

MAP NO.	ASSESSMENT REPORT	X	DOCUMENT NO.:	092660
	PROSPECTUS		MINING DISTRICT:	WATSON LAKE
105 B 11, 14	CONFIDENTIAL	X	TYPE OF WORK:	GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL, TEST PITS
	OPEN FILE			

REPORT FILED UNDER: Orpex Minerals Inc.

DATE PERFORMED: October - November, 1988

DATE FILED: January 27, 1989

LOCATION: LAT.: 60°45'N

AREA: Shootamook Creek

LONG.: 131°00'W

VALUE \$: 30,400.00

CLAIM NAME & NO.: MATHEW 1-6 YA71354-59; MATT 7-48 YA73626-27, 721-760; HUGH 1-48 YB11070-117; BUD 1-48 YB11022-69; SAM 1-48 YB10878-925; SID 1-48 YB10734-81; RONI 1-48 YB10926-73

WORK DONE BY: L.W. Carlyle

WORK DONE FOR: Orpex Minerals Inc.

DATE TO GOOD STANDING

REMARKS: #132 MATHEW Work included evaluation of existing data, drill core and outcrop of the showing; a test VLF-EM survey just north of the showing; and blasting, geological mapping and sampling of 18 test pits on various claim groups. SAM, SID and HUGH claims are on strike with MATHEW and have geochemical anomalies or silicification associated.

REPORT ON THE  
MATT-MATHEW AND HUGH CREEK CLAIMS  
WATSON LAKE MINING DISTRICT, YUKON  
NTS 105 B

FOR

ORPEX MINERALS INC.

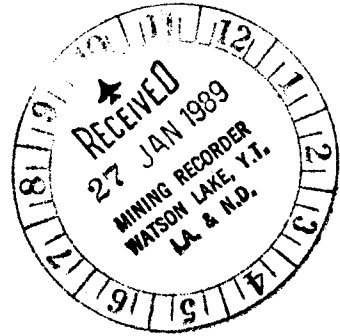
by

LARRY W. CARLYLE, F.G.A.C., P. Geol

Whitehorse, Yukon

October, 1988

092660



REPORT ON THE  
MATT-MATHEW AND HUGH CREEK CLAIMS  
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092660



This report has been certified by  
the Technical Evaluation Unit  
under Section 57 (2) of the Yukon  
Mining Act and is allowed as  
evidence in court in the amount  
of \$30,400.00.

*for* **DB Emend**  
Regional Director, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

Carlyle Geological Services Ltd.  
74 Tamarack Drive  
Whitehorse, Yukon  
Y1A 4Y6

October 7, 1988

Mr. Patrick H. Moore, C.A.  
Director  
Orpex Minerals Inc.  
# 203 - 303 Jarvis Street  
Whitehorse, Yukon  
Y1A 2H3

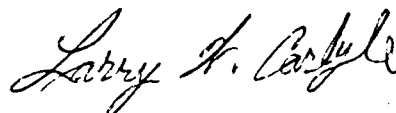
Dear Mr. Moore:

Please find enclosed my report entitled "Report on the Matt-Mathew and Hugh Creek Claims, Watson Lake Mining District, Yukon".

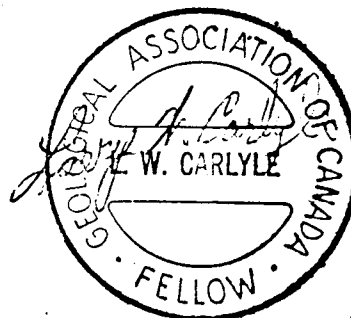
This report was prepared to fulfill the requirements of a qualifying report for submission to the British Columbia Securities Commission. I have given my permission for the report to be used for this purpose.

I respectfully submit the report for your review and comment.

Yours sincerely,



Larry W. Carlyle, F.G.A.C.



## EXECUTIVE SUMMARY

The Matt-Mathew and Hugh Creek Claims are located in the Shootamook Creek area of the Wolf Lake Map Sheet (NTS 105 B). Shootamook Creek is a tributary of Scurvy Creek approximately 55 miles north of Rancheria Lodge situated at Mile 710 (Km 1143) of the Alaska Highway.

Placer gold has been recovered from this portion of the Liard River watershed since the 1870's. The immediate area of the Winnie Showing at the confluence of Shootamook, Matt and Red Creeks on the Matt-Mathew Claims was placer mined for approximately 7 years in the mid-1930's by Chief Billy Smith of Carcross. Mr. Smith is reported to have recovered coarse gold and silver from his workings.

The Winnie Showing area has had a camp built, line cutting, a soil sampling program and a fan of six BQ diamond drill holes totalling 728.5 metres (2562.6 feet) drilled on it. The soil sampling and diamond drilling programs were not as effective as they could have been but have still provided some insights into the mineral structure on the property. Soil sampling would be an effective tool if sampling is done on a spacing of 20 to 25 metres on cross lines. Samples should also be analyzed for arsenic, antimony, lead and tungsten in addition to gold and silver. Examination of the core has enabled the writer to see similarities in rock type and age with those of a gold mine in the Barkerville area of British Columbia.

A test VLF-EM survey done by Carlyle in the Winnie area suggests that this tool will be useful in future exploration.

A \$ 49,550.00 budget for 1988 has been proposed for assessment work to hold the Hugh Creek Claims. The program will consist of helicopter supported stream sediment and rock sampling and assaying. The Hugh, Sid and Sam claim groups should be given preference because they are on strike with the Winnie.

A \$ 78,900.00 1989 budget is proposed for follow-up stream sediment, soil and rock sampling, and for follow-up VLF-EM surveys and blast hole trenching.

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## INTRODUCTION

On September 26, 1988, discussions were held between Mr. Mel Holloway, Mr. Patrick Moore and Mr. Larry Carlyle concerning the research and preparation of this report. Mr. Holloway and Mr. Moore are the principals of Orpex Minerals Inc. Carlyle is the principal of Carlyle Geological Services Ltd. of Whitehorse.

This report is based on work done during a property visit on October 2 and 3, 1988 in the company of Mr. Holloway. A review of all available private and public reports on the property was also made.

## PROPERTY LOCATION AND ACCESS

The Orpex Minerals Inc. claims are in the Shootamook Creek area of the Wolf Lake Map Sheet (NTS 105 B). Shootamook Creek is a tributary of Scurvy Creek approximately 55 miles north of Rancheria Lodge situated at Mile 710 (Km 1143) of the Alaska Highway (See Location Map). Access is presently by helicopter from Rancheria. Road access exists to the Fairfield Mt. Logan Property approximately 27 miles south of the Orpex Minerals Property.

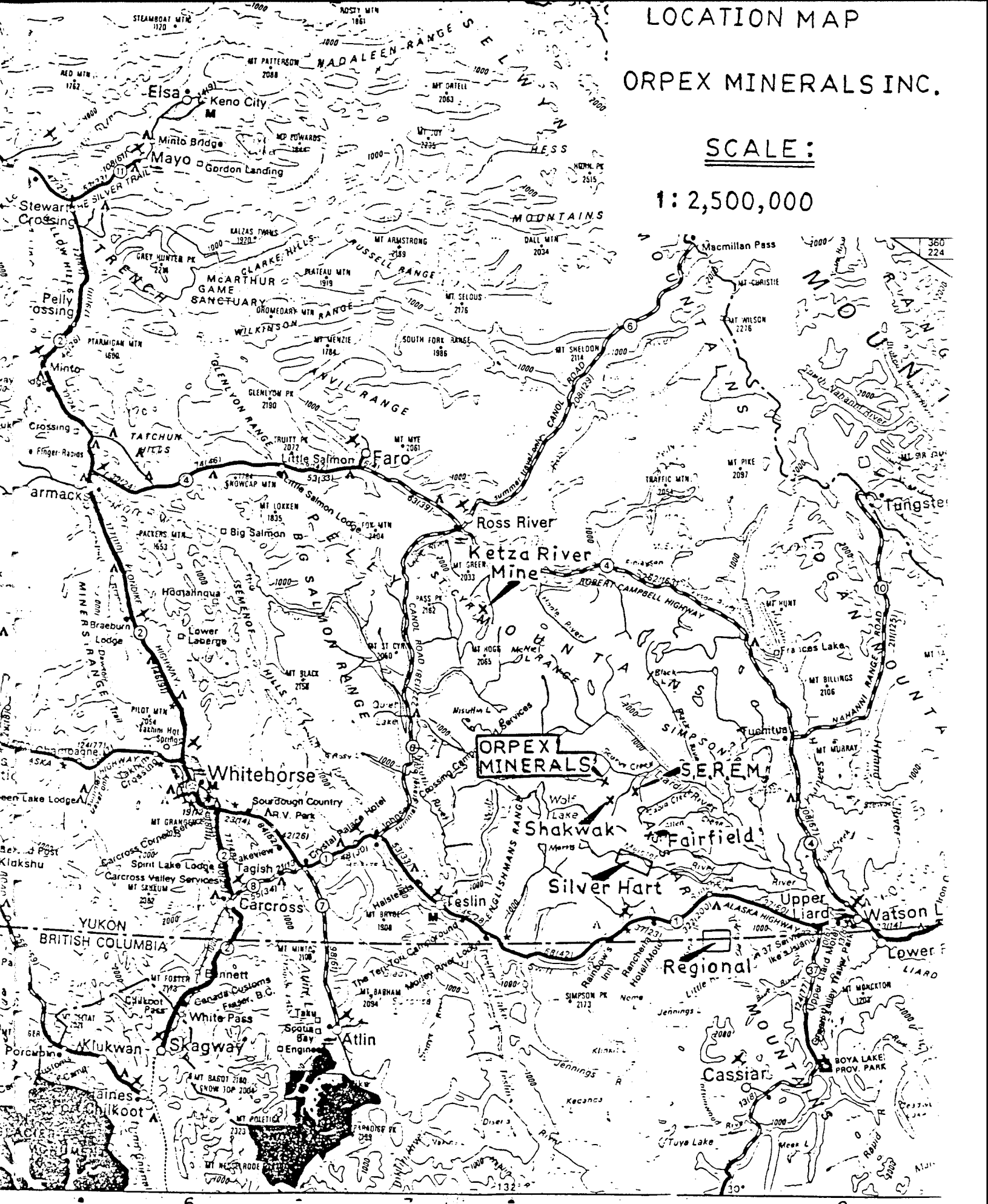
The Matt-Mathew and Hugh Creek Claims cover areas from about 3000 to 5000 feet (1112 to 1524 metres) above sea level. The claims are on rounded, moderately to steeply sloping hills and valleys. Most of the property is covered with a thick cover of black spruce, pine, willow, low bush, moss and lichens. Bedrock exposures are largely confined to stream cuts and a few steep cliff faces.

# LOCATION MAP

## ORPEX MINERALS INC.

SCALE:

1:2,500,000



### CLAIM INFORMATION

The writer checked records pertaining to the claims covered by this report by telephoning the Mining Recorder's office in Watson Lake on October 5, 1988. The data gathered are as follows:

<u>Claim Names</u>	<u>Grant Numbers</u>	<u>Owner</u>	<u>Expiry Date</u>
Mathew 1 - 4	YA 71354 - YA 71357	Mel Holloway	Jan. 20/97
Mathew 4 - 6	YA 71358 - YA 71359	Mel Holloway	Jan. 20/98
Matt 7 - 8	YA 73626 - YA 73627	Mel Holloway	Jan. 20/95
Matt 9 - 48	YA 73721 - YA 73760	Mel Holloway	Jan. 20/95
Hugh 1 -48	YB 11070 - YB 11117	Mel Holloway	Jan. 4/89
Bud 1 - 48	YB 11022 - YB 11069	Mel Holloway	Jan. 4/89
Sam 1 - 48	YB 10278 - YB 10925	Mel Holloway	Jan. 4/89
Sid 1 - 48	YB 10734 - YB 10781	Mel Holloway	Jan. 4/89
Ron 1 - 48	YB 10926 - YB 10973	Mel Holloway	Jan. 4/89

Mr. Holloway did some assessment work on the claim blocks on October 3, 1988 while the writer was doing the preliminary VLF-EM survey. This work will be filed shortly.

The Hugh, Bud, Sam, Sid and Ron claim blocks will be collectively known as the Hugh Creek Claims in this report. Additional 1988 assessment work on the Hugh Creek Claims will be recommended in this report.

### HISTORY

Placer gold was first discovered in the 1870's on the Liard River and its tributaries - Sayyea, Rainbow, Cabin and Scurvy Creeks. The Matt-Mathew claim area was originally placer mined for approximately 7 years in the mid-1930's by Chief Billy Smith from Carcross. Mr. Smith's old workings, cabins and sluice boxes were observed on Matt and Red Creeks during Carlyle's property visit.

Mr. Smith is reported to have found coarse gold and silver in his workings. These reports initiated the interest of Mel Holloway (Yukon Yellow Metal Exploration Ltd.) and the staking of the 48 Matt-Mathew Claims in 1983.

Mr. Holloway used a suction dredge to follow the placer gold to its lode source. He then used the dredge as a monitor to open the lode (Winnie Showing) for examination and sampling. This work as well as some blast trenching resulted in the Matt-Mathew Claims being optioned to Total Erickson Resources Ltd. This option agreement prohibited staking by Mr. Holloway within one mile of the Matt-Mathew Claims. The Hugh Creek Claims were staked immediately outside this zone on what Mr. Holloway believes is the continuation of the Winnie Showing.

The option agreement between Mr. Holloway and Total Erickson has been terminated. Total Erickson has built a camp, drilled 788.5 metres (2562.6 feet) of BQ core in six holes, done line cutting and taken 452 soil samples.

Mr. Holloway has now entered into an option agreement with Orpex Minerals Inc. on the Matt-Mathew Claims incorporating these claims with the Hugh Creek Claims.

#### REGIONAL GEOLOGY

The claim area 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

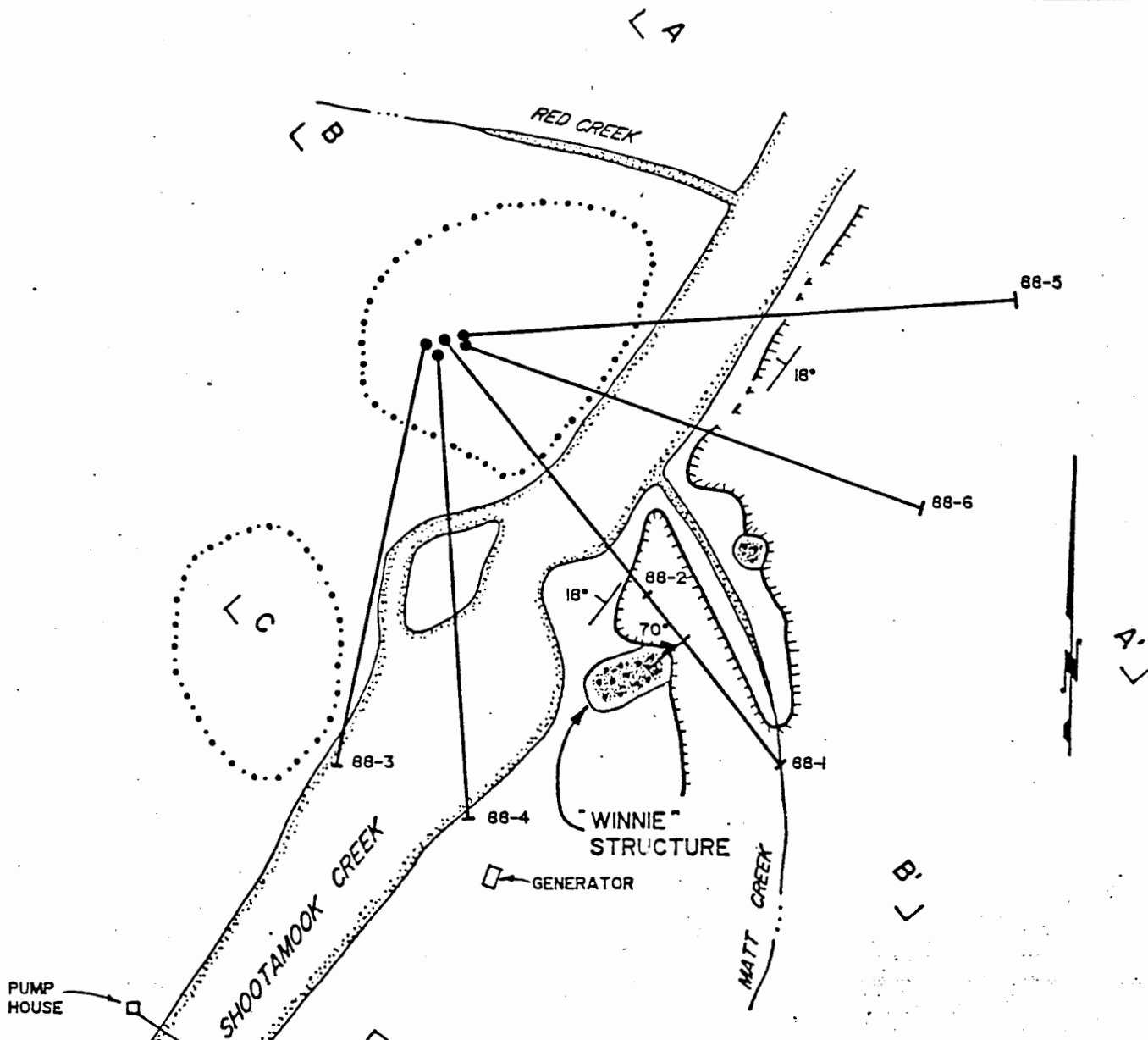
have been mapped as Hadrynian by D. Murphy on the adjoining Irvine Lake Map Area (Open File 1988 - 1). Several small plugs of the intrusive have been mapped in the claim area suggesting that the hydrothermal alteration exhibited in mineralized areas is due to their proximity to the intrusive.

A review of aerial photographs covering the area has revealed lineations chiefly striking in a northwest direction. These are probably faults which parallel the Tintina Fault which is followed by the Liard River approximately 16 miles northeast of the property (See Orpex Minerals Property Location Map).







#### PROPERTY GEOLOGY AND MINERALIZATION

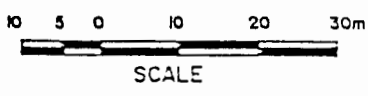
Only the Matt-Mathew claim block held by Orpex Minerals Inc. has seen extensive work. The Hugh Creek Claims were staked on the speculation that structures similar to the Winnie Showing will be found on them. Several gossaned areas similar to the Winnie were seen in-stream cuts during the helicopter flights to and from the Winnie Showing. Time only permitted a brief inspection of one of these by the writer on October 3, 1988. No significant mineralization was found. Mr. Holloway did some assessment work on some of these areas during the visit. A small 1988 budget is proposed for the Hugh Creek Claims.

Of prime importance for investigation on October 2, 1988 was the Winnie Showing, the structure 50 metres to the north on Matt Creek, the placer workings of Chief Billy Smith on Matt and Red Creeks and BQ diamond drill core stored at the camp (See Figure 3).



**LEGEND**

-  STRIPPED AREA
-  DRILL PAD CLEARING
-  DIAMOND DRILL HOLE
-  ATTITUDE: BEDDING, FAULT STRUCTURE
-  CLIFF EDGE
-  BUILDING, TENT, ETC.



TOTAL ERICKSON RESOURCES LTD.		
D.D.H. LOCATION PLAN		
SHOOTAMOOK PROPERTY		
DATE : FEB., 1988	TECH: M. FEKETE	FIGURE :
SCALE : 1 : 1000	DRWN:	3

Shear Zone  
060°/76°NW

Tr. Au X

WINNIE SHOWING

Limy Phyllite  
and Quartzite.

Tr. Au X

0.082 Au X

X 0.06 Au

Flaggy  
Limestone  
with Phyllite

Composite of  
Samples by:  
Mel Holloway  
Allen Frew  
Paul McGuigan  
Dr. Ken Dawson

Brecciated  
QFP

X 0.06 Au

X 0.081 Au

2.8M

0.037 Au X

Brecciated  
Silicious Limestone  
and Quartz Veins

Fault Gouge

QFP

Fault Gouge

0.042  
0.3M

0.042  
1M

0.06  
0.1M

EMC

X 0.068 Au

NOTE:  
Au values increase  
with depth.

X 0.115 Au

← 2M →

← 1M →

X 0.103 Au  
EMC

ESSO MINERALS CANADA

MATT CLAIMS

Cross Sectional View  
Au values only

Yukon Project Generation

0.114 Au X

0.135 Au X

River Water Level

Au in Oz/ton

Project No: MD-02 Mining Div.: Watson

NTS: 105B/14 Drawn By: KD

Date: Nov. 15/86 Fig. No:

The Winnie Showing is approximately 2 metres (5.5 feet) wide consisting of a siliceous to clay altered fault zone which strikes N 53° E and has a 70° - 75° west dip. Highly clay altered felsic (rhyolite ?) dyke occupies 0.8 metre (2.5 feet) of the hangingwall. This rhyolite has a gritty texture and contains smoky quartz eyes up to 1 inch in diameter and trace pyrite and malachite in fractures. Crushed dark grey to black quartzite with white quartz lenses up to 2 cm. wide occupies 1 metre (3.0 feet) of the footwall. Strong red-brown limonite and yellow-green scorodite ( $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$ ) (?) occupy fractures. Mineralization in this zone consists of up to 1 % pyrite and 1 % arsenopyrite.

The structure has graphitic and sericitic schist and phyllite with a shallow west dip on hangingwall and footwall. The Winnie Structure appears to widen with depth. The structure was not sampled by the writer because it has been visited and sampled by geologists such as Dr. Ken Dawson (G.S.C.) (Appendix A), Dr. Jim Morin (formerly with the Geology Section of DIAND, Whitehorse) (Appendix B), Richard Basnett (Total Erickson), and Wayne Reid (Noranda). Sampling of the structure has indicated an increase in gold and silver values with depth (See composite sketch, 1986 and Appendix C). The showing approximately 50 metres north of the Winnie has stronger red-brown limonite staining and stronger pyrite-arsenopyrite mineralization than the Winnie. The mineralization consists of up to 2 % pyrite with trace arsenopyrite blebs in a gritty clay altered rhyolite. This increase in mineralization may be due to a weak capping of quartzite. A large limonitic conglomerate zone (8 -10 feet wide)

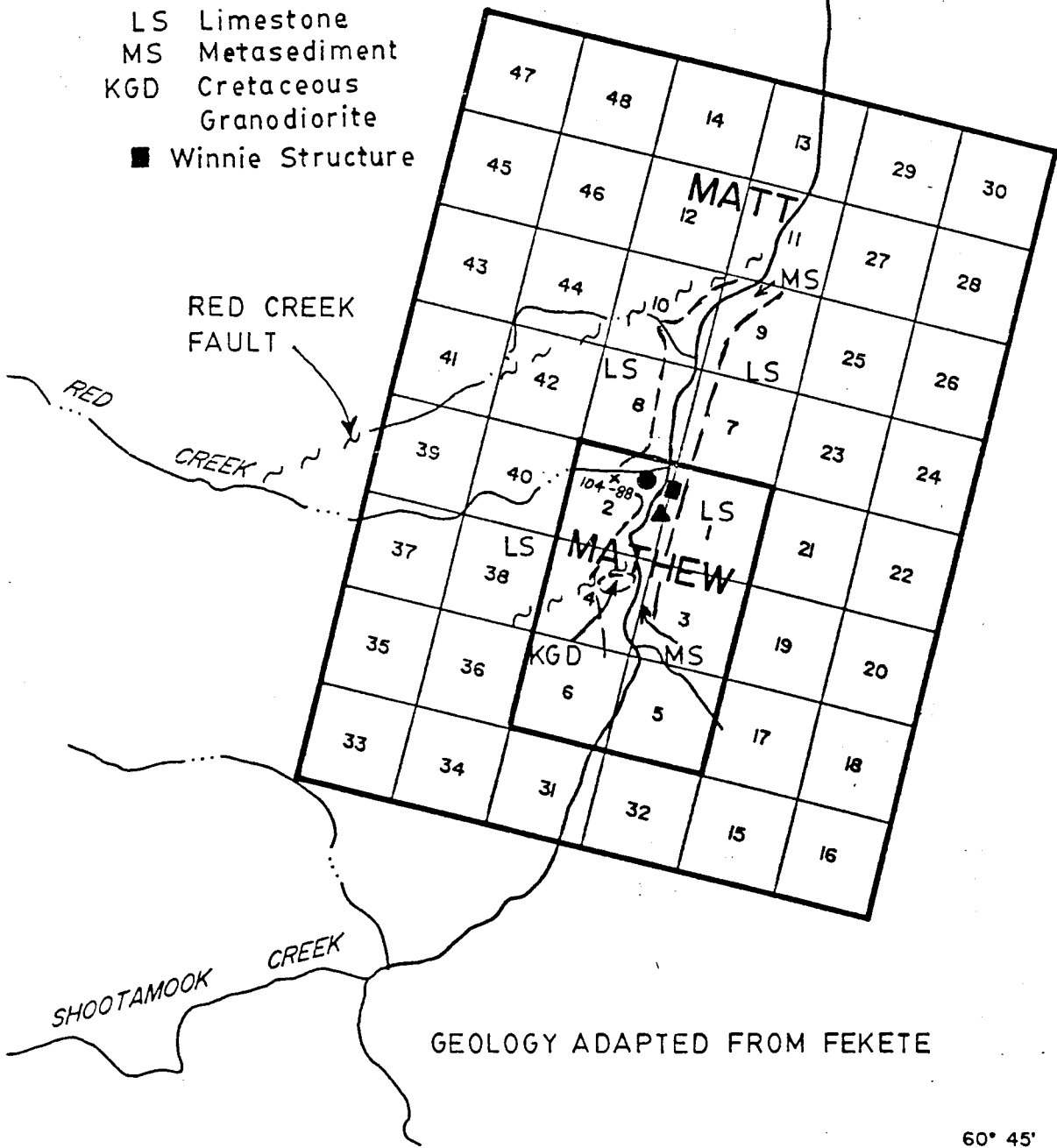
rests on the hangingwall of the rhyolite. The conglomerate consists of rounded to angular graphitic and sericitic schist fragments most about 1 inch in diameter surrounded by a black mudstone. The relationship of this conglomerate to mineralization is not known.

The placer workings of Chief Smith on Matt Creek were examined then Shootamook Creek was waded and his workings on Red Creek were also examined. These workings and several test pits located along Shootamook Creek appear to have had a maximum depth of about 8 feet. This is not surprising since Mr. Smith would have been working solely with man and water power without the benefit of pumps.

Approximately 480 metres up Red Creek from its confluence with Shootamook Creek, strong limonite staining observed on rocks in the creek is suddenly greatly reduced. Examination of the rocks in the area revealed some outcrops of graphitic and sericitic schist below this point and only fresh light grey-white limestone above this point. The iron in the schists seems to be the most likely cause for the limonite staining of the rocks. Aerial photograph and helicopter examinations of upper Red Creek indicate the presence of a steeply dipping west striking fault (Figure 2). The limonite stained zone is only a short distance downstream from this fault. There may be a relationship between the two. Further work is warranted. Four stream sediment samples were taken in the area. One sample was taken 5 metres below the beginning of the staining, another 25 metres above it, another 50 metres above the second and the last sample was taken 30 metres below the beginning

LEGEND

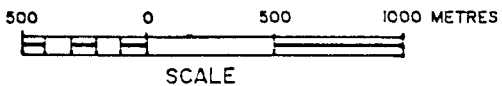
- DRILL PAD LOCATION
- ▲ CAMP LOCATION
- x SAMPLE
- ~ ~ FAULT
- LS Limestone
- MS Metasediment
- KGD Cretaceous Granodiorite
- Winnie Structure



GEOLOGY ADAPTED FROM FEKETE

60° 45'

131° 00'



TOTAL ERICKSON RESOURCES LTD.		
CLAIM LOCATION PLAN		
SHOOTAMOOK PROPERTY		
DATE: FEB., 1988	TECH: M. FEKETE	FIGURE :
SCALE : 1 : 50,000	DRWN: M/TECHNICALS LTD.	2

of the staining. These assays are awaited.

Twenty metres above the limonite stained area on the south bank of Red Creek, there is a 2 foot wide vuggy quartz vein with a steep dip and trace pyrite mineralization. The quartz vein enters a highly scorodite and sericite altered rhyolite. This quartz vein was sampled by Mark Fekete for Total Erickson (Sample 104-88, Figure 2) and ran 5 PPb gold and 91 PPM silver.

The remainder of the day was spent washing, examining and preparing a rough record of the diamond drill core stored in log racks at the camp. The last four boxes of Hole 88-1 had been examined on September 28, 1988 at the DIAND Core Library in Whitehorse. Most of the core has been recovered except in fault zones, vein zones and alteration zones. In these areas as much as 25 % of the core has been lost. Unaltered sections of the core are limey graphitic schist with contorted schistosity, dark grey to black quartzite, light grey to white limestone and dark green biotite-hornblende diorite (?). (The writer calls this a greenstone because it strongly resembles, in hand specimen, the greenstone in the Keno Hill Camp.) White quartz veins up to 1.5 feet containing siderite, sericite, chlorite and trace pyrite cut all rock types. Much of the core is altered to sericitic and chloritic schist, clay and sericite altered rhyolite and light grey gritty limey quartzite. Alteration zones in the core are typical of hydrothermal systems occurring on both sides of the vein and on both sides of faults. Many zones of the clay and sericite altered rhyolite and gritty grey quartzite have blebs and patches of fine grained secondary (replacement ?) pyrite

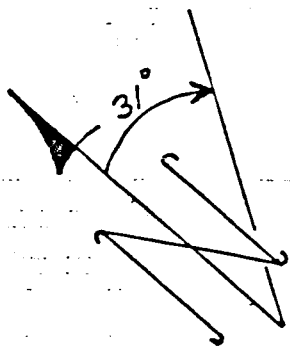
(± arsenopyrite) which have not been sampled.

Dr. Jim Morin has recently revisited the property for his present employer, Inco Gold Ltd. He appears to have the same opinion as the author since he has taken at least 5 samples of unsplit core for analysis. These assays are awaited.

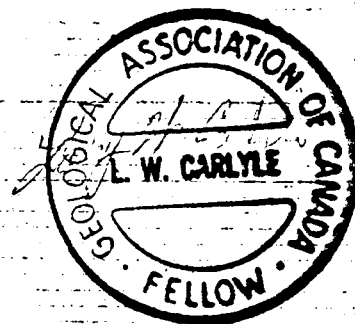
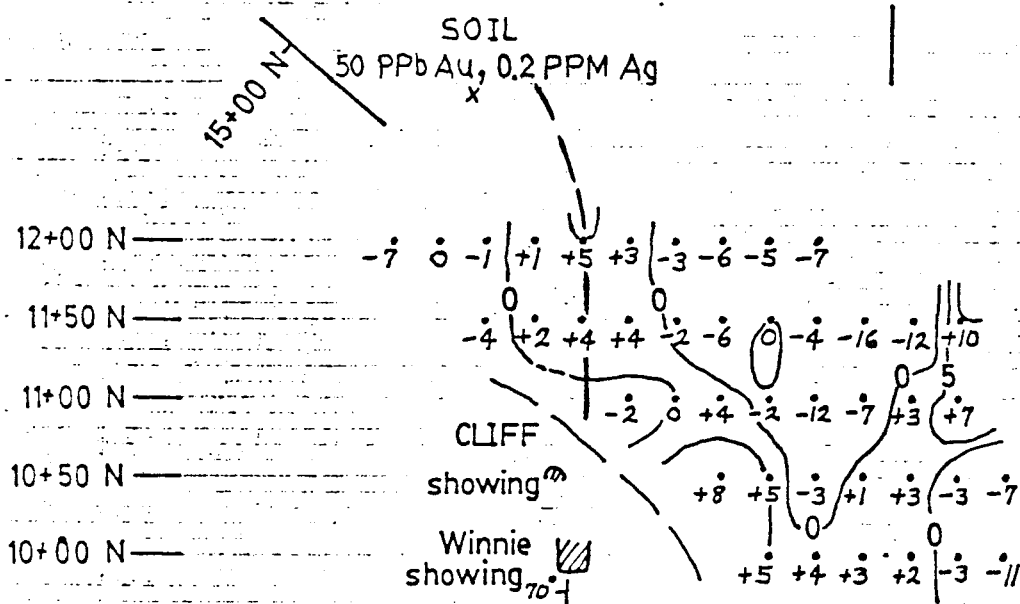
The fan of six holes drilled into the Winnie Showing was to investigate approximately 125 metres of its strike length (See Figure 3). The author does not feel this was achieved because Holes 88-2, 88-5 and 88-6 appear to have ended in the structure. Holes 88-3 and 88-4 have intersected the intrusive before cutting the vein.

On October 3, 1988, five lines of VLF-EM were done using a Sabre 27 instrument owned by the writer (Figure 1). The strike of the Winnie Showing was most closely aligned with the Hawaii transmitter. A baseline having a strike of N 50° E was established. Dip angles and field strength readings were taken at 57 stations at 30 metre spacings on cross lines separated by 50 metres. Erratic fluctuations of the field strength needle during field strength readings make these readings unreliable. A Fraser filter of the dip angle data was considered the only reliable treatment of the information. The Fraser filtered data (Figure 1) shows a weakly developed structure on strike with the Winnie Showing. This data also shows the existence of another parallel structure approximately 200 metres to the east. This preliminary VLF-EM survey demonstrates that such surveys may be effective and cost efficient on the Orpex Minerals Property.

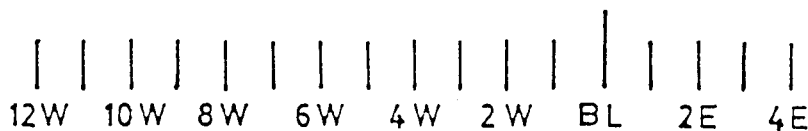
MATT-MATHEW CLAIMS  
 SHOOTAMOOK CREEK, YUKON  
 PRELIMINARY VLF SURVEY  
 FRASER FILTERED DIP  
 ANGLE DATA  
 HAWAII TRANSMITTER  
 SCALE: 1:5000



VLF  
 BASELINE



TOTAL  
 ERICKSON  
 LINE 10 E  
 8+00 N



Approximately on strike with the Winnie Showing and 100 metres northeast of the VLF-EM survey is the highest value of the soil sampling program done by Total Erickson in the area of the Winnie Showing. This sample returned a value of 50 PPb gold and 0.2 PPM silver (Figure 1). The soil sampling program was done, for the most part, on a 100 metre by 100 metre grid. It is the writer's opinion that this spacing is too wide for cross lines. Soil sampling on this property will probably be most effective taking samples every 20 to 25 metres along cross lines spaced at 100 metre intervals along strike. Assaying for just gold and silver will probably not produce anomalies of sufficient strength to be useful in further exploration. It is recommended that the elements arsenic, antimony, lead and tungsten be added to the analyses of future samples and that soil samples taken by Total Erickson be assayed for these elements.

#### CONCLUSIONS

Intensely silicified and brecciated hydrothermal vein-fault systems like those exposed on the Matt-Mathew Claims may exist in other areas of the Orpex Minerals Property. The writer's inspection of the core on the property permitted him to see some similarities with replacement-type ore bodies seen in rocks of the same type and age at the Mosquito Creek Gold Mine in the Barkerville area of British Columbia. Mines in this area obtained gold from "feeder" quartz veins and massive pyrite replacement pods trapped in small anticlinal folds.

The fan drilling program done by Total Erickson on the Winnie Showing was not as effective as it could have been. Sludge samples should have been taken when drilling through the vein and alteration zones when core loss was suspected. Many intervals of the core have been left unsampled. The author believes the core should be relogged and unsampled intervals of interest be sampled. When further drilling is done on this property, use of NQ core should be considered to improve core recovery and allow reducing the core size if trouble is encountered in the hole.

The soil sampling program done by Total Erickson in the area of the Winnie Showing should be sampled on the smaller grid pattern described earlier. Soil sampling programs over any additional showings located should use this program as a guide.

The preliminary VLF-EM program done by the writer in the area of the Winnie Showing indicates that this geophysical tool may be useful in further exploration.

#### RECOMMENDATIONS

Sufficient work has been performed on the Matt-Mathew Claims to hold them into the mid-1990's. It is critical that sufficient work be done in the near future to hold the Hugh Creek Claims. Because of the lateness of the season, the 1988 Work Program and Budget consists largely of stream sediment and rock sampling and assaying. The confluences of all major creeks in the Hugh Creek Claims should be stream sediment sampled to confirm the arsenic, antimony, silver and mercury values available in Open File 1289. Samples obtained should also be assayed for lead, zinc and

tungsten; elements not analyzed for in the preparation of Open File 1229. Gossaned outcrop exposed on creek banks should be rock sampled and assayed for the elements listed above. The Hugh, Sid and Sam claim groups should be given preference because they are on strike with the Winnie.

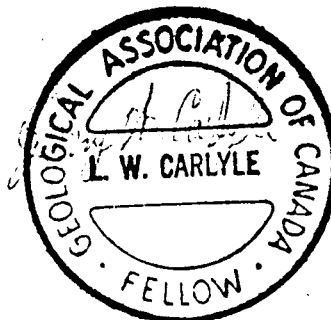
Future work should consist of relogging and sampling drill core stored at the camp, soil sampling the existing Total Erickson grid at closer spacings, doing follow-up stream sediment and soil sampling in areas of interest found by the 1988 Work Program and doing follow-up VLF-EM surveys and blast hole trenching on all areas of interest.

1988 WORK PROGRAM AND BUDGET

Helicopter	\$ 15,000.00
Wages and Benefits	\$ 7,200.00
Food and Lodgings	\$ 1200.00
Analyses	\$ 6,000.00
Camp	\$ 6,000.00
Fuel	\$ 1000.00
Report Writing	\$ 2,000.00
Mining Recorder Fees	\$ 2,400.00
Contingencies	\$ 8,250.00
	-----
Total	\$ 49,550.00

PROPOSED 1989 WORK PROGRAM AND BUDGET

Helicopter	\$ 10,000.00
Wages and Benefits	\$ 25,000.00
Food and Lodgings	\$ 8,000.00
Assaying	\$ 10,000.00
Camp	\$ 7,000.00
Fuel	\$ 1,000.00
Report Writing	\$ 2,000.00
Mining Recorder Fees	\$ 2,900.00
Contingencies	\$ 13,000.00
	-----
Total	\$ 78,900.00



## REFERENCES

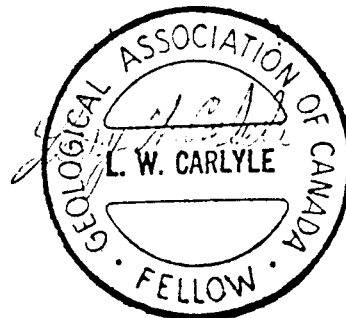
1. Balon, E.A. (1983) Hand written letter to J.D. Rowe of Cordilleran Engineering describing a visit to the Matt Claims.
2. Basnett, R. (1986) "Property Submitted." Private report to Total Erickson.
3. Basnett, R. (1987) "Property Examination - Shootamook Creek - Matt Claims." Private report to Total Erickson.
4. Dawson, K. (1984) Letter to Mel Holloway describing a visit to the Matt Claims on August 2 and 3, 1984.
5. Dawson, K. (1986) Field sketches, descriptions and assays provided to Mel Holloway from a site visit July 25, 1986.
6. Fekete, Mark (1988) "Assessment Report - Shootamook Creek Property." Private report to Total Erickson.
7. Fekete, Mark (1988) "Evaluation Report - Shootamook Creek Property." Private report to Total Erickson.
8. McGuigan, P. (1986) Field sketches, descriptions and assays provided to Mel Holloway by Esso Minerals Canada.
9. Morin, J.A. (1987) Letter to Mel Holloway describing analytical results from six rock samples taken from the Shootamook Creek occurrence.
10. Murphy, D.C. (1988) "Geological Map of Irvine Lake Map Area" (105 B-14); Open File 1988-1, Canada Yukon E.D.A.
11. Poole, W.H., Roddick, J.A. and Green, L.H. (1960) "Geology of Wolf Lake - NTS 105-B, Yukon Territory; Geol. Survey Canada, Map 10-1960."
12. Reid, W. (1986) "Property Examination Report, Matt Claims owned by Mel Holloway (Yukon Yellow Metals)." Private report to Noranda Exploration Co. Ltd.
13. Rowe, J.D. (1986) "Property Examination; CBC Placer Lease." Private report to Cordilleran Engineering.
14. Waugh, D.H. (1986) "Evaluation on MATHEW and MATT Mineral Claims for Yellow Metal Exploration Ltd."

STATEMENT OF QUALIFICATIONS

I, LARRY W. CARLYLE, do certify:

1. That I am a professional geologist operating a business registered as CARLYLE GEOLOGICAL SERVICES LTD. with an office 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 am a Member of the Canadian Institute of Mining and Metallurgy.
6. That I have practiced my profession as a mine and exploration geologist for fourteen years.
7. That I have visited the property. The conclusions and recommendations in the attached report are based on work done on the property by myself and a review of all available private and public reports on the property.
8. That I hold no interest in the property nor in the shares of Orpex Minerals Inc.
9. That I have given my permission for this report to form part of a qualifying report on the Orpex Minerals Inc. property.

DATED at Whitehorse, Yukon, this 7<sup>th</sup> day of October, 1988.



APPENDIX A

SKETCHES AND ASSAYS BY DR. KEN DAWSON



Mr. Mel Holloway

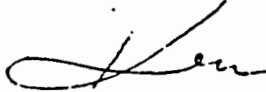
29 August, 1984

be deposited late in the  $\text{SiO}_2$ - $\text{FeS}_2$ - $\text{FeAsS}$  mineralization period, possibly with the most intense sulphide deposition.

In conclusion the low gold values over most of the area sampled reduce the mineral potential of the claim block, gold and silver do not correlate consistently with rhyolite dykes or silica-pyrite-arsenopyrite mineralization, and further prospecting and sampling is required before a drill target can be defined.

Good luck with your prospecting.

Best regards,



Ken Dawson

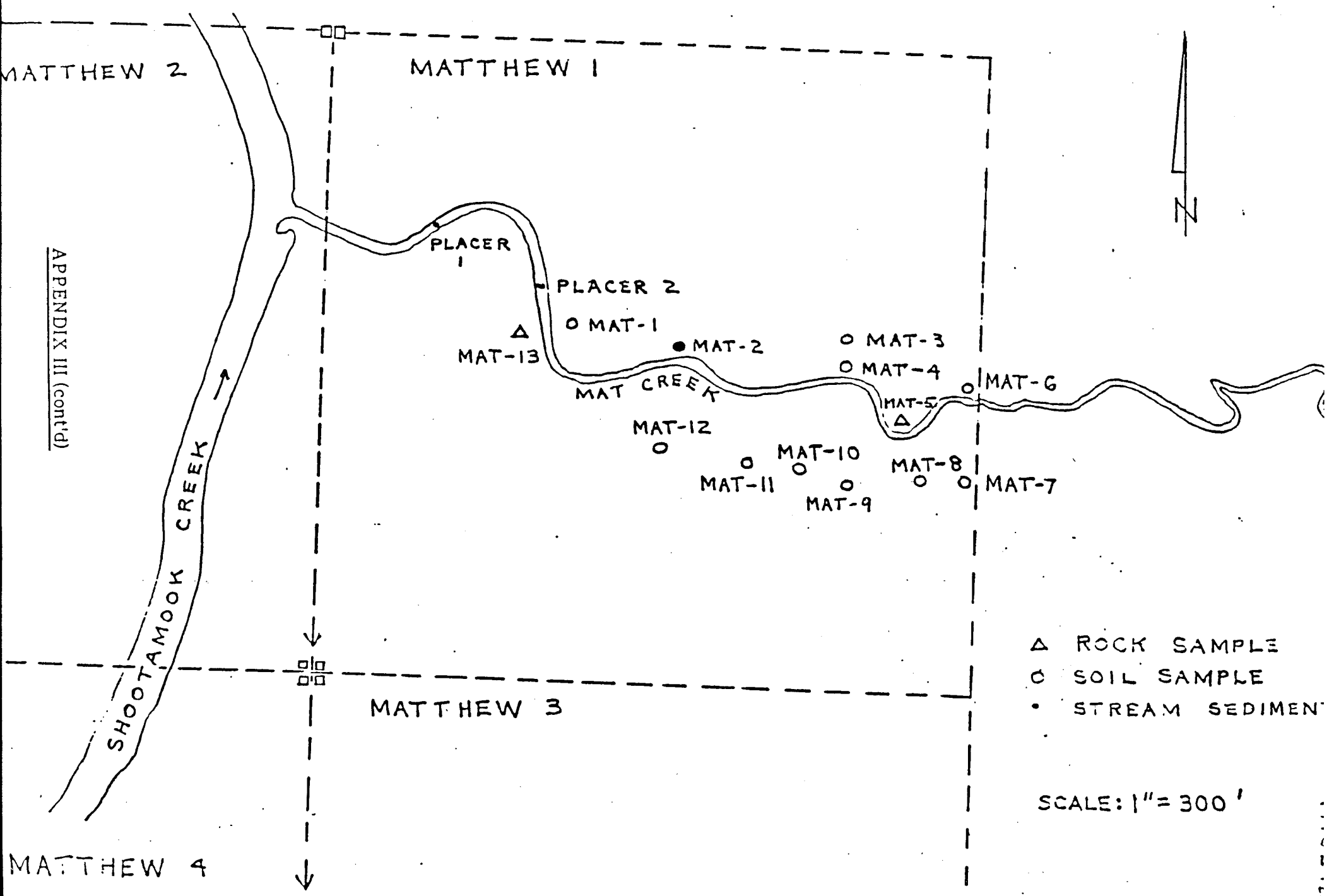
KD/bv

Mel - I've enclosed a sketch map of the sample locations, and a few notes I added to the assay sheets.



APPENDIX III (cont'd)

# SAMPLE LOCATION MAP

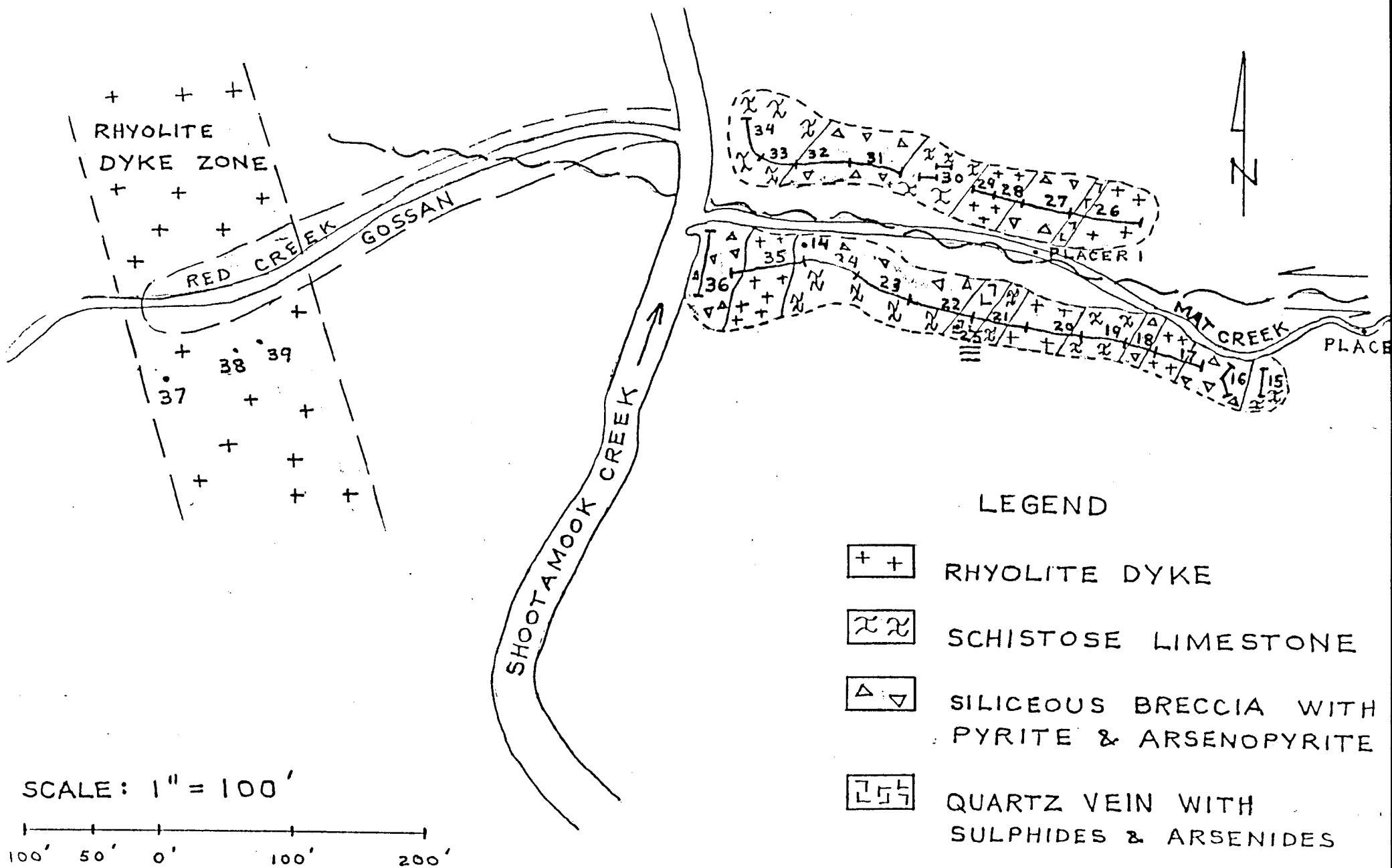


APPENDIX III (cont'd)

- △ ROCK SAMPLE
- SOIL SAMPLE
- STREAM SEDIMENT

SCALE: 1" = 300'

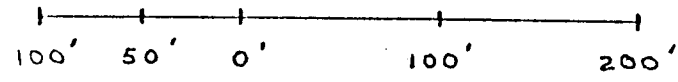
# CHIP SAMPLE LOCATION MAP



## LEGEND

- + + RHYOLITE DYKE
- X X SCHISTOSE LIMESTONE
- Δ ▽ SILICEOUS BRECCIA WITH PYRITE & ARSENOPYRITE
- □ □ QUARTZ VEIN WITH SULPHIDES & ARSENIDES

SCALE: 1" = 100'





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212 Brookbank Ave  
North Vancouver, B.C.  
Canada V7J 2C  
Telephone: (604) 984-022  
Telex: 043-5259

CERTIFICATE OF ANALYSIS

TO : HOLLOWAY, MR. MEL

\*\* CERT. # : A8414841-001  
INVOICE # : 18414841  
DATE : 20-AUG-84  
P.O. # : NONE

717 ALASKA HIGHWAY  
WATSON LAKE, YUKON  
Y0A 1C0

CC: KENNETH DAWSON

Sample description	Prep code	Ag ppm	AS ppm	Au ppb			
				FAAA			
MAT-01	202	0.2	33	5	--	--	--
MAT-04	202	0.1	10	15	--	--	--
MAT-05	202	0.3	15	25	--	--	--
MAT-06	202	0.2	11	<5	--	--	--
MAT-07	202	0.3	16	<5	--	--	--
MAT-08	202	0.3	14	<5	--	--	--
MAT-10	202	0.2	83	<5	--	--	--
MAT-12	202	0.4	20	<5	--	--	--
MAT-13	202	0.2	12	<5	--	--	--
MAT-37	202	0.2	90	35	--	--	--
MAT-39	202	0.1	30	<5	--	--	--



Certified by *Hart Bickler* .....



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Telex: 043 5259

CERTIFICATE OF ANALYSIS

TO : HOLLOWAY, MR. MEL

717 ALASKA HIGHWAY  
WATSON LAKE, YUKON  
Y0A 1C0

CERT. # : A8414842-001  
INVOICE # : 18414842  
DATE : 19-AUG-84  
P.O. # : NONE

CC: KENNETH DAWSON

Sample description	Prep code	Ag ppm	Au dbb FA+AA				
MAT-02	207	0.7	5	--	--	--	--
MAT-03	207	0.5	15	--	--	--	--
MAT-09	207	0.4	<5	--	--	--	--
MAT-11	207	0.5	<5	--	--	--	--
MAT-14	207	0.7	5	--	--	--	--
MAT-15	207	0.2	<5	--	--	--	--
MAT-16	207	0.2	<5	--	--	--	--
MAT-17	207	0.2	<5	--	--	--	--
MAT-18	207	0.4	<5	--	--	--	--
MAT-19	207	0.3	<5	--	--	--	--
MAT-20	207	0.3	<5	--	--	--	--
MAT-21	207	0.6	25	--	--	--	--
MAT-22	207	0.5	5	--	--	--	--
MAT-23	207	0.2	<5	--	--	--	--
MAT-24	207	0.6	<5	--	--	--	--
MAT-25	207	9.7	1200 .035 oz/ton	--	--	--	--
MAT-26	207	0.6	20	--	--	--	--
MAT-26A	207	0.6	<5	--	--	--	--
MAT-27	207	0.6	<5	--	--	--	--
MAT-28	207	0.4	<5	--	--	--	--
MAT-29	207	0.5	<5	--	--	--	--
MAT-30	207	0.8	<5	--	--	--	--
MAT-31	207	0.2	<5	--	--	--	--
MAT-32	207	1.0	15	--	--	--	--
MAT-33	207	0.9	25	--	--	--	--
MAT-34A	207	0.2	15	--	--	--	--
MAT-34B	207	0.3	<5	--	--	--	--
MAT-35	207	0.9	<5	--	--	--	--
MAT-36	207	0.2	<5	--	--	--	--
MAT-38	207	1.3	<5	--	--	--	--



Certified by *Hart Buchler*

APPENDIX III  
ASSAY RESULTS



# Chemex Labs Ltd.

Analytical Chemists - Geochemists - Registered Assayers

212 Brooksbank Ave.  
North Vancouver, B.C.  
Canada - V7J 2C1  
Telephone: (604) 984-0221  
Telex: 043-52597

GEOLOGICAL SURVEY OF CANADA  
100 WEST PENDER ST.  
VANCOUVER, B.C.  
V6B 1R8

Semi quantitative multi element ICP analysis

## CERTIFICATE OF ANALYSIS

TO : HOLLOWAY, MR. MEL

717 ALASKA HIGHWAY  
WATSON LAKE, YUKON  
Y0A 1C0

AA CERT. # : A8516103-001-A  
INVOICE # : 18516103  
DATE : 17-SEP-85  
P.O. # : NONE

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :  
CC: DR. DAWSON

Sample description	Tl	Al	Ag	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sr	Tl	Ti	U	V	W	Zn	Au	Sn	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MC-1	0.5	0.34	0.2	80	<10	<0.5	<2	0.17	1.0	21	55	40	11.22	10	0.01	<10	0.05	48	<1	0.01	103	170	36	150	12	<0.01	<10	<10	11	<10	20	-	-	5
MC-2	0.4	0.48	0.4	30	<10	<0.5	<2	0.15	1.0	20	98	20	39.21	<10	0.04	<10	0.07	111	<1	0.01	77	120	28	120	13	<0.01	<10	<10	12	<10	10	-	-	5
MC-3	0.3	0.51	0.2	20	10	<0.5	<2	0.15	<0.5	13	68	16	1.21	20	0.12	<10	0.07	875	<1	<0.01	23	880	26	10	692	<0.01	<10	<10	8	<10	50	-	-	15
MC-4	1.1	0.57	0.2	40	20	<0.5	<2	0.15	<0.5	13	102	19	22.31	10	0.10	10	0.10	122	<1	0.01	51	520	26	50	81	<0.01	<10	<10	11	<10	20	-	-	15
MC-5	0.6	0.45	0.2	50	10	<0.5	<2	0.24	0.5	17	100	11	22.29	<10	0.09	<10	0.07	44	<1	0.01	60	140	24	40	19	<0.01	<10	<10	9	<10	30	-	-	15
MC-6	0.2	0.25	1.1	10	20	<0.5	<2	0.08	<0.5	2	121	11	1.65	<10	0.09	<10	0.02	33	<1	0.01	8	10	6	30	6	<0.01	<10	<10	3	<10	<10	-	-	15
MC-7	0.5	0.60	0.2	80	10	<0.5	<2	0.12	<0.5	12	121	9	26.50	<10	0.13	<10	0.05	27	<1	0.01	44	130	18	30	17	<0.01	<10	<10	11	<10	30	-	-	15
MC-8	1.5	0.52	0.4	180	80	<0.5	<2	0.18	<0.5	51	222	48	23.67	10	0.01	20	0.05	201	<1	0.12	113	360	86	150	26	0.04	<10	<10	42	<10	30	-	-	<10

MC 3 is highest in Au; also high in Ca, Mn, Mg, Sr (probably as carbonate); Ba, Ga, K, P, Zn.  
It is relatively low in Fe, Ag, Na & Sb - probably low in total sulphide.

MC 8 is high in 19 elements, including Ag, As, U, Sb, Sr

MC 6 is low in 13 elements, but high in Ag & Cr. Low in sulphides (?).  
due to low Fe.

Hart Buchler

Received by

APPROVED FOR RELEASE BY THE NATIONAL ARCHIVES

APPENDIX III (cont'd)

APPENDIX B

DESCRIPTIONS AND ASSAYS BY DR. JIM MORIN

Geological Survey Of Canada,  
100 West Pender Street,  
Vancouver, B.C.  
V6B 1R8  
December 15, 1987.

Mr. Mel Holloway,  
c/o Gold Rush Inn,  
411 Main Street,  
Whitehorse, Yukon.

Dear Mel:

I am enclosing analytical results for six rock samples that I collected on the Shootamook Creek occurrence during our July visit this year. The descriptions follow:

JAM 87-25 Vuggy silicified zone; dark grey silicified phyllite; vugs 1 mm to 1.5 cm and quartz-lined (5 % by volume); white clay in vugs also; fine grained pyrite occurs as disseminations and as lenses.

JAM 87-26 # El Showing; quartz stockwork, patchy pyrite replacement all in silicified rhyolite dyke.

JAM 87-27 # El Showing; silicified phyllite with minor disseminated pyrite and white clay minerals along fracture stockwork.

JAM 87-28 Silicified phyllite; vuggy with stockwork of quartz, clay minerals and calcite with trace disseminated pyrite.

JAM 87-29 # El Showing; Chip sample across central quartz vein for 0.9 m of white and grey quartz.

JAM 87-30 Silicified breccia, vuggy, disseminated and patchy replacement pyrite.

All samples are from the hanging wall rocks except for É26 from a rhyolite dyke next to the vein and É29 which is from the vein itself.

I've marked anomalous elements with an \* and will comment on them below.

Au - The vein came out at 1850 ppb. Considering the variability in even high grade systems at this level, I would not consider this a worry. Encouraging elevated Au coming from the HW (hanging wall) rocks.

Sb - appropriate high values that confirm a high level epithermal system.

As - as per Sb above.

Ba - anomalously high and probably due to high K content in hydrothermal fluid.

Cs - as per Ba above.

Fe - these rocks are pretty leached with the highest Fe at 3.8 %.

Ag - pretty silver deficient.

Na - almost zilch and a good indicator of extensive leaching.

Te - modest positive anomalies consistent with gold-tellurium complexing in the system.

W - anomalously high and may be indicative of magmatic input to the hydrothermal system.

Pb - anomalously high and the two highest values are not in vein but rather breccia and silicified zone in HW. I think this tells us that the HW has good potential within the overall system.

Mn - anomalously low and consistent with this being the centre of a system; I would expect the Mn to increase on the flanks of the area.

Se - erratic low and high anomalies but appropriate with the overall geochemistry of this epithermal system.

B - modest positive anomalies that may again indicate some magmatic contribution to the hydrothermal fluid.

F - anomalously high and may also indicate a magmatic association and also may tie this mineralization to the topaz rhyolite suite of Eocene age that occurs at Midway, Fiddler, etc.

Hg - anomalously low and suggests that this volatile gas has totally leaked out of the centre of the system but may be enriched on the flanks.

I hope these numbers are of some use to you Mel and I look forward to seeing further work conducted on the property.

Sincerely Yours



J. A. Morin.



NO. 27-6708 (PRELIMINARY)

REFERENCE INFO: REQ. #A7331-7-1038

CLIENT: INDIAN & NORTHERN AFFAIRS CANADA  
ADDRESS: NONE GIVEN

SUBMITTED BY: MS. V. KLAVER  
DATE PRINTED: 13-DEC-87

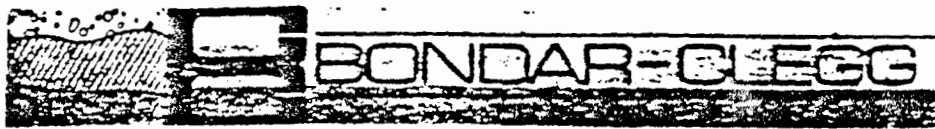
SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	70	2 -150	70	CRUSH, PULVERIZE -150	70
				LARGE VIAL SURCHARGE	70

REMARKS: ELEVATED DETECTION LIMITS FOR INAA ANALYSIS  
DUE TO HIGH AR, AS, AU, W, ZN. SAMPLE JAM 87-66  
COULD NOT BE ANALYZED DUE TO HIGH SB.

REPORT COPIES TO: DR. J. A. MORIN

INVOICE TO: EXPLORATION GEOLOGICAL

**SHOOTAMOOK CREEK SAMPLES**



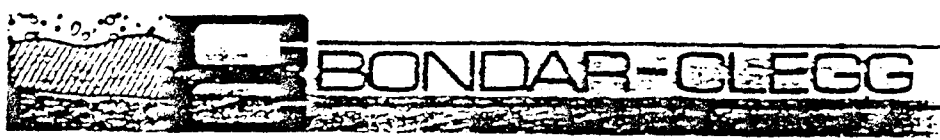
7-6108

PROJECT: NONE GIVEN

PAGE 1A

ELEMENT UNITS	Au PPB	Sb PPM	As PPM	Ba PPM	Br PPM	Cd PPM	Ce PPM	Cs PPM	Cr PPM	Co PPM	Eu PPM	Hf PPM
-3	<4	78.5	69.9	400	<2.0	<5	75.0	11.0	130	<5	<1	2
-4	71	42.5	65.8	<50	<2.0	<5	<11.0	<0.5	140	24	<1	<1
-5	34	52.1	12.0	<50	<2.0	<5	<12.0	<0.5	130	9	1	2
-6	160	42.0	11.0	<50	<2.0	<5	<19.0	<0.5	150	160	2	<1
-7	120	17.0	7.7	<50	<2.0	5	<5.0	1.5	36	94	<1	<1
7-8	232	2.6	6.9	<50	<2.0	<5	<20.0	<0.5	97	45	<1	<1
7-9	249	22.8	18.0	200	<2.0	<5	48.0	2.6	220	<5	<1	5
7-10	9360	485.0	5710.0	1300	47.0	<18	<13.0	3.9	140	<5	2	<1
7-11	2370	196.0	2480.0	200	19.0	<10	<27.0	8.7	220	<5	<1	<3
7-	814	213.0	2130.0	1700	19.0	<10	<26.0	10.0	97	<5	2	<2
7-13	21600	2930.0	>9000.0	<380	<360.0	<110	<51.0	<2.0	370	<13	<10	<7
37-	180	60.6	375.0	790	3.9	<5	64.0	11.0	110	<5	<1	<1
37-	110	297.0	258.0	840	11.0	<5	<22.0	8.0	350	<5	<1	<2
37-16	120	287.0	226.0	<50	10.0	<5	<21.0	5.6	400	<5	<1	<1
37-	15400	296.0	7640.0	35200	40.0	<19	31.0	11.0	360	13	<3	<2
37-18	633	7.7	153.0	450	<2.0	<5	17.0	6.9	100	42	<1	<1
37-19	>90000	59.7	108.0	620	<2.0	<5	<24.0	4.9	180	<5	<1	<1
37-20	110	79.3	43.0	1400	4.0	<5	<11.0	6.1	130	<5	<1	<1
37-21	60	18.0	24.0	1100	<2.0	<5	45.0	10.0	99	<5	<1	2
37-22	40	12.5	31.0	1300	<2.0	<5	93.0	13.0	100	<5	<1	5
37-23	61500	30.1	77.9	250	<2.0	<5	<44.0	6.5	270	<5	<1	<1
37-24	190	4.0	25.0	200	<2.0	<5	25.0	2.9	290	33	<1	2
37-25	68	247.0	178.0	<130	9.0	<5	60.0	12.0	220	<5	<2	<2
37-26	51	100.0	196.0	740	3.8	<5	92.0	20.0	200	10	2	<1
37-27	15	39.8	87.1	210	2.6	<5	28.0	8.2	240	<5	<1	<1
37-28	42	175.0	67.8	<100	5.9	<5	41.0	9.4	270	<5	<1	<1
37-29	1850	119.0	356.0	210	6.7	<5	52.0	11.0	210	<5	<1	<1
37-30	218	95.9	569.0	150	6.6	<5	39.0	6.6	240	<5	<1	<1
37-31	18	5.8	16.0	2000	<2.0	<5	26.0	2.9	120	<5	<1	<1
37-32	3	1.3	12.0	870	<2.0	<5	52.0	14.0	110	<5	<1	2
37-33	398	27.9	243.0	2300	3.6	<5	39.0	6.1	160	<5	<1	5
37-34	2200	91.5	>9000.0	220	<436.0	<67	<36.0	<1.2	85	<5	<3	6
37-35	1380	25.7	>9000.0	170	<130.0	<51	36.0	1.7	350	8	<3	<3
37-36	2700	87.2	>9000.0	500	<304.0	110	47.0	5.2	270	20	<3	44
37-37	19	2.0	1020.0	3700	6.7	<5	72.0	4.4	120	11	<2	41
37-38	>90000	4070.0	>9000.0	2700	<18.0	<160	<100.0	<3.6	380	<23	<18	<12
37-39	81	25.8	379.0	190	3.6	<5	54.0	0.7	320	<5	<1	4
37-40	498	17.3	187.0	1100	3.2	<5	46.0	5.1	140	9	<1	1
37-41	66	2.2	60.1	440	<2.0	<5	55.0	6.7	220	21	<1	55
37-42	110	2.5	64.2	500	<2.0	7	25.0	2.8	150	97	<1	<1

**SHOOTA MOOK 25-30**



127-6708

PROJECT: NONE GIVEN PAGE 1B

REF	ELEMENT UNITS	Ir PPB	* Fe PCT	La PPM	Lu PPM	Mo PPM	Ni PPM	Rb PPM	Sr PPM	Sc PPM	Se PPM	* Ag PPM	* Na PCT
JAM 87-3		<50	2.6	40	0.6	<1	20	140	6.20	8.0	<5	17	0.58
JAM 87-4		<50	17.0	3	0.4	<1	26	<5	1.90	6.1	<5	4	0.09
JAM 87-5		<50	15.0	3	0.5	<1	<20	<5	4.30	4.2	<5	8	0.07
JAM 87-6		<50	34.0	<2	0.5	<1	52	<5	3.00	2.8	7	13	0.02
JAM 87-7		<50	12.0	6	0.2	<1	67	<5	1.70	3.3	<5	<2	0.08
JAM 87-8		<50	39.7	12	0.3	<1	<20	<5	1.80	2.6	<5	3	0.06
JAM 87-9		<50	1.5	26	0.4	<1	<20	78	3.00	3.0	<5	14	0.20
JAM 87-10		<50	1.9	11	0.8	20	<20	46	1.50	2.6	<5	100	<0.09
JAM 87-11		<50	3.5	9	0.6	4	<20	89	1.40	6.5	<11	17	0.05
JAM 87-12		<50	2.0	14	0.9	<3	<20	81	2.80	7.9	<11	9	0.08
JAM 87-13		<50	5.9	30	4.3	<25	<53	<43	1.10	1.2	<24	32	<0.56
JAM 87-14		<50	1.4	35	0.4	2	<20	150	4.20	5.1	<5	<2	0.10
JAM 87-15		<50	1.3	9	0.5	26	<20	39	1.60	4.3	<5	<2	<0.07
JAM 87-16		<50	0.8	5	0.4	39	<20	35	0.94	2.3	<5	<2	<0.07
JAM 87-17		<50	1.3	13	0.4	31	<20	37	2.30	5.4	<5	13	<0.07
JAM 87-18		<50	4.7	14	1.4	2	<20	56	1.30	1.6	<5	3	0.05
JAM 87-19		<50	0.5	9	<0.5	10	<20	71	1.50	3.9	<5	34	<0.08
JAM 87-20		<50	0.6	6	0.3	17	<20	73	0.43	1.2	<5	<2	0.18
JAM 87-21		<50	0.9	20	0.4	2	<20	160	2.90	5.9	<5	<2	0.14
JAM 87-22		<50	0.3	68	0.9	<1	<20	102	3.40	3.1	<5	<2	0.19
JAM 87-23		<50	1.0	5	1.0	<4	<20	95	0.83	<0.2	<17	140	0.04
JAM 87-24		<50	5.6	15	<0.2	<1	27	20	2.60	6.7	<5	2	0.11
JAM 87-25		<50	3.8	25	0.8	3	<20	44	1.70	5.0	<5	<2	<0.07
JAM 87-26		<50	3.5	44	0.4	<1	26	140	4.80	8.8	<5	5	0.07
JAM 87-27		<50	0.6	11	0.4	1	<20	63	1.70	6.2	<5	<2	0.10
JAM 87-28		<50	1.9	29	0.6	<1	<20	61	2.90	6.9	<5	<2	0.09
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JAM 87-30		<50	1.3	17	0.3	4	<20	39	2.00	4.2	<5	<2	0.06
JAM 87-31		<50	3.7	12	<0.2	2	<20	170	2.00	5.8	<5	<2	0.10
JAM 87-32		<50	1.1	22	1.0	<1	<20	200	7.70	9.3	<5	<2	1.30
JAM 87-33		<50	1.9	36	0.4	<1	<20	210	4.30	12.0	<5	<2	0.28
JAM 87-34		<50	17.0	9	1.6	<12	<34	<24	1.30	<0.7	<15	38	<0.56
JAM 87-35		<50	4.8	15	0.8	<7	35	<18	3.50	3.7	<11	6	<0.44
JAM 87-36		<50	14.0	14	0.8	17	35	<24	4.40	5.3	<14	24	<0.40
JAM 87-37		<50	4.1	37	0.6	8	<20	80	5.30	18.0	<5	<2	3.34
JAM 87-38		<50	<1.4	43	8.1	<44	<95	<77	1.00	<1.8	<46	110	<0.73
JAM 87-39		<50	2.4	23	0.2	5	<20	24	3.10	3.5	<5	<2	1.40
JAM 87-40		<50	11.0	29	0.4	<1	<20	150	3.70	6.7	<5	<2	0.21
JAM 87-41		<50	5.1	37	0.5	<1	46	94	6.40	11.0	<5	3	0.67
JAM 87-42		<50	18.0	28	0.5	<1	57	96	3.90	10.0	<5	<2	0.37

SHOOTAMOOK 25-30

RT: 127-6708

PROJECT: NONE GIVEN

PAGE 1C

LE ER	ELEMENT UNITS	Ta PPM	Te PPM	Tb PPM	Th PPM	Sn PPM	W PPM	U PPM	Yb PPM	Zn PPM	Zr PPM	Cu PPM	Pb PPM
JAM 7-3		1.1	<22	0.6	18.0	<100	16	5.2	3	620	<200	67	2517
JAM 7-4		<0.5	<10	<0.5	3.3	<100	3	1.3	4	510	<200	282	1888
JAM 87-5		<0.5	<10	1.2	0.9	<100	<1	1.1	4	250	<200	284	1665
JAM 7-6		<0.5	<10	<0.5	2.2	<100	8	3.1	<2	110	<200	2817	1991
JAM 7-7		<0.5	<10	<0.5	0.9	<100	<1	0.8	<2	620	<200	1699	622
JAM 7-8		<0.5	<10	<0.5	4.0	<100	171	2.1	<2	160	<200	5090	145
JAM 7-9		0.6	<10	<0.5	13.0	<100	131	2.1	2	<100	220	159	654
JAM 87-10		<0.5	<39	<0.5	1.4	<100	6	<1.0	<2	390	350	57	2336
JAM 87-11		<0.5	<46	<0.5	3.5	<100	7	<0.6	7	<100	<450	284	1215
JAM 87-12		<0.5	<44	<0.5	3.5	<100	9	<0.6	10	170	<480	61	2682
JAM 87-13		<1.4	<160	<0.5	<2.1	<100	<38	<4.6	33	6100	<1400	911	4740
JAM 87-14		<0.5	<10	<0.5	11.0	<100	5	3.3	3	<100	<200	33	139
JAM 87-15		<0.5	<39	<0.5	1.1	<100	3	<0.5	7	100	520	13	250
JAM 87-16		<0.5	<38	<0.5	<0.7	<100	5	<0.5	4	<100	<200	9	272
JAM 87-17		<0.5	<39	<0.5	6.0	<100	<4	4.0	<5	510	510	29	5934
JAM 87-18		<0.5	<10	<0.5	7.9	<100	18	18.0	<2	<100	<200	1203	161
JAM 87-19		<0.5	<40	<0.5	4.0	<100	3	<2.3	<5	<100	<200	25	149
JAM 87-20		<0.5	<10	<0.5	0.8	<100	2	1.3	<2	<100	<200	7	133
JAM 87-21		<0.5	<10	<0.5	7.5	<100	4	4.7	<2	<100	<200	5	105
JAM 87-22		2.4	<10	0.8	25.5	<100	4	12.0	5	<100	400	7	153
JAM 87-23		<0.5	<44	<0.5	<1.0	<100	8	<1.3	<2	<100	<200	1	67
JAM 87-24		0.5	<10	<0.5	5.5	<100	<1	1.5	<2	<100	<300	137	127
JAM 87-25		<0.5	<39	<0.5	5.3	<100	21	1.1	10	100	<200	19	883
JAM 87-26		1.1	<26	0.5	12.0	<100	19	2.4	4	<100	<200	7	69
JAM 87-27		0.9	<10	0.5	4.9	<100	17	2.0	2	<100	<200	7	73
JAM 87-28		0.9	<31	<0.5	5.2	<100	8	1.3	5	<100	<200	7	73
JAM 87-29		<0.5	<28	<0.5	6.0	<100	11	1.2	2	<100	<200	23	218
JAM 87-30		<0.5	<26	<0.5	7.6	<100	11	1.9	4	<100	<200	9	384
JAM 87-31		<0.5	<10	<0.5	3.6	<100	5	1.0	<2	<100	<200	11	105
JAM 87-32		1.0	<10	2.0	9.3	<100	12	5.4	5	<100	<200	33	47
JAM 87-33		<0.5	<10	0.6	13.0	<100	6	3.1	<2	<100	<200	99	51
JAM 87-34		<0.5	<110	<0.5	<1.4	<100	<95	<3.0	19	570	<870	55	>10000
JAM 87-35		<0.5	<78	<0.5	6.7	<100	<12	<2.2	12	<100	<650	7	575
JAM 87-36		<0.5	<96	<0.5	7.7	<100	<47	<2.7	16	11900	<840	59	>10000
JAM 87-37		0.6	<20	0.9	14.0	<100	4	3.4	4	210	<200	53	445
JAM 87-38		<2.5	<290	<1.7	<3.9	<100	<42	<9.7	<29	1600	<2600	49	>10000
JAM 87-39		0.8	<10	<0.5	7.8	<100	5	1.1	2	<100	230	43	390
JAM 87-40		0.9	<10	0.6	7.2	<100	<1	2.0	<2	<100	<200	76	19
JAM 87-41		1.7	<10	1.3	15.0	<100	<1	3.3	4	<100	<410	220	11
JAM 87-42		0.8	<10	0.9	8.4	<100	271	2.4	2	<100	<200	2100	10

SHOOT AMMOX 25-30





127-6708

PROJECT: NONE GIVEN

PAGE 1F

LE ER	ELEMENT UNITS	U PPM	U PPM	* Sb PPM	* Se PPM	Tl PPM	Sn PPM	* B PPM	Uf1 PPM	* F PPM	* Hg PPM
JAM 87-3		<10	<10	63	<5	1	<10	39		630	50
JAM 87-4		<10	<10	39	<5	<1	<10	22		450	35
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JAM 87-6		<10	<10	67	<5	<1	77	20		420	15
JAM 87-7		<10	<10	9	<5	<1	<10	19		550	15
JAM 87-8		<10	51	35	23	<1	<10	13		160	5
JAM 87-9		<10	79	21	<5	2	<10	45		380	10
JAM 87-10		<10	<10	417	<5	2	<10	48		190	260
JAM 87-11		<10	<10	197	<5	3	13	44		200	280
JAM 87-12		<10	<10	226	<5	4	<10	43		300	85
JAM 87-13		<10	<10	>2000	<5	1	<10	23		65	230
JAM 87-14		<10	<10	77	<5	4	11	47		310	30
JAM 87-15		<10	<10	105	<5	<1	<10	20		300	180
JAM 87-16		<10	<10	55	<5	1	<10	14		140	225
JAM 87-17		<10	<10	314	<5	5	<10	70		250	>5000
JAM 87-18		<10	<10	<5	<5	<1	<10	<10		250	35
JAM 87-19		<10	<10	59	40	1	<10	21		270	35
JAM 87-20		<10	<10	75	<5	<1	<10	25		400	85
JAM 87-21		<10	<10	7	21	3	<10	73		380	25
JAM 87-22		<10	<10	<5	<5	3	<10	19		110	170
JAM 87-23		<10	<10	19	<5	3	<10	14		80	4400
JAM 87-24		<10	<10	<5	<5	<1	<10	31		270	50
JAM 87-25		<10	<10	242	<5	3	<10	87		330	95
JAM 87-26		<10	<10	77	57	4	<10	181		730	120
JAM 87-27		<10	<10	25	<5	1	<10	47		330	45
JAM 87-28		<10	<10	155	<5	2	<10	85		420	30
JAM 87-29		<10	<10	109	<5	3	<10	45		540	35
JAM 87-30		<10	<10	91	18	1	25	35		310	20
JAM 87-31		<10	<10	<5	<5	4	<10	23	2.0	260	10
JAM 87-32		<10	<10	<5	27	3	<10	21		580	10
JAM 87-33		<10	<10	19	<5	3	<10	31		300	20
JAM 87-34		<10	<10	159	<5	<1	<10	89		370	20
JAM 87-35		<10	<10	23	54	<1	<10	3246		210	15
JAM 87-36		<10	<10	131	86	1	<10	2441		300	55
JAM 87-37		<10	<10	<5	<5	4	<10	56		380	10
JAM 87-38		<10	<10	>2000	<5	<1	<10	35		30	335
JAM 87-39		<10	<10	23	<5	2	<10	22		100	15
JAM 87-40		<10	<10	<5	<5	3	<10	14		100	<5
JAM 87-41		<10	<10	<5	<5	3	<10	22		130	15
JAM 87-42		<10	115	<5	<5	3	<10	15		110	15

SHOOT AMOX 25-30

APPENDIX C

SKETCHES AND ASSAYS BY PAUL McGUIGAN, ESSO MINERALS

ESSO MINERALS CANADA

A Division of  
Esso Resources Canada Limited  
1600 - 409 GRANVILLE STREET  
VANCOUVER, B.C. V6C 1T2  
Telex: 04-55717  
Telephone (604) 661-7100

File: 105B/14  
MV: D0628  
December 8, 1986

Mr. Mel Holloway  
Mile 717  
Alaska Highway  
Yukon

Dear Mel:

Accompanying this note are two figures showing sample locations for 8 rocks and 2 silt samples collected on your Matt claims by Paul McGuigan. I found a location map in Paul's field notes. I apologize for not getting them to you earlier.

Yours truly,

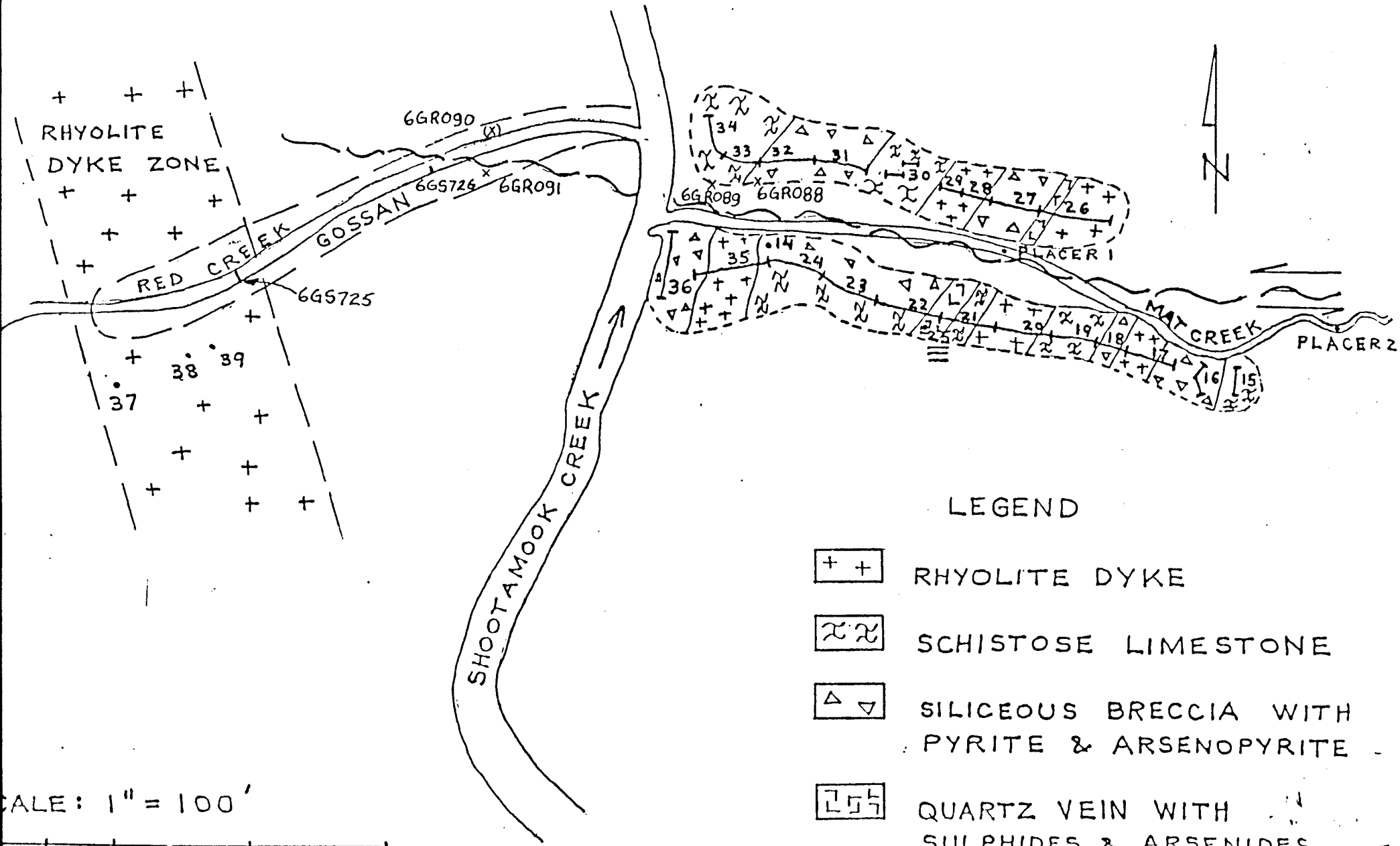


R. M. Britten

RMB/jc  
Encls.

1236D

# CHIP SAMPLE LOCATION MAP

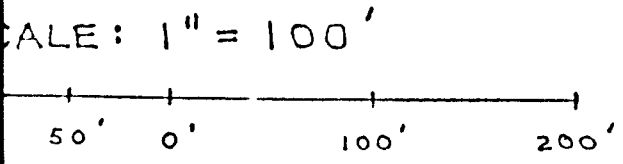


## LEGEND

- + + RHYOLITE DYKE
- X X SCHISTOSE LIMESTONE
- Δ ▽ SILICEOUS BRECCIA WITH PYRITE & ARSENOPYRITE
- □ QUARTZ VEIN WITH SULPHIDES & ARSENIDES

x 66R089 EMC ROCK SAMPLE LOCATION  
 • 66S726 FLOAT

• 66S725 SLT SAMPLE LOCATION



MIN-EN LABORATORIES LTD. *Paul*

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

CNE 604)980-5814 OR (604)988-4524

TELEX:VIA USA 7601067 UC

Certificate of ASSAY

Company: ESSO MINERALS CANADA  
Project: MD-Q2  
Attention: PAUL MCGUIGAN

File: 6-761  
Date: SEPT 10/86  
Type: ROCK ASSAY

I hereby certify the following results for samples submitted.

Sample Number	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
ER 088	0.1	0.01	.01	0.001
ER 089	0.2	0.01	.01	0.001
ER 090	2.5	0.07	.03	0.001
ER 091	0.4	0.01	.01	0.001
ER 093	19.6	0.57	1.44	0.042
ER 094	1.9	0.06	1.43	0.042
ER 095	2.6	0.08	2.04	0.060
ER 096	11.3	0.33	3.53	0.103

*Matt*

Certified by



MIN-EN LABORATORIES LTD.

**MIN-EN LABORATORIES LTD.**

*Specialists in Mineral Environments*

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

DN (604)990-5814 DR (604)988-4524

TELEX:VIA USA 7601067 UC

Certificate of GEOCHEM

Company: ESSO MINERALS CANADA

Project: MD-02

Attention: PAUL MCGUIGAN

File: 6-761

Date: SEPT 15/86

Type: PULP GEOCHEM

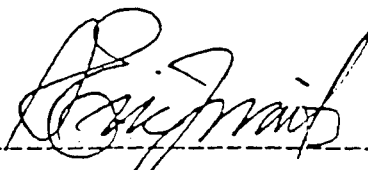
I hereby certify the following results for samples submitted.

Sample Number	HG PPB	AS PPM	GE PPM	SB PPM	GA PPM
---------------	-----------	-----------	-----------	-----------	-----------

GF-089	90	117		23	
GF-089	45	13		1	
GR-090	120	15		1	
GF-091	45	22		5	
GA-093	110	625		6	
GR-094	90	1250		17	
GF-095	150	5700		42	
GR-096	105	1170		16	

*Matt*

Certified by \_\_\_\_\_



MIN-EN LABORATORIES LTD.

Certificate of GEOCHEM

Company: ESSO MINERALS CANADA  
Project: MD-02  
Attention: PAUL MCGUIGAN

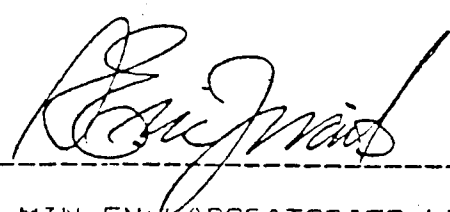
File: 6-761  
Date: SEPT 15/86  
Type: SOIL GEOCHEM

I hereby certify the following results for samples submitted.

Sample Number	AG PPM	AS PPM	AU FPB	SB PPM
---------------	--------	--------	--------	--------

725 (40 MESH)	1.4	38	5	23
726 } MAT CB	2.3	90	3	6

Certified by \_\_\_\_\_



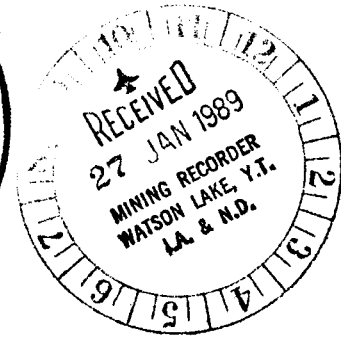
MIN-EN LABORATORIES LTD.

( VALUES IN PPM ) BA CU MO PB ZN SN W

666-725 } 40M Matt	20	14	1	41	51	4	6
666-726 }	40	115	2	68	105	17	18







ADDENDUM

REPORT ON THE  
MATT-MATHEW AND HUGH CREEK CLAIMS  
WATSON LAKE MINING DISTRICT, YUKON

FOR  
ORPEX MINERALS INC.

by  
LARRY W. CARLYLE, F.G.A.C., P. Geol.

Whitehorse, Yukon

December 22, 1988

**092660**

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### APPENDICES

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## INTRODUCTION

The camp situated near the Winnie Showing was utilized at various times from October 2, 1988 to December 2, 1988 as a base from which the assessment work needed to hold the Hugh Creek claims was performed. This work was to consist of helicopter supported stream sediment and rock sampling and assaying. Upon arrival on site, it was discovered that most creeks in the area were completely frozen over. Stream sediment sampling must be delayed until the spring. Sufficient helicopter supported rock blasting and sampling were completed during this interval that, when added to the work done by Mr. Holloway in October, 1988, the Hugh Creek claims will have sufficient assessment work filed to hold them for a minimum of one year.

During this visit to the property, a test pit was excavated on the footwall of the Winnie Showing. The test pit dimensions are approximately 10 feet (3 metres) deep, 4.5 feet (1.5 metres) long and 3.0 feet (1.0 metre) wide. The writer sketched and described the walls of the test pit. The north and south walls which exposed segments of the vein were sampled at 1 foot vertical intervals.

The mineralization on the Orpex Minerals Inc. property appears to be closely associated with fault zones. Fault zones can be located by aerial photograph and satellite photography study. Preliminary review of air photographs has revealed lineations striking chiefly in a northwest direction parallel to the Tintina Fault (Page 4 of original report). The upper section of Scurvy

Creek has this orientation. A recent brief review of the satellite photograph covering the property area shows a strong lineation which suggests to the writer that Shootamook Creek ran through Stoneaxe Lake at some point in its history (See Claim Map). The topographic relief south of this line is much greater than that north of it. Intrusives in this area may account for this. The writer has observed gneissic rocks on the Sid Claim group. The intrusives may have been responsible for the sharp change in the course of Shootamook Creek near the north boundaries of the Gam and Sid Claim groups. Open File 1289 has demonstrated the existence of significant gold and arsenic values in stream sediments from this area.

The Red Creek Fault (See Claim Map) is visible on the satellite photograph. The strength and extent of this structure suggests that it had importance in the mineral deposition of the area. More work is needed to confirm the importance.

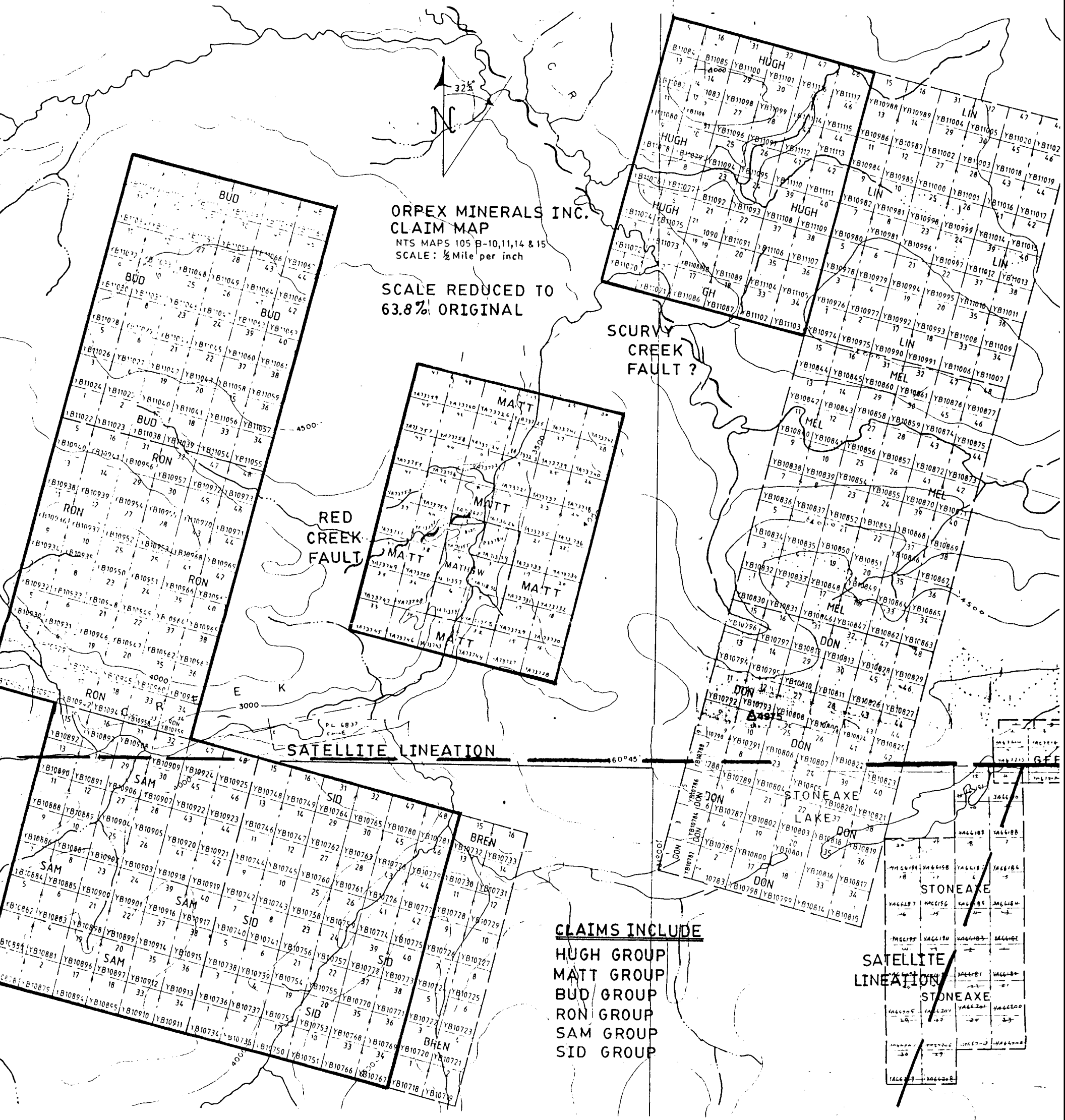
Additional aerial photograph and satellite photography study should be done over the winter to assist the 1989 work program. This work can be done at relatively low cost; requiring no change in the proposed budget. The 1989 budget should reflect the combined total of the 1988 and 1989 proposed budgets of my original report; more detailed rock and stream sediment sampling and analyses remain to be done in 1989.

**ORPEX MINERALS INC.  
CLAIM MAP**

NTS MAPS 105 B-10, 11, 14 & 15

SCALE: 1/2 Mile per inch

SCALE REDUCED TO  
63.8% ORIGINAL



RED  
CREEK  
FAULT

SCURVY  
CREEK  
FAULT ?

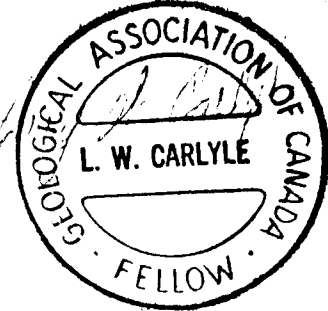
SATELLITE LINATION

**CLAIMS INCLUDE**

- HUGH GROUP
- MATT GROUP
- BUD GROUP
- RON GROUP
- SAM GROUP
- SID GROUP

SATELLITE  
LINATION

STONEAXE



### CLAIM INFORMATION UPDATE

The ownership of the Matt-Mathew and Hugh Creek claim groups has been changed to: 25% Mel F. Holloway, 25% Yukon Yellow Metal Exploration Ltd. and 50% Orpex Minerals Inc. (See Claim Map). Assessment work filed has changed the claim expiry dates to the following:

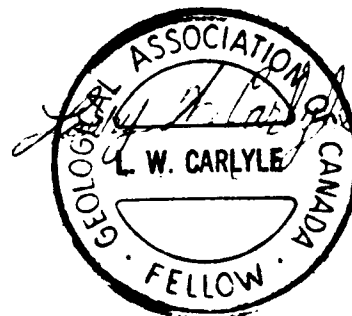
Claim Names	Grant Numbers	Expiry Date
Mathew 1 - 4	YA 71354 - YA 71357	January 20, 1997
Mathew 5 - 6	YA 71358 - YA 71359	January 20, 1998
Matt 7 - 8	YA 73626 - YA 73627	January 20, 1995
Matt 9 - 48	YA 73721 - YA 73760	January 20, 1995
Sam 1 - 22	YB 10878 - YB 10899	January 4, 1990
Sam 23 - 28	YB 10900 - YB 10905	January 4, 1991
Sam 29 - 38	YB 10906 - YB 10915	January 4, 1990
Sam 39 - 48	YB 10916 - YB 10925	January 4, 1991
Ron 1 - 8	YB 10926 - YB 10933	January 4, 1991
Ron 9 - 16	YB 10934 - YB 10941	January 4, 1990
Ron 17 - 24	YB 10942 - YB 10949	January 4, 1991
Ron 25 - 48	YB 10950 - YB 10973	January 4, 1990
Bud 1 - 10	YB 11022 - YB 11031	January 4, 1990
Bud 11 - 16	YB 11032 - YB 11037	January 4, 1991
Bud 17 - 26	YB 11038 - YB 11047	January 4, 1990
Bud 27 - 32	YB 11048 - YB 11053	January 4, 1991
Bud 33 - 42	YB 11054 - YB 11063	January 4, 1990
Bud 43 - 48	YB 11064 - YB 11069	January 4, 1991
Hugh 1 - 48	YB 11070 - YB 11117	January 4, 1990
Sid 1 - 15	YB 10734 - YB 10748	January 4, 1990
Sid 16	YB 10749	January 4, 1991
Sid 17 - 25	YB 10750 - YB 10758	January 4, 1990
Sid 26 - 32	YB 10759 - YB 10765	January 4, 1991
Sid 33 - 40	YB 10766 - YB 10773	January 4, 1990
Sid 41 - 48	YB 10774 - YB 10781	January 4, 1991

### WORK PERFORMED

The rock blast sites done by Orpex Minerals in October, 1988 were located on a claim map as they were performed. These locations have been marked as circles on the accompanying Rock Blast Locations map. The rock blast and sample locations obtained in November, 1988 are designated by letters and a number on the same

SAMPLE DESCRIPTION TABLE

Sample #	Description	Au ppb	Ag PPM	As PPM
H - 1	Blocky light grey quartzite cut by quartz stringers up to 2 inches, light brown limonite staining, trace pyrite and sericite	5	0.1	15
H - 2	As above	1	0.1	2
H - 3	Quartzite as above, strongly vuggy quartz fracture fillings up to 2 inches	4	0.2	2
R - 1	Blocky dark grey to black limestone cut by white calcite stringers up to 1 inch, no sulphides, weak limonite, trace sericite ?	1	0.2	2
R - 2	As above	1	0.3	8
SA - 1	Weakly silicified, blocky limonite stained limestone with calcite stringers up to 1/2 inch	1	0.3	4
SA - 2	2 - 3 inch limestone gouge variable light to red brown limonite staining	5	0.6	7
SI - 1	Weakly sericitic graphite schist, dolomite porphyroblasts ? minor limonite	1	0.1	2
SI - 2	Light grey limestone cut by 1/2 inch white calcite stringers, minor quartz, prominent folding and fracturing (jointing ?)	1	0.3	5
B - 1	Blocky black limestone cut by white calcite (dolomite ?) up to 1/2 inch, trace pyrite and sericite	14	0.1	20



map. The letters designate the claim block and the number designates the sequence.

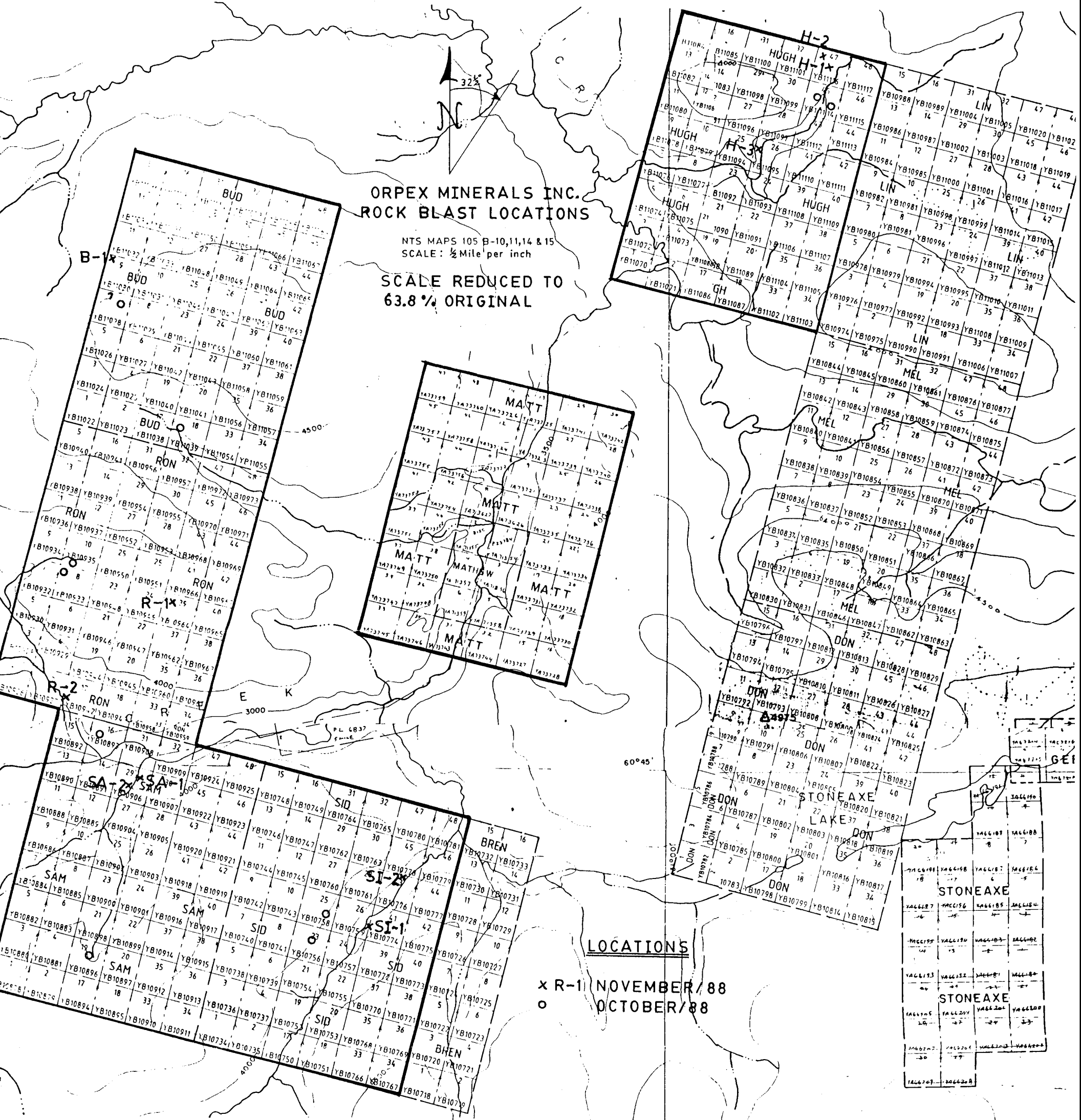
During the November property work, 1.5 to 2 feet of snow covered most of the property. The most common locations of rock outcrop were steep rock bluffs in creek cuts. Wherever possible, blast and sample sites were chosen in areas near stream sediment sample locations from Open File 1289 which had returned elevated values in gold, arsenic and/or antimony. If such locations were not found, areas having significant iron staining and silicification were chosen for blast sites. Large quantities of dynamite were placed in holes and crevices at the base of the bluffs to create as large an area of fresh rock as possible for sampling. Sites were placed on a 1 : 50,000 scale topographic map as they were completed. From this map, they were transferred to the Rock Blast Locations map. Samples obtained during this work have been described by the writer (See Sample Description Table) and have been analysed for 31 elements by ICP methods and for gold by rock geochemical analysis (See Appendix 1).

During the rock blasting and sampling several features were observed which may have a bearing on future exploration of the Hugh Creek Claim groups. Significant silicification existed in all areas sampled on the Hugh Claim Group. Major and minor faulting were observed on the Sam Claim Group. Sericitic graphite schist in the vicinity of sample SI -1 resembles that found at the Winnie Showing. These claim blocks are also on strike with the Winnie. The sample table shows the significant values obtained from the sampling completed. The highly anomalous 95 parts per

**ORPEX MINERALS INC.  
ROCK BLAST LOCATIONS**

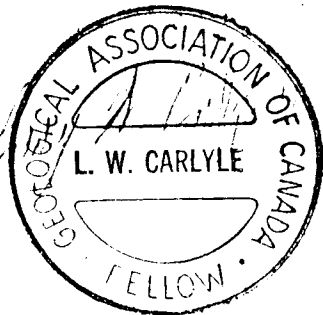
NTS MAPS 105 B-10, 11, 14 & 15  
SCALE: 1/2 Mile per inch

SCALE REDUCED TO  
63.8% ORIGINAL



**LOCATIONS**

x R-1 NOVEMBER/88  
o OCTOBER/88



billion gold stream sediment sample in Open File 1289 situated near the Bud Claim group suggests this area warrants further work.

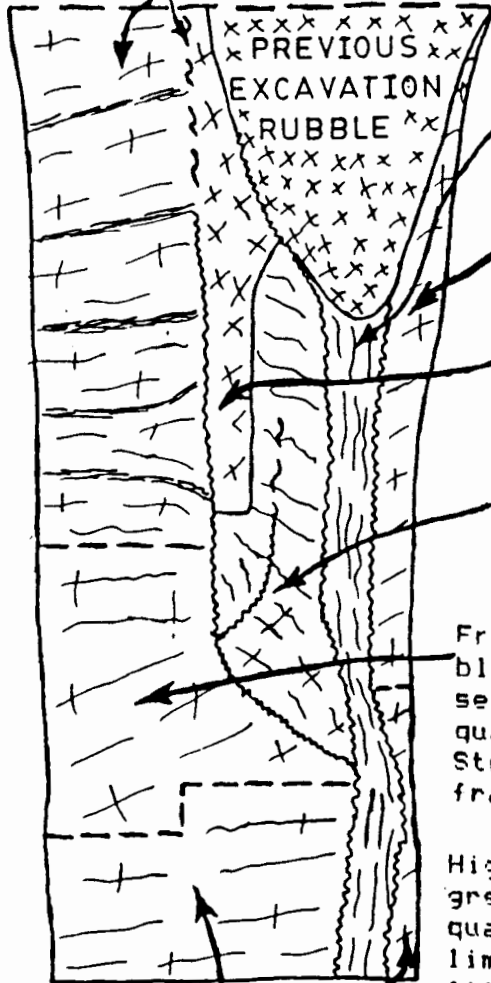
A test pit was also excavated on the footwall of the Winnie Showing during this property visit. The test pit dimensions are approximately 10 feet (3 metres) deep, 4.5 feet (1.5 metres) long and 3.0 feet (1.0 metre) wide. For the most part, the rock removed was frozen. The rock was fractured using an electric percussion drill powered by a 2200 cubic centimeter Honda gas-powered generator. Water seeped into the pit during the sinking of the last 2 feet of the pit. This necessitated frequent bailing. The water appeared to be following the footwall gouge zone and is probably seepage from Matt Creek. The writer has sketched and described all four walls of the test pit (See Figures 1 and 3). The north and south walls which exposed segments of the vein were sampled at 1 foot intervals (See Figure 2). The bottom of the pit was arbitrarily called 8 feet with numbers decreasing by one for each foot up the walls. The north wall is designated by an "N" and the south wall by an "S". Samples were given a number in sequence starting from the footwall side. The width of each sample was measured and recorded as it was taken. For example: Sample 6N - 3 is the third sample from the footwall on the north rib at a depth of 6 feet (See Figure 2).

Forty-five rock chip samples were taken from the test pit and were analysed for 31 elements by ICP methods and for gold by rock geochemical analysis (See Appendix 1). A significant 14 of these samples (31.1%) returned values of greater than 1000 parts per billion in gold. Samples BTM - 1 (Bottom -1), HW - 1 (Hanging Wall

NORTH FACE

SCALE: 1 inch = 2 feet

1 inch grey to white gouge  
Pinched to top



Fractured black quartzite  
Weak limonite fracture fillings  
Graphite schist streaks

Light grey (sericitic?) gouge with quartzite fragments

Highly crushed black quartzite with graphite schist streaks

As above but more quartz and more crushed

Fractured, bleached and sericitic quartzite  
Strong limonite fracture fillings

Highly crushed light grey sericitic quartzite. Moderate limonite fracture fillings

Well fractured light grey sericitic quartzite. Weak to moderate limonite in fractures. Minor 1/2 inch gouge in some fractures

Light grey (sericitic?) gouge with quartzite fragments. Weak limonite in fractures

More blocky black quartzite. Weak limonite fracture fillings. 1% disseminated pyrite  
Arsenopyrite?

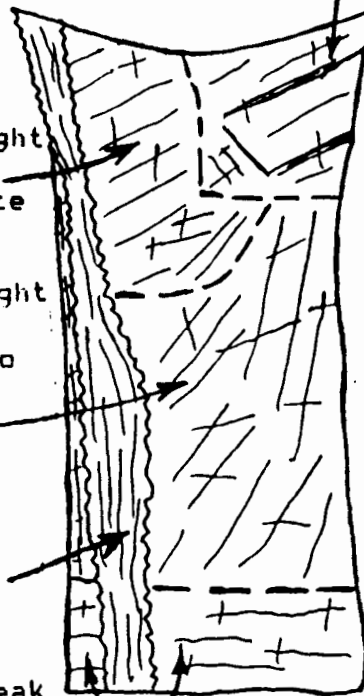
FIGURE 1

Thin bedded quartzite and sericitic phyllite. Quartzite is light grey to black. Moderate to strong limonite fracture fillings

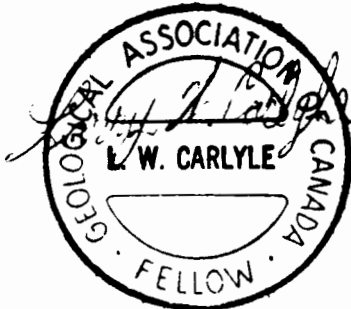
SOUTH FACE

SCALE: 1 inch = 2 feet

Well fractured black quartzite with graphite schist streaks. Weak limonite fracture fillings



Blocky black quartzite  
Weak limonite fracture fillings. 1% disseminated pyrite. Arsenopyrite?



# TEST PIT FACE SKETCH

## ASSAY OVERLAY

DECEMBER 1, 1988

SCALE: 1 inch = 2 feet

### NORTH FACE

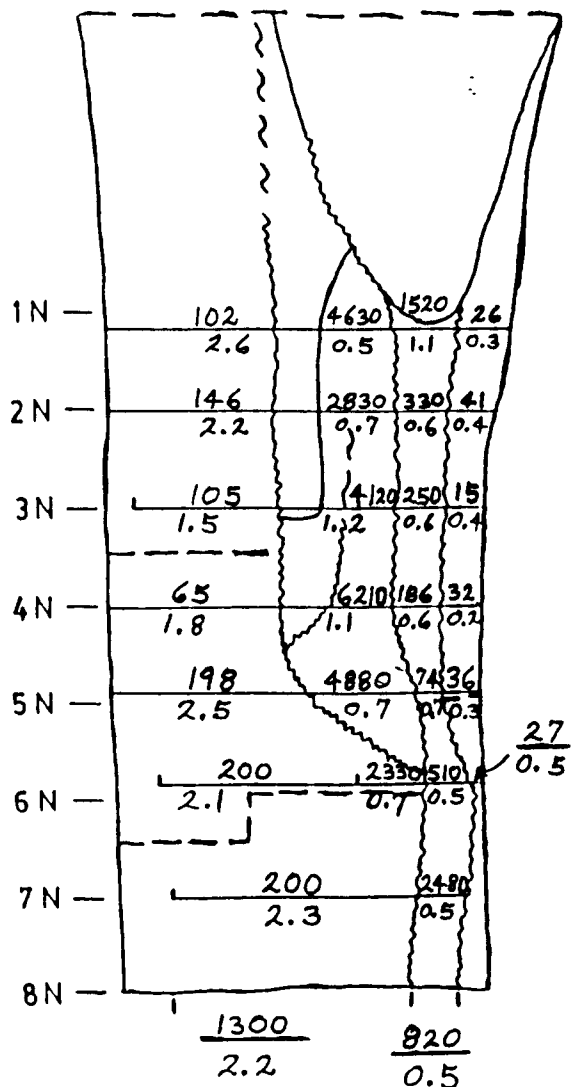
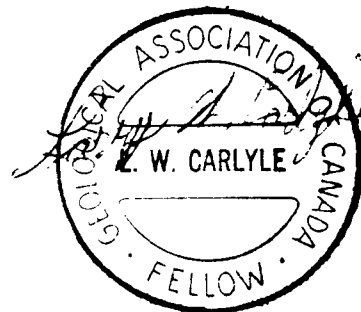
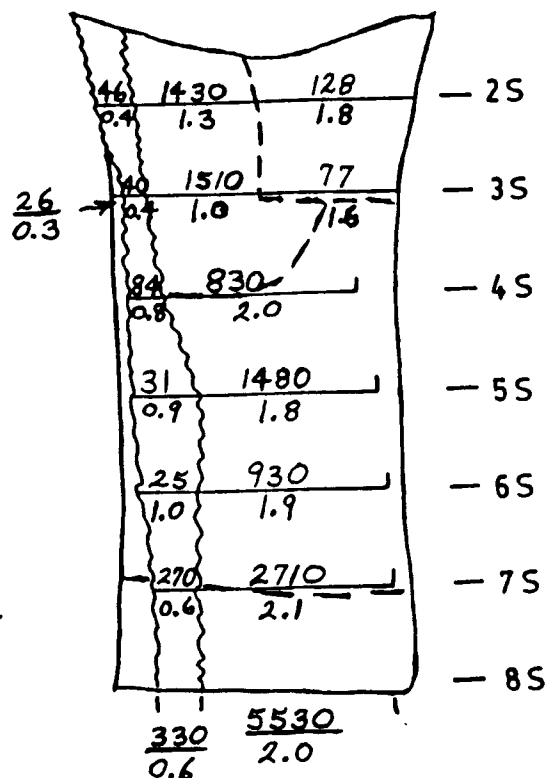


FIGURE 2



### SOUTH FACE



### LEGEND

#### ASSAY FEET

%  
PPM  
ppb  
opt

Au  
Ag  
As

ELEMENT: Au (ppb)

percentage  
parts per million  
parts per billion  
troy ounces per ton

Gold  
Silver  
Arsenic

# TEST PIT FACE SKETCH

## ASSAY OVERLAY

DECEMBER 1, 1988

SCALE: 1 inch = 2 feet

### NORTH FACE

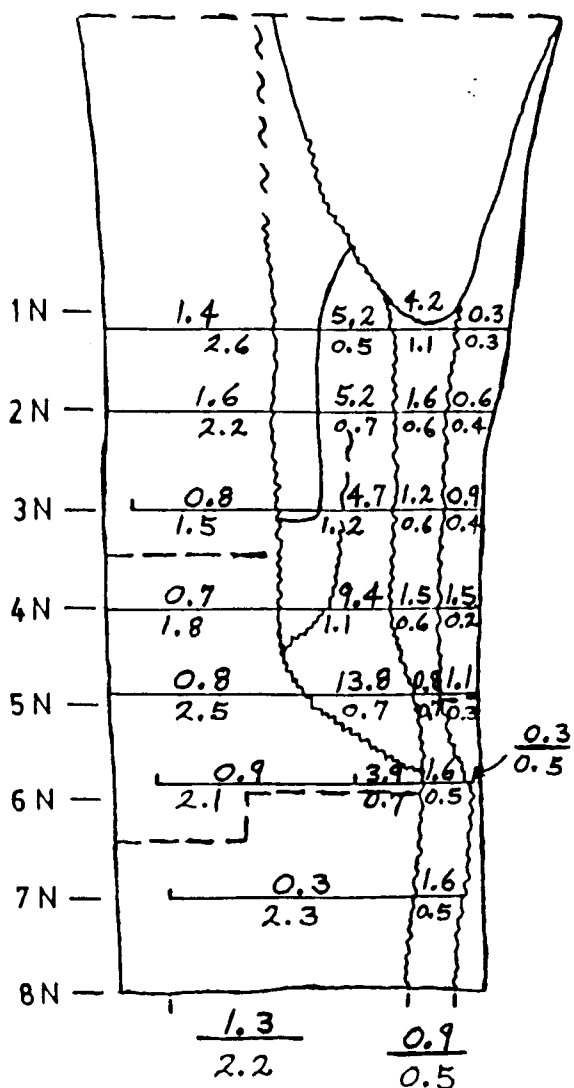
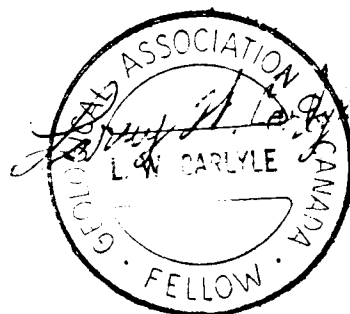
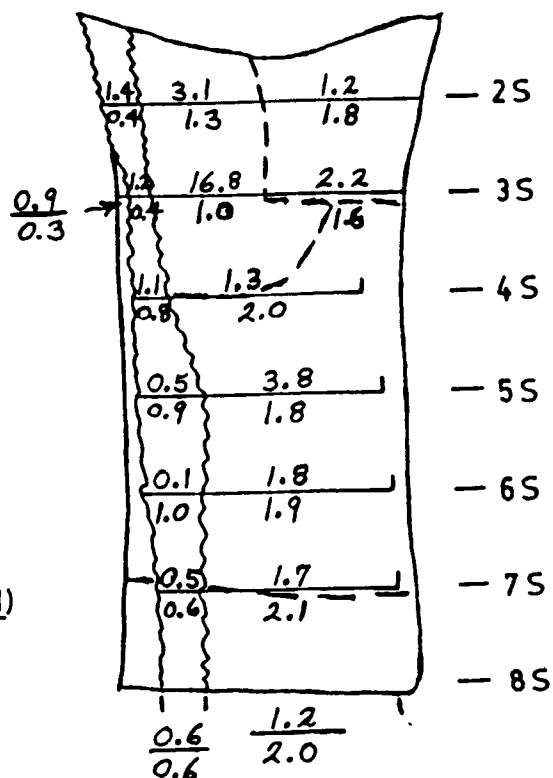


FIGURE 2



### SOUTH FACE



### LEGEND

ASSAY  
FEET

%  
PPM  
ppb  
opt

Au  
Ag  
As

ELEMENT: Ag(PPM)

percentage  
parts per million  
parts per billion  
troy ounces per ton

Gold  
Silver  
Arsenic

# TEST PIT FACE SKETCH

## ASSAY OVERLAY

DECEMBER 1, 1988

SCALE: 1 inch = 2 feet

### NORTH FACE

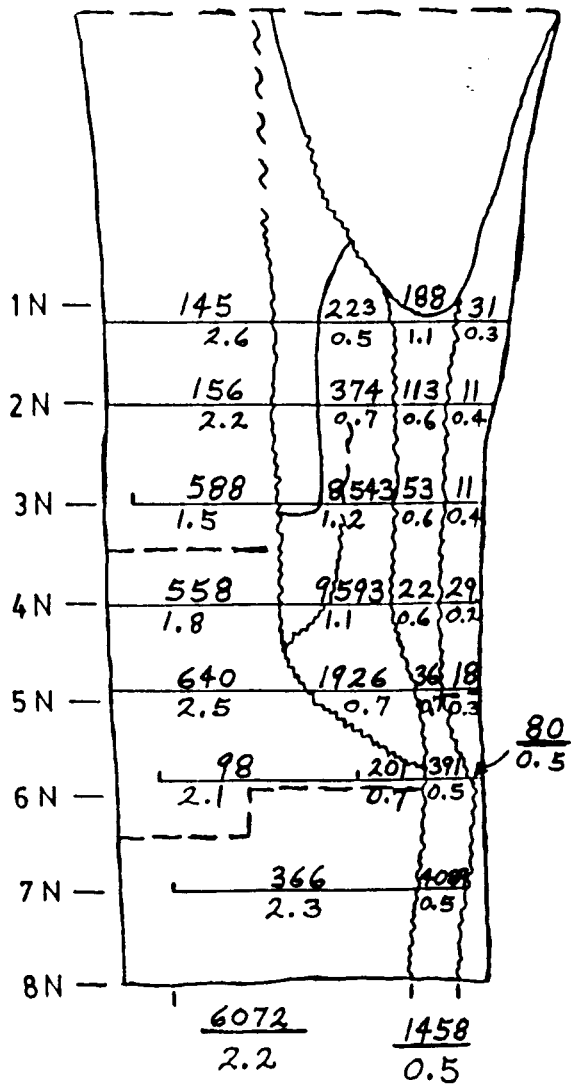
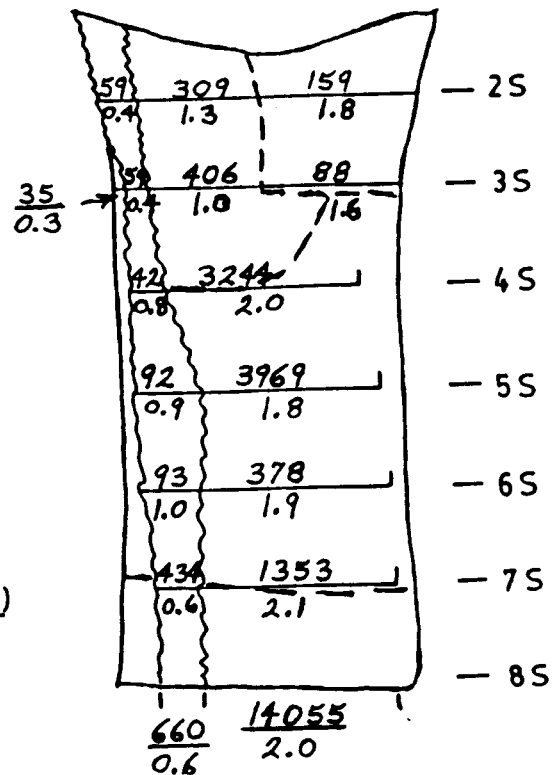


FIGURE 2



### SOUTH FACE



### LEGEND

#### ASSAY FEET

%	percentage
PPM	parts per million
ppb	parts per billion
opt	troy ounces per ton

Au	Gold
Ag	Silver
As	Arsenic

ELEMENT: As(PPM)

EAST FACE (Footwall Rib)

SCALE: 1 inch = 2 feet

TEST PIT FACE SKETCHES

DECEMBER 1, 1988

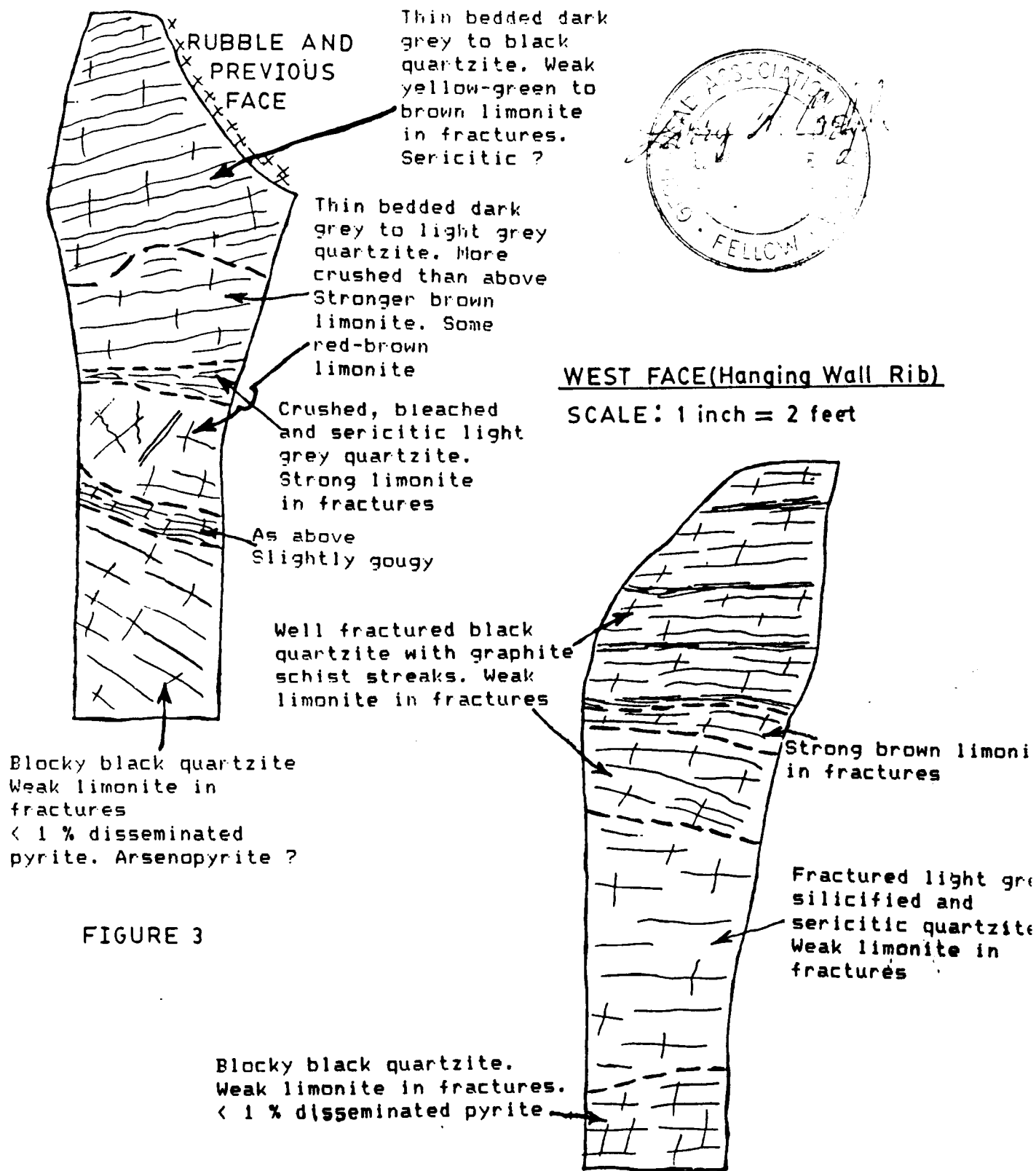


FIGURE 3

-1) and FW - 1 (Footwall - 1) in Appendix 1 are analyses of grab samples taken from the designated areas near the bottom of the test pit. Fire assaying for gold and silver and arsenic assay were done on 26 of these samples to confirm the high gold values obtained. See Appendix 2 for Figures showing sample values and locations. The test pit has demonstrated that the Winnie Showing continues with strength through approximately 22 vertical feet. Samples continue to show the trend of higher gold values with increasing depth. Samples BR - 1, D - 1, L - 1 and M - 1 in Appendix 1 are analyses of rock samples which do not pertain to this report.

#### AWAITED RESULTS RECEIVED

##### (a) Red Creek Stream Sediment Samples

On page 6 of my original report, I mention four stream sediment samples taken along Red Creek for which assays were awaited. Please see Appendix 3 for a location diagram and geochemical assay results for gold, silver, arsenic, antimony, lead and tungsten. The low values obtained in the analyses may be, at least partially, explained by the samples having been taken from an area placer mined by Chief Smith in the 1930's. The sediments in this portion of Red Creek have only had approximately 30 years to accumulate; this may not have been sufficient to produce anomalous values.

##### (b) Dr. Jim Morin Data

On page 8 of my original report, I indicated that Dr. Jim Morin had visited the property. Dr. Morin took 5 samples of core during

the visit and has kindly returned their descriptions and analyses (See Appendix 4). It is worth noting that Sample RX 040052 which probably comes from the showing extension returned a value of 44 ppb. in gold.

In a personal communication, Dr. Morin suggests that the rhyolite dyke resting on the hanging wall of the Winnie Showing was rich in volatiles, especially hydrogen sulphide gas. He believes this is indicated by the presence of pyrite intimately associated with and as blebs within the dyke. De-gassing of the dyke, perhaps by intersecting a fault zone, would create intense acid leaching and advanced argillic alteration. Morin believes this process is responsible for the "epithermal-looking" alteration adjacent to the Winnie.

Carlyle believes that the acid leaching mentioned by Morin would most strongly affect the rocks in the hanging wall of the Winnie Showing. The leaching would result in depleted metal values where most of the Total Erickson drill holes terminate.

Much of the data obtained from the Winnie Showing to date support a shallow to moderate depth of burial during mineral deposition:

1. Strong presence of phyllite, clay and silicification
2. Significant amounts of barium, antimony and arsenic
3. Generally low base metal values
4. Test pit samples returned a silver to gold ratio of 2.2 to 1.
5. Pyrite and arsenopyrite mineralization in the system is very fine grained (probably indicating rapid formation)
6. Alteration and leaching appear to weaken as gold values increase with depth in the system

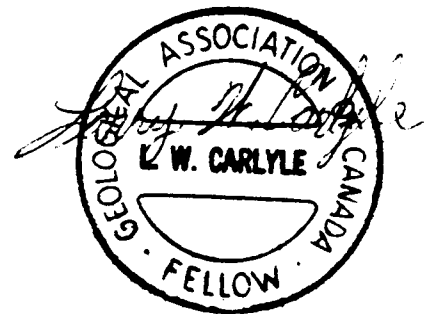
Please refer to Figure 5 in Appendix 4 which relies heavily on work done by Panteleyev in the Toadogone area to demonstrate an

epithermal model for British Columbia. Please also note the location similarity of the Toodoggone and the Cariboo-Barkerville areas (Figure 1 in Appendix 4) to that of the Orpex Minerals Inc. property.

### SUMMARY

This writer considers the Sam and Sid Claim groups to be where additional mineral deposits will most likely be located on the Orpex Minerals Inc. property. These claim groups are on strike with the Winnie, have significant stream sediment values in gold and arsenic and have evidence of tectonism. The Hugh Claim group is also on strike with the Winnie and all sampled locations exhibit significant silicification. The highly anomalous 95 parts per billion gold stream sediment sample near the Bud Claim group should receive follow-up.

Work on the Winnie Showing continues to demonstrate its significance. Of prime importance is the increasing gold values through the 22 vertical feet of exposure. The Winnie Showing is the only mineral deposit as yet located on the Orpex Minerals Inc. property. Continued work on this showing will provide the exploration keys needed for locating others.

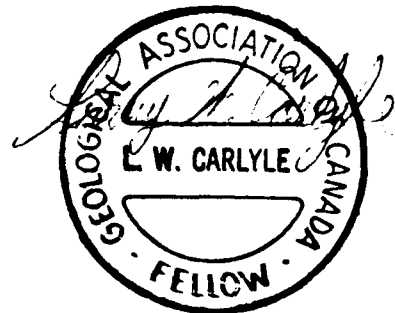


STATEMENT OF QUALIFICATIONS

I, LARRY W. CARLYLE, do certify:

1. That I am a professional geologist operating a business registered as CARLYLE GEOLOGICAL SERVICES LTD. with an office 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 am a Member of the Canadian Institute of Mining and Metallurgy.
6. That I have practiced my profession as a mine and exploration geologist for fourteen years.
7. That I have visited the property. The conclusions and recommendations in the attached report are based on work done on the property by myself and a review of all available private and public reports on the property.
8. That I hold no interest in the property nor in the shares of Orpex Minerals Inc.
9. That I have given my permission for this report to form part of a qualifying report on the Orpex Minerals Inc. property.

DATED at Whitehorse, Yukon, this *22<sup>nd</sup>* day of December, 1988.



STATEMENT OF COSTS

Hugh Claim Group

Geological Consulting and Reporting	\$ 1,225.67
Camp Rental, Labour and Supplies	\$ 4,428.69
Helicopter	\$ 831.33
Rock Blasting	\$ 4,700.00
	-----
Total	\$ 11,185.69

Ron Claim Group

Geological Consulting and Reporting	\$ 1,225.67
Camp Rental, Labour and Supplies	\$ 4,428.69
Helicopter	\$ 935.24
Rock Blasting	\$ 3,200.00
	-----
Total	\$ 9,789.60

Bud Claim Group

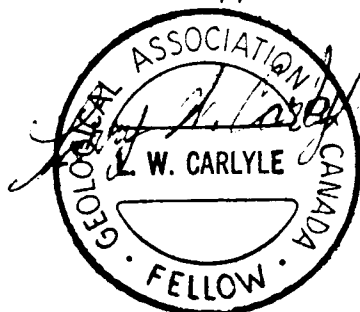
Geological Consulting and Reporting	\$ 1,225.67
Camp Rental, Labour and Supplies	\$ 4,428.69
Helicopter	\$ 883.29
Rock Blasting	\$ 3,000.00
	-----
Total	\$ 9,537.65

Sam Claim Group

Geological Consulting and Reporting	\$ 1,225.67
Camp Rental, Labour and Supplies	\$ 4,428.69
Helicopter	\$ 779.37
Rock Blasting	\$ 3,200.00
	-----
Total	\$ 9,633.73

Sid Claim Group

Geological Consulting and Reporting	\$ 1,225.67
Camp Rental, Labour and Supplies	\$ 4,428.69
Helicopter	\$ 831.33
Rock Blasting	\$ 3,100.00
	-----
Total	\$ 9,585.69



APPENDIX 1

31 ELEMENT ICP AND GOLD GEOCHEMICAL ANALYSES

## GEOCHEMICAL ANALYSIS CERTIFICATE

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 NG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: DEC 7 1988 DATE REPORT MAILED: Dec 12/88 SIGNED BY: *C. Long* D. TOYE, C. LKONG, B. CHAN, J. WANG; CERTIFIED B.C. ASSAYERS

CARLYLE GEOLOGICAL File # 88-6175 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Mn PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Tb 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	Au* PPB
2S-1	1	3	18	4	1.4	2	1	4	.78	59	5	ND	9	13	1	53	4	9	.02	.007	32	5	.03	146	.01	3	.37	.01	.14	8	46
2S-2	2	5	34	9	3.1	5	1	35	.67	309	7	2	6	19	1	38	2	3	.04	.006	16	5	.03	115	.01	6	.18	.01	.06	4	1430
2S-3	1	2	12	1	1.2	1	1	10	.40	159	5	ND	5	8	1	33	2	2	.02	.002	18	3	.01	50	.01	2	.23	.01	.12	4	128
3S-1	1	4	7	3	.9	2	1	6	.72	35	5	ND	6	6	1	60	4	8	.01	.007	17	4	.01	23	.01	9	.41	.01	.10	9	26
3S-2	1	4	16	3	1.2	1	1	2	.62	59	5	ND	8	11	1	55	2	9	.01	.005	29	8	.03	107	.01	6	.58	.01	.19	9	40
3S-3	1	7	107	7	16.8	3	1	14	.46	406	5	ND	6	22	1	33	4	3	.02	.002	21	5	.01	227	.01	2	.20	.01	.09	3	1510
3S-4	1	2	20	1	2.2	2	1	13	.34	88	5	ND	6	9	1	32	3	2	.02	.002	18	5	.01	79	.01	6	.24	.01	.14	4	77
4S-1	1	2	8	6	1.1	2	1	2	.28	42	5	ND	8	7	1	61	2	9	.01	.005	27	8	.01	50	.01	8	.49	.01	.12	12	84
4S-2	3	3	44	5	1.3	5	1	4	.56	3244	5	ND	11	12	1	68	2	6	.02	.009	41	8	.01	83	.01	5	.34	.01	.10	5	830
5S-1	1	9	8	5	.5	3	1	2	.94	92	5	ND	9	4	1	44	2	9	.01	.006	25	6	.02	30	.01	7	.45	.01	.12	19	31
5S-2	4	6	54	11	3.8	4	1	8	.76	3969	6	2	10	13	1	53	2	6	.02	.012	30	10	.01	53	.01	8	.32	.01	.10	7	1480
6S-1	1	35	14	10	.1	27	12	2	5.23	93	5	ND	14	6	1	53	2	10	.01	.005	22	8	.03	17	.01	3	.49	.01	.16	20	25
6S-2	3	4	49	7	1.8	6	1	9	.83	378	5	ND	11	102	1	64	2	7	.02	.012	35	12	.01	84	.01	3	.29	.01	.17	7	930
7S-1	1	37	17	13	.5	24	12	4	4.82	434	5	ND	12	15	1	70	2	11	.01	.007	19	7	.03	12	.01	7	.53	.01	.16	15	270
7S-2	1	6	28	28	1.7	9	2	14	.75	1353	5	2	9	19	1	31	2	4	.02	.006	29	8	.01	51	.01	6	.27	.01	.14	5	2710
8S-1	1	41	34	21	.6	29	13	2	5.77	660	5	ND	24	38	1	76	2	12	.05	.041	19	10	.03	10	.01	3	.51	.01	.15	16	330
8S-2	1	18	25	63	1.2	57	10	16	2.26	14055	5	5	8	26	1	44	3	3	.06	.024	10	12	.02	88	.01	2	.18	.01	.10	5	5530
1W-1	1	6	10	2	.3	2	1	3	.38	31	5	ND	7	8	1	25	4	5	.02	.003	17	6	.02	26	.01	8	.50	.01	.13	7	26
1W-2	1	4	22	4	4.2	1	1	3	.45	188	5	2	8	16	1	37	2	5	.01	.002	27	6	.01	46	.01	9	.33	.01	.13	10	1520
1W-3	1	3	18	5	5.2	1	1	12	.31	223	5	5	7	7	1	18	2	2	.02	.003	31	4	.01	20	.01	4	.18	.01	.10	3	4630
1W-4	1	5	19	4	1.4	3	1	21	.72	145	7	ND	5	9	1	70	2	3	.01	.001	13	6	.01	101	.01	6	.27	.01	.13	5	102
2W-1	1	3	25	3	.6	6	1	2	.37	11	5	ND	7	13	1	47	2	7	.02	.006	20	9	.01	19	.01	8	.42	.01	.08	10	41
2W-2	1	3	28	4	1.6	3	1	7	.84	113	5	ND	8	35	1	49	2	8	.01	.004	26	9	.02	49	.01	7	.48	.01	.20	12	330
2W-3	1	4	79	7	5.2	2	1	13	.63	374	5	3	4	15	1	16	2	2	.02	.003	15	5	.01	35	.01	3	.15	.01	.12	3	2830
2W-4	1	4	12	1	1.6	3	1	11	.50	156	5	ND	6	8	1	31	3	2	.01	.002	20	5	.01	68	.01	4	.26	.01	.14	3	146
3W-1	2	3	14	3	.9	7	1	19	.36	11	5	ND	5	18	1	45	2	7	2.33	.005	15	12	.02	12	.01	6	.37	.01	.04	7	15
3W-2	1	4	11	3	1.2	1	1	2	.40	53	5	ND	10	7	1	57	2	9	.02	.003	32	6	.02	41	.01	7	.46	.01	.14	11	250
3W-3	2	16	48	13	4.7	10	1	23	1.16	8543	5	5	8	17	1	48	2	3	.12	.045	26	13	.02	73	.01	4	.17	.01	.09	6	4120
3W-4	1	9	9	5	.8	4	2	27	1.44	588	5	ND	3	9	1	49	3	3	.04	.007	10	5	.01	49	.01	2	.22	.01	.10	4	105
4W-1	2	3	11	3	1.5	6	1	2	.31	29	6	ND	5	7	1	31	2	6	.05	.004	11	10	.01	10	.01	5	.33	.01	.04	8	32
4W-2	1	7	18	4	1.5	1	1	2	.46	22	5	ND	10	9	1	70	2	11	.01	.005	31	6	.02	46	.01	11	.58	.01	.14	15	186
4W-3	2	14	239	36	9.4	21	4	34	1.22	9593	5	7	9	34	1	40	2	3	.04	.013	27	11	.01	65	.01	4	.18	.01	.11	7	6210
4W-4	2	3	16	1	.7	4	1	4	.29	558	5	ND	9	12	1	69	2	7	.01	.008	42	11	.01	86	.01	8	.41	.01	.12	4	65
5W-1	2	9	16	7	1.1	20	4	2	1.39	18	5	ND	8	12	1	56	3	9	.04	.011	18	13	.01	60	.01	3	.58	.01	.06	11	36
5W-2	1	24	18	8	.8	13	3	3	2.33	36	5	ND	10	13	1	76	2	9	.02	.008	24	9	.03	26	.01	8	.69	.01	.20	12	74
5W-3	3	14	170	105	13.8	8	1	26	.99	1926	5	5	7	97	1	58	2	3	.02	.009	18	9	.01	74	.01	3	.15	.01	.12	9	4880
5W-4	1	6	21	4	.8	6	2	12	.81	640	5	ND	10	14	1	45	2	5	.03	.005	35	8	.02	76	.01	2	.33	.01	.15	5	198
STD C/AU-R	18	62	41	132	7.0	69	31	1830	4.08	45	18	8	39	49	19	18	19	61	.48	.096	40	57	.89	183	.07	36	1.92	.06	.13	11	510

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	W PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Tb 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	Au* PPB
6N-1	1	28	27	23	.3	49	13	6	2.61	80	5	ND	18	18	1	77	2	8	.10	.067	51	15	.02	32	.01	6	.55	.01	.07	10	27
6N-2	1	15	40	7	1.6	17	6	13	3.36	391	5	ND	10	33	1	72	2	4	.04	.048	19	10	.03	16	.01	7	.37	.01	.10	7	510
6N-3	2	9	333	17	3.9	5	2	12	1.43	201	5	ND	4	41	1	36	2	3	.03	.025	10	7	.02	172	.01	4	.19	.01	.09	6	2330
6N-4	2	6	17	5	.9	4	2	3	1.32	98	5	ND	4	18	1	58	2	2	.02	.008	16	6	.01	85	.01	4	.22	.01	.11	3	200
7N-1	1	17	16	59	1.6	17	6	12	1.59	4089	5	ND	9	21	1	33	2	2	.03	.042	12	9	.01	75	.01	2	.22	.01	.05	5	2480
7N-2	2	10	9	7	.3	9	3	13	1.25	366	5	ND	4	12	1	21	2	2	.02	.005	17	9	.02	55	.01	6	.31	.01	.16	3	200
8N-1	2	46	41	51	.9	69	19	16	2.55	1458	5	ND	42	81	1	65	2	10	.18	.136	62	21	.03	24	.01	7	.84	.01	.10	11	820
8N-2	3	16	10	19	1.3	19	7	12	1.84	6072	5	ND	7	15	1	27	2	2	.04	.016	13	11	.02	50	.01	5	.25	.01	.11	3	1300
B-1	1	1	10	4	.1	1	3	887	.88	20	6	ND	2	1349	1	2	2	1	35.50	.006	6	1	.21	4	.01	2	.03	.01	.01	2	14
BR-1	1	8	3	31	.1	8	4	240	1.18	2	5	ND	8	46	1	2	3	10	1.76	.009	8	17	.32	13	.04	2	1.11	.02	.07	2	2
D-1	1	1	4	3	.1	2	2	371	.35	6	7	ND	1	677	1	2	2	1	39.73	.005	38	1	.13	7	.01	2	.03	.01	.01	1	4
DTH-1	2	18	133	595	1.2	23	8	30	2.40	12526	5	ND	7	16	1	50	2	2	.23	.013	11	8	.03	43	.01	2	.20	.01	.06	1	2500
L-1	1	1	2	4	.1	4	1	32	.47	38	5	ND	1	12	1	2	2	1	.34	.005	3	6	.01	6	.01	2	.04	.01	.02	4	10
H-1	2	8	4	5	.1	10	3	155	.94	15	5	ND	3	5	1	2	2	1	.85	.008	8	7	.03	13	.01	3	.17	.01	.07	2	5
H-2	2	5	2	1	.1	3	1	50	.36	2	5	ND	2	4	1	2	2	1	.14	.006	7	6	.01	23	.01	2	.09	.01	.08	4	1
H-3	2	4	4	6	.2	11	4	354	1.67	2	5	ND	5	12	1	2	2	1	.22	.011	10	8	.07	13	.01	2	.22	.01	.06	3	4
HV-1	1	10	8	28	.7	18	7	21	2.07	9576	5	ND	4	5	1	28	2	1	.04	.011	10	7	.01	19	.01	3	.16	.01	.07	4	1210
FW-1	1	19	22	47	.2	53	15	16	4.80	108	5	ND	15	18	1	119	3	5	.28	.107	32	11	.01	22	.01	7	.45	.01	.08	7	18
M-1	1	1	3	16	.2	27	4	112	.43	22	7	ND	1	380	1	2	2	2	38.75	.006	4	3	.05	2	.01	2	.04	.01	.01	1	4
R-1	1	1	7	5	.2	3	2	221	.34	2	7	ND	2	1067	1	2	2	1	38.93	.003	7	1	.27	5	.01	2	.01	.01	.01	1	1
R-2	1	1	4	7	.3	3	2	76	.32	8	9	ND	2	1148	1	2	3	1	38.96	.001	4	1	.35	4	.01	2	.02	.01	.01	1	1
SA-1	1	2	24	5	.3	1	2	91	.43	4	8	ND	1	303	1	2	2	1	40.13	.010	6	1	.14	3	.01	2	.08	.01	.01	1	1
SA-2	1	3	279	37	.6	5	5	175	1.57	7	7	ND	3	655	1	2	2	3	29.65	.016	9	4	1.00	8	.01	3	.25	.01	.03	1	5
SI-1	1	26	13	81	.1	31	11	235	4.13	2	6	ND	17	97	1	2	2	9	1.70	.041	42	.22	1.04	24	.01	3	2.00	.01	.11	2	1
SI-2	1	2	6	7	.3	1	1	238	.19	5	8	ND	2	145	1	2	2	1	37.68	.007	5	1	.39	10	.01	2	.04	.01	.01	1	1
STD C/AU-R	18	62	43	133	6.7	71	31	1037	4.20	42	17	7	38	48	19	18	21	60	.49	.092	40	55	.92	176	.07	37	1.98	.06	.13	11	495

- ASSAY REQUIRED FOR CORRECT RESULT - For As > 1%

APPENDIX 2

ASSAY COMPILATION by Larry W. Carlyle, F.G.A.C., P. Geol.  
ACME ANALYTICAL CERTIFICATES File # 88-6175R

COMPILATION

OF

ACME ANALYTICAL LABORATORIES LTD.

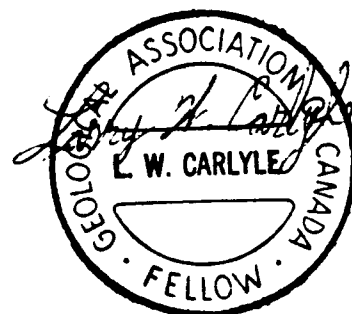
GOLD AND SILVER FIRE ASSAY AND ARSENIC ASSAY RESULTS

File # 88-6175R dated Dec. 23/88 and Jan. 4/89 (Certificates Included)

Prepared by

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

Sample #	Au (oz/T)	Ag (oz/T)	As (%)
2S-2	.036	.04	.02
3S-3	.046	.50	.03
4S-2	.024	.03	.27
5S-2	.043	.05	.30
6S-2	.026	.01	.03
7S-1	.008	.01	.04
7S-2	.070	.01	.12
8S-1	.010	.01	.06
8S-2	.153	.01	1.25
1N-2	.046	.10	.02
1N-3	.145	.12	.02
2N-3	.097	.08	.03
3N-3	.143	.12	.64
3N-4	.004	.01	.06
4N-3	.194	.24	.74
4N-4	.002	.01	.05
5N-3	.138	.44	.16
5N-4	.005	.01	.05
6N-2	.015	.02	.04
6N-3	.065	.07	.02
7N-1	.076	.05	.31
7N-2	.005	.01	.04
8N-1	.023	.03	.14
8N-2	.041	.02	.44
BTM-1	.068	.01	.85
HW-1	.037	.01	.65



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

DATE RECEIVED: DEC 19 1988

DATE REPORT MAILED: *Dec. 23/88*

### ASSAY CERTIFICATE

- SAMPLE TYPE: Pulp AG\*\* & AU\*\* BY FIRE ASSAY FROM 1/2 A.T.

SIGNED BY *C. Long* D. TOYE, C. LBONG, B. CHAN, J. WANG; CERTIFIED B.C. ASSAYERS

CARLYLE GEOLOGICAL FILE # 88-6175R

SAMPLE#	AG** oz/t	AU** oz/t
2S-2	-	.036
3S-3	.50	.046
5S-2	-	.043
7S-2	-	.070
8S-2	-	.153
1N-2	-	.046
1N-3	-	.145
2N-3	-	.097
3N-3	-	.143
4N-3	-	.194
5N-3	.44	.138
6N-3	-	.065
7N-1	-	.076
8N-2	-	.041
BTM-1	-	.068
HW-1	-	.037

ACME ANALYTICAL LABORATORIES LTD.

DATE RECEIVED: DEC 28 1988

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED:

*Jan. 4/89*

### ASSAY CERTIFICATE

- SAMPLE TYPE: Pulp  
AU\*\* AND AG\*\* BY FIRE ASSAY FROM 1/2 A.T.

SIGNED BY *C. Ling* D. TOYB, C. LBONG, B. CHAN, J. WANG; CERTIFIED B.C. ASSAYERS

CARLYLE GEOLOGICAL FILE # 88-6175R

SAMPLE#	Ag** OZ/T	Au** OZ/T	As %
2S-2	.04	-	.02
3S-3	-	-	.03
4S-2	.03	.024	.27
5S-2	.05	-	.30
6S-2	.01	.026	.03
7S-1	.01	.008	.04
7S-2	.01	-	.12
8S-1	.01	.010	.06
8S-2	.01	-	1.25
1N-2	.10	-	.02
1N-3	.12	-	.02
2N-3	.08	-	.03
3N-3	.12	-	.64
3N-4	.01	.004	.06
4N-3	.24	-	.74
4N-4	.01	.002	.05
5N-3	-	-	.16
5N-4	.01	.005	.05
6N-2	.02	.015	.04
6N-3	.07	-	.02
7N-1	.05	-	.31
7N-2	.01	.005	.04
8N-1	.03	.023	.14
8N-2	.02	-	.44
BTM-1	.01	-	.85
HW-1	.01	-	.65

TEST PIT FACE SKETCH  
ASSAY OVERLAY

DECEMBER 1, 1988  
SCALE: 1 inch = 2 feet

NORTH FACE

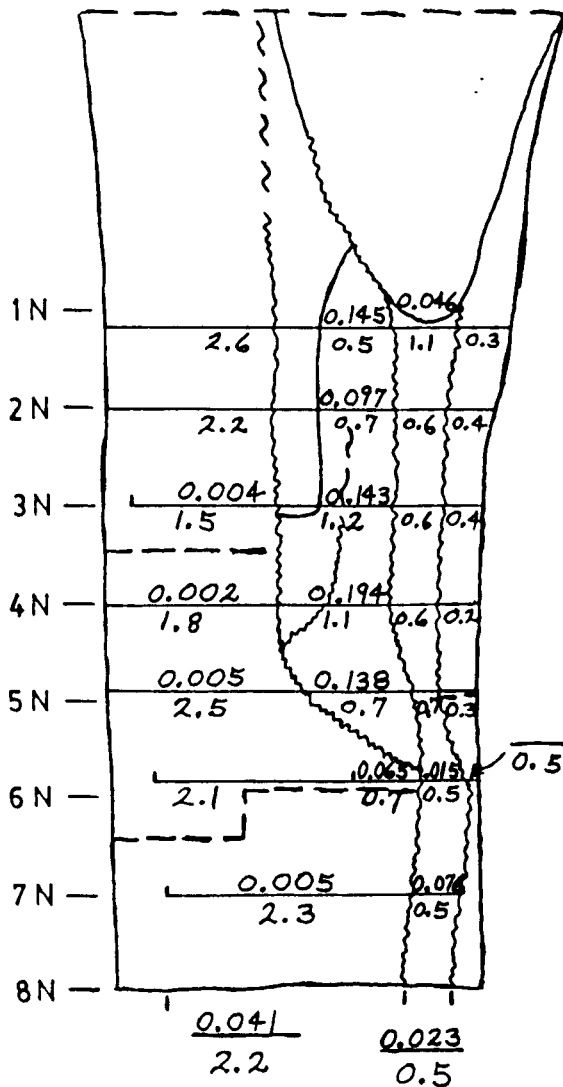
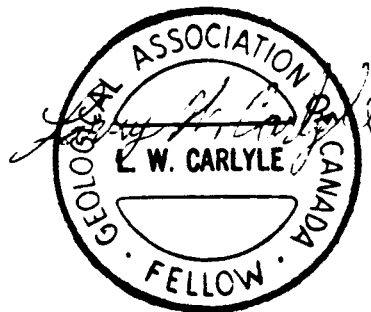
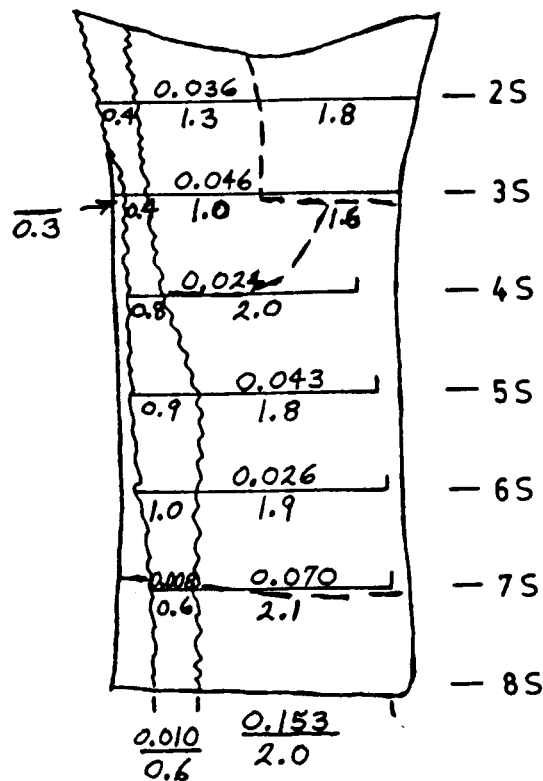


FIGURE 2



SOUTH FACE



LEGEND

ASSAY FEET

ELEMENT: Au opt

% percentage  
PPM parts per million  
ppb parts per billion  
opt troy ounces per ton

Au Gold  
Ag Silver  
As Arsenic

# TEST PIT FACE SKETCH

## ASSAY OVERLAY

DECEMBER 1, 1988

SCALE: 1 inch = 2 feet

### NORTH FACE

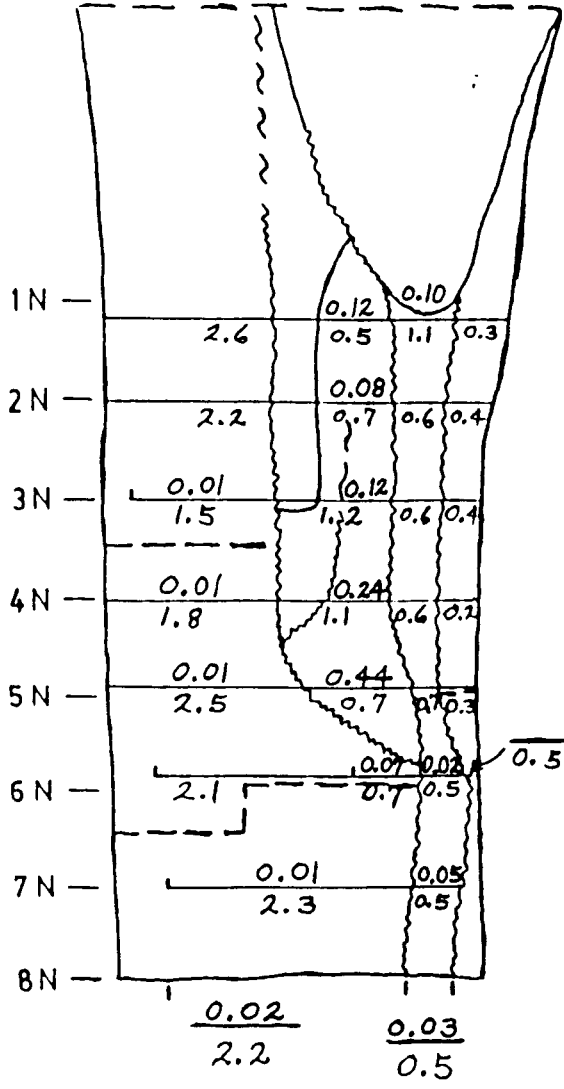
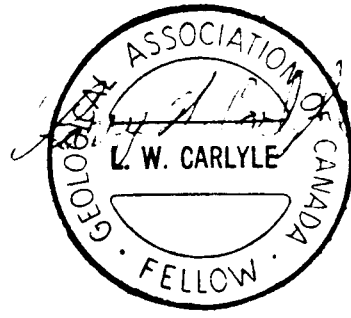
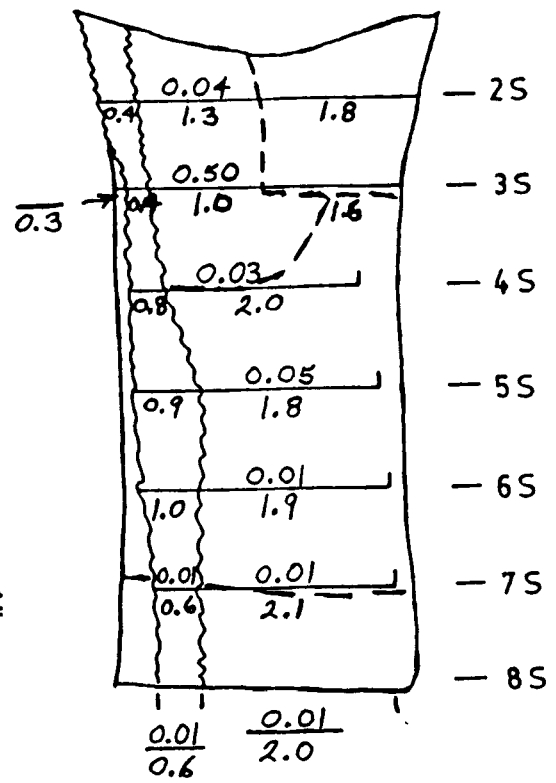


FIGURE 2



### SOUTH FACE



### LEGEND

ASSAY  
FEET

ELEMENT: Ag opt

- %           percentage
- PPM       parts per million
- ppb       parts per billion
- opt        troy ounces per ton

- Au       Gold
- Ag       Silver
- As       Arsenic

TEST PIT FACE SKETCH  
ASSAY OVERLAY

DECEMBER 1, 1988  
SCALE: 1 inch = 2 feet

NORTH FACE

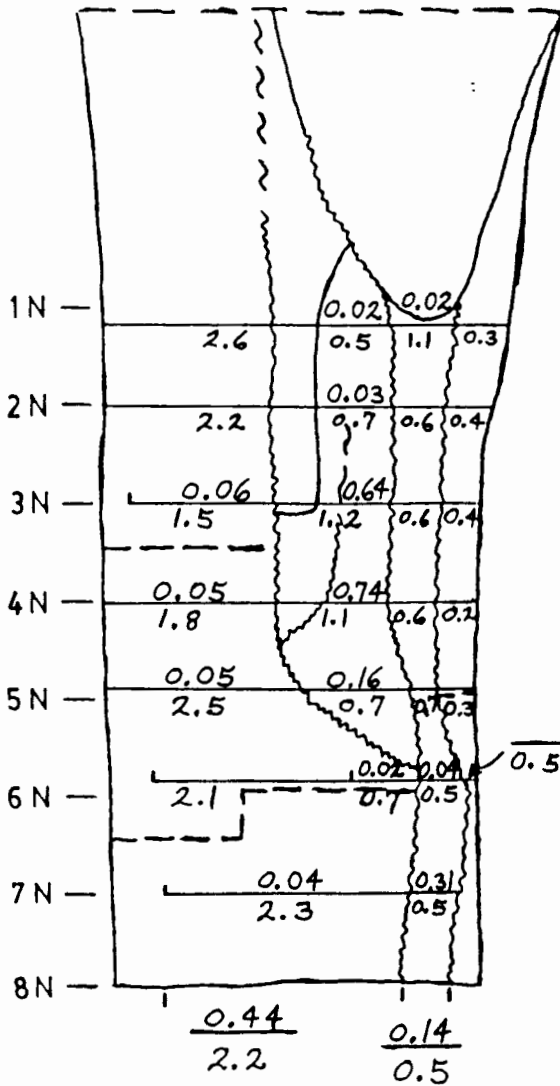
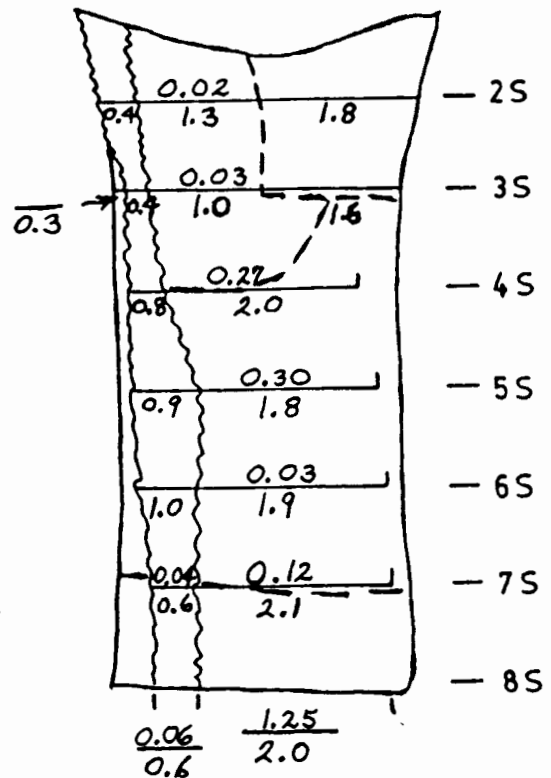


FIGURE 2



SOUTH FACE



LEGEND

ASSAY  
FEET

ELEMENT: As %

%           percentage  
PPM       parts per million  
ppb       parts per billion  
opt       troy ounces per ton

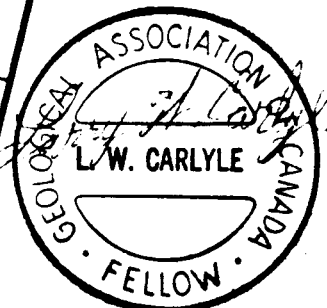
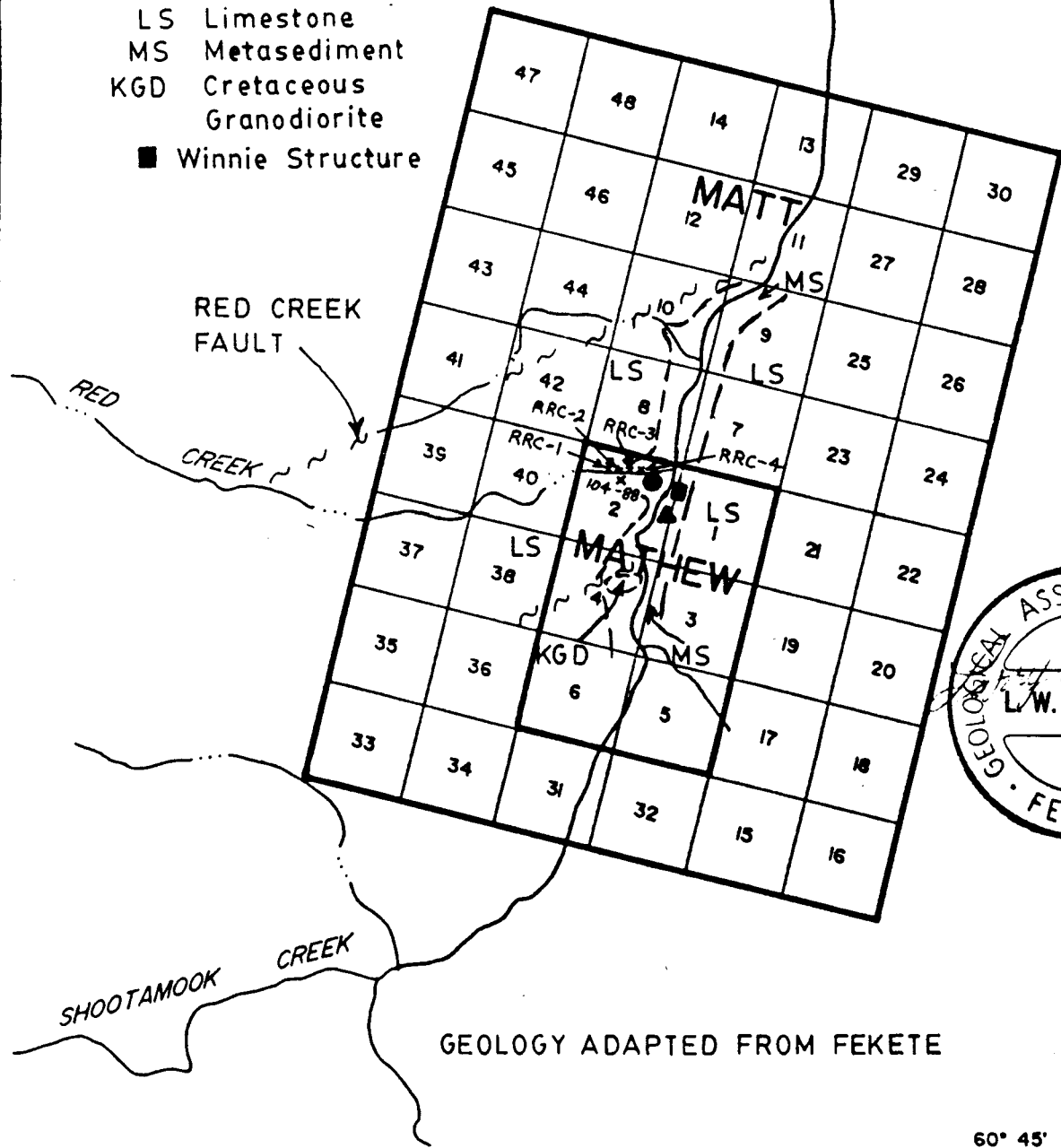
Au       Gold  
Ag       Silver  
As       Arsenic

APPENDIX 3

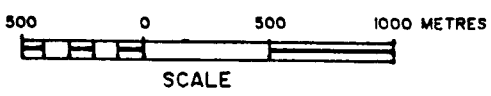
RED CREEK STREAM SEDIMENT SAMPLE ANALYSES

LEGEND

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



TOTAL ERICKSON RESOURCES LTD.		
<b>CLAIM LOCATION PLAN</b>		
SHOOTAMOOK PROPERTY		
DATE: FEB, 1988	TECH: M. FEKETE	FIGURE : 2
SCALE : 1 : 50,000	DRWN: [Signature]	



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

DATE RECEIVED: OCT 18 1988

DATE REPORT MAILED: *Oct 21/88*

### GEOCHEMICAL ANALYSIS CERTIFICATE

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 CB MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: STREAM SED AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY *C. Long* D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

CARLYLE GEOLOGICAL FILE # 88-5298

SAMPLE#	Pb PPM	Ag PPM	As PPM	Sb PPM	W PPM	Au* PPB
RRC-1	11	.1	23	6	3	2
RRC-2	7	.2	27	5	2	1
RRC-3	19	.1	54	4	3	2
RRC-4	11	.2	29	7	4	2

APPENDIX 4

CORE SAMPLE DESCRIPTIONS AND ANALYSES  
PANTELEYEV FIGURES 1 AND 5

Core Samples

RX 040050: dyke with sulphides, DDH 88-3 @ 110 m.

RX 040051: dyke with 0 to few sulphide, DDH 88-3 @ 106.0 m.

RX 040052: black pyritic leached zone at DDH 88.1 @ 79.5 m..

RX 040053: talcose pyritic leached zone DDH 88-5 @ 122.5 m.

RX 040054: leached phyllite, DDH 88-5 @ 101.1 m.

## GEOCHEMICAL ANALYSIS CERTIFICATE

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.  
 - SAMPLE TYPE: CORE/ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

*Yukon Recon*

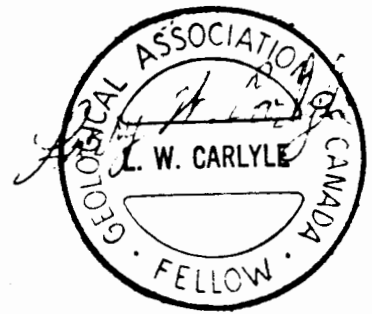
DATE RECEIVED: SEP 8 1988

DATE REPORT MAILED: *Sept 14/88*

ASSAYER..... *C. Leong*...D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

INCO GOLD COMPANY PROJECT 61001-12010 File # 88-4313

SAMPLE#	Mo PPM	3 4		5 2		8		6		7		Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Ya	K	W	Au*	Pb				
		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
RX 040050	1	27	33	62	1.0	86	18	21	7.32	74	7	ND	21	43	1	106	2	7	.49	.176	27	12	.03	14	.01	2	.46	.01	.07	4	1
RX 040051	1	42	17	52	.4	109	21	549	3.36	18	5	ND	32	188	1	2	2	71	2.47	.274	85	103	2.22	99	.01	2	2.75	.01	.06	35	1
RX 040052	1	12	23	29	2.3	16	4	7	15.01	403	5	ND	6	23	1	240	2	3	.15	.058	9	6	.02	11	.01	2	.23	.01	.10	4	44
RX 040053	1	3	3	5	.3	7	3	224	1.03	3	5	ND	6	41	1	3	2	2	2.26	.017	10	3	.88	26	.01	3	.20	.01	.13	2	1
RX 040054	1	15	18	14	.3	22	9	15	1.00	2	5	ND	15	13	1	17	2	2	.10	.025	19	5	.02	23	.01	3	.22	.01	.08	3	5



AFTER  
 A. PANTELEYEV  
 Geoscience Canada  
 Volume 13, Number 2  
 Page 101

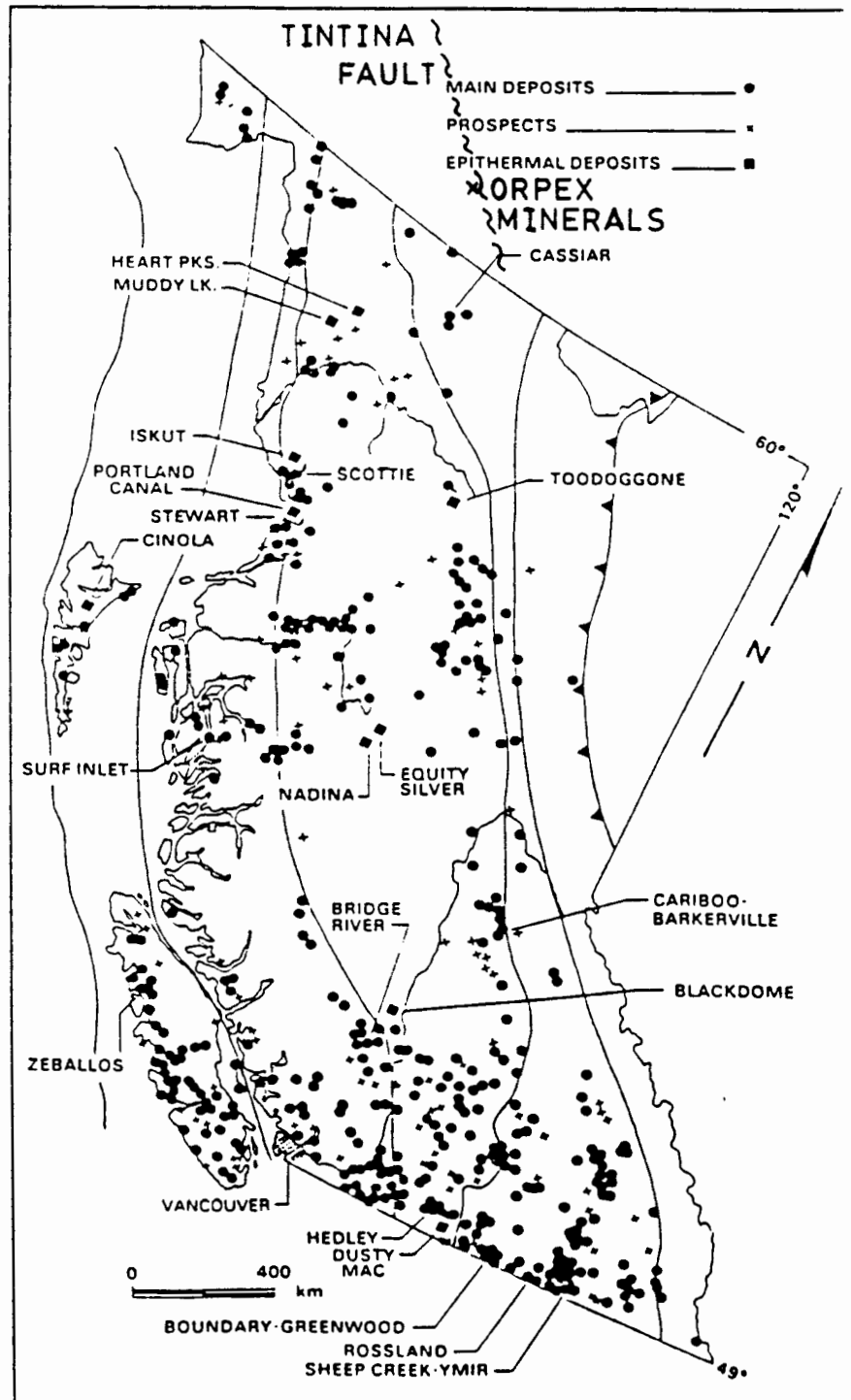


Figure 1 Distribution of gold deposits in British Columbia showing major camps, individual deposits and areas of recent exploration activity. Lines indicate major tectono-physiographic boundaries. Crystalline metamorphic terranes of the Coast Plutonic Belt in the west and Omineca Belt in the east are shown by the hatched pattern.

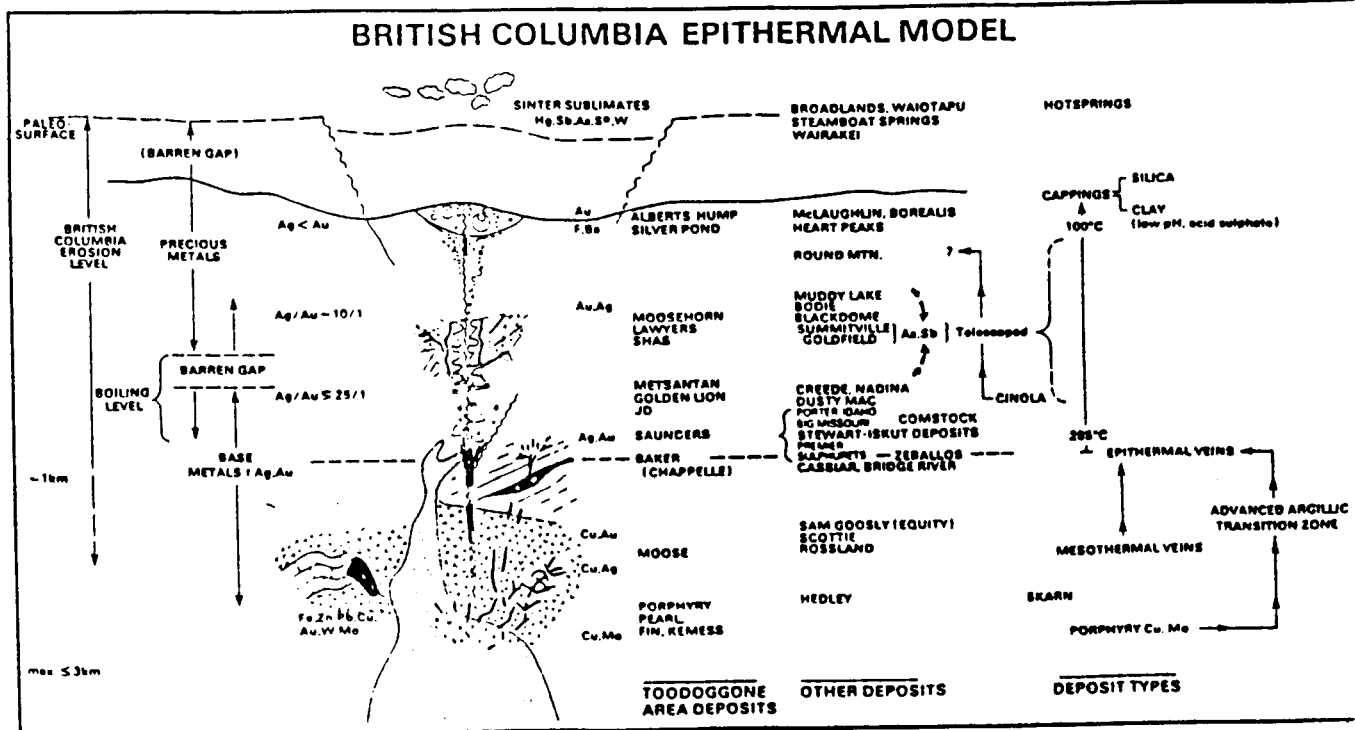
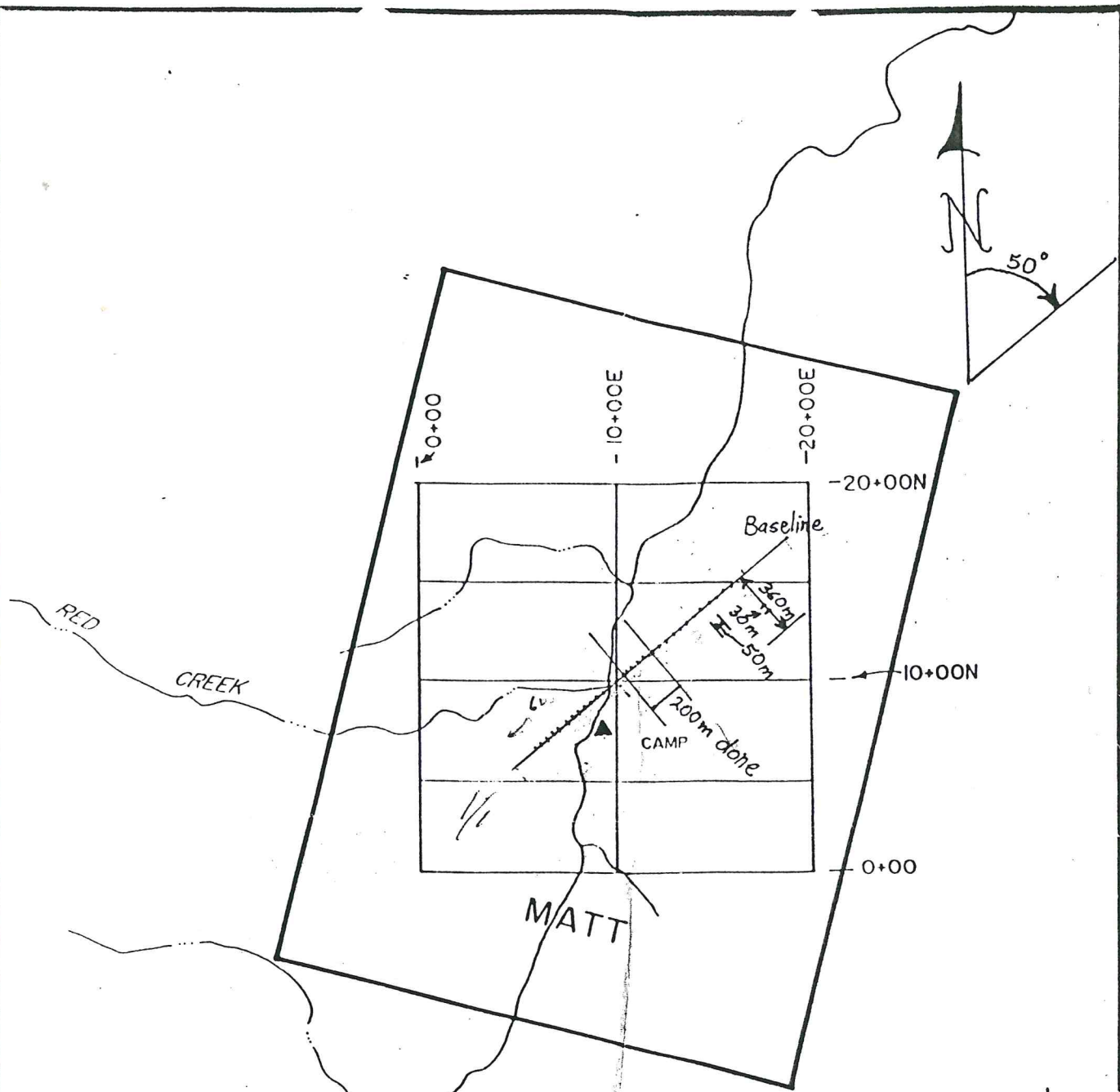
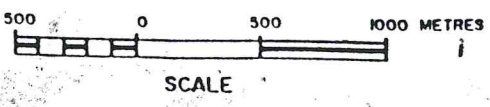
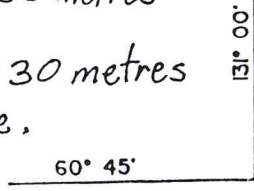


Figure 5 British Columbia epithermal model. The model is based on studies of epithermal deposits in the Toodoggone area by T.G. Schroeter and A. Panteleyev and comparisons with deposits elsewhere. The model infers a continuum exists from porphyry copper and skarn through transitional deposits, to epithermal veins, and hot spring discharge deposits.

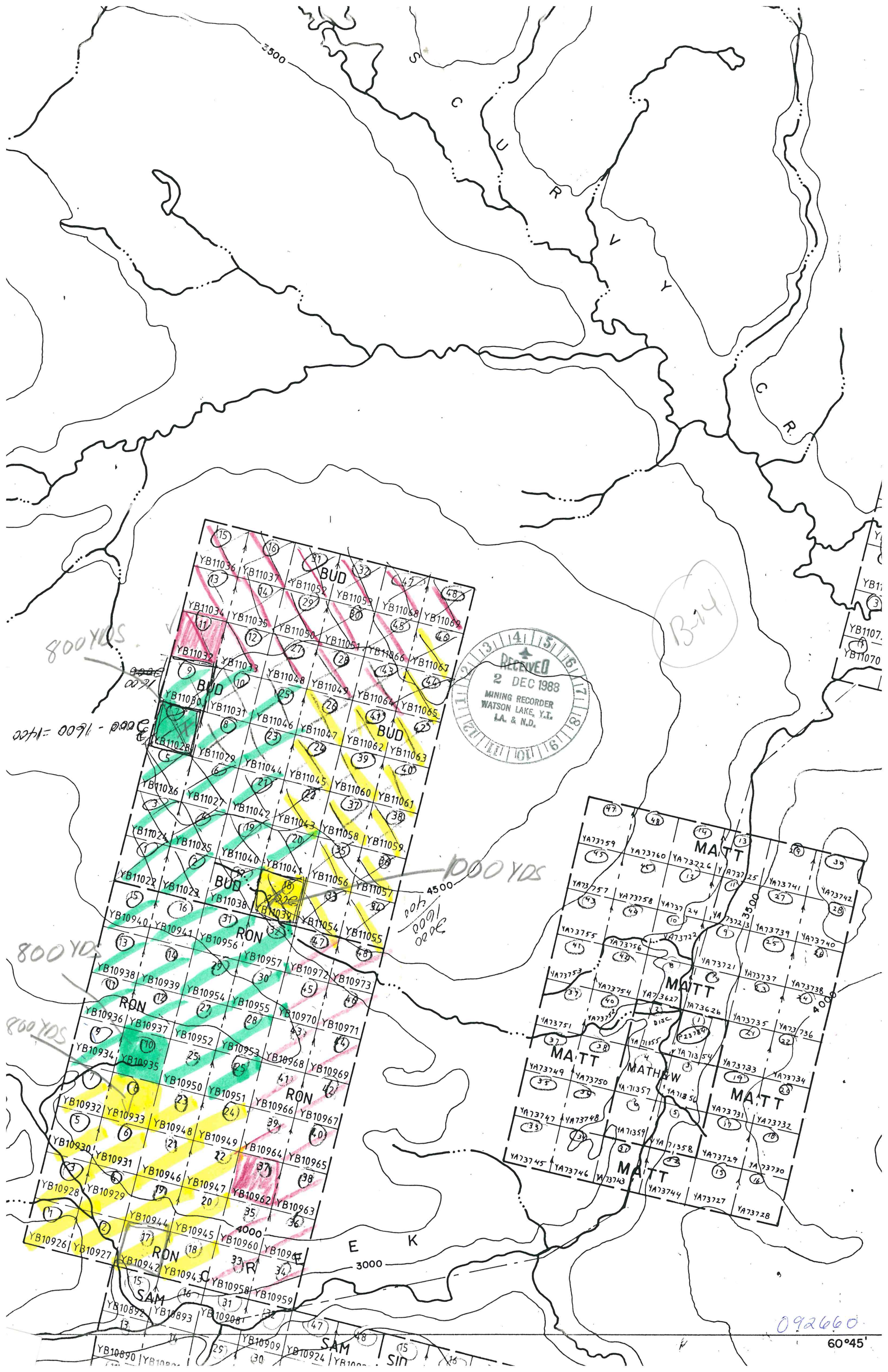


Cross lines are spaced at 50 metres along baseline.  
 Measurements are taken at 30 metres intervals at 90° to baseline.  
 Baseline starts at 10+00E, 10+00N  
 Runs at N50°E.



TOTAL ERICKSON RESOURCES LTD.		
<b>GRID PROPOSAL</b>		
SHOOTAMOOK PROPERTY		
DATE: FEB, 1988	TECH: M. FEKETE	FIGURE :
SCALE: 1: 50,000	DRWN: M. FEKETE	5

092660



RECEIVED  
2 DEC 1988  
MINING RECORDER  
WATSON LAKE, Y.T.  
I.A. & N.D.

B-14

800 YDS

0071-0091-0000

1000 YDS

800 YDS

800 YDS

092660

60°45'