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001978

SOIL GEOCHEMISTRY AND DIAMOND DRILLING

ALTOONA MINE

ALTOONA, BOWKNOT, TAWANDA, MAJESTIC,

UNEXPECTED, HALL 1, 2, & 3 CLAIMS

SLOCAN MINING DIVISION

NTS SHEET 82F/14E*

LAT. 49° 59' 30" N, LONG. 117° 14' 30" W

SANDON, B.C.

PREPARED FOR

HALLMAC MINES LTD (NPL)

OWNER AND OPERATOR

ARCTEX ENGINEERING SERVICES

L.B. GOLDSMITH, P.ENG.

CONSULTING GEOLOGIST

AND

N.W. STACEY

GEOLOGIST

JANUARY 2, 1980

MINISTRY OF ENERGY,
MINES & PETROLEUM RESOURCES
REC'D. JAN 15 1980
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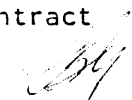
TABLE OF CONTENTS

SUMMARY	1
CLAIM MAP AND LOCATION MAP, 1979 - 5	2
INTRODUCTION	3
GEOLOGY	4
SAMPLING AND ANALYSES	5
DISCUSSION OF GEOCHEMICAL RESULTS	5
DIAMOND DRILLING	9
RECOMMENDATIONS	10
COST ESTIMATE	11
ENGINEER'S CERTIFICATE	13
REFERENCES	14
COST STATEMENT, 1979 PROGRAMME	15
APPENDIX	
GEOCHEMICAL ANALYSIS PROCEDURE	
ANALYSES	
SOIL GEOCHEMISTRY MAPS, 1979 - 1, -2, -3, -4	Inside Back Cover

SOIL GEOCHEMISTRY AND DIAMOND DRILLINGALTOONA MINESUMMARY

Continuation of the soil geochemical survey which was commenced in September, 1978 has been successful in defining two strongly anomalous trends. High-grade silver-lead float was uncovered within one anomaly in the vicinity of 22 + 50 E. 11 + 00S while preparing an access road for diamond drilling. Drilling was commenced but limited progress was achieved because of poor equipment and an ineffectual contractor/operator.

Drilling is scheduled to recommence in May 1980 with two machines when snow conditions permit access. Approximately 2745 metres (9000') of coring in addition to the 457.5 metres (1500') already under contract is anticipated for 1980.

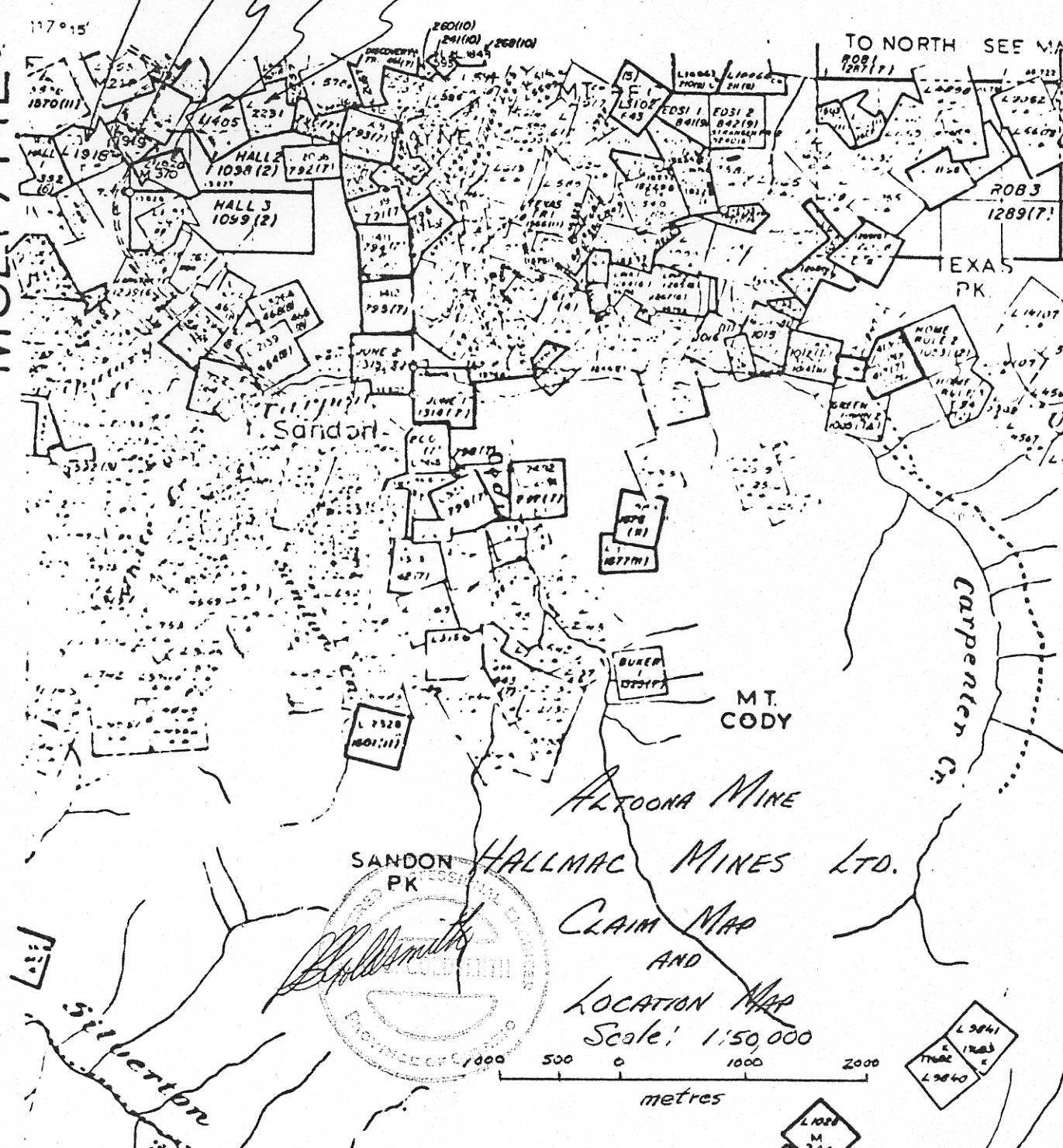


ALTOONA 21918
BOWHAT 21919
TAWANDA 21920
MAJESTIC 21905
UNEXPECTED 22231

M82F/14E

50°00'

117°15'



TO NORTH SEE MA

TEXAS PK

MT. CODY

ALTOONA MINE

HALLMAC MINES LTD.

CLAIM MAP

AND

LOCATION MAP

Scale: 1:50,000

metres



Silverton

L 9841
L 9842
L 9843
L 9844

L 1028
M 34c
L 1027
L 1029

MAP 1979-5
L.B. GOLDSMITH, P.ENG.
CONSULTING GEOLOGIST

MT. HEYLAND


CSC3
1613
1111
C.S.C. 1
1611 (111)

ROCKY 864 (1)
DONNA 865 (1)
FRANK 863 (1)

INTRODUCTION

The Altoona (L1918), Bowknot (L1919), Tawanda (L1920), Majestic (L1405), and Unexpected (L2231) Crown Grant claims and the Hall 1, 2, and 3 located claims are situated approximately 1.5 miles at Az. 330° from the townsite of Sandon in the Slocan Mining District of B.C. The claims are on the northeast slope of the valley of Carpenter Creek which rises at an average of 23° towards Az. 061° 54'. The southwestern boundary of the Altoona claim is approximately elevation 1070 metres (3500') and the eastern boundary of the Hall 2 claim is approximately elevation 1990 metres (6500'). Access is by paved road east from New Denver to Three Forks, from Three Forks southeast to Sandon by gravel road, and from Sandon northwest along the former Kaslo and Slocan Railway grade to the portal of the number two adit level on the Altoona claim. An eastern fork off the railway grade 915 metres (3000') northwest of Sandon continues upslope to the Payne mine. From this road two new 4-wheel drive access roads have been prepared during 1979 onto the Tawanda and Hall 2 claims (see location map).

The Altoona claim has had intermittent periods of lead-zinc-silver production since the early years of this century, while the Majestic has recorded production prior to 1910 (Cairnes, p75). Exploration in the Altoona workings has, in later years, been conducted since the early 1960's, with the most recent periods being in 1969, 1974, 1977, 1978, and 1979. Diamond drilling from the number two adit level indicates that the lode continues beneath the level but the lead and silver content decreases. At this time the zinc content could not be mined profitably. Thence a search to the east and up the valley slope



was recommended by the author, object being to discover mineralization with a greater lead-silver content which could perhaps be blended with zinc mineralization from the adit levels to create a profitable product.

The Hall 2 and 3 mineral claims totalling 6 units were staked in February 1978 to provide additional area for exploration.


A soil geochemical sampling programme was commenced in September and October, 1978, and continued in the summer of 1979. The surveyed southern boundary of the Altoona, Az. 061° 54' was used as a baseline and extended by a chain and compass survey northeasterly to 48 + 00E. The southeast corner post of the Altoona claim is coordinate 00 + 00. Grid lines are laid out at 122 metre (400') intervals to 12 + 00W and 40 + 00E for a total length of 1586 metres (5200') along the base line. Stations are flagged and sampled at 15 metre (50') spacings on all lines. Positioning on grid lines during 1978 is by pace and compass and during 1979 by belt chain and compass.

Total number of kilometres of line established during 1979 is 13.45 (44,100'). The total number of soil samples collected is 848.

GEOLOGY

In the area of the geochemical survey the rocks are argillites, shales, black shales, limy argillites, and limestones of the Slocan series. Quartz-feldspar porphyry planar bodies are concordant to discordant on dip; in part these may be crystal tuffs. One minette dyke was noted in a new road cut at 7 + 00E, 6 + 50S.

The Altoona lode strikes easterly, along a shear zone which dips predominantly 45° southerly but varies from 30° to 60°. The Majestic lode strikes 055° - 075° and dips southeast at 50°.



Outcrops are scarce in the western and central portions of the property. In the extreme eastern part of the property outcrop is plentiful. It is anticipated that geological mapping will be undertaken during the 1980 season.

SAMPLING AND ANALYSIS

A narrow, elongate post-hole spade and a smooth chromed garden trowel were used to collect soil samples. Humus cover was scraped aside and samples taken from 20 cm (8") to 38 cm (15") below the top of the soil horizon. In the absence of an established soil profile, scree fines of comparable size fractions to those of soils were collected. Large rock fragments, roots, and organics were removed from the samples and the remainder sealed in plastic bags. Each sample weighed an average of 1.4 pounds, as determined from the cumulative weight of sample shipments. Actual sample collection was done by the same person to maximize the continuity of technique. Grid location, soil colour, visual grain-size composition, fragment lithology, slope direction, stability with regard to soil profile development, and any other salient features were recorded at each site.

Samples were analyzed for lead and silver and the results reported in parts per million. A summary of the analytical procedure is included in the Appendix.

DISCUSSION OF GEOCHEMICAL RESULTS

Logarithmic probability plots of the 1978 data were used to choose anomalous thresholds. Three populations were determined as:



<u>LEAD</u>	<u>ZINC</u>	<u>SILVER</u>
+ 150 ppm	+ 1900 ppm (?)	+ 4.9 ppm
150 to 38 ppm	1900 to 980 ppm	4.9 to 2.3 ppm
- 38 ppm	-980 ppm	- 2.3 ppm

Lead and silver populations appear to have similar distributions but the distribution of zinc is less well defined. Anomalous levels are chosen as:

<u>LEAD</u>	<u>ZINC</u>	<u>SILVER</u>
+ 150 ppm	+ 980 ppm	+ 4.9 ppm

(1) Line 20 + 00E, 5 + 00S to 12 + 00S; Line 24 + 00E, 9 + 50S to 10 + 50S; and intervening samples along the drill road.

Peak values: 2660 ppm lead, 30.0 ppm silver.

Metal contents fall to background levels upslope to the south and southeast. Bedrock source of the anomaly appears to be between lines 20 + 00E and 24 + 00E to the east of the drill road. A possible break in the continuity of the geochemical abundances, between 9 + 50S and 10 + 50S on line 20 + 00E and on the drill road where two samples fall to 50 ppm lead and 1.3 ppm silver, could indicate that two segments of mineralization are separated by a barren interval. Quartz veinlets and graphitic shears which trend 090° are exposed in the road cut between lines 20 + 00E and 24 + 00E; these may be part of an offsetting shear zone or another lode.

Old trenching and sluicing downslope near 20 + 00E 6 + 50S was limited by the elevation at which adequate water could be gathered for hydraulicing. The excavations are chiefly outside of the boundary of the Majestic claim and may have been undertaken by operators who did not have title to the Majestic. Hand-trenching between 9 + 00S and 9 + 50S on line 20 + 00E in 1979 failed to reach bedrock. Large angular

argillite slabs were encountered with increasing frequency between three and five feet below surface. These slabs have similar orientation, suggesting minimal movement.

During the course of drill road preparation within the anomalous zone, an angular chunk of galena measuring approximately 38 cm x 25 cm x 20 cm (15" x 10" x 8") was uncovered. A sample of this material assayed 140.96 oz. Ag/ton, 79.72% Pb, and 0.21% Zn. Source of the float was not located in the road excavation but bedrock was not reached in many places.

(2a) Line 4 + 00E, 17 + 00S to 18 + 00S; Line 6 + 00E, 20 + 00S; Line 8 + 00E, 21 + 00S to 21 + 50S.

Peak values: 530 ppm lead, 440.0 ppm silver.

The anomalous values are spatially related to a narrow slide which is scoured to bedrock. Granitic rocks to the west are in contact with argillite at approximately 5 + 60E, 19 + 00S. A small adit, now caved, has been driven on a shear zone in granite at 5 + 00E, 18 + 25S; no mineralization was observed on the dump. No explanation for the anomaly could be found in outcrops immediately adjacent to the sample sites on lines 4 + 00E and 6 + 00E. It is suspected that the source may lie upslope from line 8 + 00E where prospecting is required.

(2b) Line 4 + 00W, 11 + 00S to 12 + 00S; Line 00 + 00, 13 + 50S; Line 2 + 00E, 13 + 00S to 16 + 00S; (possibly Line 4 + 00E, 16 + 50S to 17 + 00S)

Peak values: 340 ppm lead, 43.0 ppm silver.

Granitic rocks underlie a large part, if not all of the anomaly. Of interest is the high ratio of silver: lead in this zone, which when

considered with the granite is suggestive of a "dry" ore relationship. In local terminology a "dry" ore consists of quartz-carbonate-silver sulphide(s)-tetrahedrite with several percent of galena and sphalerite, hosted in fissure-fillings in granitic rocks. A stockwork of veinlets or closely-spaced mineralized fractures which might be mined in bulk should be considered in addition to the possibility of a single narrow vein.

(3) Line 4 + 00E, 4 + 50S; Line 8 + 00E, 6 + 00S; Line 12 + 00E, 7 + 00S.

Peak values: 240 ppm lead, 4.5 ppm silver.

It is recognized that this weakly anomalous trend parallels a stream which drains the anomalous zone at 20 + 00E, 12 + 00S, and may reflect only a pattern of metal dispersion. An access road and drill site were prepared. A 3 - metre wide minette dyke which parallels the trend of the anomalous zone cuts argillites in the road at approximately 6 + 50E, 5 + 50S. Empirically, minette and lamprophyre dykes in the Sandon area often are adjacent and parallel to silver-lead-zinc veins in sediments.

(4) Line 28 + 00E, 5 + 00S to 6 + 50S; Line 32 + 00E, 4 + 00S to 4 + 50S; Majestic workings.

Peak values: 18,700 ppm lead, 65.0 ppm silver (on dump).

Other than the samples taken from dump material on line 32 + 00E, the Majestic vein does not appear to be detected by soil geochemistry. At 28 + 00E, 5 + 50S the anomalous value of 350 ppm lead is ambiguous and could have been derived from : (a) subcroppings of the Majestic lode which should occur in the vicinity of the caved adit and trench on line

28 + 00E at 6 + 00S as estimated from lode attitude and elevation difference.

(b) muck from the dump at the same location, where sulphide mineralization was observed.

(c) muck from dumps which spill into the creek at approximately 31 + 00E, 6 + 00S below the main Majestic workings.

(d) transported soil from drainage areas above the Majestic vein.

The ore shoot was reported to be 60 feet in length and thence may have had only a small surface exposure.

(5) Line 32 + 00E, 27 + 50S; 34 + 00E, 26 + 50S; 40 + 00E, 19 + 00S

Peak values: 310 ppm lead, 3.0 ppm silver.

A poorly defined trend which may parallel the Majestic lode is unexplained. Prospecting and mapping is required.

DIAMOND DRILLING

A contract was let to J.L. Drilling Ltd. of Vancouver to complete 457.5 metres (1500') of B.Q. wireline coring. The rig was set up on the first site by October 1, which was two weeks behind schedule. Breakdowns of machinery, inadequate supplies, lack of planning and incompetence on the part of the drill contractor/operator destroyed the project. By October 11 only 23 metres (76') had been drilled in the first hole and no additional coring was accomplished until November 9 when the contractor quit. The drill is retained on-site until spring when another operator will attempt to complete the contract.


A second drill has been requested from another contractor. It is anticipated that both will operate simultaneously during the 1980

season.

D.D.H. 79 - 1 was collared at 21 + 10E 12 + 90S Sand drilled towards azimuth 151° 54' (parallel to the grid lines) at -42° to a depth of 76', in argillite throughout with the last 2 cm in quartz. A detailed log will be prepared when drilling recommences. Core recovery of + 95% was obtained.

RECOMMENDATIONS

(Numbers (1) through (4) refer to the sections under Discussion of Geochemical Results)

- (1) Diamond drilling from sites at 21 + 00E 12 + 90S, 20 + 00E 10 + 25S, and 23 + 00E, 10 + 50S should continue. In addition to the 457.5 metres (1500') already under contract, an additional 915 metres (3000') should be planned. Some of this total may be used to probe along the projected strike of the Majestic lode between lines 20 + 00E and 32 + 00E. Additional access road will be required, continuing from approximately 21 + 00E 12+ 90S northerly towards the Majestic workings.
- (2a) Diamond drilling may be considered after prospecting and mapping in the vicinity of 4 + 00E 17 + 00S to 9 + 00E 22 + 00S. Approximately 305 metres (1000') of drilling should be available if required. Access road would be necessary in the event of drilling.
- (2b) Prospecting and mapping will be required in the area of line 4 + 00W 11 + 00S to 2 + 00E 13 + 00S. If diamond drilling is warranted, 305 metres (1000') should be available. An extension of the access road from 7 + 00E, 7 + 00S would be required.
- 

- (3) Diamond drilling to probe for the source of the anomaly between 4 + 00E 4 + 50S and 8 + 00E 6 + 00S is planned. 305 metres (1000') in several holes is required.
- (4) A number of holes should be drilled beneath the Majestic workings and along the strike of the lode. 915 metres (3000') should be cored. Access road as in (1) will be constructed.
- (5) Adits on the Majestic vein should be reopened and a programme of mapping and sampling considered.
- (6) A light truck and a trailer for mobile accommodation on-site should be acquired.

COST ESTIMATE

Diamond drilling, 3202.5 metres (10,500'), of which 457.5 metres (1500') are under contract, balance 2745 metres (9000') at \$98.43/metre (\$30.00/foot)		\$ 270,000.00
Road and drill site preparation		
Recommendations (1) and (4)	\$ 10,000.00	
Recommendation (2a)	10,000.00	
Recommendation (2b)	<u>5,000.00</u>	
	\$ 25,000.00	25,000.00
Geological Mapping		12,000.00
Prospecting		5,000.00
Assays, 100 @ \$30		3,000.00
Truck and trailer purchase		12,000.00
Operating expenses		10,000.00
Outright purchase of Majestic and Unexpected claims if warranted		20,000.00

Engineering, reporting	10,000.00
Supervision	<u>25,000.00</u>
	\$ 392,000.00
Contingencies @ 10%	<u>39,200.00</u>
TOTAL	\$ 431,200.00

All of which is respectfully submitted,



L. B. Goldsmith

January 2, 1980


Locke B. Goldsmith, P. Eng.

Consulting Geologist

ENGINEER'S CERTIFICATE

1. I, Locke B. Goldsmith, am a Registered Professional Engineer in the Province of Ontario and a Registered Professional Geologist in the State of Oregon. My Address is Box 29, Silverton, B.C.
2. I have a B.Sc. (Honours) degree in Geology from Michigan Technological University and have done postgraduate study at Michigan Technological University, University of Nevada, and University of British Columbia. I am a graduate of the Haileybury School of Mines and am a Certified Mining Technician. I am a member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy.
3. I have been engaged in mining exploration for the past 21 years.
4. I have written the report entitled "Soil Geochemistry and Diamond Drilling, Altoona Mine, Slocan Mining Division, Sandon, B.C." The report is based upon field work conducted by the author.
5. I own 2000 shares of Hallmac Mines Ltd. (NPL), acquired by purchase on the open market. Otherwise I have no ownership in the properties or securities of the company.
6. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

Respectfully submitted



L. B. Goldsmith

Locke B. Goldsmith, P. Eng.

Consulting Geologist

Vancouver, B.C.

January 2, 1980

COST STATEMENT, 1979 PROGRAMMEM.E.I.P. CONTRACT #20(a) WAGES

Services, L.B. Goldsmith; grid preparation, soil sampling, supervision, drill mobilization, consulting,

½ May 14, 15, 16, 17, 18, ½19, ½ June 11, ½12, ½ July 13, ½14, August 21, ½ October 5, ½6, ½7, ½8, ½9, ½10, ½11, ½12, ½15, ½18, total 11½ days @ \$200/day: \$ 2,250.00

Services, N. Stacey, geologist; grid preparation, soil sampling, drill mobilization,

May 17-27, 29-31, June 1, 2, 4, 6-9, 11-21, ½22, 24-28, July 3-15, ½17, 18-25, 31, August 1-4, ½5, 6, 7, total 67 days @ \$110/day: \$ 7,370.00

Services, C.W. Donald-Hill, assistant; grid preparation, soil sampling,

May 17-27, 29-31, June 1, 2, 4, 6-9, 11, total 22 days @ \$110/day: \$ 2,420.00

Services, P. Harker, assistant; grid preparation, soil sampling, drill mobilization,

May 18-27, 29-31, June 1, 2, 4, 6-9, 11-21, ½22, 24-28, July 3-5, 7-13, total 46½ days @ \$80/day:

\$ 3,720.00

2 hours, May 14 @ \$10/hr.

\$ 20.00

Services, I. Francis, assistant; grid preparation, soil sampling,
drill mobilization,

June 13, 14, ½ July 17, 18, 20-25, August 1, 2, total 11½
days @ \$80/day: \$ 920.00

Services, J. Hope, expediting, camp organization,

May 18, 1 day @ \$80/day: \$ 80.00

Services, R. Hammond; equipment inspection,

2 hours May 14 @ \$10/hour \$ 20.00

\$ 16,800.00

\$ 16,800.00

(b) FOOD AND ACCOMMODATION

May 14	Meals	\$ 22.70
16	Rooms	29.40
	Meals	15.55
	"	9.75
	"	27.40
	"	11.40
	"	13.70
	Grub	121.14
18	Meals	12.40
	"	6.30
	Grub	3.60
19	"	2.97
	"	4.88
	"	70.80
	Meals	6.70
	Grub	.75

May 20	Meals	4.35
	"	7.70
June 9	Room	25.40
11	Grub	3.63
	"	43.71
	"	7.20
Unitemized herein, from C. Donald-Hill		803.13
June 12	Grub	10.12
	"	7.05
13	Meals	9.60
Unitemized herein, from N. Stacey		446.52
July 12	Grub	9.70
	Meals	9.00
13	"	17.00
Unitemized herein, N. Stacey		105.21
July 14	Grub	7.05
15	"	2.00
	Meals	18.05
16	"	4.30
	"	2.50
	Water & Garbage	16.20
	May - August house rental,	
	3 mos. @ \$100/mo.	300.00
Unitemized herein, N. Stacey		620.49
Oct. 5	Meals	11.55
	Grub	3.93
6	Meals	13.50
7	"	14.00

Oct. 8	Meals	9.20	
9	"	4.30	
	"	3.60	
	"	7.90	
Oct. 10	"	3.95	
	"	7.95	
	Grub	3.10	
	"	4.90	
	"	.42	
Oct. 11	Meals	6.50	
	"	5.20	
12	"	17.20	
13	"	14.70	
14	"	14.00	
15	"	16.20	
16	Grub	5.20	
	Meals	13.60	
	Grub	2.59	
17	Meals	15.00	
18	"	<u>15.70</u>	
		\$ 3053.54	\$ 3,053.54

Total number of person - days = 159½

Cost/person/day = \$19.17

(c) TRANSPORTATION

May 14	Gas	2.15
16	"	18.20
	"	2.00

May	16	Gas	4.00
		"	4.55
	18	Air Fare	218.00
		Mileage, 1463 @ \$.17	248.71
	20	Gas	7.30
		"	5.00
June	9	Air Fare	85.85
		Taxi	7.00
June	10	Air Fare	47.50
	11	Mileage, 1123 @ 0.16	179.68
		Gas	2.00
		Oil	5.20
		Grease	1.25
	12	Mileage, 480 @ \$.17	81.60
		Air Fare	228.00
		Unitemized gas & Mileage, N. Stacey	446.52
July	11	Air Fare	360.00
		Unitemized Gas and Mileage, N. Stacey	105.20
July	16	Parking	23.25
Aug.	19	Air Fare	215.00
		Unitemized Gas & Mileage, N. Stacey	620.49
Oct.	5	Jeep Rental	5.00
		Mileage, 70 @ \$.17	11.90
		Gas	7.00
	10	Mileage, 70 @ \$.17	11.90
		Gas	11.82
	11	Mileage, 35 @ \$.17	5.95

Oct. 12	Gas	6.75	
15	Mileage, 35 @ \$.17	5.95	
	Gas	<u>13.82</u>	
		\$ 2,998.54	\$ 2,998.54

Total 72 3/4 days (travel days included)

Cost/day = \$41.22

(d) SURVEYS: GEOCHEMICAL SOIL SAMPLING

1/2 May 14, 15-27, 29-31, June 1, 2, 4, 6-9, 11-21, 1/2 22, 24-28,
total 40 days.

848 samples collected

Total cost of physically collecting the samples = \$14,635.22

$\$14,635.22 \div 40 \text{ days} = \$365.88/\text{day}$

$848 \text{ samples} \div 40 \text{ days} = 21.2 \text{ samples/day}$

$\$14,635.22 \div 848 \text{ samples} = \$17.26/\text{sample}$

(e) ANALYSES

848 samples analyzed for lead and silver


Total cost = \$1,976.15 \$ 1,976.15

Cost/sample = \$2.33

(f) Cost of preparation of report is not included because the maximum
M.E.I.P. commitment is exceeded in field work.

(g) MISCELLANEOUS

May 14	Xerox	.50
15	Telephone	20.09
	Supplies	41.42

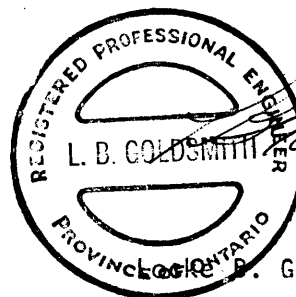


May 16	Sample bags	10.68	
	"	1.77	
	Packsack	25.95	
18	Supplies	6.22	
22	Telephone	9.65	
	Postage	2.45	
	Flagging	12.35	
24	Postage	2.30	
	Topolite	31.20	
June 11	Saw file	1.55	
30	Saw rental	170.00	
	Power	28.36	
	Telephone	3.37	
July 14	Saw rental	40.00	
	"	40.00	
	June-August Telephone	94.39	
	September Telephone	76.51	
		<u>\$ 618.76</u>	<u>\$ 618.76</u>

(h) Partial cost of 1979 programme: \$25,446.99 \$25,446.99.

(i) Maximum M.E.I.P. commitment: \$ 6,700.00

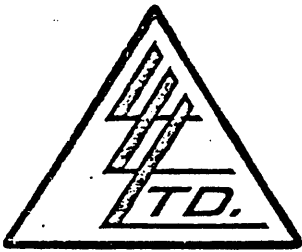
(j) The author certifies that the financial report is true in every respect.



January 2, 1980

L. B. Goldsmith, P. Eng.
Consulting Geologist

A P P E N D I X



629 Beaverdam Rd. N.E.
Calgary 67, Alberta

LORING LABORATORIES LTD.

Phone 274-2777

METHODS OF ANALYSIS FOR GEOCHEMS

1. COPPER, LEAD, ZINC, NICKEL, COBALT, SILVER

500 milligrams of -80 mesh material are weighed into test tubes. Aqua regia added and digested in water bath at 100°C for three hours.

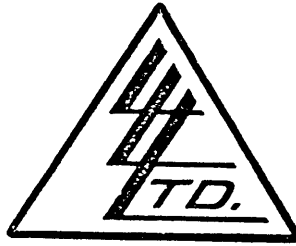
The test tubes are then bulked to the 10 ml. level, mixed and allowed to settle overnight.

The samples are then put through the atomic absorption with appropriate standards and reported in PPM.

2. MOLYBDENUM GEOCHEMS

The same sample weight is used; aqua regia is also used, but just prior to bulking up to 10 mls. volume, 3 mls. of aluminum chloride solution is added to enhance the molybdenum atom. After standing overnight the samples are put through the atomic absorption using a nitrous oxide and acetylene flame. Reported in PPM Mo.

To: HALLMAC MINES LTD.,
 403, 239 - 8th Avenue S.W.,
 Calgary, Alberta T2P 1B9
 ATTN: W. Wheeler
 cc: L.B. Goldsmith - Silverton

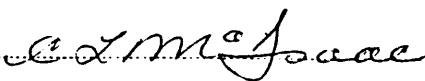


File No. 17389
 Date July 30, 1979
 Samples Rock Chip

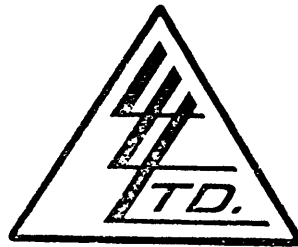
Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

SAMPLE No.	OZ./TON SILVER	% Pb	% Zn
<p><u>"Rock Sample"</u></p> <p>Sample # 1</p>	140.96	79.72	.21
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>			

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.


 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc: L. B. Goldsmith



File No. 16980
 Date May 24th , 1979
 Samples Soil

Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

Page # 1

SAMPLE No.	PPM Pb	PPM Ag
<u>" SOIL SAMPLES "</u>		
4E 5+50S	25	1.4
4E 6+50S	18	1.8
4E 7+50S	25	1.7
4E 8+50S	46	1.3
4E 9+50S	34	2.7
4E 10+50S	28	1.2
4E 11+50S	21	1.0
4E 12+50S	19	1.3
4E 13+50S	22	1.3
4E 14+50S	29	3.6
4E 15+50S	28	1.7
4E 16+50S	72	4.0
4E 17+50S	73	3.5
4E 18+50S	41	3.3
4E 19+50S	34	1.4
12E 5+50S	18	1.4
12E 6+50S	23	1.3
12E 7+50S	164	3.6
12E 8+50S	20	0.8
12E 9+50S	36	0.7
12E 10+50S	47	1.3
12E 11+50S	55	1.4
12E 12+50S	44	1.4
12E 13+50S	60	1.3
12E 14+50S	59	2.0
12E 15+50S	154	1.2
12E 16+50S	62	1.6
12E 17+50S	77	1.0
12E 18+50S	58	1.4
12E 19+50S	41	0.7

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

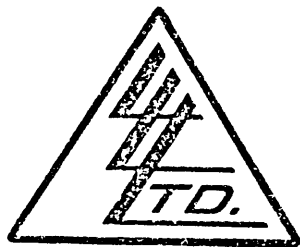
Rejects Retained one month.

Pulps Retained one month
 unless specific arrangements
 made in advance.

L. B. Goldsmith

Licensed Assayer of British Columbia

To: HALIMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 16980
 Date May 24th , 1979
 Samples Soil

Certificate of
ASSAY of
LORING LABORATORIES LTD.

Page # 2

SAMPLE No.	PPM Pb	PPM Ag
12E 20+50S	59	1.2
12E 21+50S	75	1.8
12E 22+50S	33	2.0
12E 23+50S	41	0.9
12E 24+50S	74	1.4
12E 25+50S	61	1.5
12E 26+50S	80	1.2
12E 27+50S	70	0.8
12E 28+50S	62	1.2
12E 29+50S	43	0.9
12E 30+50S	36	1.0
12E 31 50S	25	0.7
12E 32+50S	32	1.2
12E 33+50S	26	1.5
4E 6+00S	18	1.1
4E 7+00S	19	1.1
4E 8+00S	25	1.0
4E 9+00S	41	1.9
4E 10+00S	29	2.1
4E 11+00S	14	0.5
4E 12+00S	21	1.2
4E 13+00S	19	0.5
4E 14+00S	21	2.3
4E 15+00S	31	2.0
4E 16+00S	74	2.8
4E 17+00S	75	9.8
4E 18+00S	193	440.0
4E 19+00S	121	3.4
4E 20+00S	30	1.6
12E 6+00S	18	1.4
12E 7+00S	22	0.8

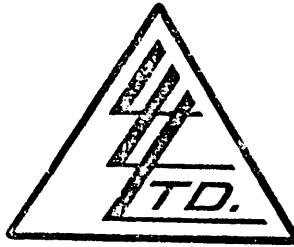
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

A. L. M. J. O. A. E.
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith

File No. 16980
 Date May 24th , 1979
 Samples Soil



Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

Page # 3

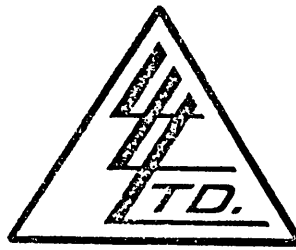
SAMPLE No.	PPM Pb	PPM Ag
12E 8+00S	29	1.2
12E 9+00S	19	1.0
12E 10+00S	33	0.7
12E 11+00S	44	1.2
12E 12+00S	37	1.2
12E 13+00S	56	1.8
12E 14+00S	76	1.8
12E 15+00S	61	1.6
12E 16+00S	77	1.4
12E 17+00S	57	1.3
12E 18+00S	50	1.5
12E 19+00S	49	1.6
12E 20+00S	50	1.4
12E 21+00S	55	1.6
12E 22+00S	106	2.0
12E 23+00S	30	1.1
12E 24+00S	52	1.2
12E 25+00S	30	0.6
12E 26+00S	58	1.3
12E 27+00S	51	1.8
12E 28+00S	111	0.8
12E 29+00S	46	1.5
12E 30+00S	32	1.1
12E 31+00S	29	1.0
12E 32+00S	22	0.8
12E 33+00S	23	0.9
12E 34+00S	26	1.1
8E 5+50S	25	1.2
8E 6+50S	25	1.0
8E 7+50S	22	1.4
8E 8+50S	18	1.1

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS. MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

E. L. M. Isaac
 Licensed Assayer of British Columbia

To: HALIMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L. B. Goldsmith



File No. 16980
 Date May 24th , 1979
 Samples Soil

Certificate of
ASSAY of
LORING LABORATORIES LTD.

Page # 4

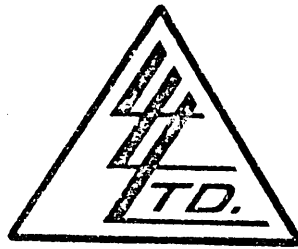
SAMPLE No.	PPM Pb	PPM Ag
8E 9+50S	59	1.2
8E 10+50S	63	1.6
8E 11+50S	50	1.5
8E 12+50S	67	2.8
8E 13+50S	36	1.5
8E 14+50S	39	1.4
8E 15+50S	40	1.0
8E 16+50S	51	1.4
8E 17+50S	44	1.4
8E 18+50S	36	0.8
8E 19+50S	48	1.4
8E 20+50S	40	1.9
8E 21+50S	270	2.5
8E 22+50S	59	1.5
8E 23+50S	67	3.5
8E 24+50S	23	0.7
8E 25+50S	58	1.3
8E 26+50S	49	2.2
8E 27+50S	73	2.0
8E 28+50S	59	1.9
8E 29+50S	280	2.5
8E 30+50S	35	1.6
8E 31+50S	67	2.1
8E 6+00S	153	4.5
8E 7+00S	49	1.3
8E 8+00S	20	1.0
8E 9+00S	41	1.0
8E 10+00S	40	1.2
8E 11+00S	92	1.8
8E 12+00S	56	1.2
8E 13+00S	51	0.8

I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

.....*L. B. Goldsmith*.....
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239-8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 16980
 Date May 24th , 1979
 Samples Soil

Certificate of
ASSAY of
LORING LABORATORIES LTD.

Page # 5

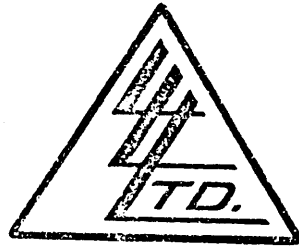
SAMPLE No.	PPM Pb	PPM Ag
8E 14+OOS	29	1.8
8E 15+OOS	39	1.0
8E 16+OOS	42	1.2
8E 17+OOS	57	1.0
8E 18+OOS	49	1.6
8E 19+OOS	42	1.4
8E 20+OOS	43	1.5
8E 21+OOS	530	2.2
8E 22+OOS	65	1.4
8E 23+OOS	61	1.7
8E 24+OOS	28	1.0
8E 25+OOS	57	2.0
8E 26+OOS	70	1.6
8E 27+OOS	79	1.7
8E 28+OOS	130	2.6
8E 29+OOS	44	1.0
8E 30+OOS	138	3.3
8E 31+OOS	8	0.4
8E 32+OOS	28	0.9
0+OOE 0+50S	28	1.5
0+OOE 1+50S	15	1.5
0+OOE 2+50S	20	1.8
0+OOE 3+50S	31	0.9
0+OOE 4+50S	41	1.0
0+OOE 5+50S	30	0.7
0+OOE 6+50S	35	1.3
0+OOE 7+50S	19	0.8
0+OOE 8+50S	24	1.0
0+OOE 9+50S	39	1.1
0+OOE 10+50S	46	1.7
0+OOE 11+50S	41	0.8

I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

E. L. McFarlane
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 16980
 Date May 24th , 1979
 Samples Soil

Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

Page # 6

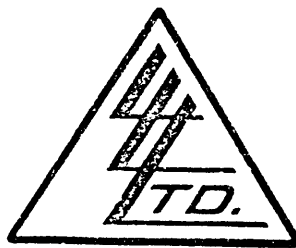
SAMPLE No.	PPM Pb	PPM Ag
O+00E 12+50S	43	2.1
O+00E 13+50S	340	10.0
O+00E 14+50S	48	1.2
O+00E 1+00S	54	1.3
O+00E 2+00S	24	1.7
O+00E 3+00S	26	1.1
O+00E 4+00S	28	1.1
O+00E 5+00S	30	1.0
O+00E 6+00S	22	1.8
O+00E 7+00S	18	0.8
O+00E 8+00S	27	1.3
O+00E 9+00S	41	0.8
O+00E 10+00S	35	1.3
O+00E 11+00S	73	1.6
O+00E 12+00S	45	1.7
O+00E 13+00S	39	2.5
O+00E 14+00S	109	2.3
O+00E 15+00S	54	2.4

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

L. B. Goldsmith
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17036
 Date May 28th , 1979
 Samples Soil

Certificate of
ASSAY OF
LORING LABORATORIES LTD.

Page # 1

SAMPLE No.	PPM Pb	PPM Ag
<u>" SOIL SAMPLES "</u>		
16E 5+50S	23	2.3
16E 6+50S	25	2.3
16E 7+50S	29	1.3
16E 8+50S	37	2.1
16E 9+50S	77	1.5
16E 10+50S	48	1.2
16E 11+50S	36	1.2
16E 12+50S	48	1.5
16E 13+50S	34	1.4
16E 14+50S	29	1.2
16E 15+50S	34	1.0
16E 16+50S	34	1.5
16E 17+50S	25	1.3
16E 18+50S	23	0.7
16E 19+50S	32	1.4
16E 20+50S	47	1.7
16E 21+50S	65	1.5
16E 22+50S	37	1.6
16E 23+50S	33	0.8
16E 24+50S	59	2.7
16E 25+50S	37	1.3
16E 26+50S	74	1.4
16E 27+50S	43	0.9
16E 28+50S	32	0.8
16E 29+50S	26	1.2
16E 30+50S	25	0.5
16E 31+50S	36	1.2
16E 32+50S	27	1.0
16E 33+50S	26	1.8
16E 34+50S	25	1.4
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>		

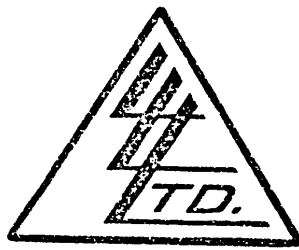
Rejects Retained one month.

Pulps Retained one month
 unless specific arrangements
 made in advance.

L. B. Goldsmith

Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17036
 Date May 28th , 1979
 Samples Soil

**Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.**

Page # 2

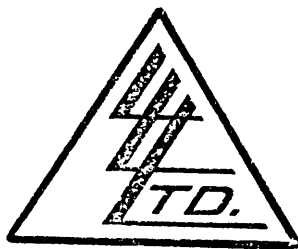
SAMPLE No.	PPM Pb	PPM Ag
16E 35+50S	24	1.1
16E 6+00S	22	1.5
16E 7+00S	28	1.4
16E 8+00S	35	1.5
16E 9+00S	57	1.5
16E 10+00S	118	3.7
16E 11+00S	37	1.3
16E 12+00S	33	1.4
16E 13+00S	38	0.6
16E 14+00S	30	0.5
16E 15+00S	36	1.2
16E 16+00S	29	1.2
16E 17+00S	28	1.4
16E 18+00S	29	1.3
16E 19+00S	40	1.0
16E 20+00S	41	1.8
16E 21+00S	60	1.5
16E 22+00S	58	3.3
16E 23+00S	32	1.5
16E 24+00S	28	2.5
16E 25+00S	55	1.5
16E 26+00S	80	1.5
16E 27+00S	47	1.5
16E 28+00S	47	1.2
16E 29+00S	30	1.4
16E 30+00S	35	1.2
16E 31+00S	45	1.3
16E 32+00S	52	1.5
16E 33+00S	37	1.2
16E 34+00S	33	1.1
16E 35+00S	24	0.8

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

[Signature]
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17036
 Date May 28th , 1979
 Samples Soil

**Certificate of
 ASSAY of
 LORING LABORATORIES LTD.**

Page # 3

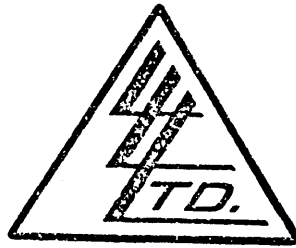
SAMPLE No.	PPM Pb	PPM Ag
16E 36+00S	25	1.1
4W 1+00S	43	1.9
4W 2+00S	79	2.4
4W 3+00S	58	3.0
4W 4+00S	47	1.1
4W 5+00S	23	1.6
4W 6+00S	31	0.9
4WE 21+00S	52	2.4
4WE 22+00S	40	1.8
4WE 23+00S	71	3.4
4WE 24+00S	38	0.8
4WE 25+00S	37	1.4
4WE 26+00S	70	1.5
4WE 27+00S	50	0.9
4WE 28+00S	26	0.8
4WE 29+00S	31	1.5
4WE 30+00S	27	1.2
4W 0+50S	24	1.7
4W 1+50S	49	2.2
4W 2+50S	92	2.3
4W 3+50S	49	1.2
4W 4+50W	45	1.3
4W 5+50W	27	2.0
4E 20+50S	37	1.4
4E 21+50S	62	8.6
4E 22+50S	31	1.2
4E 23+50S	41	1.3
4E 24+50S	39	1.0
4E 25+50S	50	2.3
4E 26+50S	50	1.7
4E 27+50S	41	1.0

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

L. B. Goldsmith
 Licensed Assayer of British Columbia

To: HALIMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17036
 Date May 28th , 1979
 Samples Soil

**Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.**

Page # 4

SAMPLE No.	PPM Pb	PPM Ag
4E 28+50S	28	1.0
4E 29+50S	33	5.2

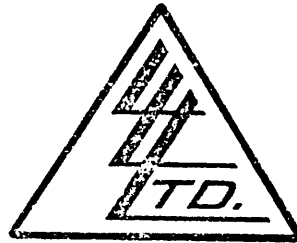
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

L.B. Goldsmith
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith

File No. 17049
 Date May 30th , 1979
 Samples Soil



Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

Page # 1

SAMPLE No.	PPM Pb	PPM Ag
<u>" SOIL SAMPLES "</u>		
24E 1+008	27	1.6
24E 2+008	32	1.4
24E 3+008	47	2.0
24E 4+008	69	1.3
24E 5+008	89	1.5
24E 6+008	80	2.0
24E 7+008	67	1.6
24E 8+008	50	1.2
24E 9+008	66	2.6
24E 10+008	140	1.7
24E 11+008	57	1.0
24E 12+008	57	1.2
24E 13+008	40	0.8
24E 0+50S	28	2.2
24E 1+50S	29	2.5
24E 2+50S	32	1.9
24E 3+50S	80	0.8
24E 4+50S	46	1.4
24E 5+50S	69	1.0
24E 6+50S	150	2.3
24E 7+50S	68	1.2
24E 8+50S	34	2.0
24E 9+50S	190	3.1
24E 10+50S	240	3.4
24E 11+50S	82	2.2
24E 12+50S	65	0.9
20E 11+00S	400	5.6
20E 12+00S	2660	30.0
20E 14+00S	58	1.6
20E 15+00S	35	1.2

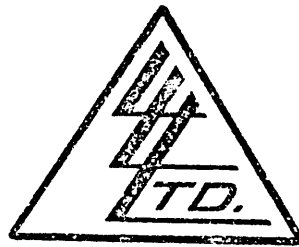
I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

Edmund J. ...
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith

File No. 17049
 Date May 30th , 1979
 Samples Soil



Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

Page # 2

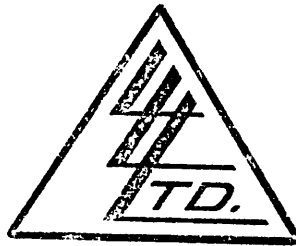
SAMPLE No.	PPM Pb	PPM Ag
20E 16+00S	22	1.0
20E 17+00S	32	1.4
20E 18+00S	32	1.4
20E 19+00S	27	0.9
20E 21+00S	54	1.5
20E 22+00S	40	1.2
20E 23+00S	36	1.3
20E 24+00S	58	1.2
20E 25+00S	39	1.0
20E 26+00S	28	1.3
20E 27+00S	3	1.1
20E 28+00S	43	1.0
20E 29+00S	28	1.1
20E 30+00S	38	0.8
20E 33+00S	22	1.2
20E 34+00S	36	1.2
20E 35+00S	19	1.5
20E 36+00S	21	1.2
20E 37+00S	25	1.5
20E 38+00S	49	1.0
20E 39+00S	31	1.5
20E 40+00S	27	0.8
20E 15+50S	24	1.7
20E 16+50S	20	1.1
20E 17+50S	29	0.8
20E 18+50S	30	1.9
20E 19+50S	32	1.0
20E 21+50S	50	1.6
20E 22+50S	42	1.2
20E 23+50S	28	1.0
20E 24+50S	47	1.5

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

Edna Jane
 Licensed Assayer of British Columbia

To: HALIMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L. B. Goldsmith



File No. 17049
 Date May 30th , 1979
 Samples Soil

Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

Page # 3

SAMPLE No.	PPM Pb	PPM Ag
20E 25+50S	39	1.2
20E 27+50S	31	1.1
20E 28+50S	33	1.5
20E 29+50S	22	0.9
20E 31+50S	23	1.2
20E 32+50S	34	1.2
20E 33+50S	24	1.7
20E 34+50S	29	2.2
20E 35+50S	26	1.4
20E 36+50S	28	2.2
20E 37+50S	30	1.3
20E 38+50S	48	1.3
20E 39+50S	34	1.7
28E ²² 0+50N	33	1.8
28E ²² 1+50N	24	1.4
28E ²² 2+50N	21	1.3
28E ²² 3+50N	38	1.2
28E ²² 4+50N	36	1.2
28E ²⁴ 1+00N	39	2.0
28E ²⁴ 2+00N	30	1.1
28E ²⁴ 3+00N	23	1.7
28E ²⁴ 4+00N	31	1.2
28E ²⁴ 5+00N	25	1.9
28E 0+50N	26	2.0
28E 1+50N	27	1.7
28E 2+50N	27	1.8
28E 3+50N	27	1.6
28E 4+50N	27	2.7
28E 0+00N	33	1.9
28E 1+00N	26	2.4
28E 2+00N	26	1.5

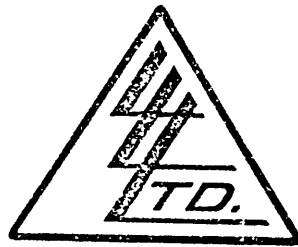
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

William J. J. J.
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L. B. Goldsmith

File No. 17049
 Date May 30th , 1979
 Samples Soil




Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

Page # 4

SAMPLE No.	PPM Pb	PPM Ag
28E ³² 3+00N	23	1.8
28E ³² 4+00N	24	1.4
28E ³² 5+00N	25	2.1
4W 22+50S	40	2.0
24E 00+00BL	26	2.2

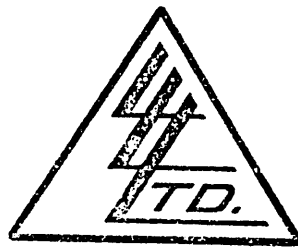
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.


 Licensed Assayer of British Columbia

To: HALIMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith

File No. 17059
 Date June 1st , 1979
 Samples Soil



Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

Page # 1

SAMPLE No.	PPM Pb	PPM Ag
<u>" SOIL SAMPLES "</u>		
2OE 10+50S	58	1.5
2OE 11+50S	460	8.3
2OE 12+50S	41	0.8
2OE 14+50S	66	1.0
2OE 20+50S	33	1.5
2OE 26+50S	32	1.0
2OE 30+50S	34	1.3
2OE 13+00S	37	1.5
2OE 14+00S	250	2.7
2OE 17+00S	34	1.3
2OE 20+00S	35	1.0
2OE 22+00S	40	1.5
2OE 31+00S	44	1.0
2OE 32+00S	29	1.2
4W 6+50S	21	1.0
4W 7+50S	29	1.5
4W 8+50S	29	1.6
4W 9+50S	29	2.0
4W 10+50S	31	1.6
4W 11+50S	72	7.2
4W 12+50S	61	2.5
4W 13+50S	57	2.0
4W 14+50S	44	2.0
4W 15+50S	32	2.2
4W 16+50S	47	1.8
4W 17+50S	99	6.7
4W 18+50S	22	2.3
4W 19+50S	53	2.7
4W 20+50S	38	1.2

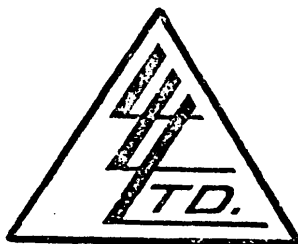
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.

Pulps Retained one month
 unless specific arrangements
 made in advance.

[Signature]
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17059
 Date June 1st , 1979
 Samples Soil

Certificate of
ASSAY OF
LORING LABORATORIES LTD.

Page # 2

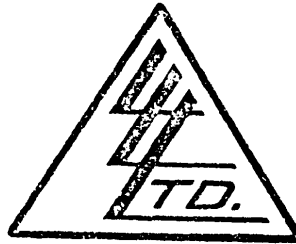
SAMPLE No.	PPM Pb	PPM Ag
LW 21+50S	71	2.9
LW 23+50S	32	2.1
LW 24+50S	43	1.8
LW 7+00S	29	1.7
LW 8+00S	39	2.0
LW 9+00S	34	2.3
LW 10+00S	41	3.7
LW 11+00S	49	5.0
LW 12+00S	330	7.7
LW 13+00S	150	3.8
LW 14+00S	36	1.5
LW 15+00S	33	1.6
LW 16+00S	21	0.8
LW 18+00S	74	0.4
LW 19+00S	30	1.5
LW 20 00S	42	1.7
LW 21+00S	61	1.8
LW 22+00S	35	2.3
LW 23+00S	28	2.0
LW 24+00S	41	1.2
LW 25+00S	36	0.7

I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

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 Pulp Retained one month
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 made in advance.

[Signature]
 Licensed Assayer of British Columbia

To: HALIMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17075
 Date June 4th , 1979
 Samples Soil

Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

Page # 1

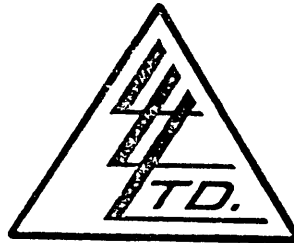
SAMPLE No.	PPM Pb	PPM Ag
<u>" Soil Samples "</u>		
32E 0+50N	32	1.2
32E 1+50N	37	1.1
32E 2+50N	45	1.1
32E 3+50N	27	1.0
32E 4+50N	28	1.1
24E 13+50S	44	2.0
24E 14+50S	105	1.5
24E 17+50S	25	1.2
24E 18+50S	25	1.1
24E 19+50S	29	1.2
24E 20+50S	24	1.0
24E 21+50S	37	0.9
24E 22+50S	29	0.8
24E 23+50S	31	0.6
24E 24+50S	37	1.2
24E 25+50S	55	0.8
24E 26+50S	68	0.7
24E 27+50S	33	1.0
24E 28+50S	44	0.8
24E 29+50S	35	0.8
24E 14+00S	70	1.0
24E 15+00S	76	1.5
24E 16A+00S	29	0.5
24E 16B+00S 16+50S	26	1.0
24E 17+00S	26	1.3
24E 18+00S	28	1.2
24E 19+00S	24	1.0
24E 20+00S	30	1.1
24E 21+00S	25	1.0
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES		

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

[Signature]

Licensed Assayer of British Columbia

To: HALIMAC MINES LTD.
 # 403 ; 239- 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L. B. Goldsmith



File No. 17075
 Date June 4th , 1979
 Samples Soil

Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

Page # 2

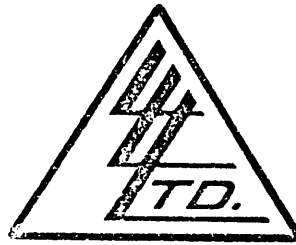
SAMPLE No.	PPM	
	Pb	Ag
24E 22+00S	40	0.8
24E 23+00S	34	1.0
24E 24+00S	51	1.0
24E 25+00S	32	1.3
24E 26+00S	45	0.7
24E 27+00S	81	1.0
24E 28+00S	46	1.4
24E 29+00S	38	1.2
24E 30+00S	63	1.6
28E 1+00S	37	1.3
28E 2+00S	79	0.8
28E 3+00S	45	1.7
28E 4+00S	32	1.5
28E 5+00S	108	1.5
28E 6+00S	55	1.3
28E 7+00S	39	0.8
28E 8+00S	34	0.8
28E 9+00S	33	1.3
28E 10+00S	32	1.5
28E 11+00S	75	0.8
28E 12+00S	72	1.0
28E 0+50S	34	1.4
28E 1+50S	31	0.8
28E 2+50S	38	0.8
28E 3+50S	38	1.5
28E 4+50S	42	1.8
28E 5+50S	350	1.5
28E 6+50S	34	1.0
28E 7+50S	44	0.9
28E 8+50S	24	0.8
28E 9+50S	31	1.2

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

L. B. Goldsmith
 Licensed Assayer of British Columbia

To: HALIMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17075
 Date June 4th , 1979
 Samples Soil


Certificate of
ASSAY of
LORING LABORATORIES LTD.

Page # 3

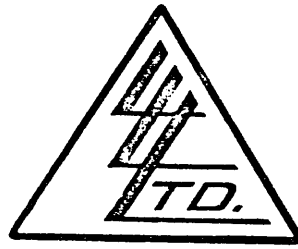
SAMPLE No.	PPM Pb	PPM Ag
28E 10+50S	49	1.8
28E 11+50S	55	1.2
32E 1+00N	28	1.6
32E 2+00N	30	1.0
32E 3+00N	31	0.9
32E 4+00N	25	1.0
32E 5+00N	25	1.0
32E 00+00	40	1.6
No Sample Number	46	1.3
RAE 15+50S		

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.


 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.;
 403, 239 - 8th Avenue S.W.,
 Calgary, Alberta T2P 1B9
 ATTN: W. Wheeler
 cc: L.B. Goldsmith



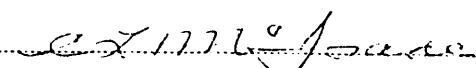
File No. 17082
 Date June 7, 1979
 Samples Soil Geochems

Certificate of
ASSAY OF
LORING LABORATORIES LTD.

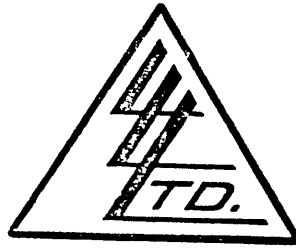
Page # 1

SAMPLE No.	PPM Pb	PPM Ag
<u>"Soil Geochems"</u>		
28 E 13 + OOS	67	1.8
28 E 14 + OOS	31	1.0
28 E 15 + OOS	25	0.7
28 E 16 + OOS	27	0.5
28 E 17 + OOS	27	0.2
28 E 18 + OOS	26	1.1
28 E 19 + OOS	43	1.3
28 E 20 + OOS	27	1.0
28 E 21 + OOS	28	0.8
28 E 22 + OOS	23	0.5
28 E 23 + OOS	26	0.7
28 E 24 + OOS	27	1.0
28 E 25 + OOS	28	1.0
28 E 26 + OOS	31	0.7
28 E 27 + OOS	51	1.0
28 E 28 + OOS	29	0.8
28 E 29 + OOS	51	0.8
28 E 30 + OOS	45	0.5
28 E 31 + OOS	46	0.5
28 E 32 + OOS	26	0.5
28 E 33 + OOS	29	0.8
28 E 34 + OOS	23	0.9
28 E 35 + OOS	29	0.8
28 E 36 + OOS	49	0.8
28 E 37 + OOS	64	1.3
28 E 38 + OOS	56	0.7
28 E 39 + OOS	43	1.2
28 E 40 + OOS	41	1.5
28 E 41 + OOS	45	0.5
I Hereby Certify		THAT THE ABOVE RESULTS ARE THOSE
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES		

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.


 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.,
 403, 239 - 8th Avenue S.W.,
 Calgary, Alberta T2P 1B9
 ATTN: W. Wheeler
 cc: L.B. Goldsmith



File No. 17082
 Date June 7, 1979
 Samples Soil Geochems

**Certificate of
 ASSAY of
 LORING LABORATORIES LTD.**

Page # 2

SAMPLE No.	PPM Pb	PPM Ag
28 E 42 + 00S	45	1.0
28 E 43 + 00S	75	0.8
28 E 44 + 00S	65	2.7
28 E 12 + 50S	69	2.5
28 E 13 + 50S	50	1.2
28 E 14 + 50S	39	0.8
28 E 15 + 50S	28	0.5
28 E 16 + 50S	28	0.5
28 E 17 + 50S	35	0.5
28 E 18 + 50S	35	0.5
28 E 19 + 50S	36	0.8
28 E 20 + 50S	29	0.6
28 E 21 + 50S	35	0.8
28 E 22 + 50S	9	0.3
28 E 23 + 50S	41	0.6
28 E 24 + 50S	29	1.2
28 E 25 + 50S	29	1.1
28 E 26 + 50S	58	0.8
28 E 27 + 50S	47	0.8
28 E 28 + 50S	46	1.0
28 E 29 + 50S	75	1.0
28 E 30 + 50S	37	0.6
28 E 31 + 50S	30	1.0
28 E 32 + 50S	31	0.7
28 E 33 + 50S	35	0.6
28 E 34 + 50S	29	0.8
28 E 35 + 50S	32	1.1
28 E 36 + 50S	33	0.7
28 E 37 + 50S	32	0.8
28 E 38 + 50S	39	1.2
28 E 39 + 50S	39	0.8

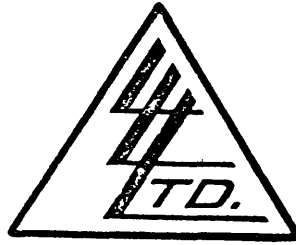
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

Edna J. ...
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.,
403, 239 - 8th Avenue S.W.,
Calgary, Alberta T2P 1B9
ATTN: W. Wheeler

cc: L.B. Goldsmith



File No. 17082
Date June 7, 1979
Samples Soil Geochems

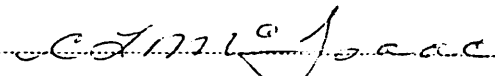
Certificate of
ASSAY of
LORING LABORATORIES LTD.

Page # 3

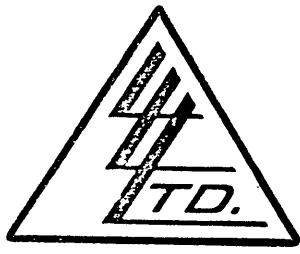
SAMPLE No.	PPM Pb	PPM Ag
28 E 40 + 50S	36	0.7
28 E 41 + 50S	45	0.8
28 E 42 + 50S	38	1.3
28 E 43 + 50S	54	0.7

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

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Pulps Retained one month
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made in advance.


Licensed Assayer of British Columbia

To: HALMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17092
 Date June 11th , 1979
 Samples Soil

**Certificate of
 ASSAY of
 LORING LABORATORIES LTD.**

Page # 1

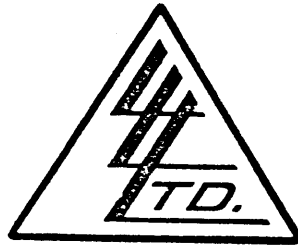
SAMPLE No.	PPM Pb	PPM Ag
" SOIL SAMPLES "		
24E 30+50S	109	1.3
24E 31+50S	19	1.1
24E 32+50S	18	0.7
24E 33+50S	30	1.2
24E 34+50S	48	0.6
24E 35+50S	47	0.1
24E 36+50S	33	1.4
24E 37+50S	35	1.0
24E 38+50S	79	2.0
24E 39+50S	49	0.9
24E 31+00S	28	0.8
24E 32+00S	13	0.8
24E 33+00S	28	0.7
24E 34+00S	59	1.6
24E 35+00S	38	1.0
24E 36+00S	41	0.7
24E 37+00S	71	2.5
24E 38+00S	36	0.7
24E 39+00S	59	1.3
24E 40+00S	48	1.2
32E 0+50S	33	0.8
32E 1+50S	38	0.7
32E 2+50S	38	0.7
32E 3+50S	123	1.2
32E 4+50S	18,700	65.0
32E 5+50S	82	1.0
32E 6+50S	33	0.7
32E 7+50S	32	0.8
32E 8+50S	20	0.8
32E 9+50S	27	0.7

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 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

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 Pulps Retained one month
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L. B. Goldsmith
 Licensed Assayer of British Columbia

To: HALMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17092
 Date June 11th , 1979
 Samples Soil

Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

Page # 2

SAMPLE No.	PPM Pb	PPM Ag
32E 10+50S	75	0.8
32E 11+50S	32	1.0
32E 12+50S	24	0.5
32E 13+50S	21	0.5
32E 14+50S	33	0.8
32E 15+50S	32	0.9
32E 16+50S	38	0.8
32E 17+50S	32	0.6
32E 18+50S	25	0.8
32E 19+50S	25	0.6
32E 20+50S	24	1.0
32E 21+50S	22	0.9
32E 22+50S	18	0.8
32E 23+50S	31	1.0
32E 24+50S	26	1.0
32E 25+50S	42	0.4
32E 26+50S	47	0.9
32E 27+50S	185	1.5
32E 28+50S	36	1.3
32E 29+50S	20	1.0
32E 30+50S	23	0.9
32E 31+50S	14	0.3
32E 32+50S	36	0.7
32E 33+50S	33	1.0
32E 34+50S	35	1.0
32E 35+50S	34	1.2
32E 36+50S	24	1.0
32E 37+50S	25	0.9
32E 38+50S	40	1.0
32E 39+50S	24	0.5
32E 1+00S	44	1.0

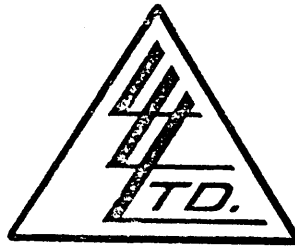
I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

Edna Isaac
 Licensed Assayer of British Columbia

To: HALMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith

File No. 17092
 Date June 11th , 1979
 Samples Soil



Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

Page # 3

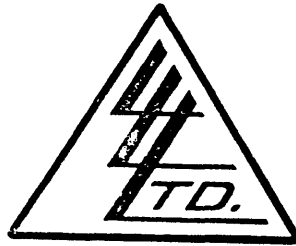
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32E 2+00S	38	1.5
32E 3+00S	70	1.2
32E 4+00S	14,900	38.0
32E 5+00S	65	0.5
32E 6+00S	44	1.2
32E 7+00S	33	1.3
32E 8+00S	29	1.2
32E 9+00S	31	1.2
32E 10+00S	39	1.0
32E 11+00S	49	0.7
32E 12+00S	88	1.0
32E 13+00S	31	0.8
32E 14+00S	31	0.7
32E 15+00S	25	0.7
32E 16+00S	31	0.7
32E 17+00S	29	1.0
32E 18+00S	19	0.5
32E 19+00S	28	0.6
32E 20+00S	23	0.8
32E 21+00S	24	0.7
32E 22+00S	24	0.7
32E 23+00S	38	1.3
32E 24+00S	30	1.0
32E 25+00S	27	1.2
32E 26+00S	33	0.9
32E 27+00S	83	1.1
32E 28+00S	115	1.8
32E 29+00S	25	1.0
32E 30+00S	31	1.1
32E 31+00S	20	1.0
32E 32+00S	17	0.7

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

E. D. M. Isaac
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17092
 Date June 11th , 1979
 Samples Soil

Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

Page # 4

SAMPLE No.	PPM Pb	PPM Ag
32E 33+OOS	63	1.7
32E 34+OOS	53	1.0
32E 35+OOS	31	1.0
32E 36+OOS	21	1.0
32E 37+OOS	27	1.3
32E 38+OOS	31	1.3
32E 39+OOS	76	1.7
32E 40+OOS	43	1.0

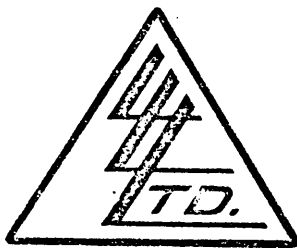
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

Adm. J. J. J.
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith

File No. 17125
 Date June 15th , 1979
 Samples Soils



Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

Page # 1

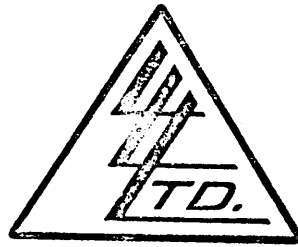
SAMPLE No.	PPM Pb	PPM Ag
<u>" SOIL SAMPLES "</u>		
36E 0+50S	23	1.5
36E 1+00S	25	1.6
36E 1+50S	55	1.7
36E 2+00S	23	3.3
36E 2+50S	22	1.1
36E 3+00S	47	2.3
36E 3+50S	38	1.0
36E 4+00S	33	1.7
36E 4+50S	23	1.3
36E 5+00S	37	1.2
36E 5+50S	36	1.2
36E 6+00S	44	2.7
36E 6+50S	55	2.2
36E 7+00S	62	3.2
36E 7+50S	65	2.4
36E 8+00S	29	0.8
36E 8+50S	21	1.0
36E 9+00S	21	0.8
36E 9+50S	24	0.9
36E 10+00S	25	0.8
36E 10+50S	29	0.8
36E 11+00S	28	0.8
36E 11+50S	49	1.1
36E 12+00S	45	2.3
36E 12+50S	71	1.5
36E 13+00S	92	1.8
36E 13+50S	53	1.3
36E 14+00S	56	1.3
36E 14+50S	21	1.1
36E 15+00S	30	1.2

I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

C. L. M. J. O. A. C.
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403, 239- 8th Avenue S.W.
 CALGARY, Alberta T2P 1B9
 ATTN: W. Wheeler
 cc: L.B. Goldsmith



File No. 17125
 Date June 15th, 1979
 Samples Soils

**Certificate of
 ASSAY of
 LORING LABORATORIES LTD.**

Page # 2

SAMPLE No.	PPM Pb	PPM Ag
36E 15+50S	30	1.1
36E 16+00S	35	1.2
36E 16+50S	20	1.1
36E 17+00S	19	0.9
36E 17+50S	29	1.1
36E 18+00S	36	0.8
36E 18+50S	20	0.6
36E 19+00S	15	0.5
36E 19+50S	23	0.8
36E 20+00S	28	0.6
36E 20+50S	30	0.8
36E 21+00S	30	0.9
36E 21+50S	33	0.7
36E 22+00S	31	0.4
36E 22+50S	39	0.8
36E 23+00S	36	0.7
36E 23+50S	115	0.5
36E 24+00S	63	0.8
36E 24+50S	71	0.8
36E 25+00S	14	0.5
36E 25+50S	31	0.7
36E 26+00S	34	1.0
36E 26+50S	310	1.7
36E 27+00S	290	1.9
36E 27+50S	66	2.1
36E 28+00S	49	2.2
36E 28+50S	23	0.5
36E 29+00S	24	0.6
36E 29+50S	33	1.1
36E 30+00S	22	1.0
36E 30+50S	25	0.5

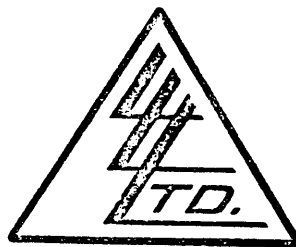
I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

A. L. McFarlane

Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L.B. Goldsmith



File No. 17125
 Date June 15th , 1979
 Samples Soils

Certificate of
ASSAY OF
LORING LABORATORIES LTD.

Page # 3

SAMPLE No.	PPM Pb	PPM Ag
36E 31+00S	24	0.7
36E 31+50S	23	0.8
36E 32+00S	23	0.9
36E 32+50S	31	0.8
36E 33+00S	36	0.8
36E 33+50S	50	1.3
36E 34+00S	42	1.2
36E 0+00 Baseline	37	2.0
36E 0+50N	21	1.7
36E 1+00N	25	2.2
36E 1+50N	23	2.0
36E 2+00N	21	1.9

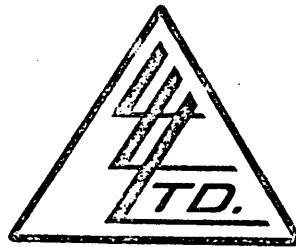
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

L.M. Isaac
 Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler

File No. 17327
 Date July 19th , 1979
 Samples Soils



Certificate of
 ASSAY of

LORING LABORATORIES LTD.

Page # 1

SAMPLE No.	PPM Pb	PPM Ag
<u>" SOIL SAMPLES "</u>		
40+00E-B/L	22	1.0
40+00E 0+50S	24	1.5
40E-1+00S	20	1.0
40+00E-1-50S	26	1.0
40E-2+00S	30	1.7
40+00E-2+50S	27	1.5
40E-3+00S	26	1.0
40+00E-3+50S	32	1.0
40E-4+50S	20	1.0
40+00E-4+00S	38	0.8
40+00E-5+50S	43	2.0
40E-5+00S	30	0.8
40+00E 6+50S	90	3.0
40+00E 6+00S	46	1.0
40+00E 7+00S	32	2.3
40E- 7+50S	35	1.3
40E- 8+50S	42	1.6
40+00E 8+00E	41	0.5
40E 9+00S	27	0.3
40+00E 9+50S	24	1.3
40E- 10+00S	30	1.1
40+00E 10+50S	18	0.7
40E - 11+00S	15	0.4
40+00E-11+50S	16	1.0
40+00E-12+00S	20	1.0
40+00E-12+50S	18	0.5
40E - 13+00S	28	1.0
40+00E 13+50S	22	1.0
40+00E 14+50S	19	0.9
40E = 14+00S	24	0.9

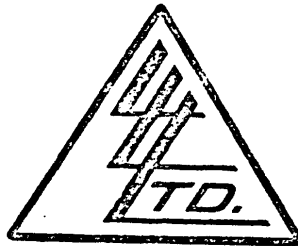
I Herby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . .

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

E. M. J. O. O. C.

Licensed Assayer of British Columbia

To: HALLMAC MINES LTD.
 # 403 , 239 - 8th Avenue S.W.
 CALGARY , Alberta T2P 1B9
 ATTN : W. Wheeler
 cc : L. B. Goldsmith



File No. 17327
 Date July 19th , 1979
 Samples Soils

Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

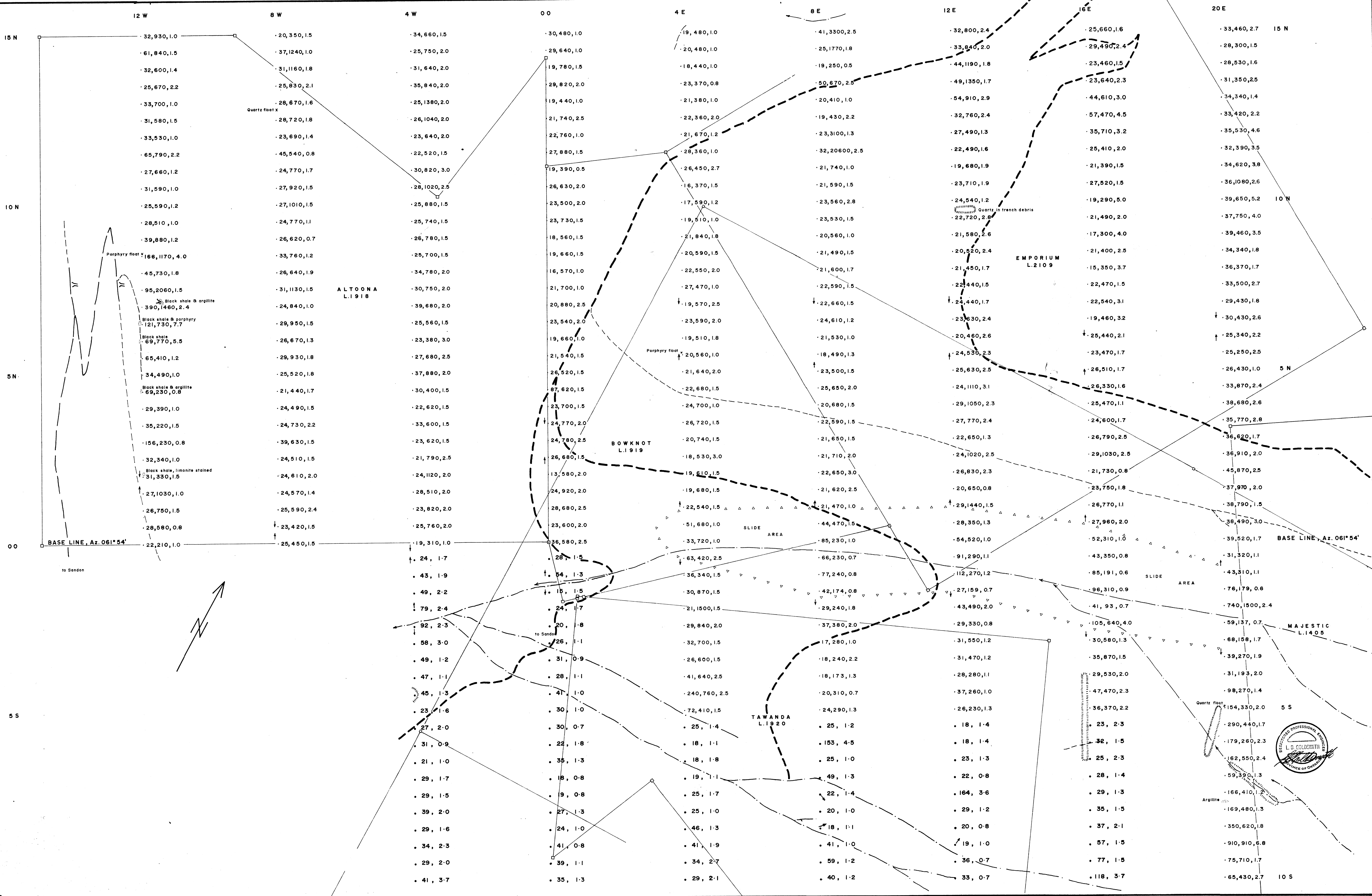
Page # 2

SAMPLE No.	PPM	PPM
	Pb	Ag
40+00E 15+50S	22	1.0
40+00E 15+00S	21	0.7
40E 16+00S	19	0.9
40+00E 16+50S	30	0.8
40E+00E 17+00S	18	0.5
40+00E 17+50S	26	0.5
40E+ 18+50S	130	2.3
40+00E 18+00S	37	0.5
40E+19+50S	32	0.5
40+00E-19+00S	310	3.0
40E-20+50S	62	0.5
40+00E-20+00S	57	1.0
40E 21+50S	83	1.0
40+00E 21+00S	87	0.8
40+00E 22+50S	31	0.8
40+00E 22+00S	88	0.6
40E 23+50S	52	0.5
40+00E 23+00S	48	1.2
40E 24+50S	41	0.7
40+00E 24+00S	41	0.6
40+00E 25+00S	26	0.7
40+00E 25+50S	43	0.9
40+00E 26+00S	48	0.6

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
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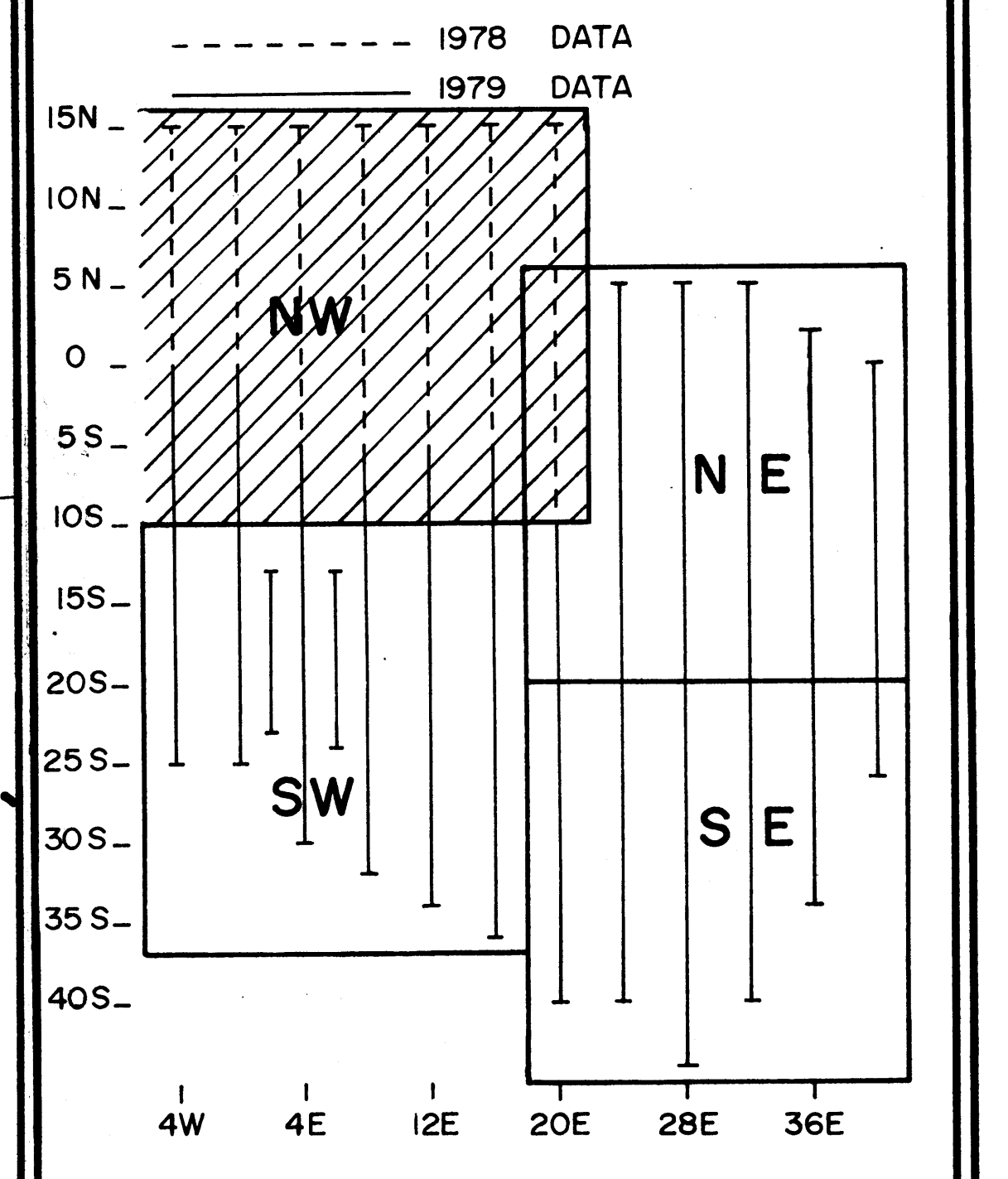
E. L. M. Isaac
 Licensed Assayer of British Columbia



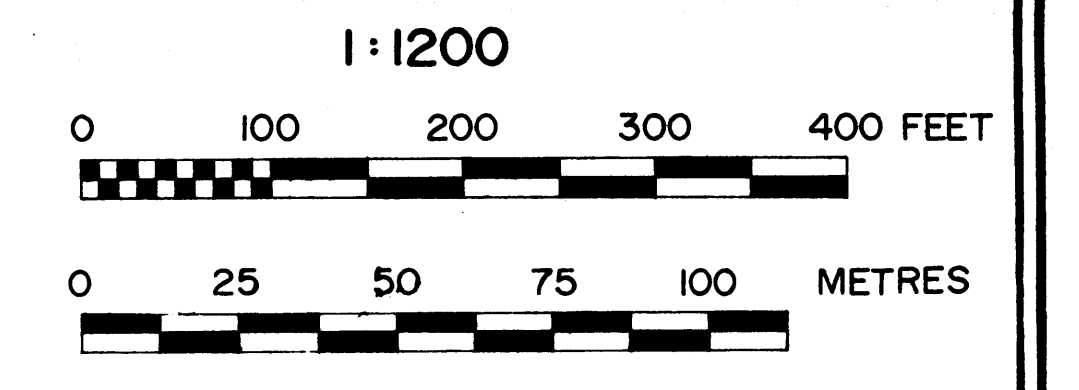
LEGEND

- 28, 300, 1.5 Pb, Zn, Ag p.p.m. ; 1978 DATA
- 18, 1-4 Pb, Ag p.p.m. ; 1979 DATA
- STREAM, WATERCOURSE
- TRENCH
- DIRECTION UPSLOPE
- TRAIL ; ROAD
- ADIT PORTAL
- CLAIM BOUNDARY & POST

LOCALITY MAP



SCALE



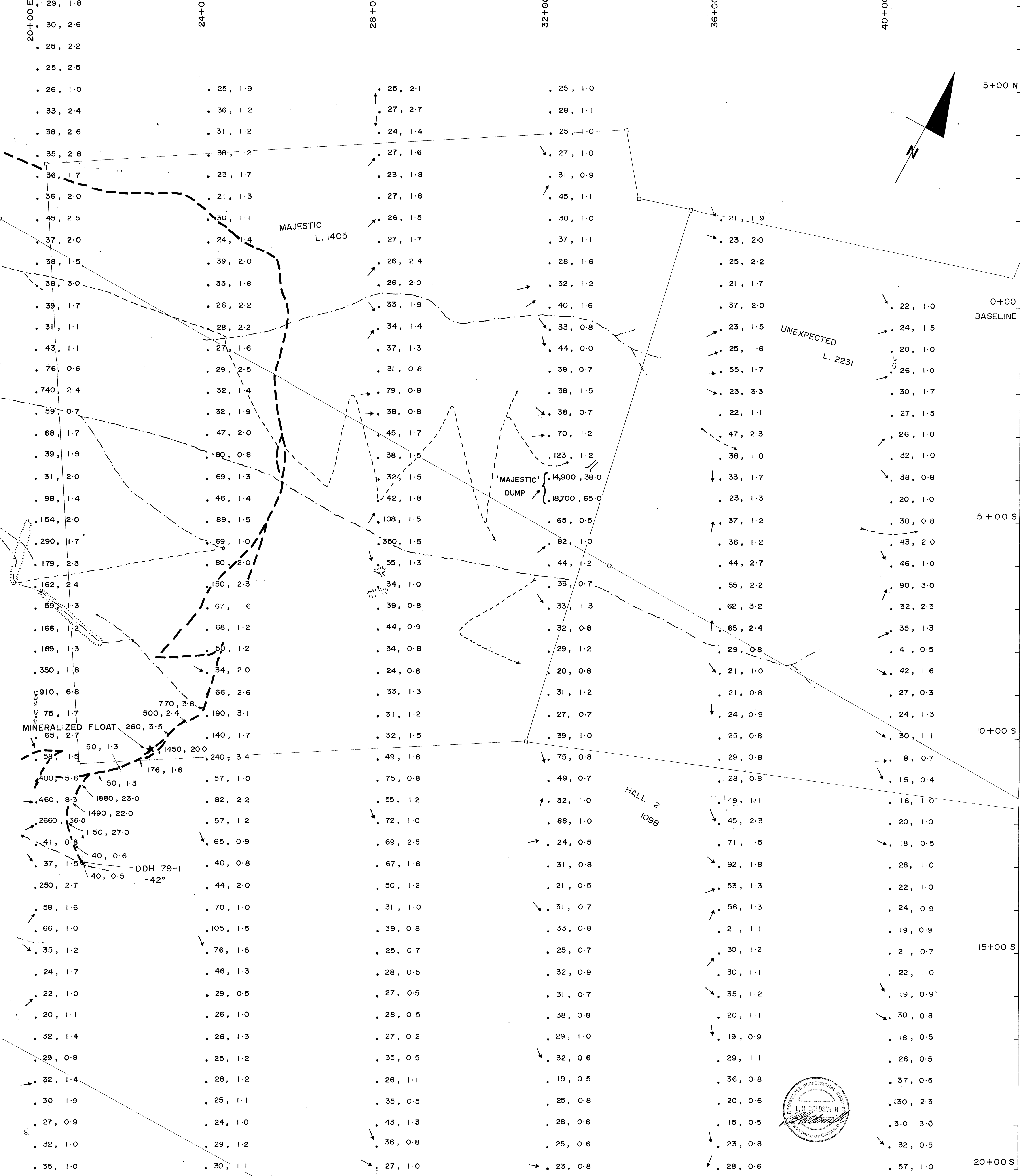
HALLMAC MINES LTD
ALTOONA MINE. SANDON, B.C.

**SOIL GEOCHEMISTRY
NW SECTOR**

TO ACCOMPANY REPORT BY
L. B. GOLDSMITH, P. ENG.
CONSULTING GEOLOGIST



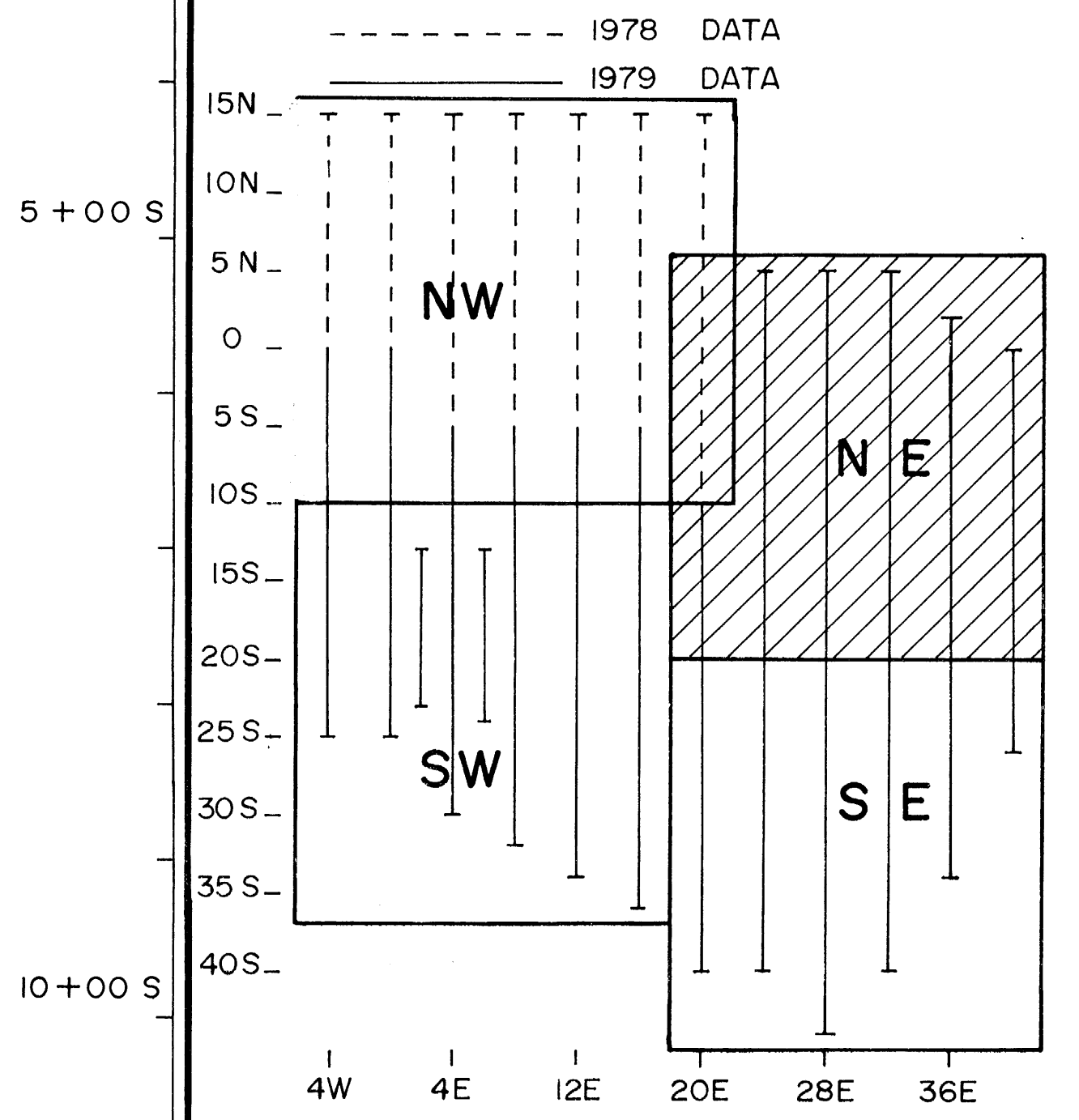
(CONT'D ON NW SECTOR)



LEGEND

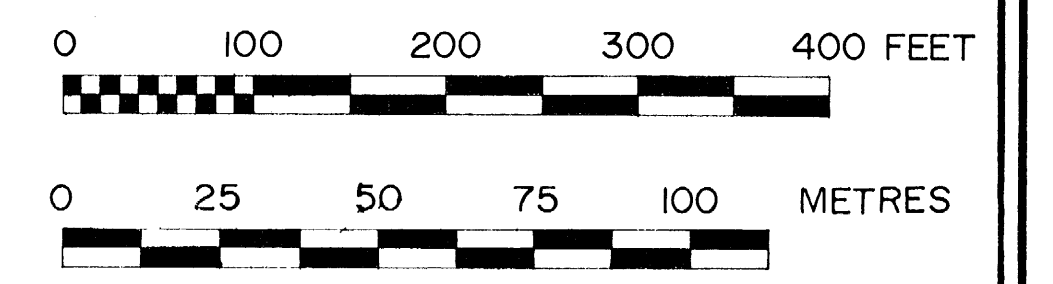
- SAMPLE SITE
- 390, 2.4 Pb, Ag; p.p.m.
- OUTLINE OF SLIDE AREA
- ~ STREAM
- - - TRAIL, ROAD
- ▨ TRENCH
- CLAIM BOUNDARY
- DIRECTION UPSLOPE

LOCALITY MAP



SCALE

1:1200



HALLMAC MINES LTD
ALTOONA MINE, SANDON, B.C.

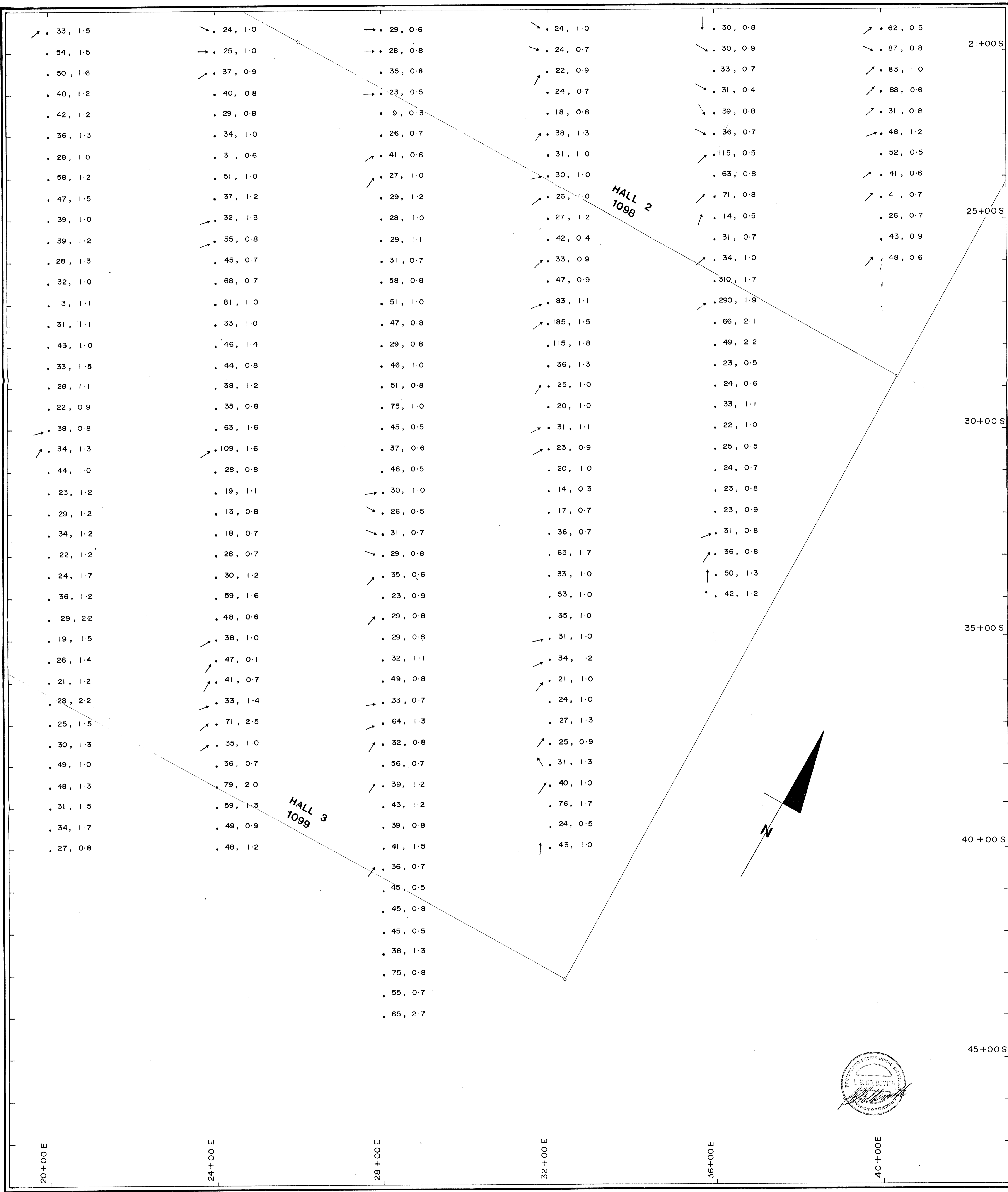
SOIL GEOCHEMISTRY

NE SECTOR

TO ACCOMPANY REPORT BY
L. B. GOLDSMITH, P. ENG.
CONSULTING GEOLOGIST

N.W.S. DWG No. 2 NOV. 1979





LEGEND

- SAMPLE SITE
- 390, 2.4 Pb, Ag; p.p.m.
- OUTLINE OF SLIDE AREA
- STREAM
- TRAIL, ROAD
- TRENCH
- CLAIM BOUNDARY
- DIRECTION UPSLOPE

LOCALITY MAP

1978 DATA
1979 DATA

15N, 10N, 5N, 0, 5S, 10S, 15S, 20S, 25S, 30S, 35S, 40S

4W, 4E, 12E, 20E, 28E, 36E

SCALE

1:1200

0 100 200 300 400 FEET

0 25 50 75 100 METRES

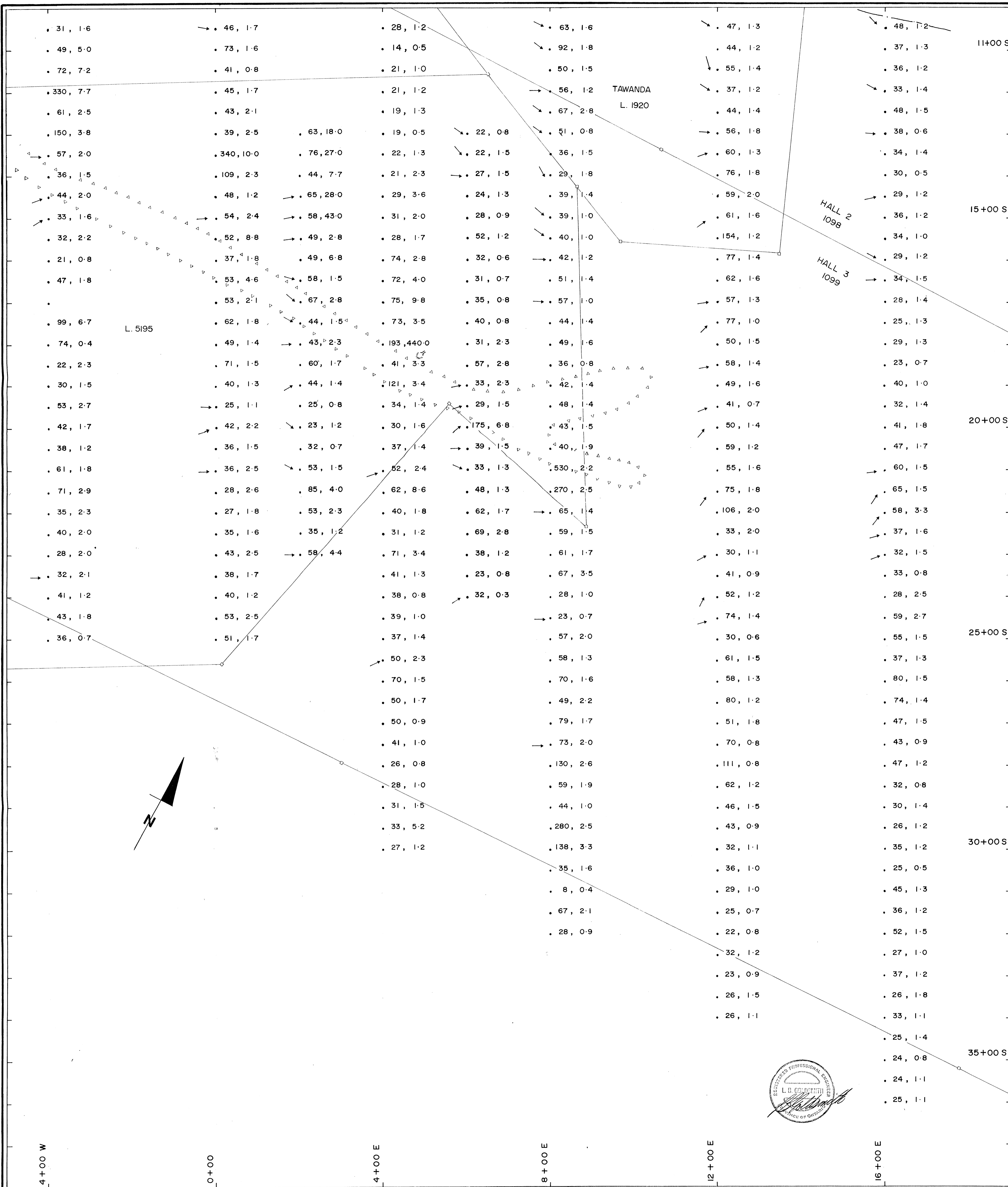
HALLMAC MINES LTD
ALTOONA MINE, SANDON, B.C.

SOIL GEOCHEMISTRY
SE SECTOR

TO ACCOMPANY REPORT BY
L.B. GOLDSMITH, P. ENG.
CONSULTING GEOLOGIST

N.W.S. DWG No. 3 NOV. 1979



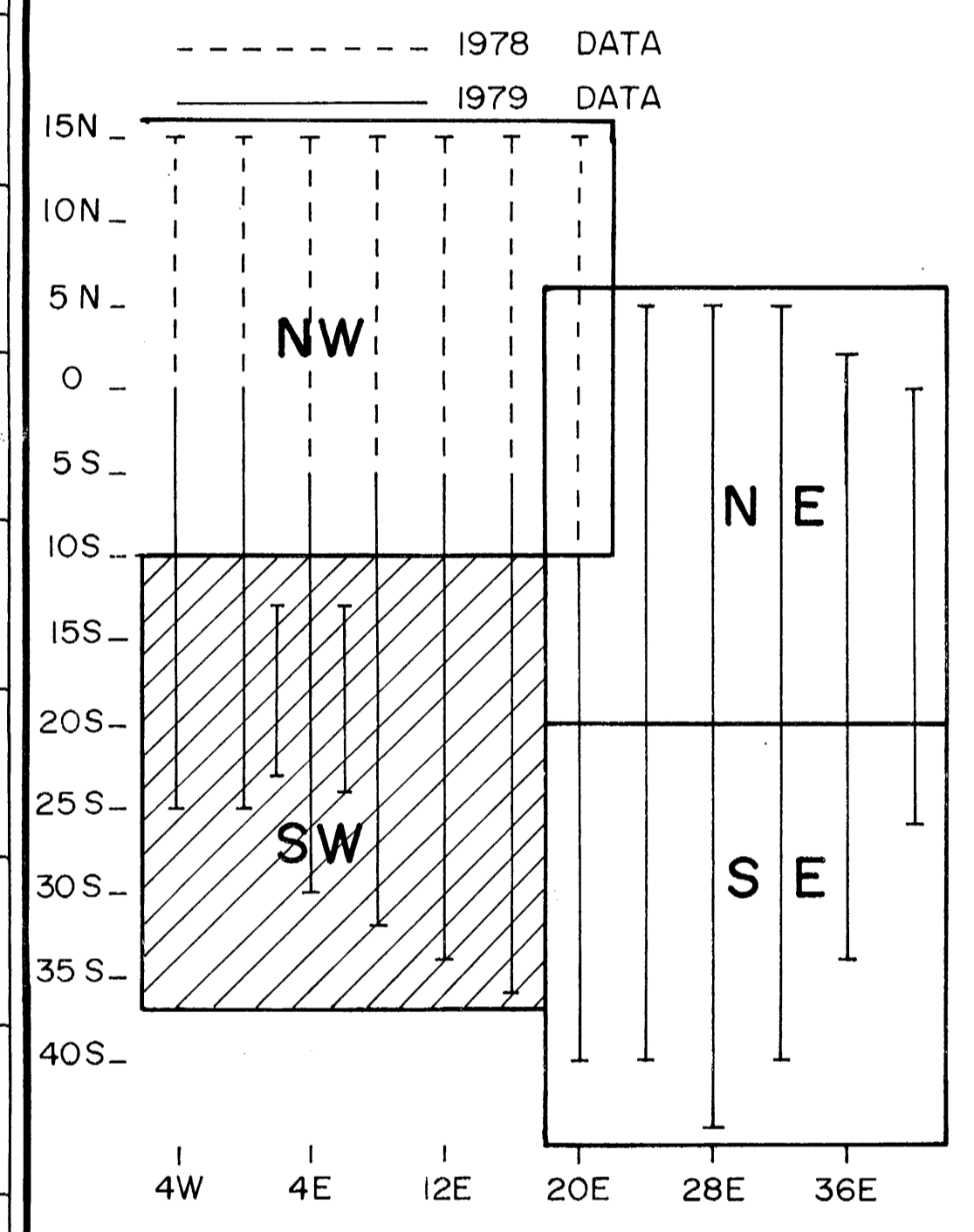


11+00 S
15+00 S
20+00 S
25+00 S
30+00 S
35+00 S

LEGEND

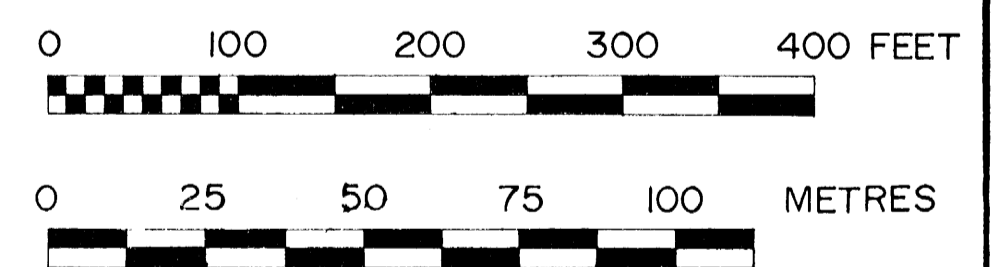
- SAMPLE SITE
- 390,2.4 Pb,Ag; p.p.m.
- △ △ △ △ OUTLINE OF SLIDE AREA
- ~ ~ ~ STREAM
- - - TRAIL, ROAD
- ▨ TRENCH
- CLAIM BOUNDARY
- DIRECTION UPSLOPE

LOCALITY MAP



SCALE

1:1200



HALLMAC MINES LTD
ALTOONA MINE, SANDON, B.C.

SOIL GEOCHEMISTRY
SW SECTOR

TO ACCOMPANY REPORT BY
L. B. GOLDSMITH, P. ENG.
CONSULTING GEOLOGIST

NWS. DWG No. 4 NOV. 1979



4+00 W

0+00

4+00 E

8+00 E

12+00 E

16+00 E