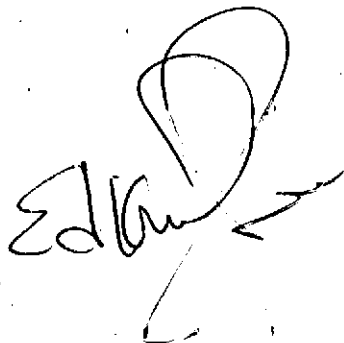


6525

REPORT OF WORK LIARD COPPER CLAIMS SCHAFT CREEK

LIARD M.D. BRITISH COLUMBIA

57° 21' N and Longitude 131° 00' W

A handwritten signature in black ink, appearing to read "Ed Kruchkowski", with a large, stylized flourish above the name.

Prepared by:

Ed Kruchkowski

Hecla Operating Company

November 14, 1977

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## PART 1

### GENERAL INFORMATION

#### LOCATION

The Liard copper property consisting of 451 claims is located in the Liard Mining Division at latitude 57° 21' N and longitude 131° 00' W (Figure 1).

#### ACCESS

Present access to the property is by chartered aircraft from Terrace, 225 air miles to the southeast. All equipment and supplies used in the 1977 program were flown in from the Iskut airstrip 45 miles east of Schaft Creek or Terrace by Otter or DC-3 aircraft chartered from Trans-Provincial Airlines Ltd.

#### PERSONNEL

An average of eight men were employed while the drilling was in progress including a project geologist, helper and caretaker on Hecla's payroll and four diamond drillers and cook on contractor's payroll. Hecla Operating personnel participating in the 1977 field program are listed below with the respective dates worked:

E. Kruchkowski, project geologist	-	May 17 - 20, 1977
		June 7 - 14, 1977
		July 6 - 28, 1977
		Sept. 9 - 10, 1977
		Oct. 26th 1977
P. Batten, caretaker, watchman	-	May 17 - June 24, 1977
R. Burega, helper	-	June 7 - 14, 1977
		June 24 - July 28, 1977
P. Hill, caretaker, watchman	-	July 6 - Sept. 23, 1977
E. Ostensoe, exploration supervisor	-	Sept. 9 - 10, 1977
P. Fox, consultant to Hecla Operating	visited the property from	July 20 - July 28, 1977.

CAMP FACILITIES

Permanent camp facilities are located on the GAV 2 and ID 2 fr claims. Maintenance repairs were carried out on several buildings damaged by heavy snow loads. Wind felled trees destroyed one building and damaged the radio antennae system. A "short" in the electrical system burned the outside wiring of the whole camp and consequently the buildings had to be rewired. The plumbing systems in the kitchen and "dry" area were either repaired or replaced.

Due to the lack of maintenance work in the past, costly repairs were carried out on equipment prior to the start of the 1977 drilling program. Equipment repaired is listed below:

6.5 K.V. Koehler lighting plant  
20 K.V. Portalec lighting plant  
Gorman-Rupp firefighting pump  
1968 Bronco

The water supply lines for the camp were replaced or repaired. Due to the lack of rainfall the past summer, the present water supply dried up. Work was carried out to enlarge the present reservoir as well as setting up a "back-up" system.

Daily radio communications was maintained with Vancouver and Trans-Provincial Airlines Ltd. in Terrace.

PART 2

DIAMOND DRILLING

SUMMARY

The diamond drilling on the property was performed by employees of D. W. Coates Enterprises Ltd. using a Longyear Super 38 drill rig. Transportation to and from the drill site to the camp was via a four wheeled drive 1968 Ford Bronco.

One vertical hole, DDH 104, was drilled to a depth of 2113'. NQ core size (50.8 mm) was recovered up to a depth of 1031' and BQ core size (35.7 mm) was recovered from 1031' to 2113'. The core was logged by the writer and split by R. Burega. All the core is presently stored in permanent core building on the property.

SURVEYING

The collar of DDH 104 was surveyed by E. Ostensoe and E. Kruchkowski, using an old style transit. The transit was not capable of measuring angles with accuracy better than 1'. The survey was tied in to cairns erected by Underhill and Underhill in 1968 and DDH 80 for which the coordinates are known.

The coordinates of DDH 104 are 27110.70 N, 8982.34 E and elevation is 3313.7' (1010M).

## CORE LOG SUMMARIES

DDH 104

- 0 - 73 Casing in overburden
- 73 - 246 (173') Pinkish quartz-plagioclase porphyry dyke (4a). 15% quartz phenocrysts to 3mm, 40% blocky plagioclase in a fine grained matrix. Intensely fractured locally but generally massive. 2% disseminated pyrite throughout with trace amounts chalcopyrite and molybdenite. Weakly altered to sericite, scattered calcite veinlets. Sheared 210' - 243'. Triconed 117' 141'.
- 246 - 250 (4') Gouge. Shear folia 35° C axis.
- 250 - 559 (309') Massive, pyritic quartz-plagioclase porphyry (4a). Pink, locally grey. Moderately fractured. 2% disseminated pyrite with trace chalcopyrite and molybdenite. Quartz veinlets up to 1cc thick common. Weakly altered to carbonate, chlorite, epidote.
- 559 - 560 (1') Fine grained andesite (3c).
- 560 - 567 (7') Quartz-plagioclase porphyry dyke. Weakly altered to carbonate-chlorite-epidote.
- 567 - 578 (11') Fine grained andesite, small amounts augite (3c).
- 578 - 580 (2') Quartz-plagioclase porphyry dyke (4a), chilled margins.
- 580 - 601 (21') Fine grained andesite. Weakly altered to epidote, carbonate, chlorite. 2% pyrite and trace amounts chalcopyrite, trace molybdenite.
- 601 - 603 (2') Gouge zone. Increase in chalcopyrite content in footwall of fault.
- 603 - 607 (4') Pale grey, fine grained andesite. Intensely fractured. Disseminated pyrite, chalcopyrite; molybdenite on fractures. Rock altered to epidote-carbonate-chlorite.
- 607 - 616 (9') Quartz-plagioclase, porphyry dyke, highly fractured, disseminated molybdenite on fractures. (4a).
- 616 - 775 (159') Highly sheared, grey fine grained plagioclase-rich andesite (3c). Moderately altered; epidote, carbonate, chlorite. Gouge zone 625-627. 45° core axis. Generally good grade chalcopyrite and molybdenite.

- 775 - 908  
(133') Medium grained quartz-plagioclase porphyry (4a) abundant quartz and plagioclase phenocrysts to 4 mm. Mottled grey to pink. Fine grained margin at 908. Weakly altered to carbonate and chlorite. Disseminated chalcopyrite, pyrite, molybdenite on fractures.
- 908 - 1471  
(563') Dark grey to green, fine grained plagioclase andesite (3b). Scattered lithic fragments (15%) up to 4 cm. Rock weakly altered to carbonate and chlorite. 2% pyrite on fracture surfaces, rarely disseminated. Trace amounts chalcopyrite and molybdenite. Intensely sheared 1465 - 71, fault gouge 1469-70 60° core axis. Pyrite disappears at fault zone.
- 1471 - 1504  
(33') Pink plagioclase porphyry (4a). Sheared 1471-80. Quartz phenocrysts to 4 mm, 15%. Low sulphide content less than 1%. Chalcopyrite and molybdenite. Mafic minerals (biotite) altered to sericite and chlorite.
- 1504 - 1507  
(3') Basalt dyke (7).
- 1507 - 1560  
(55') Pink quartz-plagioclase porphyry (4a). Weakly altered to chlorite and sericite on fractures. Trace amounts molybdenite.
- 1560 - 1685  
(125') Mottled pink, green, and grey cataclastic breccia. Pinkish plagioclase porphyry fragments enclosed by foliated greenish chlorite-rich matrix. Highly sheared throughout, mortar texture well developed. Sulphide content 2%; chalcopyrite, molybdenite, and trace amounts bornite. Sulphides disseminated and on fractures. Slickensides of molybdenite and chalcopyrite common. Intensely altered to chlorite, sericite, carbonate. Quartz veinlets common, usually deformed and truncated.
- 1685 - 1699  
(14') Dark grey, weakly altered dyke (3f).
- 1688 - 1794  
(195') Mottled grey, green, pink, intensely altered cataclastic breccia. Intensely sheared 2% sulphides. Chalcopyrite, bornite, molybdenite. Small amounts K-feldspar forming narrow selvages on quartz veinlets.
- 1974 - 1812  
(18') Dark grey plagioclase-rich andesite with numerous fragments (3b). Grades into cataclastic breccia at 1812'.
- 1812 - 1849  
(37') Dark green locally mottled pink cataclastic breccia. Intensely sheared, moderately altered to chlorite. Low sulphide content, less than 1%. Chalcopyrite and trace amounts molybdenite throughout.
- 1849 - 2087  
(138') Grey to pink quartz-plagioclase porphyry (4a,6). Sharp contact at 1849 30° core to axis. 20% quartz phenocrysts to 5mm. blocky plagioclase to 4mm. Rock locally equigranular and porphyritic. Small amounts of disseminated chalcopyrite throughout. Molybdenite smears on widely spaced fractures to 1900'. Weakly altered to chlorite.
- 2087 - 2097  
(10') Barren, grey, fragment-bearing plagioclase andesite (3b).
- 2097 - 2113  
(16') Pink quartz-plagioclase porphyry (4a). Barren.



A P P E N D I X 1.

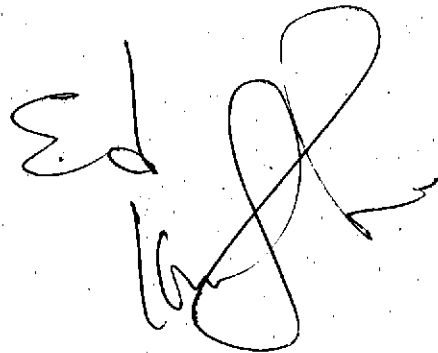
STATEMENT OF QUALIFICATIONS

APPENDIX 1.

Statement of Qualifications

The professional qualifications of technical personnel engaged in the work reported on herein, are detailed below:

1. Ed Kruchkowski, B.Sc., Geologist - completed B.Sc. course at University of Alberta (Edmonton) in May 1972; in summers of 1969, 1971 and 1972 employed by Hecla Operating Company in Schaft Creek area as crespitter, soil sampler and geologist respectively. In 1970 employed by consultant and assigned to projects in southeastern British Columbia. Employed by Hecla Operating Company as geologist from May 1973 to June 1974 and assigned to projects at Mess Creek, B.C. and Bute Inlet, B.C. under the direction of Erik Ostensoe and P. I. Conley, P.Eng. Employed by Granduc Mines, Limited (N.P.L.) from July, 1974 to May 1977 as geologist in charge of work on Sulphurets Creek property, and from May 1977 to present as geologist in charge of work on Schaft Creek property.
2. Erik A. Ostensoe, B.Sc. (Hons.); Member: Canadian Institute of Mining and Metallurgy, Association of Exploration Geochemists; geologist - completed B.Sc. Honours course at University of British Columbia in 1960 and course requirements of M.Sc. at Queen's University in 1966; employed by Newmont Mining Corporation of Canada Ltd., under direction of Dr. G.W.H. Norman, P.Eng., from May 1960 through August 1964 as field geologist in Granduc Mine area, B.C., by Mount Billings Venture in southeastern Yukon in summer 1965, by Scud Venture (Asarco) in Iskut River area, B.C. in summer 1966 and by Granduc Mines, Limited (N.P.L.) and Hecla Mining Company of Canada Ltd. from October 1966 to present as Chief Geologist and Exploration Supervisor respectively under the direction of P. I. Conley, P.Eng.

A handwritten signature in black ink, appearing to read 'Ed Kruchkowski', is located in the lower right quadrant of the page. The signature is stylized and somewhat cursive.

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.

In the Matter of Affidavit on Application to

To Wit:

Record Work - ID 10 claim group, Liard M.D.,  
British Columbia.

SUB-MINING RECORDER  
RECEIVED  
NOV 13 1977  
MR. WILSON 1790.00  
VANCOUVER, B.C.

I, Edward Kruchkowski

of 3878 Richmond Street, Port Coquitlam

in the Province of British Columbia, do solemnly declare that the following costs were incurred in the program of diamond drilling exploration on claims of the ID 10 claim group in the period July 6 to September 15, 1977, as described in the accompanying report:

1. Direct drilling costs per invoices submitted, including all contractor's charges re transportation	\$53,180.75
2. Fixed wing and helicopter charges re mobilization and demobilization of drill outfit from and to Iskut, B.C.	6,559.00
3. Fuel supplied to contractor - 757 gallons @ \$1.29/gallon	976.53
4. Clean up of roads and drill site: remove timbers, barrels, drilling muds, refuse	750.00
5. Drill hole location survey, including salaries and transportation costs	1,200.00
6. Wages and fees - supervision, geological consultant, labor	4,812.09
<b>Total costs</b>	<b>\$67,478.37</b>

Of the above costs more than \$59,478 was incurred before August 2, 1977 and \$8,000 was incurred after that date.

① 1200 E.M.V.  
① ID CLMS ONLY  
① 1) CLAIMS  
① 200 x  
4-jes = 8800

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 virtue of the "Canada Evidence Act."

Declared before me at the CITY  
of VANCOUVER, in the  
Province of British Columbia, this 15th  
day of November 1977, A.D.

James  
A Commissioner for taking Affidavits for British Columbia or  
A Notary Public in and for the Province of British Columbia.

SUB-MINING RECORDER

A P P E N D I X 2.

DIAMOND DRILL CONTRACT PLUS INVOICES

THIS AGREEMENT made this 11<sup>th</sup> day of May 1977.

BETWEEN:

HECLA MINING CO. OF CANADA LTD.  
2009 - 1177 W. Hastings St.  
Vancouver, B. C.

Hereinafter referred to as  
"The Company"

OF THE FIRST PART

AND:

D. W. COATES ENTERPRISES LTD.  
2560 A Simpson Road  
Richmond B. C. V6X 2P9

Hereinafter referred to as  
"The Contractor"

OF THE SECOND PART

WHEREAS the Company has requested the Contractor to complete a minimum of 2500 feet of drilling and other services as set forth on the property of the Company in the Schaft Creek area in the Province of British Columbia.

AND WHEREAS the Contractor has agreed to do the said diamond drilling and to perform the other services requested upon the terms, conditions and provisos herein contained.

NOW THEREFORE this Agreement Witnesseth that in consideration of the payment of the amounts herein stipulated and of the mutual covenants hereinafter contained, the parties hereto agree as follows:

- 2 -

SCHEDULE OF RATES - CORING

THAT the Company hereby employs the Contractor to drill on the said property a series of bore holes using an NQ core barrel producing a core of approximately 1 15/16 inches. The Company agrees to pay the Contractor on a footage basis for all drilling according to the following schedule of rates:

<u>From</u>		<u>To</u>	<u>NQ</u> <u>Price/Foot</u>	<u>BQ</u> <u>Price/Foot</u>
0'	-	500' in depth	\$16.75	\$15.75
500'	-	1000' in depth	\$18.25	\$17.05
1000'	-	1500' in depth	\$23.10	\$18.45

It is understood that measurement of all bore holes shall be from the top of the casing or stand pipe as the case may be.

OVERBURDEN

THAT the Company agrees to pay for casing or stand pipe for the first 100 feet in any hole according to the following schedule of rates:

<u>From</u>		<u>To</u>	<u>Price/Foot</u>
0'	-	50' in depth	\$17.00
50'		100' in depth	\$18.50
100'	plus		Field Cost

The Company further agrees that in the event that casing or stand pipe on any hole exceeds 100 feet, then charges for casing or stand piping on that hole shall be charged on a field cost basis from 100 foot depth to bedrock.

Whenever pipe or casing is lost, or left in a hole on the instructions of the Company's engineer, the Company agrees to pay for said casing or pipe at prices F.O.B. drill site plus fifteen percent.

The Company further agrees to compensate the Contractor at the rate of \$0.80 per foot of casing employed for that portion of the hole completed on a field cost basis. Said amount per foot to compensate for the wear and tear on the casing.

#### MOVING BETWEEN HOLES - SETTING UP - TEARING DOWN

THAT the Company agrees that tearing down, moving between holes and setting up the drill will be charged on a field cost basis.

The Company further agrees to supply a helicopter to move between holes at no cost to the Contractor.

#### WATER SUPPLY

*cont.*  
THAT the Company agrees that the above schedule of rates is deemed to include maintaining the waterlines up to a distance of 2500 feet, and/or a vertical lift of 200 feet.

Should the distance be greater than 2500 feet and/or the lift greater than 200 feet, then the maintaining of the waterlines will be charged on a pro-rata basis; the above distances to the Contractor's account and the "over" to the Company's account on a field cost basis.

The laying and removing of the waterlines would be performed on a field cost basis.

TRANSPORTATION

THAT the Contractor agrees to move his men, equipment and supplies from his base to Burrage Strip for the lump sum of \$2100.00.

The movement of men, equipment and supplies from Burrage Strip to first drill site will be charged on a field cost basis.

The maintaining and erection of a suitable camp would be performed on a field cost basis.

The Company would supply a helicopter and aircraft for the mobilization at no cost to the Contractor.

REAMING AND CASING

THAT the Company agrees that all reaming and casing that is necessary to stop cave-ins or maintain the return flow of water shall be completed at the Company's request and that the cost of performing such reaming and placing of such casing as may be required will be charged on a field cost basis.

Casing would be charged at the rate of \$0.80 per reamed foot.

CEMENTING

THAT the Company agrees to pay the Contractor for the cementing of bore holes to stop cave-ins on an operating field cost basis.



Waiting for cement to set would be charged on a non-operating field cost basis.

DRILLING WITH MUD

THAT it is mutually agreed that should mud be required to penetrate the overburden and/or aid in core recovery while core drilling, such mud employed will be charged on a cost at job site plus ten percent.

Time employed mixing mud and stabilizing the drill hole would be charged on a field cost basis.

DRILLING SITES

THAT the Contractor agrees to case and drill on the sites and at angles and azimuths selected by the Company representative and to follow the instructions of the said representative relating to place and time of drilling.

OPERATIONAL TRANSPORTATION

The Contractor agrees that the above schedule includes the placing of the necessary and continuing supplies as the job progresses on the strip at Schaft Creek.

ACID TESTS

THAT the Contractor agrees to take acid tests at the depths as instructed by the Company's engineer. Such tests will be charged

at the rate of three feet of drilling at the depth the tests were taken.

TRAVELLING TIME

THAT the Company agrees that should the time required to walk or ride from the camp to the drill site and return per man shift be greater than  $\frac{1}{2}$  hour, then that "over" will be recovered on a field cost basis.

DIRECTIONAL AND CONTROLLED DRILLING

THAT it is mutually agreed that directional drilling to change the direction of a bore hole and controlled drilling to maintain the angle of a bore hole shall not be part of this agreement.

SECURITY

THAT the Contractor will not give out any information regarding drill results or access to core to any person other than to the Company's representative.

BOARD AND LODGING

THAT the Contractor agrees that the above schedule of rates include the board and lodging for his drill crew.

THAT the Company agrees to supply suitable lodgings for the Contractor's crews at no cost to the Contractor.

The Contractor further agrees to supply board to Company personnel at the rate of \$6.00 per meal.

#### CORE BOXES

THAT the Company agrees to pay the Contractor \$4.65 per box and \$1.50 per lid, supplied at their request.

#### RADIO COMMUNICATION

THAT the company agrees to supply a Radio Communications at no cost to the Contractor.

#### CAVED OR BROKEN GROUND

THAT in the event cavities or loose and caving materials are encountered of a nature as to prevent the successful completion of any hole, the Contractor does not, under such conditions, guarantee to drill to a predetermined depth and in the event that it becomes necessary to abandon the hole, the Company agrees to pay for such incompleated holes at the rates herein specified for all footage completed.

In the event it becomes necessary to resort to cementing, reaming or casing, the Company agrees to reimburse the Contractor to the extent of field cost.

#### ENVIRONMENT

THAT during the course of the work, the Contractor shall at all times keep the clients premises free from accumulation of waste

materials or rubbish and upon completion of the work shall remove all tools, scaffolding and surplus material and leave the premises in a clean condition. The Contractor shall observe and comply with all applicable Federal and Provincial laws, regulations and orders relating to prevention of forest fires, sanitation in the bush.

COMPENSATION

THAT the Contractor agrees that the men employed by him in the performance of this Contract shall be fully covered under the Workmen's Compensation laws according to the Province of British Columbia and will keep such men covered and will pay the assessment required and will protect the Company from any action arising therefrom, excluding however, claims arising out of any negligent act or omission of the Company, its servants or agents.

ESCALATION

THAT both the Contractor and Company appreciate the inflationary forces that are prevalent and active today. It is thus agreed that the enclosed schedule includes (1) the labour rates that are in effect as at April 15, 1977 and the (2) costs for diamonds, rods, casing, fuel and food as at April 15, 1977.

Should there be any marked increase (i.e. greater than 5%) in (2) then it is agreed that the schedule of rates would be adjusted to compensate for the increases.

INSURANCE

THAT the Contractor, during the entire term of this agreement, will keep in full force and effect a policy of public liability and property damage insurance with respect to the work undertaken

in this agreement, in the amount of \$1,000,000.00 for any one accident.

The insurance shall be with an insurance company duly licensed to do business in the Province of British Columbia.

FIELD COSTS

THAT the Company agrees that the following rates shall apply when certain work as defined in this contract is performed on a field cost basis. "Field Cost" is defined as all direct labour, including supervision, drill and support equipment per hour, and cost of pipe or casing lost, diamond loss, and materials and supplies consumed in this work.

Operating Field Costs:

Labour-----	\$16.50 per man hour
Drill-----	\$12.50 per hour
Pump-----	\$ 1.00 per hour
Mud Mixer (when applicable)-----	\$ 0.85 per hour
Materials Consumed-----	Cost at job site plus 15 percent.

Note: No charge is made for drill or pumps when mobbing or demobbing and moving between holes.

Non-Operating Field Costs or Standby Time:(max. 8 hrs./day)

Labour-----	\$15.25 per man hour
Drill - Equipment-----	\$ 7.50 per hour

- 10 -

PAYMENTS

THAT the Company agrees to make payments at the rates hereinbefore specified in accordance with the terms hereinafter set out, that is: For all work done hereunder between the first and 15th day and the 16th and last day of the month, payment shall be due and payable in 15 days. Interest at a rate of twelve percent per annum shall be added to all accounts more than thirty days overdue, from date of invoice. These payments shall be made as the work progresses in conformity with the Contractor's semi-monthly invoices.

RIGHTS OF WAY

THAT the Company agrees at its own expense to provide all rights-of-way, all rights of ingress and egress and all real property that may be required in connection with said work, including real property upon which all necessary temporary buildings may be erected, and other facilities required, and shall also warrant the quiet and peaceful possession of all such real property and shall save the Contractor harmless from any and all damages, claims, demands, costs or charges of whatever kind or character incident to the occupation of said real property.

RIGHT OF CANCELLATION

THAT the Contractor reserves the right to cancel this contract should its fulfillment be rendered impossible by:

(a) War, invasion, insurrections, riot, the order or regulations of any civil or military authority, or by strikes, lockouts, or labour disputes, whether in or in the neighbourhood of the Contractor's plant or of that of any supplier of materials necessary.

for the completion of the contract.

(b) The inability to obtain essential materials and supplies due to priority restriction.

(c) The inability to secure labour due to restrictions or causes beyond the Contractor's control, and the Contractor shall not be liable for any loss or damage directly or indirectly suffered by the Company by reason of exercise of such right of cancellation.

THAT it is mutually agreed that this agreement shall be binding upon and enure to the benefit of the parties hereto, their respective successors and permitted assigns, but shall not be assignable by either party without the consent in writing of the other party first had and obtained.

THAT it is further agreed that this agreement and any dispute arising hereunder shall be interpreted and determined in accordance with the laws of the Province of British Columbia.

THAT any notice required to be given hereunder shall be properly given if mailed by registered letter addressed to the Company as follows:

Hecla Mining Co. of Canada Ltd.  
2009 - 1177 W. Hastings St.  
Vancouver, B . C.

or to the Contractor by registered letter addressed as follows:

D. W. Coates Enterprises Ltd.  
2560 A Simpson Road  
Richmond B. C. V6X 2P9

IN WITNESS WHEREOF these presents have been executed by the parties hereto the day and year first above written:

SIGNED, SEALED AND DELIVERED

In the presence of

HECLA MINING CO. OF CANADA LTD.

\_\_\_\_\_  
\_\_\_\_\_

D. W. COATES ENTERPRISES LTD.

*D. W. Coates*  
\_\_\_\_\_  
*R. J. Perry*  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





**D.W. COATES**

ENTERPRISES LTD.

diamond drilling contractors

256 A Simpson Road, Richmond, B.C. V6X 2P9 — Phone: (604) 273-0985

July 20, 1977

Mr. A. E. Ostensoe  
Exploration Supervisor  
Hecla Mining Co. of Canada Ltd.  
2009 - 1177 West Hastings St.  
Vancouver, B. C. V6E 2K3

Dear Eric:

Re: Drill Agreement  
Schaft Creek, Project

We enclose for your approval changes to the above agreement between Hecla Mining Company of Canada Ltd. and D. W. Coates Enterprises Ltd. dated 11th day of May 1977 and termed the Schaft Creek project.

The following changes have been made necessary due to the fact the Company has requested holes deeper than originally anticipated.

Changes to the Agreement:

Page 2 - Item 1

Schedule of Rates - Coring:

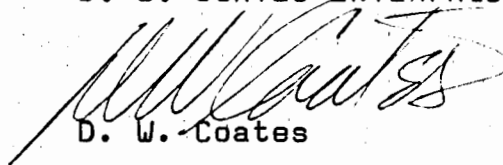
<u>From</u>	<u>To</u>	BQ <u>Price/Foot</u>
1500'	- 2000' in depth	\$20.05

There are no further changes at this time.

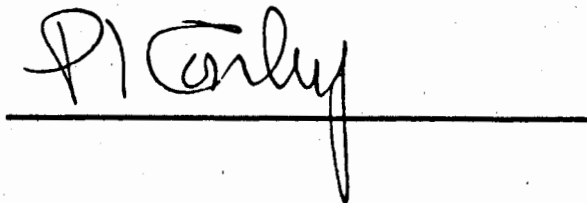
Should the above meet with your approval would you kindly so signify by forwarding a signed copy of this letter to the above address.

Yours very truly,

D. W. COATES ENTERPRISES LTD.

  
D. W. Coates

Accepted on Behalf of  
Hecla Mining Co. of Canada Ltd.

  
\_\_\_\_\_

Accepted on Behalf of  
D. W. Coates Enterprises Ltd.

  
\_\_\_\_\_

INVOICE

**D.W. COATES ENTERPRISES LTD.**

2580 A SIMPSON ROAD  
 RICHMOND, B.C.  
 V6X 2P9

INVOICE NO.: 1152

JOB NO.: 294

DATE: July 22/77

Hecla Mining Co. of Canada Ltd.  
 2009 - 1177 W. Hastings St.  
 Vancouver, B. C.

RE: Schaft Creek Drilling

PERIOD: July 6 - 15, 1977

Drilling Detail	\$14,445.00
Transportation	4,286.25
Reaming Casing & Hole Stabilizing	1,486.10
Drilling with Mud	4,328.75
Board & Lodgings	642.00
Other Charges	86.40
	<u>\$25,274.50</u>

Drilling Detail

Hole#	Size	From	To	Footage	Rate	Amount
104	NQ	0	50	50	\$17.00	\$ 850.00
104	NQ	50	70	20	18.50	370.00
104	NQ	70	500	430	16.75	7202.50
104	NQ	500	830	330	18.25	6022.50
				<u>830'</u>		<u>\$14,445.00</u>

Transportation

(a) Lump Sum

Mobilization \$2100.00

(b) Labour

Date	Memo	ManHrs.	Truck
June 30D	Haul mud to Terrace	5½	5½
July 7D	Fly equipment to camp	60	-
July 8D	Move & setup drill	52½	-
July 9D	Finished setup	4	-
July 14D	Haul atting oil to Terrace	5½	5½
		<u>127½</u>	<u>11</u>
	Labour: 127½ hrs. @ 16.50/hr.	2103.75	
	Truck : 11 hrs. @ 7.50/hr.	82.50	\$2186.25
			<u>\$4286.25</u>

Reaming Casing & Hole Stabilizing

(a) Labour & Equipment

<u>Date</u>	<u>Hole#</u>	<u>Memo</u>	<u>ManHrs. Drill</u>	
July 9N	104	Stabilize hole	7	4
July 10D	104	Ream casing 70' - 112'	5	3
July 10D	104	Stabilize hole	2	1
July 10N	104	Tricone to 140'	17	9
July 11D	104	Ream casing 112' - 140'	4	2
July 12D	104	Stabilize hole	1	1
July 14D	104	Stabilize hole	2	1
July 15D	104	Stabilize hole	1	1
			<u>39</u>	<u>22</u>

Labour:	39 hrs. @ 16.50/hr.	643.50	
Drill :	22 hrs. @ 12.50/hr.	275.00	
Pump :	22 hrs. @ 2 x 1.00/hr.	<u>44.00</u>	\$962.50

(b) Materials

<u>Date</u>	<u>Hole#</u>	<u>Memo</u>	<u>Amount</u>	
July 10D	104	1 NW Imp casing shoe	\$218.55	
July 10N	104	1 3 7/8" Tricone	94.16	
July 10N	104	1 Tricone sub	93.90	
			<u>406.61</u>	
		Plus 15%	60.99	
		Plus Casing Usage: 70' @ .80/ft.	56.00	\$523.60
			<u>56.00</u>	
				<u>\$1486.10</u>

Drilling with Mud

(a) Labour & Equipment

<u>Date</u>	<u>Hole#</u>	<u>Memo</u>	<u>ManHrs.</u>	<u>Mixer</u>
July 9D	104	Mix Mud	1	1
July 9N	104	" "	1	1
July 10D	104	" "	1	1
July 10N	104	" "	1	1
July 11D	104	" "	1	1
July 11N	104	" "	1	1
July 12D	104	" "	1	1
July 13D	104	" "	1	1
July 14D	104	" "	1	1
July 15D	104	" "	1	1
			<u>10</u>	<u>10</u>

Labour: 10 hrs. @ 16.50/hr.

165.00

Mixer : 10 hrs. @ .85/hr.

8.50

\$173.50

(b) Material

200 bags Bentonite Mud @ 8.00/bag	1600.00
250 bags C.P. @ 6.75/bag	1687.50
1000 lbs. Cal Seal cement @ .45/lb.	450.00
8 lbs. J-166 @ 5.00/bag	40.00
	<u>3777.50</u>
Plus 10%	<u>377.75</u>

\$4155.25

\$4328.75

Board & Lodgings

107 meals @ 6.00/meal

\$642.00

Other Charges

45 gal cutting oil (dropped by chopper) @ 1.92/gal

\$86.40

INVOICE

**D.W. COATES ENTERPRISES LTD.**

2580 A SIMPSON ROAD  
RICHMOND, B.C.  
V6X 2P9

INVOICE NO.: 1159

JOB NO.: 294

DATE: Aug. 5/77

Hecla Mining Co. of Canada Ltd.  
2009 - 1177 W. Hastings St.  
Vancouver, B. C.

RE: Schaft Creek Drilling

PERIOD: July 16 - 25, 1977

Drilling Detail	\$24,762.30
Transportation	726.00
Acid Testing	230.40
Hole Reducing	1,380.49
Board & Lodgings	934.77
Travelling	665.64
	<hr/>
	<b>\$28,699.60</b>
	<hr/>



Drilling Detail

Hole#	Size	From	To	Footage	Rate	Amount
104	NQ	830	1000	170	\$18.25	\$3102.50
104	NQ	1000	1031	31	23.10	716.10
104	BQ	1031	1500	469	18.45	8653.05
104	BQ	1500	2113	613	20.05	12290.65
				<u>1283'</u>		<u>\$24,762.30</u>

Transportation

Demobilization

Labour

Date	Memo	ManHrs.
July 23D	Start to teardown drill	20
July 24D	Finish teardown	24
		<u>44</u>

Labour: 44 hrs. @ 16.50/hr. \$726.00

Acid Testing

Test @ 2000' @ 3 x 20.05	\$60.15	
Test @ 1600' @ 3 x 20.05	60.15	
Test @ 1200' @ 3 x 18.45	55.35	
Test @ 800' @ 3 x 18.25	<u>54.75</u>	<u>\$230.40</u>

Hole Reducing

(a) Labour & Equipment

<u>Date</u>	<u>Hole#</u>	<u>Memo</u>	<u>ManHrs. Drill</u>	
July 16N	104	Reduce to 8Q	2	1
July 17D	104	" " "	4	2
			<u>6</u>	<u>3</u>

Labour: 6 hrs. @ 16.50/hr.	99.00	
Drill : 3 hrs. @ 12.50/hr.	37.50	
Pumps : 3 hrs. @ 2 x 1.00/hr.	<u>6.00</u>	\$142.50

(b) Materials

<u>Date</u>	<u>Hole#</u>	<u>Item</u>	<u>Amount</u>
July 17D	104	1 BW econo shoe	\$80.25
July 24D	104	14 10' length NW casing @ 68.64	960.96
			<u>1041.21</u>
		Plus freight: 1200# @ 7.00/cwt.,	84.00
			<u>1125.21</u>
		Plus 15%	168.78
		Less Casing Usage: 70' @ .80/ft.	(56.00)
			<u>\$1237.99</u>
			<u><u>\$1380.49</u></u>

Board & Lodgings

95 meals @ 6.00/meal	\$570.00
Groceries left at camp 607.96 x 60%	<u>364.77</u>
	<u><u>\$934.77</u></u>

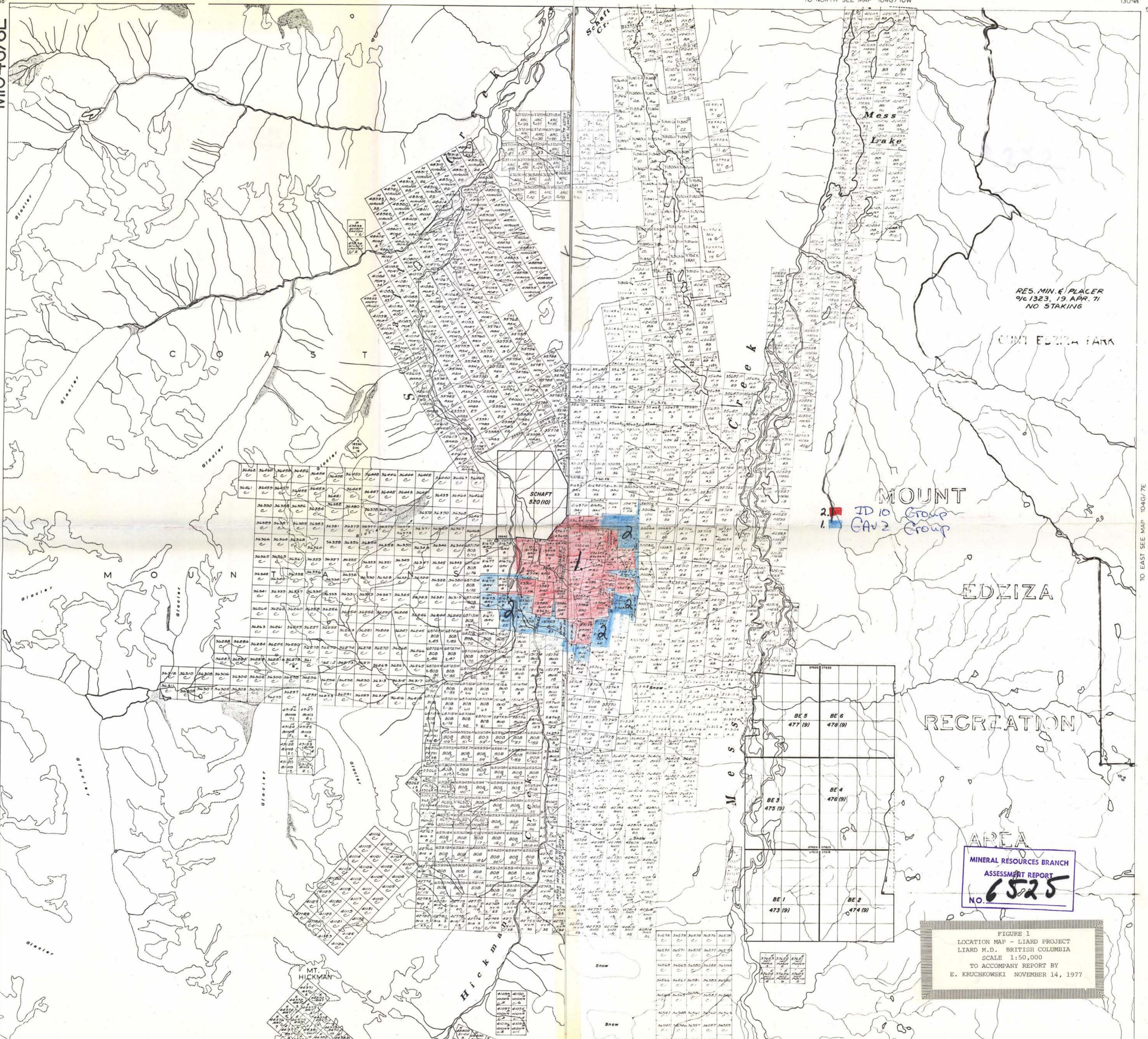
Travelling

Labour & Expense

D. Bangle:	8 hrs. @ 9.25	\$74.00	
C. Gagnon:	8 hrs. @ 8.50	68.00	
J. Wadley:	8 hrs. @ 7.20	57.60	
D. Heyman:	8 hrs. @ 7.20	57.60	
		<hr/>	
		257.20	
	Plus 20% Benefits	51.44	
Hotel:	3 rooms @ 15.00/ea.	45.00	
Meals:	4 men @ 7.50/man	30.00	
Airfare:	2 men Terrace to Kamloops @105.90	211.80	
Airfare:	1 man Terrace to Vancouver	70.20	
		<hr/>	
			<u>\$665.64</u>

M104G/6E

TO WEST SEE MAP 104G/6W



RES. MIN. & PLACER  
9/c 1323, 19 APR. 71  
NO STAKING

OUNT EDZIZA PARK

2. ID 10 Group  
1. CAV 2 Group

RECREATION

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
NO. 6525

FIGURE 1  
LOCATION MAP - LIARD PROJECT  
LIARD M.D. BRITISH COLUMBIA  
SCALE 1:50,000  
TO ACCOMPANY REPORT BY  
E. KRUCHKOWSKI NOVEMBER 14, 1977

NABS 30  
Fr

ID 7 Fr

SNO 4

ID 10

ODD H 80

PY57

PX56  
ODD H 104  
27110.70N 8982.34E  
el 3313.7' (1010M)

27,000N

ID 11  
Fr

GAV 68 Fr

SNO 7

ID 3  
Fr

9000E

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
NO. **6525**

FIGURE 2  
SURFACE PLAN - LIARD PROJECT  
LIARD M.D. BRITISH COLUMBIA  
SCALE 1:1,250  
TO ACCOMPANY REPORT BY  
E. KRUCKOWSKI NOVEMBER 14, 1977