DIAMOND DRILLING

ABERDEEN PROJECT

Princeton Fraction L3938 (C.G.)
Birdseye L3278 (C.G.)
Lady Aberdeen L3936 (C.G.)

Latitude 49⁰ 27'

Longitude 117⁰ 19.5'

by

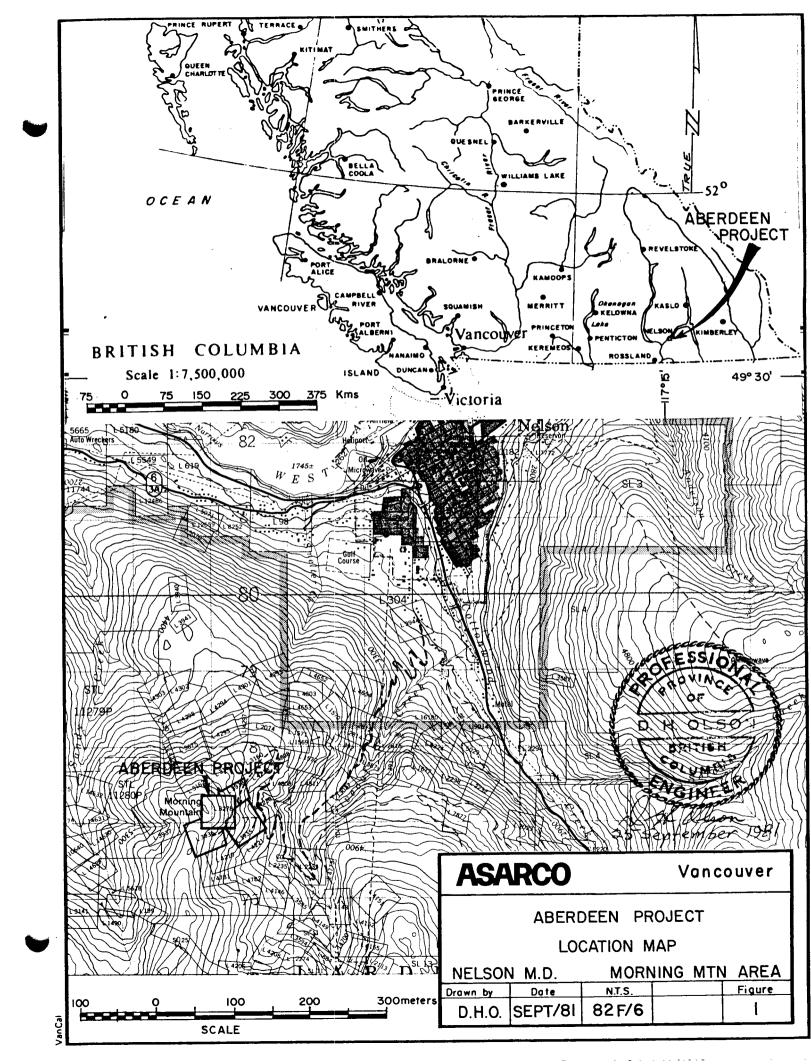
D. H. OLSON

25 September 1981



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SUMMARY

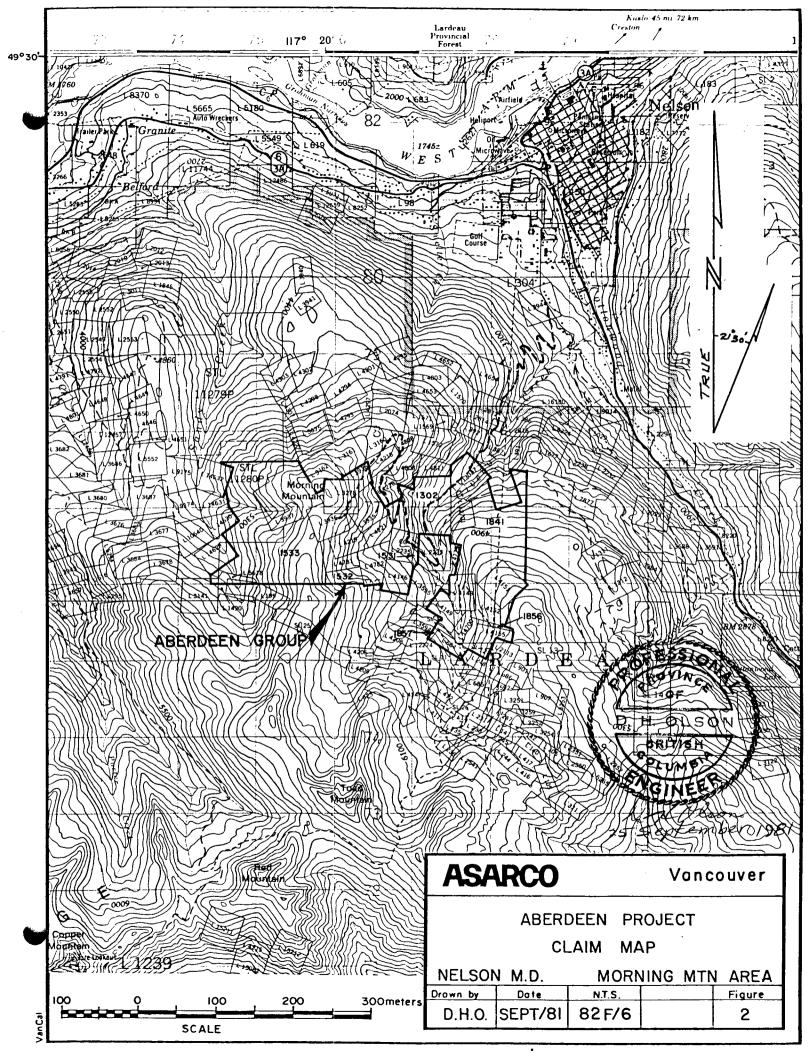
Three BQ diamond drill holes totaling 790 feet (240.8 meters) were drilled on the Princeton Fr., L3938 (CG), Birdseye, L3278 (CG), and the Lady Aberdeen, L3936 (CG) claims during the period July 31 to August 15, 1981 inclusive. All of the drill core was split, sampled and assayed for Au, Ag and Cu. This work served to explore the down dip projection of Au-Ag-Cu mineralization (Birdseye showing) exposed in the Birdseye upper and lower north adits and to investigate coincident induced polarization and geochemical Au soil anomalies within the above claims. Sporadic low Au values obtained from core samples in DDH 81-6 and locally abundant pyrite mineralization noted in holes DDH 81-6, 7 and 8 serves to explain the source of the geochemical and geophysical anomalies being investigated.

LOCATION AND ACCESS

The Aberdeen Prospect is located on Morning Mountain approximately 5 km. southwest of the city of Nelson near 49⁰27'N - 117⁰19.5'W, in 82 F/6W, Nelson Mining Division. See Figure 1.

Elevations range from 1570 to 1900 meters above sea level in an area of steep slopes which are heavily forested.

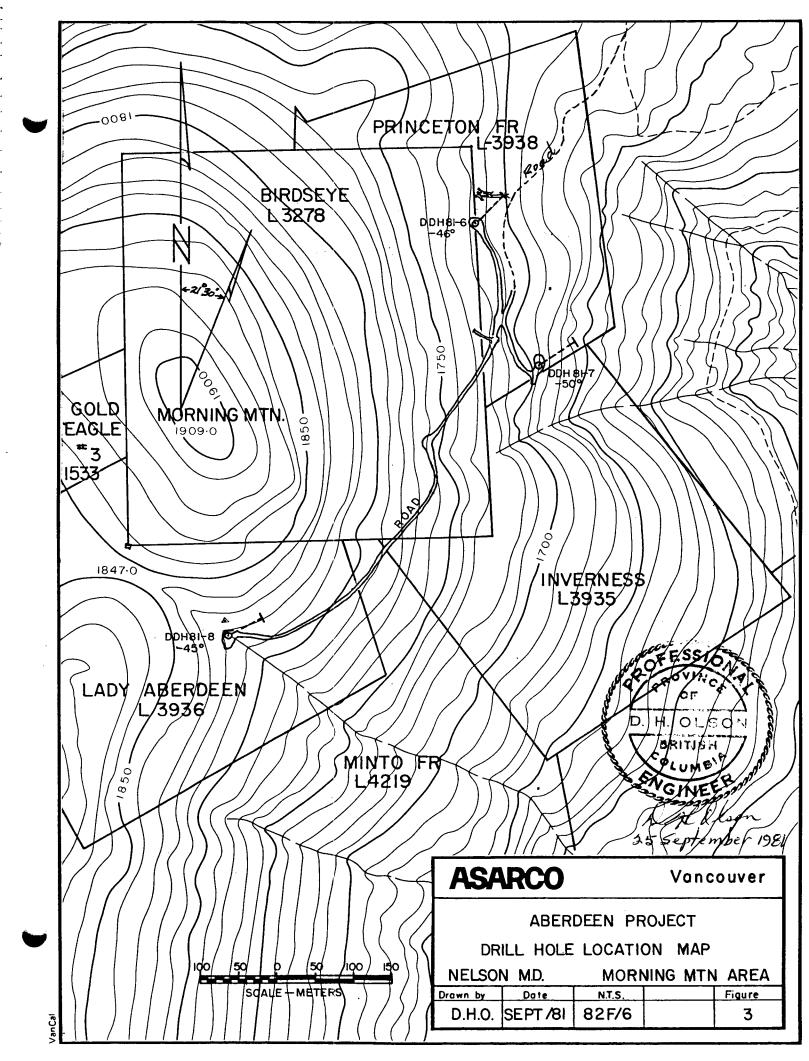
Access is by four wheel drive vehicle along approximately 8.3 km. of dirt road (Silver King) up the west side of Giveout Creek from the city of Nelson.



CLAIMS - ABERDEEN GROUP

(Figure 2)

Claim	Units	Owner	Record No.	Anniversary Date
Inverness	1	Asarco	918	22 Jan.
Lady Aberdeen	1	Explor.	919	22 Jan.
Minto Fr.	1	Co. of	920	22 Jan.
Haddo Fr.	1	Canada	921	22 Jan.
Gold Eagle	4	Ltd.	1302	16 Oct.
Horseshoe	1	n	1307	22 Oct.
Red Fr.	1	11	1308	22 Oct.
Tregarden	1	n	1309	22 Oct.
Gold Eagle Fr. #1	1	11	1531	5 Mar.
Gold Eagle #2	2	II	1532	5 Mar.
Gold Eagle #3	9	11	1533	5 Mar.
Birdseye	C.G.	11	L3278	
Princeton Fr.	C.G.	11	L3938	
Gold Eagle #4	6	11	1841	5 Aug.
Gold Eagle #5 Fr.	1	11	1856	13 Aug.
Gold Eagle #6 Fr.	1	11	1857	13 Aug.
Great Eastern	1	11	1553	19 Feb.
Irene	1	11	1552	19 Feb.
Great Western	1	***	1551	19 Feb.
Black Witch	C.G.	11	L4146	
Gold Bell	C.G.	11	L4155	
Starlight	C.G.	11	L 684	
Northstar	C.G.	11	L4149	



WORK DONE

In the period from July 31 to August 15, 1981 inclusive three BQ diamond drill holes totaling 240.8 meters (790 feet) were drilled and all of the core was sampled and assayed for Au, Ag and Cu. Drill access roads totaling 828 meters x 5 meters wide were constructed utilizing a D-6 bulldozer and the downed timber was reclaimed.

Cost of carrying out these projects on the Princeton Fr, Birdseye and Lady Aberdeen claims is itemized in Appendix "A".

GEOLOGY

The Aberdeen Claim Group is chiefly underlain by the Jurassic and? Cretaceous Beaver Mountain Formation which is intruded by the Cretaceous Silver King Porphyry, a quartz diorite which underlies the eastern portion of the claim group. The Beaver Mountain formation consists of augite, andesite, basalt porphyry flows, breccia, agglomerate and contemporaneous intrusions. These rocks occupy a portion of the north westerly trending Hall Creek syncline. Within the claim group a strongly developed schistosity has a north westerly strike and a moderate dip to the southwest.

DIAMOND DRILLING

Three BQ diamond drill holes totaling 240.8 meters (790 feet) were drilled on the Princeton Fr, Birdseye and Lady Aberdeen crown granted claims. The drilling was carried out by B. Mathieu Drilling

Ltd. of Merritt, B.C. for Asarco Exploration Company of Canada
Limited. Drilling commenced on July 31, 1981 and terminated on
August 15, 1981. The remaining half of the split core is stored
at the residence of Tom Cherry, 2830 Silver King Road, Nelson, B.C.
A summary of the holes is as follows:

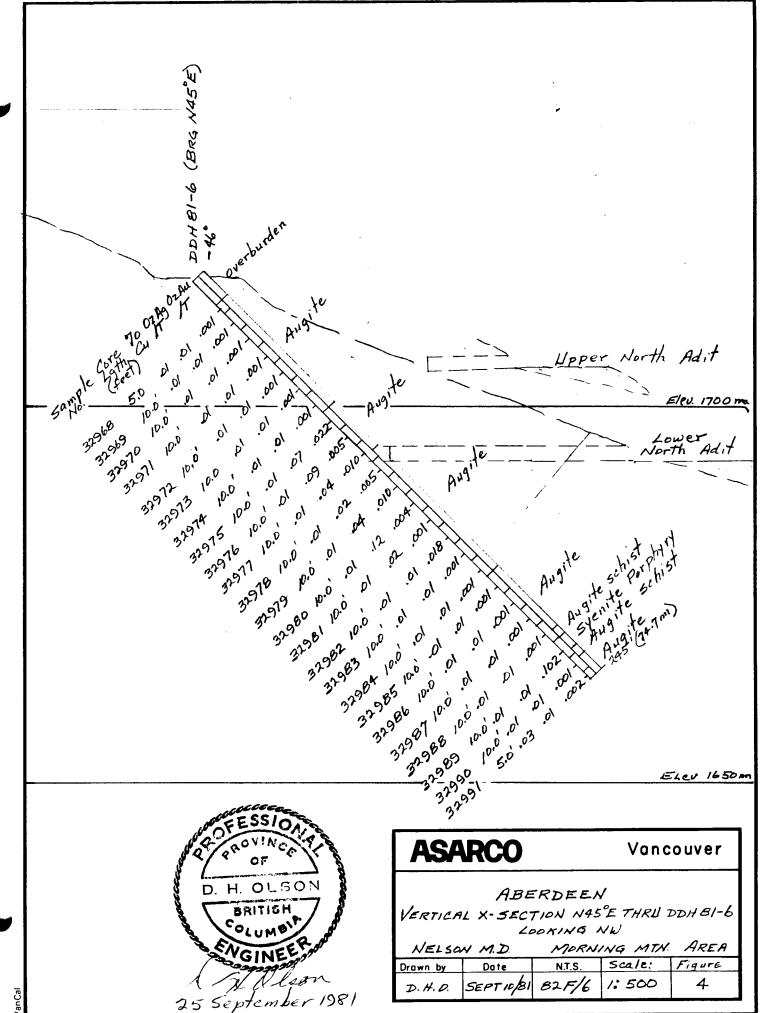
						19	81 _:
Hole No.	Core Size	Inclination	Azimuth	Collar Elevation	Hole Length		Date Complet
81-6	BQ	-46 ^O	N45 ^O E	1717 m.	74.7 r	n. July	31-Aug.3
81-7	BQ	-50 ^O	N55 ^О Е	1690 m.	90.5 r	n. Aug.	4 -Aug.7
81-8	BQ	-45 ⁰	n60 ⁰ е	1818 m.	75.6	Aug.1	3 -Aug.1

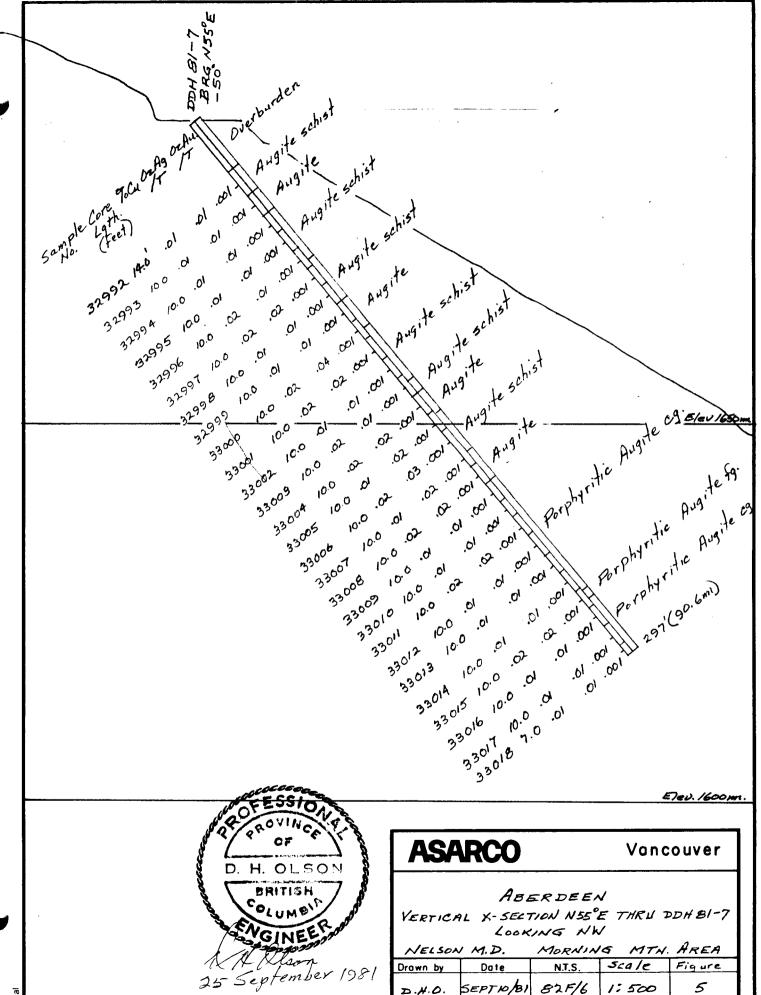
Analytical results of core samples from diamond drill holes 81-6, 7 & 8 are given in Appendix "B" and are plotted on the respective vertical cross sections included as Figures 4, 5 & 6.

Analytical procedures include an acid leach with the various elements (Au, Ag, Cu) determined from the solution by Atomic Absorbtion methods carried out by Acme Analytical Laboratories Ltd. of Vancouver, B.C.

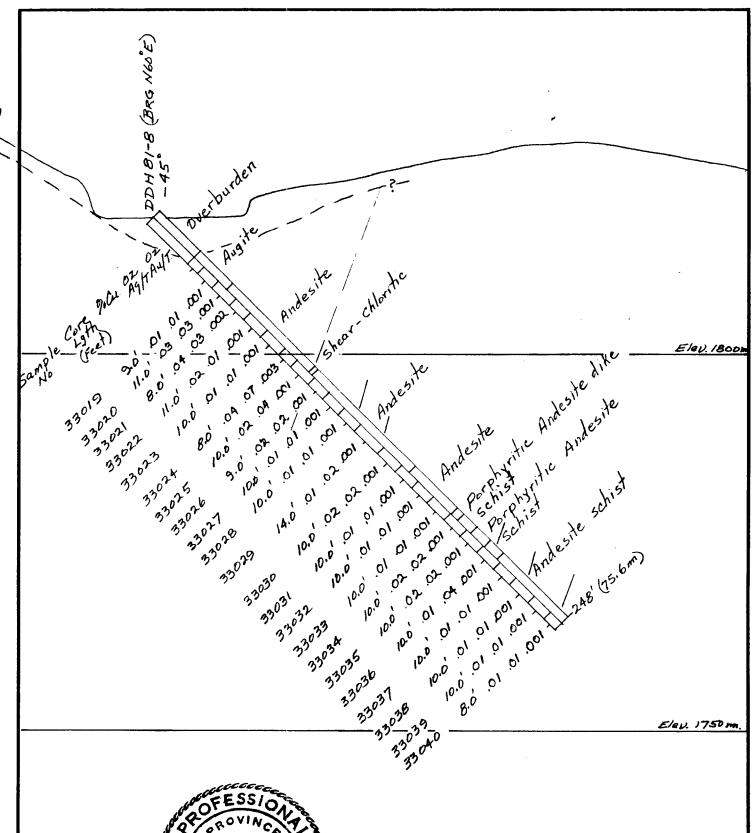
The purpose of the drill program was to explore the down dip and lateral extension and projection of the known Au-Ag-Cu mineralization, known as the Birdseye showing, which is exposed in the Birdseye upper and lower adits and to investigate coincident induced polarization and geochemical Au soil anomalies within the above claims.

DDH 81-6 was drilled to a depth of 74.7 meters through the Birdseye zone in fine grained, dark-green augite of the Beaver Mountain formation of Jurassic and ? Cretaceous age, and a contemporaneous narrow syenite porphyry dike near the bottom of the





VanCal





ASARCO

Vancouver

ABERDEEN

VERTICAL X- SECTION NEODE THRU DDH81-8

LOOKING NW.

NELSON M.D. MORNING MTN AREA

Drawn by	Date	N.T.S.	scale.	Figure
D. H.O	AUG 27/81	82F/6	1:500	6

hole. Gold, silver and copper values obtained from core samples throughout the hole are of no economic significance. The only significant gold value .102 Au/t. was obtained from a sample across the porphyry syenite dike accompanied by marginal quartz-calcite veining between intervals 67.1 and 70.1 meters from the collar of the hole.

DDH 81-7 was drilled to a depth of 90.5 meters northeasterly to explore the southerly extension of the Birdseye zone approximately 200 meters south southeasterly from DDH 81-6. No Au-Ag-Cu values of economic significance are reported from sampling of the drill core. Rock penetrated consisted of augite, augite schist and augite porphyry of the Beaver Mountain Formation.

DDH 81-8 was drilled northeasterly to a depth of 75.6 meters to investigate coincident induced polarization and geochemical Au soil anomalies within a zone parallel to and some 500 meters southwest of the Birdseye zone. No significant Au-Ag-Cu values are reported from samples taken of the drill core. Weak to moderately pyritized augite, andesite and andesite achist rocks of the Beaver Mountain formation were penetrated by the drill.

CONCLUSIONS

The drill program served to explore and test low grade Au-Ag-Cu mineralization contained in the Birdseye Zone and a parallel zone.

No Au-Ag-Cu values of economic importance were encountered and no

further work is recommended.

D. H. Olson

REFERENCES

- Mulligan, R. 1952 GSC Paper 52-13, Bonnington Map Area, B.C.
- Porter, Jeffrey R.: October 1980; Report on IP/Resistivity Survey, Aberdeen Project, Morning Mountain Area, Nelson, B.C.
- Gale, R. E. P. Eng: November 28, 1980: Assessment report on Magnetometer and Geochemical Survey on the Aberdeen Group.
- Fahrni, K.C.: August 30, 1946: Geological Report on Giveout Creek Group, Nelson District.
- Ellis, W. S.: August 2, 1945: Privateer Mines, Report on the Starlight - Victoria - Jessie Zone.
- Fell, Nelson E.: 1911: Report on the North Star Group.
- B.C. Minister of Mines Report 1896, Starlight Group, page 86: 1932, pages Al82 & 183.

. . . .

Sullivan, Joseph, P. Eng.: Sept. 18, 1972: Report on the Daylight Group of Crown Granted Mineral Claims.

APPENDIX "A"

EXPENDITURES - ABERDEEN PROJECT

Drilling -	B. Mathieu Drilling Ltd Merritt, DDH's 81-6, 7 & 8 totaling 790 feet BQ drill core.	B.C. at \$20/ft. 15,800.00
	33 BQ core boxes @ \$6.00 l bundle core box lids l can super polly 21 Tractor hours (J.D. 550)@ \$35/hr. Mobilization & Demobilization	198.00 50.00 200.00 735.00
	Merritt to Nelson to Merritt	2,226.00
	\$	19,209.00
Kootenay T	ractor - Nelson B.C. Road construction - 828 meters x	
	5 meters	\$3,032.45
Assaying -	Acme Analytical Laboratories Ltd 73 BQ samples for Cu, Au, & Ag	Vancouver, B.C.
	@ \$13.50 each	\$ 985.50
Wages	C. Robertson - August 3-16 & 23, 198	
	15 days @ \$49.92 per day D. Olson - August 3-7, 12-15 & 22, 1 10 days @ \$143.25 per day	748.80 L981
		\$2,181.30
Travel	Air - D. Olson - Vancouver to Castle & return Redhawk Truck Rental - August 3-23,1	162.25
	Mileage, Gasoline, oil and serviceir	293.33 ng 332.04
		\$ 787.62
Lodging	Alpine Motel - Nelson, B.C. August 3 26 days @ \$26.00/day & 6% tax	3-22, 1981 \$ 689.00
Susbistance	e - D. Olson & C. Robertson August 3- 25 days @ \$-2.82/day	-22, 1981 \$ 570.47
Freight -	Core samples 6550 Couver	\$ 79.85
	Sample bags anardware flagging tar	pe \$ 38.75
Report Pre	paration - D. Olson D. H. OLSON	\$500.00
	PRITISH	

\$28,073.94 ========

ACME ANALYTICAL LABORATORIES LTD.

aying & Trace Analysis



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Asarco Exploration Co of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6 To: 504 - 535 Thurlow Street,

Vancouver, B. C. V6E 3L2

Telephone: 253 - 3158

ASSAY CERTIFICATE

File No01	-1002
Type of Samples	DD Cores

Aug. 19, 1981

DATE REPORTS MAILED.

DEAN TOYE, B.Sc. CHIEF CHEMIST CERTIFIED B.C. ASSAYER

Disposition_____

APPENDIX "B"

	APPENDI	X "B"				· · · · · · · · · · · · · · · · · · ·	Disposit		
No.	Sample	Cu %	РЬ %	Zn %	Ag oz/ton	Au oz/ton			No.
1		 				+	+		1
2									2
3									3
4									4
5									5
6									6
7									7
8									8
9									9
10									10
11									11
12							COCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	- Contraction	12
13						ئى	1047/060111	ION A S	13
14							D. H. OL	<u> </u>	14
15						מארים ביבי	T BRITI	5H 7	15
16						, the state of the	ENGIN	E Papage	16
17		<u> </u>					JOIN	(son	17
18	032968	.01			.01	.001	25 Sep	dember198	1
19	032969	.01			.01	.001			19
20									20
Ali re	ports are the confi	dential property	of clients.		1	DATE SAMPLES I	RECEIVEDA	ug. 14, 198	81_

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File No. __81=1062_____ Type of Samples _DD_Cores_ Disposition______

No.	Sample	Cu %	Ag oz/ton	Au oz/ton				No.
1	032970	.01	.01	.001				1
2	032971	.01	.01	.001			-	2
3	032972	.01	.01	.001				3
4	032973	.01	.01	.001				4
5	032974	.01	.01	.004				5
6	032975	.01	.07	.022				6
7	032976	.01	.09	.005				7
8	032977	.01	.04	.010				8
9	032978	.01	.02	.005				9
10	032979	.01	.04	.003				10
11	032980	.01	.12	.004				11
12	032981	.01	.02	.001				12
13	032982	.01	.01	.018				13
14	032983	.01	.01	.001				14
15						COCE ESS	Care Care	15
16	032984	.01	.01	.001	للئ.	Q PROVIE	C'E TING	16
17	032985	.01	.01	.001	Į.	D. H. OL	SON	17
18	032986	.01	.01	.001	B	BRITIS	H-7	18
19	032987	.01	.01	.001		ENGIN	EER	19
20	032988	.01	.01	.001		ARRE	son ember 1981	20

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Type of Samples _DD_Cores_ Disposition _ ____

81-1062

No.	Sample	Cu %	Ag oz/ton	Au oz/ton				No.
1	032989	.01	.01	.102				1
2	032990	.01	.01	.001			-	2
3	032991	.03	.01	.002				3
4				4				4
5		-		*		-	+	5
6				,				6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15						EESSIO	e e	15
16					JAQ-	PROVINCE	17. B	16
17					D.	H. OLS	N 8	17
18					11	BRITISH	7 8	18
19	······································				1	VGINEE	C. Carlot	19
20						17/1/	Son	20

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٠	File No 81-1116
	Type of Samples _ Core
	Disposition

No.	Sample	Cu%	Ag oz/ton	Au oz/ton	No
1	032992	.01	.01	.001	1
2	032993	.01	.01	.001	2
3	032994	.01	.01	.001	3
4	032995	.01	. 01	.001	4
5	032996	.02	.01	.001	5
6	032997	.02	.02	.001	6
7	032998	.01	. 01	. 001	7
8	032999	.01	.01	.001	8
9					9
10	033000	.02	.04	.001	10
11	033001	. 02	.02	.001	11
12	033002	.01	.01	.001	12
13	033003	.02	.01	.001	13
14	033004	.02	.02	.001	Marie School 14
15	033005	.01	, 02	.001	DE POVINCE 15
16	033006	.02	.03	.001	D. H. O. S. O. H.
17	033007	.01	.02	.001	BRITISH 7
18	033008	.02	.02	.001	OLUMBIA 18
19	033009	.01	. 01	.001	GINEE 19
20	033010	.01	.01	.001	25 September 1981 20 Aug 20 1981

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File No. 81-11	16
Type of Samples	_Core
Disposition	

No.	Sample	Cu%	Ag oz/ton	Au oz/ton		No.
1	033011	. 02	.02	.001		1
2	033012	.01	.01	.001		2
3	033013	.01	.01	.001		3
4	033014	. 01	. 01	.001		4
5	033015	. 02	.02	.001		5
6	033016	. 01	.01	.001		6
7	033017	.01	.01	. 001		7
8	033018	. 01	.01	.001		8
9	033019	.01	.01	.001		9
10	033020	.03	. 03	.001		10
11	033021	.04	.03	.002		11
12	033022	. 02	.01	.001		12
13	033023	.01	.01	.001		13
14	033024	. 04	.07	.003	WOOFE SSIO	14
15	033025	. 02	.04	. 001	MORPAROVINCAL	15
16	033026	.02	.02	. 001	D. H. D. SOV	16
17	033027	.01	.01	.001	PRITISH	17
18	033028	. 01	.01	.001	GINEER PART	18
19	033029	.01	.02	.001	O Al Olan	19
20					25 September 1981	20

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ASSAY CERTIFICATE

File No8	1-1116
Type of Samples	Core
Disposition	

No.	Sample	Cu%	Ag oz/ton	Au oz/ton	ļ.	No.
1	033030	.02	.02	.001		1
2	033031	.01	.01	.001		2
3	033032	.01	.01	.001		3
4	033033	.01	.01	.001		4
5	033034	.02	.02	.001	·	5
6	033035	.02	.02	.001		6
7						7
8						8
9						9
10						10
11						11
12						12
13						13
14						14
15						15
16					D. H. OLSON	16
17						17
18					GINEER	18
19					Mallion	19
20	_				25 September 1981	20

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504 - 535 Thurlow St., Vancouver, B.C. V6E 3L2

To: Asarco Exploration Co. of Canada Ltd.,

81-1159 File No. -

ASSAY CERTIFICATE

Type of Samples __Core___ Disposition ______

No.	Sample	Cu%	Ag oz/ton	Au oz/ton			No.
1	033036	.01	. 04	.001			1
2	033037	. 01	.01	.001			2
3	033038	. 01	.01	.001			3
4	033039	. 01	.01	.001			4
5	033040	.01	.01	.001			5
6					l	1 1	6
7							7
8							8
9							9
10							10
11							11
12							1:
13							13
14						,16666c	14
15					2000	OFESSIO TE	1:
16						AU CONTRACTOR	10
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18					8	COLUMO	11
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20						a Titllson 25 September 1981	20
All r	reports are the confi	idential propert	y of clients.			DATE SAMPLES RECEIVED_AUG	. 24, 1981 t. 2, 1981

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ASSAYER

CLAIM NO. PRINCETON FR.

DIAMOND DRILL RECORD

PROPERTY ABERDEEN HOLE NO. 81-6

L3938

LATITUDE

APPENDIX "C" ELEVATION 1717 meters

BEARING N45°E

DEPTH 74.7 meters STARTED July 31, 1981 COMPLETED August 3, 1981

DEPTH		SAMPLE						AYS
meters	FORMATION	NO.	meters	meters	meters	oz.Au/	oz. Ag	/t %Cu
0 - 4.6	Overburden .							
0 - 4.9	Casing for BQ rods and drill core.							
6 - 24.2	Augite - medium to fine grained, dark green, equigranular. The rock is	32968	4.6	6.1	1.5	.001	.01	.01
	strongly chloritic, slightly calcareous and weakly epidetized. Calcite-	32969	6.1	9.1	3.0	.001	.01	.01
	quartz veinlets up to 3 mm traverse the rock at angles of 30° and 50° to	32970	9.1	12.2	3.1	.001	.01	.01
	the core axis. The veinlets carry <.5% pyrite and a trace of chalcopyrite	32971	12.2	15.2	3.0	.001	.01	.01
	as disseminated grains.	32972	15.2	18.3	3.1	.001	.01	.01
		32973	18.3	21.3	3.0	.001	.01	.01
		32974	21.3	24.4	3.1	.004	.01	.01
4.2 -32.8	Augite as from 4.6 - 24.2 m. Disseminated fine grained pyrite estimated	32975	24.4	27.4	3.0	.022	.07	.01
	at 2% by volume is present throughout the rock section. Pyrite marginal	32976	27.4	30.5	3.1	.005	.09	.01
	to the calcite-quartz veining is much more pronounced. Occasional calcite-	32977	30.5	33.5	3.0	.010	.04	.01
	quartz-pyrite veins up to 5 cm. in width occur throughout the section. At							
	the end of the section the rock becomes faintly banded $45 - 60^{\circ}$ to the core							
-	axis.							
	•							
					1			

CLAIM NO	DIAMOND DRILL RECORD PROPERTY	Υ				НС	LE NO	81-6	.
LATITUDE		!	STARTED		· · · · · ·	COMPLETE	D .	Page 2	
DEPARTURE	SECTION DIP DRILLED BY		·		togg	ED BY			
DEPTH	FORMATION	SAMPLE NO.	FROM	то	WIDTH		1	SAYS	_ _
meters		10.	meters	meters	meters	oz.Au/	oz.Ag/	t %Cu	\vdash
32.8 -54.9	Augite similar to above but somewhat schistose and much more chloritic and	32978	33.5	36.6	3.1	.005	.02	.01	-
	calcareous. Except for the pyritic section (3-4% by volume) from 44.8 -	32979	36.6	39.6	3.0	.003	.04	.01	L
	54.9 the remaining section contains only an occasional grain of pyrite	32980	39.6	42.7	3.1	.004	.12	.01	L
	marginal to calcite-quartz veins which vary from 1 - 4 mm in width.	32981	42.7	45.7	3.0	.001	.02	.01	
	schistosity 60 to 70° to the core axis.	32982	45.7	48.8	3.1	.018	.01	.01	
		32983	48.8	51.8	3.0	.001	.01	.01	
		32984	51.8	54.9	3.1	.001	.01	.01	
54.9 -66.0	Augite - medium to coarse grained, dark green, weakly epidotized, chlor-	32985	54.9	57.9	3.0	.001	.01	.01	
34.7 00.0	itic and locally porphyritic with pyroxene phenocrysts to 4 mm. Pyrite	32986	57.9	61.0	3.1	.001	.01	.01	Γ
	of less than .5% by volume occurs marginally to calcite-quartz veins	32987	61.0	64.0	3.0	.001	.01	.01	Γ
	which are widely scattered throughtout the section.	32988	64.0	67.1	3.1		.01	.01	
	which are widery scattered throughtout the section.	32700	04.0	07.1	7.1	.001	.01		T
66.0 -67.7	Augite schist - fine grained, dark green, strongly shloritic and weakly	32989	67.1	70.1	3.0	.102	.01	.01	
	pyritized > 1% by volume. Schistosity at 60° to core axis. Trace chal-								\perp
	copyrite is noted.								
67.7 -69.3	Syenite Porphyry Dike - medium grained, medium grey in color. At the								_
	upper contact 2.5 cm of breccia and 15 cm of calcite veining is noted.					ļ			\perp
	At the lower contact at 80° to core axis, 5 cm of quartz veining carrying								
	visible pyrite is observed.								

CLAIM NO	DIAMOND DRILL RECORD PROPER	RTY				НО	LE NO.	81-6 Page 3
LATITUDE	ELEVATION BEARING DEPTH	:	STARTED			COMPLETED)	
DEPARTURE	SECTION DIP DRILLED B	37			LOGG	ED BY		
DEPTH meters	FORMATION	SAMPLE NO.	FROM meters	TO meters	width meters	oz.Au/	ASS t oz.Ag/	t %Cu
69.3 -70.7	Schistose Augite Porphyry at 70° to core axis.	32990	70.1	73.2	3.1	.001	.01	.01
70.7 -74.7	Augite, fine grained, dark green traversed by a moderately developed	32991	73.2	74.7	1.5	.002	.01	.03
	quartz-calcite vein stockwork. The veins are weakly pyritized.							
	END OF HOLE							
					acce.	eccese ESSIO	es.	
				4	2/2	OVINCE	7.8	
· · · · · · · · · · · · · · · · · · ·				8	D. F	OLS!		<u>.</u>
					8 %	GINEE	200000	
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CLAIM NO.		TY	ABERDEE	N	····	НО	LE NO	81-7	
LATITUDE	L3938 APPENDIX "C" ELEVATION 1690 meters BEARING N55°E DEPTH 90	5 m.	STARTED AL	igust 4,	1981	COMPLETE	August	7, 198	1
DEPARTURE	SECTION DIP -550 DRILLED B	yB. Mat	hieu Dri	llling	. LOGGI	D BYD	. H. Ols	on	
DEPTH		SAMPLE	FROM	70	WIDTH		ASS	AYS	
meters	FORMATION	NO.	meters	meters	meters	oz.Au/	t oz Ag/	t %Cu	
0 - 7.9	Overburden								
0 - 8.5	Casing for BQ rods and drill core.	32992	7.9	12.2	4.3	.001	.01	.01	ļ
8.5 - 11.9	Augite - moderately schistose, medium grained, dark-grey, moderately								ļ
	calcareous (secondary calcite) and chloritic. Schistosity at 55° to core		ļ						
	axis. The rock is traversed by 1 - 2 mm. calcite-quartz veinlets which								
	carry visible pyrite within and along the vein margins. Up to .5% pyrite		<u> </u>						
	occurs along the schistose partings.								
11.9 - 15.2	Augite - medium grained, dark grey, equigranular, and massive. A very wea	32993	12.2	15.2	3.0	.001	.01	.01	
	schistosity is developed at 55° to core axis. The rock is strongly calca-								
	reous (secondary calcite) and weakly epidotized.								<u> </u>
15.2 - 23.3	Augite schist - medium grained, dark grey, moderately schistose. Schist-	32994	15.2	18.3	3.1	.001	.01	.01	
	osity at 55° to core axis. Strong secondary calcite as replacement of	32995	18.1	21.3	3.0	.001	01	.01_	
	the schist, and chloritization are noted.Pyrite as disseminated grains	32996	21.3	24.4	3.1	.001	.01	.02	
	0.5 - 1 mm. approximates 1% by volume of the rock. The rock is locally								
	oxidized and yuggy.								<u> </u>

CLAIM NO	DIAMOND DRILL RECORD PROPERTY	Y				НС	DLE NO	81-7 Page 2
LATITUDE	ELEVATION BEARING DEPTH		STARTED			COMPLETE	D	
DEPARTURE	SECTION DIP DRILLED BY	 .			LOGG	ED BY		
DEPTH	FORMATION	SAMPLE	FROM	TO	WIDTH			AYS
meters	TORMATION	NO.	meters	meters	meters	oz.Au/	t oz.Ag	t %Cu
23.3 - 30.5	Augite - fine grained, dark grey-green, faintly schistose and moderately	32997	24.4	27.4	3.0	.001	.02	.02
	chloritic. Dark green pyroxene phenocrysts are contained in a dark green,	32998	27.4	30.5	3.1	.001	.01	.01
	fine grained matrix. The rock is moderately calcareous and epidotized.							
	Calcite-quartz veinlets up to 1 cm. but averaging less than 2 mm. number	<u> </u>	ļ					
	6 to 12 per 0.3 meters. Amethystine quartz occurs sporadically. Trace	ļ				ļ		
	amounts of pyrite occur throughout the section.							
30.5 - 35.1	Augite - medium to coarse grained, dark green and porphyritic. The rock	32999	30.5	33.5	3.0	.001	.01	.01
	is weakly calcareous and moderately epidotized.	33000	33.5	36.6	3.1	.001	.04	.02
35.1 - 43.9	Augite - weakly to moderately schistose at 40° to core axis. The rock is	33001	36.6	39.6	3.0	.001	.02	.02
	dark grey-green grading to medium grey at 35.9. Fine grained feldspar	33002	39.6	42.7	3.1	.001	.01	.01
	porphyry fragments contained in the Augite indicate the main rock mass	33003	42.7	45.7	3.0	.001	.01	.02
	may be a flow rock.		ļ					
	From 33.8 - 40.1 meters, pyrite as disseminated euhedral crystals approaches	3	<u> </u>					_
	2% of the rock by volume.		ļ					
43.9 - 46.0	Augite - dark grey-green, schistose at 30° to core axis and moderately	33004	45.7	48.8	3.1	.001	.02	.02
	calcareous. Pyrite content less than 1% as disseminated grains.							
					!			

CLAIM NO	DIAMOND DRILL RECORD PROPERT	ſΥ		··		НО	OLE NO.	81-7	- -
LATITUDE	ELEVATION BEARING DEPTH		STARTED		············	COMPLETE	ED	Page 3	
DEPARTURE	SECTION DIP DRILLED BY	'			LOGG	ED BY		·····	
DEPTH	FORMATION	SAMPLE NO.	FROM	то	WIDTH		 	SAYS	
meters		1.0.	meters	meters	meter	s oz.Au	t oz.A	g/t %Cu	
46.0 -49.4	Same rock as from 43.9 - 46.0 but not schistose. Strongly calcareous with	33005	48.8	51.8	3.0	.001	.02	.01	_
	less than 1% pyrite by volume. Occasional subrounded foreign rock frag-	1					 		- -
	ments within the Augite suggest a flow rock.								
49.4 -56.1	Augite as from 43.9 - 46.0. From 49.6 - 50.9 the rock is oxidized, broken	33006	51.8	54.9	3.1	.001	.03	.02	
	and vuggy - possible fault. Schistosity 30 - 35° to core axis.	33007	54.9	57.9	3.0	.001	.02	.01	·
56.1- 60.8	Augite - fine grained, dark-green, moderately calcareous and epidotized.	33008	57.9	61.0	3.1	.001	02	.02	
	Calcite-quartz veinlets of 1 - 2 mm. in width number 6 - 10 per 0.3 meters			02.0					
	of core length. Pyrite content less than 1% by volume.								<u></u>
60.8- 79.6	Augite - medium to coarse grained, dark green, massive and porphyritic.	33009	61.0	64.0	3.0	.001	.01	.01	
	Widely scattered calcite-quartz veinlets containing a trace of pyrite	33010	64.0	67.1	3.1	.001	.01	.01	
	and chalcopyrite. Occasional calcite-quartz-siderite veins from 1 - 7 cm.	33011	67.1	70.1	3.0	.001	.02	.02	
	are noted.	33012	70.1	73.2		.001	.01	.01	İ
		33013	73.2	76.2	3.0	.001	.01	,01	
		33014	76.2		-	.001	.01	.01	
		33015	79.3			.001	.02	.02	
									
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CLAIM NO.	DIAMOND DRILL RECORD PROPER	TY		·	•	НС	DLE NO	81-7 Page 4
LATITUDE	ELEVATION BEARING DEPTH		STARTED			COMPLETE		* *
DEPARTURE	SECTION DIP DRILLED B	Υ			LOGG	ED BY		
DEPTH meters	FORMATION	SAMPLE NO.	FROM meters	to meters	WIDTH meters	oz.Au/	ASS E OZ.Ag/	t %Cu
79.6- 80.9	Augite as above but finer grained. The rock has a pseudo breccia appear-							
	ance. The interstices are filled with calcite, quartz and fine grained							
	pyrite approximating 3 - 4% by volume.							
30.9- 90.5	Augite Porphyry - medium to coarse grained, dark-green and massive.	33016	82.3	85.4	3.1	.001	.01	.01
	Pyroxene phonecrysts to 2 cm.	33017	85.4	88.4	3.0	.001	.01	.01
		33018	88.4	90.5	2.1	.001	.01	.01
	END OF HOLE							
					OFE	SSION		
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				3	WGI		1 000	
				1	555	Eptem	ber 198	\$7

CLAIM NO. LADY ABERDEEN

LATITUDE .

DIAMOND DRILL RECORD

ABERDEEN

HOLE NO. 81-8

APPENDIX "C" L3936

ELEVATION 1818 meters BEARING N60°E

DEPTH 75.6 m. STARTED August 13, 1981 COMPLETED August 15, 1981

-45⁰ DRILLED BY B, Mathieu Drilling LOGGED BY D. H. Olson ASSAYS SAMPLE DEPTH **FORMATION** meters oz.Au/t oz.Ag/t %Cu meters meters meters 0 - 7.3Overburden 0 - 9.1Casing for BO rods and drill core. Augite - medium grained, dark green. The rock is vuggy and mottled with 2.8 33019 9.1 11.9 .001 .01 .01 7.3 - 13.4blebs and irregular patches of epidote. Locally the rock contains up to 33020 11.9 15.2 3.3 .001 .03 .03 1 - 2% pyrite as disseminated grains. Strong oxidation of rock is evident between 13.4 and 15.5 m. 13.4- 28.5 Andesite - medium grained, medium blue-grey to greenish grey. Feldspar 15.2 33021 17.7 2.5 .002 .03 .04 phenocrysts to 3 mm. Rock is vuggy throughout and oxidized from 19.8 33022 17.7 21.0 3.3 .001 .01 .02 and 21.6 m. 21.0 24.1 3.1 33023 .001 .01 .01 33024 24.1 26.5 2.4 .003 .07 .04 Chloritized shear accompanied by quartz-calcite veining containing 26.5 28.5- 29.1 33025 29.6 3.1 .001 .04 .02 0.5% pyrite. Schistosity 65° to core axis. 33026 29.6 2.7 32.3 .001 .02 .02 29.1- 47.2 Andesite as from 13.4 - 28.5. However this section is strongly chlorit-33027 32.3 35.7 3.4 .001 .01 .01 ized and is moderately schistose at 50 - 60° to core axis. Intense 33028 35.7 38.4 2.7 .001 .01 .01 calcification of the rock is noted. Up to 10% pyrite by volume occurs 33029 38.4 42.7 4.3 .001 .02 .01 as disseminated grains and irregular patches (eg. 30.2 - 30.8 m. esti-33030 42.7 .02 .02 45.7 3.0 .001 mate 5 - 10% pyrite by volume). 33031 45.7 48.8 3.1 .001 .01 .01

CLAIM NO	DIAMOND DRILL RECORD PROPERT	Υ		·		НС	DLE NO	81-8
LATITUDE	ELEVATION BEARING DEPTH		STARTED		····-	COMPLETE	D	Page 2
DEPARTURE	SECTION DIP DRILLED BY.				LOGGE	ED BY		
DEPTH	FORMATION	SAMPLE NO.	FROM	to	WIDTH			AYS
meters			meters	meters	meters	oz.Au/	t oz.Ag/	t % Cu
47.2- 55.0	Andesite as 29.1 - 47.2 m. but less schistose. The rock is only moderately	33032	48.8	51.8	3.0	.001	.01	.01
	calcified epidotized and chloritized. Patchy epidote gives a fragmental	33033	51.8	54.9	3.1	.001	.01	.01
	appearance. Sparse pyrite is noted. Calcite-quartz veins to 2 mm. are	33034	54.9	57.9	3.0	.001	.02	.02
	very widely scattered.							
55.0- 56.2	Porphyritic andesite dike, medium grained and dark grey. At the upper con-							
33.0 30.2	•							
	tact 80° to the core, 30 cm. of quartz veining interspersed with chlorite	 						
	schist is noted. At the lower contact 60° to the core weak malachite							
	staining is observed. The andesite is weakly pyritized.	 	 					
				<u> </u>				
56.2- 58.5	Schist - intensely calcified. Locally this banded schist is crenulated.	33035	57.9	61.0	3.1	.001	.02	.02
58.5- 60.8	Porphyritic andesite as 55.0 - 56.2 m. The rock is weakly pyritic along							
30.3								
	sporadic quartz-calcite veinlets.							
		 	 					
60.8- 63.4	Schist - dark grey-green, chloritic and intensely calcified (secondary	33036	61.0	64.0	3.0	.001	.04	.01
	calcite).		 -		ļ <u> </u>			
			-		-			

CLAIM NO	DIAMOND DRILL RECORD PROPERTY	Υ				НС	DLE NO		
LATITUDE	ELEVATION BEARING DEPTH DEPTH		STARTED			COMPLETE	D.	Page 3	
DEPARTURE	SECTION DIP DRILLED BY				LOGG	LOGGED BY			
DEPTH meters	FORMATION	SAMPLE NO.	FROM meters	TO meters	width meter	s oz.Au	t oz.Ag	t %Cu	
63.4- 75.6	Andesite? - weakly schistose, dark greenish-grey, chloritic and intensely	33037	64.0	67.1	3.1	.001	.01	.01	
	calcified and epidotized. Schistosity 65° to core axis. Pyrite is very	33038	67.1	70.1	3.0	.001	.01	.01	
	sparse.	33039	70.1	73.2	3.1	.001	.01	.01	
	Foreign rock inclusions to 3 mm. suggest a tuffaceous rock. Locally the	33040	73.2	75.6	2.4	.001	.01	.01	
	rock is vuggy and oxidized.								
	END OF HOLE							<u></u>	
					SC CO	FESS/	ONTO		
					800	Q CF	4/18		
					D.	H. OL			
					8	COLUM	() P		
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					1	H Se	tembe	1981	
						1		1	
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APPENDIX "C"

CERTIFICATE

I, D. H. Olson of 8125 Gray Avenue, Burnaby, B.C. hereby certify:

- 1. I am a registered Professional Engineer in the Province of British Columbia.
- I am a university graduate with the degree B.A. Geology, University of British Columbia, 1950.
- 3. I have practiced my profession for the past 29 years.
- 4. I am presently employed as a Geologist with Asarco Exploration Company of Canada Limited.
- 5. The information contained in this report was compiled by myself and that the drill program was under my direct supervision.

D. H. Olson

Geologist

25 September 1981

H. OLSON