

# MAR 20060031: PELICAN MOUNTAIN

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DEC 04 2006  
20060031

# ASSESSMENT REPORT

## PELICAN MOUNTAINS PROJECT

### PART B

PAN VENTURES LIMITED

Metallic & Industrial Permit #9302090597

Submitted by: Larry MacGougan

November 25, 2006

Prospector: Larry MacGougan

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November 25, 2006

## INTRODUCTION

This assessment work report is being submitted for Metallic and Industrial permit #9302090597.

### Location (M-RG-TWP-SC)

4-22-076: 19-23; 26-35

4-23-077: 02;03;

4-23-076: 24;25;36

Permit #9302090597 was first issued September 9, 2002. In 2004, the first work assessment report was completed to retain the land for another two years. Due date for the permit is September 9, 2006. Pan Ventures Limited wishes to retain the permit for another two year term by filing a second assessment report.

This permit was staked in the Pelican Mountains, located in central northern Alberta, for their heavy mineral potential. This area is also known for anomalous concentrations of diamond indicator minerals and reported diamond occurrences. There also has been traces of coal.

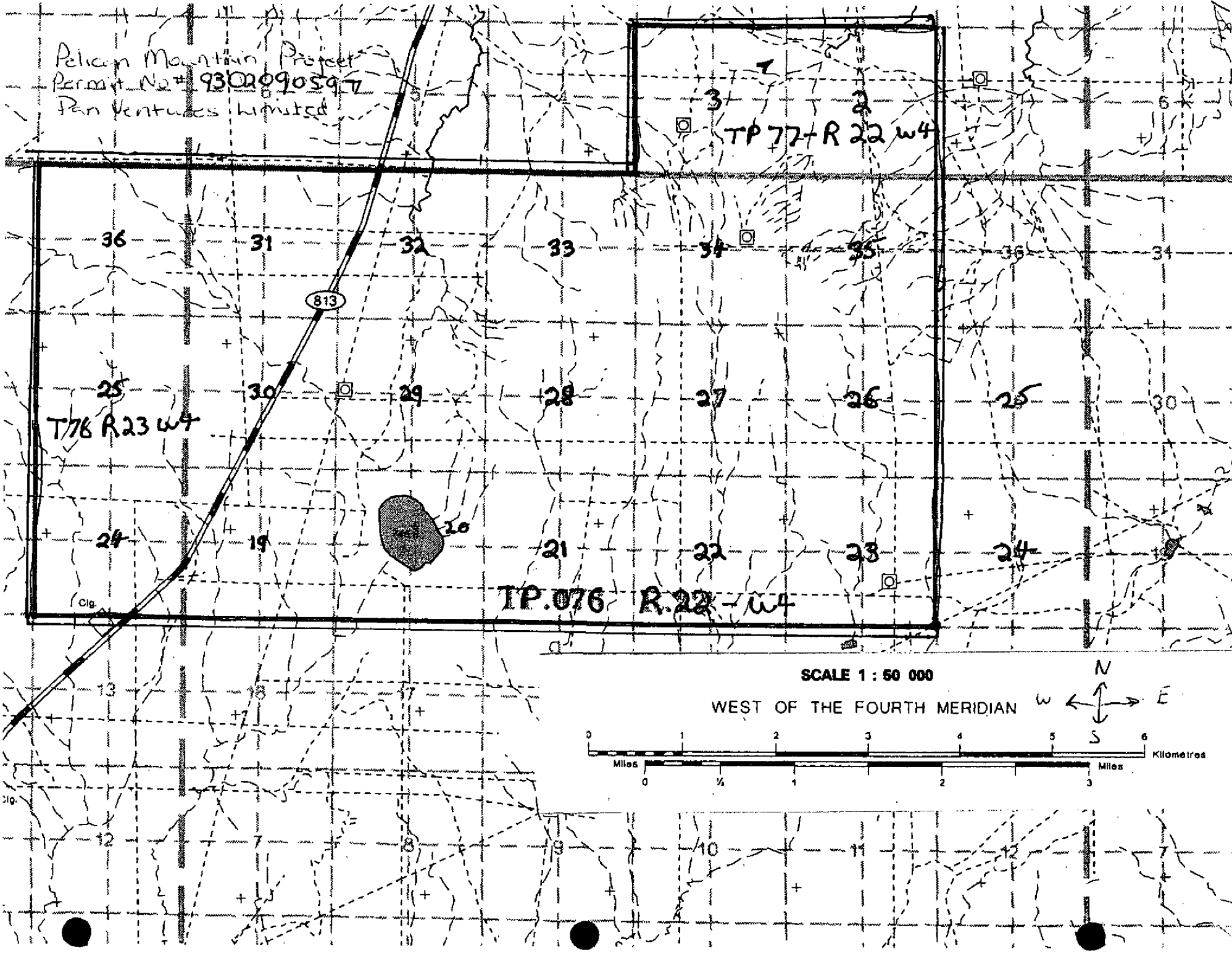
Prospector Larry MacGougan and assistants Chris Puckett and Debbie MacGougan conducted the exploration involving till and stream sampling, ground geophysics, and auger drilling. Surface collection caused none to minimal disturbance in the course of work and recovery.

The principal objective of permitting the land was to locate and test heavy mineral bearing sands and rocks. During the two-year period 2004 - 2006 seven trips were taken to the permit. Several prospective spots were discovered with occasional outcrops and stream cuts. All samples were transported back to Coronation, some were searched for their metal and diamond indicator mineral content.



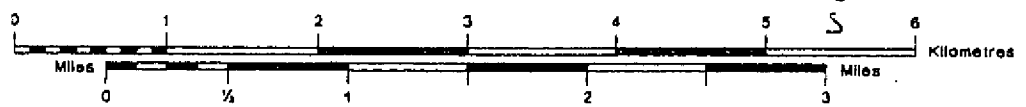
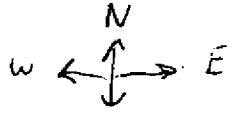
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Pelican Mountain Project  
Permit No # 9302090597  
Pan Ventures Limited



SCALE 1 : 50 000

WEST OF THE FOURTH MERIDIAN



## PERMIT TABULATION

Metallic and Industrial Permit #9302090597 is 100% owned by Pan Ventures Ltd. The permit consists of an aggregated area of 5,120 hectares in two partial townships. The person submitting the work assessment report is Larry MacGougan.

### LEGAL PERMIT DESCRIPTION

Permit no.	Date issued	Expiry Date	Size (ha)	Location (M-RG-TWP-SC)
9302090597	2002-09-04	2006-09-04	5,120	4-22-076: 19-23; 26-35 4-22-077: 02;03; 4-23-076: 24;25;36

### LOCATION AND ACCESS

Permit no. 9302090597 is located southeast of South Wabasca Lake in the Pelican Mountains area, east of Smoky River, and 40 kms north of Calling Lake and approximately 100 kms north of the town of Athabasca. Access to the area was gained by via Highway 813, property less than 2 kms off the highway, with access of a high grade road right to the permit boundary and past. The permit is approximately 60 kms NE from the CNR rail-line at Smith. There is an airport 5 kms north of Athabasca and a serviced airstrip north of Calling Lake.

There are a number of gravel roads which can be used throughout the area. There is also a few seismic and cut lines crossing the permit, which can be accessed by truck seasonally and by all-terrain vehicles year round.

The Pelican Mountain permit is along the 20th base line. It is geographically centered at about 113°30' W longitude and 55°40' N latitude, and within 1:50,000 National Topographic System map areas 83/P11 and 83/P 12. The elevation of Pelican Mountain is up to 3000 ft. above sea level and the average elevation of the permit is approximately 2350 ft. above sea level.

The Pelican Mountain region is comprised of a number of extensively forested topographic peaks surrounded by flat prairie and muskeg.

Annual temperatures range from -40 C in January to 25 C in July.

### REGIONAL GEOLOGY

The Pelican Mountain property lies within the Western Canadian Sedimentary Basin, along the southern flanks of the Peace River Arch. Overlaying the basement in the Pelican Mountain

region is a thick sequence of Phanerozoic rocks comprised mainly of cretaceous sandstones and shales and Mississippian to Devonian carbonates and salts (Glass, 1990). There is a major Devonian fault zone that extends from as far south as Athabasca River south of Pelican Mountain and trends northeasterly throughout the Fort McKay area (Martin & Jamin, 1968).

The Pelican Mountains area has been influenced by at least one stage of continental glaciation associated with the Laurentide ice sheet. As a result of this effect, the bedrock within the Pelican Mountain area is covered by a veneer of till. The glacial sediments are generally thin at higher elevations with occasional bedrock exposures (Shear Minerals 2001).

There is Upper Cretaceous rocks exposed within the area of the Pelican Mountains, the strata underlying is composed of marine and non-marine sandstone, shale, siltstone, mudstone and bentonite. The Pelican Mountain permit is in the Wapiti Formation: grey, feldspathic, clayey sandstone; grey bentonitic mudstone and bentonite; scattered coal beds; nonmarine. It is surrounded by the Upper and Lower Cretaceous. The Labiche Formation consists of: dark grey shale and silty shale; ironstone partings and concretions; marine (Alberta Geological Survey Map).

#### WORK PERFORMED

Year 2005 Work	No. of holes and samples:
Days:	
1. July 11-14; 4 days	1. Six grab samples
2. October 14-16; 3 days	2. Five shovel holes (9 samples obtained)
	3. Six auger holes (22 samples obtained)

Two trips were taken to the Pelican Mountain area in 2005. A total of 37 samples were collected. A ground magnetometer was conducted October 15, 2005, on Township 76, Range 22, West of the 4th, part of Section 1. Samples were obtained from the burrow pit, off a cutline, small streams, hills and from (alleged) exposed bedrock

Year 2006 Work	No. of holes and samples
Days:	
1. May 6-9; 4 days	1. Six grab samples
2. May 13-17; 5 days	2. Two shovel holes (3 shovel samples obtained)
3. June 23-28; 6 days	3. Thirty auger holes (118 auger samples obtained)
4. August 4-9; 6 days	
5. August 21-27; 7 days	

Five trips were taken to the permit in 2006. A total of 127 samples were collected. Samples were mainly taken from the gravel pit. Other samples were taken from small streams, ravines, hills and off an old cutline.

During 2005-2006 some days were reconnaissance prospecting and some days were extensively spent manually auger drilling, sometimes as deep as 25 feet. For auger holes, a homemade drag bit and chisel end were used to soften the ground for the dutch auger to drill out and retrieve the dirt. Further depth could be obtained by adding auger extensions. Primary tools

used were: an auger (with an extension), crowbars, shovels, picks, and an ax. Some of the instruments used were 3 compasses, 2 GPS systems, 2 walkie talkies and whistles for communication and defense. Also maps and a field magnifying glass, large knife, etc. A light plant was used to charge the ground magnetometer's batteries.

Samples weighed 60 grams to ½ kilogram. Samples were observed in the field, under the magnifying glass or microscope. After observed, unaltered, they were washed and reduced to sand grain size. If they were of no interest, they were rejected and discarded. Samples which were taken back to Coronation, were again observed under the microscope, in the lab, for any kimberlite or diamond indicator minerals, or for any black heavy indurated sand. Four days was needed for this careful and diligent observation

Most of the time in the field, the three-person crew camped at the work site, using the accommodation of a tent and two truck cabs.

### Project Work Breakdown

Senior Supervisor- Larry MacGougan is a full-time prospector and is recognized as such through Revenue Canada. He has twenty-five years of experience in metal and mineral exploration, and has done diamond core drilling for precious metals in the Ells River area. He solely supervised the Pelican Mountain project, operated the magnetometer and auger drilled many of the holes. His services are rendered out at \$500.00 per day. His camping equipment, food, bug spray, etc. are all supplied by him and included in his salary and services. Tools such as augers, axes, shovels, picks are his own; also the light plant, GPS systems, compasses, batteries, etc. His own trucks and quad are also used around the work sites when possible. Fuel and repair are included in mileage.

He is responsible for selection, transportation and storage of the mineral samples.

Larry has fifteen years working with experimental assaying, with the study of the chemical makeup of metals and minerals. His lab equipment and supplies, including chemicals, are included when claimed on the expenditure statement. Lab services rendered out at \$400.00 per day.

Assistant Prospector- Chris Puckett is a part-time prospector and part-time student. He has nine years experience prospecting, involving sample recovery, GPS readings, mapping and data collection. On this project, Chris performed a lot of manual labor with the shovel, crowbar and pick, assisting Larry with a few of the auger drilling holes. Services rendered out \$300.00 per day

Assistant Prospector- Debbie MacGougan is a part-time prospector with twenty years of experience, and has accompanied Larry on several prospecting trips. Her duties are catching samples under Larry's supervision; camp preparation and cooking at the work site. She also assists with the data collection and work assessment report preparation. Services rendered out \$300.00 per day

### SUMMARY

Permit #9302090597 was acquired for the purpose of collecting and processing heavy mineral bearing sands and rocks. This particular area is known for its black magnetic sands.

This assessment report summarizes the exploration efforts carried out by prospector Larry MacGougan and assistants Chris Puckett and Debbie MacGougan. The majority of their work was fieldwork, comprised of reconnaissance prospecting, auger drilling, ground geophysics work, stream sediment and glacier till sampling. The main expenditures incurred during these 7 trips was mileage and the manpower time utilized for the extensive manual labor, such as auger drill hole sampling, involved in retrieving the 164 samples. No mechanized exploration equipment was used during these trips.

In the lab, washed samples were picked and probed under a microscope, visually checked for kimberlite & diamond indicator minerals. Only pyrite, black sand, clay, and quartz were of interest. Some samples had some coal particles. Nothing significant was found. Some of the higher magnetic reading concentrates were experimentally tested to study the physical properties of the area's mineralogy, for a better understanding of the metals and minerals that might be there.

## CONCLUSIONS AND RECOMMENDATIONS

During 2005 and 2006, seven trips were taken to the Pelican Mountains permit number 9302090597, and a total of 164 samples were recovered. There were 36 auger holes drilled, 7 shovel holes done, and 12 grab samples taken. Even though there were no significant diamond indicator minerals found, there were samples of interest:

Assays done on very magnetic black sandstone believed to be carbonated cemented found before:  
1.) Sample LDM250-05 and LDM251-05 assays of iron more than 50%, manganese 5100 ppm., 3.65% titanium, calcium 4.15%. Assays seem to vary, partly because of oxidization of sample and incomplete leaching and element interferences.

Description - black sandstone - carbonate sandstone (Reaction to HCl);  
150-200 micron sand; came from bedrock; very magnetic.

Assays of brown sandstone believe to be carbonated cemented hardly at all magnetic.

2.) LDM132-05 found in bottom of gravel pit and in other areas. Assays of up to 33.60% iron, 28200 ppm of manganese, 11.35% Calcium- 5.07% aluminum. Assays seem to vary because of water precipitant reworking outside of sandstone and incomplete leaching and element interferences.

Description - brown sandstone - carbonate sandstone (Reaction to HCl);  
blacks in sand look like they're in crystal form. Came from bedrock  
Size: 150-200 microns

Assays of gray sandstone believe to be carbonated samples and carbon related.

3.) LDM236-05 : Assays of up to 1.38 ppm silver, 15.75% iron, 4% calcium, 235 ppm. nickel, 807 ppm zinc. Assays seem to vary because of stream water precipitant and leaching incomplete leaching and element interferences.

Description - gray sandstone - carbonate sandstone ( reaction to HCl)

blacks in this sandstone look like coal or organic origin. Size of 150 microns.

Believed to have come from bedrock in locality, but was unconfirmed

In glacial till reworked:

4.) Sample LDM89-05 believed to be possibly:

- partly water precipitant reworked
- oxidized organic complexes
- iron bacteria
- silicate complexes
- calcium complex
- surface leaching and concentration
- mainly associated with gravel; rocks; muskeg; stream or water movement.
- or a variation of the above

Note: Unknown where origin metal came from. Glacial till is bedrock reworking.

Very common in surface samples mixed with gravel Assay results of 1.46 ppm silver, 36.60% iron, 5140 ppm manganese, 3560 ppm zinc, 156.5 ppm cobalt. Assay probably is inaccurate because of high organic material content, incomplete leaching and element interferences.

Little or no reaction to HCl.

HCl - hydrochloric acid

It is belief of the author that all assays done are inaccurate and should be reported as so because of:

- organic complexes
- silicate complexes
- element interferences
- element compounds
- low temperature alloys
- calcium complexes
- iron complexes
- carbon complexes
- improper preparation on fire assays
- and reaction between all these complexes
- high temperature Assay (Fire Assay) with high levels of manganese content (Manganese Dioxide) causes the slagging of silver.
- an oxidized state of precious metals with organic complexes
- or a combination of the complexes

The ground mag. showed high readings at exposure, because of the very magnetic sandstone, but no new high readings were found.

Further ground geophysics surveying should be completed for future use. More prospective areas should be examined, for bedrock and outcrops, which may expose any heavy magnetic sand or rock, with the possibility of magnetite or titanium concentrates. Because of the higher levels of manganese and zinc, the source of the rock, should be worked on, with an economic method to concentrate them. There could also be metals such as iron, nickel, rutile, ilmenite, etc.


More lab work needs to be completed. Processing samples is ongoing.  
Based on results so far, exploration drilling is recommended.

AUTHOR

Larry MacGougan is the author of "Assessment Report Permit No.9302090597, Pelican Mountains Project."

The data of this report is based on the work compiled and performed on the permit by him from July 2005 to August 2006. He has twenty-five years of prospecting experience, and has submitted and filed other work assessment reports for Pan Ventures Limited, and for permits of his own.

He was senior supervisor for the entire Pelican Mountains project . All work, involving the ground magnetic surveying, sample recovery and preparation of this report, was completed by him or under his supervision.

  
\_\_\_\_\_  
Larry MacGougan



## SHOVEL HOLES, AUGER HOLES AND GRAB SAMPLES

North American Datum 1927

Sample

Location

ID#	When collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes	
LDM88-05	07/11/05	Grab sample #1	Amt: 60 grams -dark black sandstone; magnetic	348748	6166459	Burrow pit. - taken in glacial till	Grab #1
LDM89-05	07/11/05	Grab sample #2	Amt: 60 grams -rusty tan color; flaky sandy material in sand; med. sand; 15% quartz.	348768	6166453	Burrow pit. -taken in till -very common for till or gravel samples	Grab #2
LDM90-05	07/11/05	Grab sample #3	Amt: 60 grams -mudstone or shale rock; dark; -gray black;	348733	6166459	Burrow pit. -taken in glacial till	Grab #3
LDM91-05	07/12/05	Auger hole #1	Amt: 60 grams Organic material	348571	6166527	Off outline Little hill Depth: 0-6 in.	Auger #1
LDM92-05	07/12/05	Auger hole #1	Amt: 60 grams -rusty; sticky tan sand clay; maybe limey; 10%medium sand; 10%quartzlike	348571	6166527	Off outline Little hill Depth: 6 in.- 3 ft.	TD 5ft
LDM93-05	07/12/05	Auger hole #1	Amt: 60 grams sand; gravel; tan rust; sticky sand; 10%sand; medium	348571	6166527	Off outline Little hill Depth: 3 ft-4 ft.	
LDM94-05	07/12/05	Auger hole #1	Amt: 60 grams sand rusty; limey; 70%sand; medium sand; quartz-like;	348571	6166527	Off outline Little hill Depth: 4ft.-5 ft end of hole	
LDM95-05	07/13/05	Auger hole #2	Amt: 60 grams Organic material	348343	6166530	Off outline little hill Depth: 0- 12 ft	Auger #2
LDM96-05	07/13/05	Auger hole #2	Amt: 60 grams - tan rusty sticky clay; limey	348343	6166530	Off outline little hill Depth: 1ft- 2ft.	TD - 3ft
LDM97-05	07/13/05	Auger hole #2	Amt: 60 grams rocks; sand; tan meduim sand; coarse sand;	348343	6166530	Off outline Little hill Depth: 2 ft-3 ft end of hole	
LDM98-05	07/13/05	Auger hole #3	Amt: 60 grams Organic material	348343	6166463	Off c outline Depth: 0 - 6 in.	Auger #3

ID#	When collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM99-05	07/13/05	Auger hole #3	Amt: 60 grams very sticky tan clay - decomposed organic mix.	348343	6166463	Off outline Depth: 6 in.-2 ft.
LDM100-05	07/13/05	Auger hole #3	Amt: ½ kg. - rocks; till; 50% sand, clay; tan	348343	6166463	Off outline Depth: 2 ft. - 3 ft.
LDM101-05	07/13/05	Shovel hole & auger #1	Amt: ½ kg. - rocks; sand coarse, related to rocks;	348096	6166408	By stream 4'-5' cut down very narrow Depth: 1ft-2ft.
LDM102-05	07/13/05	Shovel hole & auger #1	Amt: 60 grams -black rotten clay -little sand; 30% sand	348096	6166408	By stream 4'-5' cut down very narrow Depth: 3 ft-4ft.
LDM103-05	07/14/05	Auger hole #4	Amt: 60 grams Organic material	348063	6166447	Hill Depth:0- 6 in.
LDM104-05	07/14/05	Auger hole #4	Amt: 60 grams -sticky brown clay (porous). - Decomposed organics	348063	6166447	Hill Depth: 6 in.- 3 ft.
LDM105-05	07/14/05	Auger hole #4	Amt: 60 grams sandy brown clay 35%medium sand	348063	6166447	Hill Depth: 3ft-5ft
LDM106-05	07/14/05	Auger hole #4	Amt: ½ kg. - rock	348063	6166447	Hill Depth: 5ft. end of hole
LDM107-05	10/14/05	Shovel hole #2	Amt: 60 grams 6"-8" round rocks -little sand;coarse to medium sand; - quartz & red granite-like sand;	348018	6166423	Stream 2 ft. cut - 5 ft. cut down. Depth: 1 ft.-2ft. - slightly magnetic
LDM108-05	10/14/05	Shovel hole #2	Amt: 60 grams -sand; silt; gray; 200 microns; 70% sand;	348018	6166423	Stream 2 ft. cut - 5 ft. cut down. Depth:3ft.- 4ft. some magnetic end of hole
LDM109-05	10/15/05	Shovel hole #3	Amt: ½ kg. -sandy gravel; fine sand; black throughout; 200 microns	347968	6166458	Stream Narrow part Depth: 1 ft - 2ft. - only slightly magnetic

Auger #3

TD-3ft

Shovel #1

TD-4ft

Auger #4

TD-5ft

Shovel #2

TD-4ft

Shovel #3

3

ID #	When collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM110-05	10/15/05	Shovel hole #3	Amt: 60 grams - sand, some very fine; 150 microns - 1/4" coal chunks - gray	347968	6166458	Stream Narrow part Depth: 3ft-4 ft. end of hole
LDM111-05	10/15/05	Shovel hole #4	Amt: 60 grams - fine sand; gray 1/2 rock & gravel; 200 micron sand	347910	6166458	Stream Depth: 1 ft-2 ft.
LDM112-05	10/15/05	Shovel hole #4	Amt: 60 grams mainly sand; very rotten black spots 200 micron sand	347910	6166458	Stream Depth: 3ft.-4 ft. end of hole
LDM113-05	10/15/05	Shovel hole #5	Amt: 60 grams - fine sand; black sand very fine; 150-200 microns; - 1/2" gravel	347807	6166392	Stream Depth: 1ft.-2ft. - Slightly magnetic
LDM114-05	10/16/05	Auger hole #5	Amt: 60 grams Organic material	347712	6166389	Depth: 1" - 6"
LDM115-05	10/16/05	Auger hole #5	Amt: 60 grams - black sticky organic clay; roots	347712	6166389	Depth: 6" - 3ft
LDM116-05	10/16/05	Auger hole #5	Amt: 60 grams - black sticky organic clay; roots - rotten smell	347712	6166389	Depth: 3ft-4 ft.
LDM117-05	10/16/05	Auger hole #5	Amt: 60 grams - lighter clay; sand rock; water; 200 micron sand; gray	347712	6166389	Depth: 4ft.-5ft end of hole
LDM118-06	06/23/06	Auger hole - auger & crowbar (extended) #6	Amt: 60 grams - hard sandstone exposed; 150-200 micron sand; carbonated sandstone; slightly magnetic;	347315	6166301	Old gravel pit. Exposed bed-rock; sandstone cap. Depth: 0 - 1 ft. -hard augering
LDM119-06	06/23/06	Auger hole - crowbar #6	Amt: 60 grams - very hard chunky sandstone - rusted brown sandstone. 150-200 micron sand; limey brown;	347315	6166301	Old gravel pit. Exposed bed-rock; sandstone cap. Depth: 1ft.-2ft. -hard augering -slightly magnetic.

TD - 4ft.

Shovel #4

TD - 4ft.

Shovel #5  
TD 2ft

Auger #5

TD - 5ft

Auger #6

4

ID#	When collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM120-06	06/23/06	Auger hole - extended crowbar #6	Amt: 60 grams - very hard brown sandstone; some water; rough and cemented; brown fine sand mixed with black; 150-200 micron sand	347315	6166301	Old gravel pit. Exposed bed-rock, sandstone cap. Depth: 3ft-17ft. -very hard augering. - magnetic
LDM121-06	06/23/06	Auger hole - (small) auger #6	Amt: 60 grams - brown fine sand -Blacks; rough & cemented; 150-200 microns; 10% blacks; slightly magnetic	347315	6166301	Old gravel pit. Exposed bed-rock, sandstone cap. Depth: 17 ft. - very hard augering.
LDM122-06	06/23/06	Auger hole - (small) auger #6	Amt: 60 grams - very hard brown sandstone; 150-200 micron; 10% black sand; very fine; - slightly magnetic	347315	6166301	Old gravel pit. Exposed bed-rock, sandstone cap. Depth: 21 ft. end of hole
LDM123-06	06/24/06	Auger hole #7	Amt: 60 grams - gravel removed	347306	6166299	Old gravel pit. Depth: 0 -
LDM124-06	06/24/06	Auger hole #7	Amt: 60 grams - gray sand; very soft; very fine; 150-200 micron sand; 5% blacks;	347306	6166299	Old gravel pit. Depth: 0 - 1 ft. - not magnetic
LDM125-06	06/24/06	Auger hole #7	Amt: 60 grams -very hard brown sandstone; black sand throughout; 150-20micron sand 5% blacks;	347306	6166299	Old gravel pit. Depth: 1ft-10ft - carbonated sandstone
LDM126-06	06/24/06	Auger hole #7	Amt: 60 grams - very hard brown sandstone; blacks - little water; 150-200 micron sand 5% black sand;	347306	6166299	Old gravel pit. Depth: 10 ft- 30 ft. end of hole
LDM127-06	06/24/06	Auger hole #8	Gravel removed	347304	6166288	Gravel pit. Depth: 0 -
LDM128-06	06/24/06	Auger hole #8	Amt: 60 grams - soft sand; gray black throughout 150-200 micron sand; 5% blacks	347304	6166288	Gravel pit. Depth: 0- 2 ft. 5% black sand - slightly magnetic

TD-21 ft

Auger #7

TD-30ft

Auger #8

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM129-06	06/25/06	Auger hole #8	Amt: 60 grams -very hard brown sand cemented; very fine; cemented rusty flakes; 150-200 micron sand;	347304	6166288	Gravel pit. Depth: 2 ft.- 20 ft. - slightly carbonated.
LDM130-06	06/25/06	Auger hole #8	Amt: 60 grams - very hard sand; very fine; 150-200 micron sand; 10% blacks	347304	6166288	Gravel pit. Depth: 20ft. - 25 ft. end of hole
LDM131-05	07/13/05	Auger hole #9	Gravel removed.	347301	6166277	Gravel pit. Exposed; very hard. Depth: 0-
LDM132-05	07/13/05	Auger hole #9	Amt: 60 grams - brown sandstone very hard; 150-200 micron sand; 10% blacks;	347301	6166277	Gravel pit. Depth: 1ft-19ft. -Carbonated sandstone
LDM133-05	07/13/05	Auger hole #9	Amt: 60 grams - soft lighter sandstone; 150-200 micron sand; 3% blacks	347301	6166277	Gravel pit. Depth: 19 ft.- 22ft.
LDM134-05	07/13/05	Auger hole #9	Amt: 60 grams - extremely hard brown sandstone cemented brown blacks; very fine; 150-200microns; 10% blacks	347301	6166277	Gravel pit. Depth: 22 ft. - 23 ft. - slightly magnetic end of hole
LDM135-06	06/26/06	Auger hole #10	Gravel removed	347299	6166263	Gravel pit. Depth: 0 -
LDM136-06	06/26/06	Auger hole #10	Amt: 60 grams - softer brown sand; 150-200 micron sand; 10% blacks;	347299	6166263	Gravel pit. Depth: 1ft-2ft. - blacks throughout.
LDM137-06	06/26/06	Auger hole #10	Amt: 60 grams very hard brown sand; 150-200 micron sand; 10% black sand;	347299	6166263	Gravel pit. Depth: 3ft-15 ft. - blacks throughout.
LDM138-06	06/27/06	Auger hole #10	Amt: 60 grams -softer brown sand blacks throughout; 150-200 micron sand; 10% blacks	347299	6166263	Gravel pit. Depth: 15ft-27ft - water slowly coming in hole. - end of hole

TD-25 ft

Auger hole #9

TD-23ft

Auger hole #10

TD-27 ft

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes		
LDM139-06	06/27/06	Auger hole #11	Gravel removed	347298	6166256	Gravel pit. Depth: 0 -	Auger #11	
LDM140-06	06/27/06	Auger hole #11	Amt: 60 grams brown sandstone 150-200 micron sand;	347298	6166256	Gravel pit. Depth: 1ft.-6ft. - carbonated sandstone also		
LDM141-06	06/27/06	Auger hole #11	Amt: 60 grams - very brown; very hard & dense; 150-200 micron sand; rusty precipitant; sandy rusty flakes limey	347298	6166256	Gravel pit. Depth: 6ft-25ft.  - end of hole		TD - 25 ft
LDM142-06	06/28/06	Auger hole #12	Gravel removed	347312	6166260	Gravel pit. Depth: 0 -	Auger #12	
LDM143-06	06/28/06	Auger hole #12	Amt: 60 grams gray brown sand 150-200 micron sand; 10% blacks	347312	6166260	Gravel pit. Depth: 1ft.-3ft - blacks throughout.		
LDM144-06	06/28/06	Auger hole #12	Amt: 60 grams very hard brown sandstone; 150-200 micron sand	347312	6166260	Gravel pit. Depth: 3ft.-10ft - slightly carbonated.		TD - 24 ft
LDM145-06	06/28/06	Auger hole #12	Amt: 60 grams - lighter brown sandstone; very hard; 10% blacks	347312	6166260	Gravel pit. Depth: 10 ft. - 24 ft. end of hole		
LDM146-06	08/04/06	Auger hole #13	Gravel removed.	347320	6166265	Gravel pit. Depth: 0 -	Auger #13	
LDM147-06	08/04/06	Auger hole #13	Amt: 60 grams - light brown blocky sandstone; 150-200 micron sand	347320	6166265	Gravel pit. Depth: 1ft-2ft. - carbonated sandstone also		
LDM148-06	08/04/06	Auger hole #13	Amt: 60 grams - very dense brown sandstone blacks; 150-200 micron sand	347320	6166265	Gravel pit. Depth: 3ft-10ft - carbonated sandstone soft		TD - 22 ft
LDM149-06	08/04/06	Auger hole #13	Amt: 60 grams - very hard brown sandstone blacks; 150-200 micron sand; 10% black sand	347320	6166265	Gravel pit. Depth: 10 ft.- 22 ft. - carbonated sandstone soft end of hole		

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM150-06	08/05/06	Auger hole #14	Gravel removed.	347327	6166275	Gravel pit. Depth: 0 -
LDM151-06	08/05/06	Auger hole #14	Amt: 60 grams -very dense brown sandstone, some brown flecks; 150-200 micron sand; 10% blacks	347327	6166275	Gravel pit. Depth: 1ft-20ft. - water slowly coming in. end of hole
LDM152-06	08/06/06	Auger hole #15	Gravel removed	347331	6166259	Gravel pit. Depth: 0 -
LDM153-06	08/06/06	Auger hole #15	Amt: 60 grams - gray sand very fine; 5% blacks; 150-200 microns;	347331	6166259	Gravel pit. Depth: 1ft.-5ft.
LDM154-06	08/06/06	Auger hole #15	Amt: 60 grams sandstone chunk light brown; 150-200 micron sand slightly carbonated	347331	6166259	Gravel pit. Depth: 5ft.-6ft.
LDM155-06	08/06/06	Auger hole #15	Amt: 60 grams very hard brown sandstone; water participant; 150 200 micron sand carbonated	347331	6166250	Gravel pit. Depth: 6 ft.- 23 ft. end of hole
LDM156-06	08/07/06	Auger hole #16	Gravel removed	347309	6166249	Gravel pit. Depth: 0 -
LDM157-06	08/07/06	Auger hole #16	Amt: 60 grams brown gray fine sand; 150-200 micron sand; 10% blacks;	347309	6166249	Gravel pit. Depth: 1ft.-2ft. - blacks throughout.
LDM158-06	08/07/06	Auger hole #16	Amt: 60 grams brown gray fine sand chunks lighter brown hard sandstone; 150-200 micron sand; 10% blacks -slightly carbonated.	347309	6166249	Gravel pit. Depth: 3ft.-6ft.
LDM159-06	08/07/06	Auger hole #16	Amt: 60 grams very hard brown sand; dense; 10% blacks; carbonated sandstone	347309	6166249	Gravel pit. Depth: 6 ft.-21 ft.

Auger #14

TD-20ft

Auger #15

TD-23ft

Auger #16

7

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM160-06	08/07/06	Auger hole #16	Amt: 60 grams light limey clay-like material; 150-200 microns; 50% sand;	347309	6166249	Gravel pit. Depth: 21 ft.-21'6"
LDM161-06	08/07/06	Auger hole #16	Amt: 60 grams - very dense brown gray sand blacks; 150-200 microns; 10% blacks;	347309	6166249	Gravel pit. Depth: 21'6"- 25'6" end of hole
LDM162-06	08/08/06	Auger hole #17	Gravel removed	347305	6166232	Gravel pit. Depth: 0 -
LDM163-06	08/08/06	Auger hole #17	Amt: 60 grams - soft gray black sand; 150-200 microns; 10% blacks;	347305	6166232	Gravel pit. Depth: 1ft.-2ft
LDM164-06	08/08/06	Auger hole #17	Amt: 60 grams -hard dense brown sand. 150-200 microns; 10%blacks	347305	6166232	Gravel pit. Depth: 2 ft. - 15 ft.
LDM165-06	08/08/06	Auger hole #17	Amt: 60 grams lighter brown sand very hard; fine-grained sand(silty) 100-200 microns 5% blacks;	347305	6166232	Gravel pit. Depth: 15 ft.- 25 ft. end of hole
LDM166-06	08/08/06	Auger hole#18	Gravel removed	347295	6166234	Gravel pit. Depth: 0 -
LDM167-06	08/08/06	Auger hole #18	Amt: 60 grams blocky brown sand stone; carbonated sandstone; 150 - 200 microns;	347295	6166234	Gravel pit. Depth: 1ft.-2ft.
LDM168-06	08/08/06	Auger hole #18	Amt: 60 grams -black soft organic like material; some rotten smell.	347295	6166234	Gravel pit. Depth: 2ft.-3ft.
LDM169-06	08/08/06	Auger hole #18	Amt: 60 grams - very packed brown sand; 10% blacks; 150-200 microns; very little magnetics	347295	6166234	Gravel pit. Depth: 3ft-10ft end of hole
LDM170-06	08/09/06	Auger hole #19	Gravel removed	347333	6166243	Gravel pit. Depth: 0 -

Auger #16

TD-25'6"

Auger #17

TD-25ft

Auger #18

TD-10ft

Auger #19



ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM171-06	08/09/06	Auger hole #19	Amt: 60 grams - gravel sand med. to coarse	347333	6166243	Gravel pit bottom. Depth: 1ft.-2 ft.
LDM172-06	08/09/06	Auger hole #19	Amt: 60 grams - gray black sand 150-200 microns 10% blacks;	347333	6166243	Gravel pit bottom. Depth: 2ft.-3ft.
LDM173-06	08/09/06	Auger hole #19	Amt: 60 grams -very hard, dense brown sand; 10% blacks; slightly carbonated; 150-200 microns;	347333	6166243	Gravel pit bottom. Depth: 3 ft. - 24 ft.
LDM174-06	08/09/06	Auger hole #19	Amt: 60 grams - extremely hard chunky brown gray sand; 150-200 micron sand; 10% blacks; carbonated sandstone;	347333	6166243	Gravel pit bottom. Depth: 24 ft. - 25 ft. end of hole
LDM175-06	08/21/06	Auger hole #20	Most gravel removed.	347343	6166241	Gravel pit. Depth: 0 -
LDM176-06	08/21/06	Auger hole #20	Amt: 60 grams sandy gravel; med. to coarse;	347343	6166241	Gravel pit. Depth: 1ft.-2ft.
LDM177-06	08/21/06	Auger hole #20	Amt: 60 grams - soft brown gray sand; 5% blacks; 150-200 microns	347343	6166241	Gravel pit. Depth: 2ft.-4ft.
LDM178-06	08/21/06	Auger hole #20	Amt: 60 grams -brown hard dense sand; 5% blacks; slightly carbonated	347343	6166241	Gravel pit. Depth: 4 ft.-15 ft.
LDM179-06	08/21/06	Auger hole #20	Amt: 60 grams -very hard gray speckled blacks; 100-200 micron sand; very fine;	347343	6166241	Gravel pit. Depth: 15 ft.- 20 ft. end of hole
LDM180-06	08/22/06	Auger hole #21	Most gravel removed.	347357	6166247	Gravel pit. Depth: 0 -
LDM181-06	08/22/06	Auger hole #21	Amt: 60 grams - rock; sand; gravel	347357	6166247	Gravel pit. Depth: 1ft.-3ft.
LDM182-06	08/22/06	Auger hole #21	Amt: 60 grams - gray brown sand (blacks) 150-200 microns	347357	6166247	Gravel pit. Depth: 3ft.-4ft. - 10% less magnetic

Auger 19<sup>A</sup>  
TD - 25 ft

Auger #20

TD - 30 ft

Auger #21

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM183-06	08/22/06	Auger hole #21	Amt: 60 grams -hard dense brown sand; slightly carbonated; 10% blacks; 150-200 microns;	347357	6166247	Gravel pit. Depth: 4 ft.- 15 ft.
LDM184-06	08/22/06	Auger hole #21	Amt: 60 grams -very hard augering; brown sand chunks; carbonated sandstone; 150-200 micron sand;	347357	6166247	Gravel pit. Depth: 15 ft.- 20 ft. end of hole
LDM185-06	08/23/06	Auger hole #22	Amt: 60 grams - blocky brown sandstone; 150-200 microns; 5% blacks carbonated sandstone.	347393	6166232	East end hill Gravel pit 4 - 5 ft gravel removed. Depth: 1 ft.-3ft.
LDM186-06	08/23/06	Auger hole #22	Amt: 60 grams - black soft organic-looking material. Some water precipitant	347393	6166232	East end hill Gravel pit Depth: 3 ft.- 3'6"
LDM187-06	08/23/06	Auger hole #22	Amt: 60 grams -very hard sand; 80% sand; 150-200 microns; water precipitant (rain-bow ) 10% blacks;	347393	6166232	East end hill Gravel pit Depth: 3'6"- 6-7 ft.
LDM188-06	08/23/06	Auger hole #22	Amt: 60 grams - extremely hard brown fine sandstone; 10% blacks slightly carbonated 150-200 microns	347393	6166232	East end hill Gravel pit Depth: 7 ft.- 10 ft. end of hole
LDM189-06	08/24/06	Auger hole #23	Amt: 60 grams -black brown sand stone; carbonated sandstone; 150-200 microns; 10% black	347384	6166213	East end hill. Gravel pit. 4-5 ft. gravel removed. Depth: 1 ft.-2ft.
LDM190-06	08/24/06	Auger hole #23	Amt: 60 grams -very hard brown sand; slightly carbonated sand; 150-200 microns	347384	6166213	East end hill Gravel pit Depth: 2ft.-4ft.
LDM191-06	08/24/06	Auger hole #23	Amt: 60 grams lighter brown gray sand; very hard; 150-200 microns; 5% blacks;	347384	6166213	East end hill Gravel pit. Depth: 4ft-5ft.

Auger #21  
TD-20ft

Auger #22

TD-10ft

Auger #23

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM192-06	08/24/06	Auger hole #23	Amt: 60 grams -very hard brown sand; 5% blacks; 150-200 microns; very few magnetic	347384	6166213	East end hill Gravel pit. Depth: 5ft.-8ft. end of hole
LDM193-06	08/24/06	Auger hole #24	Amt: 60 grams -gravel;sand;roots	347517	6166065	Gravel pit road. Off road; ditch; Depth: 0 - 2 ft.
LDM194-06	08/24/06	Auger hole #24	Amt: 60 grams - soft gray sand (blacks) 150-200 micron sand; 10% blacks;	347517	6166065	Gravel pit road. Off road; ditch. Depth: 2ft.- 4ft. - very few magnetics
LDM195-06	08/24/06	Auger hole #24	Amt: 60 grams - rocks; sand; glacial till; coarse to medium sand	347517	6166065	Gravel pit road. Off road; ditch. Depth: 4ft.-6 ft. end of hole
LDM196-06	08/25/06	Auger hole #25	Amt: 60 grams -organic material trees; roots	347536	6165983	Gravel pit road. Off road. Depth: 0 - 2'6"
LDM197-06	08/25/06	Auger hole #25	Amt: 60 grams - black brown organic material	347536	6165983	Gravel pit road. Off road. Depth: 2'6"-3ft.
LDM198-06	08/25/06	Auger hole #25	Amt: 60 grams -white organic sandy material; 50% medium sand quartz-like	347536	6165983	Gravel pit road. Off road. Depth: 3ft-4ft.
LDM199-06	08/25/06	Auger hole #25	Amt: 60 grams -gray sand; 10% blacks; 150-200 micron sand;	347536	6165983	Gravel pit road. Off road. Depth: 4 ft.-6ft.
LDM200-06	08/25/06	Auger hole #25	Amt: 60 grams -hard brown sand; blacks; 150-200 micron sand; slightly carbonated	347536	615983	Gravel pit road. Off road. Depth: 6ft.-15ft. end of hole
LDM201-06	08/25/06	Auger hole #26	Amt: 60 grams -organic material	347561	6165944	Gravel pit road. Off road. Depth: 1 ft.- 2ft.
LDM202-06	08/25/06	Auger hole #26	Amt: 60 grams - fine gravel	347561	6165944	Gravel pit road. Off road. Depth: 2ft. -3 ft.
LDM203-06	08/25/06	Auger hole #26	Amt: 60 grams very hard brown sandstone; 150-200 micron sand; 10% blacks; carbonated sandstone.	347561	6165944	Gravel pit road. Off road. Depth: 3ft.- 4ft.

TD - 8ft.

Auger #24

TD - 4ft

Auger #25

TD - 15 ft

Auger #26

12

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM204-06	08/26/06	Auger hole #26	Amt: 60 grams - softer brown sand; blacks; 150-200 microns	347561	6165944	Gravel pit road. Off road. Depth: 4ft-15 ft
LDM205-06	08/26/06	Auger hole #26	Amt: 60 grams - very hard sand; brown; 150-200 micron sand; slightly carbonated	347561	6165944	Gravel pit road. Off road. Depth: 15 ft.- 16ft. end of hole
LDM206-06	08/26/06	Auger hole #27	Amt: 60 grams very brown sand; water precipitant; 150-200 microns rusty;	347706	6165940	Gravel pit road Ditch; Hill cut Depth: 0 - 2ft.
LDM207-06	08/26/06	Auger hole #27	Amt: 60 grams -very hard brown sand; 10% blacks; 150-200 microns	347706	6165940	Gravel pit road. Ditch; Hill cut Depth: 2ft-10ft
DLM208-06	08/26/06	Auger hole #27	Amt: 60 grams -softer brown gray sand; 5% blacks; 150-200 microns	347706	6165940	Gravel pit road. Ditch; Hill cut Depth: 10ft-13ft
LDM209-06	08/27/06	Auger hole #27	Amt: 60 grams -very hard brown black sand; 150-200 micron sand; slightly carbonated 10% blacks;	347706	6165940	Gravel pit road. Ditch; Hill cut. Depth: 13ft-16ft end of hole
LDM210-06	08/27/06	Auger hole #28	Amt: 60 grams -organic material	348007	6165965	Large ravine. Depth: 0 - 1ft.
LDM211-06	08/27/06	Auger hole #28	Amt: 60 grams - tanned brown soft porous clay-like material (brown roots)	348007	6165965	Large ravine. Depth: 1ft.-2ft.
LDM212-06	08/27/06	Auger hole #28	Amt: 60 grams - gravel; medium to coarse sand	348007	6165965	Large ravine. Depth: 2ft.-3 ft.
LDM213-06	08/27/06	Auger hole #28	Amt: 60 grams - sandy brown; related to gravel; - medium to coarse sand;	348007	6165965	Large ravine. Depth: 3ft.-5ft. end of hole
LDM214-06	08/27/06	(Short) Auger hole #29 crowbar	Amt: 60 grams - gravel; rocks;	348280	6166060	Stream - 20 ft wide. Depth: 1ft.-2ft.

Auger #26

TD-16ft

Auger #27

TD-16ft

Auger #28

TD-5ft

Auger #29

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM215-06	08/27/06	(Short) Auger hole #29	Amt: 60 grams -very fine; silty; rotten smell;gray to black silt;	348280	6166060	Stream - 20 ft. wide Depth: 2ft.- 4ft. end of hole
LDM216-06	08/27/06	(Short) Auger hole #30	Amt: 60 grams - coal chunks; silty hard clay nodules; coal in gravel off stream	348300	6166045	Stream - 20 ft. wide Depth: 0 -
LDM217-06	08/27/06	(Short) Auger hole #30	Amt: 60 grams - sticky, silty gray black clay	348300	6166045	Stream - 20 ft. wide Depth: 1ft.- 3ft. end of hole
LDM218-06	08/27/06	Grab sample #4	Amt: 60 grams - coal in stream; lots in gravel;	348320	6166017	Stream. 8"-10" squares big chunks
LDM219-06	08/27/06	Grab sample #5	Amt: 60 grams - silty; sandy gravel;(rounded) chunks of clay.	348327	6165967	Stream. Lots of coal in big chunks.
LDM220-06	08/27/06	Grab sample #6	Amt: 60 grams - lots of rocks & gravel; very small coal pieces	348375	6165896	Stream.
LDM221-06	09/06/06	Auger hole #31	Amt: 60 grams -organic material	348687	6166178	Off outline. Depth: 0 - 6in.
LDM222-06	09/06/06	Auger hole #31	Amt: 60 grams - rusty organic sand; clay; 5% medium quartz-like;	348687	6166178	Off outline. Depth:6"-1'6"
LDM223-06	09/06/06	Auger hole #31	Amt: 60 grams - light sand; clay 30% medium sand;	348687	6166178	Off outline. Depth: 1'6"-3 ft.
LDM224-06	09/06/06	Auger hole #31	Amt: 60 grams rocks - water medium sand quartz-like	348687	6166178	Off outline. Depth:3ft.-4ft.
LDM225-06	09/07/06	Auger hole #32	Amt: 60 grams -organic material leaves; grass	350362	6166963	Little hill N.of stream.In trees Depth: 0 -1 ft.

Auger 25"  
TD - 4ft

Auger #30  
TD - 3ft

Grab #4

Grab #5

Grab #6

Auger #31

TD - 4ft

Auger #32

13

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM226-06	09/07/06	Auger hole #32	Amt: 60 grams - brown flaky sticky clay; 10% organic; 5% sand	350362	6166963	Little hill N. of stream. In trees Depth: 1 ft. - 2'6"
LDM227-06	09/07/06	Auger hole #32	Amt: 60 grams - screen about 1/4 brown sandy clay gravel; 60% sand; 10% clay; 30% pebbles	350362	6166963	Little hill N. of stream. In trees Depth: 2'6" - 4 ft.
LDM228-06	09/07/06	Auger - hammer with crow-bar Hole #32	Amt: 60 grams - gravel; broken rocks;	350362	6166963	Little hill N. of stream. In trees Depth: 4 ft. - 4.6 ft. end of hole
LDM229-06	09/08/06	Auger hole #33	Amt: 60 grams - organic material	350637	6167467	5 ft. down from hilltop - very steep. Depth: 0 - 1 ft.
LDM230-06	09/08/06	Auger hole #33	Amt: 60 grams brown clay-sand - 5% sand quartz-like; 10% organic;	350637	6167467	5 ft. down from hilltop - very steep. Depth: 1 ft. - 3 ft.
LDM231-06	09/08/06	Auger hole #33	Amt: 60 grams - brown, sticky sandy clay; 30% sand quartz-like; 200 > microns	350637	6167467	5 ft. down from hilltop - very steep. Depth: 3 ft. - 4'6"
LDM232-06	09/08/06	Auger hole #33	Amt: 60 grams - brown sandy clay with coal-like material; 2% sticky gray around coal; coal approx 400 microns	350637	6167467	5 ft. down from hilltop - very steep. Depth: 4'6" - 7 ft. end of hole
LDM233-06	09/09/06	Auger hole #34	Amt: 60 grams - organic material grass; leaves;	350288	6167620	50-60 m. E. of stream. On hillside. Depth: 0 - 6 in.

TD - 4.6 ft

Auger #33

TD - 7 ft

Auger #34

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM234-06	05/09/06	Auger hole #34	Amt: 60 grams - dry brown clay; 10% roots (sticky with water); 5% quartz-like; 200 > microns	350288	6167620	50-60 m. E. of stream. On hillside. Depth: 6"-1'6"
LDM235-06	05/09/06	Auger hole #34	Amt: 60 grams - brown tan clay (10% sand, 300 > microns); 6% dark coal-like material; soft organic	350288	6167620	50-60 m E. of stream. On hillside. Depth: 1'6"-6ft. end of hole
LDM236-05	07/13/05	Grab sample #7	Amt: 1 kg. - cemented gray sandstone (sandstone rocks 6"-1 ft. diameter) - crushed 150 micron sand; 10% black coal-like material 150 microns.	350273	6167591	Stream - 30 feet across. Beside hill.
LDM237-06	05/13/06	Grab sample #8	Amt: 1 kg. - cemented gray sandstone; crushed 150 micron sand; 10% black coal-like material; (150 microns) - 5% green-blue cemented portion.	350200	6167666	Stream - 30 ft. across. Beside hill. Lots of gray cemented sandstone & gravel rocks. - Looks like calcium rich carbonated.
LDM238-06	05/14/06	Grab sample #9	Amt: 1 kg. - sand; silt; 150 microns screen; gray silt 15%; 150 microns black coal-like material 10%; 150 micron sand quartz clear like	350237	6167720	Stream - 25 ft. across. Beside big hill. - 5% cemented sandstone; - 95% gravel, rocks, sand

TD-66+

Grab #7

Grab #8

Grab #9

ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes
LDM239-06	05/14/06	Grab sample # 10	Amt: 1 kg. - cemented sandstone. Crush=150 micron sand; 10% black coal-like sand 150 microns; 50% of sand, 150 micron clear to white quartz-like sand.	350292	6167752	Stream bank Looks slumped from outcrop of gray sandstone.
LDM240-06	05/14/06	Shovel hole #6	Amt: 60 grams - gray sand; 150-200 microns; 10% black coal-like material. 150 microns; - 300 microns; 10% clear quartz like material. All related to gray cemented sandstone.	350241	6167750	Stream bank. - 45% angle into bank. Into slumped gray sandstone, maybe outcrop  Depth: 0 - 5ft.
LDM241-06	05/15/06	Shovel hole #7	Amt: 60 grams 150-200 microns screened sand; - 50% gray silt sand, 5% black coal-like; 150 micron - 30% 150micron jagged quartz-like sand -15% red granite like sand & 400 microns rounded quartz in screen.	350240	6167748	Stream side - water flowing Lots of cemented gray sandstone.  Depth: 0 - 2ft.
LDM242-06	05/15/06	Shovel hole #7	Amt: 60 grams - rocks; gravel; - 10% gray silty sand; rotten smell - 20% big quartz sand, 400 microns	350240	6167748	Stream side - water flowing. Lots of cemented gray sandstone. Depth: 2ft-3'6" rocks end hole

Grab # 10

Shovel # 6

TD-5ft

Shovel #7

TD, 3'6"



ID #	Date collected	Method	Description	Easting (UTM)	Northing (UTM)	Notes	
LDM243-06	05/15/06	Auger hole #35	Amt: 60 grams -soft organic material.	349973	6167844	Off of old cut-line. North. Depth: 0 - 1ft.	Auger #35
LDM244-06	05/15/06	Auger hole #35	Amt: 60 grams - brown sandy clay; somewhat sticky; 3% sand 400 microns	349973	6167844	Off of old cut-line. North. Depth: 1ft.-3ft.	
LDM245-06	05/15/06	Auger hole #35	Amt: 60 grams -gray sandy clay; rusty spots; 15% sand; granite- red color black;	349973	6167844	Off of old cut-line. North. Depth: 3 ft. - 4'6"	TD 4.7 ft
LDM246-06	05/15/06	Auger hole #35	Amt: 60 grams - rock; gravel brown; rock	349973	6167844	Off of old cut-line. North. Depth: 4'6" - 4'7" end of hole	
LDM247-06	05/16/06	Auger hole #36	Amt: 60 grams -organic material.	349872	6167549	Off big cutline Old wellsite cut maybe Depth: 0 - 1ft.	Auger #36
LDM248-06	05/16/06	Auger hole #36	Amt: 60 grams - gray sand; clay; rusty spots; 15% sand; rounded quartz-like; -granite red black 400 microns	349872	6167549	Off big cutline Old wellsite cut maybe. Depth: 1 ft.-2'6"	TD-5.6ft
LDM249-06	05/16/06	Auger hole #36	Amt: 60 grams - gray sand; clay; 15% sandy; 400 microns; 1% soft black material 1/2-1/16 inch size	349872	6167549	Off big cutline Old wellsite cut maybe. Depth: 2'6" - 5'6" rock ends hole	
LDM250-05	10/14/05	Grab sample #11 shovel & pick	Amt: 1/2 kg -black sand; 150-200 micron sand; very magnetic	348059	6167690	Exposed black sandstone out-crop. Depth: 1"-6"	Grab #11
LDM251-05	10/14/05	Grab sample #12 shovel & pick	Amt: 1/2 kg - carbonated brown sand; 150-200 micron sand; -oxidized outside	348061	6167691	Exposed black sandstone out-crop. Depth: 1 ft. -very magnetic	Grab #12

**ASSESSMENT REPORT**

**PELICAN MOUNTAINS PROJECT**

**PART C**

**PAN VENTURES LIMITED**

**Metallic & Industrial Permit #9302090597**

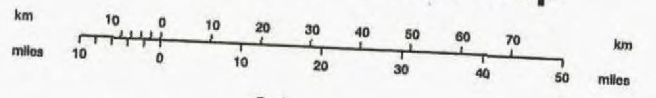
Submitted by: Larry MacGougan

November 25, 2006

Prospector: Larry MacGougan

# ALBERTA ROAD MAP

## Alberta Motor Association 2004 Official Road Map



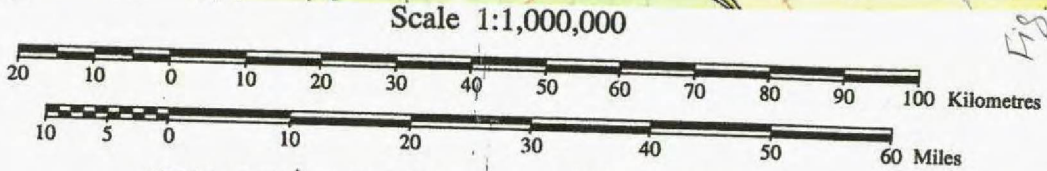
Permit # 9302090597



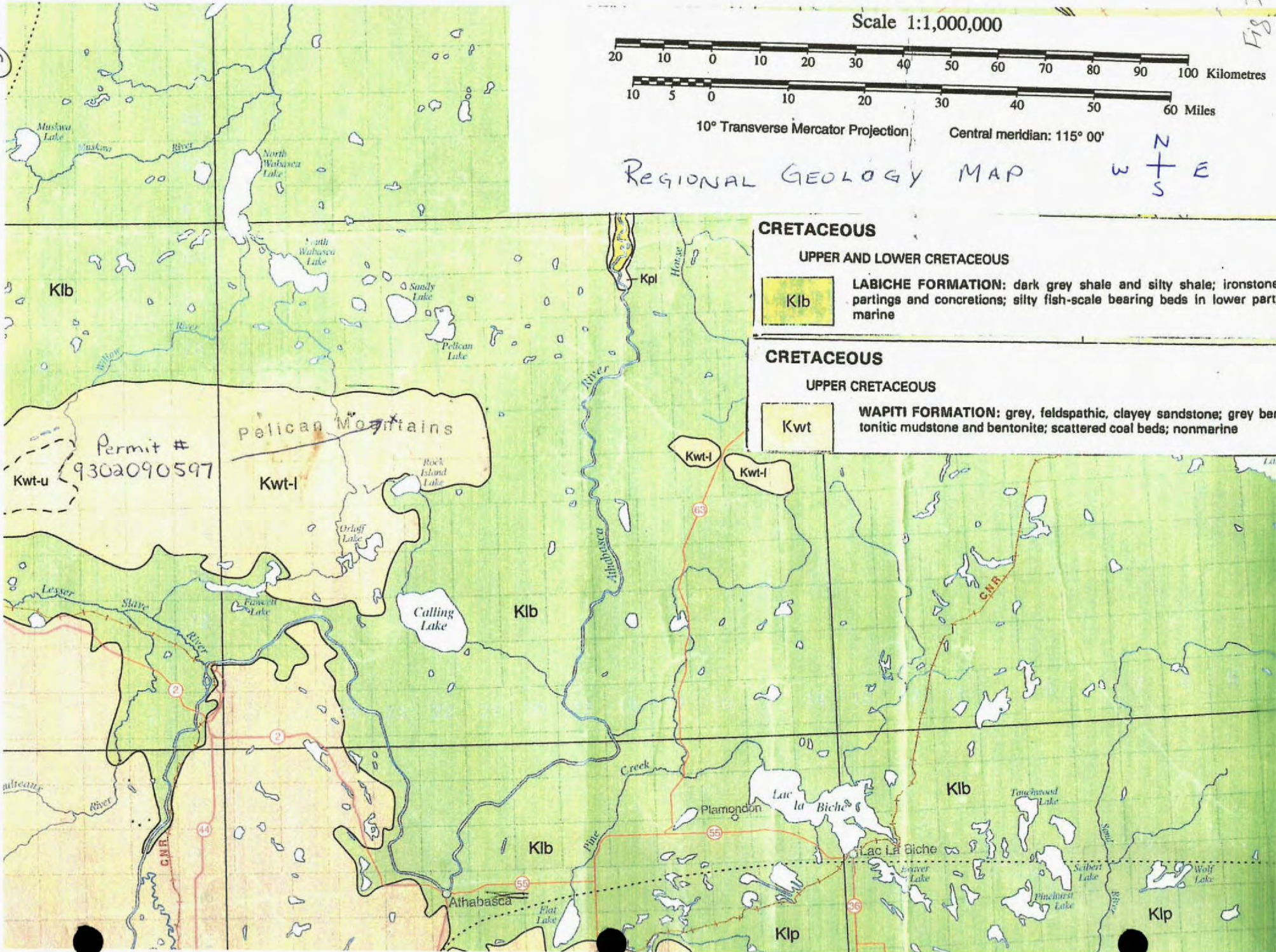
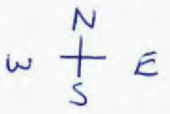


3

Fig. 3



# REGIONAL GEOLOGY MAP



## CRETACEOUS

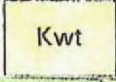
### UPPER AND LOWER CRETACEOUS



**LABICHE FORMATION:** dark grey shale and silty shale; ironstone partings and concretions; silty fish-scale bearing beds in lower part; marine

## CRETACEOUS

### UPPER CRETACEOUS



**WAPITI FORMATION:** grey, feldspathic, clayey sandstone; grey bentonitic mudstone and bentonite; scattered coal beds; nonmarine

# SAMPLE POINTS:

- AUGER HOLES
- SHOVEL HOLES
- GRAB SAMPLES
- TOPOGRAPHICAL  
MAP 1 - 50,000
- GROUND MAG. LOCATION



# ASSAYS

LORING LABORATORIES LTD.

1.) Sample- LDM250-05 Amt: 60 grams Size: 1/4" chunks  
Assay: 30 Element ICP Analysis - Aqua Regia Digest

3.) Sample- LDM133-05 Amt: 30 grams Size: 150-200 microns  
Assay: 30 Element ICP Analysis - Aqua Regia Digest

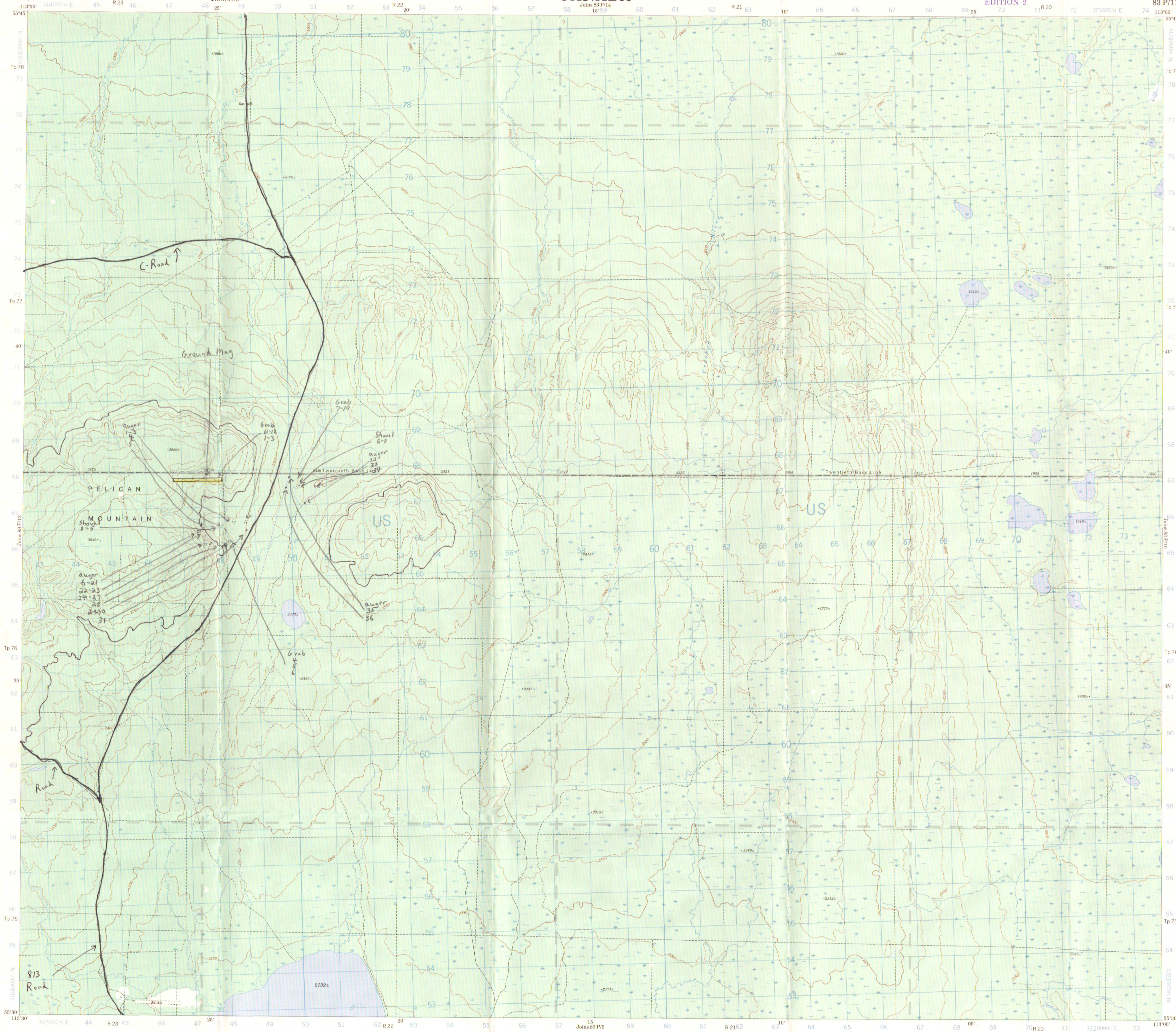
6.) Sample- LDM236-05 Amt: 60 grams Size: 1/4" chunks  
Assay: 30 Element ICP Analysis - Aqua Regia Digest

7.) Sample- LDM93-05 Amt: 30 grams Screened to: 400 microns  
Assay: 30 Element ICP Analysis - Aqua Regia Digest

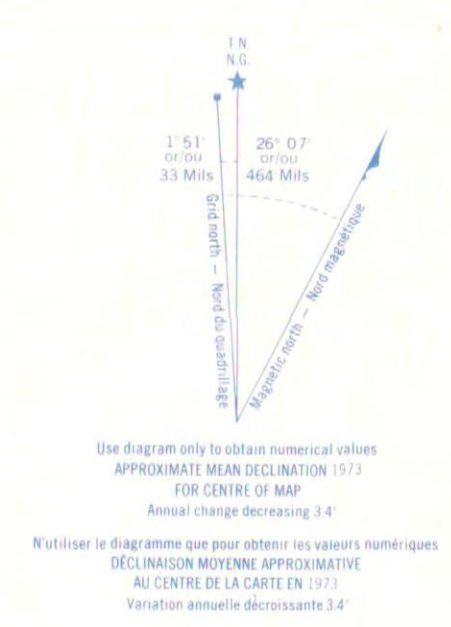
8.) Sample- LDM251-05 Amt: 60 grams Size: 1/4" chunks  
Assay: 30 Element ICP Analysis - Aqua Regia Digest

1R - Assay 1 (Sample LDM250-05) Redone

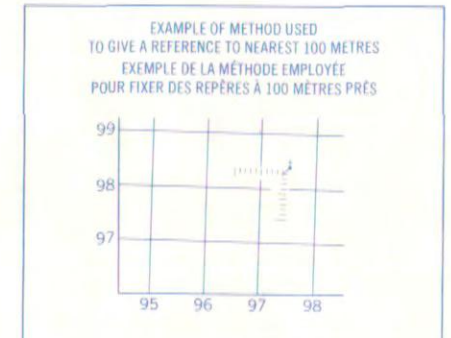




Military users, refer to this map as: **MAP 83 P/11 CARTE**  
 Références de cette carte pour usage militaire: **EDITION 2 MCEL EDITION**



**ONE THOUSAND METRE**  
 UNIVERSAL TRANSVERSE MERCATOR GRID  
**ZONE 12**  
**QUADRILLAGE DE MILLE MÈTRES**  
 TRANSVERSE UNIVERSEL DE MERCATOR



**REFERENCE POINT** CHURCH - EGLISE (see above) (ci-dessus)  
**EASTING** Road number on grid line immediately to left of point.  
**LONGITUDE EST.** Note the chiffre de la ligne du quadrillage immédiatement à gauche du repère.  
 Estimate tenths of a square from this line eastward to point.  
 Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est.  
**NORTHING** Road number on grid line immediately below point.  
**LATITUDE NORD.** Note the chiffre de la ligne du quadrillage immédiatement en dessous du repère.  
 Estimate tenths of a square from this line northward to point.  
 Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord.  
**GRID REFERENCE** 975864  
**REPÈRE AU QUADRILLAGE** 975864  
 Nearest contour grid reference: 100,000 metres (about 53 miles) / la prochaine référence contour est à 100,000 mètres (environ 53 miles)

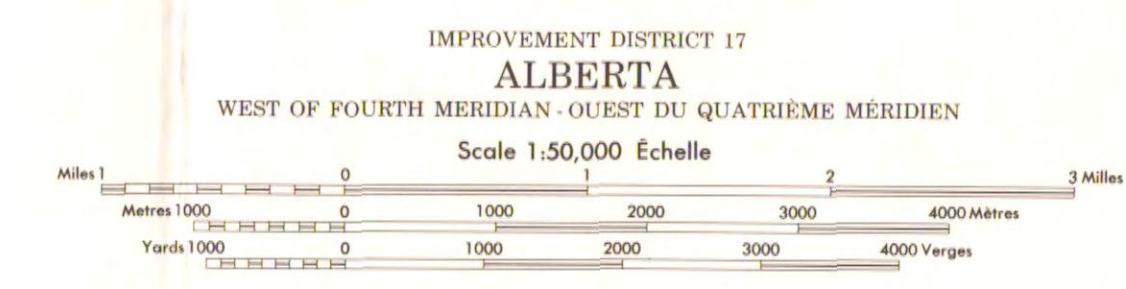
**MAP TOWN**  
 10344 - 105 Street  
 Edmonton, AB  
 T5J 1E5  
 Tel. 429-2800

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**Ground Mag**  
 - auger holes  
 - Grab Samples  
 - Shovel holes

**ROADS - ROUTES**  
 hard surface - pavé  
 loose surface - de gravier  
 cartrack - de terre  
 trail - sentier  
 Delineations - Suppressions - X X X X X

**Roads:** cartrack, trail, cut line or portage  
**Routes:** de terre, sentier, percée ou portage



This Provisional Map is equivalent to a standard map in accuracy of content.  
 Some names on this map are not yet official. Corrections or additions are invited by the Survey and Mapping Branch.  
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 Élévations en pieds au-dessus du niveau moyen de la mer  
 North American Datum 1927  
 Transverse Mercator Projection

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# Loring Laboratories Ltd.

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Calgary Alberta T2K 4W7  
Tel: 274-2777 Fax: 275-0541



6  
To: LARRY MacGOUGAN  
Box 56  
Coronation, Alberta  
T0C 1C0

FILE:48433

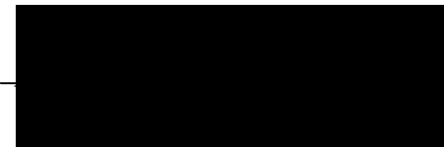
DATE: March 13, 2006

## 30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Au ppm	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm
1	1.4	0.49	<1	2	76	1	28	2.15	3	313	69	<1	31.58	0.75	67	0.68	4907	<1	1.04	31	0.24	181	20	48	<1	0.19	<1	468	<1	113
3	<0.5	1.77	<1	<1	65	19	22	6.78	2	154	62	<1	14.71	1.00	79	2.09	>20000	1	2.31	63	0.26	63	7	248	3	0.05	<1	150	<1	113
6	<0.5	1.97	5	<1	50	216	6	0.62	<1	31	95	16	1.39	0.58	31	0.47	216	2	0.27	16	0.05	20	2	66	3	0.06	<1	66	<1	48
7	0.5	0.30	2	<1	29	23	2	9.65	<1	4	27	13	0.16	0.05	80	0.04	283	<1	0.05	2	<0.01	8	1	78	<1	0.03	<1	45	<1	2
8	0.6	1.02	123	<1	71	5	16	0.88	3	254	98	<1	24.30	0.06	39	0.24	964	3	0.07	27	0.36	45	14	53	<1	0.04	<1	1090	<1	91
1-R	1.4	0.39	<1	<1	62	5	25	1.69	2	272	43	<1	26.28	0.56	53	0.50	3828	<1	0.70	22	0.19	151	16	35	<1	0.16	<1	377	<1	96

0.500 Gram sample is digested with Aqua Regia at 95 C for one hour and bulked to 10 ml with distilled water.  
Partial dissolution for Al, B, Ba, Ca, Cr, Fe, K, La, Mg, Mn, Na, P, Sr, Ti, and W.  
"R" Denotes duplicate sample analyzed.

Certified by: \_\_\_\_\_





## ASSAYS

### ALS CHEMEX

- |  |                    |                                     |
|--|--------------------|-------------------------------------|
| 1.) Sample- LDM250-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS   | Amt: 60 grams sent | Size: 1/4" chunks                   |
| 2.) Sample- LDM132-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS   | Amt: 60 grams sent | Size: 1/4" chunks                   |
| 3.) Sample- LDM236-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS   | Amt: 60 grams sent | Size: 1/4" chunks                   |
| 4.) Sample- LDM110-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS   | Amt: 40 grams sent | Size: 1/4" chunks                   |
| 5.) Sample- LDM251-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS   | Amt: 60 grams sent | Size: 1/4" chunks                   |
| 6.) Sample- LDM89-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS  | Amt: 30 grams sent | Screened to: 400 microns<br>approx. |
| 7.) Sample- LDM251-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS   | Amt: 60 grams sent | Size: 150-200 microns<br>loose sand |
| 8.) Sample- LDM92-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS  | Amt: 60 grams sent | Screened to: 400 microns<br>approx. |
| 9.) Sample- LDM250-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS<br>and PGM-MS26 PGE Nickel Sulfide Collection   | Amt: 60 grams sent | Size: 1/4" chunks                   |
| 10.) Sample- LDM132-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS<br>and PGM-ICP 23i Pt, Pd, Au 5gFA ICP   | Amt: 60 grams sent | Size: 1/4" chunks                   |
| 11.) Sample- LDM251-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS<br>and PGM-MS26 PGE Nickel Sulfide Collection  | Amt: 60 grams sent | Size: 1/4" chunks                   |
| 13.) Sample- LDM236-05<br>Assay Done: ME-MS61 - 47 Element Four Acid ICP-MS<br>and PGM-MS26 PGE Nickel Sulfide Collection<br>and PGM-ICP 23i Pt; Pd; Au 5gFA ICP | Amt: 60 grams sent | Size: 1/4" chunks                   |



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North Vancouver BC V7J 2C1

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To: **MACGOUGAN, LARRY**  
BOX 56  
CORONATION AB T0C 1C0

Page: 1  
Date: 10-MAY-2006  
Account: MACLAR

## CERTIFICATE VA06034506

Project:

P.O. No.:

This report is for 12 Other samples submitted to our lab in Vancouver, BC, Canada on 24-APR-2006.

The following have access to data associated with this certificate:

LARRY MACGOUGAN

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME-MS61	47 element four acid ICP-MS	
Hg-CV41	Trace Hg - cold vapor/AAS	FIMS
PGM-MS26	PGE Nickel Sulfide Collection	
PGM-ICP23i	Pt, Pd, Au 5g FA ICP	ICP-AES
PGM-ICP23	Pt, Pd, Au 30g FA ICP	ICP-AES

PARTIAL  
REPORT

To: **MACGOUGAN, LARRY**  
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This is a Partial Data Report for the analytical results of the above mentioned methods. A final Certificate of Analysis will be available on completion of all requested methods.



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Page: 2 - A  
Total # Pages: 2 (A - D)  
Finalized Date: 8-JUN-2006  
Account: MACLAR

## CERTIFICATE OF ANALYSIS VA06034506

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg	PGM-MS26 Pt ppb	PGM-MS26 Pd ppb	PGM-MS26 Ir ppb	PGM-MS26 Os ppb	PGM-MS26 Rh ppb	PGM-MS26 Ru ppb	PGM-MS26 Au ppb	PGM-ICP23 Au ppm	PGM-ICP23 Pt ppm	PGM-ICP23 Pd ppm	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm
SAMPLE #1		0.04	2	2	2	2	2	2	5	0.001	0.005	0.001	0.01	0.01	0.2	10
SAMPLE #2		0.04											0.75	0.90	3.0	40
SAMPLE #3		0.04											0.69	4.36	21.2	70
SAMPLE #4		0.04											1.38	7.50	76.8	50
SAMPLE #5		0.04											0.28	7.02	7.9	860
													0.66	3.28	396.0	70
SAMPLE #6		0.02											1.46	11.70	132.5	170
SAMPLE #7		0.14											0.12	3.95	2.4	370
SAMPLE #8		0.12											0.11	0.77	1.8	180
SAMPLE #9		0.06	21	20	<2	<2	2	3	10				0.10	0.94	2.1	30
SAMPLE #10		0.04								<0.00	<0.005	<0.001	0.17	5.07	14	70
SAMPLE #11		0.06	7	6	<2	<2	<2	<2	6				0.15	3.61	2.9	650
SAMPLE #13		0.10	5	7	<2	<2	<2	<2	6	<0.00	<0.005	0.002	0.14	7.63	14.2	770

Comments: Interference: Ca>10% on ICP-MS As,ICP-AES results shown. REE's may not be totally soluble in MS61 method.



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Page: 2 - B  
Total # Pages: 2 (A - D)  
Finalized Date: 8-JUN-2006  
Account: MACLAR

## CERTIFICATE OF ANALYSIS VA06034506

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Hg-CV41	ME-MS61
		Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	bi ppm	
SAMPLE #1		0.47	0.03	2.68	0.21	48.80	54.7	91	1.02	13.4	>50	12.30	0.57	0.6	<0.01	0.049
SAMPLE #2		3.55	0.11	9.63	1.50	26.80	49.1	69	4.87	39.9	29.80	14.80	0.27	3.2	<0.01	0.117
SAMPLE #3		5.77	1.08	4.00	2.58	203.00	90.0	105	7.69	156.0	15.75	33.30	0.27	12.3	<0.01	0.348
SAMPLE #4		1.17	0.09	0.50	0.08	34.30	3.8	57	5.08	9.8	2.25	16.20	0.06	1.6	<0.01	0.024
SAMPLE #5		6.39	0.80	1.50	0.28	55.50	73.6	237	0.98	17.2	>50	11.30	0.54	2.4	<0.01	0.423
SAMPLE #6		10.95	1.52	2.02	2.58	325.00	156.5	327	8.38	160.5	36.60	48.30	0.55	6.7	<0.01	0.343
SAMPLE #7		0.45	0.03	3.31	0.19	91.10	44.2	494	0.39	19.8	12.25	15.00	0.16	2.6	0.01	0.112
SAMPLE #8		0.24	0.01	0.02	0.05	26.50	3.3	9	0.31	2.2	0.42	1.89	<0.05	0.5	0.01	<0.005
SAMPLE #9		0.31	0.05	2.98	0.04	33.20	53.9	110	0.56	33.0	>50	15.40	0.74	0.6	<0.01	0.015
SAMPLE #10		3.29	0.10	11.35	0.37	13.05	45.1	82	4.79	43.6	33.60	16.40	0.33	3.2	<0.01	0.109
SAMPLE #11		0.39	0.05	4.15	0.19	89.30	50.8	836	0.32	20.8	14.90	13.70	0.15	2.6	<0.01	0.105
SAMPLE #13		1.86	0.05	1.06	0.02	58.40	14.8	76	6.38	27.7	4.72	17.90	0.09	2.8	<0.01	0.058

Comments: Interference: Ca>10% on ICP-MS As,ICP-AES results shown. REE's may not be totally soluble in MS61 method.



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Page: 2 - C  
 Total # Pages: 2 (A - D)  
 Finalized Date: 8-JUN-2006  
 Account: MACLAR

**CERTIFICATE OF ANALYSIS VA06034506**

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MSG1	ME-MSG1	ME-MSG1
		K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	Re ppm	S %	Sb ppm
SAMPLE #1		0.14	26.3	25.0	1.12	5100	0.93	0.39	0.9	23.7	5640	31.3	9.1	<0.002	0.01	0.18
SAMPLE #2		0.40	15.9	36.3	3.66	27600	1.20	0.40	2.0	109.0	4470	28.2	36.6	<0.002	0.01	0.44
SAMPLE #3		1.43	94.0	163.5	4.64	1345	9.68	4.18	7.4	235.0	4790	111.5	51.4	<0.002	0.01	0.59
SAMPLE #4		1.64	19.2	24.4	0.65	80	1.10	1.04	11.2	11.8	170	20.3	88.7	<0.002	0.01	1.17
SAMPLE #5		0.12	27.7	20.0	0.92	1250	10.55	0.22	8.7	115.0	6510	152.5	9.1	<0.002	0.01	2.33
SAMPLE #6		0.62	92.4	61.5	0.94	5140	12.85	0.64	10.2	233.0	4500	284.0	54.9	<0.002	1.46	1.23
SAMPLE #7		0.53	50.7	8.9	4.26	2220	0.95	0.93	29.3	34.2	310	6.9	13.7	<0.002	0.17	0.65
SAMPLE #8		0.32	14.2	5.3	0.04	138	0.19	0.03	3.2	2.5	40	7.6	12.1	<0.002	0.01	0.31
SAMPLE #9		0.08	20.9	15.7	0.97	4280	1.46	0.15	2.0	30.1	4590	2.3	5.8	<0.002	0.01	0.31
SAMPLE #10		0.38	8.8	30.4	3.66	28200	1.07	0.30	2.6	101.5	3480	98.9	35.0	<0.002	0.01	0.45
SAMPLE #11		0.45	44.7	7.6	4.49	2500	1.30	0.90	43.5	39.4	280	8.5	12.5	<0.002	1.13	0.28
SAMPLE #13		1.72	30.0	42.0	1.22	962	2.24	1.34	11.8	37.3	690	14.1	10.0	0.003	0.91	0.99

Comments: Interference: Ca>10% on ICP-MS As, ICP-AES results shown. BLE's may not be totally soluble in MS61 method.



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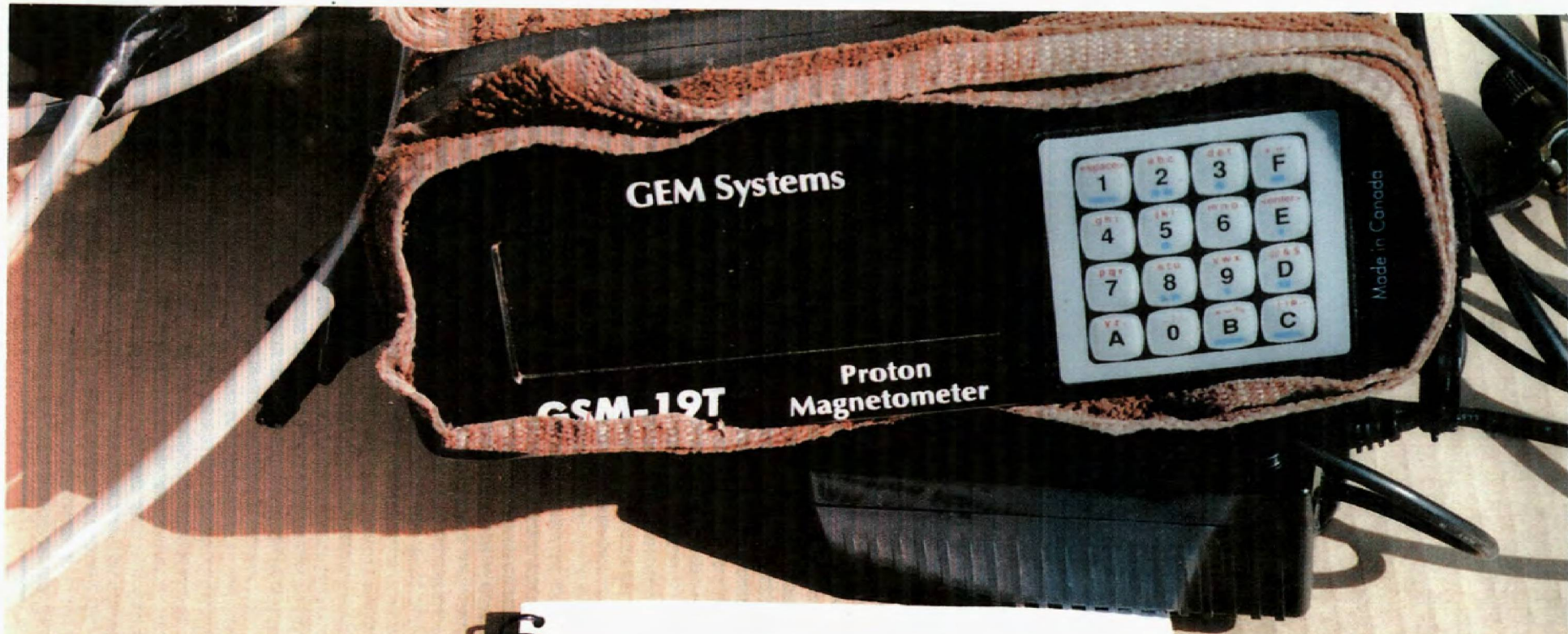
ALS Canada Ltd.  
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**CERTIFICATE OF ANALYSIS VA06034506**

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Se ppm	Sn ppm	Sr ppm	Ta ppm	Tc ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm
SAMPLE #1	1	12.2	78.3	<0.05	0.08	9.1	0.154	<0.02	1.1	832	0.2	10.4	303	16.6
SAMPLE #2	1	21.6	365.0	<0.05	0.05	9.0	0.108	<0.02	6.3	210	0.5	46.7	377	93.7
SAMPLE #3	2	27.6	468.0	0.07	0.16	42.9	0.226	0.27	13.9	265	0.6	109.0	807	347.0
SAMPLE #4	1	7.9	181.5	0.80	<0.05	3.9	0.351	0.46	1.4	124	1.3	6.9	29	49.6
SAMPLE #5	1	20.9	123.5	0.06	0.18	26.7	0.110	<0.02	6.5	2240	12.1	82.4	883	111.5
SAMPLE #6	2	51.4	127.5	0.14	0.12	73.8	0.251	<0.02	17.9	411	1.3	241.0	3560	198.0
SAMPLE #7	2	3.3	272.0	1.68	<0.05	7.2	2.820	0.07	1.1	455	0.7	20.8	218	74.6
SAMPLE #8	1	0.6	19.6	0.17	<0.05	2.8	0.120	0.11	0.6	17	0.2	3.0	8	15.6
SAMPLE #9	1	5.2	56.0	<0.05	0.09	8.3	0.307	<0.02	0.8	757	0.7	7.4	200	15.8
SAMPLE #10	1	9.5	186.5	<0.05	0.10	5.8	0.162	0.07	6.5	226	0.6	30.6	291	91.7
SAMPLE #11	2	3.8	289.0	2.64	<0.05	4.7	3.650	0.06	0.9	484	0.9	21.7	174	71.0
SAMPLE #13	2	1.9	211.0	0.79	<0.05	5.7	0.370	0.75	2.8	151	1.4	19.1	81	87.2

Comments: Interference: Ca>10% on ICP-MS As, ICP-AES results shown. REE's may not be totally soluble in MS61 method.



**GSM-19 v6.0**  
**Instruction Manual**  
Manual Release 6.2  
February 2003



Part Sec 31 TP76R 2awt  
Ground Mag



Permit # 9302090597

Pelican Mountain Ground Mag

start at

UTM

E 348000

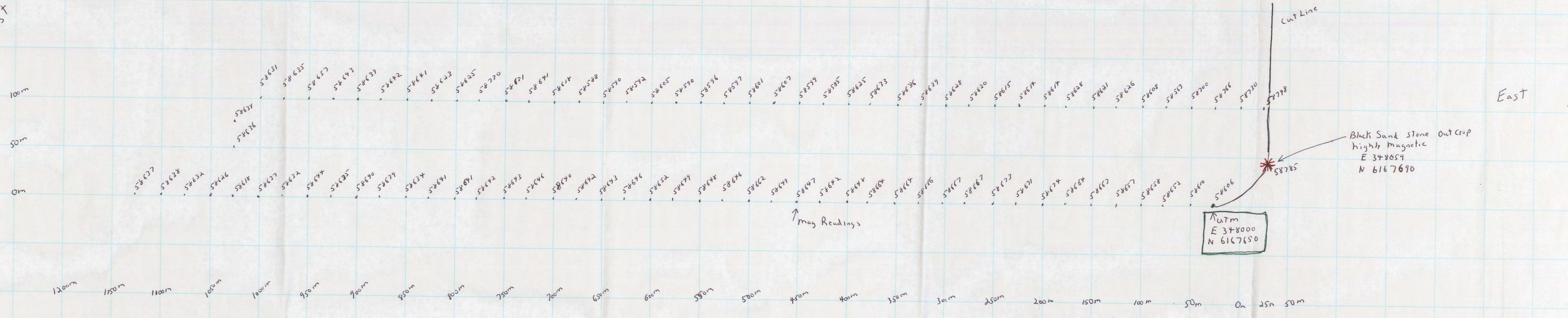
N 6167650

sec 31 T9 76 R22 W4

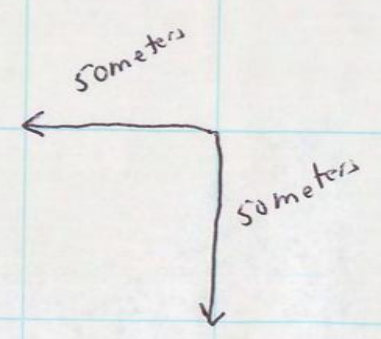
North

West

East



South



\* Magnetic Black Sand Outcrop

UTM Datum 1927

G-Sm-19T Proton Magnetometer used  
Readings 25 meters In



PHOTOGRAPH INDEX

**PHOTOGRAPH 1 & 2**

Sample - LDM89-05  
Location: 348768 E  
6166453 N

**NOTE:**

- Flaky oxidized sandy dirt
- Burrow pit near top
- In gravel rocks very common in large amounts in area.
- In glacial deposits

**PHOTOGRAPH 3**

Sample - LDM90-05  
Location: 348733 E  
6166459 N

- In glacial till
- Looks like dark shale or mudstone
- Not (carbonated with HCL reaction)
- By burrow pit
- Only one place in area

**PHOTOGRAPH 4**

Close to Sample- LDM90-05  
Location: 348765 E  
6166450 N

- Water & dirt collected, coming out of bank of burrow pit.
- Probably related to Sample LDM89-05
- Very dark & rainbow color at time of collection
- ( Water precipitant) (iron bacteria?)

**PHOTOGRAPH 5 & 6 & 7 & 8**

Close to Sample- LDM120-06  
Location: 347313 E  
6166293 N

- Bottom of gravel pit
- Gray black sand, only silty
- Magnetic

**PHOTOGRAPH 9**

Close to Sample- LDM149-06  
Location: 347337 E  
6166252 N

- Bottom of gravel pit
- Brown sandstone carbonated (HCL test)
- Related to loose sand

**PHOTOGRAPH 10 & 11 & 12 & 13**

Close to Sample- LDM166-06  
Location: 347304 E  
6166229 N

- Bottom of gravel pit
- Hard brown sandstone (carbonated HCL reaction) on softer sand

**PHOTOGRAPH 14 & 15**

Close to Sample- LDM186-06  
Location: 347380 E  
6166223 N

- Bottom of gravel pit east end
- Hard brown sandstone on softer sand (carbonated with HCL reaction)

**PHOTOGRAPH 16 & 17**

Sample- LDM219-06  
Location: 348327 E  
6165967 N

**NOTE:**

- Coal pieces by stream

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**PHOTOGRAPH 18**

Sample- LDM218-06  
Location: 348320 E  
6166017 N

- Coal pieces  
- By stream  
- Close to Photographs 16 & 17

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