WENDY GROUP: SOIL GEOCHEMISTRY

LIARD MINING DIVISION

WENDY (20 Units)

94L13W

58° 53'N, 127° 55'W

OWNER/OPERATOR

AMOCO CANADA PETROLEUM CO. LTD.

MINING DIVISION

#656 - 409 GRANVILLE STREET

VANCOUVER, B.C.

V6C 1T2

Report written by Harlan Meade

August 30, 1978

Harlan Meade

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INTRODUCTION

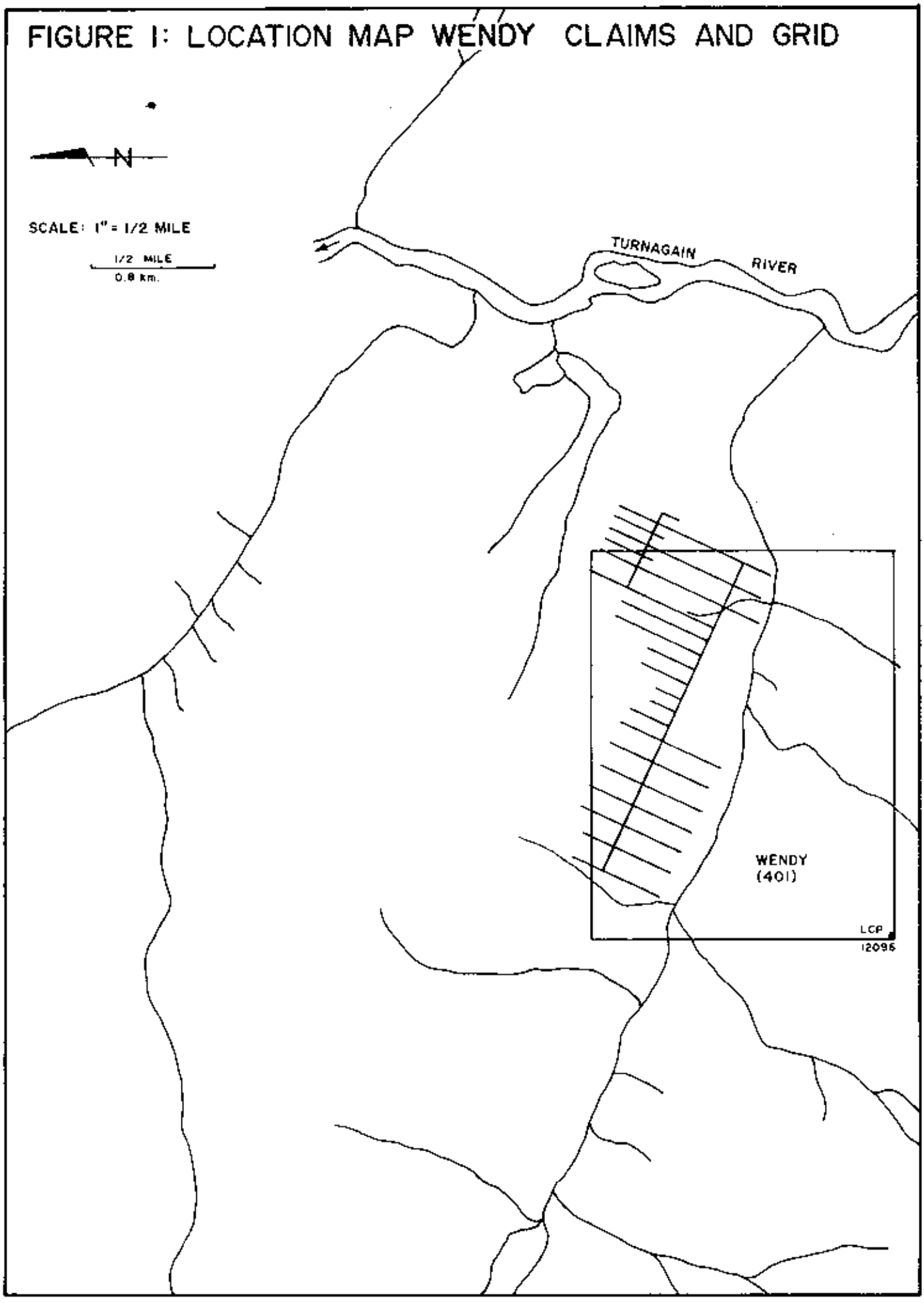
The Wendy claim group consists of 20 units whose legal corner post is located 5.4 miles (8.6 km) south southwest of the junction of Turnagain River and Nista Creek. Access is by helicopter 85 miles (136 km) south southeast from Watson Lake, Yukon Territory. Amoco Canada Petroleum Company Ltd., Mining Division, is the owner and operator of the Wendy claims.

Wendy Tag No. 12096
Located Sept. 4, 1977
Recorded Sept. 16, 1977
Record No. 491
No. of units - 20

The claims are located on the lower slopes of a valley fraining west to the Turnagain River between elevations 2500 feet (758m) and 4500 feet (1364m). A prominent cliff scarp and a peculiar talus development similar to vegetation "kill zones" characterizes the claims. The area has been burned and is now covered by stunted poplars and a few pine.

Gabrielse, 1962, shows the area to be underlain by rocks of the Kechika Group. The claims are underlain by dolomite, siliceous black shale, sericite schist, rhyolite, black siltstone phyllitic argillaceous limestone - the latter being stratigraphically tops in a sequence dipping 30 to 40 degrees north northeast. These rocks are considered Cambrian in age.

FIGURE 1: LOCATION MAP WENDY CLAIMS AND GRID



Minor pyrite is present in rhyolite and siliceous black shales and sulphate mineral crusts are common in talus areas. Ferricrete occurs at the base of the slope on the north side of the main creek crossing the Wendy claims.

Three hundred and thirty-nine soil samples including three soil profiles were taken of the Wendy grid. Sample spacing was generally at 50 meters on lines 100 meters apart in the center of the grid and lines 150 meters apart on the flanks. Copper, lead and zinc values in the soil samples are generally small and erratically distributed, perhaps reflecting an acid geochemical environment resulting from the oxidation of pyrite.

SOIL GEOCHEMISTRY

The main baseline 0 + 00 strikes 115 degrees and follows the top of the dolomite cliff and is cut and picketed (Fig.1). A smaller flagged baseline paralleling the main baseline at 6 + 00N was located in the east corner of the grid. Sample sites at 50 meter and occasionally 25 meter intervals, and lines at 100 meter intervals in the center of the grid and 150 meter intervals on the flanks are flagged. Three hundred and thirty-nine samples including soil profile samples were taken on the grid of which 288 samples (85 percent) are within the Wendy claims (Map 1). Note that due to topography and claim irregularity the position of the claim location line is not the true position of the claim boundary - Map 1 illustrates this point. Soil sampling was conducted June 21 to June 28, 1978 inclusive and July 29, 1978.

Soil samples were taken with a mattock and stored in Kraft paper sample bags, dried in the field and sent to Min - En Laboratories Ltd. for analysis (Appendix 1). Soil samples were generally taken from the B horizon at depths of 15 to 30 cm. The soils are residual in character with numerous angular rock fragments that reflect bedrock geology.

Anomalous Zn, Cu and Pb values in soil samples appear to flank the main area of sulphate mineral crusts and vegetation kill zone, and correspond to areas of more normal soil development. Even in these areas the soils are well oxidized and a deep reddish brown color. A large area of slightly anomalous Pb values is outlined by the 100 ppm Pb contour and contains a few isolated highs up to 3800 ppm Pb. Flanking these anomalies downslope, are Zn and Cu with moderate correlation of anomalous values, greater than 200 ppm Zn and 75 ppm Cu. It is suggested that this zoning reflects increased mobility of Zn and Cu relative to Pb in this acidic geochemical environment. Some Pb may be tied up in sulphate minerals. It is also suggested that there has been considerable depletion of metals in weathered talus and soils as indicated by soil profile pit results.

Profile pits were dug at 11+00E, 13+00E and 15+00E on the baseline 0+00 in the black shale talus. Results are shown on Map 1 and indicate a decrease in zinc and copper content with depth and variable Pb content. Decrease of zinc and copper with depth in the talus area and the abnormaly small metal content of these rocks indicate depletion probably due to leaching in an acid environment resulting from oxidation of pyrite. Water in small

creeks draining the siliceous black shale talus area are very sour to the taste.

Rather small and erratic Pb, Zn and Cu contents in soils are to be expected in this strongly oxidizing environment characterized by abundant sulphate minerals, leached talus material and deeply weathered reddish brown soils. Clearly, geophysical surveys and pitting are necessary to further define the source of sulphur in sulphate minerals, iron in ferricrete and anomalous Pb, Zn and Cu values.

EVALUATION OF WORK

An apportionment of work to be credited to Wendy claims and PAC account is based on the number of soils within and outside of claim boundaries. (Approximately 85% of the samples are within the claim block.)

A) GRID SOIL SAMPLING

Work Done - Grid soil sampling and soil profile pits

Claims: Wendy

Date Conducted - June 21 to June 28, 1978; July 29, 1978

SALARIES

D. Visagie	3 days @ $65.20	$195.60	
G. Ackerley	6 days @ $32.70	$196.20	
S. Bartlett	3 days @ $38.50	$115.50	
H. Meade	1 day @ $85.65	$ 85.65	
I. MacDonald	1 day @ $25.00	$ 25.00	
		$617.95	$ 617.95

MEALS

14 Man Days @ $14.00/day	$196.00	

TRANSPORTATION

Bell 206B @ $281.80 (Appendix 3)		
3.1 hours @ $281.80	$873.60	

ASSAY CHARGES

339 Samples for Cu, Pb, Zn @ $2.80 ea.	$949.20	

SAMPLE SHIPMENT CHARGES

CP Air	$ 64.00	
B.C. Yukon Air	$136.80	
TOTAL FOR WORK DONE		$2857.55

TOTAL CREDIT ASSESSMENT WORK

Total For Work Done	$2837.55
Cost of Report Preparation	$ 400.00
TOTAL	$3237.55
Contribution to PAC Account	$1237.55

BIBLIOGRAPHY

Gabrielse, H., 1962 Geology of Cry Lake map-area, British Columbia; Geological Survey of Canada Map 20 - 1962.

APPENDIX 1

FEE SCHEDULE AND PROCEDURE FOR GEOCHEMICAL ANALYSES

Analyses and geochemical analyses were conducted by:

Min - En Laboratories Ltd.,
705 West 15th Street,
North Vancouver, B.C.
V7M 1T2

Geochemical Analyses

Cu, Pb, Zn	$2.45
Sample Preparation	$ .35
	$2.80

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURES FOR: Cu, Mo, Cd, Pb, Mn, Ni, Ag, Zn

Samples are processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HNO_3 and $HClO_4$ mixture.

After cooling the samples are diluted to standard volume. The solutions are analysed by Atomic Absorption Spectrophotometers.

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the CH_2H_2-Air Flame combination but the Molybdenum determination is carried out by C_2H_2-N_2O gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

Background corrections for Pb, Ag, Cd upon request are completed.

APPENDIX 2

ADDRESSES OF PERSONS CONDUCTING WORK

D. Visagie	Amoco Canada Petroleum Co. Ltd. #2010 - 65 Queen Street West TORONTO, Ontario M5H 2M5
I. MacDonald	273 Maple Grove Drive OAKVILLE, Ontario L6J 4V6
H. Meade	#656 - 409 Granville Street VANCOUVER, B.C. V6C 1T2
S. Bartlett	2270 Westbrook Crescent VANCOUVER, B.C. V6T 1W6
G. Ackerley	R.R. #1 BRACEBRIDGE, Ontario P0B 1C6

APPENDIX 3

UNIT COST PER HOUR FOR HELICOPTER, 1978

Bell 206B leased from Kenting Helicopters, Calgary.

CONTRACT COST	$240.00
FUEL COST (@ 22 gals/hr.)	$ 41.80
TOTAL COST	$281.80

APPENDIX 4

QUALIFICATIONS OF HARLAN D. MEADE

BSc. Honours Geology, University of British Columbia, 1972

PhD. Geology, University of Western Ontario, 1977

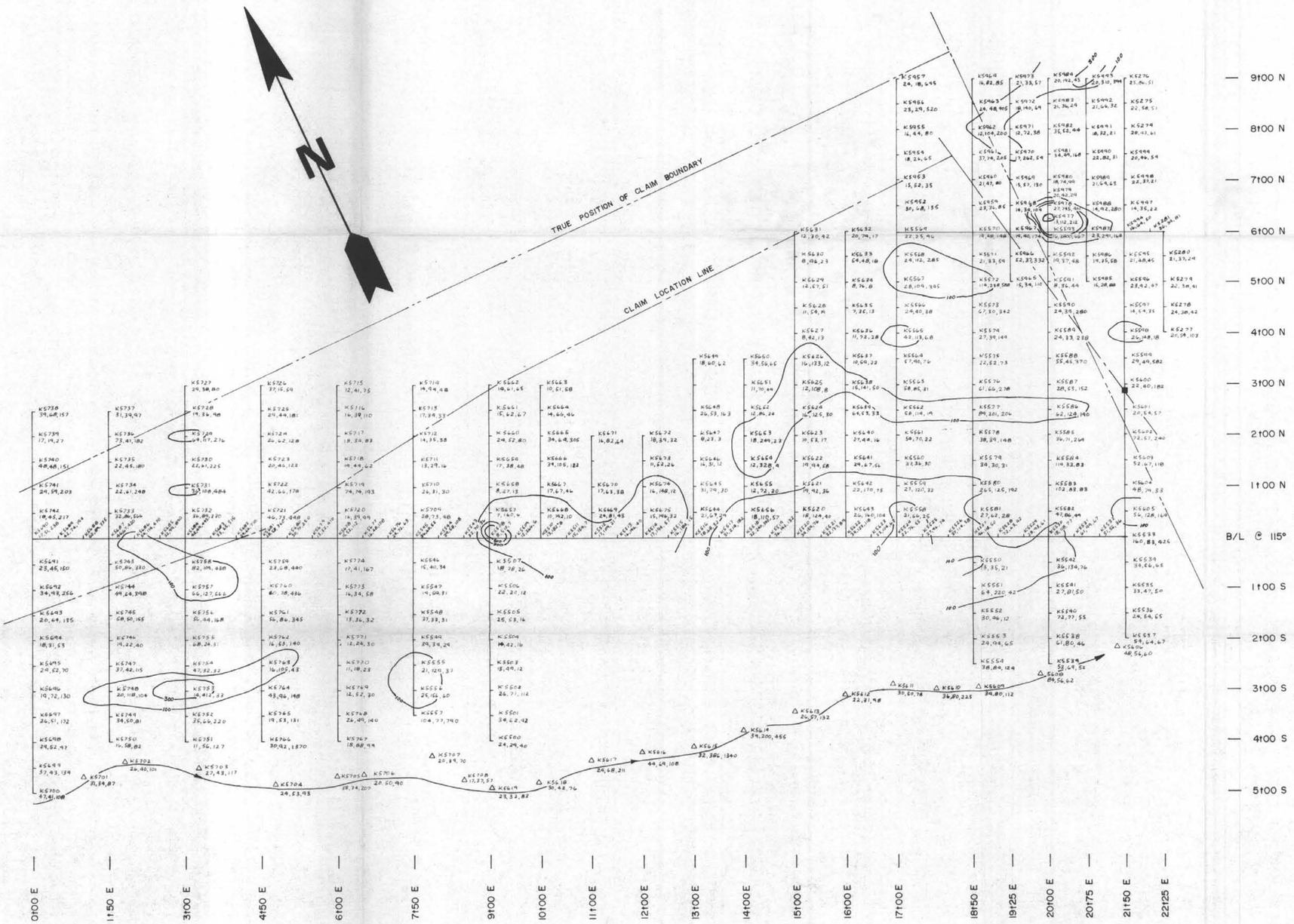
Member Geological Association of Canada

Member Canadian Institute of Mining and Metallurgy

Respectfully submitted,

Harlan Meade
August 30, 1978

Harlan Meade



SOIL SAMPLE PITS

LOCATION	SAMPLE NUMBER	DEPTH / FT.	Cu (p.p.m.)	Pb (p.p.m.)	Zn (p.p.m.)
11+00E 0+00N	5775	0.5	12	128	22
	5776	1.0	10	167	19
	5777	1.5	11	153	17
	5778	2.0	9	176	13
	5779	2.5	11	163	9
	5780	3.0	10	234	10
	5781	3.5	15	858	8
13+00E 0+00N	5782	0.5	24	74	18
	5783	1.0	30	63	21
	5784	1.5	11	63	17
	5785	2.0	8	52	12
	5786	2.5	13	52	13
	5787	3.0	11	140	7
	5788	3.5	5	164	6
	5789	4.0	6	144	8
	5790	4.5	7	117	6
15+00N 0+00E	5791	0.0	27	247	81
	5792	0.5	14	240	40
	5793	1.0	14	695	11
	5794	1.5	14	1225	8
	5795	2.0	9	317	7
	5796	2.5	6	342	6
	5797	3.0	12	405	6
	5798	3.5	5	230	8

LEGEND:

+ 61,80,46 — SOIL SAMPLE RESULTS: Cu,Pb,Zn (p.p.m.)

■ — CLAIM POST

△ — SOIL SAMPLE SITE

Cu RESULTS

Cu 50/100 p.p.m.

Pb RESULTS

Pb 100/300/500/1000 p.p.m.

Zn RESULTS

Zn 200/500/1000/2000 p.p.m.

0 50 100 200 300 METERS

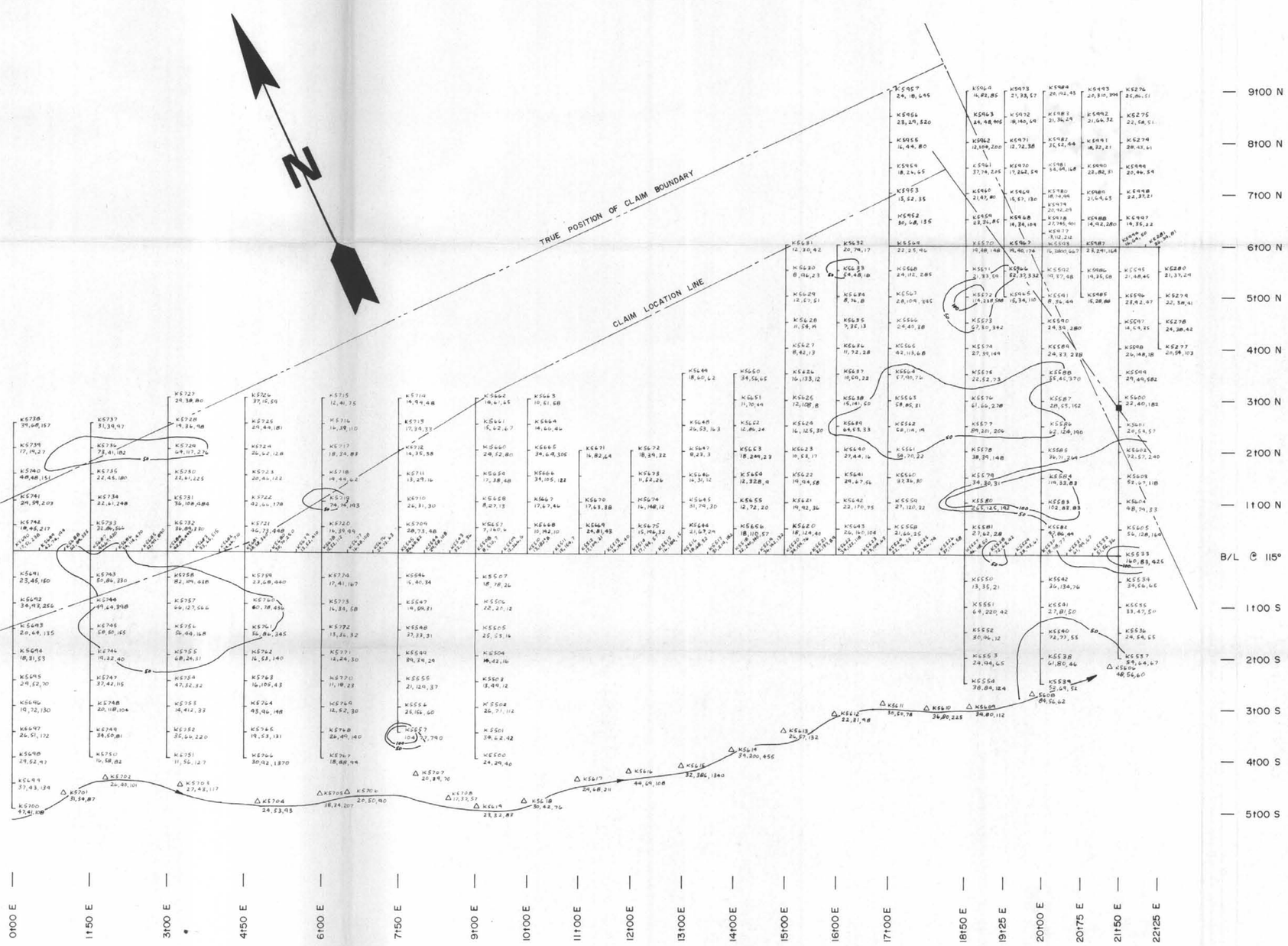
AMOCO CANADA PETROLEUM CO. LTD.

MINING DIVISION

DEADWOOD LAKE PROJECT
WENDY CLAIMS
SOIL GEOCHEMISTRY RESULTS
Cu,Pb,Zn (p.p.m.) Pb CONTOURS

Harlan Meade

Drawn By	R.I.	Scale	1 cm. = 50m.
Date	AUG. 1978	Project No.	77-C-004



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LOCATION	SAMPLE NUMBER	DEPTH / FT.	Cu (p.p.m.)	Pb (p.p.m.)	Zn (p.p.m.)
11+00E 0+00N	5775	0.5	12	128	22
	5776	1.0	10	149	19
	5777	1.5	11	153	13
	5778	2.0	9	176	15
	5779	2.5	11	143	9
	5780	3.0	10	234	10
	5781	3.5	15	258	8
13+00E 0+00N	5782	0.5	24	76	18
	5783	1.0	30	68	21
	5784	1.5	11	63	17
	5785	2.0	8	52	12
	5786	2.5	13	62	13
	5787	3.0	10	140	7
	5788	3.5	5	164	6
	5789	4.0	6	184	8
	5790	4.5	7	117	6
15+00N 0+00E	5791	0.0	27	247	81
	5792	0.5	18	210	40
	5793	1.0	14	695	11
	5794	1.5	14	1225	8
	5795	2.0	9	317	7
	5796	2.5	6	382	6
	5797	3.0	12	403	6
	5798	3.5	6	230	8

LEGEND:

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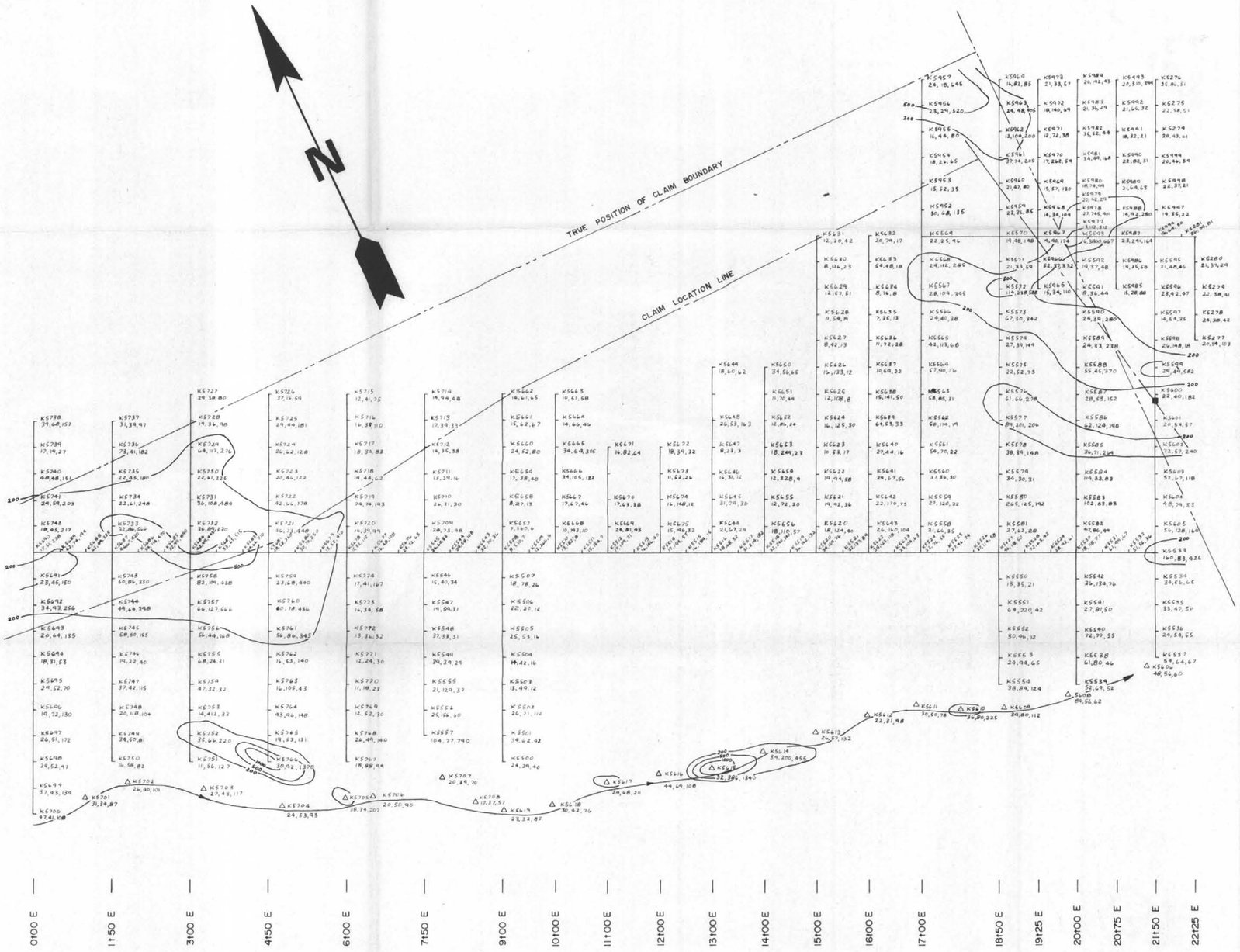

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	5776	1.0	18	147	14
	5777	1.5	11	153	17
	5778	2.0	9	176	18
	5779	2.5	11	143	9
	5780	3.0	10	234	10
	5781	3.5	15	558	8
13+00E 04+00N	5782	0.5	24	76	18
	5783	1.0	20	63	21
	5784	1.5	11	63	17
	5785	2.0	8	52	12
	5786	2.5	13	52	13
	5787	3.0	10	140	7
	5788	3.5	5	164	6
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