

ECONOMIC GEOLOGY  
of the  
GOLD QUARTZ VEIN SYSTEM

of  
BLUEHAWK GOLD MINE (BEAR 3 CLAIM: 18 UNITS)

49°59'N, 119°39'W: NTS 82E/13E  
Bluegrouse Mtn.: 10Km NNW of Kelowna  
Vernon Mining Div., British Columbia

by April 18, 1984

N.C.Lenard, P.Geol., P. Eng.  
Consulting Geologist, Westbank, B.C.

Field Work Done: Mar.28-30, April 2,3,1984

Owner: N.C.Lenard

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,519**

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INTRODUCTION:

This report covers detailed mapping and economic evaluation of known and projected surface quartz veins of the old Bluehawk gold-silver mine. It is near Kelowna, British Columbia on the BEAR 3, 18-unit claim on Bluegrouse Mountain. The vein system was mapped only in a cursory way during prior geochemical and geological surveys of the deposit (Assessment Reports: Asano, 1966; W.S. Read, 1969; J. Gorham, 1978; and Lenard, 1966, 1981). The old Bluehawk mine, in the southeast corner of the property, recorded one shipment of five tons to Trail in 1934, grading 1.0 oz. gold and 3.5 oz. silver per ton.

Evaluation is based on field data gained by belt chain and compass tied to roads, workings, and topographic features, done March 28-30, April 2&3, 1984. The writer first examined these workings in 1966, and has sole title to the BEAR 3 claim.

PURPOSE:

Aim of this field work was to establish a base for viable mining exploration of the faulted multiple vein system, which has medium to high gold values and significant and accessory silver values localized in ore shoots.

Sampling was by chip and grab modes, depending on availability of reliable, fresh material. Especially sought were guides to extensions of the vein outcrops, and to blind quartz vein signatures like unexplored gossans, albite-quartz veinlets and unexplored mercury, antimony, and copper-silver soil anomalies.

Appraisal of underground workings in the two tunnel systems was not attempted due to potential hazards of air supply and uncertain roof supports. However, when the writer briefly examined the upper tunnel in 1966, only air supply seemed inadequate then.

LOCATION & ACCESS:

This property is near the summit of Blue Grouse Mountain at an elevation of 3,083-3,600 ft. (940-1100m). Site is across Okanagan Lake from Kelowna about 10 Km straight-line, or 30 Km by road. Access

by auto is via logging roads (3 entry points) north of Bear (Lambly) Creek road, which is reached from Highway 97 at the Westside turnoff, about one mile west of the Kelowna bridge. Fair to good forest access roads span the claim.

PROPERTY:

In November, 1983 the BEAR 3 claim was restaked by the present owner to eliminate his OK1-OK5 two-post internal claims that covered the workings of the Blue Hawk mine, consolidating it into 18 rather than 23 units. The restaked BEAR 3 claim has a present work credit standing of \$1,000.00.

In May, 1983, the Dawn 100 12-unit claim was staked on the east side of BEAR 3 claim by other interests and recently sold to Tillicum Gold Mines Ltd. That company then staked Dawn 200 and Dawn 300 claims (6 units each) adjoining north and south of Dawn 100 claim.

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>	<u>Tag No.</u>	<u>Record Date</u>	<u>Owner</u>
BEAR 3	18	1636	11768	Nov.25,1983	N.C.Lenard
DAWN 100	12	1517		June 1,1983	Tillicum GM Ltd.
DAWN 200	6	N.A.		Mar.27,1984	Tillicum GM Ltd.
DAWN 300	6	N.A.		Mar.27,1984	Tillicum GM Ltd.

WORK HISTORY

Work on the Bluehawk deposit goes back to the 1930's at least, and it and more recent exploration work by Dawood Mines Ltd. of Kelowna are reviewed in assessment reports listed in the reference section of this report. The most recent was done by the writer in 1981. The only record of diamond drilling is 103 feet re an underground 20-foot shaft done in the mid-1930's. Old assessment reports record 600 feet of tunneling.

The subject report describes and illustrates the vein system in plan, compiling all available assay data, anomalous soil geochemical anomalies and outcrop evidence for vein extensions or offsets, and untested gossans with quartz-albite veins into a scenario for effectively

outlining mineable ore shoots of gold and silver that could be present to depth in the stock.

Previous work indicated a clear potential for multiple quartz vein development in the diorite intrusive, selectively mineralized in shoots of late-shock permeability channels. The mineralized veins seem to be only loosely related to soil anomalies and to magnetic and VLF-EM features recorded.

GENERAL GEOLOGY:

The property is in the western border of the Shuswap metamorphic terraine, a broad region of old sedimentary belts and granitic plutons. Gold prospects in quartz veins occur on the west side of Okanagan Lake near Vernon, and sparsely south to the subject area. Mineralization generally consists of minor amounts of base metals, bismuth tellurides, and pyrite, freemilling fine gold, and occasional bonanzas of coarser gold as at the White Elephant mine, 20 Km north of the BEAR 3.

LOCAL GEOLOGY:

Bedrocks of the property are metasediments and andesites of Permian Cache Creek age, intruded by a stock-like faulted gabbro-diorite, a satellite of the granodiorite batholith, which trends westerly about  $\frac{1}{4}$  mile north of the mine workings. Glacial drift obscures this contact and much of the claim area.

The tentative outline of the stock shown on Fig. 3, after Fox, 1974, is obscured by extensive areas of down-faulted Cache Creek beds. Outcrops are best along road cuts and on some ridges.

A finer-grained, basic diorite outcrops at the summit 2,000 ft. (610m) northwest of the mine workings. A few old prospect pits there explored barren, rusty albite veins, with no sign of economic minerals. Known linear mercury soil anomalies there should be prospected.

As described in earlier reports, (Lenard, 1980,1981) this differentiated mine diorite has some affinities with Bridge River and Cadillac gold camps: gold quartz genetically related to albitite veins and pods. The Bluehawk diorite is partly albitized in the wall rocks; and the veins, pyritized, sericitic, and part calcitic.

Quartz veins on the surface here range from 1.0-4.0 feet (0.3m) up to maximum 11.3 feet (3.4m) averaging about  $2\frac{1}{2}$ -3 feet wide. Dominant trend of the veins is northerly  $320^{\circ}$ - $352^{\circ}$  Azimuth, and north to  $7^{\circ}$  Azimuth across that of the intrusive. Dip of the veins is generally very steep to vertical.

STRUCTURE:

The main component of faulting in the diorite intrusive appears to be thrusting from the southwest: some low angle, others steeply inclined. The first quartz-filled fault met in the upper tunnel appears to slope southwest, in contrast (see underground sketch, Asano map Appended).

Preliminary surface appraisal of trends of the vein system suggests 3 sets, mainly northerly to northwesterly, with subsidiaries striking east-west and northeast-southwest. These observations are subject to detailed mapping of structural relations at the minesite, but lateral offsets of the veins may be in the order of 50-75 feet (15-23m) or less.

At least three surface ore shoots are viable exploration targets: at the north and south end of vein E-F trend (and a possible third at Fox's No.2 assay site); and, another at the shaft on Vein D trend.

Slope length of the E-F vein trend is 377 ft.(115m), open at both ends. That of Vein D is 123 ft.(37.4m), open to the south with a possible extension 116 ft.(35.5m):the north D1 stripsite that exposes a rusty, 3.3 ft(1m)-wide pyritic quartz vein striking north.

The 4-vein stripped outcrop at site A, in a fault zone of crushed, albitized diorite may represent branches of a larger quartz vein at depth. This should be investigated for lode potential.

MINERALIZATION:

As described earlier, (Lenard, 1981) gold occurs free in part, readily seen in hand specimens of pyritic, sericitized quartz breccia from the shaft vein which ranges from 16-48 inches wide where mineralized (.4-1.2m), to 11.3 feet wide at its southern exposed limit, where slightly pyritic and massive. This vein assayed 2.7-3.8 oz. gold and 9-14 oz. silver a ton across 8 inches in the shaft drift and 0.46 oz. gold, 1.7 oz. silver across the narrowest 16 inch (0.4m) part. Asano (1967) sampled the breast of this vein in the short drift of the shaft, yielding an assay of 1.0 oz. gold and 4.0 oz. silver a ton grades. The ore shipment may have come from the drift.

No silver-bearing minerals are apparent in these samples, leaving silver tellurides or the abundant fine pyrite as potential hosts for silver values. Dark grey graphitic-like mineral in the clear quartz is smeared, probably pre-gold, bismuth tellurides. Binocular microscope studies of these rich samples revealed an association of near microscopic free gold with sheared and brecciated, pyritized sections of the veins, consistent with the common event of late shock preceding or accompanying gold mineralization.

Although visible gold is seen at the shaft site, other veins such as the 'F':Lenard (#1:Fox) are extremely leached, and nearly barren of original sulphides. Varying previous metal assays from this and some other vein outcrops obtained by the writer, and by Fox presented an anomaly. This 4-foot (1.2m)-wide vein, uniformly rusty, fractured, riddled by leached vugs and very permeable, has apparently lost much of its gold-silver values, presumably leached out by organic cyanide-bearing groundwater. The premise is taken that stripping, blasting and drilling could reveal more consistent and meaningful gold values in this and other vein ore shoots where permeable and mineralized. A 900-foot (274m) mercury soil anomaly projects north along the strike of this 'F', No.1 vein, making it a prime exploration objective.



ASSAYS:Table 1: SUMMARY OF SIGNIFICANT ASSAYS

<u>Vein</u>		<u>Width</u>		<u>Sample</u>	<u>Au.</u>	<u>Ag.</u>	<u>Source</u>	<u>Comment</u>
<u>Lenard</u>	<u>Fox</u>	<u>Ft.</u>	<u>m</u>	<u>Type</u>	<u>Oz/sTon</u>	<u>Oz/sTon</u>		
F	1	4.0	1.3	N.A.	.42	3.25	Fox, 1974	Very leached
				Grab	.21	1.07	Lenard, 1981	Very leached
				Chip 4'	.114	.49	Lenard, 1983	Very leached
D	6	1.3-2.3	.4-.7	Chip .7ft	2.7	9.0	Lenard, 1966	Shaft drift
				Chip .7ft	3.8	13.9	Lenard, 1980	Shaft
				Chip 1.3ft	.46	1.7	Lenard, 1980	Shaft
				Chip 2.4ft	1.0	4.0	Asano, 1967	Shaft drift
				N.A.	.14	.45	Fox, 1974	Shaft site
E	2	N.A.		Grab	.24	1.45	Fox, 1974	
E5	5	1.3	.4	N.A.	.4	7.85	Fox, 1974	Galena vein
		1.2	.36	Chip 1.2ft	.08	.46	Lenard, 1983	Fresh, compact

RECOMMENDATIONS:

High gold-silver values in faulted, multiple quartz veining of the mine diorite warrant exploration to develop mineable reserves for processing by portable mill or for shipping to a mining facility like the Dankoe Mines plant in the southern Okanagan. Proposed exploration is as follows:

- 1) Strip-extend both ends of Vein E-F trend; drill-blast mapped quartzose gossans and carefully sample any fresh, mineralized potential ore-shoot material for assay and study. Determine if the galena-bearing south end of Vein E-F is a separate structural feature. Drill-blast quartz vein E-F2 for mineralization.
- 2) Resample the shaft drift and wallrocks for assay. Strip and blast the albitic gossan 50 feet (15m) northeast of the north end of this vein for a possible fault slice of the D vein.

Strip-extend the south end of this vein and its cross veins for potential ore shoots. Do the same for the 3.3 ft.(1m) quartz vein at the stripped D2 site 35m north of the shaft.

- 3) Given access and safe underground working conditions, map and sample the two drift systems for gold-quartz structures, and re-open the caved trench west of the B vein upper adit for sampling of the quartz vein there.
- 4) Relate the multiple surface veins at site A to known geochemical anomalies and seek extensions by prospecting for gossans, and albite or quartz veins.
- 5) Prospect site 'G' mercury-silver anomaly for gossans and veins in the diorite or for leads in the metasediment-andesite beds flanking the intrusive. Note the long southeast projection of anomalous soil mercury through single high gold soil site at 4+00 ft. south, 500 ft. west: 280 ppB gold. Detail soil sample that gridsite for gold and silver. Do similar prospecting for site H mercury anomaly.
- 6) Strip and extend the quartz vein in andesite below the road and, the quartz carbonate vein west of the lower portal to locate potential ore shoots.
- 7) Extend soil sampling for gold indicators northwest of the Fox survey to cover mercury anomalies at the summit area of albite and diorite outcrops. Use 50 ft.(15m) stations on 30m line spacing. Include antimony as a key gold indicator.
- 8) Do VLF-EM survey over the southeast corner of the property, covering the mine workings locale and the northwest summit outcrops. Relate any conductors to the prior ground mag and EM surveys and to interpreted geochemical anomalies for locating strip and drill targets.
- 9) Depending on results of the foregoing, plan a diamond drill program, both surface and underground, to delineate ore shoots and vein structures with the aim of developing enough reserves to negotiate a milling contract. Obtain professional advice on the most feasible mining approach for the highly faulted intrusive.

Table 2: PHYSICAL DATA ON SURFACE VEINS

<u>Vein</u>	<u>Host</u>	<u>Width</u>		<u>Dip</u> <sup>°</sup>	<u>Strike</u> <u>°Az</u>	<u>Fractures</u> <u>Low,Med,High</u>	<u>Sulfides</u>	<u>Exposure</u>	
		<u>Ft.</u>	<u>m</u>					<u>L(m)</u>	<u>Mode</u> (strip unless noted)
A-1	Diorite	1.3	.4	90	40	L-M	Py	12m	10m wide fault
A-2	Diorite	1.5	.45	90	40	L-M	Py	12m	10m wide fault
A-3	Diorite	2.5	.75	90	40	L-M	Py	12m	10m wide fault
A-4	Diorite	1.8	.55	90	40	L-M	Py	12m	10m wide fault
B	Diorite	4.0	1.2	90	335	L	Py tr	24.5	+O/C (above u. adit)
C-1	Andesite	1.5	.45	70:W	16	L	Py(CuCO3)	8	+ Pit
C-2	Met'cs	.5	.2	90	130		Py tr	6	Trench
D-1	Diorite	3.0	.9	90	360	L	Py	1.0	
D-2	Diorite	1.3-3.3	.4-1.0	90	339	L+H	Py,much	18.3	Drift
D-3	Diorite	3.3	1.0	90	360	L	Py sl.	8.0	
D-4	Diorite	11.3	3.4	90	332	L	Py sl.	8.0	
D-5	Diorite	1.3	.4	90	300	L	Py sl.	.2	Cut
E-F1	Diorite	4.0	1.2	90	7	L,M,H	Py,much	2.0	Pit
E-F2	Diorite	1.5	.45	90	325	M		.2	O/C
E-F3	Diorite	L 1.0	L.3		350	L-M			Pit
E-F4	Diorite	4.3	1.3	80W	352	L	Py	2.0	
E-F5	Diorite	.7	.2		352	L		2.0	
E-F6	Diorite	1.3	.4	75W	320	L-H	Py,Gal.	6.0	+ Pit

BUDGET ESTIMATE FOR WORK PROGRAM: BEAR 3

The estimate is based on daily mobilization (30-40 minute drive) and use of local contractors where feasible. It is subject to firm bids.

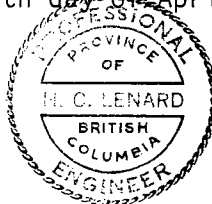
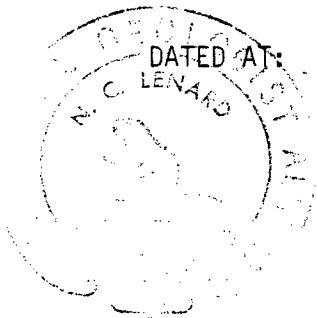
1. <u>Property</u> : Consolidate claims; freshen, expand survey grid	\$3,000.00
2. <u>Geochemical</u> : Soils, -A, B, C & assays	3,500.00
3. <u>Bulldozer</u> surface stripping: (D7 or D8); Preliminary, follow-up	4,000.00
4. <u>VLF-EM</u> survey:	10,000.00
5. <u>Prospect &amp; map</u> geology:	5,000.00
6. <u>Rock sampling, assays</u> :	3,000.00
7. <u>Transportation</u> :	1,500.00
8. <u>Diamond core</u> drilling: surface slant holes, minesite and shows	15,000.00
9. <u>Administration</u> :	10,000.00
	<u>\$55,000.00</u>
Contingencies @ 15%	8,250.00
	<u>8,250.00</u>
TOTAL:	<u><u>\$63,000.00</u></u>

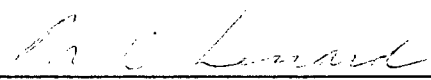
-CERTIFICATION-

I, Neall Curtis Lenard, of the settlement of Westbank in the Province of British Columbia do hereby certify:

1. that I am a consulting geologist with an office mailing address of Box 863, Westbank, British Columbia V0H 2A0.
2. that I graduated from the University of British Columbia with a Bachelor of Arts Degree in 1949 (Honours Geology),
3. that I have practised my profession continuously for thirty-four years,
4. that I am the sole owner of the subject BEAR 3 mineral claim ,
5. that the statements made in this report are based on personal examination of the claim on March 28-30 and April 2,3, 1984, and, on a study of published and unpublished reports on the property area,
6. that I am a member of the Associations of Professional Engineers of British Columbia and Alberta,
7. that no legal survey has been conducted over the subject mining properties and, therefor, in accordance with the mining laws of the appropriate jurisdiction in which such properties are situate, the existence of and the area of such properties could be in doubt; and,
8. that I attended an extension short course on Exploration Geochemistry at the University of Calgary in 1970; and, a short course in Mining sponsored by the Northwest Mining Association at Spokane, Washington in April, 1981.

DATED AT: The Settlement of Westbank, in the Province of British Columbia, this eighteenth day of April, 1984.



  
\_\_\_\_\_  
Neall Curtis Lenard, P.Eng., P. Geol.

EXPENDITURES

Personnel

N.C. Lenard, P. Geol. Mar.28-30;April 2,3,1984  
5 days @ \$400. \$2,000.00

Transportation

Auto: 5 days @ \$25.00 125.00


Report Preparation

N.C. Lenard, P. Geol., 2days @ \$400.00 800.00  
Reproduction, secretarial, binding 90.00  
Drafting: 8 hr. @ \$15.00 120.00

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TOTAL DISBURSEMENTS: \$3,140.00

I certify that the above statement is an accurate representation of expenditures made for the geological survey of the BEAR 3 claim conducted on March 28-30, and April 2,3, 1984.

  
\_\_\_\_\_  
N.C.LENARD, P. Geol, P.Eng.

REFERENCES

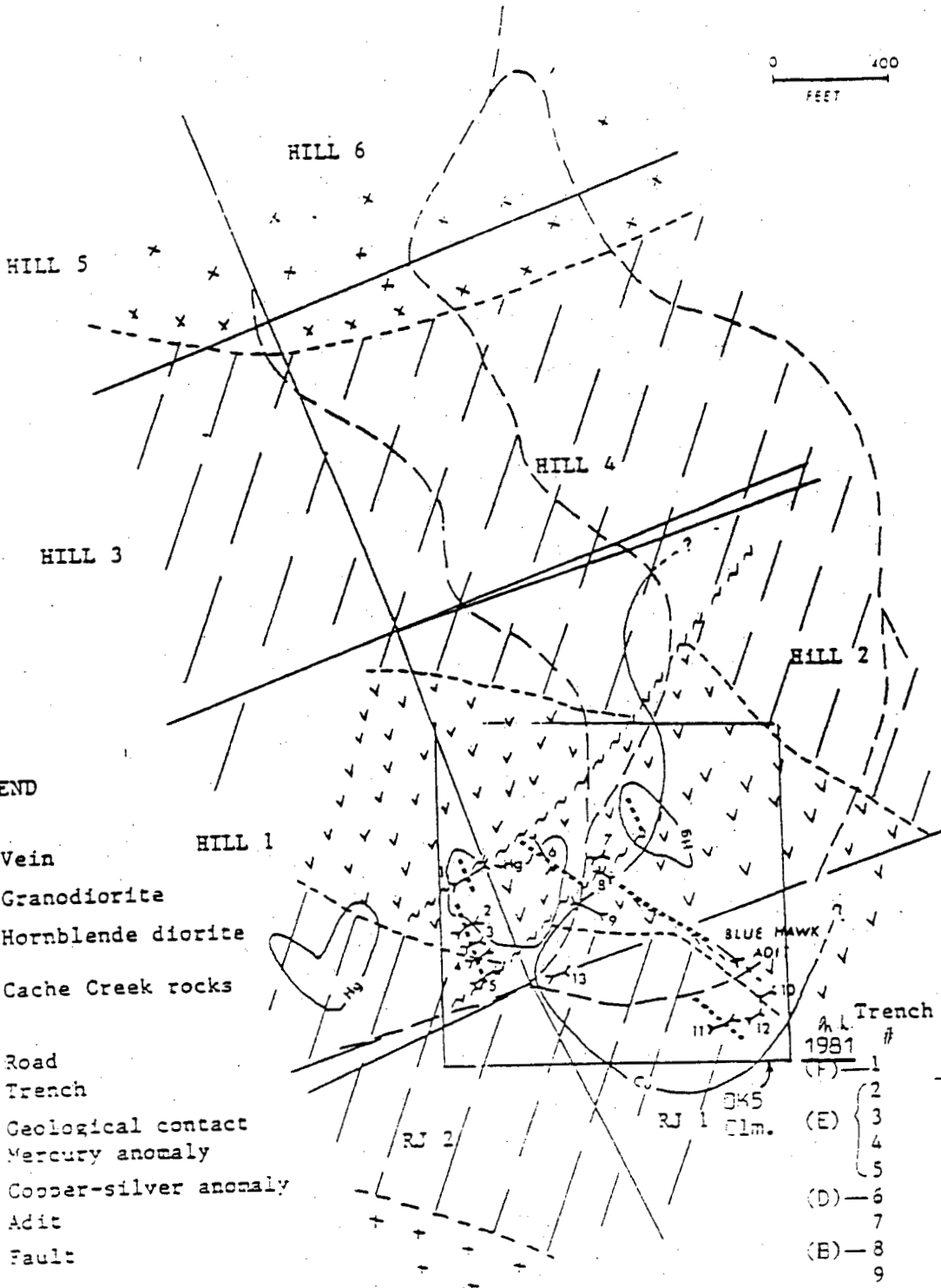
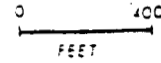
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1935, p. D13; 1938, p. D36.
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No. 6734 J. Gorham, Halferdahl & Assoc., 1978  
No. 1894 W.S. Read, P. Eng., 1969  
No. 100-9074 N.C. Lenard, P. Geol, 1981.

Fig.3: To Accompany Report on BK1-BK5 Claims  
by N.C. Lenard, P. Geol.  
Sept. 1, 1981

DAWOOD MINES LTD (NPL)

GEOLOGICAL PLAN

BLUE HAWK GOLD PROPERTY



LEGEND

- Vein
- Granodiorite
- Hornblende diorite
- Cache Creek rocks
- Road
- Trench
- Geological contact
- Mercury anomaly
- Copper-silver anomaly
- Adit
- Fault

ASSAYS (Fox)

Trench #	Au oz/t	Ag oz/t	ZCu
(F) 1	0.42	3.25	
(E) 2	.24	1.45	0.10
(E) 3	.03	.10	
(E) 4	.01	tr	
(E) 5	.40	7.85	
(D) 6	.14	.45	.10
(E) 7	.005	.10	
(E) 8	.005	.10	.10
(E) 9	.01	.15	
(E) 10	.005		.20
(C) 11	.01	.15	.12
(C) 12	.05	.25	.30
(C) 13	.01	.10	.30

*P. E. Fox*

Approved by P.E. Fox Ph.D. P. Eng.  
Engineer-in-charge 2/12/74



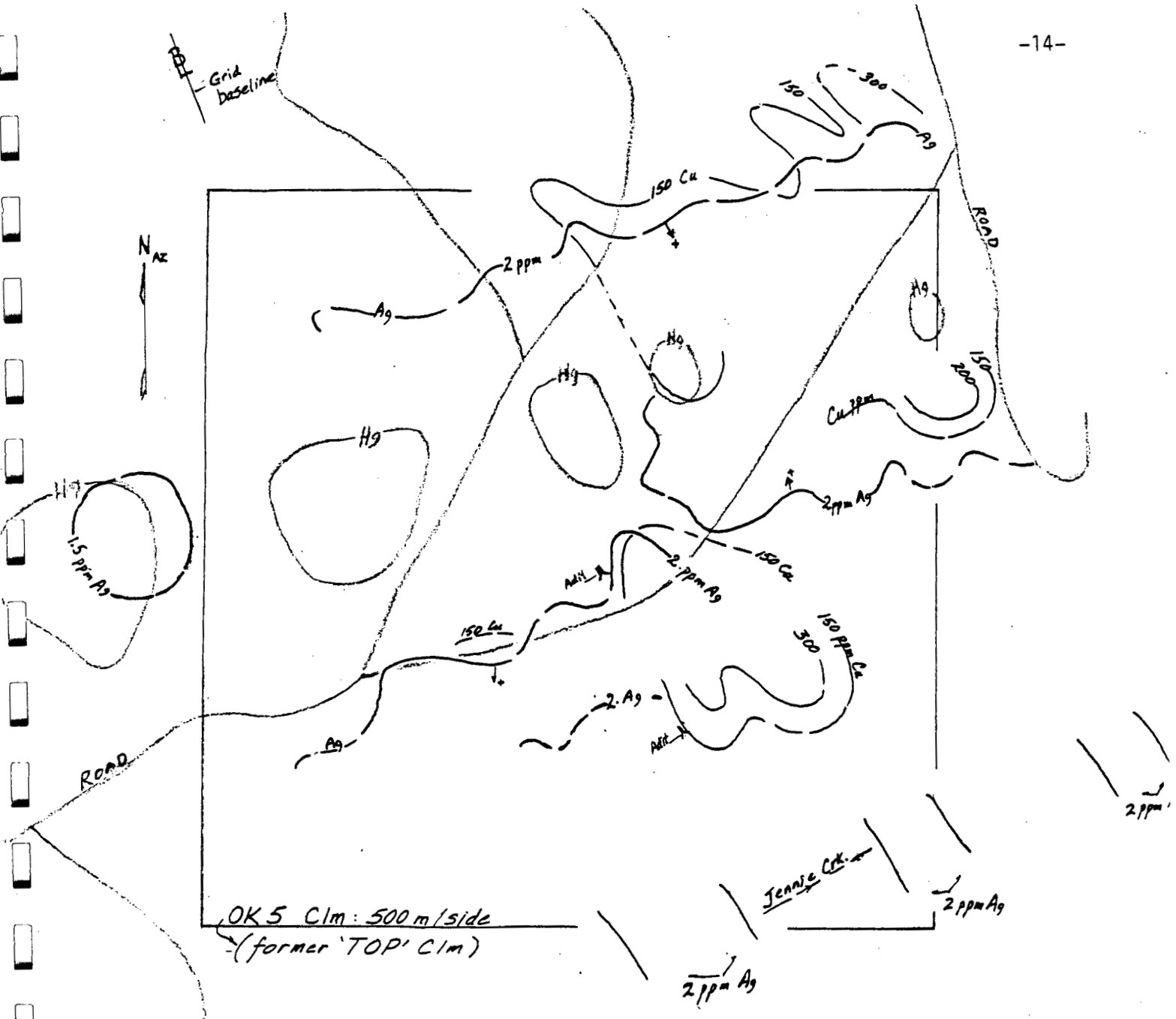


Fig.5

SOIL ANOMALIES: SILVER, COPPER, MERCURY

To accompany Report on the Bear 3 Claim  
by N.C.Lenard, P.Geol., April 18, 1984

T S L

# Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.  
TELEPHONE 684.1374

ASSAYERS  
CHEMISTS  
GEOCHEMISTS

## CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Mr. W.F. Christensen

REPORT NO.

V - 289

SAMPLE(S) OF ORE

Gold (Au)  
Troy ounces per  
2,000 lbs.

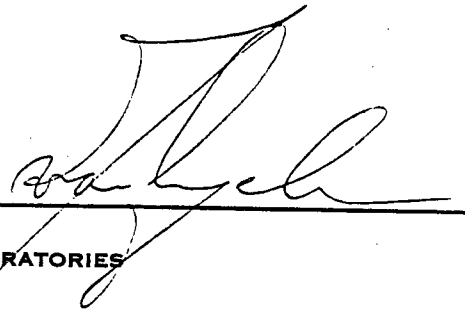
Silver (Ag)  
Troy ounces per  
2,000 lbs.

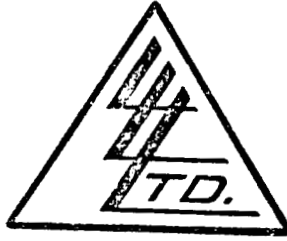
	Gold (Au) Troy ounces per 2,000 lbs.	Silver (Ag) Troy ounces per 2,000 lbs.
# 1	trace	trace
# 2	trace	trace
# 3	trace	trace
# 4	2.72	9.04

- Bluehawk Shaft  
A. L.

DATE May 31, 1966

SIGNED





File No. 20257  
 Date September 30, 1980  
 Samples Rock

To: Mr. Neall Lenard,  
 Box 863,  
 Westbank, B.C. VOH 2A0  
 cc: Whitecourt

*Certificate of*  
**ASSAY of**  
**LORING LABORATORIES LTD.**

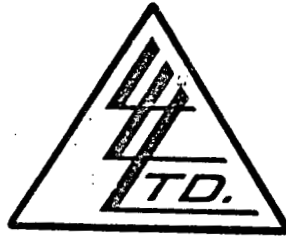
SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER	% Cu
<u>"Rock Samples"</u>			
10810-A	Trace	.32	.10
10811-A	3.820	13.92	-
10812-A	.050	.18	-
<p><b>I Hereby Certify</b> THAT THE ABOVE RESULTS ARE THOSE                  ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .</p>			

Respects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

*[Signature]*  
 Licensed Assayer of British Columbia

To: Mr. N.C. Lenard,  
Box 863,  
Westbank, B.C. VOH 2A0

File No. 20772  
Date December 22, 1980  
Samples Rock



*Certificate of*  
**ASSAY**  
**LORING LABORATORIES LTD.**

SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER
<p><u>"Rock Sample"</u></p> <p>16" Chip Top Claim</p>	<p>MAP SITE NO.</p> <p>11 .460</p>	<p>1.72</p>
<p><b>I Hereby Certify</b> THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .</p>		

Objects Retained one month.  
Samples Retained one month  
unless specific arrangements  
made in advance.

*[Signature]*  
Assayer



# KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C.  
V2C 5P5  
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYERS  
GEOCHEMICAL ANALYSTS  
METALLURGISTS

## CERTIFICATE OF ASSAY

TO Mr. N.C. Lenard  
Box 863  
Westbank, B.C. VOH 2A0

Certificate No. K 5999  
Date October 20, 1983

I hereby certify that the following are the results of assays made by us upon the herein described \_\_\_\_\_ samples

Kral No.	Marked	Au	Ag						
	<i>Bear 3 - Bluebank Mine</i>	ozs/ton	ozs/ton						
	<i>N.L.</i>								
1	E 1 <i>(F1) 4 ft chip</i>	.114	.49						
2	E 2	.012	.23						
3	4 a	L.001	.01						
4	4 b	.015	.01						
5	4 c	.030	.04						
6	4 d	.022	.04						
7	5 a	L.001	.01						
8	5 b	.004	.04						
9	6	.021	.40						
10	7 a	.075	.46						
11	7 b	.040	.52						
12	7 c	.024	.26						
13	8	.009	.01						
	L means "less than"								

Appendix 3a

NOTE:  
Rejects retained three weeks.  
Pulps retained three months  
unless otherwise arranged.

*[Signature]*  
Registered Assayer, Province of British Columbia

PHONE 495-6933

P.O. BOX 100

**JOHN O. DOLPHIN**

ASSAYER

— CHEMIST —

METALLURGIST

**OSOYOOS, B.C.**

TO:

Dawood Mines Ltd.

Kelowna B.C.

*samples taken by J.O.D.***Assay Certificate**

I HEREBY CERTIFY THAT THE FOLLOWING ARE THE RESULTS OF THE SUBMITTED SAMPLES

MARKED	GOLD OZS PER TON	SILVER OZS PER TON	Copper	
			% PER TON Cu	% PER TON
Spike Shaft	1.00	4.0		
Friday Bottom claim	nil	trace		
BILL CLAIM Most western shaft PIT			0.64	
Dofe # 10			1.66	
BILL CLAIM East shaft			0.91	
BILL CLAIMS West shaft			nil	

*Asano report N.L.*

FILE NO.

6137

DATE

Sept 11th., 67

CHARGES

\$18.00


  
 JOHN O. DOLPHIN  
 PROVINCIAL ASSAYER

GEOLOGY of SPIKE, LID, NAIL, FRIDAY

CLAIMS GROUP

by

S.E. ASANO

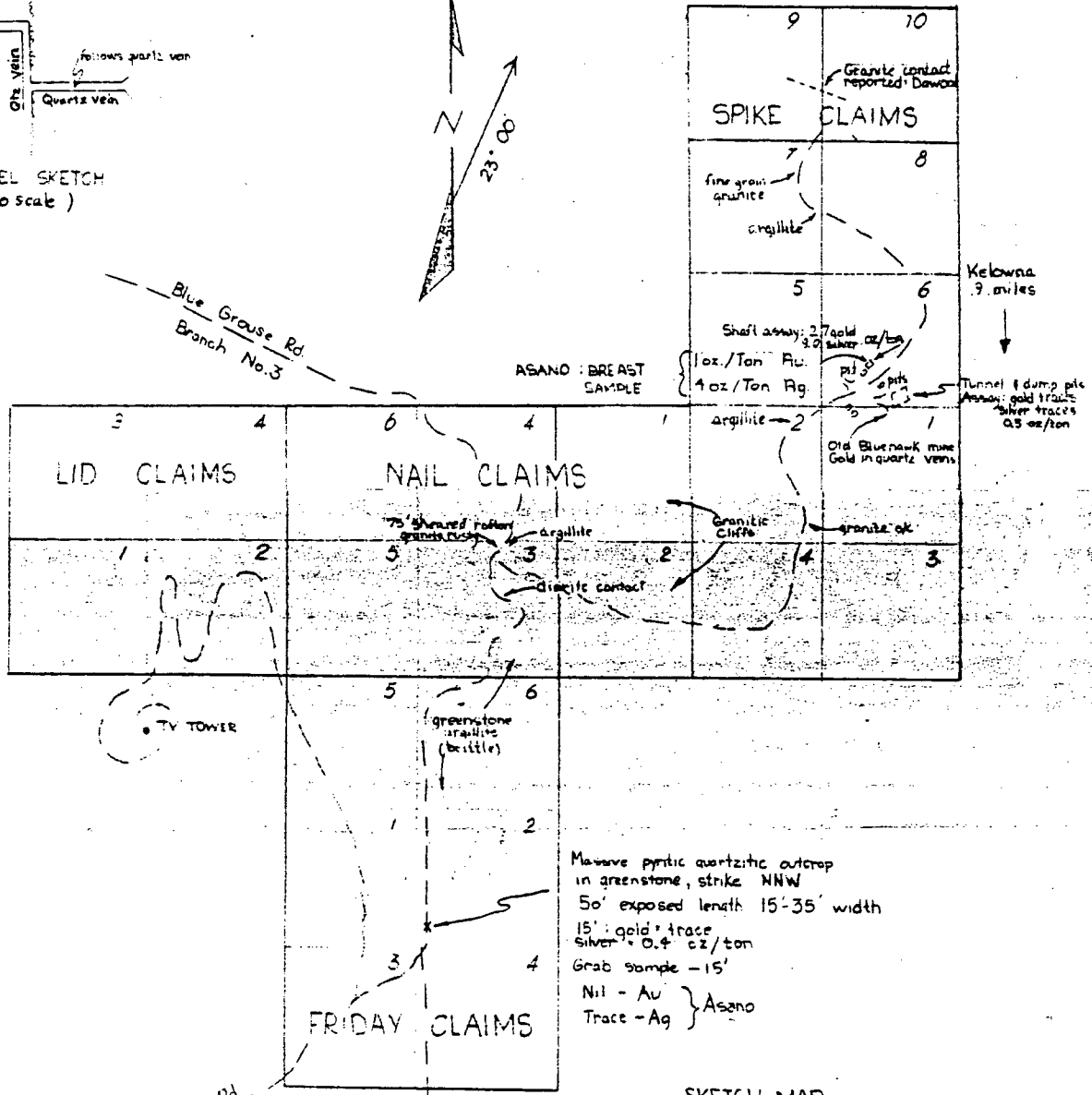
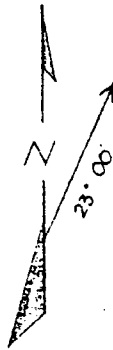
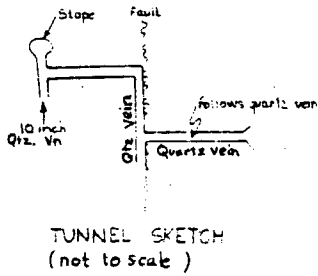
September 15, 1967

*Blue Hawk Mine  
on  
Bluegrouse Mtn  
Kelowna  
Westside  
Area  
M.L.*

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Fig. 4: To accompany Report on the Bear 3 Claim  
by N.C. Lenard, P. Geol., April 18, 1984



SKETCH MAP  
for  
DAWOOD MINES LTD  
Kelowna, B.C.  
KELOWNA AREA, B.C.

Geology after: N.C. LENARD  
P. Geol.  
Report of July 8, 1966  
S.E. ASANO FGAC  
S.S. GILMOUR PENG  
SEPT 15, 1967 KELOWNA BC  
Scale 1" = 1500'





Geological Report of the  
SPIKE, LID, NAIL, FRIDAY CLAIM GROUPS  
Wilson's Landing , Kelowna , Vernon M.D.  
British Columbia

INTRODUCTION :

This group comprises 26 contiguous claims owned by Dawood Mines Ltd. (NPL) of Kelowna. This area is underlain by altered sediments with exposures of younger intrusives in the north-east sector of the property. Workings of the old Blue Hawk Mine are the only possible area of interest on this property.

On the 6th of September 1967, an option agreement was executed in Kelowna between Dawood Mines (NPL) represented by Jack Dawson and Caroka Development Ltd represented by Fred Kyte in Kelowna B.C. This option is valid until the 30th June 1968. Caroka Development Ltd has agreed to finance exploration and development on this property. Therefore, this report will not be necessary for recommendations on this property.

## SUMMARY:

Gold-silver values from the old Blue Hawk Mine show some possibility due to the continuity of the north-west structure. The writer spent September 8, 1967 on the property but did not enter due to the abundance of water at the entrance. In the recommendation report by N.C. Lenard of July 20, 1966 his samples of the dump showed traces of gold and silver. Older reports enclosed show that 5 tons were shipped grading 1.0 oz/ton Au and 3.6 oz/ton Ag. The gold is associated with the pyrite mineralization in the quartz. A small shaft north of the road was sampled by the writer and it assayed 1 oz/ton Au and 4 oz/ton Ag over the back and breast of the drift at the bottom of the shaft. Mr. Lenard obtained values of 2.72 oz/ton Au and 9.04 oz/ton Ag over the same structure in the shaft.

## PROPERTY and LOCATION:

This property is located by the following co-ordinates :

Latitude 50 deg 00' N

Long 119 deg 30' W

(Vernon Mining Division)

There are 26 contiguous claims. A mineral claim map is attached as located by Dawood Mines Personnel. Since no legal surveys have been conducted over the property the writer assumes no responsibility regarding its status.

WILSON'S LANDING

<u>Name</u>	<u>Record No</u>	<u>Tag No</u>	<u>Record date</u>
Nail 1	8578	689098	May 2, 1966
Nail 2	8579	689099	May 2, 1966
Nail 3	8580	689101	May 2, 1966
Nail 4	8581	689100	May 2, 1966
Nail 5	8582	689096	May 2, 1966
Nail 6	8583	689097	May 2, 1966

<u>Name</u>	<u>Record No</u>	<u>Tag No</u>	<u>Date Recorded</u>
SPIKE 1	8584	689139	May 2, 1966
SPIKE 2	8565	689140	May 2, 1966
SPIKE 3	8566	689141	May 2, 1966
SPIKE 4	8567	689142	May 2, 1966
SPIKE 5	8568	689143	May 2, 1966
SPIKE 6	8569	689144	May 2, 1966
SPIKE 7	8570	689145	May 2, 1966
SPIKE 8	8571	689146	May 2, 1966
SPIKE 9	8572	689147	May 2, 1966
SPIKE 10	8573	689148	May 2, 1966
LID 1	8574	689102	May 2, 1966
LID 2	8575	689103	May 2, 1966
LID 3	8576	689104	May 2, 1966
LID 4	8577	689105	May 2, 1966
FRIDAY 1	8917	710165	June 20, 1966
FRIDAY 2	8918	710166	June 20, 1966
FRIDAY 3	8919	710167	June 20, 1966
FRIDAY 4	8920	710168	June 20, 1966
FRIDAY 5	8921	710169	June 20, 1966
FRIDAY 6	8922	710170	June 20, 1966

## MINERALIZATION:

The only area of any significance as far as mineralization is concerned is the the old Blue Hawk Mine and the small shaft above the road, both located on Spike No. 6. The limited drifting in the smaller shaft is open at both ends for vein continuity. A large vein was located in Nail No. 2 with a width of 14' which was sampled by the writer but gave assays of nil- Au and Trace- Ag . No other veins were located on the property. It appears that the pyrite mineralization carrying the values is quite erratic.

*N.b.: Qtz-  
Albite  
dyke.  
m.l.*

## MINERAL DEPOSITS and STATE of DEVELOPMENT:

Numerous pits and one shaft and one adit (BLUE HAWK MINE) have been developed in former years. Several hundred feet of drifting (Lenard July 20, 1966) has been carried out on the property.

## PRODUCTION and ORE RESERVES:

Five tons previously shipped is recorded in the minister of mines report (1933) .

## CONCLUSION and RECOMMENDATIONS:

Since this property is under option, the writer has made no attempt to recommend a work program.



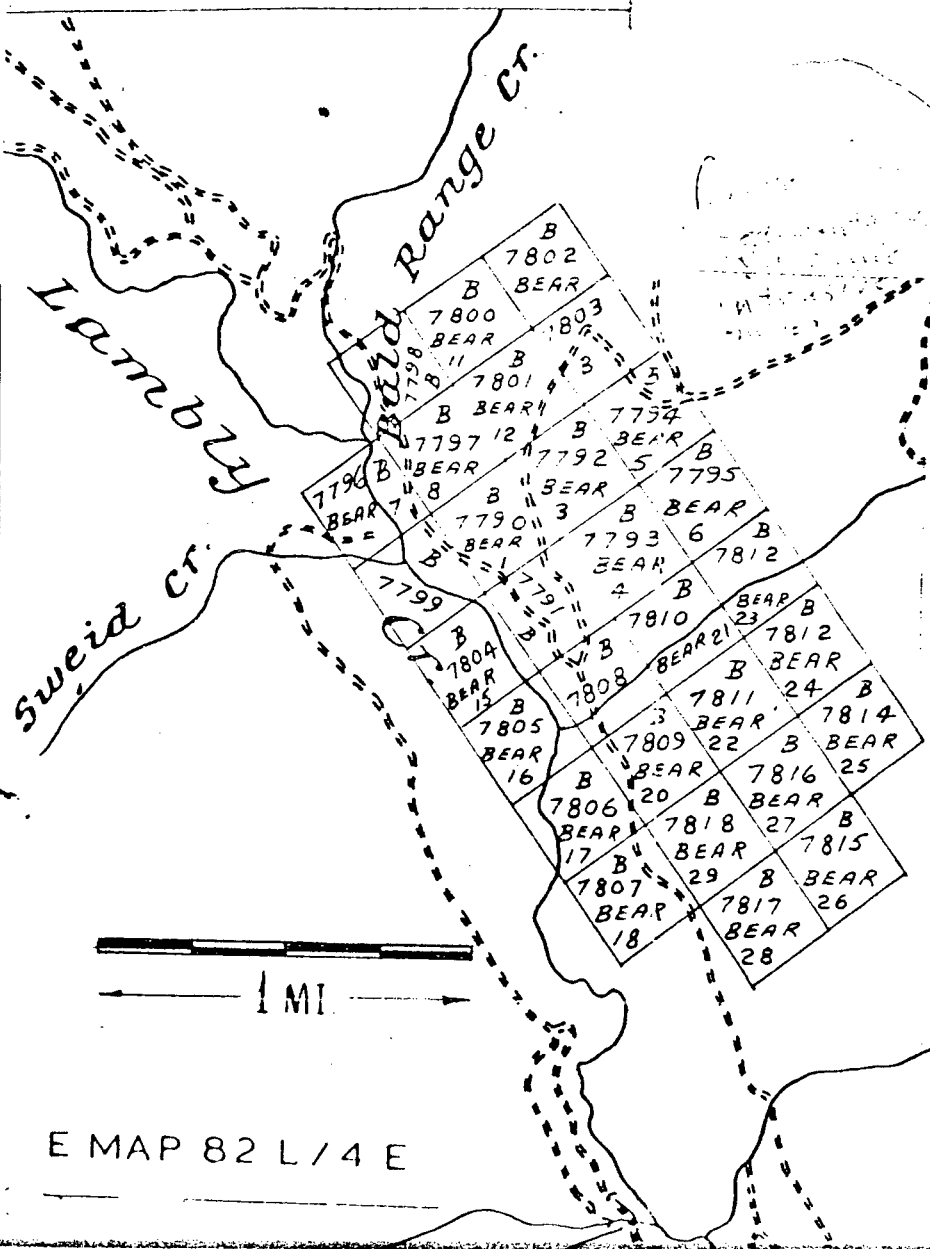
Respectfully submitted,

S. E. Asano

FGAC

119°30'

50°00'



Intrusives

8572 G	8573 G
Spike 9	Spike 10
8570 G	8571 G
Spike 7	Spike 8
8569 G	8569 G
Spike 5	Spike 6
8565 G	8566 G
Spike 2	Spike 1
8567 G	8568 G
Spike 4	Spike 3

8576 G	8577 G	8583 G	8581 G	8578 G
Lid 3	Lid 4	Nail 6	Nail 4	Nail 1
8574 G	8575 G	8572 G	8570 G	8571 G
Lid 1	Lid 2	Nail 5	Nail 3	Nail 2

Friday Group  
(Ref: Dawson Mines)

5	6
1	2
3	4

Wilson Gulch

Wilson Landing

Jennia Cr.

KELCOWNA

9 MI.

Amended Position  
L/13292/66  
SHOULD REAL (E) NOT (G)

anan

**ACCESSIBILITY:**

This property can be reached by the old Vernon road which is partly paved. A turn off at Blue Grouse No. 3 has many connecting logging spurs which emanate to most parts of the property. The former logging roads have been maintained by Dawood Mines personel.

**History:**

At the back of this report the history of the property is attached. (paper 37-21, 1937 GSC) and a report from the minister of mines (1933).

**Geology:**

This group is underlain by the Cache Creek Group of greenstones, quartzites, argillites and limestones of Paleozoic age .To the west the Cache Creek Group is overlain by the volcanics and intruded by the younger Nelson granites and diorites along a north-west trend. The limestones , a member of the Cache Creek Group is probably the favourable horizon. The contacts of geological borders should be prospected for a more detailed picture of this area.

The use of air photographs can be used for this area in geological interpretation because of the relief and vegetative cover.





**LEGEND**

- G Gossan
- Q Quartz vein
- QA Quartz Albite
- BD Basic Diorite
- PCC Permian Cache Creek
- A, s Vein sample site
- Hg Mercury soil anomaly
- Fault, reported, observed
- Quartz vein

**SOIL ANOMALIES**

- Au, Ag, Cu Fox, '74
- Hg Read, '69
- Sb Lenard, '81

South Boundary BEAR #3 CLAIM  
(130 m)

FIG.2  
PROPERTY & ECONOMIC GEOLOGY  
GOLD QUARTZ VEIN SYSTEM  
BLUEHAWK MINE  
REPORT ON THE BEAR 3 CLAIM  
BY N. C. LENARD, P. GEOL. P. ENG., - APRIL 19, 1984

Scale: 1 in = 100 ft.  
0 25 50 metres

