

**GEOLOGICAL-GEOCHEMICAL  
ASSESSMENT REPORT**

for the

**FRAN PROPERTY  
OMINECA MINING DIVISION  
BRITISH COLUMBIA  
NTS 93K/16W**

For

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By

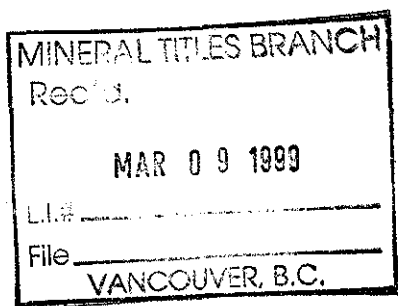
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**January 18, 1999**

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

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25,870



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## SUMMARY

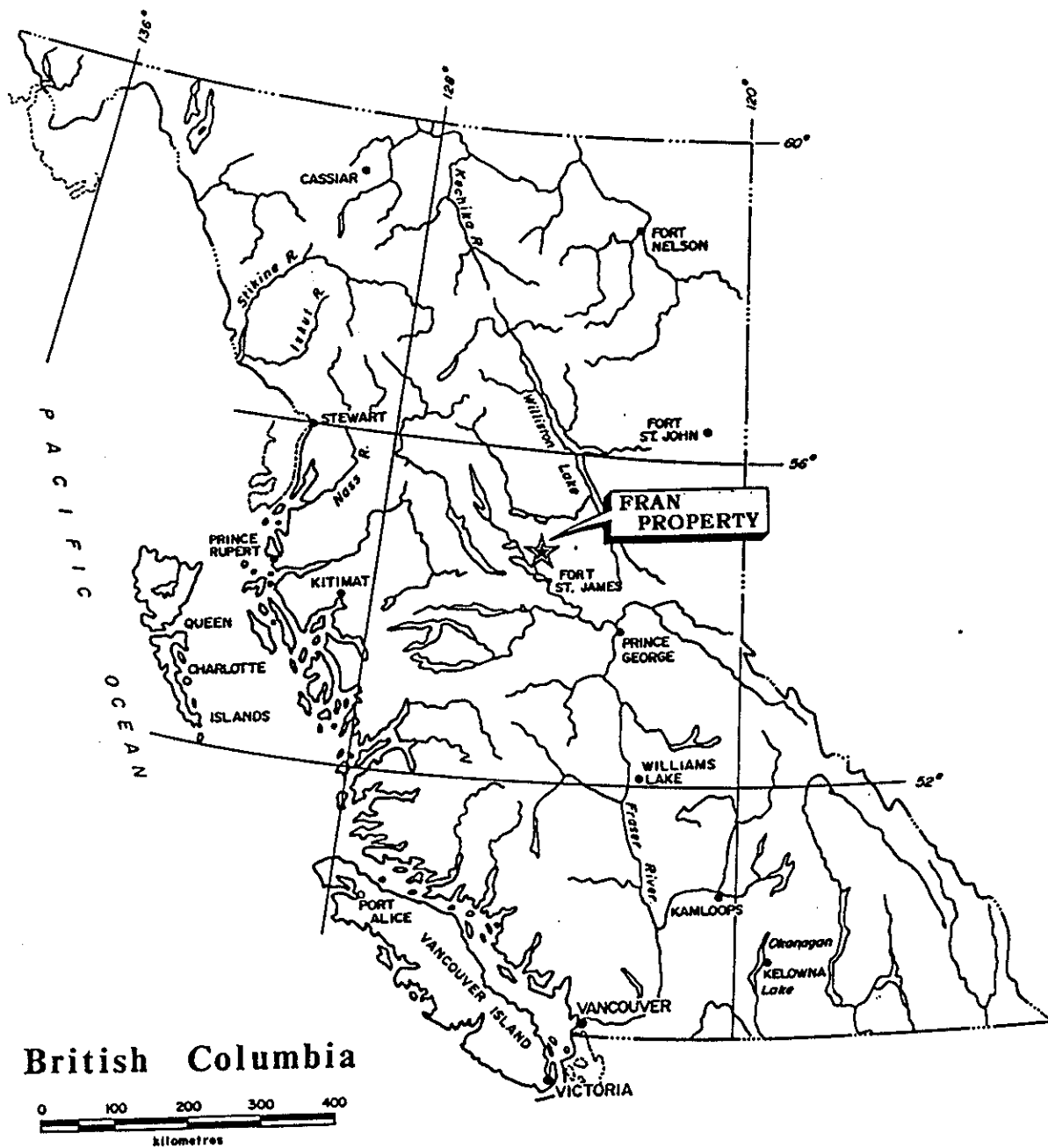
The Fran Property is located 4 kilometres north of Inzana Lake in north-central British Columbia and consists of 6 contiguous mineral claims totalling 120 units, approximately 3000 hectares. Several gold discoveries have been made on the property since 1997 by the owners sampling along new logging roads. This mineralization occurs in two areas 1 kilometre apart in the west central claims and is hosted by monzodiorite composition stocks and dykes within Takla Group (U. Triassic-Jurassic age) sedimentary rocks with minor tuffs.

Property examinations by Placer Dome in June and July 1998 involved a significant amount of sampling in the showing areas. Gold mineralization is hosted by monzodiorite intrusive rocks proximal to contacts with Takla sediments (hornfels). It is related to 1) quartz veinlet stockworks and pyritic shears with north to east trend, K. feldspar alteration/flooding. Gold values up to 3 g/t with associated Ag; 2) east trending quartz veins with wallrock veinlet stockworks and K.feldspar alteration. These vein zones are polymetallic with copper, lead, zinc, arsenic sulfide minerals and gold values up to 40 g/t. Type 1 mineralization suggested good potential for bulk tonnage gold zones in an intrusive setting on the property.

A following 9 day property evaluation by Placer Dome in October 1998 explored the size potential of the known mineralization. A field program involved installation of a kilometre scale control grid, soil geochemistry, geological mapping and prospecting. The latter were severely restricted by early snow conditions but did confirm an intrusive roof zone setting throughout the grid area. Whole rock chemistry for intrusive samples indicated high K., calc-alkaline affinity and monzodiorite to monzonite compositions. This intrusive suite is more transitional than (shoshonitic?) quartz-alkaline suites hosting Cu-Au porphyries in this part of Quesnellia like Mt. Milligan (north of property). The soil geochemical program was highly successful and outlined 3 gold anomalies coinciding with areas underlain by intrusions, contact zones and the known showings. The largest gold anomaly was east trending over a kilometre long by 200 metres wide.

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The results from the October program supported the potential for large intrusive hosted gold zones on the property. A two phase geological-geochemical program including excavator trenching is recommended to further explore this property and possibly advance some targets to a drilling stage.



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FRAN PROPERTY

OMINECA MINING DIVISION, B.C.

PROPERTY LOCATION MAP

Scale as shown

Date Jan. 1999

N.T.S. 93K/16W

By R.C. WELLS Consulting Geologist

FIGURE 1

## 1.0 INTRODUCTION

This report presents the results from 1998 exploration by Placer Dome North America Ltd. on the Fran Property, Omineca Mining Division, British Columbia. The property is being explored for intrusion hosted, bulk tonnage gold zones.

Three visits were made to the property in 1998 involving preliminary property examinations in June and July followed by a longer more detailed evaluation in October. The two latter programs were supervised by the author and financed by Placer Dome North America Ltd. with offices at P.O. Box 49305 Bentall Station, 600-1055 Dunsmuir Street, Vancouver BC. V7Z 1L3. The total cost of the October program was \$15,582.07 of which \$12,000.00 is being applied for assessment work credits on the Fran Property.

### 1.1 LOCATION AND ACCESS

The Fran property is located in north-central British Columbia, 4 kilometres north of Inzana Lake and approximately 60 kilometres north of Fort St. James (Figure 1). It is centred at Latitude 55° 00' N and Longitude 124° 25' W. The property area lies in the northwestern part of NTS topographic map sheet 93K/16W just to the east of Benoit Lakes; Inzana Creek flows east across the southern claims.

Access to the property area from Fort St. James is by the Germansen-Inzana road system, a distance close to 80 kilometres. These roads are unpaved but generally useable throughout the year. A network of new logging roads along Inzana Creek yields good access to the northern claims where there are several large clear-cuts.

### 1.2 PHYSIOGRAPHY

The property lies in a hilly area north of Inzana Lake (880m El.) with elevation ranging from 975 metres along Inzana Creek to over 1400 metres along the northern hill range (Figure 2).

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This area has been glaciated with rounded hilltops that feature bedrock at or near the surface separated by broad valleys with thick till and, or fluvioglacial deposits. South facing hillsides tend to be more rugged with local cliffs.

The hill areas on the property until recently were covered by thick stands of mature fir and pine that are mixed with spruce at lower elevations. Recent logging has resulted in several clear cuts on the northern side of Inzana Creek. Extensive areas of poorly drained marsh occur along the valley east of Benoit Lakes.

### 1.3 PROPERTY

The Fran Property consists of six contiguous mineral claims located in the Omineca Mining Division of Province of British Columbia. There are in total 120 units covering approximately 3000 hectares. Claim locations are shown on Figure 2, other relevant data occurs in Table 1.

The property is held by R.S. Haslinger. Placer Dome North America Ltd. is presently conducting a property evaluation of the Fran.

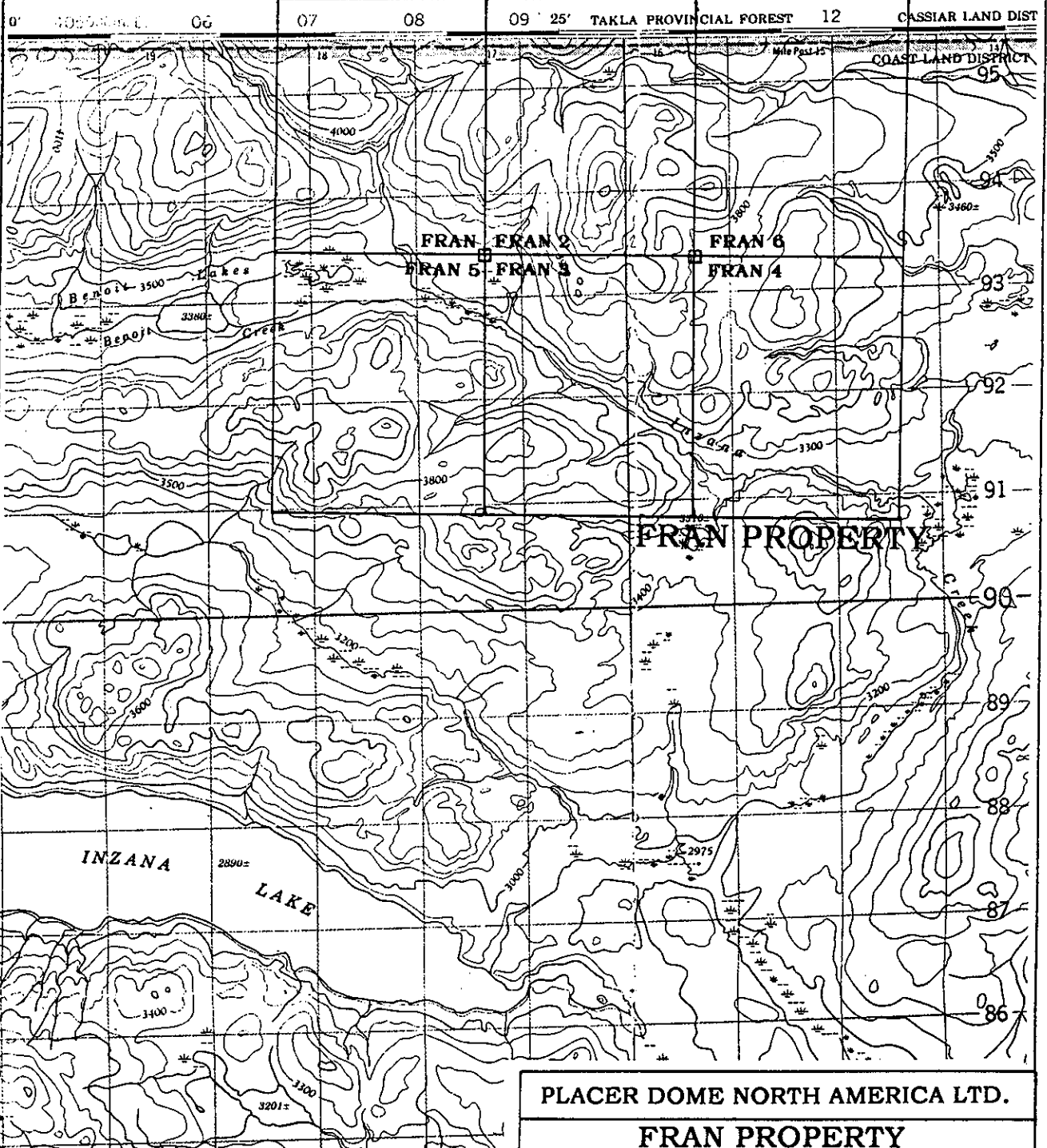
**Table 1: The Fran Property**

<u>Claim Name</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Expiry Date</u>
FRAN	356366	20	May 24, 2000
FRAN #2	363192	20	June 05, 1999
FRAN #4	363304	20	June 15, 1999
FRAN #3	363338	20	June 17, 1999
FRAN #5	363593	20	June 28, 1999
FRAN #6	364283	20	July 21, 1999
Total: 120 units			

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1:50,000



1Km  
Scale

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**FRAN PROPERTY**

OMINECA MINING DIVISION, B.C.

CLAIM LOCATION MAP WITH TOPOGRAPHY

Scale as shown

Date Jan. 1999

N.T.S. 93K/16W

By R.C. WELLS Consulting Geologist

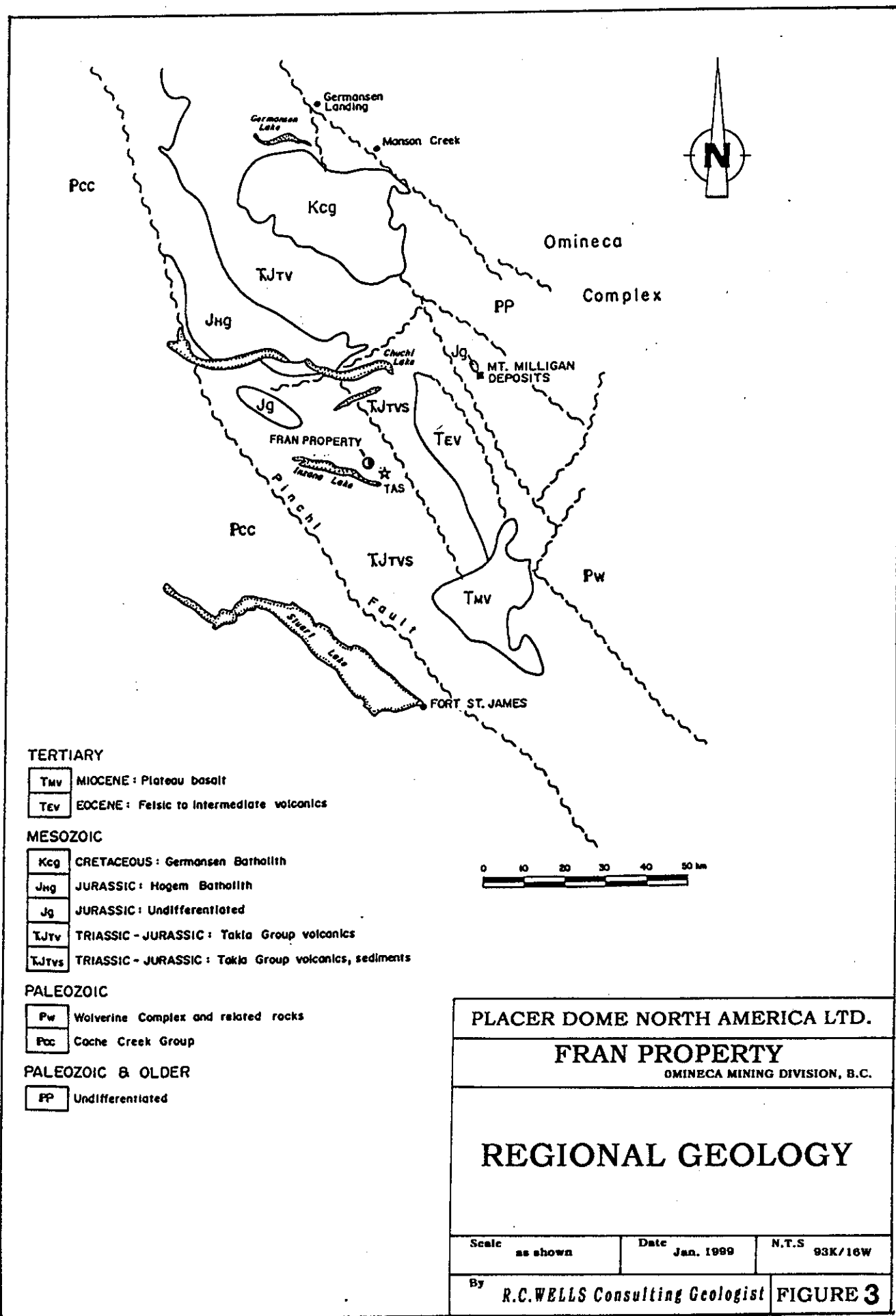
**FIGURE 2**

## 1.4 EXPLORATION HISTORY

The Fran property area up to the mid 1990's was difficult to access due to the heavy semi-continuous timber cover. Prior to very recent work by the property owners there was no recorded previous exploration. Tie-on claims to the Tas property located 6 kilometres to the southeast covered parts of the area in the 1980's during exploration by Noranda Ex., Black Swan and Gold Cap.

Access into the property area has changed dramatically over the last few years with widespread timber harvesting and construction of an access road on the northern side of Inzana Creek. Gold was recently (1996-1997) discovered by the property owners through sampling and panning gossans and pyritic exposures near the western end of the new logging road. This sampling returned highly anomalous gold values from several closely spaced localities in the northwestern clear-cut (A 45316). Altered monzonitic to dioritic intrusive rocks with oxidized stockwork zones returned gold values up to 3.27 g/t. A narrow quartz vein at locality #4 was exposed by hand pits and returned gold up to 41.7 g/t with associated silver, lead, zinc and high arsenic. A large road cut (locality #10), one kilometre to the southeast of the clearing featured several strong oxidized fracture zones in similar intrusive rocks. These were panned by R. Haslinger; one returned significant amounts of very fine visible gold. During and following these gold discoveries, six 20 unit claims were staked to cover the showings and intrusive trend. An interesting gold environment related to monzonitic to dioritic intrusive rocks within Takla Group sediments was identified and promoted by the property owners.

Several companies visited the Fran property in 1998 including Placer Dome and Homestake. The geological setting and presence of gold was confirmed during two property examinations by Placer Dome in June and July.



## 1.5 REGIONAL GEOLOGY

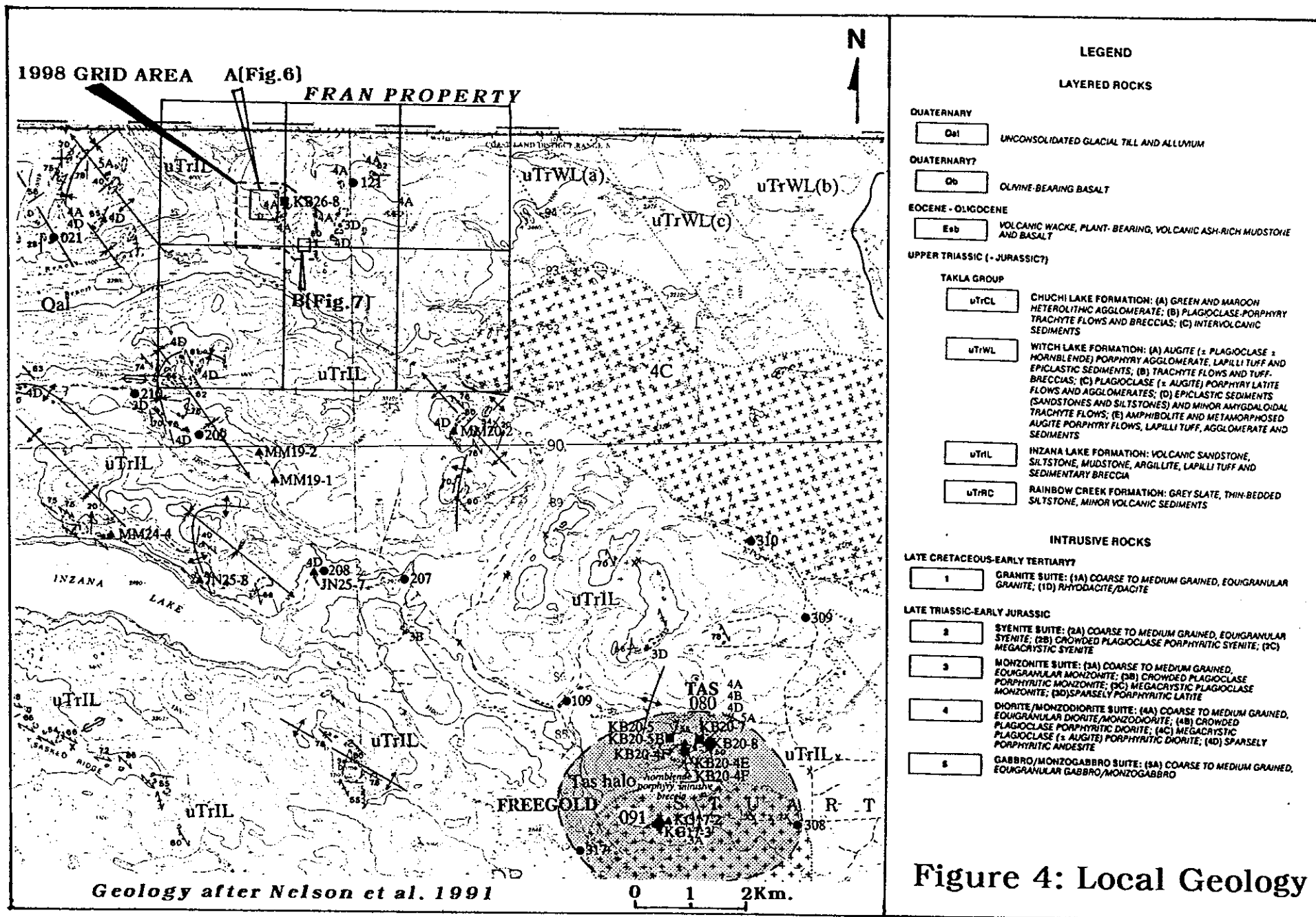
The Fran property lies within the Quesnellia Terrane which represents a Late Paleozoic to Mesozoic island arc assemblage (Monger et al., 1991) and is part of the Intermontane Belt of the Canadian Cordillera. The regional geology is illustrated in Figure 3; the Quesnellia Terrane comprises volcanic and sedimentary rocks of the Late Triassic to Early Jurassic Takla Group with coeval plutons. This assemblage is juxtaposed against the Cache Creek Terrane to the west along the Pinchi Fault and to the east the mainly Paleozoic wolverine and Omineca Complexes. The Quesnellia Terrane in British Columbia features both alkalic (Cu, Au) and Calc-alkalic (Cu, Mo) porphyry deposits. Mt. Milligan, a significant alkalic porphyry deposit (299 MT @0.45 g/t Au, 0.22% Cu) is located 30 kilometres to the northeast of the Fran (Figure 3). Several major northwesterly striking faults separate the Fran from the Milligan deposit area with thick sequences of Eocene volcanics overlying the Takla Group in the central area. This probably represents an interbasin graben (Nelson, 1990).

## 1.6 LOCAL GEOLOGY AND MINERAL OCCURRENCES

### (a) Geology

Regional 1:50,000 scale geological mapping has taken place in the property area as part of the Nation Lakes project by the BC Geological Survey Branch, Nelson et al (1991). The mapping in the Inzana Lake area is illustrated in Figure 4 which features a small part of the 93 K/16 sheet (Open File 1991-3). Much of this mapping appears to have taken place along the better exposed ridge tops with little in between.

The Takla Group in the property area features the Inzana Lake Formation which consists of a northwest striking sequence of grey, green to black siliceous argillite, grey to green volcanic sandstones, siltstones and minor augite bearing crystal and lapilli tuffs. This sequence is transitionally overlain by Witch Lake Formation agglomerates, lapilli tuffs and epiclastic sediments east of the property.



Takla age intrusive rocks mainly belonging to the diorite/monzodiorite suite occur throughout the area and range from narrow dykes to kilometre scale stocks and local intrusion breccias (Tas breccia). Many of the larger bodies are elongate with west to northwest long axes; they commonly form the higher ground and correlate well with airborne magnetic (high) features. One of the main stocks is a porphyritic diorite (4C) body over 6 kilometres long that lies at the eastern edge of the Fran property and may extend well into the claims.

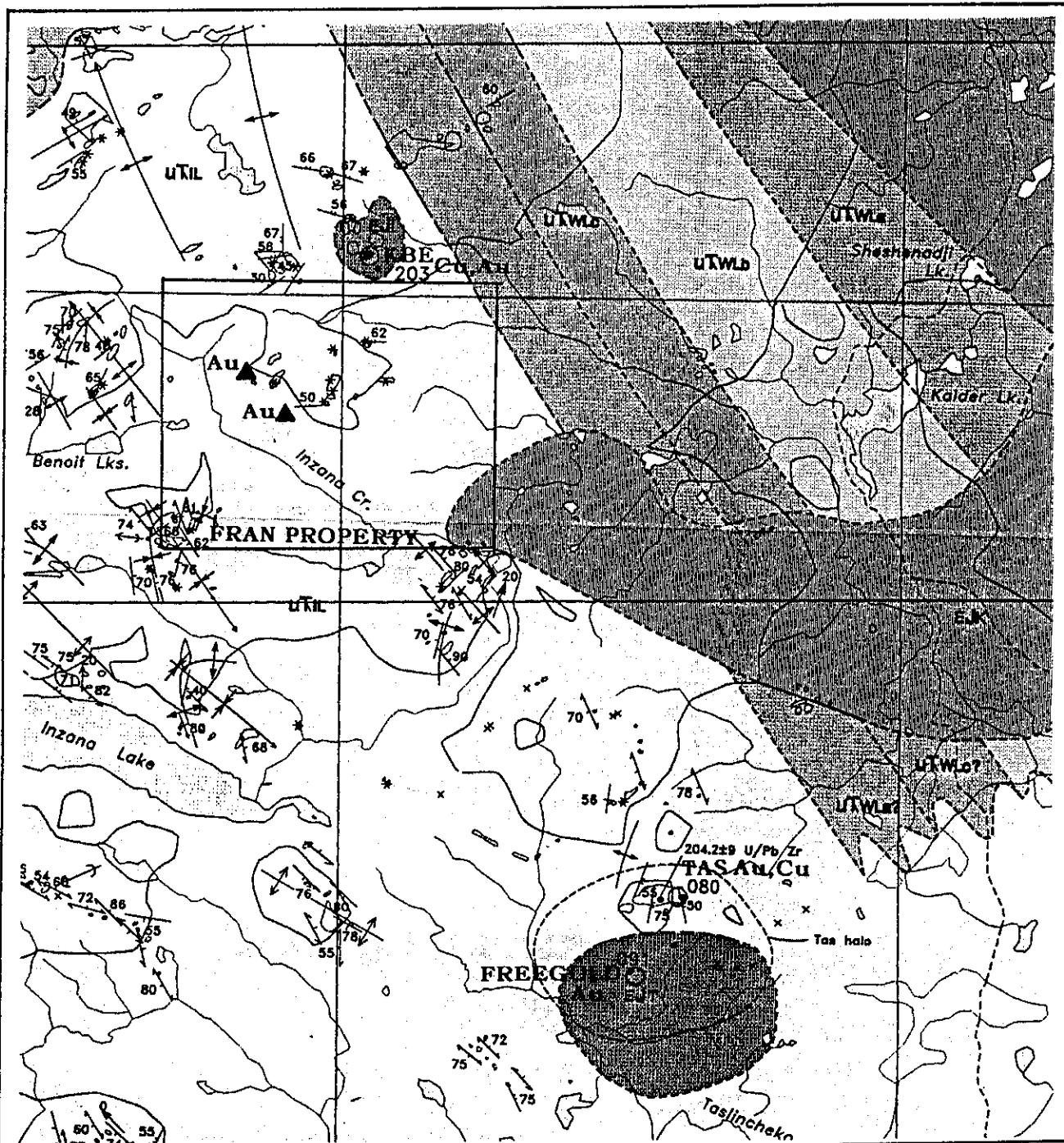
Nelson's mapping (1991) suggests two discrete phases of folding in the Inzana Formation sediments in the property area. F2 upright folds have northwest trending axial traces with tight refolded F1 hinges.

#### **(b) Mineral Occurrences**

During the 1980's a significant amount of alkalic porphyry Cu-Au exploration took place in this part of Quesnellia following the discovery of the Mt. Milligan deposit. Most of this exploration was to the north and northeast of the Inzana Lake area in Takla volcanic and Hogem intrusive settings. The Minfile occurrences in the property area are shown on Figure 5. The large Tas property southeast of Fran has by far received the most exploration, mainly by Noranda Exploration, Black Swan Gold Mines and Goldcap in the 1980's. This property features several gold zones in a propylitic to potassic altered and sheared multiphase diorite stock with extensive intrusion breccias within Inzana Lake Formation sediments and tuffs. Two main areas of gold  $\pm$  copper mineralization have been identified on the property: the Freegold (091) and Tas Ridge Area (080). Five separate zones occur in the Ridge Area and feature north to northwest sulfide rich fracture zones with variable pyrite, pyrrhotite and minor chalcopyrite. The East Zone reported a weighted average grade of 9.7 g/t Au across 3 metres for 63 metres strike length in trenches. The Freegold Zone to the southeast features a poorly exposed area of intense quartz-carbonate alteration with up to 10% disseminated pyrite and local visible gold. The intrusion breccia south and east of Freegold has received a limited amount of exploration but has returned gold values from matrix sulfide mineralization (pyrite) during surface sampling by the author.

The KBE (203) showing is located just north of the Fran claims and can be related to a small felsic plug mapped as hornblende granodiorite by Nelson et al, (1991). Sampling of disseminated malachite mineralization reported 196 ppb Au and 0.2% Cu. There is a weak airborne magnetic feature (high) that corresponds with this intrusion that appears to extend to the south onto the northern Fran claims.

All of the mineralization on the Fran property involves new discoveries. These are described in later sections to this report.



Modified after GSB. Bull.No.99,1996.

○ Minfile Occurrence with No.

▲ Fran Showings

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FRAN PROPERTY

OMINECA MINING DIVISION, B.C.

INZANA LAKE AREA

MINERAL OCCURRENCES

Scale as shown

Date Jan. 1990

N.T.S 93K/16W

By R.C.WELLS Consulting Geologist

FIGURE 5



## **2.0 1998 EXPLORATION BY PLACER DOME**

### **2.1 INTRODUCTION**

During the 1998 field season Placer Dome made 3 trips to the Fran property. The first of these was a preliminary evaluation by B. Fowler, senior geologist in June following a submittal by the owners. The results from this prompted a second more detailed evaluation with significant sampling by the author in early July. During this 4 day visit work focussed on the two showing areas on the Fran and Fran 2/3 mineral claims.

An evaluation/option agreement was made between the property owner and Placer Dome North America Ltd. on September 23, 1998. A 9 day geological-geochemical program was conducted on the western Fran claims during October 1998 by the author for Placer Dome. This was within the 6 months Evaluation Period of the September agreement. The July and October programs are outlined in the following sections of this report. All of the fieldwork was supervised by the author under the general direction of B. Fowler and was financed by Placer Dome with offices at 1440 Hugh Allan Drive, Kamloops, BC. The cost of the October program including this report was \$15,582.07 .

During August and September 1998 Homestake Canada Inc. completed a fairly detailed evaluation of the property involving two visits. This work focussed on the Upper (clearing) and Lower (locality #10) showings with 132 fairly close spaced soil and 40 rock samples. Soil sample results from these programs are included with those from Placer Dome's October program on several plots for completeness; gold results are also shown on Figure 10. No costs from any of Homestake's work are included in this report.

### **2.2 JULY FIELD EXAMINATION**

This program took place between July 6 and 9 without any assistants. Following an orientation with R. Haslinger (property owner), a significant amount of time was spent

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investigating the clearing (localities #1 to 9) and locality 10 areas. A total of 23 chip, panel and grab samples were taken from the two areas. These are located on Figure 4 as A and B respectively. A total of 23 chip, panel and grab samples were taken from the two areas: 19 from the clearing (Figure 6) and 4 from locality #10 (Figure 7). Most of the samples were chip/panels and where possible taken from normal to mineralized fractures or veins. All 23 samples are describe in Table 2 (Appendix B). A limited amount of other geological information has been incorporated into Figures 6 and 7.

All samples were sent to Eco-Tech Laboratories Ltd. In Kamloops BC. for 30 gram gold geochemical analysis and 23 element ICP. Seven of these were later checked with a second split. The results are comparable, other than sample 48157 which was 50% of the original value; this may represent a nugget effect. Eco Tech certificates of analysis (AK 98-314) can be found in Appendix B.

## RESULTS

### 1. Clearing Area (Figure 6)

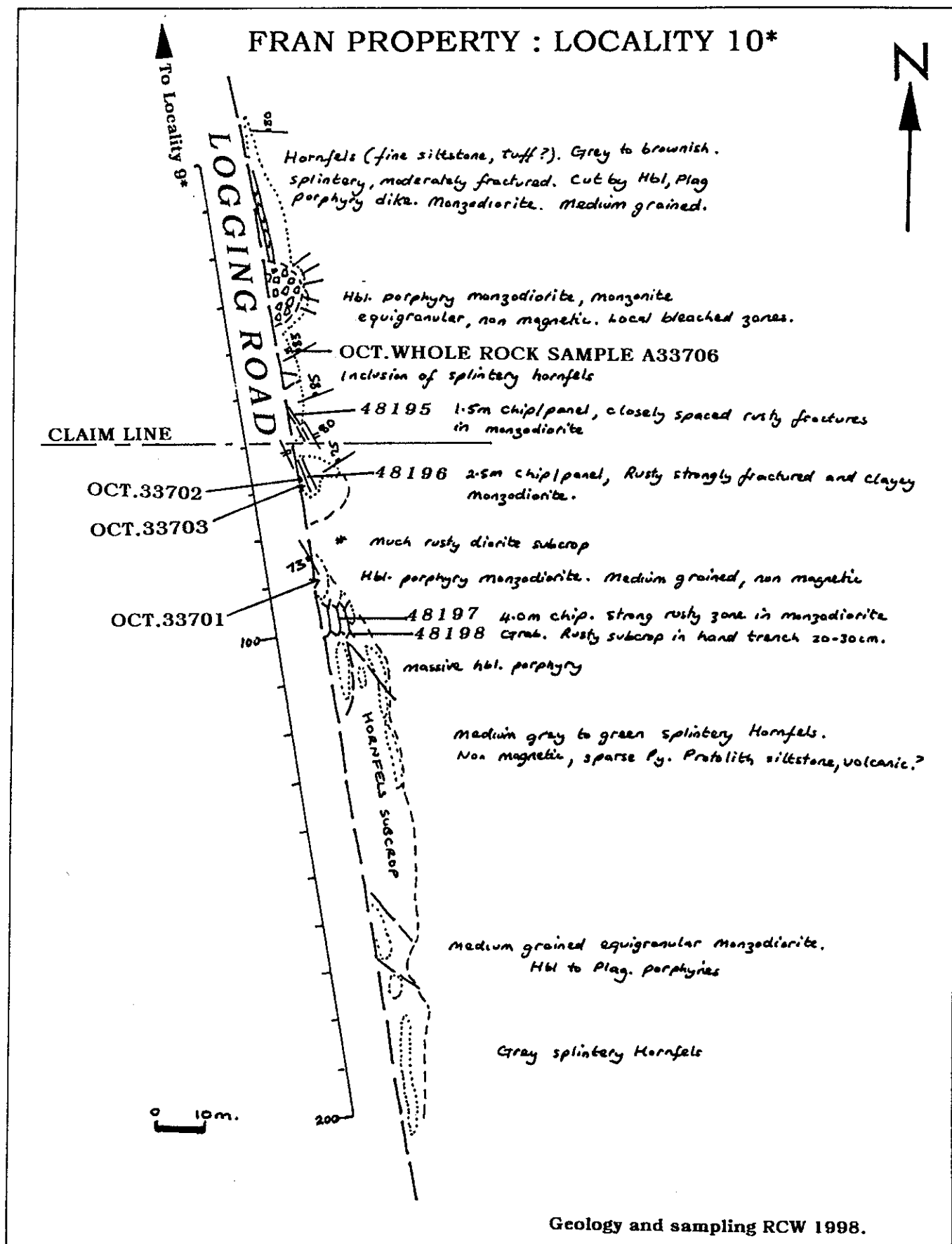
This area features dioritic to monzodioritic intrusive rocks with local roof pendants of hornfels after fine grained siliclastic rocks including local more feldspathic tuffs. Most of the intrusive rocks exposed in the clearing, away from known gold mineralization are fresh looking, weakly magnetic, medium grained, equigranular or plagioclase to hornblende porphyritic diorites to monzodiorites. Mafic minerals are commonly chloritized (hornblende) and K.feldspar occurs as finer grains in the groundmass (not alteration). Fine grained disseminated and fracture controlled pyrite is widespread frequently in the 1 to 3% range, locally more. The roof pendant rocks exposed on the hill tops to the north and locally along the logging road lie in the contact metamorphic aureole. Bedding is rare in these fine-grained siliceous rocks. Fine grained fracture controlled pyrite in the 1 to 7% range occurs near intrusive contacts with patchy fine magnetite and brown biotite?



Fresh looking diorite samples with fracture controlled fine grained pyrite (samples 48177, 48184) produced detection level gold (5ppb) even when minor quartz veining was evident (sample 48177). Sample 48176 from locality #1 contained patchy fine chalcopyrite on fractures with pyrite and returned anomalous gold (35 ppb) with copper (338 ppm). Previous sampling by the owners was possibly more selective (821 ppb Au, 2326 ppm Cu), both samples suggest a gold-copper relationship. Samples from fractured pyritic hornfels and diorite in contact areas produced detection level gold (5 ppb) with anomalous copper values close to 250 ppm (sample 48182, 48183).

Fractured diorite with gossany veinlet stockworks occur at localities #8 and #9, both are several metres in width. These road cuts are separated by a narrow, northwest trending valley (fault?). Previous grab sampling by the owners at these localities produced gold values from 250 ppb to over 3 g/t. Cut hand specimens taken from these areas by the author display intense K.feldspar alteration (flooding) related to fine quartz veinlet stockworks with wallrock and fracture pyrite. Both localities feature major fractures with clayey gouge: one north trending and shallow (loc. #9), the other east trending and steep north dipping (loc. #8). These appear to be late and either cross or offset mineralization and alteration. At locality #8 strong K.feldspar alteration and stockworks occur along the southern edge of the east trending fault. Samples 48185 and 48187 returned gold values of 200 and 825 respectively and close to 200 ppm copper. At locality #9 the better gold values came from 5 metre long panel samples close to the shallow dipping and late fault. The two best (adjacent) panel samples returned 475 and 235 ppb gold, low copper. A significant amount of dilution in these samples is probable from the 1 metre wide clay gouge zone. Localities #8 and #9 may represent a north and, or east trending stockwork alteration (displaced?) or less likely two unrelated zones within the monzodiorite close to a hornfels contact.

Locality #4 north of the road features four hand trenches that test a westerly trending quartz vein zone over a 20 metre strike length. The milky quartz vein exposed in these is



**FIGURE 7: LOCALITY 10 ROAD-CUT**

generally narrow, less than 50 cm wide with patchy, commonly fracture controlled, fine to medium grained arsenopyrite, pyrite, galena, chalcopyrite and sphalerite. Monzodiorite wallrocks are K.feldspar altered near the vein. Fine quartz veinlets, fracturing and pyrite however, extend for over 2 metres away from the vein. Gold values up to 19.4 g/t, Ag to 22.8 g/t, Zn to 0.5% and 2% As (plus Cu, Pb values) were returned from 1.4 to 3.0 metre sample widths.

## **2. Locality #10 Road Cut (Figure 7)**

This north trending road cut is close to 200 metres long and features a contact zone between monzodiorite intrusive rocks and splintery hornfels (siliceous sediments). These rocks are very similar to those exposed in the clearing area to the northwest and feature predominant joint set with east to northeast strike and steep north dips. Several subvertical metre scale fracture zones in the monzodiorite have more southerly trend and are strongly oxidized. The more southerly of these produced fine visible gold during panning by R. Haslinger. Three of these zones were sampled (Figure 7) using a grub hoe and avoiding heavily oxidized surface material. The two narrower zones to the north (Samples 48195 and 48196) returned low anomalous gold values at 25 and 95 ppb respectively. The gold bearing gossany zone returned 315 ppb gold from a 4.5 metre long hand trench (small angle to zone). A check grab sample 48198 taken from a gossany boulder near this trench returned 227 g/t gold, 19.8 g/t silver and 1835 ppm. Considerable enrichment during surface weathering is clearly suggested.

## **2.3 OCTOBER GEOCHEMICAL-GEOLOGICAL PROGRAM**

A nine day exploration program was conducted by a two man crew on the Fran property between October 6 and 14, 1998. The object of this program was to investigate the extent and continuity of gold mineralization within intrusive setting in the showings area using a combined geological-geochemical approach. On arrival to the Inzana Lake area heavy snowfall resulted in significant cuts to the geological part of the program. The modified program was as follows:

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1. A 9 kilometre grid covering a 1.5 by 1.0 kilometre area over the known showings. This grid was tied to a central, common claim post and east-west claim line. 200 metre spaced survey lines.
2. Soil coverage of the grid at 50 metre spacing. 25 metre spacings in areas of known mineralization and projections.
3. Reconnaissance geological mapping on the grid where snow permitted.
4. A limited number of rock samples from the showing #10 area as a follow up to previous sampling. Two representative intrusive rock samples for whole rock lithogeochemistry. One stream pan concentrate sample from the main drainage on the grid.

### **Survey Control Grid**

The location of the 1998 grid relative to the mineral claims is shown in Figure 4. This grid was installed by P. Cox, Amex Exploration Ltd and provided control for the soil geochemical survey and mapping.

The central east-west claim line was used as a baseline @1000N with station 1000E located at the common claim post for the Fran, Fran 2, 3 and 5 mineral claims. 7.5 kilometres of 200 metre spaced perpendicular (north) survey lines were installed by compass and topofil. Because of the often steep and variable topography the 25m survey stations were slope corrected using a Sunto inclinometer. The lines were flagged with 25 metre stations identified by tyvex tags. The 1998 grid is shown on Figure 8.

### **Geological Mapping**

Snow conditions during the October program severely restricted geological mapping. Some mapping was possible in the western grid area around the clearing. This complemented the earlier survey in July (Figure 6). The main geological observations are summarized in Figure 8 with interpreted geological contacts. These contacts in many cases should be regarded as preliminary.

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The lower areas on the grid south of the access road and between the main hills feature extensive glacial till. Where examined in stream and road cuts this till was over 5 metres thick, frequently clayey with variable cobble/pebble content. No bedrock occurs in these areas. Cobble rich tills are evident in the southwestern grid area within the clearing.

### **A) Lithologies**

The grid covers an area with intermediate composition intrusions as stocks and dykes into Inzana Lake Formation (Takla Group) country rocks.

The Inzana Lake Formation (unit 1) in the grid area consists predominantly of light coloured and fine grained siliclastic rocks with rare bedding. Siltstones and fine sandstones predominate with local darker coloured siliceous argillites.

Much of the higher ground north of the road is underlain by diorite to monzodiorite intrusive rocks (unit 2). Fine to fine medium grained equigranular to plagioclase (lesser hornblende) porphyries dominate. The groundmass is often fine grained with K.feldspar, plagioclase and generally less than 10% mafics (often chloritized). These rocks are rarely carbonated and non to weak magnetic. More distal to contacts there may be patchy weak to moderate magnetics which correlates with more medium grained varieties of monzodiorite-diorite. In the better exposed areas mapping indicated west to north west trending dykes rather than a continuous stock. Narrower dykes are either fine grained (andesitic) or crowded plagioclase porphyries with variable hornblende.

Hornblende porphyries (unit 3) with rare plagioclase phenocrysts occur as narrow dykes in the western clearing. These may trend north or east and crosscut (post date) both sediments and monzodiorite. Broader areas of hornblende porphyry occur at diorite/siltstone contacts or as inclusions within the monzodiorite. Some of these may represent a marginal intrusive phase



(contaminated), however others clearly represent hornblende hornfels (after siltstones) with isolated centimetre scale porphyroblasts.

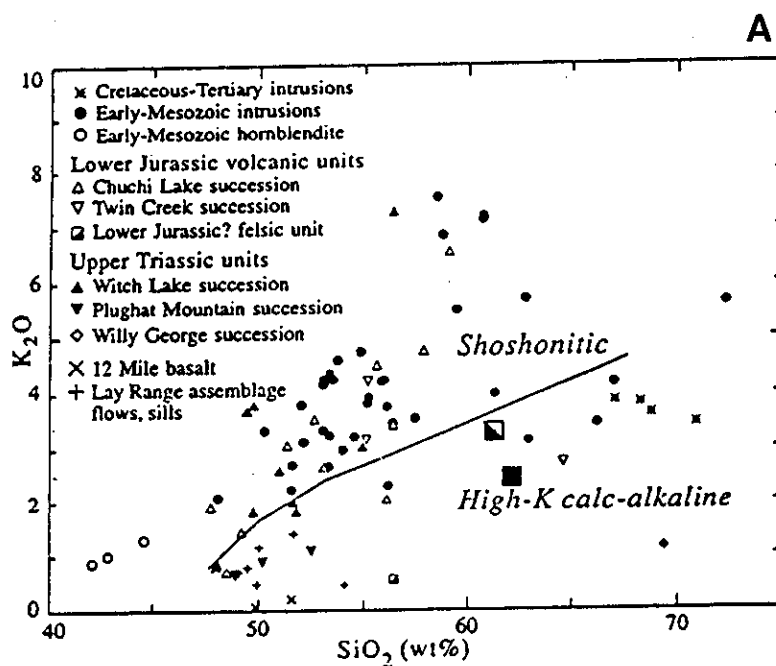
## **B) Geological Environment, Metamorphism and Structure**

The grid appears to cover the roof zone and possibly margins of a diorite to monzodiorite intrusive stock. At surface levels this may be more in the form of a dyke swarm with westerly trend. Where observed dyke contacts have steep north to subvertical dips. In the western clearing the siltstones are often converted to hornfels with patchy fracture controlled pyrite in contact areas. Where bedded the siltstone have northwesterly strike with north dips similar to the dykes.

The predominant joint sets in many outcrops throughout the grid area trend WSW with subvertical to north dips. Late fractures or shears with clay gouge have NNW to north trend with subvertical to steep east dips.

## **C) Intrusive Rocks - Chemical Composition**

Two samples were taken from Unit 2 intrusives for whole rock (ICP) lithogeochemistry. One was from a feldspar porphyry (sample A 33705) in the western clearing, the other was from locality #10 monzodiorite dyke (sample A 33706). Both appeared relatively unaltered and are described in Table 3. The whole rock ICP data (Eco-Tech Laboratories) for both samples occurs in a table on Figure 9. A variety of standard discrimination diagrams were used to classify these intrusive samples, a few of these are shown in Figures 9 and 10. Both samples are sub alkaline (close to alkaline transition), metaluminous intermediate rocks with affinity to the high-K calc-alkaline suite (Figure 9A) and quartz monzodiorite composition (Figure 10A and B).

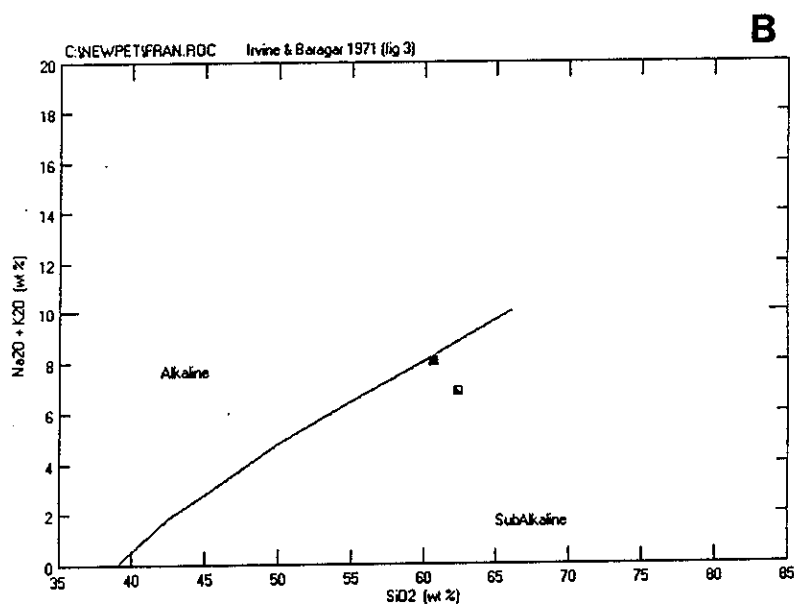


$K_2O$ - $SiO_2$  for Nation Lakes igneous rocks.

File Name C:\NEWPET\FRAN.ROC  
 10-25-1998 16:24:30  
 Sample A33705 A33706  
 Locality 1   
 Locality 2   
 Plot Symbol 5 6  
 Plot Colour 1 1  
 Rock Type M.DIOR M.DIOR  
 Anhyd Coeff 1.03029 1.02407

SiO2	62.31	60.69
TiO2	0.53	0.47
Al2O3	18.50	19.38
Fe2O3*	4.32	4.49
MnO	0.12	0.08
MgO	0.97	1.50
CaO	6.18	5.03
Na2O	4.38	4.64
K2O	2.52	3.41
P2O5	0.16	0.33
Total	100.00	100.00

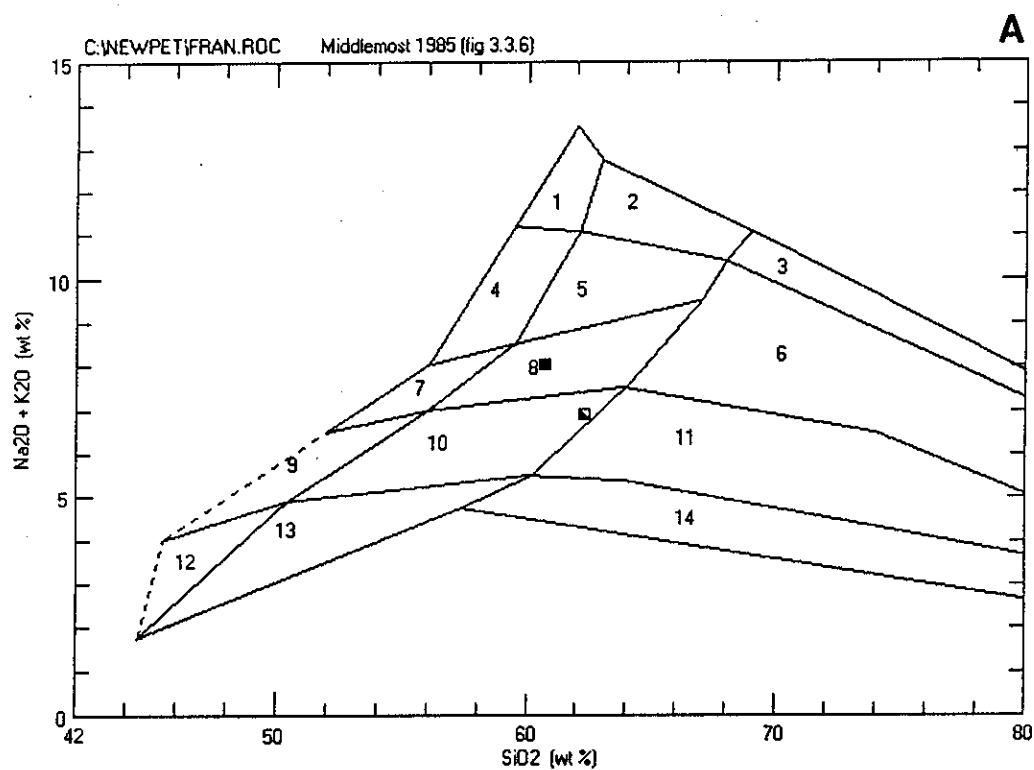
LOI	2.78	2.14
Mg #	30.76	39.76



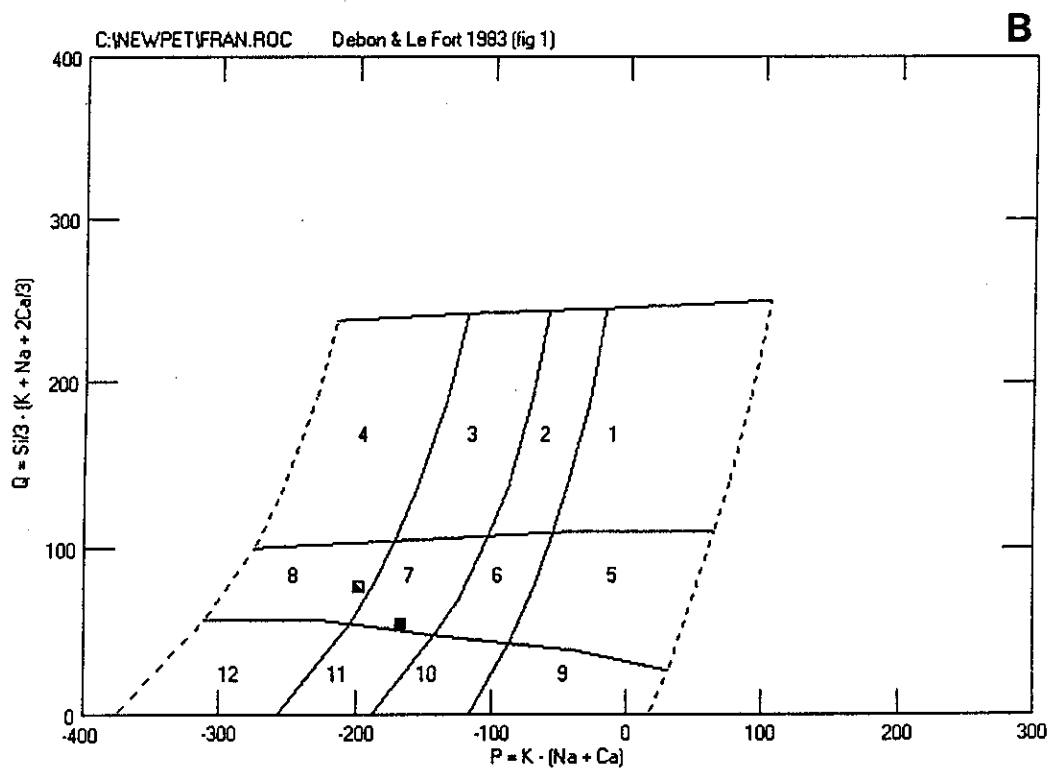
K	20954	28308
Ti	3150	2824

Density	2.41	2.41
---------	------	------

**Figure 9: FRAN PROPERTY, Intrusive Rocks – Lithogeochemistry**



8 - Qtz. Monzonite 10 - Qtz. Monzodiorite 11 - Granodiorite



7 - Qtz. Monzodiorite 8 - Qtz. Diorite

Figure 10: FRAN PROPERTY, Intrusive Rocks - Lithogeochemistry

## **D) Mineralization**

The October program did not identify any new mineralized zones in bedrock. This was mainly due to the snow conditions. Some further sampling was possible in the locality #10 area adjacent to the gold mineralized NNW trending fracture zones in altered monzodiorite. The location of the three new (October) samples are shown in Figure 7, descriptions occur in Table 3 and certificate of analysis (Eco-Tech, AK98-639) in Appendix 3. Sampling focussed on bleached diorite with quartz veinlet stockworks. Very little pyrite was observed in these areas outside of the oxidized and clayey shear/fracture zones. The gold values returned from these samples were low, background at 10 or 20 ppb.

## **Soil Geochemical Survey**

### **a) Method**

A total of 193 soil samples were collected from the grid (Figure 8). There is quite variable soil development throughout the grid area. Lower areas in the south and in the eastern clearing (A45338) feature extensive and often thick clayey till cover. Sampling in these areas was considered to be of limited value consequently much of the base line area and southern parts of the grid were left tested. In the western clearing area bedrock is at or very close to surface especially on the upper slopes above the road. Soil sampling in these areas was from 'C' horizon, basically weathered bedrock. The same is true for the steeper hillsides north of the common claim post and east of the locality #10 road-cut. Elsewhere in well timbered areas horizons were generally well developed in sandy soils. 'B' soil horizon was sampled wherever possible. Samples were placed in standard brown kraft soil envelopes and labelled with a station number.

Closely spaced (20m) soil sampling by Homestake in 1998 took place on two small grids in the Locality #4 (Upper Showing) and Locality #10 (Lower Showing) areas.

### **b) Preparation and Analysis**

All soil samples were sent to Eco Tech Laboratories in Kamloops BC where they were analysed for 30 elements by ICP. Gold was determined by atomic absorption following fire assay preconcentration (30 gram) and aqua regia digestion. All of this geochemical data is available from certificate of analysis AK98-635 located in Appendix C. The 1998 Homestake soils were analysed using basically the same procedures by International Plasma Laboratory, Vancouver.

### **c) Statistical Treatment of Data**

A statistical examination was made of 1998 Placer Dome (PDX) and Homestake soil geochemical data for the grid-showing area. The Homestake data for the Upper (locality #4) and Lower (locality #10) Showing areas were kept separate because of the observed differences in bedrock mineralization. For each of the three data sets there are descriptive statistics, scatter plot and correlation matrices. There are also gold frequency plots for the PDX (complete grid) soils, all statistical data occurs in Appendix C. Homestake gold in soils data for the Upper and Lower showing grids is shown in Figure 10.

### **d) Results**

The combined PDX and Homestake soil data are presented in the form of grid bubble plots for each element. Bubble size is proportional to the calculated 75, 85, 95 and 99th percentile values for the entire population (n=311). Gold in soils data has also been contoured using a 50 ppb threshold. This contour is shown on all soil geochemical plans for visual correlation purposes with other elements. Geochemical plans are included for gold, silver, copper, arsenic and zinc (Figures 9A, 9B, 9C, 9D and 9E respectively). These were selected because of their correlation with known bedrock gold mineralization in the grid area.

The following observations were made on the distribution of anomalies for each of the elements, in particular spatial relationships with the known bedrock mineralization and gold in soils anomalies.

### **Gold (Figure 11A)**

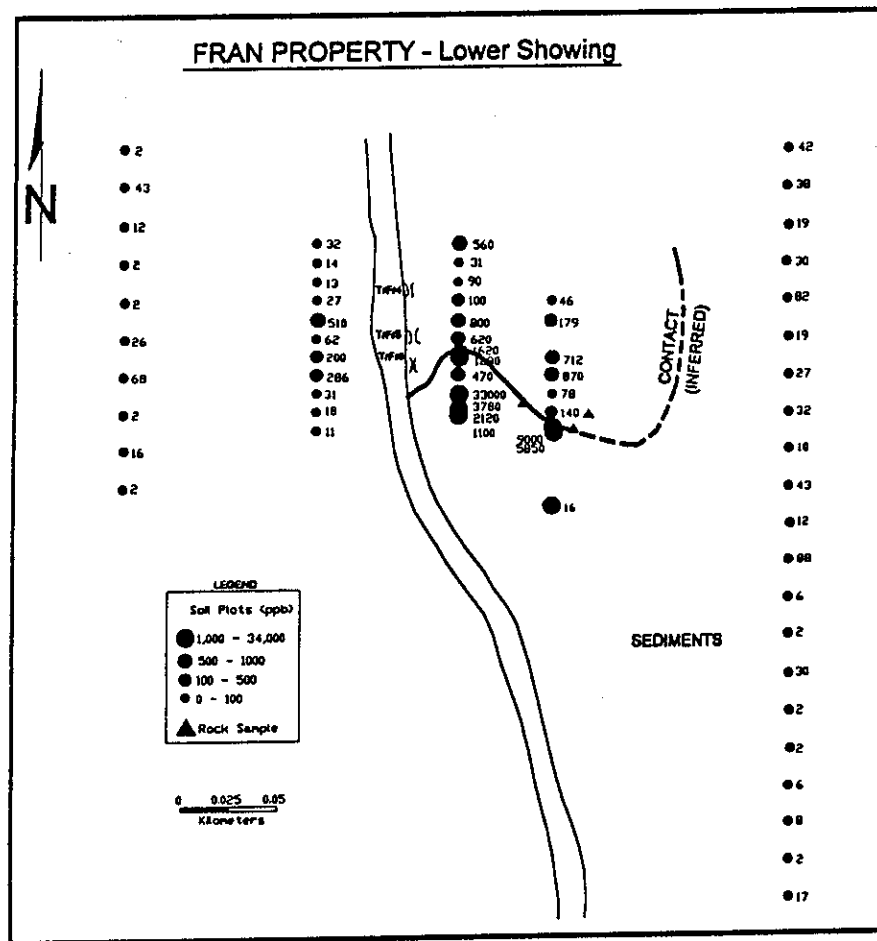
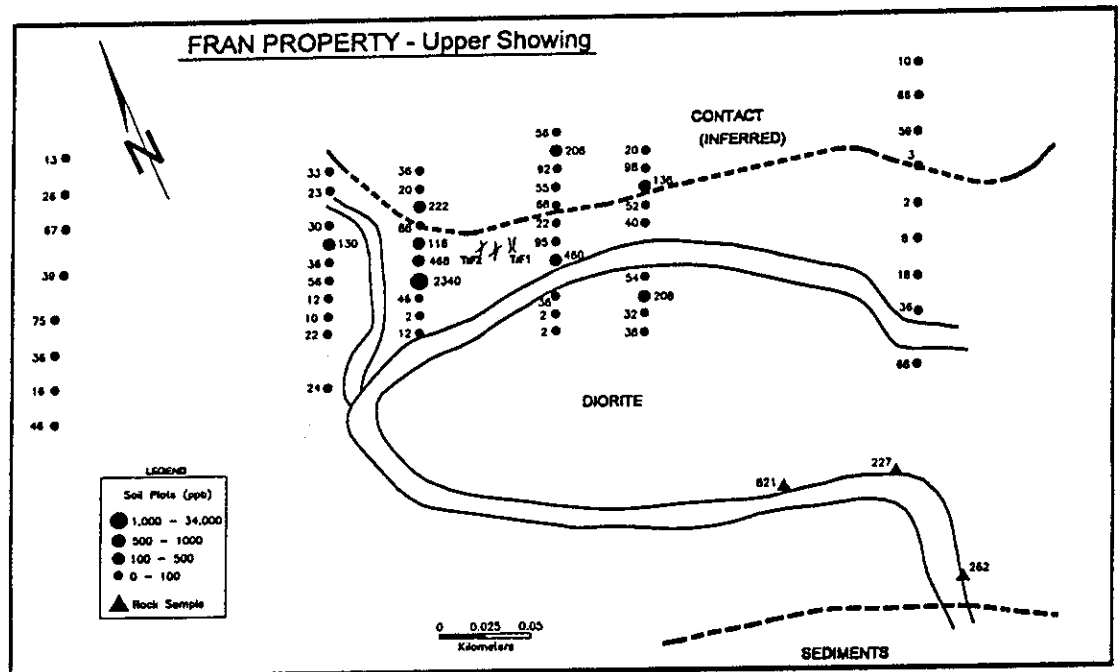
Anomalous gold values occur throughout the grid area, largely in areas with little till cover. The anomalies also visually correlate with areas underlain by dioritic intrusions, especially proximal to contact zones. Contouring of gold data suggests an easterly trend to the anomalies. This could in part be related to grid bias, however the same trend is clearly apparent in areas of closely spaced sampling at the Upper (anomaly A) and Lower (anomaly C) Showings. The main east trending soil anomaly B is over 1.2 kilometres long, and up to 200 metres wide. The western end of this anomaly correlates with known bedrock gold mineralization at clearing localities 8 and 9. Some very high gold in soil values occur proximal to the known showings with the highest close to 10 g/t above locality 10. Some gold anomalies in the central grid (anomaly B) with values in the 200 to 1930 ppb range occur in unexplored areas.

### **Silver (Figure 11B)**

Anomalous silver values are spatially associated with the gold anomalies in the showing areas A, B and western C. Elsewhere, silver values are generally low background.

### **Copper (Figure 11C)**

Like silver, copper is clearly spatially associated with gold anomalies and bedrock mineralization in the showing areas. Higher copper in soil values often occur downslope from the gold anomalies. In the eastern gold anomaly B area there is not a very good spatial correlation with copper.



**FIGURE 12: 1998 HOMESTAKE SOIL GRIDS**

### **Arsenic (Figure 11D)**

Arsenic correlates spatially with gold in the showing areas. The arsenic anomalies are however broader than gold and some downslope dispersion is also suggested.

### **Zinc (Figure 11D)**

Weak zinc in soil anomalies occur throughout the grid area. There is some spatial association with gold especially in the Upper Showing (Locality 4) area. Elsewhere there is no clear spatial relationship other than that the highest zinc values occur proximal to strong gold in soil anomalies. Many zinc anomalies at the 85th percentile do not correlate well with gold.

It is useful to compare statistical correlations for soils in the two showing areas with the known bedrock mineralization. This is possible for the Upper (Locality #4) and Lower (Locality #10) Showing areas where Homestake took closely spaced soils in order to trace bedrock mineralization along strike. Correlations for gold with the various elements are ranked as follows for the two showing area (see correlation matrix plots):

#### **Upper Showing - Quartz vein zone with Au, Ag, As, Cu, Zn, Pb**

Cu (0.91), Mo (0.85), As (0.65), Ag (0.64), Pb (0.17), Zn (-0.6)

#### **Lower Showing - Fracture zones with quartz veinlets and pyrite. Au, Ag**

Ag (0.77), Mo (0.42), Cu (0.34), Pb (0.21), As (0.20), Zn (-0.3)

#### **All Soil Data**

Cu (0.43), Ag (0.35), Mo (0.34), As (0.29), Pb (0.39), Zn (0.12)

The correlation between known bedrock mineralization and soils in the two showing areas is excellent.



### **Heavy Mineral Concentrate Sampling**

There is only one main drainage with its source in the grid area. This creek has its origin near the northern end of grid line 1800E (Figure 8). A heavy mineral pan concentrate sample was taken from this creek above the logging road near grid line 16+00E. In this area the creek is fairly fast flowing and has incised a small steep sided valley into clayey till.

A 15 gram heavy mineral concentrate sample was panned from 10 to 15 kilograms of fine gravel and coarse sand taken from the creek bed over a 10 metre section. Very fine visible gold was observed in one pan fraction. The concentrate sample was run geochemically for gold (30 gram) by Eco-Tech's Laboratory in Kamloops, BC. Three splits were made, the results are recorded on certificate of Analysis AK98-639 in Appendix C. The three values returned at 1500, 225 and 880 ppb suggest a nugget effect; gold is clearly present. This sample confirms gold in the headwater regions to this creek which correlates with the eastern end of gold (soil) anomaly B (Figure 8).

### 3.0 CONCLUSIONS

The Fran Property features several recently discovered gold mineralized zones in bedrock in an area which has received no documented previous exploration. All of the gold occurrences were discovered by sampling or panning bedrock exposures along new logging roads.

On the property monzodiorite to monzonite composition stocks and dykes with west to northwest trend intrude Takla Group sediments and tuffs. An intrusive roof zone environment is indicated. The intrusions have chemical affinity with the high K. calc-alkaline suite rather than the quartz-alkaline and (probable) shoshonitic suite that hosts Cu-Au porphyry style mineralization within this part of Quesnellia, Mt. Milligan for example.

There is no evidence that the Fran intrusive system vented volcanic flows and proximal volcanoclastic facies have not been observed. Gold mineralization occurs in two areas approximately one kilometre apart. This mineralization is hosted by monzodiorite intrusive rocks proximal to contact zones with hornfels (sediments) and features: 1) quartz veinlet stockwork zones with associated K.feldspar alteration in fractured and pyritic intrusive. Localities #8 and #9 yielded gold up to 825 ppb over 2 metres. 2) Polymetallic easterly trending quartz veins with silica, K.feldspar altered wallrocks at Locality #4. Gold values up to 19.4 g/t, Ag to 22.8 g/t, Zn to 0.5% and 2% As plus Cu and Pb values over 1.4 to 3.0 metre widths. 3) South trending fracture zones in patchy K.feldspar altered monzodiorite with some similarities to type 1. Gold values to 315 ppb over 4.5 metres at Locality #10. Pyritic diorite or hornfels without K.feldspar alteration did not return any significant gold values.

The 1998 soil geochemical program met its objectives by indicating large zones of gold mineralization in an intrusive setting. Three main gold in soils anomalies are underlain by intrusives and contact zones, the largest of these is east trending over 1.2 kilometres long by 200 metres in width. All three anomalies are in part coincident with known bedrock mineralization

*R. C. Wells, P.Geo., FGAC. Kamloops Geological Services Ltd.*

and suggest potential for large intrusive hosted gold zones. Clayey till overburden limits the use of soils in lower hillside and valley settings.

Only a small part of the Fran property has received preliminary exploration to date with excellent results. The potential for gold dominant 'porphyries' in transitional calc-alkaline to alkaline settings in this part of Quesnellia has barely been touched. Intrusive hosted gold occurs in two other areas close to the Fran at the Tas and KBE.

#### 4.0 RECOMMENDATIONS

The northern Fran claims have potential for bulk tonnage intrusion hosted gold zones. In this area dioritic intrusions have been crudely outlined by regional scale geological mapping and interpretations from airborne magnetic surveys. These intrusions basically form the main watershed. A two phase exploration program is recommended to advance the property, possible to a drilling stage.

During Phase 1 pan concentrate or mobile sluice sampling of drainages from this northern watershed could quickly determine areas (underlain by intrusive) with high gold potential in the northern claims. More complete geological mapping with prospecting is necessary in the 1998 grid area especially around gold in soil anomalies. Infill soil lines with closer spaced 25 metre sampling would be useful to better define these anomalies. These anomalies could possibly be expanded by adding grid-soil coverage to the northwest, northeast and southeast.

Phase 2 would involve preliminary excavator trenching on geological-geochemical targets in the grid area. The size of excavator to be used would be determined by access, forest cover and depth of overburden (observations made during Phase 1). A smaller more mobile machine may be more useful and environmentally friendly. Phase 2 would also include some grid, soil and geological coverage of anomalous drainage areas defined in Phase 1.

A cost estimate for this program follows:

## COST ESTIMATE

## PHASE 1: Stream sampling, geological mapping, in-fill soils.

2 man crew - 12 days .....	\$12,000.00
Analyses for rocks, soils, allow .....	3,000.00
Maps, interpretations, etc. ....	<u>2,000.00</u>
Total	\$17,000.00

## PHASE 2: Trenching and exploration in new areas.

## A) Trenching Program

Excavator costs, allow .....	\$10,000.00
Supervision and sampling .....	4,000.00
Analyses .....	1,000.00

## B) Grids and sampling in other areas

Personnel .....	\$7,000.00
Analyses .....	\$3,000.00

C) Maps, reports, filing fees .....	<u>\$6,000.00</u>
Total	\$31,000.00

Contingencies @ 10% .....	\$4,800.00
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<b>Total Program Cost .....</b>	<b>\$52,800.00</b>
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## 5.0 REFERENCES

- Bailey, D.G. (1990): A Geological Examination of the Tas Prospect, Omineca Mining Division, BC. Assessment Report.
- Nelson, J.L., Bellefontaine, K.A., Green, K.C. and MacLean, M. (1991a): Regional Geological Mapping Near the Mount Milligan Copper-Gold Deposit (93K/16, 93N/1) in Geological Fieldwork 1990, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1991-1.
- Nelson, J.L., Bellefontaine, K.A., Green, K.C. and MacLean, M. (1991b): Geology and Mineral Potential of the Wittsichica Creek and Tezzeron Creek Map-areas (93N/1, 93K/16); *B.C. Ministry of Energy, Mines and Petroleum Resources*, Open File 1991-3.
- Nelson, J.L., Bellefontaine, K.A., Rees, C. and MacLean, M.E. (1992b): Regional Geological Mapping in the Nation Lakes Area (93N/2E, 7E); in Geological Fieldwork 1991, Grant, B. and Newell, J.M., Editors, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1992-1.
- Nelson, J.L., Bellefontaine, K.A. (1996): The Geology and Mineral Deposits of North-Central Quesnellia; Tezzeron Lake to Discovery Creek, Central British Columbia. *B.C. Ministry of Employment and Investment, Energy and Minerals Division, Geological Survey Branch*, Bulletin 99.

**6.0 STATEMENT OF COSTS****OCTOBER 1998 GEOCHEMICAL-GEOLOGICAL PROGRAM**

1. Field Work	
R.C. Wells, P.Geo., FGAC Consulting Geologist .....	\$4,675.00
Amex Exploration, P. Cox .....	3,197.34
Accommodation and food .....	815.66
Travel .....	<u>290.45</u>
	Sub Total   \$8,978.45
2. Analytical Costs Eco Tech Laboratories, Kamloops, B.C. ....	\$3,003.62
3. Report Costs	
Report by R.C. Wells, maps, reproduction etc .....	\$3,600.00
	<b>Total Cost of Program       <u>\$15,582.07</u></b>

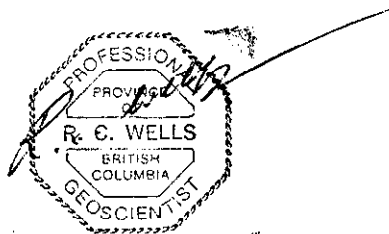
***R. C. Wells, P.Geo., FGAC. Kamloops Geological Services Ltd.***

## 7.0 STATEMENT OF QUALIFICATIONS

I, Ronald C. Wells, of the City of Kamloops, British Columbia, hereby certify that:

1. I am a Fellow of the Geological Association of Canada
2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
3. I am a graduate of the University of Wales, U.K. with a B. Sc. Hons. in Geology (1974), did post graduate (M. Sc.) studies at Laurentian University, Sudbury, Ontario (1976-77) in Economic Geology.
4. I am presently employed as Consulting Geologist and President of Kamloops Geological Services Ltd., Kamloops, B.C.
5. I have practised continuously as a geologist for the last 19 years throughout Canada, USA and Latin America and have past experience and employment as a geologist in Europe.
6. Ten of these years were in the capacity of Regional Geologist for Lacana Mining Corp., then Corona Corporation in both N. Ontario / Quebec and S. British Columbia.

R.C. Wells, P.Geo., FGAC



*R. C. Wells, P.Geo., FGAC. Kamloops Geological Services Ltd.*



**APPENDIX B**

**July 1998 Property Examination.  
Sample Descriptions and Analytical Results**

***R. C. Wells, P.Geo., FGAC. Kamloops Geological Services Ltd.***

## TABLE 2

### FRAN PROPERTY: JULY 1998 PROPERTY EXAMINATION

#### SAMPLE DESCRIPTIONS

SAMPLE NO.	SAMPLE TYPE	BRIEF DESCRIPTION	Au g/t	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
48176	1.5m chip/ panel Az. 345° N	Sample taken parallel to road above small pit Loc. #1. Medium grained diorite, local weak magnetic. Fine fracture controlled Py minor Cpy.		35	<0.2	338	6	29	165
48177	3.0m chip/ panel Az. 090° E	Sample starts 3m west of Loc. #2 pit. Medium grained, non-magnetic diorite with fine fracture controlled pyrite. Sparse quartz veinlets up to 5mm, local druse.		75	0.2	87	92	155	65
48178	1.4m chip/ panel Az. 020° N	Most easterly hand trench Loc. #4. Medium grained diorite and monzodiorite cut by 1m. Wide silicified zone with some quartz and Py. Overburden covers south side of zone.		50	0.6	98	14	52	105
48179	1.8m chip/ panel Az. 020° N	Second hand trench Loc. #4. 30 to 50cm wide brecciated quartz vein with patchy f/m grained Py, Aspy. To south rubbly diorite, monzodiorite, patchy silification and K. feldspar alteration.	19.40		22.8	794	632	5047	7015
48180	1.5m chip/ panel Az. 040° NE	Third hand trench Loc. #4. Similar to previous sample. 30 to 40cm wide vuggy quartz vein in weakly brecciated and altered diorite, monzodiorite. Quartz vein is sulfide poor, wallrocks have significant amounts of f/m grained fracture Py.	1.36		4.8	366	152	635	870

SAMPLE NO.	SAMPLE TYPE	BRIEF DESCRIPTION	Au g/t	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
48181	3.0m chip/ panel Az. 040° NE	West trench Loc. #4. East end is diorite, monzodiorite with fracture Py. To west 20 to 30cm wide quartz vein in altered diorite (sil., K.feldspar) with patchy disseminated and fracture Py. Local finer Aspy.	1.30		5.0	203	326	2282	4810
48182	4.0m panel/ grab Az. 320° NW	Mixed diorite and fine grained siliceous and splintery hornfels. Patchy fine disseminated Py. Variable weak magnetism. Vague contact zone.		5	<0.2	258	12	49	65
48183	1.5m x 1.5m panel	40m SE of Loc. #7. Hard fine grained, siliceous hornfels, non-magnetic, no carbonate. Variable fine to fine-medium grained fracture and disseminated Py up to several percent.		5	<0.2	239	6	29	15
48184	2.0m chip/ panel Az. 350° N	Along road bar. Medium grained diorite-monzodiorite with weak alteration in groundmass. Patchy fine Py commonly along fractures, joints locally >5%.		5	<0.2	409	6	20	10
48185	2.8m chip Az 165° S	Loc. #8 across road. Strong K.feldspar altered diorite with fine rusty quartz veinlets and stockworks some recognizable fracture, veinlet Py.		200 *195	<0.2	216	8	25	<5
48186	2.8m x 1.0m chip/ panel	Vertical sample in road cut above previous sample. Moderately jointed, medium grained and relatively fresh diorite-monzodiorite with Az60/ 40 NW joints and local narrow concordant rusty zones 2-3mm wide.		10	<0.2	32	8	22	10

SAMPLE NO.	SAMPLE TYPE	BRIEF DESCRIPTION	Au g/t	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
48187	2.0m x 1.0m chip/ panel	Vertical sample in road cut, east of Loc. #8. Strongly jointed and K.feldspar altered diorite-monzodiorite with concordant rusty zones, some stockworks, local Py. Similar but not as strong as Loc. #8.		825 *425	<0.2	190	8	30	10
	Locality #9 O. Station at creek.								
48188	14.0-20.0m. S 6.0m panel	Diorite-monzodiorite with coarse stockwork of rusty fractures 0.5m spacing. Main joints Az. 246/ 60 SE.		5	<0.2	63	8	36	5
48189	20.0-25.0m. S 5.0m panel	Diorite-monzodiorite similar to above another important joint set Az 116/ 60 N.		5	<0.2	64	6	27	10
48190	35.0-40.0m. S 5.0m panel	Strong fractured and jointed diorite-monzodiorite. Rusty stockworks, local close spacing variable angles.		55 *60	<0.2	177	8	32	10
48191	40.0-45.0m. S 5.0m panel	Similar to above, wider rusty fracture zones commonly 10- 20cm wide separated by massive relatively unaltered diorite.		25 *25	<0.2	87	8	31	<5
48192	45.0-50.0m. S 5.0m panel	Locality #9. North end features moderately jointed diorite. Rusty 1m wide fracture/joint zone Az 280/ 80 S. To south flat lying fault base of cliff Az 175/12 E. This fault is clayey (lote) crosses alteration in diorite.		475 *445	<0.2	130	10	32	25
48193	50.0-55.0m. S 5.0m panel	Flat fracture continues to south. Diorite above and below does not contain much vein stockwork or Py.		235 *180	<0.2	41	8	35	15

SAMPLE NO.	SAMPLE TYPE	BRIEF DESCRIPTION	Au g/t	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
48194	65.0-70.0m. S 5.0m panel	Fine grained siliceous hornfels. Hard, strong fractured with local Py.		140	<0.2	163	8	29	10
	Locality #10								
48195	53.0m-55.5m chip/ panel	Closely spaced rusty fractures trending SSE, dip 80° E in monzodiorite.		25	<0.2	115	10	28	<5
48196	68.0m-72.5m chip/ panel	As above zone is broader and locally clayey in monzodiorite.		95	<0.2	117	10	40	15
48197	95.3m- 99.3	Middle hand trench in bank. Rusty with little fresh bedrock, monzodiorite host rocks?		315	<0.2	317	10	33	10
48198	@ 99.3m grab	Upper trench grab from large highly oxidized boulder 30cm dia. Property owner panned gold from this area previously.	227.00		19.8	1835	<2	34	<5

Note\*: Au checked- second run

16-Jul-98

ECO-TECH LABORATORIES LTD.  
10041 East Trans Canada Highway  
KAMLOOPS, B.C.  
V2C 6T4

ICP CERTIFICATE OF ANALYSIS - AK98-314

# ROCK SAMPLING, JULY EXAMINATION

PLACER DOME CANADA LTD.  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

ATTENTION: BRIAN FOWLER

Phone: 604-573-5700  
Fax : 604-573-4557

No. of samples received: 23  
Sample type: Rock  
PROJECT #: GENERATIVE  
SHIPMENT #: None Given  
Sample submitted by: Ron Wells

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	48176	35	<0.2	2.56	165	170	<5	0.65	<1	12	15	338	6.39	<10	0.53	282	5	0.04	<1	1450	6	<5	<20	69	0.11	<10	93	<10	2	29
2	48177	75	0.2	1.69	65	85	<5	1.07	1	15	32	87	5.22	<10	0.73	599	7	0.04	1	1620	92	<5	<20	30	0.05	<10	83	10	7	155
3	48178	50	0.6	1.25	105	90	<5	0.63	<1	13	53	98	3.22	<10	0.48	520	10	0.04	5	890	14	<5	<20	14	0.03	<10	46	10	4	52
4	48179	>1000	22.8	0.73	7015	75	<5	0.15	32	35	39	794	8.15	<10	0.09	360	32	0.03	5	540	632	<5	<20	14	<0.01	<10	13	<10	<1	5047
5	48180	>1000	4.8	0.96	870	65	<5	0.29	3	16	70	366	5.55	<10	0.25	191	26	0.03	8	680	152	<5	<20	14	<0.01	<10	22	<10	<1	635
6	48181	>1000	5.0	0.75	4810	75	<5	0.29	9	32	56	203	4.20	<10	0.25	170	14	0.02	3	660	326	<5	<20	14	<0.01	<10	18	<10	<1	2282
7	48182	5	<0.2	1.65	65	45	<5	1.45	<1	23	59	258	4.56	<10	0.92	292	43	0.05	19	1610	12	<5	<20	18	0.16	<10	90	10	6	49
8	48183	5	<0.2	1.12	15	65	<5	0.69	<1	24	59	239	4.01	<10	0.74	288	3	0.06	13	890	6	<5	<20	17	0.21	<10	88	10	7	29
9	48184	5	<0.2	1.24	10	35	<5	1.51	<1	28	41	409	3.22	<10	0.32	221	6	0.06	7	1560	6	<5	<20	22	0.09	<10	47	10	6	20
10	48185	200	<0.2	2.72	<5	80	<5	1.33	<1	27	20	216	9.13	<10	0.76	391	13	0.04	2	1570	8	<5	<20	48	0.14	<10	114	10	2	25
11	48186	10	<0.2	2.05	10	40	10	1.75	<1	14	35	32	4.08	<10	0.65	521	3	0.05	<1	1460	8	<5	<20	39	0.08	<10	76	10	4	22
12	48187	825	<0.2	2.44	10	105	<5	1.53	<1	32	17	190	7.34	<10	0.77	544	63	0.05	6	1550	8	<5	<20	87	0.14	<10	129	10	4	30
13	48188	5	<0.2	2.79	5	95	10	2.22	<1	25	13	63	5.79	<10	0.99	590	1	0.05	7	1880	8	<5	<20	144	0.16	<10	160	10	8	36
14	48189	5	<0.2	2.09	10	105	5	1.71	<1	19	14	64	4.87	<10	0.70	459	<1	0.04	3	1950	6	<5	<20	133	0.13	<10	122	10	8	27
15	48190	55	<0.2	2.92	10	90	5	1.98	<1	39	13	177	8.08	<10	0.99	757	36	0.04	6	1730	8	<5	<20	88	0.14	<10	131	10	7	32
16	48191	25	<0.2	2.55	<5	85	10	1.83	<1	30	10	87	5.94	<10	0.77	514	6	0.04	3	1820	8	<5	<20	111	0.14	<10	112	10	9	31
17	48192	475	<0.2	2.89	25	85	10	1.90	<1	36	14	130	6.84	<10	0.93	584	5	0.04	4	1710	10	<5	<20	69	0.17	<10	127	10	6	32
18	48193	235	<0.2	2.69	15	115	10	2.35	<1	24	19	41	5.38	<10	0.89	640	<1	0.04	5	1730	8	<5	<20	193	0.15	<10	115	10	4	35
19	48194	140	<0.2	2.76	10	65	10	1.34	<1	28	23	163	7.71	<10	1.44	692	5	0.05	10	1240	8	<5	<20	38	0.24	<10	159	10	5	29
20	48195	25	<0.2	1.89	<5	105	<5	0.70	<1	15	7	115	3.70	<10	0.70	624	3	0.04	<1	1340	10	<5	<20	139	<0.01	<10	47	10	2	28
21	48196	95	<0.2	2.56	15	70	<5	0.60	<1	25	11	117	5.71	<10	0.83	624	5	0.02	7	1600	10	<5	<20	38	<0.01	<10	83	10	3	40
22	48197	315	<0.2	2.64	10	75	<5	0.49	<1	40	7	317	6.05	10	0.84	787	11	0.04	5	1200	10	<5	<20	65	<0.01	<10	91	<10	3	33
23	48198	>1000	19.8	0.77	<5	150	<5	0.05	2	150	<1	1835	>10	<10	<0.01	542	76	0.02	19	300	<2	<5	<20	16	<0.01	10	166	<10	<1	34
24	48199	565	<0.2	1.56	<5	55	10	2.56	<1	25	36	65	5.71	<10	1.39	546	2	0.05	4	3880	4	<5	<20	83	0.12	<10	143	10	4	36

PLACER DOME CANADA LTD.

## ICP CERTIFICATE OF ANALYSIS - AK98-314

ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn	
QC/DATA:																															
Resplit:																															
R/S 1	48176	35	<0.2	2.66	155	170	<5	0.71	<1	13	16	354	6.55	<10	0.54	288	6	0.04	<1	1480	10	<5	<20	69	0.12	<10	96	20	2	29	
Repeat:																															
1	48176	35	<0.2	2.64	170	170	<5	0.70	<1	13	16	346	6.47	<10	0.54	286	5	0.04	<1	1460	10	<5	<20	67	0.12	<10	95	20	3	30	
10	48185	175	<0.2	2.70	5	75	5	1.40	<1	25	20	210	9.10	<10	0.70	390	10	0.04	2	1560	10	5	<20	50	0.12	<10	110	10	2	25	
Standard:																															
GEO'98		125	1.2	1.72	65	180	5	1.76	<1	21	61	81	4.29	<10	0.98	687	<1	0.03	24	710	22	<5	<20	60	0.12	<10	77	<10	5	74	

df/317  
XLS/98Placer

  
ECO-TECH LABORATORIES LTD.  
Frank J. Pezzotti, A.Sc.T.  
B.C. Certified Assayer



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10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 6T4 Phone (250) 573-5700  
Fax (250) 573-4557

## CERTIFICATE OF ANALYSIS AK 98-314

20-Jul-98

PLACER DOME CANADA LTD.  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

ATTENTION: BRIAN FOWLER

No. of samples received: 23  
Sample type: Rock  
PROJECT #: GENERATIVE  
SHIPMENT #: None Given  
Sample submitted by: Ron Wells

Reruns Requested by Ron Wells

RECEIVED

JUL 24 1998


ET #.	Tag #	Au (ppb)
10	48185	195
12	48187	425
15	48190	60
16	48191	25
17	48192	445
18	48193	180
24	48199	410

### QC DATA:

Repeat:  
18 48193 200

Standard:  
GEO'98 135

XLS/98

  
ECO-TECH LABORATORIES LTD.  
Frank J. Pezzotti, A.Sc.T.  
B.C. Certified Assayer



21-Jul-98

ECO-TECH LABORATORIES LTD.  
10041 East Trans Canada Highway  
KAMLOOPS, B.C.  
V2C 6T4

Phone: 604-573-5700  
Fax : 604-573-4557

ICP CERTIFICATE OF ANALYSIS - AK98-314


PLACER DOME CANADA LTD.  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

ATTENTION: BRIAN FOWLER

No. of samples received: 23  
Sample type: Rock  
PROJECT #: GENERATIVE  
SHIPMENT #: None Given  
Sample submitted by: Ron Wells

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
24	48199	410	<0.2	1.54	<5	60	10	2.36	<1	22	23	53	5.17	<10	1.37	512	2	0.07	<1	3640	8	<5	<20	70	0.09	<10	131	<10	3	35
QC/DATA:																														
Repeat:																														
24	48199	-	<0.2	1.52	<5	60	10	2.29	<1	21	22	51	5.02	<10	1.33	496	1	0.08	<1	3570	8	<5	<20	66	0.09	<10	128	<10	3	34
Standard:																														
GEO'98		135	1.2	1.75	65	155	10	1.86	<1	19	59	77	4.06	<10	0.96	671	<1	0.02	20	710	22	<5	<20	59	0.10	<10	73	<10	4	73

  
ECO-TECH LABORATORIES LTD.  
Frank J. Pezzotti, A.Sc.T.  
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Fax (250) 573-4557

## CERTIFICATE OF ASSAY AK 98-314

PLACER DOME CANADA LTD.  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

16-Jul-98

ATTENTION: BRIAN FOWLER

No. of samples received: 23  
Sample type: Rock  
PROJECT #: GENERATIVE  
SHIPMENT #: None Given  
Sample submitted by: Ron Wells

RECEIVED  
JUL 24 1998

ET #.	Tag #	Au (g/t)	Au (oz/t)
4	48179	19.40	0.566
5	48180	1.36	0.040
6	48181	1.30	0.038
23	48198	227.00	6.620

QC/DATA:

Standard:

STD-M

1.38 0.040

XLS/98

  
ECO-TECH LABORATORIES LTD.

Frank J. Pezzotti, A.Sc.T.  
B.C. Certified Assayer

**APPENDIX C**  
**October 1998 Program.**  
**Sample Descriptions and Analytical Results**

*R. C. Wells, P.Geo., FGAC. Kamloops Geological Services Ltd.*

**TABLE 3****FRAN PROPERTY: OCTOBER 1998 PROGRAM****SAMPLE DESCRIPTIONS**

<b>SAMPLE NO.</b>	<b>SAMPLE TYPE</b>	<b>BRIEF DESCRIPTION</b>	<b>AU PPB</b>
33701	2.0m panel	Plagioclase porphyry. Micro-monzodiorite. Local plagioclase phenocrysts to 2.5mm in a fine grained patchy altered groundmass. Some K.feldspar, chloritized fine mafic minerals, 1-2% fine fracture controlled pyrite.	10
33702	Grab	Narrow milky quartz veins, some up to 1.5 cm generally 1-3mm within bleached/altered monzodiorite. Alteration obscures textures.	20
33703	2.0m panel	Fine quartz veinlet stockworks within a fine to medium grained and greenish monzodiorite. The veinlets are irregular with individual veinlets rarely wider than 3mm. Density of veinlets is 2 to 5 per 10 cm.	10
A33705	Whole rock	Crowded plagioclase porphyry. Numerous 1 to 2 mm poor tabular plagioclase phenocrysts with finer dark coloured hornblende microphenocrysts (5%). Fine grained groundmass with some K.feldspar. Non carbonated, weak to non magnetic.	
A33706	Whole Rock	Monzodiorite. Mottled greens and greys, medium grained with tabular 1-2mm plagioclase with finer groundmass mafics, K.feldspar, some plagioclase. Non carbonated, weak to non magnetic.	



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Phone (250) 573-5700 Fax (250) 573-455  
email: ecotech@mail.wkpowerlink.com

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OCT 26

## CERTIFICATE OF ANALYSIS AK 98-647

PLACER DOME CANADA LTD.  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

20-Oct-98

### ROCK SAMPLING, OCT. EXAMINATION

ATTENTION: BRIAN FOWLER

No. of samples received: 3  
Sample type: Rock  
PROJECT: # FRAN  
SHIPMENT: # 01  
Samples submitted by: Ron Wells

ET #.	Tag #	Au (ppb)
1	33701	10
2	33702	20
3	33703	10

#### QC DATA:

##### Resplit:

R/S 1	33701	55
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##### Repeat:

1	33701	10
---	-------	----

##### Standard:

GEO'98	130
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XLS/98Placer Dome  
fax: 372-7784

ECO-TECH LABORATORIES LTD.

Frank J. Pezzotti, A.Sc.T.  
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Phone (250) 573-5700 Fax (250) 573-4557  
email: ecotech@mail.wkpowerlink.com

**WHOLE ROCK CERTIFICATE OF ANALYSIS AK98-636**

**PLACER DOME CANADA LTD.**  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

**ROCK SAMPLING, OCT. EXAMINATION**

23-Oct-98


**ATTENTION: BRIAN FOWLER**

No. of samples: 2  
Sample Type: Rock  
PROJECT #: FRAN  
SHIPMENT #: 01  
Samples Submitted by: Ron Wells

Values expressed in percent

ET #.	Tag #	BaO	P2O5	SiO2	MnO	Fe2O3	MgO	Al2O3	CaO	TiO2	Na2O	K2O	L.O.I.
1	A33705	0.15	0.16	60.48	0.12	4.19	0.94	17.96	6.00	0.51	4.25	2.45	2.78
2	A33706	0.20	0.32	59.26	0.08	4.38	1.46	18.92	4.91	0.46	4.53	3.33	2.14
<b>QC/DATA:</b>													
<b>Repeat #:</b>													
1	A33705	0.12	0.19	61.28	0.12	3.97	0.81	18.16	5.96	0.45	4.18	2.07	2.70
2	A33706	0.18	0.30	59.74	0.08	4.25	1.27	18.96	4.85	0.45	4.54	3.31	2.09
<b>Standard:</b>													
MRG1		0.02	0.05	39.19	0.17	17.45	13.25	8.53	14.60	3.61	0.71	0.20	2.22
SY2		0.06	0.42	59.67	0.32	6.06	2.56	12.02	8.09	0.14	4.30	4.53	1.84

XLS/98Placer Dome  
df/wr636

  
**Eco-TECH LABORATORIES LTD.**  
Frank J. Pezzotti, A.Sc.T.  
B.C. Certified Assayer



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10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 6T4  
Phone (250) 573-5700 Fax (250) 573-4557  
email: ecotech@mail.wkpowerlink.com

## CERTIFICATE OF ASSAY AK 98-635

PLACER DOME CANADA LTD.  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

SOIL SAMPLING, OCT. PROGRAM

26-Oct-98

ATTENTION: BRIAN FOWLER

No. of samples received: 193  
Sample type: Soil  
PROJECT #: FRAN  
SHIPMENT #: 01  
Samples submitted by: R. Wells

RECEIVED  
NOV 02 1998

ET #.	Tag #	Au (g/t)	Au (oz/t)
87	L1200E 14+50N	1.93	0.056
139	L1800E 9+00N	3.14	0.092

**QC/DATA:**

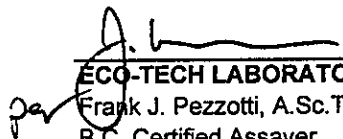
**Repeat:**

139	L1800E 9+00N	2.32	0.068
-----	--------------	------	-------

**Standard:**

STD-M	1.60	0.047
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XLS/98

  
ECO-TECH LABORATORIES LTD  
Frank J. Pezzotti, A.Sc.T.  
B.C. Certified Assayer

# SOIL SAMPLING, OCT. PROGRAM

26-Oct-98

ECO-TECH LABORATORIES LTD.  
10041 East Trans Canada Highway  
KAMLOOPS, B.C.  
V2C 6T4

ICP CERTIFICATE OF ANALYSIS - AK98-635

PLACER DOME CANADA LTD.  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

Phone: 604-573-5700  
Fax : 604-573-4557

ATTENTION: BRIAN FOWLER

No. of samples received: 193  
Sample type: Soil  
PROJECT #: FRAN  
SHIPMENT #: 01  
Samples submitted by: R. Wells

Values in ppm unless otherwise reported

Et #.	Tag #	Mesh		Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
		Size	Size																													
1	L600E 13+00N			<5	<0.2	2.47	15	90	10	0.22	<1	19	33	46	5.84	<10	0.72	689	3	0.01	18	670	14	<5	<20	35	0.12	<10	139	<10	<1	128
2	L600E 13+25N			5	0.2	3.12	10	130	<5	0.39	<1	24	41	72	5.60	<10	1.03	528	2	0.01	60	970	14	<5	<20	79	0.11	<10	129	<10	<1	123
3	L600E 13+50N			5	<0.2	2.25	5	105	5	0.30	<1	16	39	35	4.93	<10	0.63	397	1	0.01	20	2090	10	<5	<20	42	0.08	<10	110	<10	<1	138
4	L600E 13+75N			<5	<0.2	2.18	<5	145	10	0.33	<1	16	38	37	4.61	<10	0.62	502	2	0.01	20	1820	10	<5	<20	41	0.07	<10	98	<10	<1	126
5	L600E 14+00N	-48		<5	<0.2	1.97	<5	120	15	0.30	<1	13	37	27	5.32	<10	0.59	646	3	0.01	16	2160	8	<5	<20	37	0.08	<10	118	<10	<1	120
6	L600E 14+25N			<5	<0.2	1.67	<5	145	10	0.22	<1	11	30	23	3.96	<10	0.38	1194	1	0.01	11	1890	12	<5	<20	33	0.09	<10	97	<10	<1	89
7	L600E 14+50N	-48		<5	0.2	2.63	20	195	10	0.34	1	21	49	51	6.66	<10	0.79	648	3	0.01	24	2880	10	<5	<20	55	0.10	<10	139	<10	<1	151
8	L600E 14+75N			15	0.4	2.48	25	90	<5	0.69	<1	21	42	238	4.70	<10	0.98	1394	10	0.02	48	710	10	<5	<20	73	0.06	<10	106	<10	17	88
9	L600E 15+00N			10	0.4	3.43	45	300	<5	0.73	2	31	14	149	6.96	<10	0.51	1200	7	0.02	28	1860	10	<5	<20	392	0.07	<10	113	<10	<1	184
10	L600E 15+25N			60	0.2	4.37	10	360	<5	0.80	1	17	17	96	6.44	<10	0.78	549	3	0.03	21	2750	12	<5	<20	125	0.10	10	122	<10	<1	182
11	L600E 15+50N			135	0.6	4.21	45	390	<5	0.84	2	30	15	117	7.14	<10	0.39	797	6	0.02	16	3040	12	<5	<20	381	0.08	<10	123	<10	<1	181
12	L600E 15+75N	-48		25	0.8	3.65	55	205	<5	0.77	1	22	18	135	5.93	<10	0.70	356	1	0.02	19	760	14	<5	<20	198	0.18	<10	136	<10	<1	361
13	L600E 16+00N			945	0.6	4.11	335	165	<5	0.74	<1	56	12	1120	>10	<10	0.70	352	22	0.04	19	1940	6	<5	<20	148	0.15	10	220	10	<1	253
14	L600E 16+25N	-48		105	6.0	3.81	1780	125	<5	0.47	<1	57	<1	1343	>10	<10	0.61	439	71	0.02	5	1750	20	<5	<20	49	0.05	10	179	<10	<1	207
15	L600E 16+50N	-48		825	19.0	1.94	2080	400	<5	0.29	<1	24	<1	545	>10	<10	0.23	277	59	0.03	4	2210	136	<5	<20	93	0.08	10	138	<10	<1	181
16	L600E 16+75N			30	1.4	3.13	75	155	<5	0.34	<1	21	16	444	>10	<10	0.44	343	59	0.02	12	1710	8	<5	<20	101	0.16	10	150	<10	<1	100
17	L600E 17+00N			260	0.4	3.70	15	105	<5	0.31	<1	19	5	154	6.17	<10	0.42	231	17	0.01	8	1360	10	<5	<20	62	0.03	10	82	<10	<1	80
18	L600E 17+25N			30	<0.2	3.65	10	90	<5	0.28	<1	16	6	165	9.96	<10	0.43	326	19	0.01	8	2060	10	<5	<20	23	0.09	10	168	<10	<1	82
19	L600E 17+50N			10	<0.2	4.44	15	115	10	0.15	<1	14	20	78	6.84	<10	0.52	306	9	0.01	14	1410	14	<5	<20	45	0.07	10	125	<10	<1	114
20	L600E 17+75N			40	0.8	5.37	105	180	<5	0.35	<1	13	16	123	6.49	<10	0.35	459	8	0.01	17	2160	18	<5	<20	151	0.05	<10	73	<10	<1	102
21	L600E 18+00N			60	0.2	2.14	5	140	10	0.27	<1	8	16	60	5.73	<10	0.39	163	17	0.01	9	1190	6	<5	<20	96	0.16	10	105	<10	<1	35
22	L600E 18+25N	-48		30	<0.2	5.09	25	525	<5	0.91	<1	15	30	150	7.15	<10	0.61	511	21	0.02	90	2180	10	<5	<20	1899	0.12	<10	107	<10	<1	64
23	L600E 18+50N			150	0.4	1.24	<5	115	5	0.21	<1	5	<1	51	4.87	<10	0.10	223	11	0.01	4	1200	6	<5	<20	51	0.03	10	80	<10	<1	45
24	L600E 18+75N			40	1.0	4.24	35	315	<5	1.66	<1	32	12	165	7.32	<10	0.79	1039	7	0.03	59	520	10	<5	<20	812	0.03	<10	155	<10	13	63
25	L600E 19+00N	-48		5	1.0	3.53	50	165	<5	0.96	<1	27	48	173	6.02	20	1.33	1732	3	0.02	50	600	16	<5	<20	136	0.08	<10	136	<10	28	102



## PLACER DOME CANADA LTD.

## ICP CERTIFICATE OF ANALYSIS - AK98-635

## ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Mesh		Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
		Size																														
26	L800E 19+25N			15	1.6	3.85	25	190	<5	1.46	1	29	56	276	6.39	<10	1.45	2520	4	0.03	53	950	12	<5	<20	100	0.07	<10	153	<10	23	170
27	L800E 19+50N			35	0.2	2.56	25	125	<5	0.88	<1	24	34	77	5.15	<10	1.20	1340	1	0.03	22	670	16	<5	<20	95	0.10	<10	132	<10	<1	104
28	L800E 12+75N			10	<0.2	2.75	<5	165	10	0.29	<1	16	47	43	6.19	<10	0.82	514	2	0.01	23	2740	12	<5	<20	54	0.08	<10	126	<10	<1	122
29	L800E 13+00N	-48		35	0.8	2.37	25	215	5	0.59	3	19	26	42	5.38	<10	0.52	1626	3	0.01	14	1730	12	<5	<20	263	0.08	<10	120	<10	<1	341
30	L800E 13+25N	-48		285	0.2	1.02	5	130	10	0.46	<1	9	5	22	2.86	<10	0.20	1061	<1	0.01	3	920	6	<5	<20	57	0.07	<10	76	<10	<1	54
31	L800E 13+50N			670	0.6	4.24	10	220	<5	0.72	1	34	15	235	>10	<10	0.84	1002	21	0.02	9	1580	4	<5	<20	188	0.09	<10	188	<10	<1	129
32	L800E 13+75N			20	0.4	4.11	10	470	<5	1.17	<1	22	10	98	6.52	<10	0.62	999	4	0.02	10	2130	10	<5	<20	2338	0.07	<10	102	<10	<1	137
33	L800E 14+00N			45	0.4	3.67	60	235	5	0.59	<1	25	27	97	5.96	<10	0.84	876	4	0.02	44	940	14	<5	<20	385	0.07	<10	100	<10	<1	244
34	L800E 14+25N			170	2.2	3.06	70	175	<5	0.41	<1	24	12	138	7.01	<10	0.44	397	8	0.01	12	1370	12	<5	<20	198	0.04	<10	103	<10	<1	190
35	L800E 14+50N			60	0.6	1.88	25	140	<5	0.32	<1	8	11	27	4.37	<10	0.29	324	5	0.01	7	1130	8	<5	<20	89	0.03	<10	97	<10	<1	89
36	L800E 14+75N			135	0.8	2.65	65	110	<5	1.44	<1	23	15	116	5.46	<10	0.53	919	7	0.02	13	620	10	<5	<20	156	0.02	<10	103	<10	2	76
37	L800E 15+00N			95	0.4	1.90	20	165	<5	0.46	<1	10	8	41	4.81	<10	0.28	343	7	0.01	5	1110	10	<5	<20	189	0.04	<10	91	<10	<1	89
38	L800E 15+25N			215	0.2	3.13	50	210	<5	0.56	<1	18	13	172	8.57	<10	0.48	310	19	0.01	13	1090	10	<5	<20	322	0.05	<10	124	<10	<1	83
39	L800E 15+50N			5	<0.2	2.13	20	165	<5	1.01	<1	18	12	71	4.21	<10	0.36	802	5	0.01	11	1060	8	<5	<20	251	0.05	<10	92	<10	<1	101
40	L800E 15+75N			20	0.6	2.37	10	200	<5	0.45	<1	18	13	79	4.79	<10	0.38	1560	8	0.02	9	870	10	<5	<20	176	0.04	<10	106	<10	<1	82
41	L800E 16+00N			10	<0.2	4.06	20	285	10	1.08	<1	9	1	26	5.38	<10	0.24	244	8	0.03	<1	870	12	<5	<20	615	0.03	<10	111	<10	<1	26
42	L800E 16+25N	-48		5	1.0	1.84	<5	250	<5	1.03	2	25	3	92	3.49	<10	0.14	4291	8	0.01	5	2080	8	<5	<20	291	0.02	<10	73	<10	<1	69
43	L800E 16+50N			10	<0.2	3.73	50	175	<5	0.86	<1	22	22	83	5.61	<10	0.38	350	10	0.02	19	550	16	<5	<20	268	0.06	<10	137	<10	<1	39
44	L800E 16+75N			10	<0.2	2.31	10	105	5	0.41	<1	14	29	33	4.10	<10	0.74	399	1	0.02	22	1820	8	<5	<20	34	0.08	<10	93	<10	<1	71
45	L800E 17+00N			<5	0.4	2.41	10	105	10	0.29	<1	14	28	30	4.67	<10	0.56	355	2	0.01	13	1090	12	<5	<20	33	0.09	10	101	<10	<1	108
46	L800E 17+25N			80	0.8	2.66	30	185	<5	1.29	1	26	36	136	5.46	<10	0.77	1762	5	0.02	28	720	10	<5	<20	158	0.05	<10	95	<10	6	86
47	L800E 17+50N			205	1.2	2.73	55	140	<5	1.37	1	32	29	149	5.55	<10	0.60	2237	8	0.02	24	990	14	<5	<20	120	0.04	<10	76	<10	10	177
48	L800E 17+75N			20	0.6	2.36	45	145	<5	0.92	1	23	11	99	6.74	<10	0.32	676	14	0.01	10	880	18	<5	<20	119	0.02	<10	95	<10	<1	170
49	L800E 18+00N			20	0.6	2.63	40	115	10	0.28	<1	18	34	60	5.78	<10	0.60	384	3	0.02	27	400	16	<5	<20	41	0.11	<10	113	<10	<1	132
50	L800E 18+25N			35	0.8	2.50	40	150	<5	0.84	<1	20	39	124	4.61	<10	0.71	1441	4	0.02	37	620	20	<5	<20	71	0.05	<10	89	<10	3	131
51	L800E 18+50N			15	<0.2	2.85	35	135	<5	0.25	<1	14	35	65	5.21	<10	0.70	568	4	0.01	28	1820	16	<5	<20	48	0.05	<10	98	<10	<1	140
52	L800E 18+75N			45	<0.2	2.50	20	125	<5	0.24	<1	12	31	62	5.87	<10	0.52	386	3	0.01	21	890	10	<5	<20	45	0.10	10	115	<10	<1	88
53	L800E 19+00N			260	0.2	3.17	140	160	15	0.30	<1	21	33	82	8.05	<10	0.89	1011	3	0.02	27	860	12	<5	<20	51	0.15	<10	153	<10	<1	116
54	L800E 19+25N			<5	0.8	2.54	20	190	15	0.29	<1	24	29	57	6.73	<10	0.80	1073	5	0.02	18	1140	14	<5	<20	40	0.05	<10	158	<10	<1	134
55	L800E 19+50N			15	0.4	2.46	15	150	<5	0.93	<1	20	33	78	4.59	<10	0.78	1542	2	0.02	31	820	12	<5	<20	69	0.07	<10	99	<10	<1	88
56	L1000E 12+00N			110	0.6	2.81	90	270	<5	0.76	<1	22	13	122	6.65	<10	0.60	1162	7	0.01	14	1900	30	<5	<20	367	0.06	<10	117	<10	<1	184
57	L1000E 12+50N	-48		85	1.6	2.08	35	245	15	0.44	2	30	29	71	8.16	<10	0.39	3072	8	0.01	24	2680	12	<5	<20	130	0.05	<10	119	<10	<1	266
58	L1000E 13+00N			20	<0.2	3.72	40	400	10	0.96	<1	18	15	83	8.43	<10	0.52	1004	6	0.04	37	990	14	<5	<20	798	0.11	<10	107	<10	<1	108
59	L1000E 13+50N			70	0.8	2.96	70	175	<5	0.93	<1	19	7	99	5.32	<10	0.43	1949	6	0.01	9	1280	12	<5	<20	163	0.04	<10	112	<10	<1	109
60	L1000E 14+00N			40	<0.2	4.08	20	220	<5	0.96	<1	13	6	58	4.67	<10	0.75	371	4	0.02	7	1200	12	<5	<20	727	0.04	<10	98	<10	<1	58

## PLACER DOME CANADA LTD.

## ICP CERTIFICATE OF ANALYSIS - AK98-635

## ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Mesh		Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
		Size	Size																													
61	L1000E 14+50N			195	0.8	3.23	25	190	5	0.58	<1	10	8	65	5.38	<10	0.43	353	6	0.01	5	1760	12	<5	<20	315	0.03	<10	95	<10	<1	70
62	L1000E 15+00N			190	3.0	3.14	25	260	<5	0.21	<1	15	11	166	8.33	<10	0.48	416	9	0.01	9	1590	12	<5	<20	148	0.01	10	127	<10	<1	60
63	L1000E 15+25N			50	1.2	3.04	10	130	<5	0.18	<1	12	28	59	4.47	<10	0.58	341	<1	0.01	24	690	14	<5	<20	36	0.10	10	91	<10	<1	82
64	L1000E 15+50N			5	0.4	2.88	10	125	10	0.18	<1	13	34	36	4.30	<10	0.52	335	<1	0.01	25	620	16	<5	<20	28	0.11	10	94	<10	<1	65
65	L1000E 15+75N			<5	0.2	2.05	5	160	10	0.39	<1	12	28	35	4.28	<10	0.40	1432	2	0.01	16	2390	10	<5	<20	48	0.07	<10	90	<10	<1	89
66	L1000E 16+00N			235	1.4	2.04	10	110	5	0.31	<1	13	21	48	5.04	<10	0.39	463	10	0.01	11	910	10	<5	<20	46	0.07	<10	100	<10	<1	100
67	L1000E 16+25N			80	0.4	2.96	20	110	5	0.22	<1	13	34	79	4.65	<10	0.67	346	2	0.01	24	640	14	<5	<20	34	0.08	10	99	<10	<1	78
68	L1000E 16+50N			15	0.4	2.01	15	85	10	0.14	<1	9	23	32	4.22	<10	0.37	226	5	0.01	13	520	10	<5	<20	24	0.06	10	98	<10	<1	43
69	L1000E 16+75N			150	3.8	2.53	90	100	<5	0.15	<1	10	25	54	4.97	<10	0.38	232	5	0.01	13	1050	12	<5	<20	30	0.03	10	94	<10	<1	95
70	L1000E 17+00N			35	0.8	3.33	15	185	<5	0.47	1	27	30	109	6.23	<10	0.73	1404	7	0.01	17	1020	14	<5	<20	144	0.02	<10	147	<10	<1	108
71	L1000E 17+25N			<5	0.8	2.00	30	70	<5	0.70	<1	25	15	136	6.69	<10	0.36	1074	9	0.01	18	640	10	<5	<20	24	<0.01	<10	95	<10	<1	115
72	L1000E 17+50N			<5	<0.2	2.57	10	65	5	0.13	<1	10	12	43	4.54	<10	0.13	247	3	<0.01	8	560	14	<5	<20	12	0.07	<10	93	<10	<1	45
73	L1000E 17+75N			<5	<0.2	2.67	15	170	5	0.40	<1	17	32	48	5.61	<10	0.61	351	2	0.01	23	650	12	<5	<20	226	0.11	<10	136	<10	<1	78
74	L1000E 18+00N			15	<0.2	1.80	5	85	10	0.30	<1	10	25	25	4.06	<10	0.39	372	<1	0.01	13	880	10	<5	<20	41	0.10	<10	99	<10	<1	66
75	L1000E 18+25N			<5	0.2	3.97	10	365	5	0.47	<1	16	29	64	5.63	<10	1.08	577	3	0.01	19	1630	12	<5	<20	647	0.06	<10	125	<10	<1	133
76	L1000E 18+50N			10	0.4	2.11	<5	175	10	0.45	<1	9	18	29	4.52	<10	0.38	641	3	0.01	10	940	10	<5	<20	140	0.03	<10	102	<10	<1	106
77	L1000E 18+75N			220	<0.2	3.47	10	135	10	0.30	<1	16	33	61	6.23	<10	0.71	349	2	0.01	23	1100	12	<5	<20	198	0.12	<10	135	<10	<1	101
78	L1000E 19+00N			10	<0.2	2.62	<5	170	10	0.35	1	13	21	39	5.34	<10	0.56	446	2	0.01	11	1560	12	<5	<20	389	0.11	<10	136	<10	<1	152
79	L1000E 19+25N			5	<0.2	2.74	15	105	15	0.24	<1	13	34	46	5.44	<10	0.69	353	2	0.01	22	1070	14	<5	<20	51	0.09	10	133	<10	<1	100
80	L1000E 19+50N			<5	<0.2	2.20	5	155	10	0.19	<1	11	26	39	5.96	<10	0.42	331	2	0.01	14	1760	14	<5	<20	134	0.11	<10	152	<10	<1	103
81	L1000E 19+75N			<5	0.4	3.05	<5	370	15	0.53	<1	18	28	61	5.84	<10	0.59	1411	2	0.02	16	2510	14	<5	<20	553	0.10	<10	151	<10	<1	132
82	L1200E 11+50N			5	<0.2	2.21	10	125	5	0.35	<1	15	36	41	3.59	<10	0.72	478	<1	0.01	29	1400	12	<5	<20	41	0.09	<10	81	<10	<1	74
83	L1200E 12+00N			<5	0.6	1.86	10	180	10	0.60	1	22	30	38	4.36	<10	0.43	2575	3	0.01	24	1040	10	<5	<20	48	0.08	<10	85	<10	<1	169
84	L1200E 13+00N			10	0.2	2.08	15	115	10	0.22	<1	12	34	22	4.95	<10	0.43	284	2	0.01	19	610	10	<5	<20	28	0.11	10	106	<10	<1	73
85	L1200E 13+50N			55	0.4	2.31	10	120	10	0.22	<1	11	33	27	3.98	<10	0.46	259	1	<0.01	22	1210	12	<5	<20	20	0.08	10	82	<10	<1	82
86	L1200E 14+00N			295	<0.2	3.29	15	120	10	0.25	<1	11	36	51	5.41	<10	0.50	256	3	0.01	20	4270	14	<5	<20	33	0.06	10	103	<10	<1	70
87	L1200E 14+50N	-48	>1000	1.0	2.85		10	360	<5	0.48	<1	26	10	132	8.11	<10	0.40	1344	13	0.01	7	3250	10	<5	<20	542	0.04	<10	135	<10	<1	87
88	L1200E 15+00N			25	0.4	2.64	15	150	<5	0.46	<1	17	12	50	5.97	<10	0.41	1498	13	0.01	9	1010	10	<5	<20	83	0.01	<10	91	<10	<1	60
89	L1200E 15+50N			<5	0.4	3.23	395	145	<5	0.38	<1	29	24	182	7.47	<10	0.89	703	2	0.01	16	1550	16	<5	<20	55	0.15	<10	186	<10	<1	244
90	L1200E 16+00N			<5	<0.2	3.47	15	155	20	0.47	<1	27	24	60	6.22	<10	1.99	675	<1	0.06	12	870	12	<5	<20	21	0.40	<10	201	<10	<1	110
91	L1200E 16+50N			35	<0.2	2.77	70	150	<5	0.49	1	38	28	191	9.49	<10	1.39	1191	6	0.02	52	1820	10	<5	<20	77	0.15	<10	166	<10	<1	167
92	L1200E 17+00N			<5	<0.2	2.48	10	170	10	0.41	<1	16	27	52	5.19	<10	0.77	512	<1	0.02	19	2120	12	<5	<20	48	0.12	<10	121	<10	<1	85
93	L1200E 17+50N			<5	<0.2	1.75	<5	130	5	0.18	<1	10	34	70	6.96	<10	0.26	226	34	0.01	11	2090	14	<5	<20	28	0.16	10	227	<10	<1	47
94	L1200E 18+00N			<5	1.2	3.65	15	350	<5	0.32	<1	19	35	81	5.86	<10	0.93	624	5	0.01	26	2230	16	<5	<20	302	0.06	<10	127	<10	<1	158
95	L1200E 18+50N			<5	<0.2	1.61	<5	130	5	0.28	<1	7	22	34	3.66	<10	0.26	228	1	0.01	10	540	10	<5	<20	61	0.09	10	112	<10	<1	52

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## ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Mesh		Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
		Size	Size																													
96	L1200E 19+00N	-48		<5	<0.2	3.24	10	160	20	0.44	<1	20	48	54	6.77	<10	1.11	767	<1	0.01	24	2050	10	<5	<20	105	0.16	<10	179	<10	<1	135
97	L1200E 19+50N			<5	<0.2	2.39	<5	90	10	0.21	<1	9	29	36	4.67	<10	0.48	301	2	0.01	14	1510	10	<5	<20	43	0.09	<10	115	<10	<1	53
98	L1200E 20+00N			10	0.6	2.63	20	110	5	0.84	<1	13	30	80	3.85	<10	0.56	417	2	0.01	22	670	12	<5	<20	73	0.07	<10	99	<10	3	72
99	L1400E 10+00N			10	<0.2	2.71	10	170	10	0.44	<1	15	33	56	5.13	<10	0.94	626	4	0.01	20	3170	10	<5	<20	65	0.06	<10	113	<10	<1	129
100	L1400E 10+50N			<5	0.2	2.55	5	160	5	0.57	<1	20	32	45	4.71	<10	0.85	1161	2	0.01	18	1880	12	<5	<20	68	0.08	<10	114	<10	<1	124
101	L1400E 11+00N			<5	<0.2	1.71	5	130	<5	0.22	<1	11	36	19	2.90	<10	0.47	310	<1	0.01	27	750	10	<5	<20	17	0.07	10	58	<10	<1	70
102	L1400E 11+50N			<5	<0.2	2.06	10	120	10	0.29	<1	12	41	23	3.59	<10	0.55	293	<1	0.01	30	1680	12	<5	<20	19	0.06	<10	68	<10	<1	114
103	L1400E 12+00N			40	<0.2	1.70	5	100	10	0.31	<1	10	30	19	3.72	<10	0.48	262	<1	0.01	16	1330	8	<5	<20	25	0.09	10	84	<10	<1	85
104	L1400E 12+50N			<5	0.2	1.39	<5	105	5	0.21	<1	10	28	13	2.98	<10	0.25	280	1	0.01	13	1190	10	<5	<20	18	0.06	10	66	<10	<1	60
105	L1400E 13+00N			<5	0.2	2.06	10	130	<5	0.22	<1	8	36	22	3.84	<10	0.38	192	2	0.01	19	1620	10	<5	<20	21	0.05	10	72	<10	<1	58
106	L1400E 13+50N			5	<0.2	1.87	10	95	<5	0.71	<1	13	36	51	3.82	<10	0.47	770	4	0.01	23	860	8	<5	<20	30	0.04	<10	80	<10	<1	84
107	L1400E 14+00N			25	<0.2	2.21	15	110	<5	0.35	<1	15	39	75	4.09	<10	0.57	512	2	0.01	28	560	12	<5	<20	21	0.07	<10	87	<10	3	88
108	L1400E 14+50N			85	<0.2	1.71	15	110	<5	0.18	<1	11	32	46	3.86	<10	0.43	354	<1	0.01	20	450	10	<5	<20	19	0.08	<10	85	<10	<1	52
109	L1400E 15+00N			175	<0.2	2.42	30	130	<5	0.38	<1	16	30	135	4.58	<10	0.59	596	1	0.01	19	1330	12	<5	<20	41	0.08	<10	97	<10	<1	78
110	L1400E 15+50N			400	1.2	3.62	55	105	<5	1.13	1	24	28	421	4.99	20	0.42	291	5	0.01	30	1010	16	<5	<20	76	0.07	<10	88	<10	25	45
111	L1400E 16+00N			125	<0.2	2.83	20	120	<5	1.73	1	23	27	149	5.11	<10	0.89	1046	3	0.02	25	1050	10	<5	<20	77	0.07	<10	102	<10	2	81
112	L1400E 16+50N			235	<0.2	2.66	25	120	10	0.47	<1	19	31	101	5.43	<10	0.89	586	2	0.02	23	670	12	<5	<20	46	0.12	<10	141	<10	<1	85
113	L1400E 17+00N			25	<0.2	2.87	15	115	5	0.35	<1	18	33	68	5.27	<10	0.89	692	<1	0.02	27	820	14	<5	<20	44	0.13	<10	127	<10	<1	101
114	L1400E 17+50N			20	<0.2	2.51	5	135	10	0.46	1	19	28	34	5.52	<10	0.73	534	1	0.02	16	1180	10	<5	<20	101	0.15	<10	134	<10	<1	197
115	L1400E 18+00N			20	<0.2	2.21	15	110	10	0.53	<1	17	25	50	5.14	<10	0.65	786	1	0.02	16	940	12	<5	<20	90	0.11	<10	125	<10	<1	78
116	L1600E 8+00N			<5	<0.2	2.62	5	145	10	0.49	<1	16	40	34	5.46	<10	0.81	576	3	0.01	22	1640	12	<5	<20	49	0.11	<10	128	<10	<1	115
117	L1600E 8+50N			<5	<0.2	1.83	<5	155	10	0.36	<1	12	31	23	4.49	<10	0.45	462	2	0.01	13	1390	10	<5	<20	35	0.08	<10	110	<10	<1	107
118	L1600E 9+00N			<5	<0.2	2.13	5	280	<5	0.59	1	15	37	26	4.92	<10	0.62	1755	2	0.01	18	4900	12	<5	<20	44	0.06	<10	100	<10	<1	132
119	L1600E 9+50N	-48		<5	<0.2	2.32	<5	155	10	0.43	<1	19	50	41	4.30	<10	1.14	1347	<1	0.01	36	2150	12	<5	<20	38	0.09	<10	102	<10	<1	111
120	L1600E 10+00N			<5	<0.2	2.80	10	210	10	0.33	<1	16	46	34	5.14	<10	0.78	1589	1	0.01	23	3590	14	<5	<20	67	0.08	<10	118	<10	<1	125
121	L1600E 10+50N			<5	<0.2	2.14	<5	150	10	0.30	1	14	44	28	4.23	<10	0.57	856	1	0.01	20	1620	12	<5	<20	35	0.09	<10	102	<10	<1	112
122	L1600E 11+00N			<5	<0.2	1.57	<5	150	10	0.31	<1	10	35	37	3.62	<10	0.37	844	1	0.01	18	2670	10	<5	<20	26	0.05	<10	80	<10	<1	69
123	L1600E 11+50N			<5	<0.2	2.16	5	150	5	1.03	<1	15	41	57	3.77	<10	0.88	762	<1	0.02	30	900	10	<5	<20	46	0.08	<10	94	<10	8	77
124	L1600E 12+00N			<5	<0.2	2.51	5	120	10	0.45	<1	20	39	48	4.39	<10	0.97	785	1	0.02	28	790	12	<5	<20	30	0.10	<10	105	<10	<1	70
125	L1600E 12+50N			<5	<0.2	1.48	<5	120	<5	0.48	<1	12	34	31	3.01	<10	0.65	430	<1	0.01	23	890	8	<5	<20	26	0.06	<10	71	<10	<1	65
126	L1600E 13+00N			<5	<0.2	1.53	<5	120	5	0.54	<1	14	40	49	3.18	<10	0.71	604	<1	0.02	31	750	10	<5	<20	41	0.10	<10	76	<10	6	57
127	L1600E 13+50N			<5	<0.2	1.84	5	125	<5	0.35	<1	13	36	40	3.66	<10	0.67	411	<1	0.01	21	960	10	<5	<20	28	0.10	<10	89	<10	<1	63
128	L1600E 14+00N			<5	<0.2	1.47	5	150	<5	0.38	<1	11	37	37	3.03	<10	0.55	434	<1	0.01	27	570	8	<5	<20	25	0.07	<10	69	<10	<1	55
129	L1600E 14+50N			5	<0.2	1.99	10	115	<5	0.70	<1	18	43	61	3.67	<10	0.76	780	1	0.02	33	550	12	<5	<20	38	0.09	<10	86	<10	4	62
130	L1600E 15+00N			10	<0.2	1.98	5	145	<5	1.18	1	15	45	65	4.18	<10	0.62	1203	5	0.02	30	770	8	<5	<20	54	0.06	<10	84	<10	6	76

## PLACER DOME CANADA LTD.

## ICP CERTIFICATE OF ANALYSIS - AK98-635

## ECO-TECH LABORATORIES LTD.

		Mesh		ICP CERTIFICATE OF ANALYSIS - AR98-635																												ECO-TECH LABORATORIES LTD.	
Et.#	Tag #	Size	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn		
131	L1600E 15+50N	-48	25	<0.2	2.11	15	165	<5	1.20	1	16	48	75	4.19	<10	0.64	1572	6	0.02	28	780	10	<5	<20	56	0.06	<10	98	<10	7	60		
132	L1600E 16+00N		70	<0.2	1.60	<5	130	<5	0.80	<1	13	42	36	3.02	<10	0.64	616	<1	0.02	21	550	8	<5	<20	49	0.09	<10	71	<10	3	47		
133	L1600E 16+50N		60	0.4	2.96	10	180	<5	0.49	1	20	40	105	4.44	<10	0.67	927	6	0.02	35	630	12	<5	<20	48	0.06	<10	98	<10	9	58		
134	L1600E 17+00N		55	<0.2	2.51	15	200	<5	0.42	1	15	33	70	4.70	<10	0.78	564	2	0.01	26	1900	8	<5	<20	50	0.07	<10	97	<10	<1	104		
135	L1800E 8+00N		35	<0.2	2.29	5	130	5	0.44	<1	19	37	54	3.94	<10	0.82	703	<1	0.01	29	750	10	<5	<20	50	0.10	<10	91	<10	1	58		
136	L1800E 8+25N		205	0.6	2.77	10	155	<5	0.76	1	25	31	126	5.22	<10	0.60	1888	6	0.01	34	1000	10	<5	<20	51	0.02	<10	86	<10	13	100		
137	L1800E 8+50N		5	<0.2	3.23	5	235	5	0.43	<1	21	35	73	5.64	<10	0.77	581	4	0.01	31	2370	14	<5	<20	192	0.04	<10	103	<10	<1	97		
138	L1800E 8+75N		210	<0.2	2.73	5	165	<5	0.49	1	26	26	70	5.33	<10	0.76	1011	2	0.01	20	3250	10	<5	<20	81	0.06	<10	93	<10	<1	121		
139	L1800E 9+00N		>1000	<0.2	3.70	40	245	<5	0.40	<1	63	25	127	6.17	<10	0.55	1705	4	0.01	30	2030	14	<5	<20	184	0.08	<10	115	<10	<1	111		
140	L1800E 9+25N		75	<0.2	4.06	15	120	<5	0.21	<1	21	34	69	5.05	<10	0.61	378	2	0.01	30	1860	16	<5	<20	39	0.11	<10	110	<10	<1	100		
141	L1800E 9+50N		760	0.2	3.03	5	110	<5	0.22	<1	11	35	164	5.36	<10	0.47	329	7	0.01	18	3510	16	<5	<20	16	0.08	<10	110	<10	<1	85		
142	L1800E 9+75N		190	<0.2	2.93	10	125	<5	0.19	<1	15	33	104	5.78	<10	0.56	356	9	0.01	21	4260	12	<5	<20	27	0.08	<10	105	<10	<1	101		
143	L1800E 10+00N		30	0.6	1.87	<5	110	<5	0.52	<1	20	30	88	3.94	<10	0.47	2106	3	0.01	27	790	8	<5	<20	29	0.04	<10	80	<10	7	68		
144	L1800E 10+25N		25	1.0	2.64	10	180	<5	1.16	<1	18	40	154	4.38	20	0.55	1124	2	0.02	37	600	10	<5	<20	49	0.06	<10	97	<10	25	60		
145	L1800E 10+50N		130	<0.2	2.47	10	110	<5	0.85	<1	19	23	86	5.53	<10	0.23	661	3	0.01	21	600	10	<5	<20	62	0.06	<10	115	<10	3	33		
146	L1800E 10+75N		35	<0.2	2.18	5	105	<5	0.32	<1	24	25	202	7.21	<10	0.32	446	5	0.01	22	680	6	<5	<20	25	0.10	<10	129	<10	<1	57		
147	L1800E 11+00N		30	<0.2	1.81	10	120	<5	0.30	<1	16	26	69	5.54	<10	0.37	472	4	0.01	20	850	8	<5	<20	25	0.08	<10	115	<10	<1	56		
148	L1800E 11+50N		5	<0.2	2.03	10	130	<5	0.33	<1	14	30	46	5.03	<10	0.50	548	2	0.01	21	1070	10	<5	<20	34	0.06	<10	101	<10	<1	70		
149	L1800E 12+00N		5	<0.2	1.30	15	120	<5	0.41	<1	14	21	63	5.23	<10	0.28	613	3	0.01	14	660	8	<5	<20	34	0.09	<10	126	<10	<1	54		
150	L1800E 12+50N		10	<0.2	1.70	5	65	<5	0.50	<1	9	34	53	4.03	<10	0.34	290	2	0.01	22	660	8	<5	<20	21	0.09	<10	90	<10	<1	41		
151	L1800E 13+00N		540	<0.2	2.18	15	130	5	0.65	<1	19	52	50	3.83	<10	0.85	934	1	0.02	36	570	10	<5	<20	38	0.10	<10	94	<10	6	67		
152	L1800E 13+50N		5	<0.2	1.96	10	85	<5	0.30	<1	11	41	38	3.82	<10	0.55	416	2	0.01	30	750	8	<5	<20	16	0.07	<10	79	<10	<1	54		
153	L1800E 14+00N		<5	0.4	1.94	<5	125	<5	0.20	2	11	47	55	3.71	<10	0.42	784	2	0.02	37	930	10	<5	<20	16	0.04	<10	75	<10	3	80		
154	L1800E 14+50N		<5	<0.2	1.81	10	95	<5	0.26	<1	11	42	37	3.40	<10	0.38	623	1	0.01	27	860	8	<5	<20	18	0.05	<10	65	<10	<1	61		
155	L1800E 15+00N		<5	<0.2	1.98	10	110	<5	0.29	1	10	46	34	3.61	<10	0.53	329	2	0.02	39	490	8	<5	<20	19	0.07	<10	68	<10	4	62		
156	L1800E 15+50N		<5	<0.2	2.73	15	120	<5	0.50	<1	13	55	47	5.27	<10	0.62	415	3	0.01	46	1360	10	<5	<20	32	0.05	<10	93	<10	3	80		
157	L1800E 16+00N		115	<0.2	3.75	45	215	<5	0.99	<1	27	49	137	5.59	<10	1.42	954	4	0.03	37	980	10	<5	<20	332	0.08	<10	134	<10	4	81		
158	L1800E 16+50N		5	<0.2	1.98	10	120	<5	0.41	<1	16	41	59	3.86	<10	0.74	721	2	0.02	34	550	8	<5	<20	36	0.06	<10	92	<10	3	63		
159	L1800E 17+00N		50	<0.2	2.61	15	115	<5	0.48	<1	22	49	91	4.70	<10	0.91	995	<1	0.02	47	890	10	<5	<20	25	0.09	<10	107	<10	<1	81		
160	L2000E 8+00N		<5	<0.2	2.16	5	110	5	0.22	<1	12	36	32	4.98	<10	0.58	296	1	0.01	22	1040	10	<5	<20	23	0.11	<10	125	<10	<1	83		
161	L2000E 8+25N		<5	<0.2	2.50	10	135	<5	0.24	<1	14	38	39	4.94	<10	0.69	412	<1	0.01	26	710	10	<5	<20	28	0.12	<10	119	<10	<1	86		
162	L2000E 8+50N		10	<0.2	2.27	<5	115	5	0.16	<1	12	32	43	4.65	<10	0.55	340	<1	0.01	23	870	10	<5	<20	22	0.12	<10	118	<10	<1	57		
163	L2000E 8+75N		70	<0.2	2.36	<5	135	<5	0.32	<1	27	21	44	4.72	<10	0.42	1177	2	0.01	17	2140	10	<5	<20	50	0.07	<10	81	<10	<1	95		
164	L2000E 9+00N		310	<0.2	3.15	10	145	<5	0.33	<1	31	23	152	7.65	<10	0.57	1024	11	0.01	29	1860	12	<5	<20	41	0.09	<10	109	<10	<1	96		
165	L2000E 9+25N		225	<0.2	3.20	10	135	<5	0.33	<1	26	22	98	6.39	<10	0.51	700	10	0.01	31	2120	10	<5	<20	73	0.09	<10	115	<10	<1	95		

## PLACER DOME CANADA LTD.

## ICP CERTIFICATE OF ANALYSIS - AK98-635

## ECO-TECH LABORATORIES LTD.

		Mesh		ECO-TECH LABORATORIES LTD.																											
Et #.	Tag #	Size	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
166	L2000E 9+50N	10	<0.2	3.56	5	155	<5	0.29	<1	23	27	63	5.57	<10	0.69	619	1	0.02	27	1930	10	<5	<20	118	0.09	<10	114	<10	<1		91
167	L2000E 9+75N	10	<0.2	4.35	10	200	<5	0.22	<1	29	25	82	6.01	<10	0.61	525	3	0.01	32	1780	12	<5	<20	112	0.08	<10	101	<10	<1		103
168	L2000E 10+00N	75	<0.2	2.84	<5	185	5	0.42	<1	20	17	83	6.09	<10	0.42	772	4	0.02	17	1250	10	<5	<20	105	0.07	<10	115	<10	<1		72
169	L2000E 10+25N	25	<0.2	2.68	<5	125	5	0.24	<1	13	23	40	4.62	<10	0.53	378	1	0.01	18	1290	10	<5	<20	71	0.08	<10	91	<10	<1		61
170	L2000E 10+50N	25	<0.2	3.42	<5	145	10	0.31	<1	16	21	49	5.98	<10	0.56	721	1	0.02	19	1680	10	<5	<20	91	0.13	<10	114	<10	<1		85
171	L2000E 10+75N	5	<0.2	4.28	15	150	<5	0.19	<1	16	29	96	6.56	<10	0.54	340	1	0.01	29	1870	12	<5	<20	66	0.13	<10	111	<10	<1		62
172	L2000E 11+00N	20	<0.2	2.93	10	120	<5	0.20	<1	12	31	44	5.58	<10	0.59	312	2	0.01	23	1760	10	<5	<20	22	0.09	<10	117	<10	<1		60
173	L2000E 11+50N	15	<0.2	2.32	<5	120	<5	0.14	<1	11	31	34	5.50	<10	0.45	324	<1	0.01	19	990	10	<5	<20	21	0.12	<10	130	<10	<1		53
174	L2000E 12+00N	25	<0.2	1.98	<5	125	15	0.19	<1	11	28	39	5.18	<10	0.46	315	1	0.01	19	1590	8	<5	<20	25	0.11	<10	107	<10	<1		62
175	L2000E 12+50N	5	<0.2	1.47	<5	110	<5	0.25	<1	12	28	60	4.36	<10	0.42	430	5	0.01	14	1560	6	<5	<20	22	0.08	<10	106	<10	<1		74
176	L2000E 13+00N	5	<0.2	1.77	5	135	<5	0.42	<1	15	26	67	4.87	<10	0.44	908	4	0.01	18	2260	8	<5	<20	31	0.04	<10	91	<10	<1		97
177	L2000E 13+50N	<5	<0.2	1.58	<5	145	5	0.31	<1	18	29	36	4.00	<10	0.37	1707	2	0.01	16	1310	8	<5	<20	19	0.06	<10	85	<10	<1		88
178	L2000E 14+00N	<5	<0.2	2.69	5	225	<5	0.54	<1	29	33	102	6.27	<10	0.78	1862	<1	0.02	20	1850	8	<5	<20	120	0.13	<10	154	<10	<1		112
179	L2000E 14+50N	<5	<0.2	4.14	5	110	5	0.46	<1	26	31	114	6.15	<10	1.98	678	<1	0.05	24	660	12	<5	<20	41	0.32	<10	165	<10	<1		115
180	L2000E 15+00N	5	<0.2	3.96	<5	135	10	0.62	<1	22	27	79	6.22	<10	1.59	695	<1	0.07	18	730	10	<5	<20	75	0.31	<10	174	<10	<1		100
181	L2000E 15+50N	<5	<0.2	2.92	5	135	<5	0.77	<1	23	25	67	5.13	<10	1.08	921	<1	0.04	16	530	10	<5	<20	75	0.23	<10	171	<10	<1		74
182	L2000E 16+00N	<5	<0.2	4.00	5	195	5	0.34	<1	24	30	101	6.00	<10	1.63	842	<1	0.02	20	1890	16	<5	<20	58	0.20	<10	154	<10	<1		117
183	L2000E 16+50N	<5	<0.2	1.80	<5	80	<5	0.33	<1	13	35	86	5.91	<10	0.40	233	5	0.01	29	1410	6	<5	<20	26	0.11	<10	129	<10	<1		52
184	L2000E 17+00N	<5	<0.2	1.82	35	120	<5	0.22	<1	8	29	21	4.42	<10	0.36	352	2	0.01	15	2010	8	<5	<20	63	0.06	<10	87	<10	<1		74
185	L900E 15+00N	5	<0.2	2.21	10	300	<5	0.52	<1	6	14	34	3.36	<10	0.33	234	2	0.02	10	970	8	<5	<20	882	0.04	<10	66	<10	<1		79
186	L900E 15+25N	5	0.4	2.57	5	225	<5	0.49	<1	14	14	46	4.82	<10	0.33	489	5	0.01	10	1170	14	<5	<20	265	0.04	<10	90	<10	<1		125
187	L900E 15+50N	<5	<0.2	4.73	10	565	<5	1.22	<1	9	12	34	5.61	<10	0.58	387	1	0.01	8	3070	12	<5	<20	1353	0.07	<10	122	<10	<1		75
188	L900E 15+75N	5	<0.2	3.37	60	315	<5	0.60	<1	7	12	30	3.82	<10	0.52	420	4	0.02	10	740	12	<5	<20	892	0.02	<10	62	<10	<1		57
189	L900E 16+00N	20	<0.2	4.39	515	230	5	0.29	<1	17	18	53	5.56	<10	0.42	354	12	0.01	24	920	16	<5	<20	135	0.03	<10	68	<10	<1		72
190	L900E 16+25N	140	0.6	2.46	100	245	<5	0.33	<1	20	21	111	6.50	<10	0.46	1045	9	0.01	12	1120	10	<5	<20	99	0.03	<10	115	<10	<1		148
191	L900E 16+50N	20	0.6	3.56	45	295	<5	1.00	<1	14	8	63	5.58	<10	0.38	529	3	0.01	8	1510	10	<5	<20	905	0.06	<10	114	<10	<1		128
192	L900E 16+75N	175	<0.2	3.78	25	170	<5	0.62	<1	20	22	256	7.40	<10	0.57	293	24	0.02	43	1970	6	<5	<20	695	0.07	<10	96	<10	<1		78
193	L900E 17+00N	490	<0.2	3.74	25	250	<5	0.52	<1	36	34	241	8.88	<10	0.97	839	11	0.02	28	910	8	<5	<20	433	0.13	<10	196	<10	<1		124

## QC/DATA:

## Repeat:

1	L600E 13+00N	<5	<0.2	2.62	10	105	10	0.23	<1	20	35	47	6.02	<10	0.77	705	2	0.01	18	760	14	<5	<20	40	0.14	<10	145	<10	<1	135
10	L600E 15+25N	65	<0.2	4.32	10	355	<5	0.80	1	17	16	97	6.38	<10	0.76	539	4	0.03	20	2720	10	<5	<20	121	0.10	<10	120	<10	<1	178
19	L600E 17+50N	10	<0.2	4.41	15	120	10	0.18	<1	15	21	79	6.87	<10	0.54	316	9	0.01	14	1340	16	<5	<20	49	0.07	10	126	<10	<1	114
28	L800E 12+75N	-	<0.2	2.71	5	165	<5	0.30	<1	16	48	41	6.20	<10	0.81	517	2	0.01	22	2830	12	<5	<20	53	0.08	10	128	<10	<1	124
30	L800E 13+25N	-48	325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

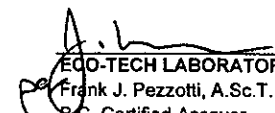
PLACER DOME CANADA LTD.

## ICP CERTIFICATE OF ANALYSIS - AK98-635

ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Mesh		Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn	
		Size																															
QC/DATA:																																	
Repeat:																																	
36	L800E 14+75N		90	0.6	2.92	60	115	<5	1.48	<1	24	17	119	5.63	<10	0.56	926	8	0.02	15	680	12	<5	<20	166	0.02	<10	108	<10	1	81		
45	L800E 17+00N		<5	<0.2	2.50	15	105	5	0.29	<1	14	29	30	4.82	<10	0.59	367	1	0.01	14	1140	10	<5	<20	32	0.10	<10	105	<10	<1	112		
54	L800E 19+25N		<5	0.8	2.59	25	195	10	0.30	<1	23	29	59	6.75	<10	0.79	1064	4	0.02	20	1130	12	<5	<20	42	0.06	<10	159	<10	<1	135		
63	L1000E 15+25N		85	1.0	3.21	15	125	<5	0.20	<1	13	30	63	4.59	<10	0.61	358	<1	0.01	25	720	16	<5	<20	35	0.10	20	95	<10	<1	84		
71	L1000E 17+25N		<5	0.6	2.07	25	65	<5	0.68	<1	25	15	136	6.67	<10	0.35	1058	10	<0.01	18	680	10	<5	<20	25	<0.01	<10	96	<10	<1	114		
80	L1000E 19+50N		<5	<0.2	2.33	5	160	10	0.20	<1	12	27	39	6.15	<10	0.45	352	3	0.01	14	1850	12	<5	<20	138	0.11	<10	157	<10	<1	107		
89	L1200E 15+50N		<5	0.2	3.22	380	135	<5	0.39	<1	28	24	181	7.35	<10	0.87	706	4	0.01	17	1520	16	<5	<20	52	0.14	<10	184	<10	<1	244		
98	L1200E 20+00N		15	0.8	2.60	10	110	<5	0.84	<1	13	30	76	3.77	<10	0.56	406	<1	0.02	20	660	14	<5	<20	73	0.07	<10	96	<10	3	68		
106	L1400E 13+50N		5	<0.2	1.86	5	100	5	0.66	<1	13	33	48	3.78	<10	0.46	751	3	0.01	22	880	10	<5	<20	33	0.04	<10	80	<10	1	86		
115	L1400E 18+00N		25	<0.2	2.27	10	115	5	0.55	1	18	26	51	5.23	<10	0.68	787	2	0.02	16	960	12	<5	<20	91	0.11	<10	129	<10	<1	79		
124	L1600E 12+00N		<5	<0.2	2.54	5	120	5	0.47	<1	20	41	49	4.39	<10	0.99	794	<1	0.01	28	800	12	<5	<20	31	0.11	<10	105	<10	<1	70		
133	L1600E 16+50N		55	0.4	3.02	10	180	<5	0.48	<1	20	40	106	4.48	<10	0.66	918	5	0.02	37	660	10	<5	<20	48	0.06	<10	98	<10	10	58		
141	L1800E 9+50N		800	0.4	2.96	<5	115	<5	0.20	<1	11	33	160	5.39	<10	0.44	321	7	0.01	16	3500	14	<5	<20	18	0.07	<10	110	<10	<1	82		
150	L1800E 12+50N		5	<0.2	1.64	5	65	<5	0.47	<1	8	32	48	3.69	<10	0.31	279	1	0.01	19	590	8	<5	<20	23	0.07	<10	83	<10	<1	36		
159	L1800E 17+00N		30	<0.2	2.62	10	120	5	0.45	<1	22	46	91	4.62	<10	0.90	980	2	0.02	46	930	10	<5	<20	27	0.08	<10	105	<10	<1	81		
168	L2000E 10+00N		105	<0.2	2.84	<5	185	5	0.41	<1	21	17	63	6.28	<10	0.43	747	4	0.02	17	1270	10	<5	<20	111	0.07	<10	118	<10	<1	73		
176	L2000E 13+00N		5	<0.2	1.78	5	135	<5	0.38	1	15	26	65	4.81	<10	0.43	853	3	0.01	17	2220	8	<5	<20	34	0.05	<10	91	<10	<1	96		
185	L900E 15+00N		5	<0.2	2.24	<5	300	<5	0.51	<1	7	15	39	3.46	<10	0.35	235	3	0.02	9	950	8	<5	<20	874	0.04	<10	69	<10	<1	79		
Standard:																																	
GEO'98			130	1.4	1.72	65	160	<5	1.85	<1	18	64	80	4.02	<10	0.98	671	<1	0.02	22	670	20	<5	<20	59	0.09	<10	74	<10	5	70		
GEO'98			135	1.4	1.73	65	150	<5	1.85	<1	18	63	80	3.94	<10	0.96	674	<1	0.02	23	630	22	5	<20	55	0.10	<10	73	<10	5	69		
GEO'98			130	1.4	1.82	70	165	<5	1.83	<1	19	65	83	4.10	<10	0.95	681	<1	0.02	23	660	22	<5	<20	60	0.10	<10	77	<10	4	71		
GEO'98			135	1.0	1.77	65	170	<5	1.84	<1	19	63	83	4.00	<10	0.94	692	<1	0.02	25	680	18	<5	<20	58	0.10	<10	76	<10	5	70		
GEO'98			140	1.2	1.77	65	175	<5	1.73	<1	19	65	82	4.00	<10	0.96	686	<1	0.02	22	690	20	<5	<20	59	0.10	<10	77	<10	5	69		
GEO'98			135	1.2	1.68	70	165	<5	1.84	<1	17	62	80	3.76	<10	0.98	660	<1	0.02	24	640	18	<5	<20	62	0.10	<10	73	<10	5	66		

NOTE: \* Mesh size is -80 unless indicated otherwise.

  
 ECO-TECH LABORATORIES LTD.  
 Frank J. Pezzotti, A.Sc.T.  
 B.C. Certified Assayer



ASSAYING  
GEOCHEMISTRY  
ANALYTICAL CHEMISTRY  
ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 6T4  
Phone (250) 573-5700 Fax (250) 573-4557  
email: ecotech@mail.wkpowerlink.com

## CERTIFICATE OF ANALYSIS AK 98-639

PLACER DOME CANADA LTD.  
1440 HUGH ALLEN DRIVE  
KAMLOOPS, B.C.  
V1S 1L8

22-Oct-98

PAN-CONCENTRATE, OCT. PROGRAM

ATTENTION: BRIAN FOWLER

*No. of samples received: 1*  
*Sample type: Concentrate*  
*PROJECT: # FRAN*  
*SHIPMENT: # 01*  
*Samples submitted by: Ron Wells*

ET #.	Tag #	Au (ppb)
1	A33704	880

### QC DATA:

#### Repeat:

1	A33704	1500
1	A33704	225
1	A33704	860*

#### Standard:

GEO'98	140
--------	-----

NOTE: \* Avg. of 1500 & 225

**SOIL SAMPLING OCTOBER 1998 : STATISTICAL DATA**

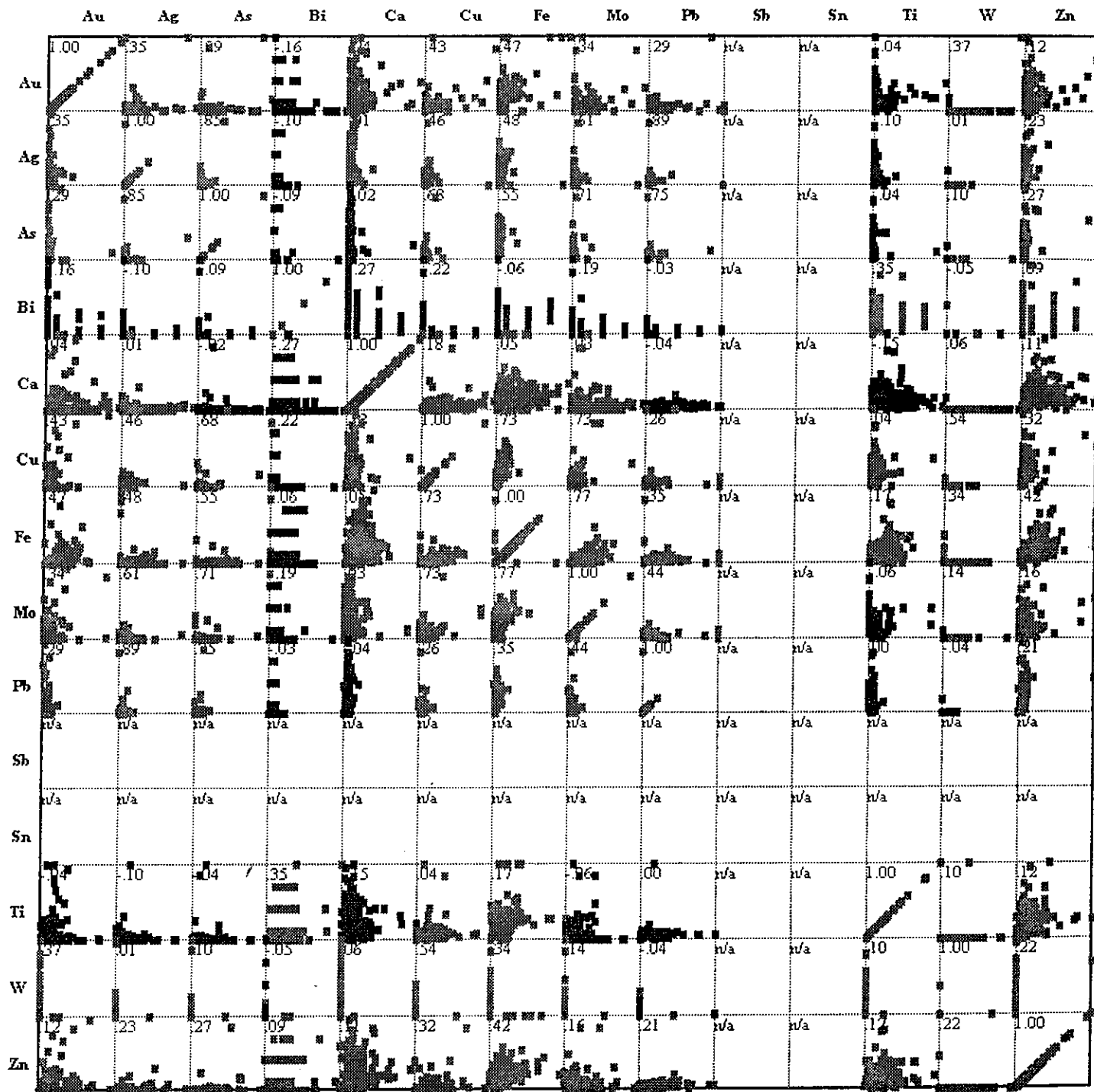


# **Descriptive Statistics** **Fran Property - PDX Soil Geochemical Survey**

Field	Unit	Count	Mean	St Dev	Min	25%ile	Median	75%ile	Max
Au	ppb	193	77.71	167.35	2.5	2.5	15	60	1000
Ag	ppm	193	0.46	1.48	0.1	0.1	0.1	0.4	19
As	ppm	193	44.42	201.02	3	5	10	25	2080
Bi	ppm	193	5.42	3.66	3	3	3	10	20
Ca	%	193	0.50	0.31	0.13	0.29	0.41	0.6	1.73
Cu	ppm	193	93.54	136.19	13	39	61	99	1343
Fe	%	193	5.52	1.99	2.86	4.37	5.23	6.02	15
Mo	ppm	193	5.33	8.76	1	1	3	6	71
Pb	ppm	193	11.79	9.46	4	10	10	12	136
Sb	ppm	193	3.00	0.00	3	3	3	3	3
Sn	ppm	193	10.00	0.00	10	10	10	10	10
Ti	%	193	0.08	0.05	0.01	0.06	0.08	0.1	0.4
W	ppm	193	5.03	0.36	5	5	5	5	10
Zn	ppm	193	99.24	49.39	26	66	87	115	361

Input File: P:\data\expl\gen\_eval\fran\Geochem\PDX\AK635I.csv  
Date Printed: 27\_October-98

# Scatter Plot Matrix





Fran Property - PDX Soil Geochemical Survey

Input File: P:\Data5\expl\gen\_eval\Fran\Geochem\PD\XAK6351.csv  
Date Printed: 27\_October-98

## Correlation Matrix

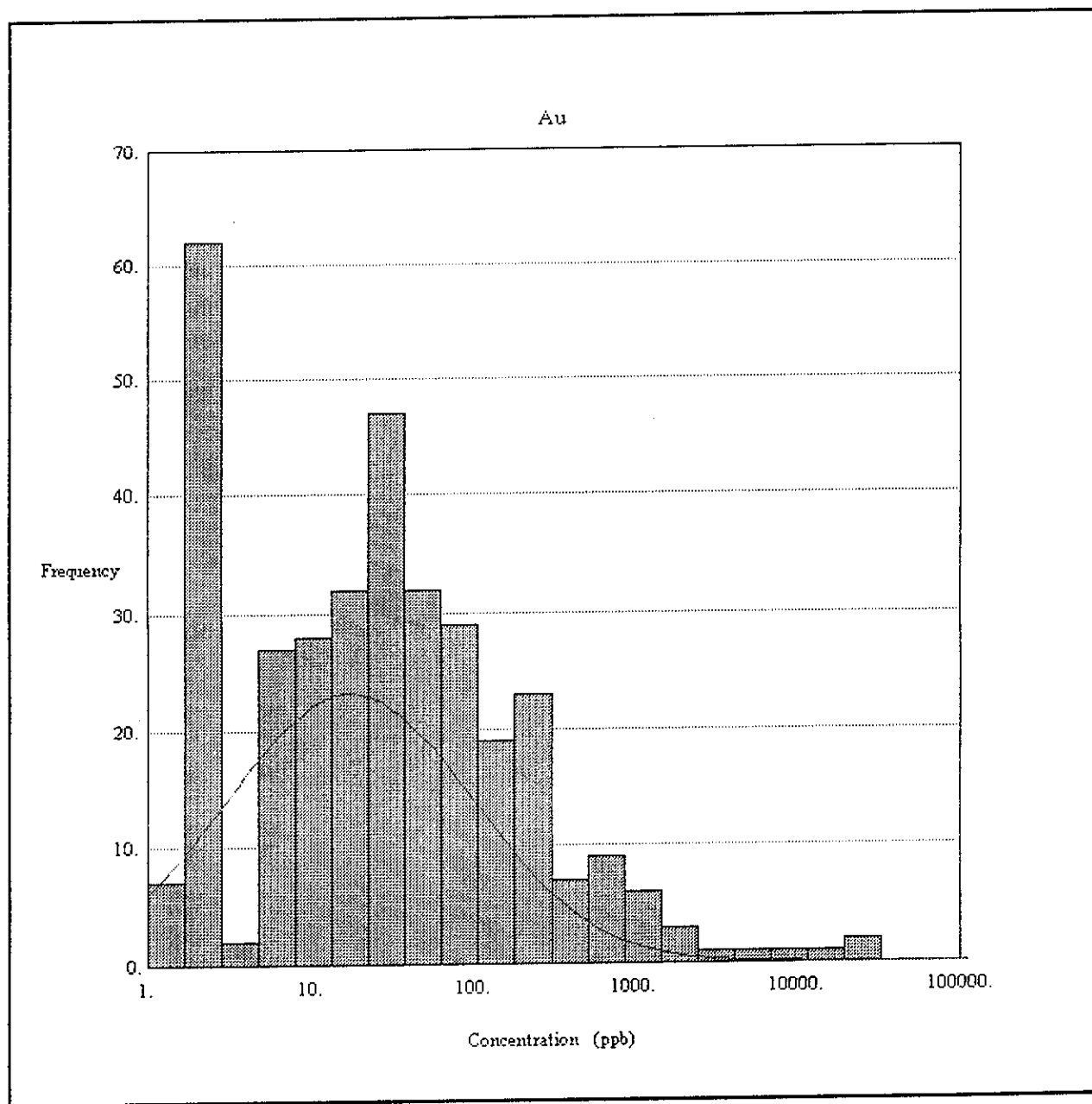
	Au	Ag	As	Bi	Ca	Cu	Fe	Mo	Pb	Sb	Sn	Ti	W	Zn
Au	1.00	.35	.29	-.16	.04	.43	.47	.34	.29	n/a	n/a	-.04	.37	.12
Ag	.35	1.00	.85	-.10	.01	.46	.48	.61	.89	n/a	n/a	-.10	.01	.23
As	.29	.85	1.00	-.09	-.02	.68	.55	.71	.75	n/a	n/a	-.04	.10	.27
Bi	-.16	-.10	-.09	1.00	-.27	-.22	-.06	-.19	-.03	n/a	n/a	.35	-.05	.09
Ca	.04	.01	-.02	-.27	1.00	.18	.05	.03	-.04	n/a	n/a	-.15	.06	.11
Cu	.43	.46	.68	-.22	.18	1.00	.73	.73	.26	n/a	n/a	.04	.54	.32
Fe	.47	.48	.55	-.06	.05	.73	1.00	.77	.35	n/a	n/a	.17	.34	.42
Mo	.34	.61	.71	-.19	.03	.73	.77	1.00	.44	n/a	n/a	-.06	.14	.16
Pb	.29	.89	.75	-.03	-.04	.26	.35	.44	1.00	n/a	n/a	.00	-.04	.21
Sb	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sn	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ti	-.04	-.10	-.04	.35	-.15	.04	.17	-.06	.00	n/a	n/a	1.00	.10	.12
W	.37	.01	.10	-.05	.06	.54	.34	.14	-.04	n/a	n/a	.10	1.00	.22
Zn	.12	.23	.27	.09	.11	.32	.42	.16	.21	n/a	n/a	.12	.22	1.00

Correlation Matrix - Fran Property - PDX Soil Geochem Survey

 correlations > .6  
 correlations < -.6

Input File: P:\Data\Expl\gen\_eval\fran\Geochem\PDX\AK6351.csv  
 Date Printed: 27\_October-98

# Fran Property - Gold in Soils (PDX Survey)

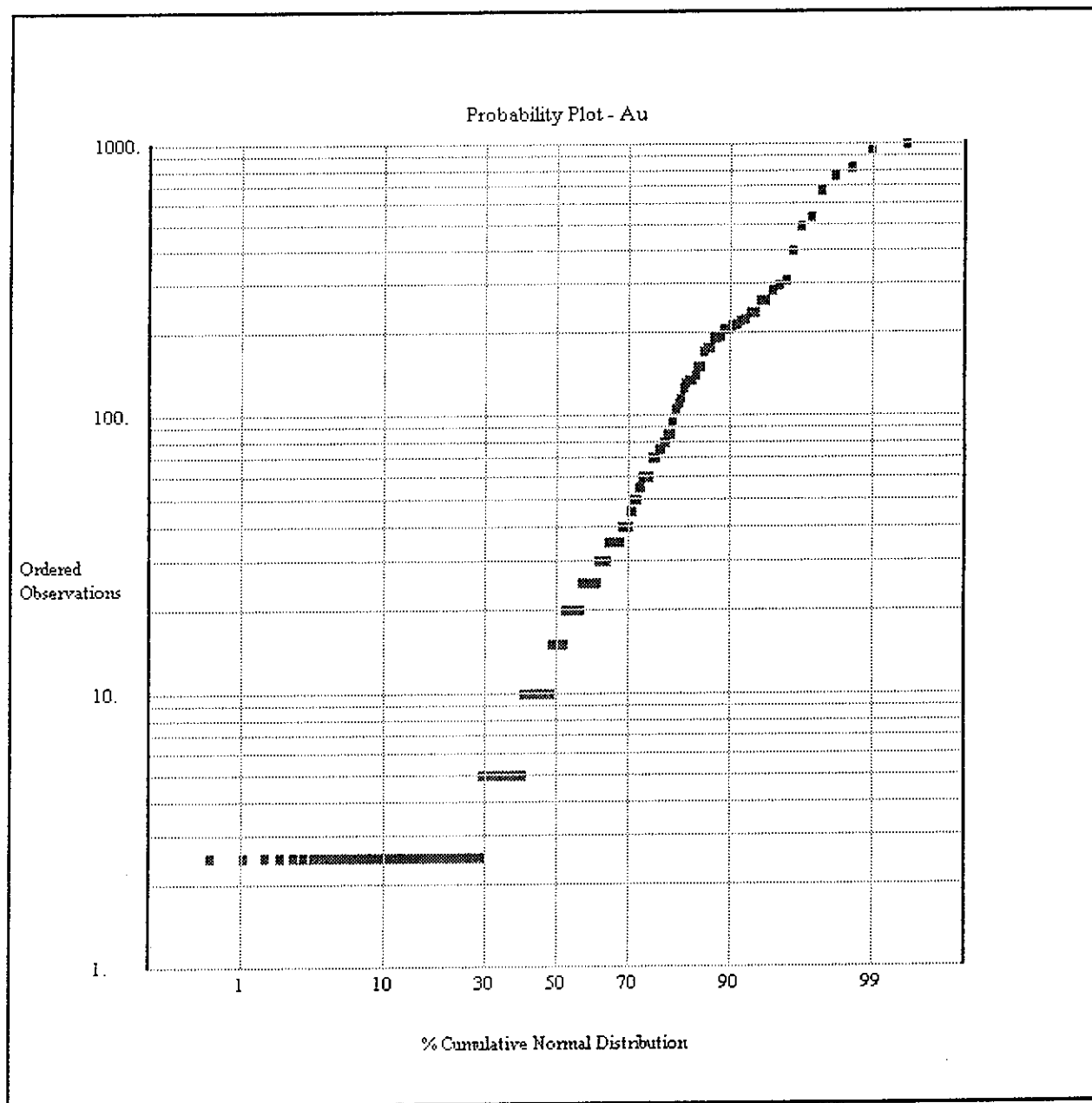


## Descriptive Statistics

	Au
Mean	77.71
25th %-ile	2.5
Median	15
75th %-ile	60
Minimum	2.5
Maximum	1000
count	193
St Dev	167.35
Coef of Var	2.15

PDX GRID SOILS

# Fran Property - Gold in Soils (PDX Survey)



## Descriptive Statistics

	Au
Mean	77.71
25th %-ile	2.5
Median	15
75th %-ile	60
Minimum	2.5
Maximum	1000
count	193
St Dev	167.35
Coef of Var	2.15357

Linear correlation: 0.47  
 Rank correlation: 0.94  
 Relative Variance: 9.55

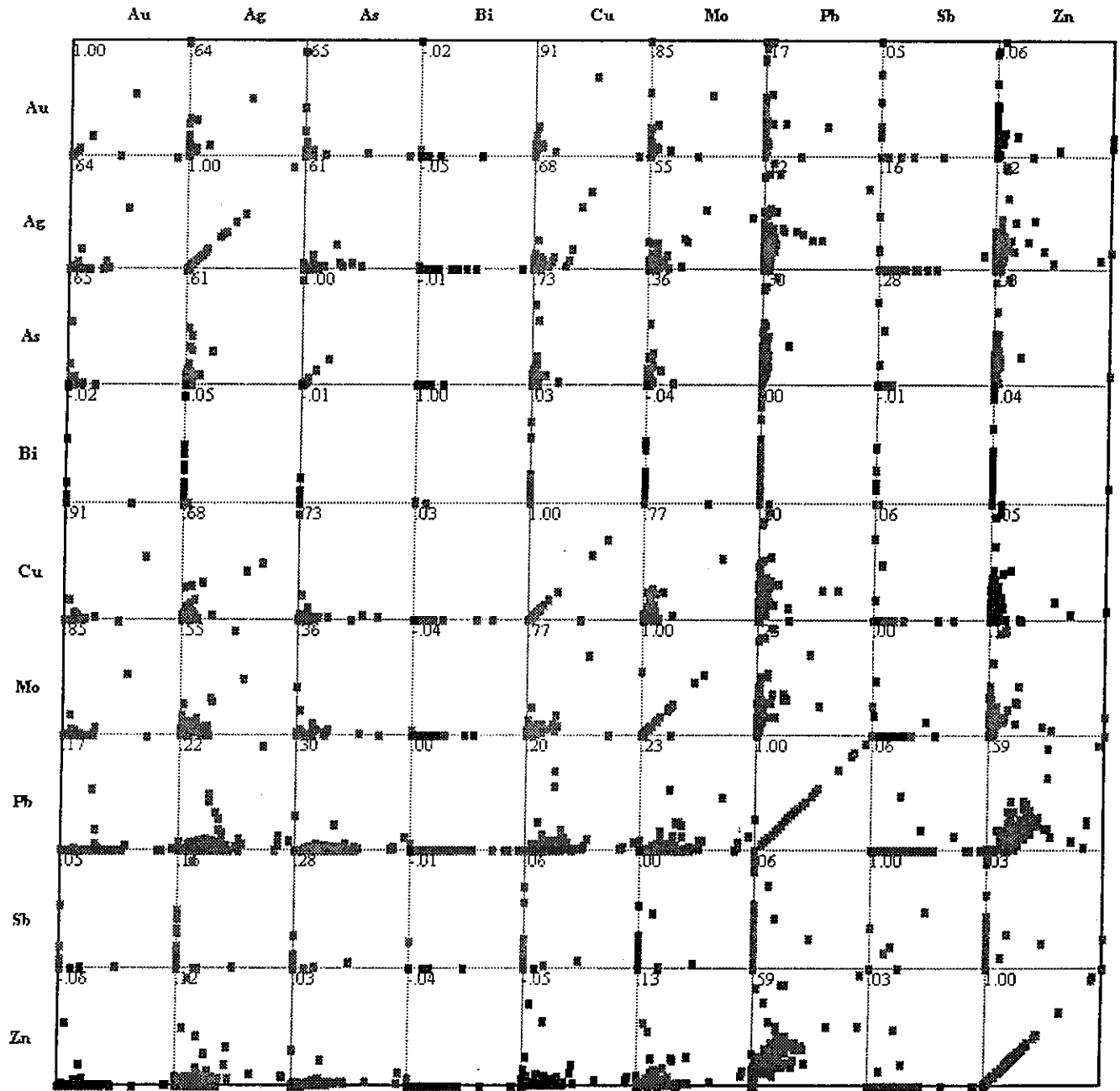
No upper bound  
 No lower bound  
 No Individual Points Removed

# **Descriptive Statistics** **Fran Property - Homestake Soil Survey - Upper Showing Area**

Field	Unit	Count	Mean	St Dev	Min	25%ile	Median	75%ile	Max
Au	ppb	107	956.75	4768.07	1	16	38	88	33000
Ag	ppm	107	0.61	1.16	0.05	0.1	0.3	0.5	8
As	ppm	107	135.79	348.24	29	67	86	113	3601
Bi	ppm	107	1.82	8.47	1	1	1	1	89
Cu	ppm	107	157.03	308.81	18	54	85	129	2448
Mo	ppm	107	7.93	15.24	1	2	4	6	124
Pb	ppm	107	10.75	6.37	1	7	10	12	36
Sb	ppm	107	3.11	3.94	2.5	2.5	2.5	2.5	39
Zn	ppm	107	107.24	78.07	15	67	97	129	481

Input File: P:\data5\expl\gen\_eval\fran\Geochem\Homestake\Uppershowing.csv  
Date Printed: 28\_October-98

# Scatter Plot Matrix



Fran Property - Homestake Soil Survey - Upper Showing Area


Input File: P:\data\expl\gen\_eval\fran\Geochem\Homestake\Uppershowing.csv  
Date Printed: 28\_October-98


HOMESTAKE SOILS U.SHOWING

## Correlation Matrix

	Au	Ag	As	Bi	Cu	Mo	Pb	Sb	Zn
Au	1.00	.64	.65	-.02	.91	.85	.17	.05	-.06
Ag	.64	1.00	.61	-.05	.68	.55	.22	.16	.12
As	.65	.61	1.00	-.01	.73	.36	.30	.28	.03
Bi	-.02	-.05	-.01	1.00	.03	-.04	.00	-.01	-.04
Cu	.91	.68	.73	.03	1.00	.77	.20	.06	-.05
Mo	.85	.55	.36	-.04	.77	1.00	.23	.00	.13
Pb	.17	.22	.30	.00	.20	.23	1.00	.06	.59
Sb	.05	.16	.28	-.01	.06	.00	.06	1.00	.03
Zn	-.06	.12	.03	-.04	-.05	.13	.59	.03	1.00

Fran Property - Homestake Soil Survey - Upper Showing Area

 correlations > .6

 correlations < .6

Input File: P:\data5\explgen\_eval\fran\Geochem\Homestake\Uppershowing.csv  
Date Printed: 28\_October-98



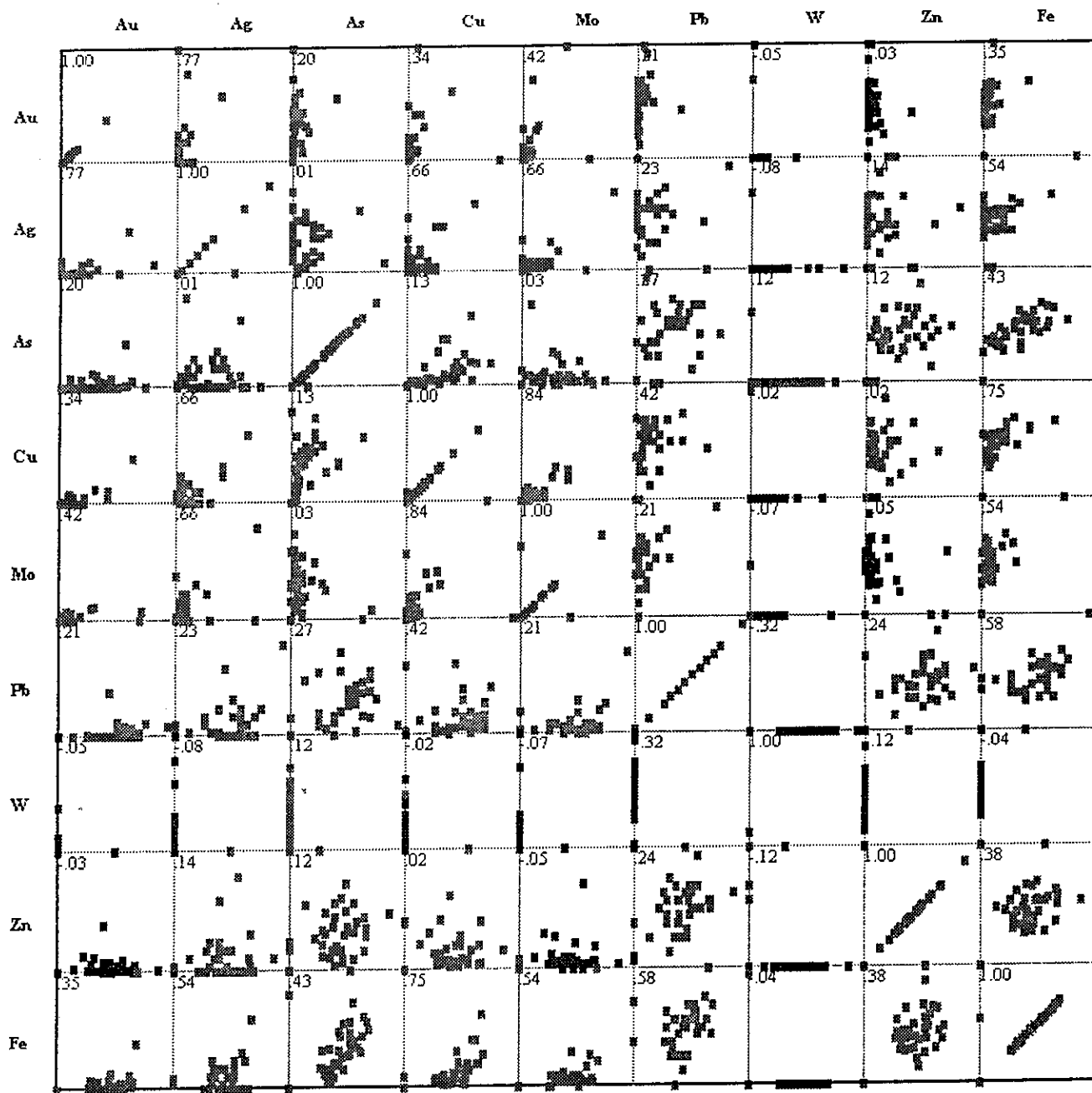
# Descriptive Statistics

## Fran Property - Homestake Soil Survey - Lower Showing Area

Field	Unit	Count	Mean	St Dev	Min	25%ile	Median	75%ile	Max
Au	ppb	38	582.39	1666.67	1	16	65	510	9900
Ag	ppm	38	0.24	0.32	0.05	0.05	0.1	0.3	1.5
As	ppm	38	67.03	26.53	25	45	66	81	154
Cu	ppm	38	86.66	97.24	9	32	50	112	524
Mo	ppm	38	4.76	6.45	1	2	3	4	35
Pb	ppm	38	10.08	3.17	2	8	10.5	12	18
W	ppm	38	2.62	0.72	2.5	2.5	2.5	2.5	7
Zn	ppm	38	104.68	30.58	35	88	102.5	118	186
Fe	%	38	4.51	1.03	1.49	3.79	4.555	4.98	7.9

Input File: P:\Data\expligen\_eval\fran\Geochem\Homestake\Lrshowing.csv  
Date Printed: 28\_October-98

# Scatter Plot Matrix



Fran Property - Homestake Soil Survey - Lower Showing Area

Input File: P:\Data\expl\gen\_eval\fran\Geochem\Homestake\Lrshowing.csv


Date Printed: 28\_October-98


HOMESTAKE SOILS L.SHOWING

### Correlation Matrix

	Au	Ag	As	Cu	Mo	Pb	W	Zn	Fe
Au	1.00	.77	.20	.34	.42	.21	-.05	-.03	.35
Ag	.77	1.00	.01	.66	.66	.23	-.08	.14	.54
As	.20	.01	1.00	.13	.03	.27	.12	.12	.43
Cu	.34	.66	.13	1.00	.84	.42	-.02	.02	.75
Mo	.42	.66	.03	.84	1.00	.21	-.07	-.05	.54
Pb	.21	.23	.27	.42	.21	1.00	-.32	.24	.58
W	-.05	-.08	.12	-.02	-.07	-.32	1.00	-.12	-.04
Zn	-.03	.14	.12	.02	-.05	.24	-.12	1.00	.38
Fe	.35	.54	.43	.75	.54	.58	-.04	.38	1.00

Fran Property - Homestake Soil Survey - Lower Showing Area

 correlations > .6

 correlations < .6

Input File: P:\data5\explgen\_eval\fran\Geochem\Homestake\Lrshowing.csv  
Date Printed: 28\_October-98

**HOMESTAKE SOILS L.SHOWING**

**APPENDIX D**  
**Large Figure and Plans. October Program**

*R. C. Wells, P.Geo., FGAC. Kamloops Geological Services Ltd.*

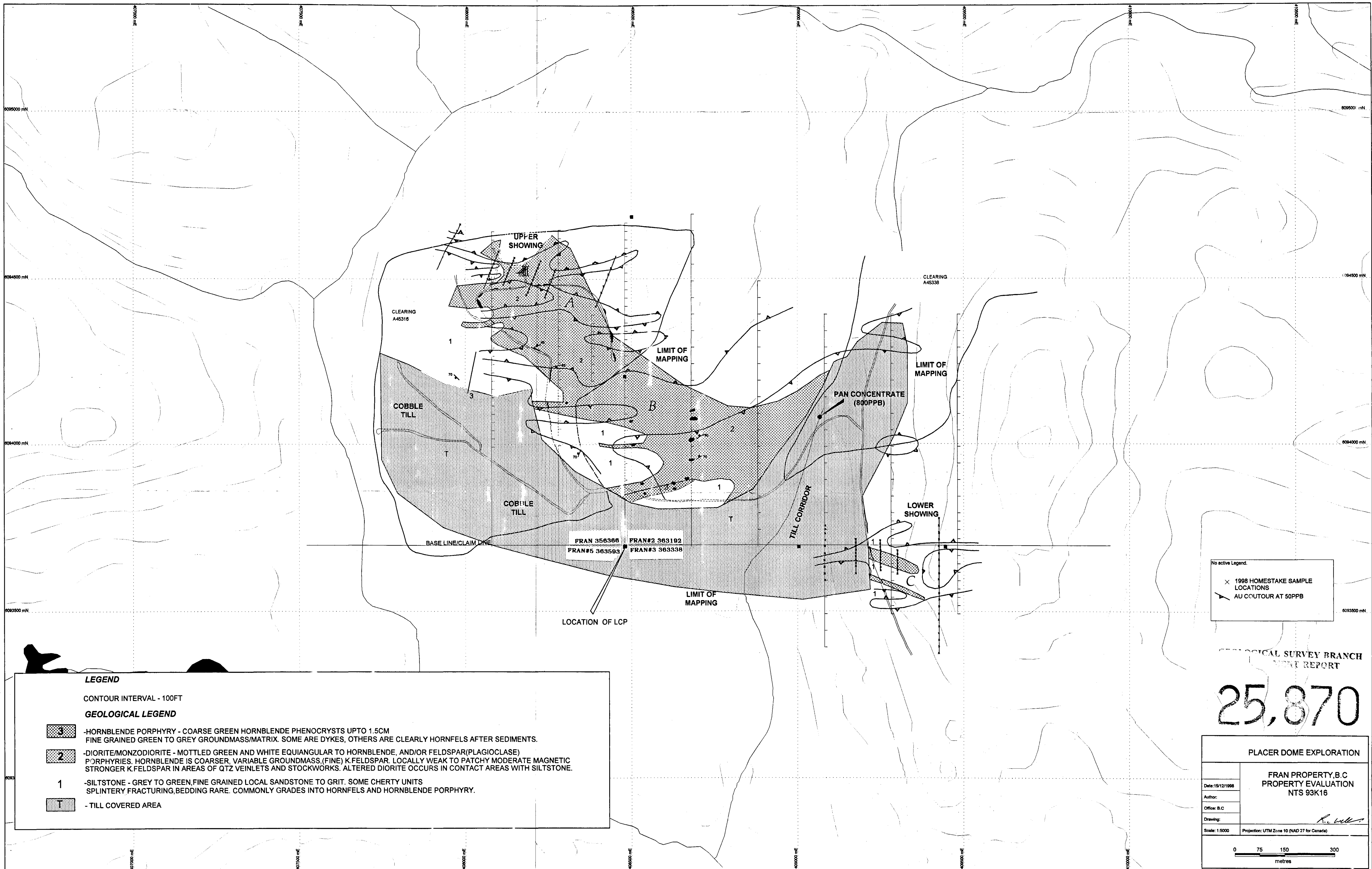
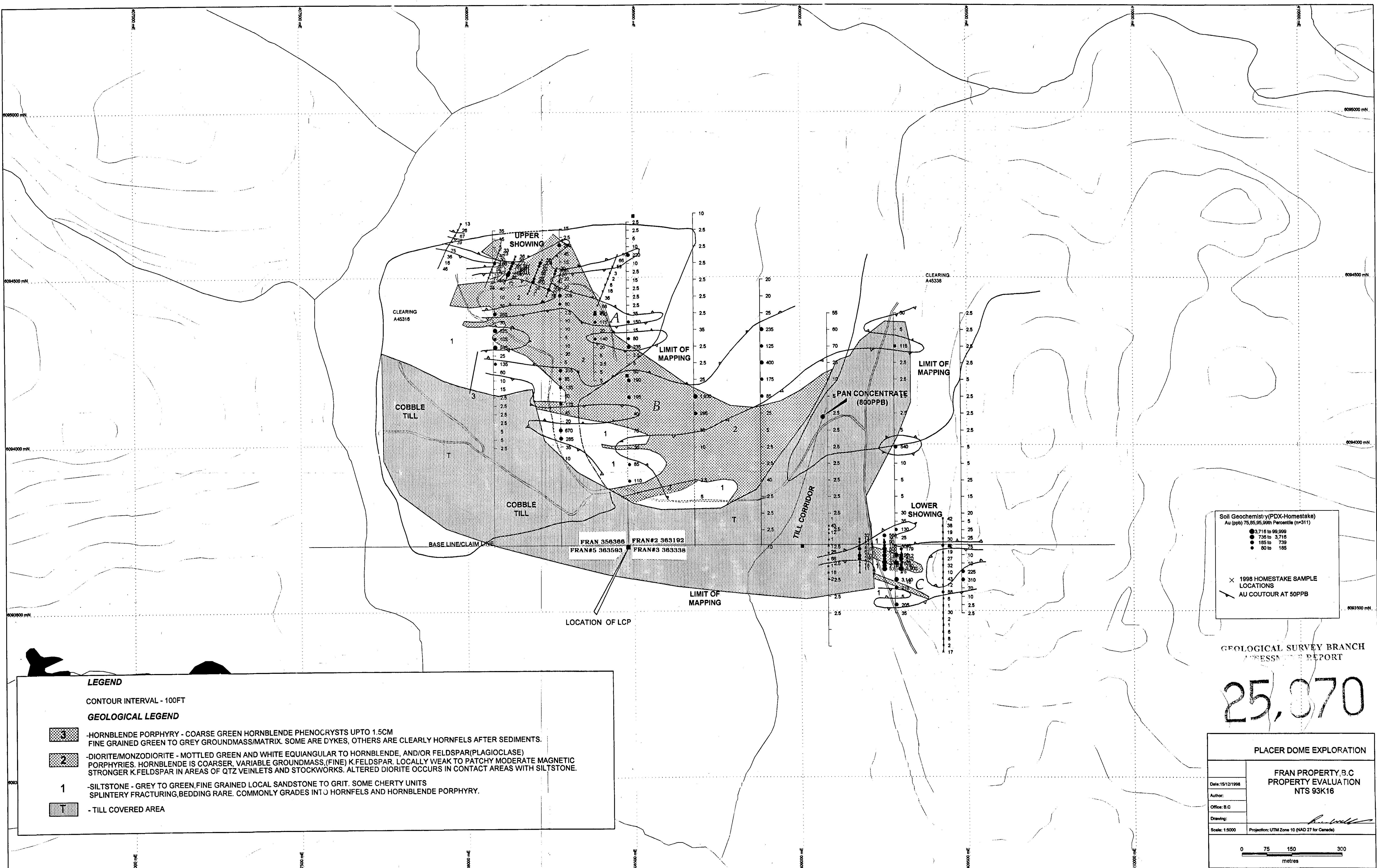


Figure 8: Grid and Geology Plan





Soil Geochemistry(PDX-Homestake)  
Au (ppb) 75,85,95,99m Parcella (n=311)

- 3,718 to 99,999
- 738 to 3,718
- 185 to 739
- 80 to 185

× 1998 HOMESTAKE SAMPLE LOCATIONS

— AU COUTOUR AT 50PPB

GEOLOGICAL SURVEY BRANCH  
ACCESS REPORT

25,870

**LEGEND**

CONTOUR INTERVAL - 100FT

**GEOLOGICAL LEGEND**

- 3 - HORNBLende PORPHYRY - COARSE GREEN HORNBLende PHENOCRYSTS UPTO 1.5CM FINE GRAINED GREEN TO GREY GROUNDMASS/MATRIX. SOME ARE DYKES, OTHERS ARE CLEARLY HORNFELS AFTER SEDIMENTS.
- 2 - DIORITE/MONZODIORITE - MOTTLED GREEN AND WHITE EQUIANGULAR TO HORNBLende, AND/OR FELDSPAR(PLAGIOCLASE) PORPHYRIES. HORNBLende IS COARSER, VARIABLE GROUNDMASS, (FINE) K.FELDSPAR. LOCALLY WEAK TO PATCHY MODERATE MAGNETIC STRONGER K.FELDSPAR IN AREAS OF QTZ VEINLETS AND STOCKWORKS. ALTERED DIORITE OCCURS IN CONTACT AREAS WITH SILTSTONE.
- 1 - SILTSTONE - GREY TO GREEN, FINE GRAINED LOCAL SANDSTONE TO GRIT. SOME CHERTY UNITS SPLINTERY FRACTURING, BEDDING RARE. COMMONLY GRADES INTO HORNFELS AND HORNBLende PORPHYRY.
- T - TILL COVERED AREA

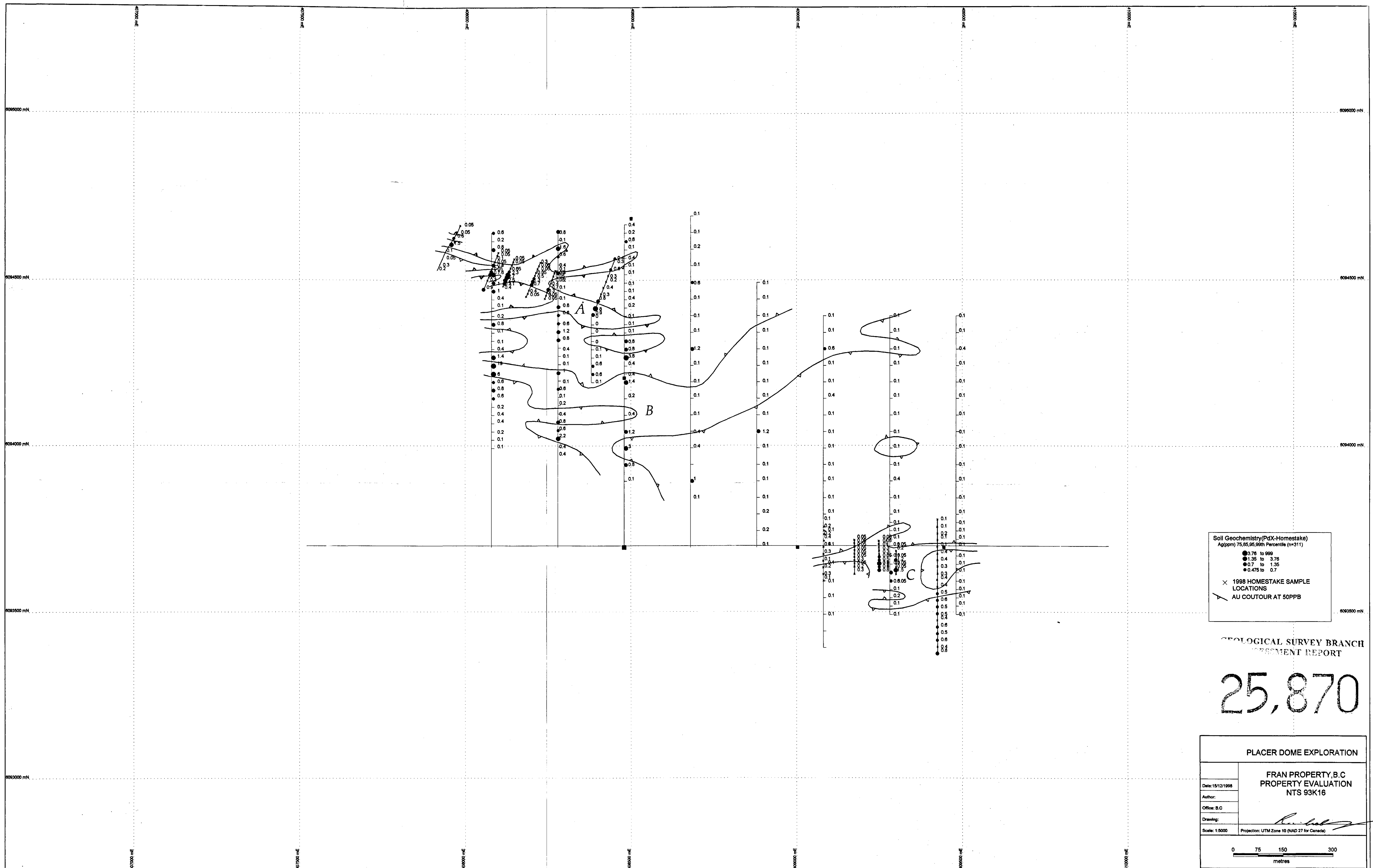
PLACER DOME EXPLORATION

FRAN PROPERTY, B.C.  
PROPERTY EVALUATION  
NTS 93K16

Date: 15/12/1998  
Author:  
Office: B.C.  
Drawing:  
Scale: 1:5000  
Projection: UTM Zone 10 (NAD 83 for Canada)

0 75 150 300  
metres

FIGURE 11A : Soil Geochemistry: Au.



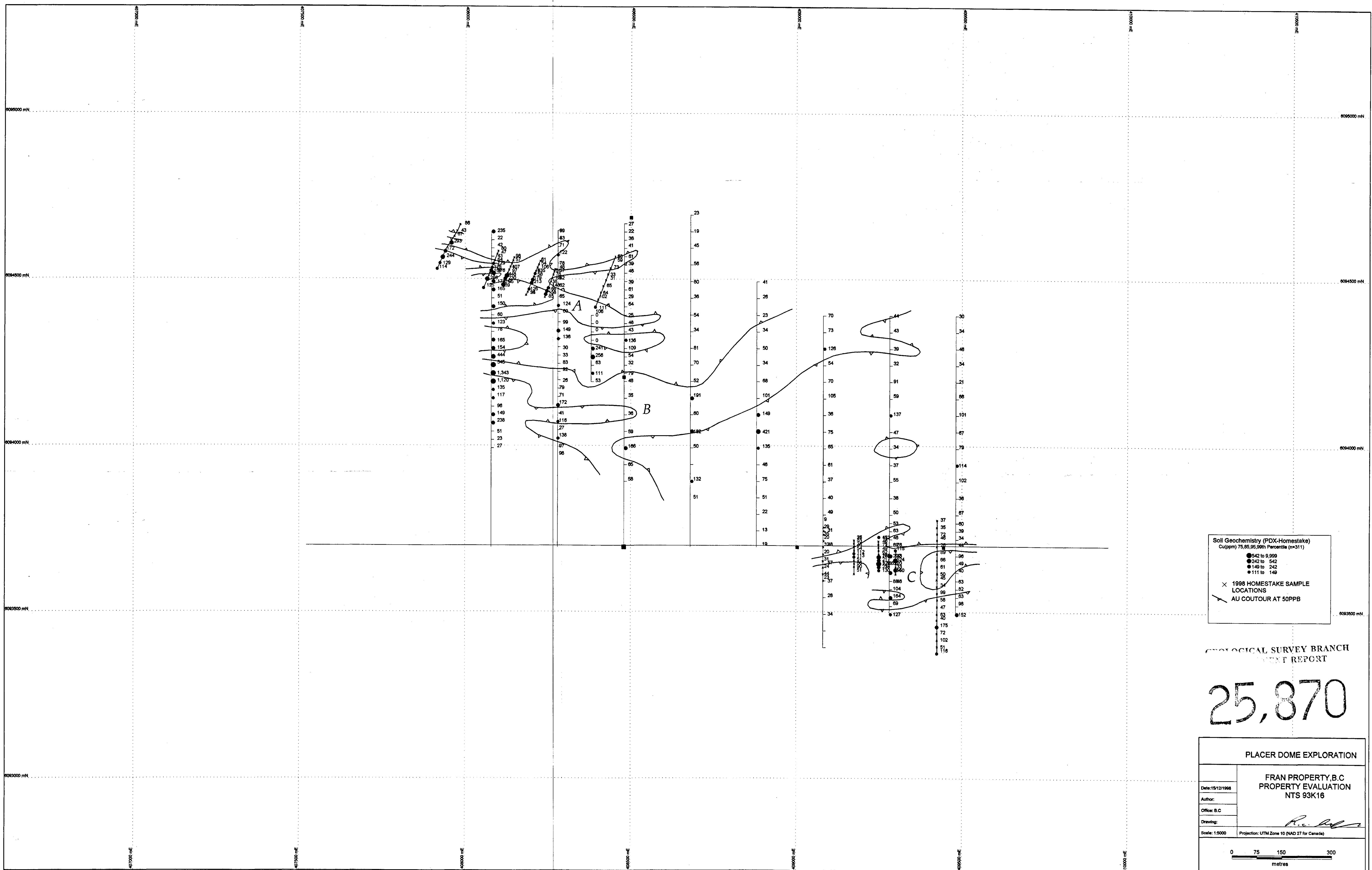
Soil Geochemistry (PdX-Homestake)  
Ag (ppm) 75, 85, 95, 99th Percentile (n=311)  
● 3.76 to 999  
● 1.35 to 3.76  
● 0.7 to 1.35  
● 0.475 to 0.7  
x 1998 HOMESTAKE SAMPLE  
LOCATIONS  
— AU COUTOUR AT 50PPB

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

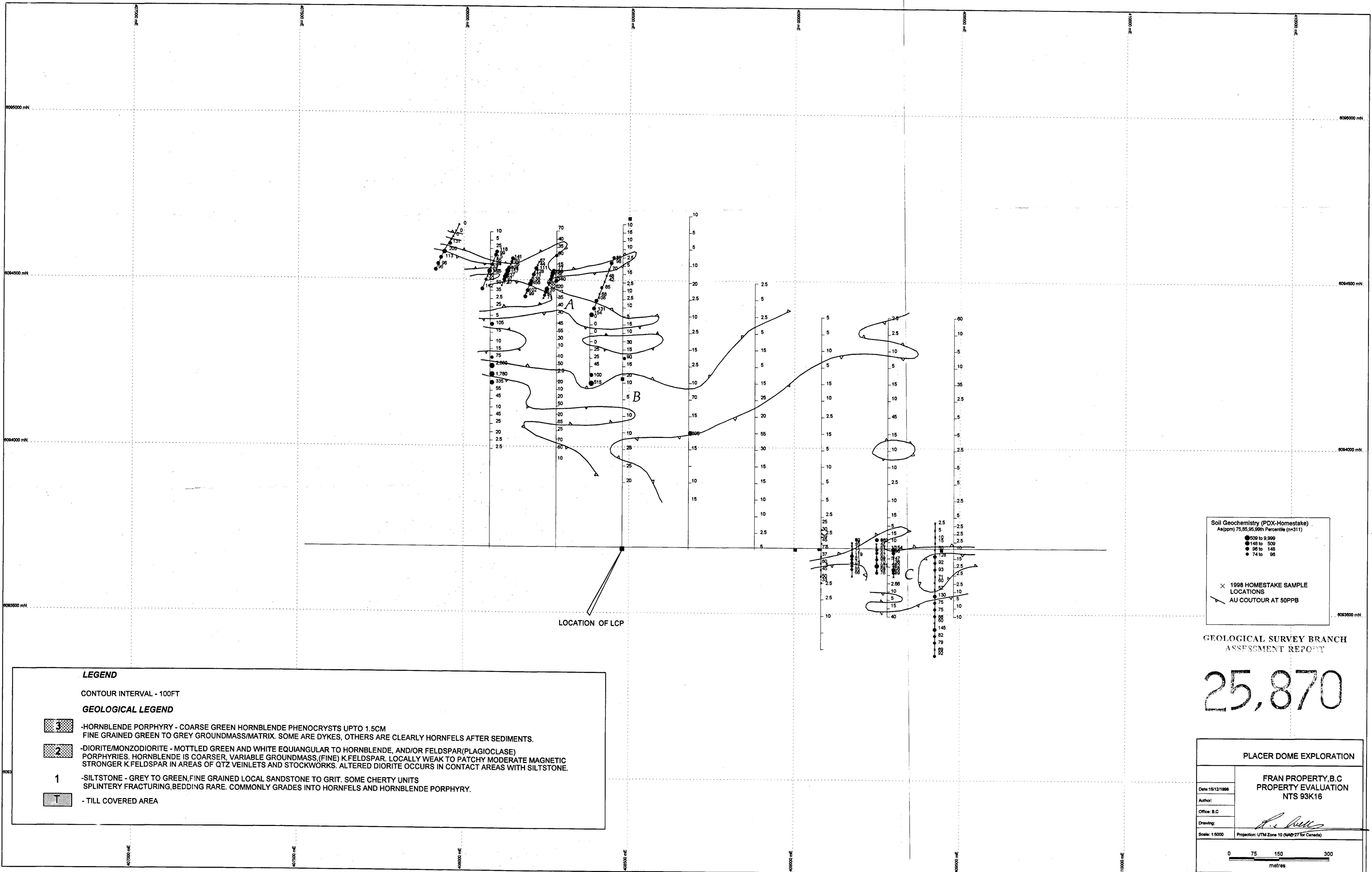
25,870

PLACER DOME EXPLORATION	
FRAN PROPERTY, B.C. PROPERTY EVALUATION NTS 93K16	
Date: 15/12/1998	
Author:	
Office: B.C.	
Drawing:	
Scale: 1:5000	Projection: UTM Zone 10 (NAD 27 for Canada)
0 75 150 300 metres	

FIGURE 11B : Soil Geochemistry: Ag.







**LEGEND**

CONTOUR INTERVAL - 100FT

**GEOLOGICAL LEGEND**

- 3 - HORNBLende PORPHYRY - COARSE GREEN HORNBLende PHENOCRYSTS UPTO 1.5CM FINE GRAINED GREEN TO GREY GROUNDMASS/MATRIX. SOME ARE DYKES, OTHERS ARE CLEARLY HORNFELS AFTER SEDIMENTS.
- 2 - DIORITE/MONZODIORITE - MOTTLED GREEN AND WHITE EQUIANGULAR TO HORNBLende, AND/OR FELDSPAR(PLAGIOCLASE) PORPHYRIES. HORNBLende IS COARSER, VARIABLE GROUNDMASS,(FINE) K.FELDSPAR. LOCALLY WEAK TO PATCHY MODERATE MAGNETIC STRONGER K.FELDSPAR IN AREAS OF QTZ VEINLETS AND STOCKWORKS. ALTERED DIORITE OCCURS IN CONTACT AREAS WITH SILTSTONE.
- 1 - SILTSTONE - GREY TO GREEN,FINE GRAINED LOCAL SANDSTONE TO GRIT. SOME CHERTY UNITS SPLINTERY FRACTURING,BEDDING RARE. COMMONLY GRADES INTO HORNFELS AND HORNBLende PORPHYRY.
- T - TILL COVERED AREA

Soil Geochemistry (PDX-Homestake)  
As(ppm) 75,85,95,99th Percentile (n=311)

- 509 to 9 999
- 148 to 509
- 95 to 148
- 74 to 95

× 1998 HOMESTAKE SAMPLE LOCATIONS

— AU COUTOUR AT 50PPB

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

25,870

PLACER DOME EXPLORATION

FRAN PROPERTY,B.C  
PROPERTY EVALUATION  
NTS 93K16

Date:15/12/1998

Author:

Office: B.C

Drawing:

Scale: 1:5000

Projection: UTM Zone 10 (NAD 27 for Canada)

0 75 150 300  
metres

FIGURE 11D : Soil Geochemistry: As.

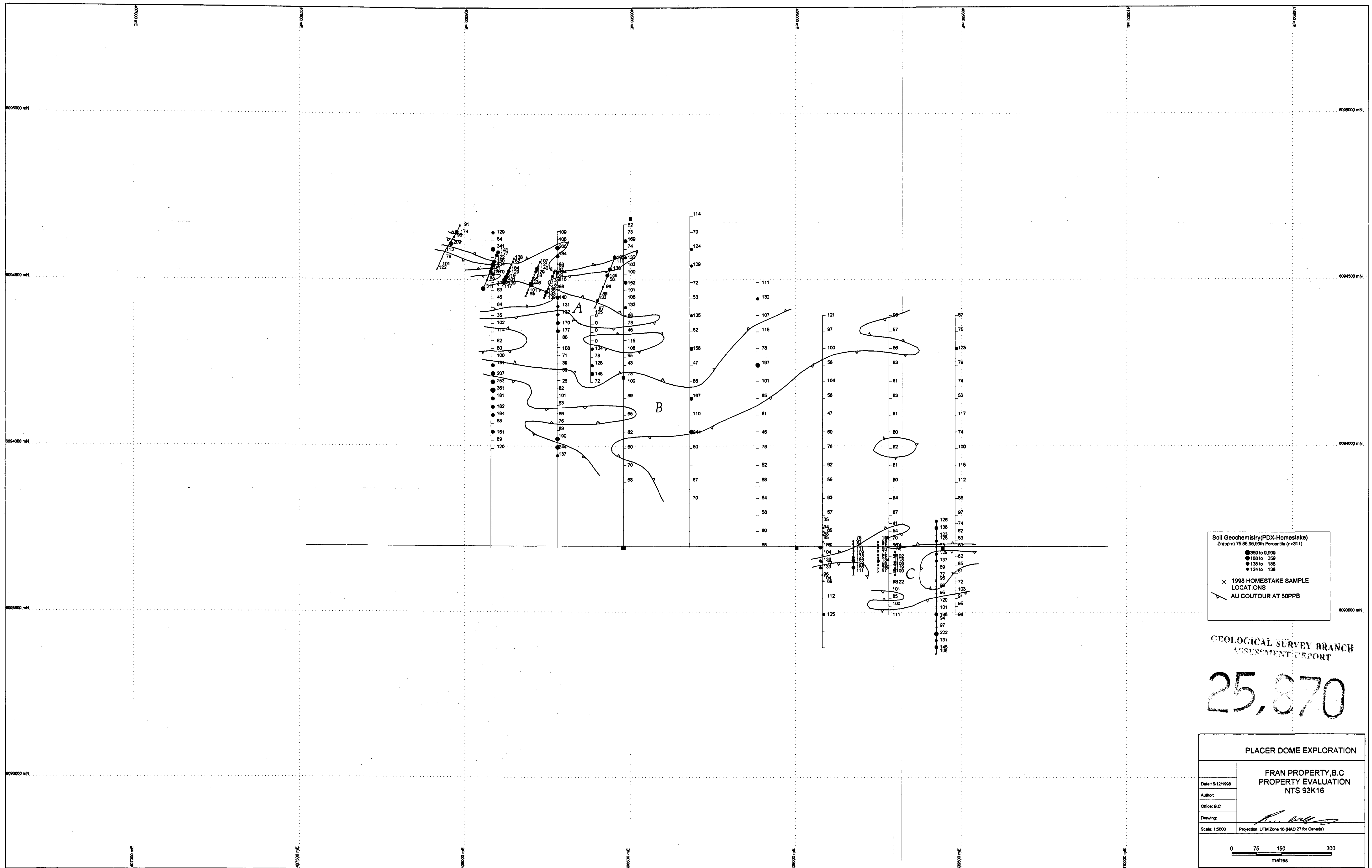


FIGURE 11E : Soil Geochemistry: Zn.