# GEOCHEMICAL REPORT

on

# HOG CLAIM GROUP

at

ROSE CREEK, YUKON
(62° 20' N, 133° 33' W)

for

ANVIL MINING CORP. LTD.


REPORT BY: D. Hayes, B. Sc.
Geologist for
ANVIL MINING CORP. LTD.

APPROVED BY: R.S. Adamson, P. Eng.
Chief of Exploration for
ANVIL MINING CORP. LTD.

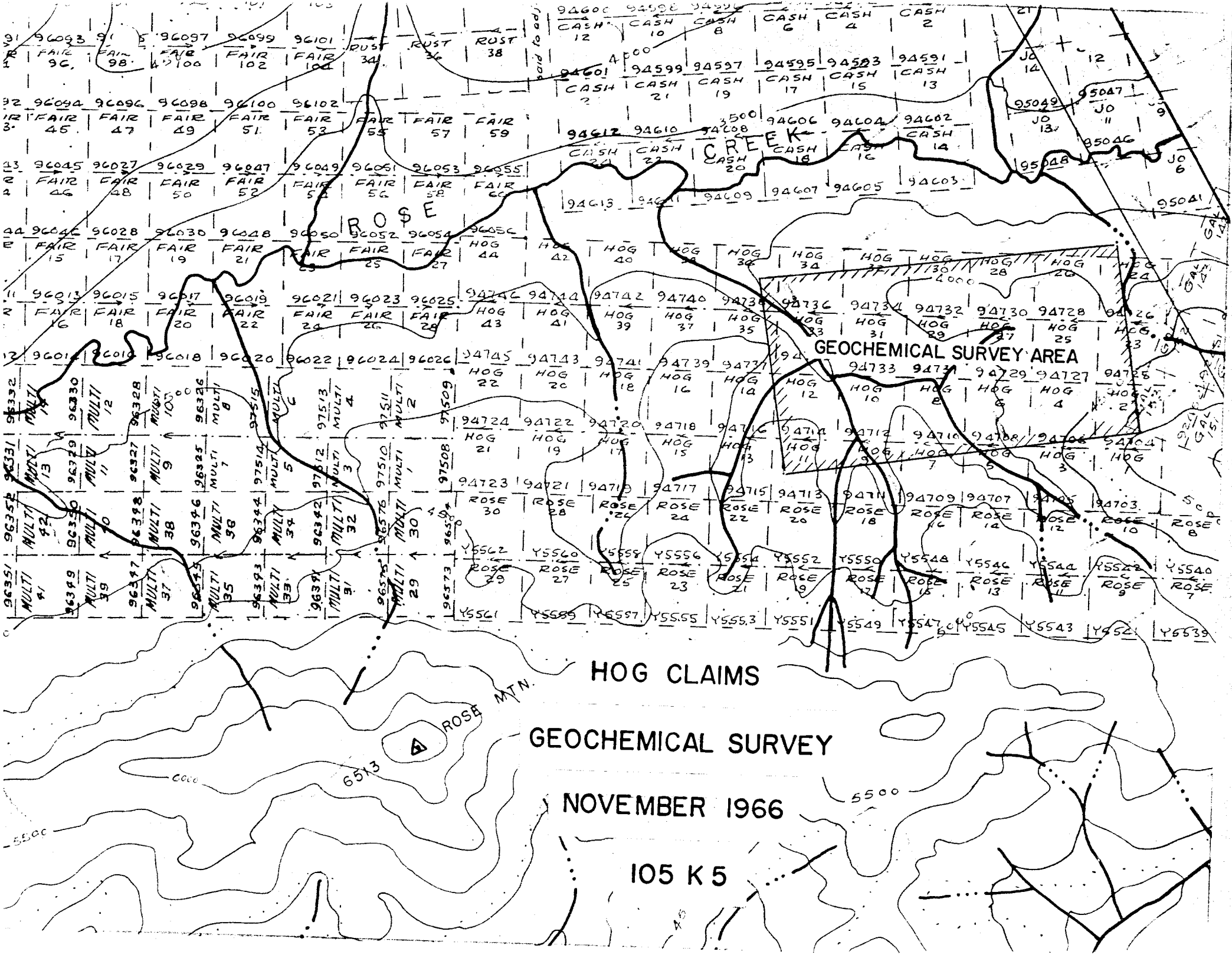


PROPERTY SAMPLED: August 11th to August 16, 1966

GEOCHEMICAL SURVEY

HOG CLAIM GROUP

TABLE OF CONTENTS


ROSE
CREEK
GEOCHEMICAL SURVEY AREA
HOG CLAIMS
ROSE MTN.
6513
GEOCHEMICAL SURVEY
NOVEMBER 1966
105 K 5

## INTRODUCTION

A geochemical survey was carried out on part of the HOG Claim Group during the period August 12th to 16th, 1966. The claim group is wholely owned by ANVIL MINING CORP. LTD. The sampling and analysis was done by Anvil Mining personnel.

Linecutting was done by contract linecutters of White, Hosford & Impey Ltd., of Whitehorse, Y.T.

Access to the property was by helicopter for both the geochemical and linecutting crews.

The object of the survey was to follow up the geochemistry done by Dynasty Explorations in the autumn of 1965, to delineate possible areas of anomalous Cu, Pb, and Zn values. Any geochemical anomalies located within a larger general geochemical anomaly would provide the necessary finer definition for diamond drilling.

Further, the geochemical survey is a method to establish whether airborne magnetic and electromagnetic anomalies which occur in the Rose Creek area are caused by basic flows, intrusives, and graphitic sediments respectively could be massive sulphides carrying Cu, Pb, or Zn.

## SOIL SAMPLING SURVEY TECHNIQUES

A baseline was laid out with a transit and picket lines turned off at 400 foot intervals along the base line by transit. Stations were established along the picket lines at 100 ft.intervals.

Soil sampling was done on 400 foot centres. Where possible

the B horizon was sampled. However, no time was wasted obtaining the B horizon in the event perma frost prevailed or an organic soil was thicker than one foot. In the latter case the organic soil would be analysed in the lab where possible. In that the target area was a large near surface sulphide deposit it was felt that a generally defined asopposed to a well defined geochemical anomaly was sufficient.

## LABORATORY ANALYSIS

Test methods used involved a hot aqua regia extraction of heavy metal ions from the soil sample, followed by reaction with dithizone or biquinoline to give coloured products. The coloured reaction products were then matched with solutions of known metal content, which had been reacted with dithizone or biquinoline, to determine the metal content of the soil sample.

Separate and specific tests for each of the three metals, copper, lead, and zinc were carried out on each soil sample.

## RESULTS and INTERPRETATION

Of the metals analyzed for, copper over 60 parts per million, lead over 40 parts per million and zinc over 200 parts per million might be considered anomalous.

Of the 368 samples taken in the field, 364 were run in the lab. Many sample sites had to be ignored because of perma frost.

There are two large anomalous areas of erratic Cu, Pb, and Zn values into which the HOG grid may be grouped. These are

designated geochemical zone A and B.

In both cases the areas A and B cannot be directly associated with coincident magnetic andelectromagnetic geophysical anomalies. It appears that both geochemical anomalies are the resultant of the drainage. Geochemical anomaly A has its origin to the south (uphill) in the more favorable sericite schist belt. Geochemical anomaly B has its origin from the sericite schist belt to the south east (uphill).

Mapping the bed rock underlying the generally anomalous area was severly hampered by the overburden cover. From the little available outcrop it would appear that the anomalous areas occur over unfavourable basic flows and graphite schists. Rocks which could,account for either the magnetic or the electromagnetic geophysical anomalies.

## CONCLUSIONS and RECOMMENDATIONS

An area of interesting copper geochemistry occurs on the central part of the HOG survey grid.

There is an unfavourable geological and geophysical setting related to this area. In that the anomalous area runs down along the drainage of the HOG grid, it would appear that the metal content is derived further up the hill in the more favourable quartzites and sericite schists.

Further work is justified geochemically above the basic

flow sericite schist geological contact.

Further work may indicate that an induced polarization survey should be recommended. A gravity survey is out of the question here due to the terrain.

D. Mayes, B. Sc.
Geologist for
ANVIL MINING CORP. LTD.

APPENDIX I (i)

STATEMENT OF COSTS — Geochemical Survey HOG Group

| | | | |
|---|---|---|---|
| (A) | Linecutting (Invoice submitted) | | $1,965.40 |
| | Baseline 1.59 miles | $ 397.50 | |
| | Picket line 16.36 miles | 1,267.90 | |
| | | 1,665.40 | |
| | Contract (Invoice) | 1,655.40 | |
| | Transportation, helicopter | 300.00 | |
| | | $1,965.40 | |
| (B) | Soil Sampling | | $ 588.00 |
| | Wages 12 man days @ $15. | 180.00 | |
| | Maintenance 12 man days @ $8. | 108.00 | |
| | Transportation, helicopter | 300.00 | |
| | | $ 588.00 | |
| (C) | Laboratory Analysis | | $ 604.24 |
| | 364 samples @ $1.66 | | |
| (D) | Compilation of Report | | $ 200.00 |
| (E) | Supervision | | $ 150.00 |
| | | Total | $3,507.64 |

## APPENDIX I (ii)

PERSONNEL

(A) Line cutting - Contract: White, Mosford & Impey Ltd.
Box 1188, Whitehorse, Y.T.

(B) Soil Sampling

| | | | | |
|---|---|---|---|---|
| R. Beaumont | Soil Sampler | Box 2470, | Whitehorse, | Y.T. |
| R. Raaflaub | " " | " | " | " |

(C) Laboratory Analysis

| | | | | |
|---|---|---|---|---|
| J. Kirkland | Geochemist | " | " | " |
| I. Olsen | Lab. Assistant | " | " | " |
| R. Pringle | Lab. Assistant | " | " | " |
| W. Mundle | Sample Preparation | " | " | " |

(D) Compilation of Report

| | | | | |
|---|---|---|---|---|
| D. Mayes | Geologist | " | " | " |
| P. Byers | Draughtsman | " | " | " |

(E) Supervision

| | | | | |
|---|---|---|---|---|
| R.S. Adamson | Chief of Exploration | " | " | " |
| D. Mayes | Geologist | " | " | " |
| P. Byers | Lead Soil Sampler | " | " | " |

APPENDIX I (iii)

A F F I D A V I T

SUPPORTING STATEMENT OF COSTS
Geochemical Survey
August 11th to 16th, 1966

I, Robert S. Adamson, Chief of Exploration for ANVIL MINING CORPORATION LIMITED, have compiled the statement of costs as presented in this report "Geochemical Survey of HOG Claim Group", DO MAKE OATH AND SAY AS FOLLOWS:

That to the best of my knowledge and belief, the statement of costs as presented is true and an accurate representation of expenditures to be applied as representative work on the HOG 1 to 44 inclusive mineral claims.


R. S. Adamson

Robert S. Adamson, B.A.Sc., P.Eng.
Chief of Exploration for
ANVIL MINING CORP. LTD.

SWORN before me in the City of Whitehorse, Yukon Territory

this 22 day of NOVEMBER 1966.

A Commissioner for taking Affidavits
in and for the Yukon Territory.

BOX 1188
RM. 103 POLARIS BLDG.

TELEPHONE 667-2483

White, Hosford & Impey Limited

LEGAL SURVEYS :: ENGINEERING

Whitehorse, Yukon

Paul S. White, P.Eng., A.L.S., D.L.S.
A. Denis Hosford, A.L.S.
Hugh E. Impey, A.L.S., S.L.S., M.L.S., D.L.S.

7 July, 1966

INVOICE FOR
LINE CUTTING CONTRACT

HOG GRID

(1) Baseline: 4000W to 4400E = 8400' = 1.59/miles @ $250.00----- $ 397.50

(2) Picket Line: 21+00S to 24+00N (4000W to 2000E)=4500x16=72,000'

0+00 to 2400N (24+00E to 44+00E)=2400x6=14400'

86,400'

16.36/miles @ $77.50----------$1267.90

Total----------$1665.40

GAL GRID

(1) Baseline: 0+00 to 48+00S =4800' =09/miles @ $250.00-------- $ 227.50

(2) Picket Line: 0+00 to 40+00S (1500E to 1500W)=3000x11=33000'

4400S to 4800S (0 to 1500W) =1500x 2= 3000'

36000'

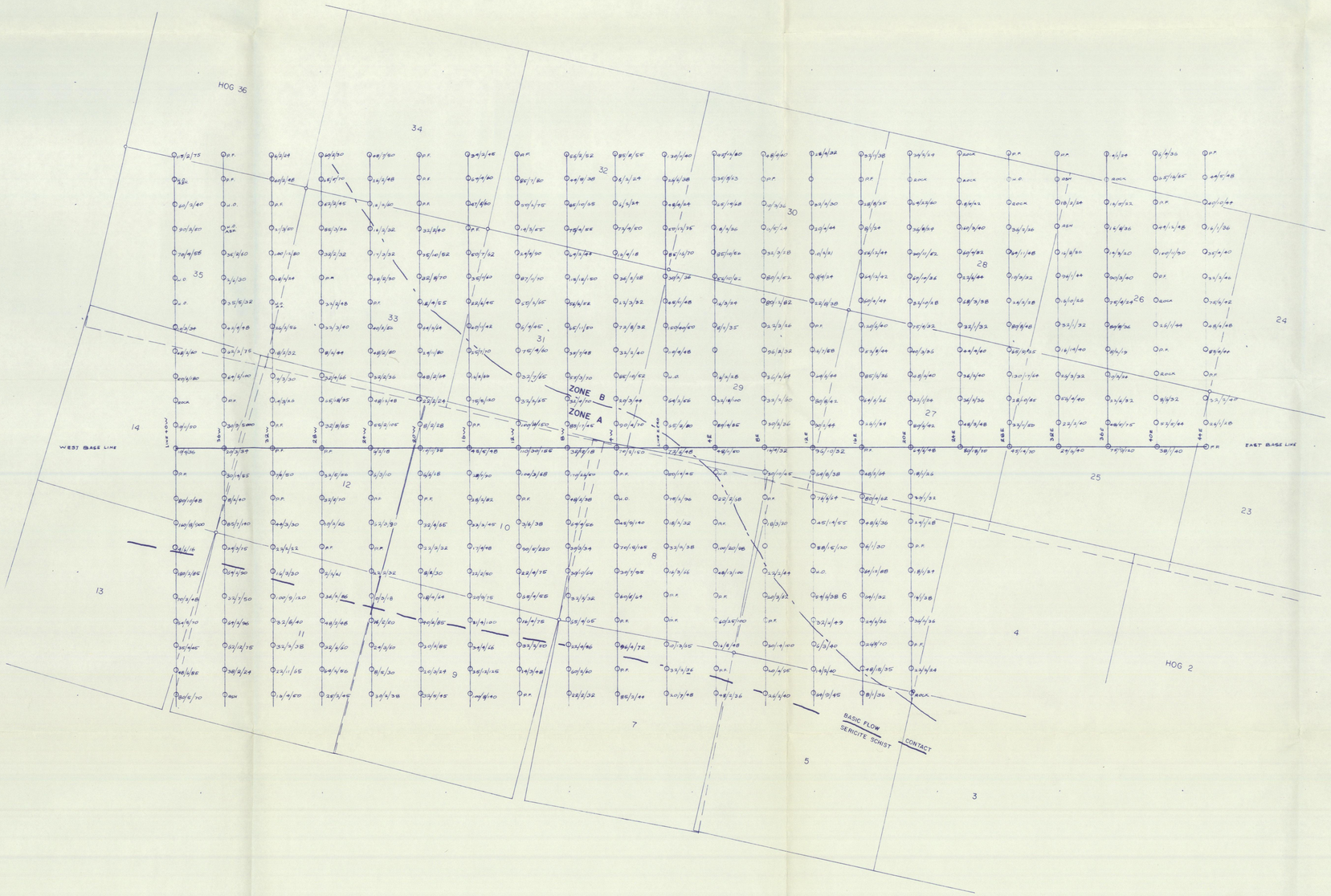
6.82/miles @ $77.50---------- $ 528.55

Total---------- $ 756.05

TOTAL THIS INVOICE---------- $2,421.45

P. O. NUMBER.....
PRICE CHECKED.....
QUANTITY CHECKED.....
COMPUTATIONS CHECKED CB
ACCOUNT NUMBER 1403 Line 6/1990
CHECK NUMBER.....
APPROVED FOR PAYMENT RHE

Approved : R S Adamson

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LEGEND
- ○ SAMPLE LOCATION
- PF PERMAFROST
- H.O. HIGH ORGANIC
- ASH VOLCANIC ASH
- © CLAIM POSTS

| |
|---|
| ANVIL MINING CORP |
| FARO |
| HOG GEOCHEMISTRY |
| SCALE 1:400' |
| SAMPLES TAKEN: 368 |
| SAMPLES ANALYSED: 364 |
| SAMPLED BY: BEAUMONT-RAAFLAUB |
| DATE SAMPLED: AUGUST 11-16, 1968 |
| DRAWN BY: P.L.R. |