

# **ASSESSMENT EVALUATION REPORT**

## **DAWSON MINING DISTRICT**

**NORDLING & RUDIS**

094187

**HENDERSON DOME AREA  
1150-6 & 1150-7**

### **QUARTZ MINING CLAIMS:**

**CHER 1-16 (YC16134-YC16149)  
BON 1-4 (YC16150-YC16153)**

**Assessment Period: 1998-1999**

**Prepared By:  
Albert Rudis**

**April 11, 2000**

This report has been examined by  
the Geological Exploration Unit  
under Section 101 (S) Yukon Quartz  
Mining Act and is attested as  
representative work in the amount  
of \$ 5000.00.

for M. B. [Signature]  
Regional Manager, Exploration and  
Geological Services for Commissioner,  
of Yukon Territory.

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1. REPORT: This report covers work accomplished in 1999:

a) Claim Information: Covered is work on the following Mining Claims:

1. CHER 1-16 (YC16134 -YC16149) owned by Ralph Nordling and Al Rudis
2. BON 1- 4 (YC16150-YC16153) owned by Ralph Nordling and Al Rudis

b) Location Map: The general location of the claims is given in Appendix 2.

c) Claim Maps: Claim location is shown in Appendix 3 .

2. GEOLOGY AND PREVIOUS RELEVANT INVESTIGATION:

a) General Geology:

1. The Canadian Department of Mines and Resources map 711A, illustrates the general geological environment of the area. It shows it as being underlain by Precambrian and later gneissic granite.
2. Carmacks volcanics cover the area. Yukon group limestone and andesite are in the area.
3. Considerable placer mining has been carried out on nearby Henderson and Moosehorn Creeks.

d) Previous Work:

1. The claim area has had considerable *shallow cat trenching* along the road-way in the center of the claim groups. From the age of the trash left behind, it appears to have been done in the 1970's. No record of work could be found at the Mining Recorder's Office.
2. J. Peter Ross has recently located the *Nina Quartz Claim Group* about 3km to the West of our claim group. Using a system of deeper soil sampling and screening to -200 mesh, Mr. Ross was able to get sample values sufficient to option the property to Copper Ridge Mining.

3. SURFACE EVALUATION:

a) *54 Samples* of bedrock were taken of bedrock outcropping along the Henderson Creek road, along which the center of the claim groups is located.

b) *Results* indicate that there is a possible epithermal or deeper seated intrusive gold deposit within or adjacent to the areas covered by the claim groups.

1. *Results of field work, assay and analysis point to the entire claim area as a specific targets area. It indicates that a major gold deposition event may taken place in the claim group or its immediate area.*
2. *A major gold deposit is possible within or adjacent to the claim group, or in its general area.*
3. *Based on minerals found, the bleached/altered nature of the rocks, the presence of one relatively high grade sample, and wide-spread presence of barite, the Deposit type that is particularly possible within the area is epithermal gold, possibly a low sulphidization type. There is also the possibility of an associated deep seated intrusive.*
4. *Missing key data include: identification of areas of concentrated high value, geologic structure, and low level magnetic survey.*
5. *"As the Carmack's Volcanics are correlated to the volcanics of Yosemite, California (moved up here intact over the course of 70 million years), the more thoroughly explored Yosemite area should be researched for possible models and model matches."*

b) Recommendations:

1. *Extend sampling to include soil sampling under grid control.*
2. *Utilize deeper soil and -270 mesh sampling techniques wherever possible.*
3. *Grab sample in a tight controlled grid in the area of the best sample value.*
4. *Conduct magnetic survey.*
5. *Consider an IP survey.*
6. *Do a literature search of economic deposit models in volcanics of the Yosemite, California area.*
7. *Extend exploration to the tungsten and other anomalies on the West side of the Henderson Dome.*

CERTIFICATION OF COSTS OF EVALUATION QUARTZ CLAIMS CHER 1-16 (YC16134 -YC16149) and BON 1- 4 (YC16150-YC16153).

On behalf of the claim holders, the following expenditures are *Certified* by Albert Rudis to have been made in the evaluations of Quartz Claims CHER 1-16 (YC16134 -YC16149) and BON 1- 4 (YC16150-YC16153):

2 days prospecting and sampling of exposed bedrock. May 16<sup>th</sup> and 17<sup>th</sup>.

4 man days @\$250/day (for Nordling and Rudis)	\$1000.00
Travel mileage - Dawson to Henderson (388 km)	\$178.48

2 days prospecting/locating and sampling bedrock. June 5<sup>th</sup> 6<sup>th</sup>.

4 man days @\$250/day (for Nordling and Rudis)	\$1000.00
Travel Mileage - Dawson to Henderson (396 km)	182.16

1 day prospecting, tracing bedrock and sampling. July 27<sup>th</sup>.

2 man days @\$250/day (for Nordling and Rudis)	\$ 500.00
Travel Mileage - Dawson to Henderson (390 km)	179.40

2 topo maps for Henderson Area - May 15 <sup>th</sup>	20.34
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Assay Work Receipts:

Ship sample to Whitehorse - May 20 <sup>th</sup>	23.01
18 samples - May 19	247.77
44 samples - Jun 07 <sup>th</sup>	1007.94
11 samples - Jul 26 <sup>th</sup>	<u>250.38</u>
Total Assay:	1529.10

Report Writing;

3 full days by Al Rudis @\$325/day	975.00
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Total Applied to Assessment:

Prospecting days in field:	\$2500.00
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Travel Costs:	540.04
Topo Maps:	20.34
Assay Ratio Cost: (of 73 samples 54 @ Henderson 50 on Claims 50/73)	1047.32
Report Writing:	<u>975.00</u>
<b>Total Applied To Assessment:</b>	<b>\$5083</b>

  
Albert Rudis



## STATEMENT OF QUALIFICATIONS

*Albert Rudis* has 14 years of experience in exploration and evaluation of mining properties. 9 years of this was in Nevada, where for over five years he served as the President of Nevada International, Inc., a small Nevada mining exploration and development corporation. Mr. Rudis also has extensive research and analytical experience with the U.S. Government, five years of which was in scientific research and development as an operations research analyst at a U.S. Navy Laboratory. For the past five years Mr. Rudis has lived in Dawson City, Yukon. During this period he has been involved in placer mining on a full time basis, and has conducted exhaustive research into both historical and current placer mining operations and procedures. He has assisted and advised local miners on a voluntary basis as requested, and has consulted with select local placer miners with emphasis on ground evaluation, processing plant effectiveness, and drilling procedure. Mr. Rudis has a BS degree in Geology from Trinity College, Connecticut, and an MBA from the University of Oregon. He attended the Geoscience Forum in Whitehorse in 1998 and 1999.

*Ralph Nordling* has over 20 years of hands-on experience in placer mining. He has worked in equipment operations and maintenance for several major local placer miners. Mr. Nordling has a heritage in Klondike Placer mining and grew up as part of a successful family operated placer operation. He is familiar with all aspects of Placer Mining from ground exploration and evaluation, to development and production. Mr. Nordling is also a trained geologic technician. He attended the Geoscience Forum in Whitehorse in 1998.

  
Albert Rudis

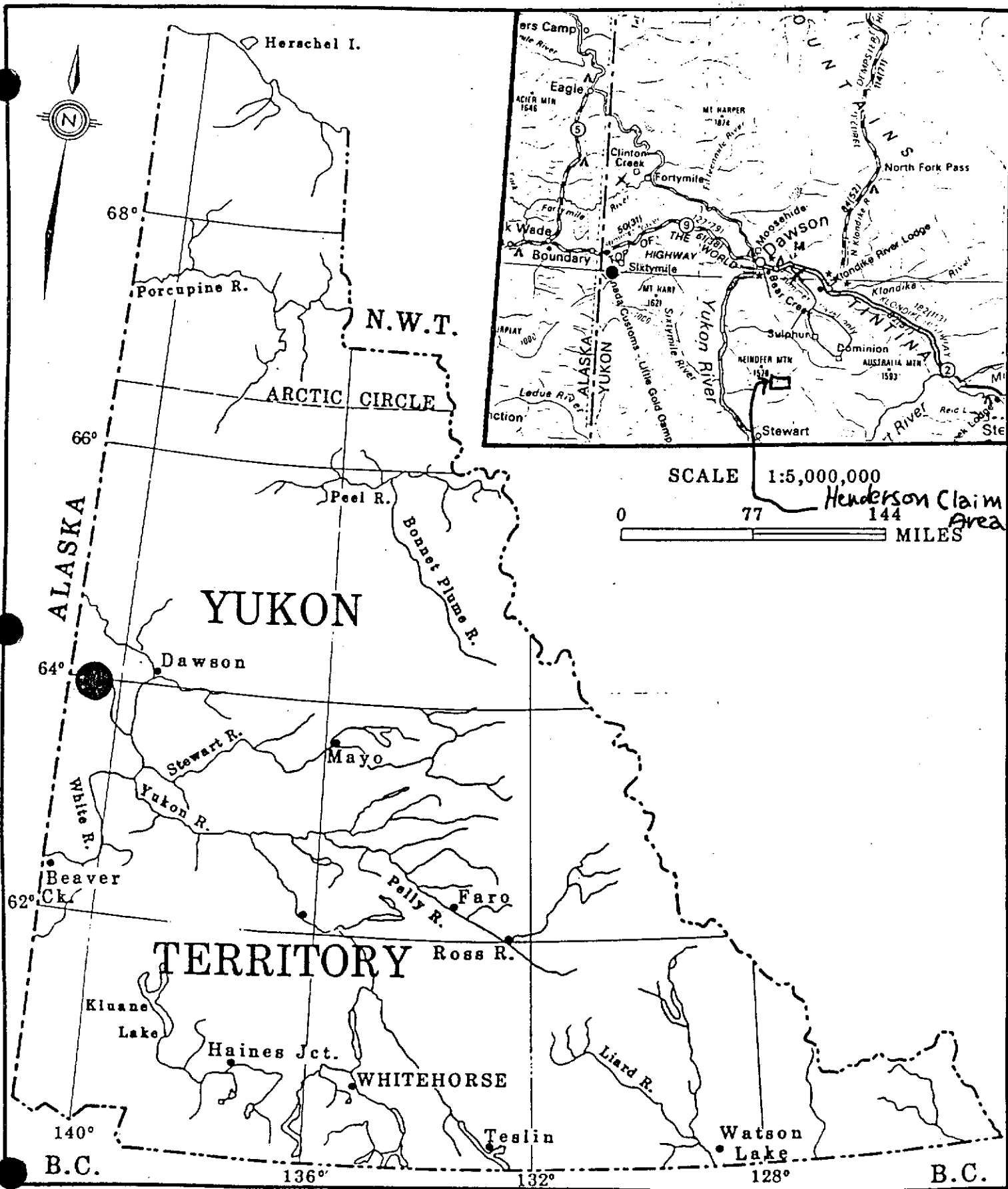
Henderson Sample Number	Description	Assay Highlights
HR1A Map No. 1	Bleached felsic volcanic, Mostly quartz, shows weathered limonite and magnetite. Vuggy were pyrite weathered	<b>23ppb Au</b> , 0.2ppm Ag, 10ppm Cu, 5ppm Pb, 28ppm Zn, <b>37ppm Mo</b> , <b>3.5ppm Cd</b> , 82ppm Cr, 2.43% Fe
HR2 Map No. 2	Bleached, limonite stained granitic rock with quartz, feldspar and hornblende.	<b>180ppb Au</b> , 0.1ppm Ag, 4ppm Cu, 8ppm Pb, 41ppm Zn, <b>14ppm As</b> , <b>2ppm Mo</b> , <b>1.7ppm Cd</b> , 34ppm Cr, 1.08% Fe
HR3A Map No. 3	Highly altered yellow-ivory granitic rock with quartz, feldspar, hornblende, magnetite. Limonite stained.	<b>8ppb Au</b> , 0.1ppm Ag, 7ppm Cu, <b>14ppm Pb</b> , 61ppm Zn, 1ppm Mo, <b>3.4ppm Cd</b> , 47ppm Cr, <b>764ppm Mn</b> , 2.19% Fe, 265ppm Ba
HR3B Map No. 4	Greenish felsic volcanic with quartz, feldspar and hornblende. Porphyry - small to large inclusions of quartz and hornblende.	<b>20ppb Au</b> , 9ppm Cu, 10ppm Pb, 66ppm Zn, 1ppm Mo, <b>8ppm As</b> , <b>2.2ppm Cd</b> , <b>39ppm Ni</b> , 63ppm Cr, 1.76% Fe, 124ppm Ba
HR4 Map No. 5	Black and white (salt and pepper) granitic rock. Quartz, K-feldspar, hornblende showing transition to biotite. Possible Rhyolite.	<b>14ppb Au</b> , 1ppm Cu, 7ppm Pb, 10ppm Zn, 1ppm Mo, 100ppm Cr, 0.32% Fe
HR5 Map No. 6	Thin layered, high quartz, quartz-muscovite schist.	<b>23ppb Au</b> , 0.2ppm Ag, 5ppm Cu, <ppm Pb, 6ppm Zn, <b>4ppm Mo</b> , <b>5ppm W</b> , <b>250ppm Cr</b> , 0.62% Fe, <b>9ppm As</b>
CTQM Map No. 7	Highly bleached quartz, feldspar volcanic with sparse weathered pyrite. Possible quartz monzonite.	<b>2280ppb Au</b> , <b>0.7ppm Ag</b> , 20ppm Cu, <b>28ppm Pb</b> , <b>315ppm Zn</b> , <b>65ppm Sb</b> , <b>4ppm Mo</b> , <b>3.7ppm Cd</b> , 30ppm Ni, 552ppm Ba, 25ppm Cr, 2.30% Fe, 552ppm Ba, <b>2696ppm As</b>
HR1-BR Map No. 8	Light colored, felsic volcanic breccia. Possible andesite. In immediate area of other HR1 samples.	<5ppb Au, 13ppm Cu, 13ppm Pb, 61ppm Zn, 1ppm Mo, <b>1.9ppm Cd</b> , 31ppm Cr, <b>59ppm V</b> , 2.25% Fe, 287ppm Ba, <b>16ppm As</b>
HR1-AM	Light colored, medium fine felsic volcanic. Possibly	<5ppb Au

Map No. 9	andesite. In immediate area of other HR1 samples.	
HR1-ACC Map No. 10	Relatively coarsely crystalline, light colored volcanic. In immediate area of other HR1 samples.	<5ppb Au
HR1-UA Map No. 11	Unaltered, relatively coarse, felsic volcanic. In immediate area of other HR1 samples.	<5ppb Au, 0.1ppm Ag, 5ppm Cu, 4ppm Pb, 20ppm Zn, <b>2ppm Mo, 1.8ppm Cd, 53ppm Cr, 0.96% Fe, 192ppm Ba, 14ppm As, 5ppm W</b>
HR1-UAF Map No. 12	Unaltered, medium fine, felsic volcanic. In immediate area of other HR1 samples.	<5ppb Au
HR2 Map No. 13	Altered light felsic volcanic. Taken from old Cat cut.	<b>12ppb Au, 0.7ppm Ag, 12ppm Cu, 134ppm Pb, 221ppm Zn, 3ppm Mo, 5.2ppm Cd, 21ppm Cr, 4.03% Fe, 304ppm Ba, 52ppm V</b>
HR3 Map No. 14	Bleached, relatively light colored felsic volcanic. 25' exposed.	<b>8ppb Au</b>
HR3A Map No. 15	25' feet from HR3. Same rock type, but lighter color.	<b>14ppb Au</b>
HR4 Map No. 16	Slightly altered felsic volcanic.	<5ppb Au
HR5 Map No. 17	Moderated altered felsic volcanic	<5ppb Au
HR6 Map No. 18	Chalky gray, bleached, dense and soft, limestone.	<5ppb Au
HR7 Map No. 19	Chalky brownish gray, bleached, dense and soft, limestone.	<5ppb Au
HR8 Map No. 20	250'-300' exposure of light altered volcanic. Possibly andesite. Some Breccia. Some pyrite locally. Spotty silvery mineralization.	<5ppb Au, 8ppm Cu, <b>21ppm Pb, 44ppm Zn, 1ppm Mo, 2.1ppm Cd, 50ppm Cr, 1.06% Fe, 966ppm Ba, 17ppm As</b>
HR9 Map No. 21	Same area as HR8, but at bottom of Cat cut. Light altered volcanic. Possibly andesite. Some Breccia. Silvery pyrite.	<5ppb Au, 7ppm Cu, <b>13ppm Pb, 38ppm Zn, 1ppm Mo, 1.7ppm Cd, 39ppm Cr, 0.96% Fe, 407ppm Ba, 9ppm As</b>

HR10 Map No. 22	Cat pit, same area as HR9. Soft, gray, limey felsic volcanic with small amount silvery pyrite.	<5ppb Au
HR10A Map No. 23	Same area as HR10. Slightly altered, gray felsic volcanic.	<5ppb Au
HR11 Map No. 24	Barren looking mica schist.	<5ppb Au
HR12 Map No. 25	Gray, brecciated, lightly altered, felsic volcanic	<5ppb Au, 4ppm Cu, 5ppm Pb, 28ppm Zn, 1ppm Mo, <b>1.2ppm Cd</b> , 99ppm Cr, 0.71% Fe, 132ppm Ba, <b>14ppm As</b>
HR13 Map No. 26	More altered version of HR12. Black matrix and gossan.	<5ppb Au, 21ppm Cu, 12ppm Pb, <b>95ppm Zn</b> , <b>3ppm Mo</b> , <b>3.6ppm Cd</b> , <b>14ppm Co</b> , 47ppm Cr, <b>4.05% Fe</b> , 364ppm Ba, 364ppm Ba, <b>120ppm V</b> , <b>849ppm Mn</b> , <b>26ppm As</b>
HR14 Map No. 27	Altered felsic volcanic. Dense, dark, black crystalline faces.	<5ppb Au, 0.1ppm Ag, 14ppm Cu, 10ppm Pb, <b>86ppm Zn</b> , <b>4ppm Mo</b> , 2.8ppm Cd, 38ppm Cr, <b>4.07% Fe</b> , 456ppm Ba, <b>100ppm V</b>
HR16 Map No. 28	Zone of bleached, felsic volcanics. Possible andesite.	<5ppb Au
HR17 Map No. 29	Purplish volcanic breccia.	<5ppb Au
HR18 Map No. 30	Unaltered purplish breccia.	<5ppb Au, 8ppm Cu, 8ppm Pb, 47ppm Zn, 1ppm Mo, <b>2.8ppm Cd</b> , 45ppm Cr, 1.69% Fe, 145ppm Ba, <b>5ppm As</b>
HR18A Map No. 31	Same area as 18. Felsic volcanic. Denser, not brecciated	4ppb Au, 7ppm Cu, 9ppm Pb, 38ppm Zn, 1ppm Mo, <b>2.9ppm Cd</b> , 33ppm Cr, <b>1295ppm Mn</b> , 1.55% Fe, 196ppm Ba, <b>11ppm As</b> , <b>9ppm W</b>
HR19 Map No. 32	Basalt like volcanic with olivine. Seems to grade to light felsic volcanic. (We have a discrepancy between assay sources. We need to have all <5ppm Au run again.)	<b>16ppb Au</b> , 0.1ppm Ag, 16ppm Cu, 11ppm Pb, 72ppm Zn, 1ppm Mo, <b>2.3ppm Cd</b> , <b>16ppm Co</b> , <b>134ppm Ni</b> , 74ppm Cr, <b>52ppm V</b> , <b>2.82% Fe</b> , 233ppm Ba, <b>16ppm As</b>
HR20 Map No. 33	Light felsic volcanic. Purplish chalky cast. Dark laths - some reddish. (We have a discrepancy between assay	<b>11ppb Au</b> , 7ppm Cu, 4ppm Pb, 54ppm Zn, 1ppm Mo, <b>2.7ppm Cd</b> , 54ppm Cr, 1.43% Fe, <b>11ppm As</b> , 119ppm

Map No. 43	between assay sources. We need to have all <5ppm Au run again.)	<b>6.6ppm Cd, 18ppm Cr, 52ppm V, 3.00% Fe, 105ppm Ba, 15ppm As</b>
HR31 Map No. 44	Highly bleached quartz, feldspar volcanic with sparse weathered pyrite. Possible quartz monzonite. Looks similar to high value CTQM. Also associated with greener version. 20" by 50' exposed in Cat cut.	<5ppb Au, 9ppm Cu, 12ppm Pb, 77ppm Zn, <b>1.7ppm Cd, 18ppm Cr, 59ppm V, 2.46% Fe, 22ppm As, 6ppm W</b>
HR32 Map No. 45	Similar to HR31, but with fewer vugs. At another Cat cut about 300' away.	<5ppb Au, 13ppm Cu, <b>13ppm Pb, 63ppm Zn, 1ppm Mo, 2.1ppm Cd, 20ppm Cr, 64ppm V, 2.37% Fe, 251ppm Ba, 18ppm As</b>
HR33 Map No. 46	Mica schist.	<5ppb Au, 9ppm Cu, <2ppm Pb, 49ppm Zn, <b>1.7ppm Cd, 77ppm Cr, 2.06% Fe, 146ppm Ba, 22ppb As</b>
HR34 Map No. 47	Greenish, largely unaltered volcanic. Looks mafic with an apple green cast throughout. (We have a discrepancy between assay sources. We need to have all <5ppm Au run again.)	7ppb Au, 8ppm Cu, 6ppm Pb, 52ppm Zn, <b>2ppm Mo, 2.2ppm Cd, 29ppm Ni, 38ppm Cr, 1.31% Fe, 9ppm As, 5ppm W</b>
HRJ-1 Map No. 48	Bleached, altered felsic volcanic with limonite after feldspar laths. Possible andesite.	<5ppb Au, 11ppm Cu, <b>36ppm Pb, 34ppm Zn, 2ppm Mo, 46ppm Cr, 1.03% Fe, 154ppm Ba, 17ppm As</b>
HRJ-2 Map No. 49	Altered dense felsic volcanic. Manganese dendrites along seams.	<5ppb Au, 6ppm Cu, <b>30ppm Pb, 43ppm Zn, 2ppm Mo, 55ppm Cr, 1.00% Fe, 243ppm Ba, 22ppm As</b>
HRJ-3 Map No. 50	Altered dense volcanic. Looks jasperoidal. Cream color.	<5ppb Au, 6ppm Cu, <b>36ppm Pb, 38ppm Zn, 1ppm Mo, 36ppm Cr, 0.95% Fe, 356ppm Ba, 28ppm As</b>
HRJ-4 Map No. 51	Largely unaltered felsic volcanic. Possible andesite	<5ppb Au, <b>0.2ppm Ag, 23ppm Cu, 39ppm Pb, 102ppm Zn, 3ppm Mo, 31ppm Cr, 121ppm V, 1390ppm Mn, 186ppm Sr, 4.28% Fe, 463ppm Ba, 3.49% Ca, 1.14% Mg, 30ppm As, 6ppm W</b>
HRJ-5 Map No. 52	High quartz schist with pink staining and small pieces of pyrite.	<5ppb Au, 6ppm Cu, 4ppm Pb, 6ppm Zn, 1ppm Mo, 78ppm Cr, 0.40% Fe
HRJ-6	Denser form of quartz schist/gneiss, with pink staining.	<5ppb Au, 8ppm Cu, 9ppm Pb, 41ppm Zn, 1ppm Mo,

Map No. 53		77ppm Cr, 1.67% Fe, 138ppm Ba, 16ppm As
HRJ-7 Map No. 54	Light gray felsic volcanic that grades to a breccia In Cat trench 300' long. 100' exposed bedrock shows pyrite. Trench 4' deep.	<5ppb Au, 5ppm Cu, 15ppm Pb, 84ppm Zn, 2ppm Mo, 35ppm Cr, 956ppm Mn, 64ppm Sr, 3.16%Ca, 0.49%Mg, 2.56% Fe, 890ppm Ba, 32ppm As



68°

Porcupine R.

N.W.T.

ARCTIC CIRCLE

66°

Peel R.

Boasst Fluss R.

YUKON

Dawson

Stewart R.

Mayo

Yukon R.

White R.

Beaver Ck.

Pelly R.

Faro

TERRITORY

Ross R.

Kluane Lake

Haines Jct.

WHITEHORSE

Liard R.

Teslin

Watson Lake

140°

B.C.

136°

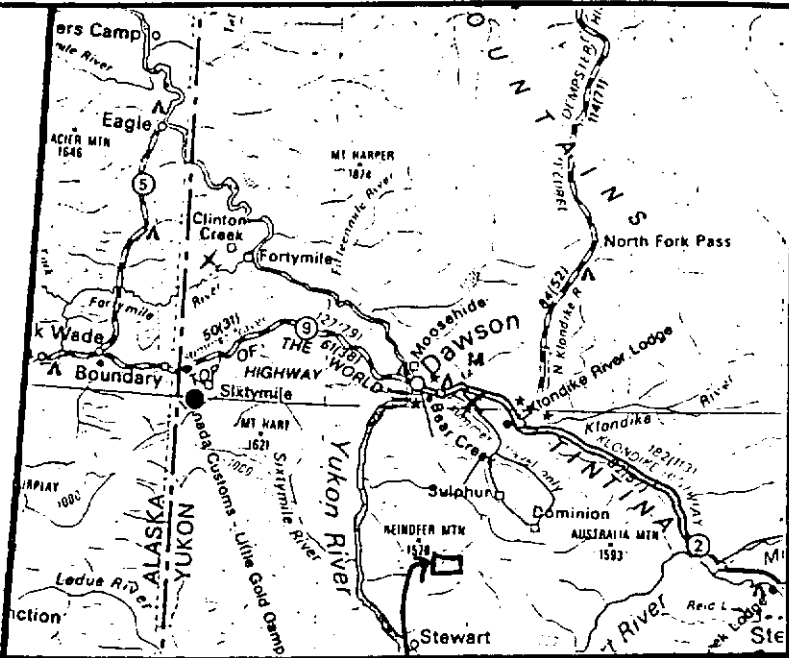
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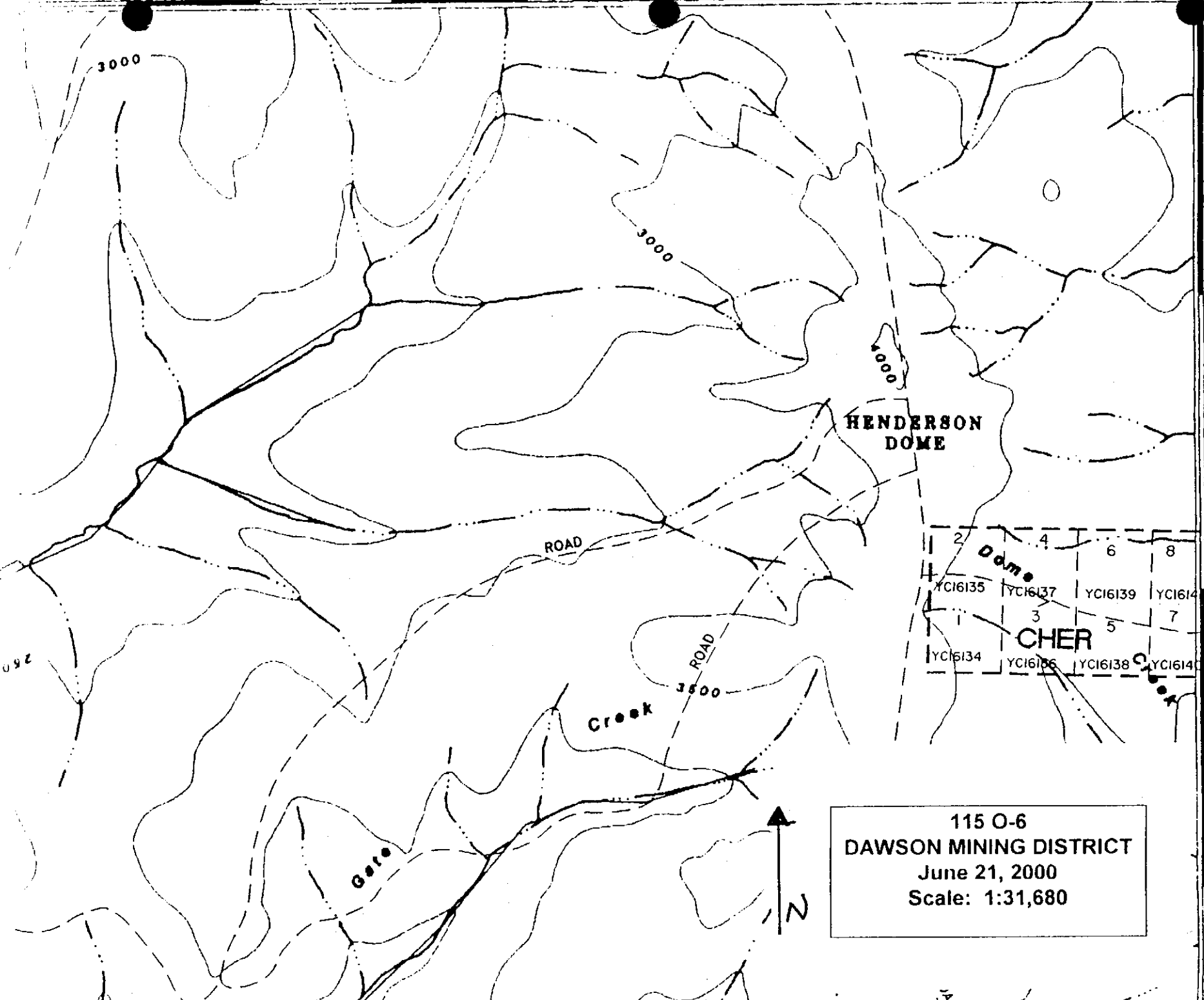
128°

B.C.

SCALE 1:5,000,000

0 77 144 MILES  
Henderson Claim Area

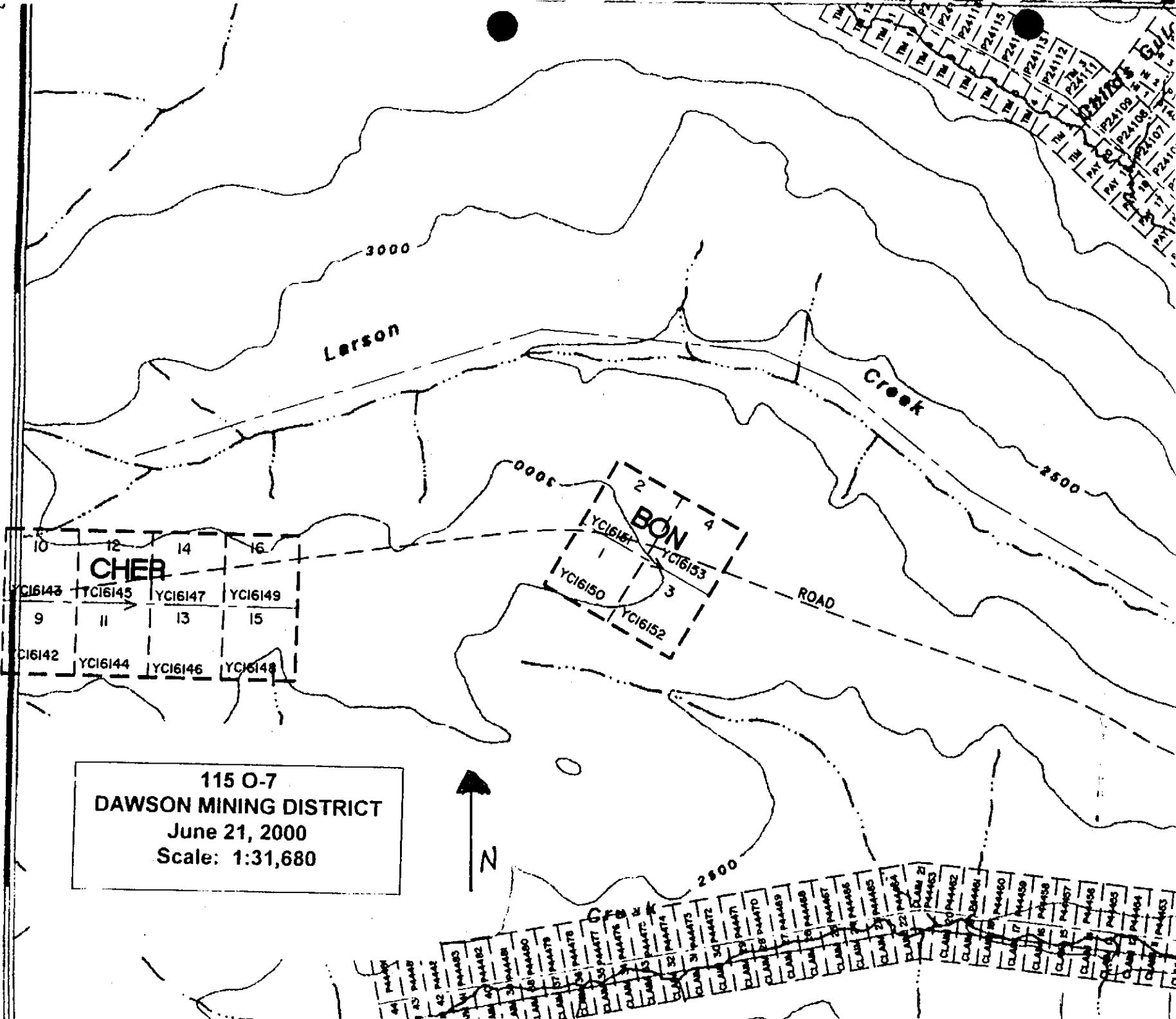




115 O-6  
 DAWSON MINING DISTRICT  
 June 21, 2000  
 Scale: 1:31,680

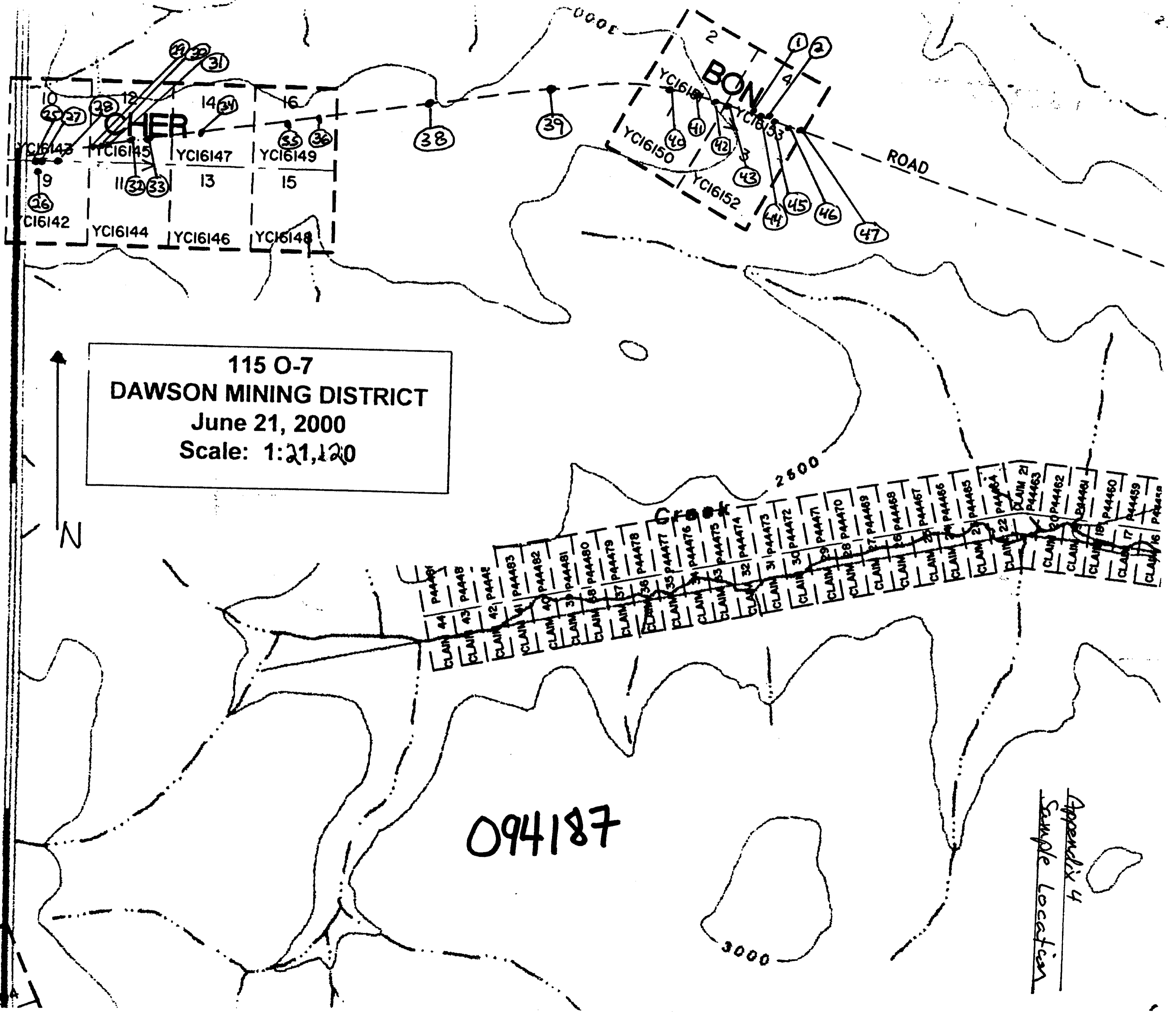
Appendix 3(a)  
Claim Maps





115 O-7  
 DAWSON MINING DISTRICT  
 June 21, 2000  
 Scale: 1:31,680

Appendix 3(5)



115 O-7  
 DAWSON MINING DISTRICT  
 June 21, 2000  
 Scale: 1:21,120

094187

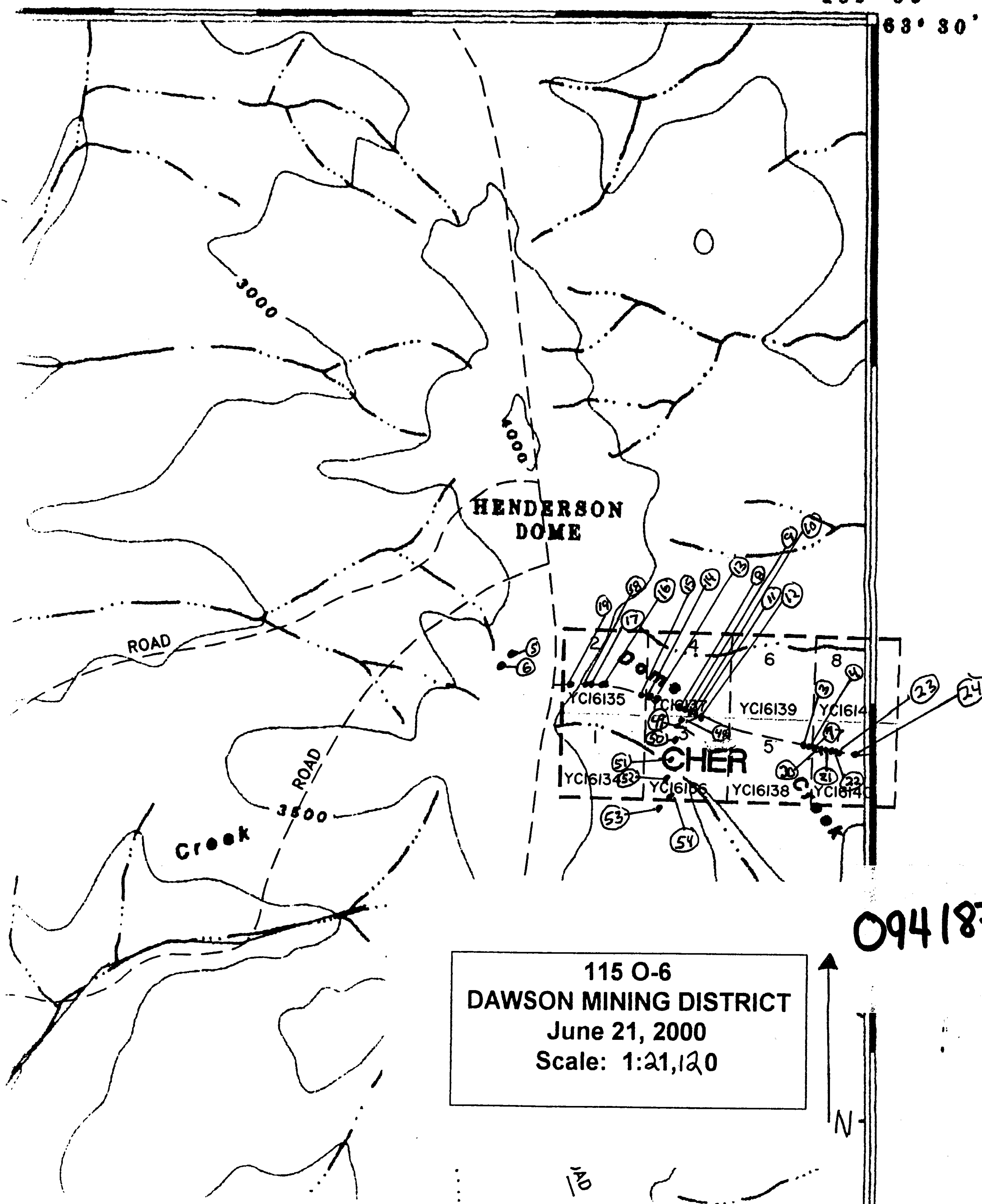
Appendix 4  
 Sample Location

05'

Appendix 4 - Sample location

189° 00'

63° 30'



115 O-6  
 DAWSON MINING DISTRICT  
 June 21, 2000  
 Scale: 1:21,120

094187

N

110

# CERTIFICATE OF ANALYSIS

## IPL 99E0347

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

INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories  
Project: None Given

**18 Samples**  
7=Pan Conc. 11=Rock

[034709:59:29:99050799]

Out: May 07, 1999  
In : May 03, 1999

Page 1 of 1  
Section 1 of 2

Sample Name	Type	Wt g	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Ti ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm
7-10 Pan1	Pan Conc.	10.227	2410	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7-10 Pan2	Pan Conc.	2.421	1850	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7-10 Pan3	Pan Conc.	33.112	4960	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7-10 Pan5	Pan Conc.	8.526	263	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
JBBB	Pan Conc.	208.040	254m	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
JFOF	Pan Conc.	233.470	3800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
JSCS	Pan Conc.	111.290	374m	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HR1A	Rock	—	23	0.2	10	5	28	<5	<5	<3	37	<10	<2	3.5	2	4	36	<5	82
HR2	Rock	—	180	0.1	4	8	41	14	<5	<3	2	<10	<2	1.7	2	3	75	<5	34
HR3A	Rock	—	8	0.1	7	14	61	<5	<5	<3	1	<10	<2	3.4	4	7	265	<5	47
HR3B	Rock	—	20	<0.1	9	10	66	8	<5	<3	1	<10	<2	2.2	7	39	124	<5	63
HR4	Rock	—	14	<0.1	1	7	10	<5	<5	<3	1	<10	<2	0.3	<1	2	57	<5	100
HR5	Rock	—	23	0.2	5	<2	6	9	<5	<3	4	<10	<2	0.6	1	8	76	5	250
CTQM	Rock	—	2280	0.7	20	28	315	2696	65	<3	4	<10	<2	3.7	6	30	552	<5	25
MCS	Rock	—	19	0.2	702	14	339	111	<5	<3	2	61	<2	14.5	17	169	279	<5	411
WR1	Rock	—	15	<0.1	80	5	83	51	<5	<3	1	<10	<2	6.1	29	24	746	<5	34
YKQ	Rock	—	16	0.2	5	<2	6	5	<5	<3	2	<10	<2	0.2	<1	4	601	<5	122
SOMQT	Rock	—	6	<0.1	5	<2	3	<5	<5	<3	2	<10	<2	0.7	1	7	26	<5	298

*Appendix 5.*

Minimum Detection	0.001	5	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1
Maximum Detection	999.000	10000	100.0	20000	20000	20000	10000	1000	10000	1000	1000	10000	100.0	10000	10000	10000	1000	10000
Method	Spec	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample



# CERTIFICATE OF ANALYSIS

## iPL 99F0431

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

INTERNATIONAL PLASMA LABORATORY LTD.

Client : Northern Analytical Laboratories  
 Project: None Given

**1 Samples**  
 1=Pulp

[043114:38:36:99060199]

Out: Jun 01, 1999  
 In : Jun 01, 1999

Page 1 of 1  
 Section 1 of 1

Sample Name	Type	Au g/mt	Te ppm
CTQM	Pulp	2.30	<10

Minimum Detection                    0.07    10  
 Maximum Detection                 9999.00 10000  
 Method                                 FAGrav    ICP

—=No Test    Ins=Insufficient Sample    Del=Delay    Max=No Estimate    Rec=ReCheck    m=x1000    %=Estimate %    NS=No Sample

Jun 6, 99

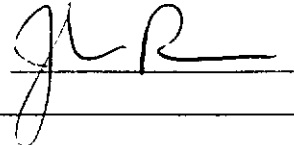
08/06/99

Certificate of Analysis

Page 1

Al Rudis

WO# 05652

Certified by 

Sample #	Au ppb
r HR1-ACC	<5
r HR1-AM	<5
r HR1-BR	<5
r HR1-UA	<5
r HR1-UAF	<5
r HR-2	12
r HR-3	8
r HR-3A	14
r HR-4	<5
r HR-5	<5
r HR-6	<5
r HR-7	<5
r HR-8	<5
r HR-9	<5
r HR-10	<5
r HR-10A	<5
r HR-11	<5
r HR-12	<5
r HR-13	<5 - 2
r HR-14	<5
r HR-16	<5
r HR-17	<5
r HR-18	<5
r HR-18A	<5 - 4
r HR-19	<5 - 15
r HR-20	<5 - 10
r HR-21	<5
r HR-23	<5
r HR-24	<5
r HR-24A	<5

08/06/99

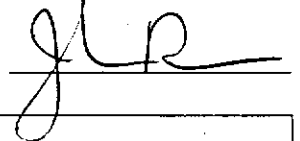
Certificate of Analysis

Page 2

Al Rudis

WO# 05652

Certified by



Sample #	Au ppb
r HR-25	<5
r HR-26	5
r HR-27	6
r HR-28	<5
r HR-29	<5 - 8
r HR-30	<5 - 15
r HR-31	<5
r HR-32	<5
r HR-33	<5
r HR-34	<5 - 7
r EUR-1	<5
r EUR-3	<5
r DOM-LPS	<5
r DOM-3MS	<5



# CERTIFICATE OF ANALYSIS

ipl 99F0441

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

INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories  
Project: WO#05652

27 Samples  
27=Pu/p

[044110:51:48:99060799]

Out: Jun 07, 1999  
In : Jun 02, 1999

Page 1 of 1  
Section 1 of 2

Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm
EUR-1	Pu/p	—	—	—	<0.1	73	27	355	<5	<5	<3	<1	136	<2	14.9	18	119	156	<5
EUR-3	Pu/p	—	—	—	<0.1	73	25	188	<5	<5	<3	2	<10	<2	9.8	13	85	148	<5
HR1-BR	Pu/p	—	—	—	<0.1	13	13	61	16	<5	<3	1	<10	<2	1.9	7	6	287	<5
HR1-UA	Pu/p	—	—	—	0.1	5	4	20	14	<5	<3	2	<10	<2	1.8	2	2	192	5
HR2	Pu/p	—	—	—	0.7	12	134	221	<5	<5	<3	3	<10	<2	5.2	9	10	304	<5
HR8	Pu/p	—	—	—	<0.1	8	21	44	17	<5	<3	1	<10	<2	2.1	2	4	966	<5
HR9	Pu/p	—	—	—	<0.1	7	13	38	9	<5	<3	1	<10	<2	1.7	2	3	407	<5
HR12	Pu/p	—	—	—	<0.1	4	5	28	14	<5	<3	1	<10	<2	1.2	1	6	132	<5
HR13	Pu/p	<2	<15	<5	<0.1	21	12	95	26	<5	<3	3	<10	<2	3.6	14	16	364	<5
HR14	Pu/p	—	—	—	0.1	14	10	86	<5	<5	<3	4	<10	<2	2.8	11	14	456	<5
HR18	Pu/p	—	—	—	<0.1	8	8	47	5	<5	<3	1	<10	<2	2.8	5	19	145	<5
HR18A	Pu/p	4	<15	<5	<0.1	7	9	38	11	<5	<3	1	<10	<2	2.9	3	15	196	9
HR19	Pu/p	16	<15	<5	0.1	16	11	72	16	<5	<3	1	<10	<2	2.3	16	134	233	<5
HR20	Pu/p	11	<15	<5	<0.1	7	4	54	11	<5	<3	1	<10	<2	2.7	6	33	119	<5
HR21	Pu/p	—	—	—	<0.1	13	6	66	20	<5	<3	2	<10	<2	3.2	7	34	187	<5
HR23A	Pu/p	—	—	—	0.1	9	10	49	6	<5	<3	2	<10	<2	3.4	6	6	94	<5
HR24	Pu/p	—	—	—	0.1	16	19	78	22	<5	<3	2	<10	<2	2.0	10	53	288	<5
HR25	Pu/p	—	—	—	0.1	9	13	49	9	<5	<3	1	<10	<2	3.0	5	5	77	<5
HR26	Pu/p	—	—	—	0.1	13	42	108	9	<5	<3	2	<10	<2	2.3	8	8	106	5
HR27	Pu/p	—	—	—	0.1	7	8	36	16	<5	<3	1	<10	<2	2.8	5	5	101	<5
HR28	Pu/p	—	—	—	<0.1	13	9	72	20	<5	<3	<1	<10	<2	2.1	8	30	143	<5
HR29	Pu/p	8	<15	<5	<0.1	6	5	53	15	<5	<3	1	<10	<2	1.8	5	4	122	<5
HR30	Pu/p	15	<15	<5	<0.1	18	11	61	15	<5	<3	1	<10	<2	6.6	10	6	105	<5
HR31	Pu/p	—	—	—	<0.1	9	12	77	22	<5	<3	<1	<10	<2	1.7	6	6	66	6
HR32	Pu/p	—	—	—	<0.1	13	13	63	18	<5	<3	1	<10	<2	2.1	8	5	251	<5
HR33	Pu/p	—	—	—	<0.1	9	<2	49	22	<5	<3	<1	<10	<2	1.7	7	4	146	<5
HR34	Pu/p	7	<15	<5	<0.1	8	6	52	9	<5	<3	2	<10	<2	2.2	5	29	92	5

Minimum Detection 2 15 5 0.1 1 2 1 5 5 3 1 10 2 0.1 1 1 2 5  
Maximum Detection 10000 10000 10000 100.0 20000 20000 20000 10000 1000 10000 1000 10000 10000 100.0 10000 10000 10000 10000  
Method FA/AAS FA/AAS FA/AAS ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP  
—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample





# CERTIFICATE OF ANALYSIS

## iPL 99G0647

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

INTERNATIONAL PLASMA LABORATORY LTD.

Client : Northern Analytical Laboratories  
Project: W.O. 05685

**11 Samples**  
11=Pulp

[064712:23:34:99080399]

Out: Aug 03, 1999  
In : Jul 27, 1999

Page 1 of 1  
Section 1 of 1

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
HRJ - 1	P <	11	36	34	17	<	<	2	<	<	0.9	3	8	154	<	46	6	371	21	11	19	2	<	0.50	0.09	1.03	0.06	0.11	0.04	0.03
HRJ - 2	P <	6	30	43	22	<	<	2	<	<	0.7	3	12	243	<	55	9	517	21	19	17	1	<	0.59	0.18	1.00	0.13	0.10	0.05	0.03
HRJ - 3	P <	6	36	38	28	<	<	1	<	<	0.9	3	9	356	<	36	8	395	22	19	15	1	<	0.63	0.18	0.95	0.15	0.08	0.05	0.02
HRJ - 4	P 0.2	23	39	102	30	<	<	3	<	<	0.9	11	12	463	6	31	121	1390	31	186	9	10	0.09	1.34	3.49	4.28	1.14	0.11	0.07	0.16
HRJ - 5	P <	6	4	6	<	<	<	1	<	<	0.5	1	3	23	<	78	2	59	19	6	4	<	<	0.19	0.04	0.40	0.02	0.08	0.05	0.01
HRJ - 6	P <	8	9	41	16	<	<	1	<	<	2.7	3	4	138	<	77	6	170	21	8	3	4	0.08	0.75	0.08	1.67	0.11	0.42	0.04	0.01
HRJ - 7	P <	5	15	84	32	<	<	2	<	<	0.2	5	11	890	<	35	27	956	13	64	4	2	<	1.28	3.16	2.56	0.49	0.10	0.04	0.09
MCR - 1	P 0.5	31	182	90	45	<	<	2	<	<	<	10	36	19	5	80	169	2371	24	154	2	5	0.04	1.58	14x	1.93	1.37	0.06	0.01	0.04
MCR - 2	P 0.8	40	131	54	19	<	<	1	<	<	1.7	6	10	31	5	68	22	198	19	10	2	2	0.05	0.60	0.57	1.15	0.40	0.11	0.04	0.13
UKR 18A	P <	15	4	165	8	<	<	1	<	<	3.4	4	20	33	<	160	3	194	2	7	2	1	<	0.08	0.17	0.80	0.02	0.01	0.01	0.02
UKR 18B	P <	22	7	12	<	<	<	1	<	<	0.2	<	5	13	<	165	<	43	<	2	<	<	<	0.02	0.03	0.32	0.01	0.02	0.01	<

Min Limit    0.1    1    2    1    5    5    3    1    10    2    0.1    1    1    2    5    1    2    1    2    1    1    1    1    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01  
 Max Reported\*    99.9    20000    20000    20000    9999    999    9999    999    999    9999    99.9    9999    9999    9999    999    9999    9999    9999    9999    9999    9999    9999    9999    1.00    9.99    9.99    9.99    9.99    9.99    5.00    5.00  
 Method    ICP  
 —=No Test    Ins=Insufficient Sample    Del=Delay    Max=No Estimate    Rec=ReCheck    m=x1000    %=Estimate %    NS=No Sample P=Pulp