

ROBERT STEINER, B.A., PROFESSIONAL GEOLOGIST

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LOG NO: 1230	RD.
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MINISTRY OF ENERGY, MINES
AND PETROLEUM RESOURCES

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SUBJECT: _____
FILE _____
VANCOUVER, B.C.

Diamond Drilling Report
Hit and Mark Claims
Kamloops Mining Division

SUBMITTER
RECEIVED

NOV 3 1988

Date Amendment Rec. in

M.P. # _____ \$ _____
VANCOUVER, B.C.

29 November 1988

Location: At the southeast end of Taweel Lake and the headwaters of Lemieux Creek
latitude 51:37.5°N; longitude 120:17°W

Assays By: General Testing Laboratories

Report By: Robert Steiner, P.Geol.

Claim Owner: Philip Lieberman

Date of Work: Began October 10, 1988, and is on-going.

LOG NO: 1109	RD. 4
ACTION: Date Amend. Rec. in	
FILE NO:	

LOG NO: 0314	RD. 2
ACTION: Date received back from amendment	
FILE NO:	

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

18,219



TYPE OF REPORT/SURVEY(S) <i>Geological (diamond drilling)</i>	TOTAL COST
--	------------

AUTHOR(S) *Robert STEINER, P. Geol.* SIGNATURE(S) *Robert Steiner*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED *1 Dec 88* YEAR OF WORK

PROPERTY NAME(S) *HIT & MARK CLAIMS*

COMMODITIES PRESENT *As, Cu, Au, Ag, Co, Fe, S*

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN *92P-18*

MINING DIVISION *KAMLOOPS* NTS *92P 9W*

LATITUDE *50° 47' N* *51° 37' 5"* LONGITUDE *120° 55' W* *17'* *TR*

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property (Examples: TAX 14, FIRE 2 (12 units), PHOENIX (Lot 1706), Mineral Lease M 123, Mining or Cartilage Mining Lease ML 12 (claims involved)):

HIT #1, MARK #1

OWNER(S)
(1) *Philip Lieberman* (2)

MAILING ADDRESS
5070 Ash St Vancouver, B.C. V5Z 3G4

OPERATOR(S) (that is, Company paying for the work)
(1) *as above* (2)

MAILING ADDRESS
as above

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Argillaceous breccia in regional fault at SE end of Tuxee Lake, and along Lemieux Creek, about 10 miles NE of Little Fort, B.C.

Tipper, H.W., G.S.C. P.T.I., pp 82-86

REFERENCES TO PREVIOUS WORK *Bonaparte Lake Map Area, Campbell, R.B. &*

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST ESTIMATED
GEOLOGICAL (scale, area)			
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core	816.M, A.P. wireline	HIT & Mark	
Non-core			
RELATED TECHNICAL			
Sampling/assaying	(General Testing)		
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)	3.K		
Trench (metres)	4. Trenches, each about 10 metres long		
Underground (metres)			
			TOTAL COST

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date	Rept. No.			Information Class

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Preliminary Report
on the
Hit and Mark Claims
Kamloops Mining Division
29 November 1988

Abstract

The area being prospected by diamond drilling is on the west side of the North Thompson River. This geological unit, apparently consisting predominantly of volcanics, has therefore not been considered as good a geological bet as the east side of the North Thompson River. The east side borders the Adams Plateau, which, having been "rediscovered" as a well-mineralized region, (Rea Gold, etc.), is now a good geological bet. And, in between the Thompson and Adams Lake (bordering the west side of the Adams Plateau), is the western range of the Shuswap Highland. This range hosts gold, silver and lead deposits, as at the Whiterock Group, near Barriere, and the Windpass-Gold Hill mine near Chu Chua.

Falconbridge Nickel Mines Limited explored an area east of the Hit/Mark claims. Molybdenum was found in pegmatites and quartz veins intruding a small granite stock. The stock is near Tintihotan Lake, about two miles south of the east end of Tawee! Lake. (Minster of Mines, B.C., Annual Report 1961, pp. 49-51) By 1966 molybdenum exploration/production in this part of B.C. became passe.

Anaconda American Brass Limited carried out a geochemical survey near Friendly Lake. This work, done in 1966, attempted to outline the extent of sulfide mineralization, visible in outcrops over a very large area. The survey was inconclusive and the area subsequently abandoned. Friendly Lake is about eight miles west of the report area.

There are a number of gold-sulfide mineral locations near the report area. The Little Fort, Lakeview, Silver Lake and Lemieux Creek properties all had some gold content along with molybdenum, copper, lead, zinc and silver sulfides.

Work on all the above noted properties ceased by 1967. Gold was \$35/oz., silver 72¢/oz., copper 45¢/lb., zinc 3¢/lb. and lead 9¢/lb. There was therefore no reason for further exploration and development.

And most of these properties were relegated to the category of "lost mines".

Introduction

The writer first examined the report area in 1954. At that time he was employed as surface geologist by Rexspar Uranium Mines, Birch Island, B.C. Prospecting was carried out along both sides of the Lemieux Creek Valley. This work was done over an area 4,000 feet by 10,000 feet to determine the possible uranium content of the bed-rock. Although some radio-activity was detected the uranium content was too low to warrant further exploration.

The writer returned to the same area, in 1988, to initiate a diamond drilling program. This time exploration is for gold, at about \$420 U.S. per ounce.

The geology of the area is described in: "Bonaparte Lake Map Area", Campbell, R.B. and Tipper, H.W., G.S.C., 1971, pp. 82-86.

Drilling Program

Three AQ wire line diamond drill holes have been drilled to date. Two of those holes have been logged and assayed.

A number of outcrops, previously trenched in 1954, were sampled. Assays are enclosed.

Due to weather conditions no mapping could be carried out. The locations of the three holes are therefore approximate.

Costs:

Diamond Drilling, two holes, total 159 feet, (48.5 m.) @ \$28/foot	\$ 4,452
Mob/Demob	2,688
Cat Rental, D8, 5 hours @ \$112/hr	560
Supervision	<u>300</u>
	\$ 8,000

1' = 0.305 m

Diamond Drilling Log

2 October 1988 - Hit Claim, south end of Taweel Lake
DD#1, Dip -70°N.

- 0-16' Overburden and broken rock. Argillaceous breccia, sparse mineralization, minor quartz veins.
- 16-17' Small quartz veins in argillite at 45° to core, 18' minor quartz veins with sparse arsenopyrite and pyrrhotite - argillite breccia.
- 17-23' Argillite breccia at 45° to core, sparse mineralization, minor veins. 35 - quartz vein cuts argillite at 45° to argillite strike dip and later quartz vein cuts both - slight parallel zoning some pyrrhotite.
- 23-44' 36 - 1/4" pyrrhotite - arsenopyrite vein at 45° to core. 38 - breccia healed by pyrrhotite arsenopyrite - patches and blebs.
- 44-55' Argillite breccia inclusions in heavy sulfides - pyrrhotite-argillite-arsenopyrite contacts pyrrhotite at 45° to core and argillite at 90° Azimuth to sulfides - some quartz carbonate (carbonatites), sulfide contact abrupt and distinct. Lost all but 6" of sulfides collected black sludge.

Samples : 0 - 20
 20 - 32
 32 - 44
 44 - 55

7 November 1988 - DD#1 - Hit Claim

- 55-81' Argillite breccia - fragments angular - 5mm to 300mm arsenopyrite mineralization in patches, blebs and streaks. Breccia is healed fault with fragments cemented by arsenopyrite fragments at 45° to core.
64-65 minor quartz veins with sparse arsenopyrite.

16 November 1988 - DD#2 Hit Claim, Dip -70°C

- 0-32' Overburden
- 32-35' Green dyke
- 35-50' Black argillite. Arsenopyrite veins at 45° to 0° to core - patches and blebs 1-3 cm. Veins 0.5mm to 2mm, argillite appears to be healed breccia - fragments up to 5 cm - some argillite is fault breccia - faulting 70° to core.

16 November 1988, cont'd.

50-53 ✓ Quartz vein - intruded into argillite (argillite fragments in vein) - at 45° to core.

53-78 ✓ Argillite breccia well mineralized by arsenopyrite at 0° to core and at up to 70° to core - arsenopyrite has healed breccia.

Samples : 35 - 42
42 - 59 (1)) one sample split into 2 sections
42 - 59 (2)) upper 42-50, lower 50-59
59 - 72 (1) & (2) one sample, upper 59-65,
lower 65-72

27 December 1988 - Hit and Mark Claim KPMD - DD#3

0-34 ✓ Overburden

34-113 ✓ Argillite breccia - fragments from less than 1mm to 20cm, cemented by arsenopyrite - occasional quartz carbonate veins from 1mm to 10mm thick, at varying angles, from 0° to 45° to core. Fragment orientation about 45° to core. Most fragments lighter color (grey) and arenaceous vs. silty (phyllite?) of dominant black argillite. Arsenopyrite very fine grained. Occasional very small specks of free gold.

Sampled lithologically:

34 - 64
64 - 74
74 - 84
84 - 90
90 - 98
98 - 100
100 - 110
110 - 113

LOCATION MAP



Ministry of Energy

Data compiled from published and unpublished reports.

Accuracy of location:

- known within a radius of 1,000 feet
- ▲ 1,000 feet to 2 miles
- not known within 2 miles

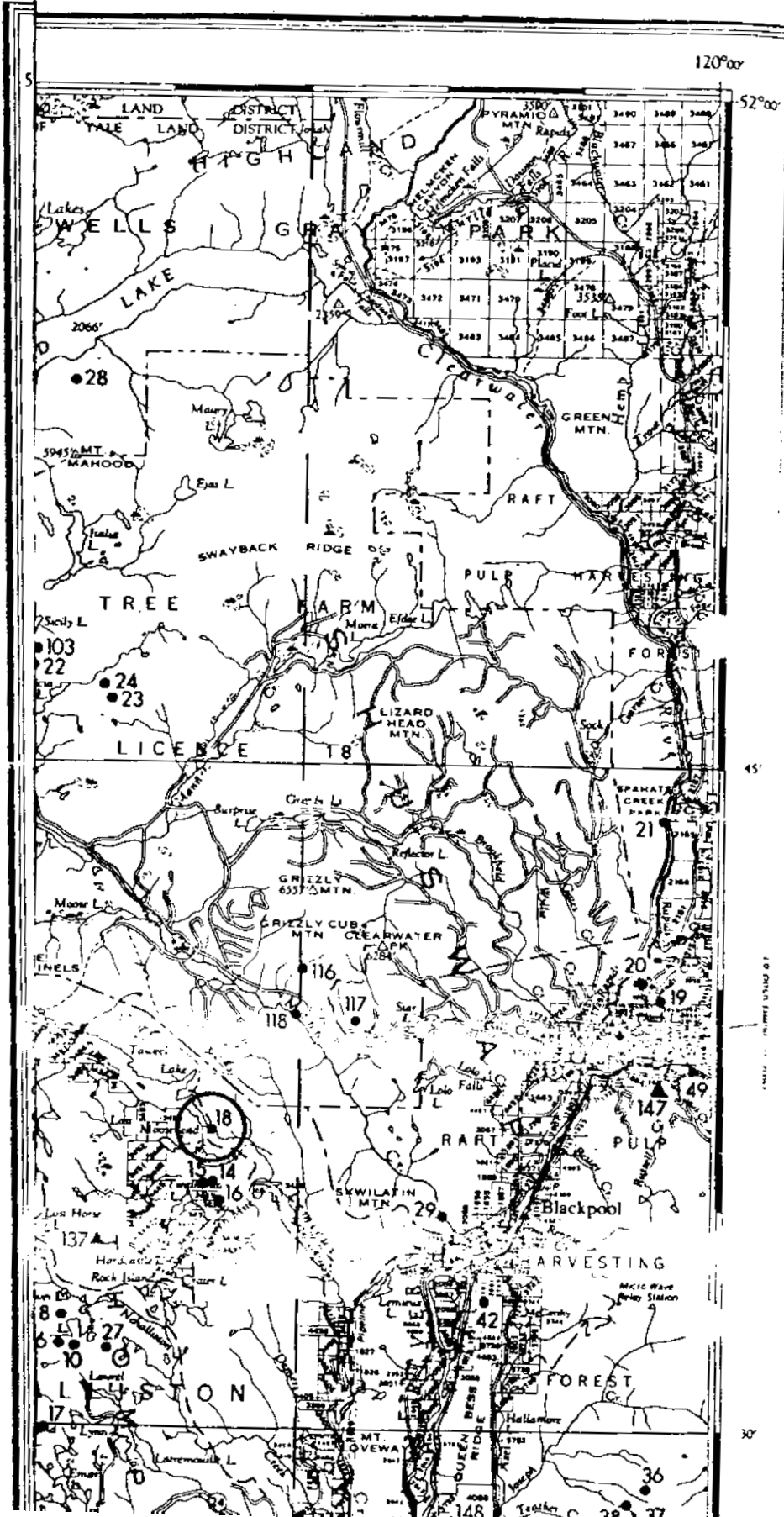
Location and name subject to revision. Data known to be incomplete.

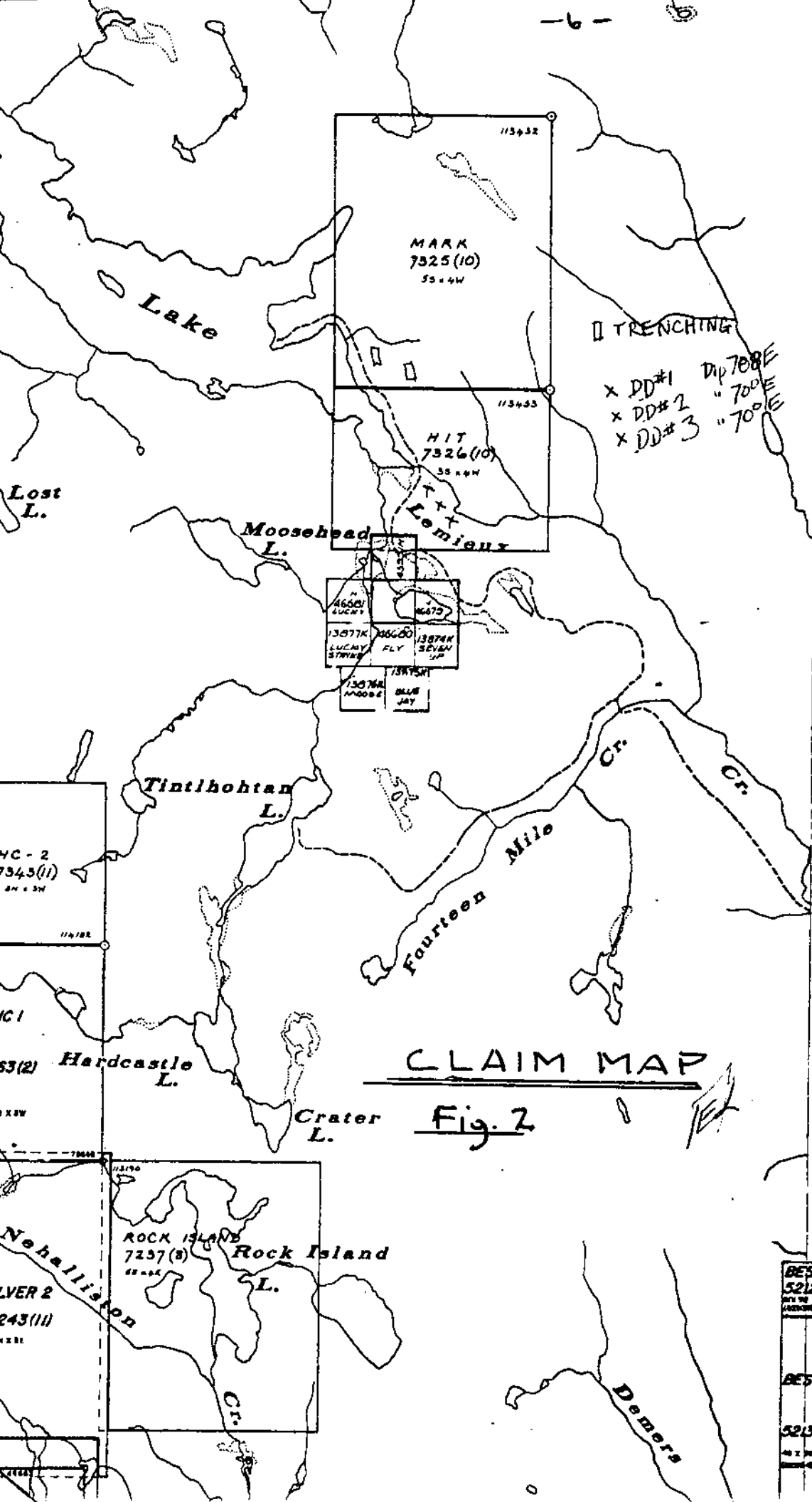
Copies of this map may be obtained for \$1.00 per sheet. Orders for maps should specify the map sheet number and letter. Orders should be addressed, with prepayment, to the

Department of Mines and Petroleum Resources,
Victoria, B. C. V8X 1S4

Mineral inventory cards containing specific information on each of the following mineral occurrences are available for viewing on open file according to the map number. Contact the Resource Data Section, Geological Division, Victoria.

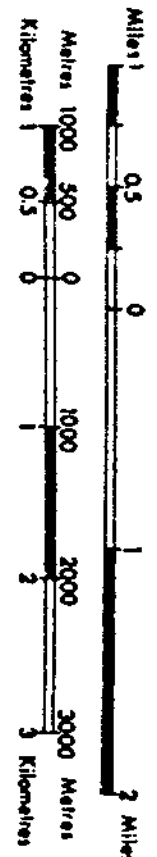
NO.	NAME	PRODUCT (S)
1	SS 8	Cu
2	PEACH 65	Cu, Fe
3	TIM	Cu
4	SS 10	Cu
5	BD, VB, (DANSEY - RAYFIELD R.)	Cu
6	BO	Ag, Pb, Cu, Mo
7	SO (BOG)	Cu
8	SILVER	Cu, Zn, Au
9	PC	Cu
10	LAKEVIEW (UNITED, TC)	Cu, Au
11	EC 40	Cu, Pb, Mo ?
12	EC 95	Fe
13	HIDDEN CREEK	Au, Ag, Cu
14	ANTICLIMAX A (MO)	Mo, W
15	ANTICLIMAX B (MO)	Mo, Fl
16	ANTICLIMAX C (MO)	Mo
17	JAN	Cu
18	LEMEUX CREEK (ACE)	Ag, Pb, Cu
19	EMPIRE - BLUEBIRD	Pb, Zn
20	SANDS CREEK	Mo
21	POLLY ANN	Mo
22	NOD	Mo
23	AKU A	Mo
24	AKU B	Mo
25	CL	Mo
26	SL	Mo
27	RED (METR)	Fe, Cu
28	MAHOOD LAKE	Au, Ag, Cu
29	MANN CREEK (X)	Cu, Pb, Ag
30	C - SOO	Cu, Mo
31	BD 35-38 (DS, POT)	Cu
32	MAC, STAN, SKULL	Cu, Mo
33	WD (FF, YEP)	Pb, Cu, Zn
34	PEACH 2	Cu, Fe
35	PIT (PEACH 3)	Cu
36	JUDY 4 (SS 19)	Mo
37	JUDY 11 (SS 12)	Mo, Cl, Fe
38	LINE (SS 5)	Mo
39	WINDPASS	Au, Cu, Bi, Fe, Ag
40	SWEET HOME	Au, Cu, Bi
41	GOLD MILL	Au, Pb, Cu, Zn
42	QUEEN BESS	Pb, Zn, Ag
43	ALLIES	Pb, Cu
44	FORTUNA	Au, Ag, Pb, Cu, Pt, Ni
45	SKOOKUM	Cu
46	PLATO	?
47	WASH - SHAW	Cu
48	GH	Cu
49	TEACHER	Ag, Pb, Zn, Au, Cu





SEE MAP 92P/19
 LEGAL CORNER POST & TAG NUMBER 97343

- LEGEND
- CROWN GRANTED MINERAL CLAIM
 - REVERTED C.O. MINERAL CLAIM
 - FORFEITED MINERAL CLAIM
 - VERIFIED LEGAL CORNER POST
 - LEGAL SURVEY



Province of British Columbia
 Ministry of Energy, Mines and Petroleum Resources



BEST 1
 5212 02

BEST 2

5213 02

UNLESS VERIFIED OR
 LEGAL CORNER POST
 FOR FURTHER INFORMATION,
 MINING DIVISION
 DATE OF MICROFILM

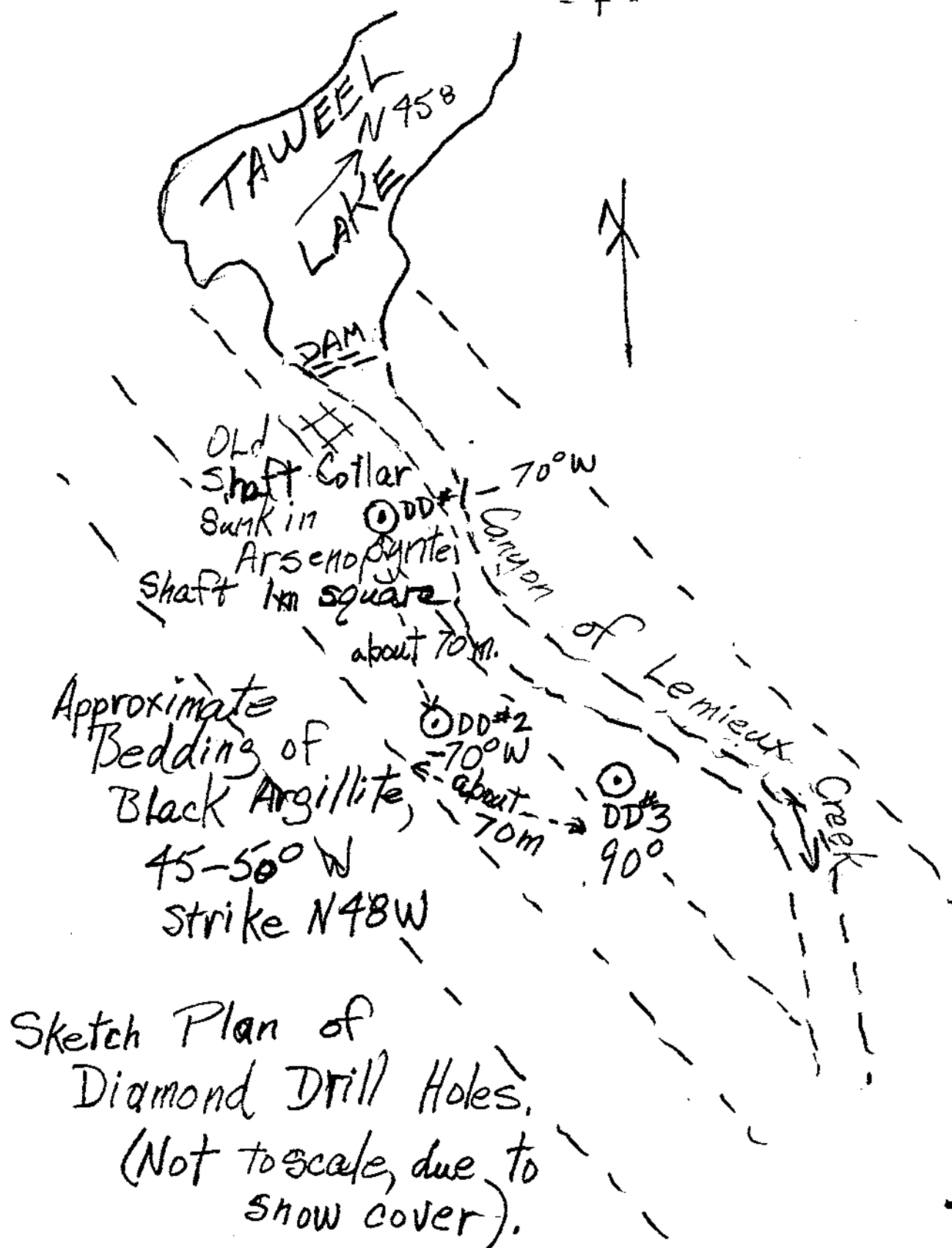


Fig. 3



Robert Steiner, P. Geol.

CERTIFICATE OF ASSAY

Date: September 16, 1988

File: 8809-0956



SGS SUPERVISION SERVICES INC.
 General Testing Laboratories Division
 1001 East Pender Street,
 Vancouver, B.C., Canada. V6A 1W2
 Telephone: (604) 254-1647
 Telex: 04-507514

TO: PEPPA- RESOURCES
 555 West 57th Avenue
 Vancouver, B.C.
 V7P 1R8

Auth: Mr Liberman

We hereby certify that the following are the results of assays on: **Ore**

MARKED	GOLD	SILVER	Platinum	Palladium	Copper	Lead	Zinc	Nickel
	oz/st	oz/st	Pt (oz/st)	Pd(oz/st)	Cu (%)	Pb (%)	Zn (%)	Ni (%)
Shaft 100	0.616	0.60	L 0.001	L 0.001	0.065	0.004	0.004	0.009
200-NS	0.634	0.55	L 0.001	L 0.001	0.044	0.007	0.055	0.007
500 E	0.304	0.89	L 0.001	L 0.001	0.041	0.003	0.005	0.006
600 S	0.802	0.38	L 0.001	L 0.001	0.091	0.004	0.003	0.009
	Cobalt							
	Co (%)							
Shaft 100	0.020							
200-NS	0.022							
500 E	0.012							
600 S	0.017							

NOTE: REJECTS RETAINED ONE MONTH - PULPS RETAINED THREE MONTHS. ON REQUEST PULPS AND REJECTS WILL BE STORED FOR A MAXIMUM OF ONE YEAR.

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L. Wong

PROVINCIAL ASSAYER

- 9 -
CERTIFICATE OF ASSAY

Date: October 6, 1988

File: 8810-0453



SGS SUPERVISION SERVICES INC.

General Testing Laboratories Division

1001 East Pender Street,
 Vancouver, B.C., Canada V6A 1W2
 Telephone: (604) 254-1647
 Telex 04-507514

TO: MR. P. LIEBERMAN
 555 West 57th Avenue
 Vancouver, B.C.
 V7P 1R8

We hereby certify that the following are the results of assays on: submitted DDH and Sludge samples

MARKED	GOLD	SILVER	XX			
	oz/st	oz/st				
<u>KAMLOOPS PROPERTY</u>						
<u>HIT #1</u> <u>DDH #1</u>						
0-20	0.004	0.10				
20-32	0.014	0.08				
32-44	0.004	0.21				
44-50	0.148	0.48				
Sludge	0.034	0.23				

C O P Y

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B. Pepper
 B. Pepper

PROVINCIAL ASSAYER

Analytical and Consulting Chemists, Bulk Cargo Specialists, Surveyors, Inspectors, Samplers, Weighers

MEMBER American Society For Testing Materials • The American Oil Chemists Society • Canadian Testing Association
 REFEREE AND/OR OFFICIAL CHEMISTS FOR National Institute of Oilseed Products • The American Oil Chemists Society

CERTIFICATE OF ASSAY

Date: November 10, 1988

File: 8811-0856



SGS SUPERVISION SERVICES INC.

General Testing Laboratories Division

1001 East Pender Street,
Vancouver, B.C., Canada. V6A 1W2
Telephone: (604) 254-1647
Telex: 04-507514

TO: PEPPA RESOURCES LTD.
(Attn: Mr. P. Lieberman)
535A West 57th Avenue
Vancouver, B.C.
V7P 1R8

We hereby certify that the following are the results of assays on: **DDH samples**

MARKED	GOLD	SILVER	Copper	Zinc	Nickel	XXXXXXXXXX	XXXXXXXXXX
	oz/st	oz/st	Cu (%)	Zn (%)	Ni (%)		
Drill Cores							
<u>Hit #1, DD#1</u>							
55-60	0.012	0.14	0.009	0.027	0.003		
60-68	0.010	0.10	0.007	0.016	0.002		
68-81	0.016	0.15	0.008	0.010	0.002		

* Samples were screened for metallics, metallics and pulps were assayed separately. Final gold and silver results are calculated as indicated.

NOTE: REJECTS RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS. ON REQUEST PULPS AND REJECTS WILL BE STORED FOR A MAXIMUM OF ONE YEAR.

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L. Wong

PROVINCIAL ASSAYER

Analytical and Consulting Chemists, Bulk Cargo Specialists, Surveyors, Inspectors, Samplers, Weighers

MEMBER: American Society For Testing Materials • The American Oil Chemists Society • Canadian Testing Association
REFEREE AND/OR OFFICIAL CHEMISTS FOR: National Institute of Oilseed Products • The American Oil Chemists' Society
OFFICIAL WEIGHMASTERS FOR: Vancouver Board Of

CERTIFICATE OF ASSAY

Date: November 18, 1988

File: 8811-1750 (A)



SGS SUPERVISION SERVICES INC.

General Testing Laboratories Division

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Vancouver, B.C., Canada V6A 1W2
Telephone: (604) 254-1647
Telex: 04-507514

TO: PEPPA RESOURCES LTD.
(Attn: Mr. P. Lieberman)
535A West 57th Avenue
Vancouver, B.C.
V7P 1R8

* We hereby certify that the following are the results of assays on: **DDH samples**

MARKED	GOLD	SILVER	XX			
	oz/st	oz/st				
<u>HIT #1 DD #2</u>						
35-42	0.005	0.20				
42-59 (1)	0.006	0.10				
42-59 (2)	0.004	0.10				
42-78 (1)	0.005	0.15				
42-78 (2)	0.004	0.10				

* Samples were screened for metallics, metallics and pulps are assayed separately. Final gold and silver results are as indicated.

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L. Wong
PROVINCIAL ASSAYER

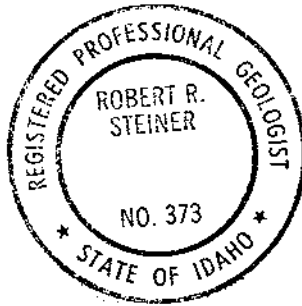
Analytical and Consulting Chemists, Bulk Cargo Specialists, Surveyors, Inspectors, Samplers, Weighers

MEMBER American Society For Testing Materials • The American Oil Chemists Society • Canadian Testing Association
PROFESSIONAL CHEMISTS FOR National Institute of Organic Products • The American Oil Chemists Society

Declaration

I solemnly declare that the diamond drilling report, (core log), and costs 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 1 day of *December*, 1988 A.D.



Robert Steiner

SUB-RECORDER RECEIVED
DEC - 1 1988
M.R. # S.
VANCOUVER, B.C.

ROBERT STEINER, B.A., PROFESSIONAL GEOLOGIST

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943-3987

FIELD OFFICE:
BOX 553
BLAIRMORE, ALBERTA
T0X 0E0

CERTIFICATE

I, Robert Steiner, residing at 371 - 56th Street, Delta, B.C. V4L 1Z4, certify that:

I am a 1950 graduate of the University of British Columbia, graduated with a B.A. Degree in Geology.

I was awarded on February 10, 1983, Life Membership in the Association of Professional Engineers, Geologists and Geophysicists of Alberta, after twenty-eight years of service as a Professional Geologist.

I am registered as a Professional Geologist, State of Idaho, U.S.A.

I have practiced as a Consulting Geologist since 1957, specializing in placer geology.

I have no financial interest, nor do I expect to receive any, in the property herein reported, Hit and Mark Claims.

I do not express any guarantee or warranty. The report is based on facts resulting from personal investigations, and that opinions expressed are my own, unless otherwise noted.

DATED at the City of Vancouver, in the Province of British Columbia this 30 day of November, 19 88.



Robert Steiner