richmond, British Columbia, V6X 1V7

Telephone: (604) 273-6962

May 18, 1978

Mr. R. Anderson  
Exploration Manager  
Bethlehem Copper Corp.  
2100 - 1055 W. Hastings St.  
Vancouver, B. C.

PROGRESS INVOICE #1

The reconnaissance induced polarization survey along Guichon Creek was initiated May 2/78 and proceeded slowly due to an unexpected snowfall and rainy weather.

The area surveyed during this period, May 2 - 16/78, covers most of lines 170N - 235N. Guichon Creek is flowing very heavily and parts of this area will have to wait until after high water.

Coverage: Lopo unit	-	12.6 km @ \$240....	\$3024.00 ✓
2.5 unit	-	10.4 km @ \$285....	\$2964.00 ✓
Totals		23.0 km	\$5988.00

Amount of this invoice.....\$5988.00 ✓

*OK for Payment.*  
*012-848*  
*RFB.*  
*[Signature]*

*Glen E. White* GEOPHYSICAL CONSULTING & SERVICES LTD.

9251 Beckwith Road, Richmond, British Columbia, V6X 1V7

Telephone: (604) 273-6962

June 1, 1978

Mr. R. Anderson  
Exploration Manager  
Bethlehem Copper Corp.  
2100 - 1055 W. Hastings  
Vancouver, B. C.

PROGRESS INVOICE #2

The majority of the detail induced polarization surveying with the 2.5 kw unit has been completed. Approximately 4 - 5 days work in water flooded areas has been left until the end of the project. Project sheet 2 is now being drafted. Sheet 3 should be near completion this coming week.

Coverage: Lopo unit - 15.1 km @ \$240.....	\$3624.00 ✓
2.5 unit - <u>9.8</u> km @ \$285.....	<u>\$2793.00</u> ✓
Totals 24.9 km.....	\$6417.00 ✓

Total coverage to date - 47.9 km  
Total charge to date - \$12,405.00

Sundry charges - hip waders as per receipts....77.78  
\$6494.78

Amount of this invoice.....\$6494.78 ✓

*OK for Payment.  
011-848  
RET.*

*K*

JUN 22 1978

*Gen E. White* GEOPHYSICAL CONSULTING & SERVICES LTD.

9251 Beckwith Road, Richmond, British Columbia, V6X 1V7

Telephone: (604) 273-6862

June 21, 1978

Mr. R. Anderson  
Exploration Manager  
Bethlehem Copper Corporation  
2100 - 1055 W. Hastings St.  
Vancouver, B. C. V6E 2H8

INVOICE

Progress Invoice #3

June 1 - 16/78

Progress has been slower than anticipated due to swamp and some helper type crew problems. Thus, we have concentrated on the line preparation and soil sampling.

Coverage Lopo Unit - 24.3 km @ \$240.....\$5832.00

Total coverage to date - 72.2 km

Total charge to date - \$18,237.00

Amount of this invoice.....\$5832.00

12-848

*Gen E. White*

GEOPHYSICAL CONSULTING & SERVICES LTD.

9251 Beckwith Road, Richmond, British Columbia, V6X 1V7

Telephone: (604) 273-6962

July 6, 1978

Mr. R. Anderson  
Exploration Manager  
Bethlehem Copper Corporation  
2100 - 1055 W. Hastings St.  
Vancouver, B. C.

INVOICE #4

June 17 - July 5/78

The reconnaissance surveying as originally planned has now been completed and we are proceeding with the additional coverage as requested by Mr. Nethery, P. Eng. We have also brought the detail 2.5 kw unit back into the area to try and survey some of the areas previously covered by spring runoff. Drafting of sheets 1, 2 and 3 are nearing completion.

Coverage Lopo Unit - 23.3 km @ \$240.....\$5592.00 /

Total coverage to date - 95.5 km

Total charge to date - \$23,829.00

Amount of this invoice.....\$5592.00 /

012-848  
RTW

O.K.  
K

*R. Nethery*

July 24, 1978

Mr. R. Anderson  
Exploration Manager  
Bethlehem Copper Corporation  
2100 - 1055 W. Hastings St.  
Vancouver, B. C.

INVOICE #5

July 6 - 10/78

The additional reconnaissance check surveying and 2.5 KW fillin work has been completed. A minor amount of detail surveying with a = 200 m was completed on line 190 N.

Summary Work Coverage:

Lopo unit - 805 reading; 80.5 km  
Billed to date -  
75.3 km

Amount remaining - 5.2 km @ \$240/km.....\$1248.00

2.5 KW unit - 250 readings; 25.0 km  
Billed to date - 20.2 km

Amount remaining - 4.8 km @ \$285/km...:::1368.00

Total.....\$2616.00

Total coverage to date - 105.5 km

Total charges to date - \$26,445.00

Amount of this invoice.....\$2616.00



Glen E. White

GEOPHYSICAL CONSULTING & SERVICES LTD.

HGE  
REA  
RJN

9251 Beckwith Road, Richmond, British Columbia, V6X 1V7

Telephone: (604) 273-6962

August 3, 1978

Mr. R. Anderson  
Exploration Manager  
Bethlehem Copper Corporation  
2100 - 1055 W. Hastings St.  
Vancouver, B. C.

INVOICE

To Professional Services -

Glen E. White Geophysical Consulting & Services Ltd.

Guichon project:

(A) Detail induced polarization, lines 252 / 50N and 255 / 00N, July 28, 29/78, 1½ days @ \$635/day.....	\$952.50
(B) Vector EM test July 18 and 23/78.....	535.00
Computer data plotting.....	80.00
Total.....	<u>\$1567.50</u>

Amount of this invoice.....\$1567.50

12-848

August 23, 1978

Mr. R. Anderson  
Exploration Manager  
Bethlehem Copper Corporation  
2100 - 1055 W. Hastings St.  
Vancouver, B. C.

INVOICE

To Professional Services -

Glen E. White Geophysical Consulting & Services Ltd.

Vector EM surveying STUD, NEPA  
and Guichon projects August 8-11/78

© \$485/day.....	\$1940.00
Data processing.....	285.00
Interpretation and supervision, G. White, P. Eng.....	<u>150.00</u>
Total.....	\$2375.00

Amount of this invoice.....\$2375.00

O.k. R/W

11-848 \$1187.50  
12-848 \$1187.50  
A

DATE June 19, 1978

**McWilliam, Whyte, Goble & Associates**

BRITISH COLUMBIA LAND SURVEYORS  
KAMLOOPS -- PRINCE GEORGE -- SMITHERS -- SALMON ARM

Bethlehem Copper Corporation  
Suite 2100, Guinness Tower  
1055 West Hastings Street  
Vancouver, B.C.  
V6E 2H8

A service charge of 1½% (\$1.00 min.) per month,  
18% per annum, will be charged on statement  
balances carried forward from previous month.

Attention: Mr. Erik Anderson

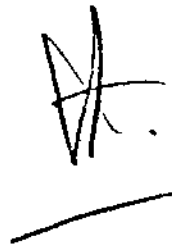
OUR JOB # 78-112

YOUR FILE #

Re: Land Registry Searches for titles and original Crown Grants  
on certain property in the vicinity of Oregon Jack Creek  
and Mamit Lake as per letter of April 7, 1978

Fees, Office wages and Land Registry Office fees \$640.00

12 - 845 \$ 320.00  
13 - 845 \$ 320.00



Kamloops Research  
&  
Assay Laboratory  
LTD.



B.C. CERTIFIED ASSAYERS

MAY 25 1978 L J N  
EA ✓

WEST TRANS CANADA HIGHWAY - ~~2200~~ - KAMLOOPS, B.C. ~~V2R 1A7~~  
2095 Phone: 372-2784 Telex: 048-8320 VIS 1A7

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

INVOICE: 1576

DATE: May 23, 1978.

FILE No. G-214

60	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc & Molybdenum @ \$3.25	\$195.00 /
193	Geochemical Analyses -- soil -- ppm Copper, Lead, Zinc & Molybdenum @ \$2.75	530.75 /
		<u>\$725.75</u>

*D. L.*  
*Apr*  
12-842  
*X* *A*

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&  
Assay Laboratory  
LTD.



B.C. CERTIFIED ASSAYERS

JUN - 1 1978

RJN  
EA

WEST TRANS CANADA HIGHWAY - ~~BOZONIAK~~ - KAMLOOPS, B.C. ~~X222L X222K~~  
2095 Phone: 372-2784 Telex: 048-8320 V1S 1A7

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

INVOICE: 1588  
DATE: May 29, 1978.  
FILE No. G-215

57	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc & Molybdenum @ \$3.25	\$185.25
140	Geochemical Analyses -- soil -- ppm Copper, Lead, Zinc & Molybdenum @ \$2.75	385.00
		<u>\$570.25</u>

04.

11-

12-84Z

Kamloops Research  
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LTD.



JUN - 6 1978 RTN ✓

B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~2095~~ - KAMLOOPS, B.C. X2205M1

Phone: 372-2784

Telex: 048-8320

VIS 1A7

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

INVOICE: 1593

DATE: June 5, 1978.

FILE No. G-217

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43	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc, Molybdenum @ \$3.25	\$139.75
176	Geochemical Analyses -- soil -- ppm Copper, Lead, Zinc, Molybdenum @ \$2.75	484.00
		<hr/>
		\$623.75
		<hr/> <hr/>

12-842  
A  
— JK

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&  
Assay Laboratory

LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~2095~~ - KAMLOOPS, B.C. V2E 5N2  
2095 Phone: 372-2784 Telex: 048-8320 V1 S 1A7

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

INVOICE: 1606  
DATE: June 12, 1978.  
FILE No. G-219

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39	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc & Molybdenum @ \$3.25	\$126.75
159	Geochemical Analyses -- soil -- ppm Copper, Lead, Zinc & Molybdenum @ \$2.75	437.25
		<hr/>
		\$564.00
		<hr/> <hr/>

12-847



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Assay Laboratory

LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - BOX 506 - KAMLOOPS, B.C. V2C 6N4  
2075

Phone: 372-2784

Telex: 048-8320

VIS 1A7

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

INVOICE: 1610

DATE: June 19, 1978.

FILE No. 4-220

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73	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc & Molybdenum @ \$3.25	\$237.25
110	Geochemical Analyses -- soil -- ppm Copper, Lead, Zinc & Molybdenum @ \$2.75	302.50
		<hr/>
		\$539.75
		<hr/>

Kamloops Research  
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Assay Laboratory

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B.C. CERTIFIED ASSAYERS

JUN 26 1978

WEST TRANS CANADA HIGHWAY - XBOX 3948 - KAMLOOPS, B.C. V2C 2K6  
2075 Phone: 372-2784 Telex: 048-8320 V1S 1A7

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C. V6E 2H8

INVOICE: 1614

DATE: June 23, 1978.

FILE No. G-221

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23	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc & Molybdenum	@ \$3.25	\$ 74.75
2	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc, Molybdenum, Silver and Nickel	@ \$4.25	8.50
113	Geochemical Analyses -- soil -- ppm Copper, Lead, Zinc & Molybdenum	@ \$2.75	310.75
			<hr/>
			\$394.00
			<hr/> <hr/>

Kamloops Research  
&  
Assay Laboratory

LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~BOX 246~~ - KAMLOOPS, B.C. V2C 5N4  
2095 Phone: 372-2784 Telex: 048-8320 VIS 1 A7

Bathlehem Copper Corporation,  
1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

INVOICE: 1616

DATE: June 27, 1978.

FILE No. G-223

37 Geochemical Analyses -- rock -- ppm Copper,

Lead, Zinc & Molybdenum @ \$3.25

\$120.25

Kamloops Research  
&  
Assay Laboratory  
LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - BOX 946 - KAMLOOPS, B.C. V2C 5N4  
2095 Phone: 372-2784 Telex: 048-8320 VLS 1A7

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2R8

INVOICE: 1624  
DATE: July 1, 1978.  
FILE No. G-225

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27	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc & Molybdenum @ \$3.25	\$ 87.75
171	Geochemical Analyses -- soil -- ppm Copper, Lead, Zinc & Molybdenum @ \$2.75	470.25
		<hr/>
		\$558.00
		<hr/> <hr/>

Kamloops Research  
&  
Assay Laboratory

LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~BOX 218~~ - KAMLOOPS, B.C. ~~V2C 2N8~~  
2095 Phone: 372-2784 Telex: 048-8320 VIS 1A7

Bethlehem Copper Corporation,  
1055 West Hastings St.,  
Vancouver, B. C.  
V6Z 2H8

INVOICE: 1636  
DATE: July 15, 1978.  
FILE No. G-228  
G-221

G-228:

41 Geochemical Analyses -- ppm Copper, Lead, Zinc Rock & Molybdenum @ \$3.25	\$133.25
6 Geochemical Analyses -- ppm Copper, Lead, Zinc Rock Nickel & Silver @ \$3.75	22.50

G-221:

2 Geochemical Analyses - ppb Gold @ \$3.50 Rock	7.00
	<hr/>
	\$162.75
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Kamloops Research  
&  
Assay Laboratory  
LTD.



JUL 24 1978 *RJ*

B.C. CERTIFIED ASSAYERS

*EA*

WEST TRANS CANADA HIGHWAY - ~~BOX 916~~ - KAMLOOPS, B.C. ~~V2Z 2K2K~~  
2095 Phone: 372-2784 Telex: 048-8320 VLS 1A7

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C. V6E 2H8

INVOICE: 1640

DATE: July 20, 1978.

FILE No. G-230

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59	Geochemical Analyses -- rock -- ppm Copper, Lead, Zinc & Molybdenum @ \$3.25	\$191.75 ✓
76	Geochemical Analyses -- soil -- ppm Copper, Lead, Zinc & Molybdenum @ \$2.75	209.00
		<u>\$400.75 ✓</u>

11-84Z # 191.75  
12-84Z # 209.00

RECONNAISSANCE  
INDUCED POLARIZATION SURVEY  
GC & TL MINERAL CLAIMS  
LOGAN LAKE AREA  
92 I/7 & I/10

SURVEY PROCEDURES



## SURVEY AREA

The GC and TL mineral claims are located around the village of Logan Lake, B. C. The survey area extends from Mamit Lake to the south to just west of Tunkwa Lake to the north.

The program was initiated May 2, 1978, and terminated July 10, 1978. Survey coverage consisted of some 115 km of reconnaissance induced polarization surveying.

## SURVEY PROCEDURE

The area was assigned a regional grid system by Bethlehem Copper Corporation for survey control. Air photographs and topographic maps were used to locate line positions.

Regional lines were surveyed in an E-W direction every 500 m and numbered every 100 m. Readings were obtained at 100 m along the lines.

Two survey procedures were used: the Wenner array and the pole-dipole array. The pole-dipole system was used to cover the deep overburden area along Guichon Creek.

Soil samples of the "B" horizon were also obtained along the lines at 100 m intervals and submitted to Bethlehem Copper Corporation.

## SURVEY SPECIFICATIONS

A time domain Hunttec MK III receiver was used coupled with a Lopo transmitter for the Wenner surveying and to a 2.5 KW transmitter for the pole-dipole coverage. The data was obtained in both cases with an "a" spacing and traverse interval of 100 m.

The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through electrodes C<sub>1</sub> and C<sub>2</sub>, the primary voltage (V<sub>p</sub>) appearing between electrodes P<sub>1</sub> and P<sub>2</sub> during the "current on" part of the cycle, and the secondary voltage ratios M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub> and M<sub>4</sub> appearing between electrodes P<sub>1</sub> and P<sub>2</sub> during the "current off" part of the cycle.

The apparent chargeability (CV) in milliseconds, is calculated by  $T_p (M_1 / 2M_2 / 4M_3 / 8M_4) = CV$ , where T<sub>p</sub> is the basic integrating time in tenths of seconds. M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub> and M<sub>4</sub> are the chargeability effects at various times on the voltage decay curve during pulse off time, measured as a percentage of the primary voltage V<sub>p</sub> recorded during the "current on" time. By the use of these factors, one can gain an estimate of the decay curve in terms of chargeability for the given time T<sub>p</sub>. This gives a quantitative value to the data measured.

A cycle time of 4 seconds was used with a duty ratio of 2.2 - 1,  $T_p = 20$  ms, and  $T_d = 15$  ms.

#### DATA PRESENTATION

The data is presented at a scale of 1 : 10,000. The area is covered by four map sheets proceeding northward from Mamit Lake. The induced polarization data is shown as contoured plan maps of the chargeability in milliseconds and apparent resistivity in ohm-meters. The Wenner data is plotted above the survey line (northside) and the pole-dipole data below the line (southside).

#### SUMMARY

A large portion of the survey area shows apparent resistivities of less than 100 ohm-meters. This tends to indicate conductive overburden conditions which would impede geochemical responses and decrease the effective penetration of the induced polarization systems.

An area of some 8 - 10 milliseconds was detected in the southern portion of map sheet 2 in a region of expected deep overburden. Detailing with an a spacing of 200 m confirmed the anomalous responses but with a slight decrease in amplitude.

Thus, since the geological model is a deeply buried contact type massive sulphide target, a line of deep penetrating vector electromagnetometer surveying across this zone may facilitate in evaluating the induced polarization responses.

Respectfully submitted,  
GLEN E. WHITE GEOPHYSICAL  
CONSULTING & SERVICES LTD.



Glen E. White, B.Sc., P. Eng.  
Consulting Geophysicist

## POLE - DIPOLE ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
170+ON	56+50W	800	180	4.2	1.8	1.3	1.0	1	100	20	15	4.2	282.6
170+ON	57+50W	1000	216	2.5	1.5	1.1	0.9	1	100	20	15	3.4	271.3
170+ON	58+50W	600	111	1.7	1.4	1.1	0.9	1	100	20	15	3.2	232.4
170+ON	59+50W	850	141	2.5	1.6	1.1	0.9	1	100	20	15	3.5	208.3
170+ON	55+50W	1200	98	2.6	1.6	1.2	1.0	1	100	20	15	3.7	102.6
170+ON	54+50W	1000	112	3.1	1.9	1.5	1.2	1	100	20	15	4.5	140.7
170+ON	53+50W	650	48	3.3	2.2	1.7	1.4	1	100	20	15	5.1	92.8
170+ON	52+50W	1200	71	3.4	2.1	1.6	1.2	1	100	20	15	4.7	74.3
170+ON	51+50W	800	90	2.4	1.3	1.1	0.8	1	100	20	15	3.2	141.3
170+ON	50+50W	900	78	2.7	1.5	1.1	0.6	1	100	20	15	3.0	108.9
175+ON	57+50W	700	83	3.4	2.3	1.8	1.5	1	100	20	15	5.4	148.9
175+ON	56+50W	900	76	3.0	1.9	1.5	1.2	1	100	20	15	4.5	106.1
175+ON	55+50W	700	66	3.2	2.1	1.6	1.3	1	100	20	15	4.8	118.4
175+ON	54+50W	700	98	3.0	1.9	1.5	1.2	1	100	20	15	4.5	175.8
175+ON	53+50W	550	52	3.0	2.0	1.6	1.3	1	100	20	15	4.8	118.7
175+ON	52+50W	1000	32	2.6	1.2	1.1	0.9	1	100	20	15	3.3	40.2
180+ON	57+50W	1100	165	2.8	1.8	1.3	1.1	1	100	20	15	4.1	188.4
180+ON	56+50W	1200	231	3.0	2.0	1.5	1.2	1	100	20	15	4.5	241.8
180+ON	55+50W	1000	64	2.9	1.9	1.4	1.1	1	100	20	15	4.2	80.4
180+ON	54+50W	1200	36	2.6	1.6	1.2	0.9	1	100	20	15	3.6	37.7
180+ON	53+50W	1100	45	2.3	1.4	0.9	0.7	1	100	20	15	2.9	51.4
180+ON	52+50W	1300	33	2.6	1.6	1.2	1.0	1	100	20	15	3.7	31.9
180+ON	51+50W	800	30	2.6	1.5	1.2	1.0	1	100	20	15	3.7	47.1
180+ON	50+50W	1000	35	2.4	1.2	0.9	0.7	1	100	20	15	2.8	44.0
180+ON	49+50W	1000	27	2.1	1.3	1.0	0.8	1	100	20	15	3.0	33.9
180+ON	57+50	650	52	2.1	1.3	0.8	0.6	1	100	20	15	2.5	100.5
180+ON	56+50	650	58	2.7	1.7	1.3	1.0	1	100	20	15	3.9	112.1
180+ON	55+50	600	18	2.3	1.4	0.9	0.8	1	100	20	15	3.0	37.7
180+ON	54+50	650	15	2.2	1.3	1.0	0.8	1	100	20	15	3.0	29.0
180+ON	53+50	600	24	1.9	1.0	0.7	0.5	1	100	20	15	2.1	50.2
180+ON	52+50	800	44	2.1	1.2	0.8	0.6	1	100	20	15	2.5	69.1
180+ON	51+50	750	42	2.4	1.3	1.0	0.8	1	100	20	15	3.1	70.3
180+ON	50+50	650	40	3.3	2.1	1.6	1.3	1	100	20	15	4.9	77.3
180+ON	49+50	500	40	4.1	2.7	2.1	1.7	1	100	20	15	6.3	100.5
180+ON	48+50	700	55	5.0	3.5	2.8	2.3	1	100	20	15	8.3	98.7
180+ON	47+50	700	50	4.8	3.0	2.1	1.6	1	100	20	15	6.4	89.7
190+ON	57+50W	650	25	1.7	1.0	0.5	0.3	1	100	20	15	1.6	48.3
190+ON	56+50W	500	16	2.1	1.1	0.7	0.4	1	100	20	15	2.1	40.2
190+ON	55+50W	950	17	1.9	1.2	0.8	0.7	1	100	20	15	2.6	22.5
190+ON	54+50W	1000	25	1.5	0.7	0.4	0.3	1	100	20	15	1.4	31.4
190+ON	53+50W	1200	54	1.8	1.0	0.7	0.5	1	100	20	15	2.1	56.5
190+ON	52+50W	1250	95	1.7	0.8	0.5	0.4	1	100	20	15	1.7	95.5
190+ON	51+50W	1300	137	2.5	1.4	1.1	0.8	1	100	20	15	3.2	132.4
190+ON	50+50W	750	46	4.1	2.7	2.2	1.8	1	100	20	15	6.5	77.0
190+ON	49+50W	650	111	5.0	3.8	3.3	2.5	1	100	20	15	9.2	214.5
190+ON	48+50W	950	156	4.6	3.3	2.6	2.0	1	100	20	15	7.5	206.2
190+ON	47+50W	1000	190	4.7	3.4	2.7	2.2	1	100	20	15	8.0	238.6
190+ON	46+50W	750	186	4.0	2.9	2.3	1.9	1	100	20	15	6.8	311.5
190+ON	45+50W	1000	123	2.3	1.7	1.3	1.0	1	100	20	15	3.8	154.5
195+ON	57+50W	650	40	2.2	1.6	1.1	0.8	1	100	20	15	3.2	77.3

## POLE - DIPOLE ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
195+ON	56+50W	600	42	3.2	2.1	1.6	1.1	1	100	20	15	4.5	87.9
195+ON	55+50W	650	23	3.5	2.2	1.7	1.2	1	100	20	15	4.9	44.4
195+ON	54+50W	700	35	2.6	1.9	1.5	1.3	1	100	20	15	4.6	62.8
195+ON	53+50W	1000	80	1.8	1.0	0.9	0.8	1	100	20	15	2.8	100.5
195+ON	52+50W	800	100	2.1	1.3	0.9	0.7	1	100	20	15	2.8	157.0
200+ON	56+50W	1100	51	2.5	1.5	1.1	0.8	1	100	20	15	3.3	58.2
200+ON	55+50W	550	23	3.5	2.7	2.3	1.4	1	100	20	15	5.9	52.5
200+ON	54+50W	600	42	3.4	2.1	1.6	1.3	1	100	20	15	4.9	87.9
200+ON	53+50W	800	90	3.1	1.8	1.1	1.0	1	100	20	15	3.8	141.3
200+ON	52+50W	900	112	2.6	1.6	1.2	0.9	1	100	20	15	3.6	156.3
200+ON	51+50W	850	285	2.2	1.3	0.9	0.7	1	100	20	15	2.8	421.1
205+ON	57+50W	650	25	2.1	1.3	0.9	0.6	1	100	20	15	2.6	48.3
205+ON	56+50W	700	40	3.2	2.1	1.6	1.0	1	100	20	15	4.4	71.8
205+ON	55+50W	600	20	3.4	2.2	1.5	1.1	1	100	20	15	4.5	41.9
205+ON	54+50W	700	30	3.6	2.3	1.7	1.2	1	100	20	15	4.9	53.8
205+ON	53+50W	800	70	3.1	1.8	1.1	1.0	1	100	20	15	3.8	109.9
205+ON	52+50W	1000	90	2.6	1.6	1.2	1.0	1	100	20	15	3.7	113.0
210+ON	56+50W	600	21	4.0	2.7	2.2	1.7	1	100	20	15	6.4	44.0
210+ON	55+50W	750	26	3.9	2.5	2.0	1.7	1	100	20	15	6.1	43.5
210+ON	54+50W	700	32	4.3	2.8	2.3	1.9	1	100	20	15	6.9	57.4
210+ON	53+50W	650	63	2.8	1.7	1.3	1.0	1	100	20	15	3.9	121.7
215+ON	56+50W	600	25	4.0	2.6	2.1	1.6	1	100	20	15	6.1	52.3
215+ON	55+50W	750	30	3.8	2.4	1.9	1.3	1	100	20	15	5.3	50.2
215+ON	54+50W	700	40	4.2	2.6	2.1	1.5	1	100	20	15	6.0	71.8
215+ON	53+50W	700	65	2.7	1.6	1.2	1.0	1	100	20	15	3.7	116.6
215+ON	52+50W	800	80	2.5	1.4	1.0	0.8	1	100	20	15	3.1	125.6
230+ON	51+50W	650	40	3.5	2.2	1.7	1.4	1	100	20	15	5.2	77.3
230+ON	52+50W	650	34	3.0	1.9	1.5	1.3	1	100	20	15	4.6	65.7
230+ON	53+50W	850	39	3.3	2.2	1.7	1.3	1	100	20	15	5.0	57.6
230+ON	54+50W	1050	69	3.5	2.4	1.8	1.5	1	100	20	15	5.5	82.5
230+ON	55+50W	1000	56	3.4	2.4	1.8	1.5	1	100	20	15	5.5	70.3
230+ON	56+50W	1000	56	3.1	2.1	1.6	1.3	1	100	20	15	4.8	70.3
230+ON	57+50W	1400	60	3.7	2.5	2.0	1.6	1	100	20	15	5.9	53.8
230+ON	58+50W	1000	51	3.6	2.5	1.9	1.5	1	100	20	15	5.6	64.1
230+ON	59+50W	900	53	4.2	2.9	2.2	1.8	1	100	20	15	6.6	74.0
230+ON	60+50W	1500	34	3.2	2.0	1.5	1.2	1	100	20	15	4.6	28.5
230+ON	61+50W	1200	60	2.3	1.6	1.0	0.8	1	100	20	15	3.2	62.8
230+ON	62+50W	1300	85	2.8	1.8	1.3	1.0	1	100	20	15	3.9	82.1
235+ON	54+50W	1150	22	3.1	2.6	0.8	0.6	1	100	20	15	3.3	24.0
235+ON	55+50W	1300	64	4.6	3.9	3.2	2.7	1	100	20	15	9.4	61.8
235+ON	56+50W	600	36	2.7	2.2	1.7	1.3	1	100	20	15	4.9	75.4
235+ON	57+50W	1100	37	2.5	2.0	1.6	1.3	1	100	20	15	4.7	42.2
235+ON	58+50W	850	18	2.3	1.3	1.0	0.8	1	100	20	15	3.1	26.6
235+ON	59+50W	750	66	2.9	1.9	1.4	1.1	1	100	20	15	4.2	110.5
235+ON	60+50W	1000	59	2.8	1.8	1.4	1.1	1	100	20	15	4.2	74.1
235+ON	61+50W	900	38	1.9	1.6	1.2	0.9	1	100	20	15	3.4	53.0
235+ON	62+50W	1200	92	2.9	1.8	1.4	1.1	1	100	20	15	4.2	96.3
235+ON	63+50W	1000	90	2.7	1.4	1.0	0.8	1	100	20	15	3.2	113.0
265+ON	65+50W	1600	60	1.7	1.5	1.4	1.1	1	100	20	15	3.8	47.1
265+ON	66+50W	1650	66	1.8	2.1	1.7	1.4	1	100	20	15	4.8	50.2

## POLE - DIPOLE ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
265+ON	67+50W	1600	39	1.3	1.5	1.2	1.0	1	100	20	15	3.4	30.6
265+CN	68+50W	950	42	1.7	1.8	1.6	1.3	1	100	20	15	4.4	55.5
265+ON	69+50W	1200	15	0.6	0.7	0.6	0.4	1	100	20	15	1.5	15.7
265+CN	70+50W	2050	33	1.0	1.1	0.9	0.8	1	100	20	15	2.6	20.2
265+ON	71+50W	1650	50	1.7	1.7	1.4	1.2	1	100	20	15	4.1	38.1
265+ON	72+50W	1200	27	1.4	1.4	1.2	0.9	1	100	20	15	3.2	28.3
265+ON	73+50W	1400	30	1.2	1.2	1.0	0.8	1	100	20	15	2.8	26.9
265+ON	74+50W	1550	39	1.0	1.1	0.9	0.7	1	100	20	15	2.5	31.6
265+ON	75+50W	1450	53	1.4	1.4	1.3	1.1	1	100	20	15	3.6	45.9
265+ON	76+50W	1650	57	1.2	1.3	1.1	0.9	1	100	20	15	3.1	43.4
265+CN	77+50W	1550	62	1.0	1.1	0.9	0.8	1	100	20	15	2.6	50.2
265+CN	78+50W	1300	62	1.1	1.1	1.0	0.8	1	100	20	15	2.7	59.9
265+ON	79+50W	1450	122	0.7	0.7	0.7	0.5	1	100	20	15	1.8	105.7
270+ON	65+50W	1100	60	1.6	1.2	1.0	0.9	1	100	20	15	3.0	68.5
270+ON	66+50W	1750	55	1.7	1.2	1.1	1.0	1	100	20	15	3.3	39.5
270+ON	67+50W	1000	60	1.3	1.0	0.8	0.6	1	100	20	15	2.3	75.4
270+CN	68+50W	1100	77	0.8	1.0	0.7	0.6	1	100	20	15	2.1	87.9
270+ON	69+50W	1100	60	1.1	1.0	0.8	0.7	1	100	20	15	2.4	68.5
270+ON	70+50W	1250	39	1.2	1.4	1.2	1.1	1	100	20	15	3.5	39.2
270+ON	71+50W	1000	21	0.8	1.1	0.9	0.7	1	100	20	15	2.4	26.4
270+ON	72+50W	1050	30	1.5	1.7	1.5	1.2	1	100	20	15	4.1	35.9
270+ON	73+50W	1800	36	2.9	2.8	2.5	2.3	1	100	20	15	7.4	25.1
270+ON	74+50W	800	14	0.6	0.7	0.5	0.3	1	100	20	15	1.3	22.0
270+ON	75+50W	800	15	0.9	1.0	0.8	0.7	1	100	20	15	2.3	23.5
270+CN	76+50W	1300	17	0.8	0.9	0.7	0.6	1	100	20	15	2.0	16.4
270+ON	77+50W	1200	28	0.6	0.6	0.5	0.4	1	100	20	15	1.4	29.3
270+ON	78+50W	750	18	0.8	0.8	0.7	0.6	1	100	20	15	2.0	30.1
270+CN	79+50W	800	20	0.7	0.8	0.7	0.6	1	100	20	15	2.0	31.4
275+ON	70+50W	1550	95	0.6	0.8	0.6	0.5	1	100	20	60	1.7	77.0
275+ON	71+50W	1550	106	1.0	1.1	0.9	0.7	1	100	20	60	2.5	85.9
275+ON	72+50W	900	90	1.7	1.8	1.5	1.2	1	100	20	60	4.2	125.6
275+ON	73+50W	1700	60	2.3	2.2	1.9	1.6	1	100	20	60	5.4	44.3
275+ON	74+50W	850	30	1.7	1.4	1.2	1.0	1	100	20	60	3.5	44.3
275+ON	75+50W	700	12	1.1	0.9	0.7	0.6	1	100	20	60	2.1	21.5
275+ON	76+50W	2100	56	1.0	1.0	0.8	0.6	1	100	20	60	2.2	33.5
275+ON	77+50W	1100	33	1.4	1.4	1.2	1.0	1	100	20	60	3.4	37.7
275+ON	78+50W	1050	39	1.8	1.7	1.5	1.2	1	100	20	60	4.2	46.7
275+ON	79+50W	1200	30	1.6	1.5	1.3	1.0	1	100	20	60	3.6	31.4
275+ON	80+50W	1000	21	1.2	1.2	1.0	0.8	1	100	20	60	2.8	26.4
275+ON	81+50W	1200	26	1.4	1.4	1.2	1.0	1	100	20	60	3.4	27.2
275+ON	82+50W	1950	84	1.4	1.4	1.2	1.0	1	100	20	15	3.4	54.1
275+ON	83+50W	2200	110	1.2	1.2	1.1	0.9	1	100	20	15	3.0	62.8
275+ON	84+50W	1600	72	0.9	1.0	0.8	0.7	1	100	20	15	2.3	56.5
275+ON	85+50W	1100	70	1.0	1.1	0.9	0.8	1	100	20	15	2.6	79.9
275+ON	86+50W	1350	180	0.8	0.9	0.7	0.6	1	100	20	15	2.0	167.5
275+ON	87+50W	1400	170	1.0	0.9	0.8	0.7	1	100	20	15	2.3	152.5
275+ON	88+50W	1600	90	1.3	1.1	1.0	0.9	1	100	20	15	2.9	70.6
275+ON	89+50W	1100	75	1.2	1.0	0.8	0.7	1	100	20	15	2.4	85.6
280+ON	72+50W	1500	100	1.6	1.2	1.1	1.0	1	100	20	15	3.3	83.7
280+ON	73+50W	1000	90	1.2	1.0	0.8	0.7	1	100	20	15	2.4	113.0

## POLE - DIPOLE ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
280+0N	74+50W	1700	60	2.3	1.6	1.4	1.1	1	100	20	15	4.0	44.3
280+0N	75+50W	850	30	1.7	1.6	1.3	1.0	1	100	20	15	3.6	44.3
280+0N	76+50W	1350	34	1.1	1.1	0.9	0.7	1	100	20	15	2.5	31.6
280+0N	77+50W	800	15	0.8	0.9	0.7	0.6	1	100	20	15	2.0	23.5
280+0N	78+50W	500	62	1.3	1.3	1.1	0.9	1	100	20	15	3.1	155.7
280+0N	79+50W	500	12	1.5	1.5	1.3	1.0	1	100	20	15	3.5	30.1
280+0N	80+50W	400	16	1.7	1.7	1.5	1.3	1	100	20	15	4.3	50.2
280+0N	81+50W	650	19	1.1	1.0	0.7	0.5	1	100	20	15	2.0	36.7
280+0N	82+50W	800	20	1.0	0.9	0.8	0.4	1	100	20	15	1.8	31.4
285+0N	73+50W	1500	60	2.2	1.8	1.6	1.2	1	100	20	15	4.4	50.2
285+0N	74+50W	1350	56	1.7	1.6	1.5	1.1	1	100	20	15	3.9	52.1
285+0N	75+50W	1200	40	2.3	1.7	1.5	1.2	1	100	20	15	4.3	41.9
285+0N	76+50W	750	34	1.6	1.6	1.3	1.0	1	100	20	15	3.6	56.9
285+0N	77+50W	1400	56	1.0	1.0	0.9	0.8	1	100	20	15	2.6	50.2
285+0N	78+50W	1200	75	1.7	1.6	1.4	1.1	1	100	20	15	3.9	78.5
285+0N	79+50W	1550	100	2.1	1.7	1.5	1.1	1	100	20	15	4.1	81.0
290+0N	75+50W	900	40	0.7	0.9	0.7	0.5	1	100	20	15	1.9	55.8
290+0N	76+50W	1100	42	0.7	1.0	0.7	0.6	1	100	20	15	2.1	48.0
290+0N	77+50W	1300	50	1.3	1.5	1.2	1.0	1	100	20	15	3.4	48.3
290+0N	78+50W	1000	49	1.0	1.0	0.8	0.5	1	100	20	15	2.0	61.5
290+0N	79+50W	1200	39	1.2	1.3	1.1	0.9	1	100	20	15	3.1	40.8
292+5N	75+50W	1000	70	1.2	1.4	1.1	0.9	1	100	20	15	3.1	87.9
292+5N	76+50W	900	66	1.3	1.5	1.2	1.0	1	100	20	15	3.4	92.1
292+5N	77+50W	1100	30	1.3	1.5	1.2	1.0	1	100	20	15	3.4	34.3
292+5N	78+50W	750	26	1.7	1.9	1.5	1.3	1	100	20	15	4.4	43.5
292+5N	79+50W	850	21	0.7	1.0	0.8	0.7	1	100	20	15	2.3	31.0
292+5N	80+50W	700	14	0.8	1.2	1.0	0.8	1	100	20	15	2.7	25.1
295+0N	81+50W	1700	30	1.1	1.1	0.9	0.8	1	100	20	15	2.7	22.2
295+0N	80+50W	1200	25	0.8	1.3	1.0	0.8	1	100	20	15	2.8	26.2
295+0N	79+50W	900	21	1.0	1.4	1.1	0.9	1	100	20	15	3.1	29.3
295+0N	78+50W	1250	34	1.7	2.0	1.6	1.4	1	100	20	15	4.7	34.2
295+0N	77+50W	800	23	1.2	1.5	1.2	1.0	1	100	20	15	3.4	36.1
295+0N	76+50W	950	50	1.8	1.8	1.5	1.3	1	100	20	15	4.4	66.1
295+0N	75+50W	800	40	1.7	1.7	1.4	1.1	1	100	20	15	3.9	62.8
300+0N	83+50W	750	13	0.9	0.8	0.6	0.4	1	100	20	15	1.6	21.8
300+0N	82+50W	450	15	0.8	0.6	0.5	0.5	1	100	20	15	1.6	41.9
300+0N	81+50W	1700	30	1.1	1.1	0.9	0.8	1	100	20	15	2.7	22.2
300+0N	80+50W	1200	25	0.8	1.2	1.1	0.9	1	100	20	15	3.0	26.2
175+0N	51+50W	920	39	2.1	1.2	0.9	0.7	1	100	20	15	2.7	53.2
175+0N	50+50W	1400	81	2.9	1.9	1.5	1.2	1	100	20	15	4.5	72.7
175+0N	49+50W	1390	70	4.2	2.9	2.2	1.7	1	100	20	15	6.5	63.3
175+0N	48+50W	650	27	4.0	2.9	2.5	2.0	1	100	20	15	7.2	52.2
175+0N	47+50W	880	38	5.5	3.7	3.2	2.5	1	100	20	15	9.1	54.2
175+0N	46+50W	1250	62	5.1	3.8	2.9	2.3	1	100	20	15	8.5	62.3
175+0N	45+50W	860	68	6.0	4.4	3.6	2.9	1	100	20	15	10.5	99.3
175+0N	44+50W	1000	106	5.6	4.1	3.5	2.9	1	100	20	15	10.2	133.1
175+0N	43+50W	1100	134	4.9	3.4	2.9	2.3	1	100	20	15	8.3	153.0
180+0N	49+50W	1450	83	2.6	1.8	1.4	1.1	1	100	20	15	4.1	71.9
180+0N	48+50W	1550	86	3.2	2.1	1.6	1.3	1	100	20	15	4.8	69.7
180+0N	47+50W	1550	180	2.3	1.4	1.0	0.7	1	100	20	15	2.9	145.9



## POLE - DIPOLE ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
180+ON	46+50W	1520	192	3.6	2.4	1.9	1.5	1	100	20	15	5.6	158.7
290+ON	89+50W	980	42	2.1	1.8	1.5	1.2	1	100	20	15	4.3	53.8
290+ON	88+50W	1800	255	2.8	1.8	1.4	1.1	1	100	20	15	4.2	177.9
290+ON	87+50W	1450	50	2.7	1.6	1.3	1.0	1	100	20	15	3.8	43.3
290+ON	86+50W	1500	51	3.2	1.9	1.5	1.2	1	100	20	15	4.5	42.7
290+ON	85+50W	2850	64	2.8	1.4	1.1	0.8	1	100	20	15	3.3	28.2
292+5N	89+50W	1200	109	3.1	2.0	1.6	1.3	1	100	20	15	4.8	114.1
292+5N	88+50W	1100	50	3.1	2.0	1.5	1.2	1	100	20	15	4.5	57.1
292+5N	87+50W	1300	63	2.9	1.7	1.3	1.0	1	100	20	15	3.9	60.9
292+5N	86+50W	1380	10	2.6	0.9	0.8	0.6	1	100	20	15	2.5	9.1
292+5N	85+50W	1450	27	3.0	1.5	1.2	0.9	1	100	20	15	3.6	23.4
295+ON	84+50W	2700	48	2.3	1.3	1.1	0.8	1	100	20	15	3.1	22.3
295+ON	85+50W	1080	15	2.2	1.4	1.0	0.8	1	100	20	15	3.1	17.4
295+ON	86+50W	1550	22	2.3	1.2	0.8	0.6	1	100	20	15	2.5	17.8
295+ON	87+50W	1750	85	2.8	1.9	1.4	1.1	1	100	20	15	4.2	61.0
295+ON	88+50W	1300	48	2.6	1.6	1.2	0.9	1	100	20	15	3.6	46.4
295+ON	89+50W	1690	154	2.9	1.8	1.4	1.2	1	100	20	15	4.3	114.5
300+ON	93+50W	1400	100	2.6	1.6	1.2	0.9	1	100	20	15	3.6	89.7
300+ON	92+50W	1200	74	2.4	1.4	1.0	0.8	1	100	20	15	3.1	77.5
300+ON	91+50W	900	83	2.8	1.6	1.3	1.0	1	100	20	15	3.8	115.8
300+ON	90+50W	1600	82	2.8	1.6	1.2	1.0	1	100	20	15	3.8	64.4
300+ON	89+50W	1450	30	2.1	1.1	0.9	0.7	1	100	20	15	2.7	26.0
300+ON	88+50W	850	19	2.0	1.0	0.8	0.6	1	100	20	15	2.4	28.1
300+ON	87+50W	900	14	2.6	1.5	1.5	1.3	1	100	20	15	4.4	19.5
300+ON	86+50W	1350	25	1.8	0.8	0.9	0.7	1	100	20	15	2.5	23.3
300+ON	85+50W	1300	17	1.4	0.4	0.6	0.4	1	100	20	15	1.6	16.4
300+ON	94+50W	1400	120	2.7	1.8	1.3	1.0	1	100	20	15	3.9	107.7
300+ON	95+50W	1500	110	2.9	1.7	1.4	1.1	1	100	20	15	4.1	92.1
300+ON	96+50W	1450	95	2.5	1.6	1.2	0.9	1	100	20	15	3.5	82.3
300+ON	97+50W	1350	130	2.2	1.4	1.0	0.8	1	100	20	15	3.1	120.9
300+ON	98+50W	1500	140	2.8	1.6	1.2	1.0	1	100	20	15	3.8	117.2
300+ON	99+50W	1600	130	2.4	1.4	1.0	0.8	1	100	20	15	3.1	102.0
175+ON	48+00W	500	24	3.7	2.7	2.0	1.6	1	200	20	15	6.0	120.6
175+ON	49+00W	1000	58	3.9	2.7	2.0	1.4	1	200	20	15	5.7	145.7
190+ON	51+00W	2290	88	2.8	1.7	1.3	1.0	1	200	20	15	3.9	96.5
190+ON	50+00W	2450	111	3.4	2.3	1.8	1.4	1	200	20	15	5.3	113.8
190+ON	49+00W	950	100	5.0	3.6	2.8	2.3	1	200	20	15	8.4	264.4
190+ON	48+00W	750	72	4.5	3.2	2.5	1.9	1	200	20	15	7.2	241.2
190+ON	47+00W	600	56	3.4	2.9	2.4	2.0	1	200	20	15	7.0	234.5
190+ON	46+00W	900	107	4.1	2.9	2.3	1.9	1	200	20	15	6.9	298.6
190+ON	45+00W	850	38	3.4	2.1	1.7	1.4	1	200	20	15	5.1	112.3
90+50N	49+50W	450	45	4.1	3.1	2.5	2.0	1	100	20	15	7.3	125.6
91+50N	49+50W	1250	99	5.3	3.8	3.0	2.4	1	100	20	15	8.8	99.5
92+50N	49+50W	950	880	4.2	3.0	2.4	1.9	1	100	20	15	7.0	1163.5
93+50N	49+50W	1750	934	4.0	2.8	2.2	1.8	1	100	20	15	6.6	670.3
89+50N	49+50W	550	51	4.9	3.5	2.8	2.2	1	100	20	15	8.1	116.5
88+50N	49+50W	600	45	4.7	3.4	2.7	2.2	1	100	20	15	8.0	94.2
87+50N	49+50W	400	26	4.2	2.9	2.3	1.7	1	100	20	15	6.6	81.6
86+50N	49+50W	1200	69	4.2	2.9	2.2	1.7	1	100	20	15	6.5	72.2
85+50N	49+50W	300	18	4.3	3.0	2.2	1.8	1	100	20	15	6.7	75.4

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
320+ON	95+OW	150	5.6	2.2	1.1	0.9	0.7	1	100	20	15	2.7	23.4
320+ON	94+OW	150	6.3	2.3	1.3	1.0	0.9	1	100	20	15	3.2	26.4
320+ON	93+OW	150	5.7	2.1	1.1	0.8	0.5	1	100	20	15	2.3	23.9
320+ON	92+OW	150	5.4	2.3	1.2	1.1	0.9	1	100	20	15	3.3	22.6
320+ON	91+OW	150	5.3	2.2	1.3	0.9	0.9	1	100	20	15	3.1	22.2
320+ON	90+OW	150	5.3	2.4	1.4	1.1	0.9	1	100	20	15	3.4	22.2
320+ON	89+OW	150	5.0	1.5	0.8	0.4	0.3	1	100	20	15	1.4	20.9
320+ON	88+OW	150	5.2	1.4	0.5	0.5	0.3	1	100	20	15	1.4	21.8
320+ON	87+OW	150	5.4	1.8	0.8	0.8	0.6	1	100	20	15	2.3	22.6
320+ON	86+OW	150	4.8	1.4	0.6	0.7	0.5	1	100	20	15	1.9	20.1
325+ON	86+OW	200	4.8	1.9	0.8	0.6	0.3	1	100	20	15	1.7	15.1
325+ON	87+OW	200	5.6	2.3	1.4	0.9	0.7	1	100	20	15	2.9	17.6
325+ON	88+OW	150	4.0	1.3	0.8	0.6	0.5	1	100	20	15	1.9	16.7
325+ON	89+OW	200	4.5	0.0	0.0	0.0	0.0	1	100	20	15	0.0	14.1
325+ON	90+OW	200	7.3	1.8	1.0	0.8	0.7	1	100	20	15	2.5	22.9
325+ON	91+OW	200	5.7	1.7	0.9	0.6	0.4	1	100	20	15	1.8	17.9
325+ON	92+OW	200	9.3	1.7	0.9	0.7	0.5	1	100	20	15	2.1	29.2
325+ON	93+OW	250	6.4	0.6	0.5	0.5	0.4	1	100	20	15	1.4	16.1
325+ON	94+OW	250	8.2	2.1	1.1	0.4	0.2	1	100	20	15	1.5	20.6
325+ON	95+OW	250	9.2	2.2	1.2	0.9	0.7	1	100	20	15	2.8	23.1
325+ON	96+OW	250	8.1	1.9	1.1	0.9	0.6	1	100	20	15	2.5	20.3
325+ON	97+OW	200	6.4	1.4	0.4	0.4	0.6	1	100	20	15	1.7	20.1
325+ON	98+OW	150	8.7	2.2	1.4	1.0	0.7	1	100	20	15	2.9	36.4
325+ON	99+OW	150	6.5	2.2	1.2	0.8	0.2	1	100	20	15	1.9	27.2
325+ON	100+OW	150	7.9	3.0	1.8	1.1	0.9	1	100	20	15	3.6	33.1
325+ON	101+OW	150	9.4	2.4	1.4	0.9	0.6	1	100	20	15	2.7	39.4
325+ON	102+OW	100	8.1	2.8	2.0	1.7	1.2	1	100	20	15	4.6	50.9
325+ON	103+OW	100	8.4	2.3	1.2	0.8	0.6	1	100	20	15	2.5	52.8
370+ON	112 W	200	6.6	2.4	1.4	1.1	0.9	1	100	20	15	3.4	20.7
370+ON	111 W	200	6.5	3.2	1.9	1.3	1.0	1	100	20	15	4.0	20.4
370+ON	110 W	200	6.0	2.1	1.2	0.7	0.6	1	100	20	15	2.4	18.8
370+ON	109 W	200	7.9	2.3	1.5	1.0	0.8	1	100	20	15	3.1	24.8
370+ON	108 W	200	7.6	2.2	1.3	0.7	0.6	1	100	20	15	2.5	23.9
370+ON	107 W	200	7.8	2.2	1.3	1.0	0.7	1	100	20	15	2.9	24.5
370+ON	106 W	200	7.3	2.2	1.3	0.9	0.8	1	100	20	15	3.0	22.9
370+ON	105 W	200	6.3	2.6	1.7	1.2	1.0	1	100	20	15	3.8	19.8
375+ON	105 W	200	5.6	2.8	1.6	1.1	0.8	1	100	20	15	3.4	17.6
375+ON	106 W	150	3.5	2.5	1.5	1.2	0.9	1	100	20	15	3.5	14.7
375+ON	107 W	200	3.4	2.6	1.8	1.5	1.3	1	100	20	15	4.5	10.7
375+ON	108 W	200	4.5	3.7	2.7	2.3	2.1	1	100	20	15	7.0	14.1
375+ON	109 W	200	4.9	2.5	1.4	1.3	1.2	1	100	20	15	4.0	15.4
375+ON	110 W	200	6.1	2.8	1.8	1.8	1.6	1	100	20	15	5.3	19.2
375+ON	111 W	100	5.8	2.0	1.2	0.6	0.4	1	100	20	15	2.0	36.4
375+ON	112 W	200	7.4	2.0	1.1	0.6	0.4	1	100	20	15	2.0	23.2
375+ON	113 W	200	9.4	2.0	1.1	0.8	0.6	1	100	20	15	2.4	29.5
375+ON	114 W	150	10.5	2.5	1.4	1.0	0.9	1	100	20	15	3.3	44.0
375+ON	115 W	150	5.9	2.2	1.2	1.3	1.3	1	100	20	15	4.0	24.7
375+ON	116 W	150	7.5	2.2	1.3	0.9	0.7	1	100	20	15	2.8	31.4
375+ON	117 W	150	8.5	1.3	0.5	0.2	0.1	1	100	20	15	0.8	35.6
375+ON	118 W	150	7.7	2.1	1.2	0.8	0.6	1	100	20	15	2.5	32.2

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
375+ON	119 W	150	9.8	2.4	1.3	0.9	0.8	1	100	20	15	3.0	41.0
375+ON	120 W	100	10.4	1.9	1.1	0.8	0.6	1	100	20	15	2.4	65.3
375+ON	121 W	75	10.4	1.9	0.8	0.5	0.4	1	100	20	15	1.7	87.1
375+ON	122 W	50	9.7	1.9	0.9	0.8	0.6	1	100	20	15	2.3	121.8
375+ON	123 W	50	9.2	1.7	0.9	0.5	0.3	1	100	20	15	1.6	115.6
375+ON	124 W	50	8.2	2.1	1.5	0.8	0.7	1	100	20	15	2.8	103.0
375+ON	125 W	40	9.1	2.2	1.5	0.9	0.6	1	100	20	15	2.7	142.9
375+ON	126 W	40	7.9	2.1	1.3	0.8	0.6	1	100	20	15	2.5	124.0
375+ON	127 W	40	5.1	1.6	1.3	0.5	0.4	1	100	20	15	1.9	80.1
375+ON	128 W	40	9.0	1.9	0.9	0.7	0.4	1	100	20	15	1.9	141.3
375+ON	129 W	40	15.9	2.3	1.5	1.0	0.9	1	100	20	15	3.3	249.6
370+ON	124 W	150	7.7	1.4	0.3	0.1	0.0	1	100	20	15	0.5	32.2
370+ON	123 W	200	7.0	2.1	1.1	1.0	0.8	1	100	20	15	2.9	22.0
370+ON	122 W	250	5.8	2.6	1.3	1.0	0.7	1	100	20	15	3.0	14.6
370+ON	121 W	250	8.2	3.1	1.8	1.2	0.9	1	100	20	15	3.7	20.6
370+ON	120 W	250	8.5	2.2	1.2	0.8	0.6	1	100	20	15	2.5	21.4
370+ON	119 W	200	8.0	2.4	1.5	0.7	0.8	1	100	20	15	2.9	25.1
370+ON	118 W	200	8.0	2.8	1.8	1.3	1.1	1	100	20	15	4.1	25.1
370+ON	117 W	200	6.6	2.7	1.8	1.3	1.2	1	100	20	15	4.2	20.7
370+ON	116 W	130	4.3	1.4	1.1	1.3	0.7	1	100	20	15	2.9	20.8
380+ON	117 W	100	8.9	1.7	1.1	0.7	0.7	1	100	20	15	2.5	55.9
380+ON	118 W	50	8.0	1.5	0.8	0.7	0.6	1	100	20	15	2.1	100.5
380+ON	119 W	100	10.5	1.5	0.8	0.3	0.2	1	100	20	15	1.2	65.9
380+ON	120 W	25	7.8	1.1	1.0	0.5	0.5	1	100	20	15	1.8	195.9
380+ON	121 W	25	7.2	2.2	0.7	0.4	0.0	1	100	20	15	1.0	180.9
380+ON	122 W	25	4.7	1.1	0.6	0.3	0.3	1	100	20	15	1.2	118.1
380+ON	123 W	25	9.2	2.2	0.8	0.4	0.2	1	100	20	15	1.4	231.1
380+ON	124 W	25	4.0	1.2	0.8	0.6	0.5	1	100	20	15	1.8	100.5
380+ON	125 W	75	9.8	2.5	1.5	1.1	0.8	1	100	20	15	3.3	82.1
380+ON	126 W	75	9.4	0.9	0.5	0.1	0.0	1	100	20	15	0.5	78.7
380+ON	127 W	75	8.4	1.3	0.8	0.4	0.4	1	100	20	15	1.5	70.3
380+ON	128 W	50	8.7	1.6	1.1	1.0	0.8	1	100	20	15	2.8	109.3
380+ON	129 W	25	6.8	0.4	-0.2	0.0	-0.6	1	100	20	15	-1.0	170.8
380+ON	130 W	25	7.0	4.9	4.0	3.6	3.3	1	100	20	15	10.7	175.8
380+ON	131 W	10	4.8	0.9	0.0	-0.8	0.0	1	100	20	15	-0.5	301.4
380+ON	132 W	50	10.5	1.5	0.8	0.3	0.0	1	100	20	15	0.9	131.9
380+ON	133 W	10	11.7	-4.1	-4.2	-4.7	-4.0	1	100	20	15	-12.7	734.8
380+ON	134 W	20	10.5	1.6	1.1	0.9	0.0	1	100	20	15	1.5	329.7
385+ON	139 W	50	8.2	2.7	1.6	1.0	1.0	1	100	20	15	3.6	103.0
385+ON	138 W	50	9.6	2.0	1.2	1.3	1.1	1	100	20	15	3.7	120.6
385+ON	137 W	50	10.0	1.6	0.4	0.3	0.1	1	100	20	15	0.9	125.6
385+ON	136 W	25	7.3	3.8	2.3	1.1	0.8	1	100	20	15	3.8	183.4
385+ON	135 W	25	8.7	2.5	1.7	1.6	1.5	1	100	20	15	4.9	218.5
385+ON	134 W	25	11.8	0.2	-0.2	-0.6	-0.7	1	100	20	15	-1.6	296.4
385+ON	133 W	10	7.5	2.1	1.3	0.4	0.1	1	100	20	15	1.4	471.0
385+ON	132 W	10	8.7	2.3	0.7	0.5	0.0	1	100	20	15	1.1	546.4
385+ON	131 W	10	9.0	2.5	2.0	1.3	1.6	1	100	20	15	4.9	565.2
385+ON	130 W	20	7.3	2.1	1.3	0.9	0.8	1	100	20	15	2.9	229.2
385+ON	129 W	40	12.0	2.6	2.1	1.2	1.2	1	100	20	15	4.2	188.4
385+ON	128 W	20	8.0	2.9	1.5	1.1	0.8	1	100	20	15	3.3	251.2

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
385+0N	127 W	20	5.3	1.6	1.0	0.2	0.3	1	100	20	15	1.4	166.4
385+0N	126 W	30	6.3	2.0	1.6	0.5	0.3	1	100	20	15	1.9	131.9
385+0N	125 W	20	4.4	1.7	1.0	0.3	1.0	1	100	20	15	2.6	138.2
385+0N	124 W	50	4.4	2.4	1.5	1.4	1.6	1	100	20	15	4.8	55.3
385+0N	123 W	100	4.8	3.5	1.8	0.9	0.5	1	100	20	15	2.9	30.1
385+0N	122 W	150	8.2	1.8	1.0	0.7	0.6	1	100	20	15	2.3	34.3
380+0W	116W	150	8.2	2.9	2.0	1.2	1.0	1	100	20	15	3.9	34.3
380+0W	115W	150	8.3	5.9	4.1	2.7	1.9	1	100	20	15	8.0	34.7
380+0W	114W	150	4.8	2.5	1.7	1.6	1.7	1	100	20	15	5.2	20.1
380+0W	113W	100	10.1	3.2	1.8	1.2	0.9	1	100	20	15	3.8	63.4
380+0W	112W	150	5.2	1.6	0.6	0.4	0.1	1	100	20	15	1.0	21.8
380+0W	111W	150	7.4	2.8	1.7	1.2	0.9	1	100	20	15	3.6	31.0
395 N	144 W	100	9.7	3.0	2.1	1.7	1.5	1	100	20	15	5.2	60.9
395 N	143 W	150	8.3	0.7	0.5	0.1	0.3	1	100	20	15	0.9	34.7
395 N	142 W	150	8.3	1.8	1.0	0.8	0.6	1	100	20	15	2.4	34.7
395 N	141 W	150	6.4	2.3	0.6	1.1	0.9	1	100	20	15	3.0	26.8
395 N	140 W	150	8.1	2.5	1.6	1.6	1.4	1	100	20	15	4.7	33.9
395 N	139 W	150	7.3	2.7	1.7	1.4	1.0	1	100	20	15	3.9	30.6
395 N	138 W	150	7.9	2.4	1.5	1.3	0.8	1	100	20	15	3.4	33.1
395 N	137 W	150	8.7	3.0	2.3	1.7	1.4	1	100	20	15	5.1	36.4
395 N	136 W	150	11.0	2.6	2.0	1.5	0.9	1	100	20	15	4.0	46.1
395 N	135 W	150	9.4	3.0	2.4	1.5	1.2	1	100	20	15	4.7	39.4
395 N	134 W	200	14.1	2.5	1.5	1.2	0.7	1	100	20	15	3.2	44.3
395 N	133 W	100	8.0	2.4	1.8	1.1	0.4	1	100	20	15	2.7	50.2
395 N	132 W	100	7.9	3.2	2.4	1.7	1.5	1	100	20	15	5.4	49.6
395 N	131 W	100	4.6	1.6	0.1	0.0	0.4	1	100	20	15	1.0	28.9
395 N	130 W	100	7.9	3.2	2.4	1.9	1.4	1	100	20	15	5.4	49.6
390 N	120W	50	7.4	3.5	2.2	1.6	1.4	1	100	20	15	5.1	92.9
390 N	121W	100	5.2	3.0	2.0	1.4	1.2	1	100	20	15	4.4	32.7
390 N	122W	100	6.3	1.8	1.1	1.1	0.5	1	100	20	15	2.5	39.6
390 N	123W	100	6.2	3.3	2.1	1.4	1.1	1	100	20	15	4.4	38.9
390 N	124W	100	6.3	3.5	1.9	1.3	1.2	1	100	20	15	4.4	39.6
390 N	125W	100	7.1	3.2	1.3	0.7	0.4	1	100	20	15	2.4	44.6
390 N	126W	50	5.8	2.7	1.7	1.2	1.2	1	100	20	15	4.1	72.8
390 N	127W	50	7.4	2.5	1.6	1.3	1.0	1	100	20	15	3.8	92.9
390 N	128W	50	9.5	2.4	1.6	1.1	1.0	1	100	20	15	3.6	119.3
390 N	129W	40	7.2	1.8	1.0	0.5	0.3	1	100	20	15	1.6	113.0
390 N	130W	40	8.1	2.7	1.9	1.3	1.1	1	100	20	15	4.1	127.2
390 N	131W	40	8.1	2.6	1.9	1.4	1.4	1	100	20	15	4.6	127.2
390 N	132W	40	6.5	2.3	1.7	1.4	1.0	1	100	20	15	3.9	102.0
390 N	133W	40	7.3	3.5	2.2	1.8	1.4	1	100	20	15	5.3	114.6
390 N	134W	75	8.7	2.6	1.6	1.0	0.8	1	100	20	15	3.2	72.8
390 N	135W	75	6.0	2.7	1.6	1.2	1.0	1	100	20	15	3.7	50.2
390 N	136W	75	6.8	1.4	0.5	0.2	0.0	1	100	20	15	0.6	56.9
390 N	137W	60	4.8	2.7	1.6	1.1	0.9	1	100	20	15	3.5	50.2
390 N	138W	100	7.1	2.0	1.0	0.4	0.4	1	100	20	15	1.8	44.6
390 N	139W	100	7.2	1.8	1.0	0.6	0.4	1	100	20	15	1.9	45.2
390 N	140W	100	6.1	2.6	1.7	1.2	0.9	1	100	20	15	3.6	38.3
390 N	141W	100	7.2	1.8	0.7	0.1	0.0	1	100	20	15	0.7	45.2
390 N	142W	100	8.5	2.6	0.0	1.5	1.5	1	100	20	15	4.1	53.4

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
390 N	143W	50	8.1	1.8	1.1	0.5	0.4	1	100	20	15	1.8	101.7
390 N	144W	50	4.6	2.0	0.8	0.5	0.0	1	100	20	15	1.1	57.8
395 N	129 W	150	8.9	2.2	1.8	0.6	0.3	1	100	20	15	2.1	37.3
395 N	128 W	150	7.4	3.0	1.9	1.6	1.3	1	100	20	15	4.7	31.0
395 N	127 W	150	7.8	2.8	2.0	1.4	1.2	1	100	20	15	4.4	32.7
395 N	126 W	150	8.7	2.8	1.7	1.3	1.0	1	100	20	15	3.9	36.4
395 N	125 W	150	7.6	1.9	0.8	0.4	0.0	1	100	20	15	1.0	31.8
400 N	130 W	50	7.6	2.8	1.8	1.1	0.9	1	100	20	15	3.6	95.5
400 N	131 W	50	6.8	2.2	1.5	1.1	0.7	1	100	20	15	3.0	85.4
400 N	132 W	50	9.3	2.6	1.6	1.1	0.9	1	100	20	15	3.5	116.8
400 N	133 W	25	5.0	1.8	1.1	0.3	0.2	1	100	20	15	1.4	125.6
400 N	134 W	25	5.7	1.6	0.6	0.1	-0.4	1	100	20	15	0.0	143.2
400 N	135 W	25	5.1	3.0	2.1	2.1	2.0	1	100	20	15	6.3	128.1
400 N	136 W	75	11.6	1.5	0.7	0.3	0.1	1	100	20	15	1.0	97.1
400 N	137 W	75	8.0	2.1	1.1	0.7	0.4	1	100	20	15	2.1	67.0
400 N	138 W	75	6.4	2.7	2.0	1.5	1.0	1	100	20	15	4.1	53.6
400 N	139 W	75	8.9	2.4	1.4	1.0	0.6	1	100	20	15	2.8	74.5
400 N	140 W	75	8.7	2.2	0.9	0.5	0.6	1	100	20	15	2.2	72.8
400 N	141 W	75	8.9	2.9	2.0	1.4	1.1	1	100	20	15	4.3	74.5
400 N	142 W	75	9.2	2.7	1.6	1.2	0.9	1	100	20	15	3.6	77.0
400 N	143 W	75	9.7	2.7	1.9	1.4	1.1	1	100	20	15	4.2	81.2
400 N	145 W	75	9.9	2.0	1.9	1.1	1.3	1	100	20	15	4.1	82.9
400 N	146 W	75	9.4	3.7	2.7	2.3	2.4	1	100	20	15	7.5	78.7
400 N	147 W	75	7.9	3.3	2.3	1.8	1.5	1	100	20	15	5.4	66.1
400 N	148 W	75	7.3	2.9	1.8	1.2	0.9	1	100	20	15	3.7	61.1
400 N	149 W	75	7.1	1.9	0.9	0.1	-0.1	1	100	20	15	0.7	59.5
395 N	145 W	75	6.3	1.7	0.8	0.6	0.5	1	100	20	15	1.9	52.8
395 N	146 W	75	7.0	1.5	0.6	0.3	0.1	1	100	20	15	0.9	58.6
395 N	147 W	75	8.0	2.4	1.4	1.1	0.8	1	100	20	15	3.2	67.0
395 N	148 W	75	7.4	2.1	1.2	1.0	0.8	1	100	20	15	3.0	62.0
395 N	149 W	75	7.6	2.0	1.2	0.9	0.7	1	100	20	15	2.7	63.6
345 N	113 W	40	10.9	2.6	1.7	1.2	1.1	1	100	20	15	3.9	171.1
345 N	112 W	25	5.9	1.8	0.9	0.1	0.0	1	100	20	15	0.8	148.2
345 N	111 W	50	7.7	2.4	1.6	1.2	1.0	1	100	20	15	3.7	96.7
345 N	110 W	50	6.1	2.0	1.1	0.7	0.3	1	100	20	15	1.9	76.6
345 N	109 W	100	8.5	2.2	1.2	0.8	0.6	1	100	20	15	2.5	53.4
345 N	108 W	100	5.5	2.1	1.2	0.6	0.5	1	100	20	15	2.2	34.5
345 N	107 W	150	7.6	2.2	1.3	0.9	0.7	1	100	20	15	2.8	31.8
345 N	106 W	150	7.5	2.7	2.1	1.8	1.1	1	100	20	15	4.6	31.4
345 N	105 W	200	9.1	2.3	1.4	1.2	1.0	1	100	20	15	3.6	28.6
345 N	104 W	200	9.9	2.6	1.6	1.2	0.9	1	100	20	15	3.6	31.1
345 N	103 W	200	8.9	2.5	1.6	1.1	0.9	1	100	20	15	3.5	27.9
345 N	102 W	200	9.0	2.5	1.6	1.1	0.9	1	100	20	15	3.5	28.3
345 N	101 W	200	9.1	2.4	1.4	0.9	0.7	1	100	20	15	2.9	28.6
350 N	101 W	50	10.6	2.6	1.7	1.2	1.0	1	100	20	15	3.8	133.1
350 N	102 W	50	7.0	2.8	1.8	0.9	0.8	1	100	20	15	3.3	87.9
350 N	103 W	100	5.7	2.0	1.4	1.0	0.8	1	100	20	15	3.0	35.8
350 N	104 W	150	6.8	2.3	1.4	1.1	0.9	1	100	20	15	3.3	28.5
350 N	105 W	200	7.7	1.9	1.0	0.6	0.7	1	100	20	15	2.4	24.2
350 N	106 W	150	10.1	1.7	0.8	0.4	0.4	1	100	20	15	1.6	42.3

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
350 N	107 W	150	10.6	1.9	1.0	0.6	0.6	1	100	20	15	2.2	44.4
350 N	108 W	100	8.9	1.6	0.7	0.3	0.4	1	100	20	15	1.5	55.9
350 N	109 W	100	9.2	1.6	0.9	0.6	0.4	1	100	20	15	1.8	57.8
350 N	110 W	50	6.2	2.4	1.4	1.2	1.0	1	100	20	15	3.6	77.9
350 N	111 W	50	6.4	1.7	0.1	0.0	0.0	1	100	20	15	0.4	80.4
350 N	112 W	50	7.9	2.9	1.2	0.8	0.6	1	100	20	15	2.7	99.2
350 N	113 W	50	10.0	2.0	1.0	0.6	0.7	1	100	20	15	2.4	125.6
350 N	114 W	50	9.3	2.1	1.3	1.0	0.9	1	100	20	15	3.2	116.8
317+5N	110 W	15	8.7	2.6	1.5	0.7	0.4	1	100	20	15	2.3	364.2
317+5N	109 W	15	8.9	2.4	1.5	0.8	0.5	1	100	20	15	2.5	372.6
317+5N	108 W	20	6.5	3.0	1.4	1.0	0.6	1	100	20	15	2.9	204.1
317+5N	107 W	30	15.5	3.1	2.1	1.7	1.6	1	100	20	15	5.4	324.5
317+5N	106 W	30	12.9	1.6	0.9	0.3	0.0	1	100	20	15	0.9	270.0
317+5N	105 W	30	10.9	3.0	2.1	1.1	1.1	1	100	20	15	4.1	228.2
317+5N	104 W	20	8.7	1.5	0.1	-0.3	-0.5	1	100	20	15	-0.7	273.2
317+5N	103 W	35	7.8	2.8	2.0	1.6	1.4	1	100	20	15	4.9	140.0
317+5N	102 W	25	5.7	2.3	1.5	1.3	1.3	1	100	20	15	4.2	143.2
317+5N	101 W	40	8.7	2.6	1.6	1.1	0.9	1	100	20	15	3.5	136.6
317+5N	100 W	30	5.8	3.8	2.6	2.3	1.9	1	100	20	15	6.7	121.4
317+5N	99 W	50	6.1	2.0	1.1	0.7	0.2	1	100	20	15	1.7	76.6
317+5N	98 W	100	7.4	2.0	1.0	0.5	0.0	1	100	20	15	1.2	46.5
317+5N	97 W	150	7.8	2.3	1.2	1.0	0.4	1	100	20	15	2.4	32.7
350 N	115 W	50	10.8	2.0	1.3	0.5	0.5	1	100	20	15	2.1	135.6
350 N	116 W	50	10.5	2.8	1.4	0.9	0.9	1	100	20	15	3.3	131.9
350 N	117 W	10	8.8	2.0	1.3	0.8	0.7	1	100	20	15	2.7	552.6
350 N	118 W	15	8.8	2.5	1.3	0.8	0.8	1	100	20	15	2.9	368.4
350 N	119 W	15	9.8	2.2	1.2	0.8	0.7	1	100	20	15	2.7	410.3
345 N	119 W	10	9.1	2.5	1.5	0.9	0.7	1	100	20	15	2.9	571.5
345 N	118 W	10	10.8	2.7	1.4	1.0	0.9	1	100	20	15	3.3	678.2
345 N	117 W	10	15.1	2.1	1.4	0.9	0.8	1	100	20	15	3.0	948.3
345 N	116 W	30	21.1	2.5	1.6	1.2	1.0	1	100	20	15	3.7	441.7
345 N	115 W	20	10.9	2.6	1.5	1.0	0.8	1	100	20	15	3.2	342.3
345 N	114 W	50	20.6	2.6	1.6	1.1	0.9	1	100	20	15	3.5	258.7
320 N	96 W	150	7.2	2.4	1.5	1.2	0.9	1	100	20	15	3.5	30.1
320 N	97 W	200	8.3	1.2	0.4	0.1	0.0	1	100	20	15	0.5	26.1
320 N	98 W	150	8.4	2.0	1.0	0.3	0.5	1	100	20	15	1.8	35.2
320 N	99 W	150	8.5	2.4	1.4	1.2	1.1	1	100	20	15	3.8	35.6
320 N	100 W	50	4.6	2.0	1.4	0.7	0.6	1	100	20	15	2.5	57.8
320 N	101 W	50	5.9	2.6	1.6	1.0	0.9	1	100	20	15	3.4	74.1
320 N	102 W	50	7.9	3.0	2.3	1.6	1.2	1	100	20	15	4.7	99.2
320 N	103 W	40	8.6	2.8	1.8	1.2	1.1	1	100	20	15	4.0	135.0
320 N	104 W	35	8.7	2.9	2.3	1.5	1.5	1	100	20	15	5.1	156.1
320 N	105 W	40	8.3	2.5	1.3	0.8	0.7	1	100	20	15	2.8	130.3
320 N	106 W	20	6.5	2.9	2.4	1.8	1.7	1	100	20	15	5.7	204.1
320 N	107 W	40	9.8	2.2	1.3	0.7	0.6	1	100	20	15	2.5	153.9
320 N	108 W	30	13.3	2.1	1.1	1.0	0.3	1	100	20	15	2.1	278.4
320 N	109 W	40	16.1	2.9	1.7	1.1	1.1	1	100	20	15	3.9	252.8
320 N	110 W	40	12.1	2.6	1.2	1.0	0.8	1	100	20	15	3.1	190.0
380 N	110W	200	8.9	2.9	2.1	1.6	1.4	1	100	20	15	4.9	27.9
380 N	109W	200	11.1	2.8	1.9	1.4	1.2	1	100	20	15	4.4	34.9

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
380 N	1C8W	200	8.6	3.0	2.1	1.6	1.3	1	100	20	15	4.8	27.0
380 N	107W	200	9.1	3.5	2.3	1.7	1.4	1	100	20	15	5.2	28.6
380 N	106W	200	5.5	2.6	1.8	1.3	1.1	1	100	20	15	4.0	17.3
380 N	105W	150	8.7	3.3	2.3	1.6	1.3	1	100	20	15	4.9	36.4
382+5N	110W	150	6.1	3.3	2.2	1.8	1.4	1	100	20	15	5.2	25.5
382+5N	111W	150	7.2	3.2	2.1	1.7	1.5	1	100	20	15	5.2	30.1
382+5N	112W	150	6.4	2.9	1.9	1.5	1.2	1	100	20	15	4.5	26.8
252+5N	79 W	10	23.1	2.2	1.5	0.9	0.8	1	100	20	15	3.0	1450.7
252+5N	78 W	10	24.4	2.4	1.5	1.0	0.9	1	100	20	15	3.3	1532.3
252+5N	77 W	10	22.6	2.3	1.5	1.1	0.8	1	100	20	15	3.2	1419.3
252+5N	76 W	10	59.6	3.1	2.0	1.5	1.2	1	100	20	15	4.5	3742.9
252+5N	75 W	10	55.9	3.1	2.0	1.5	1.3	1	100	20	15	4.7	3510.5
252+5N	74 W	10	32.5	2.7	1.7	1.2	1.0	1	100	20	15	3.8	2041.0
252+5N	73 W	10	55.0	3.1	2.0	1.4	1.1	1	100	20	15	4.3	3454.0
252+5N	72 W	10	8.8	3.1	2.1	1.5	1.2	1	100	20	15	4.6	552.6
252+5N	71 W	25	7.7	2.8	1.7	1.0	0.7	1	100	20	15	3.2	193.4
252+5N	70 W	50	6.7	4.3	2.9	2.0	1.5	1	100	20	15	6.0	84.2
252+5N	69 W	50	8.0	5.3	3.9	3.2	2.7	1	100	20	15	9.5	100.5
252+5N	68 W	50	5.0	10.4	5.8	3.7	2.6	1	100	20	15	11.5	62.8
252+5N	67 W	50	5.6	3.9	2.5	1.8	1.4	1	100	20	15	5.5	70.3
312+5N	97 W	50	6.3	1.9	1.2	0.9	0.6	1	100	20	15	2.5	79.1
312+5N	98 W	50	7.6	3.3	2.2	1.5	1.3	1	100	20	15	4.8	95.5
312+5N	99 W	25	7.9	3.2	2.2	1.7	1.7	1	100	20	15	5.6	198.4
312+5N	100 W	25	10.0	4.7	2.9	1.7	1.1	1	100	20	15	5.2	251.2
312+5N	101 W	30	7.7	2.7	1.8	1.3	1.0	1	100	20	15	3.9	161.2
312+5N	102 W	25	7.7	1.5	1.1	1.0	1.0	1	100	20	15	3.1	193.4
312+5N	103 W	25	9.3	2.9	1.9	1.3	1.0	1	100	20	15	4.0	233.6
312+5N	104 W	25	11.0	2.9	2.2	1.4	1.0	1	100	20	15	4.2	276.3
312+5N	105 W	10	10.4	2.8	1.7	0.9	0.9	1	100	20	15	3.4	653.1
312+5N	106 W	10	5.7	0.8	0.9	1.4	1.7	1	100	20	15	4.4	358.0
312+5N	107 W	10	6.7	2.3	1.4	1.2	0.6	1	100	20	15	2.9	420.8
312+5N	108 W	10	4.7	1.1	0.8	0.4	0.2	1	100	20	15	1.2	295.2
312+5N	109 W	10	7.0	2.0	1.2	0.7	0.4	1	100	20	15	2.1	439.6
312+5N	110 W	10	6.9	2.1	1.2	0.8	0.2	1	100	20	15	1.9	433.3
255 N	78 W	10	6.8	2.5	1.4	0.5	0.9	1	100	20	15	2.9	427.0
255 N	79 W	10	31.8	3.7	1.7	1.8	1.5	1	100	20	15	5.3	1997.0
255 N	80 W	10	28.5	3.1	1.8	1.5	1.1	1	100	20	15	4.3	1789.8
255 N	81 W	10	28.5	2.7	2.1	1.7	1.6	1	100	20	15	5.3	1789.8
255 N	82 W	10	17.3	3.0	1.9	1.3	0.8	1	100	20	15	3.7	1086.4
255 N	83 W	10	25.4	2.9	2.0	1.3	1.1	1	100	20	15	4.2	1595.1
255 N	84 W	10	31.0	2.7	1.6	1.1	0.8	1	100	20	15	3.3	1946.8
255 N	85 W	10	14.5	2.1	1.1	0.8	0.7	1	100	20	15	2.6	910.6
255 N	86 W	10	13.1	2.0	1.0	0.6	0.2	1	100	20	15	1.6	822.7
255 N	87 W	10	23.1	2.5	1.5	1.0	0.8	1	100	20	15	3.2	1450.7
255 N	88 W	20	18.7	1.7	1.1	0.7	0.5	1	100	20	15	2.1	587.2
255 N	89 W	10	11.3	2.5	1.6	1.2	0.9	1	100	20	15	3.5	709.6
255 N	90 W	10	14.7	2.4	1.5	0.9	0.7	1	100	20	15	2.9	923.2
255 N	91W	10	7.9	2.5	1.6	1.2	1.0	1	100	20	15	3.7	496.1
255 N	92W	10	10.2	3.2	2.1	1.5	1.3	1	100	20	15	4.8	640.6
255 N	93W	10	12.4	2.1	1.5	1.2	0.9	1	100	20	15	3.4	778.7

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
255 N	94W	10	4.5	2.5	1.7	1.2	0.9	1	100	20	15	3.6	282.6
255 N	95W	10	6.2	2.4	1.6	1.0	0.8	1	100	20	15	3.2	389.4
257+5N	67W	50	6.4	2.4	1.0	0.5	0.0	1	100	20	15	1.3	80.4
257+5N	68W	100	7.3	2.4	1.2	1.0	0.7	1	100	20	15	2.9	45.8
257+5N	69W	100	9.5	2.3	1.4	1.0	0.8	1	100	20	15	3.1	59.7
257+5N	70W	100	7.0	2.8	1.6	1.3	1.0	1	100	20	15	3.8	44.0
257+5N	71W	50	10.5	2.5	1.3	0.9	0.7	1	100	20	15	2.9	131.9
257+5N	72W	50	5.1	1.7	0.8	0.4	0.2	1	100	20	15	1.3	64.1
257+5N	73W	50	8.4	1.8	1.3	0.9	0.7	1	100	20	15	2.7	105.5
257+5N	74W	50	7.7	2.2	1.1	0.8	0.7	1	100	20	15	2.6	96.7
257+5N	75W	50	7.9	2.0	1.4	1.0	0.9	1	100	20	15	3.2	99.2
257+5N	76W	50	7.1	1.2	0.5	0.2	0.0	1	100	20	15	0.6	89.2
257+5N	77W	25	6.8	1.7	0.9	0.6	0.5	1	100	20	15	2.0	170.8
257+5N	78W	20	11.0	2.1	1.2	0.9	0.6	1	100	20	15	2.6	345.4
257+5N	79W	20	24.0	2.7	2.0	1.3	1.0	1	100	20	15	4.0	753.6
257+5N	80W	10	19.4	2.4	1.3	1.5	1.3	1	100	20	15	4.3	1218.3
257+5N	81W	10	39.7	3.2	2.2	1.7	1.4	1	100	20	15	5.1	2493.2



## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
170+ON	60+50W	100	42	0.0	0.1	0.2	0.2	1	100	20	15	0.5	263.8
170+ON	61+50W	100	37	0.0	0.1	0.1	0.1	1	100	20	15	0.3	232.4
170+ON	62+50W	100	42	0.1	0.2	0.3	0.4	1	100	20	15	1.0	263.8
170+ON	63+50W	100	47	0.0	0.1	0.1	0.1	1	100	20	15	0.3	295.2
170+ON	64+50W	100	25	0.2	0.0	0.2	0.4	1	100	20	15	0.3	157.0
170+ON	65+50W	100	37	0.0	0.1	0.1	0.1	1	100	20	15	0.3	232.4
170+ON	66+50W	100	33	0.0	0.0	0.1	0.2	1	100	20	15	0.4	207.2
170+ON	67+50W	100	57	1.1	1.3	1.2	1.4	1	100	20	15	3.9	358.0
170+ON	68+50W	100	23	-0.5	-0.7	-0.7	-0.4	1	100	20	15	-1.6	144.4
170+ON	69+50W	100	40	0.1	0.3	0.2	0.2	1	100	20	15	0.6	251.2
175+ON	69+50W	100	42	0.2	0.3	0.2	0.2	1	100	20	15	0.6	263.8
175+ON	68+50W	100	46	0.0	0.0	0.1	0.3	1	100	20	15	0.6	288.9
175+ON	67+50W	100	48	-1.8	-1.5	-1.0	-0.6	1	100	20	15	-2.7	301.4
175+ON	66+50W	100	93	-0.0	-0.2	-0.2	-0.1	1	100	20	15	-0.4	584.0
175+ON	65+50W	100	25	-0.8	-0.8	-0.5	-0.1	1	100	20	15	-1.0	157.0
175+ON	64+50W	100	49	-1.3	-1.1	-0.8	-0.5	1	100	20	15	-2.1	307.7
175+ON	63+50W	100	34	-0.1	-0.4	-0.1	-0.0	1	100	20	15	-0.3	213.5
175+ON	62+50W	100	68	1.0	0.5	0.5	0.6	1	100	20	15	1.8	427.0
175+ON	61+50W	100	44	0.4	0.4	0.5	0.4	1	100	20	15	1.3	276.3
175+ON	60+50W	100	23	0.5	0.1	0.1	0.2	1	100	20	15	0.5	144.4
175+ON	59+50W	100	76	0.6	0.2	0.1	0.0	1	100	20	15	0.3	477.3
175+ON	58+50W	100	34	0.9	0.4	0.4	0.6	1	100	20	15	1.6	213.5
180+ON	58+50W	100	60	0.9	0.4	0.5	0.6	1	100	20	15	1.7	376.8
180+ON	59+50W	100	58	0.0	0.0	0.0	0.2	1	100	20	15	0.3	364.2
180+ON	60+50W	100	42	0.0	0.1	0.1	0.2	1	100	20	15	0.4	263.8
180+ON	61+50W	100	48	0.6	0.6	0.5	0.5	1	100	20	15	1.6	301.4
180+ON	62+50W	100	83	0.2	0.0	0.0	0.2	1	100	20	15	0.4	521.2
180+ON	63+50W	100	80	0.6	0.3	0.2	0.2	1	100	20	15	0.7	502.4
180+ON	64+50W	100	54	1.2	1.2	1.0	1.0	1	100	20	15	3.1	339.1
180+ON	65+50W	100	62	-0.2	-0.0	-0.1	-0.2	1	100	20	15	-0.4	389.4
180+ON	66+50W	100	44	-0.1	-0.1	-0.0	-0.0	1	100	20	15	-0.1	276.3
180+ON	67+50W	100	33	-2.3	-2.4	-1.7	-1.1	1	100	20	15	-4.5	207.2
180+ON	68+50W	100	45	-0.0	-0.0	0.1	0.5	1	100	20	15	0.9	282.6
180+ON	69+50W	100	42	-0.1	-0.2	-0.2	-0.4	1	100	20	15	-0.9	263.8
184+ON	69+50W	100	46	-0.9	-0.8	-0.5	-0.4	1	100	20	15	-1.5	288.9
184+ON	68+50W	100	33	-1.0	-1.1	-1.0	-0.5	1	100	20	15	-2.2	207.2
184+ON	67+50W	100	51	-0.4	-0.1	-0.0	-0.0	1	100	20	15	-0.1	320.3
184+ON	66+50W	100	51	0.7	0.8	1.1	1.4	1	100	20	15	3.6	320.3
184+ON	65+50W	100	61	-0.9	-1.0	-0.6	-0.3	1	100	20	15	-1.5	383.1
184+ON	62+50W	100	65	0.1	0.0	0.0	0.1	1	100	20	15	0.2	408.2
184+ON	61+50W	100	92	0.9	0.4	0.5	0.6	1	100	20	15	1.7	577.8
184+ON	60+50W	100	64	-0.4	-0.6	-0.3	-0.0	1	100	20	15	-0.6	401.9
184+ON	59+50W	100	61	0.7	0.4	0.5	0.6	1	100	20	15	1.7	383.1
184+ON	58+50W	100	49	0.2	0.1	0.2	0.4	1	100	20	15	0.9	307.7
195+ON	58+50W	100	22	-0.0	-0.4	-0.2	-0.0	1	100	20	15	-0.3	138.2
195+ON	59+50W	100	27	0.0	0.0	0.0	0.1	1	100	20	15	0.2	169.6
195+ON	60+50W	100	49	-0.0	-0.1	-0.0	-0.0	1	100	20	15	-0.0	307.7
195+ON	61+50W	100	50	-0.0	-0.0	-0.0	-0.0	1	100	20	15	0.0	314.0
195+ON	62+50W	100	474	1.6	0.8	0.6	0.5	1	100	20	15	1.9	2976.7
195+ON	63+50W	100	228	0.8	0.2	0.1	0.1	1	100	20	15	0.5	1431.8

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
195+ON	64+50W	100	231	0.2	-0.1	-0.0	-0.0	1	100	20	15	-0.0	1450.7
195+ON	65+50W	100	168	-0.0	-0.0	-0.0	-0.0	1	100	20	15	0.0	1055.0
195+CN	66+50W	100	246	0.6	-0.0	-0.0	-0.0	1	100	20	15	0.1	1544.9
195+ON	67+50W	100	55	-0.6	-0.6	-0.3	-0.0	1	100	20	15	-0.6	345.4
195+CN	68+50W	100	57	0.3	0.1	0.1	0.1	1	100	20	15	0.3	358.0
195+ON	69+50W	100	48	0.2	0.1	0.1	0.0	1	100	20	15	0.2	301.4
190+CN	69+50W	100	42	0.1	0.0	0.1	0.1	1	100	20	15	0.3	263.8
190+ON	68+50W	100	55	0.3	0.1	0.1	0.1	1	100	20	15	0.3	345.4
190+ON	67+50W	100	138	0.3	0.3	0.2	0.2	1	100	20	15	0.7	866.6
190+ON	66+50W	100	231	0.3	0.0	0.0	0.1	1	100	20	15	0.2	1450.7
190+ON	65+50W	100	77	-0.0	-0.1	-0.2	-0.0	1	100	20	15	-0.2	483.6
190+ON	64+50W	100	192	-0.2	-0.4	-0.2	-0.0	1	100	20	15	-0.4	1205.8
190+ON	63+50W	100	150	-0.4	-0.2	-0.2	-0.1	1	100	20	15	-0.5	942.0
190+ON	62+50W	100	107	-0.0	-0.3	-0.1	-0.0	1	100	20	15	-0.2	672.0
190+CN	61+50W	100	94	1.4	0.7	0.6	0.6	1	100	20	15	2.0	590.3
190+CN	60+50W	100	24	1.0	0.6	0.6	0.7	1	100	20	15	2.0	150.7
190+ON	59+50W	80	29	0.2	-0.0	-0.2	0.1	1	100	20	15	0.0	227.6
190+ON	58+50W	100	17	0.6	0.4	0.4	0.4	1	100	20	15	1.2	106.8
205+ON	58+50W	100	39	1.3	0.6	0.5	0.5	1	100	20	15	1.7	244.9
205+ON	59+50W	100	40	1.6	0.8	0.7	0.6	1	100	20	15	2.2	251.2
205+CN	60+50W	100	35	1.3	0.8	0.7	0.7	1	100	20	15	2.3	219.8
205+ON	61+50W	100	24	1.8	0.9	0.8	0.8	1	100	20	15	2.6	150.7
205+CN	62+50W	100	38	1.3	0.6	0.6	0.6	1	100	20	15	1.9	238.6
205+ON	63+50W	100	44	-0.2	-0.4	-0.2	-0.0	1	100	20	15	-0.4	276.3
205+ON	64+50W	100	56	-0.5	-0.7	-0.4	-0.1	1	100	20	15	-0.9	351.7
205+ON	65+50W	100	414	0.3	-0.2	-0.2	-0.1	1	100	20	15	-0.3	2599.9
205+ON	66+50W	100	126	-0.0	-0.0	-0.0	-0.0	1	100	20	15	0.0	791.3
205+ON	67+50W	100	66	-0.0	-0.0	-0.0	0.1	1	100	20	15	0.2	414.5
205+ON	68+50W	100	53	0.3	0.1	0.1	0.1	1	100	20	15	0.3	332.8
205+ON	69+50W	100	57	0.0	0.2	0.1	0.1	1	100	20	15	0.3	358.0
200+ON	69+50W	75	60	-0.0	-0.2	-0.0	-0.0	1	100	20	15	-0.1	502.4
200+ON	68+50W	80	70	-1.3	-1.3	-0.9	-0.5	1	100	20	15	-2.3	549.5
200+ON	67+50W	100	165	-0.6	-0.6	-0.2	-0.0	1	100	20	15	-0.5	1036.2
200+ON	66+50W	100	222	-0.0	-0.0	-0.0	0.0	1	100	20	15	0.0	1394.2
200+ON	64+50W	80	132	-0.0	-0.0	-0.0	-0.0	1	100	20	15	0.0	1036.2
200+ON	63+50W	100	103	0.1	0.0	0.1	0.4	1	100	20	15	0.7	646.8
200+ON	62+50W	80	70	0.3	0.1	0.0	0.0	1	100	20	15	0.1	549.5
200+ON	61+50W	110	15	-0.6	-0.3	-0.1	-0.0	1	100	20	15	-0.3	85.6
200+ON	60+50W	100	18	0.5	0.0	0.1	0.3	1	100	20	15	0.7	113.0
200+ON	59+50W	100	24	0.7	0.3	0.3	0.3	1	100	20	15	1.0	150.7
200+ON	58+50W	110	18	-1.5	-1.4	-1.2	-1.0	1	100	20	15	-3.4	102.8
200+ON	57+50W	110	21	-0.0	-0.2	-0.0	-0.2	1	100	20	15	-0.4	119.9
210+ON	57+50W	100	28	1.1	0.6	0.6	0.6	1	100	20	15	1.9	175.8
210+ON	58+50W	100	20	2.4	1.3	1.1	0.9	1	100	20	15	3.3	125.6
210+ON	59+50W	100	15	-1.2	-0.7	-0.3	-0.0	1	100	20	15	-0.8	94.2
210+ON	60+50W	100	24	1.0	0.2	0.1	0.2	1	100	20	15	0.7	150.7
210+ON	61+50W	100	44	1.8	1.7	1.3	1.0	1	100	20	15	3.7	276.3
210+CN	62+50W	100	108	0.9	0.4	0.4	0.6	1	100	20	15	1.6	678.2
210+ON	63+50W	100	122	1.1	0.7	0.8	0.9	1	100	20	15	2.6	766.2
210+ON	64+50W	100	138	-0.0	-0.0	-0.0	0.1	1	100	20	15	0.2	866.6

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
210+ON	65+50W	100	174	-0.2	-0.4	-0.1	-0.0	1	100	20	15	-0.3	1092.7
210+ON	66+50W	100	120	-0.1	-0.0	-0.1	-0.1	1	100	20	15	-0.3	753.6
210+ON	68+50W	100	88	-0.0	-0.4	-0.5	-0.4	1	100	20	15	-1.2	552.6
210+ON	69+50W	100	60	-0.1	-0.0	-0.2	-0.0	1	100	20	15	-0.2	376.8
215+ON	64+50W	100	144	-0.1	-0.1	-0.0	-0.1	1	100	20	15	-0.2	904.3
215+ON	63+50W	100	120	0.9	0.6	0.3	0.1	1	100	20	15	0.8	753.6
215+ON	62+50W	100	61	1.3	1.0	0.9	0.9	1	100	20	15	2.8	383.1
215+ON	61+50W	100	46	-0.0	-0.0	-0.0	0.1	1	100	20	15	0.2	288.9
215+ON	60+50W	100	41	1.3	0.7	0.7	0.7	1	100	20	15	2.2	257.5
215+ON	59+50W	100	37	0.4	-0.0	-0.0	-0.0	1	100	20	15	0.1	232.4
215+ON	58+50W	100	33	1.1	0.5	0.4	0.4	1	100	20	15	1.4	207.2
215+ON	57+50W	100	34	1.2	0.5	0.4	0.4	1	100	20	15	1.4	213.5
220+ON	55+50W	100	20	3.3	2.2	1.7	1.3	1	100	20	15	5.0	125.6
220+ON	56+50W	100	20	2.0	1.2	0.8	0.6	1	100	20	15	2.5	125.6
220+ON	57+50W	100	25	2.2	1.4	1.0	0.8	1	100	20	15	3.1	157.0
220+ON	58+50W	100	28	1.6	0.8	0.6	0.4	1	100	20	15	1.8	175.8
220+ON	59+50W	100	22	1.7	1.0	0.8	0.6	1	100	20	15	2.3	138.2
220+ON	60+50W	100	30	1.3	0.8	0.8	0.8	1	100	20	15	2.5	188.4
220+ON	61+50W	100	35	2.2	1.5	1.1	0.8	1	100	20	15	3.2	219.8
220+ON	62+50W	100	60	1.7	1.1	1.0	0.8	1	100	20	15	2.9	376.8
220+ON	63+50W	100	71	2.5	1.8	1.5	1.2	1	100	20	15	4.3	445.9
220+ON	64+50W	100	66	1.9	1.5	1.1	0.9	1	100	20	15	3.3	414.5
220+ON	65+50W	100	90	1.8	1.2	1.1	1.0	1	100	20	15	3.3	565.2
220+ON	66+50W	100	120	0.3	0.5	0.5	0.4	1	100	20	15	1.3	753.6
220+ON	67+50W	100	128	0.5	0.3	0.4	0.6	1	100	20	15	1.5	803.8
220+ON	68+50W	100	76	1.4	1.0	1.0	0.9	1	100	20	15	2.9	477.3
220+ON	69+50W	100	73	0.6	0.3	0.3	0.2	1	100	20	15	0.8	458.4
220+ON	70+50W	100	129	0.5	0.8	0.8	0.8	1	100	20	15	2.3	810.1
220+ON	71+50W	75	198	0.8	0.5	0.5	0.6	1	100	20	15	1.7	1657.9
220+ON	72+50W	75	264	0.5	0.3	0.3	0.2	1	100	20	15	0.8	2210.6
220+ON	73+50W	75	189	1.3	1.1	1.0	0.9	1	100	20	15	2.9	1582.6
220+ON	74+50W	75	126	0.7	0.4	0.2	0.2	1	100	20	15	0.8	1055.0
225+ON	74+50W	100	123	0.9	0.6	0.6	0.3	1	100	20	15	1.4	772.4
225+ON	73+50W	100	162	1.0	0.7	0.4	0.3	1	100	20	15	1.3	1017.4
225+ON	72+50W	120	183	1.4	1.0	1.0	0.9	1	100	20	15	2.9	957.7
225+ON	71+50W	100	158	0.0	0.0	0.0	0.2	1	100	20	15	0.3	992.2
225+ON	70+50W	100	129	0.5	0.8	0.7	0.8	1	100	20	15	2.3	810.1
225+ON	69+50W	100	142	0.6	0.6	0.3	0.2	1	100	20	15	0.9	891.8
225+ON	68+50W	100	90	1.4	1.0	1.0	0.9	1	100	20	15	2.9	565.2
225+ON	67+50W	100	130	0.5	0.3	0.4	0.3	1	100	20	15	1.0	816.4
225+ON	66+50W	100	120	0.3	0.5	0.4	0.2	1	100	20	15	0.9	753.6
225+ON	65+50W	100	90	1.9	1.3	1.1	1.0	1	100	20	15	3.4	565.2
225+ON	64+50W	100	70	2.2	1.7	1.5	1.2	1	100	20	15	4.2	439.6
225+ON	63+50W	100	60	1.7	1.1	1.0	0.8	1	100	20	15	2.9	376.8
225+ON	62+50W	100	42	2.5	1.8	1.6	1.1	1	100	20	15	4.3	263.8
225+ON	61+50W	100	35	2.2	1.3	0.9	0.8	1	100	20	15	3.0	219.8
225+ON	60+50W	100	20	2.1	1.1	0.8	0.7	1	100	20	15	2.6	125.6
225+ON	59+50W	100	18	1.9	1.2	0.9	0.7	1	100	20	15	2.7	113.0
225+ON	58+50W	100	22	2.5	1.7	1.4	1.2	1	100	20	15	4.2	138.2
225+ON	57+50W	100	15	1.6	1.4	1.0	0.8	1	100	20	15	3.0	94.2

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
225+ON	56+50W	100	24	1.6	1.1	0.9	0.7	1	100	20	15	2.6	150.7
225+ON	55+50W	100	22	2.1	1.3	1.0	0.8	1	100	20	15	3.0	138.2
230+ON	63+50W	100	60	2.2	1.7	1.4	1.1	1	100	20	15	4.0	376.8
230+ON	64+50W	100	70	1.9	1.5	1.1	0.9	1	100	20	15	3.3	439.6
230+ON	65+50W	100	90	1.8	1.2	1.1	1.0	1	100	20	15	3.3	565.2
230+ON	66+50W	100	110	0.3	0.2	0.3	0.2	1	100	20	15	0.7	690.8
230+ON	67+50W	100	120	0.5	0.3	0.4	0.6	1	100	20	15	1.5	753.6
230+ON	68+50W	100	76	2.5	1.7	1.3	1.1	1	100	20	15	4.0	477.3
230+ON	69+50W	100	95	1.8	1.5	1.3	1.0	1	100	20	15	3.6	596.6
230+ON	70+50W	100	122	0.6	0.3	0.3	0.2	1	100	20	15	0.8	766.2
230+ON	71+50W	100	130	0.8	0.5	0.5	0.6	1	100	20	15	1.7	816.4
230+ON	72+50W	100	230	0.5	0.3	0.2	0.2	1	100	20	15	0.7	1444.4
230+ON	73+50W	100	170	1.3	1.1	1.0	0.9	1	100	20	15	2.9	1067.6
230+ON	74+50W	100	130	0.7	0.4	0.2	0.2	1	100	20	15	0.8	816.4
230+ON	75+50W	100	120	0.6	0.6	0.4	0.3	1	100	20	15	1.2	753.6
230+ON	76+50W	100	180	1.0	0.7	0.7	0.6	1	100	20	15	2.0	1130.4
230+ON	77+50W	100	160	0.7	0.3	0.4	0.3	1	100	20	15	1.1	1004.8
235+ON	64+50W	100	40	2.3	1.8	1.5	1.2	1	100	20	15	4.3	251.2
235+ON	65+50W	100	50	2.1	1.7	1.4	1.1	1	100	20	15	4.0	314.0
235+ON	66+50W	100	54	2.8	2.5	2.1	1.7	1	100	20	15	6.0	339.1
235+ON	67+50W	100	77	3.1	2.1	1.7	1.4	1	100	20	15	5.1	483.6
235+ON	68+50W	100	80	1.6	1.0	0.9	0.9	1	100	20	15	2.9	502.4
235+ON	69+50W	100	67	2.2	1.6	1.4	1.2	1	100	20	15	4.1	420.8
235+ON	70+50W	100	97	3.3	2.4	2.1	1.8	1	100	20	15	6.2	609.2
235+ON	71+50W	100	225	1.5	0.9	0.8	0.8	1	100	20	15	2.6	1413.0
235+ON	72+50W	100	345	2.5	1.9	1.8	1.7	1	100	20	15	5.4	2166.6
235+ON	73+50W	100	189	2.0	1.4	1.2	1.1	1	100	20	15	3.7	1186.9
235+ON	74+50W	100	420	1.4	0.8	0.7	0.7	1	100	20	15	2.3	2637.6
235+ON	75+50W	100	126	1.0	0.9	0.9	0.8	1	100	20	15	2.6	791.3
235+ON	76+50W	100	480	0.3	0.0	0.0	0.2	1	100	20	15	0.4	3014.4
235+ON	77+50W	100	249	-0.0	-0.1	-0.0	-0.0	1	100	20	15	-0.0	1563.7
235+ON	78+50W	100	750	-0.0	-0.0	-0.0	0.1	1	100	20	15	0.2	4710.0
235+ON	79+50W	100	168	0.3	0.4	0.3	0.1	1	100	20	15	0.6	1055.0
235+ON	80+50W	100	255	-0.4	-0.5	-0.2	-0.0	1	100	20	15	-0.4	1601.4
235+ON	81+50W	100	147	1.0	0.9	0.8	0.7	1	100	20	15	2.3	923.2
235+ON	82+50W	100	141	-0.0	-0.3	0.0	0.3	1	100	20	15	0.4	885.5
235+ON	83+50W	100	140	-0.2	-0.0	0.0	0.1	1	100	20	15	0.1	879.2
240+ON	84+50W	100	190	1.9	1.4	1.3	1.1	1	100	20	15	3.7	1193.2
240+ON	83+50W	100	195	2.1	1.6	1.5	1.2	1	100	20	15	4.2	1224.6
240+ON	82+50W	100	213	1.8	1.3	1.2	1.2	1	100	20	15	3.8	1337.6
240+ON	81+50W	100	158	0.0	0.1	0.2	0.4	1	100	20	15	0.8	992.2
240+ON	80+50W	100	240	1.8	1.3	1.2	1.2	1	100	20	15	3.8	1507.2
240+ON	79+50W	100	270	1.2	0.8	0.8	0.9	1	100	20	15	2.6	1695.6
240+ON	78+50W	100	450	-0.0	0.0	0.1	0.1	1	100	20	15	0.2	2826.0
240+ON	77+50W	100	300	-0.0	-0.1	-0.1	-0.1	1	100	20	15	-0.3	1884.0
240+ON	76+50W	100	450	-0.2	-0.2	-0.0	-0.2	1	100	20	15	-0.4	2826.0
240+ON	75+50W	100	120	0.0	0.0	0.2	0.5	1	100	20	15	1.0	753.6
240+ON	74+50W	100	156	0.3	0.4	0.5	0.5	1	100	20	15	1.4	979.7
240+ON	73+50W	100	99	2.2	1.5	1.3	1.2	1	100	20	15	4.0	621.7
240+ON	72+50W	100	144	1.1	1.1	1.0	1.0	1	100	20	15	3.1	904.3

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
240+ON	71+50W	100	106	1.2	0.8	0.8	0.9	1	100	20	15	2.6	665.7
240+ON	70+50W	100	62	1.5	1.3	1.1	0.9	1	100	20	15	3.1	389.4
240+CN	69+50W	100	78	2.4	1.7	1.5	1.2	1	100	20	15	4.3	489.8
240+ON	68+50W	100	44	1.5	1.4	1.2	0.9	1	100	20	15	3.3	276.3
240+ON	67+50W	100	36	2.1	1.4	1.1	0.9	1	100	20	15	3.3	226.1
240+ON	66+50W	100	37	2.5	1.5	1.1	0.8	1	100	20	15	3.3	232.4
240+ON	65+50W	100	36	2.9	2.0	1.6	1.4	1	100	20	15	4.9	226.1
240+ON	64+50W	100	25	1.8	1.1	0.9	0.7	1	100	20	15	2.6	157.0
240+ON	63+50W	100	21	1.8	1.0	0.7	0.5	1	100	20	15	2.1	131.9
240+ON	62+50W	100	24	1.8	1.2	0.9	0.7	1	100	20	15	2.7	150.7
240+ON	61+50W	100	17	0.6	0.4	0.4	0.3	1	100	20	15	1.1	106.8
245+CN	64+50W	100	21	1.0	0.5	0.4	0.3	1	100	20	15	1.2	131.9
245+ON	65+50W	100	18	1.4	0.7	0.7	0.5	1	100	20	15	1.9	113.0
245+ON	66+50W	100	18	2.6	1.7	1.4	1.2	1	100	20	15	4.2	113.0
245+ON	67+50W	100	33	3.0	2.1	1.7	1.4	1	100	20	15	5.0	207.2
245+ON	68+50W	100	39	2.6	1.6	1.1	0.8	1	100	20	15	3.3	244.9
245+ON	69+50W	100	34	3.1	2.0	1.5	1.2	1	100	20	15	4.5	213.5
245+ON	70+50W	100	37	2.3	1.3	0.9	0.7	1	100	20	15	2.8	232.4
245+CN	71+50W	100	15	0.3	0.2	0.3	0.5	1	100	20	15	1.2	94.2
245+ON	72+50W	100	69	1.8	1.1	1.0	0.9	1	100	20	15	3.0	433.3
245+ON	73+50W	100	115	1.3	0.8	0.8	0.8	1	100	20	15	2.5	722.2
245+ON	74+50W	100	234	1.9	1.4	1.3	1.1	1	100	20	15	3.7	1469.5
245+ON	75+50W	100	132	0.0	0.1	0.1	0.2	1	100	20	15	0.4	829.0
245+ON	76+50W	100	210	0.5	0.4	0.5	0.3	1	100	20	15	1.1	1318.8
245+CN	77+50W	100	186	0.5	0.6	0.4	0.4	1	100	20	15	1.3	1168.1
105+ON	45+50W	100	117	1.0	0.5	0.2	0.3	1	100	20	15	1.0	734.8
105+ON	46+50W	100	123	1.2	0.9	0.4	0.4	1	100	20	15	1.6	772.4
105+ON	47+50W	100	189	0.9	0.6	0.6	0.2	1	100	20	15	1.2	1186.9
105+ON	48+50W	100	201	0.7	0.3	0.3	0.1	1	100	20	15	0.7	1262.3
105+ON	49+50W	100	232	1.4	1.0	0.4	0.4	1	100	20	15	1.6	1457.0
105+ON	50+50W	100	256	0.9	0.4	0.1	0.2	1	100	20	15	0.7	1607.7
105+ON	51+50W	100	199	0.9	0.5	0.2	0.1	1	100	20	15	0.7	1249.7
105+ON	52+50W	100	180	0.7	0.4	0.4	0.2	1	100	20	15	0.9	1130.4
105+ON	53+50W	100	213	0.8	0.6	0.4	0.4	1	100	20	15	1.4	1337.6
105+ON	54+50W	100	190	1.0	0.5	0.4	0.1	1	100	20	15	0.9	1193.2
105+CN	55+50W	100	175	0.9	0.7	0.3	0.3	1	100	20	15	1.2	1099.0
105+ON	56+50W	100	225	1.6	0.8	0.5	0.5	1	100	20	15	1.8	1413.0
105+ON	57+50W	100	219	1.8	0.9	0.6	0.4	1	100	20	15	1.8	1375.3
105+ON	58+50W	100	210	1.1	0.5	0.4	0.2	1	100	20	15	1.1	1318.8
105+ON	59+50W	100	183	1.0	0.7	0.4	0.2	1	100	20	15	1.1	1149.2
105+ON	60+50W	100	291	1.6	0.7	0.5	0.4	1	100	20	15	1.6	1827.5
105+ON	61+50W	100	249	1.8	0.8	0.6	0.5	1	100	20	15	2.0	1563.7
105+ON	62+50W	100	225	1.8	0.9	0.6	0.5	1	100	20	15	2.0	1413.0
105+ON	63+50W	100	42	1.1	0.6	0.6	0.3	1	100	20	15	1.4	263.8
105+ON	64+50W	100	38	0.9	0.7	0.6	0.4	1	100	20	15	1.6	238.6
105+ON	65+50W	100	58	1.0	0.7	0.5	0.4	1	100	20	15	1.5	364.2
105+ON	66+50W	100	72	1.4	0.7	0.7	0.5	1	100	20	15	1.9	452.2
105+ON	67+50W	100	52	0.8	0.6	0.6	0.5	1	100	20	15	1.7	326.6
105+ON	68+50W	100	54	0.9	0.7	0.5	0.3	1	100	20	15	1.3	339.1
105+ON	69+50W	100	59	0.7	0.5	0.4	0.1	1	100	20	15	0.8	370.5

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
105+ON	70+50W	100	61	0.6	0.3	0.3	0.4	1	100	20	15	1.1	383.1
11 + N	45+50W	100	115	1.3	0.7	0.4	0.2	1	100	20	15	1.2	722.2
110+ON	46+50W	100	113	0.9	0.7	0.5	0.3	1	100	20	15	1.3	709.6
110+ON	47+50W	100	120	1.2	0.8	0.5	0.5	1	100	20	15	1.8	753.6
110+ON	48+50W	100	90	1.6	1.0	0.7	0.3	1	100	20	15	1.8	565.2
110+ON	49+50W	100	103	1.4	0.8	0.6	0.3	1	100	20	15	1.6	646.8
110+ON	50+50W	100	174	0.9	0.5	0.5	0.2	1	100	20	15	1.1	1092.7
110+ON	51+50W	100	210	1.1	0.7	0.2	0.2	1	100	20	15	1.0	1318.8
110+ON	52+50W	100	213	0.8	0.4	0.4	0.2	1	100	20	15	1.0	1337.6
110+ON	53+50W	100	198	0.6	0.2	0.1	0.3	1	100	20	15	0.8	1243.4
110+ON	54+50W	100	246	0.8	0.7	0.2	0.2	1	100	20	15	0.9	1544.9
110+ON	55+50W	100	276	0.9	0.7	0.5	0.4	1	100	20	15	1.5	1733.3
110+ON	56+50W	100	252	1.0	0.5	0.1	0.1	1	100	20	15	0.6	1582.6
110+ON	57+50W	100	264	0.7	0.3	0.2	0.1	1	100	20	15	0.6	1657.9
110+ON	58+50W	100	243	0.7	0.5	0.2	0.3	1	100	20	15	1.0	1526.0
110+ON	59+50W	100	213	0.9	0.5	0.2	0.4	1	100	20	15	1.2	1337.6
110+ON	60+50W	100	249	0.9	0.3	0.3	0.4	1	100	20	15	1.2	1563.7
110+ON	61+50W	100	234	0.8	0.5	0.2	0.3	1	100	20	15	1.0	1469.5
110+ON	62+50W	100	219	0.6	0.4	0.3	0.3	1	100	20	15	1.0	1375.3
110+ON	63+50W	100	276	0.6	0.1	0.1	0.2	1	100	20	15	0.6	1733.3
110+ON	64+50W	100	189	0.8	0.1	0.1	0.2	1	100	20	15	0.6	1186.9
110+ON	65+50W	100	213	0.7	0.4	0.2	0.1	1	100	20	15	0.6	1337.6
110+ON	66+50W	100	192	0.9	0.3	0.2	0.2	1	100	20	15	0.8	1205.8
110+ON	67+50W	100	191	0.9	0.3	0.3	0.4	1	100	20	15	1.2	1199.5
110+ON	68+50W	100	198	1.0	0.5	0.3	0.3	1	100	20	15	1.1	1243.4
110+ON	69+50W	100	246	0.9	0.4	0.4	0.4	1	100	20	15	1.3	1544.9
110+ON	70+50W	100	298	1.4	0.6	0.4	0.5	1	100	20	15	1.6	1871.4
250+ON	67+50W	100	18	1.6	1.3	1.1	0.9	1	100	20	15	3.2	113.0
250+ON	68+50W	100	21	1.5	1.0	0.7	0.5	1	100	20	15	2.1	131.9
250+ON	69+50W	100	25	1.8	1.4	0.9	0.5	1	100	20	15	2.4	157.0
250+ON	70+50W	100	26	1.8	1.0	0.7	0.5	1	100	20	15	2.1	163.3
250+ON	71+50W	100	26	1.4	0.7	0.4	0.3	1	100	20	15	1.4	163.3
250+ON	72+50W	100	120	1.9	1.4	1.1	0.9	1	100	20	15	3.3	753.6
250+ON	73+50W	100	243	2.3	1.7	1.5	1.4	1	100	20	15	4.6	1526.0
250+ON	74+50W	100	210	1.2	0.8	0.6	0.3	1	100	20	15	1.5	1318.8
250+ON	75+50W	100	246	1.2	0.4	0.4	0.1	1	100	20	15	0.9	1544.9
250+ON	76+50W	100	123	1.0	0.7	0.6	0.3	1	100	20	15	1.4	772.4
250+ON	77+50W	100	174	1.5	1.1	0.9	0.5	1	100	20	15	2.3	1092.7
250+ON	78+50W	40	183	2.2	1.6	1.4	1.1	1	100	20	15	4.0	2873.1
250+ON	79+50W	30	192	2.1	1.4	1.1	0.9	1	100	20	15	3.3	4019.2
255+ON	78+50W	100	48	2.3	1.7	1.2	1.0	1	100	20	15	3.7	301.4
255+ON	77+50W	100	255	2.6	0.8	1.2	0.9	1	100	20	15	3.2	1601.4
255+ON	76+50W	100	192	1.6	0.6	0.5	0.5	1	100	20	15	1.8	1205.8
255+ON	75+50W	100	63	1.2	0.8	0.2	0.1	1	100	20	15	0.9	395.6
255+ON	74+50W	100	219	1.4	0.8	0.5	0.4	1	100	20	15	1.6	1375.3
255+ON	73+50W	100	225	1.5	0.6	0.5	0.3	1	100	20	15	1.4	1413.0
255+ON	72+50W	100	190	1.5	0.7	0.4	0.3	1	100	20	15	1.4	1193.2
260+ON	72+50W	100	141	1.4	0.5	0.4	0.3	1	100	20	15	1.3	885.5
260+ON	73+50W	100	191	1.3	0.5	0.2	0.1	1	100	20	15	0.8	1199.5
260+ON	74+50W	100	192	1.1	0.8	0.8	0.7	1	100	20	15	2.3	1205.8

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
260+ON	75+50W	100	258	1.7	1.0	0.9	0.7	1	100	20	15	2.6	1620.2
260+ON	76+50W	100	255	1.3	0.7	0.5	0.5	1	100	20	15	1.7	1601.4
260+ON	77+50W	100	246	0.8	0.3	0.3	0.4	1	100	20	15	1.2	1544.9
260+ON	69+50W	100	210	0.8	0.5	0.2	0.1	1	100	20	15	0.7	1318.8
260+ON	68+50W	100	219	1.1	0.7	0.4	0.4	1	100	20	15	1.5	1375.3
260+ON	67+50W	100	190	1.0	0.4	0.3	0.3	1	100	20	15	1.1	1193.2
260+ON	66+50W	100	231	0.7	0.3	0.1	0.2	1	100	20	15	0.7	1450.7
260+ON	65+50W	100	198	0.9	0.3	0.2	0.2	1	100	20	15	0.8	1243.4
310+ON	96+00W	150	33	4.0	1.8	0.8	0.0	1	100	20	15	2.2	138.2
310+ON	95+00W	150	27	2.9	1.8	1.0	0.0	1	100	20	15	2.1	113.0
310+ON	94+00W	300	10	2.6	1.9	1.8	0.0	1	100	20	15	2.7	20.9
310+ON	93+00W	250	11	1.9	1.0	0.7	0.0	1	100	20	15	1.3	27.6
310+ON	92+00W	200	10	1.4	0.7	0.5	0.0	1	100	20	15	1.0	31.4
310+ON	91+00W	200	9	1.0	0.7	0.3	0.0	1	100	20	15	0.7	28.3
310+ON	90+00W	300	6	0.8	0.2	0.0	0.0	1	100	20	15	0.2	12.6
310+ON	89+00W	200	8	1.1	0.8	0.5	0.0	1	100	20	15	0.9	25.1
310+ON	88+00W	200	7	1.6	1.0	0.6	0.0	1	100	20	15	1.2	22.0
310+ON	87+00W	200	7	1.5	1.2	0.9	0.0	1	100	20	15	1.5	22.0
310+ON	86+00W	200	7	1.6	1.4	1.0	0.0	1	100	20	15	1.7	22.0
310+ON	85+00W	150	9	1.6	1.1	1.0	0.0	1	100	20	15	1.6	37.7
310+ON	84+00W	150	10	1.5	1.1	0.9	0.0	1	100	20	15	1.5	41.9
315+ON	87+00W	250	10	1.7	1.0	0.7	0.0	1	100	20	15	1.3	25.1
315+ON	88+00W	250	12	1.5	1.0	0.6	0.0	1	100	20	15	1.2	30.1
315+ON	89+00W	250	10	1.9	1.1	0.7	0.0	1	100	20	15	1.4	25.1
315+ON	90+00W	250	10	1.6	1.2	0.8	0.0	1	100	20	15	1.4	25.1
315+ON	91+00W	250	11	1.2	1.0	0.9	0.0	1	100	20	15	1.4	27.6
315+ON	92+00W	250	7	1.4	1.0	0.9	0.0	1	100	20	15	1.4	17.6
315+ON	93+00W	200	12	1.4	1.1	0.8	0.0	1	100	20	15	1.4	37.7
315+ON	94+00W	200	10	1.2	0.9	0.6	0.0	1	100	20	15	1.1	31.4
315+ON	95+00W	200	15	1.4	0.9	0.8	0.0	1	100	20	15	1.3	47.1
315+ON	96+00W	200	14	1.2	0.9	0.6	0.0	1	100	20	15	1.1	44.0
315+ON	97+00W	200	16	1.5	1.1	0.7	0.0	1	100	20	15	1.3	50.2
315+ON	98+00W	250	12	1.1	0.9	0.7	0.0	1	100	20	15	1.1	30.1
315+ON	99+00W	250	11	1.1	0.7	0.7	0.0	1	100	20	15	1.1	27.6
315+ON	100+00W	250	10	1.4	1.0	0.8	0.0	1	100	20	15	1.3	25.1
310+ON	97+0W	150	31	2.0	1.2	0.9	0.0	1	100	20	15	1.6	129.8
310+ON	98+0W	150	29	2.5	1.5	1.1	0.0	1	100	20	15	2.0	121.4
310+ON	99+0W	150	36	1.7	1.1	0.8	0.0	1	100	20	15	1.4	150.7
310+ON	100+0W	150	48	1.2	1.0	0.8	0.0	1	100	20	15	1.3	201.0
310+ON	101+0W	150	50	0.9	0.8	0.7	0.0	1	100	20	15	1.1	209.3
310+ON	102+0W	150	77	1.2	0.9	0.7	0.0	1	100	20	15	1.2	322.4
310+ON	103+0W	150	120	1.1	0.9	0.8	0.0	1	100	20	15	1.2	502.4
310+ON	104+0W	150	156	1.2	0.9	0.7	0.0	1	100	20	15	1.2	653.1
310+ON	105+0W	150	180	1.6	1.1	0.9	0.0	1	100	20	15	1.5	753.6
310+ON	106+0W	150	231	2.0	1.6	1.4	0.0	1	100	20	15	2.2	967.1
310+ON	107+0W	150	110	1.8	1.2	0.9	0.0	1	100	20	15	1.6	460.5
310+ON	108+0W	150	67	1.9	1.2	0.9	0.0	1	100	20	15	1.6	280.5
310+ON	109+0W	150	61	1.1	0.7	0.7	0.0	1	100	20	15	1.1	255.4
310+ON	110+0W	150	57	0.8	0.7	0.6	0.0	1	100	20	15	0.9	238.6
315+ON	110+0W	150	56	0.8	0.6	0.5	0.0	1	100	20	15	0.8	234.5

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
315+0N	109+0W	150	54	0.7	0.7	0.5	0.0	1	100	20	15	0.8	226.1
315+0N	108+0W	150	62	1.1	0.9	0.6	0.0	1	100	20	15	1.1	259.6
315+0N	107+0W	150	66	1.2	0.9	0.7	0.0	1	100	20	15	1.2	276.3
315+0N	106+0W	150	72	1.6	1.3	1.1	0.0	1	100	20	15	1.7	301.4
315+0N	105+0W	150	65	1.8	1.4	1.1	0.0	1	100	20	15	1.8	272.1
315+0N	104+0W	150	68	1.6	1.2	0.9	0.0	1	100	20	15	1.5	284.7
315+0N	105+0W	150	60	1.5	1.2	1.1	0.0	1	100	20	15	1.7	251.2
315+0N	102+0W	150	63	1.8	1.5	1.3	0.0	1	100	20	15	2.0	263.8
315+0N	101+0W	150	58	1.3	1.0	0.8	0.0	1	100	20	15	1.3	242.8
305N	101+0W	150	650	1.8	1.1	0.7	0.6	1	100	20	15	2.3	2721.3
305N	102+0W	100	450	1.2	0.9	0.8	0.6	1	100	20	15	2.2	2826.0
305N	103+0W	100	400	2.1	1.2	0.9	0.5	1	100	20	15	2.4	2512.0
305N	104+0W	100	670	2.0	1.2	0.8	0.7	1	100	20	15	2.6	4207.6
305N	100+0W	100	230	1.7	1.0	0.7	0.5	1	100	20	15	2.1	1444.4
305N	99+0W	100	290	1.6	1.0	0.6	0.5	1	100	20	15	2.0	1821.2
305N	98+0W	100	140	0.7	0.5	0.3	0.2	1	100	20	15	0.9	879.2
305N	97+0W	100	160	1.2	0.5	0.4	0.3	1	100	20	15	1.2	1004.8
305N	96+0W	100	250	1.8	1.1	0.9	0.7	1	100	20	15	2.6	1570.0
305N	95+0W	100	140	0.5	0.5	0.3	0.3	1	100	20	15	1.0	879.2
305N	94+0W	150	150	0.4	0.4	0.3	0.3	1	100	20	15	1.0	628.0
305N	93+0W	100	140	0.7	0.6	0.5	0.3	1	100	20	15	1.3	879.2
305N	92+0W	100	74	1.1	0.8	0.5	0.3	1	100	20	15	1.4	464.7
305N	91+0W	100	73	1.4	0.6	0.4	0.4	1	100	20	15	1.5	458.4
305N	90+0W	100	77	1.8	1.1	0.9	0.7	1	100	20	15	2.6	483.6
305N	89+0W	100	107	1.2	0.8	0.5	0.4	1	100	20	15	1.6	672.0
305N	88+0W	100	140	0.7	0.5	0.5	0.5	1	100	20	15	1.5	879.2
305N	87+0W	100	140	0.9	0.5	0.5	0.4	1	100	20	15	1.4	879.2
305N	86+0W	100	120	1.6	0.8	0.6	0.8	1	100	20	15	2.4	753.6
305N	85+0W	100	140	1.1	0.8	0.6	0.4	1	100	20	15	1.7	879.2
300+0N	90+0W	150	49	1.1	0.8	0.9	0.0	1	100	20	15	1.3	205.1
300+0N	91+0W	150	56	1.0	0.8	0.8	0.0	1	100	20	15	1.2	234.5
300+0N	92+0W	150	50	1.4	1.1	0.8	0.0	1	100	20	15	1.4	209.3
300+0N	93+0W	150	44	1.2	1.0	0.9	0.0	1	100	20	15	1.4	184.2
300+0N	94+0W	150	47	1.2	0.8	0.6	0.0	1	100	20	15	1.0	196.8
300+0N	95+0W	150	68	1.5	0.9	0.7	0.0	1	100	20	15	1.2	284.7
300+0N	96+0W	150	74	1.9	1.2	0.9	0.0	1	100	20	15	1.6	309.8
300+0N	97+0W	150	97	2.6	1.7	0.9	0.0	1	100	20	15	1.9	406.1
300+0N	98+0W	150	82	1.7	1.0	0.6	0.0	1	100	20	15	1.2	343.3
300+0N	99+0W	150	66	1.2	1.0	0.7	0.0	1	100	20	15	1.2	276.3
300+0N	100+0W	150	60	1.4	0.9	0.7	0.0	1	100	20	15	1.2	251.2
365+0N	105+0W	210	70	1.6	0.9	0.7	0.0	1	100	20	15	1.2	209.3
365+0N	106+0W	210	75	1.4	1.0	0.5	0.0	1	100	20	15	1.1	224.3
365+0N	107+0W	210	69	1.6	1.0	0.7	0.0	1	100	20	15	1.3	206.3
365+0N	108+0W	210	80	1.8	1.2	1.0	0.1	1	100	20	15	1.8	239.2
365+0N	109+0W	210	73	1.7	1.2	0.9	0.0	1	100	20	15	1.5	218.3
365+0N	110+0W	210	79	2.0	0.9	0.7	0.0	1	100	20	15	1.3	236.2
365+0N	111+0W	210	63	1.5	1.1	0.8	0.1	1	100	20	15	1.5	188.4
365+0N	112+0W	210	45	1.7	1.4	1.1	0.0	1	100	20	15	1.8	134.6
365+0N	113+0W	210	57	1.4	1.0	0.9	0.0	1	100	20	15	1.4	170.5
365+0N	114+0W	210	82	1.5	1.2	1.0	0.0	1	100	20	15	1.6	245.2



## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	RES
365+ON	115+OW	210	64	1.5	1.1	0.9	0.0	1	100	20	15	1.5	191.4
365+ON	116+OW	150	69	1.7	1.5	1.2	0.0	1	100	20	15	1.9	288.9
365+ON	117+OW	150	61	1.2	0.9	0.8	0.0	1	100	20	15	1.2	255.4
365+ON	118+OW	150	65	1.3	1.1	0.9	0.1	1	100	20	15	1.6	272.1
365+ON	119+OW	150	37	1.0	1.0	0.7	0.0	1	100	20	15	1.2	154.9
365+ON	120+OW	200	41	1.0	0.9	0.8	0.0	1	100	20	15	1.2	128.7
365+ON	121+OW	200	42	0.9	0.8	0.6	0.0	1	100	20	15	1.0	131.9
365+ON	122+OW	200	45	0.7	0.6	0.5	0.0	1	100	20	15	0.8	141.3
365+ON	123+OW	200	40	0.9	0.7	0.4	0.1	1	100	20	15	0.9	125.6
365+ON	124+OW	200	45	0.7	0.6	0.5	0.0	1	100	20	15	0.8	141.3
365+ON	125+OW	200	47	0.9	0.6	0.4	0.0	1	100	20	15	0.7	147.6
360+ON	125-OW	200	68	1.1	1.0	0.9	0.0	1	100	20	15	1.3	213.5
360+ON	124+OW	150	64	1.5	1.1	0.8	0.0	1	100	20	15	1.4	267.9
360+ON	123+OW	150	72	1.3	0.9	0.8	0.0	1	100	20	15	1.3	301.4
360+ON	122+OW	150	69	1.7	1.4	1.0	0.0	1	100	20	15	1.7	288.9
360+ON	121+OW	150	61	1.2	1.1	0.8	0.1	1	100	20	15	1.5	255.4
360+ON	120+OW	150	55	1.1	0.9	0.8	0.0	1	100	20	15	1.2	230.3
360+ON	119+OW	200	56	1.1	0.8	0.7	0.0	1	100	20	15	1.1	175.8
360+ON	118+OW	300	58	1.1	0.8	0.7	0.0	1	100	20	15	1.1	121.4
360+ON	117-OW	200	63	1.2	0.8	0.8	0.0	1	100	20	15	1.2	197.8
360+ON	116+OW	200	72	1.4	0.9	0.8	0.0	1	100	20	15	1.3	226.1
360+ON	115+OW	150	71	1.2	1.0	0.7	0.0	1	100	20	15	1.2	297.3
360+ON	114+OW	150	73	1.6	1.1	0.8	0.0	1	100	20	15	1.4	305.6
360+ON	113+OW	150	70	1.3	0.9	0.6	0.0	1	100	20	15	1.1	293.1
360+ON	112+OW	100	31	2.2	1.5	1.0	0.0	1	100	20	15	1.8	194.7
360+ON	111+OW	100	26	1.0	0.8	0.5	0.0	1	100	20	15	0.9	163.3
360+ON	110+OW	100	12	0.7	0.6	0.5	0.0	1	100	20	15	0.8	75.4
360+ON	109+OW	100	12	0.9	0.6	0.7	0.0	1	100	20	15	1.0	75.4
360+ON	108+OW	100	13	0.9	0.7	0.7	0.0	1	100	20	15	1.0	81.6
360+ON	107+OW	250	13	1.0	0.8	0.7	0.0	1	100	20	15	1.1	32.7
360+ON	106+OW	250	13	0.9	0.8	0.7	0.0	1	100	20	15	1.1	32.7
360+ON	105+OW	250	14	1.0	0.8	0.5	0.0	1	100	20	15	0.9	35.2
360+ON	104+OW	250	12	1.3	1.1	1.0	0.0	1	100	20	15	1.5	30.1
360+ON	103+OW	250	12	1.1	0.8	0.6	0.0	1	100	20	15	1.0	30.1
360+ON	102+OW	250	12	0.9	0.8	0.8	0.0	1	100	20	15	1.1	30.1
360+ON	101+OW	300	11	1.1	0.7	0.5	0.0	1	100	20	15	0.9	23.0
360+ON	100+OW	300	13	1.0	0.7	0.4	0.0	1	100	20	15	0.8	27.2
355+ON	100+OW	250	15	1.2	0.9	0.5	0.0	1	100	20	15	1.0	37.7
355+ON	101-OW	250	13	1.6	1.1	0.7	0.0	1	100	20	15	1.3	32.7
355+ON	102+OW	250	11	0.8	0.5	0.2	0.0	1	100	20	15	0.5	27.6
355+ON	103+OW	250	11	1.4	0.9	0.8	0.0	1	100	20	15	1.3	27.6
355+ON	104+OW	250	12	0.9	0.7	0.7	0.0	1	100	20	15	1.0	30.1
355+ON	105+OW	250	13	1.4	0.7	0.3	0.0	1	100	20	15	0.8	32.7
355+ON	106+OW	250	12	1.0	0.6	0.5	0.0	1	100	20	15	0.8	30.1
355+ON	107+OW	250	14	0.9	0.6	0.4	0.0	1	100	20	15	0.7	35.2
355+ON	108+OW	250	13	1.1	0.8	0.7	0.0	1	100	20	15	1.1	32.7
355+ON	109+OW	250	13	1.1	1.0	0.7	0.0	1	100	20	15	1.2	32.7
355+ON	110+OW	150	18	1.3	0.9	0.6	0.0	1	100	20	15	1.1	75.4
355+ON	111+OW	150	23	1.0	0.7	0.5	0.0	1	100	20	15	0.9	96.3
355+ON	112+OW	150	19	1.2	0.9	0.5	0.0	1	100	20	15	1.0	79.5

## WENNER ARRAY

LINE	STATN	I	VP	M1	M2	M3	M4	N	A	TP	TD	CV	PRES
355+0N	113+0W	150	37	1.6	1.0	0.7	0.0	1	100	20	15	1.3	154.9
355+0N	114+0W	150	48	1.3	0.9	0.5	0.0	1	100	20	15	1.0	201.0
355+0N	115+0W	150	50	1.0	0.8	0.5	0.0	1	100	20	15	0.9	209.3
355+0N	116+0W	150	37	1.4	1.0	0.6	0.1	1	100	20	15	1.3	154.9
355+0N	117+0W	150	46	1.1	0.8	0.5	0.0	1	100	20	15	0.9	192.6
355+0N	118+0W	150	40	1.0	0.6	0.4	0.0	1	100	20	15	0.8	167.5
332+5N	101+0W	250	18	1.0	0.8	0.8	0.0	1	100	20	15	1.2	45.2
332+5N	102+0W	250	20	1.7	1.0	0.9	0.0	1	100	20	15	1.5	50.2
332+5N	103+0W	250	29	2.4	1.5	1.2	0.0	1	100	20	15	2.0	72.8
332+5N	104+0W	250	19	1.8	1.2	1.0	0.0	1	100	20	15	1.6	47.7
332+5N	105+0W	250	20	1.7	1.5	1.2	0.1	1	100	20	15	2.1	50.2
330+0N	105+0W	250	14	1.1	1.0	0.9	0.0	1	100	20	15	1.3	35.2
330+0N	104+0W	200	15	1.1	0.8	0.2	0.3	1	100	20	15	1.2	47.1
330+0N	103+0W	150	14	0.9	0.6	0.2	0.2	1	100	20	15	0.9	58.6
330+0N	102+0W	150	15	1.3	1.1	0.9	0.0	1	100	20	15	1.4	62.8
330+0N	101+0W	150	15	1.2	1.0	0.9	0.2	1	100	20	15	1.7	62.8
330+0N	100+0W	200	16	1.6	1.4	1.1	0.0	1	100	20	15	1.8	50.2
330+0N	99+0W	250	15	1.0	0.9	0.9	0.1	1	100	20	15	1.4	37.7
330+0N	98+0W	200	14	1.2	1.0	0.8	0.0	1	100	20	15	1.3	44.0
330+0N	97+0W	250	14	1.1	0.9	0.7	0.0	1	100	20	15	1.1	35.2
330+0N	96+0W	250	15	1.2	0.9	0.9	0.0	1	100	20	15	1.3	37.7
330+0N	95+0W	500	14	1.2	0.6	0.3	0.0	1	100	20	15	0.7	17.6
330+0N	94+0W	450	28	1.0	0.8	0.4	0.1	1	100	20	15	1.0	39.1
330+0N	93+0W	450	48	1.1	0.9	0.7	0.0	1	100	20	15	1.1	67.0
330+0N	92+0W	300	51	0.6	0.5	0.4	0.0	1	100	20	15	0.6	106.8
330+0N	91+0W	200	45	0.9	0.4	0.2	0.2	1	100	20	15	0.8	141.3
330+0N	90+0W	250	37	0.8	0.5	0.3	0.0	1	100	20	15	0.6	92.9
332+5N	90+0W	250	31	1.0	0.8	0.5	0.1	1	100	20	15	1.1	77.9
332+5N	91+0W	250	40	0.7	0.7	0.2	0.0	1	100	20	15	0.6	100.5
332+5N	92+0W	250	46	1.0	0.6	0.3	0.0	1	100	20	15	0.7	115.6
332+5N	93+0W	250	32	1.1	0.9	0.4	0.0	1	100	20	15	0.9	80.4
332+5N	94+0W	250	30	0.9	0.5	0.2	0.1	1	100	20	15	0.7	75.4
332+5N	95+0W	250	29	1.3	1.1	0.7	0.0	1	100	20	15	1.3	72.8
332+5N	96+0W	250	37	1.1	1.0	0.8	0.0	1	100	20	15	1.3	92.9
332+5N	97+0W	250	49	1.5	1.1	0.9	0.2	1	100	20	15	1.8	123.1
332+5N	98+0W	250	58	1.3	1.1	0.9	0.0	1	100	20	15	1.4	145.7
332+5N	99+0W	250	18	1.0	1.1	0.7	0.1	1	100	20	15	1.4	45.2
332+5N	100+0W	250	11	1.0	0.8	0.8	0.0	1	100	20	15	1.2	27.6

August 3, 1978

Mr. R. Anderson  
Exploration Manager  
Bethlehem Copper Corporation  
2100 - 1055 W. Hastings St.  
Vancouver, B. C.

Dear Mr. Anderson:

Re: The Guichon Project

Enclosed please find the originals and four copies of the Vector EM test data conducted over line 190N. A deep flat-lying conductor was detected which responds into Channel 5.

This would suggest a conductive half space response from deep conductive overburden or possibly a graphite, lignite coal or very conductive clay bed at a depth of some 850 feet beneath 50N. This feature shows a flat dip to the east and may belong to the coldwater formation.

The detail induced polarization work on lines 255  $\neq$  00N and 252  $\neq$  50N suggest that the chargeability anomaly on line 252  $\neq$  50N may possibly be caused by cultural materials as no continuation was detected.

Yours truly,



Glen E. White  
Consulting Geophysicist

GW/kw

encl/

*Glen E. White*

GEOPHYSICAL CONSULTING & SERVICES LTD.

9251 Beckwith Road, Richmond, British Columbia, V6X 1V7

Telephone: (604) 273-6962

August 23, 1978

Mr. R. Nethery, P. Eng.  
Project Manager  
Bethlehem Copper Corporation  
2100 - 1055 W. Hastings St.  
Vancouver, B. C.

Dear Mr. Nethery:

Re: The Guichon Project

Pursuant to your request, we have resurveyed line 190N from a different loop position - loop D - as illustrated in the enclosed sketch map of the various loop positions. Lines 180N and 185N were surveyed from position loop C.

Loop D, line 190N, reconfirms the flat conductive half space response detected from loops A and B, at a depth of some 200 - 250 meters. This zone appears to be dipping to the east.

The induced polarization survey detected a twice background response on this line at 49 / 50W with a 100 m separation. The 200 m separation showed a slight decrease in chargeability amplitude. Thus, the chargeability anomaly appears to be shallower than the flat conductor response. Moreover, line 185 from loop C also shows a vector focus beneath the southern extension of the chargeability anomaly. Line 180, which did not cross the extension of the induced polarization anomaly did not show any vector focusing. ( The chargeability anomaly on 175 could not be checked due to powerline noise. )

There are a number of interpretation alternatives, two of which are as follows:

- (a) That the induced polarization responses are due to a shallow chargeable source overlying a more deeply conductive one in the Coldwater formation and/or Nicola group, such as a pyritized conglomerate overlying a graphitic shale or coal bed.

August 23, 1978

- 2 -

- (b) That the induced polarization response relates to a chargeable clay-till complex associated with the higher values in resistivity overlying a conductive clay bed at the bedrock-overburden interface.

It is considered that a massive sulphide source is a low probability. However, should a drill hole be decided upon, a vertical hole at 190N - 49 / 50W drilled to a depth of some 250 m would test both the anomalous chargeability and electro-magnetic conductor zones.

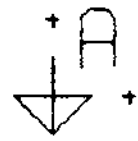
Respectfully submitted,  
GLEN E. WHITE GEOPHYSICAL  
CONSULTING & SERVICES LTD.



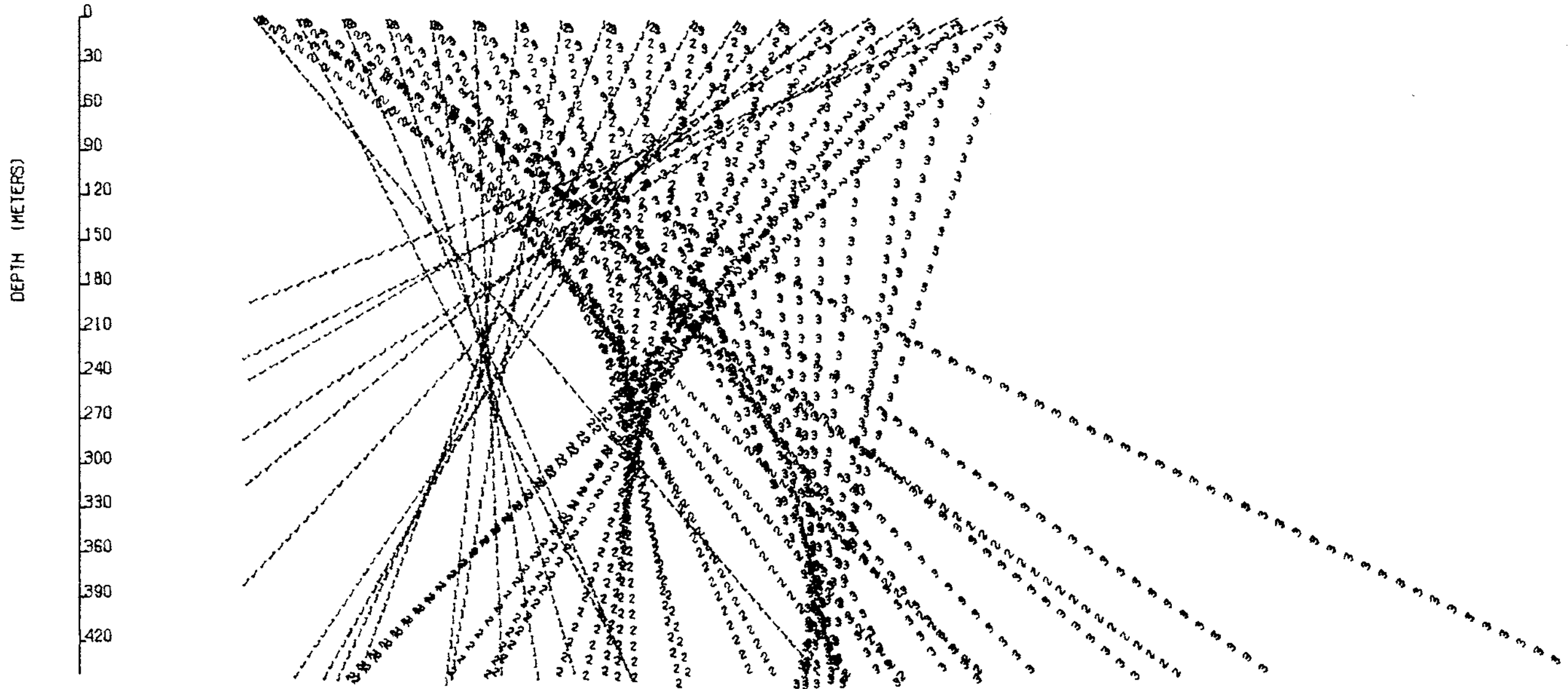
Glen E. White, B.Sc., P. Eng.  
Consulting Geophysicist

GW/kw

encl/



51 +0 W  
 50 +70 W  
 50 +40 W  
 50 +10 W  
 49 +80 W  
 49 +50 W  
 49 +20 W  
 48 +90 W  
 48 +60 W  
 48 +30 W  
 48 +0 W  
 47 +70 W  
 47 +40 W  
 47 +10 W  
 46 +80 W  
 46 +50 W  
 46 +20 W  
 45 +90 W



1 CM = 30 METERS

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

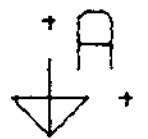
BETHLEHEM COPPER CORPORATION  
 GUICHON PROJECT  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 190 N

GLEN E. WHITE  
 GEOPHYSICAL CONSULTING  
 & SERVICES LTD.

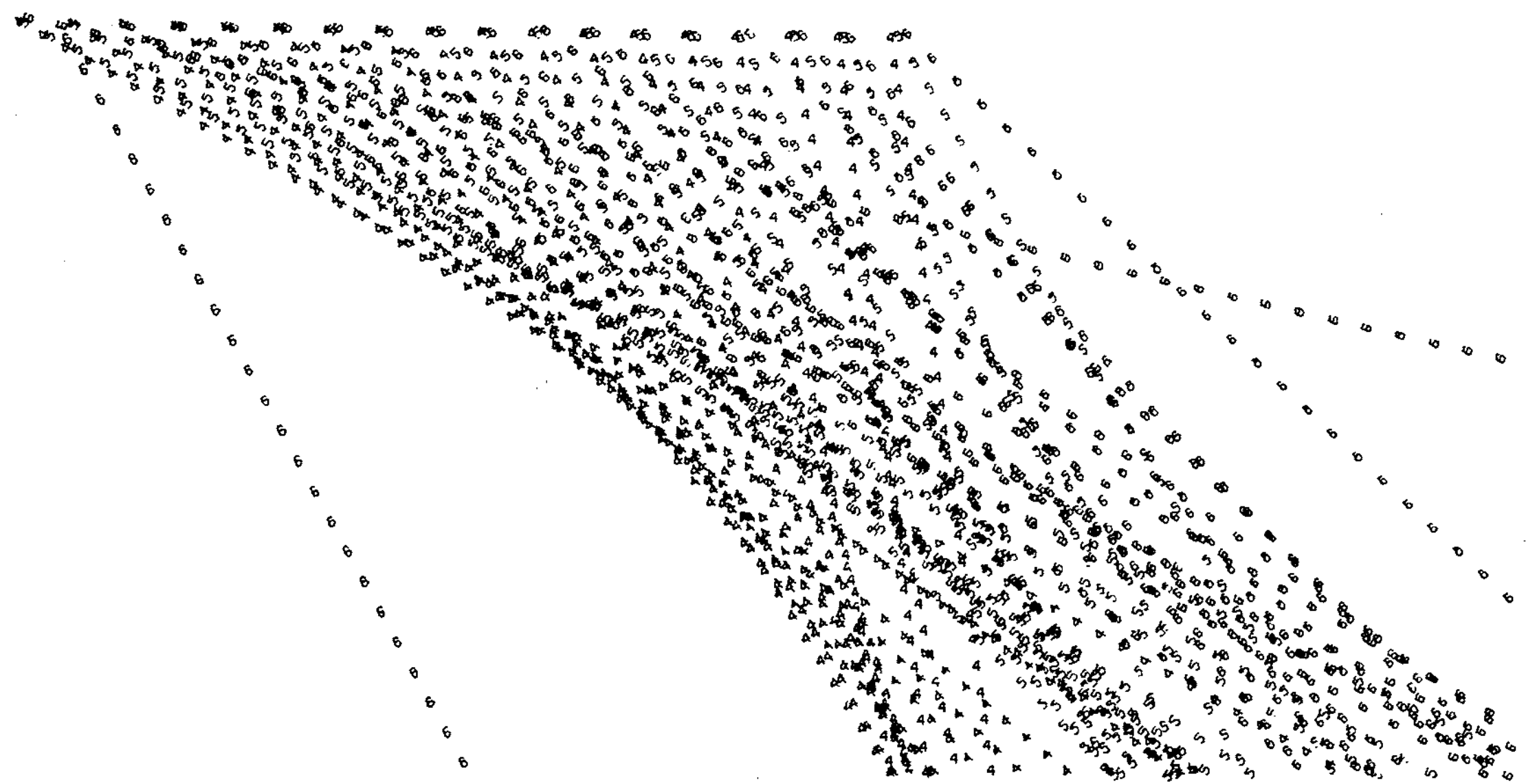
N.T.S. 92-1/7  
 DATE 23 JULY 1978  
 FIG. NO: 1

DEPTH (METERS)

0  
30  
60  
90  
120  
150  
180  
210  
240  
270  
300  
330  
360  
390  
420



51 +0 W  
50 +70 W  
50 +40 W  
50 +10 W  
49 +80 W  
49 +50 W  
49 +20 W  
48 +90 W  
48 +60 W  
48 +30 W  
48 +0 W  
47 +70 W  
47 +40 W  
47 +10 W  
46 +80 W  
46 +50 W  
46 +20 W  
45 +90 W



1 CM = 30 METERS

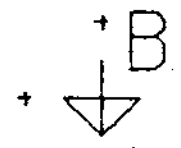
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

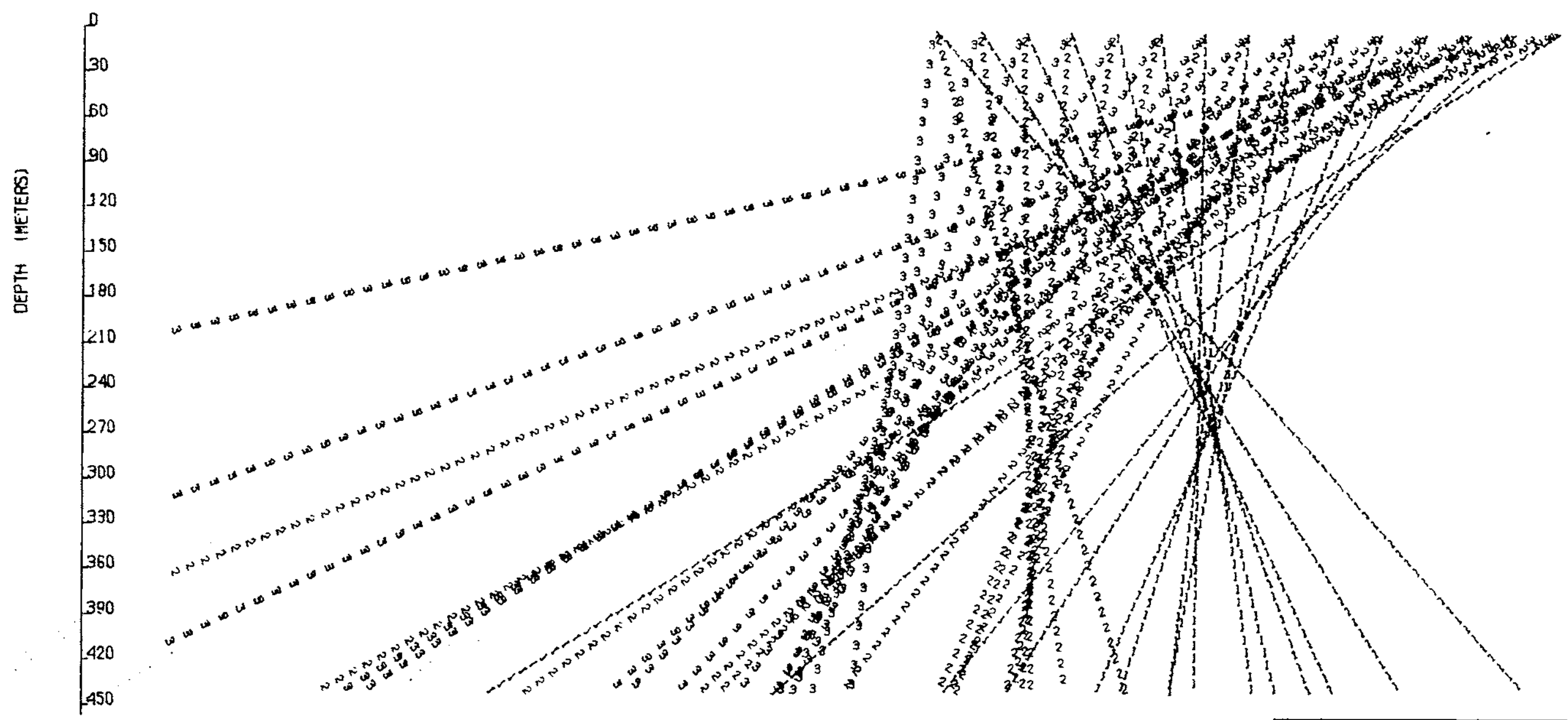
BETHLEHEM COPPER CORPORATION  
GUICHON PROJECT  
PULSE ELECTROMAGNETOMETER  
VECTOR SECTION  
LINE 190 N

GLEN E. WHITE  
GEOPHYSICAL CONSULTING  
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N.T.S. 92-1/7  
DATE 23 JULY 1978  
FIG. NO: 2



51 +30W  
 51 +0 W  
 50 +70W  
 50 +40W  
 50 +10W  
 49 +80W  
 49 +50W  
 49 +20W  
 48 +90W  
 48 +60W  
 48 +30W  
 48 +0 W  
 47 +70W  
 47 +40W  
 47 +10W



BETHLEHEM COPPER CORPORATION  
 GUTCHON PROJECT  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 190 N

GLEN E. WHITE  
 GEOPHYSICAL CONSULTING  
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N.T.S. 92-1/7  
 DATE 23 JULY 1978  
 FIG.NO: 3

1 CM = 30 METERS

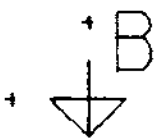
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

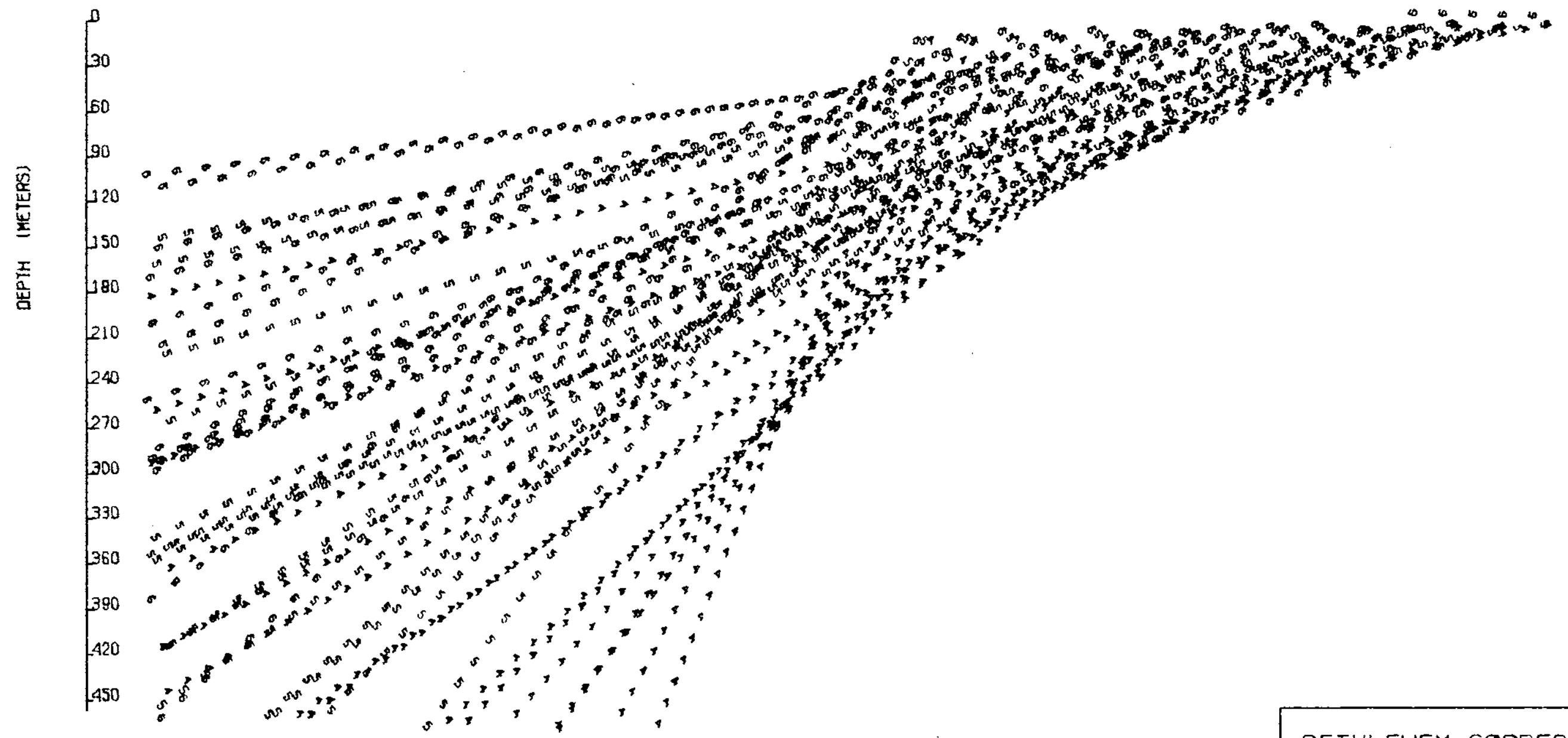
DEPTH (METERS)

0  
 30  
 60  
 90  
 120  
 150  
 180  
 210  
 240  
 270  
 300  
 330  
 360  
 390  
 420  
 450





51 +30 W  
 51 +0 15  
 50 +70 W  
 50 +40 W  
 50 +10 W  
 49 +80 W  
 49 +50 W  
 49 +20 W  
 48 +90 W  
 48 +60 W  
 48 +30 W  
 48 +0 W  
 47 +70 W  
 47 +40 W  
 47 +10 W



BETHLEHEM COPPER CORPORATION  
 GUTCHON PROJECT  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 190 N

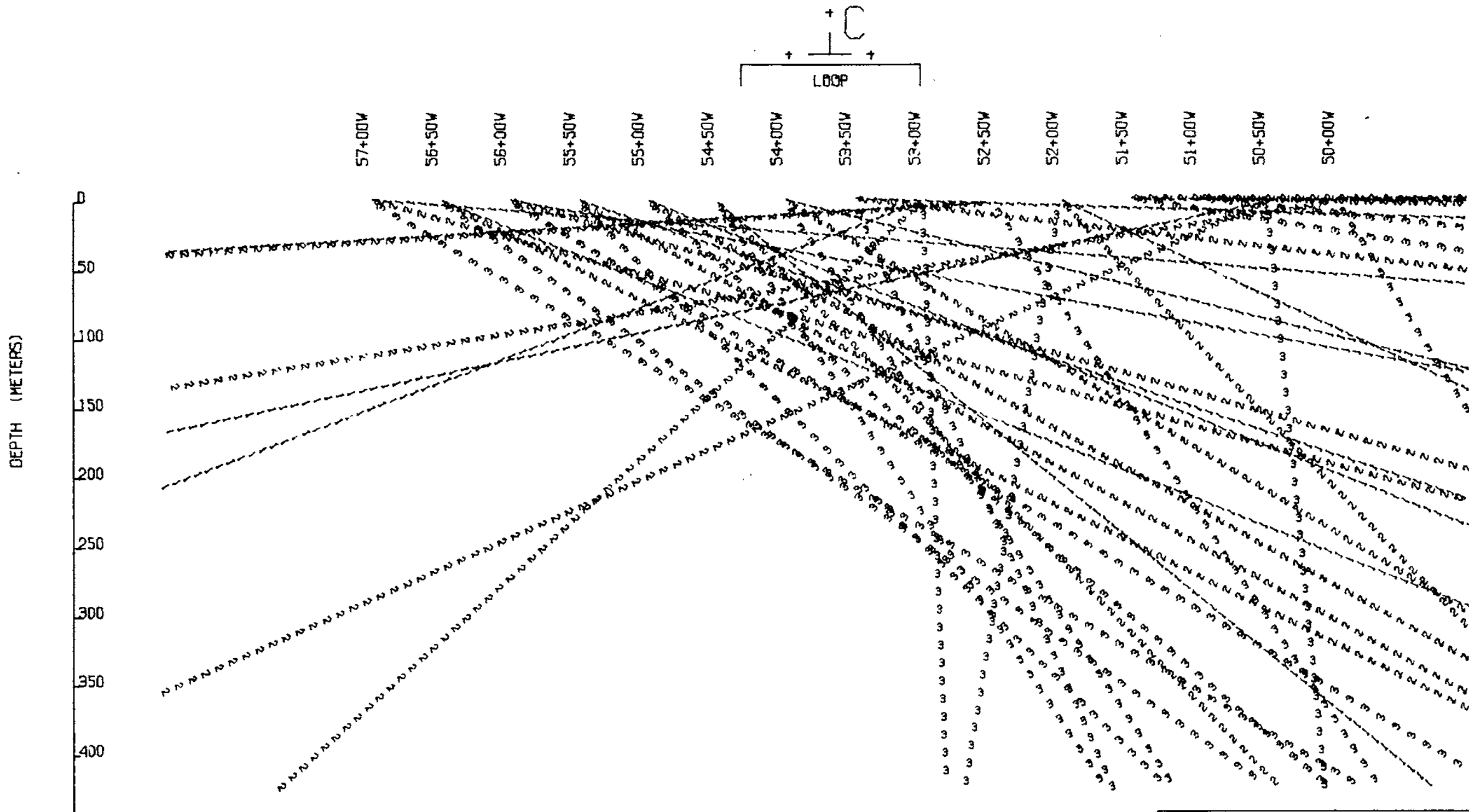
GLEN E. WHITE  
 GEOPHYSICAL CONSULTING  
 & SERVICES LTD.

N.T.S. 92-1/7  
 DATE 23 JULY 1978  
 FIG. NO: 4

1 CM = 30 METERS

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.



1 CM = 50 METERS

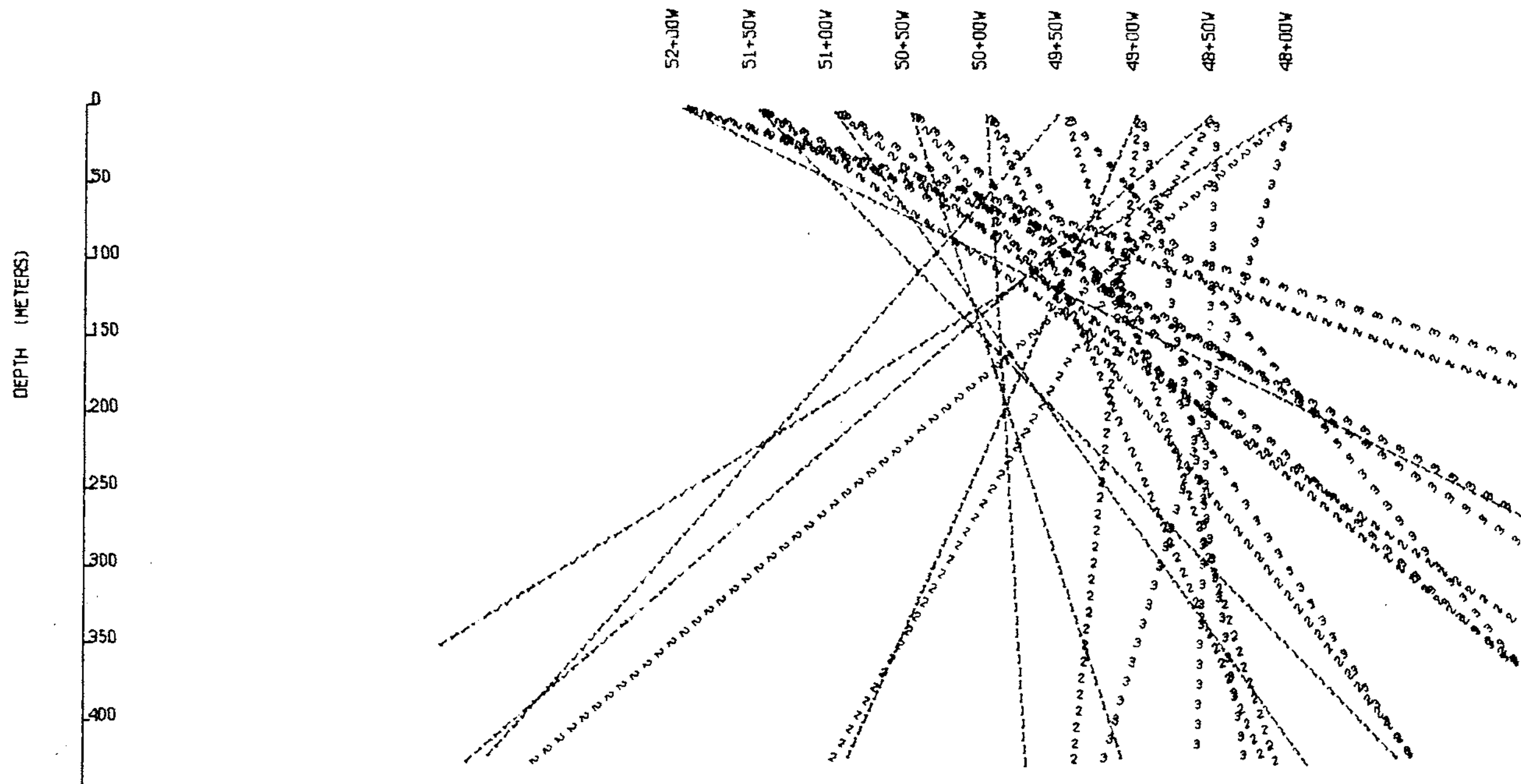
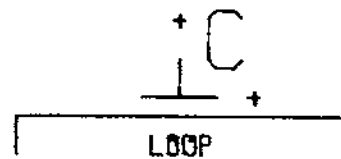
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

BETHLEHEM COPPER CORPORATION  
 GUTCHON GROUP  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 180+00N

GLEN E. WHITE  
 GEOPHYSICAL CONSULTING  
 & SERVICES LTD.

N.T.S. 92-1/7  
 DATE: 21 AUGUST 1978  
 FIG. NO: 5



DEPTH (METERS)

52+00W 51+50W 51+00W 50+50W 50+00W 49+50W 49+00W 48+50W 48+00W

1 CM = 50 METERS

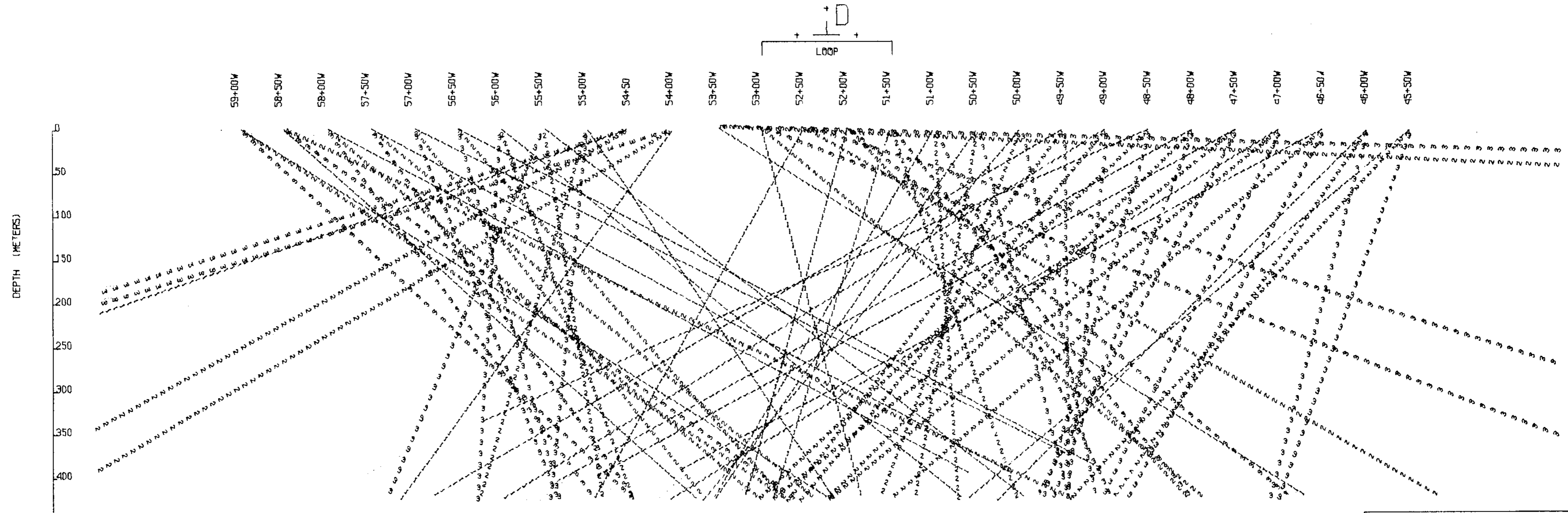
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

BETHLEHEM COPPER CORPORATION  
 GUICHON GROUP  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 185+00N

GLEN E. WHITE  
 GEOPHYSICAL CONSULTING  
 & SERVICES LTD.

N.T.S. 92-1/7  
 DATE 21 AUGUST 1978  
 FIG. NO: 6

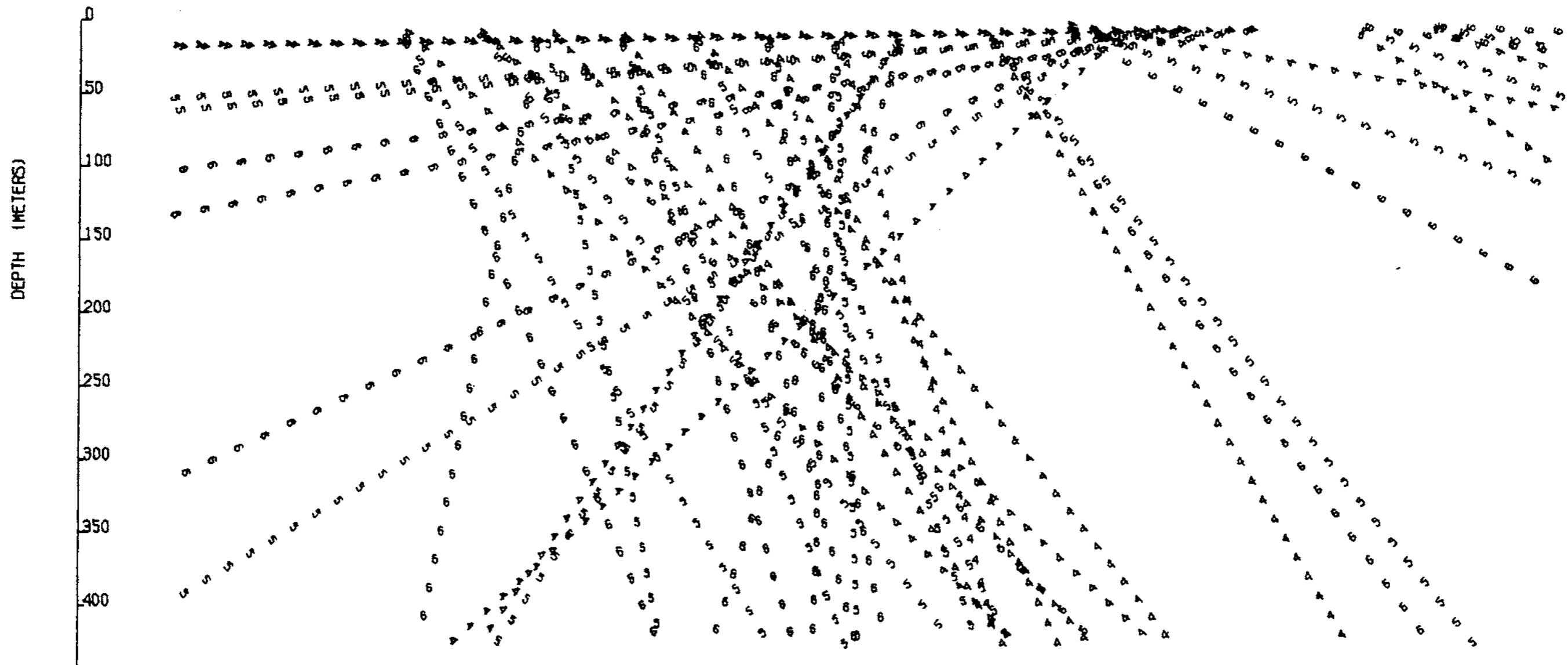


1 CM = 30 METERS  
 NUMBER IN THE LINE = CHANNEL NUMBER      INSTRUMENT: CRONE P.F.M.

BETHLEHEM COPPER CORPORATION  
 GUICHON GROUP  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 190 N

GLEN E. WHITE  
 GEOPHYSICAL CONSULTING  
 & SERVICES LTD.

N.T.S. 92-1/7  
 DATE 21 AUGUST 1978  
 FIG. NO: 7



1 CM = 30 METERS

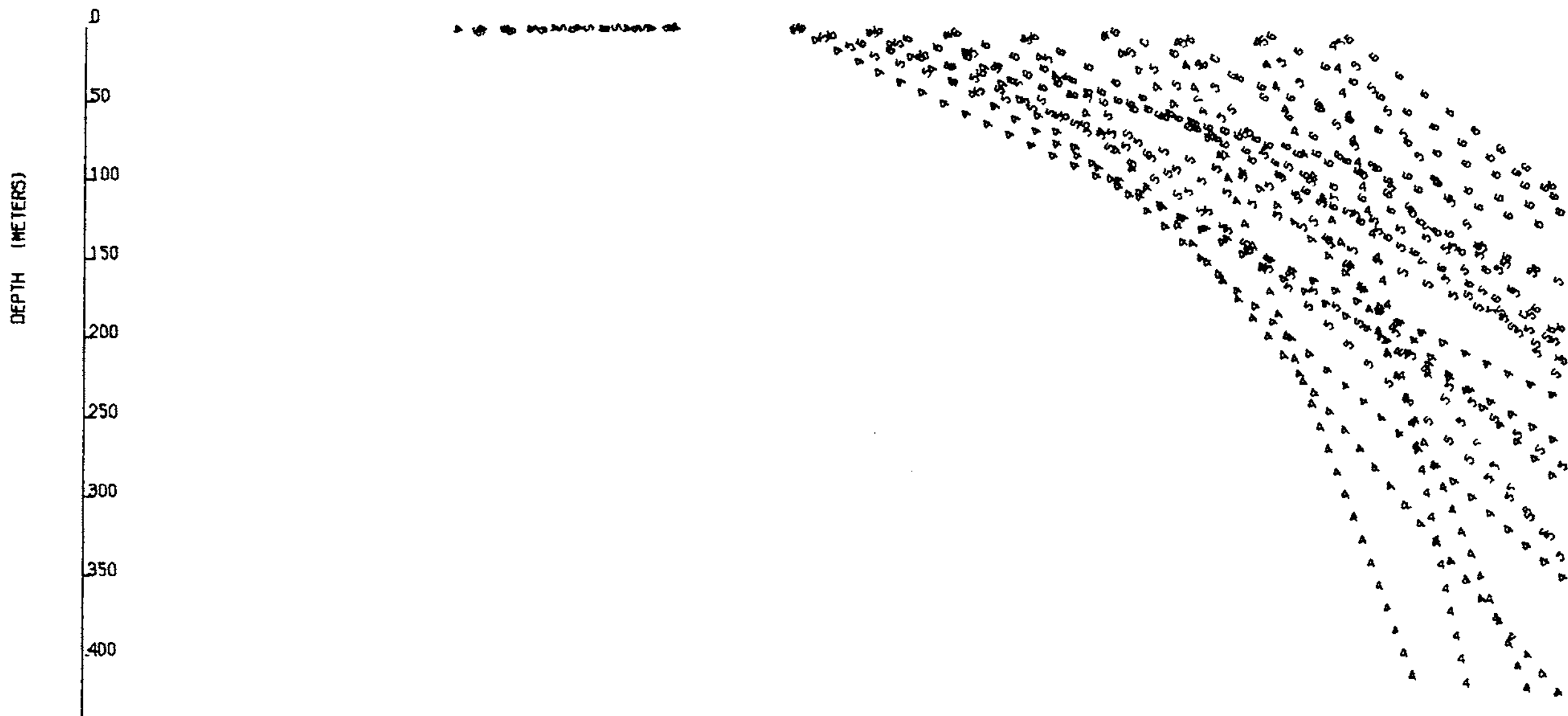
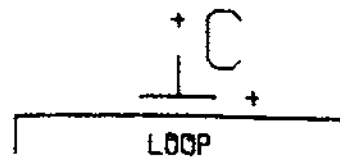
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

BETHLEHEM COPPER CORPORATION  
 GUICHON GROUP  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 180+00N

CLEN E WHITE  
 GEOPHYSICAL CONSULTING  
 & SERVICES LTD.

N.T.S. 92-117  
 DATE 21 AUGUST 1978  
 FIG NO: 8



DEPTH (METERS)

52+00W 51+50W 51+00W 50+50W 50+00W 49+50W 49+00W 48+50W 48+00W

1 CM = 30 METERS

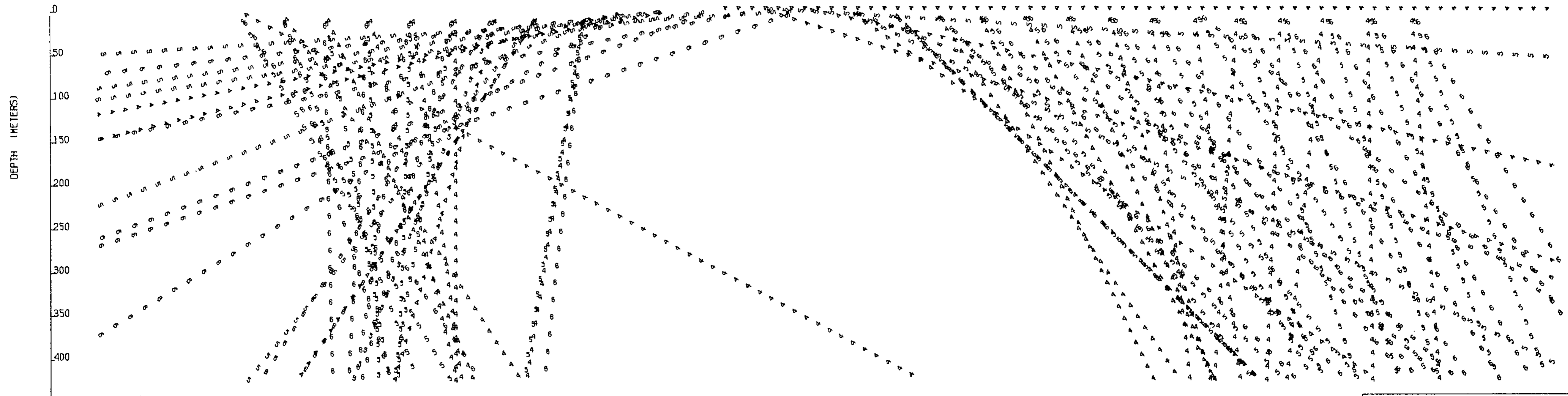
NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

BETHLEHEM COPPER CORPORATION  
 GUTCHON GROUP  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 185+00N

GLEN E. WHITE  
 GEOPHYSICAL CONSULTING  
 & SERVICES LTD.

N.T.S. 92-1/7  
 DATE 21 AUGUST 1978  
 FIG. NO: 9



1 CM = 30 METERS

NUMBER IN THE LINE = CHANNEL NUMBER      INSTRUMENT: CRONE P.E.M.

BETHLEHEM COPPER CORPORATION  
 GUTCHON GROUP  
 PULSE ELECTROMAGNETOMETER  
 VECTOR SECTION  
 LINE 190 N

GLEN E. WHITE  
 GEOPHYSICAL CONSULTING  
 & SERVICES LTD.

N.T.S. 92-1/7  
 DATE 21 AUGUST 1979  
 FIG. NO: 10

FIG 10

Kamloops Research  
&  
Assay Laboratory  
LTD.



R. G. Blundell  
Res. 573-3016

B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - BOX 946 - KAMLOOPS, B.C. V2C 5N4  
PHONE 372-2784

Assaying Services

NOV - 9 1977

EA ✓  
HSE ✓  
REA ✓

November 5, 1977.

Mr. Eric Anderson,  
Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

Dear Eric:

Further to our telephone conversation, I am pleased to outline our procedure for the analysis of your soil samples for copper, lead, zinc and molybdenum.

The samples are dried in our geochemical drying oven and then screened through a stainless steel 80 mesh sieve. The minus 80 mesh fraction is reserved for analysis and the plus 80 mesh fraction is discarded.

The samples are then weighed into test tubes, nitric acid is added, and they are placed in a hot water bath for thirty minutes. Hydrochloric acid is added at this time and the samples are then diluted with an aluminium chloride solution. The aluminium chloride suppresses the nitrous oxide-acetylene flame interference in the analysis of molybdenum.

The samples are then mixed to insure homogeneity and are read, upon settling, on a Varian Techtron AA 5 atomic absorption spectrophotometer. An air-acetylene flame is used for the analysis of copper, lead and zinc, and a nitrous oxide-acetylene is used for the analysis of molybdenum.

All additions of reagents are from Oxford Model S-A pipettors.

Standards and re-assay checks are carried along with each run of 35 samples.

If you require greater detail I will be most happy to supply this information.

Yours very truly,

KAMLOOPS RESEARCH &  
ASSAY LABORATORY LTD.

*Derek A. Blundell*

Derek A. Blundell,  
Manager.

DAB:d



Kamloops Research  
&  
Assay Laboratory  
LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~700-2066~~ - KAMLOOPS, B.C. ~~252-5601~~  
2095 PHONE 372-2784 - TELEX 048-8320 VLS 1A7

GUICHON-ASSAYS

MAY 25 1978

NGE ✓  
REA ✓  
EA ✓  
RSN ✓

GEOCHEMICAL LAB REPORT

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C. V6E 2H8

DATE May 22, 1978.

ANALYST D.R.

FILE NO. G-214

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1	14358	645	453	214	5				
	14359	49	443	169	5				
	14360	164	275	152	11				
	14361	173	34	194	3				
	14362	16	32	138	4				
	18576	26	25	190	4				
	18577	31	22	98	5				
	18578	25	26	126	6				
	18579	101	28	182	3				
	18601	13	32	76	6				
	18602	11	52	83	8				
	18603	9	17	83	3				
	18604	49	100	250	7				
	18605	13	30	124	6				
	18606	63	83	153	5				
	18608	84	24	110	5				
	18610	15	27	142	4				
	18611	115	23	165	3				
	18612	329	27	199	3				
	18613	21	25	122	4				
	18614	37	26	190	3				
	18615	120	24	321	4				
	18617	21	23	120	5				
	18618	10	15	94	7				
	18620	10	13	69	5				
	18622	16	15	76	5				
	18623	23	38	109	3				
	18624	69	21	116	5				
	18701	104	20	163	4				
30	18702	60	31	150	4				

RED

HILL

✓  
30 ✓

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-214

PAGE 2

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
31 ✓	18703	51	24	110	3				
✓	18704	64	21	122	5				
✓	18705	43	19	102	3				
✓	18706	58	27	135	4				
✓	18707	58	35	141	5				
✓	18726	126	22	135	4				
✓	18727	43	20	99	4				
✓	18728	39	33	111	4				
✓	18729	57	29	127	4				
✓	18730	66	20	109	4				
✓	18731	17	21	97	4				
✓	18732	24	20	117	5				
✓	18733	22	21	122	4				
✓	18734	35	21	136	3				
✓	18735	52	18	108	4				
✓	18736	32	19	105	3				
✓	18737	22	20	112	3				
✓	18738	27	16	116	4				
✓	18739	49	20	118	4				
✓	18740	70	28	134	8				
✓	18741	66	35	135	8				
✓	18742	62	24	125	6				
✓	18743	72	21	145	4				
✓	18744	54	22	138	2				
✓	18745	70	17	110	5				
✓	18746	76	20	126	4				
✓	18747	51	32	135	3				
✓	18748	70	20	133	3				
✓	18749	58	24	126	4				
✓	18750	67	17	115	3				
✓	L 170 N 50 W	46	23	131	1				
✓	" 51 W	44	20	131	2				
✓	" 52 W	35	15	84	1				
64 ✓	L 170 N 53 W	12	16	117	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-214

PAGE 3

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
65 ✓	L 170 N 54 W	66	20	99	1				
✓	" 55 W	30	15	94	2				
✓	" 56 W	49	16	103	4				
✓	" 57 W	53	15	81	2				
✓	" 58 W	22	43	130	2				
✓	" 59 W	18	13	82	1				
✓	" 60 W	14	28	96	1				
✓	" 61 W	7	18	68	4				
✓	" 62 W	9	13	71	1				
✓	" 63 W	6	8	61	1				
✓	" 64 W	6	6	64	1				
✓	" 65 W	7	7	88	1				
✓	" 66 W	6	7	58	1				
✓	" 67 W	4	5	70	1				
✓	" 68 W	10	6	56	1				
✓	" 69 W	10	5	70	1				
✓	L 170 N 70 W	9	7	60	3				
✓	L 175 N 52 W	36	9	125	4				
✓	" 53 W	97	15	158	2				
✓	" 54 W	75	11	128	1				
✓	" 55 W	23	9	122	1				
✓	" 56 W	22	9	97	1				
✓	" 57 W	28	9	134	4				
✓	" 58 W	26	10	129	1				
✓	" 59 W	18	8	98	2				
✓	" 60 W	10	6	85	1				
✓	" 61 W	5	7	69	1				
✓	" 62 W*	17	10	78	1				
✓	" 62 W*	12	9	76	1				
✓	" 63 W	11	8	66	2				
✓	" 64 W	14	8	122	1				
✓	" 65 W	7	7	93	2				
✓	" 66 W	4	6	92	2				
98	L 175 N 67 W	6	9	120	2				

\* 2 samples marked "62 W"

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-214

PAGE 4

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
99 ✓	L 175 N 68 W	9	6	68	1				
✓	" 69 W	8	7	141	1				
✓	" 70 W	43	8	74	1				
✓	L 180 N 51 W	41	12	115	1				
✓	" 52 W	49	15	129	1				
✓	" 53 W	53	10	90	1				
✓	" 54 W	29	11	151	3				
✓	" 54 + 00W	71	9	105	2				
✓	" 55 + 00W	24	7	84	1				
✓	" 56 + 00W	18	8	86	1				
✓	" 57 + 00W	77	10	95	1				
✓	" 58 + 00W	19	9	77	1				
✓	" 59 + 00W	19	7	99	1				
✓	" 60 + 00W	16	8	80	1				
✓	" 61 + 00W	7	6	78	1				
✓	" 62 + 00W	25	9	130	1				
✓	" 63 + 00W	67	11	82	2				
✓	" 64 + 00W	5	10	163	3				
✓	" 65 + 00W	14	10	128	1				
✓	" 66 + 00W	55	11	108	2				
✓	" 67 + 00W	14	8	72	3				
✓	" 68 + 00W	6	7	72	3				
✓	" 69 + 00W	18	12	121	4				
✓	" 70 + 00W	5	9	88	2				
✓	L 184 N 45 W	45	10	105	4				
✓	" 46 W	48	9	104	1				
✓	" 47 W	40	11	127	1				
✓	" 48 W	94	11	107	2				
✓	" 49 W	26	10	118	3				
✓	" 50 W	30	11	111	3				
✓	" 51 W	72	14	168	3				
✓	" 52 W	69	11	110	2				
✓	" 53 W	23	9	96	2				
132	L 184 N 54 W	16	9	97	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

 FILE NO. G-214

 PAGE 5

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
133 ✓	L 184 N 55 W	24	8	83	1				
✓	" 56 W	13	7	98	1				
✓	" 57 W	22	9	267	1				
✓	" 58 W	37	10	90	4				
✓	" 59 W	17	7	78	2				
✓	" 60 W	15	8	82	2				
✓	" 61 W	13	8	73	3				
✓	" 62 W	21	9	71	2				
✓	" 63 W	5	12	72	1				
✓	" 64 W	32	11	119	4				
✓	" 65 W	26	11	144	20				
✓	" 66 W	8	5	68	1				
✓	" 67 W	14	8	129	1				
✓	" 68 W	10	12	108	2				
✓	" 69 W	4	9	86	2				
✓	" 70 W	13	6	82	2				
✓	L 190 N 45 W	35	10	135	3				
✓	" 46 W	112	11	123	3				
✓	" 47 W	52	10	140	1				
✓	" 48 W	33	8	122	1				
✓	" 49 W	44	10	114	3				
✓	" 50 W	34	10	93	2				
✓	" 51 W	71	10	114	2				
✓	" 52 W	71	11	98	2				
✓	" 53 W	37	10	92	6				
✓	" 54 W	66	9	76	3				
✓	" 55 W	33	7	102	4				
✓	" 56 W	29	7	110	3				
✓	" 57 W	23	7	72	3				
✓	" 58 W	45	11	126	1				
✓	" 59 W	27	8	62	2				
✓	" 60 W	22	9	95	1				
✓	" 61 W	24	7	63	1				
166	L 190 W 62 W	4	5	60	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-214

PAGE 6

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
167 /	L 190 N 63 W	2	5	94	1				
J	" 64 W	8	18	94	1				
J	" 65 W	9	3	89	2				
J	" 66 W	16	4	63	1				
J	" 67 W	7	5	65	1				
J	" 68 W	9	2	61	1				
J	" 69 W	16	2	78	1				
J	L 190 N 70 W	17	3	71	1				
✓	195 N 52 W	69	6	98	2				
J	" 53 W	36	3	83	3				
J	" 54 W	20	2	72	2				
J	" 55 W	21	2	92	2				
J	" 56 W	21	3	115	2				
J	" 57 W	34	2	89	2				
J	" 58 W	26	6	89	1				
J	" 59 W	25	5	78	1				
J	" 60 W	24	5	85	1				
J	" 61 W	29	6	78	1				
J	" 62 W	296	8	84	2				
J	" 63 W	16	3	196	1				
J	" 64 W	14	5	94	1				
J	" 65 W	13	3	114	1				
J	" 66 W	7	3	61	2				
J	" 67 W	7	3	52	1				
J	" 68 W	4	2	63	1				
J	" 69 W	26	5	58	1				
J	195 N 70 W	8	4	67	1				
✓	200 N 54 W	25	11	153	1				
J	" 55 W	19	8	123	1				
J	" 56 W	26	9	132	1				
J	" 57 W	12	6	119	1				
J	" 58 W	17	8	82	2				
J	" 59 W	93	5	81	2				
200 J	200 W 60 N	12	4	142	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-214

PAGE 7

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
201 ✓	200 N 61 W	7	2	103	1				
✓	" 62 W	98	4	79	1				
✓	" 63 W	25	4	69	1				
J	" 64 W	23	6	64	1				
✓	" 65 W	38	5	112	2				
✓	" 66 W	16	5	77	1				
✓	" 67 W	7	4	85	1				
J	" 68 W	12	7	94	1				
✓	" 69 W	14	3	82	1				
J	200 N 70 W	6	2	69	3				
✓	205 N 55 W	19	4	83	2				
✓	" 56 W	12	4	165	1				
✓	" 57 W	16	7	101	2				
✓	" 58 W	22	4	111	1				
✓	" 59 W	14	11	98	1				
✓	" 60 W	32	5	107	1				
✓	" 61 W	45	11	152	1				
✓	" 62 W	275	8	84	1				
✓	" 63 W	19	8	86	1				
✓	" 64 W	5	7	124	1				
✓	" 65 W	7	12	81	1				
✓	" 66 W	5	8	71	1				
✓	" 67 W	33	12	107	3				
✓	" 68 W	7	7	69	2				
J	" 69 W	6	6	71	2				
J	205 N 70 W	13	7	72	1				
✓	210 N 55 W	39	12	95	2				
✓	" 56 W	61	15	147	1				
✓	" 57 W	27	12	154	1				
✓	" 58 W	42	11	125	1				
✓	" 59 W	16	8	111	1				
J	" 60 W	49	15	204	2				
J	" 61 W	24	12	100	1				
234	210 N 62 W	20	16	164	4				





Kamloops Research  
&  
Assay Laboratory  
LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~PO BOX 2095~~ - KAMLOOPS, B.C. ~~V2C 2R8~~  
2095 PHONE 372-2784 - TELEX 048-8320

QUICKON - Assays  
JUN 1 1978 HGE ✓  
REA ✓  
EA ✓  
VLS 1A7 RJN ✓

GEOCHEMICAL LAB REPORT

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

DATE May 29, 1978.

ANALYST D.B.

FILE NO. G-215

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1	18607	25	21	127	4				
	18609	19	29	147	4				
	18625	12	18	108	4				
✓	18651	22	16	81	1				
✓	18652	5	11	72	1				
✓	18653	5	15	72	1				
✓	18654	4	10	66	1				
	18655	6	8	66	1				
	18656	3	17	73	1				
	18657	136	15	78	1				
	18658	13	12	73	3				
	18659	12	11	69	3				
	18660	8	9	68	2				
	18661	8	8	66	3				
	18662	19	8	67	3				
	18663	16	13	71	3				
✓	18664	7	11	67	2				
✓	18665	9	9	71	2				
✓	18666	21	446	71	4				
✓	18677	44	21	137	2				
✓	18678	45	14	124	1				
✓	18679	102	330	84	1				
✓	18680	31	21	104	1				
✓	18681	28	23	111	1				
✓	18682	50	21	98	1				
✓	18683	35	17	129	1				
✓	18684	62	30	139	2				
✓	18685	35	20	108	1				
✓	18686	55	25	120	1				
30 ✓	18687	26	20	106	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-215

PAGE 2

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
31 ✓	18688	24	13	95	1				
	18689	31	21	111	1				
✓	18690	37	35	120	1				
✓	18691	40	28	120	1				
✓	18692	58	30	136	1				
✓	18693	32	21	116	1				
✓	18694	32	20	106	1				
✓	18695	5	174	64	1				
✓	18696	3	9	59	1				
✓	18697	15	10	61	4				
✓	18698	3	14	57	1				
✓	18699	3	11	85	1				
✓	18700	5	13	74	8				
✓	18708	118	14	96	1				
J	18709	41	19	123	1				
J	18710	40	18	92	2				
J	18711	49	17	95	1				
J	18712	44	16	107	3				
J	18713	42	18	102	3				
J	18715	50	30	128	3				
J	18716	45	33	115	2				
J	18719	96	18	106	1				
J	18720	42	14	99	1				
J	18721	35	29	112	3				
J	18722	59	18	103	3				
J	18724	51	22	135	1				
J	18725	54	24	116	1				
J	200 N 52 W	37	21	141	1				
J	200 N 53 W	50	13	110	1				
J	205 N 51 W	13	13	137	1				
J	205 N 52 W	15	13	91	1				
J	205 N 53 W	16	13	89	1				
J	205 N 54 W	9	11	124	1				
64 J	210 N 53 W	60	18	114	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-215

PAGE 3

KRAL No.	IDENTIFICATION	ppm Pb	ppm Zn	ppm Cu	ppm Mo	IDENTIFICATION			
65 ✓	210 N 54 W	22	12	108	1				
✓	215 N 47 W	41	12	96	1				
✓	" 48 W	30	14	98	1				
✓	" 49 W	30	12	127	1				
✓	" 50 W	16	14	164	1				
✓	" 51 W	20	15	121	1				
✓	" 52 W	54	16	120	1				
✓	" 53 W	23	14	128	1				
✓	215 N 54 W	12	10	106	1				
✓	220 N 55 W	27	9	100	1				
✓	" 56 W	27	11	104	1				
✓	" 57 W	38	11	114	1				
✓	" 58 W	52	15	148	1				
✓	" 59 W	28	11	105	1				
✓	" 60 W	20	10	103	1				
✓	" 61 W	32	12	104	1				
✓	" 62 W	21	11	109	1				
✓	" 63 W	31	11	108	1				
✓	" 64 W	9	9	124	1				
✓	" 65 W	21	10	77	1				
✓	" 66 W	8	8	63	1				
✓	" 67 W	33	8	70	1				
✓	" 68 W	11	8	96	1				
✓	" 69 W	18	7	61	1				
✓	" 70 W	6	12	73	1				
✓	" 71 W	15	12	102	1				
✓	" 72 W	33	8	68	1				
✓	" 73 W	31	8	67	1				
✓	" 74 W	27	16	121	1				
✓	220 N 75 W	12	10	75	1				
✓	230 N 52 W	78	15	136	1				
✓	" 53 W	28	14	120	1				
✓	" 54 W	19	11	155	1				
98	230 N 55 W	27	12	102	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-215

PAGE 4

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
99 ✓	230 N 56 W	39	11	110	1				
✓	" 57 W	62	11	109	1				
✓	" 58 W	21	11	116	1				
✓	" 59 W	31	10	83	1				
✓	" 60 W	24	12	93	1				
✓	" 61 W	28	11	124	1				
✓	" 62 W	71	14	102	1				
✓	" 63 W	38	14	164	1				
✓	" 64 W	21	13	142	1				
✓	" 65 W	32	16	118	1				
✓	" 66 W	16	10	80	1				
✓	" 67 W	58	14	90	1				
✓	" 68 W	40	12	82	1				
✓	" 69 W	13	11	73	1				
✓	" 70 W	13	15	80	1				
✓	" 71 W	16	14	113	1				
✓	" 72 W	48	19	123	1				
✓	" 73 W	19	34	67	1				
✓	" 74 W	20	12	68	1				
✓	" 75 W	15	12	130	1				
✓	" 76 W	10	10	114	1				
✓	" 77 W	9	11	84	1				
✓	230 N 78 W	49	11	75	1				
✓	235 N 54 W	44	11	80	1				
✓	" 55 W	46	12	114	1				
✓	" 56 W	25	11	109	1				
✓	" 57 W	17	10	116	1				
✓	" 58 W	14	11	114	1				
✓	" 59 W	32	10	99	1				
✓	" 60 W	13	8	89	1				
✓	" 61 W	13	10	102	1				
✓	" 62 W	18	10	94	1				
✓	" 63 W	15	11	94	1				
132 ✓	235 N 64 W	17	10	83	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO.           G-215          

PAGE           5          

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
133 ✓	235 N 65 W	30	14	112	1				
✓	" 66 W	36	12	137	1				
✓	" 67 W	10	13	118	1				
	" 68 W	15	12	140	1				
✓	" 69 W	16	14	249	1				
✓	" 70 W	13	13	136	1				
✓	" 71 W	24	14	165	1				
✓	" 72 W	27	14	195	1				
	" 73 W	8	11	169	1				
	" 74 W	8	14	127	1				
	" 75 W	11	14	128	1				
	" 76 W	14	49	163	1				
	" 77 W	96	9	109	1				
	" 78 W	14	9	83	1				
	" 79 W	19	8	127	1				
	" 80 W	22	7	90	1				
	" 81 W	9	6	93	1				
	" 82 W	9	5	84	1				
	" 83 W	137	8	76	1				
	235 N 84 W	9	4	89	1				
	240 N 61 W	37	7	84	1				
	" 62 W	18	5	100	1				
✓	" 63 W	14	9	88	1				
	" 64 W	28	7	88	1				
	" 65 W	17	6	101	1				
	" 66 W	14	5	70	1				
	" 67 W	19	7	87	1				
	" 68 W	14	7	84	1				
✓	" 69 W	11	7	85	1				
	" 70 W	12	6	77	1				
✓	" 71 W	25	10	373	1				
	" 72 W	39	7	147	1				
	" 73 W	21	10	78	1				
166 J	240 N 74 W	10	7	86	1				



**Kamloops Research  
&  
Assay Laboratory  
LTD.**



**B.C. CERTIFIED ASSAYERS**

WEST TRANS CANADA HIGHWAY - BOX 946 - KAMLOOPS, B.C. V2C 5N4  
PHONE 372-2784 - TELEX 048-8320

Geechen - Assays  
HGE ✓  
REA ✓  
EA ✓  
RIW ✓

**GEOCHEMICAL LAB REPORT**

DATE June 3, 1978.

ANALYST D.B.

FILE NO. G-217

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1 ✓	18580	14	9	64	1				
✓	18581	15	8	73	2				
✓	18582	28	16	122	1				
✓	18683	105	11	68	1				
✓	18584	32	8	59	1				
✓	18585	22	13	74	1				
✓	18586	13	11	116	1				
✓	18587	42	16	114	1				
✓	18588	41	8	83	1				
✓	18589	21	8	83	1				
✓	18590	59	9	89	1				
✓	18591	22	9	90	2				
	18592	11	7	69	4				
✓	18593	1319	11	79	8				
✓	18594	68	7	65	9				
✓	18595	27	8	58	2				
✓	18596	22	6	89	1				
✓	18597	28	6	60	1				
	18598	89	8	62	1				
	18599	33	13	83	1				
✓	18600	137	8	78	1				
✓	18626	43	9	101	1				
✓	18627	93	9	65	1				
✓	18628	109	6	57	2				
✓	18629	76	7	78	2				
✓	18630	77	40	195	2				
✓	18631	58	11	81	2				
✓	18632	144	12	81	1				
✓	18633	98	10	88	1				
30 ✓	18634	34	7	65	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-217

PAGE 2

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
31 ✓	18635	44	7	63	1				
✓	18636	28	5	76	1				
✓	18637	152	7	68	1				
✓	18638	394	7	82	1				
✓	18667	9	5	63	2				
✓	18668	18	7	76	1				
✓	18669	91	6	68	3				
	18670	4	5	60	2				
	18671	9	6	63	1				
✓	18672	29	5	65	1				
✓	18673	10	5	66	1				
✓	18674	19	4	54	2				
	18675	55	4	61	1				
✓	225 N 55 W	14	7	88	1				
✓	" 56 W	13	4	73	1				
✓	" 57 W	23	7	116	1				
✓	" 58 W	76	13	121	1				
✓	" 59 W	20	8	98	1				
✓	" 60 W	30	8	88	1				
✓	" 61 W	46	12	117	1				
✓	" 63 W	23	8	115	1				
✓	" 64 W	34	7	88	1				
✓	" 65 W	8	5	83	1				
✓	" 66 W	5	4	91	1				
✓	" 67 W	5	4	85	1				
✓	" 68 W	21	7	101	1				
✓	" 69 W	21	6	186	2				
✓	" 71 W	10	4	97	1				
✓	" 72 W	13	8	69	3				
✓	" 73 W	71	6	89	1				
✓	" 74 W	16	10	87	2				
✓	225 N 75 W	12	4	63	1				
✓	265 N 69 W	113	10	144	1				
64	265 N 70 W	50	8	126	1				



# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-217

PAGE 3

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
65 ✓	265 N 71 W	23	6	97	1				
✓	" 72 W	22	8	134	2				
/	" 73 W	131	11	160	1				
J	" 74 W	50	6	88	3				
J	" 75 W	37	8	80	1				
J	" 76 W	10	6	101	1				
J	" 77 W	18	10	81	1				
J	" 78 W	13	5	83	1				
J	" 79 W	21	8	82	1				
J	265 N 80 W	21	8	90	1				
✓	270 N 65 W	15	8	89	1				
✓	" 66 W	18	6	81	1				
✓	" 67 W	39	6	77	1				
✓	" 68 W	9	5	65	1				
✓	" 69 W	15	7	73	1				
✓	" 70 W	13	6	69	1				
✓	" 71 W	23	7	74	1				
✓	" 72 W	15	6	73	1				
/	" 73 W	33	7	84	1				
✓	" 74 W	153	10	109	1				
✓	" 75 W	29	11	127	1				
✓	" 76 W	59	9	189	1				
J	" 77 W	86	10	174	1				
✓	" 78 W	192	12	185	1				
✓	" 79 W	190	10	80	2				
J	270 N 80 W	213	12	78	2				
✓	275 N 70 W	24	6	84	1				
✓	" 71 W	15	5	103	1				
✓	" 72 W	35	5	84	1				
J	" 75 W	24	8	132	1				
✓	" 76 W	32	4	73	1				
J	" 77 W	121	10	122	1				
✓	" 78 W	29	9	157	1				
98	275 N 79 W	29	8	162	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-217

PAGE 4

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
99 ✓	275 N 80 W	50	8	170	1				
✓	" 81 W	83	12	234	1				
✓	" 82 W	73	7	124	1				
✓	" 83 W	33	8	124	1				
✓	" 84 W	41	6	90	1				
✓	" 85 W	16	5	86	1				
✓	" 86 W	18	5	82	1				
✓	" 87 W	25	6	88	1				
✓	" 88 W	85	11	151	1				
✓	" 89 W	13	14	107	1				
✓	275 N 90 W	47	8	101	1				
✓	280 N 72 W	26	6	75	1				
✓	" 73 W	10	6	78	1				
✓	" 74 W	12	6	94	1				
✓	" 75 W	15	8	102	1				
✓	" 76 W	28	7	92	1				
✓	" 77 W	19	10	93	1				
✓	" 78 W	34	7	73	1				
✓	" 79 W	47	12	165	1				
✓	" 80 W	185	14	203	1				
✓	" 81 W	86	10	197	1				
✓	" 82 W	23	7	96	1				
✓	" 83 W	24	6	93	1				
✓	" 84 W	143	8	83	2				
✓	280 N 85 W	71	8	98	1				
✓	285 N 73 W	12	6	78	1				
✓	" 74 W	18	7	83	1				
✓	" 75 W	17	8	91	2				
✓	" 76 W	24	8	102	1				
✓	" 77 W	18	6	87	1				
✓	" 78 W	18	8	111	1				
✓	" 79 W	28	8	107	1				
✓	285 N 80 W	51	8	103	1				
132 ✓	290 N 75 W	14	5	79	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO.           G-217          

PAGE           5          

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
133 ✓	290 N 76 W	17	5	81	1				
✓	" 77 W	16	5	91	1				
✓	" 78 W	24	6	96	1				
✓	" 79 W	18	6	86	1				
✓	" 80 W	27	9	127	1				
✓	" 81 W	80	13	97	1				
✓	" 82 W	63	10	96	1				
✓	" 83 W	65	9	72	2				
✓	" 84 W	85	11	75	1				
✓	" 85 W	56	9	81	1				
✓	" 86 W	180	9	135	1				
✓	" 87 W	180	10	83	3				
✓	" 88 W	26	7	82	1				
✓	" 89 W	98	7	96	1				
✓	290 N 90 W	33	6	81	1				
✓	L292+50 75 W	10	6	77	1				
✓	" 76 W	5	4	72	1				
✓	" 77 W	20	6	84	1				
✓	" 78 W	12	5	72	1				
✓	" 79 W	17	6	77	1				
✓	" 80 W	24	7	87	1				
✓	" 81 W	25	10	89	1				
✓	" 82 W	47	7	75	1				
✓	" 83 W	56	10	82	1				
✓	" 84 W	109	9	89	1				
✓	" 85 W	107	9	84	1				
✓	" 86 W	79	10	139	1				
✓	" 87 W	29	7	87	1				
✓	" 88 W	55	8	109	1				
✓	" 89 W	66	10	91	1				
✓	L292+50 90 W	28	9	97	1				
✓	L295 N 75 W	9	6	69	1				
✓	" 76 W	7	8	87	1				
166	L295 N 77 W	14	7	88	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-217

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KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
167 ✓	L295 N 78 W	17	7	87	1				
✓	" 79 W	13	7	85	1				
✓	" 80 W	19	9	121	1				
✓	" 81 W	33	7	86	1				
✓	" 82 W	24	9	103	1				
✓	" 83 W	23	13	136	1				
✓	" 85 W	27	9	97	1				
✓	" 86 W	19	8	109	1				
✓	" 87 W	23	7	89	1				
✓	" 88 W	105	8	109	1				
✓	" 89 W	110	8	128	1				
✓	L295 N 90 W	26	7	99	1				
✓	L300 N 80 W	18	6	77	1				
✓	" 81 W	10	6	75	1				
✓	" 82 W	22	10	84	1				
✓	" 83 N	27	9	128	1				
✓	" 84 W	48	11	139	1				
✓	" 85 W	52	8	83	1				
✓	" 86 W	49	9	91	1				
✓	" 87 W	50	9	96	1				
✓	" 88 W	57	11	113	1				
✓	" 89 W	80	8	99	1				
✓	" 90 W	145	11	100	1				
✓	" 91 W	40	8	156	1				
✓	" 92 W	24	9	83	1				
✓	" 93 W	16	7	91	1				
✓	" 94 W	27	7	82	1				
✓	" 95 W	8	5	63	1				
✓	" 96 W	56	6	79	1				
✓	" 97 W	22	7	115	1				
✓	" 98 W	37	7	97	1				
✓	" 99 W	85	6	76	1				
✓	L300 N 100 W	73	9	92	1				
200 ✓	305 N 86 W	22	7	119	1				



Kamloops Research  
&  
Assay Laboratory  
LTD.



B.C. CERTIFIED ASSAYERS

2075

WEST TRANS CANADA HIGHWAY - 802346 - KAMLOOPS, B.C. V2C0S6X1  
PHONE 372-2784 - TELEX 048-8320

VLS 1A7

Geochem - Assays

HGE ✓  
REA ✓  
EA ✓  
RIN ✓

GEOCHEMICAL LAB REPORT

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

DATE June 12, 1978.

ANALYST D.B.

FILE NO. G-219

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1 J	0001	66	11	65	1				
J	0002	55	8	78	1				
J	0003	181	6	89	1				
	0004	181	4	55	1				
J	0005	51	10	54	1				
J	0006	87	3	68	1				
J	0007	21	3	59	1				
J	0008	53	12	140	2				
J	0009	917	7	600	10				
J	0010	95	4	118	1				
J	0011	143	9	85	2				
J	0012	79	4	76	1				
J	0013	99	6	68	2				
J	0014	53	7	73	1				
	0015	131	10	83	1				
J	0016	27	23	76	1				
J	0017	11	19	61	31				
J	0018	180	13	74	3				
J	0019	46	8	101	1				
J	0020	125	10	92	1				
J	0021	88	9	85	1				
J	0022	99	8	80	2				
J	0023	102	43	141	2				
J	0024	39	92	66	1				
J	0025	102	12	114	1				
	14363	29	7	73	4				
	14364	30	6	52	4				
J	18639	53	11	62	1				
J	18640	59	6	60	1				
30 J	18641	66	8	74	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-219

PAGE 2

KRAL No.	IDENTIFICATION	Ppm Cu	Ppm Pb	Ppm Zn	Ppm Mo	IDENTIFICATION			
31 ✓	18642	66	7	60	1				
✓	18643	52	6	63	2				
✓	18644	112	8	61	1				
✓	18645	33	17	70	1				
✓	18646	57	16	89	1				
✓	18647	111	9	79	2				
✓	18648	238	20	131	5				
✓	18649	467	14	113	7				
✓	18650	98	14	100	2				
✓	194 + 50 N 61 W	27	12	165	1				
✓	194 + 50 N 61 + 50 W	94	9	91	1				
✓	194 + 50 N 62 W	21	6	185	1				
✓	194 + 50 N 62 + 50 W	21	6	74	1				
✓	194 + 50 N 63 W	4	4	70	1				
✓	195 N 61 W	625	12	68	1				
	" 61 + 25 W	56	10	74	1				
	" 61 + 50 W	60	8	81	1				
	" 61 + 75 W	41	7	77	1				
	" 62 W	14	6	80	1				
	" 62 + 25 W	17	5	77	1				
	" 62 + 50 W	17	7	86	1				
	" 62 + 75 W	40	6	59	1				
	195 N 63 W	19	6	108	1				
✓	195 + 50 N 61 W	94	6	94	1				
✓	195 + 50 N 61 + 50 W	18	5	68	1				
✓	195 + 50 N 62 W	244	7	72	1				
✓	195 + 50 N 62 + 50 W	117	7	62	1				
✓	195 + 50 N 63 W	31	7	87	1				
✓	250 N 60 W	66	10	98	1				
	" 61 W	96	8	102	1				
✓	" 65 W	56	8	74	1				
✓	" 66 W	126	13	140	1				
✓	250 N 67 W	24	7	88	1				
64 #	-- 68 W	18	8	75	1				

Note: Sample No. 64 -- bag was not marked with line number.

# Kamloops Research & Assay Laboratory Ltd.

FILE NO. G-219

## GEOCHEMICAL LAB REPORT

PAGE 3

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
65 *	-- 69 W	30	9	102	1				
66 *	-- 70 W	27	12	86	1				
67 *	-- 71 W	65	10	90	1				
68	250 N 72 W	24	13	80	1				
	" 73 W	27	12	175	1				
	" 74 W	29	10	83	1				
	" 75 W	23	8	73	1				
	" 76 W	25	7	74	1				
	" 77 W	45	8	82	1				
	" 78 W	20	7	66	1				
	250 N 79 W	26	6	71	1				
	255 N 62 W	42	9	120	1				
	" 63 W	54	8	110	1				
	" 64 W	62	7	83	1				
	" 67 W	135	7	86	10				
	" 68 W	44	7	86	3				
	" 70 W	37	10	199	3				
	" 71 W	40	8	79	1				
	" 72 W	27	8	74	1				
	" 73 W	16	6	94	1				
	" 74 W	49	7	81	1				
	" 75 W	72	8	81	1				
	" 76 W	55	8	96	1				
	" 77 W	52	8	97	1				
	255 N 78 W	66	8	82	1				
	260 N 65 W	35	7	84	1				
	" 66 W	27	7	84	1				
	" 67 W	26	8	94	1				
	" 68 W	30	6	85	1				
	" 69 W	293	12	135	1				
	" 70 W	121	11	151	1				
	" 71 W	28	7	89	1				
	" 72 W	39	9	114	1				
98	260 N 73 W	69	7	110	1				

Note: Sample nos. 65, 66, 67 -- bags were not marked with line numbers



# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-219

PAGE 4

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
99 ✓	260 N 74 W	51	9	93	1				
	" 75 W	18	7	80	1				
✓	" ✓ 76 W	17	6	75	1				
	260 N / 77 W	23	6	79	1				
	265 N 65 W	18	7	96	1				
	" 66 W	13	6	78	1				
	" 67 W	12	5	92	1				
	265 N 68 W	18	6	106	1				
	310 N 85 W	60	11	114	1				
	" 86 W	21	7	98	1				
	" 87 W	33	10	101	1				
	" 88 W	20	6	66	1				
	" 89 W	16	7	73	1				
	" 90 W	11	6	97	1				
	" 91 W	30	6	65	1				
	" 92 W	27	7	87	1				
	" 93 W	12	6	79	1				
	" 94 W	28	6	69	1				
	" 95 W	19	6	73	1				
	" 96 W	15	6	80	1				
	" 97 W	14	7	71	1				
	" 98 W	12	7	72	1				
	" 99 W	16	6	71	1				
	" 100 W	29	7	100	1				
	" 101 W	16	6	88	1				
	" 102 W	17	7	84	1				
	" 103 W	12	6	93	1				
	" 104 W	70	10	354	1				
	" 105 W	32	10	148	1				
	" ✓ 106 W	35	8	101	1				
	" ✓ 107 W	67	13	112	1				
	" ✓ 108 W	8	3	58	1				
	" ✓ 109 W	12	6	97	1				
132	310 N 110 W	16	5	97	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-219

PAGE 5

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
133 ✓	L 315 N 87 W	30	8	106	1				
✓	" 88 W	75	8	69	1				
✓	" 89 W	39	6	67	1				
✓	" 90 W	14	8	89	1				
✓	" 91 W	7	11	189	1				
✓	" 92 W	26	6	91	1				
✓	" 93 W	7	5	73	1				
✓	" 94 W	18	5	89	1				
✓	" 95 W	9	4	78	1				
✓	" 96 W	19	5	83	1				
✓	" 97 W	13	6	93	1				
✓	" 98 W	14	7	71	1				
✓	" 99 W	9	6	64	1				
✓	" 100 W	12	6	67	1				
✓	" 101 W	35	7	110	1				
✓	" 102 W	25	6	93	1				
✓	" 103 W	35	5	76	1				
✓	" 104 W	96	7	89	1				
✓	" 105 W	99	6	67	1				
✓	" 106 W	14	6	90	1				
✓	" 107 W	15	5	118	1				
✓	" 108 W	12	4	79	1				
✓	" 109 W	9	7	112	1				
✓	L 315 N 110 W	12	8	140	1				
✓	320 N 87 W	19	8	75	2				
✓	" 88 W	16	7	94	1				
✓	" 89 W	23	9	97	1				
✓	" 90 W	21	8	119	1				
✓	" 91 W	29	7	75	1				
✓	" 92 W	26	7	69	1				
✓	" 93 W	16	8	84	1				
✓	" 94 W	7	5	74	1				
✓	" 95 W	19	6	92	1				
166 ✓	320 N 96 W	10	6	79	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-219

PAGE 6

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION
167 ✓	320 N 97 W	15	5	91	1	Method: -80 Mesh Hot Acid Extraction Atomic Absorption
/	" 98 W	17	7	93	1	
/	" 99 W	11	5	106	1	
/	" 100 W	13	6	101	1	
/	" 101 W	43	7	95	2	
/	" 102 W	17	6	108	2	
/	" 103 W	11	6	70	1	
/	" 104 W	11	6	79	1	
/	" 105 W	8	7	87	1	
/	" 106 W	8	5	65	1	
/	" 107 W	25	8	126	1	
/	" 108 W	21	8	71	1	
/	" 109 W	27	8	89	1	
/	320 N 110 W	45	16	177	1	
/	L 325 N 88 W	61	13	68	1	
/	" 89 W	38	10	81	1	
/	" 90 W	27	9	72	2	
/	" 91 W	6	8	120	1	
/	" 92 W	21	9	108	1	
/	" 93 W	10	8	110	1	
/	" 94 W	21	7	92	1	
/	" 95 W	12	7	70	1	
/	" 96 W	15	9	79	1	
/	" 97 W	26	7	66	1	
/	" 98 W	11	9	116	1	
/	" 99 W	15	7	96	1	
/	" 100 W	10	7	109	1	
/	" 101 W	20	10	93	1	
/	" 102 W	13	8	100	1	
/	" 103 W	29	8	82	1	
/	L 325 N 104 W	21	8	77	1	
198 ✓	Unmarked Bag	148	12	94	1	

Kamloops Research  
&  
Assay Laboratory

LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~26X336~~ - KAMLOOPS, B.C. ~~52X333~~  
2095 PHONE 372-2784 · TELEX 048-8320 VIS 1A7

Geochem - Assays

✓ HGE  
✓ REA  
EA ✓

GEOCHEMICAL LAB REPORT

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

DATE June 19, 1978.

ANALYST D.B.

Attention: Mr. R. Netherly

FILE NO. G-220

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1 ✓	0026	73	131	289	4				
✓	0027	94	70	158	2				
✓	0028	160	66	211	4				
✓	0029	94	44	317	1				
✓	0030	95	28	115	2				
✓	0031	86	28	115	3				
	0032	98	26	112	4				
✓	0033	124	26	109	4				
✓	0034	138	29	121	5				
✓	0035	354	22	106	4				
✓	0036	67	29	118	3				
✓	0037	129	22	89	2				
	0038	177	18	101	1				
✓	0039	134	16	101	1				
	0040	37	13	98	1				
✓	0041	98	12	82	1				
✓	0042	43	11	84	1				
	0043	66	13	100	1				
✓	0044	25	15	119	1				
✓	0045	63	13	99	2				
✓	0046	114	18	109	6				
✓	0047	245	20	94	4				
	0048	30	30	128	3				
✓	0049	46	23	118	6				
✓	0050	41	15	90	5				
✓	0051	46	24	119	4				
✓	0052	29	16	108	2				
✓	0053	51	29	119	3				
	0054	47	20	119	4				
30	0055	127	18	115	3				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-220

PAGE 2

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
31 ✓	0056	29	14	103	2				
✓	0057	46	21	121	3				
✓	0058	59	19	115	4				
✓	0059	119	15	109	3				
✓	0060	104	20	110	4				
✓	0061	14	18	131	4				
J	0062	21	19	128	3				
✓	0063	63	24	132	2				
✓	0064	50	27	140	2				
	0065	5	36	81	2				
✓	0066	6	11	66	2				
	0067	5	8	68	2				
✓	0068	2	7	64	3				
✓	0069	12	9	68	4				
✓	0070	6	33	98	2				
	0071	4	10	71	5				
	0072	5	12	76	5				
	0073	5	10	69	5				
✓	0074	8	19	85	4				
J	0075	8	13	84	2				
J	0076	6	9	73	2				
	0077	6	9	78	3				
✓	0078	38	9	85	3				
✓	0079	67	11	88	5				
✓	0080	6	11	79	5				
J	0081	5	8	70	6				
J	0082	6	12	70	3				
✓	0083	13	14	78	5				
✓	0084	6	8	68	4				
✓	0085	5	12	73	4				
J	0086	72	15	92	5				
✓	0087	36	14	110	5				
J	0126	88	11	89	1				
64 J	0127	84	9	82	3				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-220

PAGE 3

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
65 ✓	0128	89	12	76	5				
✓	0129	241	13	87	9				
✓	0130	165	15	97	5				
✓	0131	79	11	90	5				
✓	0132	555	11	79	125				
✓	0133	78	14	90	7				
✓	0134	211	41	97	7				
✓	0135	150	13	85	4				
73 ✓	0136	38	14	97	4				
✓	L 105 N 45 W	21	9	92	1	Note: L 105 N 45 W and 46 W			
✓	" 46 W	20	7	92	2	so marked.			
	" 47 W	22	8	91	1	The rest of line 105 N was			
	" 48 W	43	8	102	1	marked L 110. The handwriting			
	" 49 W	22	8	91	1	on the bags marked L 110 matched			
	" 50 W	44	7	97	1	that of the two samples marked			
	" 51 W	19	7	98	1	L 105.			
	" 52 W	22	9	87	2	110 N was marked in different			
	" 53 W	18	8	86	1	handwriting.			
	" 54 W	25	8	94	1				
	" 55 W	42	7	92	1				
	" 56 W	13	6	119	1				
	" 57 W	61	8	79	1				
	" 58 W	19	7	84	1				
	" 59 W	48	10	136	1				
	" 60 W	46	11	117	1				
	" 61 W	39	10	149	1				
	" 62 W	48	8	68	1				
	" 63 W	20	9	76	1				
	" 64 W	20	9	75	1				
	" 65 W	11	7	86	1				
	" 66 W	14	6	71	1				
	" 67 W	27	8	70	1				
	" 68 W	26	7	75	1				
98	L 105 N 69 W	19	7	87	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-220

PAGE 4

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
99 ✓	L 105 N 70 W	15	5	58	1				
✓	110 N 45 W	48	14	158	1				
	" 46 W	21	9	99	1				
	" 47 W	27	8	105	1				
	" 48 W	18	7	120	1				
	" 49 W	14	7	90	1				
	" 50 W	22	8	83	1				
✓	" 51 W	53	20	86	3				
✓	" 52 W	61	9	77	2				
✓	" 53 W	12	7	66	1				
✓	" 54 W	8	9	85	10				
✓	" 55 W	67	9	89	3				
	" 56 W	13	7	78	3				
	" 57 W	19	6	110	2				
	" 58 W	25	8	105	2				
✓	" 59 W	17	6	104	1				
	" 60 W	10	8	93	1				
✓	" 61 W	10	7	82	1				
	" 62 W	10	7	71	1				
	" 63 W	18	8	72	2				
	" 64 W	10	7	99	1				
	" 65 W	8	7	121	1				
✓	" 66 W	21	8	85	1				
✓	" 67 W	16	6	79	1				
✓	" 68 W	26	6	75	1				
✓	" 69 W	8	6	61	1				
✓	" 70 W	6	6	96	1				
✓	" 71 W	62	7	78	1				
	" 72 W	139	11	97	2				
✓	" 73 W	311	9	84	2				
✓	" 74 W	10	8	70	2				
✓	110 N 75 W	10	6	65	1				
✓	330 N 90 W	31	12	107	1				
132	330 N 91 W	54	14	113	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-220

PAGE 5

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
133 /	330 N 92 W	54	12	94	1				
/	" 93 W	56	12	109	1				
/	" 94 W	33	10	92	1				
/	" 95 W	49	14	101	1				
/	" 96 W	27	10	94	1				
/	" 97 W	31	10	88	1				
/	" 98 W	19	11	135	1				
/	" 99 W	26	10	91	1				
/	" 100 W	18	9	88	1				
/	" 101 W	42	10	93	1				
/	" 102 W	18	9	80	2				
/	" 103 W	31	13	89	2				
/	" 104 W	28	10	87	2				
/	330 N 105 W	26	10	83	1				
/	332 + 50 N 90 W	21	11	104	1				
/	" 91 W	21	11	101	1				
/	" 92 W	27	12	122	1				
/	" 93 W	53	11	90	1				
/	" 94 W	25	12	127	1				
/	" 95 W	44	13	96	1				
/	" 96 W	16	11	122	1				
/	" 97 W	17	10	95	1				
/	" 98 W	14	9	83	1				
/	" 99 W	11	9	83	1				
/	" 100 W	17	10	83	1				
/	" 101 W	15	9	75	1				
/	" 102 W	14	8	81	1				
/	" 103 W	36	9	84	1				
/	" 104 W	10	9	81	1				
/	332 + 50 N 105 W	9	8	72	1				
/	345 N 101 W	12	10	83	1				
/	" 102 W	9	8	78	1				
/	" 103 W	12	8	86	1				
166 /	345 N 104 W	11	8	85	1				



# Kamloops Research & Assay Laboratory Ltd.

FILE NO.          G-220

## GEOCHEMICAL LAB REPORT

PAGE 6

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION
167 ✓	345 N 105 W	11	8	88	1	
✓	" 106 W	16	9	86	1	
✓	* " 107 W	21	9	87	1	* Two bags marked "107 W"
✓	* " 107 W	19	9	80	1	
✓	" 108 W	18	10	93	1	
✓	" 109 W	21	9	115	2	
	" 110 W	27	11	100	1	
✓	" 111 W	12	9	92	1	
✓	" 112 W	11	9	86	1	Method: -80 Mesh
✓	" 113 W	23	11	84	1	Hot Acid Extraction
✓	" 114 W	10	10	91	1	Atomic Absorption
✓	" 115 W	34	10	83	1	
✓	" 116 W	30	11	83	1	
✓	" 117 W	27	10	81	1	
	" 118 W	66	11	82	2	
	" 119 W	16	10	149	2	
183	345 N 120 W	36	13	203	2	

c.c. Mr. Jon Collins

# Kamloops Research & Assay Laboratory



B.C. CERTIFIED ASSAYERS

JUN 26 1978  
 Guichen-Assa  
 HGE ✓  
 REA ✓  
 EA ✓

WEST TRANS CANADA HIGHWAY - ~~BOX 246~~ - KAMLOOPS, B.C. ~~X2066X~~  
 2095 PHONE 372-2784 - TELEX 048-8320 VIS 1A7

## GEOCHEMICAL LAB REPORT

DATE June 23, 1978.

Bethlehem Copper Corporation,  
 2100 - 1055 West Hastings St.,  
 Vancouver, B. C.  
 V6E 2H8

ANALYST D.B.

Attention: Mr. R. Netherly

FILE NO. G-221

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1 ✓	0088	163	30	80	4				
J ✓	0089	25	17	69	3				
✓	0090	26	9	52	3				
✓	0091	32	10	91	2				
J	0092	15	7	63	2				
J	0093	23	6	58	2				
J	0094	53	8	60	3				
J	0095	20	7	41	4				
✓	0096	53	7	47	2				
J	0097	73	11	48	1				
J	0098	107	12	94	4				
J	0099	44	8	48	3				
J	0100	55	10	45	3				
J	0101	54	8	58	2				
J	0102	27	11	75	3				
✓	0103	94	9	72	2				
✓	0104	87	11	73	2				
✓	0105	51	12	43	4				
✓	0106	141	26	65	1				
	0107	200	18	64	2				
✓	0108	71	11	55	2				
✓	0109	228	10	65	1				
✓	0110	58	7	61	1				
	14365	55	21	639	44	14365	*	1.0	75
	14366	90	15	464	5	14366	*	.7	14
✓	310 B 85 W	18	15	73	1				
✓	" 86 W	24	9	68	1				
✓	" 87 W	31	9	60	1				
J	" 88 W	17	7	56	1				
30 ✓	310 B 89 W	15	7	60	1				

\* Au to follow

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-221

PAGE 2

KRAL No.	IDENTIFICATION		ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION		
31 ✓	310 B	90 W	56	9	61	1			
✓	"	91 W	23	8	55	1			
✓	"	92 W	16	7	63	1			
✓	"	93 W	15	7	65	1			
✓	"	94 W	12	7	46	1			
✓	"	95 W	17	7	60	1			
✓	"	96 W	15	6	40	1			
✓	"	97 W	19	7	51	1			
✓	"	98 W	13	5	43	1			
✓	"	99 W	34	6	50	1			
✓	"	100 W	14	8	51	1			
✓	"	101 W	20	7	51	1			
✓	"	102 W	10	5	48	1			
✓	"	103 W	42	9	70	1			
✓	"	104 W	30	7	65	1			
✓	"	105 W	18	9	80	1			
✓	"	106 W	48	8	52	1			
✓	"	107 W	17	6	64	1			
✓	"	108 W	22	6	47	1			
✓	"	109 W	15	6	51	1			
✓	310 B	110 W	12	6	50	1			
✓	350 N	100 W	12	7	57	1			
✓	"	101 W	31	7	51	1			
✓	"	102 W	15	7	78	1			
✓	"	103 W	12	6	51	1			
✓	"	104 W	13	5	68	1			
✓	"	105 W	21	9	39	1			
✓	"	107 W	9	6	52	1			
✓	"	108 W	8	6	45	1			
✓	"	109 W	12	6	62	1			
✓	"	110 W	15	9	65	1			
✓	"	111 W	8	7	60	1			
✓	"	112 W	12	7	56	1			
64	"	113 W	20	7	49	1			

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-221

PAGE 3

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
65	350 N 114 W	8	7	53	1				
	" 115 W	19	8	59	1				
	" 116 W	13	7	49	1				
	" 117 W	8	6	39	1				
	" 118 W	8	7	53	1				
	" 119 W	10	8	76	1				
	350 N 120 W	14	9	50	1				
	355 N 100 W	9	7	56	1				
	L355 N 101 W	8	7	58	1				
	" 102 W	12	8	60	1				
	" 103 W	10	5	48	1				
	" 104 W	36	7	56	1				
	" 105 W	10	7	68	1				
	" 106 W	23	7	90	1				
	" 107 W	12	8	91	1				
	" 108 W	5	6	59	1				
	" 109 W	6	6	59	1				
	" 110 W	8	6	50	1				
	" 111 W	9	8	47	1				
	" 112 W	17	9	67	1				
	" 113 W	18	8	48	1				
	" 114 W	10	7	50	1				
	" 115 W	8	7	58	1				
	" 116 W	6	9	78	1				
	" 117 W	9	7	57	1				
	" 118 W	12	7	50	1				
	" 119 W	10	7	44	1				
	L355 N 120 W	34	18	137	1				
	360 N 101 W	16	9	76	1				
	" 102 W	17	9	74	1				
	" 103 W	15	9	74	1				
	" 104 W	28	7	65	1				
	" 105 W	9	7	55	1				
98	360 N 106 W	17	10	75	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-221

PAGE 4

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
99 ✓	360 N 107 W	14	8	52	1				
✓	" 108 W	13	8	62	1				
✓	" 109 W	24	8	61	1				
✓	" 110 W	20	10	59	1				
✓	" 111 W	14	9	50	1				
✓	" 112 W	23	8	75	1				
✓	" 113 W	15	7	45	1				
✓	" 114 W	11	8	39	1				
✓	" 115 W	8	6	39	1				
✓	" 116 W	13	9	50	1				
✓	" 117 W	20	6	45	1				
✓	" 118 W	9	6	50	1				
✓	" 119 W	9	7	43	1				
✓	" 120 W	9	6	52	1				
✓	" 121 W	100	9	51	2				
✓	" 122 W	11	7	107	1				
✓	" 123 W	13	8	67	1				
✓	" 124 W	27	7	44	1				
✓	360 N 125 W	11	5	38	1				
✓	365 N 105 W	30	10	77	1				
✓	" 106 W	36	10	90	1				
✓	" 107 W	35	10	92	1				
✓	" 108 W	18	9	91	1				
✓	" 109 W	25	10	63	1				
✓	" 110 W	27	10	72	1				
✓	" 111 W	19	10	59	1				
✓	" 112 W	25	9	48	1				
✓	" 113 W	11	6	43	1				
✓	" 114 W	10	6	51	1				
✓	" 115 W	9	5	40	1				
✓	" 116 W	35	9	72	1				
✓	" 117 W	11	6	45	1				
✓	" 118 W	12	6	44	1				
132	365 N 119 W	18	6	50	1				



Kamloops Research  
&  
Assay Laboratory  
LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~2095~~ - KAMLOOPS, B.C. ~~V2C6N6~~  
2095 PHONE 372-2784 - TELEX 048-8320 VIS 1A7

Guichon Assay  
✓ GE  
✓ 100  
✓ 100

GEOCHEMICAL LAB REPORT

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

DATE June 27, 1978.

ANALYST D.B.

Attention: Mr. R. Netherly

FILE NO. G-223

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1 ✓	0111	59	306	223	6				
✓	0112	396	44	112	3				
✓	0113	183	28	113	3				
✓	0114	100	24	83	3				
✓	0115	275	20	56	2				
✓	0116	115	32	180	4				
✓	0117	65	14	47	3				
✓	0118	90	11	49	7				
✓	0119	644	11	48	3				
✓	0120	59	23	50	4				
✓	0121	43	23	43	3				
	0122	67	11	75	2				
✓	0123	215	9	51	3				
✓	0124	122	10	46	3				
✓	0125	86	10	48	4				
✓	0137	223	14	85	7				
✓	0138	122	14	81	6				
✓	0139	105	13	67	5				
✓	0140	51	17	56	5				
✓	0141	50	13	48	5				
✓	0142	136	15	105	6				
✓	0143	88	53	104	5				
✓	0144	59	6	40	3				
✓	0145	59	6	50	3				
✓	0146	108	7	47	11				
✓	0147	34	6	33	3				
✓	0148	73	14	46	3				
✓	0149	18	8	38	5				
✓	0150	230	9	63	4				
30 ✓	0201	93	14	83	5				





Kamloops Research  
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B.C. CERTIFIED ASSAYERS

2095 WEST TRANS CANADA HIGHWAY - ~~783X326~~ - KAMLOOPS, B.C. X2C5N6  
PHONE 372-2784 - TELEX 048-8320 VLS 1A7

Quicker - Assays  
HGE ✓  
REA ✓  
EA ✓

GEOCHEMICAL LAB REPORT

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C. V6E 2H8

DATE July 1, 1978.

ANALYST D.B.

Attention: Mr. R. Netherly

FILE NO. G-225

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1	0151	70	11	71	3				
	0152	88	86	212	3				
	0154	111	19	80	5				
	0156	78	9	39	3				
	0158	15	15	70	4				
	0159	31	12	96	2				
	0160	18	17	92	3				
	0161	15	15	83	3				
	0162	9	12	70	3				
	0163	9	11	64	2				
	0164	97	8	65	4				
	0165	85	26	131	4				
	0166	10	21	63	5				
	0168	10	17	88	4				
	0169	11	15	100	4				
	0209	117	7	44	6				
	0210	111	9	52	4				
	0211	92	7	44	3				
	0212	77	7	47	3				
	0213	192	9	79	6				
	0214	119	6	50	2				
	0215	200	8	40	3				
	0216	112	6	48	2				
	0217	51	7	52	3				
	0218	96	7	48	4				
	0219	142	13	64	3				
	0220	65	7	57	3				
	225 N 55 W	40	7	63	1				
	" 56 W	33	8	110	1				
30	225 N 57 W	13	6	66	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-225

PAGE 2

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
31	225 N 58 W	13	5	55	1				
	" 59 W	10	5	68	1				
	" 60 W	14	6	47	1				
	225 N 61 W	11	6	97	1				
	350 N 106 W	11	6	61	1				
	370 N 105 W	13	6	54	1				
	" 106 W	28	12	77	2				
	" 107 W	25	14	120	3				
	" 108 W	9	7	60	1				
	" 109 W	10	9	63	1				
	" 110 W	11	10	105	2				
	" 111 W	29	9	77	2				
	" 112 W	14	7	82	1				
	" * 113 W	14	7	62	1				
	" * 113 W	14	9	105	1				
	" * 114 W	36	8	52	1				
	" * 114 W	11	7	82	1				
	" 115 W	11	7	54	1				
	" 116 W	13	7	50	1				
	" 117 W	14	6	43	1				
	" 118 W	9	5	37	1				
	" 119 W	8	4	42	1				
	" 120 W	10	5	42	1				
	" 121 W	18	9	56	3				
	" 122 W	15	6	43	2				
	" 123 W	18	6	52	2				
	" 124 W	13	5	42	2				
	370 N 125 W	11	6	51	1				
	375 N 105 W	22	10	91	2				
	" 106 W	15	9	73	2				
	" 107 W	17	9	90	2				
	" 108 W	11	7	78	1				
	" 109 W	12	9	96	2				
64	375 N 110 W	20	12	99	2				

\* Two bags marked "113 W & 114 W"

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-225

PAGE 3

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
65	375 N 111 W	18	11	87	2				
	" 112 W	26	11	85	2				
	" 113 W	17	10	72	2				
	" 115 W	45	9	74	1				
	" 116 W	9	10	48	1				
	" 117 W	13	8	106	1				
	" 118 W	9	5	66	1				
	" 119 W	10	5	57	1				
	" 120 W	10	6	71	1				
	" 121 W	10	6	62	1				
	" 122 W	7	5	56	1				
	" 123 W	7	5	44	1				
	" 124 W	9	5	60	1				
	" 125 W	13	6	53	2				
	" 126 W	7	5	50	1				
	" 127 W	8	5	52	1				
	" 128 W	9	5	46	2				
	" 129 W	9	5	61	1				
	375 N 130 W	8	6	67	1				
	380 N 110 W	10	5	49	1				
	" 111 W	14	7	46	2				
	" 112 W	12	5	50	2				
	" 113 W	10	6	45	1				
	" 114 W	19	8	56	2				
	" 115 W	14	7	64	2				
	" 116 W	17	7	67	2				
	" 117 W	18	7	67	1				
	" 118 W	9	5	53	1				
	" 119 W	10	7	52	1				
	" 120 W	10	6	44	1				
	" 121 W	29	6	62	1				
	" 122 W	10	4	44	1				
	" 123 W	8	7	55	1				
98	380 N 124 W	45	7	84	1				

## Kamloops Research &amp; Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-225PAGE 4

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
99	380 N 126 W	16	6	56	1				
	" 127 W	13	7	65	1				
	" 128 W	5	5	66	2				
	" 129 W	4	5	67	2				
	" 130 W	9	4	52	2				
	" 131 W	5	5	63	2				
	" 132 W	7	5	59	2				
	" 133 W	8	4	46	1				
	" 134 W	5	4	45	1				
	380 N 135 W	10	5	45	1				
	385 N 119 W	9	6	52	1				
	" 120 W	15	7	49	1				
	" 121 W	7	7	38	1				
	" 122 W	7	6	76	1				
	" 123 W	15	6	53	1				
	" 124 W	8	5	64	1				
	" 125 W	8	4	48	1				
	" 126 W	7	5	42	1				
	" 127 W	6	5	51	1				
	" 128 W	16	5	46	1				
	" 129 W	7	4	39	1				
	" 130 W	10	6	47	1				
	" 131 W	10	5	45	1				
	" 132 W	7	5	46	1				
	" 133 W	8	5	47	2				
	" 134 W	10	6	65	2				
	" 135 W	6	5	46	1				
	" 136 W	10	7	69	2				
	" 137 W	8	4	60	1				
	" 138 W	10	6	60	1				
	" 139 W	45	7	49	1				
	385 N 140 W	8	8	83	1				
	390 N 120 W	9	6	99	1				
132	390 N 121 W	6	5	97	2				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-225

PAGE 5

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
133	390 N 122 W	13	8	72	2				
	" 123 W	7	5	85	1				
	" 124 W	7	5	84	1				
	" 125 W	10	5	64	1				
	" 126 W	7	5	67	1				
	" 127 W	28	8	72	1				
	" 128 W	14	5	52	1				
	" 129 W	10	4	52	1				
	" 130 W	7	4	50	1				
	" 131 W	10	5	43	1				
	" 132 W	7	5	77	1				
	" 133 W	7	4	46	1				
	" 134 W	10	6	62	1				
	" 135 W	23	6	44	1				
	" 136 W	10	8	79	1				
	" 137 W	6	7	67	1				
	" 138 W	6	6	47	1				
	" 139 W	15	6	43	1				
	" 140 W	9	7	50	1				
	" 141 W	7	6	54	1				
	" 142 W	9	7	80	2				
	" 143 W	10	6	48	1				
	" 144 W	9	7	52	1				
	390 N 145 W	14	8	64	1				
	395 N 125 W	11	6	57	1				
	" 126 W	10	7	76	1				
	" 127 W	16	7	61	1				
	" 128 W	15	8	52	2				
	" 129 W	25	9	52	1				
	" 130 W	10	7	60	1				
	" 131 W	16	6	66	2				
	" 132 W	19	7	73	1				
	" 133 W	42	4	41	6				
166	395 N 134 W	10	6	124	1				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-225

PAGE 6

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
167	395 N 135 W	10	6	74	1	Method: -80 Mesh			
	" 136 W	9	6	80	1	HOT Acid Extraction Atomic Absorption			
	" 137 W	12	8	87	1				
	" 138 W	6	5	89	1				
	" 139 W	9	5	56	1				
	" 140 W	23	6	51	2				
	" 141 W	10	4	40	1				
	" 142 W	19	7	39	1				
	" 143 W	12	6	106	2				
	" 144 W	14	8	70	1				
	395 N 145 W	17	7	69	1				
	400 N 130 W	9	4	49	1				
	" 131 W	9	4	46	1				
	" 132 W	8	4	54	1				
	" 133 W	10	5	53	2				
	" 134 W	10	5	49	1				
	" 135 W	10	5	51	1				
	" 136 W	37	10	76	2				
	" 137 W	14	8	66	1				
	" 138 W	19	11	101	2				
	" 139 W	10	8	101	2				
	" 140 W	12	7	61	1				
	" 141 W	12	10	103	2				
	" 142 W	37	10	62	2				
	" 143 W	12	5	38	7				
	" 144 W	13	9	92	2				
	" 145 W	10	10	95	1				
	" 146 W	10	8	87	1				
	" 147 W	15	7	52	1				
	" 148 W	13	7	61	1				
	" 149 W	10	6	62	1				
198	400 N 150 W	15	6	48	1				

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B.C. CERTIFIED ASSAYERS

Guichen - Assay

HGE ✓  
REA ✓  
EA ✓

WEST TRANS CANADA HIGHWAY - ~~2095~~ - KAMLOOPS, B.C. V2C2K3  
2095 PHONE 372-2784 - TELEX 048-8320 VIS 1A7

GEOCHEMICAL LAB REPORT

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

DATE July 15, 1978.

ANALYST D.B.

FILE NO. G-228

Attention: Mr. R. Netherly

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1	0170	92	21	77	4				
	0171	79	21	84	4				
	0173	28	17	82	1				
	0174	30	15	96	2				
	0175	25	13	80	3				
	0176	51	19	91	3				
	0177	68	17	89	2				
	0178	11	19	84	3				
	0181	57	12	57	3				
	0182	58	15	69	3				
	0183	77	20	84	3				
	0187	77	20	81	4				
	0188	82	11	78	4				
	0190	143	12	71	3				
	0191	157	14	58	3				
	0192	57	15	71	2				
	0193	62	12	67	2				
	0194	81	18	114	3				
	0195	99	13	104	3				
	0196	174	10	88	4				
	0228	38	14	90	4				
	0229	36	12	86	4				
	0231	20	11	47	5				
	0232	20	16	70	2				
	0233	13	11	51	6				
	0234	13	12	45	4				
	0236	17	11	61	4				
	0237	60	10	55	4				
	0238	43	18	79	4				
30	0239	30	14	80	4				





Kamloops Research  
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2095

B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - ~~905018~~ - KAMLOOPS, B.C. ~~X00000~~  
PHONE 372-2784 - TELEX 048-8320 VIS 1A7

Guichon - Assays  
✓ HGE  
✓ REA  
✓ EA

GEOCHEMICAL LAB REPORT

DATE July 20, 1978.

Bethlehem Copper Corporation,  
2100 - 1055 West Hastings St.,  
Vancouver, B. C.  
V6E 2H8

ANALYST D.A.B.

FILE NO. G-230

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
1	14401	43	187	268	5				
	14402	49	94	116	5				
	14403	10	66	91	5				
	14404	9	70	57	7				
	14405	49	24	152	4				
	14406	30	21	121	4				
	14407	7	20	128	5				
	14408	28	20	129	4				
	14409	6	18	95	5				
	14410	7	19	145	5				
	14411	6	21	80	5				
	14412	7	28	101	8				
	14413	10	24	107	15				
	14414	11	14	167	4				
	14415	18	13	216	4				
	14416	8	13	127	5				
	14417	8	11	95	6				
	14418	7	14	137	6				
	14419	28	6	70	4				
	14420	9	9	104	5				
	14421	5	11	126	6				
	14422	14	12	143	5				
	14423	25	10	91	5				
	14424	6	10	95	6				
	14425	5	10	105	5				
	14426	20	13	96	6				
	14427	7	8	160	6				
	14428	4	10	119	6				
	14429	4	10	87	6				
30	14430	5	11	85	6				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-230

PAGE 2

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
31	11431	5	6	91	7				
	11432	9	9	50	6				
	11433	4	9	64	4				
	11434	15	10	132	5				
	11435	14	9	111	6				
	11436	4	12	113	4				
	11437	29	12	95	4				
	11438	121	17	84	5				
	11439	121	14	93	5				
	11440	115	16	99	6				
	11441	62	8	97	5				
	11442	58	18	66	5				
	11443	11	20	30	12				
	11444	22	24	39	12				
	11445	41	12	88	6				
	11446	10	7	70	7				
	11447	24	11	750	7				
	11448	6	13	89	6				
	11449	4	10	136	6				
	11450	20	21	110	7				
	11451	7	8	83	7				
	11452	9	24	91	9				
	11453	9	23	92	4				
	11454	8	14	98	6				
	11455	9	13	108	5				
	11456	6	10	74	5				
	0223	250	41	103	5				
59	0224	150	16	95	5				
	<sup>252</sup> + 50 N 67 W	29	13	149	4				
	" 68 W	26	9	282	2				
	" 69 W	39	7	112	2				
	" 70 W	17	6	88	2				
	" 71 W	53	8	77	2				
64	<sup>252</sup> + 50 N 72 W	18	8	126	2				

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-230

PAGE 3

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
65	252 + 50 N 73 W	18	7	78	2				
	" 74 W	16	6	75	2				
	" 75 W	11	6	62	2				
	" 76 W	24	6	66	2				
	" 77 W	11	5	72	1				
	" 78 W	13	6	124	1				
	" 79 W	46	7	80	3				
	255 N 79 W	27	7	60	1				
	" 80 W	8	5	132	2				
	" 81 W	90	7	57	2				
" 82 W	18	7	70	3					
" 83 W	26	8	94	5					
" 84 W	80	9	61	4					
" 85 W	14	5	55	3					
" 86 W	21	6	68	2					
" 87 W	17	6	54	2					
" 88 W	110	8	69	1					
" 89 W	28	5	55	2					
" 90 W	18	6	64	3					
" 91 W	11	5	54	1					
" 92 W	15	7	73	3					
" 93 W	15	6	78	2					
" 94 W	67	8	70	3					
255 N 95 W	133	9	96	8					
257 + 50 N	67 W	53	8	100	2				
	" 68 W	no sample							
	" 69 W	87	11	48	7				
	" 70 W	31	3	57	14				
	" 71 W	22	8	148	3				
	" 72 W	32	9	86	1				
	" 73 W	13	7	74	1				
	" 74 W	14	7	60	2				
	" 75 W	22	6	58	3				
	98	257 + 50 N 76 W	18	6	88	2			

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-230

PAGE 4

KRAL No.	IDENTIFICATION	ppm Cu	ppm Pb	ppm Zn	ppm Mo	IDENTIFICATION			
99	257 + 50 N 77 W	18	6	76	2				
	" 78 W	12	6	58	1				
	" 79 W	26	6	77	2				
	" 80 W	13	6	64	2				
	" 81 W	12	5	91	2				
	257 + 50 N 82 W	48	7	81	2				
	312 + 50 N (1)	18	5	111	1				
	" (2)	15	6	130	2				
	" 97 W	12	5	52	1				
	" 98 W	13	6	63	2				
	" 99 W	11	5	61	1				
	" 100 W	23	7	65	1				
	" 101 W	13	6	74	1				
	" 102 W	14	6	84	1				
	" 103 W	12	6	134	2				
	" 105 W	32	7	91	1				
	" 107 W	14	6	50	2				
	" 108 W	12	6	75	1				
	312 + 50 N 110 W	6	4	85	1				
	317 + 50 N 97 W	16	4	80	2				
	" 98 W	23	7	71	2				
	" 99 W	17	5	75	2				
	" 100 W	20	6	56	2				
	" 101 W	16	5	42	1				
	" 102 W	104	6	67	3				
	" 103 W	32	6	46	2				
	" 104 W	10	5	82	2				
	" 105 W	13	6	62	2				
	" 106 W	150	10	105	2				
	" 107 W	77	8	154	3				
	" 108 W	131	6	54	3				
	" 109 W	29	7	225	2				
	317 + 50 N 110 W	200	6	37	2				
132	395 N 146 W	10	7	62	1				



SECTION E - STATEMENT OF QUALIFICATIONS

Ronald J. Nethery, P.Eng.

1. Attended the University of British Columbia from 1963 to 1967 and graduated with a B.Sc., Majors Geology.
2. Registered in good standing with the Association of Professional Engineers of British Columbia since February 7, 1973.
3. Geologist with Johns Manville Company from April to September, 1967 carrying out field exploration in Alaska.
4. Commenced employment with Bethlehem Copper Corporation in September 1967 and has been continuously employed by this firm and involved in the following activities:-
  - (a) 1967 to 1970 - engaged at the Highland Valley Operations as a Mine and Exploration Geologist involved in large scale drilling projects, including the Lake Zone porphyry deposit.
  - (b) 1970 to 1972 - engaged as a Project Geologist attached to the Copper Belt Joint Venture, a large scale regional exploration program conducted in South-Central British Columbia.
  - (c) 1972 to 1974 - carried out general geological examinations of mineral properties in Canada and the Western United States.
  - (d) 1974 to 1976 - involved as a Project Geologist attached to the Copper Belt (Washington) Joint Venture, a regional exploration program in North-Central Washington State.
  - (e) 1977 to 1978 - Project Geologist in charge of the Guichon Joint Venture, a regional program being carried out in the general Highland Valley area of South-Central British Columbia.

SECTION FSCHEDULE OF MINERAL CLAIMS

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Date Recorded</u>	<u>Date of Expiry</u>
<u>NICOLA MINING DIVISION</u>				
G.C. 4	16	273(6)	June 24, 1977	June 24, 1979
G.C. 5	9	274(6)	June 24, 1977	June 24, 1979
G.C. 6	20	275(6)	June 24, 1977	June 24, 1979
G.C. 7	15	276(6)	June 24, 1977	June 24, 1979
<hr/>	<hr/>			
4 claims	60 units			

KAMLOOPS MINING DIVISION

G.C. 11	20	897(6)	June 24, 1977	June 24, 1979
G.C. 12	20	898(6)	June 24, 1977	June 24, 1979
T.L. 1	12	899(6)	June 24, 1977	June 24, 1979
T.L. 2	20	900(6)	June 24, 1977	June 24, 1979
T.L. 4	20	902(6)	June 24, 1977	June 24, 1979
T.L. 5	16	903(6)	June 24, 1977	June 24, 1979
T.L. 6	20	904(6)	June 24, 1977	June 24, 1979
T.L. 7	20	905(6)	June 24, 1977	June 24, 1979
T.L. 8	20	906(6)	June 24, 1977	June 24, 1979
T.L. 9	20	907(6)	June 24, 1977	June 24, 1979
T.L. 10	20	908(6)	June 24, 1977	June 24, 1979
T.L. 11	16	909(6)	June 24, 1977	June 24, 1979
T.L. 12	20	910(6)	June 24, 1977	June 24, 1979
<hr/>	<hr/>			
13 claims	244 units			