

094004

**REPORT ON THE 1998 WORK PROGRAM**

**MEL CLAIMS 1 - 42**

**WATSON LAKE MINING DISTRICT, YUKON**

**NTS 105 B/14**

for

**Yukon Yellow Metal Exploration Ltd.**

by

**Larry W. Carlyle, F.G.A.C., P. Geol.**

Whitehorse, Yukon

October, 1998

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 \$ 16,800.

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

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## **INTRODUCTION:**

This report has been prepared to present the data obtained from three A-size core diamond drill holes, totaling 332 feet (101 metres), drilled during the 1998 Work Program. The holes were all collared near each other in an excavation directly south of the "Winnie" Showing.

The Mel Lin property has had both a long placer mining history as well as an extensive hard rock exploration history.

## **Placer History:**

The Mel Lin property is held under Discovery Placer Claim P 23784. The claim covers Shootamook Creek and two of its tributaries, known locally as Red and Matt Creeks. Red Creek runs from the west into Shootamook Creek and Matt Creek runs from the east into Shootamook Creek. Shootamook Creek flows northward in the area of the tributaries. The confluence of Matt and Shootamook Creeks is slightly upstream from that of Red Creek (See Property Geology Plan).

The property was apparently first placer mined by Chief Billy Smith of the Tagish Band in the early 1930's. Hand stacked rocks located on both Red and Matt Creeks, as well as flumes, sluice boxes, and two cabins located on Matt Creek are evidence of his work. Mel Holloway excavated an old shaft near where the cabins had been before their destruction during a forest fire in 1991. The shaft probably represents work done by Wolf MacKinnon in about 1945. During 1997, the full depth of the shaft was excavated with bedrock being located at 40 feet. A

test of the gravels at the bottom of the shaft returned gold values of less than \$2.00/yd<sup>3</sup>. The assumption is that the old-timers had mined all the gold at this location. The excavation was widened toward Matt Creek (toward the north) during 1998. This work will be reported in a separate report.

### **Hard Rock History:**

While using a floating dredge at the confluence of Shootamook and Matt Creeks in 1987, Mr. Holloway exposed a mineralized, hydrothermal structure which he named the "Winnie" (See Property Geology Plan). The showing was optioned to Total Erickson during 1987 and 1988. This company established a 10 person camp and drilled six diamond drill holes into the showing. The option was terminated when the tax advantages of flow-through share exploration expenditures were eliminated.

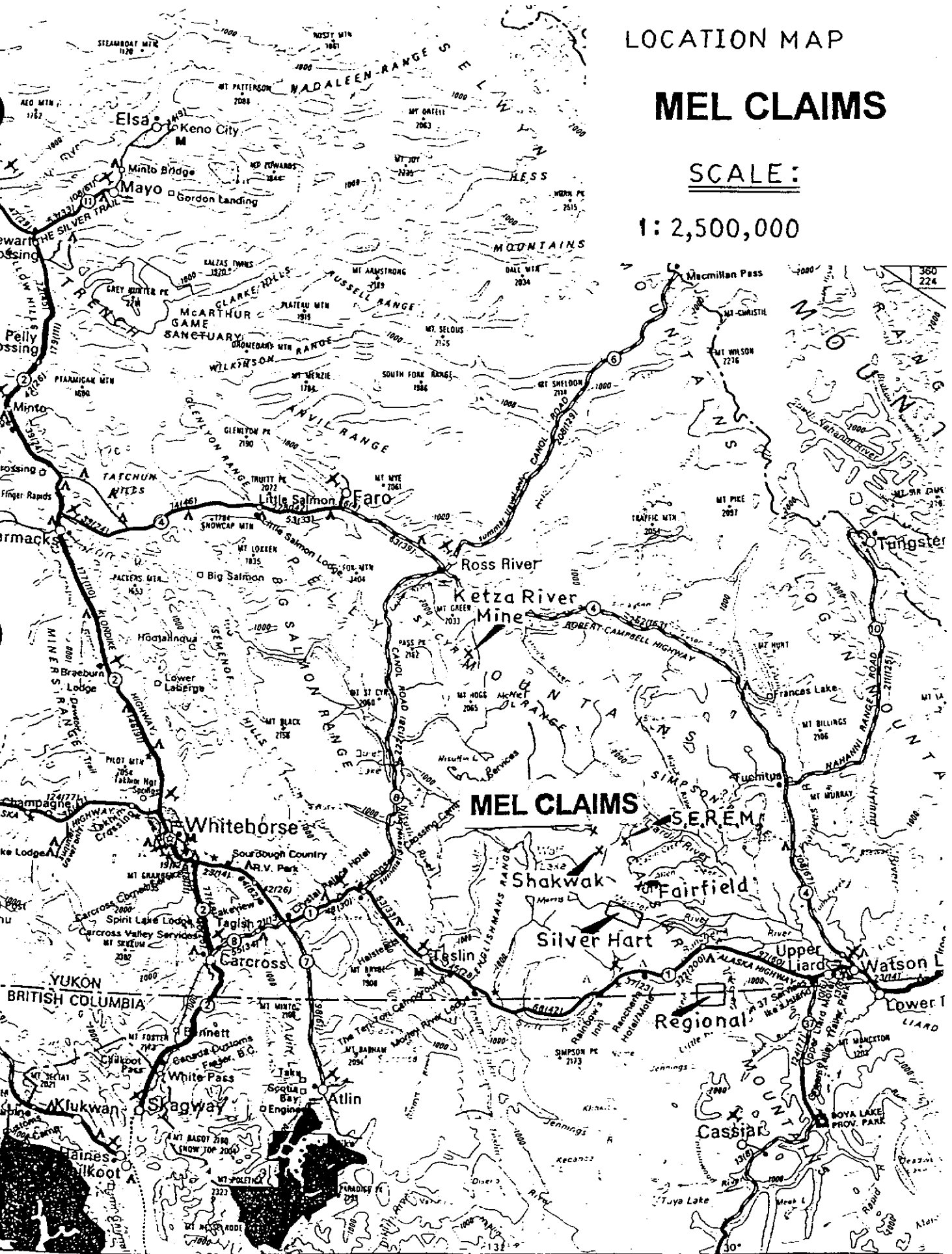
The property was then optioned to Oropex Minerals from 1988 to 1990. During this period, some regional geological work such as stream sediment sampling was done. As well, geochemical soil sampling and geophysical VLF-EM surveys were done in the area of the "Winnie". This resulted in its excavation and the excavation of several trenches on geochemical anomalies. A John Deer 350C excavator c/w 1 yd<sup>3</sup> bucket and 0.25 yd<sup>3</sup> hoe attachment was flown to the site to do this work and to build a short airstrip. The three diamond drill holes drilled during 1998 explore the "Winnie" at a greater depth than that achieved by the extensive excavation performed during 1997.

LOCATION MAP

# MEL CLAIMS

SCALE:

1:2,500,000



**LOCATION, ACCESS AND CLAIMS:**

The property is situated on Shootamook Creek within the Watson Lake Mining District of Yukon on the Wolf Lake Map Sheet NTS 105 B/14. Shootamook Creek is a tributary of Scurvy Creek approximately 55 miles (88 Km.) north of Rancheria Lodge situated at Mile 710 (Km. 1143) of the Alaska Highway (See Mel Claims Location Map). The property has an air strip so access is by small fixed-wing aircraft.

The claims cover areas from approximately 3000 to 5000 feet (1112 to 1524 metres) above sea level. The property is on rounded, moderately to steeply sloping hills and valleys. Most of the property is covered with black spruce, pine, willow, low bush, moss and lichens. Bedrock exposures are largely confined to stream cuts and a few steep cliff faces. Bedrock exposure has been greatly improved by a 1991 forest fire which removed a great deal of the cover.

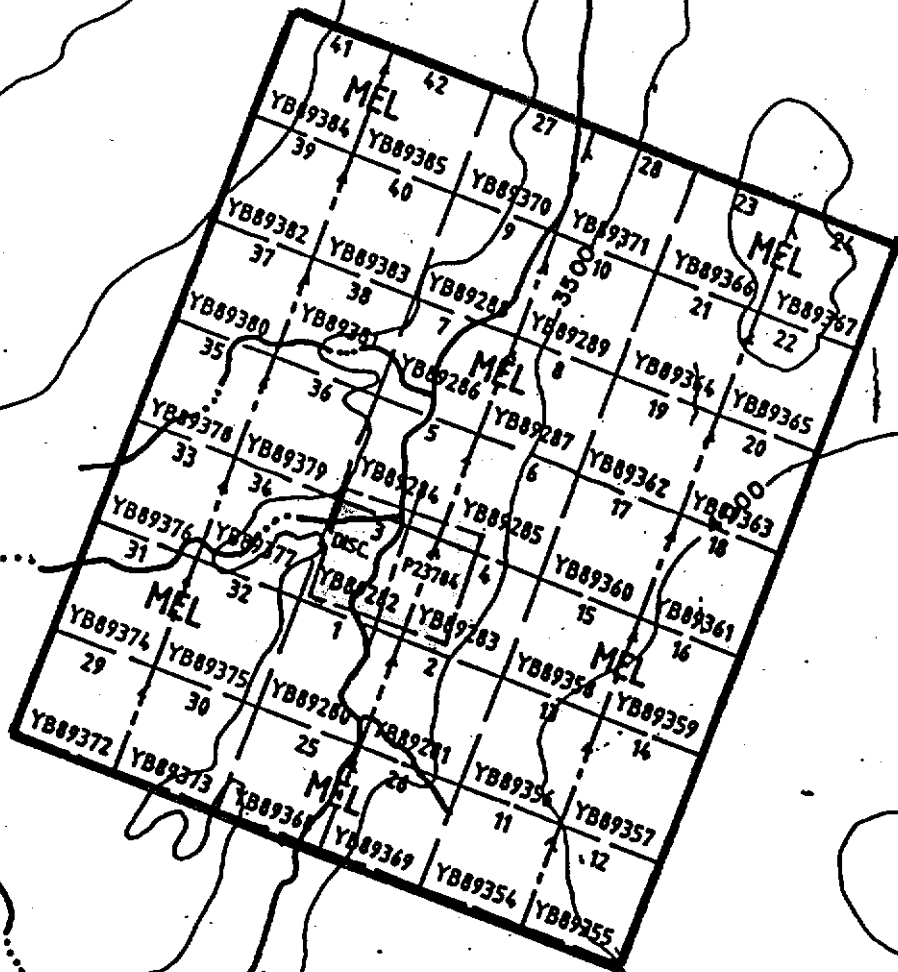
**Claim Information:**

<b>CLAIM NAME</b>	<b>GRANT NUMBERS</b>	<b>EXPIRY DATE</b>
Mel 1 - 10	YB 89280 - YB 89289	May 21, 2003
Mel 11 - 42	YB 89354 - YB 89385	May 21, 2003

These claim data were confirmed by a telephone call to the Watson Lake Mining Recorder's Office on October 9, 1998. All of the claim groups which had existed in the area during the Total Erickson and Oropex options have lapsed. The included claim map is a portion of Claim Map NTS 105 B/14 on a scale of 1:30,000.

MEL CLAIMS  
ON PART OF  
CLAIM MAP  
NTS 105 B/14

SCALE:  
1: 30,000



## **REGIONAL GEOLOGY:**

The property is on the northern edge of the Jurassic and/or Cretaceous Cassiar Batholith intrusive complex and is underlain by limestones, schists, phyllites and quartzites mapped as Lower Cambrian age by Roddick, Poole and Green in 1960. These sediments have been mapped as Hadrynian by Don Murphy on the adjoining Irvine Lake Map Area (Open File 1988 - 1). Several small plugs of the intrusive have been mapped in the area of the property suggesting that the hydrothermal alteration exhibited in mineralized areas is due to their proximity to the intrusive.

Lineations seen on aerial photographs strike chiefly northwest. The lineations probably represent faults which parallel the Tintina Fault which is followed by the Liard River approximately 16 miles northeast of the property.

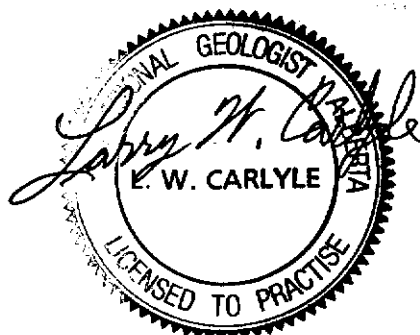
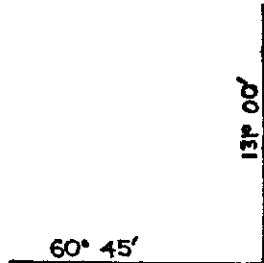
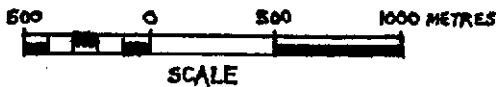
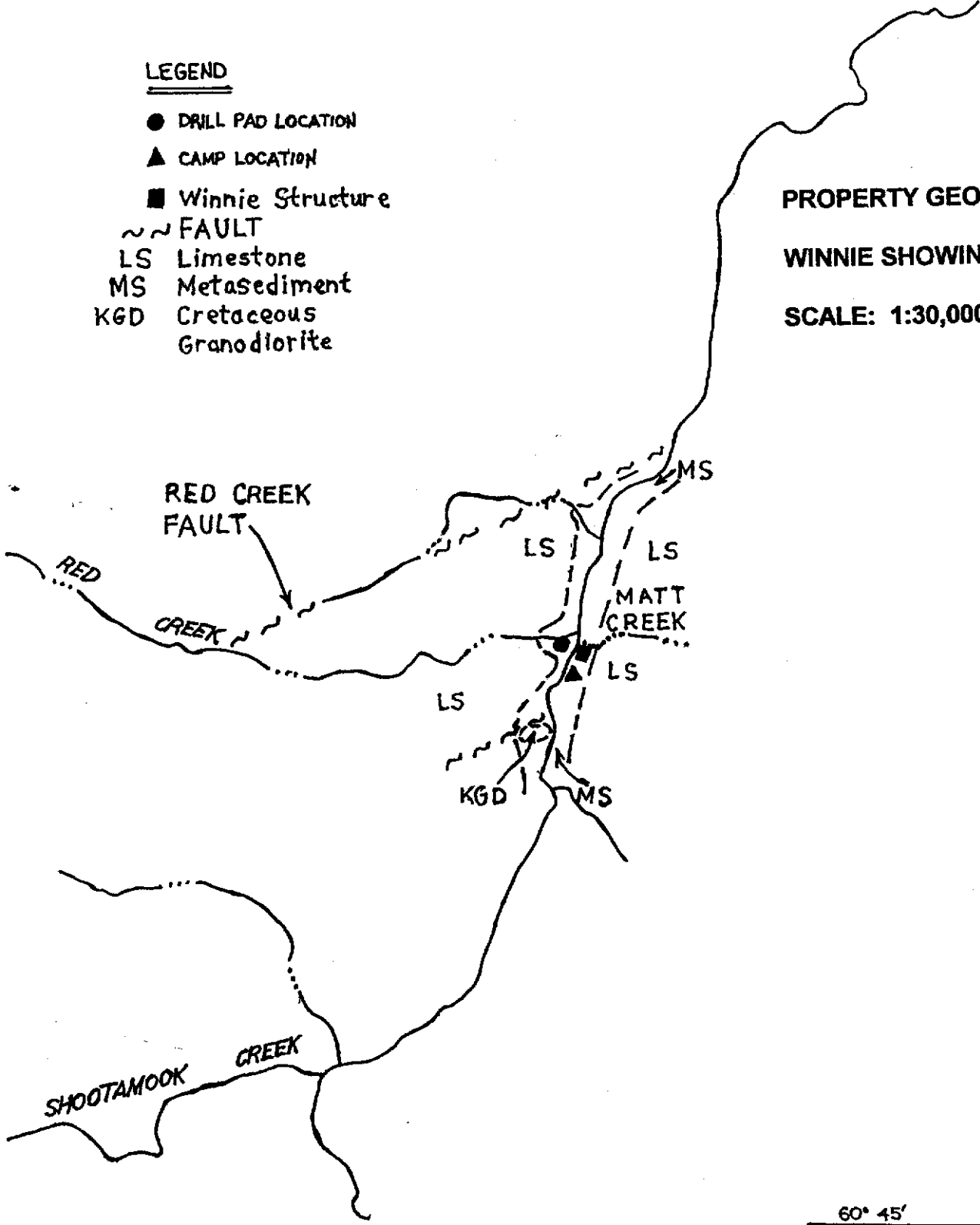
## **PROPERTY GEOLOGY:**

Only areas near the "Winnie" Showing have seen extensive work. Geological mapping done in the showing area indicates that the oldest rocks seen on the property are black to dark grey limy graphitic phyllite dipping at a low angle to the west. This phyllite is altered to sericitic phyllite and silicified sericitic phyllite in areas of faulting and hydrothermal activity. Silicified varieties of the sericitic phyllite strongly resemble a rhyolite and have been mapped as such by Dr.'s Ken Dawson and Jim Morin. The writer originally considered that a rhyolitic phase of the granodiorite (diorite ?) existed at the "Winnie". Another possible explanation

LEGEND

- DRILL PAD LOCATION
- ▲ CAMP LOCATION
- Winnie Structure
- ~ ~ FAULT
- LS Limestone
- MS Metasediment
- KGD Cretaceous Granodiorite

PROPERTY GEOLOGY  
WINNIE SHOWING AREA  
SCALE: 1:30,000



for this rhyolitic appearing material is extremely strong phyllic and argillic alteration totally destroying the original textures of the granodiorite (diorite ?) and the limy graphitic phyllite country rock. The diamond drill holes have demonstrated that the rhyolitic appearing material is most probably a silicified and highly altered intrusive. This will be discussed in more detail later in this report. In the area of the Mel Claims, the phyllite grades up into a light to dark grey, fine-grained limestone. This limestone in turn grades up into a light grey to white, fine-grained to sugary limestone.

During the 1989 work program, a diorite or granodiorite intrusive was traced for a minimum of 500 metres from an outcrop upstream of the "Winnie" into the showing itself (See Property Geology Plan). The composition of this granodiorite (diorite ?) is extremely different from that of the Gravel Creek stock southeast of the property. The diorite may be a more mafic phase of the granitic Gravel Creek stock but a more likely explanation is that it is a Middle Jurassic diorite related to the Slide Mountain terrane which is exposed southwest of the property.

### **Vein-Fault Mineralization and Cross-Faulting:**

The Winnie Showing consists of a highly siliceous to clay altered fault zone approximately 2 metres (5.5 ft.) wide which strikes N 53° E and dips 70° - 75° west. The fault zone follows the diorite contact which has resulted in the deposition of the disseminated hydrothermal (and replacement ?) pyrite, quartz, arsenic and gold mineralization. A cross-fault strikes down Matt Creek. This cross-fault is thought to be post mineralization; displacing the northern portion of

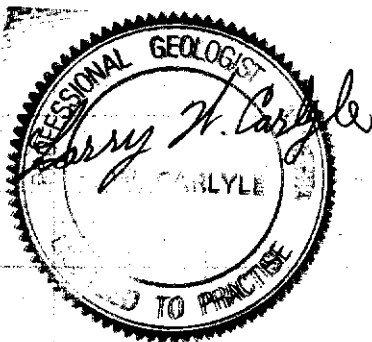
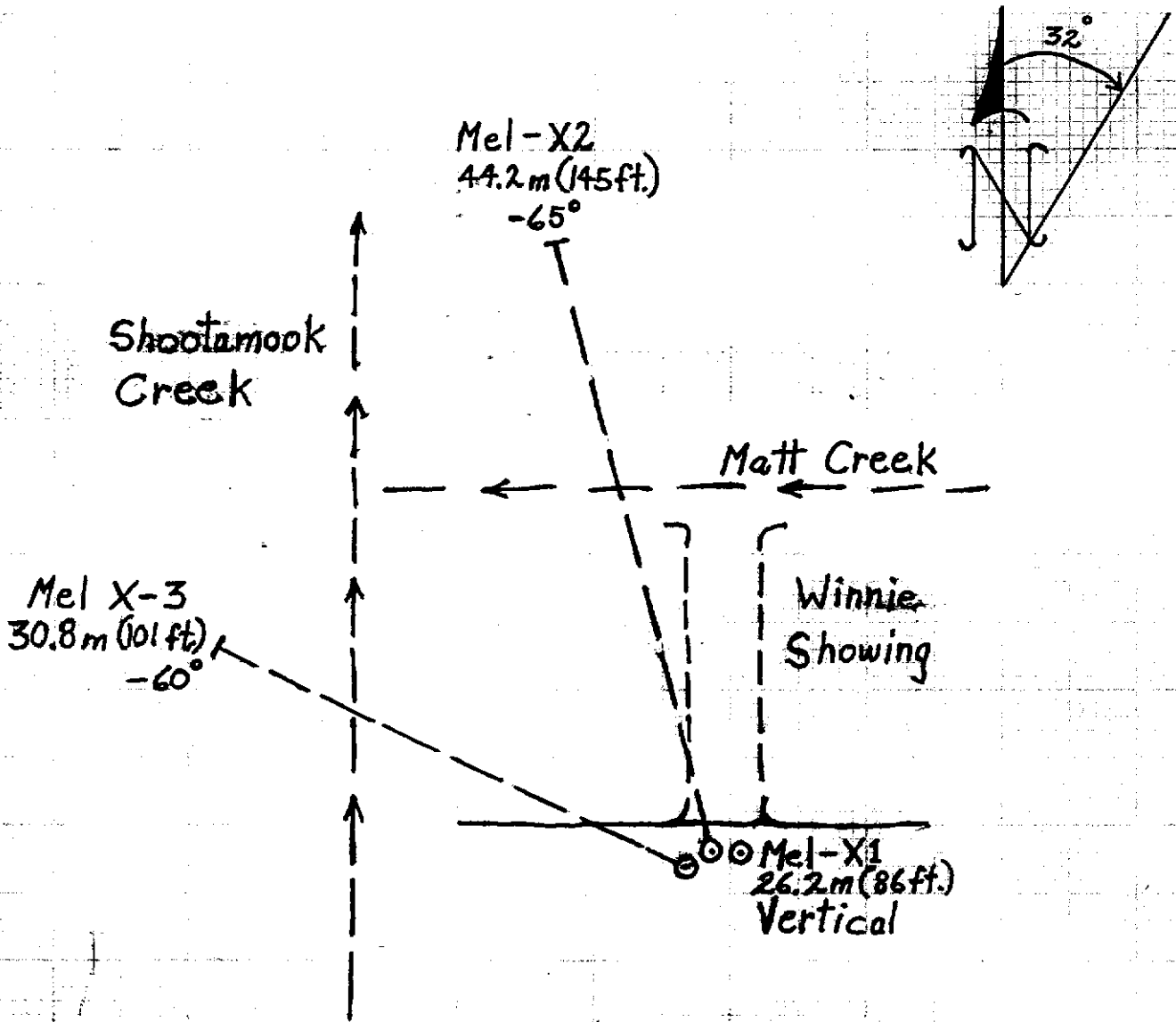
the "Winnie" toward the east. Soil geochemistry and VLF-EM surveys show anomalous values along a ridge approximately 200 metres east of the "Winnie". Matt Creek takes a sudden turn toward the south at this location before continuing toward Shootamook Creek; this site may represent another segment of the "Winnie". Excavation done at this site in 1997 showed that the overburden was deeper than expected so bedrock was not reached.

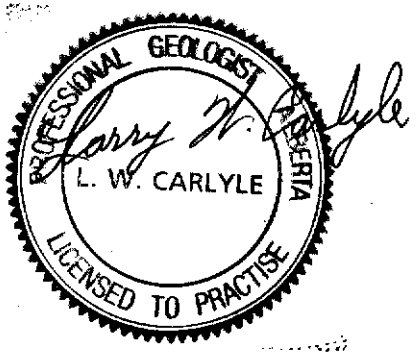
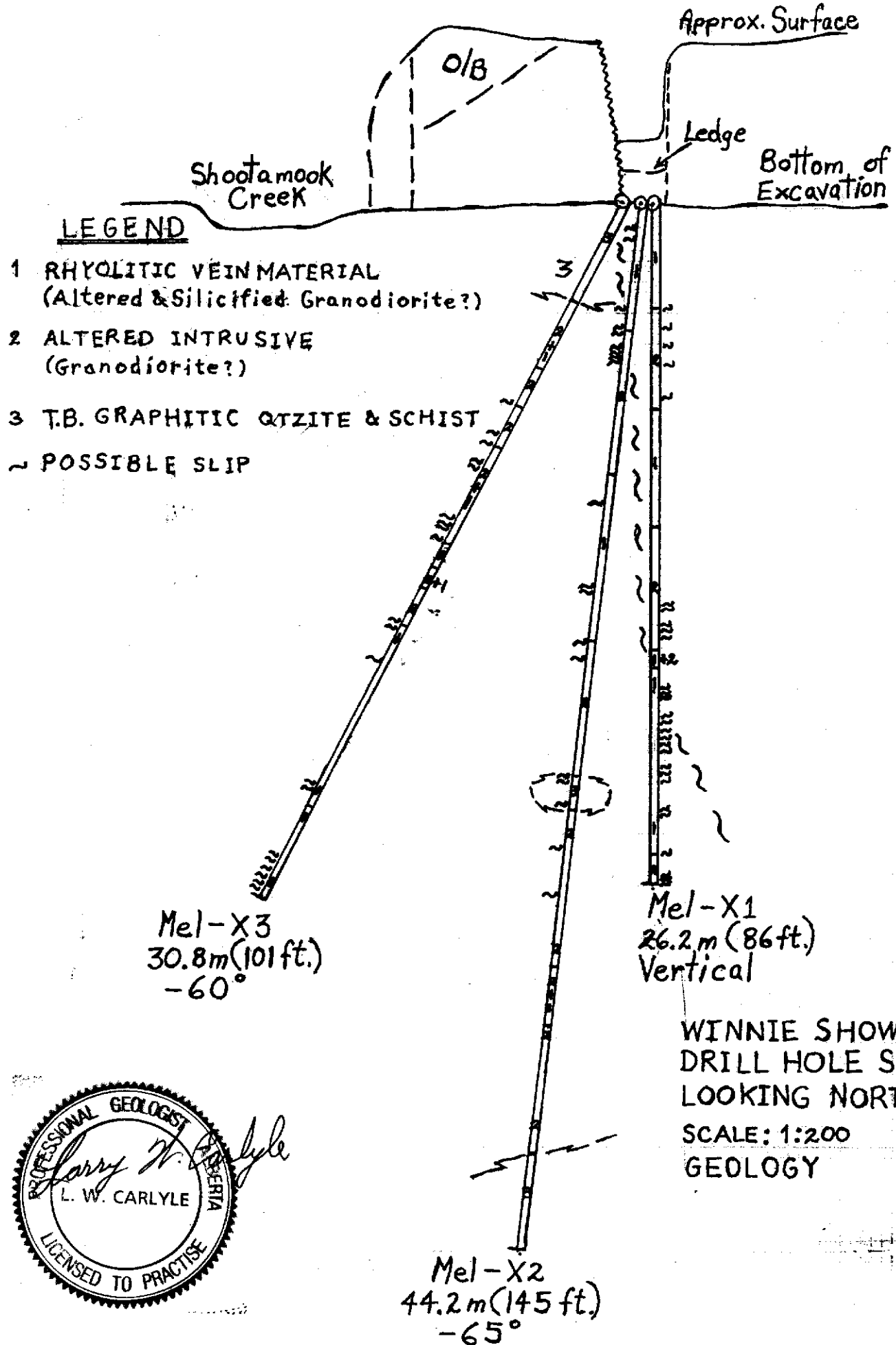
Red Creek is also thought to be cross-fault to the fault(s) down which Shootamook Creek runs. It may be an offset and larger segment of the Matt Creek cross-fault. Aerial photograph and helicopter examination has confirmed the presence of a steeply west dipping fault at the head of Red Creek (See Property Geology Plan). The two phases of mineralization observed at the "Winnie" and during the relogging of the Total Erickson diamond drill core has again been recognized during the logging of the 1998 drill core. Should these cross-faults predate the later phase of mineralization, they too could be mineralized.

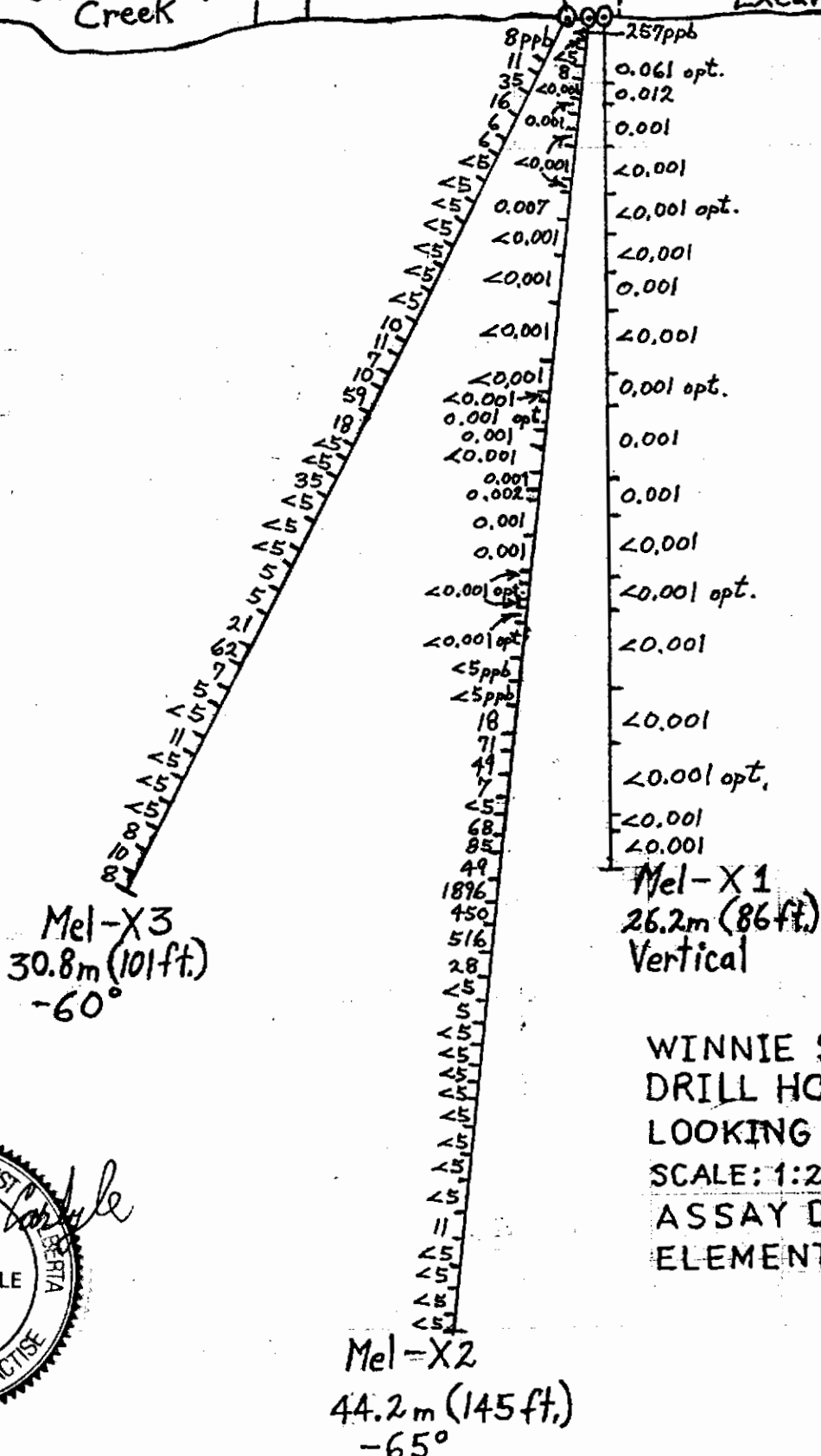
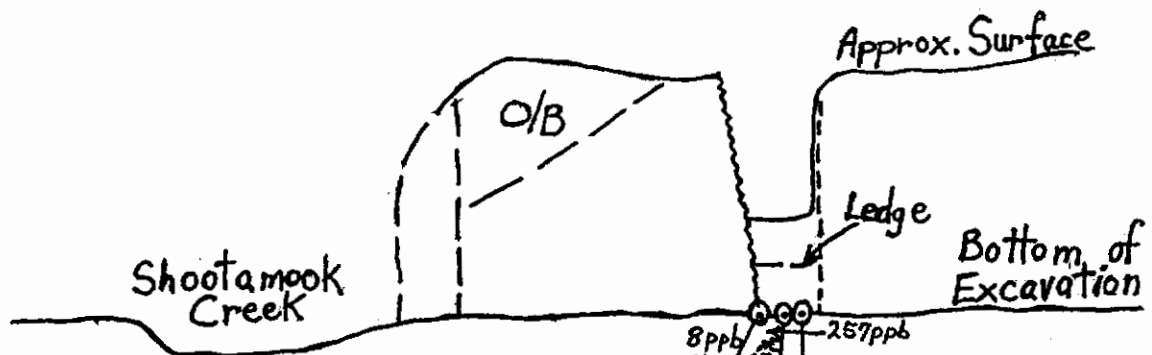
#### **1998 WORK PROGRAM:**

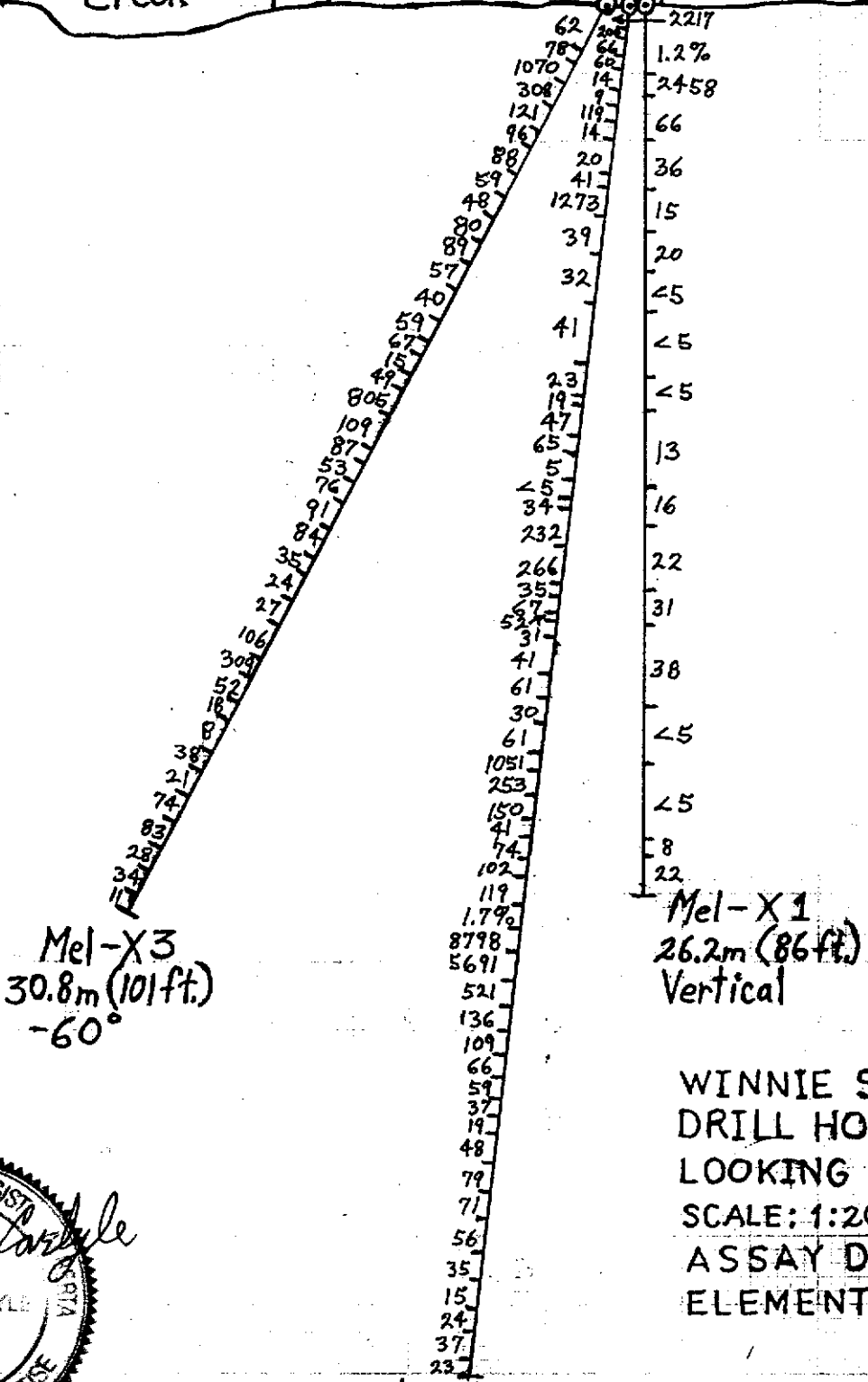
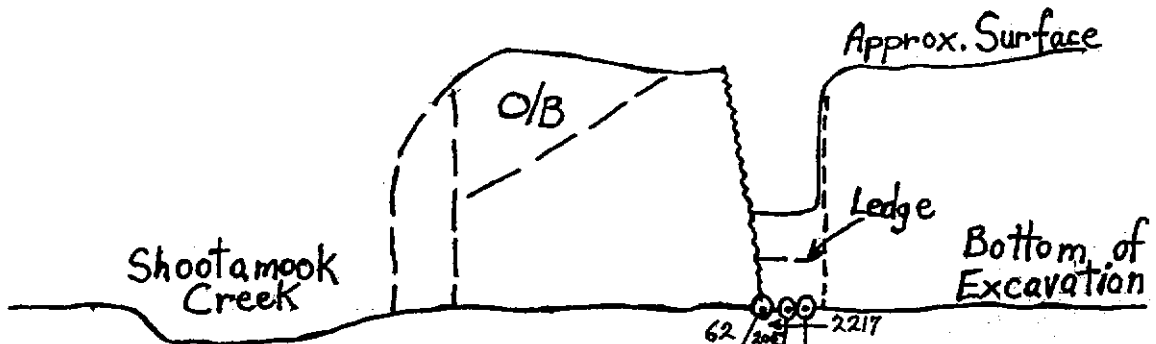
Plans for the 1998 drilling program called for 5 holes drilled in a fan into the "Winnie" and approximately another 3 holes into the "Sandy" copper showing approximately 800 metres south of the "Winnie". Unfortunately, several drill engine breakdowns and the significant amounts of downtime created resulted in the budget being expended after only 3 holes, totaling 332 feet (101 metres) had been completed.

WINNIE SHOWING  
DRILL HOLE  
PLAN VIEW  
SCALE: 1: 200

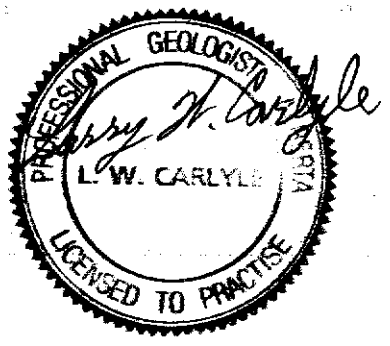








WINNIE SHOWING  
 DRILL HOLE SECTION  
 LOOKING NORTH  
 SCALE: 1:200  
 ASSAY DRAWING  
 ELEMENT: As(ppm)





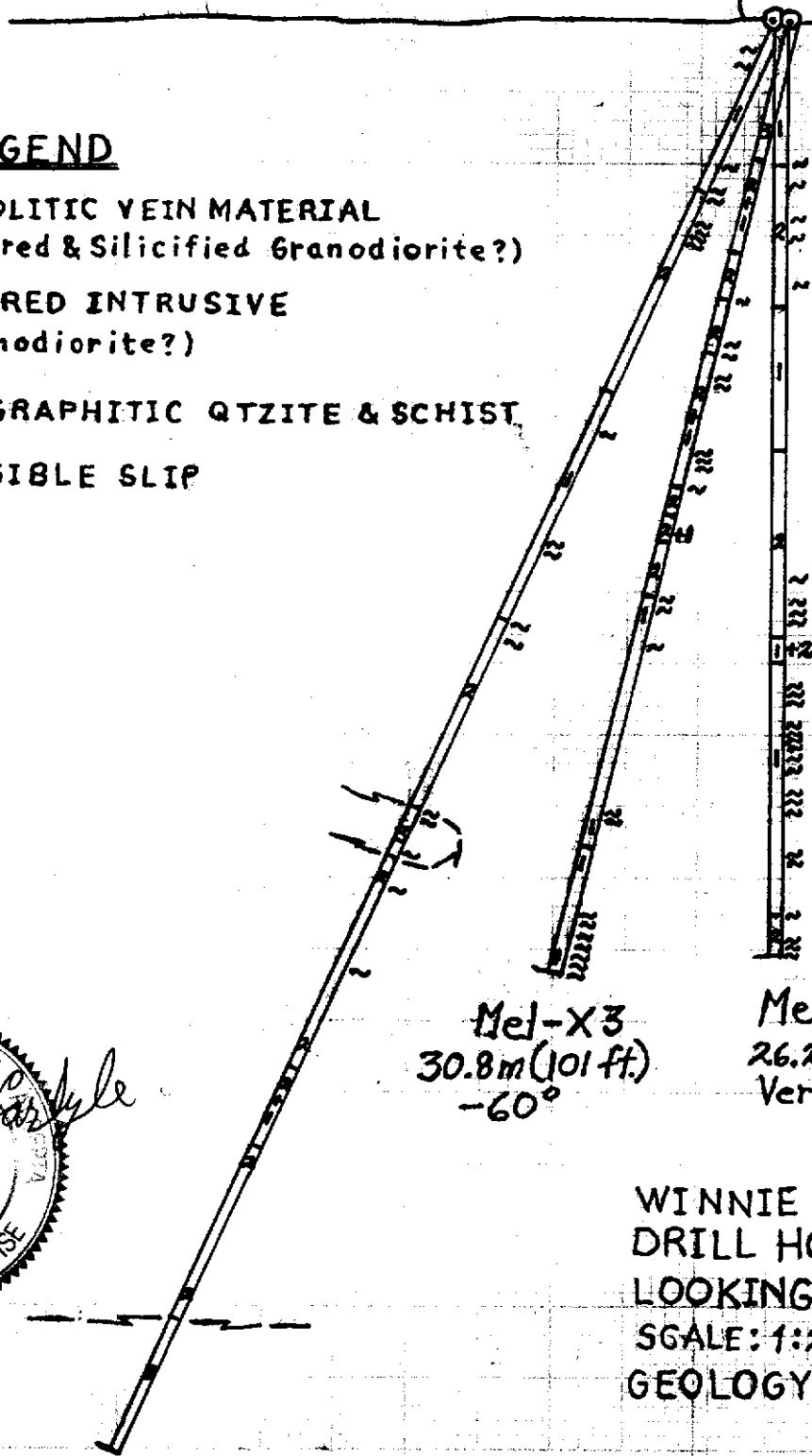


Matt Creek Winnie Showing

Bottom of Excavation

**LEGEND**

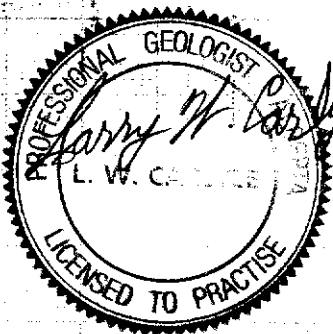
- 1 RHYOLITIC VEIN MATERIAL  
(Altered & Silicified Granodiorite?)
- 2 ALTERED INTRUSIVE  
(Granodiorite?)
- 3 T.B. GRAPHITIC QTZITE & SCHIST
- ~ POSSIBLE SLIP



Mel-X3  
30.8m (101 ft.)  
-60°

Mel-X1  
26.2m (86 ft.)  
Vertical

Mel-X2  
44.2m (145 ft.)  
-65°

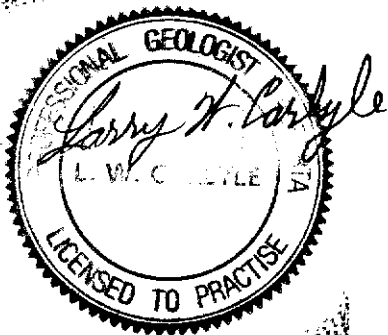
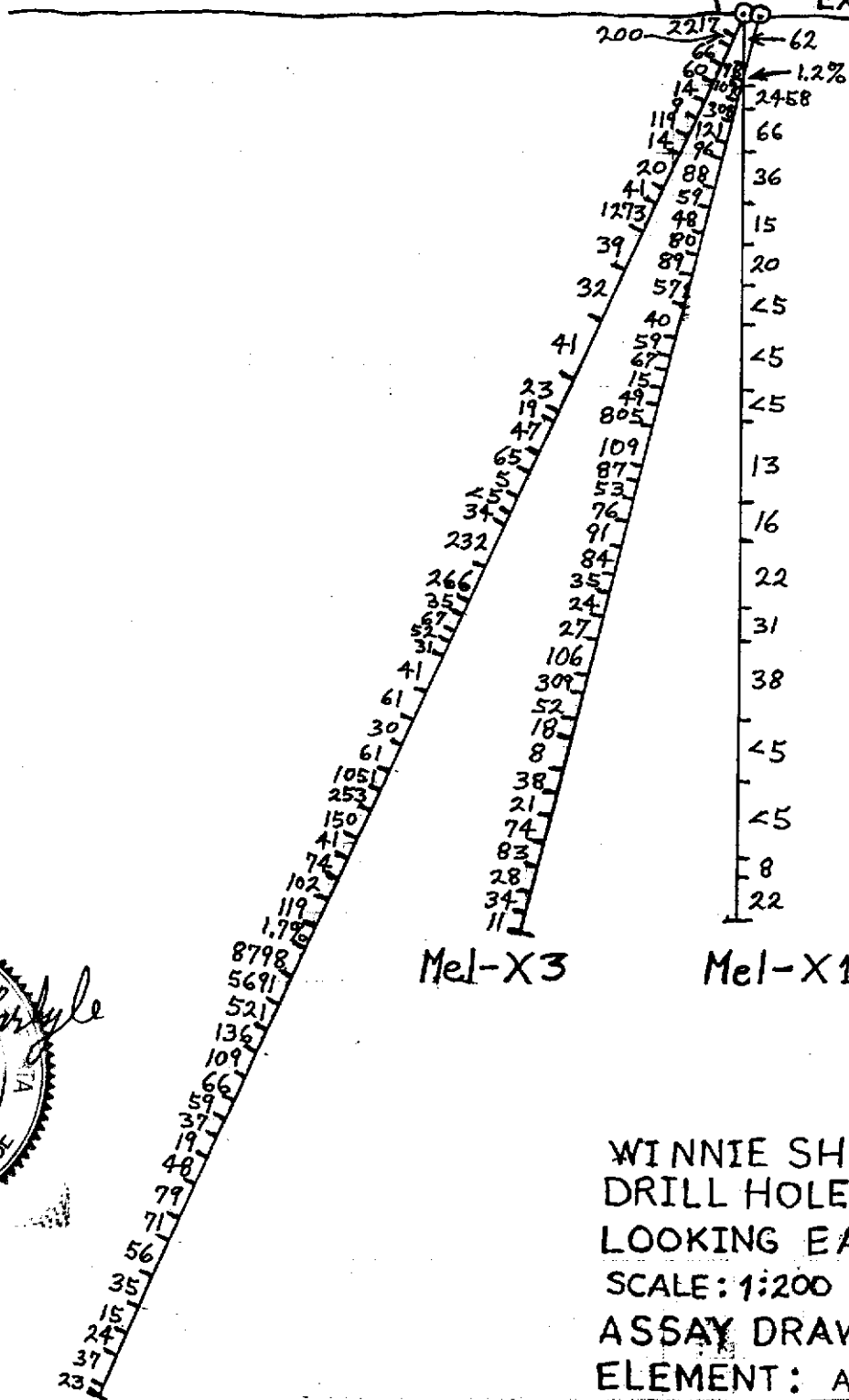


WINNIE SHOWING  
DRILL HOLE SECTION  
LOOKING EAST  
SCALE: 1:200  
GEOLOGY



Matt Creek Winnie Showing

Bottom of Excavation

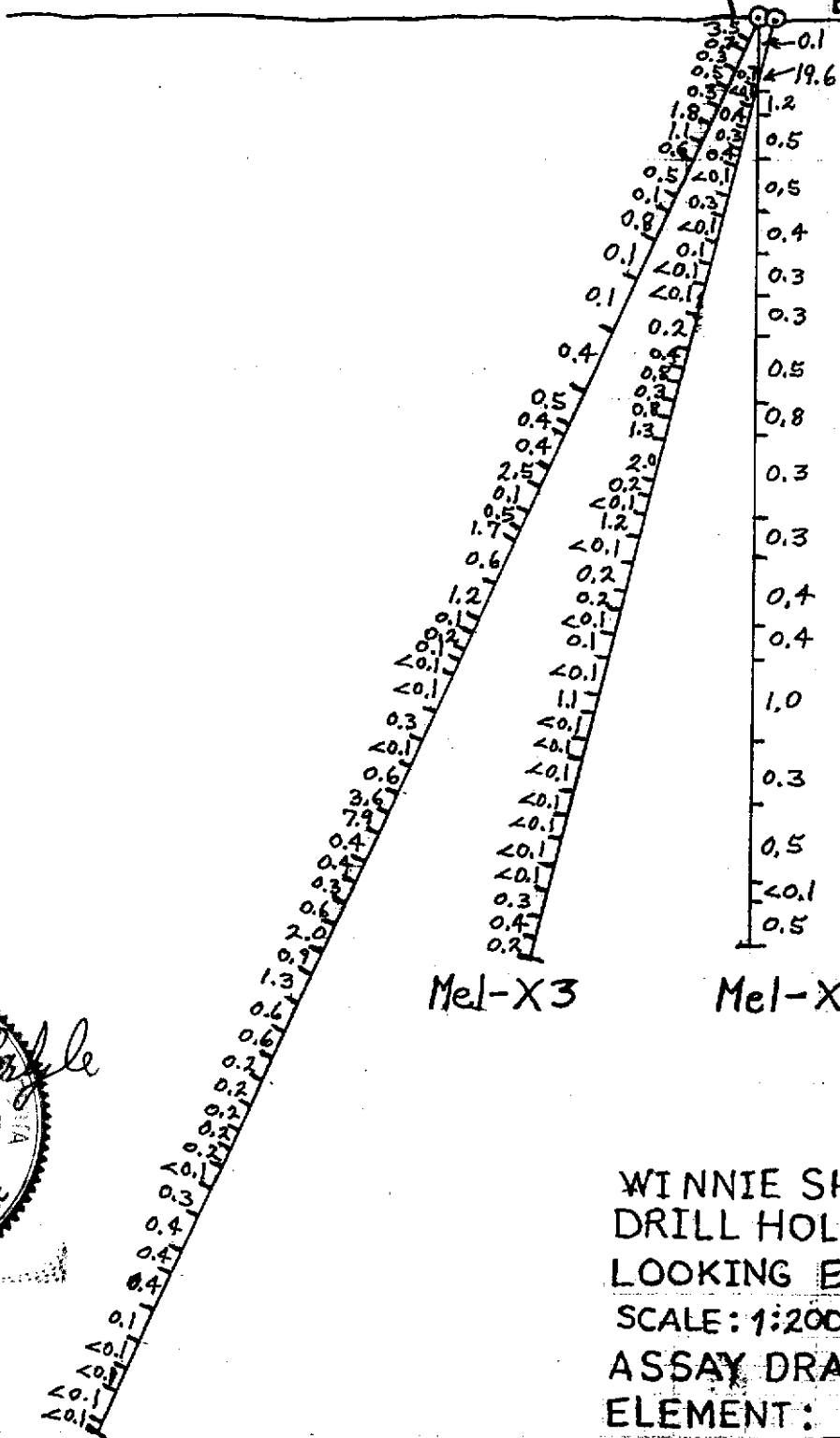


WINNIE SHOWING  
 DRILL HOLE SECTION  
 LOOKING EAST  
 SCALE: 1:200  
 ASSAY DRAWING  
 ELEMENT: As (ppm)

Mel-X2

Matt Creek Winnie Showing

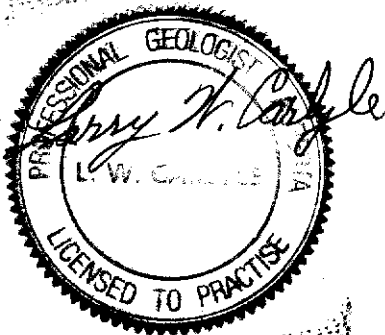
Bottom of Excavation



Mel-X3

Mel-X1

Mel-X2



WINNIE SHOWING  
 DRILL HOLE SECTION  
 LOOKING EAST  
 SCALE: 1:200  
 ASSAY DRAWING  
 ELEMENT: Ag(ppm)



I did not visit the Mel Lin (Mel Claims) property during 1998; however, I logged the drill core and did the sampling of the core. The drill hole logs and various drawings showing the information obtained from the core have been included in this report.

### Converting Gold Values from oz/ton into parts/billion:

Mr. Holloway requested the assay laboratory to report the gold values obtained from the drill core in troy ounces per short ton in the belief that such values would be more understandable to his investors. The lowest value which can be reported using this method is 0.001 oz/ton (opt). Having the laboratory report the gold values in parts/billion changes the lowest value which can be reported to 5 parts/billion (ppb). This is a much more precise value.

1 short ton = 2000 pounds (lbs).

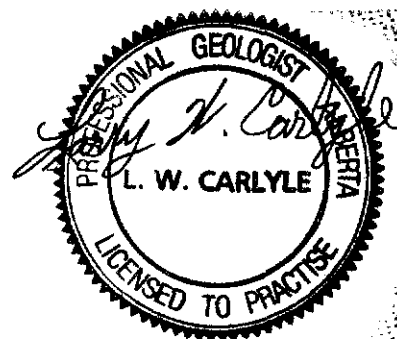
1 metric ton (tonne) = 2205 lbs.

1 oz/ton (opt) = 31.1 gram (g)/2000 pounds

1000 ppb = 1 part/million (ppm) = 1 g/million = 1 g/tonne

Therefore: 1 opt = 31.1 g X  $\frac{2205}{2000}$  = 34.29 g.

So: 0.001 opt = 0.03429 g/tonne = 34.29 ppb.



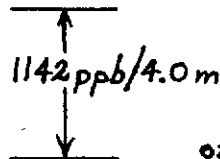
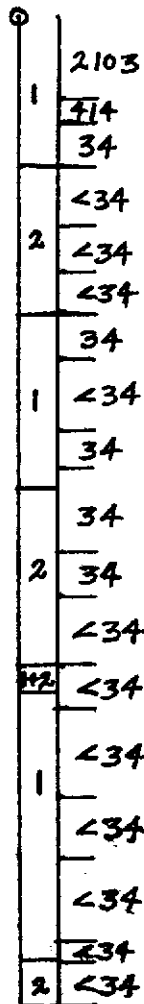
### CONCLUSIONS:

1. The vein-fault containing the "Winnie" Showing was originally filled with an intrusive of granodioritic or dioritic composition. The intrusive has been variably silicified and altered by hydrothermal fluids. This is most evident in Mel - X1 from 56.5 feet to 58.7 feet (See drill log) where, in spite of strong silicification and strong sericitic and argillic alteration, the granular texture of the intrusive is still evident.

PROFILE DRILL HOLE

Mel-X1

SCALE: 1:200



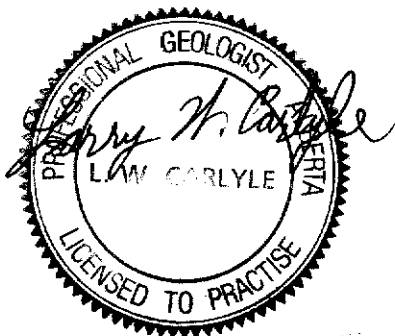
oz/ton converted to ppb  
 0.029 oz/ton = 1000 ppb

26.2m (86ft.)

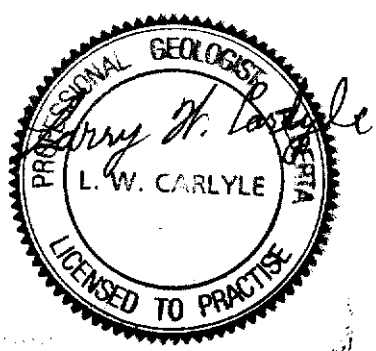
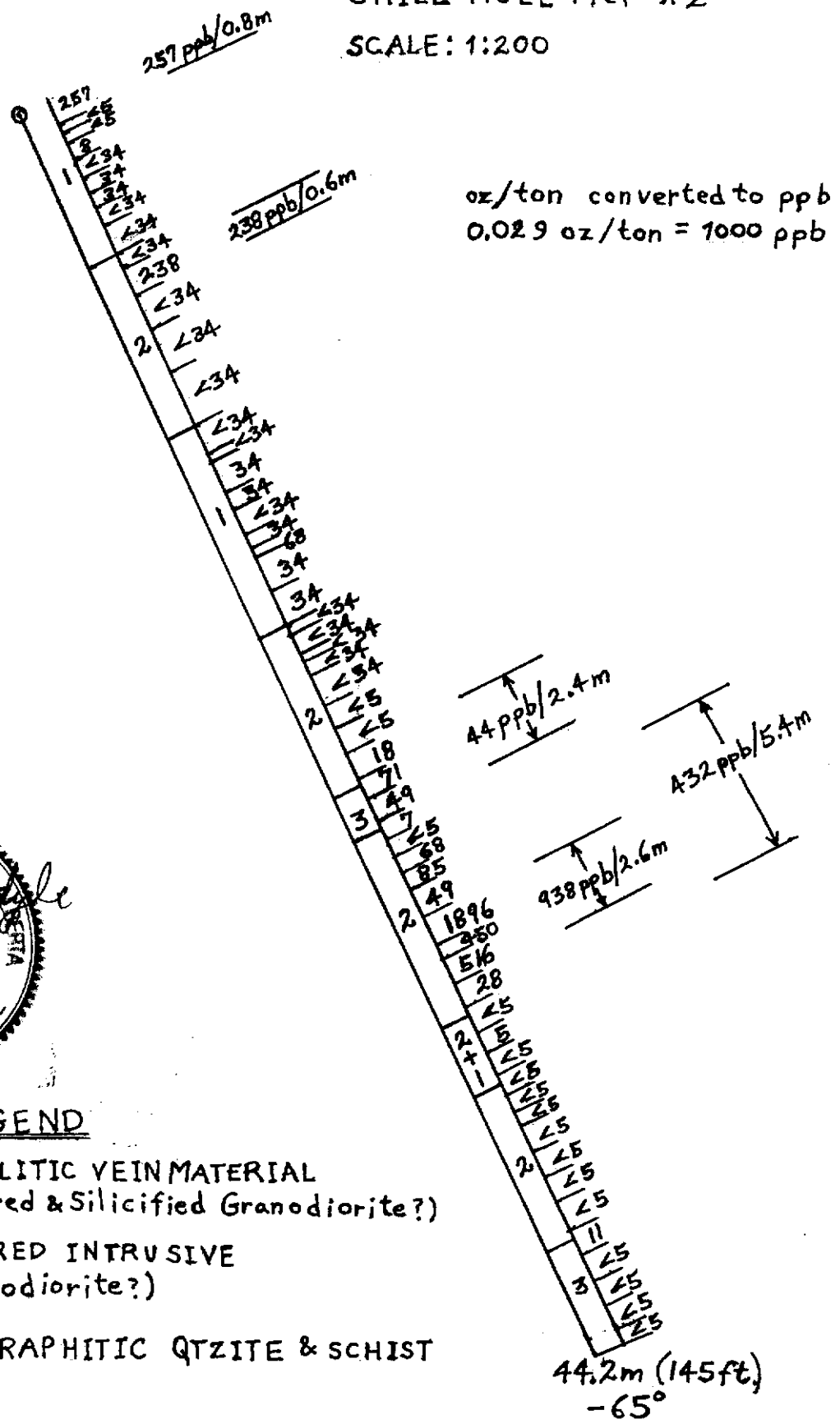
Vertical

LEGEND

- 1 RHYOLITIC VEIN MATERIAL  
(Altered & Silicified Granodiorite?)
- 2 ALTERED INTRUSIVE  
(Granodiorite?)
- 3 T.B. GRAPHITIC QTZITE & SCHIST



PROFILE  
 DRILL HOLE Mel-X2  
 SCALE: 1:200



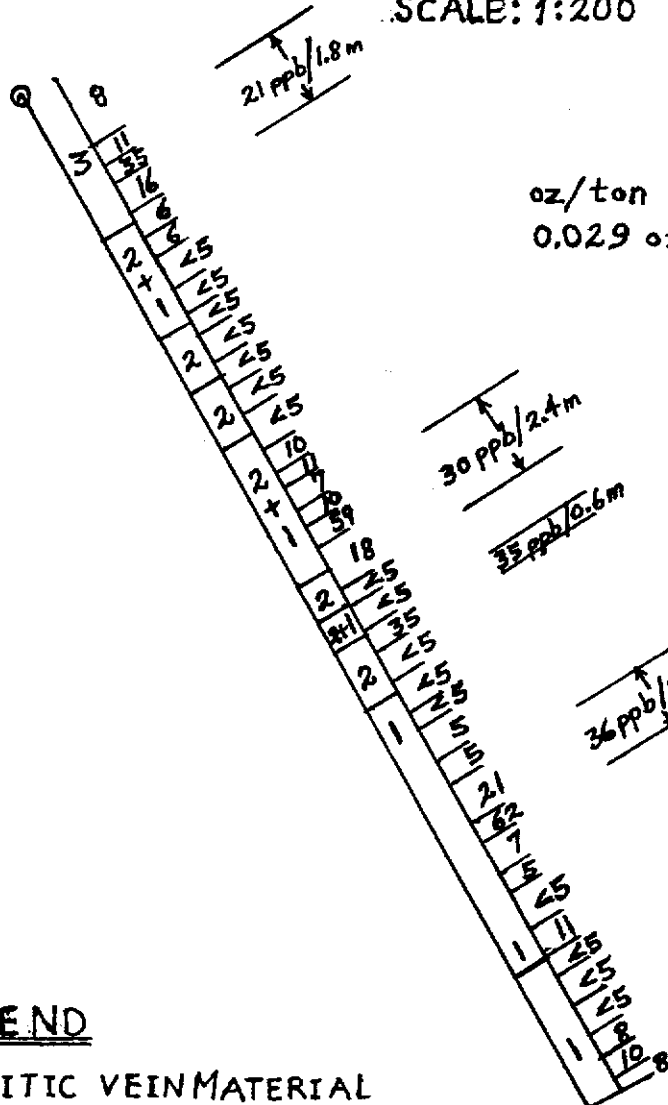
LEGEND

- 1 RHYOLITIC VEIN MATERIAL  
(Altered & Silicified Granodiorite?)
- 2 ALTERED INTRUSIVE  
(Granodiorite?)
- 3 T.B. GRAPHITIC QTZITE & SCHIST

PROFILE

DRILL HOLE Me1-X3

SCALE: 1:200

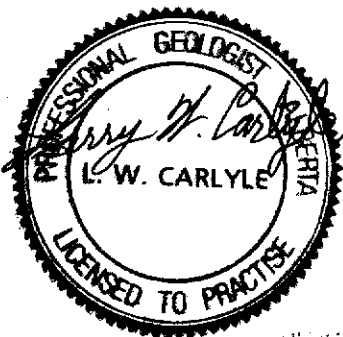


oz/ton converted to ppb  
0.029 oz/ton = 1000 ppb

LEGEND

- 1 RHYOLITIC VEIN MATERIAL  
(Altered & Silicified Granodiorite?)
- 2 ALTERED INTRUSIVE  
(Granodiorite?)
- 3 T.B. GRAPHITIC QTZITE & SCHIST

30.8m (101 ft.)  
-60°



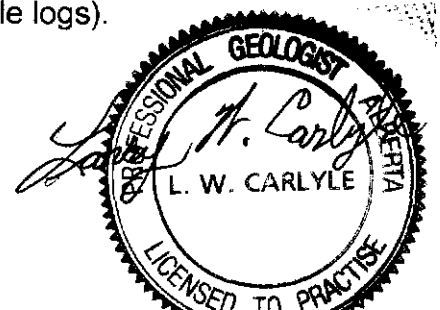
2. Two phases of mineralization are very evident in the drill core.

Phase one: consists primarily of very fine-grained pyrite and possibly other sulphides within round to sub-rounded blebs and fracture fillings of amethystine to dark grey quartz or chalcedony. The quartz blebs are generally ½ to ¾ inch in diameter and suggest they may have formed while the intrusive was in a semi-solid state or they may be gas bubble fillings in a near-surface environment.

Phase two: is a significantly coarser-grained and brighter coloured pyrite (+ other sulphides ?) which cuts the earlier phase.

Low sulphide composition is characteristic of the deposit since total sulphide mineralization rarely exceeds 3 %. As yet, it is not known whether the gold is associated with only one, or with both phases of sulphide mineralization.

3. All of the core was sampled. The best gold values are generally associated with the strongest silicification and argillic alteration. A possible exception are the gold values obtained from the graphitic quartzite and schist at 79 - 84 feet in Mel - X2 (See drill log).
4. An average grade of 1142 ppb. (1.14 g.) was obtained from the first 4 metres of Mel - X1. 257 ppb. (0.26 g.) / 0.8 m. was obtained from the collar of Mel - X2, less than 2 feet away. The average grade of 21 ppb. (0.021 g.) / 1.8 m. was obtained from the collar of Mel - X3, also less than 2 feet away. These values suggest that gold grades and thickness change rapidly in the deposit. The nugget effect was checked by having several of the higher gold analyses re-done using a metallics assaying technique (See Appendix B - WO# 05616). This technique returned values very similar to the original assays; this suggests that nugget effect is not strongly present.
5. The weak mineralization just being reached when hole Mel - X3 was lost (See hole profile) is at approximately the same depth as the 938 ppb. (0.94 g.) value located in Mel - X2 (See hole profile). The mineralization may extend between the two holes.
6. Core analyses show a strong correlation between high gold values and high arsenic values. This suggests that the gold is associated with very fine-grained arsenopyrite. Also, a weaker correlation exists between higher gold values and higher silver values. There does not seem to be a correlation between higher gold values and higher copper, lead, and zinc values. There is no indication that base metal values increase at depth in the deposit as had been believed in 1997 (See drill hole logs).

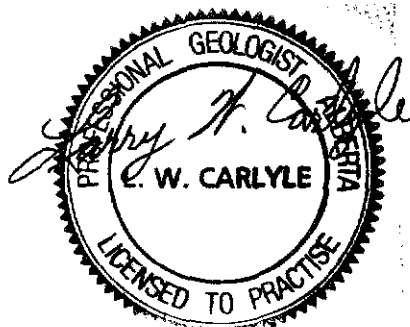


## RECOMMENDATIONS:

1. The recommendation in the 1997 report that the "Winnie" structure be followed both to the north and south to develop a mineral reserve was not achieved during the 1998 program. Proceeding with this recommendation should be made a prime objective for future work on the property.
2. The excavations and drilling done on the "Winnie" Showing demonstrate the presence of gold mineralization within the geological structures of the area. Other similar structures are known or are expected to exist in the immediate area (ie: the fault zone from which the iron comes which turns the water red in Red Creek and the offset portion of the "Winnie" structure north of Matt Creek). Such structures should be located or further explored for their gold potential to improve the chances of developing a mineral resource in the area.

## REFERENCES:

- Carlyle, L. W. (1997) **Report on the 1997 Work Program, Mel Claims 1 - 42, Watson Lake Mining District, Yukon.** Report to Yukon Yellow Metal Exploration Ltd.
- Carlyle, L. W. (1989) **Report and Addendum on the Matt-Mathew and Hugh Creek Claims, Watson Lake Mining District, Yukon.** Report to Oropex Minerals Inc.
- Fekete, Mark (1988) **Evaluation Report - Shootamook Creek Property.** Private report to Total Erickson Resources.
- Murphy, D. C. (1998) **Geology of Gravel Creek (105 B/10) and Irvine Lake (105 B/11) Map Areas, Southeastern Yukon.** Open File 1988-1, Canada Yukon E.D.A.



**STATEMENT OF COSTS:** (See Appendix C for Invoices)

Living Expenses	June	\$ 805.00
	July	\$ 315.00
	August	<u>\$ 1,330.00</u>
		\$ 2,450.00
Travel: Truck	June	\$ 252.00
	July	\$ 725.27
	August	<u>\$ 252.00</u>
		\$ 1,229.27
Air	June	\$ 1,270.49
	July	\$ 1,461.21
	July	\$ 1,019.98
	August	<u>\$ 2,143.88</u>
		\$ 5,895.56
Assay Costs	August	\$ 6,005.00
Equipment Rentals/Supplies 10 person camp	June	\$ 2,000.00
	July	\$ 1,200.00
	August	<u>\$ 4,000.00</u>
		\$ 7,200.00
Welder	June	\$ 250.00
	August	<u>\$ 150.00</u>
		\$ 400.00
5000 watt generator	June	\$ 450.00
	August	<u>\$ 450.00</u>
		\$ 900.00
1500 watt generator	June	\$ 150.00
	August	<u>\$ 390.00</u>
		\$ 540.00
3 inch water pump	June	\$ 500.00
	August	<u>\$ 650.00</u>
		\$ 1,150.00
2 inch water pump	June	\$ 150.00
	August	<u>\$ 300.00</u>
		\$ 450.00

**STATEMENT OF COSTS: (continued)**

Raid Track	June	\$ 100.00
Trailer	June	\$ 500.00
	August	<u>\$ 75.00</u>
		\$ 575.00
½" Bench Drill	July	\$ 90.00
Ponjar Rock Drill	July	\$ 100.00
SBX 11 radio	June	\$ 40.00
	August	<u>\$ 80.00</u>
		\$ 120.00
Satellite radio telephone	June	\$ 50.00
	August	<u>\$ 100.00</u>
		\$ 150.00
Chainsaw	June	\$ 175.00
	August	<u>\$ 87.50</u>
		\$ 262.50
Contractors	June	\$ 5,100.00
	July	\$ 1,750.00
	August	<u>\$ 7,900.00</u>
		\$14,750.00
Trenching (John Deere 350)	July	\$ 80.00
Drilling (core drill rental)	June	\$ 5,000.00
	July	\$ 5,000.00
	August	<u>\$ 5,000.00</u>
		\$15,000.00
Drill Parts and Accessories		\$16,000.00
Fuel	June	\$ 725.31
Other Expenses	July	\$ 1,140.27
Film and Developing	July	\$ 11.21
	August	<u>\$ 60.00</u>
		\$ 71.21

**STATEMENT OF COSTS: (continued)**

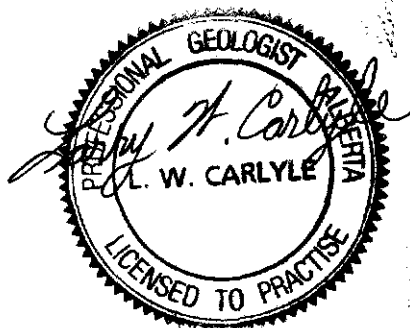
Core Logging, Report Writing and Sat. Phone Rental	\$ 2,100.00
<b>TOTAL</b>	<b>\$77,484.12</b>

**STATEMENT OF QUALIFICATIONS**

I, LARRY W. CARLYLE, do certify:

1. That I am a professional geologist; resident at 74 Tamarack Drive, Whitehorse, Yukon Y1A 4Y6.
2. That I hold a B. Sc. Degree in geology from the University of British Columbia (1970).
3. That I am a Fellow of the Geological Association of Canada (F - 4355).
4. That I am a Registered Professional Geologist in the Association of Professional Engineers, Geologists, and Geophysicists of the Province of Alberta (41097).
5. That I have practiced my profession as a mine and exploration geologist for twenty years.
6. The conclusions and recommendations in the attached report are based on diamond drill core I logged, and on a review of the references cited.

DATED at Whitehorse, Yukon, this 16<sup>th</sup> day of October, 1998.



**APPENDIX A**  
**DIAMOND DRILL HOLE LOGS**

MEL CLAIMS

HOLE #: Mel - X 3 101 feet

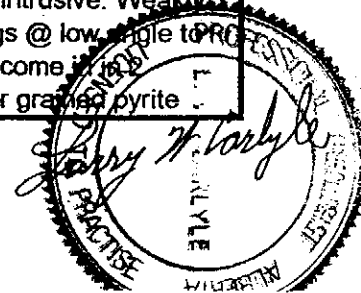
60° to West

A Core

DATE: Sept. 3-6 / 98

Page 1 of 4

Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
0.0	13.7	8.6	0.0	5.0	1.4	M-X 76	8	0.1	62	22	11	17	Banded thin-bedded blk qtzite-graphitic schist. Strong schistosity @ 40-45° to C.A. Some weakly vuggy qtz-calcite lenses 1/2-1" wide along schistosity. Tr - 1% f.g. pyrite thruout along schistosity. 2% py in qtz-calcite @ 5.1 - 5.3'. Contact @ 13.7' @ 45 - 50° to C.A. Tr scorodite @ ~ 4 ft. Probable slips in rubble @ 9.5' & 11.5 - 12.7' (0.7' Rec.).
			5.0	7.0	1.6	M-X 77	11	0.1	78	34	16	54	
			7.0	9.0	1.6	M-X 78	35	<0.1	1070	13	12	54	
			9.0	11.0	2.0	M-X 79	16	0.4	308	16	12	49	
			11.0	13.7	2.0	M-X 80	6	0.3	121	15	12	71	
13.7	24.0	9.5	13.7	16.0	2.3	M-X 81	6	0.4	96	36	32	48	Lt. grey to grn propylitic & argillic granular intrusive. Most of core is also weakly silicified with more granular texture removed (rhyolitic vein material?). Weak grey to black qtz lenses and blebs thruout with < 1% f.g. py in them. Core is weakly fract. @ 45 to 60° to C.A. 14.3 - 19.0' Propylitic granular intrusive. Contacts approx. perp. to C.A. 20.2' 1/4" unmineralized qtz-calcite lense @ 45° to C.A.
			16.0	19.0	2.3	M-X 82	< 5	<0.1	88	14	27	60	
			19.0	21.5	2.5	M-X 83	< 5	0.3	59	13	29	84	
			21.5	24.0	2.4	M-X 84	< 5	<0.1	48	27	36	77	
24.0	29.0	4.8	24.0	26.7	2.7	M-X 85	< 5	0.1	80	48	14	48	Good coring dk. grn-blk. propylitic granular intrusive (granodiorite?). Weakly fractured @ 45° & 70° to C.A. Thin fract. fillings of calcite strongest along 45° fract. Seems to be a weak matrix of calcite. Core seems weakly gougy and crumbly. 28.4 - 29.0 Small fault in gougy rubble (0.3' Rec.)
			26.7	29.0	2.1	M-X 86	< 5	<0.1	89	67	27	52	
29.0	35.0	5.7	29.0	31.9	2.9	M-X 87	< 5	<0.1	57	36	42	112	As 24.0 - 29.0' but much more argillic alteration. Weak dk. grey siliceous patches with trace f.g. pyrite. 34.1' Gougy rubble. 34.5 - 35.0' (0.3' Rec.) Gougy fault rubble. Contact @ 35' @ ~ 5° to C.A.
			31.9	35.0	2.8	M-X 88	< 5	0.2	40	38	41	153	
35.0	49.3	12.7	35.0	37.0	1.4	M-X 89	10	0.4	59	35	38	74	Highly argillic and silicified (rhyolitic vein material?) intrusive. Weakly sericitic? Up to 3% dk. grey qtz blebs & fract. fillings @ low angle to C.A. contain up to 2% f.g. pyrite. Pyrite seems to have come in 1980 phases. F.g. pyrite in blebs is frequently cut by coarser grained pyrite
			37.0	38.7	2.1	M-X 90	11	0.8	67	32	27	67	
			38.7	41.5	3.1	M-X 91	7	0.3	15	27	36	71	
			41.5	43.0	1.6	M-X 92	10	0.8	49	29	33	79	



Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
35.0	49.3	12.7	43.0	45.5	2.2	M-X 93	59	1.3	805	29	25	60	<p style="text-align: center;">Continued</p> <p>apparently following fract. in blebs ie: 35.3' - 35.6'. Also saw coarser grained pyrite as haloes around coarse, lt. grey qtz grains thought to be remaining from original intrusive. Generally broken core @ 20-30° to C.A. Cave marked on block @ 37.0'. Rubby core 37.0 - 38.0'. Strongly broken core 41.5 - 44.7'. 45.5 - 47.3' Rubble. Cave marked on block @ 47.3' (0.3' Rec.) 49.3' High angle contact (?) in 0.1' gougy rubble.</p> <p>Propylitic &amp; argillic altered granular intrusive (granodiorite ?). Weak fracturing @ 30-35° and 70° to C.A. Thin calcite along fractures @ 30 - 35° to C.A. Trace crystals &amp; f.f. of f.g. py. 49.5 - 49.7' Small zone of up to 2% py (Tr chalco ?) in zone of hematite-epidote (?) rich material. Contacts @ 60 - 70° to C.A. Contact @ 53.0' @ 30° to C.A.</p> <p>As 35.0 - 49.3'. Strongly silicified 53.4' - 54.2' with up to 2% f.g. pyrite. Weak fract. @ 60° to C.A. Remainder of zone is less silicified but argillic alteration with granular texture remaining and less-pyrite.</p> <p>Propylitic &amp; argillic altered granular intrusive (granodiorite ?). Dk. gm-blk good coring with weak fracturing @ 45 - 60° to C.A. Minor calcite primarily along fractures. Contact @ 60.9' in 0.1' rubble @ low angle to C.A.</p>
			45.5	49.3	2.3	M-X 94	18	2	109	31	30	104	
49.3	53.0	3.9	49.3	50.9	1.6	M-X 95	< 5	0.2	87	149	18	51	
			50.9	53.0	2.3	M-X 96	< 5	<0.1	53	33	28	91	
53.0	55.1	1.8	53.0	55.1	1.8	M-X 97	35	1.2	76	23	25	58	
55.1	60.9	5.4	55.1	58.0	2.7	M-X 98	< 5	<0.1	91	31	21	58	
			58.0	60.9	2.7	M-X 99	< 5	0.2	84	31	19	52	

MEL CLAIMS

HOLE #: Mel - X 3 101 feet

60° to West

A Core

DATE: Sept. 3-6 / 98

Page 3 of 4

Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
60.9	88.0	27.7	60.9	63.0	2.2	M-X 100	< 5	0.2	35	22	19	76	Highly silicified and argillic + weakly sericitic altered rhyolitic vein material (originally intrusive ?). Some zones may be weakly saussuritized. Blebs and fracture fillings scattered thruout containing up to 2 - 3% f.g pyrite and Tr arseno. in dk. grey qtz. Generally good to broken coring. The blebs & fract. fillings are generally @ low angles to C.A. Many of blebs are cut by coarser grained pyrite along fractures (a second phase of mineralization ?). 60.9 - 61.6' Weak granular texture continues. Contact @ 61.6' @ 40 - 45° to C.A. Slip (?) in gougy core (0.2' Rec.) @ 62.0'. 66.3 - 66.7' Gougy rubble (0.4' Rec.) containing calcite @ low angles to C.A. 66.3 - 68.0' Dk. grey f.f. of sub metallic mineral. Silver mineral or dk. grey qtz (arseno ?). 68.8' (0.2' Rec.) calcite rich finely brecciated zone with high angle contacts. 70.7' 0.1' veinlet of grey and white qtz with up to 3% f.g. pyrite. Contacts @ 50 - 60° to C.A. Rounded white qtz grains surrounded by grey qtz which contains Tr. py. 2 <sup>nd</sup> phase of mineralization ? 72.5 - 74.6' Strongly silicified (olive green colour) vuggy intrusive with white & grey qtz stringers. Up to 1 % white calcite in f.f. <2% f.g. py disseminated thruout. High angle contact (?) @ 72.5'. Contact @ 45° to C.A. @ 74.6'. Tr serpentine (?) @ 84.0'. 84.7 - 84.9' Slip in gougy core. Contacts @ approx. 45° to C.A. 85.7 - 85.9' Calcite rich lense with weak contacts @ 50° to C.A.
			63.0	66.0	3.0	M-X 101	5	<0.1	24	28	24	63	
			66.0	69.0	3.1	M-X 102	5	0.1	27	27	22	75	
			69.0	72.5	4.0	M-X 103	21	<0.1	106	29	26	52	
			72.5	74.6	2.1	M-X 104	62	1.1	309	7	9	30	
			74.6	77.5	2.8	M-X 105	7	<0.1	52	11	14	39	
			77.5	80.0	2.5	M-X 106	5	<0.1	18	12	23	52	
			80.0	83.0	2.9	M-X 107	< 5	<0.1	8	12	23	63	
			83.0	85.2	2.1	M-X 108	11	<0.1	38	18	29	60	
			85.2	88.0	3.0	M-X 109	< 5	<0.1	21	20	24	68	

MEL CLAIMS

HOLE #: Mel - X 3 101 feet

60° to West

A Core

DATE: Sept 3-6 / 98

Page 4 of 4

Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
88.0	101.0	14.8	88.0	91.0	3.7	M-X 110	< 5	<0.1	74	30	21	48	<p>As 60.9 - 88.0' but less silicified and argillic alteration. Minor sericite. Granular intrusive texture still weakly visible in some zones. Fracturing at 10° &amp; 50° to C.A. Weak small calcite f.f.</p> <p>Good coring 88.0 - 95.5'. Broken &amp; rubbly core 95.5 - 101.0'. 88.0 - 94.0' Only minor qtz blebs &amp; &lt; 1% f.g. pyrite.</p> <p>94.0 - 101.0' Up to 2% dk. grey qtz blebs, usually @ low angles to C.A. Blebs contain up to 2 % f.g. pyrite. Larger blebs show coarser grained haloes &amp; f.f. of 2<sup>nd</sup> phase pyrite.</p> <p>98.1 - 98.3' Large grey-white qtz veinlet, apparently barren, with contacts at 60° to C.A.</p> <p>Probable slips in rubble @ 95.8', 97.6', 98.7', 99.5' and 100.0-101.0' (Weakly gougy).</p> <p><u>94.9</u> X 100 % = 94.0 % 101.0</p>
			91.0	94.0	3.0	M-X 111	< 5	<0.1	83	42	23	77	
			94.0	96.0	2.3	M-X 112	8	0.3	28	8	25	59	
			96.0	99.0	3.1	M-X 113	10	0.4	34	9	22	51	
			99.0	101.0	2.7	M-X 114	8	0.2	11	31	16	37	

MEL CLAIMS HOLE Mel - X 1 86 feet Angle: Vertical A Core

DATE: June 29 - 30/98

Page 1 of 3

Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au opt	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
0.0	13.0	7.5	0.0	6.5	2.7	M-X 1	0.061	19.6	1.2%	142	259	926	Silicified and sericitic rhyolitic vein material. Up to 1 1/2 % f.g. pyrite thruout. Tr. arsenopyrite. Brecciated 0.0 - 8.7'. Strongly broken core 0.0 - 10.0'.
			6.5	9.0	2.4	M-X 2	0.012	1.2	2458	39	48	113	
			9.0	13.0	2.4	M-X 3	0.001	0.5	66	39	24	84	
13.0	26.0	12.7	13.0	18.0	2.8	M-X 4	<0.001	0.5	36	36	19	47	Green to black granular textured intrusive (granodiorite ?) Well fractured, good core. Fractures @ 40° & 80° to C.A. Core is chloritic and slightly serpentized. Tr. pyrite specks. 3" gouge @ 13.0'. 15' - 16' gouge & rubble (6" recovered). 2" gouge @ 18.0'. 2" of core with 2 % f.g. pyrite @ 20.0'. Hole (vug) reported as cave @ 20.5'. 5" gouge recovered @ 24.5'. 25.3' - 26.0' Core bleached from green to grey. Contact @ 26.0' @ 40° to C.A.
			18.0	22.0	5.5	M-X 5	<0.001	0.4	15	30	23	46	
			22.0	26.0	4.4	M-X 6	<0.001	0.3	20	35	17	51	
26.0	39.5	13.4	26.0	29.5	3.4	M-X 7	0.001	0.3	<5	27	18	46	White to light grey silicified sericitic rhyolite vein material. 2 - 3 % f.g. pyrite in fractures & blebs with qtz-calcite in fractures @ 10-15° to C.A. Tr black sulphide (possibly a silver mineral) with pyrite. Generally good core. Gradational contact @ 39.5'.
			29.5	36.0	6.6	M-X 8	<0.001	0.5	<5	32	25	66	
			36.0	39.5	3.4	M-X 9	0.001	0.8	<5	30	36	68	
39.5	56.5	18.4	39.5	46.5	7.2	M-X 10	0.001	0.3	13	10	18	42	Green to grey granular textured intrusive as 13.0' - 26.0'. Core chloritic and slightly serpentized. Generally good core with fracturing @ 40-45° & 80° to C.A. Qtz & calcite in fractures.
			46.5	50.5	4.3	M-X 11	0.001	0.3	16	33	14	38	
			50.5	56.5	6.9	M-X 12	<0.001	0.4	22	71	36	33	



MEL CLAIMS

HOLE #: Mel - X 1

86 feet

Angle: Vertical

A Core

DATE: June 29 - 30/98

Page 2 of 3

## Distance

## Sampling Data

From	To	Recovery	From	To	Recovery	Sample #	Au opt	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	Description
39.5	56.5	18.4											Continued 44.7' - 45.2' White calcite rich zone of cemented qtz & chalcedony fragments up to 1/8". Tr pyrite. Contacts @ high angle to C.A. 50.8' - 51.1' Fault gouge. Contacts appear to be @ high angle to C.A. 53' - 55' Broken Core.
56.5	58.7	2.2	56.5	59.8	3.3	M-X 13	<0.001	0.4	31	58	49	64	Grey f.g. sericitic rhyolite. Most has fine fragments of qtz & chalcedony but some has granular texture like the intrusive. <u>Probably a transitional zone.</u> Good core even though it is slightly gougy. Weak fracturing @ 10 - 15° & perpendicular to C.A. Trace Pyrite
58.7	82.0	20.0	59.8	67.5	5.9	M-X 14	<0.001	1.0	38	26	21	68	Light grey to black silicified, sericitic rhyolite vein
			67.5	73.0	4.3	M-X 15	<0.001	0.3	<5	37	28	73	2 - 3 % f.g. pyrite in fractures and blebs generally
			73.0	80.5	7.2	M-X 16	<0.001	0.5	<5	29	26	73	with qtz-calcite @ 10 - 15° to C.A.
			80.5	82.0	1.5	M-X 17	<0.001	<0.1	8	37	33	91	61.1 - 62.5' Broken core in rubble. Drill bit had to be drilled through @ 61.5' (in core box). 64.5 - 68.8' Broken core in rubble. High angle contacts ? 71' - 73' Rubble with 0.6' recovered.
			1.0	10.0	Sludge	Mel-X 1	0.018	4.4	2704	245	36	131	76.6 - 77.0' Broken core. 80.5' - 82.0' Grey f.g. sericitic rhyolite. Good core with weak fracturing perpendicular to C.A. < 1 % f.g. pyrite. Transitional zone ?

MEL CLAIMS

HOLE #: Mel - X 1

86 feet Angle: Vertical

A Core

DATE: June 29 - 30/98

Page 3 of 3

Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au opt	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
12.0	86.0	3.5				M - X 18	<0.001	0.5	22	44	318	46	<p>Lt. grey to lt. green granular textured intrusive (?). 1/8" round qtz. (chalcedony) fragments (Possibly from rhyolite). Core has strong argillic and sericitic alteration with weak chloritic alteration. Tr. pyrite. Generally good core. Fracturing @ 40° and 75° to C.A.</p> <p>82.0' - 82.3' Gougy, sericitic &amp; argillic core.</p> <p>84.9' - 86.0' Gougy &amp; broken core (0.7' recovered).</p>

CORE RECOVERY:  $\frac{77.7}{86.0} \times 100\% = 90.3\%$

MEL CLAIMS

HOLE #: Mel - X 2 145 feet

65° to North

A Core

DATE: Aug. 6, 24 and Sept. 3 / 98

Page 1 of 4

Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
0.0	6.5	4.5	0.0	2.5	0.8	M-X 19	257	3.5	2217	75	140	113	<p>Fine-grained grey-yellow silicified, sericitic and argillic altered rhyolitic (?) vein material. &lt;1/8" grey quartz grains. Up to 2% fine-grained arsenopyrite-pyrite disseminated in blebs of black chalcedony or quartzite. Some small (&lt;1/16") pyrite crystals. Chalcedony or quartzite blebs appear to lie generally @ 70° to C.A. Mineralization is approx. 2 to 1 arsenopyrite to pyrite. Generally fair to broken coring. Core well fractured @ 35 - 40° and 70° to C.A.</p> <p>0.0 - 2.5' primarily black quartzite with weak limonite and white quartz in fractures in broken core. &lt; 1% pyrite. 2 or 3 pieces of sericitic and argillic material.</p> <p>2.5 - 3.4' broken coring sericitic and argillic rhyolitic (?) vein material (0.7' recovered). Broken core @ 5.0' (0.1' recovered). Broken core @ 5.6' (0.2' recovered).</p>
			2.5	3.4	0.7	M-X 20	<5	0.2	200	55	68	163	
			3.4	5.0	1.6	M-X 21	<5	0.3	66	37	57	94	
			5.0	6.5	1.4	M-X 22	8	0.5	60	49	56	85	



Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au opt	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
6.5	17.8	8.5	6.5	9.0	1.6	M-X 23	<0.001	0.3	14	21	30	63	As 0.0 - 6.5' but generally broken core. Rhyolitic vein material continues but more py than arseno. Tr chalcopryrite ? <1% fract. fillings of red-brn hematitic limonite. 10.2' Streak of blue-green mineral, mariposite (?) @ 50° to C.A. Contact @ 17.8' @ 40° to C.A. Slips in rubble @ 14.4-14.6' and 17.7-18.0'. Cave marked @ 15.4'.
			9.0	10.5	1.4	M-X 24	0.001	1.8	9	26	30	53	
			10.5	12.0	1.5	M-X 25	0.001	1.1	119	50	23	115	
			12.0	14.0	2.3	M-X 26	<0.001	0.6	14	62	20	53	
			14.0	17.8	1.7	M-X 27	<0.001	0.5	20	27	27	92	
17.8	38.1	17.2	17.8	19.0	0.9	M-X 28	<0.001	0.1	41	20	20	66	Dk. gm to black medium-grained propylitic & argillic (+sericitic ?) intrusive (granodiorite ?). Grey to red (hematitic ?) frags. of qtz & intrusive. Sub-rounded up to 1" long. 19.0 - 21.9' Qtz & grey-black pieces of chalcedonic vein material in gougy, propylitic intrusive rubble. 21.4' Cave marked. 17.8 - 18.2' Gouge of argillic & chloritic intrusive. Contact @ 18.2' perp. to C.A. 18.8 - 22.5' Generally gougy, argillic & chloritic intrusive. 35.4 - 38.1' as 17.8 - 18.2' Contacts @ 45° to C.A.
			19.0	22.5	2.1	M-X 29	0.007	0.8	1273	25	22	117	
			22.5	26.5	3.4	M-X 30	<0.001	0.1	39	40	22	48	
			26.5	31.5	4.8	M-X 31	<0.001	0.1	32	30	26	51	
			31.5	38.0	5.9	M-X 32	<0.001	0.4	41	28	23	55	
38.1	61.2	26.1	38.0	41.5	4.4	M-X 33	<0.001	0.5	23	29	32	69	Generally grey to black good coring rhyolitic vein material (?). Some places seem to have a granular texture so may be silicified intrusive. 2 - 3% blebs & streaks of fine-grained pyrite (some arseno ?) @ 70° & 10 - 15° to C.A. in grey-black f.g. chalcedony. 41.5 - 42.0' Broken argillic core. Resistent qtz pieces up to 1/2" diameter. 48.0 - 52.0' Lt. grey granular & argillic good coring vein material. 48.7' 1/8" vuggy pyrite f.f. @ 45 - 50° to C.A. 51.8 - 60.0' Dk. grey to black banding of chalcedony (?) with weaker sericitic schist @ 55 - 60° to C.A. Broken & gougy core @ 53.0', 54.0' & 61.2'
			41.5	42.0	0.6	M-X 34	<0.001	0.4	19	10	131	12	
			42.0	45.5	3.7	M-X 35	0.001	0.4	47	24	25	66	
			45.5	47.5	2.7	M-X 36	0.001	2.5	65	27	19	61	
			47.5	50.5	2.7	M-X 37	<0.001	0.1	5	40	31	117	
			50.5	52.0	1.5	M-X 38	0.001	0.5	< 5	27	20	90	
			52.0	53.0	2.8	M-X 39	0.002	1.7	34	44	16	50	
			53.0	57.0	4.0	M-X 40	0.001	0.6	232	46	16	73	
			57.0	61.2	3.7	M-X 41	0.001	1.2	266	32	10	90	

Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au opt	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
61.2	63.0	2.8	61.2	62.2	2.0	M-X 42	<0.001	0.1	35	42	26	48	Lt. grey argillic & sericitic, weakly granular intrusive (granodiorite ?) Generally good core. 61.6' 1 1/2" diameter bleb of 1% f.g. pyrite. 62.7' Slip in 0.2' rubble.
			62.2	64.2	2.0	M-X 43	<0.001	0.2	67	62	16	47	
63.0	79.0	18.2	64.2	65.3	1.1	M-X 44	<0.001	0.1	52	135	8	60	Lt. grey-grn argillic & sericitic granular intrusive. Clay altered (1/16") feldspar crystals. Generally good core. Weak fracturing @ 40 - 60° to C.A. 64.4 - 65.2' Banded qtz-sericite @ 55 - 60° to C.A. Some serpentinization ? Up to 1% f.g. pyrite in bands. Tr arseno ? 67.8 - 68.1' Up to 1/2" wide white qtz in grey-black silicified core. Qtz bands (?) @ 35 - 40° to C.A. 73.5 - 78.0' Thin (<1/2") f.g. pyrite (< 1%) in fract. fillings @ 35 - 40° to C.A. 78.0 - 79.0' Up to 2% f.g. pyrite in fractures & blebs. 78.9 - 79.0' Broken core.
			65.3	67.0	2.1	M-X 45	<0.001	<0.1	31	40	24	50	
			67.0	70.6	3.6	M-X 46	<0.001	<0.1	41	22	16	31	
			70.6	73.0	2.4	M-X 47	<5 ppb	0.3	61	76	52	75	
			73.0	76.0	3.0	M-X 48	<5 ppb	<0.1	30	31	31	77	
			76.0	79.0	4.7	M-X 49	18 ppb	0.6	61	32	28	60	
79.0	84.0	4.9	79.0	81.5	2.0	M-X 50	71 ppb	3.6	1051	25	19	48	Black thin-bedded graphitic qtzite & schist. Up to 1% f.g. pyrite as fract. fillings & individual crystals. Weak lenses & veinlets of white qtz thruout. 79.0 - 80.0' (0.8' Rec.) Rubble. 83.0 - 84.0' (0.9' Rec.) Rubble.
			81.5	84.0	2.9	M-X 51	49	7.9	253	30	60	29	
84.0	92.0	10.6	84.0	86.0	2.7	M-X 52	7 ppb	0.4	150	26	26	70	Lt. grey-green broken sericitic & argillic intrusive. Minor grey-black qtz (chalcedony) f.f. & blebs. Up to 1% f.g. pyrite usually in fractures. Possible rhyolitic vein material because granular texture is very weak. 88.5 - 90.0' Probable fault in rubble. 91.7 - 92.0' Probable slip in gougy rubble.
			86.0	88.0	3.1	M-X 53	<5	0.4	41	18	31	73	
			88.0	90.0	2.1	M-X 54	68	0.3	74	31	25	71	
			90.0	92.0	2.7	M-X 55	85	0.6	102	14	22	67	
92.0	97.3	6.4	92.0	95.0	4.6	M-X 56	49 ppb	2.0	119	25	26	63	As 84.0 - 92.0' but strong white calcite along fractures. 95.0 - 95.5' Probable fault in rubble. 95.5 - 97.3' Up to 1 1/2% f.g. pyrite in fractures & blebs.
			95.0	97.3	1.8	M-X 57	1896	0.9	1.7%	20	29	58	

Distance			Sampling Data										Description
From	To	Recovery	From	To	Recovery	Sample #	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	
97.3	105.7	10.2	97.3	100.0	2.7	M-X 58	450	1.3	8798	20	40	51	<p>Good coring propylitic, argillic &amp; weakly sericitic granular intrusive. Core is variably silicified and in places the granular texture has almost been destroyed. Scattered f.g. pyrite (arseno ?) mineralization thruout (Up to 1 1/2%) in blebs and fractures.</p> <p>97.3 - 105.7' More weakly mineralized (&lt;1% py). Stronger granular texture.</p> <p>102.3 - 102.9' &amp; 104.9 - 105.3' Broken qtz-calcite lenses @ 30-40° to C.A.</p> <p>As 97.3 - 105.7' but better mineralized (Up to 2 % f.g. pyrite [arseno?]) in blebs &amp; f.f. More silicified &amp; less granular texture.</p> <p>Dk. grn-grey propylitic granular intrusive. Good coring with weak calcite f.f. at 45° &amp; 70° to C.A.</p> <p>As 105.7 - 113.5' but probably weaker mineralization (Up to 1 1/2% f.g. pyrite [arseno ?])</p> <p>Weak fractures @ 35 - 40° &amp; 70° to C.A. Minor qtz-calcite in 35° fractures up to 1/8" wide.</p> <p>Dk. grn-black good coring propylitic granular intrusive (granodiorite ?). No visible mineralization. Gradational contact @ 119.4'. Minor qtz-calcite f.f. at 30 - 45° to C.A. (Up to 1/8" wide).</p> <p>Core becomes bleached &amp; more sericitic from 130.9 - 131.5'.</p> <p>Banded thin-bedded qtzite-graphitic schist. Strong schistosity @ 70 - 85° to C.A. Weak qtz-calcite interbands. Minor sericitic alteration. Generally trace pyrite as small individual crystals (~ 1/16"). Generally good coring.</p> <p><u>149.7</u> X 100 % = 103.2 % Result of core stretching in broken core. 145.0</p>
			100.0	103.0	3.8	M-X 59	516	0.6	5691	10	30	47	
			103.0	105.7	3.7	M-X 60	28	0.6	521	21	27	54	
105.7	113.5	8.0	105.7	108.5	3.0	M-X 61	< 5	0.2	136	10	26	76	
			108.5	111.0	2.5	M-X 62	5	0.2	109	16	32	68	
			111.0	113.5	2.5	M-X 63	< 5	0.2	66	16	28	108	
113.5	115.8	2.3	113.5	115.8	2.3	M-X 64	< 5	0.2	59	31	20	68	
115.8	119.4	4.4	115.8	117.9	2.1	M-X 65	< 5	0.2	37	31	26	51	
			117.9	119.4	2.3	M-X 66	< 5	<0.1	19	12	20	61	
119.4	131.5	11.7	119.4	122.4	3.0	M-X 67	< 5	0.3	48	23	31	67	
			122.4	125.4	3.0	M-X 68	< 5	0.4	79	25	26	67	
			125.4	128.4	3.0	M-X 69	< 5	0.4	71	45	27	62	
			128.4	131.5	2.7	M-X 70	< 5	0.4	56	70	29	59	
131.5	145.0	14.1	131.5	134.5	3.0	M-X 71	11	0.1	35	39	19	89	
			134.5	137.5	4.1	M-X 72	< 5	<0.1	15	25	20	91	
			137.5	140.5	2.7	M-X 73	< 5	<0.1	24	25	16	94	
			140.5	143.5	2.8	M-X 74	< 5	<0.1	37	27	22	86	
			143.5	145.0	1.5	M-X 75	< 5	<0.1	23	19	18	83	

**APPENDIX B**  
**ANALYTICAL CERTIFICATES**

05/10/98

Certificate of Analysis

Page 1

Yukon Yellow Metal

WO# 05616

Certified by 

Sample #	total pulp wt gm	wt of +150 gm	Au in -150 oz/ton	Au in +150 mg	total Au oz/ton
dc M-X29	118.9	28.600	0.008	0.007	0.008
dc M-X50	191.1	7.086	0.003	0.002	0.003
dc M-X54	221.2	26.271	0.002	0.002	0.002
dc M-X55	290.2	35.347	0.002	0.004	0.002
dc M-X56	512.1	42.703	0.003	0.003	0.003
dc M-X57	311.8	38.684	0.060	0.046	0.057
dc M-X58	505.4	58.436	0.015	0.029	0.015
dc M-X59	483.2	60.107	0.017	0.025	0.016
dc M-X93	290.8	56.753	0.002	0.003	0.002
dc M-X104	366.1	35.166	0.002	0.003	0.002

16/09/98

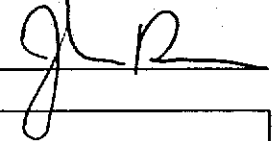
Certificate of Analysis

Page 1

Yukon Yellow Metal

WO# 05599

Certified by



Sample #	Au 30g ppb
dc M-X 76	8
dc M-X 77	11
dc M-X 78	35
dc M-X 79	16
dc M-X 80	6
dc M-X 81	6
dc M-X 82	<5
dc M-X 83	<5
dc M-X 84	<5
dc M-X 85	<5
dc M-X 86	<5
dc M-X 87	<5
dc M-X 88	<5
dc M-X 89	10
dc M-X 90	11
dc M-X 91	7
dc M-X 92	10
dc M-X 93	59
dc M-X 94	18
dc M-X 95	<5
dc M-X 96	<5
dc M-X 97	35
dc M-X 98	<5
dc M-X 99	<5
dc M-X 100	<5
dc M-X 101	5
dc M-X 102	5
dc M-X 103	21
dc M-X 104	62
dc M-X 105	7

22/09/98

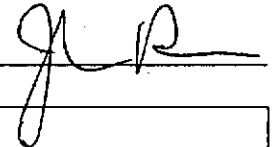
Certificate of Analysis

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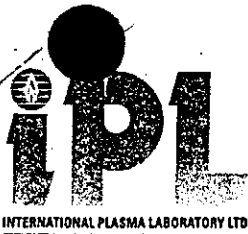
Yukon Yellow Metal

WO# 05599

Certified by



Sample #	Au 30g ppb
dc M-X 106	5
dc M-X 107	<5
dc M-X 108	11
dc M-X 109	<5
dc M-X 110	<5
dc M-X 111	<5
dc M-X 112	8
dc M-X 113	10
dc M-X 114	8



# CERTIFICATE OF ANALYSIS

## iPL 98I1012

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

Client : Northern Analytical Laboratories  
 Project: W.O. 5599

39 Samples  
 39-Pulp

[101217:25:11:89092598] Out: Sep 25, 1998 Page 1 of 1  
 In: Sep 22, 1998 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 %
M-X 76	0.1	22	11	17	62	72	<	2	<	<	3.8	10	17	43	<	114	12	23	20	13	6	1	<	0.37	0.06	1.96	0.03	0.20	<	0.02
M-X 77	0.1	34	16	54	78	129	<	2	<	<	6.1	17	29	27	10	121	12	29	26	22	8	1	<	0.40	0.13	3.21	0.02	0.14	<	0.07
M-X 78	<	13	12	54	1070	38	<	2	<	<	2.7	11	28	34	8	104	6	17	22	15	4	1	<	0.31	0.09	1.54	0.02	0.17	<	0.03
M-X 79	0.4	16	12	49	308	35	<	1	<	<	2.8	11	27	37	7	142	6	33	22	16	4	1	<	0.30	0.10	1.40	0.02	0.19	<	0.03
M-X 80	0.3	15	12	71	121	41	<	1	<	<	3.2	11	28	42	5	143	7	34	28	21	7	2	<	0.45	0.12	1.70	0.05	0.23	<	0.03
M-X 81	0.4	36	32	48	96	17	<	1	<	<	6.1	31	127	73	22	179	57	454	78	185	2	9	<	2.17	2.33	2.92	1.29	0.07	<	0.21
M-X 82	<	14	27	60	88	<	<	3	<	<	6.7	27	124	95	14	185	69	630	122	292	2	12	<	2.89	3.02	3.14	2.05	0.06	<	0.27
M-X 83	0.3	13	29	84	59	20	<	1	<	<	4.9	25	94	40	8	98	33	444	103	104	3	8	<	0.95	2.41	2.47	0.40	0.05	<	0.29
M-X 84	<	27	36	77	48	9	<	2	<	<	6.1	29	118	40	15	126	48	425	131	175	2	9	<	1.54	3.03	2.97	0.97	0.04	<	0.35
M-X 85	0.1	48	14	48	80	<	<	1	<	<	7.8	25	117	115	14	149	70	768	109	357	2	13	<	2.68	5.56	3.49	1.97	0.06	<	0.31
M-X 86	<	67	27	52	89	<	<	3	<	<	7.2	32	136	124	19	128	75	593	117	354	2	12	<	3.03	3.17	3.36	2.22	0.08	0.01	0.34
M-X 87	<	36	42	112	57	9	<	3	<	<	8.3	33	144	42	15	88	53	661	136	274	3	9	<	1.91	5.51	3.87	1.35	0.04	<	0.33
M-X 88	0.2	38	41	153	40	23	<	2	<	<	7.0	29	121	32	15	64	40	364	137	162	3	6	<	1.38	2.69	3.45	0.71	0.04	<	0.32
M-X 89	0.4	35	38	74	59	103	28	10	<	<	26.1	34	222	14	11	70	30	113	70	53	26	3	<	0.94	0.96	12x	0.10	0.01	<	0.26
M-X 90	0.8	32	27	67	67	50	<	1	<	<	7.9	25	108	16	13	57	24	38	80	43	6	2	<	1.06	0.61	4.08	0.05	0.03	<	0.22
M-X 91	0.3	27	36	71	15	35	5	3	<	<	14.5	31	141	10	9	51	27	31	100	36	13	2	<	0.81	0.58	6.83	0.02	0.02	<	0.23
M-X 92	0.8	29	33	79	49	56	<	1	<	<	12.1	24	102	12	15	75	26	27	88	32	13	2	<	1.01	0.52	5.98	0.03	0.06	<	0.20
M-X 93	1.3	29	25	60	805	86	<	1	<	<	10.3	23	95	13	6	37	16	21	30	47	12	2	<	0.58	0.53	5.26	0.03	0.16	<	0.18
M-X 94	2.0	31	30	104	109	75	<	1	<	<	14.3	28	122	8	10	42	22	55	78	43	13	2	<	0.73	0.61	7.07	0.04	0.06	<	0.23
M-X 95	0.2	149	18	51	87	14	<	16	<	<	10.8	41	146	42	49	126	70	748	99	174	3	9	<	2.60	4.14	4.85	1.90	0.07	<	0.25
M-X 96	<	33	28	91	53	17	<	2	<	<	8.2	28	119	30	15	86	45	397	109	150	3	6	<	1.81	1.61	3.92	1.07	0.09	<	0.27
M-X 97	1.2	23	25	58	76	73	<	2	<	<	9.5	22	82	20	9	51	27	342	61	82	6	6	<	0.89	1.39	4.77	0.34	0.08	<	0.23
M-X 98	<	31	21	58	91	<	4	1	<	<	7.8	26	111	70	28	110	75	538	112	178	2	8	0.01	2.94	1.75	3.53	1.97	0.06	<	0.30
M-X 99	0.2	31	19	52	84	6	<	4	<	<	7.6	22	94	63	25	117	70	590	88	223	2	8	0.01	2.54	2.86	3.62	1.97	0.06	<	0.24
M-X 100	0.2	22	19	76	35	<	<	2	<	<	8.1	23	113	46	8	83	64	977	86	446	2	11	<	1.49	5.73	3.77	1.93	0.07	<	0.24
M-X 101	<	28	24	63	24	32	<	1	<	<	7.6	21	103	23	6	67	45	970	71	231	3	11	<	0.86	4.52	3.79	1.36	0.05	<	0.25
M-X 102	0.1	27	22	75	27	37	<	2	<	<	7.3	22	96	22	8	61	40	974	68	188	3	13	<	0.87	4.17	3.61	1.23	0.04	<	0.23
M-X 103	<	29	26	52	106	20	<	3	<	<	8.1	19	92	27	8	28	17	720	40	469	8	7	<	0.52	4.58	3.99	1.47	0.11	<	0.18
M-X 104	1.1	7	9	30	309	45	<	1	<	<	6.0	9	48	23	<	72	10	444	11	208	11	4	<	0.26	2.39	3.13	0.86	0.09	<	0.08
M-X 105	<	11	14	39	52	8	<	4	<	<	5.9	16	57	38	<	50	17	728	30	547	6	5	<	0.44	5.40	2.79	1.74	0.16	<	0.16
M-X 106	<	12	23	52	18	11	<	2	<	<	5.9	21	82	50	4	47	22	707	44	350	3	8	<	0.68	4.69	2.88	1.34	0.16	<	0.24
M-X 107	<	12	23	63	8	9	<	1	<	<	7.1	21	92	31	6	46	27	898	79	213	3	11	<	0.72	3.94	3.47	1.12	0.10	<	0.27
M-X 108	<	18	29	60	38	86	<	1	<	<	9.4	23	86	27	<	38	18	347	31	248	5	6	<	0.69	2.27	4.68	0.61	0.19	<	0.25
M-X 109	<	20	24	68	21	26	<	<	<	<	9.5	26	119	19	9	66	40	587	96	120	4	12	<	1.06	2.36	4.62	0.84	0.06	<	0.28
M-X 110	<	30	21	48	74	<	<	<	<	<	7.5	27	154	43	11	122	69	492	130	152	2	9	<	2.43	1.96	3.54	1.61	0.07	<	0.30
M-X 111	<	42	23	77	83	13	<	6	<	<	6.3	24	101	44	18	102	61	513	119	262	8	10	<	2.73	3.90	2.87	1.15	0.10	<	0.28
M-X 112	0.3	8	25	59	28	91	<	10	<	<	12.5	21	107	13	9	48	21	535	55	131	11	8	<	0.68	1.98	6.07	0.60	0.08	<	0.22
M-X 113	0.4	9	22	51	34	78	<	6	<	<	7.1	18	89	17	5	45	15	194	40	104	8	3	<	0.54	1.33	3.76	0.31	0.09	<	0.21
M-X 114	0.2	31	16	37	11	72	<	3	<	<	8.2	14	52	17	5	86	11	418	24	80	15	5	<	0.41	1.31	4.33	0.38	0.10	<	0.09

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

15/09/98

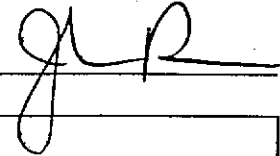
Certificate of Analysis

Page 1

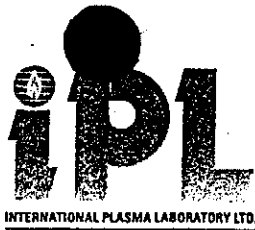
Yukon Yellow Metal

WO# 05597

Certified by



Sample #	Au 30g ppb
dc M-X 47	<5
dc M-X 48	<5
dc M-X 49	18
dc M-X 50	71
dc M-X 51	49
dc M-X 52	7
dc M-X 53	<5
dc M-X 54	68
dc M-X 55	85
dc M-X 56	49
dc M-X 57	1896
dc M-X 58	450
dc M-X 59	516
dc M-X 60	28
dc M-X 61	<5
dc M-X 62	5
dc M-X 63	<5
dc M-X 64	<5
dc M-X 65	<5
dc M-X 66	<5
dc M-X 67	<5
dc M-X 68	<5
dc M-X 69	<5
dc M-X 70	<5
dc M-X 71	11
dc M-X 72	<5
dc M-X 73	<5
dc M-X 74	<5
dc M-X 75	<5



# CERTIFICATE OF ANALYSIS

## iPL 98I1010

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

Client : Northern Analytical Laboratories  
Project: W.O. 5597

**29 Samples**  
29-Pulp

[101017:15:49:89092598]

Out: Sep 25, 1998  
In : Sep 22, 1998

Page 1 of 1  
Section 1 of 1

Sample Name	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Tl	Bi	Cd	Co	Ni	Ba	W	Cr	V	Mn	La	Sr	Zr	Sc	Ti	Al	Ca	Fe	Mg	K	Na	P	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%	%	%	
M-X 47	P	0.3	76	52	75	51	8	<	4	<	<	7.0	31	108	34	16	133	73	406	123	117	3	12	<	1.68	2.06	3.13	1.03	0.06	<	0.26
M-X 48	P	<	31	31	77	30	64	4	2	<	<	6.2	30	122	25	13	66	33	664	86	95	5	13	<	0.76	2.31	3.08	0.54	0.07	<	0.25
M-X 49	P	0.6	32	28	60	61	66	<	3	<	<	6.7	26	93	20	8	67	19	87	63	41	8	3	<	0.64	0.66	3.46	0.07	0.06	<	0.21
M-X 50	P	3.6	25	19	48	1051	140	<	2	<	<	11.8	14	53	10	21	133	12	58	14	37	9	1	<	0.43	0.35	6.15	0.06	0.20	<	0.09
M-X 51	P	7.9	30	60	29	253	92	<	2	<	<	5.9	8	29	27	16	156	8	41	10	31	6	1	<	0.37	0.25	3.09	0.05	0.09	<	0.06
M-X 52	P	0.4	26	26	70	150	57	3	2	<	<	7.0	23	92	46	9	65	18	592	35	384	3	10	<	0.73	3.63	3.49	1.11	0.19	<	0.23
M-X 53	P	0.4	18	31	73	41	59	<	3	<	<	8.9	23	86	36	<	48	16	850	32	611	5	10	<	0.60	4.96	4.39	1.58	0.17	<	0.20
M-X 54	P	0.3	31	25	71	74	38	<	3	<	<	6.6	21	72	62	8	59	19	886	34	535	3	10	<	0.69	5.67	3.31	1.73	0.18	<	0.22
M-X 55	P	0.6	14	22	67	102	94	4	3	<	<	16.5	22	105	20	5	59	28	892	18	352	7	10	<	0.58	5.89	7.55	2.06	0.12	<	0.21
M-X 56	P	2.0	25	26	63	119	88	<	3	<	<	10.0	20	79	35	<	62	32	1402	26	222	7	12	<	0.59	5.04	4.93	1.68	0.08	<	0.21
M-X 57	P	0.9	20	29	58	1.7*	50	<	2	<	<	7.3	26	113	25	5	66	24	274	38	74	5	4	<	0.63	1.27	3.51	0.25	0.26	<	0.27
M-X 58	P	1.3	20	40	51	8798	43	3	2	<	<	10.2	23	102	24	<	51	17	311	25	223	11	5	<	0.51	2.14	4.99	0.61	0.26	<	0.23
M-X 59	P	0.6	10	30	47	5691	18	<	4	<	<	7.8	20	86	55	<	39	21	871	25	644	5	9	<	0.60	6.60	3.62	2.20	0.22	<	0.20
M-X 60	P	0.6	21	27	54	521	112	4	1	<	<	7.7	20	81	34	<	82	38	1058	46	147	5	9	<	0.79	3.27	3.84	0.98	0.10	<	0.24
M-X 61	P	0.2	10	26	76	136	37	<	2	<	<	7.0	26	99	40	8	74	49	1021	56	208	3	11	<	0.87	5.26	3.38	1.45	0.07	<	0.23
M-X 62	P	0.2	16	32	68	109	29	<	1	<	<	5.8	25	101	49	6	70	42	795	74	93	3	15	<	0.89	3.29	2.98	0.86	0.03	<	0.24
M-X 63	P	0.2	16	28	108	66	20	<	2	<	<	7.7	25	103	38	9	86	55	709	83	207	4	13	<	1.17	3.98	3.79	1.21	0.04	<	0.23
M-X 64	P	0.2	31	20	68	59	6	<	4	<	<	8.1	25	107	75	<	137	66	638	70	279	3	12	<	1.80	3.77	3.91	1.70	0.06	<	0.21
M-X 65	P	0.2	31	26	51	37	27	<	6	<	<	6.4	20	78	65	<	89	52	643	61	443	3	9	<	1.03	6.33	3.18	2.18	0.06	<	0.18
M-X 66	P	<	12	20	61	19	13	<	3	<	<	5.8	19	80	51	5	70	47	666	54	583	3	9	<	0.76	6.73	2.98	1.98	0.08	<	0.20
M-X 67	P	0.3	23	31	67	48	<	<	3	<	<	7.7	24	96	85	<	142	75	675	91	313	2	12	<	2.23	4.41	3.63	2.23	0.07	<	0.23
M-X 68	P	0.4	25	26	67	79	<	<	5	<	<	8.4	23	100	140	<	153	80	675	85	315	2	11	<	2.63	4.07	3.91	2.51	0.07	<	0.23
M-X 69	P	0.4	45	27	62	71	<	<	4	<	<	8.2	23	113	119	8	156	71	676	72	386	2	11	<	2.57	4.40	3.77	2.60	0.07	<	0.23
M-X 70	P	0.4	70	29	59	56	6	<	4	<	<	8.8	24	108	100	<	117	49	733	36	459	2	11	<	1.63	5.08	4.23	2.16	0.12	<	0.23
M-X 71	P	0.1	39	19	89	35	8	<	3	<	<	7.8	15	42	36	<	43	12	502	22	314	9	4	<	0.51	3.01	3.99	1.10	0.16	<	0.04
M-X 72	P	<	25	20	91	15	<	<	1	<	<	7.5	16	39	33	<	30	9	537	21	191	8	2	<	0.39	2.44	3.99	0.98	0.13	<	0.03
M-X 73	P	<	25	16	94	24	<	<	2	<	<	7.8	19	40	28	<	27	8	420	17	156	8	3	<	0.37	2.30	4.10	0.87	0.14	<	0.03
M-X 74	P	<	27	22	86	37	<	<	1	<	<	8.3	20	38	28	<	32	7	545	12	223	7	3	<	0.32	3.37	4.35	1.08	0.13	<	0.03
M-X 75	P	<	19	18	83	23	<	<	2	<	<	8.6	13	37	37	<	34	8	571	13	270	6	3	<	0.36	3.80	4.38	1.05	0.17	<	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    1    0.01   0.01   0.01   0.01   0.01   0.01   0.01   0.01   0.01

02/09/98

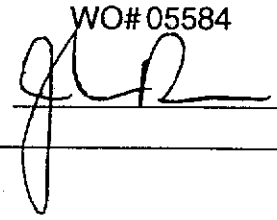
Certificate of Analysis

Page 1

Yukon Yellow Metal

WO#05584

Certified by



Sample #	Au oz/ton
r ED-1	0.001
r ED-2	<0.001
r ED-3	<0.001
r ED-4	<0.001
r ED-5	0.001
r ED-6	<0.001
r ED-7	<0.001
r ED-8	<0.001
r HEATHER-1	<0.001
r HEATHER-2	<0.001
r HEATHER-3	<0.001
r HEATHER-4	<0.001
r HEATHER-5	<0.001
dc M-X 23	<0.001
dc M-X 24	0.001
dc M-X 25	0.001
dc M-X 26	<0.001
dc M-X 27	<0.001
dc M-X 28	<0.001
dc M-X 29	0.007
dc M-X 30	<0.001
dc M-X 31	<0.001
dc M-X 32	<0.001
dc M-X 33	<0.001
dc M-X 34	<0.001
dc M-X 35	0.001
dc M-X 36	0.001
dc M-X 37	<0.001
dc M-X 38	0.001
dc M-X 39	0.002

02/09/98

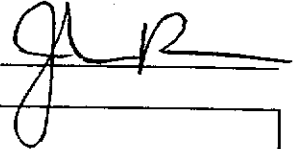
Certificate of Analysis

Page 2

Yukon Yellow Metal

WO# 05584

Certified by



Sample #	Au oz/ton
dc M-X 40	0.001
dc M-X 41	0.001
dc M-X 42	<0.001
dc M-X 43	<0.001
dc M-X 44	<0.001
dc M-X 45	<0.001
dc M-X 46	<0.001



12/08/98

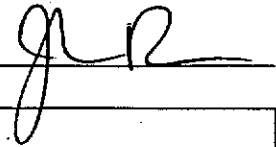
Certificate of Analysis

Page 1

Yukon Yellow Metal

WO# 05562

DDH<sup>#2</sup> 0'-6 1/2'

Certified by 

Sample #	Au ppb
dc MX-19	257
dc MX-20	<5
dc MX-21	<5
dc MX-22	8



# CERTIFICATE OF ANALYSIS

## IPL 98H0825

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

Client : Northern Analytical Laboratories  
 Project: WO# 5562

4 Samples  
 4=Pulp

[082516:55:18:89081898]

Out: Aug 18, 1998  
 In : Aug 12, 1998

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 %
M-X19	3.5	75	140	113	2217	109	<	30	<	<	7.6	24	47	7	20	272	20	71	46	23	18	2	<	1.16	0.32	8.79	0.03	0.11	<	0.12
M-X20	0.2	55	68	163	200	40	<	11	<	<	2.9	43	173	32	17	181	59	70	182	55	3	5	<	2.56	0.88	2.61	0.04	0.10	<	0.37
M-X21	0.3	37	57	94	66	51	<	10	<	<	3.3	27	88	17	17	83	18	70	120	35	5	2	<	0.78	0.67	3.68	0.01	0.03	<	0.27
M-X22	0.5	49	56	85	60	76	<	10	<	<	3.5	30	99	15	21	83	15	45	98	29	7	2	<	0.67	0.60	4.00	0.02	0.03	<	0.24

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 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

10/08/98

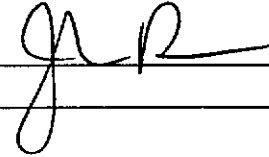
Certificate of Analysis

Page 1

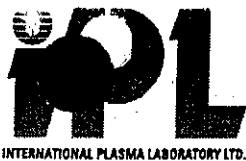
Yukon Yellow Metal

WO# 05558

Certified by



Sample #	Au oz/ton
M-X18	<0.001
<i>DDH # 82-864</i>	



INTERNATIONAL PLASMA LABORATORY LTD.

# CERTIFICATE OF ANALYSIS

## IPL H0790

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

Client : Northern Analytical Laboratories  
 Project: W.O. 5558

**1 Samples**  
 1=PuTp

[079017:26:53:89081098]

Out: Aug 10, 1998  
 In : Aug 06, 1998

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 %
M-X18	0.5	44	318	46	22	<	<	2	<	*	2.6	28	116	127	13	98	63	454	151	207	1	10	<	2.25	1.43	3.05	1.57	0.07	<	0.32

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	
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	9999	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	ICP	ICP

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

07/07/98

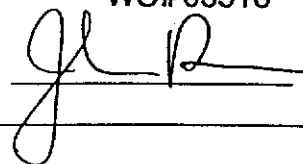
Assay Certificate

Page 1

Yukon Yellow Metal

WO# 05516

Certified by



Sample #	Au oz/ton
MEL-X - 1	0.018
DDH#1 MX - 1	0.061
DDH#1 MX - 2	0.012
DDH#1 MX - 3	0.001
DDH#1 MX - 4	<0.001
DDH#1 MX - 5	<0.001
DDH#1 MX - 6	<0.001
DDH#1 MX - 7	0.001
DDH#1 MX - 8	<0.001
DDH#1 MX - 9	0.001
DDH#1 MX - 10	0.001
DDH#1 MX - 11	0.001
DDH#1 MX - 12	<0.001
DDH#1 MX - 13	<0.001
DDH#1 MX - 14	<0.001
DDH#1 MX - 15	<0.001
DDH#1 MX - 16	<0.001
DDH#1 MX - 17	<0.001



INTERNATIONAL PLASMA LABORATORY LTD.

# CERTIFICATE OF ANALYSIS

## iPL 90647

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

Client : Northern Analytical Laboratories  
 Project: WO#5516

**18 Samples**  
 18=Pulp

[064716:10:33:89071598]

Out: Jul 15, 1998  
 In : Jul 06, 1998

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 %
MEL-X-1	P 4.4	245	36	131	2704	65	<	4	<	<	3.2	23	126	10	320	136	9	237	40	54	15	2	<	0.53	1.13	4.69	0.24	0.09	<	0.10
MX- 1	P 19.6	142	259	926	1.2x	146	<	2	<	<	1.2	13	58	17	7	128	6	39	27	16	8	1	<	0.30	0.18	3.20	0.04	0.11	<	0.06
MX- 2	P 1.2	39	48	113	2458	48	<	2	<	<	<	12	46	14	8	130	7	58	35	23	12	1	<	0.44	0.30	3.46	0.10	0.04	<	0.06
MX- 3	P 0.5	39	24	84	66	29	<	3	<	<	<	22	84	15	10	95	22	523	71	153	15	7	<	0.73	2.88	4.92	0.61	0.06	<	0.18
MX- 4	P 0.5	36	19	47	36	14	<	2	<	<	<	19	87	82	<	147	57	588	70	227	2	9	0.01	2.28	3.15	3.43	2.18	0.08	<	0.23
MX- 5	P 0.4	30	23	46	15	10	<	2	<	<	<	18	83	105	<	139	51	565	43	207	2	6	0.09	1.93	2.93	3.34	2.22	0.08	0.03	0.22
MX- 6	P 0.3	35	17	51	20	5	<	1	<	<	<	20	97	110	<	118	50	644	77	269	1	7	0.01	2.30	3.65	3.19	2.09	0.07	0.01	0.23
MX- 7	P 0.3	27	18	46	<	12	<	2	<	<	<	13	59	19	<	61	39	1101	81	169	2	9	<	0.86	6.38	3.75	1.61	0.02	<	0.22
MX- 8	P 0.5	32	25	66	<	28	<	2	<	<	<	19	88	17	<	75	40	1018	77	167	3	12	<	0.85	4.66	3.36	1.56	0.03	<	0.23
MX- 9	P 0.8	30	36	68	<	62	<	1	<	<	<	27	119	14	10	64	22	310	92	82	10	7	<	0.75	2.28	5.50	0.30	0.04	<	0.24
MX-10	P 0.3	10	18	42	13	<	<	1	<	<	<	20	95	72	<	137	46	506	74	236	2	7	0.01	2.04	2.46	2.59	1.85	0.06	0.01	0.22
MX-11	P 0.3	33	14	38	16	<	<	5	<	<	<	19	78	89	14	137	57	460	69	229	2	6	0.06	2.00	2.57	2.60	1.68	0.06	0.03	0.23
MX-12	P 0.4	71	36	33	22	<	<	11	<	<	<	29	115	87	17	132	57	459	109	274	2	9	<	2.36	2.88	2.80	1.73	0.07	0.01	0.25
MX-13	P 0.4	58	49	64	31	7	<	14	<	<	<	27	88	32	17	105	41	196	156	113	2	6	<	1.43	1.32	2.00	0.56	0.05	<	0.33
MX-14	P 1.0	26	21	68	38	76	<	10	<	<	<	21	95	12	10	58	12	127	71	38	21	2	<	0.70	0.58	7.73	0.07	0.04	<	0.18
MX-15	P 0.3	37	28	73	<	60	<	2	<	<	<	27	111	7	12	45	15	67	119	44	16	3	<	0.71	0.74	8.51	0.04	0.02	<	0.29
MX-16	P 0.5	29	26	73	<	44	<	1	<	<	<	23	100	18	9	50	14	42	100	45	6	2	<	0.66	0.69	3.51	0.03	0.05	<	0.28
MX-17	P <	37	33	91	8	7	<	<	<	<	0.1	27	129	28	12	43	22	177	153	59	1	5	<	0.85	1.15	0.66	0.11	0.05	0.01	0.37

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   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 9999 9999 9999 9999 9999 9999 9999 9999 9999

Method        ICP   ICP

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