

5117

93A/6W

REPORT  
ON  
PERCUSSION DRILLING PROGRAM

FLY NO. 1 GROUP  
by  
M.R. Hegge  
August 22, 1974

#5117

93A/6W

CLAIMS: Fly Mineral Claims 1-40 (inclusive)  
LOCATION: One and one-half miles south of the west end of Horsefly Lake  
Cariboo Mining Division  
Horsefly, B.C.  
Latitude 52° 20'N Longitude 121° 16'W  
DATES: June 14 to 22, 1974

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5117 MAP.....

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### APPENDIX

- I Invoices of Costs Incurred for Percussion Drilling and Analyses.
- II Outline of Analytical Procedure, Vancouver Geochemical Laboratories Ltd.
- III Percussion Drill Logs
- IV Certification

## LIST OF ILLUSTRATIONS

<u>DRAWING</u>	<u>TITLE</u>	<u>SCALE</u>	
74 LL-1 #1	Location Map	1"=4 miles	5
74 LL-2 #2	Plan of Claims and Percussion Drilling	1"=400'	In pocket

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.

To Wit:

In the Matter of Recording Assessment Work  
on the Fly No. 1 Group (Fly No's. 1-40 mineral  
claims), Cariboo Mining Division, British  
Columbia.

I, M.R. Hegge

of P.O. Box 305, Fort Langley, B.C.

in the Province of British Columbia, do solemnly declare that during the period June 14th to 22nd, 1974, that the following assessment work was conducted on the Fly No. 1 Group:

2,200 feet of percussion drilling at \$2.75 per foot	\$6,050.00
207 geochemical analyses at \$3.80 per sample	786.60
Logging and report preparation	<u>1,400.00</u>
Total	\$8,236.60

or 41 years of assessable work

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 29th  
day of August, 1974, A.D.

*M. R. Hegge*

*Jean Paul* SUB-MINING RECORDER  
A Commissioner for taking Affidavits for British Columbia or  
A Notary Public in and for the Province of British Columbia.

STATEMENT OF COSTS INCURRED1 Percussion Drilling

Percussion drilling was contracted to H.N. Horning Percussion Drilling Ltd.,  
c/o Rudd, Gould & Elliott, #200 - 186 Victoria Street, Kamloops, B.C.  
(See Appendix 1).

Costs of drilling performed on the Fly No. 1 Group are as follows:

11 - 200 foot holes (74 L-1 to 74 L-11 on plan; H-4 to H-14 on invoice) at \$2.75 per foot	\$6,050.00
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11 Geochemical Analyses

Geochemical sample preparation and analyses was conducted by  
Vancouver Geochemical Laboratories, 1521 Pemberton Avenue,  
North Vancouver, B.C.

Costs of analyses on percussion drill samples from the Fly No. 1  
Group are as follows:

207 samples at \$3.80 per sample	786.60
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111 Planning and Report Preparation

The drilling program layout, spotting, drill cutting logging,  
interpretation, and reporting was conducted by the author.

Costs, including room and board, are as follows:

Spotting, logging, reporting:

11 days at \$100 per day	1,100.00
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Drafting of maps:

2 days at \$50 per day	100.00
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Typing of logs and report:

5 days at \$40 per day	<u>200.00</u>
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	<u>\$8,236.60</u>
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IV List of Personnel

<u>Name</u>	<u>Position</u>	<u>Days on Project</u>	<u>Rate (includes Room &amp; Board)</u>
M.R. Hegge, P.Eng.	Geologist	June 1,2,3,10,14,22,23, 24, July 15,16; Aug. 22	\$100/day
J. Bennett	Draftsman	July 15,16	\$50/day
D. Leigh	Typist	July 15,16; Aug. 20,21,22	\$40/day
H.N. Horning	Driller	June 14,15,16,17,18,19,20, 21,22	Contractor
R. Horning	Driller's Helper	June 14,15,16,17,18,19,20, 21,22	Contractor

LIST OF CLAIMS AND DISTRIBUTION OF WORKFLY NO. 1 GROUP

<u>Claim No.</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Years of Work Applied</u>
Fly No. 1	54315	November 3	2
2	16	November 3	1
3	17	November 3	1
4	18	November 3	1
5	19	November 3	1
6	20	November 3	1
7	21	November 3	1
8	22	November 3	1
9	54744	November 17	1
10	45	November 17	1
11	46	November 17	1
12	47	November 17	1
13	48	November 17	1
14	49	November 17	1
15	50	November 17	1
16	51	November 17	1
17	52	November 17	1
18	53	November 17	1
19	54	November 17	1
20	55	November 17	1
21	56	November 17	1
22	57	November 17	1
23	58	November 17	1
24	59	November 18	1
25	60	November 18	1
26	61	November 18	1
27	62	November 18	1
28	63	November 18	1
29	64	November 18	1
30	65	November 18	1
31	66	November 18	1
32	67	November 18	1
33	68	November 18	1
34	69	November 18	1
35	70	November 18	1
36	71	November 18	1
37	72	November 18	1
38	73	November 18	1
39	74	November 18	1
Fly No. 40	54775	November 18	1
Total			<u>41 years</u>

## INTRODUCTION:

### General Statement

The Fly No. 1 Group is comprised of the Fly No's. 1-40 mineral claims. The claims are owned by C.V. Critchlow, SS #2, Dow & Thompson, Prince George, B.C. and are operated by Hudson's Bay Oil and Gas Company Limited on an option to lease agreement. Copper showings on the property have been known and tested since the mid-1960's. Exploration work in 1974 consisted of a percussion drill program and conducted under the general supervision of M.R. Hegge, P.Eng.

### Location

The property is located at Latitude 52°20'N, Longitude 121°16'W, about 40 miles east-northeast of Williams Lake, B.C. The claims are centred one and one-half miles south of the west end of Horsefly Lake; they are bounded to the east by Black Mountain and to the southwest by Sucker Lake. (Dwg. 74 LL-1)

### Access

Access is via five miles of secondary gravel road from the community of Horsefly to Gibbons Creek, then by three miles of four-wheel drive road to the test area. The property can be traversed easily by foot.

### Physiography

The claims are situated in moderately rolling terrain on the west flank of Black Mountain. Altitudes range from 2800' to 3500' above sea level.

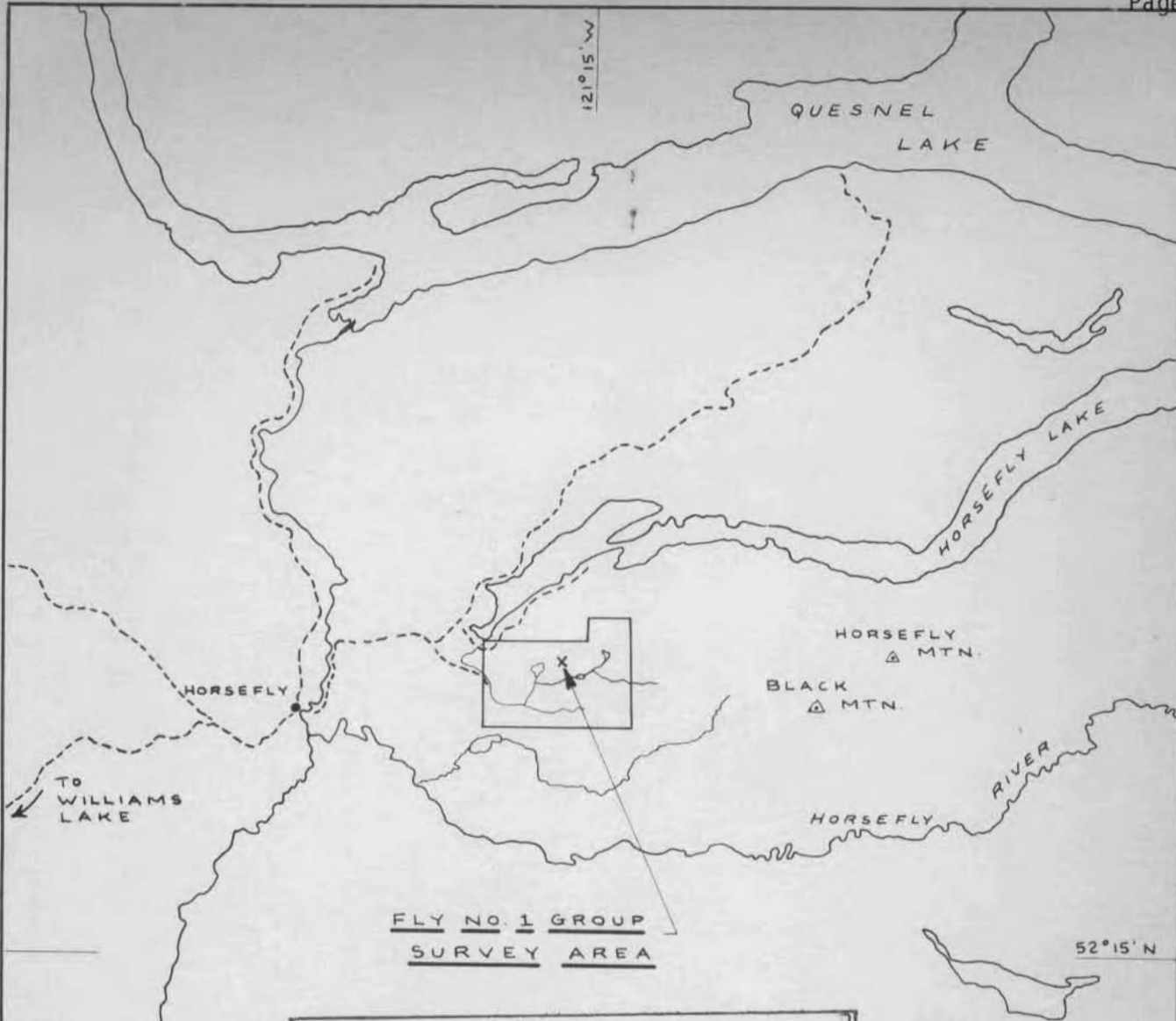
The area exhibits erosional and depositional features of continental glaciation which moved in a general northwesterly direction. Overburden depths range up to 20 feet. Outcrop is scarce and limited to ridge tops or deeply-incised creek valleys. Prominent flow direction of drainage is southwesterly.

Vegetation is moderate to light and consists of open stands of spruce, birch, poplar, fir and pine. Undergrowth is thick in areas of poor drainage.

## PERCUSSION DRILLING PROGRAM:

### Survey Control

A grid system of cut and blazed lines had been previously established for survey control. (Dwg. 74 LL-2). Drill hole locations were spotted by means of tape and compass traverses from stations on the grid system.



Department of  
 Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
 NO. **5117** MAP **#1**

**Hudson's Bay Oil and Gas Company Limited**  
 MINERALS EXPLORATION  
 VANCOUVER BRITISH COLUMBIA

LOCATION MAP  
**FLY NO. 1 GROUP**  
 (FLY NO. 1-40 CLAIMS)  
 CARIBOO MINING DIVISION  
 BRITISH COLUMBIA



MAP 74LL-1	DATE JULY, 1974	BY MRH	SCALE 1"=4 miles	N.T.S. 93A/6w
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Elevation control consisted of conducting similar traverses from levels of known elevations. Completed drill locations were marked by a post placed in the percussion drill site hole.

#### Equipment and Sampling Procedure

Equipment utilized by H.N. Horning Percussion Drilling Ltd. consisted of a truck-mounted, compressed air percussion drill with a two-inch bore. Water was used as a cooling medium during drilling. Drill sites had been previously cleared by a D-7 bulldozer under rental agreement from P. Augustine of Horsefly, B.C.

Samples of drill cuttings were collected for each ten foot run by means of a classifier which separated one-eighth of the total cuttings for each run. The samples were placed in marked, plastic bags and allowed to settle until the majority of the fines were no longer visible. The excess water was decanted and a representative sample of the cuttings obtained for logging purposes before packaging was completed for delivery to the analytical laboratory.

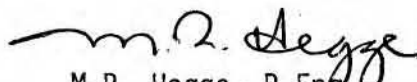
#### Analysis

The percussion drill cuttings samples were analyzed by atomic absorption methods at Vancouver Geochemical Laboratories under the supervision of E. Agarwal, Chemist, Provincial Assayer. Samples were tested for content of copper, molybdenum, zinc, lead, and silver. The sample preparation and analytical procedure is given in Appendix 11.

#### Logging and Interpretation

Drill cuttings were logged by use of a binocular microscope for more effective lithologic and alteration identification. Each ten-foot sample was examined and reported. Logging was conducted by M.R. Hegge, P.Eng. (See Appendix 1V).

Results were compiled on forms along with obtained metal values. (See Appendix 111). A summarized analysis of the data indicates that fair to moderate copper mineralization is associated with a potassium feldspar altered biotite monzonite which erratically intrudes syenodiorite in the north part of the tested area. The area near 74 L-4 is considered encouraging and further drilling is warranted to the north and west where no previous testing has been conducted.

  
M.R. Hegge, P.Eng.  
Project Geologist

MRH:kd1

APPENDIX III

PERCUSSION  
DRILL RECORD & LOG

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-4

LATITUDE: 17+50N      DEPARTURE: 28+00E  
 DIP: -90°  
 AZIMUTH: -  
 STARTED: June 16, 1974  
 COMPLETED: June 17, 1974  
 PURPOSE: Test combined geo-anomalous zone

LENGTH: 200'  
 CORE SIZE:  
 DIP TESTS:

ELEVATION: 2995.5'  
 DRILLED BY: H.N. Horning  
 DRILLED FOR:

CLAIM NO: FLY #25  
 SECTION:  
 LOGGED BY: M.R. Hegge  
 DATE LOGGED: June 22/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS				
from	to			from	to		Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
0	10	Overburden									
10	80	<u>Weakly K-feldspar altered biotite monzonite</u>	74L-4-1	10	20	10	3	69	22	90	1.2
		-black speckled, medium grained; 5% primary biotite; 1-2% pyroxene;	-2	20	30	10	1	441	23	76	1.2
		weak to moderate secondary biotite; py:cpy=3:1 or greater; 2% total	-3	30	40	10	1	226	25	105	1.4
		sulfides.	-4	40	50	10	2	915	25	67	1.6
80	180	<u>Moderately K-feldspar altered biotite monzonite</u>	-5	50	60	10	3	260	27	102	1.6
		80'-90' chalcopryrite mineralized, biotite monzonite;	-6	60	70	10	3	900	25	105	1.6
		chalcopryrite as disseminations and fracture fillings	-7	70	80	10	4	1520	21	72	1.8
		in K-feldspar altered zones; py:cpy=2:1; approximately	-8	80	90	10	4	1720	25	90	2.2
		1 1/2% sulfides; Cu=0.25% (est.); probably up to 50%	-9	90	100	10	3	7000	26	103	3.4
		of Cu values lost due to flotation of fine cpy.	-10	100	110	10	2	2880	35	137	2.5
		90'-100' moderately strong chalcopryrite in biotite, K-feldspar	-11	110	120	10	2	1400	30	121	2.4
		altered monzonite; est. 0.35-0.40% Cu; py:cpy=1:1.	-12	120	130	10	2	1200	25	94	1.6
		100'-110' 0.30 - 0.35% Cu (est.)	-13	130	140	10	3	1920	22	104	2.2
		110'-130' lesser K-feldspar alteration; est 0.20 - 0.25% Cu	-14	140	150	10	3	580	20	91	1.4
		130'-140' local epidote-chlorite; py:cpy=1.5:1; 30-35% K-	-15	150	160	10	3	790	40	489	3.0
		feldspar; 0.25% Cu (est.)	-16	160	170	10	3	1120	35	550	4.5
		140'-160' 0.20% Cu (est.); lesser K-feldspar	-17	170	180	10	2	940	34	319	2.0
		160'-170' decreasing K-feldspar and sulfides; more fine grained	-18	180	190	10	3	1280	45	312	2.2
			74L-4 -19	190	200	10	3	256	17	72	1.1





PERCUSSION  
DRILL RECORD & LOG

Page 1 of 2

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-5

LATITUDE: 17+50N

DEPARTURE: 32+00E

LENGTH: 200'

ELEVATION: 3009.5

DIP: -90°

CORE SIZE:

AZIMUTH: -

DIP TESTS:

DRILLED BY: H.N. Horning

STARTED: June 17, 1974

COMPLETED: June 18, 1974

PURPOSE: To test combined geo-anomalous zone

CLAIM NO: FLY # 25

SECTION:

LOGGED BY: M.R. Hegge

DATE LOGGED: June 22/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS				
from	to			from	to		Mo	Cu	Pb	Zn	Ag
							ppm	ppm	ppm	ppm	ppm
0	10	Overburden									
10	200	Variably K-feldspar altered syenodiorite to biotite monzonite	74L-5-1	10	20	10	2	142	17	73	0.9
		- light pink grey to grey: medium grained: variable K alteration	-2	20	30	10	1	123	35	125	1.3
		consisting of K-feldspar and secondary biotite increasing with	-3	30	40	10	2	147	55	168	1.6
		depth but no increase or change in sulfide content; local	-4	40	50	10	2	83	28	99	1.5
		saussuritized zones; sulfides up to 0.5% with py:cpy greater	-5	50	60	10	2	123	53	167	1.5
		than 20:1, specular hematite in K-feldspar fragment.	-6	60	70	10	3	117	86	293	1.6
		10'-20' coarse rubble of syenodiorite fragments	-7	70	80	10	2	37	25	126	1.2
		20'-40' K-feldspar altered syenodiorite; disseminated	-8	80	90	10	2	62	34	130	1.5
		hematite in K-feldspar fragment; moderate to	-9	90	100	10	3	65	24	100	1.6
		strong secondary biotite dissemination throughout	-10	100	110	10	2	104	25	120	1.2
		with 1/2% pyrite; also 3-5% phlogopite or brown	-11	110	120	10	2	69	22	111	1.2
		biotite; trace chalcopyrite	-12	120	130	10	3	90	21	83	1.1
		40'-50' local chlorite altered of pyroxene (augite and	-13	130	140	10	2	67	20	69	1.2
		lesser diopside) also epidote and albite?; 0.25%	-14	140	150	10	2	39	25	61	1.2
		sulfide, py:cpy = 20:1	-15	150	160	10	2	74	25	76	1.4
		50'-60' stronger secondary biotite; less K-feldspar; 0.5%	-16	160	170	10	2	447	25	84	1.6
		pyrite; more diorite	-17	170	180	10	2	112	20	98	1.3
			-18	180	190	10	2	93	21	87	1.6
			74L-5-19	190	200	10	2	78	23	71	1.5

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-5

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	% REC	ASSAYS					
from	to			from	to								
	70'-80'	25% K-feldspar, 0.25% pyrite, 0.5% hematite in K-feldspar zones. Light green alteration of plagioclase (saussurite-epidote-carbonate-albite) decreasing secondary biotite; 0.25% pyrite.											
	90'-100'	as in 70'-80'											
	100'-110'	increasing secondary biotite; lesser K-feldspar; 0.25% pyrite.											
	110'-130'	35%-40% K-feldspar ie, almost monzonite; 0.5% hematite less than 0.25% pyrite; phlogopitic biotite and therefore secondary alteration not as strong as indicated by total black biotite which is mostly primary											
	130'-160'	light pink grey monzonite with 45-50% pink K-feldspar; 30% white feldspar; 10% biotite with half secondary; little or no saussurite alteration; 0.5% hematite; 1-2% carbonate; less than 0.25% pyrite											
	160'-180'	more syenodioritic 30% K-feldspar alteration; strong secondary biotite; 0.5% sulfides with trace chalcopyrite.											
	180'-200'	3-5% primary biotite, 5-7% secondary; 20% K-feldspar; less than 0.25% sulfide-altered pyrite; good alteration but no mineralization of interest											
		indicated to increase with depth.											

PERCUSSION  
DRILL RECORD & LOG

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-3

LATITUDE: 17+40      DEPARTURE: 24+00E  
 DIP: -90°  
 AZIMUTH: -  
 STARTED: June 16, 1974  
 COMPLETED: June 16, 1974  
 PURPOSE: To test combined geo-anomaly

LENGTH: 200'  
 CORE SIZE:  
 DIP TESTS:

ELEVATION: 2983'  
 DRILLED BY: H.N. Horning  
 DRILLED FOR:

CLAIM NO: FLY #25  
 SECTION:  
 LOGGED BY: M.R. Hegge  
 DATE LOGGED: June 22/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS				
from	to			from	to		Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
0	20	Overburden									
20	200	Variably propylitized biotite monzonite	74L-3-1	20	30	10	1	240	17	84	1.1
		- black speckled, medium grained with local dark grey biotite-rich zones; local chlorite-epidote altered zones with up to 3% disseminated pyrite; secondary biotite up to 3%; augite 1-2%; hematite (in K-feldspar zones) about 0.5%; traces of chalcopyrite increasing with depth but less than 0.1% Cu (est.); hole should be deepened as favourable alteration and mineralization increasing with depth.	-2	30	40	10	1	309	20	90	1.2
			-3	40	50	10	2	235	19	91	1.2
			-4	50	60	10	2	187	27	97	1.4
			-5	60	70	10	1	188	48	157	1.5
			-6	70	80	10	1	109	17	109	1.5
			-7	80	90	10	2	100	23	131	1.5
			-8	90	100	10	2	117	22	125	1.4
			-9	100	110	10	1	215	19	106	1.3
		20'-30' coarse, rubbly biotite syenodiorite; 1-2% disseminated pyrite	-10	110	120	10	2	175	21	125	1.4
			-11	120	130	10	1	173	17	140	1.4
		30'-40' monzonite; best pyrite in biotite altered zones	-12	130	140	10	2	510	20	111	1.7
		40'-50' increasing chlorite-epidote alteration	-13	140	150	10	2	210	16	83	1.4
		50'-70' 2% pyrite dissemination in biotite monzonite; stronger epidote-chlorite	-14	150	160	10	3	167	25	120	1.4
			-15	160	170	10	2	210	22	120	1.3
		70'-80' increasing K-feldspar to 10% with disseminated hematite but may be later (post sulfide) veins; lesser pyrite	-16	170	180	10	2	74	18	100	1.2
			-17	180	190	10	1	103	42	140	1.4
		80'-110' as in 50'-70'	74L-3-18	190	200	10	2	94	25	105	1.4







PERCUSSION  
DRILL RECORD & LOG

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-2

LATITUDE: 14+75N DEPARTURE: 24+00E  
DIP: -90°  
AZIMUTH: -  
STARTED: June 15, 1974  
COMPLETED: June 15, 1974  
PURPOSE: Test combined geo-anomalous zone

LENGTH: 200'  
CORE SIZE:  
DIP TESTS:

ELEVATION: 2992'  
DRILLED BY: H.N. Horning  
DRILLED FOR:

CLAIM NO: FLY #25  
SECTION:  
LOGGED BY: M.R. Hegge  
DATE LOGGED: June 22/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS				
from	to			from	to		Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
0	10	Overburden									
10	200	Augite biotite syenodiorite and speckled biotite monzonite	74L-2-1	10	20	10	3	230	27	69	1.3
		-pink-grey to grey: medium grained; monzonite more leucocratic	-2	20	30	10	2	110	35	68	1.2
		with speckled, black appearance; increased K-feldspar, biotite,	-3	30	40	10	2	113	25	93	1.4
		epidote, chlorite alteration near monzonite phases; increasing	-4	40	50	10	1	198	27	80	1.4
		monzonite with depth; pyrite increases from 0.5 to 2.0%;	-5	50	60	10	2	320	30	95	1.5
		py:cpy=20:1; estimate 0.1% Cu at end of hole; more favourable zones	-6	60	70	10	4	260	33	100	1.6
		may occur as greater depth based on alteration.	-7	70	80	10	3	240	34	160	1.5
			-8	80	90	10	3	209	23	84	1.4
		10'-20' coarse, dark grey chips of syenodiorite; trace pyrite;	-9	90	100	10	2	260	26	109	1.4
		pink K-feldspar alteration; weathered zone?	-10	100	110	10	3	160	21	75	1.5
		20'-40' phlogopite-altered, biotite speckled monzonite; 7%	-11	110	120	10	3	119	33	280	1.3
		biotite; 2-3% augite; 0.5% disseminate pyrite, trace	-12	120	130	10	3	140	14	73	1.1
		chalcopyrite.	-13	130	140	10	3	135	22	90	1.4
		40'-50' increasing K-feldspar	-14	140	150	10	8	165	18	47	1.2
		50'-60' syenodiorite with 20% pink feldspar, 0.25% pyrite;	-15	150	160	10	4	167	20	101	1.2
		3-5% biotite; 5% pyroxene; 0.5% hematite	-16	160	170	10	4	170	15	51	1.1
		60'-70' lesser sulfides and alteration	-17	170	180	10	2	108	16	65	1.2
		70'-80' increasing epidote; py:cpy=20:1, 1% sulfides.	-18	180	190	10	3	135	17	69	1.2
			74L-2-19	190	200	10	3	132	16	60	1.2



PERCUSSION  
DRILL RECORD & LOG

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-1

LATITUDE: 10+00N DEPARTURE: 24+00E  
DIP: -90°  
AZIMUTH: -  
STARTED: June 14, 1974  
COMPLETED: June 14, 1974  
PURPOSE: Test combined geo-anomalous zone

LENGTH: 200'  
CORE SIZE:  
DIP TESTS:

ELEVATION: 3012.5'  
DRILLED BY: H.N. Horning  
DRILLED FOR:

CLAIM NO: FLY #26  
SECTION:  
LOGGED BY: M.R. Hegge  
DATE LOGGED: June 22/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS											
from	to			from	to		Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm							
0	10	Overburden																
10	200	Biotite augite syenodiorite and lesser monzonite	74L-1-1	10	20	10	3	143	38	94	1.2							
		- cream-white to light pink grey; medium grained; 15-20% pink	-2	20	30	10	5	335	46	148	1.4							
		K-feldspar, 5% augite, 3-5% phlogopite-rimmed biotite; 1-2%	-3	30	40	10	6	165	53	106	1.3							
		secondary biotite, remainder is plagioclase with minor diopside (?),	-4	40	50	10	5	335	54	200	1.4							
		apatite, 0.5% hematite, epidote, 0.25% pyrite; estimated Cu less	-5	50	60	10	3	120	38	113	1.6							
		than 0.1%.	-6	60	70	10	3	235	38	164	1.5							
			-7	70	80	10	4	375	30	133	1.6							
		30'-50' increasing hematite as disseminations in feldspars	-8	80	90	10	3	110	33	130	2.0							
		50'-60' lesser sulfides; leucocratic; felsic or monzonite dyke?	-9	90	100	10	3	182	34	135	1.9							
		60'-80' syenodiorite	-10	100	110	10	3	270	29	145	1.8							
		80'-100' increasing K-feldspar alteration and light green	-11	110	120	10	3	380	19	123	1.6							
		alteration of plagioclase; trace disseminated pyrite,	-12	120	130	10	3	295	20	145	1.9							
		hematite staining locally; increasing secondary	-13	130	140	10	4	245	22	109	1.4							
		biotite.	-14	140	150	10	5	191	21	140	1.8							
		100'-140' increasing sulfides; disseminated hematite in syenite	-15	150	160	10	4	565	22	142	2.1							
		or K-feldspar; chloritization and epidote alteration	-16	160	170	10	4	200	30	157	1.8							
		increasing.	-17	170	180	10	4	275	47	132	1.5							
		140'-150', increasing leucocratic nature; ie more monzonitic.	-18	180	190	10	4	290	53	190	1.5							
			74 L-1-19	190	200	10	3	440	38	150	1.8							





PERCUSSION  
DRILL RECORD & LOG

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-6

LATITUDE: 14+00N      DEPARTURE: 32+00E  
 DIP: -90°  
 AZIMUTH: -  
 STARTED: June 18, 1974  
 COMPLETED: June 18, 1974  
 PURPOSE: To test combined geo-anomalous zone

LENGTH: 200'  
 CORE SIZE:  
 DIP TESTS:

ELEVATION: 3064.5'  
 DRILLED BY: H.N. Horning  
 DRILLED FOR:

CLAIM NO: FLY #25  
 SECTION:  
 LOGGED BY: M.R. Hegge  
 DATE LOGGED: June 23/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS				
from	to			from	to		Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
0	10	Overburden									
10	200	<u>Biotite monzonite to syeno-monzonite</u>	74L-6-1	10	20	10	1	227	80	147	1.5
		-pink-grey to light pink-cream; medium grained; more prominent	-2	20	30	10	1	60	30	138	1.6
		fragments of propylitic altered syenodiorite in upper 50' but	-3	30	40	10	2	63	30	164	1.9
		decreasing with depth; also decrease in sulfides to trace amounts;	-4	40	50	10	2	93	45	295	2.0
		no chalcopyrite of interest; specular hematite, K-feldspar,	-5	50	60	10	3	43	35	268	1.8
		secondary biotite, albite and minor carbonate alteration; probably	-6	60	70	10	2	56	30	157	1.8
		grades into syenite with depth.	-7	70	80	10	2	76	40	143	1.7
		10'-20' coarse rubble of syenodiorite	-8	80	90	10	3	85	35	145	1.6
		20'-30' syenodiorite with biotite-pyroxene diorite fragments;	-9	90	100	10	3	109	40	210	1.7
		1% disseminated pyrite and trace chalcopyrite;	-10	100	110	10	2	79	45	165	1.6
		moderate K-feldspar altered zones with specular	-11	110	120	10	2	51	45	127	1.5
		hematite; local epidote with K-feldspar.	-12	120	130	10	3	63	20	110	1.1
		30'-40' hematitic biotite monzonite or strongly K-feldspar	-13	130	140	10	2	35	20	93	1.1
		altered syenodiorite; 50-60% K-feldspar; 5% black	-14	140	150	10	3	39	20	90	1.2
		biotite; minor pyroxene; epidote; 1-1.5% hematite;	-15	150	160	10	3	37	25	90	1.4
		0.25% pyrite in dioritic xenoliths	-16	160	170	10	4	39	25	97	1.5
		40'-50' same as (30'-40')	-17	170	180	10	3	43	30	107	1.5
		50'-60' increasing primary biotite; less than 0.25% sulfides	-18	180	190	10	2	33	27	97	1.3
			74L-6-19	190	200	10	3	33	20	107	1.4





PERCUSSION  
DRILL RECORD & LOG

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-7

LATITUDE: 13+70 DEPARTURE:  
DIP: -90°  
AZIMUTH: -  
STARTED: June 19, 1974  
COMPLETED: June 19, 1974  
PURPOSE: To test combined geo-anomalous zone

LENGTH: 200'  
CORE SIZE:  
DIP TESTS:

ELEVATION: 3014.5'  
DRILLED BY: H.N. Horning  
DRILLED FOR:

CLAIM NO: FLY #25  
SECTION:  
LOGGED BY: M.R. Hegge  
DATE LOGGED: June 23/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	Mo ppm	ASSAYS				
from	to			from	to			Cu ppm	Pb ppm	Zn ppm	Ag ppm	
0	10	Overburden										
10	200	Variably K-feldspar-biotite altered syenodiorite	74L-7-1	10	20	10	1	130	25	107	1.2	
		-dark pink-grey to light pink-cream; medium grained; up to 10% primary biotite; 5% secondary biotite; local K-feldspar alteration	-2	20	30	10	2	148	25	118	1.9	
		is moderate to strong with some epidote; later albite-carbonate veinlets; post-sulfide, hematitic K-feldspar veins; sulfide	-3	30	40	10	2	190	35	116	1.8	
		content of local interest with some chalcopyrite in dioritic fragments or phases; up to 1.5% sulfides; py:cpy=20:1 to less than 10:1; estimated less than 0.1% Cu for entire hole but large proportion floated due to fine grained nature,	-4	40	50	10	3	500	30	103	2.0	
			-5	50	60	10	4	410	25	106	2.0	
			-6	60	70	10	4	750	30	179	2.0	
			-7	70	80	10	3	810	30	157	2.0	
			-8	80	90	10	4	420	25	121	1.9	
			-9	90	100	10	2	110	20	74	1.6	
		10'-20' coarse rubble of pyritic syenodiorite	-10	100	110	10	4	79	20	76	1.8	
		20'-40' K-feldspar alteration and veined syenodiorite; fragments of propylitic altered diorite; K-feldspar	-11	110	120	10	2	320	23	88	1.8	
		flooding with local epidote; weak to moderate secondary biotite; post-sulfide K-feldspar, albite, and carbonate veinlets; 0.5% hematite in K-feldspar; less than 0.25% sulfides; trace chalcopyrite in diorite	-12	120	130	10	3	730	25	92	1.6	
			-13	130	140	10	3	800	25	97	2.0	
			-14	140	150	10	2	860	24	85	2.2	
			-15	150	160	10	6	265	23	73	2.0	
			-16	160	170	10	6	470	24	103	1.8	
			-17	170	180	10	4	545	20	117	1.7	
		40'-50' increasing sulfides; trace chalcopyrite.	-18	180	190	10	3	810	20	100	1.9	
			74L-6-19	190	200	10	3	645	40	94	1.9	





PERCUSSION  
DRILL RECORD & LOG

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-8

LATITUDE: 10+00N      DEPARTURE: 27+50E  
 DIP: -90°  
 AZIMUTH: -  
 STARTED: June 19, 1974  
 COMPLETED: June 20, 1974  
 PURPOSE: To test combined geo-anomalous zone

LENGTH: 200'  
 CORE SIZE:  
 DIP TESTS:

ELEVATION: 3026.5'  
 DRILLED BY: H.N. Horning  
 DRILLED FOR:

CLAIM NO: FLY #26  
 SECTION:  
 LOGGED BY: M.R. Hegge  
 DATE LOGGED: June 23/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	Mo ppm	ASSAYS				
from	to			from	to			Cu ppm	Pb ppm	Zn ppm	Ag ppm	
0	10	Overburden										
10	200	Weak K-feldspar-biotite, strong propylitic altered syenodiorite to diorite.	74L-8-1	10	20	10	2	249	23	95	1.1	
		-light pink-grey to dark grey; medium grained; mainly fragments of black biotite speckled white feldspar-rich rock with strong propylitic alteration and accompanying pyrite up to 3% by volume; traces of chalcopyrite only; K-feldspar mainly as post-sulfide veins with minor disseminated hematite; local moderate secondary biotite; weakly magnetitic; no mineralization of economic interest.	-2	20	30	10	2	74	19	94	1.4	
		10'-30' coarse syenodiorite rubble	-3	30	40	10	3	283	30	130	1.7	
		30'-50' weak K-feldspar altered syenodiorite with 5% primary biotite; moderate secondary biotite and propylitic altered dioritic fragments with disseminated pyrite; trace chalcopyrite; total sulfides - 0.5%.	-4	40	50	10	3	527	30	167	2.0	
		50'-60' more dioritic with local strong pyrite mineralization with primary biotite- secondary chlorite and epidote zones; lesser K-feldspar and secondary biotite.	-5	50	60	10	6	395	24	78	1.6	
		60'-90' same as 50'-60' but greater proportion of diorite; total sulfides greater than 1%; trace chalcopyrite	-6	60	70	10	4	289	22	108	1.7	
			-7	70	80	10	4	255	30	90	1.8	
			-8	80	90	10	3	250	31	85	1.5	
			-9	90	100	10	3	187	41	123	1.7	
			-10	100	110	10	4	108	42	125	1.8	
			-11	110	120	10	2	102	30	87	1.6	
			-12	120	130	10	4	187	70	142	1.8	
			-13	130	140	10	3	320	68	143	1.6	
			-14	140	150	10	3	173	50	173	1.4	
			-15	150	160	10	2	213	49	146	1.7	
			-16	160	170	10	4	268	35	83	1.5	
			-17	170	180	10	3	198	27	55	1.5	
			-18	180	190	10	4	260	30	89	1.8	
			74L-8-19	190	200	10	1	240	25	50	1.2	



DRILL RECORD & LOG

LOCATION: QUESNEL TROUGH

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-9

LATITUDE: 5+50      DEPARTURE: 20+00E      LENGTH: 200'  
 DIP: -90°      CORE SIZE:  
 AZIMUTH: -      DIP TESTS:  
 STARTED: June 20, 1974  
 COMPLETED: June 21, 1974  
 PURPOSE: To test combined geo-anomalous zone

ELEVATION: 3006.5'  
 DRILLED BY: H.N. Horning  
 DRILLED FOR:

CLAIM NO: FLY #26  
 SECTION:  
 LOGGED BY: M.R. Hegge  
 DATE LOGGED: June 23/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS				
from	to			from	to		Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
0	20	Overburden									
20	110	K-feldspar veined, propylitic altered augite biotite diorite	74L-9-1	20	30	10	2	370	28	104	1.8
		-grey to dark pink-grey; medium grained; strong propylitic alteration with up to 3% disseminated pyrite in black biotite zones; becomes more K-feldspar altered with depth; also secondary biotite.	-2	30	40	10	3	425	39	260	2.1
			-3	40	50	10	2	273	25	124	1.4
			-4	50	60	10	1	383	25	158	1.6
			-5	60	70	10	2	412	27	160	1.6
		20'-60' K-feldspar veined, propylitic altered augite biotite diorite with 2-3% coarse disseminated pyrite;	-6	70	80	10	3	339	25	143	1.8
		chlorite alteration strong near biotite; lesser epidote-carbonate; hematite in K-feldspar veinlets.	-7	80	90	10	2	378	25	94	1.8
			-8	90	100	10	2	440	26	87	1.8
		60'-100' more dioritic; strong propylitic alteration; up to 25-30% combined mafics locally but mostly black biotite; 2-4% pyrite with trace chalcopyrite; may carry up to 0.05% Cu.	-9	100	110	10	3	550	57	150	2.2
			-10	110	120	10	8	390	35	127	1.7
			-11	120	130	10	19	345	35	130	1.7
			-12	130	140	10	20	1700	56	133	2.2
			-13	140	150	10	5	280	35	156	2.2
		100'-110' slight increase in K-feldspar content; late albite or carbonate veinlets; decrease in sulfides to 2% with trace chalcopyrite; weak to moderate magnetically; trace secondary biotite	-14	150	160	10	5	535	32	143	2.1
			-15	160	170	10	6	540	55	170	2.1
			-16	170	180	10	17	740	30	119	2.2
			-17	180	190	10	13	520	40	152	1.9
			74L-9-18	190	200	10	5	545	55	181	1.9





PERCUSSION  
DRILL RECORD & LOG

PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-10

LOCATION: QUESNEL TROUGH

LATITUDE: 5+70N

DEPARTURE: 24+00E

LENGTH: 200'

ELEVATION: 3006'

DIP: -90°

CORE SIZE:

DRILLED BY: H.N. Horning

AZIMUTH: -

DIP TESTS:

DRILLED FOR:

STARTED: June 21, 1974

COMPLETED: June 21, 1974

PURPOSE: To test combined geo-anomalous zone

CLAIM NO: FLY #26

SECTION:

LOGGED BY: M.R. Hegge

DATE LOGGED: June 23/74

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS				
from	to			from	to		Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
0	10	Overburden									
10	200	Propylitic to weak K altered biotite syenodiorite-diorite	74L-10-1	10	20	10	3	610	105	158	2.2
		-dark grey to light pink-grey; medium grained; weakly magnetitic;	-2	20	30	10	2	185	25	102	1.6
		common propylitic alteration in more dioritic phases with up to	-3	30	40	10	9	114	25	115	1.5
		2% pyrite; local zones of K-feldspar, moderate to strong biotite	-4	40	50	10	1	223	30	270	1.6
		alteration with lesser sulfides; traces of chalcopyrite; most	-5	50	60	10	2	225	35	154	1.6
		K-feldspar is post sulfide; also albite-carbonate veinlets	-6	60	70	10	7	437	31	179	1.9
		locally; hole of little economic interest.	-7	70	80	10	4	200	25	86	1.8
		10'-20' coarse dioritic rubble	-8	80	90	10	8	198	30	86	1.7
		20'-50' propylitic altered biotite syenodiorite to diorite;	-9	90	100	10	5	232	40	105	1.8
		1% pyrite; trace chalcopyrite; minor secondary	-10	100	110	10	8	120	35	95	1.8
		biotite; grey-green alteration of plagioclase	-11	110	120	10	3	119	27	93	2.1
		probably saussurite; weakly magnetitic	-12	120	130	10	2	258	25	96	1.8
		50'-90' increased secondary biotite; also K-feldspar veins	-13	130	140	10	nd	150	20	77	1.6
		with hematite; more leucocratic.	-14	140	150	10	2	112	23	71	1.8
		90'-100' approximately 2% sulfides with py:cpy=15:1; less	-15	150	160	10	2	575	55	104	1.9
		than 0.05% Cu (est.)	-16	160	170	10	2	352	26	80	1.9
		100'-110' increased K-feldspar to almost monzonitic; moderate	-17	170	180	10	2	232	24	70	1.7
		secondary biotite; 20-25% K-feldspar (mostly post-	-18	180	190	10	4	247	25	80	1.6
			74L-10-19	190	200	10	10	120	25	83	1.7





PROPERTY: FLY-LEM CLAIMS

HOLE NO: 74 L-11

LOCATION: QUESNEL TROUGH

LATITUDE: 15+75N DEPARTURE: 26+00E

LENGTH: 200'

ELEVATION: 2995'

DIP: -90°

CORE SIZE:

AZIMUTH: -

DIP TESTS:

STARTED: June 22, 1974

DRILLED BY: H.N. Horning

CLAIM NO:

COMPLETED: June 22, 1974

SECTION:

PURPOSE: To test area between 74 L-2,3,4, & 7

LOGGED BY: M.R. Hegge

DATE LOGGED: June 23/74

DRILLED FOR:

FOOTAGE		DESCRIPTION	SAMPLE NO	FOOTAGE		LENGTH	ASSAYS				
from	to			from	to		Mo	Cu	Pb	Zn	Ag
						ppm	ppm	ppm	ppm	ppm	
0	10	Overburden									
10	130	Variably K-feldspar-biotite altered syenodiorite	74L-11-1	10	20	10	2	223	23	104	1.6
		-grey to light pink-grey; medium grained; locally hornfelsed	-2	20	30	10	4	210	35	354	2.0
		with up to 3% pyrite in secondary biotite zones; increasing	-3	30	40	10	3	590	30	156	2.0
		K-feldspar alteration with depth; also chalcopyrite content	-4	40	50	10	1	235	27	174	1.6
		although total sulfides decrease; increasing Cu content towards	-5	50	60	10	2	263	26	91	1.4
		biotite monzonite sill (?)	-6	60	70	10	4	259	34	261	1.8
		10'-20' coarse syenodiorite rubble	-7	70	80	10	3	208	40	595	2.2
		20'-30' propylitic altered syenodiorite with late K-feldspar	-8	80	90	10	3	200	30	172	1.5
		veinlets; almost non-magnetitic; up to 3%	-9	90	100	10	7	407	62	690	6.9
		disseminated pyrite in more dioritic zones.	-10	100	110	10	2	245	32	145	1.6
		30'-40' K-feldspar-biotite altered or hornfelsed syeno-	-11	110	120	10	2	157	30	130	1.6
		diorite with 2-3% total sulfides; py:cpy=15:1;	-12	120	130	10	3	330	32	125	1.6
		estimate 0.1% Cu; post sulfide K-feldspar veinlets	-13	130	140	10	2	710	47	187	1.9
		with disseminated hematite.	-14	140	150	10	2	465	52	138	1.9
		40'-50' less alteration and sulfides	-15	150	160	10	1	345	28	43	1.4
		50'-70' as in 30'-40'; increased epidote	-16	160	170	10	4	485	33	65	1.6
		70'-80' strong secondary biotite in hornfelsed syenodiorite;	-17	170	180	10	1	205	25	47	1.2
		lesser K-feldspar; 2% sulfides; py:cpy=20:1	-18	180	190	10	1	169	25	45	1.4
			74L-11-19	190	200	10	1	88	23	53	1.6





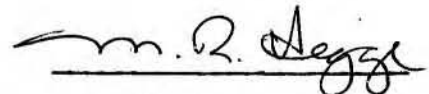


APPENDIX IV

APPENDIX 1V  
CERTIFICATION

I, Melvin R. Hegge, of Fort Langley, B.C. hereby certify that:

- 1) I am a graduate of the University of British Columbia with a B.Sc. degree in Geology and have had one year of post-graduate studies at the University of California at Los Angeles.
- 2) I have practiced as a geologist for a total of seven years with:  
Eldorado Nuclear Ltd., Eldorado, Saskatchewan  
J. Foster Irwin Engineering, Edmonton, Alberta  
Trigg, Woollett & Associates Ltd., Edmonton, Alberta  
Kenngo Explorations (Western) Ltd., Vancouver, B.C.  
Hudson's Bay Oil and Gas Company Limited, North Vancouver, B.C.
- 3) I am a member of the Association of Professional Engineers in the Province of British Columbia, and a Fellow of the Geological Association of Canada.
- 4) The field work described in this report was completed under my direction and I was personally responsible for logging of the percussion drill cuttings as described.



M.R. Hegge, P.Eng.

APPENDIX I

RECEIVED

JUN 28 1974

H. N. HORNING PERCUSSION DRILLING LTD.

HUDSON'S BAY  
OIL & GAS CO. LTD.

c/o Rudd, Gould & Elliott,  
#200 - 186 Victoria Street,  
Kamloops, B. C.

June 25, 1974

IN ACCOUNT WITH

Hudson's Bay Oil & Gas Co. Ltd.,  
171 Pemberton Avenue,  
North Vancouver, B. C.

1974	Hole	Feet From	Drilled To	Total
June 10,	H - 1	0	140	140
11,	H - 1	140	300	160
11,	H - 2	0	240	240
13,	H - 2	240	300	60
13,	H - 3	0	300	300
14,	H - 4	0	200	200
15,	H - 5	0	200	200
16,	H - 6	0	200	200
17,	H - 7	0	200	200
17,	H - 8	0	100	100
18,	H - 8	100	200	100
18,	H - 9	0	200	200
19,	H - 10	0	200	200
19,	H - 11	0	100	100
20,	H - 11	100	200	100
20,	H - 12	0	120	120
21,	H - 12	120	200	80
21,	H - 13	0	200	200
22,	H - 14	0	200	200

Fly Mineral Claims  
Nos. 1-40 (inc)  
= 2200' total

3,100

3,100 Feet Drilled @ \$2.75 per foot

\$8,525.00

HBOG MINING LIMITED

WESTERN DIVISION
CHARGE TO: 500' to Hook claims; 2200' to Fly claims
m 276-7076-9035-508
<i>M. R. Dege</i>
APPROVED
DATE
BY
COVAL



VANGEOCHEM LAB LTD.

604-988-2172

1521 PEMBERTON AVE., NORTH VANCOUVER, B.C.  
CANADA

IN ACCOUNT WITH:

Hudson's Bay & Oil Gas Ltd.  
171 Pemberton Ave.  
North Vancouver, B C

INVOICE: 2937

DATE: July 3, 1974

TERMS: NET 21 DAYS

FOR REPORT 74-46-009  
Job #74092

PROJECT: Quesnel Trough ORDER NO.

152 percussion drill samples for preparation	@\$1.00	\$ 152.00
152 analyses for Mo,Cu,Pb,Zn,Ag	@\$2.80	\$ 425.60
Total		<u>\$ 577.60</u>

*LEM-Fly*



VANGEOCHEM LAB LTD.

604-988-2172

1521 PEMBERTON AVE., NORTH VANCOUVER, B.C.  
CANADA

IN ACCOUNT WITH:

Hudson's Bay Oil & Gas Co. Ltd.,  
171 Pemberton Avenue,  
North Vancouver, B.C.

INVOICE: 2913

DATE: June 20, 1974

TERMS: NET 21 DAYS

FOR REPORT 74-46-008  
Job #74-078

PROJECT: Quesnel Trough

ORDER NO.

143 percussion drill samples for preparations	@ \$ 1.00	\$ 143.00
143 geochem analyses for Mo, Cu, Pb, Zn, & Ag	@ \$ 2.80	\$ <u>400.40</u>
Total		\$ 543.40

RECEIVED

JUN 20 1974

HUDSON'S BAY  
OIL & GAS CO. LTD.

Hook = 87 samples

Lem-Fly = 56 "

*Hook - 330.60  
Lem - 212.80*

APPENDIX II





VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-988-2172

September 11, 1973

**TO:** Hudson's Bay Oil and Gas Co. Ltd.  
171 Pemberton Avenue  
North Vancouver, B. C.

**FROM:** Mrs. Ena Agarwal, Chemist  
Vangeochem Lab Ltd.  
1521 Pemberton Avenue  
North Vancouver, B. C.

**SUBJECT:** Analytical procedure used to determine acid soluble copper, lead, zinc and silver in geochemical samples.

1. Method of Sample Preparation

- (a) Geochemical rock, soil, or silt samples were received in the laboratory in 8" x 13" plastic sample bags, or in 4½" x 9" cotton mailing bags, or in wet-strength 3½ x 6½ Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by using a shaking machine using an 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed and pulverized to minus 80-mesh. The pulverized sample was then put in a new bag for later analysis.

continued . . . .

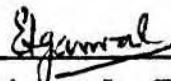
2. Methods of Digestion

- (a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).
- (c) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Copper, lead, zinc and silver analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 or Model AA5 with their respective hollow cathode lamp. The digested samples were aspirated directly into an air and acetylene flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit.

4. The analyses were supervised or determined by Mrs. Ena Agarwal or Mr. Laurie Nicol and their laboratory staff.

  
\_\_\_\_\_  
Ena Agarwal, Chemist, Provincial  
Assayer

VANGEOCHEM LAB LTD.

EA:mb



VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-988-2172

September 11, 1973

**TO:** Hudson's Bay Oil and Gas Co. Ltd.  
171 Pemberton Avenue  
North Vancouver, B. C.

**FROM:** Mrs. Ena Agarwal, Chemist  
Vangeochem Lab Ltd.  
1521 Pemberton Avenue  
North Vancouver, B. C.

**SUBJECT:** Analytical procedure used to determine acid soluble molybdenum in geochemical samples.

1. Method of Sample Preparation

- (a) Geochemical rock, soil, or silt samples were received in the laboratory in 8" x 13" plastic sample bags, or in 4½" x 9" cotton mailing bags, or in wet-strength 3½ x 6½ Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by using a shaking machine using an 80-mesh stainless steel sieve. The plus 80-mesh fraction was discarded and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed and pulverized to minus 80-mesh. The pulverized sample was then put in a new bag for later analysis.

continued . . . .

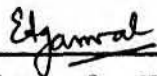
2. Methods of Digestion

- (a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).
- (c) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Molybdenum analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA5 with an Mo hollow cathode lamp. The digested samples were aspirated directly into a nitrous oxide and acetylene flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit.

4. The analyses were supervised or determined by Mrs. Ena Agarwal or Mr. Laurie Nicol and their laboratory staff.

  
\_\_\_\_\_  
Ena Agarwal, Chemist, Provincial  
Assayer

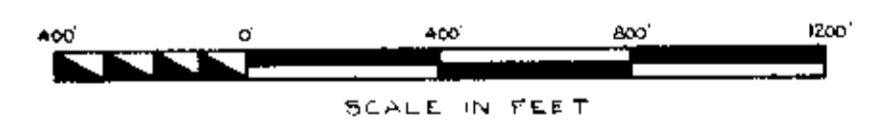
VANGEOCHEM LAB LTD.

EA:mb



○ PERCUSSION DRILL HOLE  
 - DRILLED BETWEEN JUNE 14 AND JUNE 22, 1974.

**5117 M2**



TO ACCOMPANY "REPORT ON PERCUSSION DRILLING PROGRAM" BY M.R. HEGGE, P. ENG., ON THE LEMON LAKE PROSPECT, SIX AND A HALF MILES EAST OF HORSEFLY, CARIBOO MINING DIVISION, DATED AUGUST 22, 1974.

**Hudson's Bay Oil and Gas Company Limited**  
 MINERALS EXPLORATION  
 VANCOUVER BRITISH COLUMBIA

Department of  
 Energy and Petroleum Resources  
 ASSESSMENT REPORT  
**5117** MAP

PLAN  
 PERCUSSION DRILL HOLES  
 FLY NO. 1 GROUP  
 (FLY NO. 1-40 CLAIMS)  
 CARIBOO MINING DIVISION  
 BRITISH COLUMBIA

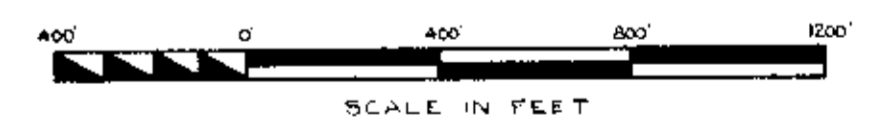
MAP	DATE	BY	SCALE	N.T.S.
74LL-2	JUNE '74	J.S.-B.	1" = 400'	93A5





○ PERCUSSION DRILL HOLE  
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PLAN  
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