

Assessment Report  
On  
MORD Property

Technical Report 2017  
XRD Analysis

Tenure Numbers :

520398, 534001, 534028,  
563125, 937696

UTM : 313300 E  
5598176 N

Owner And Author Of This Report: Jeremy Marlow

Date: July 7<sup>th</sup> 2017

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

**36,598**

*Amended*  
**RECEIVED**  
NOV 22 2017  
MINISTRY OF ENERGY AND MINES

76598



Ministry of Energy and Mines  
BC Geological Survey

Assessment Report  
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: TECHNICAL

TOTAL COST: \$551

AUTHOR(S): J. MARLOW

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):

YEAR OF WORK: 2017

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5646710

PROPERTY NAME: MORD

CLAIM NAME(S) (on which the work was done): 520398, 534001, 534028, 563125, 937696

COMMODITIES SOUGHT: ZEOLITES, DIATOMITE

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 082LNW091

MINING DIVISION: KAMLOOPS

NTS/BCGS: 082L052

LATITUDE: 50 ° 30 ' 22.9" N LONGITUDE: 119 ° 38 ' 04.92" W (at centre of work)

OWNER(S):

1) JEREMY MARLOW

2)

MAILING ADDRESS:

PO BOX 1472, KAMLOOPS BC

V2C6L8

OPERATOR(S) [who paid for the work]:

1) SAME AS ABOVE

2)

MAILING ADDRESS:

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 36071, 34744, 31020, 25071

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping _____			
Photo interpretation _____			
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic _____			
Electromagnetic _____			
Induced Polarization _____			
Radiometric _____			
Seismic _____			
Other _____			
Airborne _____			
<b>GEOCHEMICAL (number of samples analysed for...)</b>			
Soil _____			
Silt _____			
Rock _____			
Other 4 ZEOLITE AND PYROPHYLLITE TEST		534001	551
<b>DRILLING (total metres; number of holes, size)</b>			
Core _____			
Non-core _____			
<b>RELATED TECHNICAL</b>			
Sampling/assaying _____			
Petrographic _____			
Mineralographic _____			
Metallurgic _____			
<b>PROSPECTING (scale, area)</b> _____			
<b>PREPARATORY / PHYSICAL</b>			
Line/grid (kilometres) _____			
Topographic/Photogrammetric (scale, area) _____			
Legal surveys (scale, area) _____			
Road, local access (kilometres)/trail _____			
Trench (metres) _____			
Underground dev. (metres) _____			
Other _____			
<b>TOTAL COST:</b>			551

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- Figure 2: Claim Map And Sample Location

## 1. Summary

The Falkland Property is situated over an extensive area believed to be of Eocene and/or Miocene sediments and tuffs underlying Miocene lahars.

The property has undergone regional zeolite facies metamorphism along with ground water zeolite formation. The main zeolite species present is Clinoptillite. Clinoptillite is of high end use in commercial grade properties.

Diatomite is also present as a secondary mineral located on the property. The diatomite was discovered mid 2016 from a SEM/EDS analysis. The SEM/EDS analysis will be included in a following report. More follow up on the diatomite is currently being performed at the date of this report.

Logging in recent years has uncovered a large area exposing zeolite material approx. 600 meters long and approx 250 meter wide. Sampling pertaining to this report was done in this area. Results were encouraging as they prove potential for millions of tonnes of economic grade zeolite present.

The property MINFILE # 082LNW091.

## 2. Introduction

This report summarizes XRD results and interpretations of the Falkland zeolite/diatomite property. Previous work has included prospecting, grid establishment, trenching, sampling and technical work.

## 3. Location, Access And Physiography

The property is located approx. 9 km. west of Falkland accessible on a good secondary road from the Falkland garbage dump. The property is at an elevation of approx. 1250 meters above sea level. The road is usually accessible from April to October throughout the year.

#### 4. Property And Ownership

The Falkland zeolite property area consist of 205.50 Ha. These claims are owned by Jeremy Marlow and details are as follows.

Tenure #	Area In Ha	Expiry Date*
520398	61.65	2017/jun/26
534001	61.65	2017/jun/26
534028	20.55	2017/jun/26
563125	20.55	2017/jun/26
937696	41.10	2017/jun/26

- Expiry Date contingent on acceptance of this report.

#### 5. History

Previous work on this property has included geological mapping, prospecting, sampling, grid establishment and a resource of minimum of three million tons of various grades of zeolite. (Aris # 25,071).

#### 6. Regional Geology

The area is of Quesnellia Terrane. East of property is bordered by sediments and volcanics of Triassic age. West and lower down in the sequence, Nicola sediments appear in outcrops. To the north, Eocene volcanics and sediments are present. Large faults are common in the area.

## 7. Property Geology And Prospecting

Property geology and prospecting was limited due to time available. Previous years work is repeated here, although the sample descriptions for the period of this report are expanding the area prospected. Prospecting is not included within this report.

The property has undergone regional zeolite facies metamorphism along with ground water zeolite formation. The main zeolite species present is Clinoptillite. Clinoptillite is of high end use in commercial grade properties.

Diatomite is also present as a secondary mineral located on the property. The diatomite was discovered mid 2016 from a SEM/EDS analysis. The SEM/EDS analysis will be included in a following report. More follow up on the diatomite is currently being performed at the date of this report.

The beds of interest are up to 50 meters thick, over 750 meters long and over 200 meters wide. The sediments are largely clinoptillite along with some areas of diatomite. The zeolites are interbedded with opal which may have commercial applications. All the zeolites are of commercial grade. See previous Aris #25071

## 8. Sample Locations and Descriptions

4 samples were dropped off at Actlabs in Kamloops B.C. On April 10<sup>th</sup>, 2017 for an XRD analysis. The sample labels and locations are as follows:

MO13-02	:	313307E 598266N	1m <sup>2</sup> rep chip
MO13-03	:	313536E 5598482N	2m rep chip (fine fraction)
MO13-04	:	313536E 5598482N	2m rep chip (coarse fraction)
MO13-05	:	312806E 5598290N	old pit, 25m <sup>2</sup> rep chip

## 9. Analytical Work

The 4 samples were sent in for XRD analytical work. The analysis performed was a simple XRD test with the assay lab mis-communicating what we wanted for the XRD test. We wanted a semi-quantative test so as to get the percentages of the minerals present and not just the minerals present in these samples. We have more XRD samples in process now and will be presented in a future report.



Appendix 2:

Cost Statement


Analytical Costs :	\$	365.40
Interpretation And Report Preparation :	\$	185.60
Total work claimed in this report :	\$	<u>551.00</u>

Appendix 3:

I, Jeremy Marlow, of Kamloops, BC do hereby certify that:

- I am a third generation prospector from the city of Kamloops British Columbia.
- I have worked in the mining industry since 14 years of age when I started with Teck Exploration Ltd.
- I am the author and am responsible for the preparation of this report
- Dated at Kamloops, British Columbia, this \_\_\_ day of June, 2017

Respectfully submitted,

  
\_\_\_\_\_  
Jeremy Marlow

## **X-ray Diffraction Analysis of Four Samples**

W.O. # A17-03519  
Invoice # A17-03519

Client: Jeremy Marlow

Attn: Jeremy Marlow

Date Reported: April 19, 2017

## Method

Four samples were submitted for qualitative X-ray diffraction analysis. The X-ray diffraction analysis was performed on a Panalytical X'Pert Pro diffractometer equipped with Cu X-ray source and an X'Celerator detector and operating at the following conditions: 40 kV and 40 mA; range 5 - 70 deg 2 $\theta$ ; step size 0.017 deg 2 $\theta$ ; time per step 50.165 sec; fixed divergence slit, angle 0.5 $^{\circ}$ ; sample rotation 1 rev/sec. The X'Pert HighScore Plus software along with the PDF-4/Minerals ICDD database were used for mineral identification.

## Results

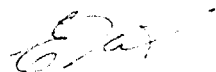
The minerals identified in the samples are in Table 1 and the diffraction patterns are in Appendix 1.

**Table 1.** Identified minerals

Client ID	M013-02	M013-03	M013-04	M013-05
ActLabs ID	A17-03519-1	A17-03519-2	A17-03519-3	A17-03519-4
Quartz	Y	Y	Y	Y
Clinoptilolite/Heulandite	Y	Y	Y	ND
K feldspar	Y	Y	Y	ND
Plagioclase	Y	Y	Y	Y
Opal-CT	ND	Y	Y	Y*

Note: Y = present; ND = not detected; \*the opal in sample M013-05 is mostly opal-A with less opal-CT

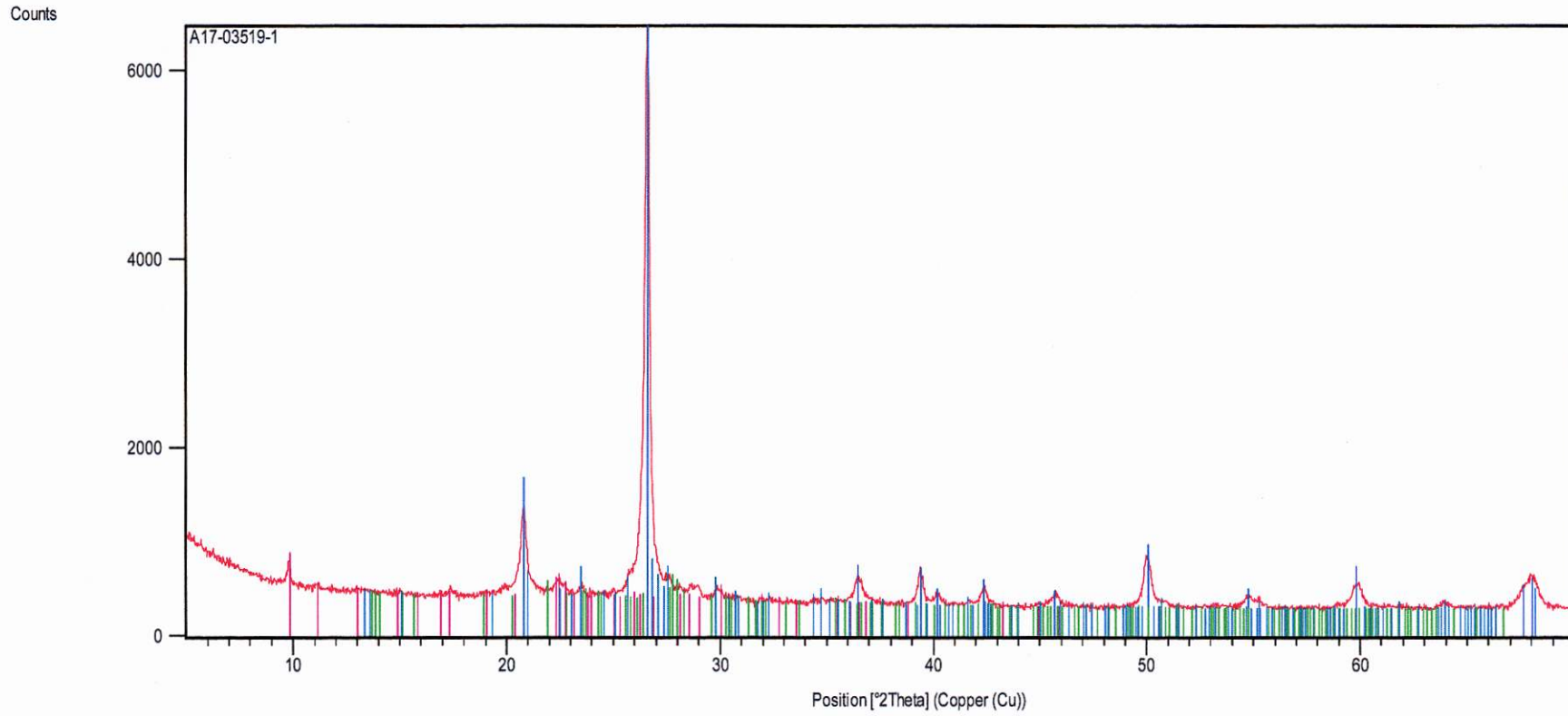
Reported by:



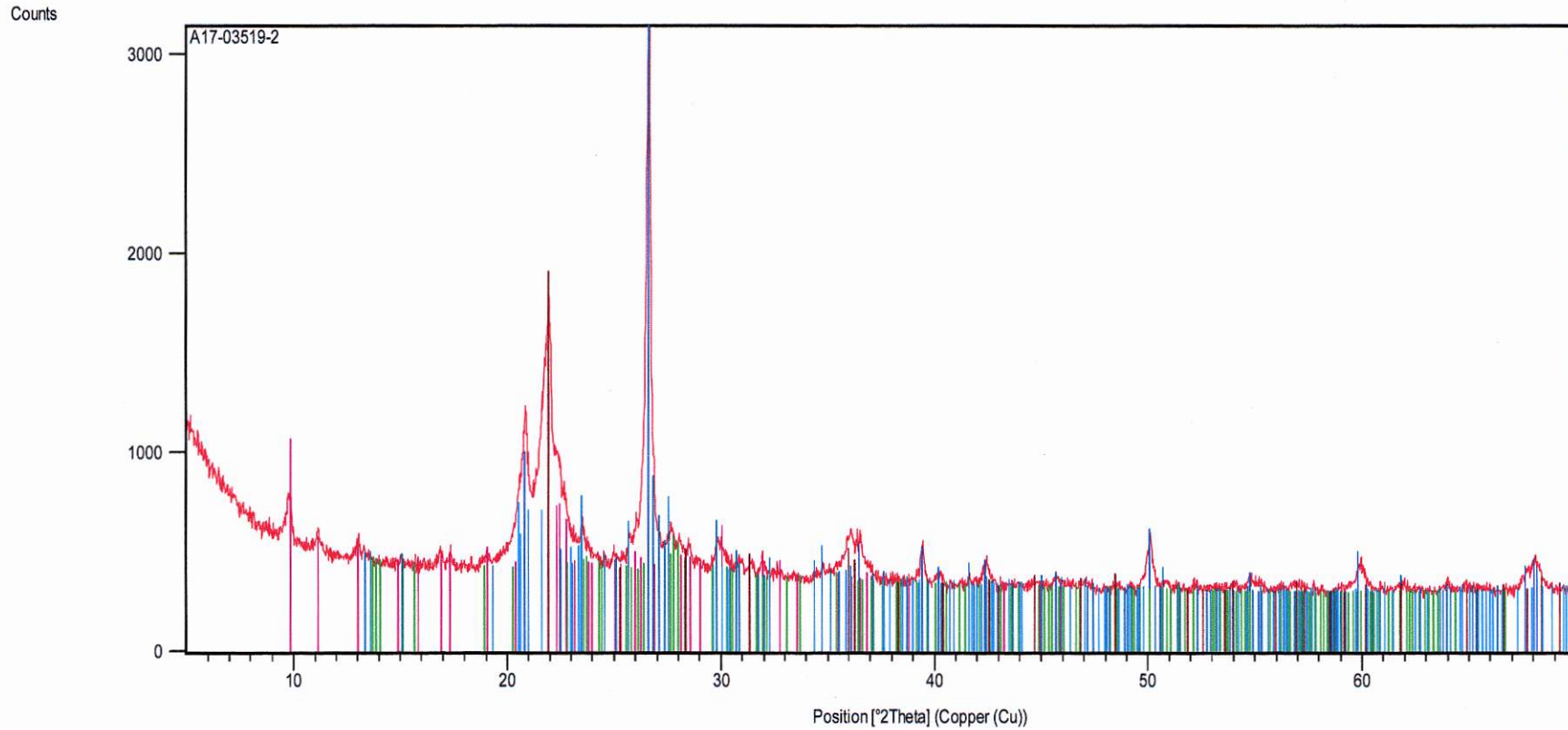
Elitsa Hrischeva, Ph.D.  
Senior Scientist  
Activation Laboratories Ltd.

## **APPENDIX 1**

Diffraction patterns

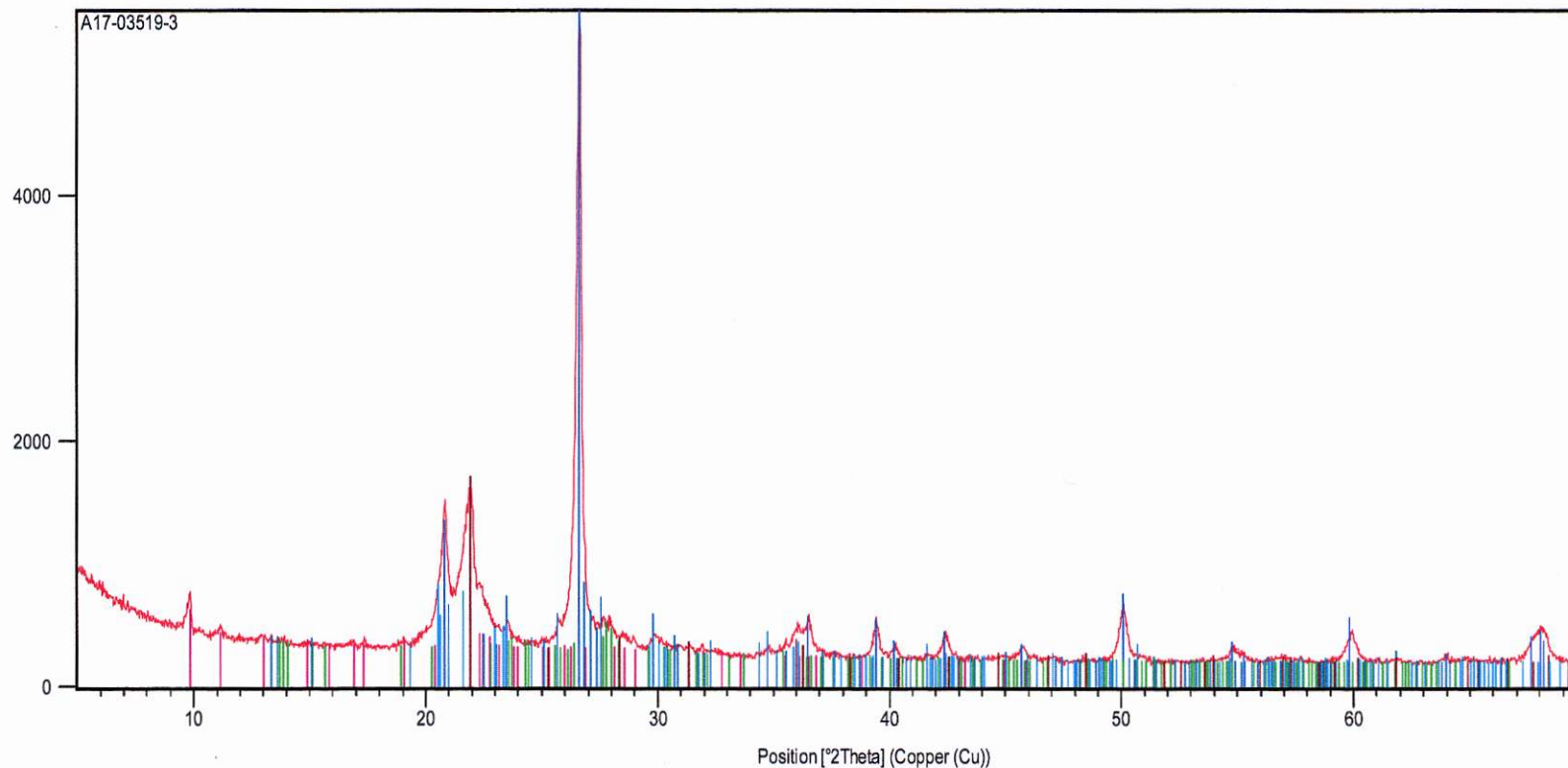


Peak List
Clinoptilolite-Ca; K Na <sub>2</sub> Ca <sub>2</sub> ( Si <sub>29</sub> Al <sub>7</sub> ) O <sub>72</sub> · 24 H <sub>2</sub> O
Quartz; Si O <sub>2</sub>
Labradorite; ( Ca <sub>2.133</sub> Na <sub>1.867</sub> ) ( Si <sub>10.003</sub> Al <sub>5.987</sub> ) O <sub>32</sub>
Microcline, sodian; K <sub>0.95</sub> Na <sub>0.05</sub> Al Si <sub>3</sub> O <sub>8</sub>



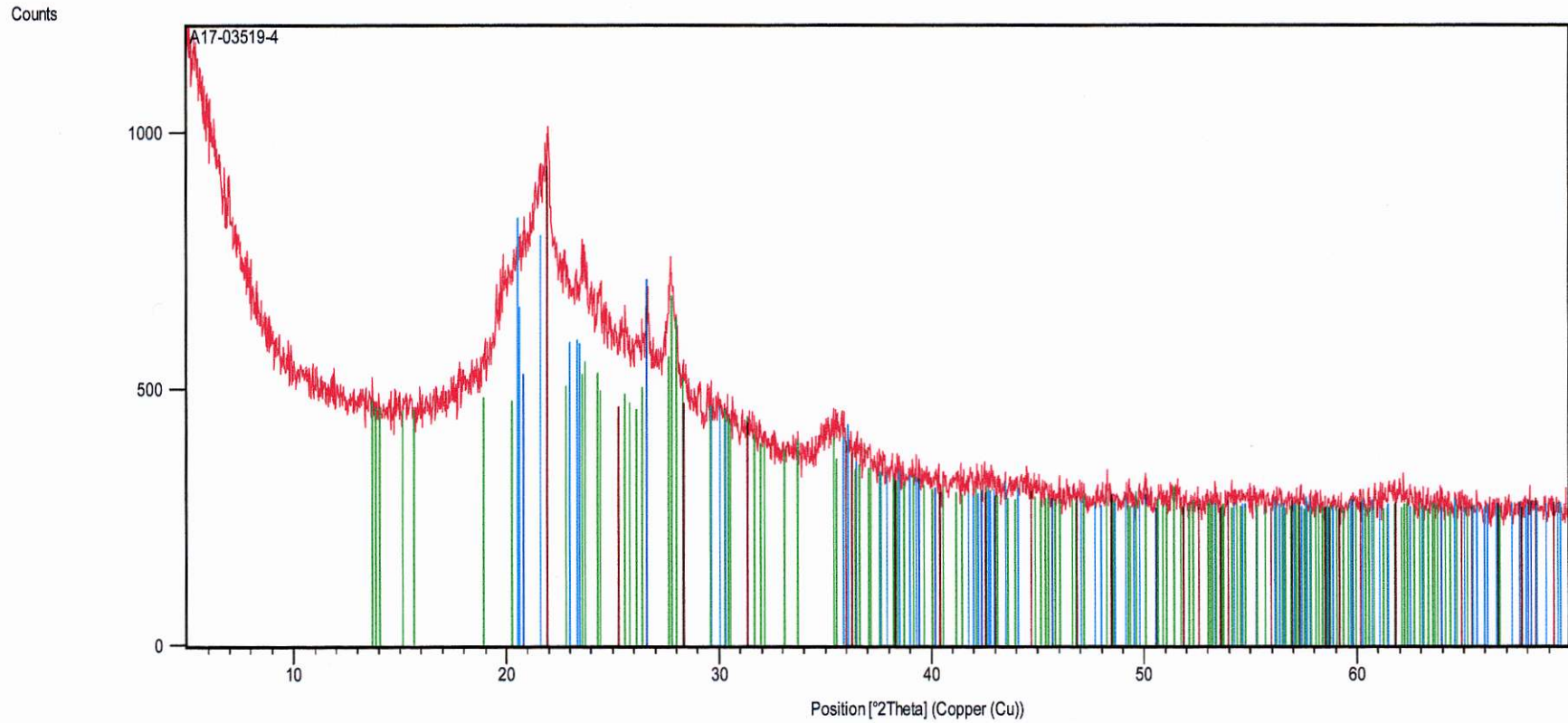
Peak List
Clinoptilolite-Ca; K Na <sub>2</sub> Ca <sub>2</sub> ( Si <sub>29</sub> Al <sub>7</sub> ) O <sub>72</sub> · 24 H <sub>2</sub> O
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Microcline, sodian; K <sub>0.95</sub> Na <sub>0.05</sub> Al Si <sub>3</sub> O <sub>8</sub>
Cristobalite, syn; Si O <sub>2</sub>
Tridymite, syn; Si O <sub>2</sub>

Counts



Peak List
Clinoptilolite-Ca; K Na <sub>2</sub> Ca <sub>2</sub> ( Si <sub>29</sub> Al <sub>7</sub> ) O <sub>72</sub> · 24 H <sub>2</sub> O
Quartz; Si O <sub>2</sub>
Labradorite; ( Ca <sub>2.133</sub> Na <sub>1.867</sub> ) ( Si <sub>10.003</sub> Al <sub>5.987</sub> ) O <sub>32</sub>
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Cristobalite, syn; Si O <sub>2</sub>
Tridymite, syn; Si O <sub>2</sub>





Peak List
Quartz; Si O2
Labradorite; ( Ca2.133 Na1.867 ) ( Si10.003 Al5.987 ) O32
Cristobalite, syn; Si O2
Tridymite, syn; Si O2

Quality Analysis ...



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This is your final copy. If you require an original to be mailed by post please advise, otherwise this email will be deemed sufficient.

Invoice No.: A17-03519  
Purchase Order: Mord  
Invoice Date: 21-Apr-17  
Date submitted: 10-Apr-17  
Your Reference: Diatomite  
GST #: R121979355

Jeremy Marlow  
P.O. Box 1472  
Kamloops B.C.  
Canada

ATTN Jeremy Marlow

### INVOICE

No. samples	Description	Unit Price	Total
4	RX4(KAMLOOPS)	\$ 7.00	\$ 28.00
4	9-XRD Qualitative (Geomet)	\$ 80.00	\$ 320.00
Subtotal: :			\$ 348.00
GST-BC-5% :			\$ 17.40
<b>AMOUNT DUE: (CAD) :</b>			<b>\$ 365.40</b>

Net 30 days. 1 1/2 % per month charged on overdue accounts.

HST#121979355RT0001 Bank Transfer details:  
ACTIVATION LABORATORIES LTD at ROYAL BANK OF CANADA  
59 WILSON STREET WEST ANCASTER, ON CANADA L9G 1N1  
TRANSIT #: 00102 003 ACCOUNT\* #: 1000116 SWIFT CODE#: ROYCCAT2  
(\*account number changed)

Please reference the invoice number when making a payment by Bank/Wire transfer. Intermediary Bank Fees are the responsibility of the client. If payment is made by direct/wire transfer, please send payment notifications to [ancaster@actlabs.com](mailto:ancaster@actlabs.com) Thank you!

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+1.888.228.5227 FAX +1.905.648.9613  
E-MAIL [ancaster@actlabs.com](mailto:ancaster@actlabs.com) ACTLABS GROUP WEBSITE <http://www.actlabs.com>





**Mineral Titles**
**Legend**

-  National Parks - Outlined
  -  National Parks - Colour Fille
  -  Ecological Reserves - Tanta
  -  Protected Areas - Tantalis -
  -  Recreation Areas - Tantalis
  -  Conservancy Areas - Tantal
  -  Mapsheet Grid (1:20,000)
  -  Mapsheet Grid (1:250,000)
  -  Land Act Primary Parcels - Filled
- Digital Road Atlas - Lines
- ROAD\_CLASS
-  Ferry
  -  Highway
  -  Freeway

0 0.20 0.41 km

1: 10,000

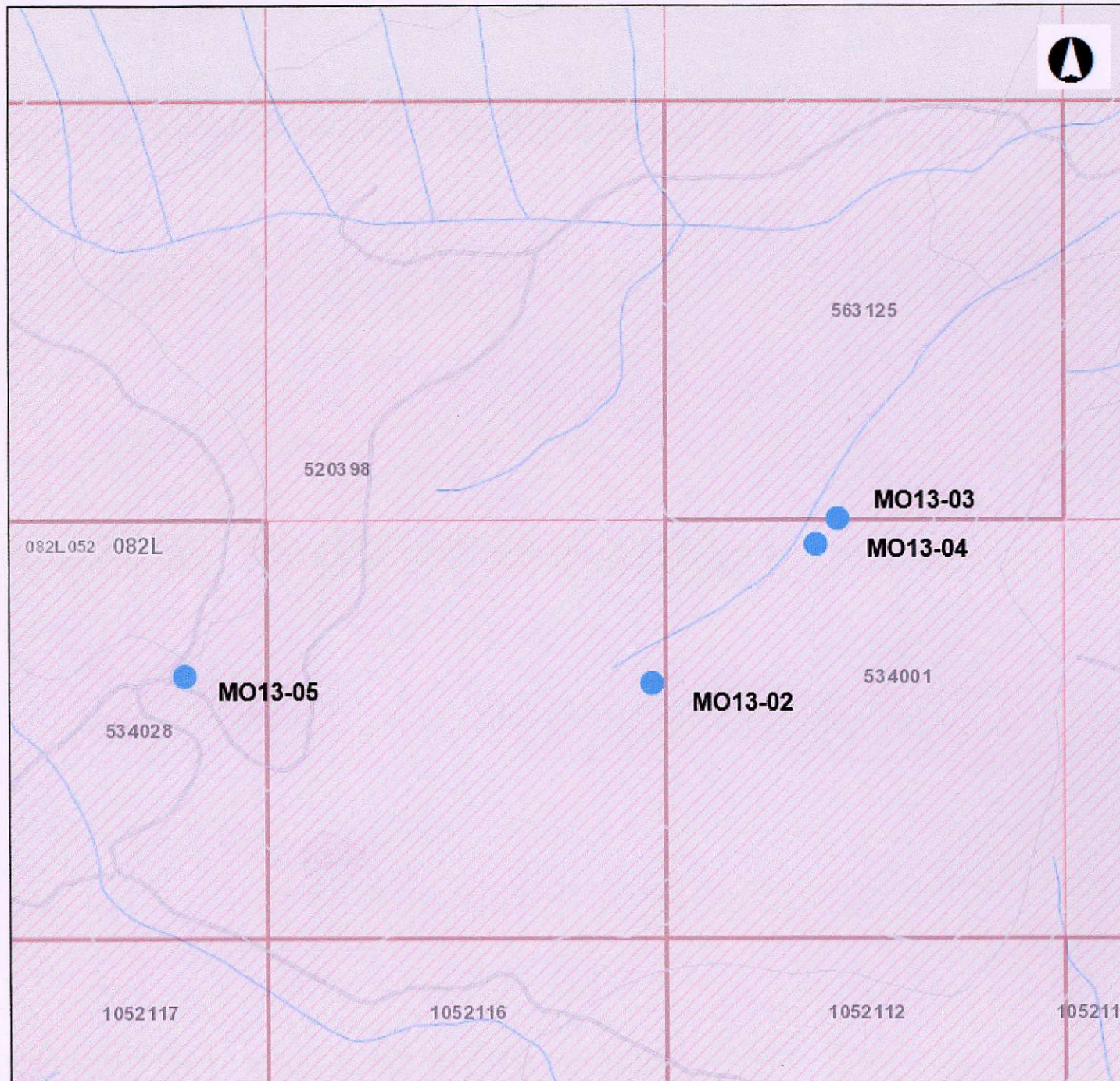
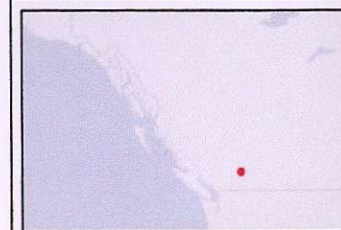
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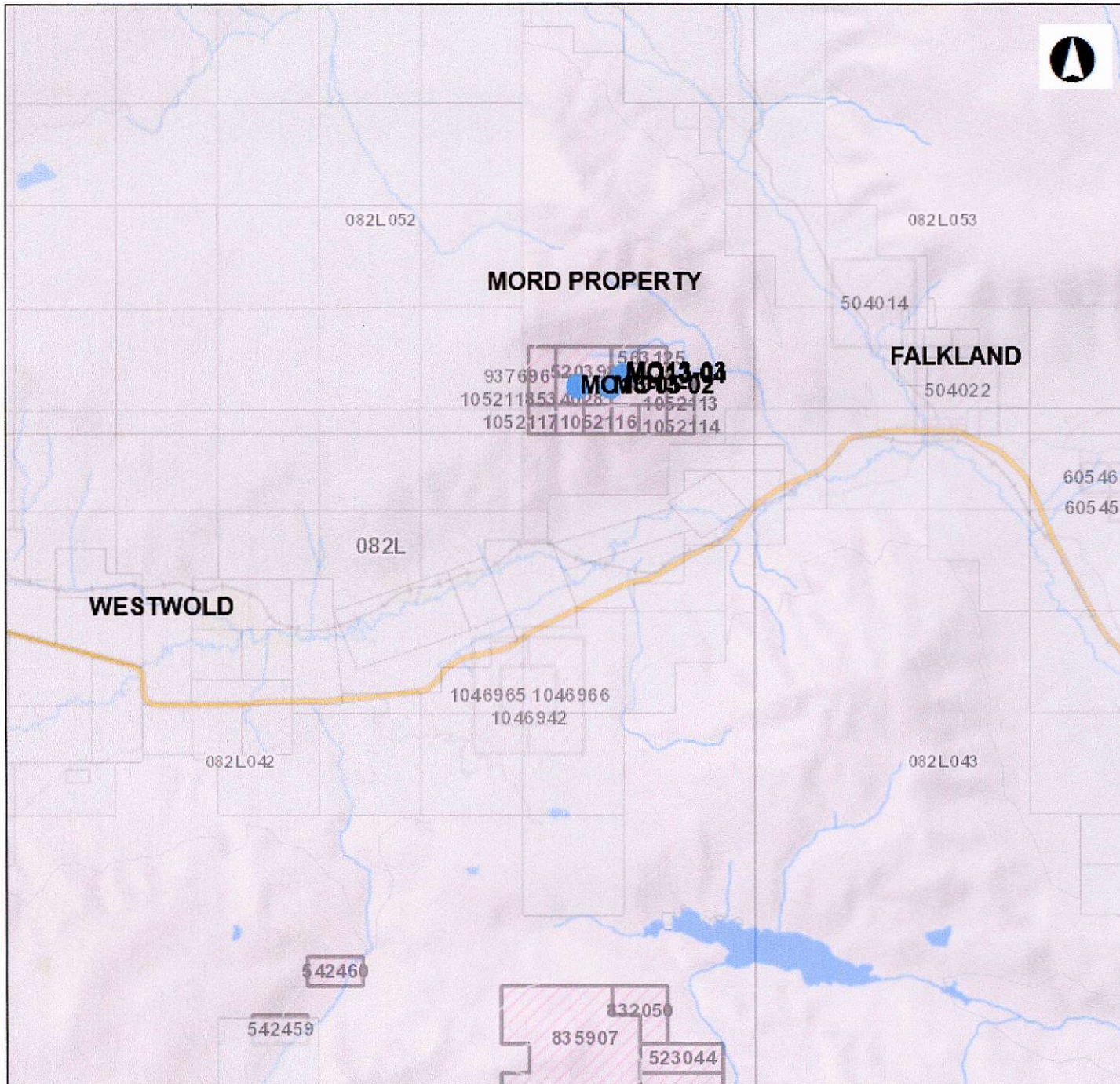
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Datum: NAD83

Projection: Web Mercator

**Key Map of British Columbia**


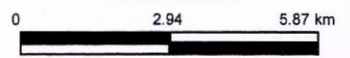




**Mineral Titles**

**Legend**

- National Parks - Outlined
  - National Parks - Colour Fille
  - Ecological Reserves - Tanta
  - Protected Areas - Tantalis -
  - Recreation Areas - Tantalis -
  - Conservancy Areas - Tantal
  - Mapsheet Grid (1:20,000)
  - Mapsheet Grid (1:250,000)
  - Land Act Primary Parcels - Filled
- Contours - (1:250,000)
- FCODE
- Contour - Index
  - Contour - Intermediate
- Area of Exclusion



1: 144,447

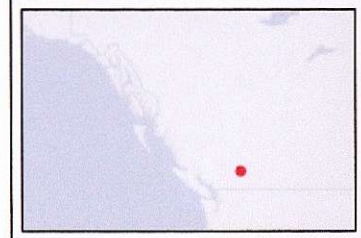
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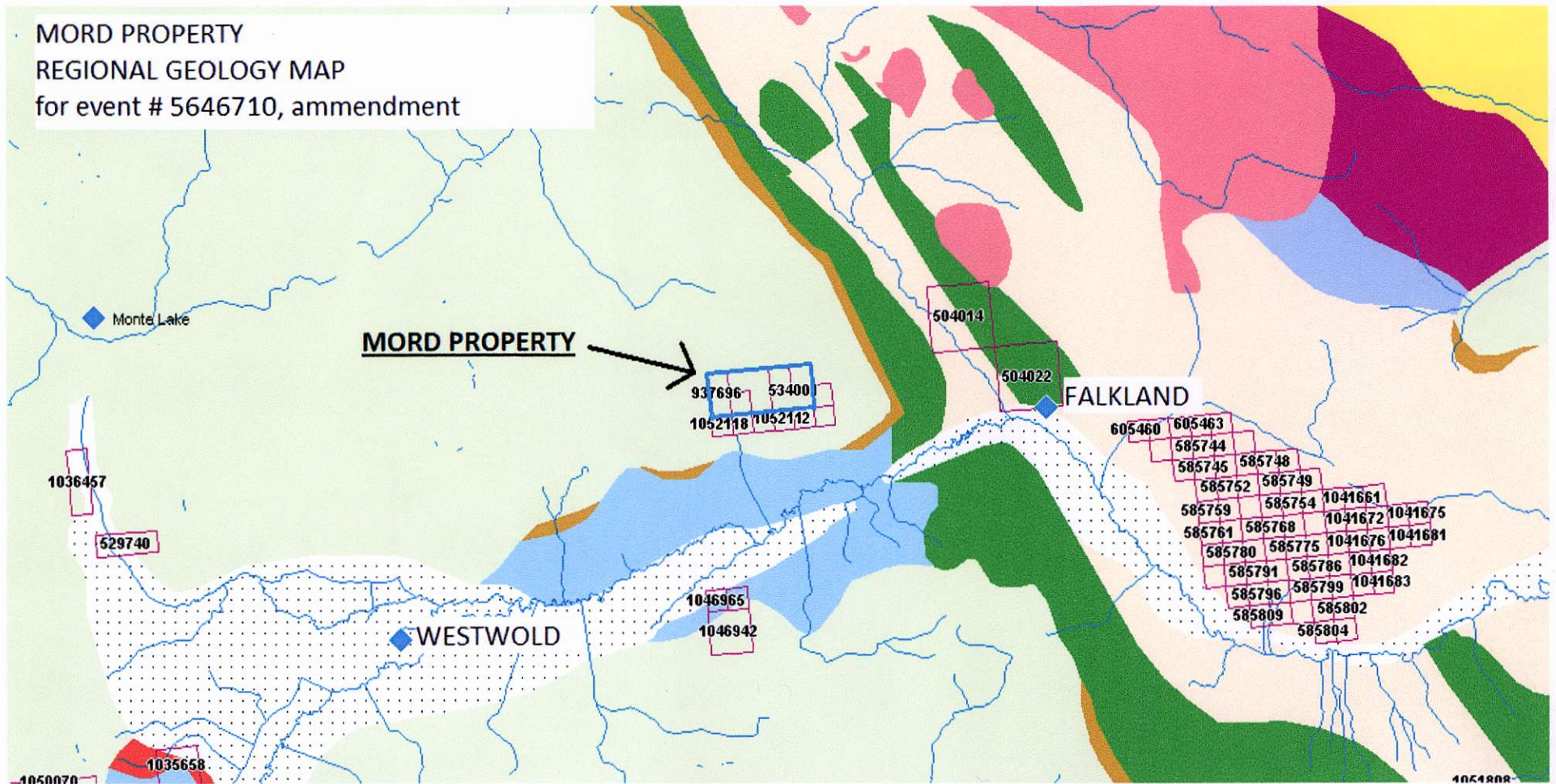
Datum: NAD83  
Projection: Web Mercator

**Key Map of British Columbia**





MORD PROPERTY  
 REGIONAL GEOLOGY MAP  
 for event # 5646710, ammendment



- EKav Eocene Kamloops Group undivided volcanic rocks
- EKas Eocene Kamloops Group undivided sedimentary rocks
- DTrHsf Devonian to Triassic mudstone, siltstone, shale fine clastics
- uTrJN Upper Triassic to Lower Nicola Group undivided volcanic rocks

- uTrNsf Upper Triassic Nicola Group mudstone, siltstone, shale fine clastic
- Kgd Cretaceous Unnamed granodioritic-intrusive rocks
- IPzMIgs Mount Ida Assemblage greenstone, greenschist metamorphic rocks
- uPrPzMISC Upper Proterozoic to Paleocene mudstone, siltstone, shale fine clastic sedimentary rocks

