

MAP No.

105 0 12
105 N 9

ASSESSMENT REPORT
N. M. E. A. P.
CONFIDENTIAL
OPEN FILE

X

i.s.n. 134631

TYPE OF WORK: CAT TRENCHING
BLASTING

REPORT FILED UNDER	CYPR US ANVIL MINES LTD.	DOCUMENT NO. 091705
DATE PERFORMED	1976 May 1 - Oct 1	DATE FILED: JAN. 1977
LOCATION - LAT.	63°40'N	AREA: HESS RIVER
LONG.	132°02'W	
CLAIM NO.	PLATA - INCA	
VALUE \$		
WORK DONE BY	A. HARMAN	
WORK DONE FOR	CYPR US ANVIL MINES LTD.	
REMARKS	Shipments of high grade silver-lead ore were sent out by aircraft and smelted. Grades showed 70% Pb with <u>between</u> 160 and 300 ⁰⁰ ton Ag. Even though only small amounts of ore were shipped out, and the operation was very costly, a profit was realized. Costs ranged from \$838 to \$961/ton processed and values of ore were \$922 to \$1491/ton. # 13 INCA # 2 PLATA	



BULK SAMPLING
and
PRELIMINARY ECONOMIC EVALUATION
of the
PLATA & INCA MINERAL CLAIM GROUPS
LOCATED IN
BOSTOCK RANGE, HESS MOUNTAINS
NORTHEAST, YUKON TERRITORY

N.T.S. 105-N-9

Lat. $63^{\circ}40'N$ Long. $132^{\circ}02'W$

Work done during the period
May 1st-October 1st, 1976

A. HARMAN
January, 1977

902160

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SUMMARY

During the 1976 field season Messrs. Lavoie and Harman completed an initial bulk sampling and preliminary economic evaluation program of the Plata mineral claims located in the Bostock Range of Hess Mountains in the Northeast Yukon Territory.

The program was based on geological information and assay data provided Cyprus Anvil Mining Corporation (1) and was carried out under geological guidance of Mr. Wayne Roberts, Geologist.

During a ninety day period a six person crew employing cat trenching, air drilling and blasting techniques were successful in sampling three zones of mineralization as follows:

<u>Zone</u>	<u>Bulk Sample</u>	<u>Approx. Grade</u>
Plata Zone 1	60 tons	280 oz.Ag.70% Pb.
Plata Zone 6	15 tons	200 oz.Ag.70% Pb.
Plata Zone 2	25 tons	160 oz.Ag.70% Pb.

To test the economic feasibility of direct small tonnage shipping from this remote area, the combined one hundred tons of bulk sample material was shipped by air, ground and water methods of transportation to Asarco Smelting & Refining Corporation, East Helena, Montana.

(1) Ref. Geochemical Geological, Cat trenching and Engineering evaluation report on Plata Group, W.J. Roberts, November, 1974.

This program has satisfactorily proven that a very limited tonnage of high grade (240 oz. Ag. to 70% Pb.) mineralization is readily available for open cut mining. It is also evident that small tonnage shipments (100 tons or less) are only marginally economic at grades produced during the 1976 season.

To further evaluate this property, a larger tonnage (300-400 tons) of mineralized vein material will have to be shipped.

INTRODUCTION

On May 13, 1976, A. Harman and Z. Lavoie entered into an agreement with Cyprus Anvil Mining Corporation to conduct a bulk sampling and preliminary economic evaluation of the Plata mineral claims.

The program was intended to gather information on average grades and widths from several silver-lead vein structures as well as to test the feasibility of direct shipping small tonnages from this remote location.

From June 15th to September 3rd, a six man crew were engaged in open cut sampling and collecting and shipping a 100 ton bulk sample to Asarco Smelting and Refining Co. at East Helena, Montana.

LOCATION-ACCESS-METHODS OF TRANSPORTATION

The Plata group mineral claims are located in the Bostock Range of the Hess Mountains, between the Rouge and Hess Rivers in the northeastern Yukon Territory at Lat. $63^{\circ}40'N$, Long. $132^{\circ}02'W$. The property lies 110 miles north and slightly east of Ross River and 72 miles northwest of Twin Creek airstrip on the North Canal Road.

Present access to the property is by a combination of fixed-wing wheeled aircraft to the Plata airstrip on Fido Creek, elevation 2,800 ft., length 3,000 ft., then by helicopter 6 miles due north to the property which ranges in elevation from 3,700 to 6,500 feet. The tote road between the airstrip and property is unserviceable during the summer months due to its swampy location.

During the bulk sampling program, bagged vein material was initially transported from vein location to Plata airstrip by helicopter (G3B1 Bell). It was then flown by wheel mounted fixed-wing aircraft from Plata strip, 72 air miles to the Twin Creeks airstrip, which is located 80 miles north of Ross River on the North Canal Road.

Bagged vein material was transported in 8 ton lots by truck via Ross River, 310 miles to Whitehorse, where it was palletted and then shipped via White Pass & Yukon Route to Vancouver, B.C. At Vancouver the bulk sample was customs cleared and trans-shipped on Burlington Northern Railway to East Helena, Montana.

PERSONNEL AND EQUIPMENT

Personnel

A five man crew and cook of experienced exploration personnel were employed in open cut sampling, crushing and bagging on the Plata properties. Several others were employed on a casual basis in transporting bagged vein material from Plata strip to Whitehorse.

LIST OF PERSONNEL

F. Lavoie	Cat Operator Supervisor	May 13 - October 1st
K. Milledge	Driller & blaster	May 20 - September 3
O. Yeager	Labourer	June 15 - September 30
D. Fulcher	Truck driver	June 9 - 10
J. Schmidt-Kroener	Labourer	June 15 - September 16
V. Guinet	Truck driver	May 13-22, July 1-10 August 1 - 8
N. DeBock	Labourer	June 19 - 30th
P. Platt	Cook	July 14 - September 16
A. Harman	Manager	8 days from June - September

519 days

Equipment

The following equipment and supplies were used in bulk sampling the Plata property:

One D65 Komatsu cat

One Cat Sloop

One J5 Bombadier Tractor

One 150 CFM Rotary Compressor and hoses

Two I.R. 35 jackhammers

Assorted 7/8 drill steel

One drill steel sharpener

Electrical blasting equipment and explosives.

One 200 AMP welder-welding rod & accessories

OXY- Acetylline torch and tanks

One generator and power tools

One SSB radio transciever

One 200 lb. scale

4,000 plastic ore sacks

4,000 Jute ore sacks

Base camp supplies and accomodation for 6 men

Maintenance tools

1/4" & 3/8" sheet steel and assorted angle iron and pipe

Miscellaneous spares and equipment.

SUMMARY OF MINERALIZED STRUCTURES SAMPLED DURING 1976

The following are brief geological descriptions of the zones sampled on the Plata property and are extracts from the "Geochemical, Geological, Cat Trenching and Engineering Evaluation on the Plata Group by W.J. Roberts, Nov., 1973"

Zone 1

The major mineralization consists of a massive foliated galena-tetrahedrite lens in black fault gouge within a 015/25° W trending fault zone between massive brown quartzite and overlying maroon and green slate. The lens measures roughly 50 ft. in length and has a maximum thickness of 4.2 feet.

Zone 2

Located just south of the "Pipes Nose", occurs in a 030 degree striking, 55 to 70 degrees westerly dipping fault zone. The structure has been traced for 340 ft. through outcrop and hand trenching. The northern zone consists largely of siderite gangue with blebs and pods of galena and sphalerite. The southern zone, outlined by hand trenches, contains the best mineralization. The 180 ft. long zone contains 241 tons per vertical ft. grading 35 percent lead and 84 ounces per ton silver.

Mineralization is largely fine to medium grained foliated galena with tetrahedrite as bands and blocks in a siderite gangue within the shear zone. The zone appears to die out to the south as the structure passes into overlying black chert and

shale. Considering the 45 degree dip of the units, it is likely that Zone 2 would also rake 45 degrees to the south.

Zone 6

Located in a saddle between grid lines 40N and 48N, consists of massive blocks of high-grade galena-tetrahedrite float and galena-siderite-jarosite bearing fault structures in highly sheared footwall black shale and chert. A crucial alignment of massive galena blocks in the bottom of Trench 39 was sampled and thought to be in place.

SAMPLING PROGRAM

Bulk Sampling

In mid May, 1976, snow plowing of a six mile winter tote road commenced from Plata airstrip, north to base camp. An attempt to open access trails leading to mineralized trenches on the ridge north of base camp encountered snow pack depths of up to 14 ft. which required 7 days of cat work to reach Plata No. 6 zone. Approximately 10 tons of silver-lead mineralization stock piled in barrels at Plata No. 6 zone were back-hauled on a cat sloop to Plata airstrip. The remainder of equipment was flown in to Plata airstrip and the last cat sloop trip along winter road to base camp was on June 12th when the winter road became impassable.

From June 12th on, access cat trails to zones Plata No. 1, Plata No. 6 and Plata No. 2 were plowed out and open cut bulk sampling was conducted with the aid of cat trenching, air drilling and limited blasting for the remainder of the season.

Following are brief descriptions of work conducted in test areas:

Plata No. 6

During early June an access road was opened to Plata No. 6 zone. Trenching was undertaken in this zone in an attempt to uncover the source of high grade galena-tetrahedrite float. Permafrost, poor trench drainage and sloughing trench walls prevented any discovery of high grade mineralization in place.

A total of 15 tons (14 drums) of float vein material stock piled in fourteen 45 gal. drums and two small piles were transported to base camp and then to the Plata airstrip.

Plata No.1

On June 25th, an access road to Plata Zone No. 1 was re-opened and trenching, drilling and blasting equipment were brought to location.

A 28 ft. long sulphide vein zone averaging 2.5-3 ft. wide on surface and dipping $15^{\circ}/20^{\circ}$ westerly was exposed by cat trenching. This vein was open cut for a distance of 18 ft. down dip. At this location the vein rolled to nearly vertical dip, was 1 ft. in width and contained high grade galena-

tetrahedrite mineralization. However very unstable and thawing hanging wall conditions forced abandonment of the work area. Approximately 60 tons of good grade galena-tetrahedrite vein mineralization (averaging approx. 300 oz. Ag. & 72% Pb.) were taken as a bulk sample from the Plata No. 1 zone.

Plata No. 2

Unseasonably hot weather during the latter part of July and throughout August in the northeastern Yukon Territory resulted in a spectacular ground thaw at higher elevations allowing cat access to Plata No. 2 zone where a working area was trenched out along two sulphide veins. A four foot wide vein and a two foot wide vein were cross cut by cat trenching and 25 tons of galena-tetraherite vein material (averaging 160 oz. Ag. and 70% Pb.) were recovered for sample purposes.

Bulk Sample Handling

Galena-tetrahedrite vein materials were hand sorted from wall rock material, crushed to approximately 2" size in a steel box with the aid of 10 lb. sledge hammers and then shovelled into 14 x 20" ore sacks (Jute outer layer and plastic inner layer). When filled, the 80 lb. sample bags were closed with a commercial type stapler.

At Whitehorse, the sample bags were packed on heavy duty, surplused Keno-Hill ore pallets (64 bags/pallet), covered with 4 ml. plastic and steel strapped for shipment via Whitepass and Yukon Route.

Bulk Sampling Transportation

Ten tons of Plata No. 6 mineralization were transported by cat sloop to Plata airstrip prior to thawing winter road conditions along Fido Creek. The remainder^d of the bulk samples from Zone 6 and Zone 1 were transported to the Plata base camp by a cat mounted hopper. From base camp, the bulk samples from zones 1 and 6 were transported to the Plata airstrip in 800 lb. sling lots by a Bell 47 G3B1 helicopter. The bulk sample material from Plata No. 2 zone was transported directly to the Plata airstrip in 800 lb. helicopter sling lots.

All materials were then flown 72 miles S.E. from the Plata airstrip as 2,000 lb. lots in a fixed-wing aircraft, to Twin Creeks airstrip, which is located in the Sheldon Lakes area on the North Canal Road. The sample bags were then trucked in 8 ton loads, 310 miles to Whitehorse. At Whitehorse, the sample bags were shipped via Whitepass & Yukon transportation to Vancouver and then trans-shipped by Burlington Northern Railway to East Helena, Montana.

Bulk Sample Treatment

Mr. Horace Hand of Western Laboratories was engaged as the shippers Smelter Representative to monitor the sample processing at Asarco Smelting and Refining plant in East Helena, Montana.

Two boxcars of Plata bulk sample were weighed for gross upon arrival (11/24/76) by the weighmaster of Burlington Northern on their scales at East Helena. The pallets of sacked bulk samples were then removed from the boxcars and placed in a storage area. During milling (12/16/76) the sacks were cut by hand and shaken into a hopper to remove all sample material. A separate mill lot of 16 of 80 bags was taken of Plata No. 2. From the mill hopper the sample passed through a primary crusher and then through a continuous sampler which accumulated approximately a 1400 lb. total assay sample. After primary crushing the bulk sample was placed in railway cars and again weighed for total net weight wet tons (assay samples were included in the weight calculation). Several pounds of sample material were weighed wet and then placed in a drying oven for 24 hours, reweighed to calculate moisture content. The special mill lot of Plata No. 2 sample and the 1400 lb. assay sample were taken to the plant assay floor for assaying. One half the resulting pulps were submitted to Western Laboratories for a control assay and assay discrepancies greater than outlined in the Arsarco open smelting schedule were automatically submitted for Umpire assaying. Bulk sample metal values were calculated from Arsarco plant assays where applicable and from Umpire assays in cases of discrepancies.

ECONOMIC EVALUATION SUMMARY TABLE

	PLATA ZONE 1	PLATA ZONE 2	100 TON SHIPMENT
	300 oz.Ag. 72% Pb.	16oz.Ag. 72% Pb.	248.5 oz.Ag. 72.3% Pb.
<u>OPERATIONAL COSTS/TON</u>			
Open Cut Trenching	\$346.27	\$222.60	\$296.80
Crushing & Bagging	89.74	89.74	89.74
Camp & Maintenance	64.46	64.46	64.46
TOTAL OPERATIONAL COSTS/TON:	\$500.47	\$376.80	\$451.0
<u>TRANSPORTATION COSTS/TON</u>			
Cat Sloop (5 ton Loads) Sample Site-Airstrip (Estimated)	\$ 42.00	\$ 84.00	\$ 55.00
G3B1 Bell Helicopter Sample site-Airstrip	75.00	75.00	75.00
Fixed Wing Aircraft Plata Strip-Twin Creeks	219.40	219.40	219.40
Trucking Twin Creek to Whitehorse	30.38	30.38	30.38
Whitepass Rail & Barge to Vancouver, B.N. Rail to East Helena, Montana	52.00	52.00	52.00
TOTAL TRANSPORTATION COSTS/TON	\$376.78	\$376.78	\$376.78
<u>SMELTING COSTS/TON</u>			
Smelting Base Charges including Labour, Fuel & Power	\$ 59.13	\$ 59.13	\$ 59.13
Lead Duty	10.12	10.12	10.12
Bullion Freight Charges	1.46	1.46	1.46
Sacked Ore & Car Charges	2.02	2.02	2.02
Smelter Representation & Umpire Charges	3.00	3.00	3.00
Travel and Administration	9.00	9.00	9.00
TOTAL SMELTING COSTS/TON:	\$ 84.73	\$ 84.73	\$ 84.73

	PLATA ZONE 1	PLATA ZONE 2	100 TON SHIPMENT
	300 oz.Ag. 72% Pb	160 ⁶ oz.Ag. 72% Pb	248.5 oz.Ag. 72.3% Pb.

TOTAL COST/TON including
Operational, Transportation & Smelting \$ 961.98 \$ 838.31 \$ 912.51

GROSS SMELTER VALUES/TON - calculated
on Asarco Open Smelter Schedule
and using 5% Moisture content 1491.25 922.33 1230.79

PROFITS/TON BEFORE TAXES 529.27 84.02 318.28

* Approximately \$5,500.00 was spent mobilizing equipment into the Plata area to start the Plata project. This cost was not included in this evaluation.

BULK SAMPLING COSTS VS SMELTER RETURNS

SUMMARY OF BULK SAMPLING COSTS

Wages	\$ 18,974.04
Groceries	5,793.37
Supplies	4,977.28
Fuels	3,506.81
Fixed Wing	21,940.50
Helicopter expense	8,415.00
Assaying	139.50
Contracts & Rentals	14,703.64
Trucking & freight	10,060.33
Sundry & Administration	513.22
Western Labs & Montana trip	1,200.00
	<hr/>
	\$ 90,223.69
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SMELTER RETURNS

Gross Smelter Returns on 96.531 dry tons of Plata bulk sample	\$123,823.22
Smelter costs	7,208.16
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Net Smelter Returns:	\$116,615.06
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CASH FLOW STATEMENT

	May/76	June	July	Aug.	Sept.	Oct.	Nov.	Jan./77	Feb./77
GROSS REVENUE	NIL	NIL	NIL	NIL	NIL	NIL	NIL	\$80000	\$36615.06
OPERATING COSTS	\$9046.90	18362.07	15729.08	15512.34	19419.57	12163.73	NIL	NIL	NIL
PROFITS BEFORE TAXES	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	
CASH FLOW	(\$9046.90)	(27408.97)	(43138.05)	(58650.39)	(78069.96)	(90233.69)	(90233.69)	(10223.69)	26391.37

CONCLUSIONS

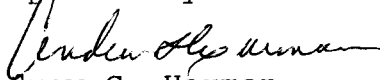
The Plata property has been difficult to bulk sample due to the extremely short exploration season, the precipitous and unstable slopes, the impassable access road between the airstrip and camp, and the cost of flying bulk samples from the Plata strip to Twin Creeks.

While the bulk sample shipped, graded approximately 248.5 oz.Ag./ton and 72.3% Pb./ton, it is believed that these grades are higher than most mineralized structures located on the property. In addition, a bulk sample from Plata #2 Zone assayed higher than preliminary sampling estimates of 160 oz.Ag./ton and 72% Pb./ton, as the bulk sample material probably was selected favouring visible tetrahedrite in galena vein mineralization.

RECOMMENDATIONS

The Plata No. 2 zone should be bulk sampled to determine the economic feasibility of direct shipping lower grade galena-tetrahedrite mineralization and thereby gain a reasonable estimate of the proerties mining potential. A bulk sampling program excess of 300 tons should be undertaken to accomplish this end.

Respectfully submitted,


Andrew G. Harman

CLYDE L. SMITH, Ph.D., P.Eng.
Consulting Geologist

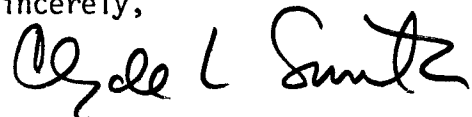
February 17, 1977

Office of the Mining Recorder,
Mayo Mining District,
Mayo, Y.T.

Gentlemen:

This letter is to certify that I have reviewed the accompanying report entitled "Bulk Sampling and Preliminary Economic Evaluation of the Plata and Inca Mineral Claim Groups" by A. Harman, January, 1977, and that I am familiar with the property and the project described therein. I find the report acceptable in all respects as representation for assessment on the Plata and Inca mineral claim groups.

Sincerely,



Clyde L. Smith,
Ph.D., P.Eng.

CLS/bw.

CANADA) In the matter of a Bulk Sampling and Preliminary
) Economic Evaluation on the PLATA AND INCA Mineral Claims
)
 TO WIT) on behalf of Cyprus Anvil Mining Corporation

I, Andrew Harman of 907 - 675 West Hastings St., Vancouver, B.C. do solemnly declare that bulk sampling and preliminary Economic Evaluation programs were carried out on the Plata and Inca Mineral Claims during the period May to October/76

The following expenses were incurred during the course of this work and in the compilation and reporting of the results:

Wages	\$ 18,974.04
Groceries	5,793.37
Supplies	4,977.28
Fuels	3,506.81
Fixed Wing	21,940.50
Helicopter expense	8,415.00
Assaying	139.50
Contracts & Rentals	14,703.64
Trucking & freight	10,060.33
Sundry & Administration	513.22
Western Labs & Montana trip	1,200.00
	<hr/>
	\$ 90,223.69
	<hr/>

And I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virute of the Canada Evidence Act.

Declared before me at Vancouver)
 in the Province of British)
 Columbia this 17 day of)
FEBRUARY, 1977

Andrew Harman

Neil Kraman
 Commissioner for Oaths for
~~British Columbia~~ or Notary Public
 for the _____.

ASARCO Incorporated

EAST HELENA PLANT

EAST HELENA, MONTANA
59635

TEL. 406-227-5311

STANLEY M. LANE
MANAGER

R. D. HEARST
SUPERINTENDENT

C. G. DEGOOYER
CHIEF ACCOUNTANT

October 13, 1976

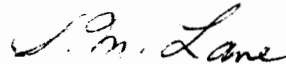
Mr. A. Harman
907-675 W. Hasting
Vancouver, B.C. V6B 1N2

Dear Mr. Harman:

Enclosed is the assay of your recent hand-sample and a copy of our purchase schedule.

I believe you have some 100 tons of the material which we will gladly accept.

Very truly yours,



S. M. Lane

Encls.

SHIPPER _____
MINE _____
PRODUCT LEAD CONCENTRATES & ORES

ADDRESS _____
LOCATION _____
R.R. STATION _____

The following purchase terms are subject to the General Clauses shown on the back of this sheet and are subject to change on 30 days notice. Unless shipments are begun within 30 days, this quotation is automatically cancelled.

DELIVERY: Freight prepaid FOB rail cars at unloading bins of the ASARCO Incorporated Smelter at East Helena, Montana. The rates quoted are based on shipment in open-top gondola equipment. Extra unloading charges of up to \$2.00 per wet ton will be assessed for product received in other equipment. A charge of \$5.00 per wet ton will be assessed for product received in sacks or drums.

PAYMENTS

GOLD: Deduct 0.02 troy ounces per dry ton and pay for 92.5% of the remaining gold content at the daily London Final Gold Quotation, as published in Metals Week, averaged for the calendar month following date of delivery of product, less a deduction of 100¢ per troy ounce of payable gold. All purchases of gold will be subject to U. S. Governmental regulations pertaining to transactions in gold.

SILVER: Deduct 1.0 troy ounces per dry ton and pay for 95% of the remaining silver content at the Handy & Harman New York Quotation for refined silver, as published in Metals Week, averaged for the calendar month following date of delivery of product, less a deduction of 7.0 ¢ per ounce.

LEAD: Deduct from the wet lead assay 1.5 units and pay for 95% of the remaining lead at quotations for common domestic lead for delivery in New York, as published in Metals Week, averaged for the calendar month following date of delivery of product, less a deduction of 5.2¢ per pound of lead accounted for. The quantity of lead not paid for shall equal a minimum of 3.0 units per net dry ton.

COPPER: Deduct from the wet copper assay 1.3 units and pay for 97.5% of the remaining copper at the daily net domestic refinery quotations for electrolytic wire bars, as published in Metals Week, averaged for the calendar month following date of delivery of product, less a deduction of 18¢ per pound of copper accounted for. The maximum quantity of copper paid for shall not exceed 5 units.

NO PAYMENT WILL BE MADE FOR ANY METAL OR CONTENT EXCEPT AS ABOVE SPECIFIED.

DEDUCTIONS

SMELTING DEDUCTION: The smelting deduction shall be \$47.50 per dry ton based on
(a) A cost of employment of \$7.75 per hour at East Helena,
(b) A cost of fuel of 280¢ per MMBtu at East Helena,
(c) A cost of electric power of 10.0 mills per kwh at East Helena.

SMELTING DEDUCTION ADJUSTMENT: (a) Increase or decrease smelting deduction by 8.0¢ for each 1¢ per hour that the average hourly cost of employment during the calendar month including date of delivery is greater or less than \$7.75, fractions in proportion.

(b) Increase or decrease smelting deduction by 6.0¢ for each 1¢ per MMBtu that the average cost of fuel used during the calendar month including date of delivery is greater or less than 280¢, fractions in proportion.

(c) Increase or decrease smelting deduction by 6.0¢ for each 1 mill per kwh that the cost of electric power used during the calendar month including date of delivery is greater or less than 10 mills, fractions in proportion.

CRUDE ORE: Charge \$3.00 per wet ton for crushing and sampling.

ARSENIC: Allow 0.5 units free; charge for excess at \$1.00 per unit)
ANTIMONY: Allow 0.5 units free; charge for excess at \$1.00 per unit)
BISMUTH: Allow 0.05 units free; charge for excess at \$0.50 per pound)
NICKEL: Allow 0.3 units free; charge for excess at \$3.00 per unit)
MOISTURE: Allow 10.0 units free; charge for excess at \$0.50 per unit)

FRACTIONS
IN
PROPORTION

TONNAGE: Limited to _____ tons per month.

ASARCO Incorporated

By _____

GENERAL CONDITIONS GOVERNING ALL OPEN SCHEDULES

1. **TAXES:** All taxes or other governmental charges, national, local or municipal, now or hereafter imposed in respect to or assessed by the product purchased hereunder, or the production, extraction, smelting, refining, sale, transportation, proceeds or value thereof or of the metals derived therefrom, other than income taxes levied upon the BUYER, shall be for account of the SELLER and shall be deducted from the purchase price payable hereunder.
2. **SAMPLING:** Weighing, moisture and ore sampling (at which SELLER or a representative may be present) as done by BUYER according to standard practice, promptly after receipt of product, will be accepted as final. The absence of SELLER or a representative shall be deemed a waiver of the right in each instance. After sampling, the product may be placed in process, commingled, or otherwise disposed of by BUYER.
3. **ASSAYING:** As soon as available BUYER will furnish a pulp sample to SELLER, or to SELLER's representative or the firm handling SELLER's assay work. On SELLER's request BUYER will make assay comparison with SELLER, or his representative, by exchange of assay certificates over the counter. Comparison may be made by exchange of certificates through the mail, and in such event BUYER and SELLER will mail to each other their respective assay certificates on the sixth day following date appearing on smelter pulp sample envelope, or other such date as may be agreed upon. The following splitting limits will be used for comparison of assays under either exchange method listed above:

Gold	-	.02 troy ounce per ton	Arsenic	-	0.2%
Silver	-	.5 troy ounce per ton	Antimony	-	0.2%
Lead	-	0.5%	Bismuth	-	0.02%
Copper	-	0.5%	Nickel	-	0.1%

If assays of BUYER and SELLER are within limits above specified, settlement assays will be determined by averaging the two results. If assay comparisons indicate differences greater than the above limits, control sample shall be submitted to umpire. Umpires shall be selected in rotation from a list mutually agreed upon whose assays shall be final if within the limits of the assays of the two parties; and, if not, the assays of the party nearest the umpire shall prevail. Losing party shall pay cost of umpire. In case of SELLER's failure to make or submit assays, BUYER's assays will govern.
4. **SMALL LOT:** The rates quoted herein are for carload lots. On truck shipments and/or any lot containing less than 20 tons, there will be a handling charge of \$25.00.
5. **BULLION FREIGHT:** This schedule is based upon published all-rail freight rates applicable to carload minimum weight of 50 tons on lead and copper bullion from East Helena, Montana or Odessa, Nebraska (for refining) to New York City of \$54.45 per ton. Any increase or decrease in said 50-ton rate in effect on the date of delivery of product shall be for SELLER's account, and proper charge or credit shall be made accordingly.
6. **DEFINITIONS:** In this schedule the word "ton" means a ton of two thousand pounds avoirdupois; the word "ounce", as referring to gold and silver, means the troy ounce; and the word "percent" means one percent of a ton, or twenty pounds avoirdupois.
7. **FORCE MAJEURE:** Performance of this agreement is subject to any delays caused by strikes or other disabling causes beyond the control of either party.
8. **FREIGHT & ADVANCES:** All freight and other charges paid by BUYER for SELLER's account will be considered as an advance payment and will be subject to an interest charge. Such interest shall be charged from the date of the advance payment to the date of final settlement at a rate of 1.25 times the rate quoted to Asarco from time to time by the Chase Manhattan Bank, N.A.
9. **SELLER** should consign his shipments to ASARCO Incorporated, East Helena, Montana 59635, and it is required that the original bill of lading covering each such shipment be delivered to the BUYER promptly on release of the shipment to the carrier. Full details as to the disposition of settlement returns, including royalty instructions if any, must be furnished by SELLER to BUYER before shipments can be processed.

ASARCO Incorporated

Shipper: ANDY HARMON	Assays	Gold Oz. Per Ton	Silver Oz. Per Ton	Wet Lead %	Copper %	Zinc %	Arsenic %	Antimony %	Bismuth %
Mine: SILVER LEAD ORE (PLATA GROUP)	A. S. & R. Co.	0.010	246.7	71.5	0.50	2.7	0.40	1.14	
Class: CRUDE	Shipper	0.050	248.5	72.5			0.20	1.00	
Shipping Point: NO. VANCOUVER, B.C.	Umpire <i>f.m.</i>	0.015	248.8	72.3					
Smelter Lot. No. 1110	Settlement	0.015	248.5	72.3	0.50	2.7	0.30	1.07	
Mine Lot No. 1-2									

BOX 3756 *5.1* *102771*
 BOX 2723 *5.0* *99274*

H ₂ O	Wet Weight	Dry Weight	Dry Tons	Wet Tons	Assay Deduction	Percent Pay	METAL	Pay Quotation	Quotation Deduction
51.00	102,771	47,529	40.764	51,305	1.0	95	Gold		
50.00	99,274	44,310	47,155	49,637	1.5	95	Silver	4.34767	.07
							Lead	.85819	.658
							Copper		
202.045	191,939	91,919		101,022					

Date of Arrival: *...*

Settlement Assay	Total Content	Assay Ded.	Percent Pay	Pay Content	Pay Quotation	Quor. Ded.	Net to Shipper
1.00	Gold	1.44		.00			.00
24,850.00	Silver	238,364.7	100.00	22,553.10	4.34767	70.00	96,473.98
7,230.00	Lead	136,700.51	150.00	129,031.57	2.5810	52.00	26,605.00
50.00	Copper	959.20		.00			

Base Charge	Cost	Contract	Diff.	
				<i>\$50.50</i>
Labor: <i>\$8.515</i>	<i>\$7.75</i>	<i>.765</i>	<i>87 ea.</i>	<i>176.12</i>
Fuel: <i>\$3.121</i>	<i>\$2.80</i>	<i>.321</i>	<i>64 ea.</i>	<i>141.926</i>
Power: <i>10.2</i>	<i>10.0</i>	<i>.2</i>	<i>64 ea.</i>	<i>11.012</i>

Dry Tons X Total Contracts Deductions: *#59.13* ST 6 95,919.908

Sampling *Lead duty @ .75¢* 134,964.00

Lbs. of Pb (Pay Content) 129,032.00

Lbs. of Cu. (Pay Content)

Tons of Pb & Cu X Bullion Frt. Act. *57.17* PR 64,516.00 P 57.17 3,200.300

Tons of Pb & Cu X Bullion Frt. Cont. *54.45* 64,516.00 54.45 3,512.90

Sub-Total *Buy Ore* 202.05 2,020.00

Wet tons X Frt. Rate ST 5

Sub-Total 116,019.248

Advances *80,000.00* 80,000.00

Hauling *Interest: 14 days @ 7.5%* ST 5 230.14

Umpires *12.00* 12.00

W. Lab. 57.60 57.60

Net Proceeds

Post Office Box 960
KELLOGG, IDAHO 83837

K. C. HAIGHT
CHEMIST - ASSAYER

TELEPHONE
Area Code 208
784-1261 Ex 35

Sample Marked Plata Group Cande Lot #1218
Shipper's Lot #3
Car 37556-2723 (16 Bags)

UMPIRE)

Lot No.	PER TON 2000 LBS.		PER CENT LEAD	PER CENT ZINC	PER CENT COPPER	PER CENT IRON	PER CENT CADMIUM	PER CENT	PER CENT	PER CENT	PER CENT
	OZS. GOLD	OZS. SILVER									
1218	0.011	232.08	70.90								
SMELTER											
UMPIRE											
SETTLEMENT											

Reassay: _____

Umpire _____ Charges: \$39.00

Kellogg, Idaho January 18, 1977

K. C. Haight
per-M.V.C. ASSAYER

CERTIFICATE OF ASSAY
FROM
PETER MACK
ASSAYER AND CHEMIST

ASARCO - Last Helena Plant

Wallace, Idaho Jan. 12, 1977

UMPIRE ^{MARKED} ASSAYS	Gold ozs. per ton	Silver ozs. per ton	Lead %	Zinc %	Iron %	Copper %	%	%	Cadmium %
Plata, Cd Lot 1140/1 & 2	0.015	248.8	72.3						

Charges \$39

Peter Mack



HORACE HAND
MANAGER

ASSAYERS

ANALYTICAL
CHEMISTS

SHIPPERS
REPRESENTATIVES

3131 AIRPORT ROAD • P. O. BOX 537 • HELENA, MONTANA 59601

December 31, 1976

ANDY HARMAN

CONTROL ASSAY

DESCRIPTION	GOLD OZS PER TON	SILVER OZS PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	CONTROL ASSAY	
						As PER CENT	Sb PER CENT
PLATA GROUP CRUDE 1 & 2/1140	0.05	248.5	72.5			0.2	1.0
SMELTER							
AVERAGE							

100 TON SAMPLE
avg.

Charges \$ 57.60

WESTERN LABORATORIES

By *H. Hand*

ASSAYERS

ANALYTICAL CHEMISTS

SHIPPERS REPRESENTATIVES



HORACE HAND
MANAGER

3131 AIRPORT ROAD • P. O. BOX 537 • HELENA, MONTANA 59601

December 31, 1976

ANDY HARMAN

CONTROL ASSAY

DESCRIPTION	GOLD OZS PER TON	SILVER OZS PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	As PER CENT	Sb PER CENT	PER CENT
PLATA GROUP CRUDE 3/1218	0.04	233.1	71.2			0.2	0.8	
SMELTER								
AVERAGE								

16 SACKS PLATA CRUDE NO 2 ZONE 022

Charges \$ 57.60

WESTERN LABORATORIES

By *H. Hand*

B-13
D.N.R. APPROVED
1/5/70

CANADA CUSTOMS - EXPORT ENTRY

6866-1

SEE CUSTOMS
MEMORANDUM D22
AND DOMINION
BUREAU OF
STATISTICS
EXPORT
COMMODITY
CLASSIFICATION

PLACE OF LADING VANCOUVER, B.C.		R. PORT NO.	
CARRIER FROM PLACE OF LADING	CAR INITIAL & NO. (RAIL)	OUTPORT	
EXPORTING CARRIER (IF KNOWN) BNR	LICENSE NO. (HIGHWAY)	ENTRY NO.	PORT 74775

MODE OF TRANSPORT FROM PORT OF EXIT: HIGHWAY RAIL WATER AIR PARCEL POST (OTHER SPECIFY) SPACES BELOW FOR DBS USE

NAME OF EXPORTER/OWNER
Mr. Andy Harman c/o Boston Range Syndicate

ADDRESS OF EXPORTER
907-675 W. Hastings

NAME OF CONSIGNEE
American Smelting & Refining Co.

ADDRESS OF CONSIGNEE
East Helena Plant, East Helena, Montana

ROUTING
Montana, USA

MARKS ON PACKAGES	NO. OF PACKAGES	DESCRIPTION OF GOODS GIVE SUFFICIENT DETAIL TO PERMIT CODING ACCORDING TO DBS EXPORT COMMODITY CLASSIFICATION	SHIPPING WEIGHT	QUANTITY USE UNIT REQUIRED FOR EXPORT COMMODITY CLASSIFICATION	VALUE F.O.B. PLACE OF LADING	IF FOREIGN GOODS IN SAME CONDITION AS IMPORTED, GIVE COUNTRY OF ORIGIN
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ADDRESS	46 Pallets containing Lead/Silver Ore	207,340 lbs			\$120,000.00	
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INDICATE IF APPLICABLE ARE WERE THE GOODS SUBJECT TO DRAWBACK IMPORTED ON DUTY BASIS RE-IMPORTED UNDER DUTY DRAWBACK ESTIMATED INLAND FREIGHT CHARGES FROM PLACE OF LADING TO PORT OF EXIT.

PORT OF ENTRY AND ENTRY NO. (IF KNOWN) _____

I HEREBY CERTIFY THAT THE INFORMATION GIVEN ABOVE IS TRUE AND CORRECT IN EVERY RESPECT

NAME: LEITH & DYKE LTD.
ADDRESS: 505 BENTALL STREET VANCOUVER, B.C.
SIGNATURE: *[Signature]*

LEITH & DYKE LTD.
ONE BENTALL CENTRE 505 BENTALL STREET
VANCOUVER, B.C. V6C 1C5
NOV 15/76
INDICATE STATUS: EXPORT PERMIT NO. _____
STAMP OF CHIEF PORT: *[Stamp]*

USE SPACE ABOVE FOR RETURN ADDRESS

Terms and conditions set forth herein are prescribed by the Board of Transport Commissioners for Canada by its General Order No. T-5, dated February 1, 1965.

BURLINGTON NORTHERN INC.

LINES IN BRITISH COLUMBIA, CANADA
THE MIDLAND RAILWAY COMPANY OF MANITOBA

Shipper's No.

Agent's No.

THIS MEMORANDUM

is an acknowledgment that a bill of lading has been issued and is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

RECEIVED, subject to the classification and tariffs in effect on the date of issue of this original bill of lading,

at North Vancouver, B.C. November 15th 1976

White Pass & Yukon Route

from for Harman Management, Whitehorse YT goods described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned and destined as indicated below, which said company agrees to carry to its usual place of delivery at said destination, if on its road, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said goods over all or any portion of said route to destination, and as to each party at any time interested in all or any of said goods, that every service to be performed hereunder shall be subject to all the conditions, whether printed or written, herein contained (including conditions on back hereof) and which are agreed to by the shipper and accepted for himself and his assigns.

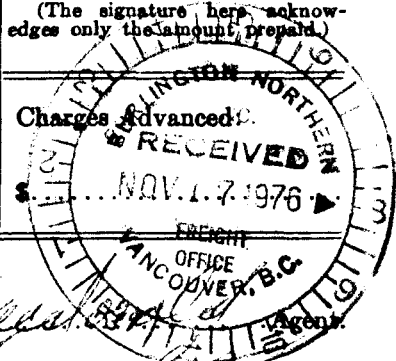
(Mail Address—Not for purpose of delivery)

Consigned to ASARCO (American Smelting & Refining Co.)

Destination EAST HELENA { Province or MONT. County of

Route CN BN Car Initial AP Car No. 2723

No. Packages	Description of Articles and Special Marks	Weight (Subject to correction)	Class or Rate	Check Column	If charges are to be prepaid, write or stamp here, "To be Prepaid".
23	Lead - Zinc Ore <i>Patch</i>	103570			PREPAID by WP&YR
					Received \$..... to apply in prepayment of the charges on the property described hereon.
					Agent or Cashier
					Per..... (The signature here acknowledges only the amount prepaid.)
	Export & Customs Papers by <u>Leitch & Dyer Ltd.</u>				
	SEALS - <u>WP&YR 01651/52</u>				Charges advanced \$.....



White Pass & Yukon Route - North Vancouver, B.C.

Harman Management, Whitehorse YT Shipper.

Per.....

Per.....

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at..... North Vancouver, B.C. November 15th 1976 ..

White Pass & Yukon Route

from ~~for~~ ~~Harman Management~~ goods described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned and destined as indicated below, which said company agrees to carry to its usual place of delivery at said destination, if on its road, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said goods over all or any portion of said route to destination, and as to each party at any time interested in all or any of said goods, that every service to be performed hereunder shall be subject to all the conditions, whether printed or written, herein contained (including conditions on back hereof) and which are agreed to by the shipper and accepted for himself and his assigns.

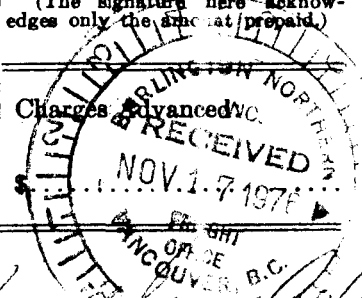
(Mail Address—Not for purpose of delivery)

Consigned to..... ASARCO..... (American Smelting & Refining Co.) ..

Destination..... EAST HELENA..... { Province or State of..... MONT..... County of.....

Route... CN.. BN..... Car Initial..... CN..... Car No..... 37556.....

No. Packages	Description of Articles and Special Marks	Weight (Subject to correction)	Class or Rate	Check Column	If charges are to be prepaid, write or stamp here, "To be Prepaid"
23	Pallets Lead Zinc Ore	119071			PREPAID b. MP&YR
					Received \$..... to apply in prepayment of the charges on the property described hereon.
			172 100		
			426 00		Agent or Cashier
			109 500		Per.....
	Export & Customs Papers by Lett. & Co. Ltd.				(The signature here acknowledges only the amount prepaid.)
	Seals - MP&YR - 01636/27				Charges advanced NO.



White Pass & Yukon Route - North Vancouver, B.C.
for Harman Management, 5100 Hastings St. Shipper.

Handwritten signature
Per.....

Per.....

PREPAID

CARRE AND DESTINATION
 EAST HELENA, MONTANA
 S.A.

SHIPPER AND ORIGIN
 HARMAN MANAGEMENT
 WHITEHORSE, YUKON

WEIGHT
 100

BEYOND CARRIER
 B.N.

160

11542 16

PARTICULARS FURNISHED BY SHIPPER OF GOODS 91 FOR CARRIERS USE ONLY

DESCRIPTION OF GOODS	WEIGHT SUBJECT TO CORRECTION	CONT.	TARIFF ITEM	CODE	WEIGHT OR UNITS	RATE	FREIGHT
PALLETS ORE	68770		75		68770	30.85/TON	1060.78

AGENT VANCOUVER, PLEASE OBTAIN RELEASE AT 50.00 DOLLARS / TON

SCALE TICKETS ON FILE IN WHITEHORSE

CONTAINER WEIGHT ANALYSIS FREIGHT CHARGES 1060.78

3541	A	32230	ADVANCES
3509	B	36540	COD AMOUNT
			COD FEE
			TOTAL CHARGES 1060.78
			PREPAID TO APPLY 1788.02
			BALANCE DUE
			BEYOND 727.24

RECEIVED THE ABOVE SPECIFIED PROPERTY IN APPARENT GOOD ORDER

DATE _____ SIGNED _____ CHECKER _____

DECLARED VALUE OF SHIPMENT \$ 50.00/TON

IN NO EVENT SHALL THE CARRIER'S LIABILITY EXCEED SAID DECLARED VALUE

DATED AT WHITEHORSE, YUKON THIS 19 DAY OF OCTOBER 19 76

BY _____ SHIPPER

ATTACHED HERETO ARE FORMS OF STRAIGHT BILL OF LADING, OTHER SHIPPING DOCUMENTS AND CARRIAGE COMPANY'S RECEIPT, SEE CONDITIONS THEREOF AND EXECUTE SAME SEPARATELY.

PREPAID

CARRE AND DESTINATION
 EAST HELENA, MONTANA, U.S.A.

SHIPPER AND ORIGIN
 HARMAN MANAGEMENT LIMITED
 WHITEHORSE, YUKON

WEIGHT
 100

BEYOND CARRIER
 B.N.R.

160

11542 16

PARTICULARS FURNISHED BY SHIPPER OF GOODS 0 FOR CARRIERS USE ONLY

DESCRIPTION OF GOODS	WEIGHT SUBJECT TO CORRECTION	CONT.	TARIFF ITEM	CODE	WEIGHT OR UNITS	RATE	FREIGHT
PALLETS ORE BEAMS	138570		395		138570	52.00/TON	7206.34

BEYOND VIA:
 C.N. RAIL (SWITCHING) 1.47/TON
 SURLINGTON NORTHERN 19.63/TON

TOTAL BEYOND - 21.15/TON

RELEASED AT 50.00 DOLLARS / TON

THE SHIPPER HAS COLLECTED 1466.32 FROM PEOPLE TICKETS ON FILE IN WHITEHORSE FROM THE ACCOUNT OF THE CARRIER. ANY ADDITIONAL CHARGES ARE FOR THE ACCOUNT OF THE CONSIGNEE AND SHOULD BE COLLECTED FROM SAME.

RECEIVED THE ABOVE SPECIFIED PROPERTY IN APPARENT GOOD ORDER

DATE _____ SIGNED _____ CHECKER _____

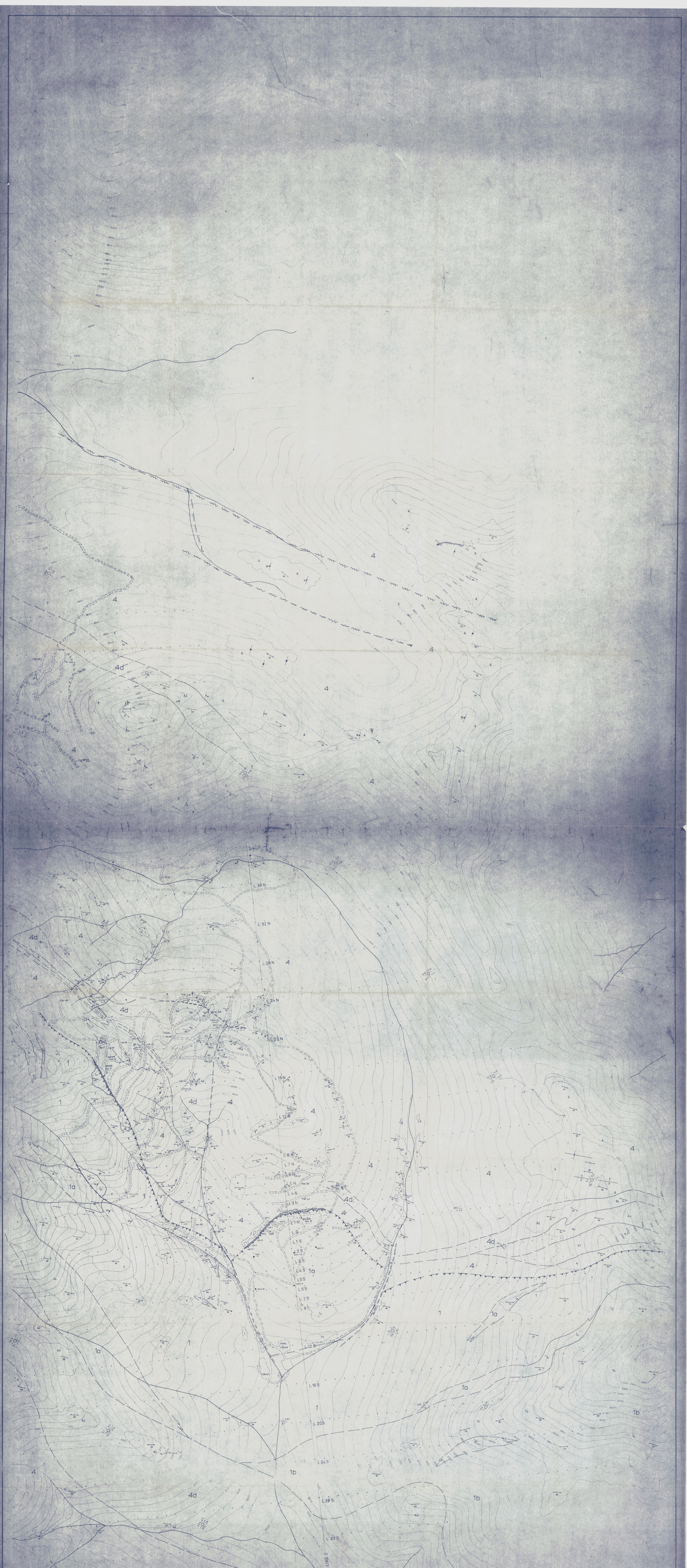
DECLARED VALUE OF SHIPMENT \$ 50.00/TON

IN NO EVENT SHALL THE CARRIER'S LIABILITY EXCEED SAID DECLARED VALUE

DATED AT WHITEHORSE, YUKON THIS 12 DAY OF OCTOBER 19 76

BY _____ SHIPPER

ATTACHED HERETO ARE FORMS OF STRAIGHT BILL OF LADING, OTHER SHIPPING DOCUMENTS AND CARRIAGE COMPANY'S RECEIPT, SEE CONDITIONS THEREOF AND EXECUTE SAME SEPARATELY.



CYPRUS ANVIL MINING CORPORATION
PLATA GROUP
 GEOLOGY AND DEVELOPMENT MAP
 DRAWN BY W. ROBERTS
 SCALE 200 Feet
 SHEET No. 1
 JANUARY, 1977
 N.T.S. 105' N. 13'

