

LOG NO: DEC 02 1991 RD.
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GEOLOGICAL REPORT

on the

DANNY 1 PROPERTY

Similkameen Mining Division
49°31'N 120°24'W

NTS 92 H/9

for

B.J. Perry

518-89 McCaul St.
Toronto, Ontario
MST 2X3

PROPERTY OWNER: B.J. Perry
OPERATOR: Placer Dome Inc.
REPORT AUTHOR: R.C. Wells B.Sc., F.G.A.C.

November 8, 1991

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

21,864

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SUMMARY

Bruce Perry from Toronto holds a small claim group twelve kilometres north of Princeton in a favourable setting for alkali porphyry copper gold deposits. The property covers the western part of the Bromley Pluton in contact with Nicola Group volcanics and sediments (Eastern Facies). Limited previous sampling on the property produced significant copper values with associated gold and silver from strongly altered and fractured Nicola sediments, volcanics.

Three days were spent by Placer Dome mapping and sampling on the property in June and July 1991. The main Cu showing at the Freddy B trench features copper (malachite and chalcopyrite) mineralization in strongly altered sediments (chlorite, silica, hematite, potassic with gypsum and carbonate veins) possibly associated with a monzonitic dyke. A 60 metre section of these rocks in the trench yielded copper values up to 0.4% with anomalous gold (to 165 ppb), zinc (to 0.1%) and molybdenum (to 306 ppm). Similar copper, gold (to 505 ppb Au) mineralization occurs in two very old adits 500 metres to the south.

There are very few other outcrops in the showing area, none to the north. To the south a number of small alkalic plugs and dykes intrude Nicola volcanics. Copper mineralization in more fractured and propylitically altered volcanics produced values up to 2% Cu.

Previous mapping in the area did not indicate these alkalic intrusives. A northerly trending belt of copper mineralization along Hayes Creek 600 metres long by 200 metres wide is possibly associated with these intrusions and an earlier structure. This property, although small, deserves further work to evaluate the extent of intrusive rocks and copper-gold mineralization.

1.0 INTRODUCTION

Bruce Perry holds a small copper gold property, the Danny 1 on Hayes Creek, north of Princeton in Similkameen Mining Division. In June and July 1991 Placer Dome personnel spent a total of three days on the property conducting preliminary geological, prospecting and sampling programs. This work is being filed on the Danny 1 claim for assessment credit.

1.1 Location and Access

The property lies at the junction of Hayes and Collett Creeks ten kilometres northeast of Princeton and is covered by NTS sheet 92H-9. The property location is shown on Figure 1.

Access is by paved highway from Princeton past Jura to Hayes Creek (15 kilometres), then south by a network of gravel roads and trails onto the property. Access to the area east of Hayes Creek is more difficult and requires a river crossing or a lengthy hike.

1.2 Property

The property consists of a single claim, the Danny 1, totalling six units located in Similkameen Mining Division.

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Danny I	6	3851	7-11-91

Bruce Perry of Toronto is the recorded property owner. Originally the property consisted of a single reverted crown grant the Freddy B (Record No. 3640) which Perry acquired in a B.C. government auction in 1990. Subsequently the Freddy B was overstaked by the Danny 1 in 1990 and incorporated by forfeiture in March 1991.

The Danny 1 claim overstakes the southwestern corner of the pre-existing GW 2 claim north of Collett Creek. This overstaking reduces the size of Danny 1 to approximately 5 units as shown in Figure 2.

1.3 Physiography and vegetation

The property covers a section of Hayes Creek where it has cut a fairly deep and steep sided valley into gently rolling topography. Elevations range from 730 to 860 metres.

Gravel terraces and bedrock cliffs occur along the river with fairly thick stands of mature fir and pine, and thick underbrush. Above, cleared pasture is interspersed with fairly open stands of largely second growth fir and pine.

Fig.1 : DANNY 1 PROPERTY

LOCATION MAP

Scale 1" = 30 miles
SEPTEMBER 1991

EDMONTON

JASPER

VALEMOUNT

WILLIAMS LAKE

BLUE RIVER

CLEARWATER

REVELSTOKE

ASHCROFT

KAMLOOPS

SALMON ARM

HIGHLAND VALLEY
X

AFTON
X

SPENCES BRIDGE

LYTTON

VERNON

LUMBY

MERRITT

FAUQUIER

DANNY 1 PROPERTY

KELOWNA

BRENDA MINE
X

VANCOUVER

HOPE

PRINCETON

PENTICTON

BRITISH COLUMBIA
WASHINGTON U.S.A.

KEREMEOS

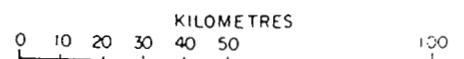
OLIVER

ROCK CREEK

GRAND FORKS

OSOYOOS

GREENWOOD



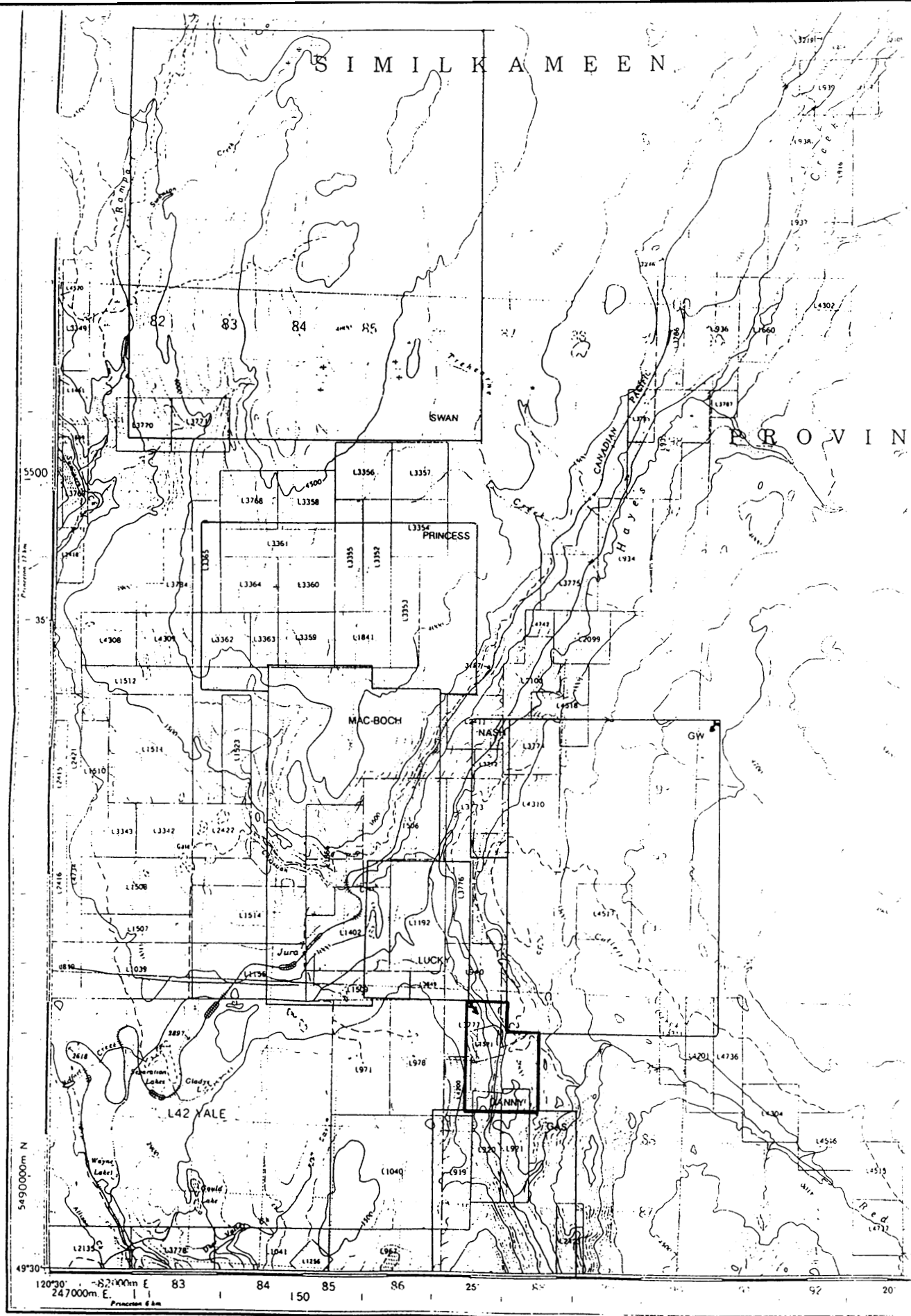


Fig 2 : HAYES CREEK AREA. COMPILATION

1.4 History and Previous Work

Work on the Freddy B claim dates back to the turn of the century. Numerous old workings are evident on the property in the form of caved trenches and adits along the western side of Hayes Creek. A summary of previous work on the Freddy B follows:

- 1908 233 feet of tunnelling and a series of open cuts. Mention of significant copper mineralization with gold values and a little silver. B.C. Ann. Report 1908.
- 1915 Mention of two short adits in strongly altered and schistose sediments. Disseminated copper mineralization was noted in both adits 'upwards of 50 feet in width'. Stronger copper mineralization was noted in the more northerly adit. The property was judged to 'possess sufficient merit to warrant being thoroughly and systematically prospected by diamond drill boring'. B.C. Ann. Report 1915.
- 1973 Prospecting Report (No. 6157). Three areas on the Freddy B near Collett Creek produced copper values in the 0.15% to 0.3% range (unknown width).
- 1990 Samples taken by B. Perry from the Freddy B trench and area to the south yielded strongly anomalous copper values up to 3.51% with gold to 320 ppb and silver to 23.7 gt.














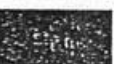

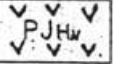
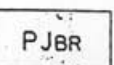


1.5 Regional Geology and Mineralization

The property lies within the Quesnel Terrane near the intersection between the northerly trending Boundary and Summer Creek Fault systems at the northeastern edge of the Princeton Basin

(Figure 3). This is a complex structural area with Mesozoic and Tertiary elements as well as numerous intrusive events involving the Bromley (Triassic-Jurassic), Osprey Lake (Late Jurassic) batholiths and Summers Creek (Cretaceous) stocks. A fault wedge of Nicola volcanic (Eastern Facies) and sedimentary rocks separates the Bromley and Osprey batholiths from the Tertiary volcanics and sediments (Princeton Group) within the Princeton Basin to the east (Tertiary age sedimentary-volcanic, transtensional basin).

In the Princeton-Aspen Grove Belt a number of copper porphyry deposits and occurrences (plus or minus gold) occur along the Boundary-Summer Creek fault systems including Copper Mountain-Ingerbelle (Similco), Axe and Man. Compilations indicate that northwesterly trending tentional zones along the fault system are preferential sites for alkalic intrusions. The Freddy B lies at the south end of one of these zones which extends to Allison Lake and hosts copper-precious metal mineralization on the Lucky and Mac-Boch properties (Figure 2).

LEGEND TO FIGURE 3

	TRIASSIC AND/OR JURASSIC	
	LATE TRIASSIC AND/OR EARLY JURASSIC	
	 Granodiorite (gd) (ALLISON LAKE, BROMLEY, CAHILL CREEK PLUTONS, part of MOUNT LYTTON COMPLEX) T Jgd	
	 Small dioritic plutons in NICOLA GROUP, diorite and amphibolite of MOUNT LYTTON COMPLEX, dioritic HEDLEY INTRUSIONS T Jsd	
	T Js, d, gd, u Alkaline intrusions, syenite (s), diorite (d) (COPPER MOUNTAIN STOCK), syendiorite (sd), gabbro (gb) and ultramafic rock (u) (TULAMEEN COMPLEX)	
	 CULTUS FORMATION: argillite, sandstone, minor carbonate T Jc	
	LATE TRIASSIC	
	NICOLA GROUP	
	 Volcanics, undifferentiated mafic to felsic volcanics and minor argillite T Nv	
	 Western volcanic facies of NICOLA GROUP, felsic to intermediate pyroclastics, argillite, local carbonate T Nw	
	 Central volcanic facies of NICOLA GROUP, intermediate feldspar and feldspar augite porphyry pyroclastics and flows T Nc	
	 Eastern volcanic facies of NICOLA GROUP, mafic, augite and hornblende porphyry pyroclastics and flows T Ne	
	 Sedimentary facies of NICOLA GROUP, argillite, sandstone, tuff and local mainly carbonate clast breccia and conglomerate T Ns	
	 Amphibolite, foliated diorite, mylonite and chlorite schist and minor marble derived from NICOLA GROUP T Nm	
	TRIASSIC	
	 CAMP COVE FORMATION: siliceous argillite, mafic volcanics	
	 SPIDER PEAK FORMATION: mafic volcanics	
	 Granite-gneiss of Hornet Creek	
	 Carbonate in MOUNT LYTTON COMPLEX	
	PMC Cogburn schist, meta-chert, pelite, amphibolite, marble, ultramafic rock possible correlative of HOZAMEEN-BRIDGE RIVER COMPLEXES metamorphosed in Cretaceous	
	 Ultramafic rock, local gabbro	
	PERMIAN TO JURASSIC	
	HOZAMEEN COMPLEX (PJH-PJHv):	
	 Undifferentiated chert, pelite, mafic volcanics, thin limestone, gabbro and ultramafic rock PJH	
	 Mafic volcanics PJHw	
	BRIDGE RIVER COMPLEX	
	 Siliceous and chlorite schist, phyllite, correlative with HOZAMEEN COMPLEX but west of Fraser River PJBR	
	 Ultramafic rock and local gabbro, associated with HOZAMEEN and BRIDGE RIVER COMPLEXES	
	ORDOVICIAN TO TRIASSIC	
	APEX MOUNTAIN COMPLEX	
	 Argillite, chert, mafic volcanics, minor carbonate and ultramafic rock (includes BRADSHAW, INDEPENDENCE, and SHOEMAKER GNEISSOMYONITE)	

MESOZOIC

PALEOZOIC AND/OR MESOZOIC

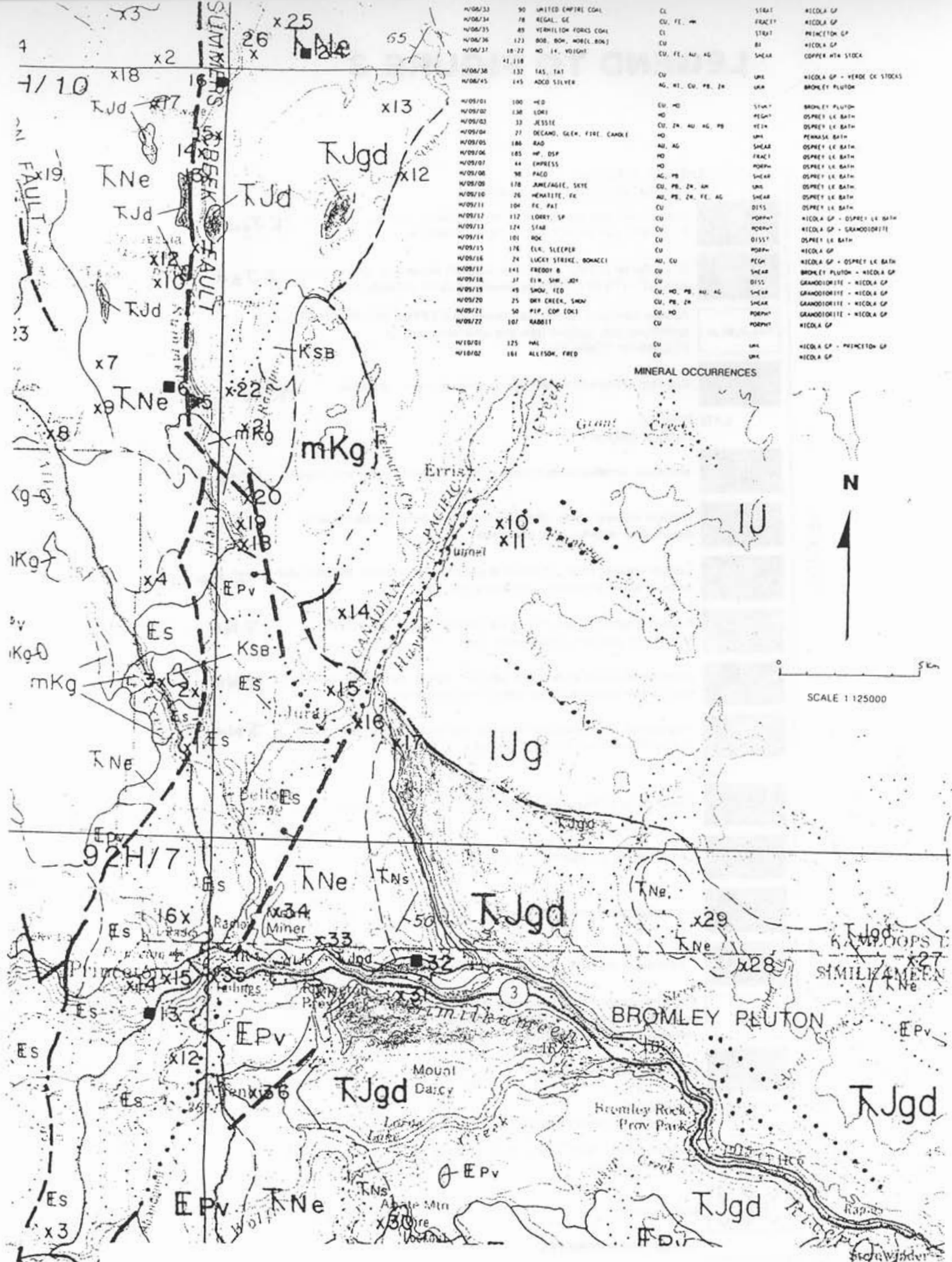
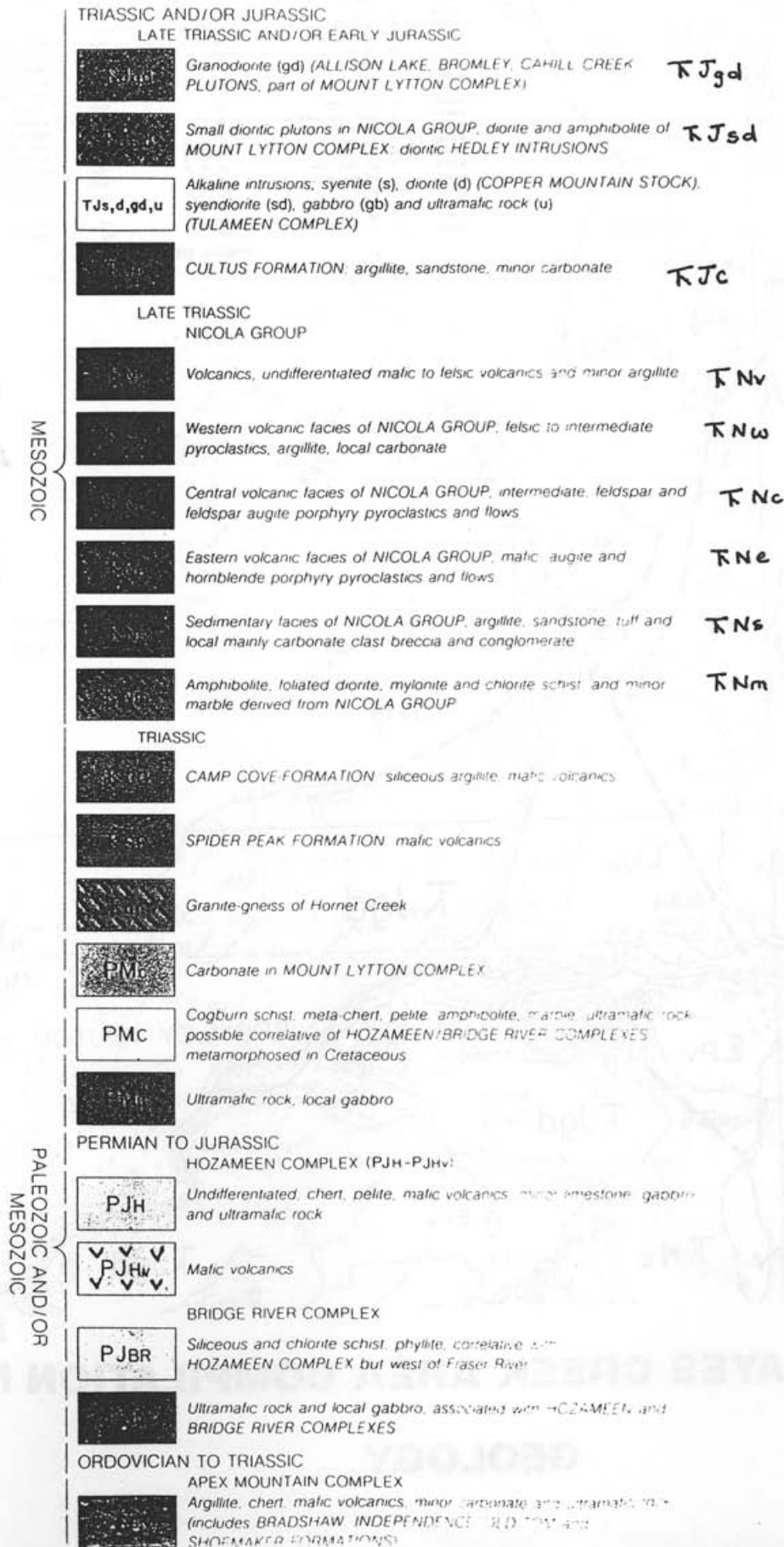


Fig. 3 : HAYES CREEK AREA COMPILATION MAP
GEOLOGY

LEGEND TO FIGURE 3



2.0 PROPERTY GEOLOGY AND MINERALIZATION

2.1 Introduction

During June and July a total of three days were spent by Placer Dome personnel on the Danny I Property. This work was under the supervision of R.C. Wells (Consulting Geologist). A detailed examination including chip sampling was made of the Freddy B trench (Figure 6). Preliminary geological mapping was conducted over the area west of Hayes Creek, using air photograph control (Figure 4).

2.2 Distribution

The Danny Property covers the western edge of the Bromley Pluton (granodiorite to diorite) in contact with northerly striking Eastern Facies, Nicola Group volcanics and sediments. In detail, the property geology is quite complex with a variety of felsic intrusives. The Nicola sediments on GSC Map 41-1989 are far more restricted than indicated. Much of the area is underlain by andesitic volcanic flows.

Much of the northern part of the property is overburden covered with widespread gravel deposits along Hayes Creek. Bedrock exposures are common but generally small in the southern and western areas, mainly on steeper slopes and along the creek.

2.3 Lithology

A number of different rock units could be distinguished during the geological mapping. The distribution of these is shown on Figure 4. The units are as follows:

NICOLA GROUP VOLCANICS AND SEDIMENTS

1. Mafic Volcanic Flows and Minor Fragmental Units.

Massive, medium to dark green, fine grained, andesitic flows predominate. Locally there is evidence of narrow interflow fragmental units and flow breccias. These units appear to have a northerly strike.

2. Chloritic, Hematite Altered Sediments.

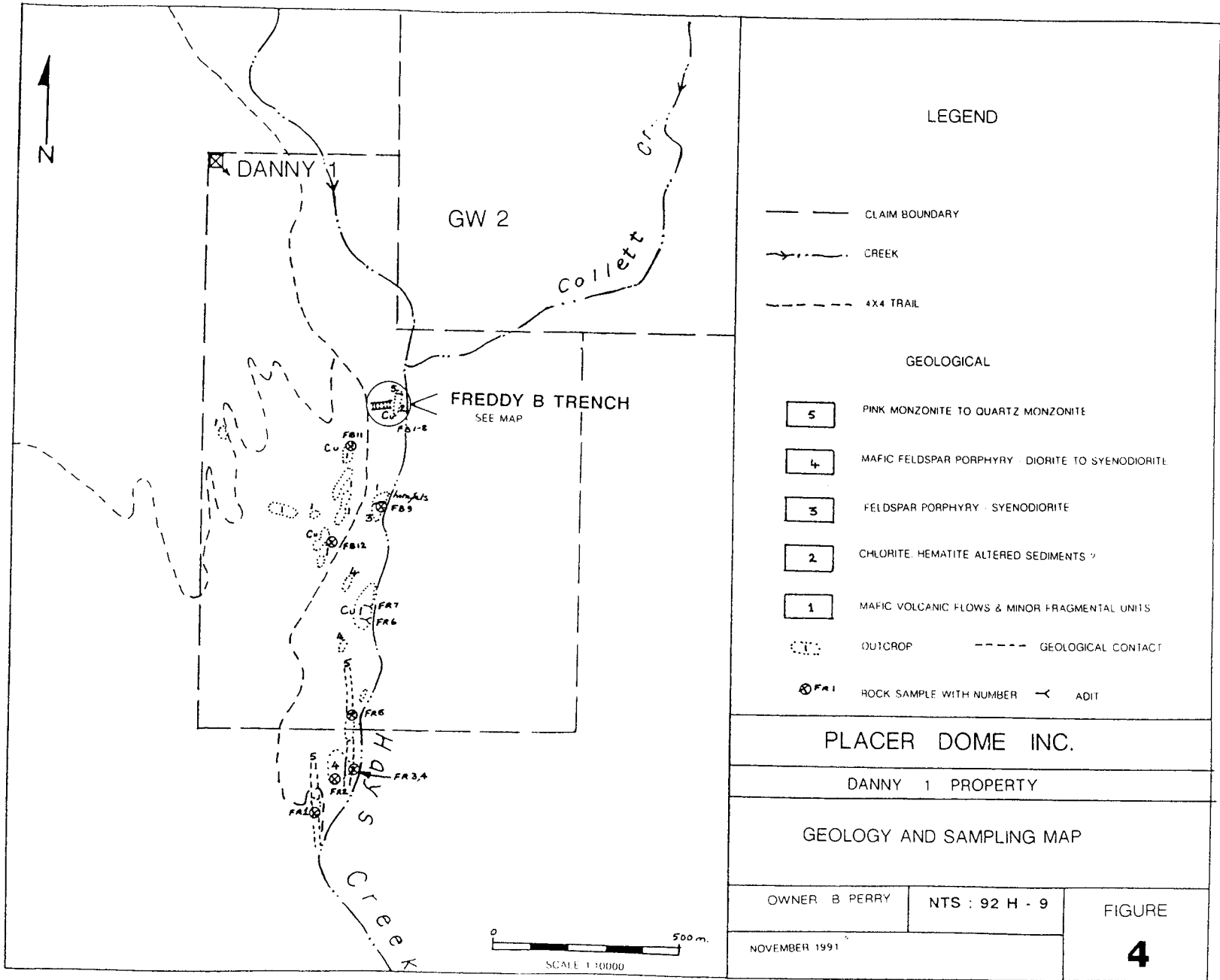
These rocks are poorly exposed along Hayes Creek, original textures are obscured by chloritic and hematitic alteration and deformation. Cut slabs of these brown to grey coloured rocks indicate crude bedding in (probable) sandstones and argillites.

INTRUSIVE ROCKS

These are mainly feldspar porphyries of variable colour and grain size. Whole rock analyses was used as an aid in distinguishing intrusive rock type. This data was plotted on a standard alkali-silica diagram (Figure 5). Sample points lie predominantly within the alkali field (Irvine and Barager 1971).

3. Feldspar Porphyry-Syenodiorite

An outcrop of pinkish grey leucocratic feldspar porphyry occurs 200 metres south of the Freddy B trench. White tabular and locally zoned plagioclase phenocrysts up to 3 mm long lie in a fine to medium grained groundmass with plagioclase, orthoclase and less than 5% chloritically altered mafics (after pyroxene?). Hematitic alteration is common and locally strong.



4. Mafic Feldspar Porphyry-Diorite to Syenodiorite.

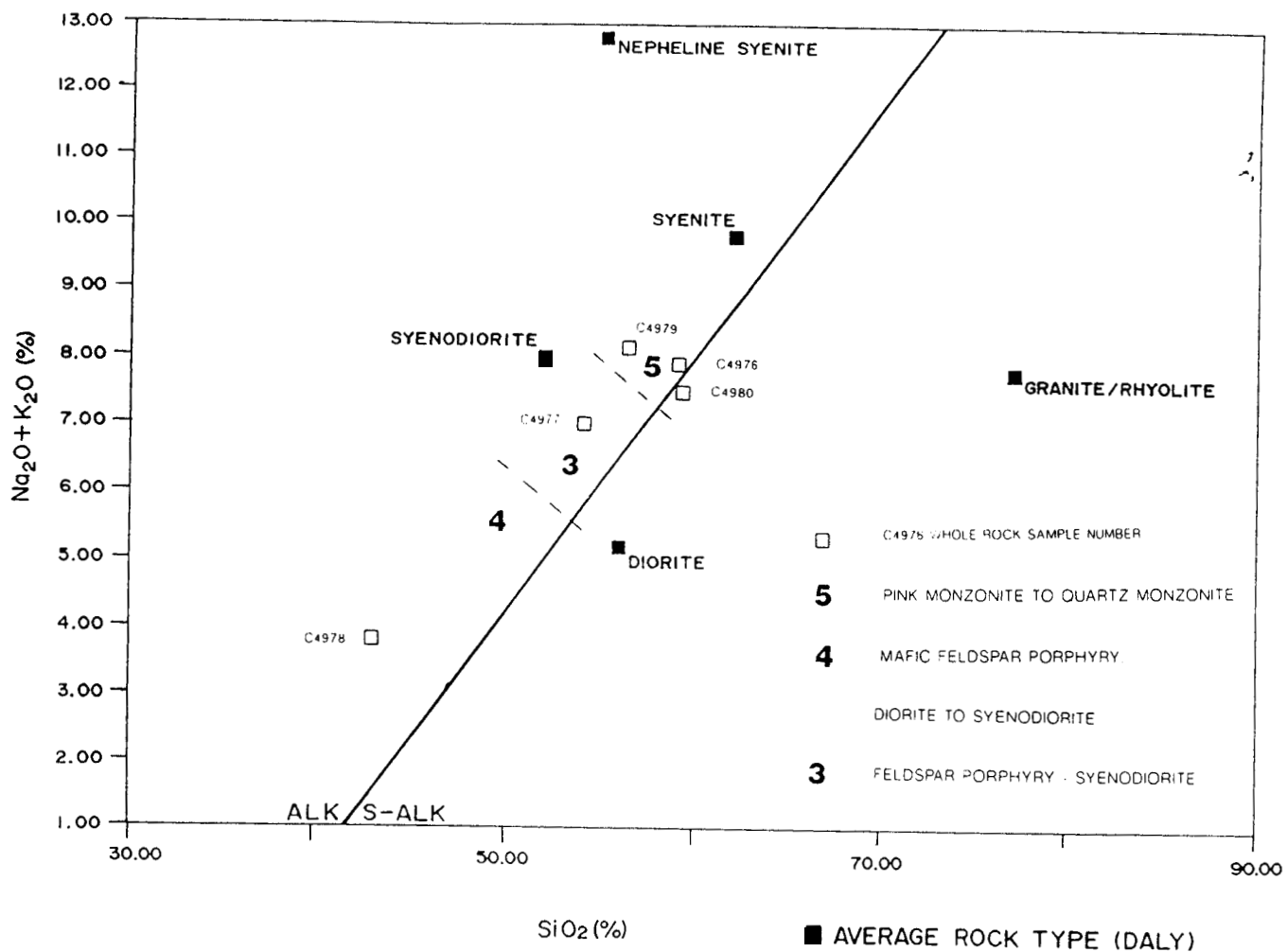
Medium grey and white speckled, feldspar porphyry intrusives outcrop near the southern claim boundary. These are diorites with 10 to 20% white plagioclase phenocrysts that are locally zoned, generally subhedral and less than 2mm long. The groundmass is fine to medium grained and dark coloured with minor plagioclase.

5. Pink Monzonite to Quartz Monzonite

These are pink to grey, leucocratic, medium to coarse grained locally feldspar porphyritic monzonites and quartz monzonites. Plagioclase feldspars predominate with some potassic feldspar and generally less than 10% quartz. Mafic minerals occur in small amounts and are commonly altered to chlorite.

The more alkalic intrusives, Units 3 and 5 are compositionally quite different from the Bromley and Osprey plutons. Unit 4 the mafic diorite may represent a marginal phase of the Bromley pluton west of Hayes Creek.

FIGURE 5 ALKALI-SILICA DIAGRAM
DANNY 1 PROPERTY



IRVINE AND BARAGAR (1971) FIELDS FOR ALKALINE, SUB-ALKALINE

2.4 Structure

The northerly trending contact between the Bromley Pluton and the Nicola rocks lies close to Hayes Creek. At the Freddy B trench and the old adits to the south there is evidence for a structural zone with similar trend along Hayes Creek. This fracturing is fairly strong in the Nicola sediments and volcanics but appears to predate (in part) and to an extent control intrusive activity. Some monzonite dykes (Unit 5) clearly follow parallel structures, others transect them.

2.5 Metamorphism

On the property metamorphic grade varies with distance from intrusions. Close to the intrusions in particular the syenodiorite (Unit 3) volcanics are converted to coarser grained biotite hornfels.

associated with more fractured and propylitically altered (chlorite, carbonate, hematite, local epidote) volcanics. Grab samples from these showings have yielded copper values up to 2.2% and silver to 10.6 gt (elevated Bi).

Patchy hematite, chlorite and silica alteration was noted in the intrusive rocks and appears to be strongest in the syenodiorite (Unit 3) and some monzonite dykes (Unit 5). Fine to medium grained disseminated pyrite is widespread in the more mafic intrusives (Unit 4) and locally in the volcanics and sediments.

CONCLUSIONS AND RECOMMENDATIONS

The Danny I property covers Nicola Group volcanics and sediments intruded by several alkalic monzonite to syenodiorite dykes and plugs.

Copper mineralization with associated gold and silver values occur in fractured and strongly altered Nicola rocks proximal to the alkalic intrusives.

Limited recent geological mapping and prospecting has identified a northerly trending belt along Hayes Creek of copper showings and old workings, 600 metres long by 200 metres wide.

Due to overburden cover it is very difficult to estimate the true width of copper-gold mineralization in the Freddy B trench area. Upwards of 50 feet of copper mineralization has been documented from the old adits 450 metres to the south.

Diamond drilling in the trench area would yield valuable information on the width, grade and controls on the copper-gold mineralization and is recommended.

REFERENCES

B.C. REPORTS OF THE MINISTER OF MINES. (1908) p.130, (1915)
p.K243-44

ASSESSMENT REPORT (1973) No. 6157

MONGER, J.W.H. Geology of Hope and Ashcroft Map Areas, British
Columbia. Maps 31-1989 and 42-1989

STATEMENT OF EXPENDITURES
on the
DANNY 1 PROPERTY. 1991

Technical Salaries

R.C. Wells, Consulting Geologist

June 5, 6, 2 days @\$325 day \$ 650.00

P. Watt, Technician, Prospector

June 5, 6, July 22 3 days @\$180 day 540.00

M. Rydman, Student

July 22, 1 day @\$180 day

Total \$ 180.00
\$ 1370.00

STATEMENT OF QUALIFICATIONS

I, RONALD C. WELLS of the City of Kamloops, British Columbia do hereby certify that:

1. I am a Fellow of the Geological Association of Canada.
2. I am a graduate of the University of Wales, U.K. B.Sc in Geology (1974), did post graduate (M.Sc) studies at Laurentian University, Sudbury, Ontario (1976-77) in Geology.
3. I am presently employed as a consulting geologist based in Kamloops.
4. I have practised continuously as a geologist for more than 12 years throughout Canada and the U.S. Previous to this experience and employment as a geologist in Europe.

1985-1990 Regional Geologist for Southern B.C.
Kamloops Office
Corona (Lacana) Corporation

1980-1985 Regional Geologist
Abitibi Greenstone Belt
Kirkland Lake Office
Lacana Mining Corporation
Toronto, Ontario

5. That I have no interest, direct or indirect, in the property discussed in this report, nor do I expect to receive any.

R. C. Wells
25/11/71

APPENDIX A

**SAMPLING AND ANALYTICAL
PROCEDURES**

SAMPLING PROCEDURES

1. CHIP SAMPLING

At the Freddy B Trench chip samples were taken using hammer and where necessary chisel. These were large samples between 5 and 10 kg and basically chip-panels with an average sample width/height of 1.5m.

2. GRAB SAMPLES

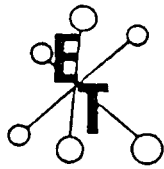
Again, fairly large samples averaging 5 kg.

3. WHOLE ROCK SAMPLES

Samples for whole rock analysis were carefully taken avoiding veined and altered material.

ANALYTICAL PROCEDURES

All rock samples were taken to Eco Tech Laboratories Ltd. in Kamloops B.C. The laboratory methods are summarized in the following tables. Certificates of analysis are available in Appendix B. Map sample location numbers have been added to these.



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (804) 673-6700 Fax 673-4557

GEOCHEMICAL LABORATORY METHODS

SAMPLE PREPARATION (STANDARD)

1. Soil or Sediment: Samples are dried and then sieved through 80 mesh nylon sieves.
2. Rock, Core: Samples dried (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.

METHODS OF ANALYSIS

All methods have either known or in-house standards carried through entire procedure to ensure validity of results.

1. Multi-Element Cd, Cr, Co, Cu, Fe (acid soluble),
Pb, Mn, Ni, Ag, Zn, Mo

Digestion

Hot aqua-regia

Finish

Atomic Absorption, background correction applied where appropriate

A) Multi-Element ICP

Digestion

Hot aqua-regia

Finish

ICP

2. Antimony

Digestion

Hot aqua regia

Finish

Hydride generation - A.A.S.

3. Arsenic

Digestion

Hot aqua regia

Finish

Hydride generation - A.A.S.

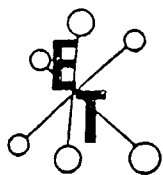
4. Barium

Digestion

Lithium Metaborate Fusion

Finish

Atomic Absorption



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5. Beryllium

Digestion

Hot aqua regia

Finish

Atomic Absorption

6. Bismuth

Digestion

Hot aqua regia

Finish

Atomic Absorption

7. Chromium

Digestion

Sodium Peroxide Fusion

Finish

Atomic Absorption

8. Fluorine

Digestion

Lithium Metaborate Fusion

Finish

Ion Selective Electrode

9. Mercury

Digestion

Hot aqua regia

Finish

Cold vapor generation -
A.A.S.

10. Phosphorus

Digestion

Lithium Metaborate Fusion

Finish

I.C.P. finish

11. Selenium

Digestion

Hot aqua regia

Finish

Hydride generation - A.A.S.

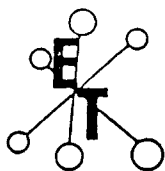
12. Tellurium

Digestion

Hot aqua regia
Potassium Bisulphate Fusion

Finish

Hydride generation - A.A.S.
Colorimetric or I.C.P.



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13. Tin

Digestion

Ammonium Iodide Fusion

Finish

Hydride generation - A.A.S.

14. Tungsten

Digestion

Potassium Bisulphate Fusion

Finish

Colorimetric or I.C.P.

15. Gold

Digestion

Fire Assay Preconcentration
followed by Aqua Regia

Finish

Atomic Absorption

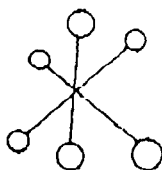
16. Platinum, Palladium, Rhodium

Digestion

Fire Assay Preconcentration
followed by Aqua Regia

Finish

Graphite Furnace - A.A.S.



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WHOLE ROCK ANALYSIS

PROCEDURE:

Preheat muffle to 1050°C.

Weigh 0.10 g of sample into a test tube.

Add 0.50 g of Lithium Metaborate (LiBO_2).

Vortex.

Transfer samples to graphite crucibles.

Fuse samples for 30 minutes.

While samples are fusing - prepare plastic containers by adding 100 ml of 4% HNO_3 .

After samples are fused, pour them into the labelled plastic containers.

Shake on the soil shaker for 30 minutes or until sample is dissolved, some black residue (graphite) will remain.

Make sure the silica is dissolved (Silica looks cloudy and slimy).

** Add 1 ml Hydrofluoric Acid (HF). Swirl.

Add 4 ml of 30% Boric Acid (H_3BO_3). Swirl and let sit a few minutes.

Be sure to prepare a blank with the same acid matrix as the samples.

REAGENTS:

Lithium Metaborate (LiBO_2)

Hydrofluoric Acid (HF)

30% Boric Acid (H_3BO_3)

(Prepare Boric Acid ahead of time - it takes awhile to dissolve).

ICP SET UP:

WR STANDARD #1

WR STANDARD #2

Si 250 ppm = 53.47% SiO_2 Na 50 ppm = 13.48% Na_2O

Al 100 ppm = 18.89% Al_2O_3 K 50 ppm = 12.05% K_2O

Fe 150 ppm = 21.45% Fe_2O_3

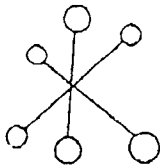
Mg 150 ppm = 19.99% MgO

Ca 300 ppm = 41.97% CaO

Ti 50 ppm = 8.34% TiO_2

P 10 ppm = 2.29% P_2O_5

Mn 50 ppm = 6.46% MnO

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TROUBLE SHOOTING:

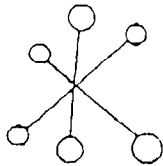
Measure HF using plastic test tube, don't let it come in contact with glassware.

Be sure samples are vortexed before transferring to graphite crucibles.

Make sure samples have been fused properly.

Be sure to replace all tubing and clean the spray chamber, nebulizer and torch completely after analysis. (rinse with reagent alcohol then plenty of distilled H₂O and blow dry)

All the percentages added together for each sample should equal 100%. If results are out +/- 10% the numbers can be adjusted. If results are out by more than 10% - run again.



ECO-TECH LABORATORIES LTD.

ASSAYING • ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 673-5700 Fax 673-4557

L.O.I. - LOSS ON IGNITION

PROCEDURE:

Preheat muffle to 1050°C.

Put weigh boats in preheated muffle for 20 minutes to burn off any volatile residue and put in desiccator till the boats have gone back to room temperature (approximately 2 hours).

Record the weight of the boat, add approximately 1.0 grams of sample - weigh again and record. (use analytical balance to nearest .0001 g)

DO NOT TOUCH THE WEIGH BOATS WITH YOUR HANDS.

Put in preheated muffle for 1 hour.

Transfer to desiccator - put the lid on but leave a small opening so the vacuum effect isn't too strong. Leave for the same length of time as the first weigh.

Weigh samples.

**** Always use the same desiccator ****

CALCULATION:

$$\frac{\text{wt. of Boat \& Sample} - \text{wt. after Ignition}}{\text{Sample Wt.}} \times 100\% = \% \text{ LOSS ON IGNITION}$$

REFERENCE STANDARD: MGR-1, SY-1, SY-2

APPENDIX B
GEOCHEMICAL DATA

ECO-TECH LABORATORIES LTD.

PLACER DOME INC. - ETK91- 328

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

401, 1540 PARSON PLACE
KAMLOOPS, B.C.
V1S 1J9

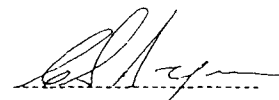
JUNE 17, 1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: 804
12 ROCK SAMPLES RECEIVED JUNE 10, 1991

MAP No.	BT#	DESCRIPTION	AU(ppb)	AG AL(%)	AS	B	BA	BI CA(%)	CD	CO	CR	CU	FB(%)	K(%)	LA MG(%)	MN	MO NA(%)	NI	P	PB	SB	SH	SR TI(%)	U	V	V	Y	ZN					
FB1	328 - 1	80116 *	5	<.2	.33	15	8	650	<5	2.18	1	6	88	56	2.52	.18	20	.12	757	12	<.01	1	380	26	<5	<20	46	<.01	<10	<1	<10	8	114
FB2	328 - 2	80117 *	60	.6	1.67	20	8	30	<5	2.49	<1	12	18	920	5.21	.13	30	1.52	351	52	<.01	1	1920	10	5	<20	56	.02	<10	107	<10	1	49
FB3	328 - 3	80118 *	95	6.8	2.35	15	12	115	<5	.91	8	19	22	4551	6.66	.15	30	2.42	817	139	.01	3	2340	322	10	<20	16	.04	10	162	<10	6	894
FB4	328 - 4	80119 *	130	3.6	2.27	10	10	115	<5	1.22	3	21	13	4347	6.89	.13	40	2.31	662	110	<.01	2	2430	64	5	<20	12	.04	<10	141	<10	6	321
FB5	328 - 5	80120 *	115	3.8	2.46	5	8	85	<5	2.31	12	20	26	4749	5.88	.15	30	2.42	1812	126	<.01	2	2270	46	5	<20	16	.02	10	164	<10	8	1046
FB6	328 - 6	80121 *	75	1.6	2.08	10	8	100	<5	2.96	1	16	9	1576	5.99	.08	30	2.07	1100	64	<.01	1	2160	14	5	<20	11	.02	<10	124	<10	5	264
FB7	328 - 7	80122 *	165	3.4	1.82	5	16	30	<5	3.08	<1	20	21	2518	5.41	.09	30	1.79	465	306	<.01	1	1810	10	5	<20	49	.02	<10	117	<10	3	58
FB8	328 - 8	80123 *	100	1.4	1.94	5	10	35	<5	2.53	<1	25	23	3847	5.59	.10	30	1.85	558	70	<.01	1	1930	8	5	<20	38	.02	<10	144	<10	7	101
FB11	328 - 9	80124	5	10.6	3.23	5	8	65	35	2.71	<1	29	27	>10000	9.14	.12	40	3.13	1193	2	<.01	10	1280	10	5	<20	99	.03	10	139	<10	<1	96
FB12	328 - 10	80125	5	.2	2.56	5	8	80	<5	4.03	<1	26	35	408	4.52	.07	20	2.30	1048	2	<.01	7	1650	16	5	<20	77	.11	<10	117	<10	3	93
	328 - 11	80126 *	5	<.2	1.68	5	8	30	<5	1.38	<1	16	34	27	4.27	.02	20	1.88	1071	1	<.01	8	1700	12	5	<20	37	.12	<10	122	<10	3	109
	- 12	80127	55	<.2	.12	1595	6	20	<5	11.86	<1	76	199	12	3.02	<.01	10	6.99	1450	3	<.01	718	70	10	25	<20	303	<.01	<10	7	<10	<1	37

NOTE: < = LESS THAN
* OVERSIZE SAMPLES

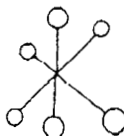

ECO-TECH LABORATORIES LTD.
CLINTON AYERS
LABORATORY MANAGER

SC91/PLACER

FROM ECO-TECH KAMLOOPS

6.18.1991 17:32

P. 3



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

JUNE 17, 1991

CERTIFICATE OF ASSAY ETK 91-328

Placer Dome Inc.
401, 1450 Pearson Place
KAMLOOPS, B.C.
V1S 1J9
ATTENTION: ROB PEASE

DATE RECEIVED:	JUNE 10, 1991	REJECTS:	STORE
PROJECT:	804	PULPS:	STORE
NUMBER SAMPLES:	12	NOTE:	> = MORE THAN
TYPE SAMPLES:	ROCK		< = LESS THAN

ET#	Description	CU (%)
FB-II 328 - 9	80124	2.02

Frank J. Pezzotti
 ECO-TECH LABORATORIES LTD.
 FRANK J. PEZZOTTI, A. Sc.T.
 B.C. CERTIFIED ASSAYER

SC91/PLACERK

ECO-TECH LABORATORIES LTD.

PLACER DOME INC. - ETK91- 449

10411 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

401, 1540 PARSON PLACE
KAMLOOPS, B.C.
V1S 1J9

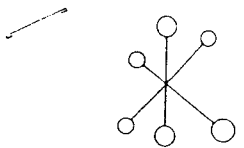
JULY 29, 1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: 804/806

14 ROCK SAMPLES RECEIVED JULY 10, 1991

MAP No.	RT#	DESCRIPTION	AU(ppb)	AG AL(%)	AS	B	BA	BI CA(%)	CD	CO	CR	CU	PR(%)	K(%)	LA HG(%)	MM	MO NA(%)	NI	P	PB	SB	SM	SR Ti(%)	U	V	W	Y	ZN					
FR-1	1	- 80137	10	<.2	1.27	85	8	25	<5	.23	<1	7	37	115	5.25	.04	<10	1.07	224	2	<0.01	3	1330	74	10	<20	9	<0.01	<10	110	<10	<1	42
FR-6	2	- 80138	15	4.4	2.31	60	10	25	45	4.66	1	57	71	3260	6.37	.04	10	2.42	1104	2	<0.01	17	1400	14	10	<20	44	.06	<10	140	<10	<1	104
FR-7	3	- 80139	505	>30	1.80	135	8	25	230	3.14	<1	42	86	>10000	7.95	<0.01	10	1.62	940	31	<0.01	11	730	10	10	<20	11	.03	<10	109	<10	<1	65



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

JULY 29, 1991

CERTIFICATE OF ASSAY ETK 91-449
=====

Placer Dome Inc.
401, 1450 Pearson Place
KAMLOOPS, B.C.
V1S 1J9
ATTENTION: RON WELLS

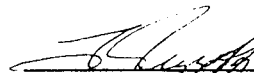
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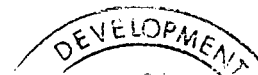
DATE RECEIVED:	JULY 10, 1991	REJECTS:	STORE
PROJECT:	804/806	PULPS:	STORE
NUMBER SAMPLES:	14	NOTE:	> = MORE THAN
TYPE SAMPLES:	ROCK		< = LESS THAN

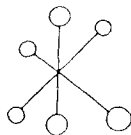
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ET#	Description	Au (g/t)	Au (oz/t)	AG (g/t)	AG (oz/t)	CU (%)
FR-7 3	80139	-	-	79.9	2.33	1.32

SC91/PLACERK


ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI, A. Sc.T.
B.C. CERTIFIED ASSAYER





ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 1, 1991

CERTIFICATE OF ANALYSIS BTK 91-441

PLACER DOME INC.
401, 1540 PEARSON PLACE
KAMLOOPS, B.C.
VIS 1J9

SAMPLE IDENTIFICATION: 19 ROCK samples received JULY 10, 1991
-----PROJECT: 804

MAP No.	ET#	Description	BaO	P2O5	SiO2	MnO	Fe2O3	MgO	Al2O3	CaO	TiO2	Na2O	K2O	L.O.I.
FB-1	1 -	C4976 Freddy O	.13	.24	59.31	.10	5.53	.44	20.87	2.56	.44	5.45	2.47	3.55
FB-9	2 -	C4977	.14	.20	54.30	.09	5.20	1.91	22.27	4.11	.55	4.38	2.65	3.61
FR-2	3 -	C4978	.05	.29	43.17	.13	8.30	7.23	23.22	11.41	.87	2.98	.80	3.09
FR 3	4 -	C4979	.21	.30	56.36	.07	4.82	.91	20.98	4.17	.55	5.80	2.50	2.38
FR 4	5 -	C4980	.19	.17	59.64	.09	4.88	.75	20.56	2.36	.45	4.30	3.35	2.89