

LOG NO: 1020	RD.
ACTION:	
FILE NO: 87-639-16280	

7/88

*Owner/Operator:*

MESA RESOURCES LTD.

A REPORT ON A PROSPECTING AND  
SAMPLING PROGRAM ON THE  
GOLD EAGLE MINERAL CLAIM  
LILLOOET MINING DIVISION, B.C.

GOLD EAGLE 3508 (7)

NTS Reference 92J/16W

Longitude 122° 16' W <sup>48"</sup>

Latitude 50° 56' N

PREPARED BY: ALAN G. ISAAK  
OCTOBER 7, 1987

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**16,280**

**FILMED**

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	
1. INTRODUCTION	1
1.1 Terms of Reference	
1.2 Claims and Ownership	
1.3 Location and Access	
1.4 Physiography and Vegetation	
1.5 Previous Work	
2. GEOLOGICAL SETTING	3
3. PROSPECTING AND SAMPLING	5
4. CONCLUSION	6

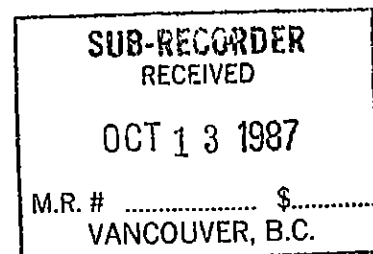
FIGURES

Follows  
Text

References  
Figure 1 - Location Map  
Figure 2 - Claim Map  
Figure 3 - Regional Geology  
Figure 4 - Sample Location Map

APPENDICES

Appendix A - Author's Qualifications  
Appendix B - Description of Rock samples,  
    Sampling Procedure and  
    Analytical Methods  
Appendix C - Certificate of Analyses  
Appendix D - Itemized Cost Statement



## SUMMARY

In July 1987 Alan Isaak and Peter Neudorf on behalf of Mesa Resources Ltd. carried out a prospecting and sampling program over the Gold Eagle Claim group.

The Gold Eagle Claim is underlain by Mesozoic greenstones and mixed clastic and carbonate sedimentary rocks that have been cut by numerous shear and fracture zones and small faults. Two mercury (cinnabar) showings associated with strong ankeritic alteration and carbonate  $\pm$  quartz veining occur on the property.

The object of the survey was to prospect the previously unexplored SW part of the claim group and sample any outcroppings.

## 1. INTRODUCTION

### 1.1 Terms of Reference

Alan Isaak & Peter Neudorf on behalf of Mesa Resources Ltd. prospected and sampled on the Gold Eagle mineral claim. The work was done in accordance with recommendations contained in a report by J. Britton dated December 21, 1984.

### 1.2 Claims and Ownership

The Gold Eagle property consists of a single 20 unit (5W x 4N) mineral claim in the Lillooet Mining Division (Figure 2). It appears on claim map M92J/16W. The claim is registered in the name of Mesa Resources Ltd. as listed below.

<u>Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Date Recorded</u>
Gold Eagle	20	3508	July 24, 1986

### 1.3 Location and Access

The Gold Eagle claim is located in the Yalakom River Valley at the confluence of the Yalakom River and Shulaps Creek (Figures 1,2). The claim is approximately centred on Longitude 122° 16' W and Latitude 50° 56'N, NTS Map 92J/16W.

The property lies about 40km (by road) from Lillooet and is reached by good gravel roads that follow the Bridge and Yalakom Rivers. The Yalakom River road crosses the property from SE to NW; a road following Shulaps Creek parallels the southern boundary of the claim. Access to most of the property is by foot.

### 1.4 Physiography and Vegetaion

The property covers fairly rugged terrain. Elevations range from 2500' to 4500' ASL. Vegetation consists mainly of coniferous forests that sparsely cover southerly-facing slopes but thickly cover northerly facing slopes. Poplar, alder and willows are common along water courses but underbrush is generally sparse and grassy.

### 1.5 Previous Work

A short history of the Gold Eagle property has been summarized by Britton (1984). The earliest detailed report on the property is found in Bulletin No.5 of B.C. Department of Mines (1940).

The Gold Eagle claim covers two mercury occurrences that were named the Red Eagle and the Golden Eagle. The Red Eagle was staked in 1937 on the southwest side of the Yalakom River. About six 76-pound flasks of mercury were produced during 1941 and 1942. Two adits and about eighteen trenches and open cuts were excavated. The Golden Eagle property was located in 1938 on the northeast side

side of the Yalakom River directly across from the Red Eagle. Prospecting continued until 1941 when a small mercury retort was installed on the river bank between the two properties. A 50-pound bulk sample collected from the showings in 1938 contained 0.44% Hg and 0.43 oz/ton Ag. A floatation concentrate from this sample assayed 0.105 oz/ton Ag and 0.015 oz/ton Au.

In 1966 the Red Eagle and Golden Eagle were consolidated into the Eagle property and further development work was carried out by Lillooet Mercury Mines Ltd., and subsequently Condor Mines Ltd. By 1971 this work included 15,700' of diamond drilling in 59 holes, 900' of underground exploratory work, detailed geological mapping, 5,800' of linear rock trenching, stripping and surveying. Mercury reserves published in George Cross Newsletter (1971) were as follows:

Measured	-	641,844 tonnes (707,500 tons) @ 5.11 pounds/t
Indicated	-	976,147 tonnes (1,076,000 tons) @ 3.31 pounds/t
Inferred	-	1,656,547 tonnes (1,826,000 tons) @ no grade assigned.

With the decline in mercury prices the property was allowed to lapse. Only intermittent work by various owners has been done on the property since 1971.

## 2. GEOLOGICAL SETTING

Regional maps compiled by Tipper (1978) and Woodsworth (1977) show that the property lies within the Yalakom Fault zone, a series of northwest trending high-angle, right-lateral strike-slip faults which join the Fraser Fault system near Lillooet (Figure 3). In the vicinity of the property these faults juxtapose Triassic to Jurassic Bridge River Group (mainly greenstones) and Shulaps ultramafite that mostly lie on the southwest side of the Yalakom River against Jurassic to Cretaceous sedimentary rocks of the Relay Mountain and Jackass Mountain Groups on the northeast side of the Yalakom River (Table I). Faults bound all major lithologic groups (Figure 3).

The Yalakom Fault system was active until at least mid-Tertiary time. Upper Miocene olivine basalt flows, that crop out 55km northwest of the property, cover but have not been offset by the fault zone (Tipper, 1978).

TABLE I

(After Woodsworth, 1977)

TABLE OF FORMATIONS

Lower Cretaceous

Jackass Mountain Group

greywacke, conglomerate,  
argillite, gritty sandstone

Upper Jurassic and Lower Cretaceous

Relay Mountain Group

greywacke, siltstone,  
argillite

Triassic and Jurassic and older(?)

Ultramafic Rocks

serpentine, harzburgite,  
peridotite, diorite

Bridge River Group

greenstone, basalt, chert,  
argillite, phyllite, minor  
limestone, serpentine

3. PROSPECTING AND SAMPLING

In the southwest part of the claim group two crossing lines were chained and flagged to help give reference points for prospecting. One line north/south over the highest peak in this area the other line east/west over this same peak. The lines were each a little more than 1 km long and thus divided a square km into four quadrants, namely N,P,Y,X.

The area was searched for outcroppings to sample. Overburden was found to be heavy and the only exposed rock located were in quadrants P and X. Six samples were taken:

1. P1 at location A6 B6½
2. P2 at location A7 B5½
3. P3 at location A8 B6
4. X1 at location A9 B4½
5. X2 at location A10 B6
6. X3 at location A10½ B5½

All six samples were analyzed for gold by fire assay and were tested for 28 elements using I.C.P. analytical methods.



4. CONCLUSION

The area prospected is covered by heavy overburden and the few rock outcroppings appear very weathered and are very difficult to identify.

Gold analysis by fire assay yielded only on sample (X1) that was above the detection limit (50ppb). Multi-element analysis by ICP indicated that three of the samples contained pathfinder elements sufficiently elevated to note. They are as follows:

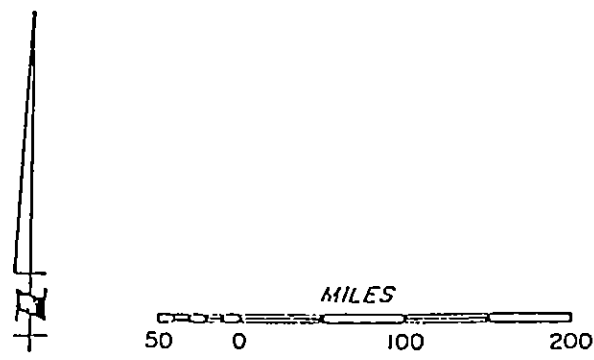
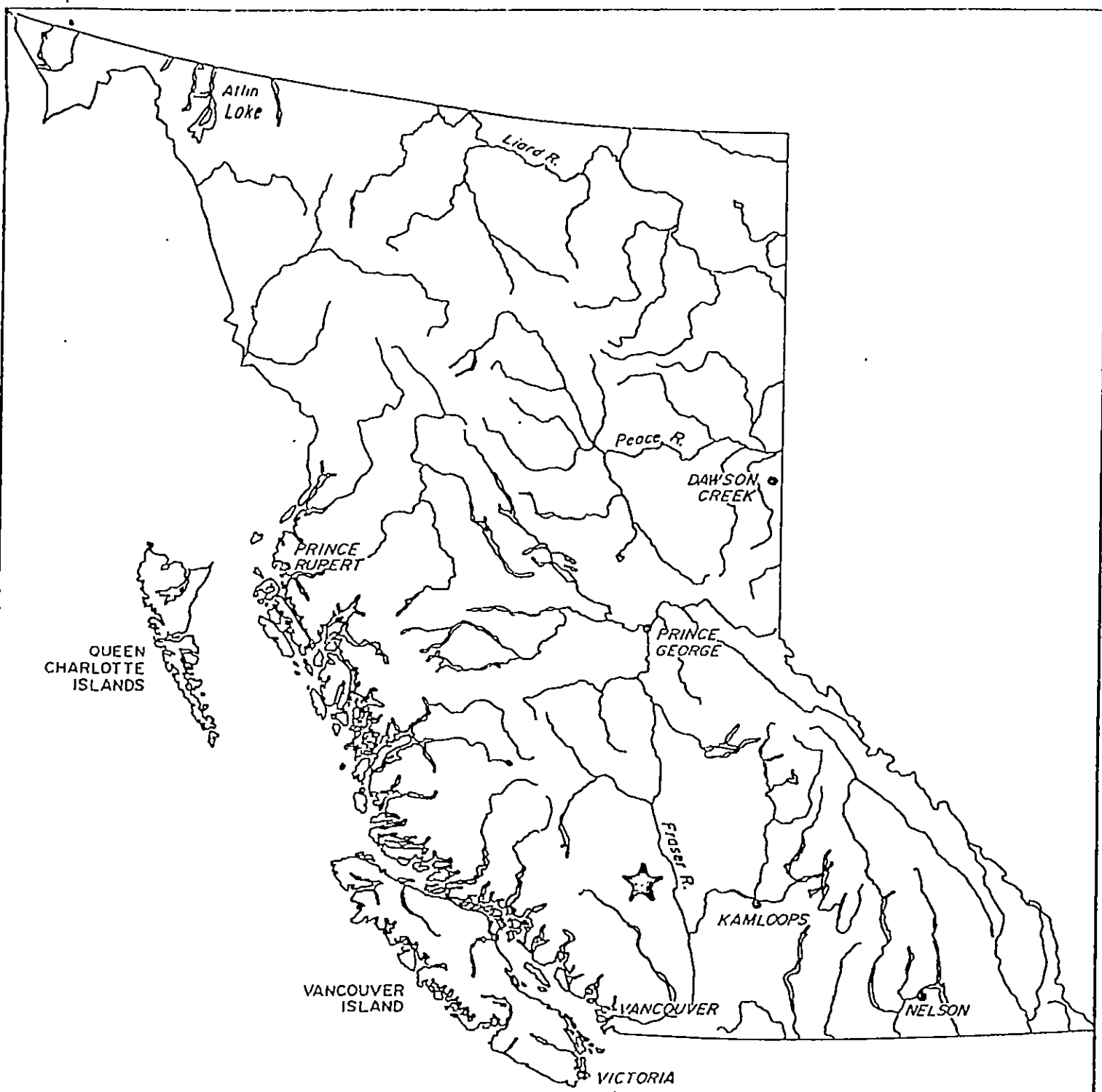
Sample X1 contains	Cu at 118 ppm
Sample P2 contains	Ni at 169 ppm
Sample P3 contains	Co at 90 ppm
	Cr at 685 ppm
	Ni at 1987 ppm

If further sampling of these outcroppings are done, they should be blasted and fresh rock obtained.

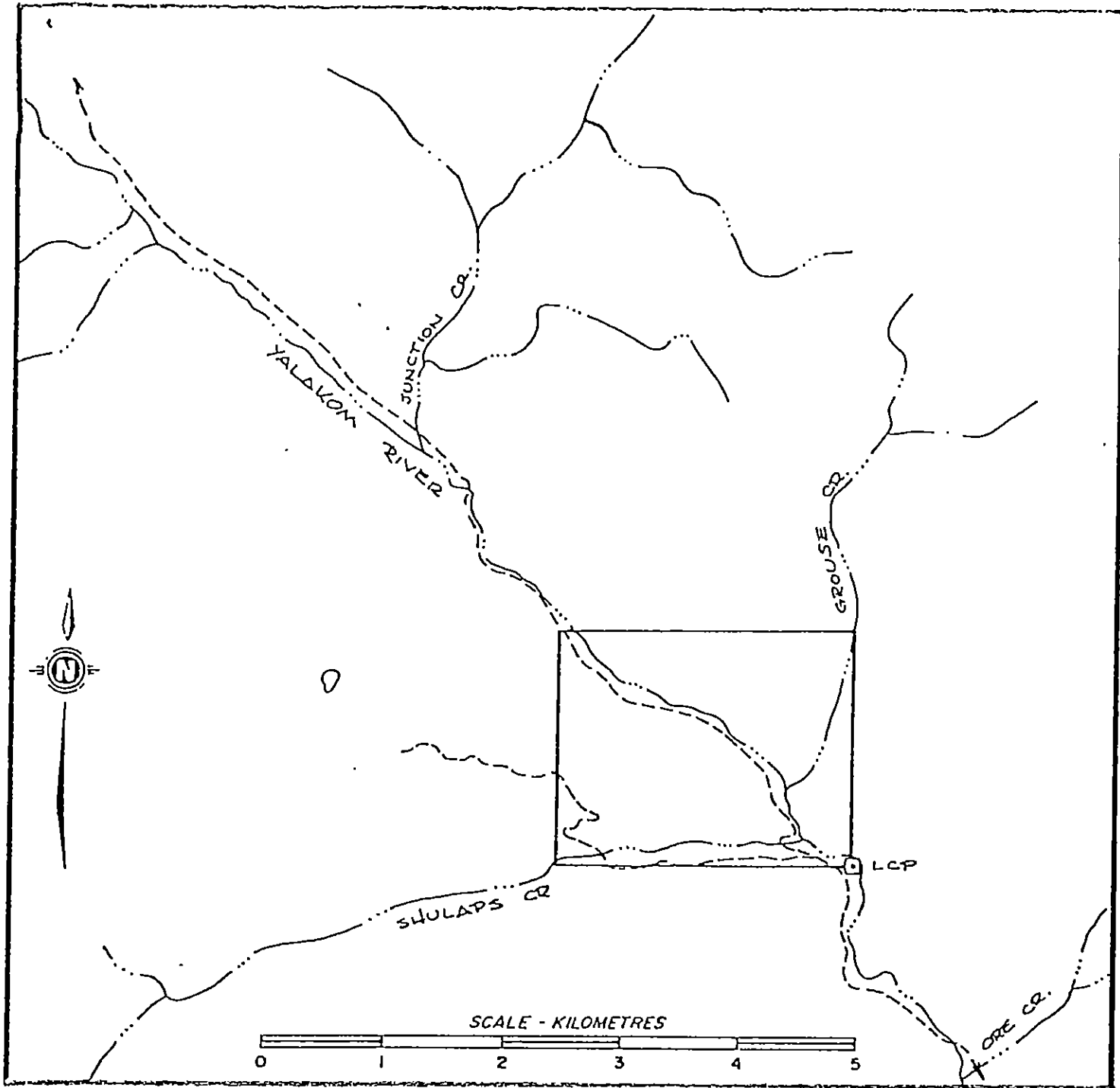
Since past sampling has not resulted in appreciable gold values found right at the mercury showings further sampling should be done near to but offsetting these deposits to try to determine where the gold (if any) occurs in the system.

## REFERENCES

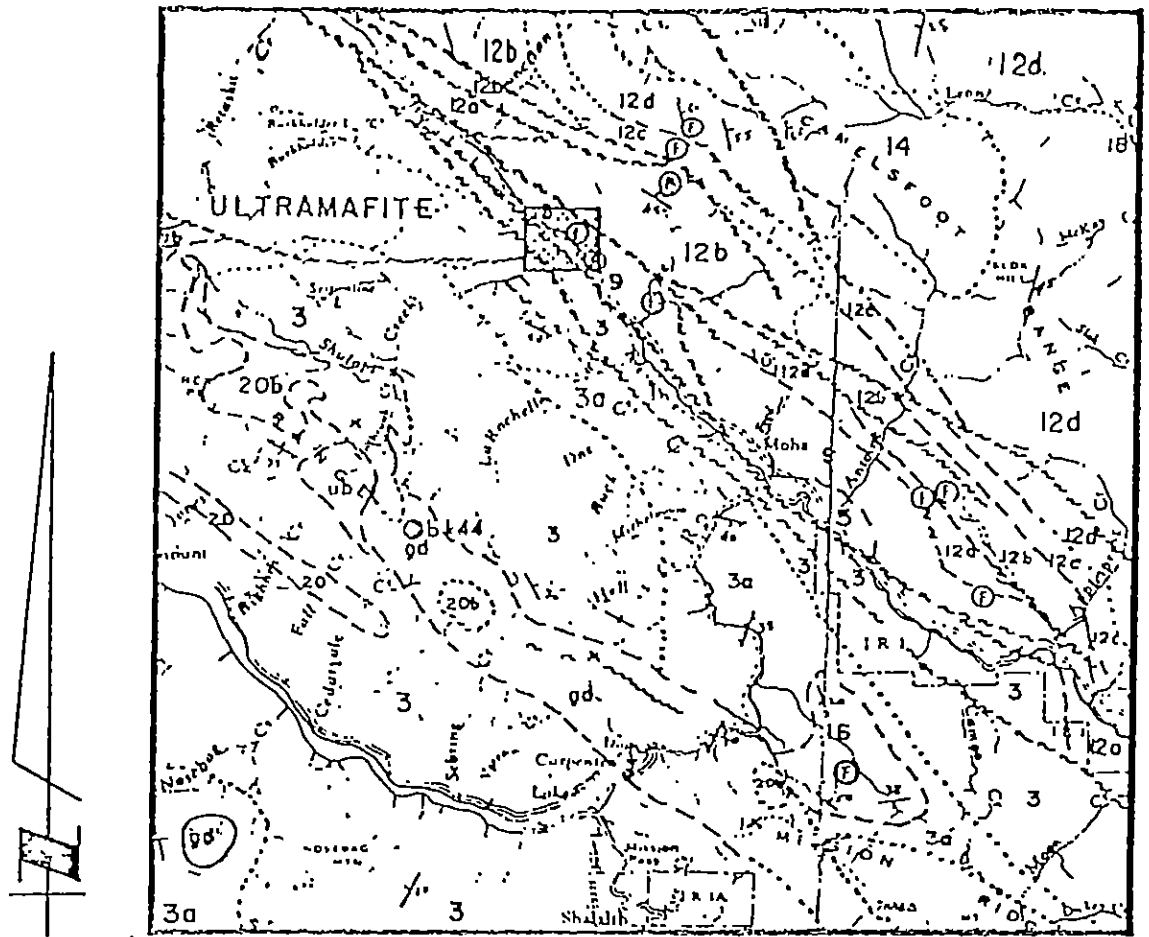
- Britton, J., 1984: Gold Eagle Claim, Yalakom River Valley, Unpublished report for Mesa Resources Ltd.
- B.C. Dept. of Mines, 1940: Mercury Deposits of British Columbia, Bulletin 5, pp. 59-70.
- B.C. Dept. of Mines, 1953: Geology and Mineral Deposits of Shulaps Range, BCDM Bulletin 32, pp 52-53.
- B.C. Minister of Mines, 1939: Annual Report, p/A100.
- B.C. Minister of Mines, 1940: Annual Report, p A86.
- B.C. Minister of Mines, 1941: Annual Report, p 137.
- B.C. Minister of Mines, 1942: Annual Report, p A77.
- B.C. Dept. of Mines, 1966: Annual Report, p 137.
- B.C. Dept. of Mines, 1968: Annual Report, p 161.
- B.C. Dept. of Mines, 1969: Annual Report, p 188.
- B.C. Dept. of Mines, 1971: Annual Report, p 312.
- Canada Dept. of Mines and Resources, 1940: Investigations in Ore Dressing and Metallurgy, July to December 1938, Report No. 797, Mines and Geology Branch.
- Tipper, H.W. 1978: Taseko Lakes (920) Map-Area, Geological Survey of Canada, Open File 534.
- Woodworth, GJ., 1977: Pemberton (92J) Map-Area, Geological Survey of Canada, Open File 482.



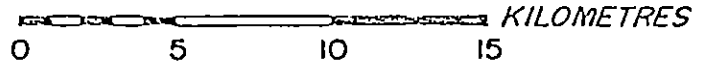
MESA RESOURCES LTD.	
<h2 style="margin: 0;">LOCATION MAP</h2> <h2 style="margin: 0;">GOLD EAGLE CLAIM</h2>	
LILLOOET M.D., B.C.	NTS MAP '92J/16W
FIGURE 1	SCALE: AS SHOWN
DATE: OCTOBER, 1987	
ALAN G. ISAAK	



MESA RESOURCES LTD.	
CLAIM MAP GOLD EAGLE CLAIM	
LILLOOET M.D., B.C.	NTS MAP 92J/16W
FIGURE 2	SCALE 1:50 000
DATE: OCTOBER, 1987	
ALAN G. ISAAK	



**LEGEND**



**MIOCENE**

20b REMOUNT PORPHYRY: dacite

**EOCENE**

16 Shale, siltstone, sandstone

**UPPER CRETACEOUS**

14 KINGSVALE GROUP: arkose, greywacke, andesite

**LOWER CRETACEOUS**

12 JACKASS MOUNTAIN GROUP: greywacke, conglomerate, argillite

**UPPER JURASSIC & LOWER CRETACEOUS**

9 RELAY MOUNTAIN GROUP: greywacke, siltstone, argillite

**UPPER TRIASSIC**

5 PIONEER FORMATION: greenstone, andesite, basalt

**TRIASSIC & OLDER**

3 BRIDGE RIVER GROUP: greenstone, basalt, chert, argillite, serpentine

ub Ultramafic rocks

gd Granodiorite

Geologic contact (defined, approximate)

Fault (defined, approximate)

Fossil locality

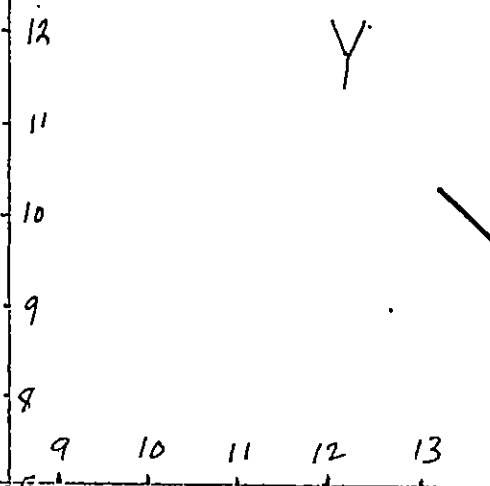
Gold Eagle Claim

From: CSC Open File 482

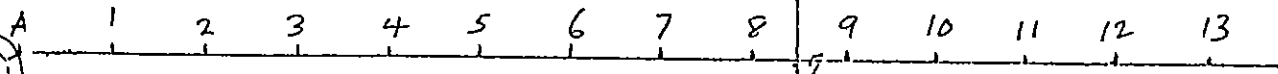
<b>MESA RESOURCES LTD.</b>	
<b>REGIONAL GEOLOGY GOLD EAGLE CLAIM</b>	
LILLOOET M.D., B.C.	NTS MAP 92J/16W
FIGURE 3	SCALE 1:250 000
DATE: OCTOBER, 1987	
ALAN G. ISAAK	



N  
4



IP 3W 2N



A

1

2

3

4

5

6

7

8

9

10

11

12

13

P1

P3

P2

P

X2

X3

X1

X

IP 5W 1N

CP 5W ON

IP 4W ON

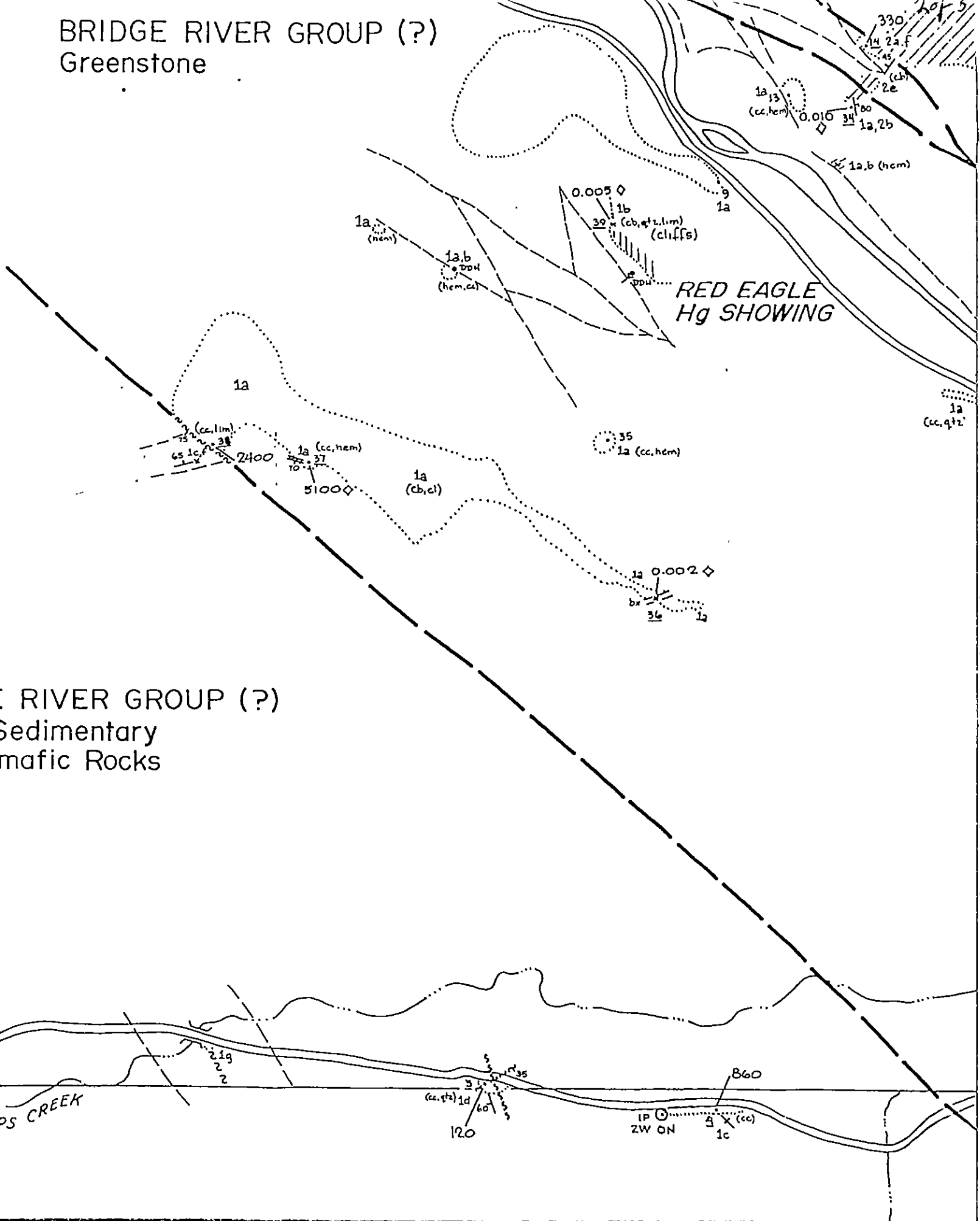
BRIDGE RIV  
Mixed Sediment  
& Ultramafic

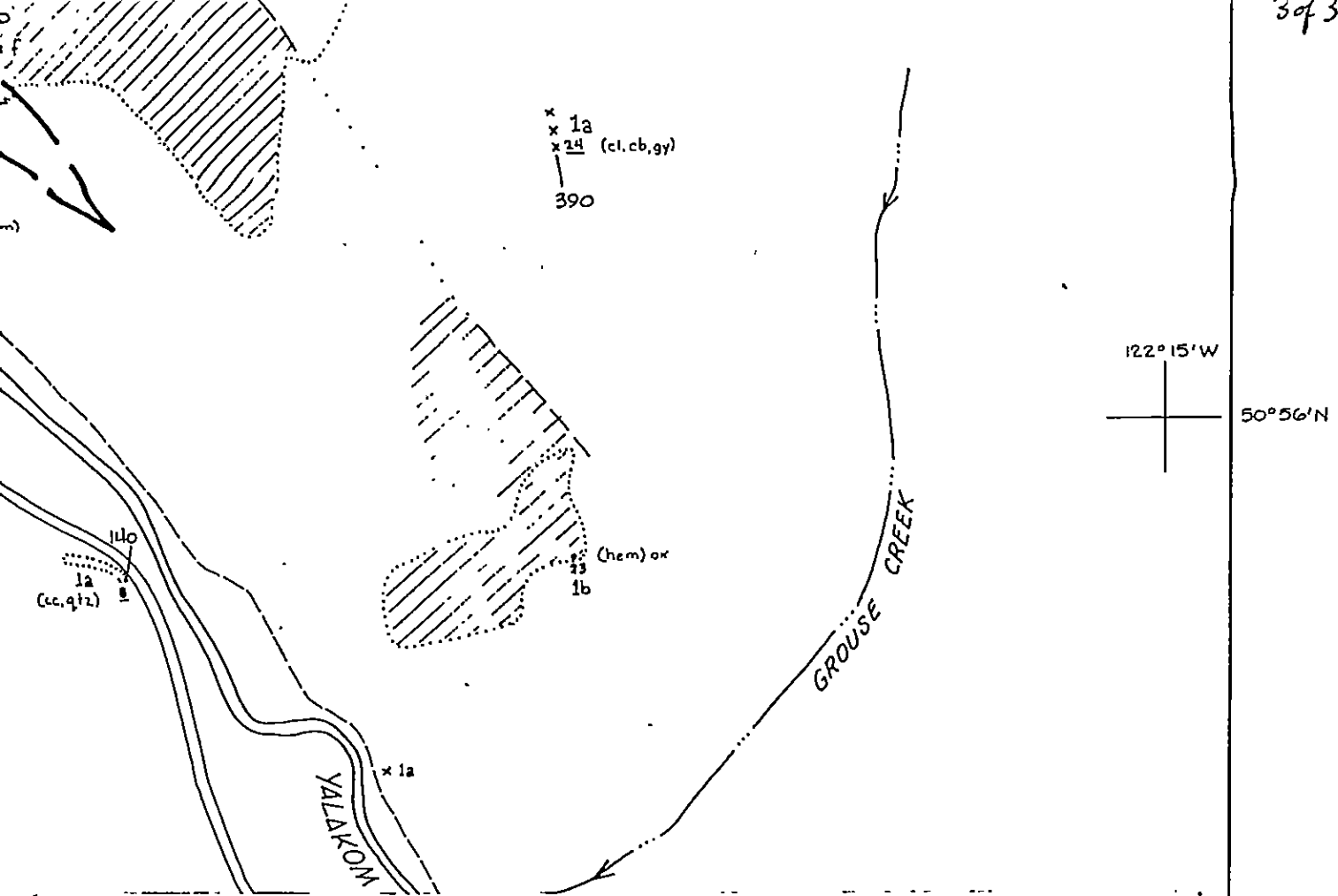
SHULAPS CREEK

SCALE  
~ 1:6250



BRIDGE RIVER GROUP (?)  
Greenstone





MESA RESOURCES LTD.	
ROCK GEOCHEMISTRY	
GOLD EAGLE CLAIM	
LILLOOET M.D., B.C.	NTS MAP 92J/16W
FIGURE 5	SCALE 1:4650 approx.
DATE: JULY 1987	

IP IW ON

LCP

5  
 5A 5B 1a,b  
 (cc, hem, dol, qtz)  
 TO LILLOOET  
 40 Km



APPENDIX A

AUTHOR'S QUALIFICATIONS

I, Alan Isaak certify that:

1. I have worked as a prospector since 1979.
2. I completed the prospecting course that was sponsored by the B.C. and Yukon chamber of mines during the fall and winter of 1979 - 1980.
3. Since 1979 I have made numerous property examinations and have conducted exploration programs for junior resource companies with which I have been associated.
4. I conducted the prospecting activity described in this report.
5. I am a shareholder, director and officer of Mesa Resources Ltd., with offices at 11735 - 170th Street, Edmonton, Alberta, who is the owner of these mineral claims.

  
ALAN ISAÄK

October 7, 1987



APPENDIX C

CERTIFICATES OF ANALYSES



# VANGEOCHEM LAB LIMITED

MAIN OFFICE  
1521 PEMBERTON AVE.  
NORTH VANCOUVER, B.C. V7P 2S3  
(604) 986-5211 TELEX 04-352578

BRANCH OFFICE  
1630 PANDORA ST.  
VANCOUVER, B.C. V5L 1L6  
(604) 251-5656

REPORT NUMBER: 871361 6A

JOB NUMBER: 871361

MESA RESOURCES LTD.

PAGE 1 OF 1

SAMPLE #

Au

ppb

X 1

50

X 2

nd

X 3

nd

P 1

nd

P 2

nd

P 3

nd

DETECTION LIMIT

5

nd = none detected

-- = not analysed

is = insufficient sample

MAIN OFFICE: 1521 PEMBERTON AVE. N. VANCOUVER B.C. V7P 2S3 PH: (604) 986-5211 TELEX: 04-352578  
 BRANCH OFFICE: 1630 PANDORA ST. VANCOUVER B.C. V5L 1L6 PH: (604) 251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR SR, NI, FE, CA, P, CR, MG, BA, PD, AL, WA, X, H, PT AND SR. AU AND PD DETECTOR IS 3 PPM.  
 IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -= NOT ANALYZED

COMPANY: MESA RESOURCES LTD.  
 ATTENTION:  
 PROJECT: YALAKOM-1

REPORT#: 871361PA  
 JOB#: 871361  
 INVOICE#: 871361NA

DATE RECEIVED: 87/09/17  
 DATE COMPLETED: 87/09/28  
 COPY SENT TO: VANCOUVER

ANALYST: *[Signature]*

SAMPLE NAME	AG	AL	AS	AU	BA	BI	CA	CO	CR	CU	FE	K	MG	MN	MO	NA	NI	P	PD	PP	PT	SB	SK	SR	U	N	ZN		
I1	.1	2.81	19	ND	21	ND	2.06	.1	21	17	118	3.45	.05	1.56	1935	3	.08	38	.04	18	ND	ND	5	1	59	ND	ND	77	
I2	.1	1.66	8	ND	9	ND	1.89	.1	10	24	43	1.89	.03	.58	872	2	.04	22	.01	4	ND	ND	ND	ND	55	ND	ND	41	
I3	.1	.97	ND	ND	8	ND	21.85	.1	8	5	11	2.81	.01	2.33	2911	ND	.12	15	.01	3	ND	ND	ND	ND	258	ND	ND	47	
P1	.1	2.24	7	ND	34	5	1.50	.1	13	52	34	3.02	.03	1.36	712	2	.07	53	.02	5	ND	ND	3	2	30	ND	ND	54	
P2	.1	1.37	4	ND	9	5	3.55	.1	16	113	25	2.57	.02	2.41	543	1	.08	169	.02	4	ND	ND	ND	1	26	ND	5	45	
P3	.1	.64	ND	5	6	ND	.25	.1	90	685	17	4.35	.01	14.33	768	ND	.22	1987	.01	29	ND	ND	ND	4	ND	ND	ND	20	
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	3	1

## APPENDIX D

### Itemized Cost Statement

#### LABOUR

P. NEUDORF	3 days @ \$300.00/day	\$ 900.00
A. ISAAK	3 days @ 300.00/day	<u>900.00</u>
	Sub Total	\$1,800.00

#### DISBURSEMENTS

Vehicle costs		\$ 538.98
Food		107.98
Lodging		97.20
Sample preparation and analytical costs		<u>102.00</u>
	Sub Total	<u>846.16</u>
	<b>TOTAL</b>	<b><u><u>\$2,646.16</u></u></b>