Geochemical and Prospecting Report
on the
HOPE 1-56 Claims
Whitehorse Mining District

by

J. Peter Ross, Prospector

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ ~~2600~~ 15,326 MB.

MBurke

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

093530

NTS: 115 H/4
Latitude: 61° 09' N
Longitude: 137° 54' W
Dates Worked: June 28 - July 12, 1996
July 21 - August 11, 1996
Sep. 15 - Sep. 22, 1996

Dated: December, 1996

TABLE OF CONTENTS

LIST OF FIGURES

APPENDICES

Chapter One: SUMMARY and CONCLUSIONS

1.1 Summary

The HOPE 1-20 claims were staked in September 1994. The HOPE 21-56 claims were staked in June 1995.

A government Open File geochemical survey shows the area to be anomalous in arsenic.

Placer gold is present in Ruby Creek in economic amounts.

The area may be similar to the Killer Gold Project, 6 km to the northeast.

The property is underlain by Paleozoic schist.

Work in 1994 consisted of the following;

Sixty-four (64) float samples were taken. Four (4) stream silt samples were taken. One float rock sample assayed 0.789 oz. Au/ton, 7.1 ppm Ag, and 64 ppm As. When wet, 2 pieces of visible gold were observed in the rock. It was an angular, bleached white rock, quartz. Three of four silt samples were highly anomalous for Au in (-80+150) (-150) mesh, and weakly anomalous for arsenic.

Work in 1995 consisted of the following;

No silt samples were taken due to very high water flows in the creek. Forty-six (46) rock samples were taken. Six of these rock samples were anomalous. Values ranged from 481 ppb Au to 1,619 ppb Au and 729 ppm As to 8,793 ppm As.

In 1996, twenty-five (25) silt samples and twenty (20) float samples were taken. Many silt samples were anomalous for gold but not arsenic. Assay results for the float samples was poor.

1.2 Recommendations

The area west and east of silt anomaly H59 should be prospected as well as around the forks at the western end of the claim block.

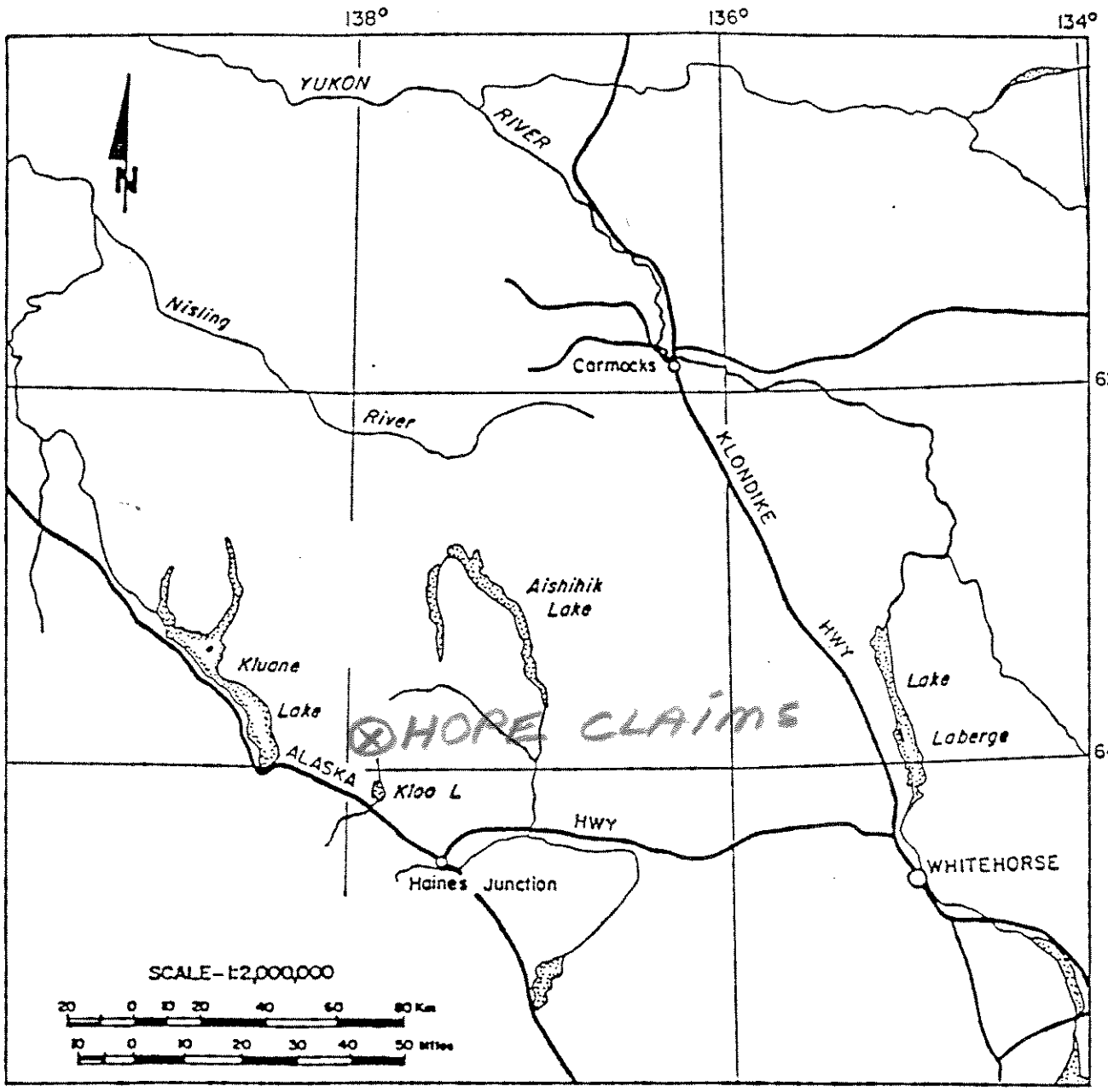


FIGURE # 1

LOCATION MAP

HOPE 1-20 (1994)

HOPE 21-56 (1995)

CLAIMS

95 CLAIMS
HOPE

HOPE
94 CLAIMS

KILLER
AU PROJECT

HOPE
HOPE
HOPE

Chapter Two: INTRODUCTION

2.1 Introductory Statement

From June 28-July 12, 1996, J. Peter Ross prospected on the claims, 7 float samples were taken and tested for Au (30g) and 30 element ICP, 10 silt samples (moss mats) were taken and tested for Au (30g) (-80+150) and (-150) mesh and 30 element ICP.

From July 21-August 11, 1996, J. Peter Ross prospected on the claims, 9 float samples were taken and tested for Au (30g) and 30 element ICP, 12 silt samples (moss mats) were taken and tested for Au (30g) (-80+150) and (-150) mesh and 30 element ICP.

From September 15-September 22, 1996, J. Peter Ross prospected on the claims, 4 float samples were taken and tested for Au (30g) and 30 element ICP, 3 silt samples (moss mats) were taken and tested for Au (30g) (-80+150) and (-150) mesh and 30 element ICP.

2.2 Location And Access

The HOPE 1-56 claims are located 48 kilometers by air to the north of Haines Junction, N.T.S. 115 H/4, latitude 61° 09' North, longitude 137° 54' West (Figure 1). The 56 claims straddle Ruby Creek. Access is by charter helicopter from Haines Junction.

2.3 History

The HOPE 1-56 claims are located in the Aishihik Lake map area (N.T.S. 115 H), reconnaissance geology was by Tempelman-Kluit in 1974.

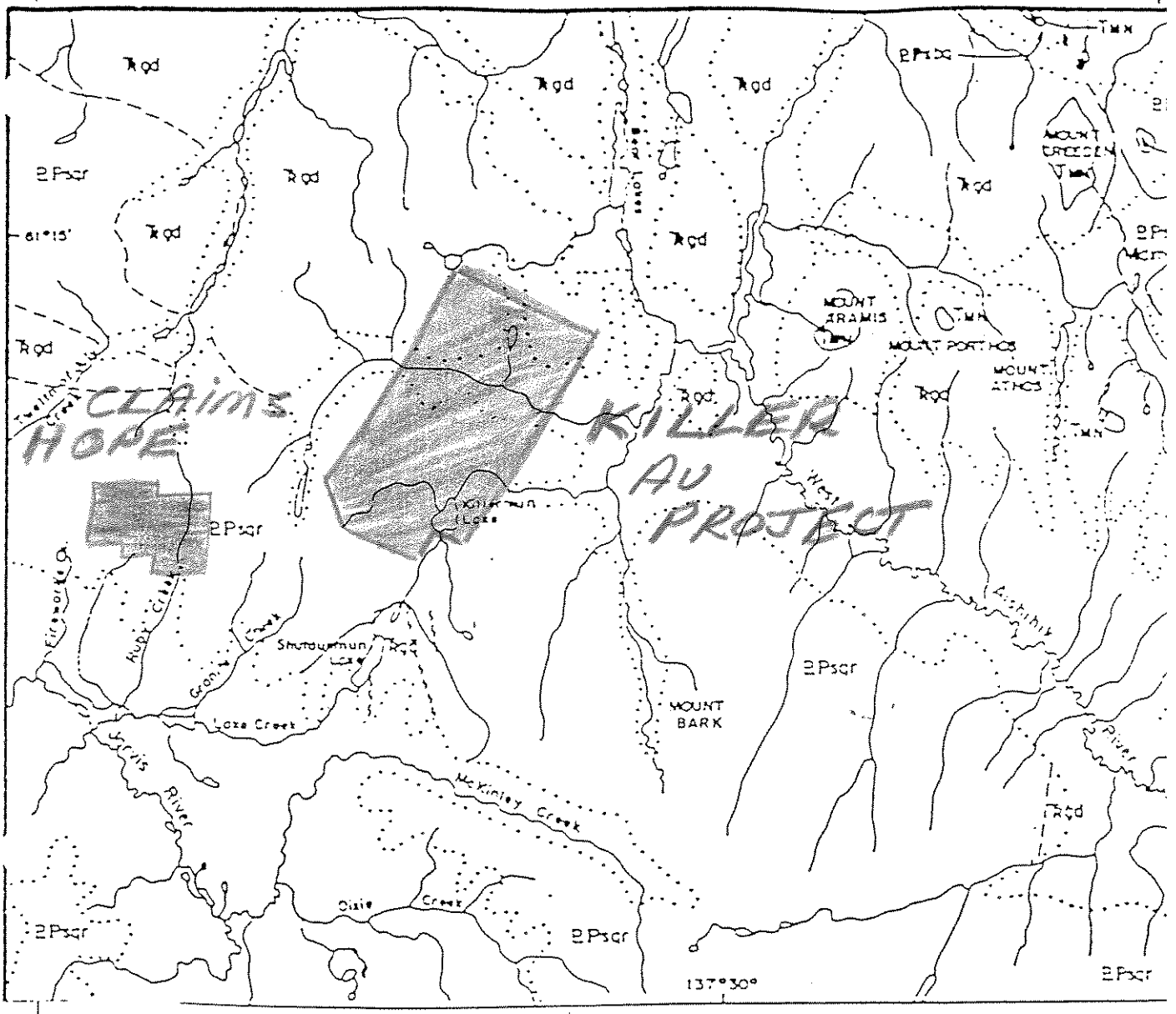
No visible signs of previous hard-rock exploration were observed, no written records of past exploration were found.

The Ruby Range has many small to medium gold placer producing creeks. Debicki and Gilbert, 1986.

Rough, angular (some crystalline) gold has been mined in Ruby Creek and a placer deposit is at present being tested and mined.

Chapter Three: PROPERTY DESCRIPTION

Claim Name	Grant No.	Grouping	Date Staked	Date Recorded	Expiry Date
HOPE 1	YB54665	HA02713	Sept 7, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 2	YB54666	HA02713	Sept 8, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 3	YB54667	HA02713	Sept 8, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 4	YB54668	HA02713	Sept 8, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 5	YB54669	HA02713	Sept 8, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 6	YB54670	HA02713	Sept 8, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 7	YB54671	HA02713	Sept 8, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 8	YB54672	HA02713	Sept 8, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 9	YB54673	HA02714	Sept 10, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 10	YB54674	HA02714	Sept 10, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 11	YB54675	HA02713	Sept 15, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 12	YB54676	HA02713	Sept 15, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 13	YB54677	HA02713	Sept 15, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 14	YB54678	HA02713	Sept 15, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 15	YB54679	HA02713	Sept 15, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 16	YB54680	HA02713	Sept 15, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 17	YB54681	HA02713	Sept 17, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 18	YB54682	HA02713	Sept 17, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 19	YB54683	HA02714	Sept 18, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 20	YB54684	HA02714	Sept 18, 1994	Sept 20, 1994	Sept 20, 1997
HOPE 21	YB57905			June 30, 1995	June 30, 1997
HOPE 22	YB57906			June 30, 1995	June 30, 1997
HOPE 23	YB57907			June 30, 1995	June 30, 1997
HOPE 24	YB57908			June 30, 1995	June 30, 1997
HOPE 25	YB57909			June 30, 1995	June 30, 1997
HOPE 26	YB57910			June 30, 1995	June 30, 1997
HOPE 27	YB57911			June 30, 1995	June 30, 1997
HOPE 28	YB57912			June 30, 1995	June 30, 1997
HOPE 29	YB57913			June 30, 1995	June 30, 1997
HOPE 30	YB57914			June 30, 1995	June 30, 1997
HOPE 31	YB57915			June 30, 1995	June 30, 1997
HOPE 32	YB57916			June 30, 1995	June 30, 1997
HOPE 33	YB57917			June 30, 1995	June 30, 1997
HOPE 34	YB57918			June 30, 1995	June 30, 1997
HOPE 35	YB57919			June 30, 1995	June 30, 1997
HOPE 36	YB57920			June 30, 1995	June 30, 1997
HOPE 37	YB57921			June 30, 1995	June 30, 1997
HOPE 38	YB57922			June 30, 1995	June 30, 1997
HOPE 39	YB57923			June 30, 1995	June 30, 1997
HOPE 40	YB57924			June 30, 1995	June 30, 1997
HOPE 40	YB57925			June 30, 1995	June 30, 1997
HOPE 42	YB57926			June 30, 1995	June 30, 1997
HOPE 43	YB57927			June 30, 1995	June 30, 1997
HOPE 44	YB57928			June 30, 1995	June 30, 1997
HOPE 45	YB57929			June 30, 1995	June 30, 1997
HOPE 46	YB57930			June 30, 1995	June 30, 1997
HOPE 47	YB57931			June 30, 1995	June 30, 1997
HOPE 48	YB57932			June 30, 1995	June 30, 1997
HOPE 49	YB57933			June 30, 1995	June 30, 1997
HOPE 50	YB57934			June 30, 1995	June 30, 1997
HOPE 51	YB57935			June 30, 1995	June 30, 1997
HOPE 52	YB57936			June 30, 1995	June 30, 1997
HOPE 53	YB57937			June 30, 1995	June 30, 1997
HOPE 54	YB57938			June 30, 1995	June 30, 1997
HOPE 55	YB57939			June 30, 1995	June 30, 1997
HOPE 56	YB57940			June 30, 1995	June 30, 1997



EOCENE
TMN – Mount Nansen Group Volcanic Rocks

TRIASSIC
TRGD – Ruby Range Granodiorite

PALEOZOIC
EPsqr – Hornfelsed Schist
EPsbq – Biotite Schist

From Tempelman-Kluit (1974)

FIGURE # 3
REGIONAL GEOLOGY
WH. MINING DIST.
NTS. 115 H 4
DATE 18 NOV 1996
DRAWN by JP ROSS
SCALE 1:250,000

Chapter Four: GEOCHEMICAL SURVEY and PROSPECTING

4.1 General

At each site, material was passed through a -8 mesh screen in order to collect a total of 100g of material for a cyanide bottle-roll test assay for Au (detection limit - 0.2 ppb). Seven of the 25 samples were moss mats taken from bedrock. The sample locations were identified with paint marks on nearby rock.

Forty-six float samples were taken in 1995 when staking the HOPE 21-56 claims. In 1996, 20 more float samples were taken

4.2 Interpretation

In 1995, 6 float rock samples were anomalous, 481-1,619 ppb Au and 729-8,793 ppm As. In 1996 the assay results for the float rocks was poor.

Silt samples HS14-16, HS18, HS20 and HS25 were taken from moss mats on bedrock. Fifty percent of sample HS20 was taken from moss mats on bedrock, the rest of HS20 was from moss mats on float rock.

For comparison, HS18 (from moss on bedrock and in bedrock cracks) and HS19 (moss on round float rocks) were taken in the same area. The same comparison was used for HS25 (from moss on bedrock and in bedrock cracks) and HS24 (moss on round float rocks).

Results of the silt samples show wide spread gold values, the gold being coarse and distribution erratic.

The bedrock concentrated gold in moss. Sample HS9 was not a bedrock moss mat and therefor is **very significant.** HS9 assayed 250 ppb Au and 258 ppb Au (-150) mesh and 134 ppb Au, 2 ppb Au, 171 ppb Au (average-109 ppb Au) (-80+150) mesh.

Glacial till and erratic gold values make the silt sample results difficult to understand.

According to Tom Churchill, a placer miner on 4th of July Creek, fine and coarse grained placer gold was mined in the 50's in a small canyon about 1½ miles west (downstream) from the forks in the western part of the claim area.

Prospecting around (east and west of) HS9 and the forks is warranted.

A mesothermal gold deposit similar to the Killer Gold deposit may be present and have lower arsenic values.

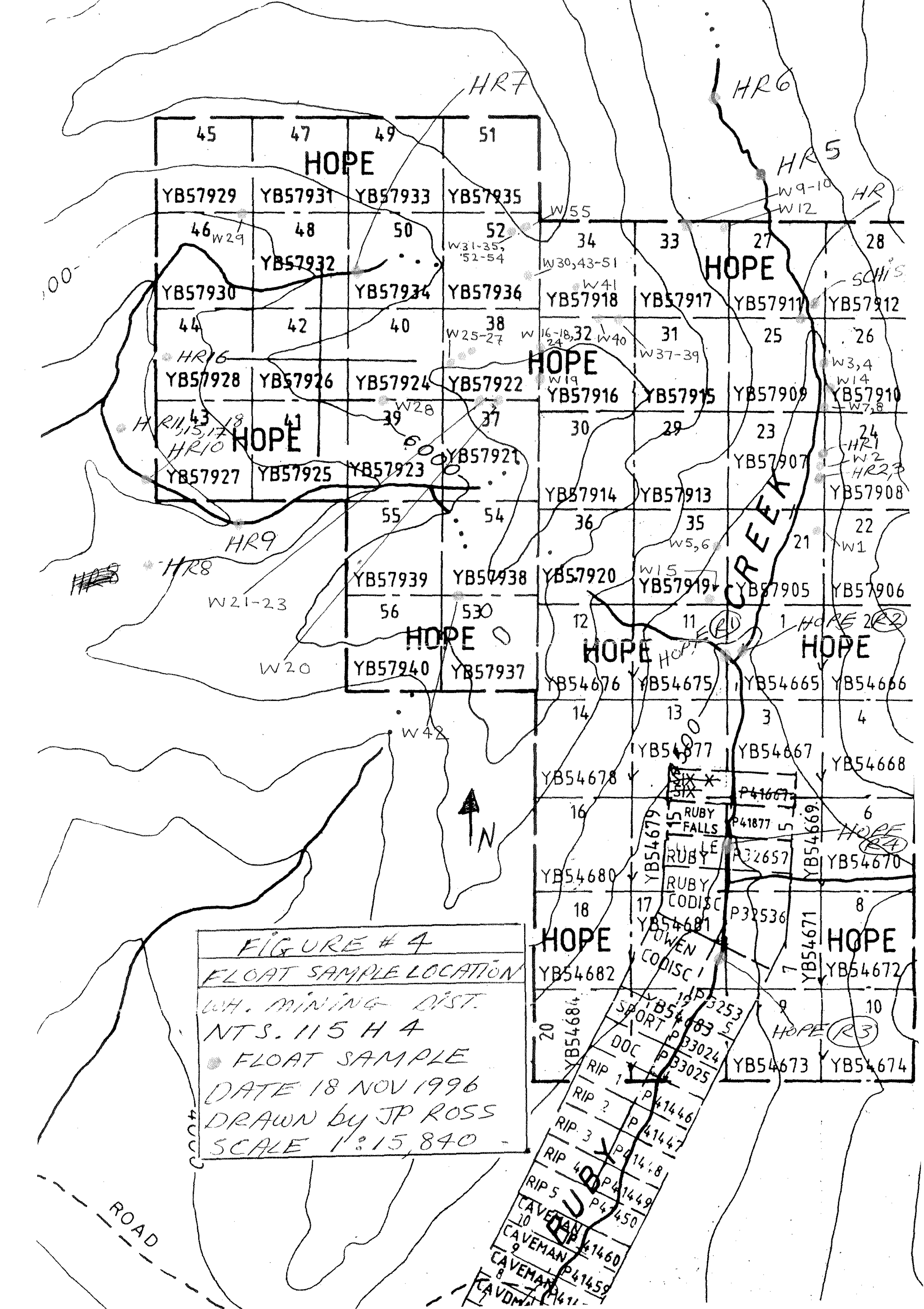
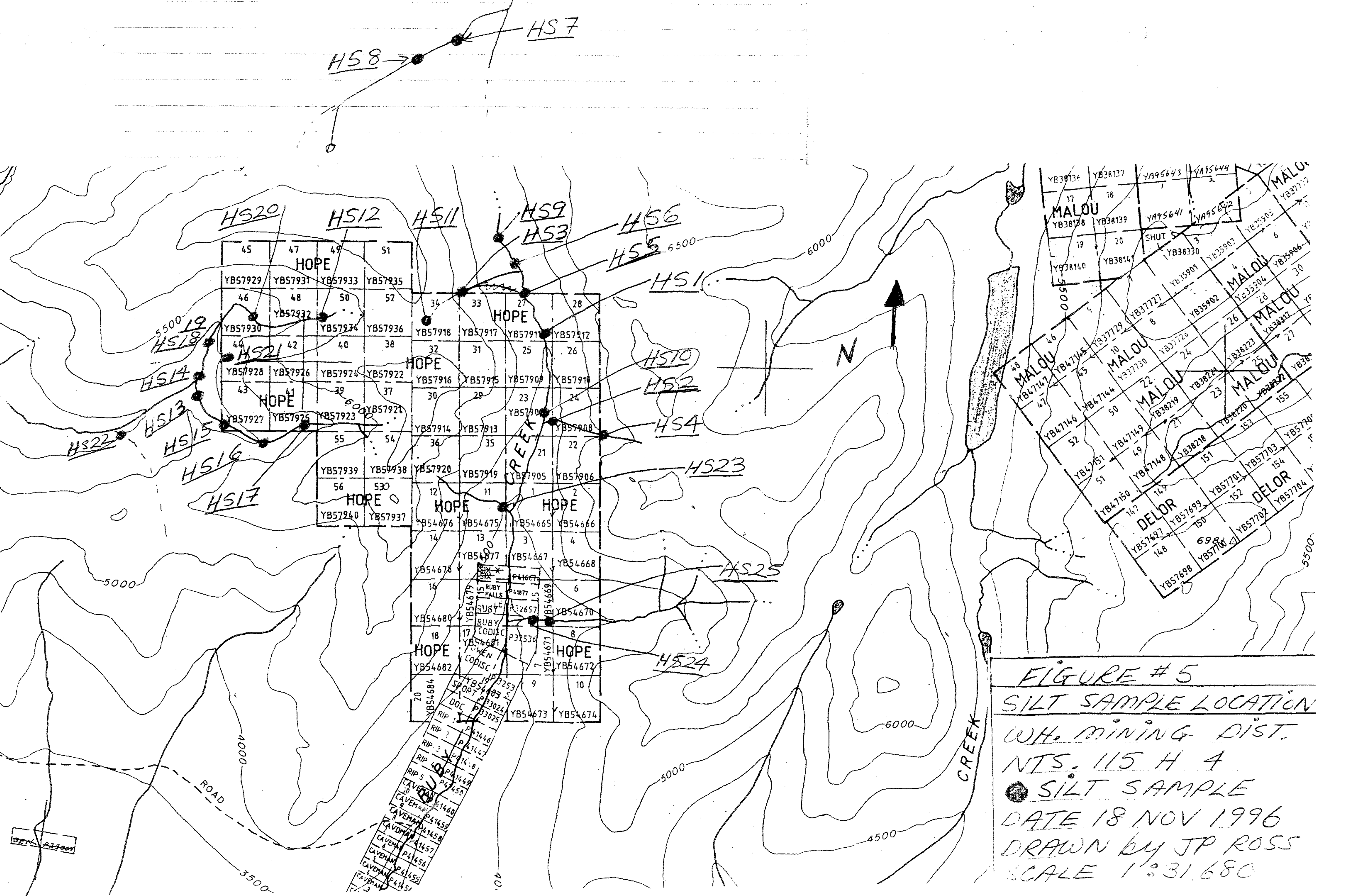


FIGURE # 4
FLOAT SAMPLE LOCATION
WH. MINING DIST.
NTS. 115 H 4
FLOAT SAMPLE
DATE 18 NOV 1996
DRAWN by JP ROSS
SCALE 1:15,840
HOPE
YB57929
YB57931
YB57933
YB57935
YB57930
YB57932
YB57934
YB57936
YB57928
YB57926
YB57924
YB57922
YB57927
YB57925
YB57923
YB57921
YB57939
YB57938
YB57940
YB57937
YB57918
YB57917
YB57911
YB57912
YB57916
YB57915
YB57909
YB57910
YB57914
YB57913
YB57907
YB57908
YB57920
YB57919
YB57905
YB57906
YB54676
YB54675
YB54665
YB54666
YB54677
YB54667
YB54668
YB54678
YB54679
YB54669
YB54670
YB54680
YB54681
YB54671
YB54672
YB54682
YB54683
YB54684
YB54673
YB54674
HR5
HR6
HR7
HR8
HR9
HR10
HR16
W55
W29
W41
W28
W20
W21-23
W42
W1
W5,6
W15
W14
W3,4
W37-39
W40
RUBY FALLS
RUBY
RUBY CODISC
OWEN CODISC
SPORT
DOC
RIP 1
RIP 2
RIP 3
RIP 4
RIP 5
CAVEMAN 10
CAVEMAN 9
CAVEMAN 8
P41877
P32536
P41446
P41447
P41450
P41460
P41459
CREEK
RUBY
ROAD
N
6000
5000


HS7
HS8
HS20
HS12
HS11
HS9
HS3
HS6
HS5
HS1
HS10
HS2
HS4
HS23
HS25
HS24
HS19
HS18
HS21
HS14
HS13
HS15
HS16
HS17
HS22
HOPE
MALOU
DELOR
RUBY
RUBY FALLS
CODISC
OWEN
SPORT
DOC
RIP
CAVEMAN
SIX
SHUT
CREEK
ROAD
N
6500
6000
5500
5000
4500
4000
3500
FIGURE #5
SILT SAMPLE LOCATION
WH. MINING DIST.
NTS. 115 H 4
SILT SAMPLE
DATE 18 NOV 1996
DRAWN by JP ROSS
SCALE 1:31,680

Appendix 1

References

Bostock, H.S., 1948, Physiography of the Canadian Cordillera with special reference to the area north of the 55th parallel: Geological Survey of Canada, Memoir 247.

Cockfield, W.E., 1927, Aishihik Lake District, Yukon: Canada Department of Mines, Summary Report, 1926, Part A.

Debicki, R.L. and Gilbert, G.W., 1986, Yukon Placer Mining Industry 1983-1984: Placer Mining Section and Mining Engineering Division, DIAND, Yukon p. 7-17.

Tempelman-Kluit, D.J. 1975, Reconnaissance Geology of Aishihik Lake, Snag, and part of the Stewart River map areas, west central Yukon: Geological Survey of Canada, Paper 73-41.

Ross, J.P., 1995, Summary of work Ruby Creek area Yukon Territory, N.T.S. 115 H/4: for Yukon Mining Incentives Program, Economic Development, Government of the Yukon, Box 2703, Whitehorse, Yukon Y1A 2C6. File Number 94-05.

Ross, J.P., 1996, Summary of work Ruby Creek area Yukon Territory, N.T.S. 115 H/4: for Yukon Mining Incentives Program, Economic Development, Government of the Yukon, Box 2703, Whitehorse, Yukon Y1A 2C6. File Number 96- .

CASH RESOURCES LTD.
1016 - 510 West Hastings Street
Vancouver, B.C. V6B 1L8
Telephone: (604) 683-1610

NEWS RELEASE

Trading Symbol: KSH-V **Monday, August 29, 1994**

Management is pleased to announce that excavator trenching will begin shortly at the Killer Gold Property located 48 km north-northeast of Haines Junction in southwestern Yukon. The property is wholly owned by Cash Resources Ltd., subject to a 2% net smelter royalty payable to a prospector. One-half of the royalty can be purchased at any time by the company for $1 million dollars.

Gold mineralization associated with disseminated arsenopyrite occurs in quartz veins and the surrounding graphitic, quartz-biotite schist country rocks. Native gold grains up to 1 mm in diameter have been observed in a few of the quartz veins. Approximately 35% of the mostly overburden-covered property has been grid soil sampled and prospected. A total of 63 rock samples from surface float, outcrops and hand trenches have been analyzed in 1994. Of these, 59% assayed greater than 3.43 g/t gold, including 18 that assayed between 16.39 and 193.57 g/t. The average grade of the 63 samples is 16.32 g/t gold. Most of the rock samples were collected within two gold-arsenic soil geochemical anomalies that are about 3000 m apart. One anomaly is 4000 m long and averages 300 m in width while the other is 2500 m long and about 800 m wide. Both are open along strike. A number of smaller clusters of anomalous values are located between the main anomalies.

Management is encouraged by exploration results and believes that the Killer Gold Property and nearby placer deposits indicate a potentially major new gold camp of a type not previously identified in Yukon or northern British Columbia. The closest analogy may be the Juneau Gold Belt located 400 km to the southeast in the Alaska Panhandle. The Juneau deposits produced approximately 240,000 kg (7 million ounces) of gold and are located in the same geological terrane as Killer Gold.

CASH RESOURCES LTD.

Per: _____
James M. Stephen, President

THE VANCOUVER STOCK EXCHANGE HAS NOT REVIEWED AND DOES NOT ACCEPT RESPONSIBILITY FOR THE ADEQUACY OF THIS NEWS RELEASE.

Appendix 2

Statement of Costs

Claims: HOPE 1-20, YB54665 - YB54684, HOPE 21-56, YB57905 - YB57940

Labour	J. Peter Ross	June 28-July 12, 15 days @ $200/day	$3,000.00
		July 21-August 11, 22 days @ $200/day	4,400.00
		Sept. 15-Sept. 22, 8 days @ $200/day	1,600.00
Camp Costs		45 days @ $55.20/day	2,484.00
Transportation	Vehicle	1,730 km @ $0.42/km	492.66
Helicopter	Trans North Air	3 trips	3,335.60
Assaying	Au (30g), + ICP (30 elements)	46 rock samples @ $23.80 each (1995)	1,094.80
	Au (30g), + ICP (30 elements)	20 rock samples @ $23.80 each (1996)	476.00
	Au (30g) cyanide leach + ICP (30 elements)	25 silt samples @ $38.80 each	970.00
Report Preparation			1,500.00
		TOTAL COST	**$19,353.06**

nineteen thousand three hundred and fifty three dollars and six cents ($19,353.06)

Appendix 3

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, John Peter Ross, do hereby certify that I:

1. am a qualified prospector with mailing address;

   Box 4842
   Whitehorse, Yukon
   Canada. Y1A 4N8

2. graduated from McGill University in 1970 with a B.Sc. General Science

3. have attended and finished completely the following courses;

   1974 -- BC & Yukon Chamber of Mines, Prospecting Course
   1978 -- United Keno Hill Mines Limited, Elsa, Yukon, Prospecting Course
   1987 -- Yukon Chamber of Mines, Advanced Prospecting Course
   1991 -- Exploration Geochemistry Workshop, GSC Canada
   1994 -- Diamond Exploration Short Course, Yukon Geoscience Forum
   1994 -- Yukon Chamber of Mines, Alteration and Petrology for Prospectors
   1994 -- Applications of Multi-Parameter Surveys (Whitehorse), Ron Shives, GSC
   1994 -- Drift Exploration in Glaciated and Mountainous Terrain, BCGS
   1995 -- Applications of Multi-Parameter Surveys, (Vancouver) Ron Shives, GSC
   1995 -- Diamond Theory and Exploration, Short Course # 20, GSC Canada
   1996 -- New Mineral Deposit Models of the Cordillera, MDRU

4. did all the work and the writing of this report

5. have been on the Yukon Prospectors' Assistance and Yukon Mining Incentive Program 1986 - 1996

6. have been on the British Columbia Prospectors' Assistance Program 1989 - 1990

7. have a 100% interest in the claims described in this report at the present time

John Peter Ross

Nov 27/1996

YUKON CHAMBER OF MINES

This is to Certify that

Peter Ross

has Successfully Completed the

Alteration and Petrology
for Prospectors
Course

Whitehorse, Yukon Territory
May 26 to June 3, 1994

SPONSORED BY
PACIFIC SENTINEL GOLD CORP.
AND
THE CANADA/YUKON
MINERAL DEVELOPMENT AGREEMENT

Yukon Chamber of Mines

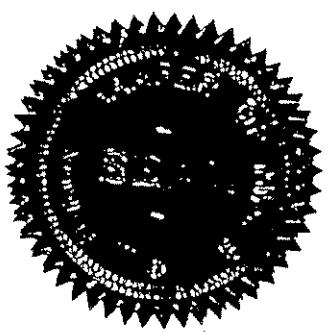
Instructor

YUKON CHAMBER OF MINES

This Certifies That J. PETER ROSS

has completed the

ADVANCED PROSPECTING COURSE



Whitehorse, Yukon Territory

1987

Chairman, Prospectors Course Committee

President

Appendix 4

Rock Geochemistry - Assay Results

Northern Analytical Laboratories ltd.

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph: (403) 668-4968
Fax: (403) 668-4890

08/08/96 Assay Certificate

J. Peter Ross WO#10416

Sample #	Au ppb
HR - 1	5
HR - 2	<5
HR - 3	<5
HR - 4	<5
HR - 5	<5
HR - 6	<5
Schist	9

Note: Au is 30g FA/AAS.

Certified by

Northern Analytical Laboratories ltd.

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph: (403) 668-4968
Fax: (403) 668-4890

30/08/96 Assay Certificate

J. Peter Ross WO# 07001

Sample #	Au ppb
HR 7	369
HR 8	<5
HR 9	<5
HR 10	<5
HR 11	<5
HR 15	<5
HR 16	<5
HR 17	<5
HR 18	15

Note: Au is 30g FA/AAS.

Certified by

Northern Analytical Laboratories ltd.

29/10/96 Assay Certificate

J. Peter Ross WO# 07133

Certified by

Sample #	Au ppb
HOPE R1	<5
HOPE R2	12
HOPE R3	<5
HOPE R4	<5

Note: Au is 30g FA/AAS.

For silts, fraction analysed for Au and accompanying ICP-30 is -80 mesh; Au cyanide leach analysed on -150 mesh.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

CERTIFICATE OF ANALYSIS
iPL 96G0665

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

Client: Northern Analytical Laboratories iPL: 96G0665 Out: Aug 01, 1996 Page 1 of 1 Section 1 of 1
Project: W.O. 10416 7 Pulp In: Jul 30, 1996 [066516:55:09:69080196] Certified BC Assayer: David Chiu

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 %
HR 1	P	<	32	16	77	<	<	<	3	<	<	<	12	26	173	7	119	83	381	11	11	1	5	0.13	2.16	0.19	3.54	1.12	0.76	0.05	0.08
HR 2	P	<	37	16	103	23	<	<	4	<	<	<	14	42	134	<	134	87	530	11	11	1	6	0.09	2.56	0.18	4.47	1.30	0.54	0.05	0.07
HR 3	P	<	37	16	107	29	5	<	3	<	<	<	16	42	144	6	102	86	540	10	11	1	5	0.10	2.54	0.16	4.51	1.29	0.58	0.05	0.07
HR 4	P	<	63	24	55	11	<	<	4	<	<	<	8	22	238	6	166	94	427	8	179	1	7	0.11	2.98	1.40	3.08	0.95	0.49	0.39	0.12
HR 5	P	<	24	13	78	15	<	<	3	<	<	<	10	34	66	<	116	79	414	12	10	1	5	0.02	1.90	0.19	3.56	1.09	0.11	0.06	0.08
HR 6	P	<	45	17	96	<	<	<	2	<	<	<	13	42	125	6	103	86	549	13	22	1	5	0.10	2.46	0.31	4.02	1.32	0.58	0.04	0.14
SCHIST	P	0.1	39	18	42	6	5	<	3	<	<	<	12	22	295	<	147	112	381	13	9	1	9	0.18	2.27	0.12	3.39	1.14	1.20	0.06	0.05
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	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

2036 Columbia St Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898

INTERNATIONAL PLASMA LABORATORY LTD.

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

CERTIFICATE OF ANALYSIS
iPL 96H0823

Client: Northern Analytical Laboratories iPL: 96H0823 Out: Sep 10, 1996 Page 1 of 1 Section 1 of 1
Project: W.O. 07001 9 Pulp In: Aug 30, 1996 [082314:36:52:69091096] Certified BC Assayer: David Chiu

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 %
HR 7	P	<	4	13	70	4083	5	<	3	<	<	<	9	32	527	<	86	66	346	10	27	1	5	<	1.75	0.37	3.61	1.08	0.08	0.05	0.13
HR 8	P	<	44	13	74	52	<	<	3	<	<	0.2	11	27	130	<	128	103	411	12	17	1	8	0.08	1.87	0.16	2.98	1.05	0.38	0.03	0.07
HR 9	P	0.1	80	8	46	27	<	<	3	<	<	0.3	22	44	90	<	48	104	376	2	15	1	7	0.12	1.42	1.25	2.74	1.14	0.30	0.08	0.14
HR 10	P	<	34	20	123	46	6	<	4	<	<	<	17	57	77	<	107	70	664	11	10	1	6	0.01	2.17	0.41	4.27	1.35	0.12	0.03	0.08
HR 11	P	<	32	8	107	28	5	<	4	<	<	<	13	33	126	<	114	69	475	10	18	1	4	0.10	2.14	0.20	3.76	1.21	0.58	0.03	0.08
HR 15	P	<	54	13	147	24	<	<	4	<	<	<	37	120	100	<	89	61	422	11	19	1	4	0.07	1.83	0.35	3.20	0.97	0.42	0.02	0.15
HR 16	P	<	5	6	60	8	<	<	1	<	2	<	2	15	10	<	41	2	37	<	25	<	<	<	0.14	0.34	0.36	0.02	0.01	0.06	0.16
HR 17	P	<	26	15	57	27	<	<	3	<	<	<	8	27	26	<	111	29	278	5	6	<	2	0.01	0.85	0.12	1.91	0.47	0.05	0.03	0.05
HR 18	P	<	7	7	5	101	5	<	2	<	<	0.1	1	3	7	<	132	3	28	<	1	<	<	<	0.05	0.01	0.27	0.02	0.01	0.02	<
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	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 LABORATORY LTD.

CERTIFICATE OF ANALYSIS
iPL 96G0665

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

Northern Analytical Laboratories

Out: Aug 01, 1996 Project: W.O. 10416
In : Jul 30, 1996 Shipper: Norm Smith
PO#: 54613 Shipment: ID=C030901
Msg: ICP(AqR)30
Msg:

7 Samples 0= Rock 0= Soil 0= Core 0=RC Ct 7= Pulp 0=Other [066516:55:04:69080196]

Raw Storage:	--	--	--	--	12Mon/Dis	--	Mon=Month Dis=Discard
Pulp Storage:	--	--	--	--	12Mon/Dis	--	Rtn=Return Arc=Archive

Document Distribution

	EN	RT	CC	IN	FX
1 Northern Analytical Laboratories	1	2	2	2	1
105 Copper Road	DL	3D	5D	BT	BL
Whitehorse	0	0	0	1	0
YT Y1A 2Z7					
ATT: Norm Smith	Ph:403/668-4968				
	Fx:403/668-4890				

Analytical Summary

##	Code	Method	Title	Low Limit	High Limit	Units	Description	Element	##
01	721P	ICP	Ag	0.1	100	ppm	Ag ICP	Silver	01
02	711P	ICP	Cu	1	20000	ppm	Cu ICP	Copper	02
03	714P	ICP	Pb	2	20000	ppm	Pb ICP	Lead	03
04	730P	ICP	Zn	1	20000	ppm	Zn ICP	Zinc	04
05	703P	ICP	As	5	9999	ppm	As ICP 5 ppm	Arsenic	05
06	702P	ICP	Sb	5	9999	ppm	Sb ICP	Antimony	06
07	732P	ICP	Hg	3	9999	ppm	Hg ICP	Mercury	07
08	717P	ICP	Mo	1	9999	ppm	Mo ICP	Molydenum	08
09	747P	ICP	Tl	10	999	ppm	Tl ICP 10 ppm (Incomplete	Thallium	09
10	705P	ICP	Bi	2	999	ppm	Bi ICP	Bismuth	10
11	707P	ICP	Cd	0.1	100	ppm	Cd ICP	Cadmium	11
12	710P	ICP	Co	1	999	ppm	Co ICP	Cobalt	12
13	718P	ICP	Ni	1	999	ppm	Ni ICP	Nickel	13
14	704P	ICP	Ba	2	9999	ppm	Ba ICP (Incomplete Digest	Barium	14
15	727P	ICP	W	5	999	ppm	W ICP (Incomplete Digest	Tungsten	15
16	709P	ICP	Cr	1	9999	ppm	Cr ICP (Incomplete Digest	Chromium	16
17	729P	ICP	V	2	999	ppm	V ICP	Vanadium	17
18	716P	ICP	Mn	1	9999	ppm	Mn ICP	Manganese	18
19	713P	ICP	La	2	9999	ppm	La ICP (Incomplete Digest	Lanthanum	19
20	723P	ICP	Sr	1	9999	ppm	Sr ICP (Incomplete Digest	Strontium	20
21	731P	ICP	Zr	1	999	ppm	Zr ICP	Zirconium	21
22	736P	ICP	Sc	1	99	ppm	Sc ICP	Scandium	22
23	726P	ICP	Ti	0.01	1.00	%	Ti ICP (Incomplete Digest	Titanium	23
24	701P	ICP	Al	0.01	9.99	%	Al ICP (Incomplete Digest	Aluminum	24
25	708P	ICP	Ca	0.01	9.99	%	Ca ICP (Incomplete Digest	Calcium	25
26	712P	ICP	Fe	0.01	9.99	%	Fe ICP	Iron	26
27	715P	ICP	Mg	0.01	9.99	%	Mg ICP (Incomplete Digest	Magnesium	27
28	720P	ICP	K	0.01	9.99	%	K ICP (Incomplete Digest	Potassium	28
29	722P	ICP	Na	0.01	5.00	%	Na ICP (Incomplete Digest	Sodium	29
30	719P	ICP	P	0.01	5.00	%	P ICP	Phosphorus	30

EN=Envelope # RT=Report Style CC=Copies IN=Invoices FX=Fax(1=Yes 0=No)
DL=Download 3D=3-1/2 Disk 5D=5-1/4 Disk BT=BBS Type BL=BBS(1=Yes 0=No) Totals: 2=Copy 2=Invoice 0=3-1/2 Disk 0=5-1/4 Disk

Northern Analytical Laboratories ltd.

17/07/95 Assay Certificate Page 1

J. Peter Ross WO#27973

Sample #	30 gm Au ppb
W 1	5
W 2	56
W 3	26
W 4	34
W 5	11
W 6	29
W 7	<5
W 8	<5
W 9	499
W 10	486
W 11	79
W 12	22
W 14	<5
W 15	<5
W 16	691
W 19	11
W 21	7
W 23	<5
W 23A	<5
W 24	<5
W 25	38
W 26	31
W 27	971
W 28	14
W 29	81
W 30A	31
W 31	16
W 32	9
W 33	<5
W 34	6
W 35	<5
W 36	31
W 37	167
W 39	16

Certified by

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

Northern Analytical Laboratories ltd.

17/07/95 Assay Certificate Page 2

J. Peter Ross WO#27973

Sample #	30 gm Au ppb
W 40	481
W 41	1619
W 42	<5
W 43	118
W 44	20
W 45	<5
W 50	34
W 51	52
W 52	30
W 53	115
W 54	27
W 55	21

Certified by

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

INTERNATIONAL PLASMA LABORATORY LTD.

CERTIFICATE OF ANALYSIS
iPL 95G1104

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

Northern Analytical Laboratories

Out: Jul 14, 1995 Project: 27973
In : Jul 11, 1995 Shipper: Norm Smith
PO#: Shipment: ID=C030900
Msg: ICP(AqR)30
Msg:

46 Samples

	0= Rock	0= Soil	0= Core	0=RC Ct	46= Pulp	0=Other
Raw Storage:	--	--	--	--	12Mon/Dis	--
Pulp Storage:	--	--	--	--	12Mon/Dis	--

[045616:39:06:59071495]
Mon=Month Dis=Discard
Rtn=Return Arc=Archive

Document Distribution

1 Northern Analytical Laboratories
105 Copper Road
Whitehorse
YT Y1A 2Z7

ATT: Norm Smith

EN	RT	CC	IN	FX
1	2	2	2	1
DL	3D	5D	BT	BL
0	0	0	1	0

Ph:403/668-4968
Fx:403/668-4890

Analytical Summary

##	Code	Method	Title	Limit Low	Limit High	Units	Description		Element	##
01	721P	ICP	Ag	0.1	100	ppm	Ag ICP		Silver	01
02	711P	ICP	Cu	1	20000	ppm	Cu ICP		Copper	02
03	714P	ICP	Pb	2	20000	ppm	Pb ICP		Lead	03
04	730P	ICP	Zn	1	20000	ppm	Zn ICP		Zinc	04
05	703P	ICP	As	5	9999	ppm	As ICP	5 ppm	Arsenic	05
06	702P	ICP	Sb	5	9999	ppm	Sb ICP		Antimony	06
07	732P	ICP	Hg	3	9999	ppm	Hg ICP		Mercury	07
08	717P	ICP	Mo	1	9999	ppm	Mo ICP		Molydenum	08
09	747P	ICP	Tl	10	999	ppm	Tl ICP	10 ppm (Incomplete	Thallium	09
10	705P	ICP	Bi	2	999	ppm	Bi ICP		Bismuth	10
11	707P	ICP	Cd	0.1	100	ppm	Cd ICP		Cadmium	11
12	710P	ICP	Co	1	999	ppm	Co ICP		Cobalt	12
13	718P	ICP	Ni	1	999	ppm	Ni ICP		Nickel	13
14	704P	ICP	Ba	2	9999	ppm	Ba ICP	(Incomplete Digest	Barium	14
15	727P	ICP	W	5	999	ppm	W ICP	(Incomplete Digest	Tungsten	15
16	709P	ICP	Cr	1	9999	ppm	Cr ICP	(Incomplete Digest	Chromium	16
17	729P	ICP	V	2	999	ppm	V ICP		Vanadium	17
18	716P	ICP	Mn	1	9999	ppm	Mn ICP		Manganese	18
19	713P	ICP	La	2	9999	ppm	La ICP	(Incomplete Digest	Lanthanum	19
20	723P	ICP	Sr	1	9999	ppm	Sr ICP	(Incomplete Digest	Strontium	20
21	731P	ICP	Zr	1	999	ppm	Zr ICP		Zirconium	21
22	736P	ICP	Sc	1	99	ppm	Sc ICP		Scandium	22
23	726P	ICP	Ti	0.01	1.00	%	Ti ICP	(Incomplete Digest	Titanium	23
24	701P	ICP	Al	0.01	9.99	%	Al ICP	(Incomplete Digest	Aluminum	24
25	708P	ICP	Ca	0.01	9.99	%	Ca ICP	(Incomplete Digest	Calcium	25
26	712P	ICP	Fe	0.01	9.99	%	Fe ICP		Iron	26
27	715P	ICP	Mg	0.01	9.99	%	Mg ICP	(Incomplete Digest	Magnesium	27
28	720P	ICP	K	0.01	9.99	%	K ICP	(Incomplete Digest	Potassium	28
29	722P	ICP	Na	0.01	5.00	%	Na ICP	(Incomplete Digest	Sodium	29
30	719P	ICP	P	0.01	5.00	%	P ICP		Phosphorus	30

CERTIFICATE OF ANALYSIS
iPL 95G1104

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

Client: Northern Analytical Laboratories iPL: 95G1104 Out: Jul 14, 1995 Page 1 of 2 Section 1 of 1
Project: 27973 46 Pulp In: Jul 11, 1995 [045616:39:12:59071495] Certified BC Assayer: David Chiu

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 %
W 1	<	40	7	101	17	<	<	3	<	A	<	22	65	420	A	156	137	398	7	27	1	11	0.18	2.60	0.85	3.51	1.40	1.21	0.06	0.06
W 2	<	17	<	22	253	5	<	4	<	A	<	4	12	20	A	219	11	196	<	7	1	1	<	0.35	0.30	1.07	0.23	0.03	0.02	0.02
W 3	0.1	133	10	90	<	<	<	4	<	A	<	27	60	442	A	176	137	628	7	85	1	10	0.19	4.77	1.56	3.98	1.84	1.34	0.19	0.07
W 4	0.1	163	8	69	109	6	<	4	<	A	<	14	106	34	A	187	72	343	3	233	1	6	0.01	6.61	3.66	2.16	0.60	0.09	0.10	0.19
W 5	<	25	12	73	178	5	<	3	<	A	<	11	38	20	A	231	60	450	8	14	1	3	0.03	1.41	0.44	2.58	0.84	0.05	0.05	0.02
W 6	0.2	174	6	86	9	<	<	4	<	A	<	15	36	31	A	122	101	1046	7	164	1	15	0.02	3.63	2.84	3.75	1.35	0.11	0.14	0.55
W 7	0.1	54	5	77	13	<	<	4	<	A	<	12	26	190	A	198	110	396	8	21	1	9	0.13	2.56	0.35	3.55	1.28	0.71	0.06	0.05
W 8	<	27	5	86	5	<	<	3	<	A	<	16	39	295	A	167	120	474	8	16	1	9	0.17	3.30	0.25	4.90	1.77	1.09	0.04	0.10
W 9	0.2	56	20	84	288	<	<	4	<	A	<	15	40	128	A	141	78	434	6	24	1	4	0.01	2.48	0.23	4.24	1.68	0.19	0.03	0.10
W10	0.2	64	8	67	585	<	<	3	<	A	<	10	25	78	A	177	71	406	6	19	1	4	0.01	2.08	0.16	3.89	1.50	0.13	0.04	0.08
W11	0.1	39	14	106	137	<	<	5	<	A	<	13	50	79	A	149	57	321	11	13	1	4	<	2.35	0.19	4.44	1.04	0.19	0.04	0.08
W12	<	44	10	56	13	<	<	3	<	A	<	14	33	85	A	177	69	679	5	149	1	3	0.01	3.01	2.99	2.35	0.83	0.18	0.12	0.90
W14	<	34	10	98	<	7	<	4	<	A	<	29	53	636	A	285	165	498	7	40	1	15	0.23	3.55	0.60	4.26	2.40	1.43	0.14	0.14
W15	0.1	53	15	25	<	<	<	2	<	A	<	4	11	17	A	135	16	139	13	36	<	2	0.02	0.68	0.30	1.54	0.28	0.07	0.07	0.12
W16	0.5	10	3	76	8793	<	<	2	<	A	<	4	12	486	A	142	13	82	8	108	1	3	<	0.51	0.44	1.65	0.09	0.15	0.06	0.17
W19	<	128	4	197	203	<	<	3	<	A	<	26	117	69	A	103	49	423	11	53	1	3	0.01	2.81	0.13	7.24	1.19	0.15	0.03	0.09
W21	0.2	181	3	182	107	<	<	3	<	A	<	26	65	31	A	228	187	1234	14	7	2	12	0.06	4.29	0.07	7.89	4.42	0.05	0.02	<
W23	<	26	8	157	73	<	<	2	<	A	<	29	66	206	A	188	133	649	15	12	1	13	0.03	3.85	0.25	5.96	2.90	0.29	0.03	0.07
W23a	<	61	7	81	179	<	3	3	<	A	<	18	49	85	A	201	97	876	5	76	1	9	0.02	2.40	2.83	3.67	1.86	0.11	0.03	<
W24	<	51	7	91	29	<	<	2	<	A	<	18	71	104	A	94	67	344	9	11	1	5	0.04	2.34	0.26	3.69	1.22	0.35	0.03	0.08
W25	<	12	<	35	308	<	<	3	<	A	<	6	18	49	A	146	9	800	3	8	<	1	<	0.33	0.15	1.65	0.11	0.10	0.03	0.05
W26	<	20	6	79	186	5	<	2	<	A	<	14	44	79	A	177	33	763	9	11	<	3	<	1.18	0.60	2.64	0.64	0.15	0.06	0.05
W27	0.4	47	14	121	3797	<	<	3	<	A	<	21	56	174	A	114	53	590	10	37	1	3	0.01	2.14	0.31	4.18	1.18	0.14	0.03	0.11
W28	<	22	2	57	96	<	<	3	<	A	<	11	30	48	A	176	47	232	10	11	1	5	<	1.59	0.21	3.05	0.87	0.12	0.06	0.07
W29	0.1	14	13	70	619	<	<	3	<	A	<	7	24	143	A	147	41	242	18	11	1	3	0.01	2.07	0.18	3.37	0.99	0.26	0.05	0.06
W30a	0.1	26	13	77	105	<	<	3	<	A	<	15	46	93	A	197	45	922	12	18	1	4	<	1.56	0.29	3.67	0.71	0.24	0.05	0.11
W31	<	45	10	81	74	<	<	3	<	A	<	8	32	117	A	174	57	361	12	13	2	3	<	2.45	0.25	3.88	1.58	0.27	0.04	0.10
W32	0.1	37	9	83	28	<	<	3	<	A	<	5	19	121	A	174	44	262	8	68	2	3	0.01	1.91	0.17	3.87	0.90	0.31	0.05	0.08
W33	<	19	9	49	16	<	<	4	<	A	<	4	17	72	A	217	40	307	6	230	1	2	0.01	1.68	3.88	2.40	0.64	0.18	0.04	1.71
W34	<	102	14	90	33	<	<	4	<	A	<	7	25	121	A	147	78	391	11	22	1	4	0.02	2.76	0.22	4.30	1.45	0.31	0.04	0.08
W35	0.1	26	21	60	14	<	<	3	<	A	<	5	17	85	A	126	31	209	6	45	2	2	0.01	1.42	0.24	3.12	0.79	0.21	0.04	0.10
W36	0.4	126	14	63	<	<	<	4	<	A	<	13	53	199	A	195	121	509	7	444	1	4	0.04	8.53	4.40	3.19	1.34	0.23	0.47	0.32
W37	0.1	68	7	51	74	<	<	3	<	A	<	15	56	122	A	139	102	516	15	15	1	6	0.05	3.39	0.17	4.87	1.78	0.34	0.04	0.05
W39	<	29	5	23	16	5	<	3	<	A	<	5	26	48	A	249	14	813	4	18	1	2	<	0.66	0.34	1.35	0.24	0.11	0.03	0.14
W40	0.3	46	11	86	729	<	<	3	<	A	<	13	35	125	A	154	138	402	16	20	1	13	0.01	2.64	0.30	4.00	1.33	0.16	0.08	0.08
W41	0.2	25	8	56	732	<	<	4	<	A	<	11	35	130	A	215	50	510	11	15	1	4	<	1.78	0.25	3.18	0.90	0.13	0.05	0.08
W42	0.2	56	22	365	23	5	<	3	<	A	<	34	254	105	A	417	147	822	13	22	7	14	0.15	4.98	0.52	7.33	5.34	0.32	0.05	0.20
W43	<	22	19	77	56	<	<	3	<	A	<	14	45	130	A	165	40	1230	14	14	1	4	<	1.46	0.19	4.00	0.64	0.27	0.05	0.07
W44	<	53	10	55	14	<	<	4	<	A	<	19	63	284	A	185	108	489	8	50	1	8	0.10	2.89	0.77	4.27	1.48	0.74	0.04	0.31
[illegible]	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

CERTIFICATE OF ANALYSIS
iPL 95G1104

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

Client: Northern Analytical Laboratories iPL: 95G1104 Out: Jul 14, 1995 Page 2 of 2 Section 1 of 1
Project: 27973 46 Pulp In: Jul 11, 1995 [045616:39:24:59071495] Certified BC Assayer: David Chiu

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 %
W45	<	52	9	75	24	<	<	3	<	<	<	20	62	151	<	137	75	464	13	15	1	5	0.02	2.62	0.26	4.41	1.29	0.26	0.04	0.08
W50	0.1	25	9	68	131	<	<	3	<	<	<	15	44	106	<	213	42	1018	11	22	1	4	<	1.45	0.39	3.87	0.64	0.25	0.05	0.16
W51	<	15	14	66	77	<	<	3	<	<	<	13	42	98	<	174	41	848	13	13	1	4	<	1.43	0.18	3.54	0.65	0.21	0.05	0.06
W52	<	36	13	96	647	<	<	2	<	<	<	15	42	73	<	104	41	405	18	13	1	3	<	1.94	0.24	3.82	0.90	0.18	0.04	0.08
W53	0.2	29	13	67	101	<	<	3	<	<	<	10	25	76	<	112	30	303	15	14	1	3	<	1.42	0.21	3.40	0.61	0.21	0.04	0.08
W54	<	41	12	90	89	<	<	4	<	<	<	13	27	109	<	198	28	322	17	20	1	3	<	1.40	0.32	3.57	0.58	0.26	0.05	0.11
W55	<	23	8	77	42	<	<	2	<	<	<	11	37	70	<	113	37	166	14	8	1	3	<	1.52	0.11	2.35	0.58	0.14	0.04	0.04
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Appendix 5

Rock Sample Descriptions - 1995

Sample No.	Description
W1	schist boundary, with bull quartz
W2	large bull quartz, limonite areas
W3	schist, twisted, with slight limonite
W4	schist, lots of quartz, with limonite in vuggy areas
W5	schist, lots of bull quartz
W6	schist, limonite areas, feldspathic quartz
W7	schist, low amount of quartz, limonite stain
W8	schist with quartz stringers
W9	schist with a few quartz stringers, and few sulphides
W10	schist with a few quartz stringers, and few sulphides
W11	schist, limonite stain, erratic quartz
W12	schist, with thick quartz and sulphides
W14	schist, limonitic
W15	quartz, large crystals, feldspathic limonite areas
W16	schist, lots of silica in stringers and vuggy ?
W19	schist, very limonitic with quartz stringers
W21	schist, little quartz, lots of limonite
W23	schist, folded with limonite
W23A	schist and silica, minor limonite stain
W24	schist with minor silica
W25	schist, with quartz and lot of limonite
W26	schist, lots of limonite on fractures
W27	schist, lots of silica in stringers and vuggy ?
W28	schist, chalcedony bands and lot of limonite
W29	schist with quartz and limonite
W30A	schist, quartz and weathered areas, some limonite
W31	schist
W32	schist with minor limonite
W33	schist with limonitic quartz stringers
W34	schist with narrow quartz vein
W35	schist with quartz stringers, minor sulphides
W36	schist
W37	schist, limonitic areas, steel blue stain in interior?
W39	quartz with black and limonitic stain
W40	schist with quartz and holes, weathered out
W41	schist, zones of quartz, limonitic stain and holes
W42	schist with limonitic stain
W43	twisted schist and lots of limonite
W44	schist, wide quartz stringer with minor limonite
W45	schist with quartz and limonite stain
W50	schist with quartz and limonite stain, weathered out
W51	schist with limonite stained weathered areas, lots of quartz
W52	schist with lots of quartz, weathered and minor sulphides
W53	schist, twisted with lots of quartz and bands of sulphides, weathered out
W54	schist with quartz, very limonitic
W55	schist, quartz stockwork and limonite stain

Appendix 5

Rock Sample Descriptions - 1996

Sample No.	Description
HR1	schist
HR2	schist w/orange stain
HR3	schist w/brown stain
HR3	schist, stained w/little quartz
HR5	schist, orange brown stain
HR6	schist (tourmaline), quartz stringers, twisted brown-orange areas, some sulphides
SCHIST	schist
HR7	schist, quartz, lots of vuggy holes and orange limonite stain
HR8	blue-gray quartz, some crystals, light beige tinge in a few areas
HR9	quartz-schist (strange looking), holes in rock with brown walls and dust inside
HR10	quartz, brown-beige zones, some blue-gray crystals
HR11	schist, twisted, some sulphides present
HR15	schist (similar to HR17)
HR16	schist, fractures have orange stains
HR17	large rough schist, extremely twisted, lots of silica, few sulphides
HR18	schist, only small amount of quartz
R1	volcanic rock, pyrite
R2	schist, silicified, twisted with yellow stain
R3	white schist
R4	schist, stringer with sulphides

Appendix 6

Silt Geochemistry - Assay Results

Northern Analytical Laboratories ltd.

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph: (403) 668-4968
Fax: (403) 668-4890

08/10/96 Assay Certificate

J. Peter Ross WO# 07115

Sample #	Au ppb	Replicate Au analyses		
HS - 11	<5			
HS - 12	16			
HS - 13	8	8	7	
HS - 14	10			
HS - 15	382			
HS - 16	458	987	184	204
HS - 17	296			
HS - 18	440	228	1089	<5
HS - 19	<5			
HS - 20	41			
HS - 21	<5	<5	<5	
HS - 22	<5			

Note: Au is 30g FA/AAS.

Fraction analysed is -80+150 mesh.

Replicate analyses were very erratic, suggesting coarse gold.

Certified by

INTERNATIONAL PLASMA LABORATORY LTD.

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

CERTIFICATE OF ANALYSIS
iPL 96H0823

Northern Analytical Laboratories

Out: Sep 10, 1996 Project: W.O. 07001
In : Aug 30, 1996 Shipper: Norm Smith
PO#: 054622 Shipment: ID=C030901
Msg: ICP(AqR)30
Msg:

9 Samples

	0= Rock	0= Soil	0= Core	0=RC Ct	9= Pulp	0=Other
Raw Storage:	--	--	--	--	12Mon/Dis	--
Pulp Storage:	--	--	--	--	12Mon/Dis	--

[082314:36:47:69091096]
Mon=Month Dis=Discard
Rtn=Return Arc=Archive

Document Distribution

1 Northern Analytical Laboratories	EN	RT	CC	IN	FX
105 Copper Road	1	2	2	2	1
Whitehorse	DL	3D	5D	BT	BL
YT Y1A 2Z7	0	0	0	1	0

ATT: Norm Smith
Ph:403/668-4968
Fx:403/668-4890

Analytical Summary

##	Code	Method	Title	Limit Low	Limit High	Units	Description	Element	##
01	721P	ICP	Ag	0.1	100	ppm	Ag ICP	Silver	01
02	711P	ICP	Cu	1	20000	ppm	Cu ICP	Copper	02
03	714P	ICP	Pb	2	20000	ppm	Pb ICP	Lead	03
04	730P	ICP	Zn	1	20000	ppm	Zn ICP	Zinc	04
05	703P	ICP	As	5	9999	ppm	As ICP 5 ppm	Arsenic	05
06	702P	ICP	Sb	5	9999	ppm	Sb ICP	Antimony	06
07	732P	ICP	Hg	3	9999	ppm	Hg ICP	Mercury	07
08	717P	ICP	Mo	1	9999	ppm	Mo ICP	Molydenum	08
09	747P	ICP	Tl	10	999	ppm	Tl ICP 10 ppm (Incomplete	Thallium	09
10	705P	ICP	Bi	2	999	ppm	Bi ICP	Bismuth	10
11	707P	ICP	Cd	0.1	100	ppm	Cd ICP	Cadmium	11
12	710P	ICP	Co	1	999	ppm	Co ICP	Cobalt	12
13	718P	ICP	Ni	1	999	ppm	Ni ICP	Nickel	13
14	704P	ICP	Ba	2	9999	ppm	Ba ICP (Incomplete Digest	Barium	14
15	727P	ICP	W	5	999	ppm	W ICP (Incomplete Digest	Tungsten	15
16	709P	ICP	Cr	1	9999	ppm	Cr ICP (Incomplete Digest	Chromium	16
17	729P	ICP	V	2	999	ppm	V ICP	Vanadium	17
18	716P	ICP	Mn	1	9999	ppm	Mn ICP	Manganese	18
19	713P	ICP	La	2	9999	ppm	La ICP (Incomplete Digest	Lanthanum	19
20	723P	ICP	Sr	1	9999	ppm	Sr ICP (Incomplete Digest	Strontium	20
21	731P	ICP	Zr	1	999	ppm	Zr ICP	Zirconium	21
22	736P	ICP	Sc	1	99	ppm	Sc ICP	Scandium	22
23	726P	ICP	Ti	0.01	1.00	%	Ti ICP (Incomplete Digest	Titanium	23
24	701P	ICP	Al	0.01	9.99	%	Al ICP (Incomplete Digest	Aluminum	24
25	708P	ICP	Ca	0.01	9.99	%	Ca ICP (Incomplete Digest	Calcium	25
26	712P	ICP	Fe	0.01	9.99	%	Fe ICP	Iron	26
27	715P	ICP	Mg	0.01	9.99	%	Mg ICP (Incomplete Digest	Magnesium	27
28	720P	ICP	K	0.01	9.99	%	K ICP (Incomplete Digest	Potassium	28
29	722P	ICP	Na	0.01	5.00	%	Na ICP (Incomplete Digest	Sodium	29
30	719P	ICP	P	0.01	5.00	%	P ICP	Phosphorus	30

EN=Envelope # RT=Report Style CC=Copies IN=Invoices FX=Fax(1=Yes 0=No)
DL=Regular 3D=3 1/2 Disk 5D=5 1/4 Disk BT=BBS Type BL=BBS(1=Yes 0=No)
Totals: 2-Copy 2-Invoice 0-3-1/2 Disk 0-5-1/4 Disk

Northern
Analytical
Laboratories ltd.

J. Peter Ross WO#10396

Sample #	Au ppb	Replicate Au analyses (averaged for final values)				
HS - 1	7	5	9			
HS - 2	46	164	5	11	5	
HS - 3	22	53	7	38	8	6
HS - 4	9	8	9			
HS - 5	61	139	14	31		
HS - 6	<5	5	<5			
HS - 7	<5	<5	<5			
HS - 8	<5	<5	<5	<5		
HS - 9	109	134	21	171		
HS - 10	854	2484	774	51	108	

Note: Au is 30g FA/AAS.
Fraction analysed is -80+150 mesh. Accompanying ICP-30 analysed on -80 mesh; Au cyanide leach analysed on -150 mesh.

Replicate analyses were very erratic, suggesting coarse gold.
Replicate values shown above.

Certified by

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Northern Analytical Laboratories PROJECT WO#10396 File # 96-3211

105 Copper Road, Whitehorse YT Y1A 2Z7

SAMPLE#	Au# ppb
HS-1	27.0
HS-2	10.6
HS-3	14.9
HS-4	19.5
HS-5	38.5
HS-6	49.5
HS-7	2.4
HS-8	5.6
RE HS-8	9.8
HS-9	250.0
HS-10	336.2

AU# - 0.5% CYANIDE LEACH, SHAKE 2 MINUTES EVERY HOUR FOR 24 HRS., DIGEST IN AQUA REGIA, EXTRACT INTO MIBK, ANALYSIS BY GRAPHITE AA.
- SAMPLE TYPE: SOIL PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns

DATE RECEIVED: JUL 30 1996 **DATE REPORT MAILED:** Aug 8/96 **SIGNED BY.** C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Northern Analytical Laboratories PROJECT WO#10396 File # 96-3211R

105 Copper Road, Whitehorse YT Y1A 2Z7

SAMPLE#	Au# ppb
HS-9	258.0
HS-10	393.5

AU# - 0.5% CYANIDE LEACH, SHAKE 2 MINUTES EVERY HOUR FOR 24 HRS., DIGEST IN AQUA REGIA, EXTRACT INTO MIBK, ANALYSIS BY GRAPHITE AA.
- SAMPLE TYPE: SOIL PULP

DATE RECEIVED: AUG 21 1996 DATE REPORT MAILED: Aug 28/96 SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

CERTIFICATE OF ANALYSIS
iPL 96G0661

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

Client: Northern Analytical Laboratories iPL: 96G0661 Out: Aug 01, 1996 Page 1 of 1 Section 1 of 1
Project: W.O. 10396 10 Pulp In: Jul 30, 1996 [066116:48:50:69080196] Certified BC Assayer: David Chiu

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 %
HS 1	P	<	33	17	61	42	<	<	2	<	<	<	16	34	146	<	46	85	392	7	23	1	5	0.12	1.58	0.41	3.06	0.77	0.25	0.04	0.13
HS 2	P	<	76	20	137	55	<	<	3	<	<	28	73	152	5	59	97	549	9	32	1	6	0.13	2.36	0.45	3.89	1.09	0.37	0.04	0.10
HS 3	P	<	57	17	71	32	<	<	2	<	<	19	52	134	6	59	95	397	8	26	<	6	0.13	2.06	0.38	3.58	1.02	0.28	0.04	0.10
HS 4	P	<	70	15	132	43	<	<	2	<	<	26	72	143	<	58	97	491	10	32	1	6	0.13	2.27	0.46	3.91	1.07	0.37	0.04	0.12
HS 5	P	<	43	17	69	67	<	<	2	<	<	18	45	177	8	54	93	492	8	26	1	6	0.14	1.97	0.43	3.40	0.94	0.32	0.04	0.12
HS 6	P	<	35	13	62	47	<	<	2	<	<	15	35	174	8	49	89	424	8	25	1	6	0.14	1.72	0.46	3.05	0.85	0.31	0.04	0.13
HS 7	P	<	34	18	72	10	<	<	1	<	<	19	31	183	<	48	89	324	9	30	1	5	0.17	1.95	0.52	2.92	0.97	0.27	0.06	0.11
HS 8	P	<	51	18	94	13	<	<	2	<	<	24	44	253	<	65	115	438	8	29	1	7	0.20	2.44	0.50	3.44	1.17	0.43	0.05	0.12
HS 9	P	<	40	15	67	62	<	<	1	<	<	17	36	195	10	53	94	528	7	24	<	6	0.14	1.82	0.42	3.09	0.90	0.33	0.04	0.11
HS 10	P	<	44	17	71	53	<	<	2	<	<	19	43	160	8	54	88	484	7	25	1	6	0.12	1.91	0.40	3.24	0.93	0.30	0.04	0.12
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate

INTERNATIONAL PLASMA LABORATORY LTD.

CERTIFICATE OF ANALYSIS
iPL 96G0661

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

Northern Analytical Laboratories — 10 Samples

	0= Rock	0= Soil	0= Core	0=RC Ct	10= Pulp	0=Other	[066116:48:46:69080196]
Raw Storage:	--	--	--	--	12Mon/Dis	--	Mon=Month Dis=Discard
Pulp Storage:	--	--	--	--	12Mon/Dis	--	Rtn=Return Arc=Archive

Out: Aug 01, 1996 Project: W.O. 10396
In : Jul 30, 1996 Shipper: Norm Smith
PO#: 54613 Shipment: ID=C030901
Msg: ICP(AqR)30
Msg:

Document Distribution

	EN	RT	CC	IN	FX
1 Northern Analytical Laboratories	1	2	2	2	1
105 Copper Road	DL	3D	5D	BT	BL
Whitehorse	0	0	0	1	0
YT Y1A 2Z7					
ATT: Norm Smith	Ph:403/668-4968				
	Fx:403/668-4890				

Analytical Summary

##	Code	Method	Title	Limit Low	Limit High	Units	Description	Element	##
01	721P	ICP	Ag	0.1	100	ppm	Ag ICP	Silver	01
02	711P	ICP	Cu	1	20000	ppm	Cu ICP	Copper	02
03	714P	ICP	Pb	2	20000	ppm	Pb ICP	Lead	03
04	730P	ICP	Zn	1	20000	ppm	Zn ICP	Zinc	04
05	703P	ICP	As	5	9999	ppm	As ICP 5 ppm	Arsenic	05
06	702P	ICP	Sb	5	9999	ppm	Sb ICP	Antimony	06
07	732P	ICP	Hg	3	9999	ppm	Hg ICP	Mercury	07
08	717P	ICP	Mo	1	9999	ppm	Mo ICP	Molydenum	08
09	747P	ICP	Tl	10	999	ppm	Tl ICP 10 ppm (Incomplete	Thallium	09
10	705P	ICP	Bi	2	999	ppm	Bi ICP	Bismuth	10
11	707P	ICP	Cd	0.1	100	ppm	Cd ICP	Cadmium	11
12	710P	ICP	Co	1	999	ppm	Co ICP	Cobalt	12
13	718P	ICP	Ni	1	999	ppm	Ni ICP	Nickel	13
14	704P	ICP	Ba	2	9999	ppm	Ba ICP (Incomplete Digest	Barium	14
15	727P	ICP	W	5	999	ppm	W ICP (Incomplete Digest	Tungsten	15
16	709P	ICP	Cr	1	9999	ppm	Cr ICP (Incomplete Digest	Chromium	16
17	729P	ICP	V	2	999	ppm	V ICP	Vanadium	17
18	716P	ICP	Mn	1	9999	ppm	Mn ICP	Manganese	18
19	713P	ICP	La	2	9999	ppm	La ICP (Incomplete Digest	Lanthanum	19
20	723P	ICP	Sr	1	9999	ppm	Sr ICP (Incomplete Digest	Strontium	20
21	731P	ICP	Zr	1	999	ppm	Zr ICP	Zirconium	21
22	736P	ICP	Sc	1	99	ppm	Sc ICP	Scandium	22
23	726P	ICP	Ti	0.01	1.00	%	Ti ICP (Incomplete Digest	Titanium	23
24	701P	ICP	Al	0.01	9.99	%	Al ICP (Incomplete Digest	Aluminum	24
25	708P	ICP	Ca	0.01	9.99	%	Ca ICP (Incomplete Digest	Calcium	25
26	712P	ICP	Fe	0.01	9.99	%	Fe ICP	Iron	26
27	715P	ICP	Mg	0.01	9.99	%	Mg ICP (Incomplete Digest	Magnesium	27
28	720P	ICP	K	0.01	9.99	%	K ICP (Incomplete Digest	Potassium	28
29	722P	ICP	Na	0.01	5.00	%	Na ICP (Incomplete Digest	Sodium	29
30	719P	ICP	P	0.01	5.00	%	P ICP	Phosphorus	30

EN=Envelope # RT=Report Style CC=Copies IN=Invoices FX=Fax(1=Yes 0=No)

Northern Analytical Laboratories ltd.

29/10/96 Assay Certificate

J. Peter Ross WO# 07133

Certified by

Sample #	Au ppb
HS 23	6
HS 24	<5
HS 25	149

Note: Au is 30g FA/AAS.

For silts, fraction analysed for Au and accompanying ICP-30 is -80 mesh; Au cyanide leach analysed on -150 mesh.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Northern Analytical Laboratories File # 96-4102

105 Copper Road, Whitehorse YT Y1A 2Z7

SAMPLE#	Au# ppb
HS-11	14.3
HS-12	53.3
HS-13	72.7
HS-14	108.5
HS-15	137.8
HS-16	121.2
HS-17	85.5
HS-18	251.8
HS-19	76.6
RE HS-19	42.6
HS-20	200.8
HS-21	3.7
HS-22	18.1

AU# - 0.5% CYANIDE LEACH, SHAKE 2 MINUTES EVERY HOUR FOR 24 HRS., DIGEST IN AQUA REGIA, EXTRACT INTO MIBK, ANALYSIS BY GRAPHITE AA.
- SAMPLE TYPE: SOIL PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 30 1996 DATE REPORT MAILED: Sept 20/96 SIGNED BY: C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Northern Analytical Laboratories ltd.

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph: (403) 668-4968
Fax: (403) 668-4890

J. Peter Ross WO# 10499

Sample #	Au ppb
HS - 11	10
HS - 12	6
HS - 13	487
HS - 14	1339
HS - 15	748
HS - 16	407
HS - 17	20
HS - 18	1492
HS - 19	23
HS - 20	139
HS - 21	<5
HS - 22	12

Note: Au is 30g FA/AAS.
Fraction analysed is -80+150 mesh. Accompanying ICP-30 analysed on -80 mesh; Au cyanide leach analysed on -150 mesh.

Certified by

INTERNATIONAL PLASMA LABORATORY LTD

CERTIFICATE OF ANALYSIS
iPL 96H0822

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

PETER ROSS
Northern Analytical Laboratories

Out: Sep 10, 1996 Project: W.O. 10499
In : Aug 30, 1996 Shipper: Norm Smith
PO#: 054622 Shipment: ID=C030901
Msg: ICP(AqR)30
Msg:

12 Samples | 0= Rock | 0= Soil | 0= Core | 0=RC Ct | 12= Pulp | 0=Other | [082214:35:35:69091096]

	Rock	Soil	Core	RC Ct	Pulp	Other	
Raw Storage:	--	--	--	--	12Mon/Dis	--	Mon=Month Dis=Discard
Pulp Storage:	--	--	--	--	12Mon/Dis	--	Rtn=Return Arc=Archive

Document Distribution

	EN	RT	CC	IN	FX
1 Northern Analytical Laboratories	1	2	2	2	1
105 Copper Road	DL	3D	5D	BT	BL
Whitehorse	0	0	0	1	0
YT Y1A 2Z7					
ATT: Norm Smith	Ph:403/668-4968				
	Fx:403/668-4890				

Analytical Summary

##	Code	Method	Title	Limit Low	Limit High	Units	Description		Element	##
01	721P	ICP	Ag	0.1	100	ppm	Ag ICP		Silver	01
02	711P	ICP	Cu	1	20000	ppm	Cu ICP		Copper	02
03	714P	ICP	Pb	2	20000	ppm	Pb ICP		Lead	03
04	730P	ICP	Zn	1	20000	ppm	Zn ICP		Zinc	04
05	703P	ICP	As	5	9999	ppm	As ICP	5 ppm	Arsenic	05
06	702P	ICP	Sb	5	9999	ppm	Sb ICP		Antimony	06
07	732P	ICP	Hg	3	9999	ppm	Hg ICP		Mercury	07
08	717P	ICP	Mo	1	9999	ppm	Mo ICP		Molydenum	08
09	747P	ICP	Tl	10	999	ppm	Tl ICP	10 ppm (Incomplete	Thallium	09
10	705P	ICP	Bi	2	999	ppm	Bi ICP		Bismuth	10
11	707P	ICP	Cd	0.1	100	ppm	Cd ICP		Cadmium	11
12	710P	ICP	Co	1	999	ppm	Co ICP		Cobalt	12
13	718P	ICP	Ni	1	999	ppm	Ni ICP		Nickel	13
14	704P	ICP	Ba	2	9999	ppm	Ba ICP	(Incomplete Digest	Barium	14
15	727P	ICP	W	5	999	ppm	W ICP	(Incomplete Digest	Tungsten	15
16	709P	ICP	Cr	1	9999	ppm	Cr ICP	(Incomplete Digest	Chromium	16
17	729P	ICP	V	2	999	ppm	V ICP		Vanadium	17
18	716P	ICP	Mn	1	9999	ppm	Mn ICP		Manganese	18
19	713P	ICP	La	2	9999	ppm	La ICP	(Incomplete Digest	Lanthanum	19
20	723P	ICP	Sr	1	9999	ppm	Sr ICP	(Incomplete Digest	Strontium	20
21	731P	ICP	Zr	1	999	ppm	Zr ICP		Zirconium	21
22	736P	ICP	Sc	1	99	ppm	Sc ICP		Scandium	22
23	726P	ICP	Ti	0.01	1.00	%	Ti ICP	(Incomplete Digest	Titanium	23
24	701P	ICP	Al	0.01	9.99	%	Al ICP	(Incomplete Digest	Aluminum	24
25	708P	ICP	Ca	0.01	9.99	%	Ca ICP	(Incomplete Digest	Calcium	25
26	712P	ICP	Fe	0.01	9.99	%	Fe ICP		Iron	26
27	715P	ICP	Mg	0.01	9.99	%	Mg ICP	(Incomplete Digest	Magnesium	27
28	720P	ICP	K	0.01	9.99	%	K ICP	(Incomplete Digest	Potassium	28
29	722P	ICP	Na	0.01	5.00	%	Na ICP	(Incomplete Digest	Sodium	29
30	719P	ICP	P	0.01	5.00	%	P ICP		Phosphorus	30

EN=Envelope # RT=Report Style CC=Copies IN=Invoices FX=Fax(1=Yes 0=No)

INTERNATIONAL PLASMA LABORATORY LTD.

CERTIFICATE OF ANALYSIS
iPL 96H0822

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

Client: Northern Analytical Laboratories iPL: 96H0822 Out: Sep 10, 1996 Page 1 of 1 Section 1 of 1
Project: W.O. 10499 12 Pulp In: Aug 30, 1996 [082214:35:40:69091096] Certified BC Assayer: David Chiu

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 %
HS 11	P	<	63	12	80	48	<	<	3	<	<	<	21	53	158	<	63	98	461	7	21	1	7	0.13	2.40	0.28	3.80	1.14	0.32	0.02	0.09
HS 12	P	<	50	11	67	48	<	<	3	<	<	<	19	50	151	<	59	83	430	5	22	1	6	0.11	2.02	0.32	3.26	1.03	0.33	0.02	0.11
HS 13	P	<	52	7	103	41	<	<	3	<	<	<	17	48	109	<	50	73	450	13	29	1	4	0.10	1.91	0.42	3.36	1.03	0.31	0.02	0.13
HS 14	P	<	50	7	79	38	<	<	3	<	<	<	17	47	128	<	55	81	404	7	26	1	5	0.10	1.98	0.40	3.33	1.03	0.33	0.02	0.14
HS 15	P	<	49	11	101	134	<	<	3	<	<	<	17	51	93	<	49	75	413	14	29	1	4	0.10	1.84	0.40	3.41	0.99	0.26	0.02	0.14
HS 16	P	<	50	10	105	55	<	<	3	<	<	<	18	47	104	<	52	78	432	14	29	1	4	0.10	1.97	0.42	3.54	1.05	0.28	0.02	0.14
HS 17	P	<	48	10	100	43	<	<	2	<	<	<	17	45	108	<	51	78	444	13	29	1	5	0.10	1.95	0.38	3.47	1.03	0.30	0.02	0.13
HS 18	P	<	47	7	76	39	<	<	3	<	<	<	16	46	123	<	54	81	384	7	27	1	5	0.10	1.96	0.40	3.33	1.02	0.28	0.02	0.14
HS 19	P	<	49	10	79	36	<	<	3	<	<	<	17	47	130	<	55	81	397	7	24	1	6	0.10	2.01	0.37	3.32	1.05	0.31	0.02	0.12
HS 20	P	<	47	11	73	38	<	<	2	<	<	<	16	45	122	<	53	77	374	6	23	<	5	0.09	1.85	0.34	3.11	0.96	0.26	0.02	0.12
HS 21	P	<	49	10	109	33	<	<	3	<	<	<	20	47	211	<	86	94	479	12	26	1	6	0.13	2.28	0.33	3.59	1.37	0.38	0.02	0.07
HS 22	P	<	38	8	87	21	<	<	2	<	<	0.4	15	40	96	<	45	62	432	12	30	1	3	0.07	1.61	0.40	2.81	0.86	0.18	0.02	0.13
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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	9999	9999	9999	999	999	99.9	999	999	9999	999	9999	999	9999	9999	9999	999	99	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	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