

MAR 20040001: CLEAR HILLS

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20040001

MAR 30 2004

**ASSESSMENT REPORT FOR ALBERTA METALLIC
AND INDUSTRIAL MINERALS PERMITS
Nos. 9398030064, 9398030065
CLEAR HILLS AREA , ALBERTA**

SUBMITTED BY CALGARY PETROGRAPHICS LTD.

MARCH, 2004

AUTHORED BY JOHN BLADEK, P.Geol.

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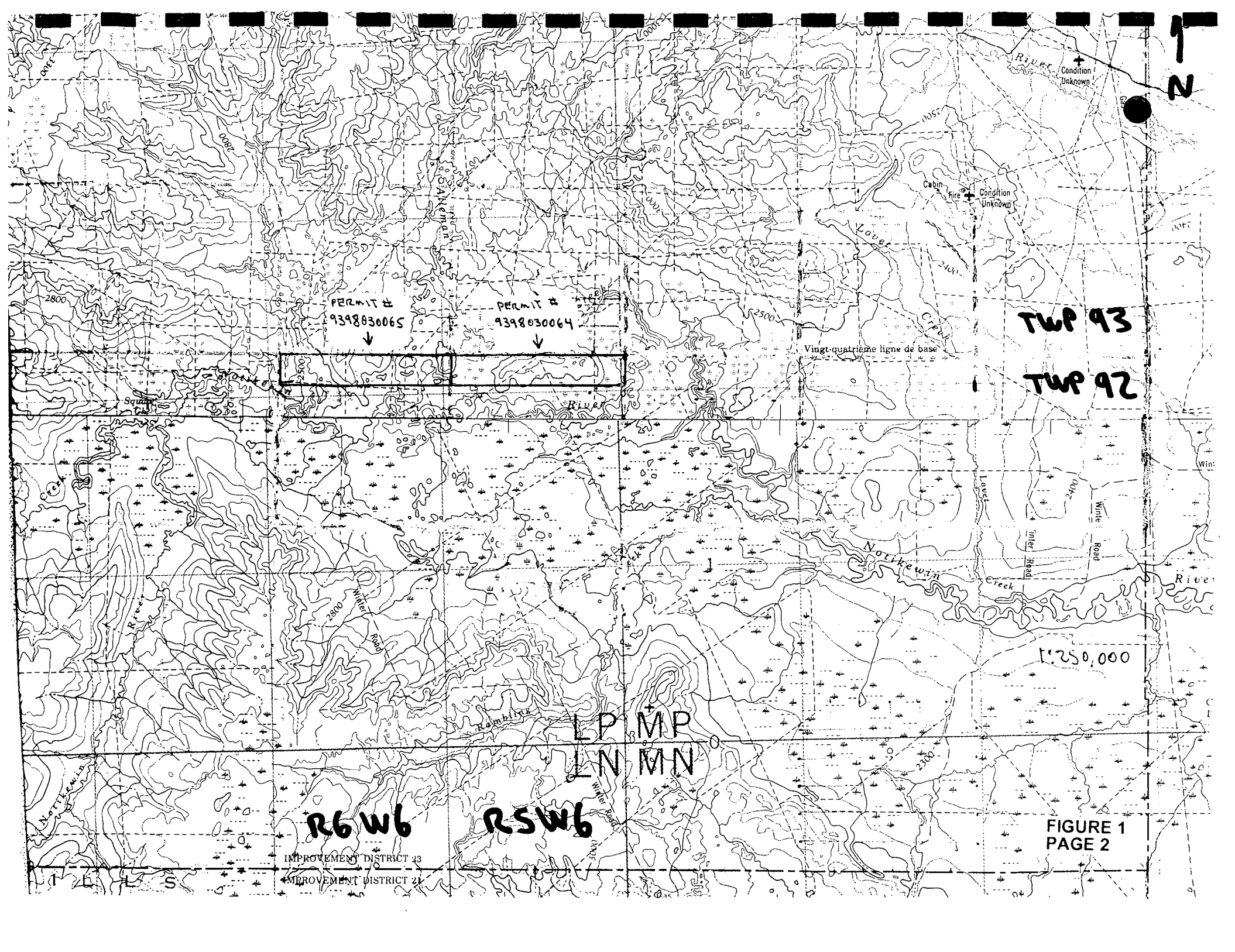
INTRODUCTION

This assessment report documents exploration work done on Metallic and Industrial Minerals Permits 9398030064 and 9398030065 subsequent to the last assessment report, which was filed in July 2002.

The permits are located in N.W. Alberta, in the Notikewin River valley, almost directly due west of the town of Manning (see Figure 1, page 2). Exploration work to date has been focused on topographic anomalies, primarily in Sections 31 - 36, Twp 92 Ranges 5 and 6 W6, the most prominent one being in Sec 36, Twp 92, Range 6. 848/12

No field trips to the area were undertaken since the last assessment report. The only work done on the permits involved analysis of till samples collected in Sept 2001.

The previous assessment report refers to the discovery, in till samples, of a very small amount of what appears to be an iron-rich shale. This assessment report documents the analysis that was performed on this material.



PERMIT #
9398030065

PERMIT #
9398030064

TWP 93
TWP 92

1:250,000

R6W6

R5W6

LP MP
LN MN

FIGURE 1
PAGE 2

IMPROVEMENT DISTRICT 43

IMPROVEMENT DISTRICT 21

ANALYSIS OF "IRON RICH SHALES"

Till samples taken south of Xenocryst Mountain (Sec 36, Twp 92, Rng 6 W6) contained, in the heavy fraction, tiny brown chips of what can only be described as an "iron rich shale". These chips contained microscopic metallic flakes, some of which were identified as being chalcopoyrite and possibly sphalerite. The author re-examined the heavy fractions of till samples taken on previous field trips and discovered that small amounts of the "shale" were present in all of the samples taken on top of and around Xenocryst Mtn. The amounts per sample were extremely small - much time was spent hand picking chips in order to get even enough material to cover the bottom of a sample vial. This small amount of sample was sent to Geo Labs in Sudbury, Ont for geochemical and Scanning Electron Microscope analysis (see Figure 2, page 4 for geochemical analysis).

The analysis shows that there is an enrichment in copper, lead and zinc, all above the detection limits for the analysis performed. SEM analysis at Geo Labs confirmed the presence of chalcopyrite (CuFeS_2), sphalerite (ZnS) and Galena (PbS). Also of interest was the discovery of at least one particle of tetrahedrite ($(\text{Cu,Ag,Fe}_{12})\text{Sb}_{12}\text{S}_{13}$). The presence of tetrahedrite would explain elevated antimony values in the geochemical analysis, approx 125 ppm, when samples from the trenching program from 2001 of what is presumed to be local bedrock, have Sb levels of less than 2 ppm. The presence of any silver bearing metallic mineral is of interest.

Chips of the shale which looked like they contained high concentrations of metallic flakes were mounted in an epoxy plug, polished, and examined with a Scanning Electron Microscope at the University of Calgary Imaging Centre. As expected, flakes of galena, sphalerite and chalcopyrite were seen in the chips, as well as common pyrite, although no tetrahedrite was seen (Figures 3, 4, pages 5, 6). It is fairly obvious from the SEM images that the metallic flakes appear angular, not crystalline, and poorly sorted. Although there is no direct evidence, the morphology of these particles suggests that they may be detrital. If this is the case, the question becomes what and where is their origin.

HEAVY MINERAL SEPARATION

Trenching work performed on Xenocryst mountain in Jan 2001 resulted in the recovery of pieces of iron rich rock which are believed to be of local origin. Three samples with different characteristics were submitted to Geo Labs for crushing and heavy media separation. All heavy fractions were examined with a binocular microscope by the author. Besides common euhedral ilmenites nothing of interest was noted. The presence of euhedral ilmenites in local bedrock was already noted in the 2002 assessment report.

CERTIFICATE OF ANALYSIS



CLIENT : Bladek
 GL JOB # : 01-0561
 DATE : 07/17/2002
 METHOD CODE : IM-100

| Client ID | Fe | Co | Ni | Cu | Zn | Ga | Mo | Cd | Sn | Sb | Ba | W |
|-----------------|-----------|-------|--------|----------|----------|------|-------|--------|-------|--------|-------|--------|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 5.00 | 1.00 | 5.00 | 2.00 | 5.00 | 1.00 | 1.00 | 1.00 | 0.100 | 0.500 | 5.00 | 0.0500 |
| BH-SH | 594458.00 | 56.90 | 152.22 | >1000.00 | >4000.00 | 4.66 | 18.96 | 48.115 | 4.16 | 124.56 | 65.21 | 74.51 |

| Client ID | Ag | Au | Ti | Li | Be | Mg | Al | Ca | Sc | V | Cr | Mn |
|-----------------|-------|--------|---------|------|------|--------|----------|---------|-------|-------|--------|---------|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.500 | 0.0500 | 10.0 | 1.00 | 2.00 | 20.0 | 100 | 100 | 0.500 | 1.00 | 1.00 | 0.100 |
| BH-SH | N.M. | N.M. | 1406.82 | 3.02 | N.D. | 866.01 | 27502.20 | 1240.03 | 2.20 | 53.80 | 145.88 | 1178.10 |

| Client ID | Hg | Tl | Pb |
|-----------------|------|-------|----------|
| Units | ppm | ppm | ppm |
| Detection Limit | n/a | 0.300 | 0.100 |
| BH-SH | N.M. | 0.40 | >7000.00 |

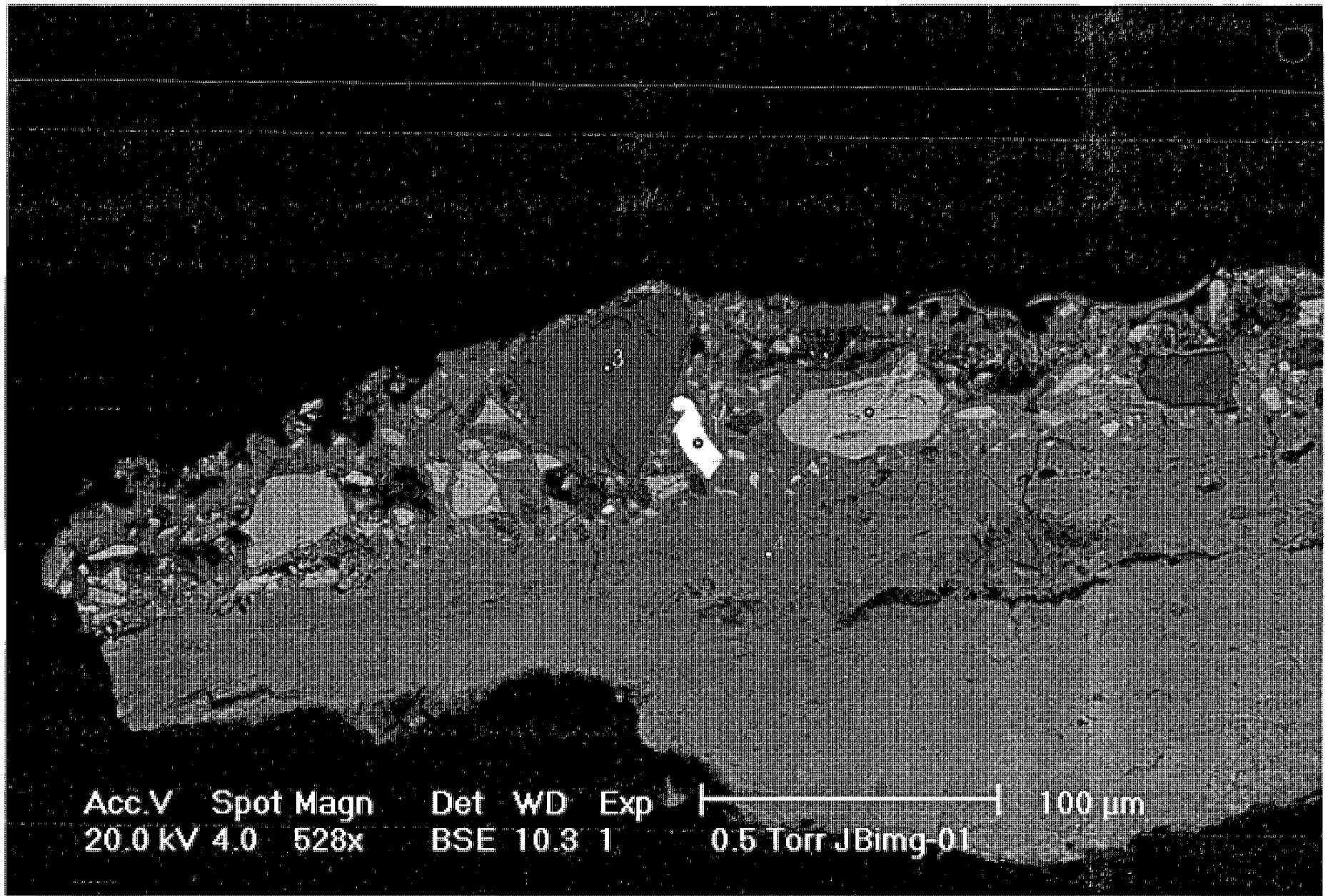
**GEO SCIENCE LABORATORIES
 CERTIFICATE OF ANALYSIS**



CLIENT : Bladek
 GL JOB # : 01-0561
 DATE : 05/13/2002
 METHOD CODE : IM-101

| Client ID | Rb | Sr | Y | Zr | Nb | Cs | La | Hf | Ta | Ce | Pr | Nd |
|-----------------|-------|------|-------|-------|--------|--------|-------|-------|-------|-------|--------|-------|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.200 | 2.00 | 0.200 | 6.00 | 0.0800 | 0.0800 | 0.200 | 0.100 | 0.300 | 0.300 | 0.0300 | 0.200 |
| BH-SH | 3.19 | 2.95 | 3.55 | 32.09 | 2.37 | 0.23 | 2.11 | 0.77 | 0.35 | 5.24 | 0.58 | 2.30 |

| Client ID | Sm | Eu | Gd | Tb | Dy | Ho | Er | Tm | Yb | Lu | Th | U |
|-----------------|--------|---------|--------|---------|--------|--------|---------|---------|--------|---------|--------|--------|
| Units | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 0.0300 | 0.00400 | 0.0300 | 0.00100 | 0.0100 | 0.0100 | 0.00600 | 0.00500 | 0.0100 | 0.00100 | 0.0500 | 0.0100 |
| BH-SH | 0.62 | 0.16 | 0.66 | 0.11 | 0.66 | 0.13 | 0.35 | 0.06 | 0.34 | 0.060 | 0.56 | 7.20 |

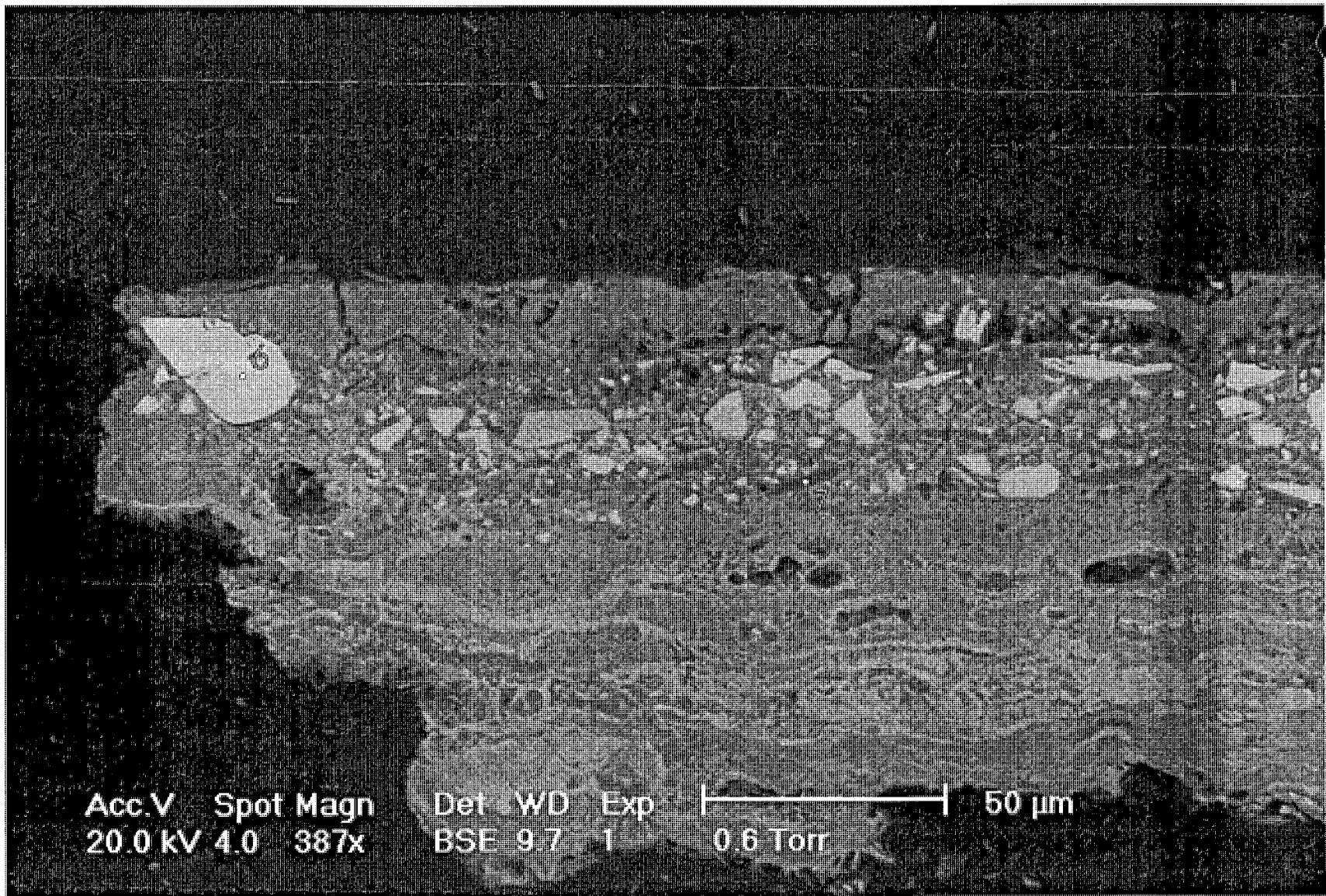


1 = Pb-S

2 = Fe-Cu-S

3 = Si-Al-Ca-Mg-O

4 = Fe-C-O



6 = Zn-S 7 = Si-Al-K-O

FIGURE 4
PAGE 6

CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER WORK

The discovery of copper, lead, zinc and even silver bearing minerals in what appears to be a local iron-rich shale is an interesting development in the exploration program. It seems reasonable to assume that the "iron shale" is of local origin. If this is the case then the question becomes "what is the origin of these metallic minerals?" and how much of the shale is present as bedrock in the area. Unfortunately the amount of iron shale sample to work with is miniscule.

Previous work done on the permits lead to the dicoverly of pristine orthopyroxenes from till samples taken on top of Xenocryst Mtn. Recommendations from the last assessment report included taking more till samples from the southern edge of the hill. The collection of these samples may also yield more iron shale samples to work with. With the limited access to the area, the collection of more till samples is probably the best option, with the main objective being to confirm the presence of the pristine orthopyroxenes, the second objective being to obtain more sample of the iron shale. It is hoped that a till sampling field trip could be undertaken in the late summer of 2004.

STATEMENT OF EXPENDITURES

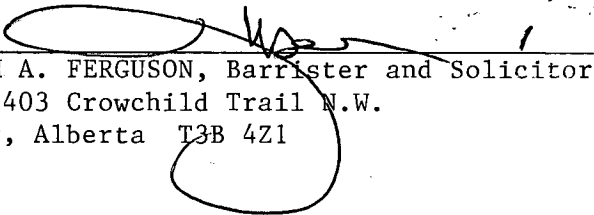
METALLIC AND INDUSTRIAL MINERALS PERMITS Nos. 9398030064,65
CALGARY PETROGRAPHICS LTD.

| DESCRIPTION | COST (\$) | TOTAL COST (\$) |
|---|-----------|-----------------|
| SALARY AND WAGES: | | |
| CONSULTING FEES - sample cleaning, mineral identification, interpretation of analytical data etc. | | |
| 11 days @ \$500.00 per day | 5,500.00 | 5,500.00 |
| OFFICE CHARGES, ADMINISTRATIVE, GENERAL | | |
| 10% of \$ 5,500.00 | 550.00 | 550.00 |
| GRAND TOTAL | | 6,050.00 |

I certify that these expenditures are valid and were incurred in conducting assessment work on the above permits.


John Bladek
President, Calgary Petrographics Ltd.

I, WILLIAM A. FERGUSON, Barrister and Solicitor, Notary Public in and for the Province of Alberta, hereby certify that JOHN BLADEK appeared before me this 25th day of March, 2004, and executed the within document.


WILLIAM A. FERGUSON, Barrister and Solicitor
#218, 5403 Crowchild Trail N.W.
Calgary, Alberta T3B 4Z1

MAR 30 2004

ENERGY ORD
EDMONTON
ALBERTA

2004 MAR 30 A 9:04

Alberta Energy
Mineral Development Division
7th floor, 9945 - 108 St.
Edmonton, AB, T5K 2G6
Attn. Hazel Henson

Dear Hazel,

This letter is to confirm the allocation of expenditures on two Metallic and Industrial Minerals Permits which my company, Calgary Petrographics Ltd, holds.

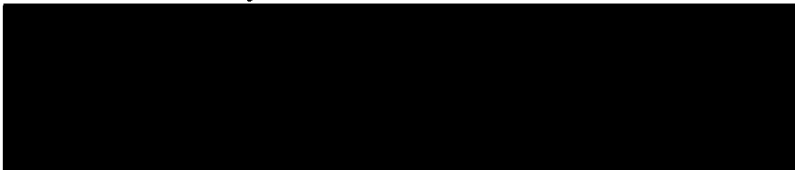
For the two permits, 9398030064 and 9398030065, I would like to hold the following sections....

9398030064 - keep sections 31-35, R5, Twp 92, W6
9398030065 - keep sections 32-36, R6, Twp 92, W6

I understand that the expenditures required to keep this amount of land (5 sections) would be \$ 12,800.00 per permit. By my calculations, if I apply previous credits and the expenditures from this assessment period there would be a credit of \$2,587.83. Please apply this excess to permit 9398030065.

I hope that these instructions are clear. If you have any questions, please call me at (403) 247-4664.

Yours Truly,



John Bladdek