

# MAR 20010013: MAY LAKE

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410927 ALBERTA LTD.  
24 Galveston Ave.

Sherwood Park, A.B., T8A 2N6  
Phone: (780)467-1900

July 20, 2001

Mineral Agreements and Sales  
Alberta Resource Development  
9915 - 108 Street  
Edmonton, AB, T5J 2G6

Attached are 2 copies of the assessment report on Metallic and  
Industrial Mineral Permit No. 9397040041.

I have attached authorization from the author of this report, to  
reproduce or copy.

If you require any further information, please contact me at  
780-467-1900.

Sincerely,

  
President  
419027 Alberta Ltd.

20010013

JUL 23 2001

ASSESSMENT REPORT

MAY LAKE PROJECT

419027 Alberta Ltd.

PERMIT NO. 9397040041

Prepared by

RETREAD RESOURCES LTD.

Dennis Nikols, P.Geo.

July 20, 2001

AUTHORIZATION TO REPRODUCE OR COPY

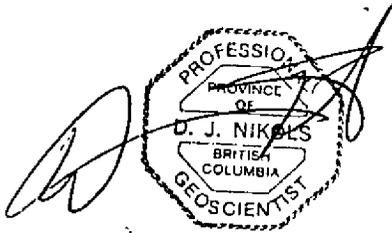
419027 Alberta Ltd. hereby authorizes the Government of Alberta to reproduce or copy the attached assessment report at the end of the 1 year confidentiality period.

  
President  
419027 Alberta Ltd.

REPORT ON THE PERMIT NO. 9397040041 AREA,  
NORTH OF COLD LAKE, ALBERTA

SUBMITTED TO:  
419027 Alberta Ltd.  
Sherwood Park, ALBERTA

July 16, 2001



Dennis Nikols, P.Geo.



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## **Retread Resources Ltd.**

215 Cedarwood Road SW, Calgary, AB T2W 3G8

email: [nikolsd@cadvislon.com](mailto:nikolsd@cadvislon.com)

Ms. Edna Lawrence  
419027 Alberta Ltd.  
24 Galveston Ave.  
Sherwood Park, Ab  
T8A 2N6

Dear Edna:

Re: May Lake Project Report — Letter of Transmittal

Attached please find 5 copies of our report on your May Lake Project and property.

As indicated on my Statement of Qualifications, 419027 Alberta Ltd. is free to use the report in its' full context for: submission to regulatory authorities, for internal company purposes or to deal with other interested parties.

If you require additional copies of all or part of the report please feel free to request them. Both Georgia and I are looking forward to assisting during the coming field season.

Yours truly,

Dennis Nikols, P. Geo.  
President

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Metallic and Industrial Minerals Permit 9397040041

w-4-03-066

21 all

22W, L15, L16

27SE, L3, L4

28, L13, L14

33N, SW

35NW, L10, L15, L16

Map Identifying Permit Numbers and Boundaries

 Permit Land

R5W4

R3W4

R1W4

Cold Lake Air Weapons Range

N



Saskatchewan

Study Area

732/9

Marie Lake

Cold Lake

Cold Lake  
I. R. # 149A & B

Cold Lake  
I. R. # 149

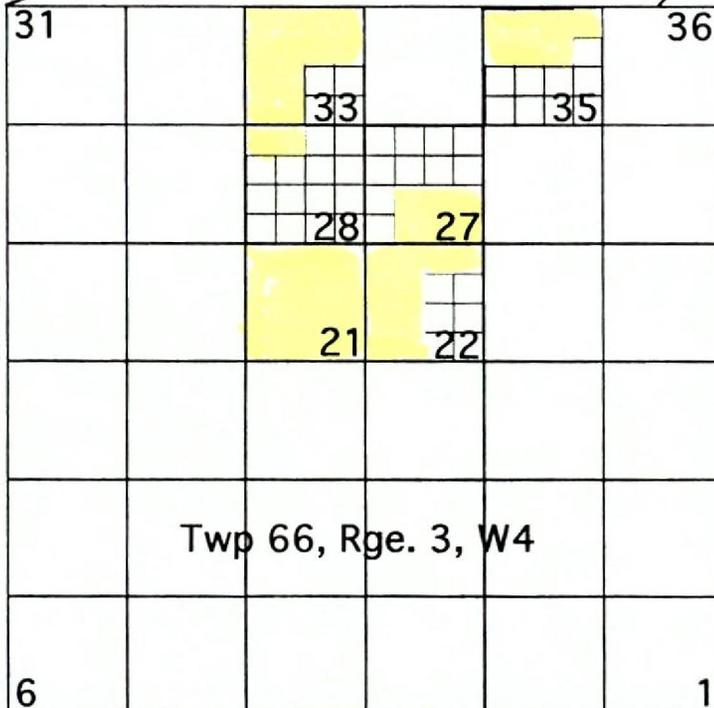
T 66

T 65

T 64

T 63

T 62



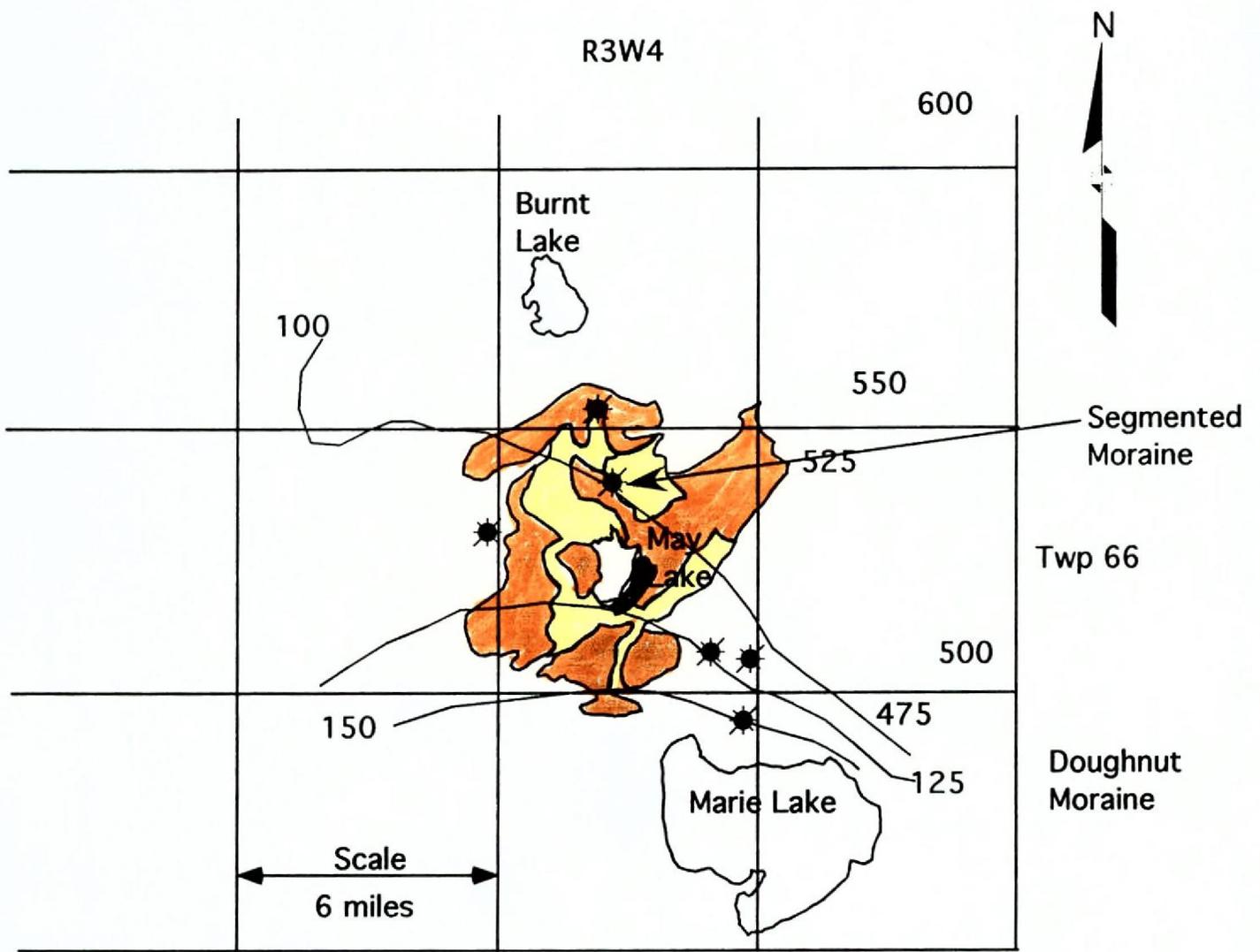
Twp 66, Rge. 3, W4

419027 Alberta Ltd.

May Lake Property  
Location Map

AUTHOR: EN    DATE: May 2001    FIGURE NO.: 1





Modified after Fenton & Andriasheck 1989

|  |                               |                              |
|--|-------------------------------|------------------------------|
| 419027 Alberta Ltd.                    |                               |                              |
| May Lake Property<br>Surficial Geology |                               |                              |
| <small>AUTHOR: DN</small>              | <small>DATE: May 2001</small> | <small>FIGURE NO.: 8</small> |
| <small>Retread Resources Ltd.</small>  |                               |                              |

— Overburden in Meters

★ P & NG wells with Geoph. logs

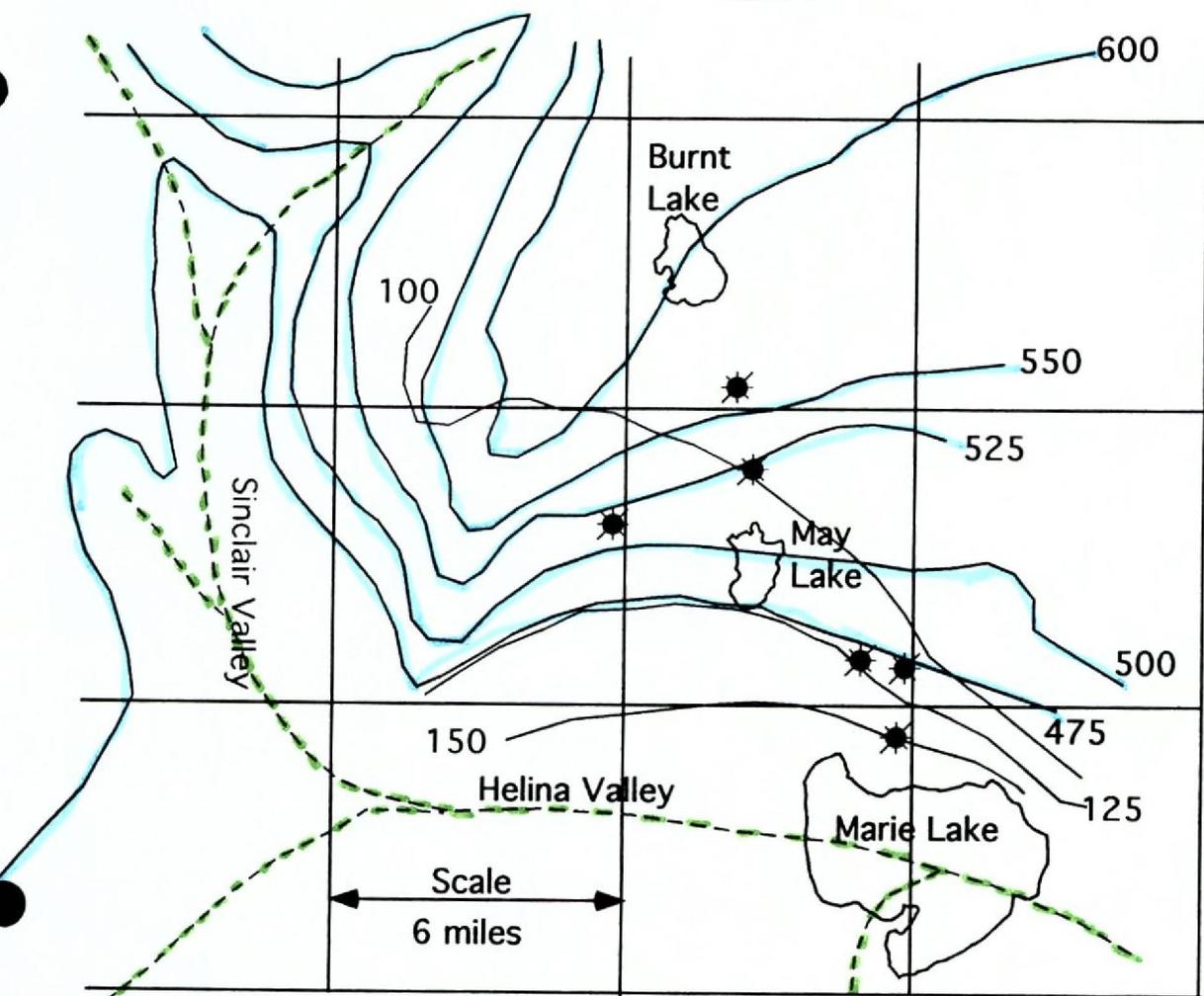
 Stagnant Ice Moraine

 Glaciofluvial Sediments

R3W4



Twp 66



Modified after Gold, et al., 1983

— Overburden Thickness in Meters

— Topographic Contours in Meters

- - - Paleovalley trace

★ P & NG wells with Geophysical logs

|  |                |               |
|--|----------------|---------------|
| 419027 Alberta Ltd.  |                |               |
| May Lake Property<br>Bedrock Topography  |                |               |
| AUTHOR: DN   | DATE: May 2001 | FIGURE NO.: 2 |
|  Retread Resources Ltd. |                |               |

**Retread Resources Ltd.**



215 CEDARWOOD ROAD SW  
 CALGARY, ALBERTA  
 T2W 3G8

PHONE OR FAX (403) 281-5622

E-mail: nikolsd@cadvision.com

GST#89951 0960  
 Alberta Office

Invoice # 2001-0716

Date: July 16, 2001

**Client:**  
 419027 Alberta Ltd.  
 24 Galveston Ave.  
 Sherwood Park, AB  
 T8A 2N6

**Project:** May Lake

**Time:**

|          | Months | Rate/Mth |
|----------|--------|----------|
| Retainer | 36     | \$360.00 |
|          |        |          |
|          |        |          |
|          |        |          |

**Total Time on Project:**

This covers the time frame from July 1/97 to July 1/01

**Expenses:**

Expenses (see attached)  
 Administration Fees

**Total Expenses on Project:**

**GST Charged:**

GST for time on project  
 GST for administration fees

**Total GST on Project:**

**Total of this Invoice:**

|             |
|-------------|
| \$12,960.00 |
| \$0.00      |
| <hr/>       |
| \$12,960.00 |
| <br>        |
| \$0.00      |
| \$0.00      |
| <hr/>       |
| <br>        |
| \$907.20    |
| <hr/>       |
| \$907.20    |
| <hr/>       |
| \$13,867.20 |

STATEMENT OF EXPENDITURES

Metallic & Industrial Minerals Permit No. 9397040041

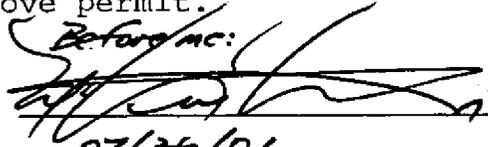
Subcontracting Services

Geological Consultant

\$ 13,867.20

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



*Before me:*  
  
07/26/01

W. NEIL MCKAY  
BARRISTER, SOLICITOR  
& NOTARY PUBLIC

AMENDMENTS AND CANCELLATIONS

Permit No. 9397040041 all land is retained - 848.0000 hectares.

ALLOCATION OF EXPENDITURES

Permit No. 9397040041 - 848.0000 hectares

Expenditure required - \$ 8,457.50

Expenditure assigned - \$ 13,867.20

REPORT ON THE PERMIT NO. 9397040041 AREA,  
NORTH OF COLD LAKE, ALBERTA

1. INTRODUCTION

Between 1 July, 1997 and 1 July 2001, the author, representing Retread Resources Ltd. (Retread), has been advising the client on all matters relating to geological science and the application of geology to this property. As part of the retainer duties, the author and other Retread personnel have made several visits to the Cold Lake area of Alberta (Fig. 1) to visit the Permit No. 9397040041 area (Fig. 1), which is held by #419027 Alberta Ltd. (the client) of Sherwood Park, Alberta. The author and other Retread personnel have been accompanied by Ms. Edna Lawrence and Mr. Jim McMullen of #419027 Alberta Ltd. on these visits.

The economic potential of the Permit Area lies in:

- aggregate deposits, in the form of glaciofluvial and/or preglacial sands and gravels;
- co-product minerals and metals, such as magnetite, ilmenite, almandine garnet, and gold, that sometimes occur within the sand; and
- the possibility that diamond-bearing intrusives may be present within the bedrock.

The objectives of the visits and retainer advice were:

- to locate exposures of sand and/or gravel and take "grab" samples" of that material;
- to make whatever geological observations might be possible within the limited time-frame of the visits;
- to organize and direct sampling programs of the overburden and bedrock; and
- to evaluate, describe and interpret the results of geological investigations.



## 2. ACCESS and HISTORY

The Permit Area lies in northeastern Alberta, northwest of Cold Lake, as shown by Fig. 1. It is not crossed by any roads. Networks of trails and tracks run east and west from Alberta Secondary Route 879 (the Primrose Road), a good-quality, all-weather gravel road. They are passable by 4-wheel-drive vehicles when dry, but were quite wet and muddy at the times of our visits.

In 1997-98 field season we advised the client to collect a number of representative samples from the glacialfluvial materials believed to be present on the property. At that time, the client contracted a small backhoe and proceeded to collect a number of samples. I examined several of these samples in Edmonton before they were delivered to the lab for testing. The client informs me that assessment work relating to these samples has been filed under separate cover. These samples were subsequently lost by the laboratory, and no assay or mineralogical data has ever been provided for my review. I have, however, examined samples from glaciofluvial deposits in the vicinity on behalf of another client, Sunburst Mines. These samples suggest that this Permit Area may also be prospective for mineral and metals as described in section 3.2.



### 3. GEOLOGY

The bedrock in the Cold Lake area belongs to the Upper Cretaceous Lea Park Formation, which consists of grey marine shale and claystone, with subordinate amounts of silt, sand, and ironstone concretions. The bedrock is covered by a mantle of unconsolidated glacial (Quaternary age) and preglacial (late Tertiary age) sediment. That material may reach thickness as great as 150 m or more in parts of the Permit Area (Andriashek and Fenton, 1989; Gold et al., 1983).

#### 3.1 Sand/Gravel Deposits

The unconsolidated sediment consists mainly of till and other clay-rich materials. The primary exploration targets are sand/gravel deposits. They are irregular in shape and distribution, because drainage and sedimentation patterns shifted repeatedly as the ice-sheets (possibly as many as four; Andriashek and Fenton, 1989) advanced and retreated across the region.

#### 3.2 Co-Product Minerals and Metals

Magnetite, ilmenite, almandine garnet, and gold are fairly dense, and where present, they tend to be concentrated at the bottom of a deposit, or in zones characterized by the coarsest gravel and cobbles. For co-products, the most favorable sand/gravels are those that were derived from the Canadian Shield to the northeast. Sands that were sourced from the southwest were derived mainly from Upper Cretaceous formations, which seldom contain significant amounts of co-product material.

#### 3.3 Potential for Diamonds

The Cold Lake area is one of the focuses for diamond exploration in Alberta. Diamond exploration usually involves geophysical surveys and indicator-mineral surveys. In the latter, samples of glacial and preglacial sediments are examined for certain minerals (e.g., microdiamonds, chrome diopside, certain types of garnets, magnesian ilmenite, chromite, etc.) that occur primarily or exclusively in kimberlites and related diamondiferous rocks. Samples from the Permit Area should therefore be examined for indicator minerals, as well as for co-product minerals and metals.



#### 4. SAMPLING

The author observed sand/gravel deposits exposed at the surface at several locations near Permit No. 9397040041. However, it has not yet been possible to determine the thickness or extent of any of the deposits seen by the author, or mapped by Fenton and Andriashek (1989), on this permit, given the limited nature of the exposures, and the limited time-frame of the visits.

Any samples taken in the future should be examined for diamond indicator minerals, as well as for almandine garnet, ilmenite, magnetite and gold. The resulting data should not be used for reserve calculations, but any occurrences of those minerals should be regarded as encouraging. Low values are to be expected, unless the samples come from the basal part of a deposit, where such minerals are usually concentrated. I suggest that an auger be used for sampling, instead of a backhoe. An auger rig would be capable of reaching bedrock which may be as much as 150 m deep near May Lake (Figures 2 and 3).



## 5. CONCLUSIONS AND RECOMMENDATIONS

The author has observed that sand/gravel deposits are present near Permit No. 9397040041. Those deposits have the potential to be of economically significant size, and further work is therefore warranted, as outlined below. Fenton and Andriashek (1989) and Gold et al. (1983) have mapped significant areas and thickness of glacialfluvial material in the Permit Area.

One or two areas of sand/gravel should be selected for detailed evaluation. The objective would be to prove economically significant tonnages of sand and gravel of known quality, with known concentrations of co-product materials. All samples should also be examined for diamond indicator minerals.

The work program should be designed to determine:

- the extent and thickness of the selected deposit(s);
- relative percentages of sand, gravel, fines, and clay, and their variation within the deposit(s);
- the distribution and concentrations of the various co-product minerals and metals;
- any occurrences of diamond indicator minerals; and
- the overall bulk density (metric tonnes per cubic metre) of the "run-of-pit" material.

This can be accomplished by completing a pattern of auger holes and/or backhoe trenches in the selected area(s), and sampling the intersected material. A limited number of trenches, supplemented by auger holes, may be the most practical approach, however should the 150 m till depth be confirmed, emphasis must be given to the auger method. Trenches can produce much larger samples, which yield more reliable data on material size, bulk density, co-product concentrations, and indicator-mineral occurrences. Trench exposures also provide a much clearer view of deposit stratigraphy and sedimentology. Auger holes can then be used to obtain supplemental data between the trenches.

The following points should be considered during project planning:



1. The samples should be taken and described by a qualified geologist, so that results will be acceptable to financial institutions.
2. Drilling and/or trenching equipment must be capable negotiating narrow, muddy access trails, and should be capable of reaching depths of at least 15 feet.
3. Spacing of auger holes and trenches should be selected according to the degree of confidence required, within the available budget.
4. Locations of all auger holes and trenches should be determined as accurately as is practical (i.e., to within a few metres or better).

References:

Andriashek, L.D. and Fenton, M.M. (1989) Bulletin No. 57, Quaternary Stratigraphy and Surficial Geology of the Sand River Area 73L; Alberta Research Council

Gold, C.M., Andriashek, L.D., Fenton, M.M. (1983) Map— Bedrock Topography of the Sand River Map Area, NTS 73L, Alberta; Alberta Research Council



## CERTIFICATE OF QUALIFICATIONS

I, Dennis J Nikols, Professional Geoscientist of Retread Resources Ltd., 215 Cedarwood Road SW, Calgary, Alberta, T2W 3G8, do hereby certify that:

1. I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (Member Number 20616);
2. I received a BSc. from The University of Wisconsin in 1969;
3. I have practiced as a Geologist for more than 30 years in Canada and Internationally and am qualified to evaluate Industrial and Metallic Mineral projects in Alberta;
4. The present report is based upon work I have personally undertaken, data and information from reviews of company and government reports covering the area, and on discussions with colleagues from industry and government;
4. I have no interest in 419027 Alberta Ltd. nor any interest in any Metallic or Industrial Mineral properties in Alberta or elsewhere;
7. I consent to the use of this report by 419027 Alberta Ltd. in submissions to regulatory bodies, and to distribute this report in its entirety to shareholders and other parties.

Dennis J. Nikols, P.Geo.

July 16, 2001

