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Gold Commissioner's Office VANCOUVER, B.C.

## TRENCHING AND GEOCHEMICAL SURVEY REPORT

QFP CLAIM GROUP

CARIBOO MINING DIVISION



NTS: 93B/13W

Latitude: 52 deg. 58 min. north

Longitude: 123 deg. 51 min. west

Owners: John Nebocat (50%); Harvey Klatt (50%)

Operator: John Nebocat

September 17, 1993

GEOLOGICAL BRANCH ASSESSMENT REPORT

23,045

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#### INTRODUCTION

The QFP claims are located in the Fraser Plateau, central British Columbia.

Access to the property is via the Nazko road to Marmot Lake, from there to the Baezaeko River via the Michelle Creek and Coglistiko River logging roads, a distance of about 120 km west from Quesnel.

The terrain is typified by rolling forested hills and plateaux which are extensively covered by glacial drift. Annual rainfall is slight to moderate, and drainages are commonly intermittent and swampy. Lodgepole pine is the dominant tree type with lesser amounts of Douglas fir occurring on dry slopes and spruce growing along creeks and swamps. Underbrush is scant and consists primarily of alder and various species of willow.

The QFP claim was staked on August 17, 1989 and the QFP 2 claim was staked on November 2, 1990.

Field work was performed between July 19, 1993 and July 22, 1993. During this time three hand-dug trenches were excavated, 475 metres of line were cut and chained, and 6 soil, 3 rock and 12 biogeochem samples were collected.

## DISCUSSION

#### Property Geology

An assemblage of marine/fluvial sediments, probably belonging to the L. Jurassic *Hazelton Group*, underlies the peripheral parts of the property. These sediments are calcareous, friable and generally recessive weathering. The center of the property is underlain by a quartz eye rhyolite porphyry stock of probable Eocene age.

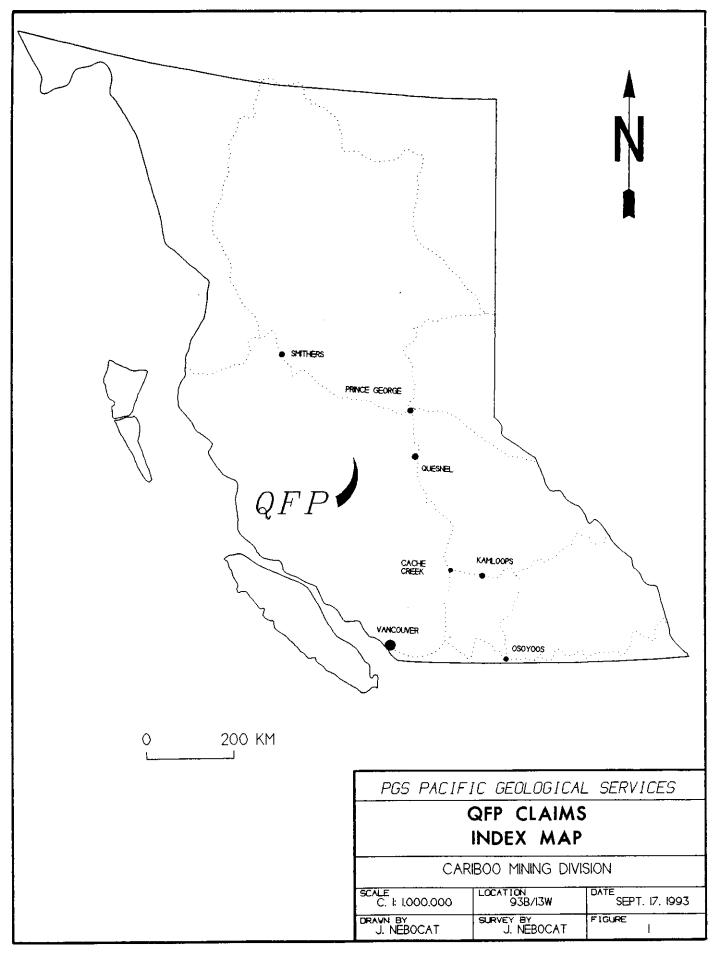
The property seems to straddle a zone of major block faulting with a basement *Stikine Terrane (Hazelton Group)* horst to the west and younger Tertiary volcanics down-dropped to the east.

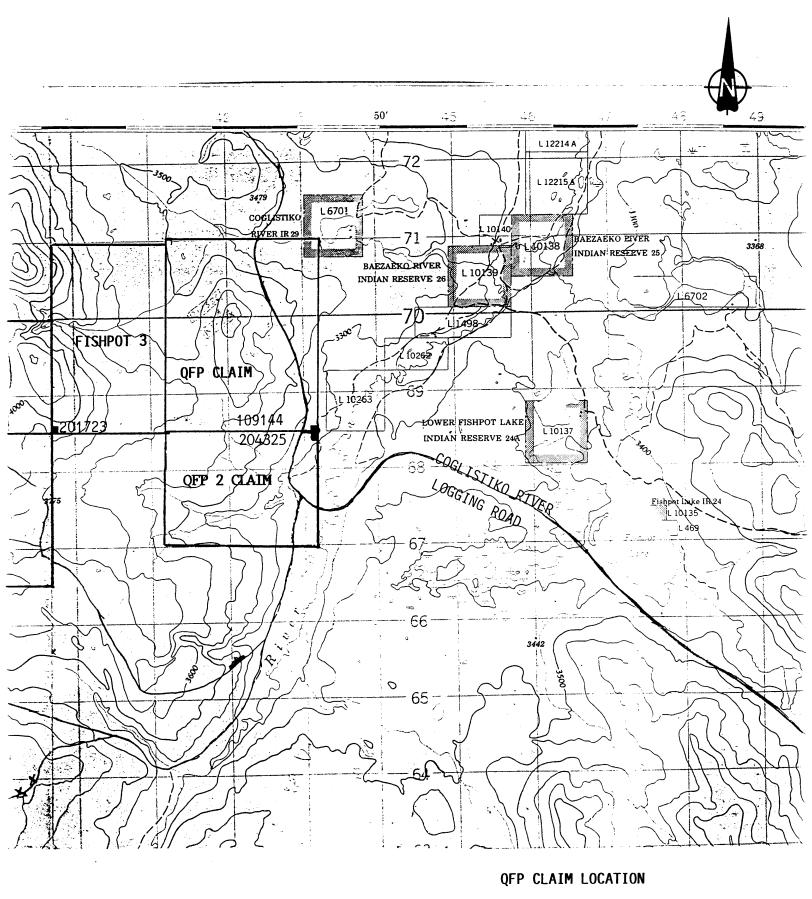
#### TRENCHING

Three trenches were dug using picks and shovels in an attempt to penetrate the glacial till near the projected contacts between the quartz feldspar porphyry and the overlying chert pebble conglomerate pendant. It was hoped that mineralized conglomerate, similar to that found in the talus scree in 1990, would be exposed at or near the contacts.

## Trench A (10131N, 9018E)

This trench is near the projected contact between the porphyry and the overlying conglomerate near the crest of the east slope of the hill (see Figure 3). The trench is about 3 metres long and ranges from 0.5 metres to 1.5 metres in depth. No definite outcrop was exposed, but numerous





# 2.0 3.0 km

scale - 1:50,000

# CARIBOO MINING DIVISION

93B/13W July 19, 1992 Figure 2

boulders of the chert pebble conglomerate were unearthed. Outcrop occurs about 10 m to 15 m uphill from here.

The conglomerate is limonitic and ankeritic. Syngenitic pyrite is common within the chert clasts, but some disseminated and fracture-coated pyrite also occurs in the matrix. Quartz veins clearly crosscut the clasts as well as the matrix and presumably are related to the quartz-rich intrusive.

The "B" horizon, "C" horizon and the underlying bedrock, or colluvium in this case, was sampled in each trench. The "B" sample was collected about 20 cm below the surface, the "C" sample about 1.0 m to 1.2 m below surface. No significant values in Au, Ag, or indicator/base metals were obtained in any of these samples; the values for Au, As and Sb are shown on Figure 3.

#### Trench B (10143N, 8845E)

This trench is on the western slope of the hill above the conglomerate/porphyry contact. It is about 3 metres long and less that 0.5 metres deep. Conglomerate was exposed along the entire trench.

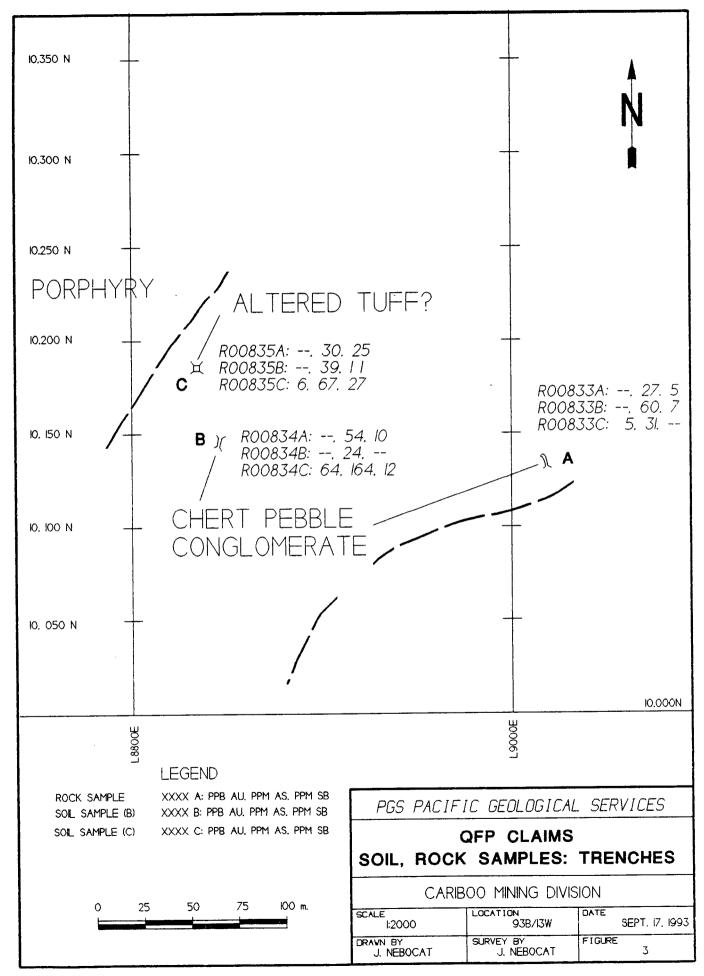
The conglomerate looks essentially the same except it is more friable than at Trench A. There appears to be a little less pyrite but an abundance of a nickel-green, waxy mineral--possibly fuchsite or mariposite.

The analyses were low but show a slight increase in Au and As values in the "C" horizon: 64 ppb and 164 ppm, respectively.

## Trench C (10185N, 8833E)

This small pit, roughly 1 metre square, is located about 15 metres from the quartz feldspar porphyry contact. The rock is fine grained, chalky-white to beige, soft and unsilicified. It is (was?) probably a greywacke, or equivalent, prior to argillic alteration. This unit appears to be a bed sitting stratigraphically beneath the chert conglomerate exposed in Trench B.

No significant values were obtained from this rock unit.



## BIOGEOCHEM SURVEY

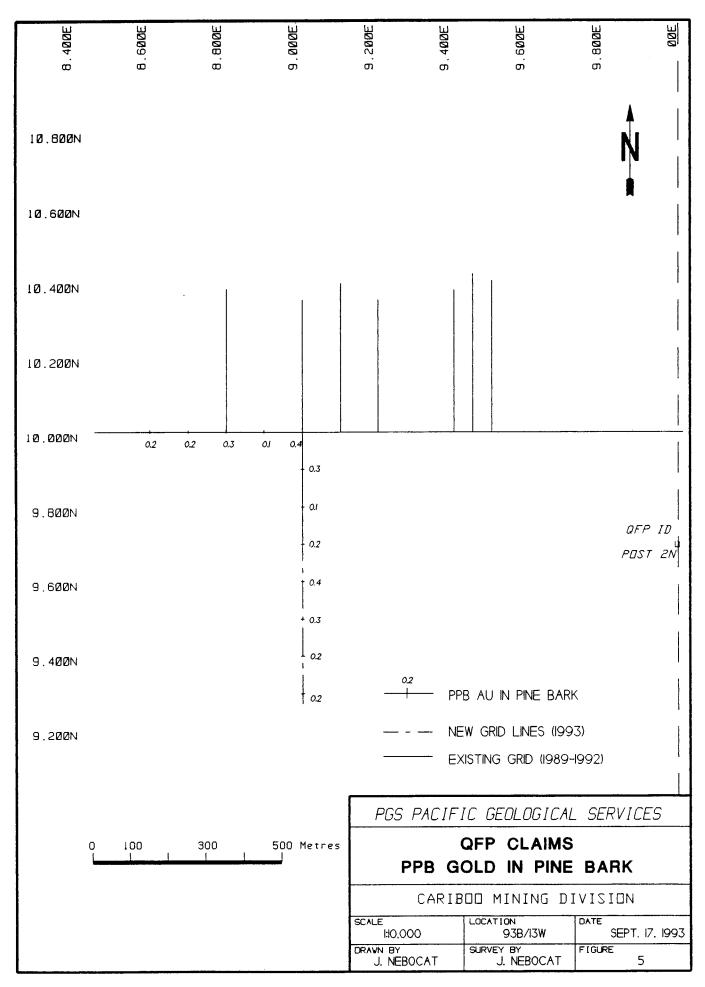
A closer examination of the mineralized conglomerate found near line 9100E, which assayed 0.111 opt Au, suggests that this material was glacially-transported from some point south and west of its location. The bedrock underlying this site and on two benches uphill from it is intrusive. The intervening topography and distance from the roof pendant makes it an unlikely source for the mineralized float.

An additional 475 metres of line was cut on L9000E, between 9275N and 9750N.

Twelve samples of pine bark were collected at 100 metre intervals along line 9000E from 9300N to 9900N and along line 10000N from 8600E to 9000E. The samples were analyzed for multi-elements using the neutron activation technique. It was hoped that these perpendicular lines, upice from the mineralized float, would bracket its source, but no anomalous values in Au, indicator metals or base metals were obtained.

The grid lines and the values for the Au in pine bark are shown in Figures 4 and 5, respectively.

8.400E	B. 600E	B. BØØE	9.000E	9.200E	9.400E	9.600E	9 . BØØE.	ØØE
10.800N							N	
10,600N							İ	
10,400N								
10.200N								
10,000N								
9.800N								FP ID _
9,600N			1					
9.400N								
9,200N						GRID LINES ( FING GRID (19)		
				PGS	PACIFIC	GEOLOGI (	CAL SERVI	CES
	0 100	300	500 Metre	5	GRII	P CLAIN	TION	
				SCALE	L	DCATION	DIVISION	
				I:IO,O DRAVN BY J. NEB	SI	93B/I3W JRVEY BY J. NEBOCA	FIGURE	. 17, 1993 4



# CONCLUSIONS

- 1. The hand trenching program failed to find any mineralized bedrock at or near the contact between the quartz feldspar porphyry and the overlying chert pebble conglomerate pendant.
- 2. The biogeochem sampling program, designed to explore for the upice source of the mineralized float, failed to yield anomalies in any element.

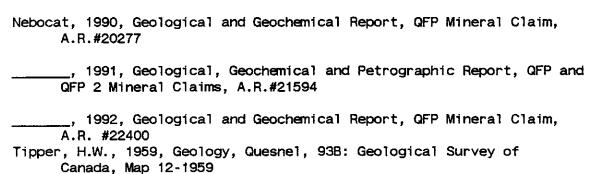
### RECOMMENDATIONS

In light of the negative results of this survey, particularly in the difficulty of find the source of the mineralized float, no further work is recommended for this property.

John Nebocat, P. Eng.

Vancouver, B.C.

# REFERENCES



# STATEMENT OF COSTS

Labour:	John Nebocat - July 18-23, Sept. 16, 17, 1993 8 days @ \$250/day	\$2000.00
	Gary Roste - July 19-21, 1993 3 days @ \$200/day	\$ 600.00
Gas, oil, r	repairs:	\$ 222.30
Groceries a	nd Meals:	\$ 253.30
Accomodatio	ns:	\$ 157.16
Analyses:	3 rocks, 6 soils for Au by FA-AA and 30 element ICP; 12 pine bark samples for 35 element neutron	<b>4</b> 017 10
	activation analysis.	\$ 347.48
Hardware &	Supplies:	\$ 54.56
Reproductio	ns, Plotting:	\$ 53.50
TOTAL:		\$3688.31

## STATEMENT OF QUALIFICATIONS

- I, John Nebocat, residing at #13 230 West 14th. Street, North Vancouver, British Columbia, declare that:
- 1. I am a geologist and have been employed in mineral exploration and earth science studies with industry and government since 1973.
- 2. I obtained a diploma in Mining Technology from the British Columbia Institute of Technology in 1974. In 1984 I graduated from the Montana College of Mineral Science & Technology with a Bachelor's Degree in Geological Engineering (Honours).
- 3. I am a registered Professional Engineer with the Association of Professional Engineers of British Columbia.
- 4. I carried out the work described within this report

John Nebocat, B.Sc., P. Eng.

# APPENDIX I

Soil, Rock and Biogeochem Sample Analyses

- 13 -



# CERTIFICATE OF NALYSIS iPL 93H05U7

2036 Columbia Street Vancouver, B.C Canada V5Y 3E1 Phone (604) 879-7878 Fax (604) 879-7898

Pacific Geological Services Out: Aug 10, 1993 Project: QFP In: Aug 05, 1993 Shipper: John Nebocat PO#: Shipment: ID=C029101	10 Samples 3= Rock 6= Soil 0= Core 0= Raw Storage: 03Mon/Dis 00Mon/Dis Pulp Storage: 12Mon/Dis 12Mon/Dis	RC Ct
Msg: Au(FA/AAS) Msg: Document Distribution	Analytical Summary  ## Code Met Title Limit Limit Units Description hod Low High	Element ##
1 Pacific Geological Services       EN RT CC IN FX         13 - 230 W. 14th Avenue       1 2 2 2 1         North Vancouver       DL 30 5D BT BL         BC V7M 1P3       0 0 0 1 0	01 313P FAAA Au 2 9999 ppb Au Fire Assay/AAS finis 02 312P FAAA Au 5 9999 ppb Au Fire Assay/AAS finis 03 721P ICP Ag 0.1 100 ppm Ag ICP 04 711P ICP Cu 1 20000 ppm Cu ICP	sh Gold 02 Silver 03 Copper 04
ATT: John Nebocat Ph:604/ Fx:604/985-3426	05 714P ICP Pb 2 20000 ppm Pb ICP 06 730P ICP Zn 1 20000 ppm Zn ICP	Lead 05 Zinc 06
	07 703P         ICP         As         5 9999         ppm As ICP         5 ppm           08 702P         ICP         Sb         5 9999         ppm Sb ICP           09 732P         ICP         Hg         3 9999         ppm Hg ICP           10 717P         ICP         Mo         1 9999         ppm Mo ICP	Arsenic 07 Antimony 08 Mercury 09 Molydenum 10
	11 747P ICP T1 10 999 ppm T1 ICP 10 ppm 12 705P ICP Bi 2 999 ppm Bi ICP 13 707P ICP Cd 0.1 100 ppm Cd ICP 14 710P ICP Co 1 999 ppm Co ICP 15 718P ICP Ni 1 999 ppm Ni ICP	Thallium 11 Bismuth 12 Cadmium 13 Cobalt 14 Nickel 15
14	16 704P ICP Ba 2 9999 ppm Ba ICP 17 727P ICP W 5 999 ppm W ICP 18 709P ICP Cr 1 9999 ppm Cr ICP 19 729P ICP V 2 999 ppm V ICP 20 716P ICP Mn 1 9999 ppm Mn ICP	Barium 16 Tungsten 17 Chromium 18 Vanadium 19 Manganese 20
	21 713P ICP La 2 9999 ppm La ICP 22 723P ICP Sr 1 9999 ppm Sr ICP 23 731P ICP Zr 1 999 ppm Zr ICP 24 736P ICP Sc 1 99 ppm Sc ICP 25 726P ICP Ti 0.01 1.00 % Ti ICP	Lanthanum 21 Strontium 22 Zirconium 23 Scandium 24 Titanium 25
	26 701P ICP Al 0.01 99.99 % Al ICP 27 708P ICP Ca 0.01 99.99 % Ca ICP 28 712P ICP Fe 0.01 99.99 % Fe ICP 29 715P ICP Mg 0.01 9.99 % Mg ICP 30 720P ICP K 0.01 9.99 % K ICP	Aluminum 26 Calcium 27 Iron 28 Magnesium 29 Potassium 30
	31 722P ICP Na 0.01 5.00 % Na ICP 32 719P ICP P 0.01 5.00 % P ICP	Sodium 31 Phosphorus 32



ഗ

Client: Pacific Geological Services

# CERTIFICATE F NALYSIS iPL 93H05U7

Out: Aug 10, 1993

TPL: 93H0507

2036 Columbia Street Vancouver, B. Canada V5Y 3E1

Phone (604) 879-787 Fax (604) 879-789

Section 1 of

Project: QFP		10	Soil									In: A	ug 05		93					3-			Cert i	ified BC	Assaye	r: Dav	id Chiu	1	汉	
Sample Name		Au ppb	Au ppb	Ag ppm	Си	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm p	TI B	_	om ppr	Ni ppm	Ba ppm	ppm W	Cr ppm	V Ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc T-	A1	Ca %	Fe %	Mg %	K %	Na %
93001	Ű		28	0.2	148	8	412	9	<	<	2	<	< 7.	8 !	210	121	<	15	36	563	4	46	3	1 0.02		3.85	1.12	0.35	0_12	0.04
008338	ŝ		<	0.1	47	16	161	60	7	< ∄	6	<	<	< 20	5 111	187	<	75	122	597	9	40	10	7 0.28	1.95	0.53	5.34	0.75	0-09	0.03
00833C	ŝ		5	0.5	55	11	141	31	<	< ∜	5	<	<	< 24	103	265	<	61	91	831	11	80	9	7 0.20	1.56	1.48	4.64	1.13	0-05	0.06
00834B	ŝ		<	0.1	26	7	130	24	<	< ∄	4	<	<	< 17	96	309	<	64	74	415	6	33	3	3 0, 18	1.70	0.36	3.67	0.50	0.09	0.03
00834C	Ş		64	0.1	156	6	373	164	12	<	22	<	<	< 18	3 241	145	<	32	40	821	12	18	1	6 0.02	0.79	0.14	6.87	0.19	0.09	0.02
00835B	ŝ		<	0.1	17	11	124	39	11	<	3	<	2	< 23	3 202	: 270	<	152	79	294	6	29	4	4 0.19	2.14	0.37	3.60	0.86	0.07	0.03
00835C	ŝ		6	0.1	49	13	108	67	27	< ∜	4	<	<	< 50	806	161	<	834	88	742	6	30	2	13 0.02	3.02	0.40	5.82	3.90 i	0.06	0.02
00833A	Ŕ	<		0.4	32		128	27	5	< ∷	2	<	< 1.	2	57	269	<	122	22	519	8	118	1	4	0.58	1.74	1.93	0.76	0.21	0.03
00834A	Ŕ	<		0.3	51	2	87	54	10	< ∷	6	<	< 0.	3 1	92	227	<	129	19	417	7 ·	18	1	3	0.62	0.12	2.02	0.07	0.24	0.02
00835A	Ŕ	<		0.1	40	12	96	30	25	< ∜	3	<	<	< 52	856	137	<	1212	97	729	5	32	1	3 12	4.06	0.48	4.68	5.73	0.06	0.02



# CERTIFICATE OF NALYSIS iPL 95...05..7

2036 Columbia Street Vancouver, B. Canada V5Y 3L1 Phone (604) 879-7878 Fax (604) 879-789

Client: Pacific	Geological Services	iPL: 93H0507	Out: Aug 10,	1993	Page 1 of 1 Section 2 of 2	XH7.
Project: QFP	10 Soi1		In: Aug 05,	1993	Certified BC Assayer: David Chiu	AK-
Samolo Namo	D					

93001	₿ 0.15
00833B	<b>§ 0.0</b> 5
00833C	<b>\$ 0.10</b>
00834B	© 0.15 \$ 0.05 \$ 0.10 \$ 0.10 \$ 0.05
00834C	§ 0.05
008358 00835C 00833A 00834A 00835A	\$ 0.09 \$ 0.06 \$ 0.05 \$ 0.04 \$ 0.06
	55

16

Min Limit
Max Reported\*

0.01 5.00 ICP

Method ICP
---No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate
International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898



# ACTIVATION LABORATORIES LTD

Invoice No.: Work Order: Invoice Date: Date Submitted: Your Reference: 93H0901

5415 5484

30-AUG-93 18-AUG-93

Account Number: 350

INTERNATION PLASMA LAB. LTD. 2036 COLUMABIA STREET VANCOUVER, B.C. V5Y 3E1

DAVID CHIN ATTN:

# CERTIFICATE OF ANALYSIS

A package, elements and detection limits:

T	0.1	PPB	AG	0.3	PPM	AS	0.01	PPM	BA	5.	PPM
ВR	0.01	PPM	CA	0.01	ક્ર	CO	0.1	PPM	CR	0.3	PPM
CS	0.05	PPM	FΕ	0.005	ક	HF	0.05	PPM	HG	0.05	PPM
IR	0.1	PPB	K	0.05	ક્ર	MO	0.05	PPM	NA	0.5	PPM
NI	2.	PPM	RB	1.	PPM	SB	0.005	PPM	sc	0.01	PPM
SE	0.1	PPM	SR	10.	PPM	TA	0.05	PPM	TH	0.1	PPM
U	0.01	PPM	W	0.05	PPM	ZN	2.	PPM	LA	0.01	PPM
CE	0.3	PPM	ND	0.5	PPM	SM	0.01	PPM	EU	0.05	PPM
ਧਾਸ	0 1	DDM	VB	0.005	PPM	T.11	0.001	ррм			

CERTIFIED BY :

# Activation Laboratories Ltd. Work Order: 5484 Report: 5415

Sample description	UA	AG	AS	BA	BR	CA	co	CR	CS	FE	HF	HG	IR	K	МО	NA	NI	RB	SB	sc	SE	SR	TA	TH
•	PPB	PPM	PPM	PPM	PPM	*	PPM	PPM	PPM	*	PPM	PPM	PPB	ŧ	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
9300N 9000E	0.2	<0.3	0.09	12	0.98	0.32	0.1	0.4	<0.05	0.009	<0.05	<0.05	<0.1	0.07	<0.05	24.5	<2	<1	0.016	0.02	<0.1	16	<0.05	<0.1
9400N 9000E	0.2	<0.3	0.13	13	1.7	0.84	0.1	0.3	<0.05	0.009	<0.05	0.06	<0.1	0.08	<0.05	32.8	<2	<1	0.013	0.02	<0.1	21 -	<0.05	<0.1
9500N 9000E	0.3	<0.3	0.12	13	1.5	0.94	<0.1	<0.3	<0.05	0.007	<0.05	<0.05	<0.1	0.09	0.07	25.2	<2	<1	0.012	0.02	<0.1	22 -	<0.05	<0.1
9600N 9000E	0.4	<0.3	0.10	12	1.4	0.90	<0.1	<0.3	<0.05	0.007	<0.05	0.07	<0.1	0.12	0.13	25.4	<2	<1	0.013	0.02	<0.1	20 -	<0.05	<0.1
9700N 9000E	0.2	<0.3	0.14	9	2.4	0.97	0.2	0.3	<0.05	0.009	<0.05	0.11	<0.1	0.12	0.08	30.3	<2	<1	0.013	0.03	<0.1	11 -	<0.05	<0.1
9800N 9000E	0.1	<0.3	0.10	8	2.1	0.66	0.1	<0.3	<0.05	0.008	<0.05	0.13	<0.1	0.09	0.15	29.4	<2	<1	0.014	0.02	<0.1	15 -	<0.05	<0.1
9900N 9000E	0.3	<0.3	0.13	10	2.8	0.66	0.2	0.3	<0.05	0.011	<0.05	0.17	<0.1	0.10	0.10	41.2	<2	<1	0.026	0.04	<0.1	24 -	<0.05	<0.1
10000N 8600E	0.2	<0.3	0.11	11	2.0	0.66	0.2	<0.3	<0.05	0.011	<0.05	0.05	<0.1	0.08	0.08	40.1	<2	<1	0.014	0.03	<0.1	23 -	<0.05	<0.1
10000N 8700E	0.2	<0.3	0.12	8	2.0	0.58	0.1	0.3	<0.05	0.010	<0.05	0.08	<0.1	0.08	<0.05	35.7	<2	<1	0.021	0.03	<0.1	21 -	<0.05	<0.1
10000N 8800E	0.3	<0.3	0.12	5	1.2	0.50	<0.1	0.3	<0.05	0.006	<0.05	<0.05	<0.1	0.10	<0.05	25.1	<2	<1	0.010	0.02	<0.1	17	<0.05	<0.1
10000N 8900E	0.1	<0.3	0.10	6	1.7	0.69	0.1	0.4	<0.05	0.016	<0.05	0.07	<0.1	0.08	0.07	56.2	<2	<1	0.015	0.05	<0.1	18 -	<0.05	<0.1
10000N 9000E	0.4	<0.3	0.18	8	3.3	0.65	0.2	0.5	<0.05	0.025	0.05	0.15	<0.1	0.11	0.17	93.5	<2	<1	0.032	0.08	<0.1	29 -	<0.05	<0.1

# Activation Laboratories Ltd. Work Order: 5484 Report: 5415

Sample description	υ	W	ZN	LA	CE	ND	SM	EU	тв	YB	LU	Mass
-	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	g
9300N 9000E	<0.01	<0.05	25	0.06	<0.3	<0.5	<0.01	<0.05	<0.1	0.009	0.001	15.05
9400N 9000E	<0.01	<0.05	30	0.06	<0.3	<0.5	<0.01	<0.05	<0.1	0.007	0.002	15.06
9500N 9000E	<0.01	<0.05	28	0.04	<0.3	<0.5	<0.01	<0.05	<0.1<	0.005	<0.001	15.24
9600N 9000E	<0.01	<0.05	31	0.04	<0.3	<0.5	<0.01	<0.05	<0.1<	0.005	<0.001	15.47
9700N 9000E	<0.01	<0.05	38	0.05	<0.3	<0.5	<0.01	<0.05	<0.1<	0.005	<0.001	15.30
9800N 9000E	0.02	<0.05	35	0.09	<0.3	<0.5	0.01	<0.05	<0.1	0.023	0.002	15.16
9900N 9000E	<0.01	<0.05	44	0.07	<0.3	<0.5	0.01	<0.05	<0.1	0.013	<0.001	15.25
10000N 8600E	<0.01	<0.05	41	0.06	<0.3	<0.5	0.01	<0.05	<0.1	0.009	<0.001	15.22
10000N 8700E	<0.01	<0.05	33	0.05	<0.3	<0.5	<0.01	<0.05	<0.1<	0.005	<0.001	15.40
10000N 8800E	<0.01	<0.05	28	0.04	<0.3	<0.5	<0.01	<0.05	<0.1<	0.005	<0.001	15.05
10000N 8900E	<0.01	<0.05	33	0.06	<0.3	<0.5	0.01	<0.05	<0.1	0.010	<0.001	15.25
10000N 9000E	<0.01	<0.05	41	0.13	<0.3	<0.5	0.02	<0.05	<0.1	0.020	0.002	15.66

# APPENDIX II

Description of Analytical Procedures



2036 Columbia Street Vancouver, B.C. Canada V5Y 3E1 Phone (604) 879-7878 Fax (604) 879-7898

# Method of Gold analysis by Fire Assay / AAS

- (a) 20.0 to 30.0 grams of sample is mixed with a combination of fluxes in a fusion pot. The sample is then fused at high temperature to form a lead "button".
- (b) The precious metals are extracted by cupellation. Any Silver is dissolved by nitric acid and decanted. The gold bead is then dissolved in boiling concentrated aqua regia solution heated by a hot water bath.
- (c) The gold in solution is determined with an Atomic Absorption Spectrometer. The gold value, in parts per billion, is calculated by comparision with a set of known gold standards.

# QUALITY CONTROL

Every fusion of 24 pots contains 22 samples, one internal standard or blank, and a random reweigh of one of the samples. Samples with anomalous gold values greater than 500 ppb are automatically checked by Fire Assay/AA methods. Samples with gold values greater than 10000 ppb are automatically checked by Fire Assay/Gravimetric methods.



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# Method of ICP Multi-element Analyses

- (a) 0.50 grams of sample is digested with diluted aqua regia solution by heating in a hot water bath for 90 minutes, then cooled, bulked up to a fixed volume with demineralized water, and thoroughly mixed.
- (b) The specific elements are determined using an Inductively Coupled Argon Plasma spectrophotometer. All elements are corrected for inter-element interference. All data are subsequently stored onto computer diskette.
  - \* Aqua regia leaching is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

#### **QUALITY CONTROL**

The machine is calibrated using six known standards and a blank. Another blank, which was digested with the samples, and a standard are tested before any samples to confirm the calibration. A maximum of 20 samples are analysed, and then a standard, also digested with the samples, is run. A known standard with characteristics best matching the samples is chosen and tested. Another 20 samples are analysed, with the last one being a random reweigh of one of the samples. The standard used at the beginning is rerun. This procedure is repeated for all of the samples.

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# Method of Silver & Gold Analyses by Fire Assay

- (a) 1/4 to 1 assay tonne of the pulp sample is mixed with a combination of fluxes in a fusion pot and fused at a high temperature to form a lead "button".
- (b) The precious metals are extracted by cupellation and weighed as a dore bead. The silver is then dissolved with diluted nitric acid and decanted.
- (c) The resulting gold bead is annealed and weighed using a Sartorius micro-balance. The weight lost from the original bead is used to calculate the silver content. Both the silver and the gold are reported in Ounces per short tonne (OPT).

## QUALITY CONTROL

- Every fusion of 24 pots contains 22 samples, one internal standard or blank, and a random reweigh of one of the samples.
  - Anomalous gold values greater than 0.2 OPT and silver values greater than 1.0 OPT are automatically checked.
- Any indication of other precious metals is noted on the final report.