

**REPORT ON THE 1992
PROSPECTING AND GEOCHEMICAL WORK
IN THE ENGLISHMAN RANGES
TESLIN MAP AREA**

**YMIP # 92-098 IVAN ELASH
&
YMIP # 92-134 HARRY KERN**

Location 1 45 km NE of Teslin, Yukon
 2 NTS 105 C/8 & 9
 3 Longitude 132° 15" West
 Latitude 60° 30' North

For: Harry Kern and Ivan Elash
 612 Ogilvie Street
 Whitehorse, Yukon
 Y1A 2S8

By: R Allan Doherty, B Sc.,
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February 3, 1993

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	1
INTRODUCTION	1
LOCATION AND ACCESS	1
PROPERTY	1
PHYSIOGRAPHY AND VEGETATION	1
REGIONAL GEOLOGY	3
PROJECT AREA GEOLOGY	4
MINERAL OCCURRENCES	4
GEOCHEMISTRY	4
CONCLUSIONS AND RECOMMENDATIONS	8
REFERENCES	9
STATEMENT OF QUALIFICATIONS	10

LIST OF FIGURES

FIGURE 1	LOCATION MAP	2
FIGURE 2	SOIL GEOCHEMISTRY	7

LIST OF APPENDICES

APPENDIX A	PROSPECTOR'S EXPENSES
APPENDIX B	GEOCHEMICAL REPORTS

INTRODUCTION

This report was prepared at the request of Mr. Harry Kern and Mr. Ivan Elash to fulfil the reporting requirements of the Yukon Mining Incentive Program. Both Messrs Kern and Elash received prospector grants for the 1992 season and entered into a joint venture project in the Teslin map area

Prospecting work consisted of stream silt sampling, soil and rock sampling and prospecting. The work was carried out between July 02, 1992 and September 10, 1992. Both prospectors completed thirty days of field work. This report briefly reviews the regional and area geology and geochemical sampling results.

LOCATION AND ACCESS

The project area is located near the Wolf River, in the Thirtymile and Englishmans Ranges (Figure 1), approximately 46 km northeast of Teslin, Yukon. The centre of the project area is at approximately 60° 30' North latitude and 132° 15' West longitude within map area 105 C/8 & 9.

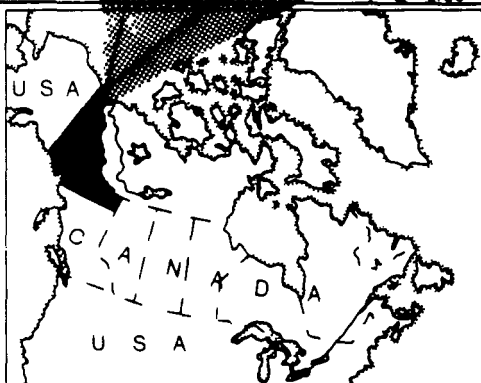
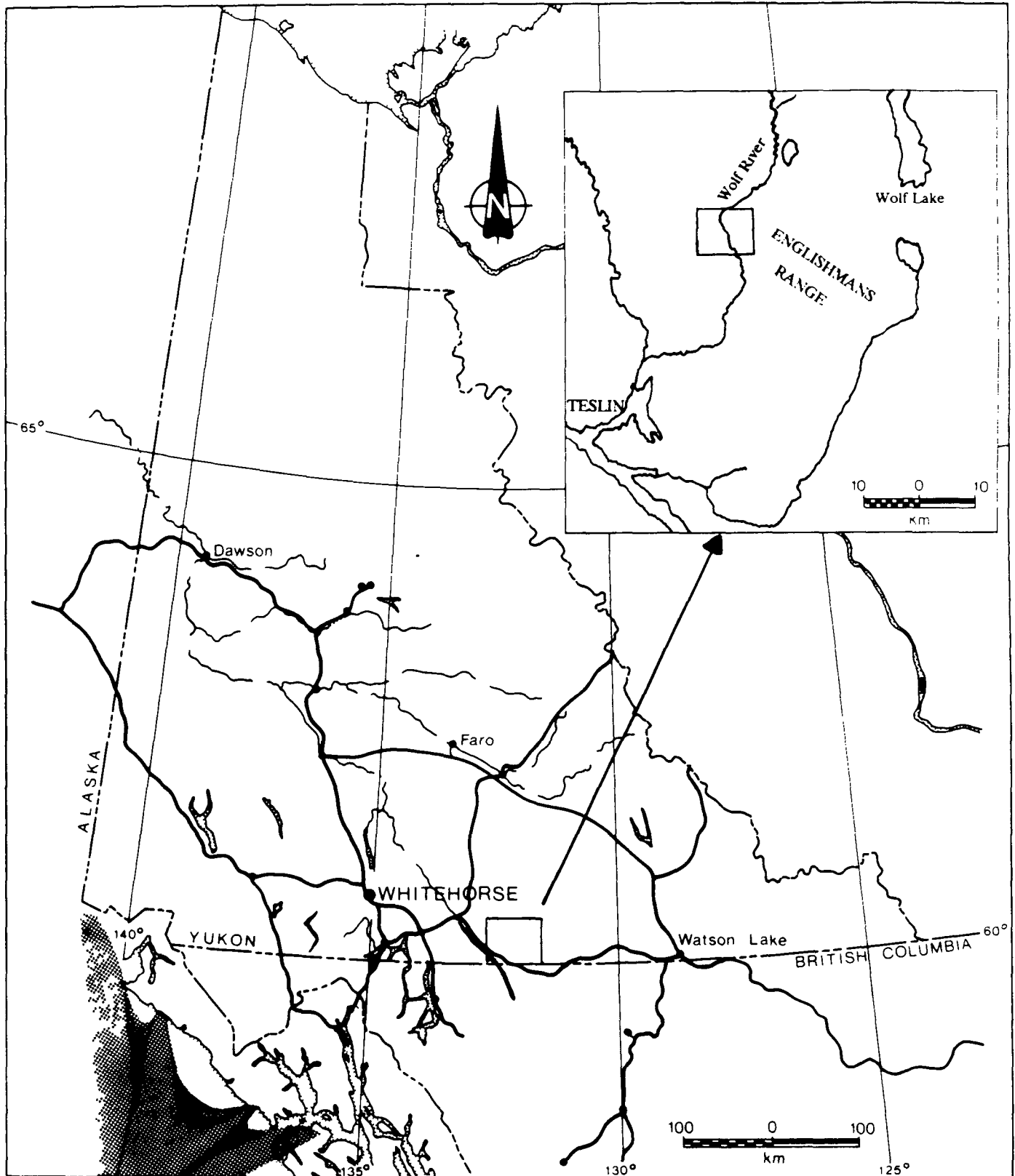
Access to the area is via float plane from Teslin to Fish Lake which is approximately 16 kilometers up river from the centre of the project area. A canoe was used to move camps down the Wolf River to access the work areas

PROPERTY

There has not been any claims staked by Mr. Kern or Mr. Elash within the project area. There are currently no active mining claims in the area. Parts of the Wolf River valley are currently withdrawn from staking under the provisions of the Yukon Indian Land Claims Agreement.

PHYSIOGRAPHY, CLIMATE AND VEGETATION

The area is situated within the Nisutlan Plateau, which occupies the area east of Nisutlan River. The Thirtymile and Englishmans Ranges form a northwest trending highland that dissects the Nisutlan Plateau and is a northern extension of the Cassiar Mountains. The Wolf River breaches these ranges flowing from the northeast to the southwest and enters the Nisutlan River a few kilometers above Nisutlan Bay.



ENGLISHMANS RANGE PROJECT

LOCATION

Aurum Geological Consultants Inc Date

NTS Drawn by Figure 1

Mountains in the Thirtymile and Englishmans Ranges are characterized by steep north facing cirques and knife-edge ridges

The river and creek drainages are somewhat chaotic and much of the area in the lowland surrounding the Thirtymile and Englishmans Ranges is poorly drained swampy ground with next to no outcrop. Throughout the project area, outcrop is confined to ridges, higher valley sides, and less commonly in the upper reaches of creeks. Vegetation in the area consists of dense thickets of willow in the poorly drained areas and mixed white spruce, lodgepole pine and balsam fir up to elevations of 4500 feet.

The area has been subject to continental glaciation and the bottoms of large valleys are floored by morainal deposits of all kinds, (Mulligan 1963). Kame-and-kettle topography, pitted outwash plains, eskers and fans are common.

Climate in the area is typical of this part of southern Yukon. Yearly average total precipitation for the period 1950 to 1954 is 15 inches (Mulligan, 1963), winters are long and moderately cold, whereas summers can be hot and dry.

REGIONAL GEOLOGY

The geology of the Teslin map area was described by Mulligan 1963 and the area is currently being remapped by the GSC (Gordy 1992). The area is part of the Omineca Belt of the western Cordillera. Terranes represented in this part of Teslin map area include the pericratonic Nisutlin terrane and the accreted Slide Mountain and Dorsey terranes (Wheeler and McFeely 1988). Recent work by Gordy (1992) indicates that rocks assigned to the Dorsey Terrane bear similarities to North American margin strata. The presence of Mississippian age volcanics and block faulting is in keeping with Devonian-Mississippian tectonism elsewhere along the North American margin.

Intrusive plutonic rocks in the area are predominantly early Cretaceous granites to syenite and monzonite with a few Jurassic or Cretaceous peridotite and pyroxenite bodies found northeast of the Thirtymile and Englishmans Ranges.

PROJECT AREA GEOLOGY

The project area according to Mulligan (1963), is underlain by Mississippian or earlier Big Salmon Complex consisting of schists and gneisses, quartzites and chloritic and epidotic rocks, overlain by Mississippian Englishmans Group which consists of limestone and quartz arenite.

Recent mapping by Gordey (1992) within and near the project area indicates the following stratigraphic relations: quartz-rich sandstone and grit with minor limestone horizons, probably Proterozoic or Lower Cambrian Ingenika Group, cherts of Ordovician to Devonian Road River Group; and chert pebble conglomerate, limestone, quartz arenite and shale-siltstone of the Devonian-Mississippian Earn Group

Most hand specimens observed by the author showed evidence of moderate to strong development of penetrative fabrics. Hand samples containing anomalous gold values generally contained weakly developed quartz-calcite vein material

MINERAL OCCURRENCES

Known mineral occurrences in and near the project area consist mainly of skarns hosting variable amounts of Cu-W-Sn-Pb-Zn-Ag-Au-Co-Fl-Ba usually in Mississippian limestone units in contact with Cretaceous granite. One occurrence, Minfile Number 105C002, is a silver lead vein. Three skarn occurrences (Yukon Minfile Numbers 105C003, 105C036 & 105C038) have been diamond drilled. There are no published reserves for any of these occurrences. The location of Minfile No 105C003 (BAR Occurrence) is plotted on Figure 3

GEOCHEMISTRY

Introduction

A total of 226 samples were collected within the Project Area. The samples were analyzed for gold plus 31 element ICP at Northern Analytical Laboratories Ltd with some check samples submitted to Acme Analytical Laboratories Ltd

Samples collected included 135 stream silt samples, 81 soil samples, and 10 rock samples. Approximately 67 samples, mostly silt samples, were not plotted or located on either Figure 2 or 3. These samples were not included on the maps because of

confusion over sample locations, and repeat sampling along one creek. Most of these samples returned low values for gold.

Geochemical results

Statistical parameters were calculated for both the silt and soil populations to determine the background, and anomalous values for gold. For better definition, background is the mean of the sample population and the anomalous value is set at the mean plus two standard deviations. Before calculating the statistical parameters, the anomalously high values were excluded from the sample populations. Five sample values greater than 300 ppb gold were excluded from the silt sample population, and one sample with a value of 814 ppb gold was excluded from the soil sample population. The statistical results for gold are tabulated as follows:

GEOCHEMICAL STATISTICS FOR GOLD

	SILT	SOIL
NUMBER	135	81
BACKGROUND	19 ppb	11 ppb
ANOMALOUS	84 ppb	33 ppb

Twelve silt samples returned anomalous values ranging between 90 ppb gold and 936 ppb gold. Three soil samples returned anomalous values between 40 and 814 ppb gold. Of the ten rock samples submitted for analyses, five returned anomalous values which ranged between 120 ppb gold and 7056 ppb gold.

Sample results for gold only are plotted on Figures 2 and 3. Figure 3 shows stream silt sample locations for the entire project area and Figure 2 shows soil sample results from three contour sample lines run between the two creeks containing the best silt sample anomalies.

Most anomalous results are from the northwest side of the Wolf River. This area is underlain by limestone and argillaceous quartzite and phyllites. Four rock samples collected upslope of the high stream silt anomalies returned values ranging between 120 and 7076 ppb gold from hand samples that generally contained thin but pervasive quartz-carbonate veining. Rock samples containing anomalous gold values are also anomalous in Pb, Zn, Cd, Ca, Fe, and W; which suggests probable skarn mineralization. The closest mapped intrusion is approximately 3 kilometers to the west.

Two anomalous samples are located on the southeast side of the Wolf River near the BAR occurrence (Yukon Minfile #105C003). One stream silt sample (Sample

2 6) returned 706 ppb gold and a single rock sample (Sample 2) returned 866 ppb gold from an assay by Northern Analytical Laboratories but only 41 ppb gold in a check assay completed by Acme Analytical Laboratories Ltd.

CONCLUSIONS AND RECOMMENDATIONS

Prospecting and geochemical sampling in the Englishmans and Thirtymile Ranges was completed by Harry Kern and Ivan Elash under a prospecting grants provided by the Yukon Mining Incentive Program. Work by these prospectors has indicated anomalous gold in stream silts, soils, and rock samples from an area northwest of the Wolf River which is underlain by limestone and argillaceous quartzite and phyllites of the Englishmans Group (Mulligan 1963) but which may actually be part of Earn Group stratigraphy (Gordy 1992).

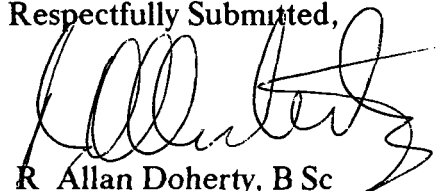
Rock samples containing anomalous gold also contain anomalous Pb, Zn, Cd, Ca, Fe, and W which suggest the presence of skarn mineralization. The presence of thin but pervasive quartz-carbonate veining in the areas containing the anomalous gold in rock samples may indicate another mineralized system in the area.

The following follow-up work program is recommended

1. Additional rock sampling should be completed in the areas that have returned high gold values
2. Samples should be carefully collected across measured chip sample intervals with emphasis placed on areas of quartz-calcite veining
3. The prospectors should devise a more simplified sample numbering scheme and carefully plot sample locations at the end of each traverse.
4. Creeks to the north of the anomalous creeks should be sampled at 100 m intervals.
5. An airphoto linear interpretation should be completed prior to re-visiting the area.
6. Careful attention should be directed toward alteration assemblages near veins

February 3, 1993

Respectfully Submitted,


R. Allan Doherty, B.Sc.

REFERENCES

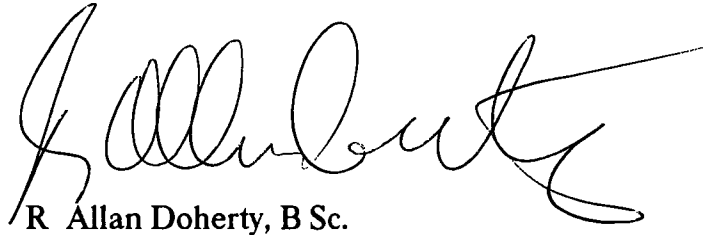
- Gordy, S P , 1992 Geological Fieldwork in Teslin map area, southern Yukon Territory, in Current Research, Part A, Geological Survey of Canada, Paper 92-1A, p 279-286
- Mulligan, R , 1963 Geology of the Teslin Map Area, Yukon Territory, 105 C, Geological Survey of Canada Mem 326
- Wheeler, J O , and McFeely, P (comp), 1991: Tectonic Assemblage Map of the Canadian Cordillera and adjacent parts of the United States of America, Geological Survey of Canada, Map 1712A

STATEMENT OF QUALIFICATIONS

I, R. Allan Doherty, hereby certify that

- 1 I am a geologist with AURUM GEOLOGICAL CONSULTANTS INC , 205 - 100 Main Street, P O Box 4367, Whitehorse, Yukon, Y1A 3T5
2. I am a graduate of the University of New Brunswick, with a degree in geology (Hons BSc , 1977) and that I attended graduate school at Memorial University of Newfoundland, 1978-81. I have been involved in geological mapping and mineral exploration continuously since then
- 3 I am a member of the Yukon Association of Professional Geoscientists and the CIMM
- 4 I prepared this report based on information received from Harry Kern and Ivan Elash on the Englishmans Ranges Project Area, which is based on data collected during prospecting work between July 02, 1992 and September 10, 1992
- 6 I consent to the use of this report by Messrs Kern and Elash, provided that no portion is used out of context in such a manner as to convey a meaning differing materially from that set out in the whole

February 3, 1993



R. Allan Doherty, B Sc.

APPENDIX A
PROSPECTOR'S EXPENSES

PROSPECTORS EXPENSES

Mr Ivan Elash YMIP No 92-098

1	Daily living allowance 32 Days @ \$52 85/day	\$1,691 20
2	Transportation 3 return trips Whse-Teslin (3x366x 385) Coyote Air Services Inv 0796 Canoe rental John McIntyre Invoice	\$422.73 \$836 75 \$775.00
3	Assays NAL 052144 NAL 052207	\$1,121 89 \$ 56 66
4	Maps (4 receipts)	\$83 88
5	Prospecting Equipment	\$1,367 29
6	Technical Report: AURUM 93001	\$1,971 48
	Total Expenses	\$8,326.88
	Less Advance	-\$1,000.00
	Total Expenses Claimed	\$7,326.88

July 17 - 19
Aug 10

Harry Kern YMIP Claim 92-134

Submitted on December 11, 1992

1	Daily Living Allowance - 31 days @ \$52.85/day	\$ 1,638 35
2	Transportation - 1748 km @ \$0.385/km	\$ 686 84
	- Float Plane, July 2nd	\$ 319 93
	July 10th	\$ 649 49
	July 19th	\$ 171 20
	Sept 2nd	\$ 590 64
	Sept 10th	\$ 406 60
3.	Field/Office Supplies	\$ 1,198 86
4	Maps and Minfile	\$ 618 87
5	Assays	\$ 1,591 63

TOTAL EXPENSES \$ 7,872 06

AMOUNT IN PROSPECTORS CONTRIBUTION AGREEMENT \$10,000 00

AMOUNT REIMBURSABLE \$ 7,872.06

2,127.94 LEFT
10 006 00

CANOE

APPENDIX B
GEOCHEMICAL REPORTS

Assay Certificate

page 1

Harry Kern

WO#138674

Sample #

Au ppb

1
2
3
4
5

1244
866
511
170
254

$\rightarrow$ Check $\sigma = 1$, then $\sigma = 1$ - maybe π - not
 $\sigma = 1$
 Suppose $\sigma = 1$ and $\sigma = 1$?
 $\sigma = 1$ (Check $\sigma = 1$)
 $\sigma = 1$ π

Certified by

Chyckli



AA
LL

GEOCHEMICAL ANALYSIS CERTIFICATE

Aurum Geological Consultants File # 92-4280 Page 1
412 - 675 W. Hastings St., Vancouver BC V6B 1N2 Submitted by: Al Doherty

AA
LL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au** ppb
1	6	79	865	817	1.6	13	4	160	1.02	6	5	ND	1	37	3.8	2	2	8	1.94	.243	15	120	.21	240	.01	7	.37	.01	.11	130	2	1	1606
2	3	7	403	525	.6	3	1	47	.21	4	5	ND	1	2	2.6	2	2	1	.05	.004	2	115	.01	18	.01	2	.07	.01	.04	12	2	1	41
3	3	7	94	225	.4	83	23	675	2.44	2	5	ND	1	844	1.2	2	2	12	14.83	.033	2	118	1.03	19	.01	2	1.33	.01	.02	33	2	1	7076
4	5	5	94	190	.2	4	1	55	.23	8	5	ND	1	18	.9	2	2	1	1.45	.005	2	163	.28	5	.01	2	.03	.01	.01	3	2	1	142
5	1	1	164	226	.4	1	2	37	.09	7	5	ND	1	129	1.1	2	2	2	20.99	.008	2	36	.19	1	.01	2	.03	.01	.01	11	2	1	120
RE 5	1	1	145	224	.3	2	1	43	.09	5	5	ND	1	129	1.4	2	2	2	20.72	.008	2	33	.18	1	.01	2	.03	.01	.01	12	2	1	116
RE 3	-	-	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	480
RE 3	-	-	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1980
STANDARD C	18	58	42	131	7.3	69	32	1071	3.96	42	21	7	38	52	18.6	15	19	58	.50	.084	41	61	.91	183	.09	35	1.90	.06	.14	12	2	1	-

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: P1 ROCK PULP P2 ROCK AU** ANALYSIS BY FA/ICP FROM 30 GM SAMPLE.
Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: DEC 7 1992 DATE REPORT MAILED: *Dec 15/92* SIGNED BY: *Chung* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



ACME ANALYTICAL

Aurum Geological Consultants

FILE # 92-4280

Page 2



ACME ANALYTICAL

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Au**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppb
1R	1	4	2	31	.4	10	4	100	1.09	2	5	ND	1	11	.4	2	2	4	1.38	.023	6	6	.18	61	.01	151	.35	.02	12	1	2	1	16
6	1	133	20	83	.7	16	14	348	2.72	9	5	ND	1	55	.4	2	2	90	1.17	.055	3	20	1.05	82	.40	102	2.07	.22	33	1	2	1	14
7	1	16	4	59	.1	33	5	132	1.33	4	5	ND	4	112	.5	2	2	9	9.94	.027	8	11	1.21	47	.01	82	.70	.01	18	1	2	1	9
8	1	1	2	15	.1	3	1	18	.06	4	5	ND	1	186	.7	3	2	3	39.04	.005	2	6	.77	12	.01	59	.03	.01	01	1	2	1	9
9	1	3	2	15	.1	6	1	42	.14	2	5	ND	1	58	.5	2	2	2	8.54	.024	2	3	3.93	1	.01	58	.02	.01	01	1	2	1	4
RE 9	1	1	2	18	.1	3	2	40	.13	2	5	ND	1	57	.4	2	2	2	8.28	.023	2	3	3.96	9	.01	49	.02	.01	01	1	2	1	-
STANDARD C	17	58	39	129	7.3	67	31	1019	3.96	41	19	7	37	52	18.0	14	21	56	.49	.087	37	57	.92	185	.09	37	1.88	06	14	10	2	2	-

Sample type: ROCK. Samples beginning 'RE' are duplicate samples.

09-Oct-92 date

Assay Certificate

page 1

Harry Kerns

WO#13796

Sample # Au ppb

R#1	52
HS 26	10
✓HS 8 0	5
✓HS 8 1	7
✓HS 8 2	<5
✓HS 8 3	8
✓HS 8 4	5
✓HS 8 5	7
✓EL 9 0	6
✓EL 9 1	7
✓EL 9 2	6
✓EL 9 3	15
✓EL 9 4	29
✓EL 10 0	8
✓EL 10 1	34
✓EL 10 2	7
✓EL 10 3	52
✓EL 10 4	98
✓EL 10 5	12
✓EL 10 6	12
✓EL 10 7	7
✓EL 10 8	7
✓EL 10 9	9
✓EL 10 10	14
✓EL 10 11	12
[8	<5
25	<5
90	<5

Certified by *Hyoki*



R E P O R T S U M M A R Y

Report:[9200905 R]

A N A L Y T I C A L R E P O R T

=====

Origin

Inception Date:[Oct 23, 1992]

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Client:[ 309 | Northern Analytical Laboratories ]
Contact:[ | Norm Smith ]
Project:[ 0 | W/O 13796 ]
Amount/Type:[ 25 | Pulp ]
[ ]

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Analytical Requisition

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Geochemical:[ ICP(AqR)30 ]
Assay:[ None ] ICP:[ 30 ]
Comments:[ None ]

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Delivery Information

Reporting Date:[Oct 26, 1992]

Principal Destination (Hardcopy,Fascimile,Invoice)

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Company:[ Northern Analytical Laboratories ]
Address:[ 105 Copper Road ]
City/Province:[ Whitehorse, YT ]
Country/Postal:[ Y1A 2Z7 ]
Attention:[ Norm Smith ]
Fascimile:[ 403/668-4890 ]

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Secondary Destination (Hardcopy)

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Company:[ ]
Address:[ ]
City/Province:[ ]
Country/Postal:[ ]
Attention:[ ]
Fascimile:[ ]

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1 data pages in this report.

Approved by: 

B.C. Certified Assayers

iPL CODE: 921026-15:42:43

iPL Report: 9200905 T Northern Analytical Laboratories
Project: W/O 13796

In: Oct 23, 1992
Out: Oct 26, 1992

25 Pulp

Page 1 of 1

Section 1 of 1
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	B 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 %
R - 1	<	9	3	38	<	<	<	4	<	<	0.4	8	26	96	5	32	39	152	13	21	3	2	0.07	0.70	0.50	1.89	0.58	0.07	0.02	0.07
HS-26	<	6	<	34	22	<	<	2	<	<	0.3	9	25	93	<	21	27	469	12	17	3	2	0.05	0.64	0.37	3.66	0.49	0.05	0.02	0.06
8: 0	<	10	8	37	5	<	<	1	<	<	0.2	10	22	97	6	34	57	415	17	22	2	2	0.09	0.76	0.58	2.61	0.53	0.06	0.02	0.08
8: 1	<	11	4	37	5	<	<	1	<	<	<	10	22	112	<	31	42	447	15	22	1	2	0.08	0.80	0.57	2.11	0.54	0.07	0.02	0.07
8: 2	<	8	<	34	<	<	<	1	<	<	0.3	8	19	74	<	18	31	305	8	18	2	2	0.07	0.70	0.47	1.58	0.52	0.05	0.02	0.04
8: 3	<	9	4	43	<	<	<	1	<	<	0.1	10	24	77	<	41	46	350	11	20	2	2	0.08	0.76	0.51	2.26	0.59	0.06	0.02	0.05
8: 4	<	11	2	36	5	<	<	1	<	<	0.4	9	22	91	<	25	34	401	10	20	2	2	0.07	0.80	0.53	1.75	0.56	0.07	0.02	0.06
8: 5	<	9	<	34	<	<	<	1	<	<	<	9	22	89	<	26	43	343	14	19	2	2	0.08	0.76	0.51	2.18	0.57	0.05	0.02	0.06
EL 9: 0	<	22	4	65	<	<	<	1	<	<	0.2	9	20	201	<	24	30	423	11	32	1	2	0.06	0.97	2.92	2.00	0.74	0.07	0.02	0.06
EL 9: 1	0.1	24	21	73	<	<	<	1	<	<	0.4	10	23	215	<	29	36	445	9	30	1	2	0.07	1.05	2.12	2.17	0.76	0.09	0.02	0.06
9: 2	0.1	26	7	77	5	<	<	1	<	<	0.5	10	24	222	<	32	41	496	11	30	1	2	0.08	1.10	1.39	2.42	0.77	0.10	0.02	0.07
9: 3	<	32	10	91	<	<	<	2	<	<	0.5	10	23	200	<	30	40	575	9	31	1	2	0.07	1.07	1.37	2.55	0.86	0.07	0.02	0.08
9: 4	0.1	23	13	79	<	<	<	1	<	<	0.3	10	23	171	<	36	39	550	8	26	<	2	0.07	0.98	1.15	2.36	0.84	0.07	0.02	0.07
10: 0	0.1	46	10	146	9	<	<	2	<	<	0.4	11	28	181	<	28	34	493	13	40	<	3	0.07	1.31	0.94	2.21	0.66	0.08	0.02	0.06
10: 1	<	40	7	126	8	<	<	1	<	<	0.4	11	27	171	<	27	37	505	14	38	1	3	0.08	1.26	0.86	2.20	0.64	0.08	0.02	0.06
10: 2	<	46	9	118	11	<	<	1	<	<	0.3	12	29	191	<	32	41	426	15	39	1	3	0.08	1.42	0.82	2.48	0.71	0.10	0.02	0.06
10: 3	0.2	43	7	118	8	<	<	1	<	<	0.4	11	28	172	<	30	39	459	16	42	1	3	0.08	1.35	0.82	2.39	0.68	0.09	0.02	0.07
10: 4	0.1	52	10	137	11	<	<	2	<	<	0.3	12	31	192	<	32	39	502	15	45	1	3	0.08	1.43	0.94	2.49	0.71	0.10	0.02	0.07
10: 5	<	27	15	100	11	<	<	1	<	<	0.3	13	25	108	<	22	36	675	11	23	1	2	0.06	1.12	0.45	2.47	0.70	0.06	0.02	0.04
10: 6	0.1	48	9	105	9	<	<	2	<	<	0.1	10	25	150	<	26	32	409	11	40	1	3	0.06	1.20	0.81	2.11	0.60	0.08	0.02	0.06
10: 7	0.2	59	14	136	11	<	<	2	<	<	0.4	11	30	187	<	30	38	488	13	50	1	3	0.07	1.45	0.99	2.48	0.73	0.10	0.02	0.07
10: 8	0.1	61	8	124	8	<	<	2	<	<	0.2	11	31	185	<	32	37	432	15	55	1	3	0.08	1.46	1.12	2.41	0.74	0.11	0.02	0.08
10: 9	0.1	49	20	109	8	<	<	2	<	<	0.1	11	29	171	<	31	39	455	15	47	1	3	0.08	1.37	0.92	2.39	0.71	0.09	0.02	0.07
10:10	<	52	14	130	7	5	<	1	<	<	0.4	12	30	181	<	32	38	401	13	52	1	3	0.08	1.40	1.08	2.42	0.75	0.11	0.02	0.07
10:11	0.1	52	13	112	9	<	<	2	<	<	0.2	12	32	176	<	33	43	514	13	52	1	3	0.08	1.40	1.10	2.64	0.80	0.09	0.02	0.07

01-Sep-92 date

Assay Certificate

page 1

Ivan Elash

WO#13729

Sample # Au ppb

EHST1-1A X	15
1 EL1	18
10 EL10	25
12 EL12	13
13 EL13	18
14 EL14	13
15 EL15	7
16 EL16	8
17 EL17	12
18 EL18	7
19 EL19	8
2 EL2	341 ✓
24 EL24	15
25 EL25	10
26 EL26	9
27 EL27	7
28 EL28	18
29 EL29	8
3 EL3	20
EL3-0	16
30 EL30	40
EL3-1	<5
31 EL31	9
32 EL32	21
EL3-3	<5
33 EL33	136 ✓
34 EL34	7
35 EL35	14
36 EL36	8
37 EL37	31
38 EL38	5
39 EL39	<5
4 EL4	15
40 EL40	12
41 EL41	10
✓ EL4100	27
EL4101	6
EL4102	9

} upstream from ravine on creek #4

Certified by *CHYOKI*



01-Sep-92 date

Assay Certificate

page 2

Ivan Elash

WO#13729

Sample #

had to be a high reading from earlier results, which resulted in additional sampling this time round

✓ EL4-1A	<5
✓ EL4-1B	7
✓ EL42	11
✓ EL43	6
✓ EL44	19
✓ EL45	205 ✓
✓ EL46	117 ✓
✓ EL47	15
✓ EL48	9
✓ EL49	14
✓ EL5	31
✓ EL50	20
✓ EL5101	10
✓ EL5102	10
✓ EL5103	23
✓ EL5 0	40
✓ EL5 1	8
✓ EL5 2	7
✓ EL6	24
✓ EL7	22
✓ ES4A1	12
✓ ES4A2	13
✓ ES4A3	10
✓ ES4A4	7
✓ ES4A5	5
✓ ES6 1	10
✓ EST1-1	6
EST1-11	6
EST1-12	10
✓ EST1-2	10
EST-13 ✓	5
✓ EST1-3	8
EST-14 ✓	5
EST-15 ✓	6
EST-16 ✓	8
EST-17 ✓	12
EST-18 ✓	16
EST-19 ✓	10

*EL5101-100m upstream (T1 HL50)
upstream from previous results on this creek #5*

at and near mouth of creek #4

soil sample of Dry Creek #6

Certified by *Chyokki*



01-Sep-92 date

Assay Certificate

page 3

Ivan Elash

WO#13729

Sample # Au ppb

EST-20	8 ✓
EST2-1	<5
EST2-13	5
EST2-14	16
EST2-15	15
EST2-16	10
EST2-17	7
EST2-17A	5

South Side Creek # 3

EST2-2	15
EST2-3A	<5
✓EST2-3B	65 ✓
EST2-4	5
EST2-5	<5
EST2-6	<5
EST2-7A	<5
EST2-8	<5
EST2END	13
EST2END1	20
EST2END2	19
EST2 17B	8

North Side Creek # 3

✓EST3-10	13
✓EST3-11	18
EST3-2	9
EST3-2A	13
EST3-3	<5
EST3-4	<5
EST3-5	<5
✓EST3-7	814 ✓

T3 2B soil sample
Taken south side Crk
3

EST3-8	12
EST3-9	12
✓ES 1	9
✓HL11	70 ✓
20 HL20	9
21 HL21	12
22 HL22	9
23 HL23	38
HL3 3A with EL3	5
51 HL51	24

over the crest of #4 mtn. (dry creek bed)

Certified by *Chyokka*



01-Sep-92 date

Assay Certificate

page 4

Ivan Elash

WO#13729

Sample #	Au ppb
----------	--------

HL52	11
HL53	14
HL8	19
HL9	18
HST1-0	8
HST1-10	8
HST1-3A	<5
HST1-4	6
HST1-5	8
HST1-6	5
HST1-7	<5
HST1-8	8
HST1-9	<5
T2-0	7
T2-1	11
T2-2A	5
T2 O	<5

Certified by *Chyokki*



11-Aug-92 date

Assay Certificate

page 1

Haywire Industries

WO#13655

Sample # Au ppb

1 10 -	6
1 11A -	23
2 0 -	11
2 10 -	19
2 2A -	11
3 0	7
3 0A	<5
3 10	21
4 0 -	11
4 0A	9
4 0B -	9
4 10A -	<5
8 A	13
creek 4 fire	219
swamp	<5
#4 M #1	<5
#4 M #2	<5
1 1 -	8
1 2 -	30
1 3 -	7
1 4 -	12
1 5 -	8
1 6 -	11
1 7 -	10
1 8 -	9
1 9 -	12
2 1 -	12
2 11 -	5
2 2 -	9
2 3 -	7
2 4 -	9
2 5 -	7
2 6 -	706
2 7 -	9
2 8 -	24
2 9 -	19
3 1 -	<5
3 11 -	14

Certified by *CHYOLKI*



11-Aug-92 date

Assay Certificate

page 2

Haywire Industries

WO#13655

Sample #	Au ppb
----------	--------

3 12 ✓	37
3 13 ✓	<5
3 144 ✓	<5
3 2 ✓	<5
3 3 ✓	<5
3 4 ✓	13
3 5 ✓	8
3 6 ✓	451
3 7 ✓	99
3 8 ✓	8
3 9 ✓	489
4 1 ✓	<5
4 11 ✓	6
4 2 ✓	<5
4 3 ✓	936
4 4 ✓	<5
4 5 ✓	7
4 6 ✓	143
4 7 ✓	<5
4 8 ✓	5
4 9 ✓	12
5 —	<5

Certified by

Chyokki



R E P O R T S U M M A R Y

Report:[9200577 R]

A N A L Y T I C A L R E P O R T

=====

Origin

Inception Date:[Aug 04, 1992]

Client:[309 | Northern Analytical Laboratories]
Contact:[Norm Smith]
Project:[0 | 13655]
Amount/Type:[59 | Pulp]
[]

Analytical Requisition

Geochemical:[ICP(AqR)30]
Assay:[None] ICP:[30]
Comments:[Fax ASAP]

Delivery Information

Reporting Date:[Aug 06, 1992]

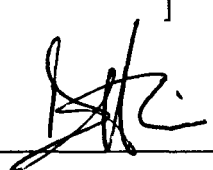
Principal Destination (Hardcopy,Fascimile,Invoice)

Company:[Northern Analytical Laboratories]
Address:[105 Copper Road]
City/Province:[Whitehorse, YT]
Country/Postal:[Y1A 2Z7]
Attention:[Norm Smith]
Fascimile:[403/668-4890]

Secondary Destination (Hardcopy)

Company:[]
Address:[]
City/Province:[]
Country/Postal:[]
Attention:[]
Fascimile:[]

2 data pages in this report.

Approved by: 

B.C. Certified Assayers

iPL CODE: 920807-14:28:31

iPL Report 9200577 T Northern Analytical Laboratories
Project: 13655

In: Aug 04, 1992
Out: Aug 06, 1992

59 Pulp

Page 1 of 2

Section 1 of 1
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 %
13655 1 : 1 P	<	15	12	70	<	<	<	1	<	<	0.1	9	20	223	11	22	24	1375	10	41	2	2	0.04	1.09	0.82	1.80	0.57	0.09	0.03	0.07
13655 1 : 2 P	<	11	7	58	<	<	<	2	<	<	<	8	17	152	16	20	24	499	12	31	2	1	0.04	0.89	0.62	1.61	0.47	0.06	0.03	0.08
13655 1 : 3 P	<	13	12	61	<	<	<	2	<	<	0.2	8	17	177	10	21	25	600	11	37	2	2	0.04	1.01	0.75	1.74	0.53	0.07	0.03	0.08
13655 1 : 4 P	<	12	10	66	<	<	<	1	<	<	0.1	8	18	183	8	20	23	660	10	37	2	1	0.04	1.01	0.74	1.64	0.53	0.08	0.03	0.07
13655 1 : 5 P	<	14	11	75	<	5	<	1	<	<	0.2	9	19	198	6	22	25	739	11	42	2	2	0.05	1.11	0.88	1.80	0.58	0.09	0.03	0.07
13655 1 : 6 P	<	27	14	106	5	6	<	2	<	<	0.2	11	24	243	<	26	30	856	12	54	2	2	0.05	1.34	1.14	2.23	0.69	0.12	0.03	0.08
13655 1 : 7 P	<	23	15	98	5	8	<	2	<	<	0.3	11	24	209	6	25	29	863	11	50	2	2	0.05	1.26	1.02	2.12	0.65	0.11	0.03	0.08
13655 1 : 8 P	<	40	17	156	7	8	<	2	<	<	0.5	14	32	275	8	32	36	1101	13	55	3	3	0.05	1.53	1.12	2.75	0.77	0.15	0.03	0.09
13655 1 : 8A P	<	30	15	110	6	7	<	2	<	<	0.3	11	27	239	7	26	29	786	10	56	3	2	0.04	1.30	1.19	2.32	0.69	0.12	0.03	0.08
13655 1 : 9 P	<	48	20	147	12	7	<	2	<	<	0.8	14	34	266	9	32	34	1298	12	67	3	2	0.04	1.51	1.47	2.71	0.81	0.15	0.03	0.10
13655 1 : 10 P	<	30	15	97	9	7	<	2	<	<	0.5	11	27	190	5	26	30	809	10	49	2	2	0.04	1.20	1.01	2.23	0.66	0.11	0.03	0.08
13655 1 : 11A P	<	49	18	139	12	7	<	2	<	<	0.4	13	34	206	6	31	35	865	11	60	3	2	0.04	1.45	1.36	2.69	0.79	0.14	0.03	0.11
13655 2 : 0 P	0.1	21	14	91	8	6	<	2	<	<	0.3	10	25	209	<	21	29	871	11	33	2	1	0.04	0.88	0.61	2.20	0.46	0.06	0.02	0.08
13655 2 : 1 P	<	21	15	88	7	7	<	2	<	<	0.2	10	25	210	<	21	27	864	11	34	2	1	0.04	0.90	0.62	2.09	0.47	0.07	0.02	0.08
13655 2 : 2 P	<	27	22	131	7	7	<	2	<	<	0.4	10	25	207	7	21	26	850	10	43	2	1	0.03	0.96	0.81	2.18	0.50	0.07	0.02	0.07
13655 2 : 2A P	<	18	17	98	6	5	<	2	<	<	0.1	10	23	157	5	21	30	716	11	28	2	1	0.04	0.78	0.48	2.10	0.43	0.06	0.02	0.07
13655 2 : 3 P	<	17	14	92	6	5	<	2	<	<	0.1	9	22	158	6	21	30	633	12	29	1	1	0.04	0.82	0.52	2.03	0.44	0.06	0.02	0.07
13655 2 : 4 P	0.1	23	20	171	8	6	<	2	<	<	0.3	10	26	171	<	23	30	649	11	36	2	2	0.04	0.92	0.64	2.23	0.53	0.06	0.02	0.06
13655 2 : 5 P	<	19	18	118	6	9	<	2	<	<	0.4	10	24	155	5	23	32	533	13	35	2	2	0.04	0.87	0.67	2.19	0.56	0.07	0.02	0.07
13655 2 : 6 P	<	17	15	105	6	<	<	1	<	<	0.1	9	21	138	<	23	31	420	12	32	2	1	0.04	0.81	0.60	2.07	0.51	0.06	0.02	0.08
13655 2 : 7 P	<	14	15	74	6	<	<	1	<	<	0.2	8	21	107	6	22	29	377	12	24	2	1	0.03	0.71	0.50	1.92	0.48	0.06	0.02	0.07
13655 2 : 8 P	<	14	13	72	6	5	<	2	<	<	0.2	8	19	115	6	21	29	340	10	28	2	1	0.04	0.75	0.54	1.91	0.50	0.05	0.02	0.08
13655 2 : 9 P	<	19	14	90	8	5	<	2	<	<	0.2	9	25	146	<	26	34	442	16	37	2	2	0.04	0.91	0.72	2.27	0.60	0.07	0.02	0.08
13655 2 : 10 P	<	15	13	80	6	5	<	1	<	<	0.1	8	20	115	7	24	34	370	14	27	2	1	0.04	0.75	0.56	2.11	0.51	0.05	0.02	0.08
13655 2 : 11 P	<	15	15	77	6	5	<	2	<	<	0.4	8	22	118	6	22	27	387	14	29	2	1	0.04	0.79	0.58	1.88	0.53	0.07	0.02	0.07
13655 3 : 0 P	<	22	20	112	8	<	<	2	<	<	0.3	12	28	168	5	25	30	1169	11	37	2	2	0.03	1.01	0.72	2.39	0.59	0.08	0.02	0.08
13655 3 : 0A P	<	19	15	63	6	5	<	1	<	<	0.3	8	24	138	5	24	24	368	9	31	2	1	0.03	0.95	0.83	1.72	0.51	0.08	0.02	0.08
13655 3 : 1 P	<	19	20	91	8	<	<	2	<	<	0.2	10	25	145	8	26	33	886	12	31	1	2	0.04	0.91	0.60	2.27	0.54	0.07	0.02	0.07
13655 3 : 2 P	<	19	20	79	11	5	<	2	<	<	0.1	9	25	144	6	26	32	507	10	34	2	2	0.04	1.03	0.68	2.14	0.59	0.07	0.02	0.08
13655 3 : 3 P	<	17	45	72	10	5	<	1	<	<	<	10	24	141	<	23	29	783	10	26	2	2	0.04	0.88	0.56	2.03	0.53	0.07	0.02	0.06
13655 3 : 4 P	<	18	35	76	9	7	<	2	<	<	0.3	9	23	132	<	24	28	612	10	28	2	1	0.03	0.84	0.63	1.97	0.52	0.08	0.02	0.07
13655 3 : 5 P	<	15	30	70	6	5	<	1	<	<	0.4	8	20	122	5	22	29	478	11	25	2	1	0.03	0.78	0.59	1.93	0.49	0.07	0.02	0.06
13655 3 : 6 P	<	14	25	67	7	7	<	2	<	<	0.3	9	21	122	5	24	29	396	10	26	2	1	0.04	0.84	0.60	1.94	0.52	0.07	0.02	0.07
13655 3 : 7 P	<	16	25	69	6	6	<	1	<	<	0.3	8	21	124	6	23	28	451	11	27	2	1	0.04	0.83	0.62	1.88	0.52	0.07	0.02	0.07
13655 3 : 8 P	<	15	25	69	7	7	<	1	<	<	0.3	10	24	135	<	28	38	482	13	25	2	2	0.04	0.87	0.57	2.28	0.58	0.08	0.02	0.07
13655 3 : 9 P	<	16	23	67	8	5	<	2	<	<	0.1	9	23	128	7	25	33	416	11	28	2	2	0.04	0.85	0.66	2.08	0.56	0.07	0.02	0.07
13655 3 : 10 P	<	18	24	83	6	<	<	2	<	<	0.2	10	25	147	6	26	31	487	10	32	2	2	0.04	0.90	0.83	2.06	0.63	0.08	0.02	0.06
13655 3 : 11 P	<	15	18	57	6	<	<	2	<	<	<	8	22	129	10	24	32	302	10	29	2	2	0.04	0.84	0.73	2.02	0.56	0.06	0.02	0.06
13655 3 : 12 P	<	15	16	60	7	5	<	2	<	<	0.3	8	21	121	5	23	30	356	11	29	2	1	0.04	0.79	0.77	1.91	0.57	0.07	0.02	0.07

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 999 999 999 99.9 999 999 9999 999 9999 999 9999 9999 9999 999 99 1 00 99.99 99.99 99 99 9 99 9.99 5.00 5.00
 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

IPL Report: 9200577 T Northern Analytical Laboratories
Project: 13655

In: Aug 04, 1992
Out: Aug 06, 1992

59 Pulp

Page 2 of 2

Section 1 of 1
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 %
13655 3 - 13 P	<	13	19	60	6	<	<	2	<	<	<	8	20	108	8	23	34	320	11	24	1	1	0.04	0.71	0.64	2.00	0.53	0.06	0.02	0.06
13655 3 : 144 P	<	11	15	56	<	5	<	1	<	<	0.1	8	20	99	5	23	30	338	12	24	2	1	0.04	0.71	0.71	1.83	0.60	0.05	0.02	0.06
13655 4 : 0 P	<	14	9	62	5	5	<	1	<	<	0.2	8	23	116	7	25	34	366	10	21	2	2	0.05	0.70	0.84	1.88	0.59	0.06	0.02	0.08
13655 4 : 0A P	0.2	29	16	78	9	5	<	2	<	<	0.2	13	36	205	<	33	39	463	14	43	4	3	0.06	1.47	1.97	2.61	0.97	0.12	0.03	0.07
13655 4 : 0B P	0.1	16	10	60	6	6	<	2	<	<	0.3	9	25	122	6	25	31	427	11	25	2	2	0.05	0.80	1.04	1.79	0.63	0.07	0.02	0.08
13655 4 : 1 P	<	13	10	53	5	5	<	2	<	<	0.2	8	22	109	8	23	32	372	10	23	2	1	0.05	0.67	1.02	1.76	0.56	0.05	0.02	0.07
13655 4 : 2 P	<	16	9	68	5	<	<	1	<	<	0.3	9	25	137	7	26	33	440	11	27	2	2	0.05	0.79	1.20	1.92	0.65	0.06	0.02	0.08
13655 4 : 3 P	0.1	17	10	71	5	5	<	2	<	<	0.4	9	27	138	5	28	35	450	11	27	2	2	0.04	0.83	1.07	2.04	0.68	0.08	0.02	0.09
13655 4 : 4 P	<	20	9	64	6	6	<	2	<	<	0.3	10	27	138	<	23	30	481	9	27	2	2	0.04	0.82	1.08	1.84	0.67	0.06	0.02	0.08
13655 4 : 5 P	<	17	9	73	6	7	<	2	<	<	0.5	9	25	124	9	24	33	412	9	25	2	1	0.04	0.71	1.11	1.90	0.65	0.07	0.02	0.08
13655 4 : 6 P	<	16	9	59	5	5	<	2	<	<	0.3	8	23	100	6	27	35	285	11	23	1	1	0.04	0.71	0.98	1.97	0.65	0.06	0.02	0.08
13655 4 : 7 P	<	14	10	77	6	5	<	1	<	<	0.2	9	24	115	7	23	29	425	9	23	1	1	0.04	0.69	1.05	1.72	0.63	0.05	0.02	0.07
13655 4 : 8 P	<	15	11	57	7	6	<	2	<	<	0.4	9	23	119	6	24	31	370	10	24	2	2	0.04	0.70	0.99	1.73	0.60	0.06	0.02	0.07
13655 4 : 9 P	<	14	7	59	5	7	<	2	<	<	0.1	9	24	119	5	28	39	331	15	25	2	2	0.06	0.79	1.01	2.05	0.65	0.06	0.02	0.09
13655 4 : 10A P	<	13	11	47	5	<	<	2	<	<	0.2	9	22	106	<	22	30	348	11	22	2	2	0.04	0.69	0.85	1.67	0.67	0.06	0.02	0.07
13655 4 : 11 P	<	15	9	58	6	6	<	2	<	<	0.4	8	23	113	<	27	33	341	12	22	2	2	0.04	0.74	0.74	1.82	0.64	0.08	0.02	0.08
13655 4 : X P	<	10	5	44	<	<	<	1	<	<	0.2	7	21	94	6	20	25	297	9	18	1	1	0.04	0.61	0.63	1.51	0.54	0.05	0.02	0.07
13655 4 : Y P	<	12	12	50	5	<	<	1	<	<	0.2	8	21	98	<	21	25	340	8	19	2	1	0.03	0.62	0.71	1.54	0.57	0.05	0.02	0.07
13655 4 : Z P	<	19	11	60	6	<	<	1	<	<	0.3	10	24	132	<	25	30	342	9	25	1	1	0.04	0.81	0.83	1.94	0.59	0.06	0.02	0.08
13655 5 : 0 P	<	12	10	45	6	5	<	2	<	<	0.3	8	21	95	6	21	29	281	10	18	2	1	0.03	0.62	0.72	1.65	0.63	0.05	0.02	0.08

