

REPORT ON
MINERAL CLAIMS L1 & 2 & L11-16
MILE 706, ALASKA HIGHWAY
YUKON TERRITORY
N.T.S. 105B

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060876



DECEMBER 14, 1970

W. A. FOWERS

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INTRODUCTION

The "L" group of claims, and specifically the showings on claim L-2, were visited on two separate occasions by senior members of the staff of J. Foster Irwin Engineering & Management Services Ltd.; by J. F. Burton on June 23, 1970, and by W. A. Fowers on August 19, 1970.

This report is primarily a summary of the observations and conclusions made as a result of these two inspections.

SUMMARY AND CONCLUSIONS

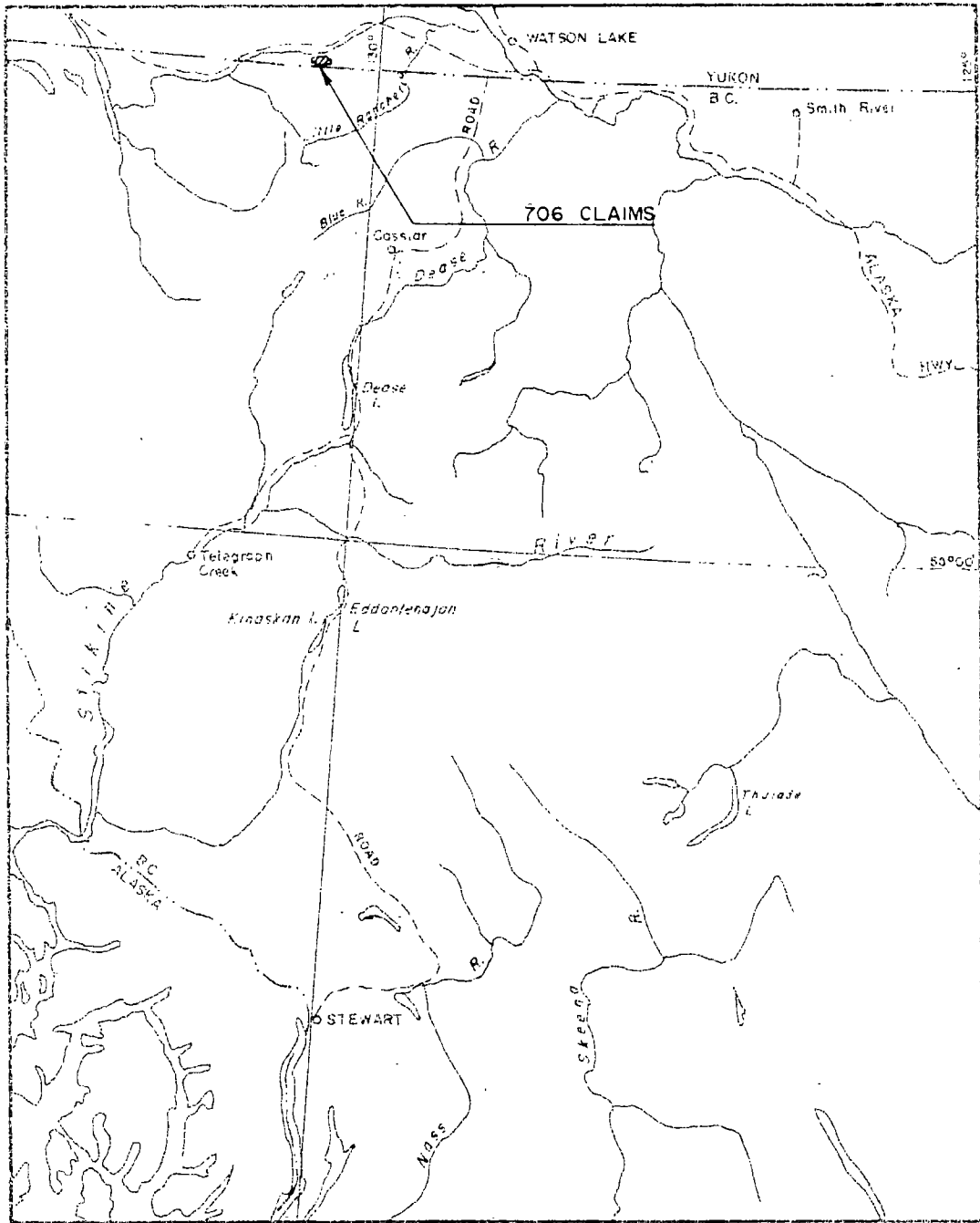
Based on field observations, and largely in support of the fact that shipments of high-grade ore have been made from this property, a limited program of investigation is recommended. This program, including surveying, geochemical sampling, underground diamond drilling, and surface trenching and stripping, is estimated to cost \$25,000. Positive results would necessitate further expenditure in underground development.

PROPERTY DESCRIPTION

The property under consideration consists of mineral claims L-1 and L-2, and L-11 to L-16 inclusive (record numbers Y19983 and Y19984, and Y27954 to Y27959 inclusive), comprising a non-contiguous portion of the "L" group of 32 claims (Figure 2). The subject claims are held jointly by C. C. Curlett and Paul Pöggemberg, with assessment work recorded until August and September of 1971.

The property is situated on Freer Creek, approximately six road miles south of the Rancheria River crossing at Mile 706 on the Alaska Highway. The "L" group of claims is centred at approximately 60°01' North Latitude and 130°30' West Longitude (Figure 1).

Access to the showings may be made with pick-up truck to elevation 4200 feet, and with four-wheel drive vehicles the remainder of the distance--approximately one and one-half miles with an additional 1000 feet of elevation.



LOCATION MAP
 "706"-L CLAIM GROUP
 WOLF CREEK AREA

Scale: 1:50,000

FOR TECHNICAL ENGINEERING & MANAGEMENT SERVICES
 CONSULTANTS LTD.

JULY, 1970

FIG. 1

- 3 -

The nearest source of water to the showings is a small lake about three-quarters of a mile southwest at an elevation of approximately 4700 feet.

There is no significant timber on the property, although small timber (to ten inch butts) is available in the area at lower altitudes.

OBSERVATIONS

The showings are located on mineral claim L-2, situated on the crest of a rounded ridge trending north-northwest, and terminating on the north about four miles south of the Alaska Highway. The southward extension of the ridge continues to rise and become more rugged, with the expected increase in bedrock exposures. From about 1500 feet south of the showings and to the northern extent of the ridge, little outcrop is visible. Visible outcrop exists along and adjacent to the crest down to an elevation of 4500 feet.

The major structural feature appears to be an east-west trending fault, running across the ridge from Freer Creek on the west. A series of narrow, short, lenticular, vein deposits containing high-grade lead as galena and attendant silver values is in place in this presumed fault zone through granodiorite, the fault zone having been cemented with a diabase intrusion. Quartz carbonate vein filling has also taken place in the granodiorite host adjacent to the diabase. Within those veins are high grade deposits of lead with silver.

An adit on the property (believed to have been driven in the 1950's), collared approximately 600 feet vertically below the surface exposures, has been driven roughly 590 feet nearly-parallel to the strike of the presumed fault zone. The location of this adit in granite throughout, the absence of any cross-cuts, and the apparent lack of any drilling from the adit, would indicate a completely misguided effort. Although its exact relationship to the surface exposures is unknown, this adit provides an ideal situation for diamond drilling and possible underground development.

Previous operators have done a limited amount of surface stripping, from which shipments of high-grade ore have been made. The first shipment was made by R. W. Kirkman in the fall of 1968 to the East Helena plant of American Smelting & Refining Co. This consisted of approximately 8.769 tons of hand-picked material, and returned \$2,319.46 to the operators. Operating and transportation costs would be additional charges against this return.

- 3 -

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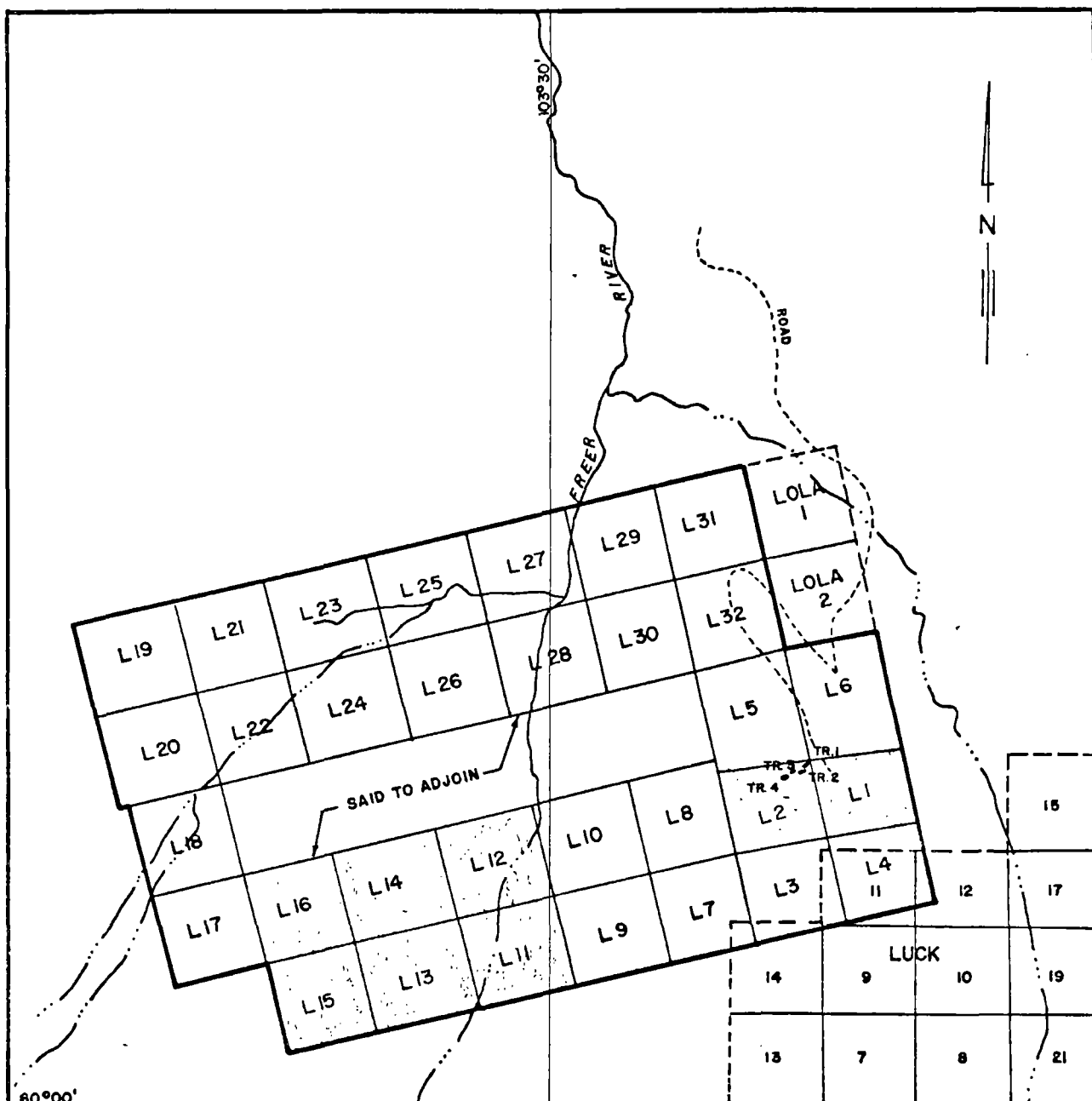
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An adit on the property (believed to have been driven in the 1950's), collared approximately 600 feet vertically below the surface exposures, has been driven roughly 590 feet nearly-parallel to the strike of the presumed fault zone. The location of this adit in granite throughout, the absence of any cross-cuts, and the apparent lack of any drilling from the adit, would indicate a completely misguided effort. Although its exact relationship to the surface exposures is unknown, this adit provides an ideal situation for diamond drilling and possible underground development.

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CLAIM SKETCH
 L GROUP - WOLF CREEK, YUKON

Scale 0 01/41/2 Miles

J FOSTER IRWIN ENGINEERING & MANAGEMENT SERVICES LTD.
 EDMONTON, ALBERTA

DECEMBER, 1970

FIG. 2

- 4a -

TABLE ISUMMARY OF IDA-ORE SMELTER RETURNS

Shipment No.	1	2
Dry Tons	13.717	7.591
Assays - Au oz/ton	0.07	0.06
Ag oz/ton	68.4	51.6
Pb %	49.0	37.0
Cu %	0.25	0.30
Zn %	10.7	15.6
Gross Smelter Settlement - \$	3102.27	1273.46
\$/ton	226	168
Total Smelter Deductions - \$	403.21	231.77
\$/ton	29	31
Net Smelter Settlement - \$	2699.06	1041.69
\$/ton	197	137
Freight - \$	1286.05	515.03
\$/ton	94	68
Net Return - \$	1413.01	526.66
\$/ton	103	69

Notes:

1. No payment for zinc content in these returns.
2. Net return to be charged with operating and capital costs.

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Ida-Ore Mines made two shipments to East Helena in 1969. These shipments are summarized in Table 1, and copies of the smelter settlements are included in Appendix A.

Although current ore reserves on the property are nil, mention should be made of the possibility of upgrading of ore and shipping a concentrate product to the smelter. Venus Mines Ltd., currently operating a 300 t.p.d. concentrator at approximately 180 t.p.d., has indicated an interest in considering custom milling as early as mid-1971. Arctic Gold & Silver Mines has suspended operations, leaving the possibility of leasing their 300 t.p.d. concentrator. Both of these mills are in the Carcross area, approximately 200 miles from Mile 706. Assuming shipments averaging 20 tons per load, a quoted rate of \$0.60 per running mile would result in a freight charge to the mill of \$12 per ton. Also assuming a concentrate yield of 15 per cent and a freight rate of \$100 per ton to the smelter, an additional freight charge of \$15 per ton of ore is obtained, resulting in a total freight cost of \$27 per ton of ore. This analysis is entirely theoretical at present, but should be borne in mind in further considerations of the economics of possible operations on the 706 property.

CONCLUSIONS AND RECOMMENDATIONS

Based on field observations, supported by the fact that shipments of high-grade ore have been made from the property, the following program of investigation is recommended:

1. A survey should be carried out, designed to relate the major surface structural features and ore showings to the adit and claim boundaries. This is of top priority and is essential to the layout of any drilling program or underground work which may be considered. For the present, this survey should be confined to the immediate area of the adit and surface showings.

Estimated cost \$1,000

2. To test the possibility of additional occurrences, geochemical samples should be taken on the surrounding slopes.

Estimated cost \$1,500

3. A limited diamond drilling program should be conducted from the adit, consisting of a minimum of three holes drilled to the north. These holes should be designed to intersect the downward extension of the main fault

- 6 -

zone at the adit elevation, and, without the results of the survey, are assumed to be in the order of 400 feet in length.

Estimated cost \$12,000

4. Stripping and trenching should be continued on the surface exposures, particularly towards the western extremity of the main fault zone.

Estimated cost \$10,500

The total estimated cost of this preliminary program is \$25,000. Positive results of the diamond drilling program in (3) above would necessitate the driving of a cross-cut, and subsequent drifts, from the existing adit.

W. A. Fowers, B.Sc., P.Eng.

14 December 1970.

WAF/mo

- 7 -

I, J. FOSTER IRWIN, OF 1902 - 10015 - 103 AVENUE, EDMONTON, ALBERTA, CERTIFY AND DECLARE THAT I GRADUATED WITH A DEGREE IN ENGINEERING FROM THE UNIVERSITY OF ALBERTA IN 1949 AND AM A REGISTERED MEMBER OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF ALBERTA, THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF SASKATCHEWAN, THE PROFESSIONAL ENGINEERS' SOCIETY OF BRITISH COLUMBIA, AND THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF MANITOBA.

I HAVE NO INTEREST WHATSOEVER, DIRECT OR INDIRECT, IN MINERAL CLAIMS L-1 & L-2, OR L-11 TO L-16 INCLUSIVE, NOR DO I EXPECT TO OBTAIN ANY INTEREST IN THEM.

THE REPORT ON MINERAL CLAIMS L-1 & L-2, AND L-11 TO L-16 IS BASED ON EXAMINATION OF THE PROPERTY JUNE 23, 1970 BY MR. J. F. BURTON, AUGUST 19, 1970 BY MR. W. A. FOWERS WHOSE CERTIFICATION IS ATTACHED, AS MEMBERS OF J. FOSTER IRWIN ENGINEERING & MANAGEMENT SERVICES LTD.

J. FOSTER IRWIN, B.Sc., P.Eng.

14 December 1970

- 8 -

I, WILLIAM A. FOWERS, OF 1902 - 10015 - 103 AVENUE, EDMONTON, ALBERTA, CERTIFY AND DECLARE THAT I GRADUATED WITH A DEGREE IN ENGINEERING FROM THE UNIVERSITY OF ALBERTA IN 1954 AND AM A REGISTERED MEMBER OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF ALBERTA.

I HAVE NO INTEREST DIRECTLY OR INDIRECTLY IN MINERAL CLAIMS L-1 & L-2, OR L-11 TO L-16 INCLUSIVE, NOR DO I EXPECT TO OBTAIN ANY INTEREST IN THEM.

THE WORK PERFORMED BY ME FOR THIS REPORT INCLUDED EXAMINATION OF THE PROPERTY AUGUST 19, 1970, AND SEARCH OF PUBLISHED DATA.

W. A. FOWERS, B.Sc., P.Eng.

14 December 1970

Shipper: IDA ORE MINES, INC.	Assays	Gold Oz. Per Ton	Silver Oz. Per Ton	Wet Lead %	Copper %	Zinc %	Arsenic %	Antimony %	Bismuth %
Mine: MILE 706 PROPERTY	A. S. & R. Co.	6.656	68.4	49.0	0.30	10.7	0.20	0.24	
Class: CRUDE	Shipper	6.120	69.4	49.7	0.30				
Shipping Point: MILE 706, CANADA	Umpire	6.070	68.31	49.0					
Smelter Lot. No. 911	Settlement	6.070	68.4	49.0	0.25	10.7	0.20	0.24	
Mine Lot No. 1									
TRUCK 0.6 276.00									

					Assay Deduction	Percent Pay	METAL	Pay Quotation	Quotation Deduction
						93.5	Gold	35.654	
						95	Silver	1.843	.01
					1.5	90	Lead	.15	.0275
							Copper		

H ₂ O	Wet Weight	Dry Weight	Dry Tons	Wet Tons
6.00	27,600	27,434	13,717	13,800
	27,600	27,434	13,717	13,800

Date of Arrival: AUGUST 21, 1970

Settlement Assay	Total Content	Assay Ded.	Percent Pay	Pay Content	Pay Quotation	Quot. Ded.	Net to Shipper
7.00	Gold	.96	92.50	.89	35,654.00		31,73
6,840.00	Silver	938.26	95.00	8,134	1,843.00	10.00	1,633.03
4,900.00	Lead	13,442.86	90.00	11,728.21	150.00	27.50	1,456.71
25.00	Copper	68.59		.00			

Base Charge \$15.50
Quarries 2.50

\$18.00

Dry Tons X Total Contracts Deductions	\$18.00	ST 6	13,717.20 S	18.00	3,102.27 S
Sampling Variable Cost @ \$18.00/75			12,894.00	7.50	246.91
Lbs. of Pb (Pay Content)	11,728.00				26.71
Lbs. of Cu. (Pay Content)					
Tons of Pb & Cu X Bullion Frt. Act.	32.46	PR	5,864.00	32.46	190.55
Tons of Pb & Cu X Bullion Frt. Cont.	30.91		5,064.00	30.91	181.26
Sub-Total					2,749.56 S
Minimum Frt. Act	\$12.86.05	ST 5			128.605
Sub-Total					1463.51
Advances	\$2000.00				2000.00
Hauling		ST 5			24.00
Umpires	\$24.00				24.00
Sub-Total	\$26.50				26.50

APPENDIX A

IDA-ORE SMELTER RETURNS

Shipper: <u>IDA ORE MINES</u>	Assays	Gold Oz. Per Ton	Silver Oz. Per Ton	Wet Lead %	Copper %	Zinc %	Arsenic %	Antimony %	Bismuth %
Mine: <u>MILE 706 PROPERTY</u>	A. S. & R. Co.	<u>6.66</u>	<u>51.4</u>	<u>37.0</u>	<u>0.00</u>	<u>15.6</u>			
Class: <u>CRUDE</u> Shipping Point: <u>MILE 706, CANADA</u>	Shipper	<u>6.100</u>	<u>51.7</u>	<u>37.8</u>	<u>0.00</u>				
Smelter Lot. No. <u>985</u> Mine Lot No. <u>2</u>	Umpire: <u>17</u>	<u>6.635</u>		<u>36.65</u>					
TRUCK <u>C.S. 15260</u>	Settlement	<u>6.660</u>	<u>51.5</u>	<u>37.0</u>	<u>0.00</u>	<u>15.6</u>			

H ₂ O	Wet Weight	Dry Weight	Dry Tons	Wet Tons	Assay Deduction	Percent Pay	METAL	Pay Quotation	Quotation Deduction
5.00	15.260	12.183	7.591	7.630		92.5	Gold	36.19	
	15.260	12.183	7.591	7.630	1.5	95	Silver	1.8485	.01
						90	Lead	145.77	0.375
							Copper		

Date of Arrival: SEPTEMBER 2, 1970

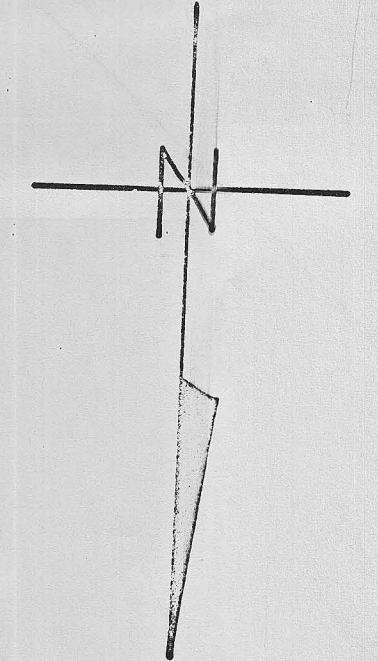
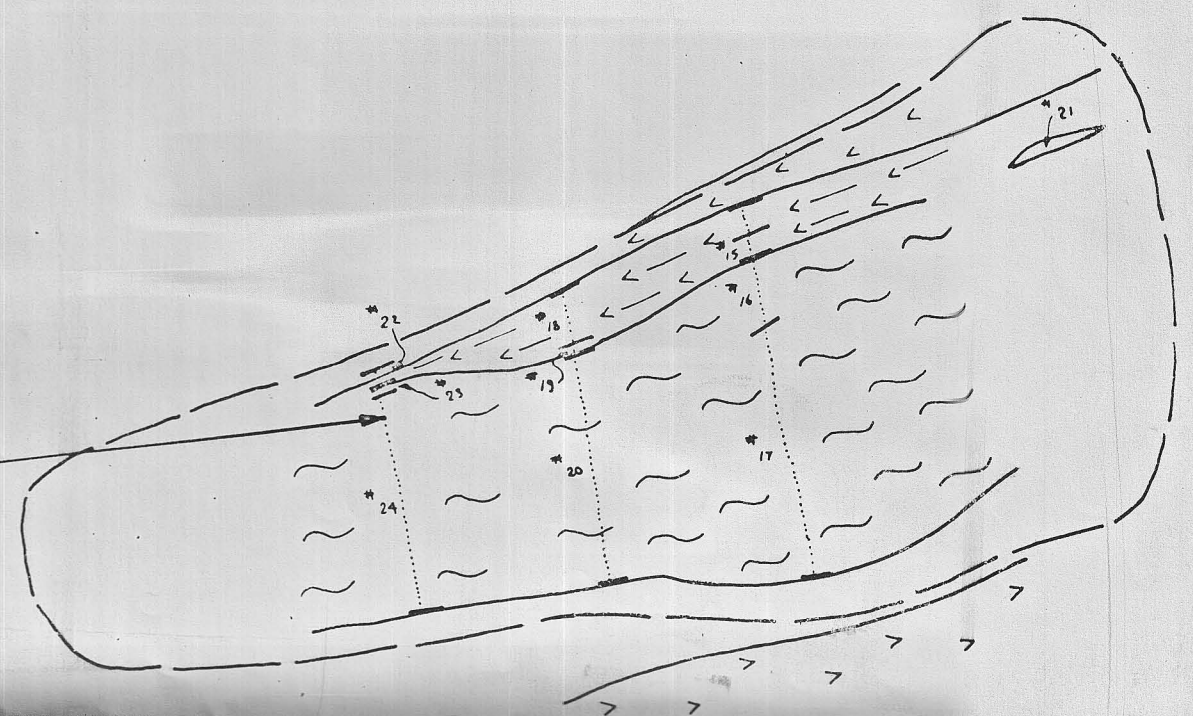
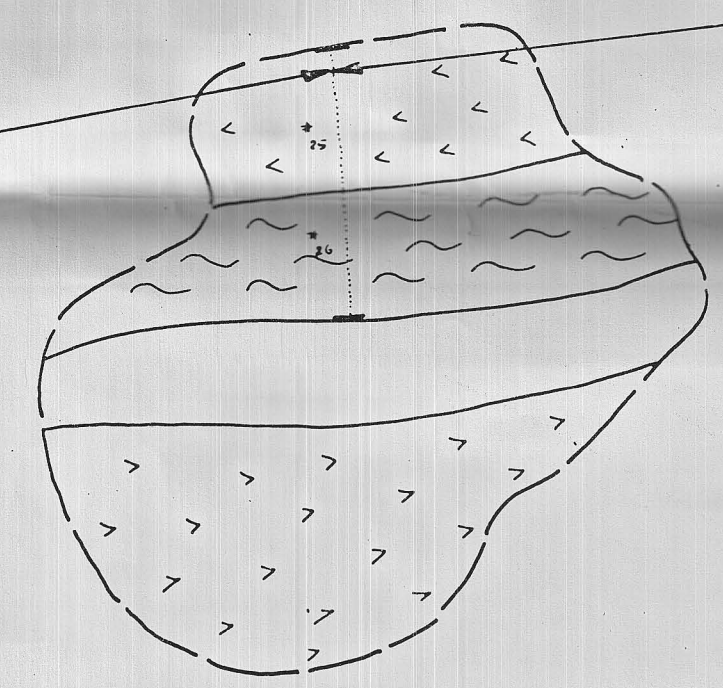
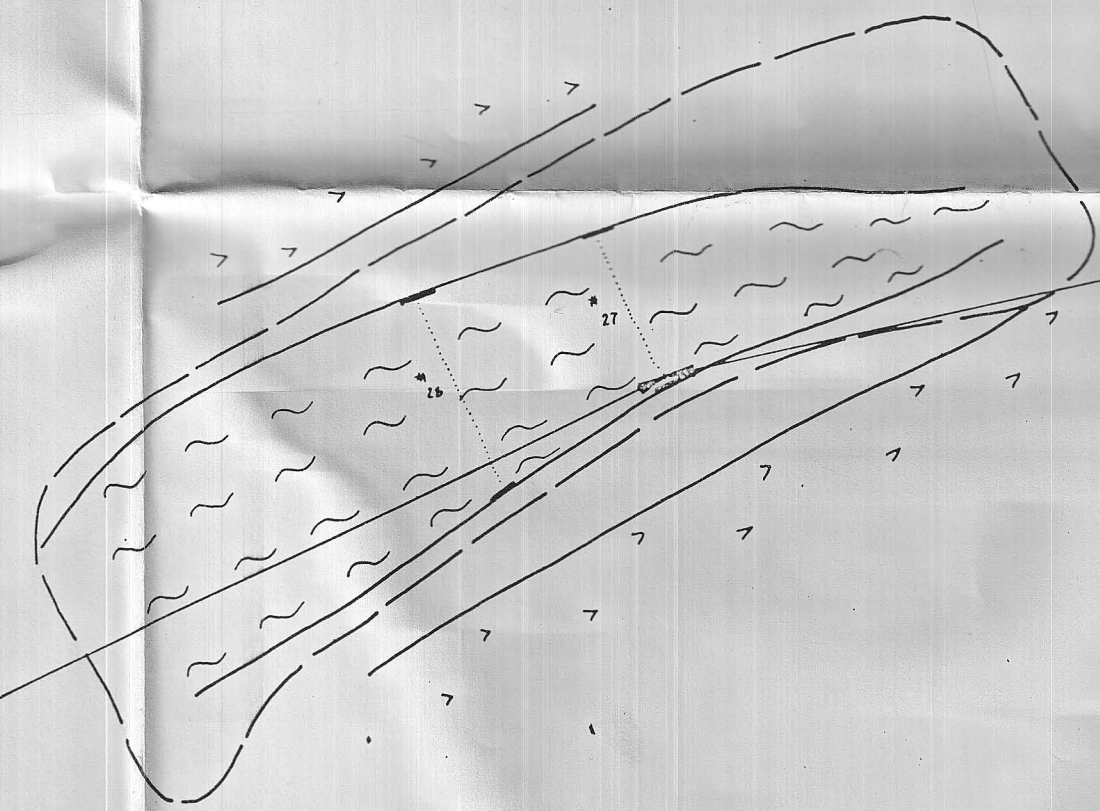
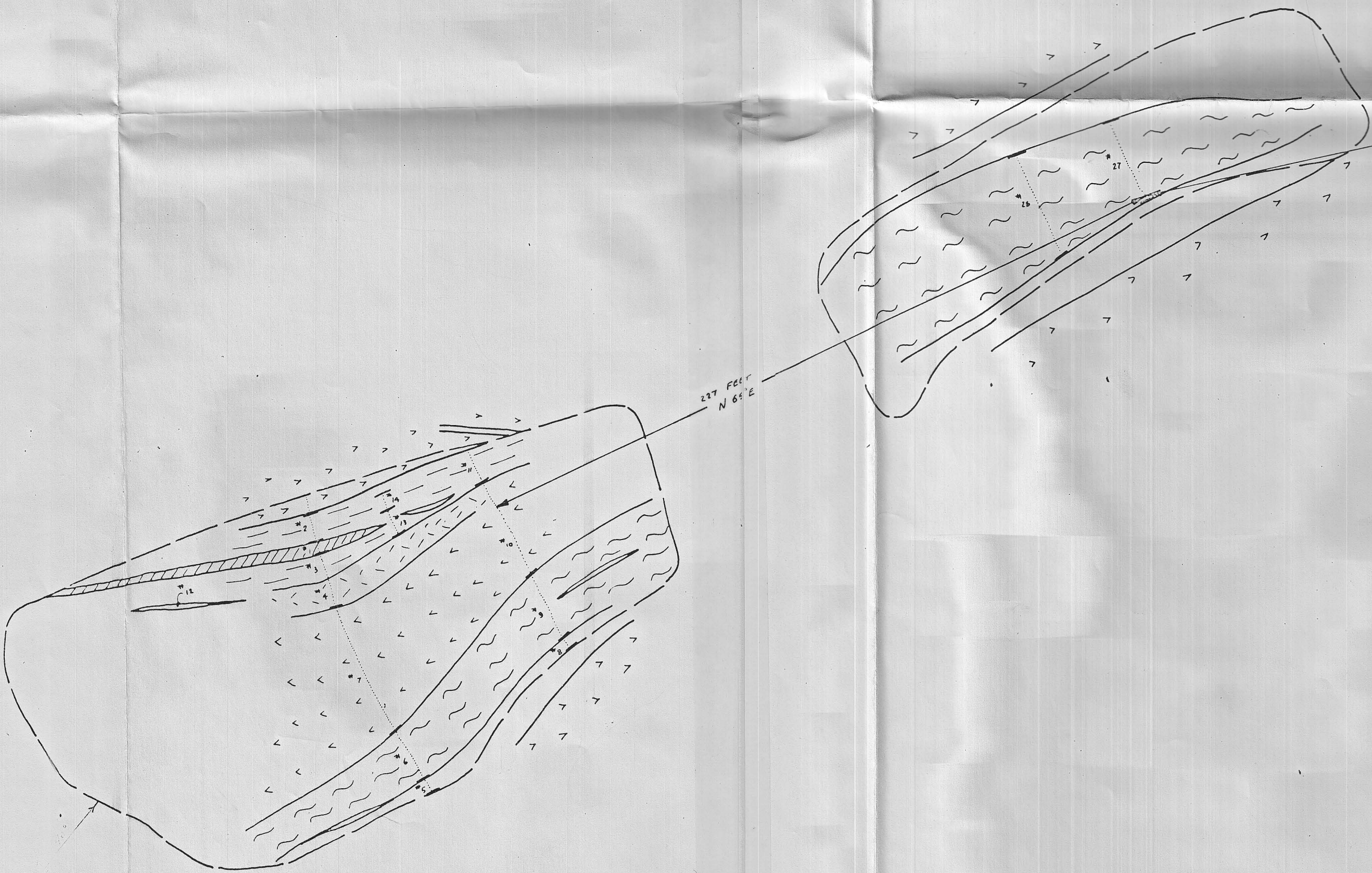
Settlement Assay	Total Content	Assay Ded.	Percent Pay	Pay Content	Pay Quotation	Quot. Ded.	Net to Shipper
6.00 Gold	.46		92.50	.42	36190.00		15.20
5.155.00 Silver	391.36		95.00	371.79	1.84850	10.00	683.54
3.700.00 Lead	5.617.97	150.00	90.00	4851.19	145.97	27.50	574.72
30.00 Copper	45.55			.00			

Case Charge \$15.50
Drums 2.50

\$18.00

Sampling \$5.00
Dry Tons X Total Contracts Deductions \$18.00
Sampling Suitable Lead @ \$1.0075
Lbs. of Pb (Pay Content) 4851.00
Lbs. of Cu. (Pay Content)
Tons of Pb & Cu X Bullion Frt. Act. 23.46
Tons of Pb & Cu X Bullion Frt. Cont. 30.91
 Sub-Total
 Wet tons X Frt. Rate ST 5
 Sub-Total
 Advances
 Hauling \$5.503 Paul actgen ST 5
 Umpires \$20.00
Exp. after \$20.00

7.591.85 S	18.00	5.000
5.314.00	7.50	136.65
4.851.00		39.66
2.425.50 PR	32.46	78.73
2.425.50	30.91	74.97
		1.088.19 S
APPLIED TO HAULING		434.70
		20.00
		20.50



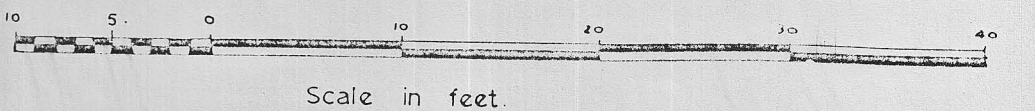
Assayer :- COAST ELDRIDGE
VANCOUVER B.C.

Sample #	Assay #	Ag oz/T	Pb %
1	4751	64.8	46.68
2	4752	2.4	1.54
3	4753	0.98	0.61
4	4754	0.30	0.29
5	4755	0.80	0.07
6	4756	0.80	0.54
7	4757	0.18	0.32
8	4758	1.42	0.39
9	4759	0.21	0.29
10	4760	0.55	0.27
11	4761	0.10	0.17
12	4762	58.10	55.02
13	4763	2.33	2.05
14	4764	0.69	0.66
15	4765	0.66	5.33
16	4766	0.60	5.76
17	4767	0.40	0.42
18	4768	0.25	0.12
19	4769	1.22	4.28
20	4770	0.40	0.46
21	4771	20.50	58.50
22	4772	1.47	4.65
23	4773	3.07	1.83
24	4774	0.25	0.42
25	4775	0.40	0.10
26	4776	0.09	0.09
27	4777	0.16	0.08
28	4778	0.08	0.07

- LEGEND**
- GALENA - BERRIDGE
 - OPEN - UNLIMBED, INTERL. AND SPREADING UNCONFORMITY
 - MILON. ALTERED AND BREAKS UNCONFORMITY
 - GREEN - UNLIMBED UNCONFORMITY
 - RHYOL. COOLING, ALTERED SILEX UNCONFORMITY
 - ERSK. UNCONFORMITY
 - DIABASE
 - CONTINUOUS TRENCH SAMPLE SITES AND NUMBER
 - TRENCH
 - TRENCH CHANGING
 - ALL STRUCTURE STEEP SLOPING

SPARTAN EXPLORATIONS LTD.
VANCOUVER B.C.
"L" CLAIMS KIRKMAN SILVER PROPERTY
RANCHERIA AREA, YUKON
Sketch Geology and Assay Map in
Bulldozer Trenches

GEOLOGY: C.L.SMITH. DRAWN BY: N.H.SIMMONS.
SAMPLERS: A.CARLOS, C.L.SMITH. DATE: NOVEMBER 8, 1968



Scale in feet