ASSESSMENT REPORT
DIAMOND DRILLING

on the

ERICKSEN-ASHBY CLAIMS

TAKU RIVER AREA

ATLIN MINING DIVISION

EA#1 and EA#2 CLAIMS

Map 104K/11W

58°36'N, 133°30'W

Owner

G. Rayner

Operator

ISLAND MINING & EXPLORATIONS CO. LTD.

900-475 Howe Street Vancouver, B.C. V6C 2B3

bу

Brent Hemingway, B.Sc.

and Terence M. Elliott, M.S.

Geologists

12 February, 1982

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#### INTRODUCTION

The purpose of the work was to evaluate the downward extension of the surface mineralization on the Ericksen-Ashby property, and to locate new potential mineralized zones of economic interest.

The operation commenced June 1 and terminated July 15, 1981.

#### LOCATION AND ACCESS

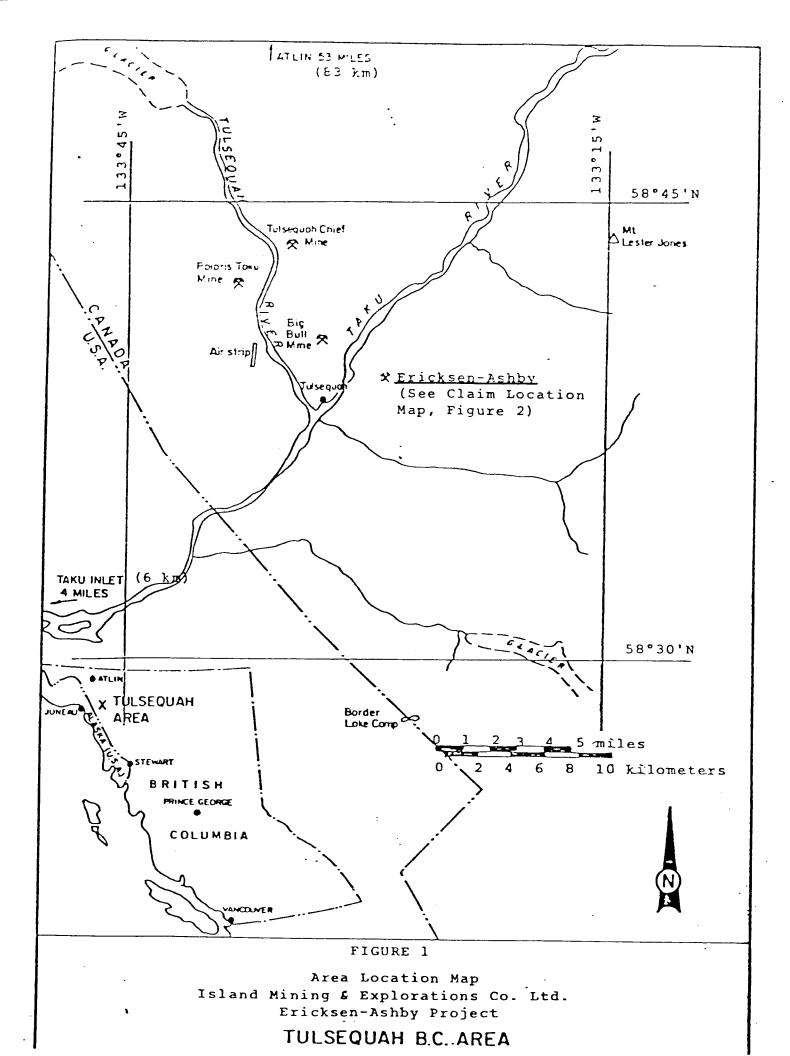
The property is on the south side of the Taku River, about 130 km, south of Atlin and 64 km east of Juneau, Alaska. It is located at N 58°36', W 133°30' on the north end of Ericksen Mt., at an elevation of between 550 and 1400 metres.

Access is from Whitehorse or Atlin by fixed wing airplane to a gravel airstrip that is located near Tulsequah or by float-plane to the Taku River, about 4 km southwest of the property. The property can then be serviced by helicopter from those points.

Our camp was located near Mount Odgen at Border Lake, about 20 kilometers south of the property (Figure 1). Access to the drill sites on Ericksen-Ashby property from camp was by Hughes 500D helicopter.

### TOPOGRAPHY AND CLIMATE

The upper west half of the property is mostly outcrop which is almost all accessible by foot. However, the lower west half of the property is very steep and only accessible by foot in a few places. At a point almost halfway up the



west side of the maountain, there is a bench or break in the slope which results in a gently sloping ridge covered by trees and bushes with very few exposures of outcrop. The north half of the property is accessible by foot in only a few areas. The south and east half is totally inaccessible by foot and requires experienced mountain climbers to scale the cliffs.

In winter, the region receives heavy snowfalls which last until late May. The snowfields generally start to recede in mid-June due to sublimination or evaporation caused by the altitide rather than melt-water run-off. There are very few flowing creeks because of this effect but water for drilling purposes can be obtained from a small lake near the center of the property, at an elevation of 980 meters. In late July, only snowfields on the north and east side of the mountain exist, whereas on the south and west side they have completely evaporated away by early August. In summer, from early June to late August, the property receives abundant rainfall however this does not accumulate in flowing creeks but is absorbed by the ground. The most adverse weather conditions during the summer are caused by high winds with cloud or fog patches covering the area enabling work to be carried on an intermittant basis only. These conditions prevail for most of the summer; however, there are a few clear sunny days.

PREVIOUS WORK (The following old reports may have incomplete data)

- Mr. Erickeen and Ashby prospected the area resulting in staking the several sulphide zones; subsequently a small adit was started on Zone 1.
- 1930-
  - 1950 Annual Assessment Work.
- 1951 Cominco optioned the property, conducted a surface geology and trenching program. (At this time, Cominco was operating the Tulsequah Chief and Big Bull mines

- across on the north side of the Taku River.)

  1952 Drill program started by Cominco was abruptly terminated when a rock slide destroyed the work area. This resulted in only one hole drilled below the Glory Hole (top of the ridge) area.
- 1953-
  - 1962 Annual Assessment Work.
- 1963 Trenching and surface exploration on Zone 8 conducted by Ericksen-Ashby Mining Company.
- 1964 Underground adit driven with 9 holes drilled from the end of the adit into a sulphide-rich skarn zone; program concluded because of lack of water for drilling.
- 20nes 5, 8, 8A, 10, 11 and 12 in the northern half of the property were trenched. A self-potential survey conducted in the area of Zone 8 and 11 outlined several small anomalies.
- 1976 Property restaked by Mr. G. Rayner.
- 1979 Lacana Mining Corporation prepared a report and map.
  Property optioned by Semco Mining Corporation.
  Geologic map and report prepared by Mr. J.G. Payne,
  PhD.
- Anglo Canadian (Semco) Mining attempted to drill
  Zone 1, terminated due to lack of water.
  Island Mining & Explorations Co. Ltd. optioned the property.

### CLAIMS AND OWNERSHIP (see Figure 2)

The claims are owned by Mr. G. Rayner, who staked two blocks, EA-1 (151) Atlin M.D., comprising four units and EA-2 (671) Atlin M.D., comprising eight units. Subsequently, the property was optioned to Anglo Canadian Mining Corporation, who then optioned the property to Island Mining & Explorations Co. Ltd, the operator.

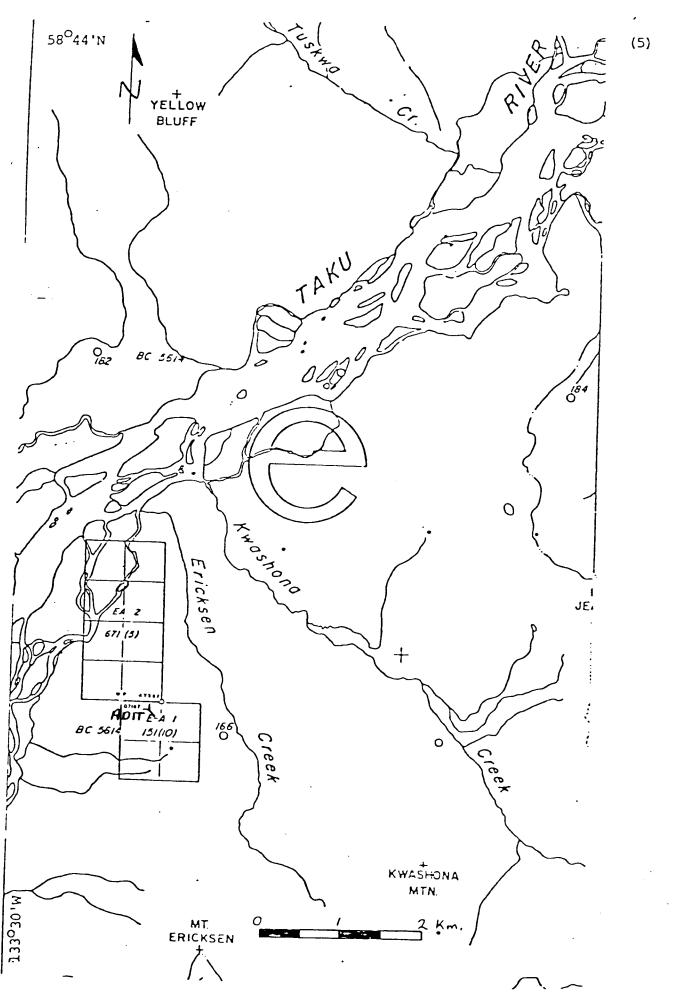


Figure 2. Claim Location Map

### DRILL HOLE SUMMARY

### PURPOSE AND PROPERTY GEOLOGY

The purpose of the drill program was to test the extent of the massive volcanogenic sulphide showings. The shape of these sulphide showings are roughly lensoid or podiform and roughly plunge 20° south. There are numerous sulphide pods or zones of mineralization on the property which all occur near the unconformable contact of a slightly metamorphosed, occasional brecciated chert-limestone sequence with a massive grey-green andesite-basalt unit. The chert-limestone is intermittently interbedded with these andesite flows; in a few places rhyolite occurs near the unconformable contact; this sequence dips about 75° southwest and strikes roughly northwest. The determination of stratigraphic tops is difficult due to the nature of the upper and lower unconformable contact between the chert-limestone unit and a massive andesitebasalt flow unit. Bedding within the chert-limestone unit is easily distinguishable by thin laminations of argillite or micrite. For a more detailed geologic description of the proerty refer to J. Payne's report dated September 1979.

### WORK DONE

A longyear 38 drill owned and operated under contact by Arctic Diamond Drilling Ltd. of Whitehorse, Yukon was mobilized on June 1, 1981 and demobilized on July 15, 1981. During this period, a total of 888 metres of B.Q. core was drilled in 11 holes from three separate sites. With the exception of drill site 1, which was blasted, the preparation of the other sites required only manual labor. Water for drilling purposes was obtained from a combination of melt water run-off and a small creek 1000 metres west of the adit. Site one contained six short diamond drill holes of which required water to be pumped through 800 metres of pipe from a small creek 300 metres below. For the other sites, water

was obtained from a small lake which could adequately provide enough water for only 600 metres of diamond drilling. The Border Lake camp provided support and facilities for the crews. All equipment, supplies and crews were transported under contract with Rototech Helicopters of Delta, B.C., by a Hughes 500D helicopter.

### DRILL HOLE SPECIFICATIONS

All core recovered was BQ.

Drill Hole	Location		Elevation (metres)	Azimuth	Dip	Depth (metres)
EA81-1'	Site 1, zone	1	1186	017°	-45°	48.2
EA81-2	Site 1, zone	1	1186	017°	-75°	61.0
EA81-3	Site 1, zone	1	1186	044°	-60°	54.9
EA81-4	Site l, zone	1	1186	065°	-45°	36.9
EA81-5	Site 1, zone	1	1186	117°	-45°	89.3
EA81-6	Site 1, zone	1	1186	-	-90°	70.4
EA81-7	Site 2, zone	3	942	095°	-45°	166.5
EA81-8	Site 3, zone	8	841	011°	-45°	114.6
EA81-9	Site 3, zone	8	841	051°	-55°	90.2
EA81-10	Site 3, zone	8	841	051°	-75°	88.4
EA81-11	Site 3, zone	8	841	101°	-45°	67.1

### CORE STORAGE LOCATION

Core from the Ericksen-Ashby property drilling was flown to the camp at Border Lake where it was logged and stored. The core shack is located at the north side of camp immediately southeast of the heliport. Ericksen-Ashby core is stored in the same rack as core from Omni Resources' Red Cap property.

### RESULTS, INTERPRETATIONS, AND CONCLUSIONS

Site 1, Zone 1 (see Drill Hole Location and Property Geology Map in pocket)

Six holes were drilled from Site 1 at Zone 1. The first 4 holes which were drilled to the NNE to ENE all intersected an important zone of mineralization (see Appendix V for condensed drill logs and assay results). Hole 3 intersected 20.2 metres of mineralization with the best section from 33.5-42.7 metres assaying 4.94% lead, 4.22% zinc, and 16.54 oz/ton silver. Hole 4 intersected 5.1 metres of mineralization including a section from 27.1 to 30.1 metres which assays 6.42% lead, 6.20% zinc, and 18.30 oz/ton silver. Holes 5 and 6 intersected only minor mineralization.

Site I mineralization is found in rhyolite breccia in which the matrix surrounding the fragments is mineralized. Additional fragment types include chert, andesite, and limestone. Locally, garnetiferous zones in the breccias indicate metasomatic baking of limestone.

The presence of mineralized breccias suggest that the setting of this deposit is a volcanic vent or area adjacent to a rhyolitic volcanic vent. In this type of setting one might expect the mineralization to occur as lenses or pods; however, this hypothesis has not yet been proven as the mineralized zone is still open at depth and along strike to the north.

It is significant to a geologist's termination of drill holes that all holes drilled finished in barren grey green andesite. Evidence in hole 6 suggests that this andesite is a hangwall andesite; i.e., the stratigraphy has been overturned.

Two of the lines of evidence used for determining "way up" in the statigraphy are as follows:

- (1) at 34.5 metres in hole 6 there is a 5 cm thick bed of black argillite which is rippled and scoured on its lower contact suggesting that the beds are upside-down; i.e., overturned.
- (2) from 45-45.8 metres in hole 6 there is an andesite flow below which there are angular fragments of andesite mixed with the once-overlying limestone. This evidence suggests that the original top of this partly eroded flow is down the hole; i.e., the flow has been overturned.

The footwall of the statigraphic succession is now interpreted as being the often recrystallized limestones and limestone-argillite sequence in the upper section of the drill holes.

### Site 2, Zone 3

Diamond drill hole EA81-7 was drilled to a depth of 166.5 metres across zone 3. No mineralization of significance was intersected. The first 63 metres mainly intersected chert and the last 103 metres were mainly in fine to medium grained detrital limestone.

Interbedded with the chert and limestone are beds of tuff, andesite, volcanic conglomerate, and tuff breccia. From 64.4-75.4 metres the volcanic conglomerate and tuff breccia contains both felsic and andesitic fragments.

It is interpreted that this section of rocks is farther out into the basin that the stratigraphy intersected in holes #1-6. Chert is certainly more abundant in hole #7 than in the previous 6 holes.

The writer (T.M. Elliott) thinks that this hole was terminated prematurely as it does not end in the hangwall andesite as do hole #1-6. In fact, the hole ends in carbonate-veined rhyolite breccia which is interpreted as

being a footwall (to the mineralized zone) rock unit.

### Site 3, Zone 8

Four angled holes were drilled from site 3. All holes intersected a low grade zone of mineralization which is up to 21 metres (apparent thickness) thick in hole #8. The highest grade section of mineralization occurs in hole #9 where 15.1 metres averages 1.20% lead, 1.37% zinc, and 5.05 oz/ton silver.

Mineralization in holes #8-11 occurs interbedded with cherts. There is only locally minor amounts of rhyolite fragments associated with chert breccia. The mineralized zones occur in a sedimentary basin of mixed tuff and chert. For example, in hole #9 there is rhythmic bedding of chert and sulphide-rich sections containing 50% sulphides in a total of 20-30 cm out of each 1 metre section.

Since the sulphides are interbedded with chert in a sedimentary basin it is predicted that there will be a great potential for a large lateral extent to these mineralized horizons. The main problem is that the assays are too low to be commercial for bulk underground mining.

Holes #8 and #9 end in the hangwall andesite but holes #10 and #11 end in chert. Hence, there may have been potential for further intersections had holes #10 and #11 been drilled deeper.

In conclusion, it can be said that the drilling in the summer of 1981 showed that the surface sulphide showings in zones 1 and 8 do extend to depth. Ore grade intersections were made in zone 1 where lenses of rhyolite breccia are strongly mineralized. Farther out in the sedimentary basin where chert with minor limestone predominates the thickness of the sulphide zones are good but the intersected grades are low. Perhaps some open-pitable material might be drilled off in zone 8.

Additional drilling is recommended in zone 1 to establish the total depth of the good-grade mineralization intersected in holes #3 and #4. In addition, drilling should be extended to the north to define that lateral limits of the ore grade mineralization. Drilling of the Glory Hole area should be of prime priority in the drill plans for the future. It is important that the tonnage and grade be established for this sizeable zone of mineralization, because it is the largest "plum" known thus far in the exploration of the Ericksen-Ashby property.

APPENDIX I

COST STATEMENT

# Ericksen-Ashby Property . Statement of Costs

### (306 m) June 6-July 15, 1981

1.	Drilling Invoice #2207 Invoice #2213 Arctic Diamond Drilling	\$ 53,679.20 31,792.80	\$ 85,472.00
2.	Helicopter 186.2 hours @ \$372.00/hr Fuel 186.2 hours X 22 gal/hr X \$4.46/gal.		87,536.34
3.	G. Clouthier, geologist 24 days @ 125 B. Hemingway, geologist 40 days @ 110 K. Orleski, manager 21 days @ 100 D. Bergvinson, assistant 23 days @ 55 P. Farley, assistant 47 days @ 70 M. Jack, assistant 13 days @ 70 M. Kamras, assistant 56 days @ 55 R. Schmidt, assistant 18 days @ 80 D. Schmidt, assistant 18 days @ 65 N. Schmidt, assistant 18 days @ 65 C. Doulet, cook 45 days @ 75	3,000.00 4,400.00 2,100.00 1,265.00 3,290.00 910.00 3,080.00 1,440.00 1,170.00 990.00 1,170.00 3,375.00	
	total 341 days	26,190.00	20.330.55
	+ 15% fringe	3,928.50	30,118.50

	Food - 4 drilling contractors,		
	pilot and salaried employees		
	Fuel - drill & camp fuel		
	Camp supplies and set up	14,773.57	
	Fixed wing support	10,037.67	40,714.51
5.	Consulting fees		
	Holcapek Engineering Ltd.		3,468.97
ε.	Assaying -		
	Analysis of 100 samples for		
	percent or oz/T of Cu, Pb,		•
	Zn, Cđ, Ag, Au, Ni		1,986.85
7.	Travel		
	To and from work site		4,200.00
3.	Drafting & report preparation		1,200.00

1

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### APPENDIX II

STATEMENT OF QUALIFICATIONS

### AUTHOR'S QUALIFICATIONS

- I, Terence M. Elliott have the following education and work experience:
- I am a Geologist residing at #309 6001 Yew Street,
   Vancouver, British Columbia, V6M 3Y7.
- 2. I graduated from the University of British Columbia in 1967 with a Bachelor of Science in Honours Geology. I also received a Master of Science in Geology from Stanford University, California, in 1973.
- 3. I have practised my profession for 14 years.
- 4. I logged diamond drill holes EA81-6 and 81-7 and parts of holes EA81-8 and 81-9.
- 5. Most of this report was written by Mr. B. Hemingway.

  I have only written the sections on "References", "Core
  Storage Location", and "Results, Interpretations and
  Conclusions".

APPENDIX III

ASSAY CERTIFICATES



### CHEMEX LABS LTD.

212 BROOKSBANK AVE NORTH VANCOUVER, B.C. CANADA V7.1.2C1

CANADA V7J 2C1

. ANALYTICAL CHEMISTS

. GEOCHEMISTS

. REGISTERED ASSAYERS

TELEPHONE: (604)984-0221 TELEX: 043-52597

CERTIFICATE OF ASSAY

TO : ISLAND MINING & EXPLOR. CO. LTD;

900-475 HOWE ST: VANCOUVER, B.C.

V6C 2B3

CERT. # : A8111679-001-A

INVOICE # : 18111679 DATE : 29-JUN-81

P.C. # : NONE

	Sample sected	Prep	Cu	Pb	Zn	Cd	Ag (FA)	Au (FA)
35-2 P	description	code	percent	percent	percent	percent	oz/t	oz/t
1-1:2	88401 102-112	207	<0.01	0.55	1.15	0.011	1.30	<0.003
	88402 112-13	207	<0.01	0.54	1.37	0.014	1.52	<0.003
	88403 112-122	207	<0.01	1.34	1.46	0.016	2.32	0.003
	88404 122-127	207	<0.01	1.19	2.06_	0.024	2.34_	<0.003
	88405-122-132	207	<0.01	2.20	3.91	0.044	3.00	<0.003
	88406 146-151	207	<0.01	0.28	0.41	0.005	0.58	<0.003
	88407 151-154	207	<0.01	0.06	0-04	<0.001	0.26	<0.003
	88408 154-155	207	<0.01	1.51	10.10	0.114	5.12	<0.003
	88409 158-162	207	<0.01	2.45	5.06	0.057	6.00	0.010
-7 FA	88410 162-167	207	<0.01	0.65	1.22	0.013	3.38	0.003
	88411 147-172	207	<0.01	0.41	1.17	0.013	1.20	0.003
	88412 122-176	207	<0.01	0.10	0.28	0.002	0.34	<0.003
	88413 107/2-110	207	<0.01	0.40	0.71	0.008	1.68	<0.003
	88414 110-115	T207	0.01	2.06	0.40	0.005	28.78	0.062
350	88415 115-120	207	0.01	2.06	4.50	0.051	8.98	0.010
-3 FD	88416 120-125	207	0.01	13.70	2.87	0.036	37.36	0.036 .
	88417 125-130	207	<0.01	4.40	6-62	0.067	10.22	0.005
	88418 130-135	207	<0.01	4.62	6.62	0.068	6.36	0.003
	88419 135-140	1207	<0.01	2,78	4.30	0.048	7.54	0.005
	88420 140-145	207	<0.01	0.31	3.58	0.039	0.80	<0.003
	88421 145-150	. 207	<0.01	0.33	1.89	0.019	0.62	<0.003
	88422 150-155	207	<0.01	0.59	1.24	0.013	1.78	0.003
	88423 155-160	207	<0.01	0.64	1.18	0.012	1.24	0.003
	88424 160-105	207	<0.01	0.16	0.60	0.005	0.58	<0.003
	88425 165-170	207	<0.01	0.11	0.63	0.005	0.34	<0.003
	88426 170 - 174	207	<0.01	0.06	0.21	0.002	0.20	<0.003
10						er seen f	4	

Blevaite

MEMBER CANADIAN TESTIN



## BONDAR-CLE( 3 & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523

TELEX: 036-8-460

# Certificate of Analysis

TOIsland Mining	REPORT NO
Project: Ericksen-Ashby Program	
	DATE Aug. 14, 1981

I hereby certify that the following are the results of analyses made by us upon the herein described ... xock ...... samples

MARKED	oz/ton	%	%	· %	%	%	02/1-	H.C =	Depth			
MARKED	Ag	Си	Pb	Zn	СЧ	Ni	An					
EA (88428 5 ft. 81-4 {88429 samples. 88430 EA 81-6 240010 I meter	3.14 25.1 11.5 _1.61	0.02 0.01 0.01 L0.01	1.69 7.48 5.35 0.41	3.35 7.16 5.24 4.70	0.03 0.07 0.06	L0,01 L0.01 L0.01	0.06	£4.81-4	84-89' 84-94' 94-99' 60.6-61.6	}		
										-		$\cup$
						41			,			
						12	-				•	

NOTE:

Gold to follow: L denotes less than.

Rejects retained two weeks Pulps retained three months BONDAR-CLEGG & COMPANY LTD.

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Project: Ericksen-Ashby Program

DATE Aug. 14, 1981

	MARKED	oz/ton	%	%	%	%	%			oilton		
41	MARKED	Ag	Сυ	РЬ	Zn	СЧ	Ni	Hele 5	DEPTH.	An		
	24401 24402 24403 24404 24405	1.02 0.29 1.21 0.99 0.70	L0.01 L0.01 L0.01 L0.01	0.35 0.05 0.37 0.04 0.11	1.25 0.23 0.97 0.45 1.11			EA 81-8	37,6-41,1 41,1-42,6 42,6-44,1 44,1-45,6 45,6-47,1			
E 4 81-8	24406 24407 24408 .24409 24410	0.19 0.28 1.61 1.45 0.60	L0.01 L0.01 L0.01 L0.01	0.07 0.10 0.65 0.66 0.10	0.40 0.06 1.22 0.42 0.12				48,6-50,1 50,1-51.6 51.6-53.1	0.002		. ')
A B1-4	24411 24412 24413 24414 88427	8.30 2.12 0.64 1.69 1.50	L0.01 L0.01 L0.01 L0.01	2.68 1.08 0.20 0.64 0.42	4.00 1.36 1.04 1.60 1.78	0.02	L0.01	£4.81-4	54,6-56,1 56,1-57,6 57,6-57,1 59,1-60,6 82-84'	0.002	}	

NOTE: Gold to follow; L denotes less than.
Rejects retained two weeks

Pulps retained three months

Steven Sunn

BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523

TELEX: 036-8-460

# Certificate of Analysis

0	ATTN: Mr. E. Bergvinson	
0	Omni Resources	_
	900 - 475 Howe Street	
22-12-12-22-22	Vancouver, B.C.	
	V6C 2B3	

PATE August 24, 1981

Ericksen-Ashby Project

I hereby certify that the following are the results of analyses made by us upon the herein described ..... xock ............. samples

MARKED	oz/ton	oz/ton	<u>*</u>	<u> </u>	<u>*</u>	9.	<u> </u>	H.l.	DEPTH.	
	Ag An.	Ag	Cu	Pb	Zn	Мо	Cd	R <del>C81-1</del>		
24034 Holy Cay 24035 24415 24416 24417 E A	0.005 0.002 0.002 0.002 0.002	3.30 1.59 3.07 7.52 7.30	2.95 1.65 0.01 L0.01 L0.01	1.34 1.35 1.60	0.26 0.11 1.10 1.25 2.00	L0.005	0.01	RL91-1 AC81-1 EA81-9	23.3 - 26	14 m 18.5 m 20m 30 m 32.3 m
24418 24419 24420	0.002 0.002 0.005	4.96 2.42 0.95	L0.01 L0.01 L0.01	0.85 0.85 0.14	1.63 0.89 0.45	**************************************	0.01 0.01 L0.01	EA 81-9 EA 81-9 EA 81-9	32.3 - 35.4 - 38.4 -	35.4m 38.4m 39.6m
			*							
, f						a.				

L - denotes less than.

Rejects retained two weeks Pulps retained three months unless otherwise arranged

NOTE:

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TELEPHONE: (604)984-0221

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. REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : OMNI RESOURCES INC. .

STE . 900-475 HOWE ST ..

VANCOUVER. B.C.

V6C 2B3

: A8114547-001-A CERT. #

INVOICE # : 18114547 : 02-NDV-81 DATE

: NONE P-0- #

		0		Pb	Zn	Ag FA	Au FA	
	Sample description	Prep code	Cu Z	70	211	oz/T	oz/t	
81-10	24421 128-131	207	<0.01	1.06	1.20	2.52	0.012	
	24422 138-143	207	<0.01	[1.37	226 2.87	22/ 3.06	0.006	
	24423 143-HS	207	<0.01	1.17 20.66	2.26-0.74	1.79 1.94	0.006	
	24424 187-192	207	<0.01	0.06	0.02	0.12	<0.003	
	24425 192-1915	207	<0.01	0.11	0.39	0.38	<0.003	
31+1	24426 81-88	207	0.01	0.42	1.18		<0.003	
	24427 96-101	207	<0.01	0.59	1.56	1.48	<0.003	
	24428 101-100	207	<0.01	0.92 1.37	1.94 -3-10		0.010	
	24429 106-110	207	<0.01	0.78		1.36	0.006	
						-jy/		

APPENDIX IV

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Summary Report, Ericksen-Ashby Prospect, Tulsequah District, Atlin M.D. for Anglo-Canadian Mining Corp.

Souther, J.G. - 1971

Geology and Mineral Deposits of Tulsequah Map-Area, B.C., Geological Survey of Canada, Memoir 362.

APPENDIX V

CONDENSED DRILL LOGS

green amygdaloidal andesite-basalt volcanics

COMPOSITE DRILL LOG

Ericksen-Ashby

HOLE No. . .

:EA81-4 .

PHOJECT

:BQ

SCALE

CORL SIZE

CASING COLLAH ELEV:1187 GROUND ELEV. 1186 metres DATE STARTED :16/06/81 PAGE No. 1 OF 1 site l , zone 1 DATE FINISHED: 17/06/81 COORDINATES REF. TO CLAIM CORNER : -45° .065° TOTAL DEPTH :36.8 INCLINATION AZIMUTH :B. Hemingway LOGGED BY COMMENTS: Condensed drill-log ESTIMATED ALTERATION AVG. CORE SULPHIDES % SAMPLE RECOVERED REC'Y/HOLE Š RACTURING EOLOGY SAMPLE INTERVAL (M) MINERALS ASSAYS SAMPLE 1- 2 90% DESCRIPTIVE GEOLOGY Cu Pb Zn Aq Cć Talus - limestone argillite rubble 4.3 Bedrock at 4.3 m coarse grained, milky-white massive (recrystallized) limestone with thin bands of dark grey argillite (micrite?) intermittently spaced. Bedding planes of argillite are generally between 50°-70° to core axis AR - At 11.6 m andesite, fine grained, contacts irregular, about 0.3 m wide MS Contact at 12.7 m - Andesite, grey-green, 12.7 amygdaloidal very fine grained, amygdals increase in size from top to bottom, Top 250 contact: tight at 60°, bottom contact: sharp 00 0,6 1.78 1.50 .02 broken (rounded fragments) at 60°. Limestone .42 AND Н 25.6 00 contact at 14.0 m. 140 - From 18.9 to 22.6 cloudy-white, massive, .01 1.69 3,35 314 03 Н 27.1 featureless, recrystallized, fine to medium 100 1.6 LMST 2,51 .01 7.48 7.16 07 28,7 4 grained limestone. date - At 22.6 m, limestone-skarn breccia, contact 00 30 226 5.35 5.24 1,1,5 .06 .01 301 diffused and gradational. Fragments of rhyolite skarn, limestone occur in a matrix of chert Alles and limestone. Brecciated rhyolite fragments contain sulphides. Mineralized zone at 26.8 m - massive sulphides, galena, sphalerite, pyrrhotite-pyrite occur with rhodonite and EC X brecciated rhyolite. End of zone at 30.2 m contains fragments of 30.2 andesite. Tight, sharp ( 1 mm) contact at AND 30.2 m with grey-green, massive andesite

### COMPOSITE DRILL LOG

HOLE No. . . .

PHOJECT

CORE SIZE

BQ

SCALE

	COLLAR E	LEV;		7 metres GROUND ELEV.: 1186 metres DATE STARTED: 17/06/81 PAGE No. 1 OF 1
COOMDI	INATES			e 1 N ZONE 1 E. DATE FINISHED: 21/06/81 REF. TO CLAIM CORNER:
INCLIN	ATION	:	-45	remain ' interprise 'o.'s w rough at the Williams
ALTE	RATION	FRACTURING	GEOLOGY	COMMENTS: Condensed drill-log  AVG. CORE REC, A/HOFE SAMPLE RECOVERED SAMPLE
		FRAC	GE	DESCRIPTIVE GEOLOGY
		H		Talus - limestone-argillite
1			D. LMSTARGILL.	- Bedrock at 3.1 m: massive, bluish-white, mottled texture, recrystallized limestone-argillite.  Argillite chert bands intermittent intervals, usually dark green to black bands 15 cm. wide, spaced approximately 1.0-1.5 m apart  (average) Contacts, or bedding planes at 50°-60°. Fracturing: Two sets; 50°-60°, 70°-80°.  - From 7.7 m to 8.8 m - Dark green, fine grained andesite, core broken contacts at approximately 70° to core axis.  - At 11.6 m tight contact at 60° - Dark green, massive amygdaloidal, fine grained andesite.  - Amygdales decrease in number downwards.
			MST. AN	At 14.0 m, bottom contact sharp and tight, at 90° to core axis , with limestone-argillite.  From 23.0 m to 30.8 m white, recrystallized massive limestone, featureless and bedding planes diffused.
			D. BRECCIA I	Gradational contact starting at 31.6 m.  Limestone-skarn breccia - zones of rhyolite  breccia in a limestone skarn host.  Skarnification exists at the contact between  rhyolite-breccia and limestone.  Small, thin mineralized zone from 50.6 m to  51.4 m. Massive sulphides 80% pyrrhotite,  galena, sphalerite, rhodonite, garnets.  Gradational contact at 65.2 m between tufface ous  limestone and massive, grey-green andesites

COMPOSITE DRILL LOG CUME SIZE : BO SCALE PHOJECT HOLE No. Ericksen-Ashby : EA81-6 CASING COLLAR ELEV. 1187 metres GROUND ELEV. 1186 metres DATE STARTED: 22/06/81 PAGE No. DATE FINISHED: 23/06/81 COUNDINATES REF. TO CLAIM CORNER : : -90° TOTAL DEPTH : 69.7 INCLINATION AZIMUTH : -LOGGED BY : T.M. Elliott COMMENTS: Condensed drill log SULPHIDES ESTIMATED AL TERATION AVG. CORE % SAMPLE RECOVERED REC'Y/HOLE Š RACTURING SAMPLE INTERVAL (M) MINERALS GEOLOGY ASSAYS SAMPLE 63 95% DESCRIPTIVE GEOLOGY Cu Pb Zn Aq Cc Talus - no core - limestone-argillite debris 3.7 Bedrock at 3.7 m. detrital, light to medium gray limestone with dark bands of argillite at 35-50° to core axis (c/a) From 5.4 m to 7.1 m dark green andesite, 0 upper contact at 60° to core axis, broken K K lower contact From 16.0-17.1 m dark green andesite, contacts LM parallel'to bedding, no silicified margins. 29 At 22.9 m sharp, upper contact, at 45° c/a, AND of dark green andesite. Bleaching along lower contact. 6.2 Coarse grained, generally massive, limestone some banding at 50° c/a; thin and irregular, At 35.4 m 5 cm of black argillite band, rippled and scoured on lower contact in core bedding is upside down From 45.0-45.8 m, dark green andesite, contacts at 45° to c/a. Upper contact represents a regolith. From 48.1-49.4 m dark green aphanitic andesite irregular contacts. 6 0.6 4001 From 51.8-53.3 m andesite, sharp upper and €-4 .41 4.70 1.61 .01 lower contacts at 45° and 60°, respectively, 61.6 11.1 to c/1 Mineralized zone from 60.6-61.6 m. Dark grey . 1 .. sulphides, galena, sphalerite, pyrite in a siliceous matrix. Top contact is sharp at 60° with limestone. Sharp bottom contact at AND 60° with massive, dark green andesite.

Ericksen-Ashby

HOLE No. ...

: EA81-7

PHOJECT

SCALE

CURE SIZE

· BO

LASING COLLAR ELEV: 942 metres GROUND ELEV: 942 metres DATE STARTED: 24/06/81 1 of 1 PAGE No. site 2 N zone 3 DATE FINISHED: 30/06/81 COORDINATES REF. TO CLAIM CORNER: :-450 INCLINATION AZIMUTH : 095° TOTAL DEPTH : 166.4 LOGGED BY : T. Elliott COMMENTS: Condensed drill-log ESTIMATED ALTERATION AVG. CORE SULPHIDES % SAMPLE RECOVERED REC'Y/HOLE SAMPLE NO. RACTURING MINERALS SAMPLE INTERVAL (M) EOLOGY ASSAYS 95% DESCRIPTIVE GEOLOGY Cu Pb Zn Aq Cċ Talus - varied mixtures of andesite, limestonechert, and argillite boulders. 91 Bedrock at 9.1 m. - 1.0 metres of dark gray brecciated andesite, lower contact broken At 10.1 m. light to medium gray, detrital limestone with angular chert fragments. 21.5 18.0 Broken contact at 18.0 m., brown, siliceous 0 No Assays 7 23,5 rhyolite welded tuff, Bottom contact at 23,5 m. with sparse sulphides (Pyrrhotite, pyrite, OL galena, sphalerite): Gradational into a light gray chert-limestone breccia. Dark banding 2 3.5: or bedding 40°-45° to c/a of limestone. S Σ. From 35,5-37,8 m dark gray limestone, From 57.3-58.2 m. light to medium gray limestone RT bedding at 30° to c/a. HE Contact at 64.4 m. - volcanic conglomerate -54.4 consists of brown, f.g., andesite fragments and greenish-white felsic fragments (5 cm. wide) m Fragments are sub-angular. Siliceous cement, UF grades into tuff breccia with crude bedding at 60° to c/a. Sharp contact (45°) at 75,4 m. 75.4 with light gray detrital limestone. MST. From 105,8-108,0 m, medium greenish gray to brown fine grained tuff. Ü Conformable contact at 45° with gray banded 2 2.0 K chert at 122.0 m. - At 125.8 m. - detrital, c.g. greenish gray lmst 26.8 with banding at 50° c/a. Hole ends in 0.3 m. of rhyolite breccia.

### COMPOSITE DRILL LOG

CORE SIZE

: BQ

SCALE

PROJECT :Ericksen-Ashby

HOLE No.

:EA81-8

CASING COLLAR ELEV: 841 metres GROUND ELEV. 841 metres DATE STARTED: 04/07/81

1 OF 1 PAGE No.

COORDINATES

site 3 N zone 8 E

DATE FINISHED: 06/07/81

REF. TO CLAIM CORNER: T.M. Elliott

GGED B	Y	; B .	Hemi	ngway

INCLINATION		:	- 45	azimuth : 011° total depth :114,6 m	AZIMUTH : 011° TOTAL DEPTH :114,6				LOGG	ED BY	:B. Hemingway					
ALTERATION		FRACTURING	OLOGY	OLOGY	COMMENTS: Condensed drill-log  AVG. CORE REC'Y/HOLE 95%	ERVAL	RECOVERED	ESTIMATED	PLE No.	% SAMPLE RECOVERED	SAMPLE INTERVAL (M)		Δ	SSAYS		
0		FRAC	GE	DESCRIPTIVE GEOLOGY	DRI	RECC SI		SAM	% S REC	SATNI	Cu	Pb	Zn	Ag	ca	
5.5 <del>.</del>			LMST.	Casing - No core - overburden  - Bedrock at 5.5 m - Banded white, cryptocrystall  Chert with occasional 5-20 cm. thick, brown to  dark gray bands of brecciated limestone	ine	9		24401	200	39.6	.01	.35	1,25	1,02	-	
			CHERT-	Beddings planes at 35-45° to c/a.  - From 14.7 to 16.3 m mixed dark. gray limestone				402	100	4 2.6			.23	.29	-	
1.7			Ü	bands with dark gray chert (50%)  At 24.7 m, sharp contact (35° to c/a) with				403	100	4 4.1	.01	.3 7	.97	1,21	-	
			ND.	brownish-gray andesite. Sharp, lower contact (45° to c/a) at 27.7 m with light green gray				404	100	4 5,6	.01	.04	.45	.99	-	
7.7		+	A	banded chert with occasional bands of limestone - From 37.0 to 37.9 m, light brown siliceous, pyritic felsic tuff pyrite content 3-5%.				405	100	47.1	.01	.1,1	1,11	.70	-	
				- Mineralized zone (at 39.6 m), sphalerite,				406	100	48,6	.01	.07	AO	.19	-	
				galena, pyrrhotite, pyrite in minute fractures.  Interstitial rhodochrosite within tuffaceous				407	100	50,1	.01	.10	.06	.28	-	
			-LMST	chert. Black Mn staining prominent in some				408	100	51,6	.01	.65	1,22	1,61	-	
			CHERT-	- At 60.6 m, mineralized fractures cease.  - At 68.5 m, 0.3 m of dark gray limestone (45° to c/a) (possibly a micrite)				409	100	5 3,1	.01	.66	.42	1.45	-	
.3			1.	- Wavy contact (at 40° to c/a) at 81.3 m with				410	100	5 4,6	.01	.10	.12	.60	-	
.0			AND	dark green andesite; lower contact irregular at 85.0 m with chert				411	100	561	.01	2,68	4.00	8,3	-	
			CH.	At 94.0 m sharp contact with dark green  andesite (at 45° to c/a). Chert above contact				412				1.08				
.0				is brecciated with fragments of andesite (2 cm.  Amygdales are increasing in size with depth	th:	ick)		413	100	59.1	.01	.20	1,04	.64	-	
L 4.6	,		ND.	(3 mm) filled with carbonate. Crackled				114	001	60,6	.01	.64	1,60	1,69	-	

COMPOSITE DRILL LOG :Ericksen-Ashby CORE SIZE : BO SCALE PROJECT HOLE No. : EA81-9 CASING COLLAR ELEV: 841 metres GROUND ELEV.: 841 metres DATE STARTED: 06/07/81 1' of 1 PAGE No. REF. TO CLAIM CORNER: T.M. Elliott N Zone 8 COORDINATES :Site 3 DATE FINISHED: 11/07/81 : -550 AZIMUTH : 051° INCLINATION TOTAL DEPTH : 90.2 : B. Hemingway LOGGED BY DRILLING
INTERVAL
% CORE
RECOVERED
SULPHIDES ALTERATION AVG. CORE COMMENTS: Condensed drill-log % SAMPLE RECOVERED FRACTURING ESTIMAT REC'Y/HOLE SAMPLE NO. SAMPLE INTERVAL (M) GEOLOGY ASSAYS Er's 95% DESCRIPTIVE GEOLOGY Cu Pb Zn Cd Aq OM Overburden - no core 4.1 Bedrock at 4.1 m. Banded, white cryptocrystalline chert with occasional 5-20 cm, thick, brown to dark grey, sometimes bluish grey bands of E limestone. Bedding planes, variable from 45° -70° to c/a 3 From 15.5-19 m, mixed dark grey to brown ERT limestone bands locally brecciated with chert 232 cement. HU .01 1.34 1.10 3.07 .01 At 20.8 m dark grayish brown f.gr. andesite. 0.8 Н 262 Upper contact at 90° to c/a. Lower contact is 0 L.01 1.35 1.25 7.5 2 0 80° to the c/a. 29.3 At 23.3 m - beginning of rhythmic banding of  $\infty$ 1,60 L. 01 2,00 7.30 chert and sulphide-rich sections ctg. 50% RT 323 sulphides of 20-30 cm width out of each 1 HE œ 0 0,85 L.01 1.63 4,96 metre section. Pyrite-sphalerite-galena in a -35.4 ratio of 10-1-.5. Higher values of galena and A 6 0 384 ..01 014 045 095 ..01 sphalerite are ass'd w. rhodochroisite at the 10 2 Z margins of sulphide zones. HW 420 At 39.6 m - mineralization ends. Section is now 3.6 396 ERT white chert w, minor light to dark gray limestone bands. Bedding is 50-70° to the core axis. CH At 66.5 m - weathered zone? Andesite flow w. 5.5-0 fine to coarse grained amygdules. Z At 76.5 m - sharp, irregular contact ca. 50° 5,5 to c/a. Sequence of chert w. minor limestone CH. At 86.3 m - sharp contact ca. 65° to c/a 5.3 massive andesite-basalt: pyritic NND

COMPOSITE DRILL LOG COHE SIZE SCALE : BO PROJECT :Ericksen-Ashby HOLE No. : EA81-10 CASING COLLAR ELEV: 842 m GROUND ELEV.: 841 m, DATE STARTED : 11/07/81 PAGE No. 1 OF 1 DATE FINISHED: 13/07/81 : site 3 w. zone 8 COORDINATES REF. TO CLAIM CORNER: : -75° AZIMUTH : 051° TOTAL DEPTH : 88.4 : B. Hemingway INCLINATION LOGGED BY COMMENTS: Condensed drill-log ESTIMATED ALTERATION AVG. CORE % SAMPLE RECOVERED REC'Y/HOLE SAMPLE NO. FRACTURING GEOLOGY ASSAYS 97% DESCRIPTIVE GEOLOGY Cu Pb Zn Aq Overburden - no core Milky white chert w. minor brown to dark NLY gray limestone. Bedding ca. 0-5° to core axis HIL W H Dark gray, amygdaloidal andesite-basalt. AND Disseminated pyrite. Broken contacts at 70° to c/a. 14.2 Mixed chert and white, grey, and brown CHERT 3 9.d LMST 100 limestone 4 40d L.01 106120 252 01: 4 9.0 421 0 Mineralized zone consisting of bands (at 50° 0 L.01 137287 3.06 006 to c/a) of brown pyrrhotite, sphalerite, and 436 galena. Mn oxides on fractures with galena 3 0 2 0 2 L.01 0660.74 1.94 006 2 Locally very siliceous with bleached zones 4 442 4 around fractures. 14.2 Mixed white chert and dark gray to blue N.S 5 7.0 limestone 100 L.01 0.06002 012 LOC 5 7.01 Mineralized chert breccia w. Some rhyolite 585 MINZ'D 2 00 frags. Sphalerite as bands and fracture RA L.01 011|039 |038 |LOC fillings. 599 CHE 59.9 Mixed limestone and chert. Banding 5-70° to the core axis. 12 cm. of greater than 5% galena, pyrite, and sphalerite at 83.5 m.

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