

R E P O R T

on

PRELIMINARY GEOCHEMICAL AND GEOLOGICAL EVALUATION

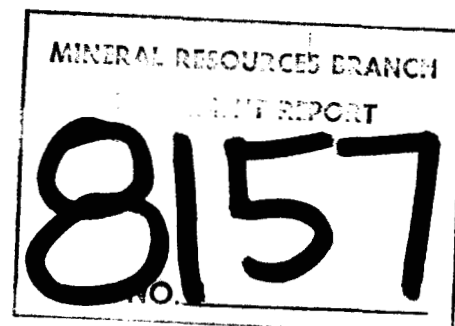
of the

HERB CLAIM (4 units)

Situated on Herbert Creek  
82G/12E

Latitude  $49^{\circ}44'$ ; Longitude  $115^{\circ}37.5'$

Fort Steele Mining Division



Report by

D. M. Fletcher, P.Eng.

July 9, 1980

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ATTACHMENTS:

Attachment "A"	Location Map
" " "B"	Geology Map
" " "C"	Adit Map
" " "D"	Geochemical, Assay Certificate
" " "E"	Expenditures
" " "F"	Certificate

## INTRODUCTION

As a result of regional prospecting and geochemical stream sediment sampling conducted within the Fort Steele Mining Division during the period June through September 1979, a claim group consisting of four units was staked to protect indications of copper sulfide and associated copper carbonates positioned within a sedimentary rock sequence.

## LOCATION AND ACCESS

The claim is situated 13.5 kilometers due north of Fort Steele. Access is by bush road to an abandoned ranch positioned astride lot 8845 and thence by foot along a mountainous trail for a distance of approximately four kilometers.

The National Topographic System code for the claim area is 82G/12E; the latitude is  $49^{\circ}44'N$  and the longitude  $115^{\circ}37.5' E$ . (see Attachment "A")

## CLAIM INFORMATION

The Herb Claim consisting of four units, lies in the Fort Steele Mining Division and is shown on Ministry of Energy Mines and Petroleum Resources Claim Map 82G/12E. The claim forms a square block 1,000 meters by 1,000 meters and was staked under B.C. Reg. 587/77. The claim is owned by Asarco Exploration Company of Canada, Limited, 504 - 535 Thurlow Street, Vancouver, B.C. The record number is 698, dated 6th July 1980.

## GENERAL SETTING

The claim is positioned to the east of the Rocky Mountain Trench and lies astride Precambrian Fort Steele Formation in contact with overlying Aldridge Formation. Laminated siltstone

and dolomitic siltstone with thin-bedded impure quartzite underlie the claim. The structure of the area is relatively simple and is reflected by a major open recumbent anticline which dips westward and is sliced by a series of north trending vertical faults. One east-west crosscutting fault of apparent vertical displacement traverses the claim and also defines a section of Herbert Creek and forms the base of a steep cliff positioned to the north of the Creek. (See Attachment "B")

#### PREVIOUS WORK

The Herb Claim covers the Try Again prospect and the critical area tributary to old workings. The old workings consist of two short adits, the portals of which are positioned side by side. The longer adit (18 meters in length) transects two mineralized fault zones and is driven along a fracture system extending to the south. This fracture system near the portal appears mineralized for a short distance but dies out near the face to the south. The Report of the Minister of Mines, 1899, indicates production of a 9 ton sample that yielded an assay of 22% copper and \$120 in gold.

#### WORK DONE

No less than 8 man work days were spent prospecting on the claim at two separate time intervals between July 7, 1979 and July 5, 1980. As a result of very steep topography and overhanging cliffs, work progress was hampered. Surface prospecting of the claim area for evidence of base metal sulphide was completed. The results of rock geochemistry sampling and mapping is summarized in Attachments "B", "C" and "D".

DISCUSSION OF RESULTS

Near the portal of the principal adit, a zone of brecciation up to one meter wide strikes in a north-easterly direction and dips to the north at 42°. A character chip sample assayed:

		Cu %	WO3%	Ag (oz./ton)
#076	111	4.0	0.16	0.06

A second sample taken along the fracture system from the portal south for a distance of 12.0 meters assayed:


		Cu %	WO3%	Ag (oz./ton)
#076	123-125	3.76	0.02	0.8

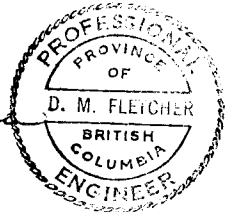
Additional character chip samples taken along the west breast yielded:

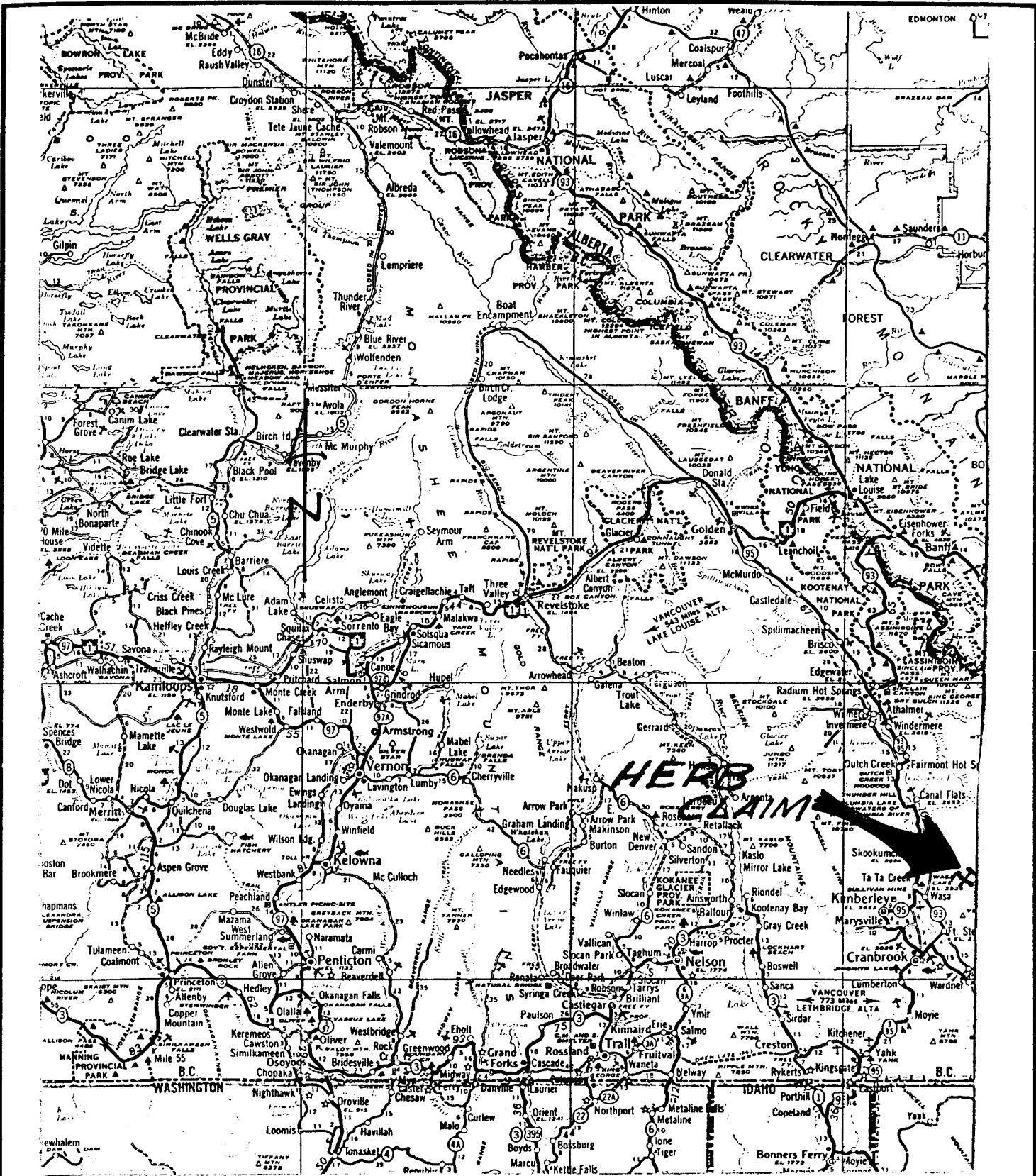
		Cu%	Pb%	Zn%	Ag (oz./ton)
#076163	10 meters	.47	.01	.01	.16
#076162	8 meters	.17	.01	.01	.07

Sample results suggest the sulfides to be distributed along faults and cross-fractures in zones of brecciation replaced by quartz. Prospecting and sampling of rock specimens to seek evidence of additional mineralized zones within the claim did not pin-point any encouraging indications of base metal sulfide.

In this writer's opinion, the chance of locating a large volume, lower grade deposit within the Herb Claim is remote.

  
D. M. Fletcher, P.Eng.

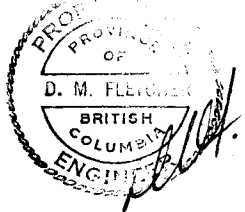




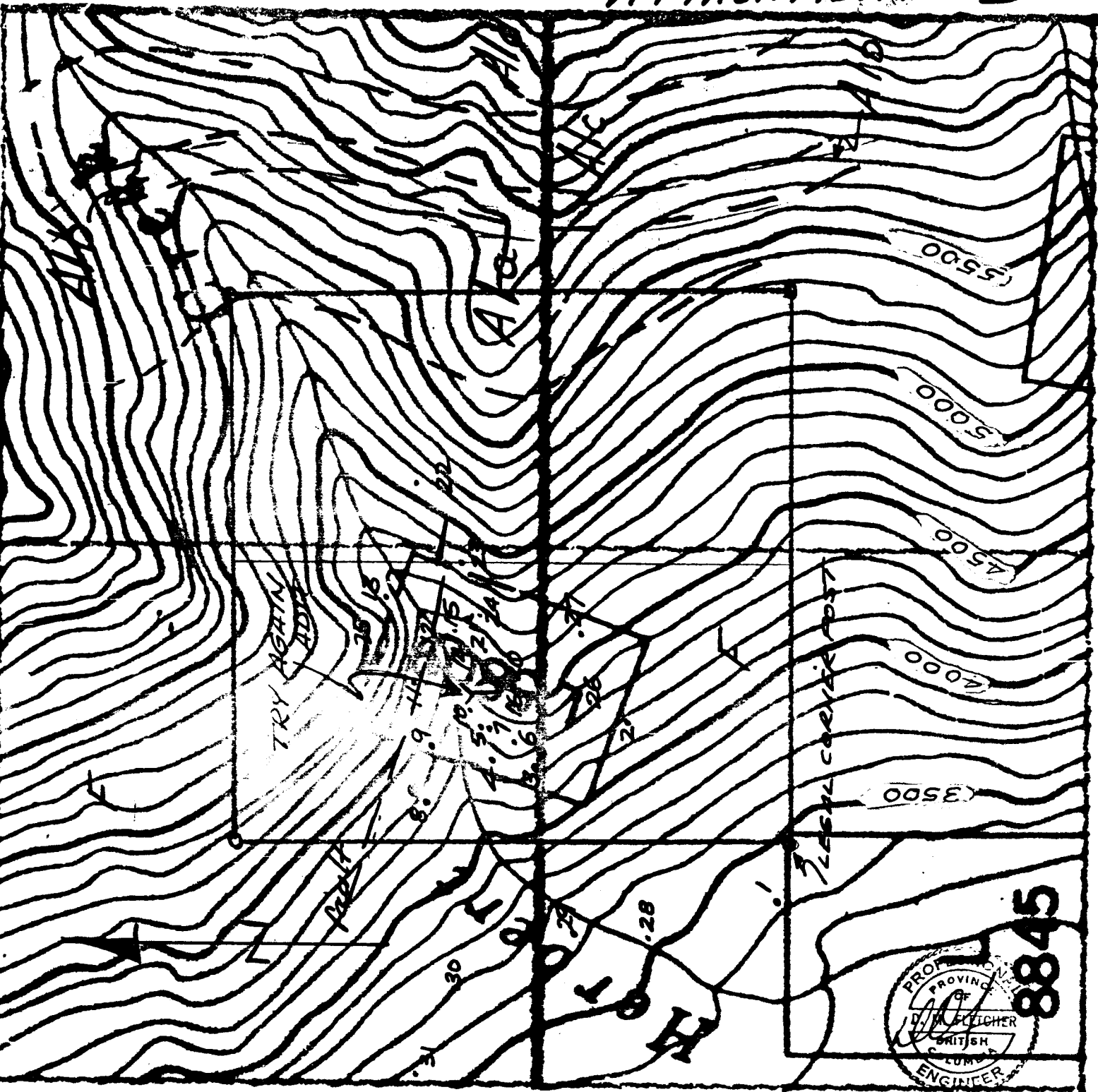
**HERB CLAIM**



<b>ASARCO</b>		Vancouver	
<b>LOCATION MAP</b>			
<b>HERB CLAIM</b>			
Drawn by	Date	N.T.S.	<b>SCALE</b>
DMF	July '80		1:2,400,000



ATTACHMENT "B"



HERB PROPERTY

SCALE 1:10,000

• ROCK GEOCHEM  
1-31

⊗ CLAIM BOUNDARY

~ CONTOUR FEET

A1 ALDRIDGE FM.  
siltstone, argillite

A1a siltstone, argillite

A1b dolomitic siltstone

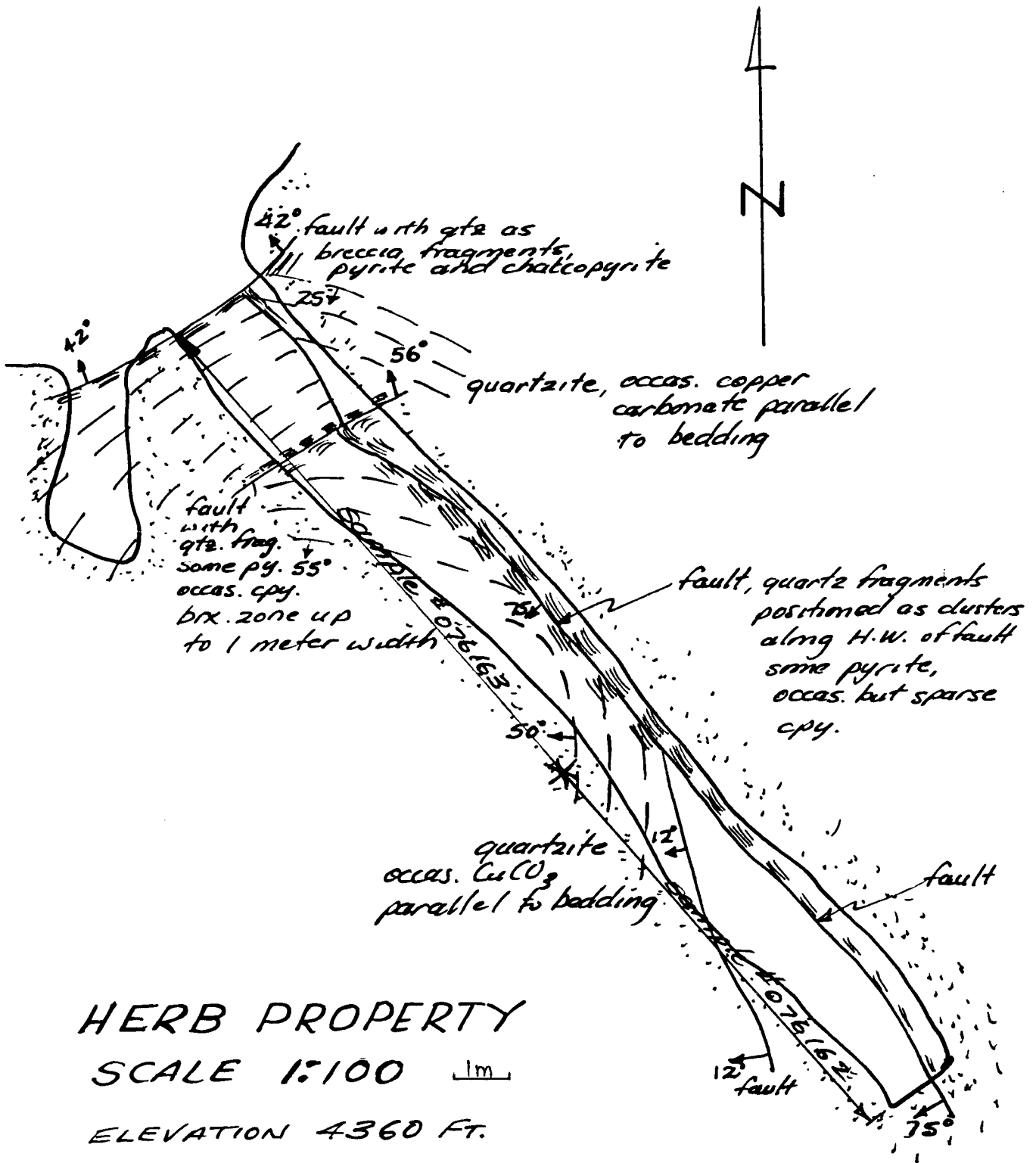
A1c graphitic argillite

A1d light colored siltstone

F FORT STEELE FM.  
siltstone, thin bedded  
quartzite

D.M.F. July '80

# ATTACHMENT "C"



D.M.F. July '80





To: American Smelting & Refining Co.,  
504 - 535 Thurlow Street,  
Vancouver, B. C. V6E 3L2

ACME ANALYTICAL LABORATORIES LTD.  
**ATTACHMENT "D"**  
852 E. Hastings St., Vancouver, B. C. V6A 1R6  
phone: 253 - 3158

File No. 0460

Type of Samples Rocks

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.	Cu	Pb	Ag																		
H-R - 001	2	9	.1																		1
002	3	18	.1																		2
003	6	7	.1																		3
004	12	8	.1																		4
005	43	152	.1																		5
006	4	7	.1																		6
007	9	14	.1																		7
008	17	47	.1																		8
009	13	18	.2																		9
010	10	92	.1																		10
011	14	16	.1																		11
012	24	23	.1																		12
013	13	18	.1																		13
014	158	48	.1																		14
015	15	16	.1																		15
016	470	5	.1																		16
017	660	2	.1																		17
018	1700	38	3.1																		18
019	5100	14	8.2																		19
020	523	12	.2																		20
021	27	6	.1																		21
022	16	6	.2																		22
023	43	62	.1																		23
024	14	4	.1																		24
025	1250	2060	3.7																		25
026	38	37	.1																		26
027	18	11	.1																		27
028	11	18	.1																		28
029	3	15	.1																		29
030	18	12	.1																		30
H-R - 031	10	6	.1																		31
																					32
																					33
																					34
																					35
																					36
																					37
																					38
																					39
																					40



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All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 5, 1979

DATE REPORTS MAILED Sept. 10, 1979

ASSAYER Dean Toy

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



ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

To: American Smelting & Refining Co.

File No. 0252

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Cu%	Au oz/ton	Ag oz/ton	WO <sub>3</sub> %			No.
1	076123	9.92	.001	.17	.02	82 G 12	From main portel	1
2	076124	9.05	.003	2.32	.02	HERD	4 m.	2
3	076125	.32	.001	.04	.02	"	Next 4 m. (in ad. t)	3
4	076126	.06	.001	.01	Trace	"	Next 8 m.	4
5								5
6								6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

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DATE SAMPLES RECEIVED July 16, 1979

DATE REPORTS MAILED July 19, 1979

ASSAYER Dean Toy

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



To: American Smelting & Refining Co.,  
 504 - 535 Thurlow St.,  
 Vancouver, B.C.  
 V6E 3L2

**ATTACHMENT "D"**  
 ACME ANALYTICAL LABORATORIES LTD.  
 Assaying & Trace Analysis  
 852 E. Hastings St., Vancouver, B.C. V6A 1R6  
 Telephone: 253 - 3158

File No. 80-402

Type of Samples Rock

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Cu%	Pb%	Zn%	Ag oz/ton			No.
1	76162	.17	.01	.01	.07			1
2	76163	.47	.01	.01	.16			2
3								3
4								4
5								5
6								6
7								7
8								8
9								9
10								10
11								11
12								12
13	<i>HERB CLAIMS</i>							13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

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DATE SAMPLES RECEIVED June 17, 1980

DATE REPORTS MAILED June 20, 1980

ASSAYER \_\_\_\_\_

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

EXPENDITURES

1. Eight-man Work Days, Prospecting, Sampling and Mapping	
8 man days at \$50.00 per day	\$ 400.00
2. Sampling Costs, includes travel, accommodation, transportation, etc.	
8 man days at \$35.00 per day	280.00
3. Geochemical Costs	
35 samples at \$5.00 per sample	170.00
	<hr/>
Total	\$ 850.00
	<hr/> <hr/>



CERTIFICATE

I, David McLean Fletcher, DO HEREBY  
CERTIFY:

- that I am a Geological Engineer  
employed with Asarco Exploration Company of Canada  
Limited, 504 - 535 Thurlow Street, Vancouver, B.C.  
V6E 3C2.

- that I am a graduate of the  
University of British Columbia 1956, with a B.Ap.Sc.  
degree.

- that I am a registered Professional  
Engineer in the Association in British Columbia and  
Ontario.

- that I have practiced my profession  
for 24 years.

Dated at Vancouver, this 9th day of July 1980.

  
\_\_\_\_\_  
D. M. Fletcher, P. Eng.

