WENDY GROUP: SOIL GEOCHEMISTRY LIARD MINING DIVISION WENDY (20 Units) 94L13W 58° 53'N, 127° 55'W

OWNER/OPERATOR

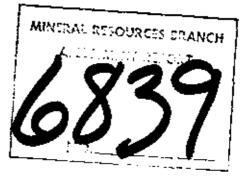
AMOCO CANADA PETROLEUM CO. LTD.

MINING DIVISION

#656 - 409 GRANVILLE STREET

VANCOUVER, B.C.

V6C 1T2



Report written by Harlan Meade August 30, 1978 Walan Meade

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INTRODUCTION

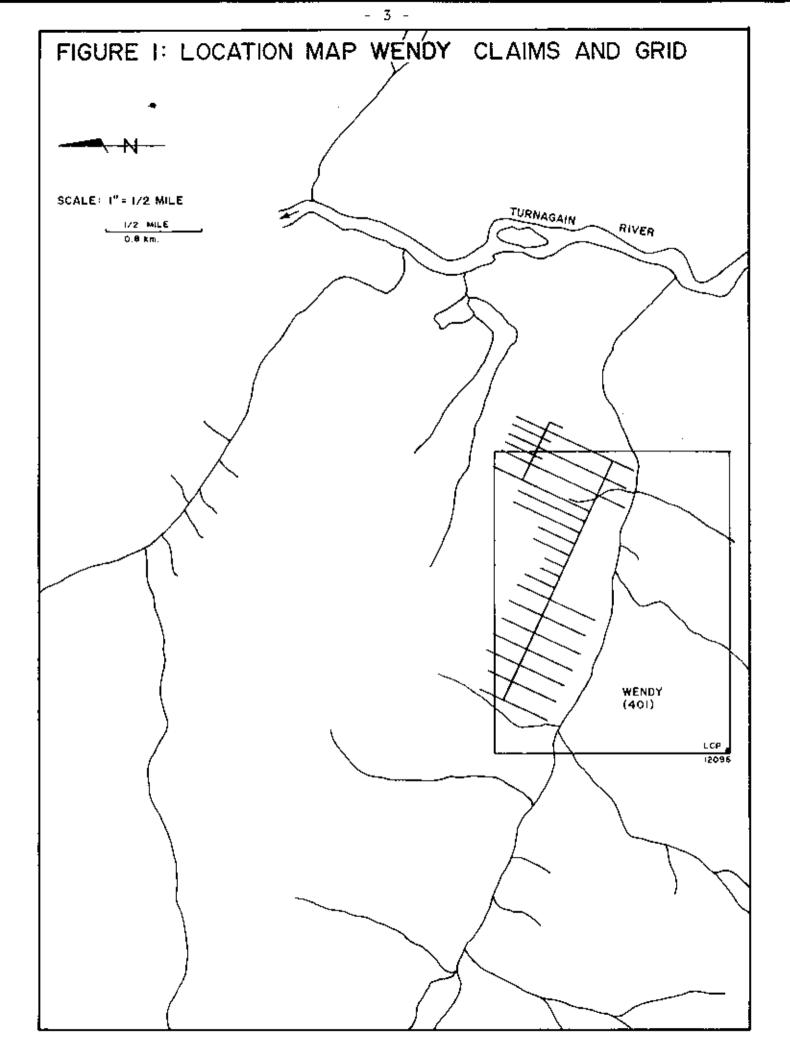
The Wendy claim group consists of 20 units whose legal corner post is located 5.4 miles (8.6 km) south southwest of the junction of Turnagain River and Nista Creek. Access is by helicopter 85 miles (136 km) south southeast from Watson Lake, Yukon Territory. Amoco Canada Petroleum Company Ltd., Mining 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, scricite schist, rhyolite, black siltstone phyllitic argillaceous limestone - the latter being stratigraphically tops in a sequence dipping 50 to 40 degrees north northeast. These rocks are considered Cambrian in age.

- 2 -



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 zine 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.

- 4 -

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 Ph 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

- 5 -

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.)

- 6 -

GRID SOIL SAMPLING A) -

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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	ê	\$65,20	\$195.60	
G. Ackerley	6 days	. @	\$32.70	\$196.20	
S. Bartlett	3 days	9	\$38.50	\$115.50	
H. Meade	l day	9	\$85.65	\$ \$5.65	
I. MacDonald	l day	6	\$25.00	\$ 25.00	
				\$617.95	\$ 617.95

MEALS.

14 Man Days @ \$14.00/d	ay \$196.00
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TRANSPORTATION

Bell 20	6B C	\$281.80	(Appendix	3)
3.1 hou	rs a	\$281.80		\$ 8 7 3 . 6 0

ASSAY CHARGES

339 Samples for Cu, P5, Zn 3 \$2.80 \$949.20 ça.

SAMPLE SHIPMENT CHARGES

CP Air	\$ 64.00	
B.C. Yukon Air	<u>\$136.80</u>	<u></u> ·
TOTAL FOR WORK DONE		\$2837.55

\$Z857.55

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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

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BIBLIOGRAPHY

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

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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

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Cu, Pb, In	\$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, and HClO, 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 -N₂0 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.

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APPENDIX 2

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ADDRESSES OF PERSONS CONDUCTING WORK

- D. Visagie Amoco Canada Petroleum Co. Ltd. #2010 - 65 Queen Street West TORONTO, Ontario MSH 2M5
- I. MacDonald 273 Maple Grove Drive OAKVILLE, Ontario L6J 4V6

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- 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 POB 1C6

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APPENDIX 3

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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 - 14 -

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,

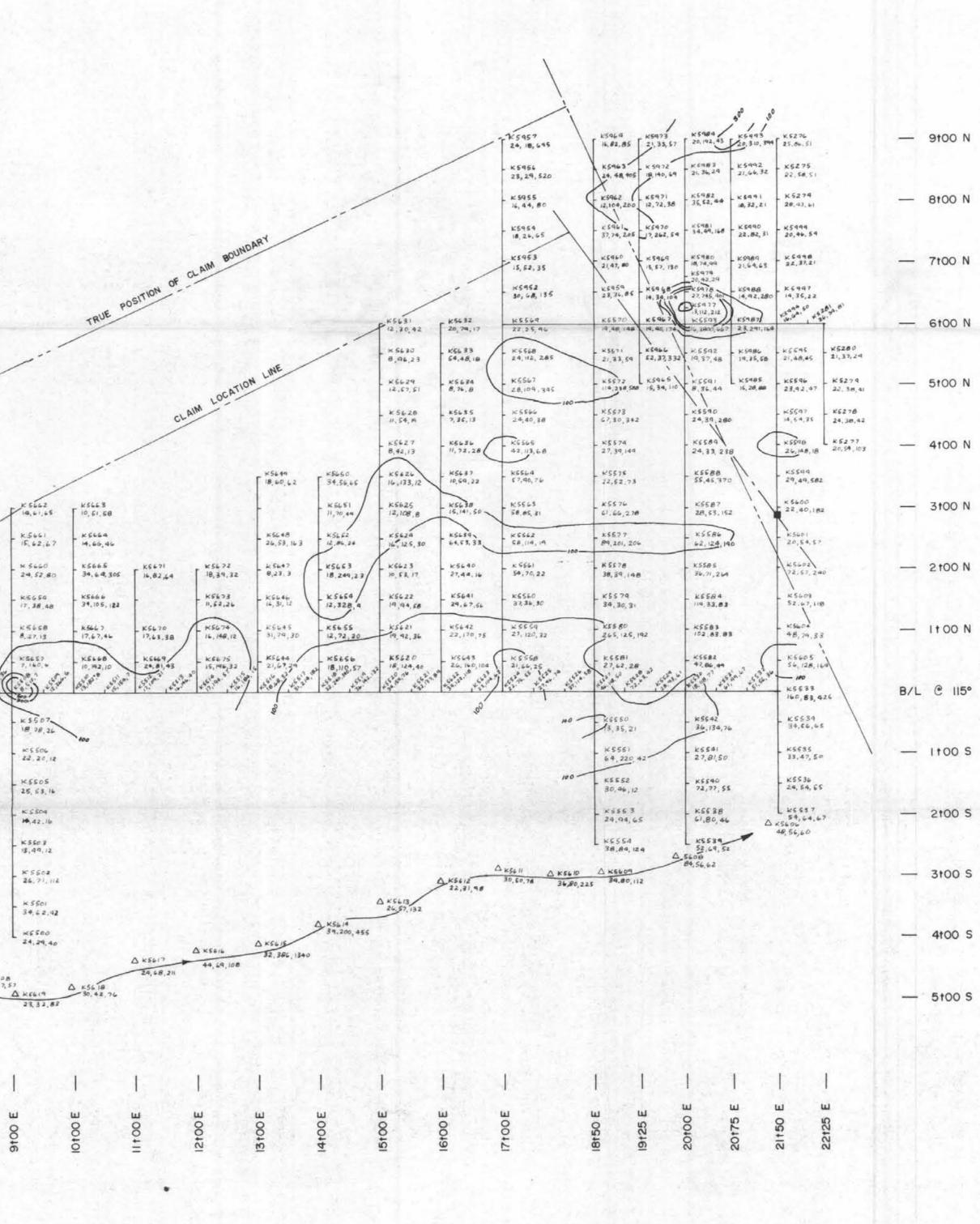
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Harlan Meade August 30, 1978

Harlan Meade

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K5734 17, 19,27	K\$736 73,41,182	£5729 \$4,117,276	1 K572 A 24,62,128	K\$717 18.34.83	×57;2 14,35.38	
+ 5740 48,48,151	K5735 22,45,180	- K5780 22, +1, 225	K\$723 20,46,122	K\$718 19.49.62	KS711 13,29,16	
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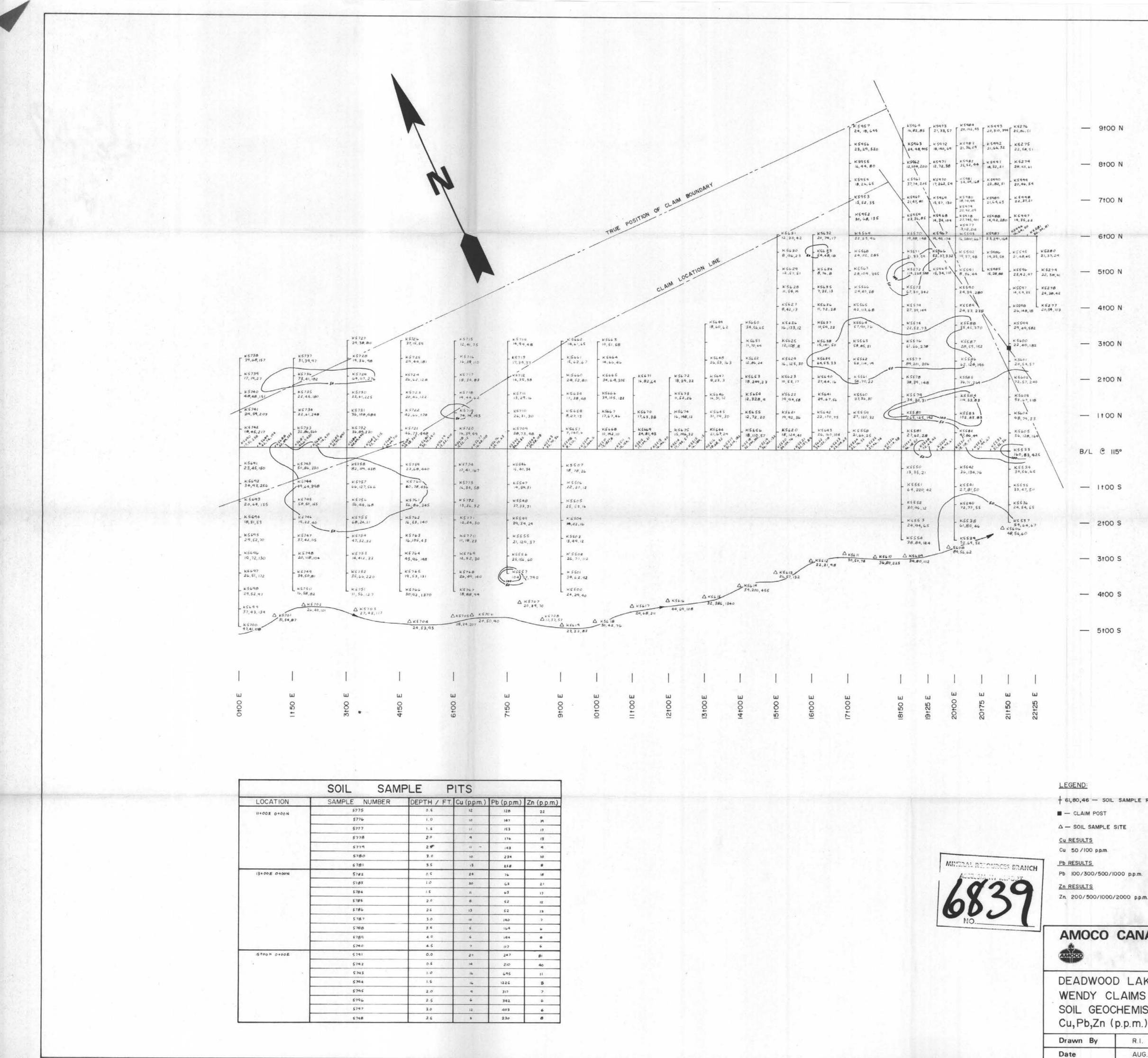




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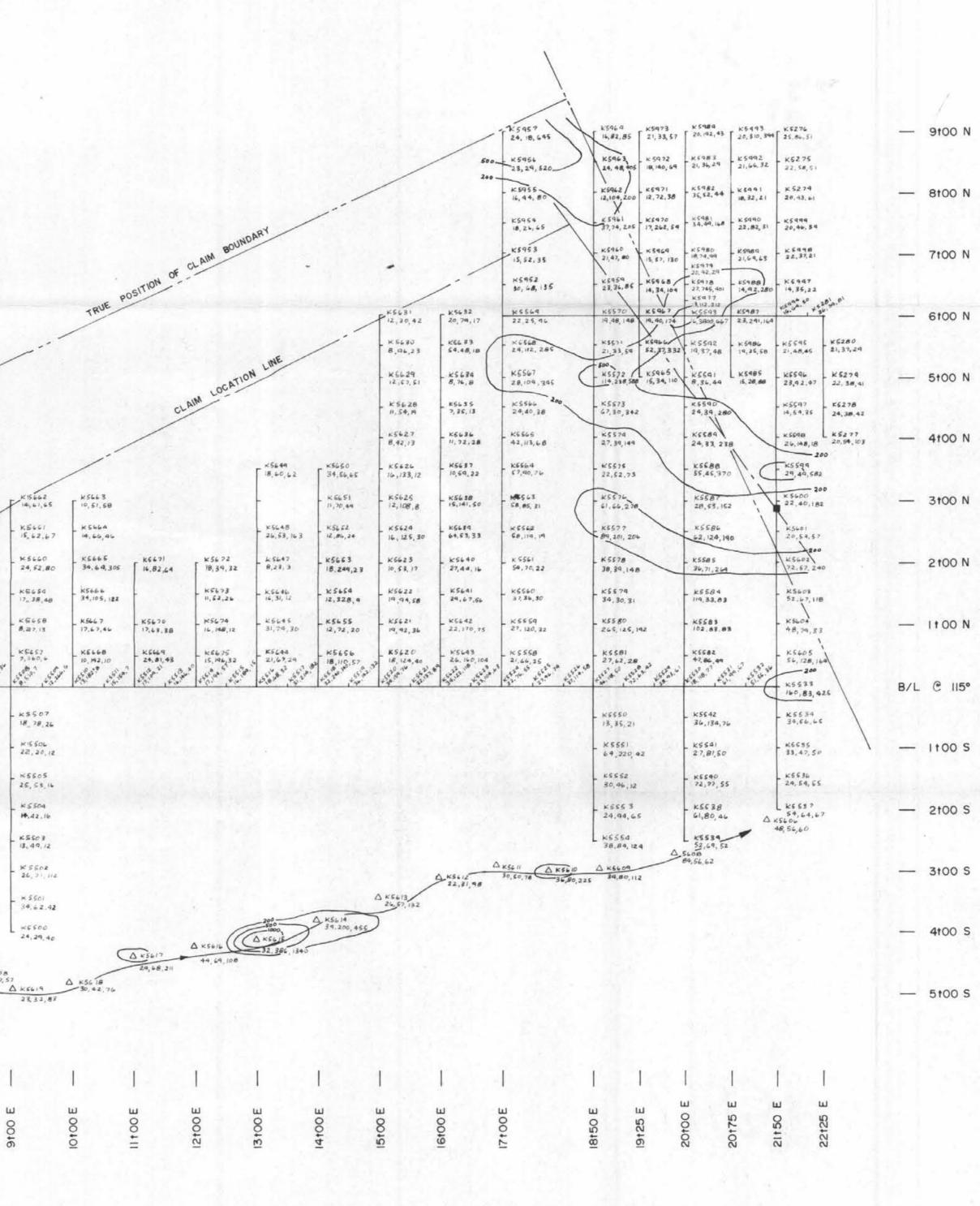
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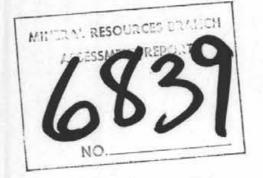
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