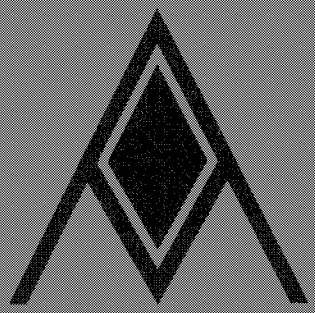
MAR 20010007: LOON LAKE

Received date: Apr 27, 2001

Public release date: Apr 28, 2002

ASSESSMENT REPORT
for the:
Loon Lake, Birch Mountain, Rabbit Lake
and Muddy River Properties



ASHTON MINING OF CANADA INC.

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ASSESSMENT REPORT

for the:

Loon Lake, Birch Mountain, Rabbit Lake
and Muddy River Properties

report submitted to:

ALBERTA ENERGY: MINERAL DEVELOPMENT
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ASSESSMENT DATE: APRIL 25, 2001

CONFIDENTIAL UNTIL: MAY 1, 2002

0.1 ABSTRACT

Ashton Mining of Canada Inc. has been actively exploring for diamonds in Alberta since 1997. This report is being submitted to satisfy the third and fourth year assessment work requirements outlined in Section 14(1) of the Alberta Metallic and Industrial Mineral Regulations. During the past two years Ashton has conducted "follow-up" ground geophysical surveys, a heavy mineral sampling program, and a "scout-drilling" programs in an effort to identify kimberlites. As a result Ashton will be using incurred expenditures totalling approximately 1.1 million dollars to maintain a total of 108,672.00 hectares.

COMPANY:	Ashton Mining of Canada Inc.
MIMP:	*Loon Lake Property*: 9396080085, 9397010011 to 9397010066 *Birch Mountain Property*: 9397030015 to 9397030042 *Rabbit Lake Property*: 9397040042 to 9397040108 *Muddy River Property*: 9397040131 to 9397040139, 9397040142 to 9397040150, 9397040109 to 9397040129
ASSESSMENT PERIOD:	January 31, 1999 to January 31, 2001
NTS:	84A, 84B, 84C, 84F, 84G and 84H
LOCATION:	Buffalo Head Hills and Birch Mountain Areas
LEGAL LOCATION:	Twp: 88 to 93 Rge: 17 to 26 W4M Twp: 85 to 100 Rge: 1 to 17 W5M

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1.0 INTRODUCTION

This report is being submitted to satisfy the third and fourth year assessment work requirements of 190 Metallic and Industrial Mineral Permits. During the past two years Ashton Mining of Canada Inc. and its joint venture partners, Alberta Energy Company and Pure Gold Minerals Inc. the have spent in excess of one million dollars to evaluate 1.2 million hectares. On the basis of this evaluation Ashton has determined the most prospective ground to maintain for additional evaluation.

Ashton's exploration work has consisted of ground geophysical surveys to "follow-up" regional airborne surveys conducted in 1997, heavy mineral sampling programs and scout drilling programs. The work included 61 ground magnetic surveys, the collection of 289 heavy mineral samples and 10 drill holes.

The body of this report is composed of 8 sections with sections. Sections 2.0 through 5.0 describe the regional aspects of the property while sections 6.0 and 7.0 describe the specific exploration work and laboratory procedures. Conclusions based upon the work conducted are outlined in section 8.0. Appendices A through C provide specific data relating to the exploration work while Appendix D outlines exploration expenditures and items pertaining to mineral tenure.

2.0 PROPERTY LOCATION

The properties are generally located within an area enclosed by the straight-line boundary between Peace River, Slave Lake, Fort McMurray and Fort Vermillion (Figure 1.0). The Hamlet of Red Earth is approximately in the center of the property. Highways 88, 686 and 986 provide the main public access to the property however numerous private roads and extensive seismic lines exist throughout the properties.

All field operations were conducted from Ashton's Church Camp (589831E 6302772N, NAD 27 - Zone 11) established on an Alberta Energy Company LOC in the Ogston Oilfield.. Field crews stationed at this camp utilised a combination of trucks, 4x4 RVs and helicopters to access work sites.

The permits are located on the NTS map sheets 84A, 84B, 84C, 84F, 84G, and 84H. The legal locations are: from township 85 to 100 - range 1 to 17 west of the 5th meridian and township 88 to 93 - ranges 17 to 25 west of the 4th meridian. The properties are approximately 400 km north-northwest of Edmonton, Alberta.

3.0 PHYSIOGRAPHY

The properties are located within the boreal forest of the Peace River drainage basin. The area is characterized by mature coniferous trees and low-lying bogs with occasional shallow lakes and is generally flat-lying with an average elevation of 500 to 550 meters. The only relief features of the area are the Buffalo Head Hills and Birch Mountains which are divided by the Wabasca River valley. The east-facing Buffalo Head Hills trend north across the central Muddy River Property and have a relief in the order of 300 meters. The Birch Mountains trend northeast across the border between the Birch Mountain and Rabbit Lake Properties.

4.0 REGIONAL GEOLOGY

The regional geology section provides the geological framework for understanding the land process and formations in Alberta. This section is intended to outline some of the more regional features of Alberta geology that Ashton considers significant to its exploration programs.

4.1 Bedrock Geology

Bedrock in Alberta ranges in age from Archean to Recent. Exposures are roughly divided into several broad belts crossing the province from the northeast to the southwest (Figure 2.0).

Undifferentiated Archean granitoids and metasedimentary rocks of the Churchill Structural Province are located in the northeast corner of Alberta. A flat-lying sequence of clastic Proterozoic Athabasca Group sediments up to 1,200 metres thick outcrops to the south of Lake Athabasca. The Shield rocks underlie a sequence of westerly-dipping Paleozoic strata comprising Middle and Upper Devonian marine shales, carbonates and evaporites. Near the edge of the Shield subsurface dissolution of the evaporitic units has resulted in extensive brecciation of Devonian strata. In central and western Alberta interbedded Paleozoic clastic marine sediments and carbonates from the Cambrian to the Permian are present in unconformity-bounded sequences up to 3,000 metres thick.

The Jurassic in Alberta was marked by cyclical marine transgressions as the continental margin became progressively active, resulting in interfingered marine and continental sediments. In the Northeastern Interior Plains marine to deltaic clastic Lower Cretaceous strata unconformably overlie Paleozoic rocks. Cretaceous sequences are found extensively throughout the province up to 2,000 metres thick in the subsurface.

Tertiary rocks overlie the Cretaceous strata in a belt along the foothills from southern Alberta to just south of Grand Prairie. Continental sedimentation continued into the Paleocene in response to uplift and erosion in the eastern Rocky Mountains. The final stages of uplift and sedimentation likely occurred during the Eocene to Oligocene epochs.

The Precambrian basement rocks of northern Alberta, interpreted as the western extension of the Churchill Structural Province, are subdivided into distinct tectono-metamorphic domains. These range from Archean to Early Proterozoic. Most of the basement in northern Alberta falls into one of two categories: accreted juvenile Proterozoic terrane or thermally reworked Archean units from the Rae Subprovince.

4.2 Structural Geology

There are a number of regional structures influencing northern Alberta (Figure 3.0). The Great Slave Lake Shear Zone (GSLSZ), a crustal lineament striking northeast in the northwest corner of the province, was active about 1.9 Ga although tectonic movement probably continued intermittently into the Devonian. The Snowbird Tectonic Zone (STZ), striking northeast through the center of the province, is interpreted to bifurcate the underlying Churchill Structural Province into two distinct basement domains. The Peace River Arch is a complex, deeply-rooted structural feature characterized by uplift and subsidence which trends easterly between and subparallel to the STZ and GSLSZ. It was active from the Late Proterozoic to the Late Cretaceous.

4.3 Quaternary Geology

Episodic glacial advances from the north and east, off the Canadian Shield (Laurentide), and from the west out of the Cordilleran-Rocky Mountains, deposited a complex Quaternary sequence of glacial, fluvial and lacustrine deposits over most of the province (Figure 4.0). The interaction between the ice advances is poorly understood. Deposits attributed to Cordilleran-Rocky Mountain glacial advances have a minimum age of 720,000 years and may be older than 2,470,000 years. Deposits from the continental Laurentide advances are dated at 120,000 years or older.

5.0 PROPERTY GEOLOGY

The property geology section provides specific geological information relating to the properties that is necessary prior to the start of any exploration program.

5.1 Bedrock Geology

Three Cretaceous sedimentary formations underlie the properties (Figure 5.0): Upper Cretaceous Smokey Group (uKs), Upper Cretaceous Dunvegan Formation (uKd) and Middle Cretaceous Shaftsebury Formation (mKsh). The Smokey Group forms the top of the Buffalo Head Hills. Interpreted as a marine foredeep, the Smokey Group is a dark grey shale that is sideritic to calcareous in composition. Underlying the Smokey Group is the older Dunvegan Formation which is a marine unit of conglomerate, sandstone, siltstone and shale that is locally expressed in the geology. This is correlated regionally with the Trevor Formation, a southwesterly-derived clastic wedge of interbedded calcareous and glauconitic sandstone and mudstone, bentonilic shale and local ironstone lenses. The oldest unit, the Shaftsebury Formation, underlies the central and the majority of the northwestern property group. Interpreted as a foredeep clastic wedge, it is both marine and non-marine in origin, consisting of deltaic fine-grained quartzose sandstone, a dark gray fossiliferous silty shale and laminated siltstone.

5.2 Quaternary Geology

Two distinct glacial depositional features typify the surficial geology of the properties (Figure 6.0): glacial till and glaciolacustrine sediments. The majority of the western and eastern areas of the property group is covered by a blanket of glacial till which varies from shallow cover with localized Smoky Group outcroppings to depths greater than 150 metres on parts of the Rabbit Lake and Birch Mountains Properties. Fine to coarse-grained glaciolacustrine sediments capping a glacial sequence up to 150 metres deep dominate the central area of the property group (Figure 7.0). Directional features indicative of glacial movement are variable and not readily observed throughout the property area. Ice flow movement has been observed as southwest and southeast, however evidence of movement to the south has been noted.

Glacial deposition occurred throughout the region during the Wisconsinan retreat of the Laurentide ice sheet. The recorded ice flow directions vary throughout the properties. Two general ice flow directions appear to dominate the region recorded at 150° and 220°. A southerly ice flow direction is recorded in the central part of the property block. Clay-rich till deposits dominate the western and eastern parts of the property area. Lacustrine sediments and localized glaciofluvial gravels are found in the northwest and central areas of the property block Glacial sequences up to 150 meters deep have been recorded in boreholes in the southwestern, central and north-eastern areas of the property blocks.

6.0 EXPLORATION WORK

Subsections under this heading outline the exploration work conducted during the assessment period.

6.1 Heavy Mineral Sampling

During the Assessment period a total of 289 samples were collect on the four properties. Summaries can be found in Appendix A.

6.1.1 Sample Collection Method

At each till sample site, two rice bags were filled with material weighing a total of approximately 50 kg. In addition, two small bags weighing between 300 to 500 grams were collected, one for future reference of the sample material and one for geochemical analysis. Detailed notes were compiled for each sample site, including the following information; date, sample number, type, quality, weight, NTS map, UTM location, topography, texture, Munsell color, compaction, percentage matrix, reaction to hydrochloric acid, clast content and lithologies, size and roundness of clasts, mapped and observed Quaternary unit, mapped bedrock unit, remarks, and Ashton crew present. Till samples were washed and sieved at Ashton's field camp and in the Vancouver laboratory.

6.1.2 Sample Processing Method

The resulting samples, weighing 20 to 25 kilograms, are transported to Ashton Mining of Canada's laboratory facilities in North Vancouver, B.C., where reduction by Wilfley shaking table and sieving produces an initial concentrate weighing about 500 grams in the 0.4 to 1.3 millimetre size range. This fraction is further reduced by heavy liquid separation to about 30 grams of heavy minerals. Each sample is then carefully examined under a binocular microscope and the kimberlitic indicator minerals are isolated. These indicator grains are counted, examined for surface features which may be indicative of transportation distance or provenance, and saved for additional testing if warranted.

The indicator mineral counts are plotted and a background value is established for the particular area under exploration. Anomalous concentrations are classified and these, together with the abrasion characteristics of the indicator minerals found and the local ice-flow direction, are used to trace potential kimberlite sources.

6.1.3 Sample Results

Of the 289 samples collected, 101 returned positive counts. Many of the positive samples were collected from streams rather than tills. This was expected since stream sediments contain higher concentrations of indicator minerals. A few positive till samples were observed in the western portion of the Loon Lake property. This area is down ice of the Buffalo Head Hills kimberlite cluster where higher concentrations of indicator minerals are present.

Regional ice advance directions on the Loon Lake property vary from north in the eastern portion of the property to southwest on the western side. Ice moving in these directions picked up indicator minerals from the Buffalo Head Hills kimberlites and deposited them on the Loon lake property. All of the indicator minerals recovered from the Loon Lake property appear to have been sourced from known kimberlites.

On the Rabbit Lake property the regional ice direction is from the northeast. It is possible that the Legend Kimberlites to the north of the Rabbit Lake property are the source of the anomalous results. On the Muddy River and Birch Mountain properties, very few indicators were recovered suggesting an indicator mineral background is present. No known kimberlites are located up-ice of these properties.

It must be remembered that the interpretations presented here are based on limited sampling and regional trends. Additional sampling is required for confirmation.

6.2 Ground Geophysics

Ground geophysics completed on the Joint Venture Lands comprised the surveying of 410 line kilometres over 61 targets. Table 1 summarizes the properties individually. Access to anomaly sites was via helicopter and truck/ATV. Crews were stationed out of the Buffalo Hills field camp and surveying was carried out during both winter and summer exploration programs. A detailed table of the anomalies surveyed, a survey location map and total field contour maps for the ground magnetic data (total field) are located in Appendix B.

6.2.1 Procedure

The procedure for the ground magnetic surveys was to locate anomaly site in UTM coordinates, establish a grid and then survey the grid lines with a total field magnetometer. UTM ground positions for the surveys were established during the programs using post differentially corrected GPS equipment from either Trimble or Ashtech. The positional accuracy was likely less than ±5 metres. Ground grids were established in UTM Zone 11 NAD27 Canada Mean coordinates. Base lines were generally cut and picketed with 2x2 posts. Traverse lines were flagged and lathe picketed using compass and hip-chain. Data was collected with GEM Systems GSM-19 continuous read magnetometers and corrected for diurnal variation using a GEM base magnetometer located in the Buffalo Hills camp. Measurement intervals were generally two seconds. Typical line spacing for the surveys was 50 metres.

TABLE 1: Ground Magnetic Survey Production

	1999 Surveying Targets/km	2000 Surveying Targets/km	Totals
Birch Mountains	15 / 94	no surveys	15 / 94
Loon Lake	25 / 173.5	no surveys	25 / 173.5
Muddy River	3 / 18.5	no surveys	3 / 18.5
Rabbit Lake	17 / 121.85	1 / 2.40	18 / 124.25

6.3 Drilling

Expenditures from a 1999 winter drill program conducted on the Loon Lake, Birch Mountains and Muddy River properties and expenditures from a 2000 winter drill program on the Rabbit Lake property are being applied in this report for the 1999 - 2001 assessment period. The purpose of the drilling programs was to test source units underlying magnetic anomalies characteristic of kimberlite and, upon successfully intersecting kimberlite, extract sufficient material to perform first phase caustic fusion microdiamond tests.

Under the two programs, ten drill holes were completed for a total of 987.1 metres. A combination of diamond drilling and reverse circulation drilling was employed. Core and chip logging was performed in the field and in Ashton's North Vancouver laboratory. Table 2 summarizes the drilling activities. Drill logs and a map showing drill hole locations are presented in Appendix C.

TABLE 2: Summary of Drilling

Hole #	Easting	Northing	Elev.	Dip	EOH	Start	Finish	Contractor	Anomaly
DDHLL100-01	622450.2	6246132.8	638.2	-90	67.4	2/17/99	2/20/99	Connors	LL100
DDHLL49-01	623037.1	6244863.5	624.8	-90	98.5	2/14/99	2/22/99	Connors	LL49
DDHLL-7-01	622888.7	6245541.5	637.7	-90	150.6	2/11/99	2/14/99	Connors	LL7
DDHLL21-01	537811.2	6293903.9	707.1	-90	92.7	3/3/99	3/5/99	Connors	LL21
RCLL42-01	617135.5	6253835.9	623.4	-90	79.2	2/19/99	2/20/99	Midnight Sun	LL42
RCLL44-01	616422.3	6255754.1	601.8	-90	73.2	2/18/99	2/19/99	Midnight Sun	LL44
RCLL6-01	615585.9	6263347.5	609.9	-90	115.8	2/17/99	2/18/99	Midnight Sun	LL6
DDHBM16-01	631776.6	6314518.9	604.3	-90	150.3	2/23/99	2/25/99	Connors	BM16
DDHRL1-01	746000.0	6302075.0		-90	94.5	2/19/00	2/22/00	Connors	RL1
DDHMR7-01	571730.0	6385600.0		-90	64.9	3/18/99	3/19/99	Connors	MR7
TOTAL					**987.1**				

6.3.1 Results

The Loon Lake, Birch Mountain and Muddy River properties were subject to a winter drill program undertaken during the months of February and March 1999. During this period six diamond drill holes totalling 626.2 metres and three reverse circulation drill holes totalling 268.2 metres were completed by Connors Drilling Ltd. of Kamloops, B.C. and Midnight Sun Drilling Ltd. of Whitehorse, Yukon, respectively.

The equipment used for this program included a heliportable BBS 25A diamond drill and a Nodwell mounted BBS 37A diamond drill. Both rigs were provided by Connors Drilling Ltd. and were capable of drilling NQ and HQ sized core. Midnight Sun Drilling supplied and operated a track mounted Schram T685W reverse circulation drill rig. Reverse circulation drilling was performed using tricones and wing bits coupled with twenty-foot long, six inch diameter drill pipe.

Two holes intersected kimberlite. On the Loon Lake property, DDHLL07-01, intersected a mixed sequence of kimberlite and mudstone between 114.1 metres and 139.5 metres before being terminated in a volcaniclastic kimberlite/mudstone breccia at 150.6 metres. On the Birch Mountain property, DDHBM16-01, intersected a narrow sequence of kimberlite and mudstone between 123.9 metres and 125.2 metres before being terminated in shale at 150.3 metres. None of the remaining holes successfully intersected kimberlite.

A single diamond drill hole DDH RL1-01 totalling 94.5 metres, was drilled on the Rabbit Lake property during February 2000 by Connors Drilling Ltd. of Kamloops, B.C. using a BBS 25A heliportable diamond drill rig. As this site is remote light weight plastic sump tanks were employed to contain drill fluids. A temporary trailer camp close to the drill site was utilized for crew accommodations. The hole failed to intersect kimberlite. No further work was conducted on the property.

Seven of the nine holes drilled during the 1999 program were probed down hole for total field magnetics, magnetic susceptibility, resistivity, conductivity, gamma and temperature by Komex International Limited of Calgary. Table 3 below compares the down-hole survey results to the field observations. The Komex report on this work including down hole plots and reference information is found in Appendix C.

TABLE 3: Comparison of Down Hole Data and Field Observations

Hole	Down-hole Geophysical Survey	Field Observations
DDH LL7-01	Magnetic low from 113.0 to eoh. High magnetic susceptibility between 141 and 148 metres.	Interbedded kimberlite and mudstone from 114.1 to 139.5 metres. Volcaniclastic kimberlite from 139.5 to 150.6 metres.
DDH LL21-01	Strong responses on all parameters between 40 metres and 47 metres. Few total field spikes at 13, 64, 74 and 77 metres.	Hole was triconed from 0 to 57.0 metres. No field observations.
DDH LL49-01	Narrow, spiky total field responses every 10 to 20 metres over length of hole.	Strongly magnetic clasts at 53 metres. Coincides with strong total field spike at 52 metres.
DDH LL100-01	Probed to depth of 15 metres.	Magnetically anomalous sands and gravels between 6.4 and 11.0 metres. Magnetic sand and silt between 48.8 and 61.3 metres.
RCLL6-01	No down-hole survey.	2 to 3 cm wide, magnetic clay layer at 64.0 metres.
RCLL42-01	Probed to depth of 16 metres.	Magnetic sands between 71.6 and 79.2 metres.
RCLL44-01	Probed to depth of 12.5 metres.	Magnetic sands and gravels between 30.8 and 38.1 metres.
DDH BM16-01	No down-hole survey.	Interbedded kimberlite and mudstone between 123.9 and 125.2 metres.
DDHMR7-01	Strong total field and susceptibility response from 2 to 6 metres.	Strongly magnetic clays between 4 and 9.5 metres. Magnetic clasts at 30 metres have strong susceptibility but no total field response.

7.0 LABORATORY PROCEDURES AND RESULTS

This section is intended to outline the procedures that Ashton utilizes in determining the diamond content of kimberlite.

7.1 Microdiamond Determination Procedure

Microdiamond determination is a complex geochemical analysis conducted on small quantities of kimberlitic rocks to establish whether a kimberlite can be considered diamondiferous. Since not all kimberlites contain diamonds, it is generally the first step in evaluating a new discovery to determine whether further analysis for diamond content is warranted. Kimberlite rock samples, in the form of small diameter drill core, reverse circulation drill chips, or surface rock pieces, are processed for the evaluation of diamond content in the Vancouver laboratory by caustic fusion dissolution methods. Microdiamond determination is achieved through the recovery of all diamonds potentially larger than 0.10 mm in grain size which may exist in the processed kimberlite sample.

Kimberlite rock samples, typically 50 kilograms or larger in size, are processed for microdiamond determination through a complex process of progressive and iterative controlled crushing, fractionation, and other specialized geochemical techniques to produce heavy mineral concentrates. These concentrates are subjected to a high temperature fusion process in the presence of caustic chemicals to dissolve the rock materials while leaving any diamonds present in tact. The fusion residues are sent for microdiamond picking, where a team of mineral observers and mineralogists use binocular microscopy methods to recover the diamonds. Strict quality control testing measures are implemented at each stage of the process to ensure all diamonds are recovered.

7.2 Microdiamond Results

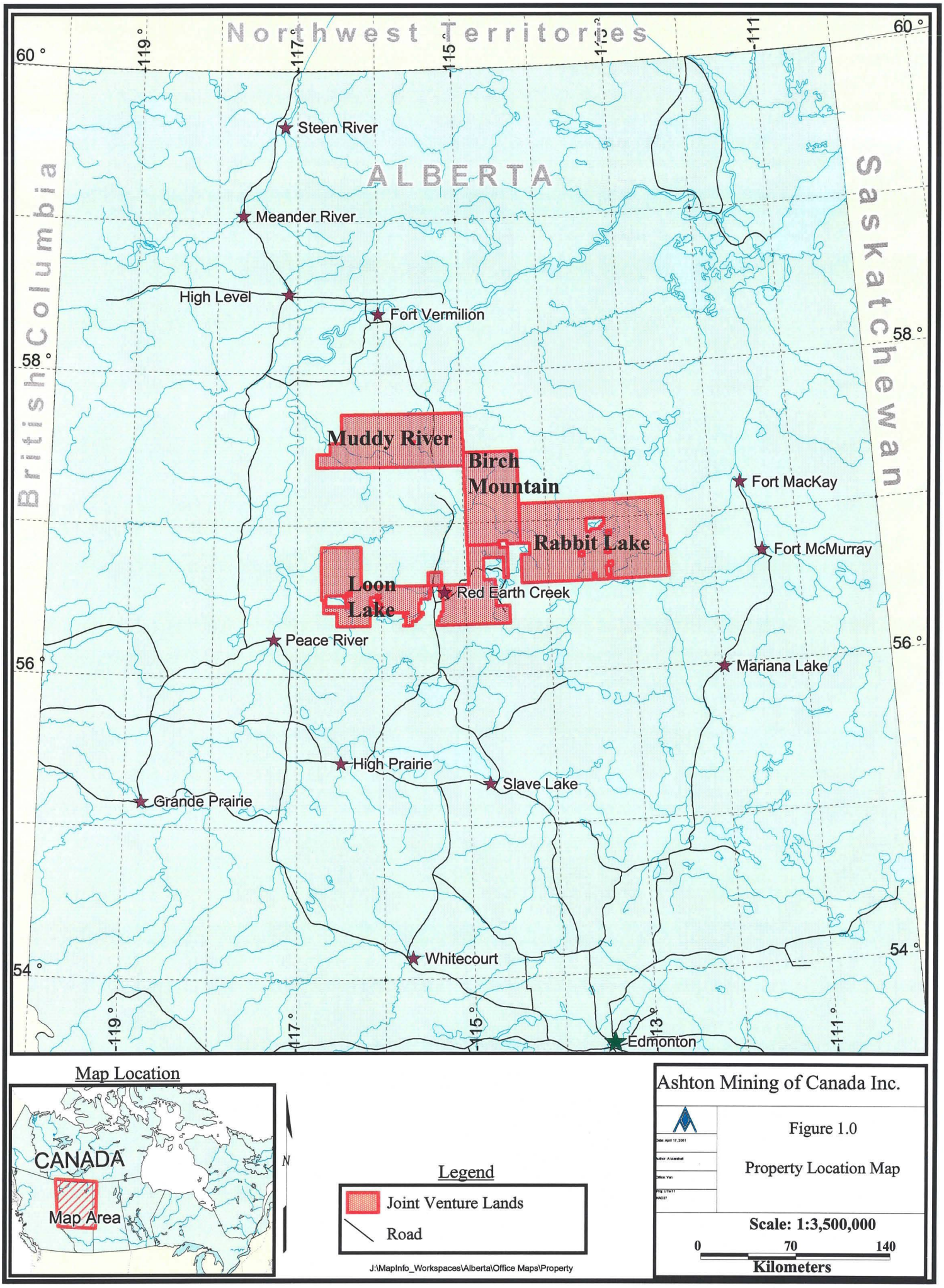
Microdiamond recovery was performed at Ashton Mining of Canada Inc.'s laboratory in North Vancouver, BC and at Ashton Mining Limited's laboratory in Perth, Australia Microdiamond testing was conducted on samples from DDHLL7-01 and DDHBM16-01. The results are summarized in Table 4.

TABLE 4: Microdiamond Testing Results

Drill Hole	Interval (m)	Sample Weight (kg)	Number of stones	
			< 0.5 mm	> or = 0.5 mm
DDHLL7-01	139.5 to 150.6	26.2	0	0
DDHBM16-01	123.9 to 125.2	2.9	0	0
		Totals:	0	0

8.0 CONCLUSION

Exploration during the second assessment period on the Loon Lake, Birch Mountain , Rabbit Lake and Muddy River properties included ground geophysics, heavy mineral sampling and drilling. Explenditures from these programs totaling approximately 1.1 million dollars will be applied to maintain 20 Metallic and Industrial Mineral Permits in good standing.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58 °
56 °
54 °
119 °
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115 °
113 °
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Steen River
Meander River
High Level
Fort Vermilion
Muddy River
Birch Mountain
Rabbit Lake
Loon Lake
Red Earth Creek
Fort MacKay
Fort McMurray
Peace River
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Map Location
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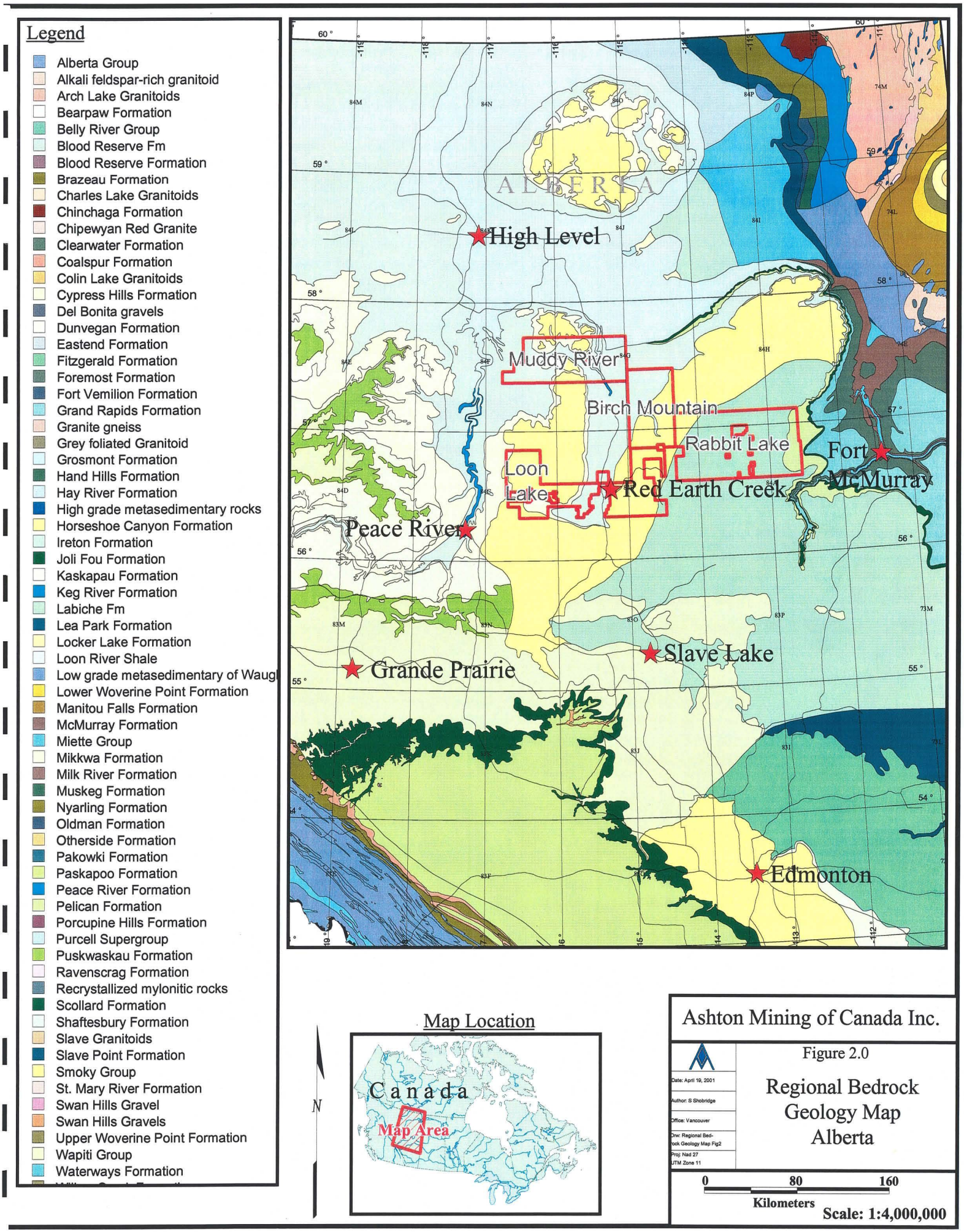
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Bearpaw Formation
Belly River Group
Blood Reserve Fm
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Brazeau Formation
Charles Lake Granitoids
Chinchaga Formation
Chipewyan Red Granite
Clearwater Formation
Coalspur Formation
Colin Lake Granitoids
Cypress Hills Formation
Del Bonita gravels
Dunvegan Formation
Eastend Formation
Fitzgerald Formation
Foremost Formation
Fort Vemilion Formation
Grand Rapids Formation
Granite gneiss
Grey foliated Granitoid
Grosmont Formation
Hand Hills Formation
Hay River Formation
High grade metasedimentary rocks
Horseshoe Canyon Formation
Ireton Formation
Joli Fou Formation
Kaskapau Formation
Keg River Formation
Labiche Fm
Lea Park Formation
Locker Lake Formation
Loon River Shale
Low grade metasedimentary of Waug
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Muskeg Formation
Nyarling Formation
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Otherside Formation
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Paskapoo Formation
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Pelican Formation
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Wapiti Group
Waterways Formation
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Rabbit Lake
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Fort McMurray
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Grande Prairie
Slave Lake
Edmonton
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Canada
Map Area
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Ashton Mining of Canada Inc.
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Author: S Shobridge
Office: Vancouver
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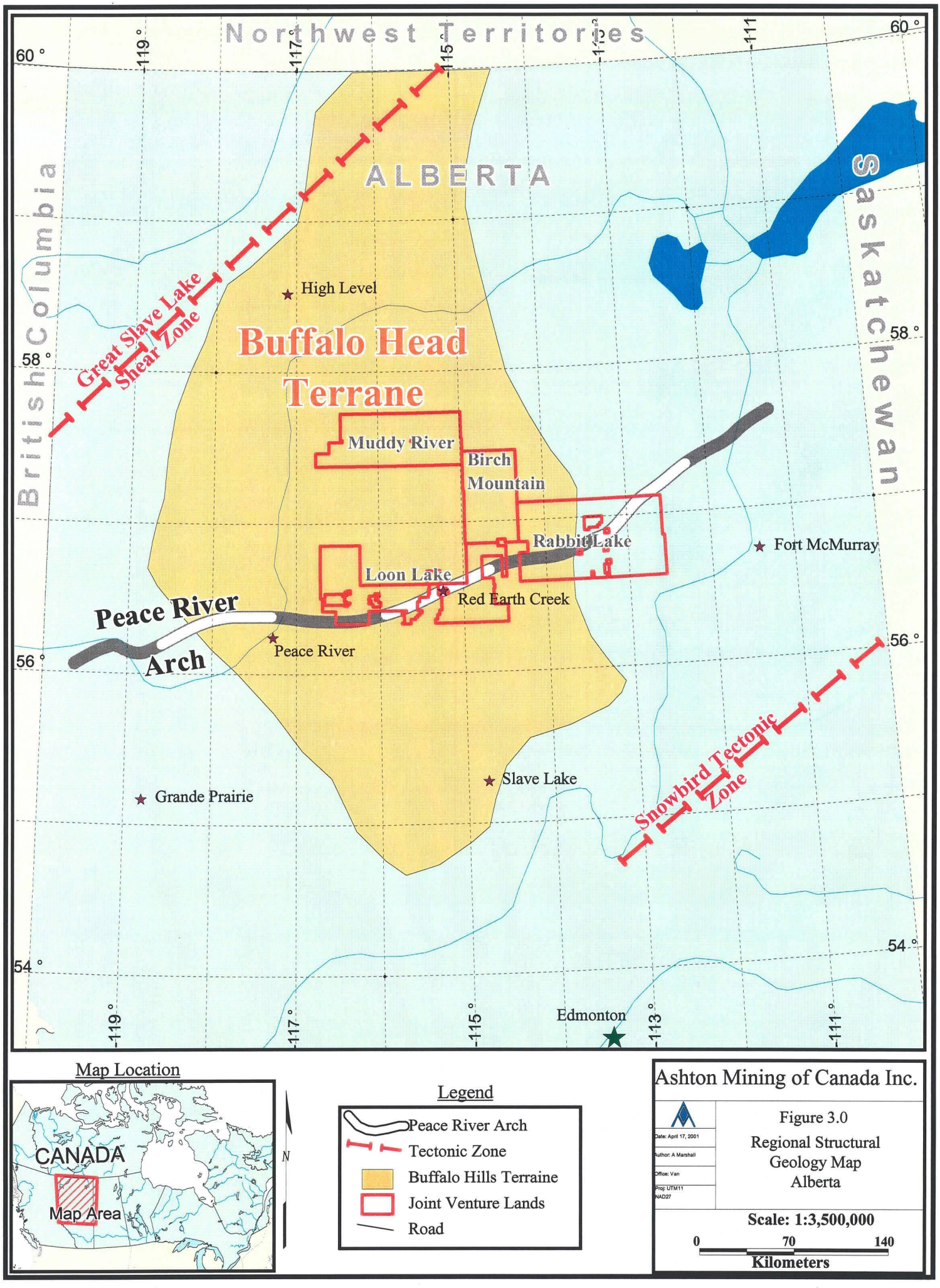
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Great Slave Lake Shear Zone
High Level
Buffalo Head Terrane
Muddy River
Birch Mountain
Rabbit Lake
Fort McMurray
Loon Lake
Red Earth Creek
Peace River
Peace River Arch
Slave Lake
Grande Prairie
Snowbird Tectonic Zone
Edmonton
Map Location
CANADA
Map Area
N
Legend
Peace River Arch
Tectonic Zone
Buffalo Hills Terraine
Joint Venture Lands
Road
Ashton Mining of Canada Inc.
Date: April 17, 2001
Author: A Marshall
Office: Van
Proj: UTM11 NAD27
Figure 3.0
Regional Structural Geology Map
Alberta
Scale: 1:3,500,000
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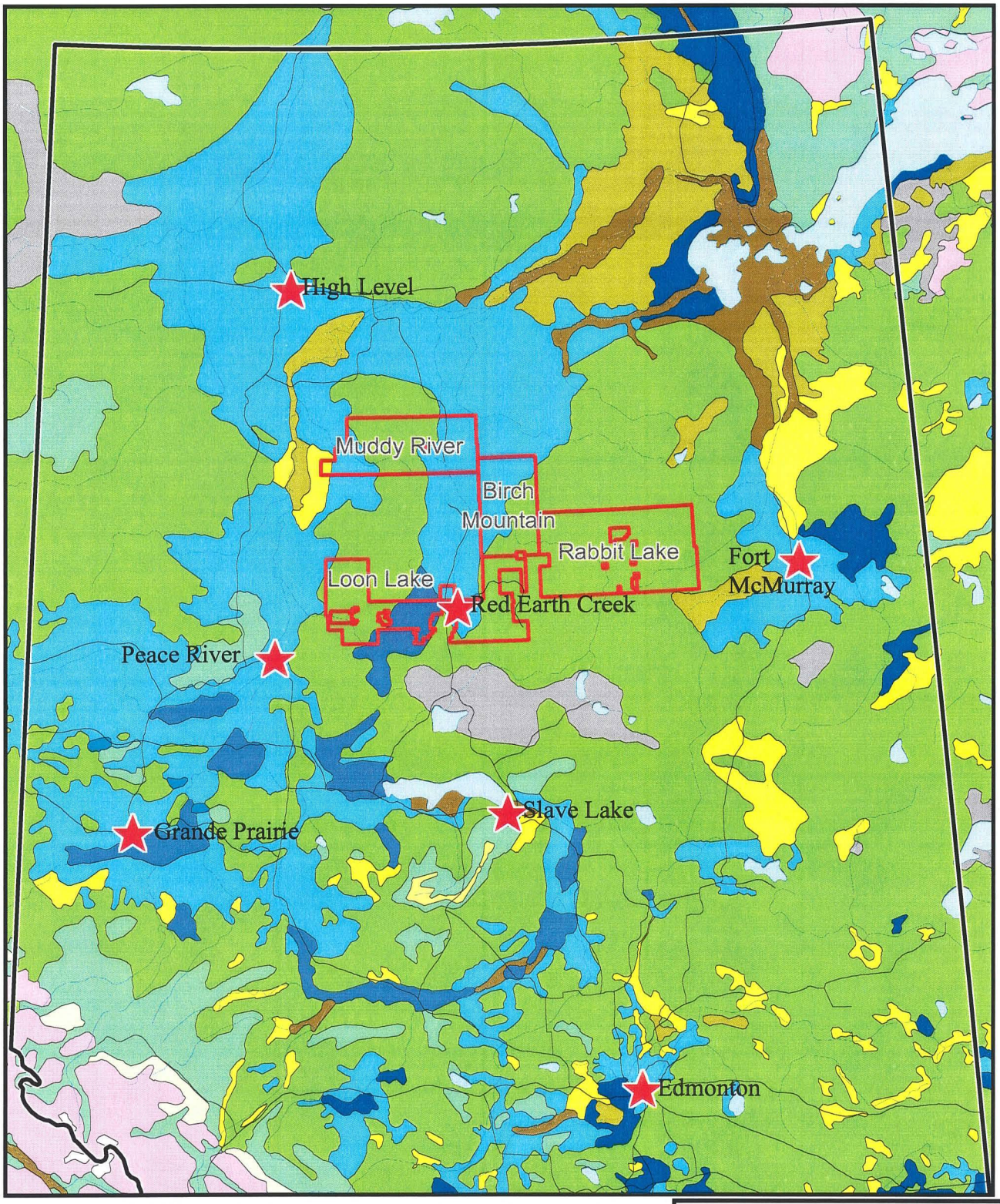
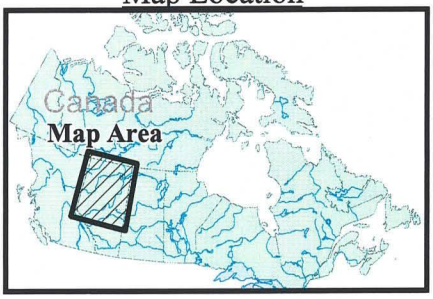
70
140
Kilometers



Map Location



Citation:
R. J. Fulton
1996: Surficial materials of Canada;
Geological Survey of Canada, Map 1880A.

Legend

- Colluvial Blocks
- Colluvial Rubble
- Colluvial Fines
- Colluvial Sand
- Fine grained (glacio) Lacustrine
- Coarse grained (Glacio)Lacustrine
- Fine grained (Glacio)Marine
- Coarse grained (Glacio)Marine
- Glaciers
- Alluvial Deposits
- Marine Mud
- Marine Sand
- Lacustrine Mud
- Lacustrine Sand
- Eolian Depositis
- Organic Deposits
- Lag (Glacio)Marine
- Glaciofluvial Plain
- Glaciofluvial Complex
- Till Blanket
- Till Veneer
- Quaternary Volcanics
- Alpine Complexes
- Undivided
- Eskers
- End and Interlobate Moraine
- General Ice Flow (Known)
- General Ice Flow (Unknown)
- Fromer Ice-limits (Wisconsinan)
- Former Ice-limits (Maximum Glaciation)
- End Morains

Ashton Mining of Canada Inc.

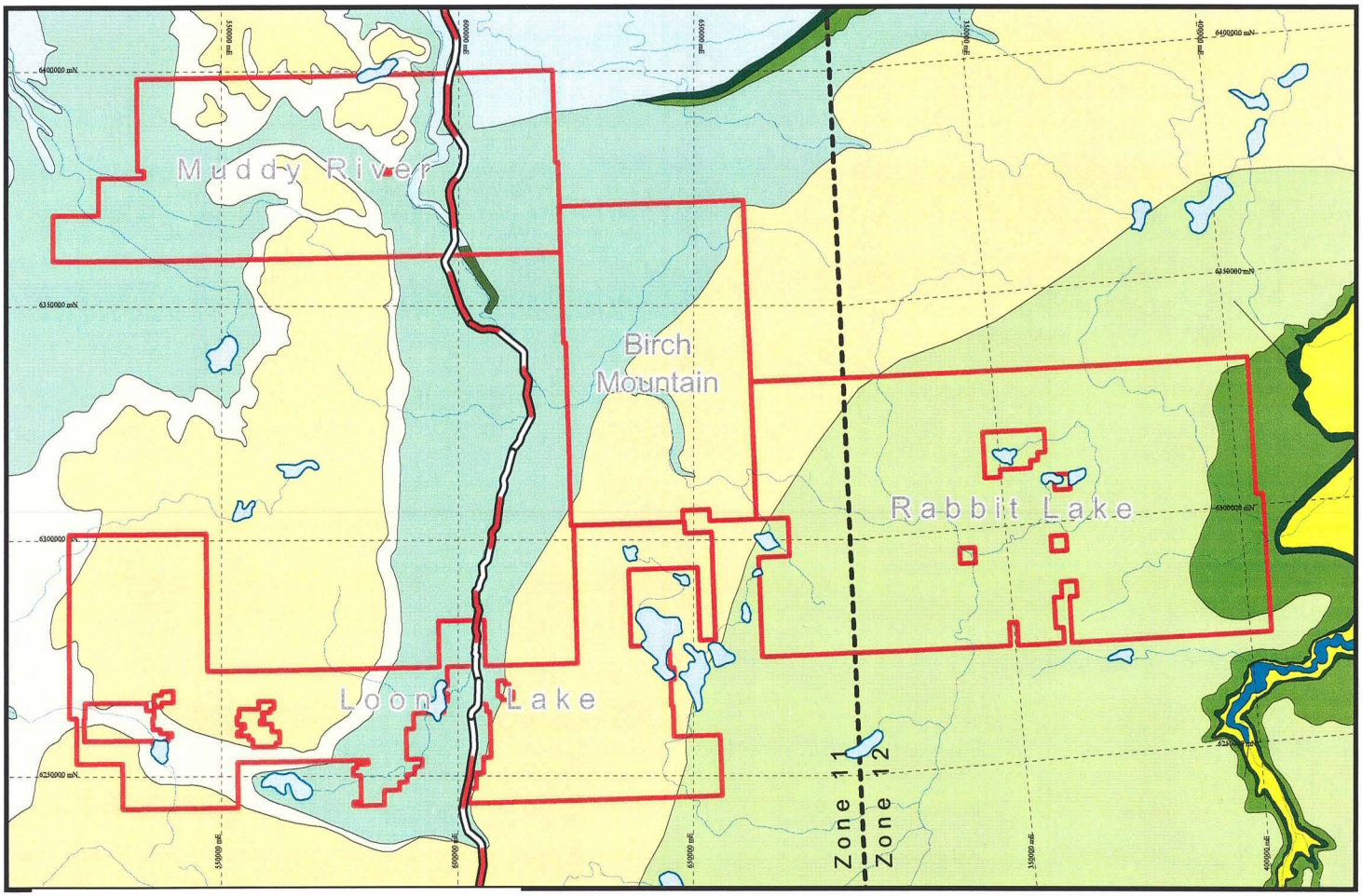
Date: March 2 2001
Author: S Shobridge
Office: Vancouver
Drw: Geology Map
Proj: Nad 27
UTM Zone 11

Figure 4.0

Regional Quaternary Geology Map Alberta

0 80 160
Kilometers

Scale: 1:4,000,000

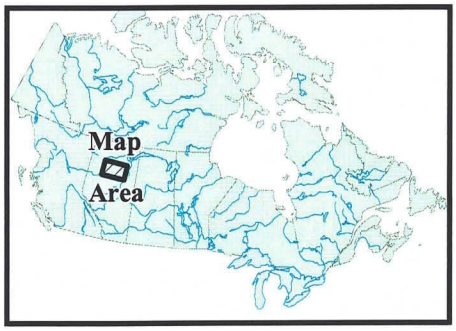


Legend

- Clearwater Formation
- Dunvegan Formation
- Grand Rapids Formation
- Joli Fou Formation
- Kaskapau Formation
- Labiche Fm
- Loon River Shale
- Peace River Formation
- Pelican Formation
- Shaftesbury Formation
- Smoky Group

Citation:
R. J. Fulton
1996: Surficial materials of Canada;
Geological Survey of Canada, Map 1880A.

Map Location



N

Ashton Mining of Canada Inc.

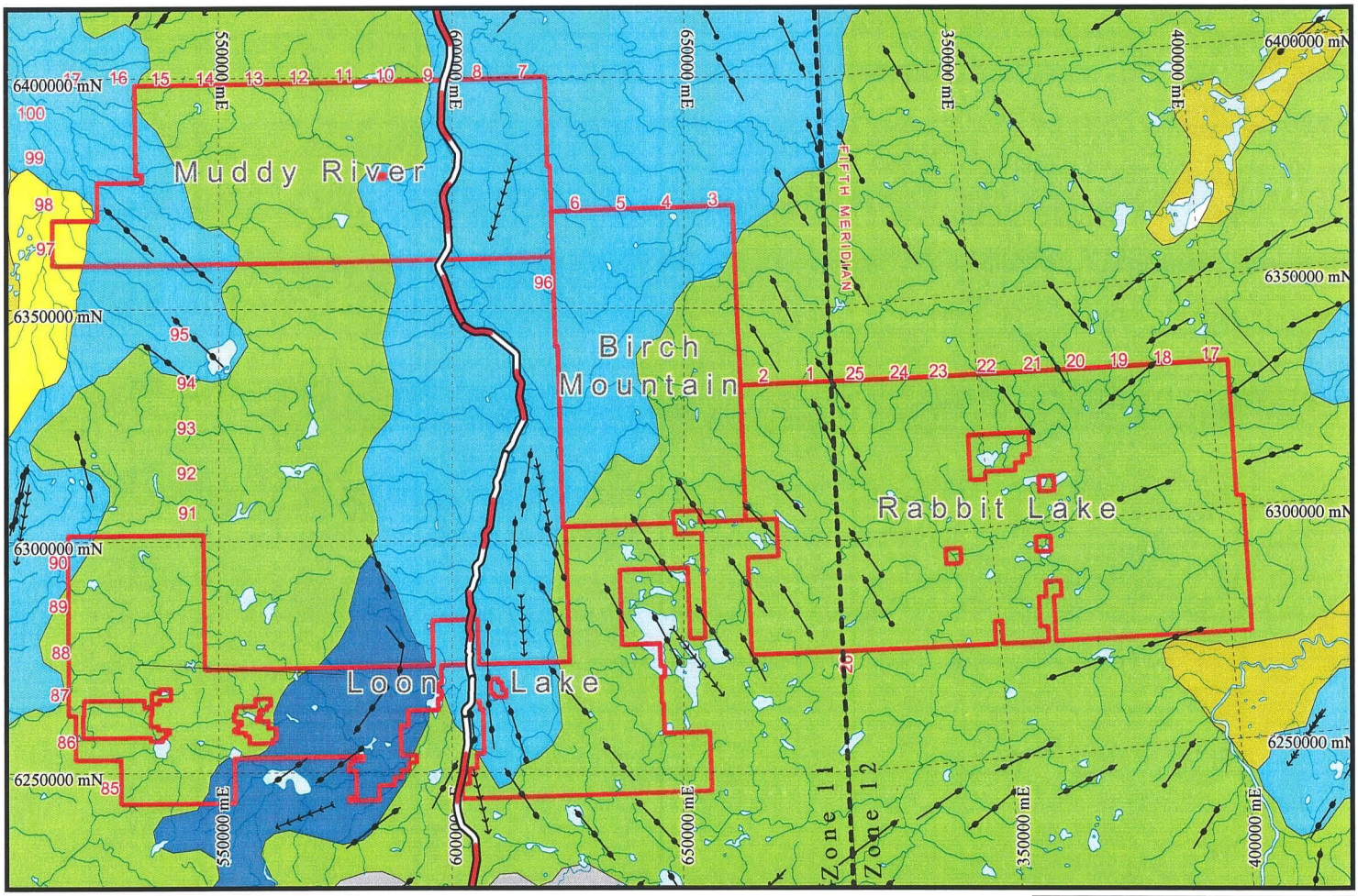
Date: March 2 2001
Author: A Marshall
Office: Vancouver
Drw: Geology Map
Proj: Nad 27
UTM Zone 11

Figure 5.0

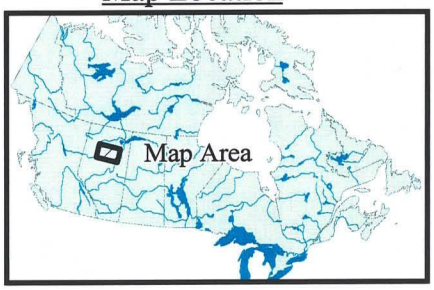
Property Bedrock Geology

20 0 20 40 60
Kilometers

Scale: 1:1,500,000



Map Location



Citation:
R. J. Fulton
1996: Surficial materials of Canada;
Geological Survey of Canada, Map 1880A.

Legend

- Colluvial Blocks
- Colluvial Rubble
- Colluvial Fines
- Colluvial Sand
- Fine grained (glacio) Lacustrine
- Coarse grained (Glacio)Lacustrine
- Fine grained (Glacio)Marine
- Coarse grained (Glacio)Marine
- Glaciers
- Alluvial Deposits
- Marine Mud
- Marine Sand
- Lacustrine Mud
- Lacustrine Sand
- Eolian Depositis
- Organic Deposits
- Lag (Glacio)Marine
- Glaciofluvial Plain
- Glaciofluvial Complex
- Till Blanket
- Till Veneer
- Quaternary Volcanics
- Alpine Complexes
- Undivided
- Eskers
- End and Interlobate Moraine
- General Ice Flow (Known)
- General Ice Flow (Unknown)
- Fromer Ice-limits (Wisconsinan)
- Former Ice-limits (Maximum Glaciation)
- End Morains

N

Ashton Mining of Canada Inc.

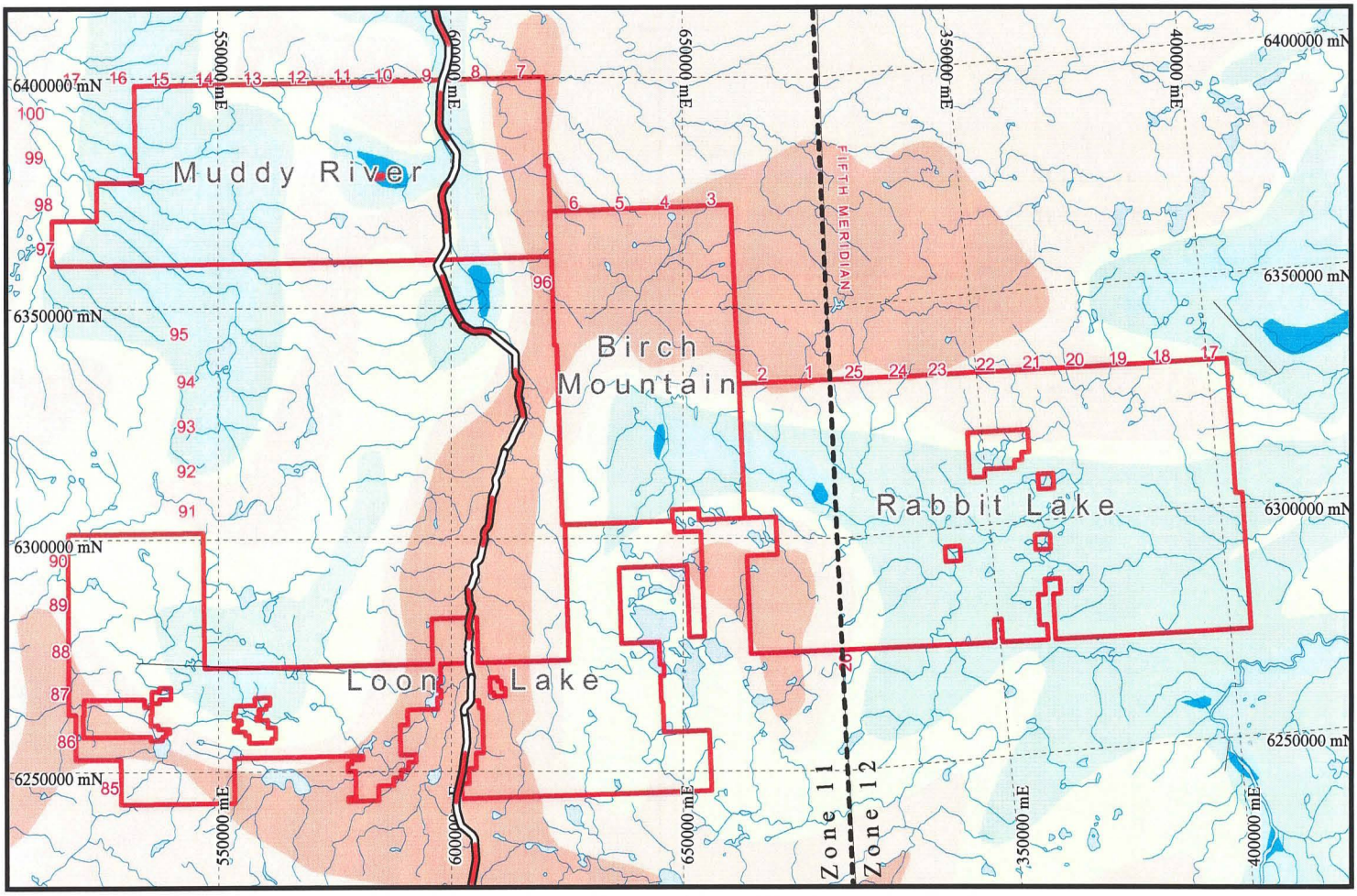
Date: March 2 2001
Author: A Marshall
Office: Vancouver
Drw: Geology Map
Proj: Nad 27
UTM Zone 11

Figure 6.0

Property Quaternary Geology
Alberta

20 0 20 40 60
Kilometers

Scale: 1:1,500,000



Map Location

Drift Legend

- 0m
- 0 - 15m
- 15 - 45m
- 45 - 90m
- 90 - 150m
- > 150m

Note: Modified from Pawlowicz & Fenton (1995)

N

Ashton Mining of Canada Inc.

Date: March 2 2001

Author: A Marshall

Office: Vancouver

Drw: Geology Map

Proj: Nad 27
UTM Zone 11

Figure 7.0

Property Drift Thickness
Alberta

20 0 20 40 60

Kilometers

Scale: 1:1,500,000

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10.0 CERTIFICATE OF QUALIFICATION

I, Dave Skelton, of [redacted] Vancouver, British Columbia, hereby certify that:

1. I am a graduate of the University of Western Ontario and hold a B.Sc. degree in geology,
2. I am presently employed as a project geologist with Ashton Mining of Canada Inc. at Unit 123, 930 West 1st Street, North Vancouver, B.C., V7P 3N4, and
3. I have been employed by various mining companies since 1986.
4. The information, conclusions and recommendations in this report are based on work in Alberta and on the property, in collaboration with colleagues involved in various aspects of exploration.

Dated at Vancouver, British Columbia, this 26th day of April, 2001.
ASHTON MINING OF CANADA INC.

[redacted]

Dave Skelton, B.Sc., P. Geol

10.0 CERTIFICATE OF QUALIFICATION

I, David Willis, of [redacted] Vancouver, British Columbia, hereby certify that:

1. I am a graduate of the University of Alberta and hold a B.A. degree in anthropology
2. I am a graduate of the Northern Alberta Institute of Technology and hold a diploma in mineral engineering
3. I am presently employed as a project geologist with Ashton Mining of Canada Inc. at Unit 123, 930 West 1st Street, North Vancouver, B.C., V7P 3N4, and
4. I have been employed with Ashton Mining of Canada Inc. since 1997.
5. The information, conclusions and recommendations in this report are based on work in Alberta and on the property, in collaboration with colleagues involved in various aspects of exploration.

Dated at Vancouver, British Columbia, this 26th day of April, 2001.
ASHTON MINING OF CANADA INC.

[redacted]

David Willis, B.A, Dip. Mineral Engineering

Appendix A

APPENDIX A

Heavy Mineral Sampling

- Heavy Mineral Samples and Results: Loon Lake Property
- Heavy Mineral Samples and Results: Birch Mountain Property
- Heavy Mineral Samples and Results: Rabbit Lake Property
- Heavy Mineral Samples and Results: Muddy River Property
- Sample Location and Results Map

Loon Lake Property Heavy Mineral Results
Feb 1, 1999 to Jan 31, 2000

Sample number	Easting	Northing	Total Diamonds	Total Peridotic Pyrope	Total Eclogitic Pyrope	Total Chrome Diopside	Total Chromite	Total Picro-ilmenite	Total Kimberlitic Olivine	Total Indicator Minerals
AL02-0120	531746	6291789	0	0	0	0	2	0	11	13
AL02-0121	540143	6300762	0	0	0	0	0	0	1	1
AL02-0122	540235	6289451	0	0	0	0	1	0	6	7
AL02-0123	532008	6286004	0	0	0	0	0	0	25	25
AL02-0124	531901	6282475	0	0	0	0	0	0	8	8
AL02-0125	605722	6265067	0	0	0	0	0	0	2	2
AL02-0126	536406	6277486	0	0	0	0	0	0	0	0
AL02-0127	601122	6244341	0	0	0	0	1	0	2	3
AL02-0128	596796	6244098	0	0	0	0	1	0	0	1
AL02-0129	598363	6244146	0	0	0	0	0	0	0	0
AL02-0130	597488	6263477	0	2	0	0	0	0	6	8
AL02-0131	595865	6271401	0	0	0	0	0	1	4	5
AL02-0132	517388	6283327	0	0	0	0	0	0	1	1
AL02-0133	529912	6278848	0	0	0	0	0	0	5	5
AL02-0134	516675	6277023	0	0	0	0	0	0	9	9
AL02-0135	523769	6285652	0	0	0	0	0	0	29	29
AL02-0136	519207	6264193	0	0	0	0	0	0	0	0
AL02-0138	520618	6267719	0	0	0	0	0	0	4	4
AL02-0139	519579	6265085	0	0	0	0	0	0	6	6
AL02-0140	521386	6273097	0	0	0	0	0	0	2	2
AL02-0141	518306	6264717	0	0	0	0	0	0	0	0
AL02-0142	516640	6267934	0	0	0	0	0	0	0	0
AL02-0143	517338	6263960	0	0	0	0	0	0	0	0
AL02-0144	518122	6261745	0	2	0	0	0	0	6	8
AL02-0145	515485	6260983	0	0	0	0	0	0	0	0
AL02-0146	645077	6247271	0	1	0	0	0	0	0	1
AL02-0147	655234	6254172	0	0	0	0	0	0	0	0
AL02-0148	644415	6256176	0	0	0	0	0	0	0	0
AL02-0149	647432	6257006	0	0	0	0	0	0	0	0
AL02-0150	640216	6270870	0	0	0	0	0	0	0	0
AL02-0151	644212	6259469	0	0	0	0	0	0	0	0
AL02-0152	630857	6250672	0	0	0	0	0	1	0	1
AL02-0153	639924	6262767	0	0	0	0	0	3	3	6
AL02-0154	608793	6253027	0	0	0	0	0	1	0	1
AL02-0155	636704	6266602	0	1	0	0	0	0	2	3
AL02-0156	594500	6244160	0	0	0	0	0	0	0	0
AL02-0157	590545	6244048	0	0	0	0	2	0	0	2
AL02-0158	586632	6243005	0	0	0	0	0	0	0	0
AL02-0159	581801	6248300	0	0	0	0	0	0	2	2
AL02-0160	608616	6260531	0	0	0	0	0	0	0	0
AL02-0161	591901	6253544	0	0	0	0	0	2	0	2
AL02-0162	589248	6256809	0	2	0	0	0	0	5	7
AL02-0163	626214	6248820	0	1	0	0	0	0	0	1

Sample number	Easting	Northing	Total Diamonds	Total Peridotic Pyrope	Total Eclogitic Pyrope	Total Chrome Diopside	Total Chromite	Total Picro-ilmenite	Total Kimberlitic Olivine	Total Indicator Minerals
AL02-0164	623238	6250988	0	0	0	0	0	0	0	0
AL02-0165	622008	6254954	0	0	0	0	0	0	0	0
AL02-0166	624290	6257250	0	0	0	0	0	0	0	0
AL02-0167	616381	6257189	0	0	0	0	0	0	3	3
AL02-0168	617089	6258864	0	0	0	1	0	0	5	6
AL02-0169	616159	6264210	0	0	0	0	0	0	3	3
AL02-0170	640178	6253923	0	0	0	0	0	0	0	0
AL02-0171	649717	6250900	0	0	0	1	0	0	1	2
AL02-0172	650707	6248162	0	0	0	0	0	0	0	0
AL02-0173	630845	6245446	0	0	0	0	0	0	0	0
AL02-0174	629432	6245397	0	0	0	0	0	0	0	0
AL02-0175	628069	6245264	0	0	0	0	1	1	1	3
AL02-0176	629543	6247755	0	0	0	0	0	0	0	0
AL02-0177	637373	6256884	0	0	0	0	0	0	0	0
AL02-0178	631858	6259236	0	0	0	0	0	0	0	0
AL02-0179	552544	6267986	0	0	0	0	0	0	0	0
AL02-0180	557544	6269080	0	0	0	0	0	0	0	0
AL02-0181	554787	6268869	0	1	0	0	0	0	3	4
AL02-0182	560848	6270217	0	0	0	0	0	0	0	0
AL02-0183	558889	6271491	0	0	0	0	0	0	0	0
AL02-0184	533670	6288690	0	1	0	0	1	0	2	4
AL02-0185	536120	6286595	0	0	0	0	0	0	4	4
AL02-0186	533880	6283961	0	0	0	0	0	0	0	0
AL02-0187	536558	6282590	0	6	0	0	6	0	0	12
AL02-0188	542088	6283942	0	0	0	0	1	0	2	3
AL02-0189	544475	6289049	0	0	0	0	2	0	0	2
AL02-0190	540433	6286466	0	2	1	1	0	0	10	14
AL02-0191	644860	6268925	0	0	0	0	0	0	0	0
AL02-0192	642933	6269605	0	0	0	0	0	0	0	0
AL02-0193	637599	6276153	0	0	0	0	0	0	0	0
AL02-0194	643328	6268100	0	1	0	0	0	0	0	1
AL02-0196	625860	6278050	0	0	0	0	1	0	0	1

Total # of Samples 75

Birch Mountain Property - Heavy Mineral Results
March 15, 1999 to February 28, 2001

Sample number	Easting	Northing	Total Diamonds	Total Peridotic Pyrope	Total Eclogitic Pyrope	Total Chrome Diopside	Total Chromite	Total Picro-ilmenite	Total Kimberlitic Olivine	Total Indicator Minerals
AL03-0080	661125	6316400	0	0	0	0	0	0	0	0
AL03-0081	659737	6314412	0	0	0	0	0	0	0	0
AL03-0082	647994	6345597	0	0	0	0	0	1	0	1
AL03-0083	648511	6343592	0	0	0	0	0	0	0	0
AL03-0084	645731	6342672	0	0	0	0	0	0	0	0
AL03-0085	646663	6340953	0	0	0	0	0	1	0	1
AL03-0086	642568	6340996	0	0	0	0	0	0	0	0
AL03-0087	642156	6337036	0	0	0	0	0	0	0	0
AL03-0088	640195	6339200	0	0	0	0	0	0	0	0
AL03-0089	640860	6333460	0	2	0	0	1	0	0	3
AL03-0090	643705	6332850	0	0	0	0	0	0	0	0
AL03-0091	644932	6367918	0	0	0	0	0	0	0	0
AL03-0092	640141	6363154	0	0	0	0	0	0	1	1
AL03-0093	632507	6362153	0	0	0	0	0	0	0	0
AL03-0094	636430	6356715	0	0	0	0	0	0	0	0
AL03-0095	649347	6357495	0	0	0	0	0	0	0	0
AL03-0096	641266	6357737	0	0	0	0	0	0	0	0
AL03-0097	647170	6355283	0	0	0	0	0	0	1	1
AL03-0098	635284	6349542	0	0	0	0	0	0	0	0
AL03-0099	645152	6327754	0	0	0	0	0	0	0	0
AL03-0100	639850	6352773	0	0	0	0	0	0	0	0
AL03-0101	650630	6309416	0	0	0	0	0	0	0	0
AL03-0102	644848	6305778	0	0	0	0	0	0	0	0
AL03-0103	646161	6312263	0	0	0	0	1	1	0	2
AL03-0104	647418	6317610	0	0	0	0	0	1	0	1
AL03-0105	651290	6314984	0	0	0	0	0	0	0	0
AL03-0106	655830	6310285	0	0	0	0	0	0	0	0
AL03-0107	641050	6349160	0	1	0	0	1	1	0	3
AL03-0108	660100	6344925	0	0	0	0	0	0	0	0
AL03-0109	656967	6319613	0	0	1	0	0	0	0	1
AL03-0110	642574	6317770	0	0	0	0	0	0	0	0
AL03-0111	661054	6319129	0	0	0	0	0	0	0	0
AL03-0112	659616	6341110	0	0	0	0	0	0	0	0
AL03-0113	658847	6330300	0	0	0	0	0	0	0	0
AL03-0114	659130	6325195	0	0	0	0	0	0	0	0
AL03-0115	653071	6326314	0	0	0	0	0	0	0	0
AL03-0116	656328	6323678	0	0	0	0	0	0	0	0
AL03-0117	653594	6321671	0	0	0	0	0	0	0	0
AL03-0118	649615	6326024	0	0	0	0	0	0	0	0
AL03-0119	643863	6325531	0	0	0	0	0	0	0	0
AL03-0120	649000	6337950	0	0	0	0	0	0	0	0
AL03-0121	642153	6327750	0	0	0	0	0	0	0	0
AL03-0122	640028	6323458	0	0	0	0	0	0	0	0

Sample number	Easting	Northing	Total Diamonds	Total Peridotic Pyrope	Total Eclogitic Pyrope	Total Chrome Diopside	Total Chromite	Total Picro-ilmenite	Total Kimberlitic Olivine	Total Indicator Minerals
AL03-0123	630157	6324654	0	0	0	0	0	0	2	2
AL03-0124	630075	6330518	0	0	0	0	0	0	0	0
AL03-0125	622550	6366116	0	0	0	0	0	0	0	0
AL03-0126	627620	6333750	0	0	0	0	0	0	0	0
AL03-0127	626050	6338410	0	0	0	0	0	0	0	0
AL03-0128	622384	6342248	0	0	0	0	0	0	1	1
AL03-0129	623145	6357404	0	0	0	0	0	0	0	0
AL03-0130	628147	6348027	0	0	0	0	0	0	0	0
AL03-0131	628200	6348000	0	0	0	0	0	0	0	0
AL03-0132	660476	6356475	0	0	0	0	0	0	0	0
AL03-0133	667037	6356364	0	0	0	0	0	1	0	1
AL03-0134	667665	6350950	0	0	0	0	0	0	0	0
AL03-0135	659350	6347656	0	0	0	0	0	0	0	0
AL03-0136	662508	6349373	0	0	0	0	0	0	0	0
AL03-0137	661525	6348324	0	0	0	0	0	0	0	0
AL03-0138	655150	6348926	0	0	0	0	0	0	0	0
AL03-0139	658725	6345923	0	0	0	0	0	0	0	0
AL03-0140	630044	6348360	0	0	0	0	0	0	0	0
AL03-0141	624417	6348440	0	0	0	0	0	0	0	0
AL03-0142	623292	6346670	0	0	0	0	0	0	0	0
AL03-0143	627549	6344189	0	0	0	0	0	0	0	0
AL03-0144	632893	6346838	0	0	0	0	2	0	0	2
AL03-0145	633100	6343464	0	0	0	0	0	2	0	2
AL03-0146	663113	6337679	0	0	0	0	0	0	0	0
AL03-0147	665622	6345676	0	0	0	0	0	0	0	0
AL03-0148	674900	6343486	0	0	0	0	0	1	0	1
AL03-0149	664071	6342000	0	1	0	0	0	0	0	1
AL03-0150	673820	6346049	0	0	0	0	0	0	0	0
AL03-0151	669531	6340354	0	0	0	0	0	0	0	0
AL03-0152	680657	6338567	0	0	0	0	0	0	0	0

Total # of Samples 73

Rabbit Lake Property - Heavy Mineral Results
April 29, 1999 to February 28, 2001

Sample number	Easting	Northing	Total Diamonds	Total Peridotic Pyrope	Total Eclogitic Pyrope	Total Chrome Diopside	Total Chromite	Total Picro-ilmenite	Total Kimberlitic Olivine	Total Indicator Minerals
AL04-0105	670657	6277703	0	0	0	0	0	1	0	1
AL04-0106	683520	6278837	0	0	0	0	0	0	0	0
AL04-0107	681300	6277241	0	0	0	0	0	0	0	0
AL04-0108	682915	6279867	0	2	0	0	2	0	0	4
AL04-0109	674650	6278233	0	0	0	0	0	0	0	0
AL04-0110	678358	6285147	0	0	0	0	0	0	0	0
AL04-0111	674862	6282433	0	0	0	0	0	1	0	1
AL04-0112	680648	6287875	0	0	1	0	0	0	0	1
AL04-0113	675508	6288397	0	0	0	0	0	0	0	0
AL04-0114	681328	6291860	0	0	0	0	0	0	0	0
AL04-0115	680683	6296936	0	0	0	0	0	0	0	0
AL04-0116	321265	6285694	0	0	0	0	0	0	0	0
AL04-0117	316120	6280560	0	0	0	0	0	0	0	0
AL04-0118	320896	6290264	0	0	0	0	1	0	0	1
AL04-0119	317655	6287772	0	0	0	0	0	0	0	0
AL04-0120	349910	6332197	0	1	0	0	0	0	0	1
AL04-0121	322154	6290520	0	0	0	0	0	0	0	0
AL04-0122	347357	6321572	0	0	0	0	0	0	0	0
AL04-0123	353794	6326582	0	0	0	0	0	0	0	0
AL04-0124	359127	6330653	0	0	0	0	0	0	0	0
AL04-0125	368414	6331981	0	0	0	0	0	0	0	0
AL04-0126	377638	6334498	0	0	0	0	0	0	0	0
AL04-0127	367570	6322841	0	0	0	0	0	0	0	0
AL04-0128	366471	6317842	0	0	0	0	0	0	0	0
AL04-0129	361663	6314991	0	0	0	0	0	0	0	0
AL04-0130	383032	6294533	0	0	0	0	0	0	0	0
AL04-0131	371229	6288338	0	0	0	0	0	0	0	0
AL04-0132	378846	6292421	0	0	0	0	0	0	0	0
AL04-0133	382052	6293050	0	0	0	0	0	0	0	0
AL04-0134	377412	6291985	0	0	0	0	0	0	0	0
AL04-0135	374352	6295974	0	0	0	0	0	0	0	0
AL04-0136	400085	6298147	0	6	1	0	0	2	0	9
AL04-0137	395848	6301651	0	1	0	0	0	5	0	6
AL04-0138	332800	6304989	0	2	0	0	2	1	1	6
AL04-0139	328290	6303986	0	3	4	0	2	2	0	11
AL04-0140	336030	6309000	0	1	3	0	3	22	0	29
AL04-0141	324154	6317097	0	0	1	0	1	2	0	4
AL04-0142	321652	6312273	0	0	0	0	0	0	0	0
AL04-0143	682365	6316592	0	0	0	0	0	2	0	2
AL04-0144	665278	6328261	0	1	0	0	0	1	0	2
AL04-0145	667453	6337560	0	0	0	0	0	0	0	0
AL04-0146	380680	6292345	0	0	0	0	0	0	0	0
AL04-0147	381442	6294287	0	0	0	0	0	0	0	0

Sample number	Easting	Northing	Total Diamonds	Total Peridotic Pyrope	Total Eclogitic Pyrope	Total Chrome Diopside	Total Chromite	Total Picro-ilmenite	Total Kimberlitic Olivine	Total Indicator Minerals
AL04-0148	357132	6301765	0	0	0	0	0	0	0	0
AL04-0149	353476	6303993	0	0	0	0	0	0	0	0
AL04-0150	362607	6301824	0	1	0	0	0	0	0	1
AL04-0151	368198	6309492	0	0	0	0	0	0	0	0
AL04-0152	377385	6314242	0	0	0	0	0	0	0	0
AL04-0153	367950	6329434	0	0	0	0	0	0	0	0
AL04-0154	330700	6319962	0	0	0	0	0	0	1	1
AL04-0155	332548	6320146	0	0	0	0	0	0	0	0
AL04-0156	334949	6317905	0	0	0	0	0	0	0	0
AL04-0157	334960	6315050	0	0	0	0	0	3	0	3
AL04-0158	334300	6320554	0	0	0	0	0	0	0	0
AL04-0159	336973	6322392	0	0	0	0	0	0	0	0
AL04-0160	332540	6322732	0	0	0	0	0	0	0	0
AL04-0161	331586	6321056	0	0	0	0	0	0	0	0
AL04-0162	334665	6322437	0	0	0	0	0	0	0	0
AL04-0163	375492	6318727	0	0	0	0	0	0	0	0
AL04-0164	373536	6319544	0	0	0	0	0	0	0	0
AL04-0165	371785	6322769	0	0	0	0	0	0	0	0
AL04-0166	367186	6325383	0	0	0	0	0	0	0	0
AL04-0167	366014	6328868	0	0	0	0	0	0	0	0
AL04-0168	358812	6327739	0	0	0	0	0	0	0	0
AL04-0169	341183	6332798	0	0	0	0	0	0	0	0
AL04-0170	332173	6333505	0	0	0	0	0	0	0	0
AL04-0171	324312	6337575	0	0	0	0	0	0	0	0
AL04-0172	327030	6330940	0	0	0	0	0	0	0	0
AL04-0173	328978	6328508	0	0	0	0	0	0	0	0
AL04-0174	335951	6327353	0	0	0	0	0	0	0	0
AL04-0175	677875	6324478	0	0	0	0	0	0	0	0
AL04-0176	679497	6329063	0	0	0	0	0	0	0	0
AL04-0177	673815	6337200	0	0	0	0	1	0	0	1
AL04-0178	345980	6314403	0	0	0	0	2	0	0	2
AL04-0179	345970	6310500	0	0	0	0	0	1	0	1
AL04-0180	680790	6333730	0	0	0	0	0	0	0	0
AL04-0181	368161	6327305	0	1	0	0	0	0	0	1
AL04-0182	339587	6311714	0	0	0	0	0	0	0	0
AL04-0183	336835	6312612	0	0	0	0	0	0	0	0
AL04-0184	338700	6307790	0	0	0	0	0	0	1	1
AL04-0185	336546	6309664	0	0	0	0	0	0	0	0
AL04-0186	340241	6309147	0	0	0	0	0	0	0	0
AL04-0187	325567	6310196	0	0	0	0	0	0	0	0
AL04-0188	333823	6301257	0	0	0	0	0	0	0	0
AL04-0189	342185	6298320	0	0	0	0	0	0	3	3
AL04-0190	336741	6297114	0	0	0	0	0	0	0	0
AL04-0191	332992	6297571	0	0	0	0	0	0	0	0
AL04-0192	331441	6296596	0	0	0	0	0	0	0	0
AL04-0193	329417	6296888	0	0	0	0	0	0	0	0
AL04-0194	330000	6292920	0	1	0	0	0	0	0	1
AL04-0195	326143	6292418	0	0	0	0	0	0	0	0

Sample number	Easting	Northing	Total Diamonds	Total Peridotic Pyrope	Total Eclogitic Pyrope	Total Chrome Diopside	Total Chromite	Total Picro-ilmenite	Total Kimberlitic Olivine	Total Indicator Minerals
AL04-0196	317800	6294563	0	0	0	0	0	0	0	0
AL04-0197	331960	6309825	0	0	0	0	0	0	0	0
AL04-0198	339730	6315933	0	0	0	0	0	0	0	0
AL04-0199	322590	6313581	0	0	0	0	0	0	0	0
AL04-0200	329420	6315102	0	0	0	0	0	0	0	0
AL04-0201	326645	6318082	0	0	0	0	0	0	0	0
AL04-0202	682523	6311546	0	0	0	0	0	0	0	0
AL04-0203	321000	6307450	0	0	0	0	0	0	0	0
AL04-0204	322767	6319602	0	0	0	0	0	0	0	0
AL04-0205	676432	6330857	0	0	0	0	1	0	0	1
AL04-0206	670566	6329048	0	0	1	0	0	0	0	1
AL04-0207	666916	6328877	0	0	0	0	0	0	0	0
AL04-0208	667229	6331945	0	0	0	0	0	0	0	0
AL04-0209	664301	6328899	0	0	0	0	0	0	0	0
AL04-0210	669108	6315826	0	0	0	0	0	0	0	0
AL04-0211	666270	6316711	0	0	0	0	0	0	0	0
AL04-0212	677740	6314730	0	0	0	0	0	1	0	1

Total # of Samples 108

Muddy River Property - Heavy Mineral Results
April 29, 1999 to February 28, 2001

Sample number	Easting	Northing	Total Diamonds	Total Peridotic Pyrope	Total Eclogitic Pyrope	Total Chrome Diopside	Total Chromite	Total Picro-ilmenite	Total Kimberlitic Olivine	Total Indicator Minerals
AL05-0099	569534	6396333	0	0	0	0	0	0	0	0
AL05-0100	573110	6395067	0	0	0	0	1	0	6	7
AL05-0101	572854	6398679	0	0	0	0	0	0	0	0
AL05-0102	582866	6394493	0	0	0	0	0	0	0	0
AL05-0103	583866	6397472	0	0	0	0	0	0	1	1
AL05-0104	581720	6388376	0	0	0	0	0	0	1	1
AL05-0105	584371	6386876	0	0	0	0	1	1	0	2
AL05-0106	578137	6386187	0	0	0	0	1	0	0	1
AL05-0107	581250	6385061	0	0	0	0	0	0	0	0
AL05-0108	617269	6400589	0	0	0	0	0	0	0	0
AL05-0109	611326	6400488	0	0	0	0	0	0	4	4
AL05-0110	604131	6400772	0	0	0	0	0	0	0	0
AL05-0111	617548	6393035	0	0	0	0	0	0	1	1
AL05-0112	612710	6393201	0	0	0	0	0	0	2	2
AL05-0113	603232	6395669	0	0	0	0	0	0	0	0
AL05-0114	600319	6391337	0	0	0	0	0	0	1	1
AL05-0115	610874	6389815	0	0	0	0	0	0	0	0
AL05-0116	619725	6386425	0	0	0	0	0	0	1	1
AL05-0118	618075	6382358	0	0	0	0	0	0	3	3
AL05-0119	610306	6379174	0	1	0	0	0	0	0	1
AL05-0120	604853	6379340	0	0	0	0	0	0	3	3
AL05-0121	594200	6379361	0	0	0	0	0	0	2	2
AL05-0122	590567	6375973	0	0	0	0	0	0	0	0
AL05-0123	618864	6371069	0	0	0	0	0	0	0	0
AL05-0124	611711	6370556	0	0	0	0	0	0	0	0
AL05-0125	546866	6373485	0	0	0	0	0	0	0	0
AL05-0126	555700	6371565	0	0	0	0	0	0	0	0
AL05-0127	552400	6370300	0	3	0	0	2	0	1	6
AL05-0128	575655	6386606	0	0	0	0	0	0	2	2
AL05-0129	574807	6392671	0	0	0	0	0	0	0	0
AL05-0130	578636	6392673	0	0	0	0	0	0	0	0
AL05-0131	586533	6383515	0	0	0	0	0	0	0	0
AL05-0132	571370	6369865	0	0	0	0	0	0	0	0

Total # of Samples 33

MUDDY RIVER

BIRCH MOUNTAIN

LOON LAKE

RABBIT LAKE

FIFTH MERIDIAN

Wadlin Lake
Talbot Lake
Wabasca River
Bison Lake
Russell Lake
Sawn Lake
Haig Lake
Otter Lakes
Lubicon Lake
Cadotte Lake
Loon Lake
Peerless Lake
Quitting Lake
Vanderstene Lake
Graham Lake
Chipewyan Lake
Mink Lake
Crew Lake
Chip Lake Road

6400000 mN
6350000 mN
6300000 mN
6250000 mN

550000 mE
600000 mE
650000 mE
350000 mE
400000 mE

Map Location

Alberta
Hudson Hope
Map Area
Fort McMurray
Red Earth Creek
Peace River
Grande Prairie
Slave Lake
Edmonton
Calgary

N

Pie Chart of Indicator Minerals
450
225
45

- Peridottic Pyrope x 2
- Eclogitic Pyrope x 2
- Chrome Diopside x 2
- Chromite x 2
- Picroilmenite x 2
- Kimberlitic Olivine x 2

MIN 20010007

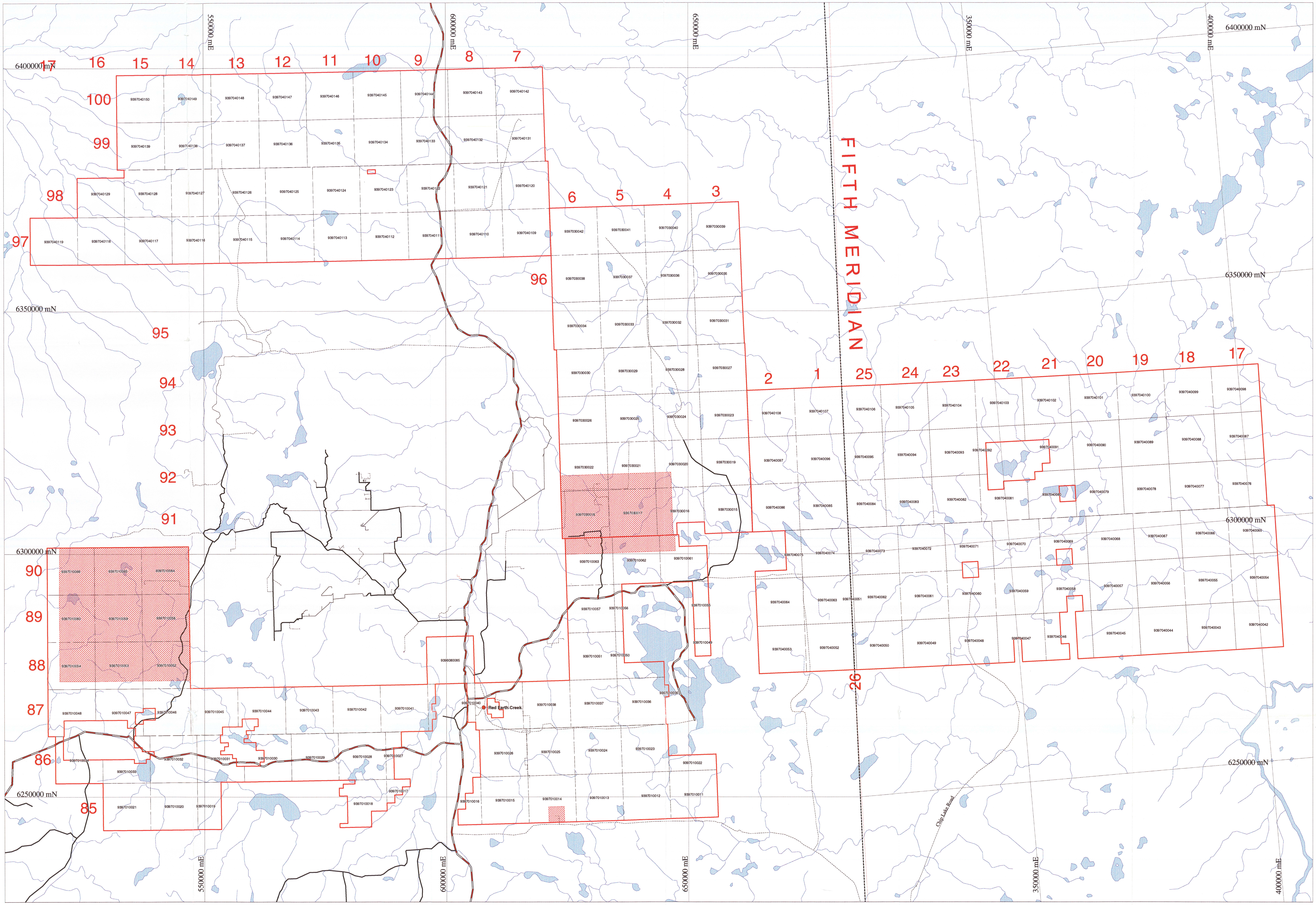
Ashton Mining of Canada Inc.

Heavy Mineral Sample Results
Joint Venture Lands
Alberta

Date: April 23, 2001
Author: A Marshall
Office: Vancouver
Drw: Heavy Mineral Sample Locations.wor
Proj: Nad 27 UTM Zone 11

5 0 5 10 15
Kilometers

Scale: 1:250,000



N

Approved: ____________________
Signature
____
Name and Title
Pure Gold Minerals Inc.

Approved: ____________________
Signature
____
Name and Title
Alberta Energy Corporation Ltd.

Approved: ____________________
Signature
____
Name and Title
Ashton Mining of Canada Inc.

Properties to Retain

5 0 5 10 15
Kilometers
Scale: 1:250,000

Ashton Mining of Canada Inc.

Claim Planning Map
2001 JV Lands
Assessment Filing Strategy

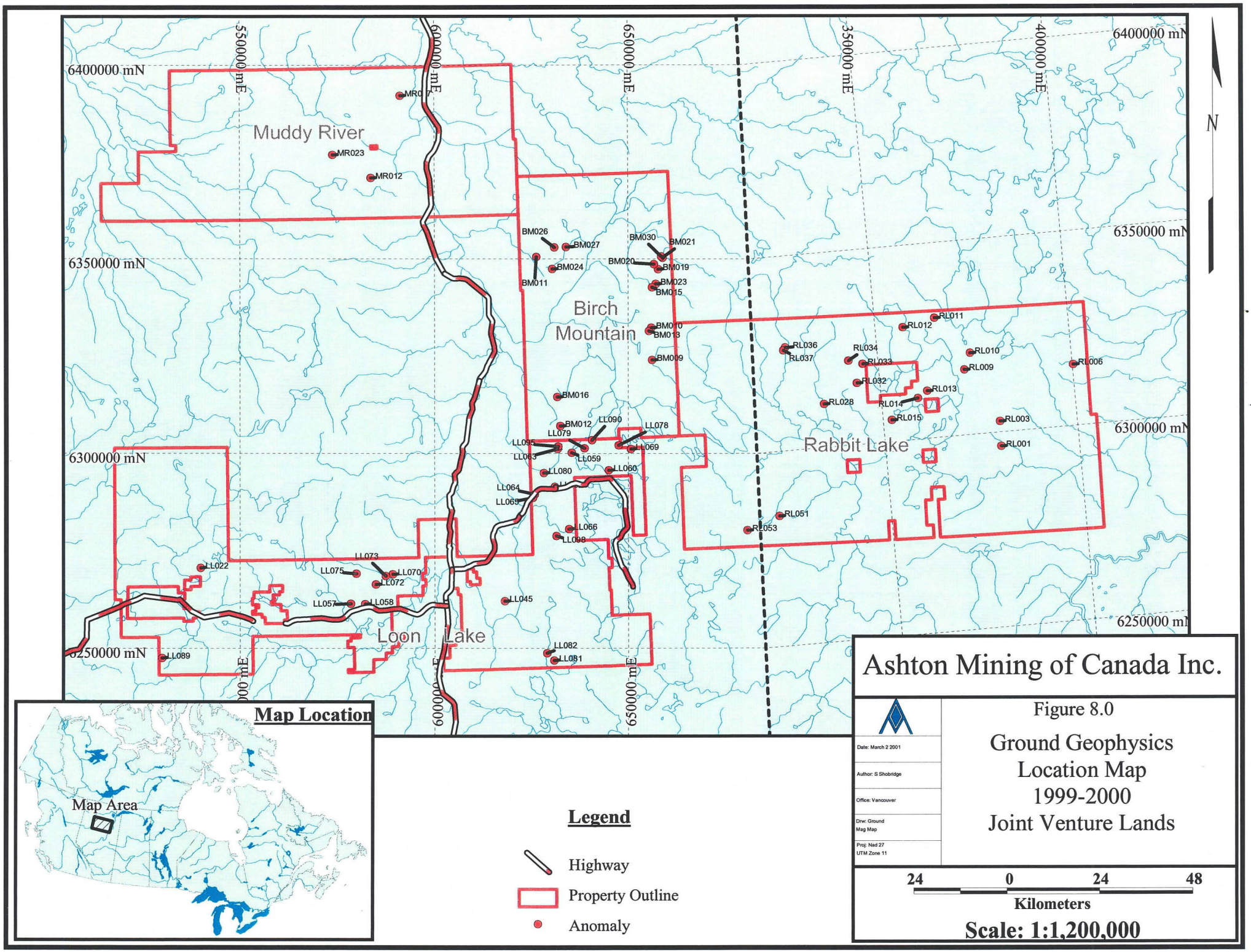
Date: April 10, 2001
Author: A Marshall
Office: Vancouver
Drw: New JV Properties
Proj:Nad 27 Zone 11

Appendix B

APPENDIX B

Ground Geophysics

- Ground Geophysical Survey Location Map
- Summary Table Geophysical Surveys Performed
- Total Field Contour Maps of Ground Magnetic Surveys


Muddy River
Birch Mountain
Rabbit Lake
Loon Lake
6400000 mN
6350000 mN
6300000 mN
6250000 mN
550000 mE
600000 mE
650000 mE
350000 mE
400000 mE
N
MR023
MR012
BM026
BM027
BM030
BM021
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BM019
BM011
BM023
BM015
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BM013
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RL011
RL012
RL036
RL037
RL034
RL033
RL010
RL009
RL006
RL032
RL013
RL028
RL014
RL015
RL003
RL001
RL051
RL053
Map Location
Map Area
Legend
Highway
Property Outline
Anomaly
Ashton Mining of Canada Inc.
Figure 8.0
Ground Geophysics
Location Map
1999-2000
Joint Venture Lands
Date: March 2 2001
Author: S Shobridge
Office: Vancouver
Drw: Ground
Mag Map
Proj: Nad 27
UTM Zone 11
24 0 24 48
Kilometers
Scale: 1:1,200,000

1999-2000 Ground Geophysics Completed on the JV Lands

Loon Lake

Property	Anomaly	Line_KM
AL02	LL022	6.85
AL02	LL045	9.70
AL02	LL057	6.20
AL02	LL058	6.10
AL02	LL059	6.00
AL02	LL060	5.90
AL02	LL062	6.30
AL02	LL063	6.60
AL02	LL064	6.00
AL02	LL065	5.80
AL02	LL066	4.85
AL02	LL069	6.50
AL02	LL070	6.20
AL02	LL072	6.20
AL02	LL073	6.00
AL02	LL075	5.90
AL02	LL078	9.60
AL02	LL079	9.80
AL02	LL080	6.20
AL02	LL081	11.00
AL02	LL082	11.30
AL02	LL089	6.10
AL02	LL090	6.25
AL02	LL095	6.10
AL02	LL098	6.05

Total: 25 Targets **173.5**

Rabbit Lake

Property	Anomaly	Line_KM
AL04	RL001	2.40
AL04	RL003	6.30
AL04	RL006	7.30
AL04	RL009	7.10
AL04	RL010	10.20
AL04	RL011	5.80
AL04	RL012	7.30
AL04	RL013	6.75
AL04	RL014	6.65
AL04	RL015	6.60
AL04	RL028	6.70
AL04	RL032	12.50
AL04	RL033	6.20
AL04	RL034	7.85
AL04	RL036	6.20
AL04	RL037	6.20
AL04	RL051	6.00
AL04	RL053	6.20

Total: 18 Targets **124.25**

Birch Mountains

Property	Anomaly	Line_KM
AL03	BM009	6.75
AL03	BM010	7.30
AL03	BM011	6.60
AL03	BM012	9.00
AL03	BM013	7.00
AL03	BM015	5.45
AL03	BM016	6.70
AL03	BM019	4.55
AL03	BM020	6.20
AL03	BM021	5.00
AL03	BM023	4.95
AL03	BM024	6.10
AL03	BM026	6.10
AL03	BM027	6.20
AL03	BM030	6.10

Total: 15 Targets **94.0**

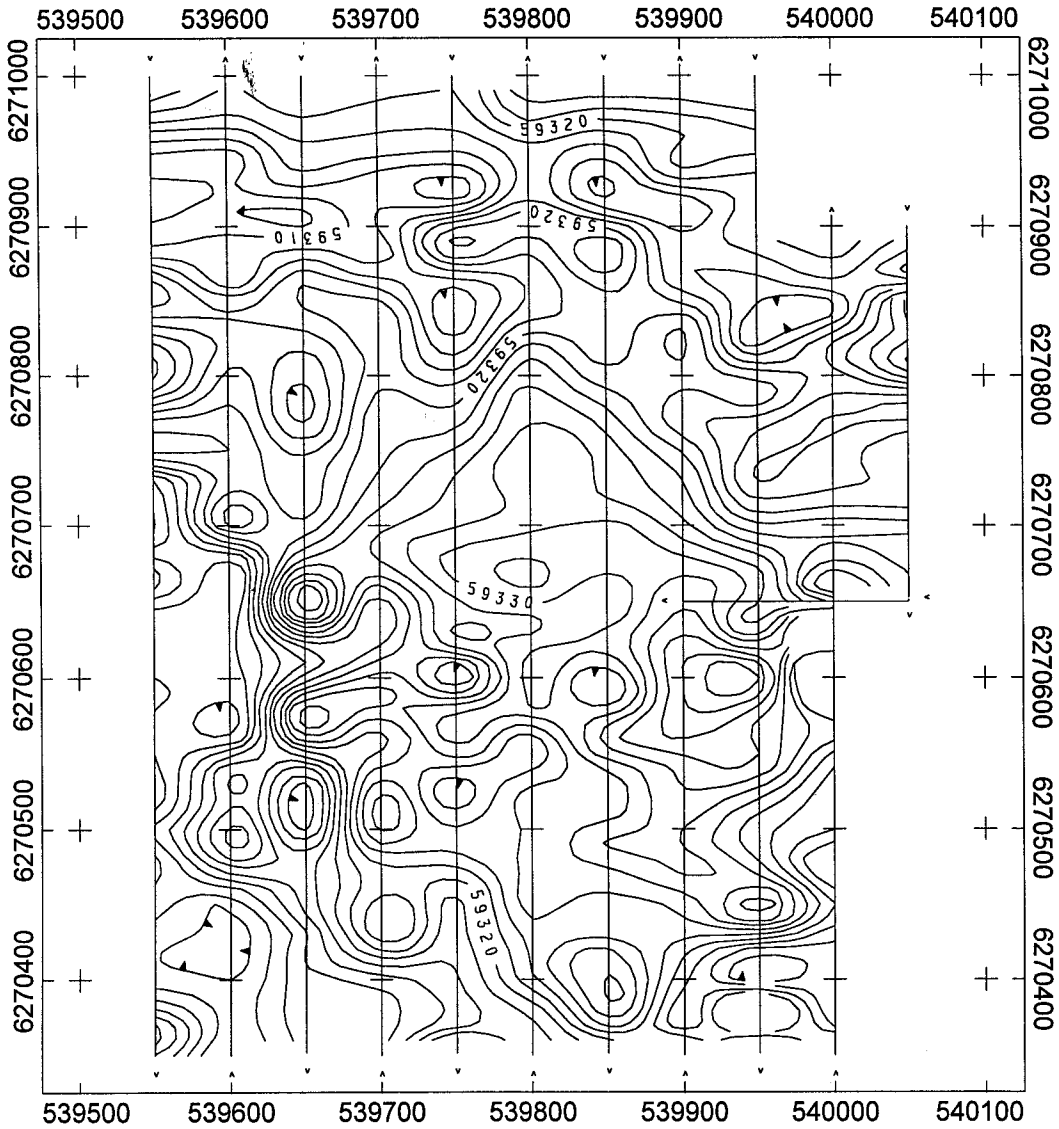
Muddy River

Property	Anomaly	Line_KM
AL05	MR012	6.20
AL05	MR023	6.20
AL05	MR027	6.10

Total: 3 Targets **18.5**

Total Targets

61



Inclination 78 degrees
Declination 22 degrees

Legend

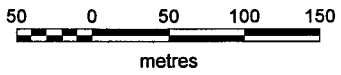
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#
Base Mag: GEM Systems GSM19 W (#
Operator: B. Chore
Date: January 12, 1999
Kilometres: 6.8

Scale 1:5000

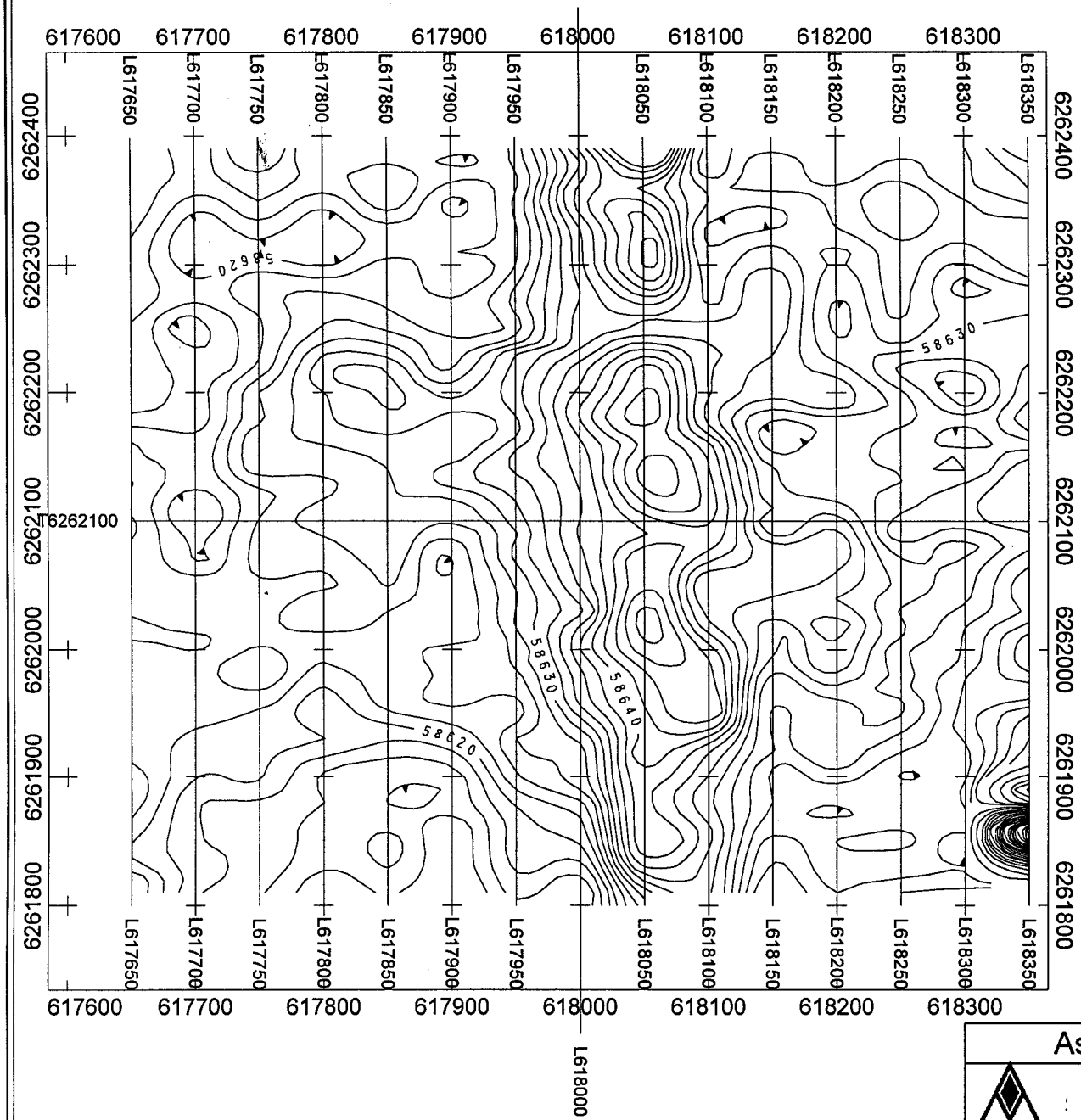


Data is stored in:
\Geophysics\Loon Lake\Ground\LL22

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 22
Total Field Contours

Non-Linear(2x2),Low Pass(50pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#803800)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: M. Thibodeau
Date: January 13-14 1999
Kilometres: 9.9

Lines 617650E to 618000E surveyed on January 13
Lines 618050E to 618350E surveyed on January 14

Scale 1:5000

50 0 50 100 150

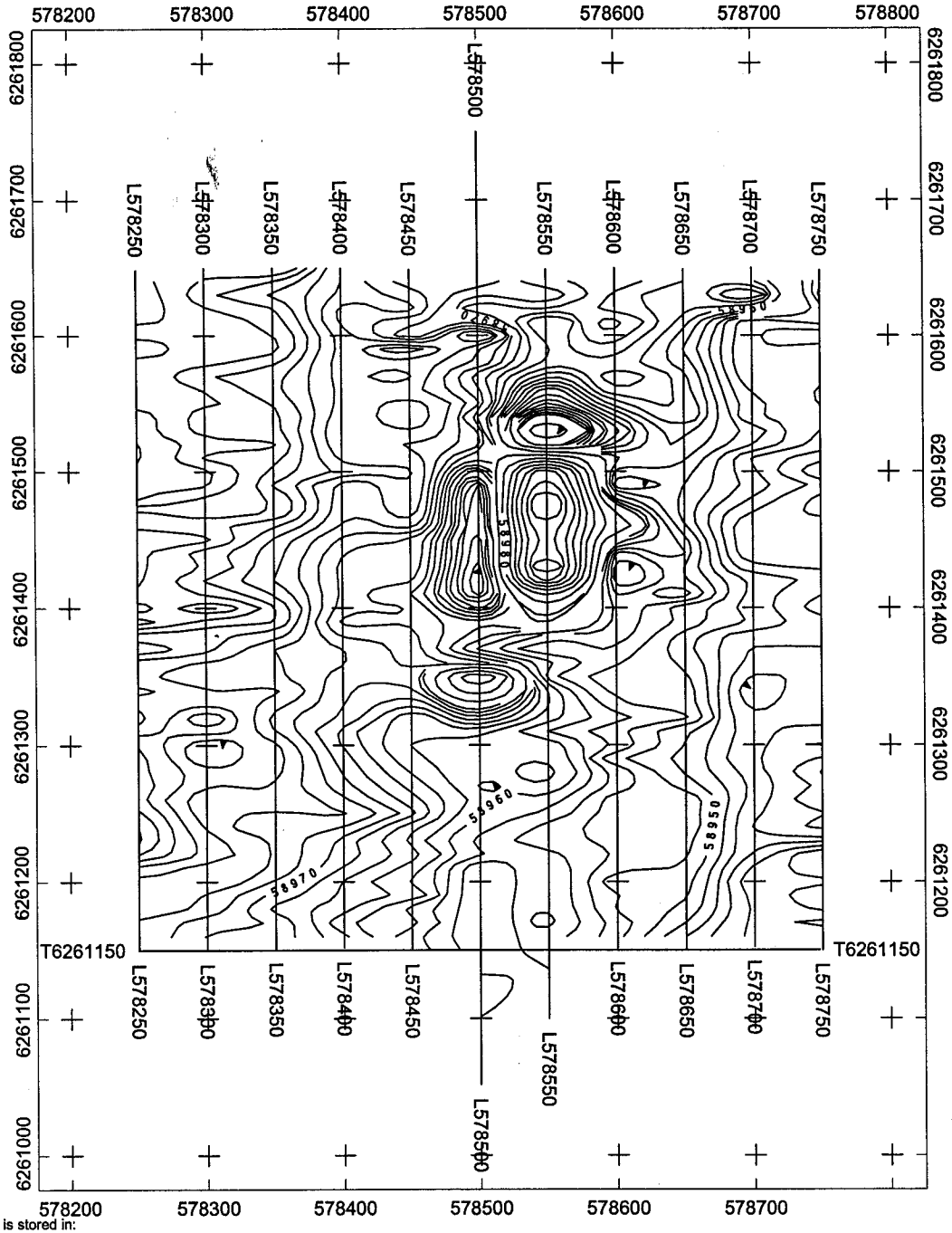
metres

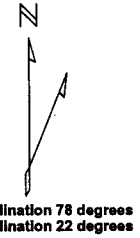
Data is stored in:
\Geophy-w99\Loon\LL45

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 45
Total Field Contours

Non-Linear(2x2),Low Pass(50pt)





Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Field Mag: GEM Systems GSM19 GW (#801792)
Base Mag: GEM Systems GSM19 W (#67577)

Operator: C.Marchildon N. Jennings
Date: August 6, 1999
Kilometres: 6.1

Grid reference picket ⊕

The grid was shifted 25 metres to the north.
eg. 6261150 N is actually 6261175 N.

1.47 nT was added to lines 578250 E to 578350 E.

Scale 1:5000

50 0.0 50 100 150

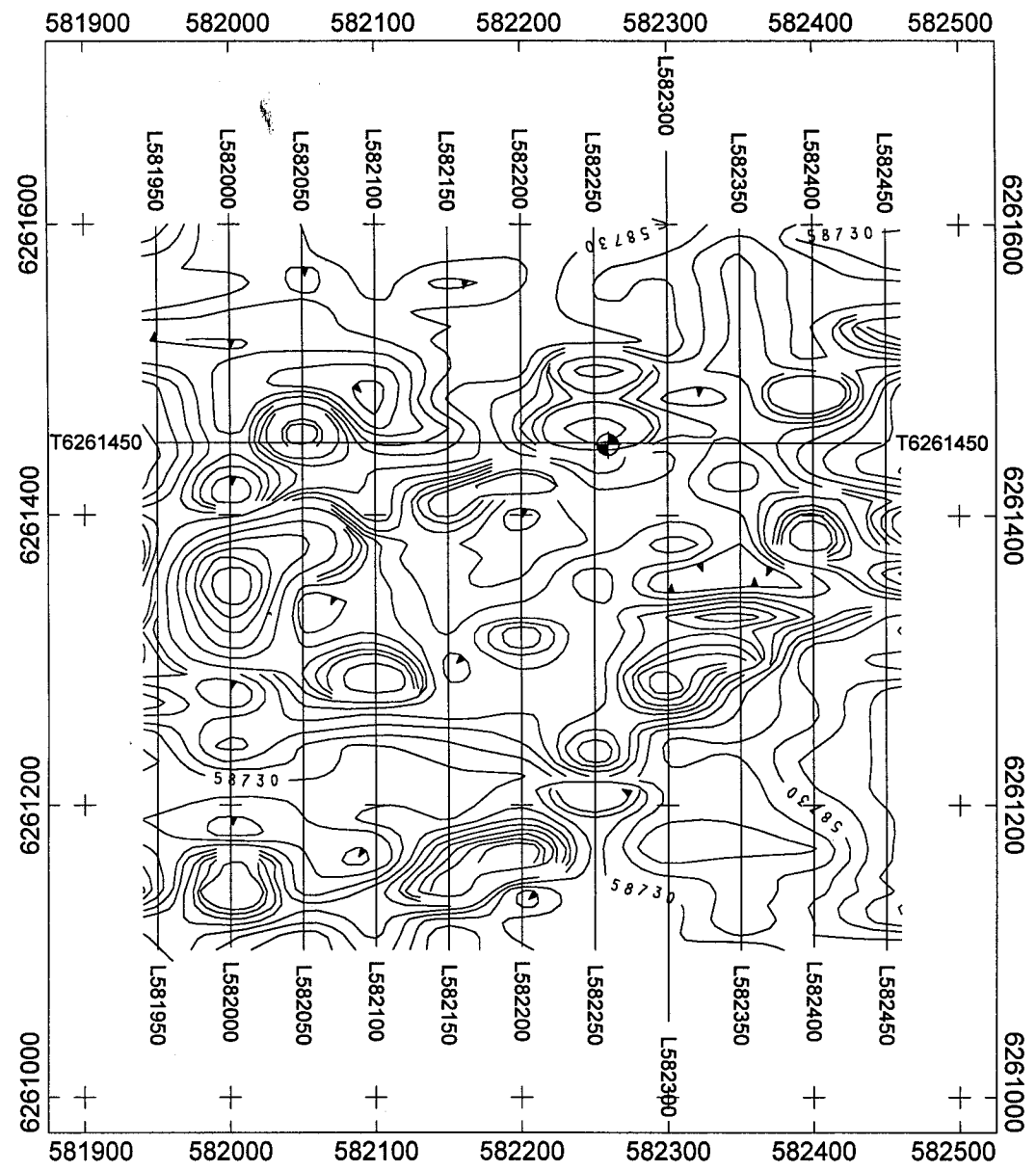
metres

Data is stored in:
\Geophysics\Loon Lake\Ground\LL57

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 57
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#811890)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: March 29, 1999
Kilometres: 6.1

Grid reference picket

Scale 1:5000

50 0 50 100 150

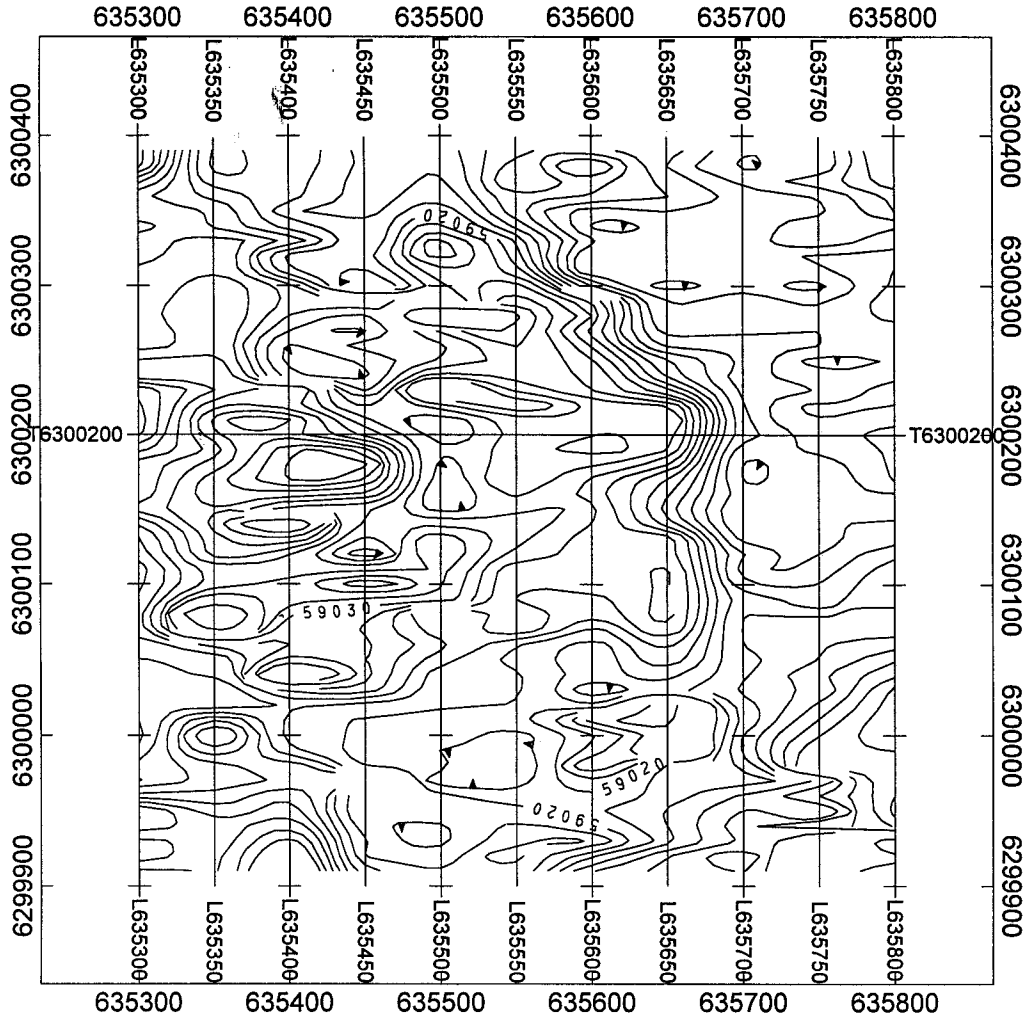
metres

Data is stored in:
\Geophysics\Loon Lake\Ground\LL58

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 58
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#803800)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: D.Willis
Date: January 16, 1999
Kilometres: 5.98

Magnetometer Baseline readings\time are out of proportion with actual time spent surveying the line.

Scale 1:5000

50 0 50 100 150

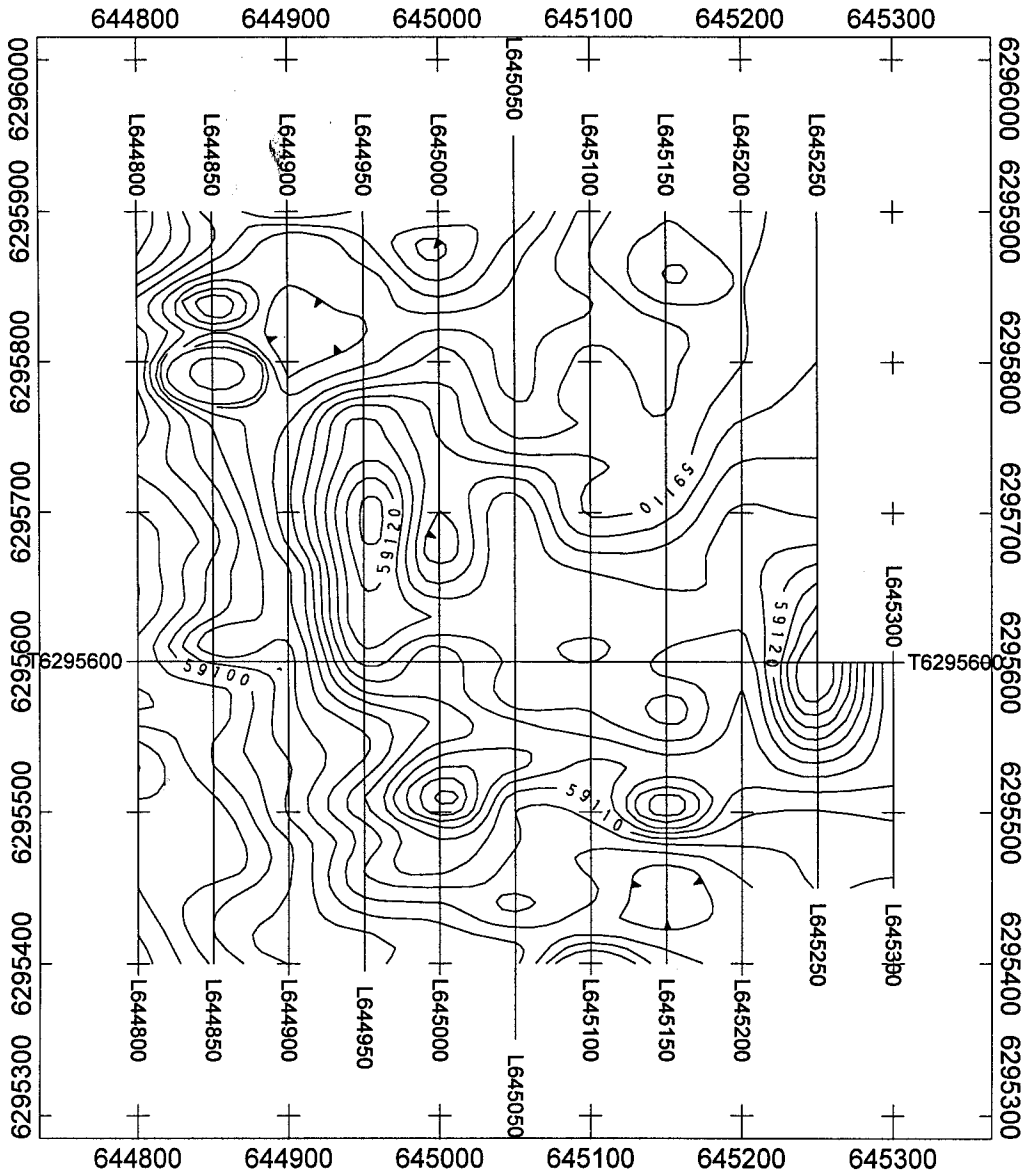
metres

Data is stored in:
\Geophy-w99\Loon\LL-59

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 59
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#803800)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: January 17, 1999
Kilometres: 5.7
Walk Mag not operational

Scale 1:5000

50 0 50 100 150

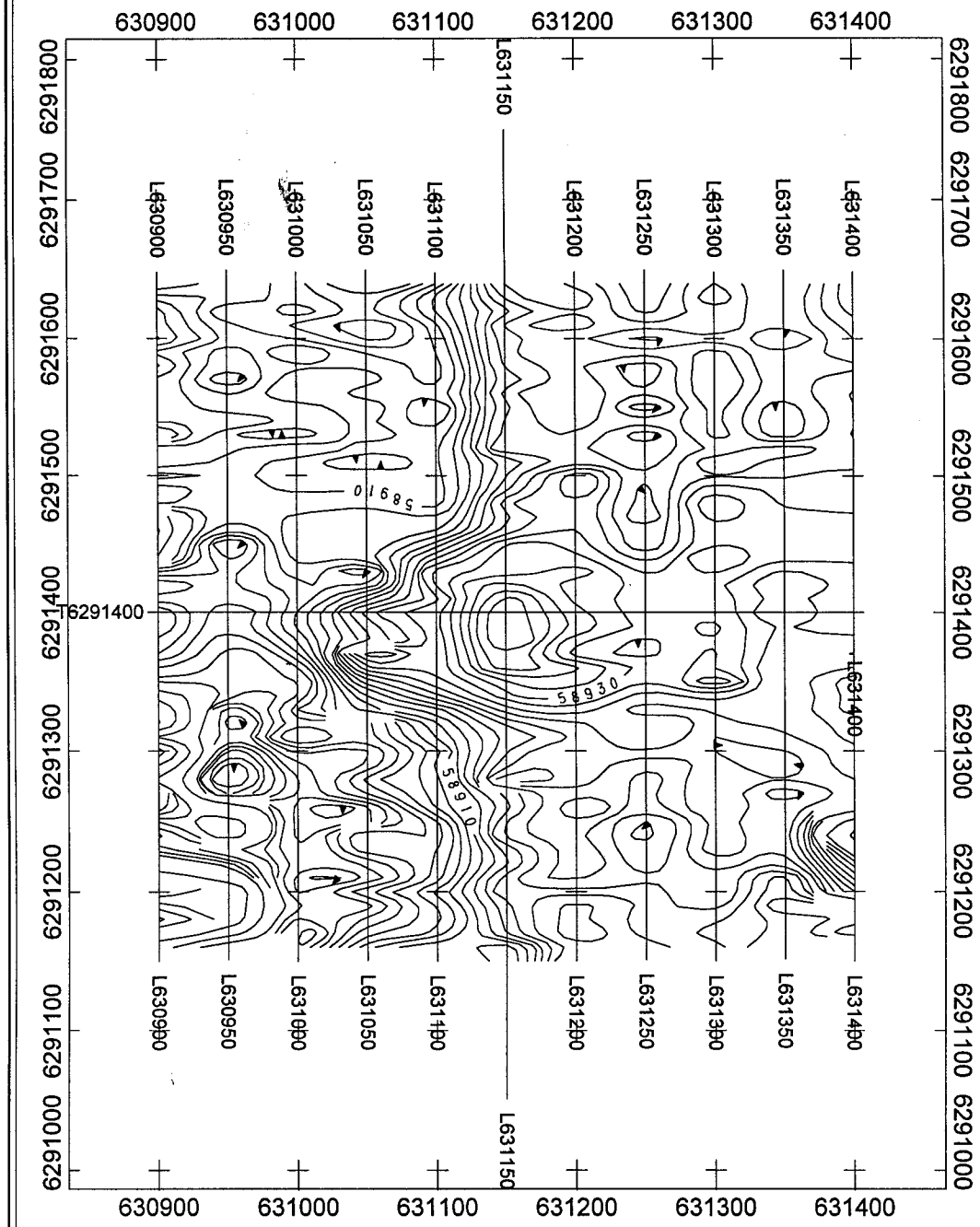
metres

Data is stored in:
\Geophy-w99\Loon\LL-60

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 60
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68586, 803798)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore, M.Thibodeau
Date: January 20, 1999
Kilometres: 6.43

Scale 1:5000

50 0 50 100 150

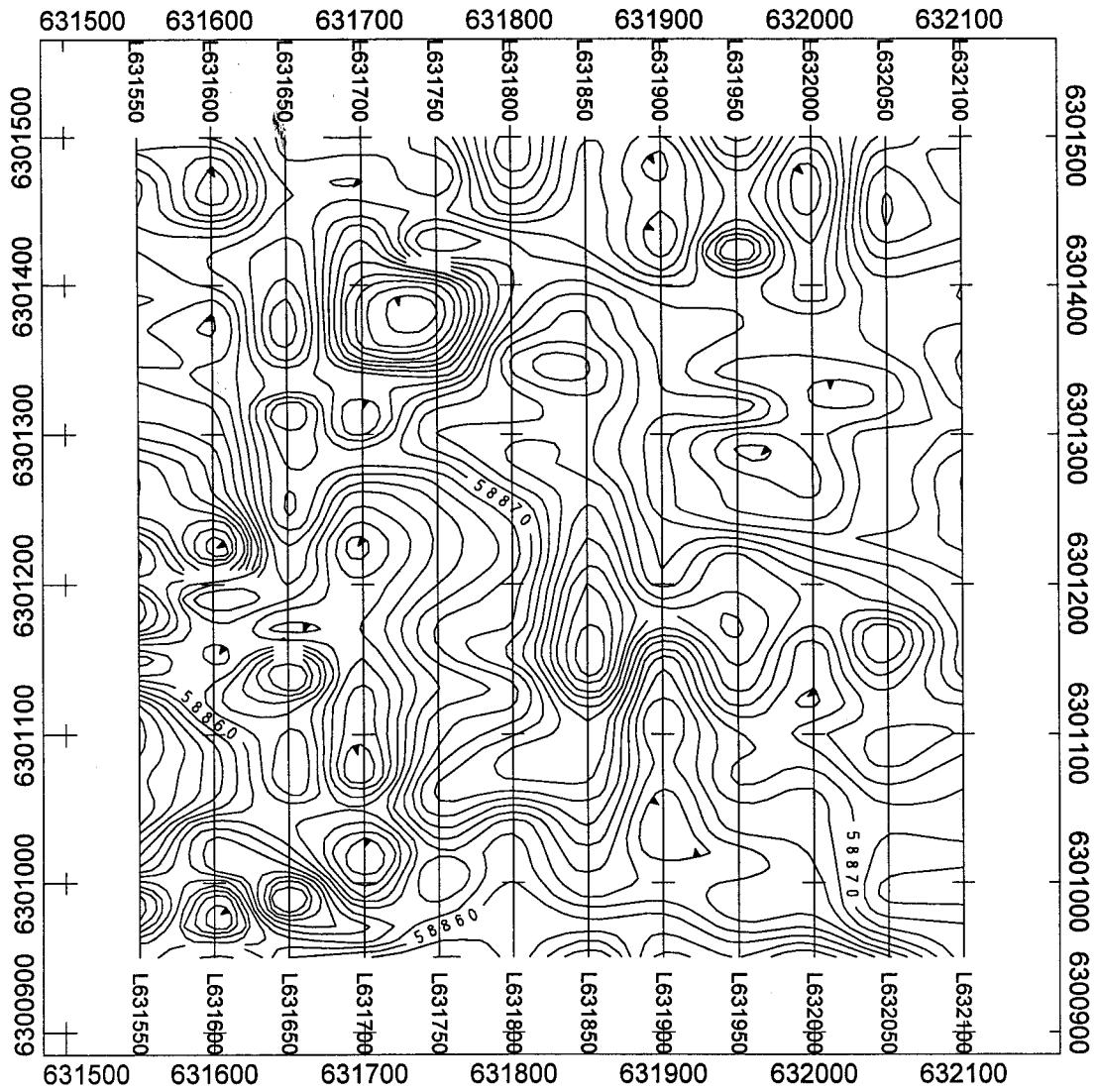
metres

Data is stored in:
\Geoph-w99\Loon\LL-62

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 62
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68586)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: S. Jardine
Date: January 25, 1999
Kilometres: 6.6
Survey completed in Mobile mode

Scale 1:5000

50 0 50 100 150

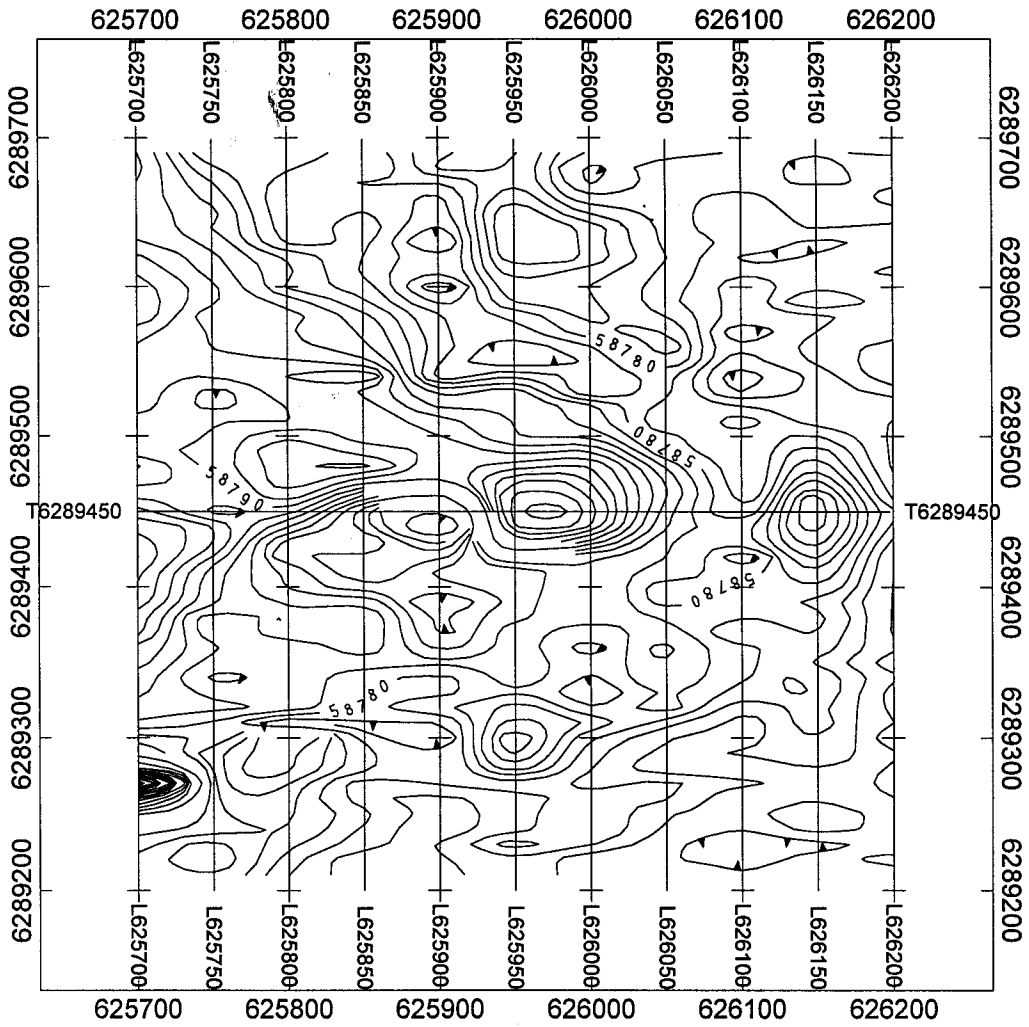
metres

Data is stored in:
\Geoph-w99\Loon\LL-63

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 63
Total Field Contours

Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#803798)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: D. Willis
Date: January 20, 1999
Kilometres: 5.98

Scale 1:5000

50 0 50 100 150

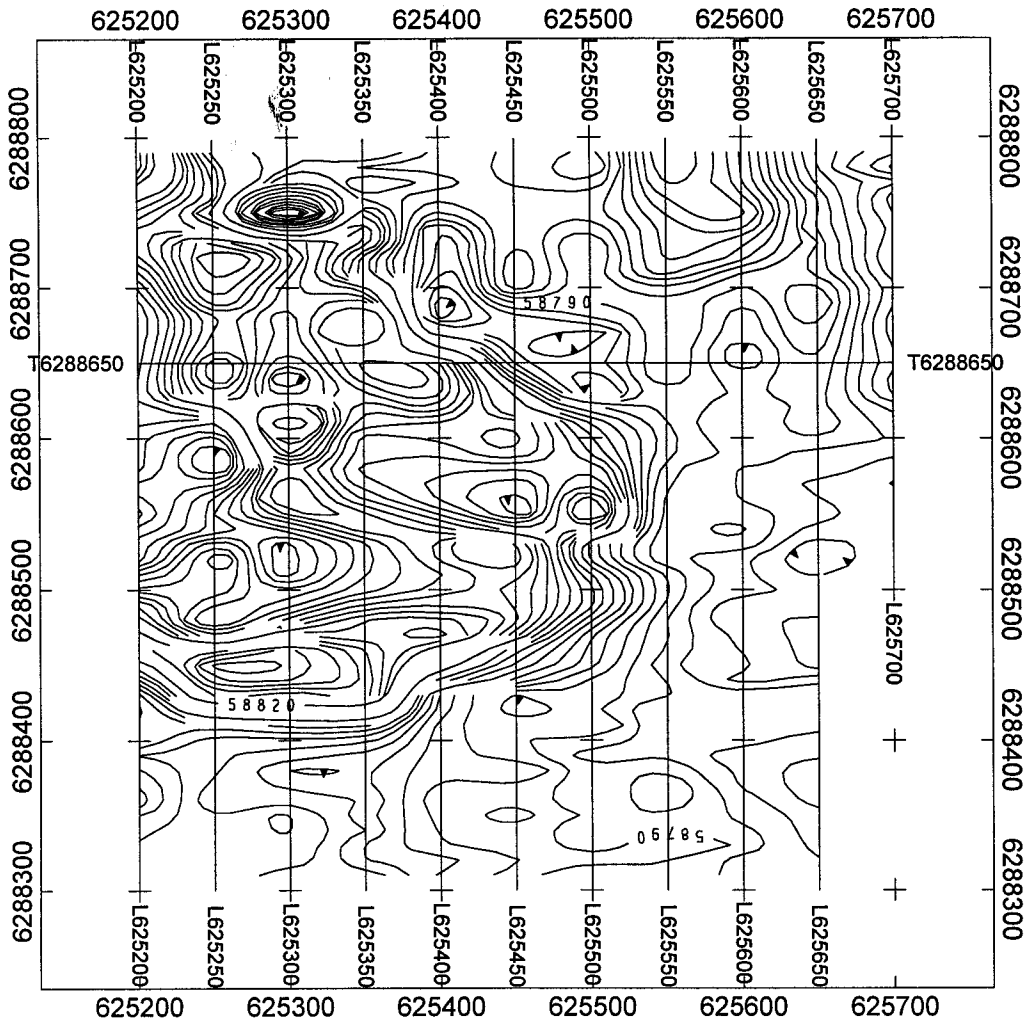
metres

Data is stored in:
\Geophy-w99\Loon\LL-64

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 64
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68586)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: January 20, 1999
Kilometres: 5.8

Scale 1:5000

50 0 50 100 150

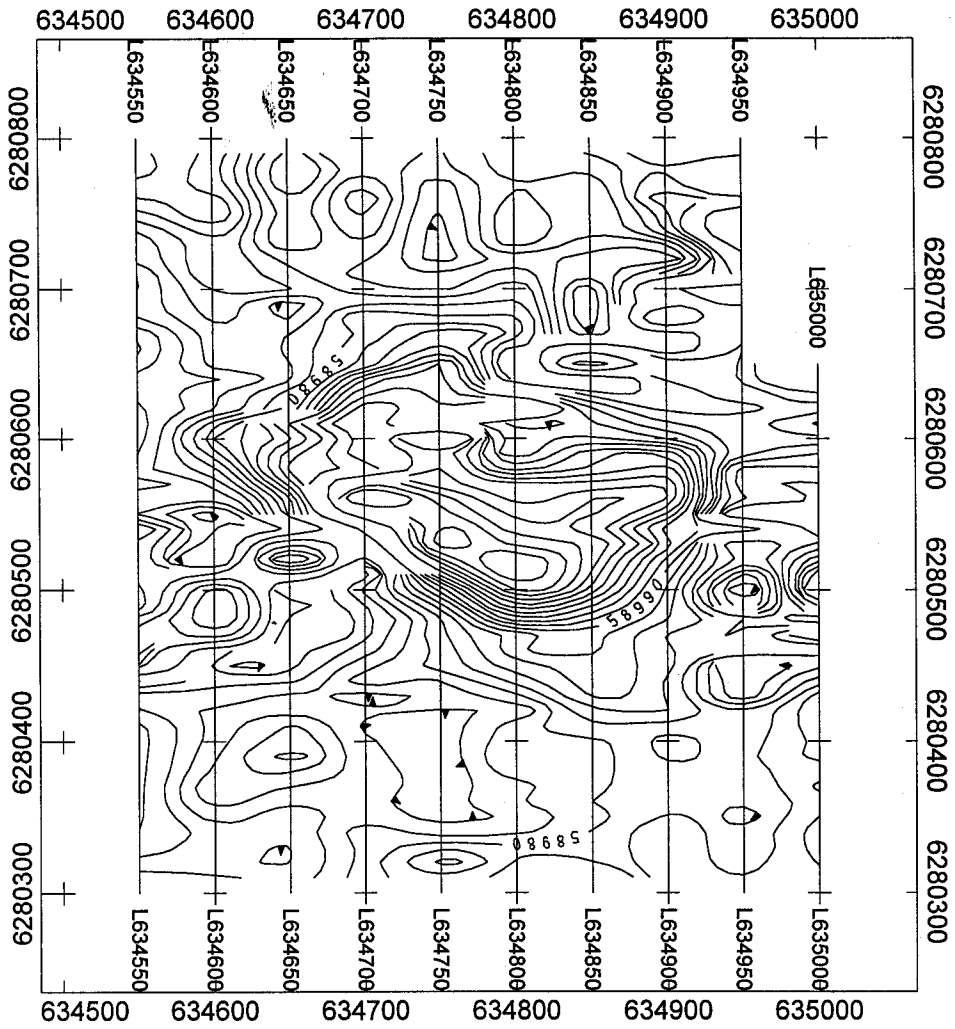
metres

Data is stored in:
\Geophy-w99\Loon\LL-65

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 65
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#801792)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: S. Jardine
Date: January 14, 1999
Kilometres: 4.85

Grid not completed due to magnetometer problems

Scale 1:5000

50 0 50 100 150

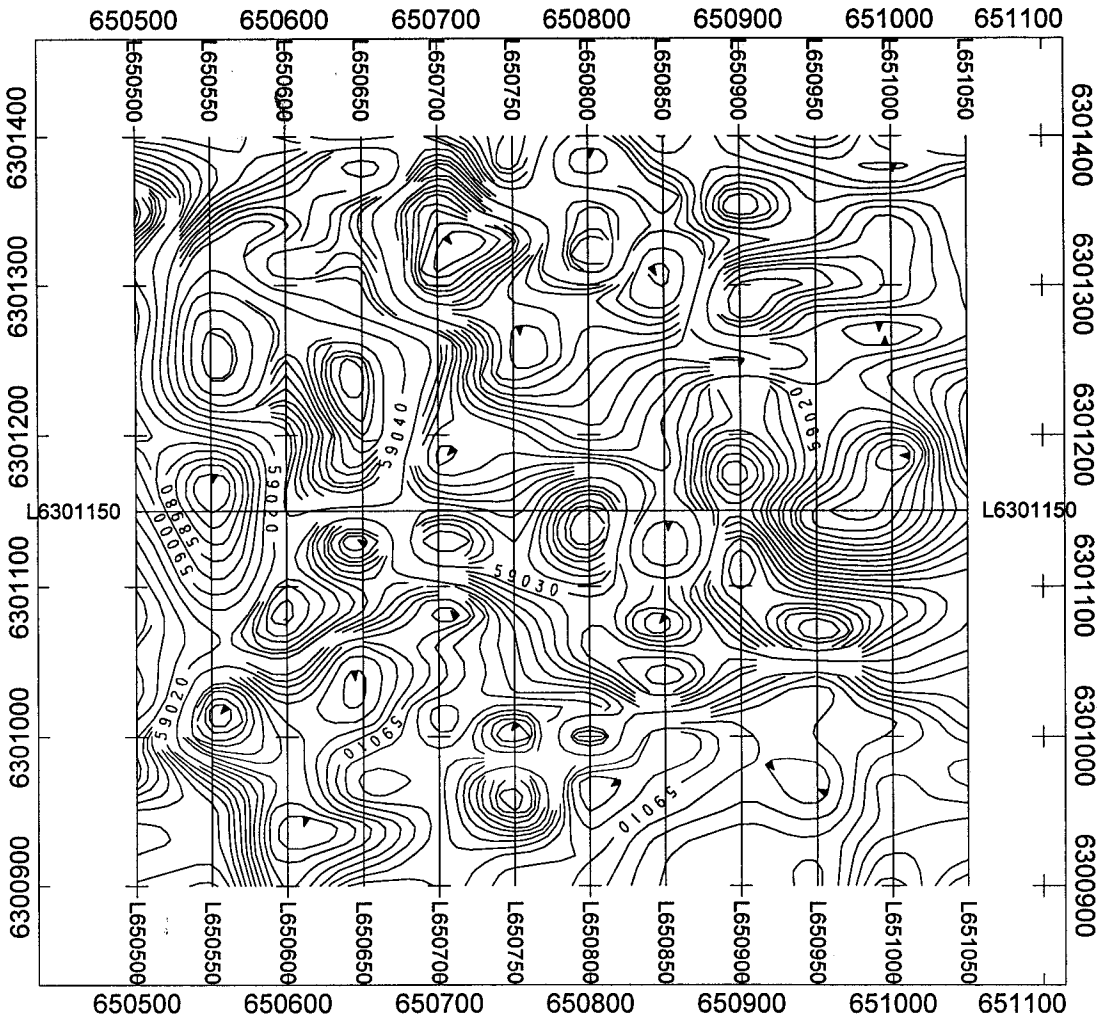
metres

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 66
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)

Data is stored in:
\Geophy-w99\Loon\LL-66



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#801792)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: S. Jardine
Date: January 16, 1999
Kilometres: 6.55

Scale 1:5000

50 0 50 100 150

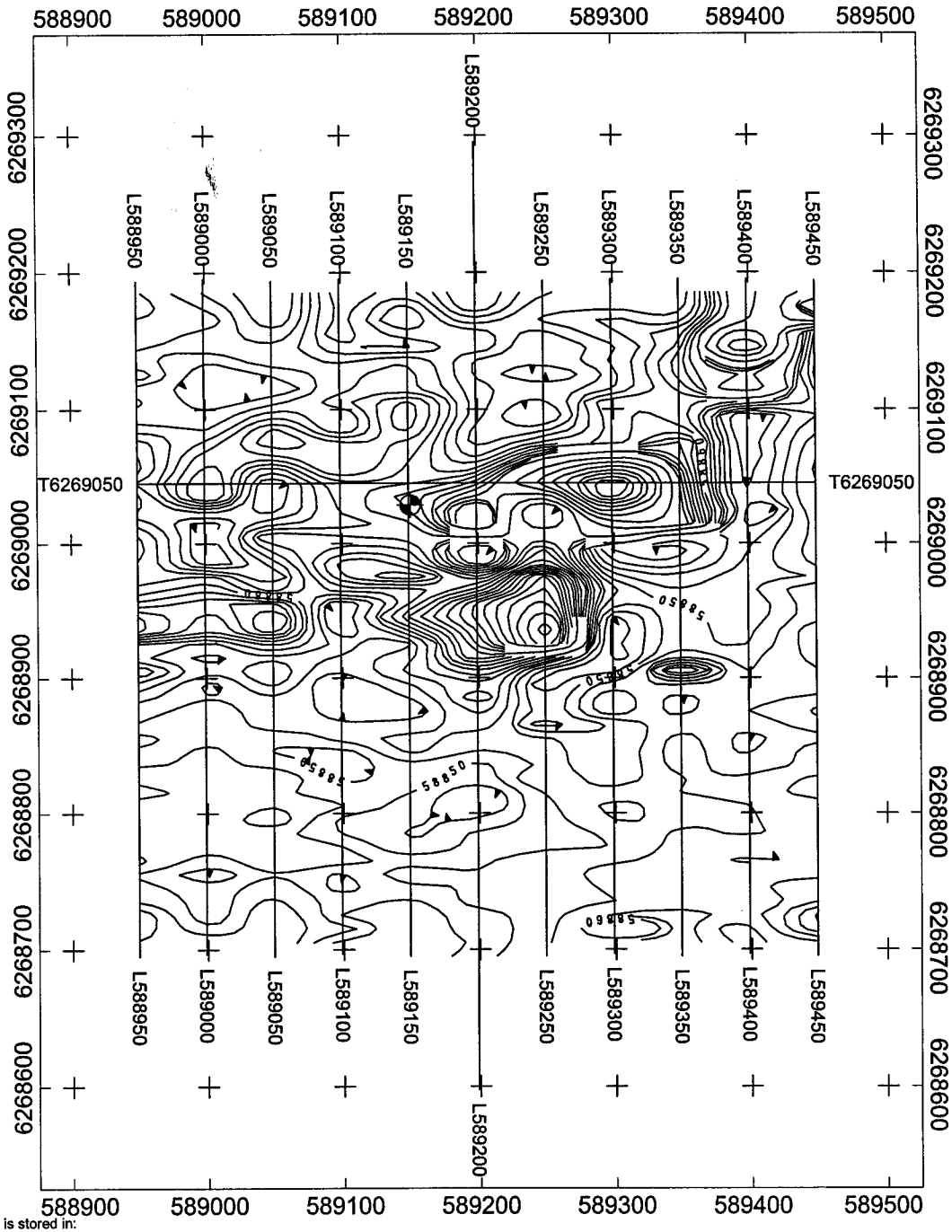
metres

Data is stored in:
\Geophy-w99\Loon\LL-69

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 69
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Data is stored in:
\Geophysics\Loon Lake\Ground\LL70

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C.Marchildon
Date: July 25, 1999
Kilometres: 6.2

Grid reference picket

The grid was shifted 15 metres south.
eg. 6268050 N is actually 6268035 N.

Scale 1:5000

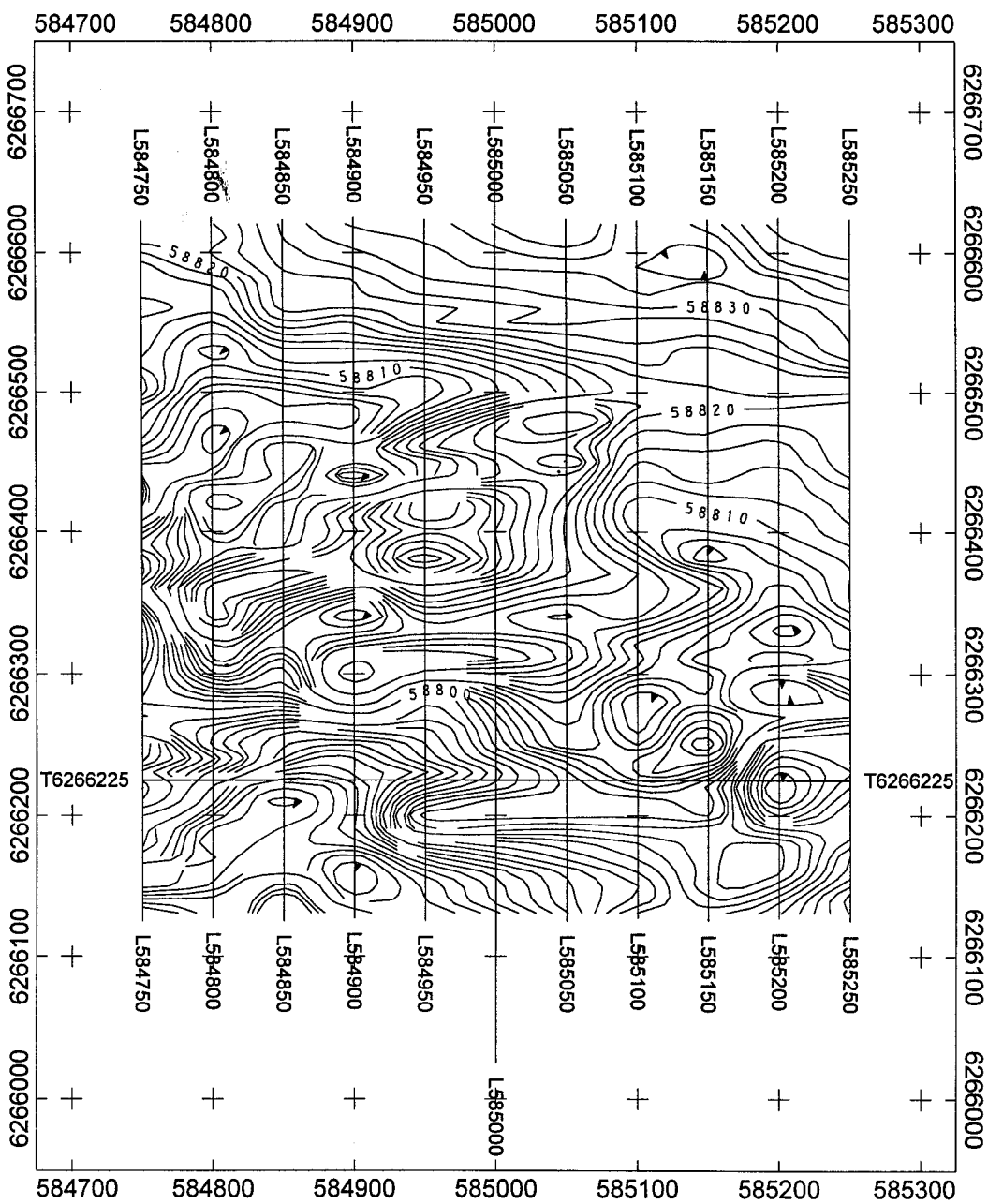
50 0.0 50 100 150

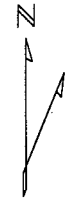
metres

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 70
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)





Inclination 78 degrees
Declination 22 degrees

Legend

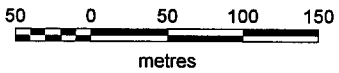
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: February 22, 1999
Kilometres: 6.2

Scale 1:5000

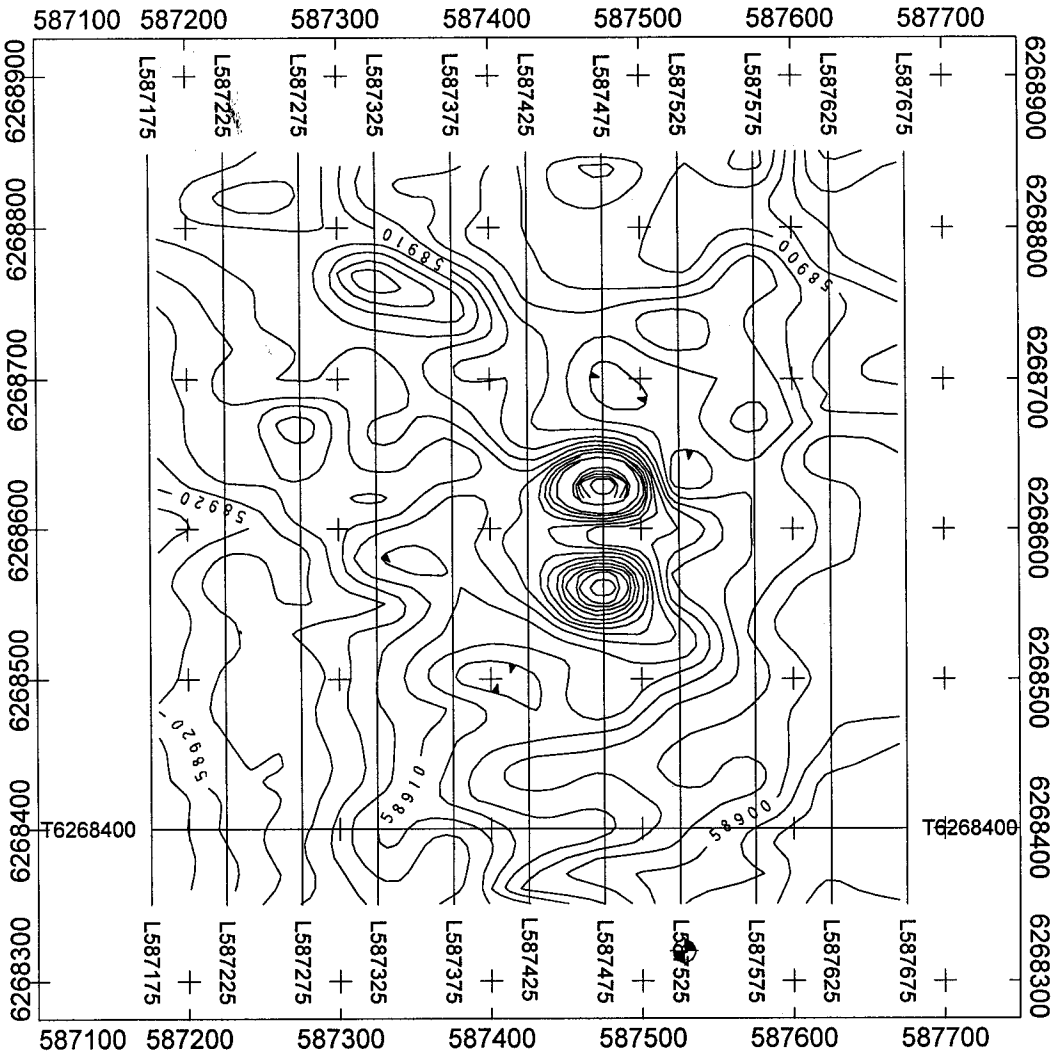


Data is stored in:
\Geophysics\Loon Lake\Ground\Anomaly 72

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 72
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: February 24, 1999
Kilometres: 6.0

Grid shifted 18 meters south.
eg Baseline 6268400 is actually 6268382

Grid reference picket

Scale 1:5000

50 0 50 100 150

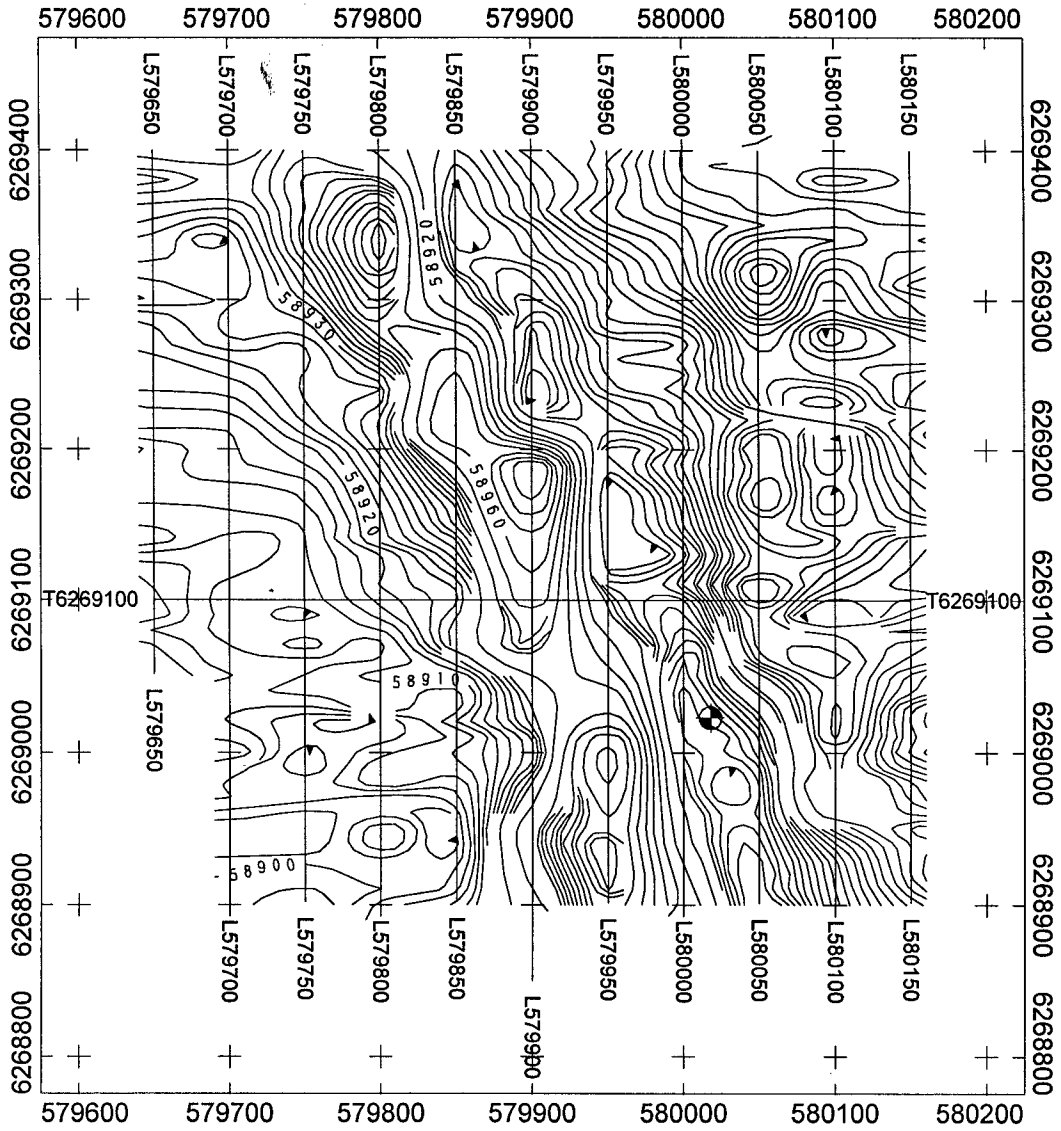
metres

Data is stored in:
\Geophysics\Loon Lake\Ground\LL73

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 73
Total Field Contours

Non-Linear(2x2),Low Pass(50pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: March 29, 1999
Kilometres: 5.9

Grid reference picket

Scale 1:5000

50 0 50 100 150

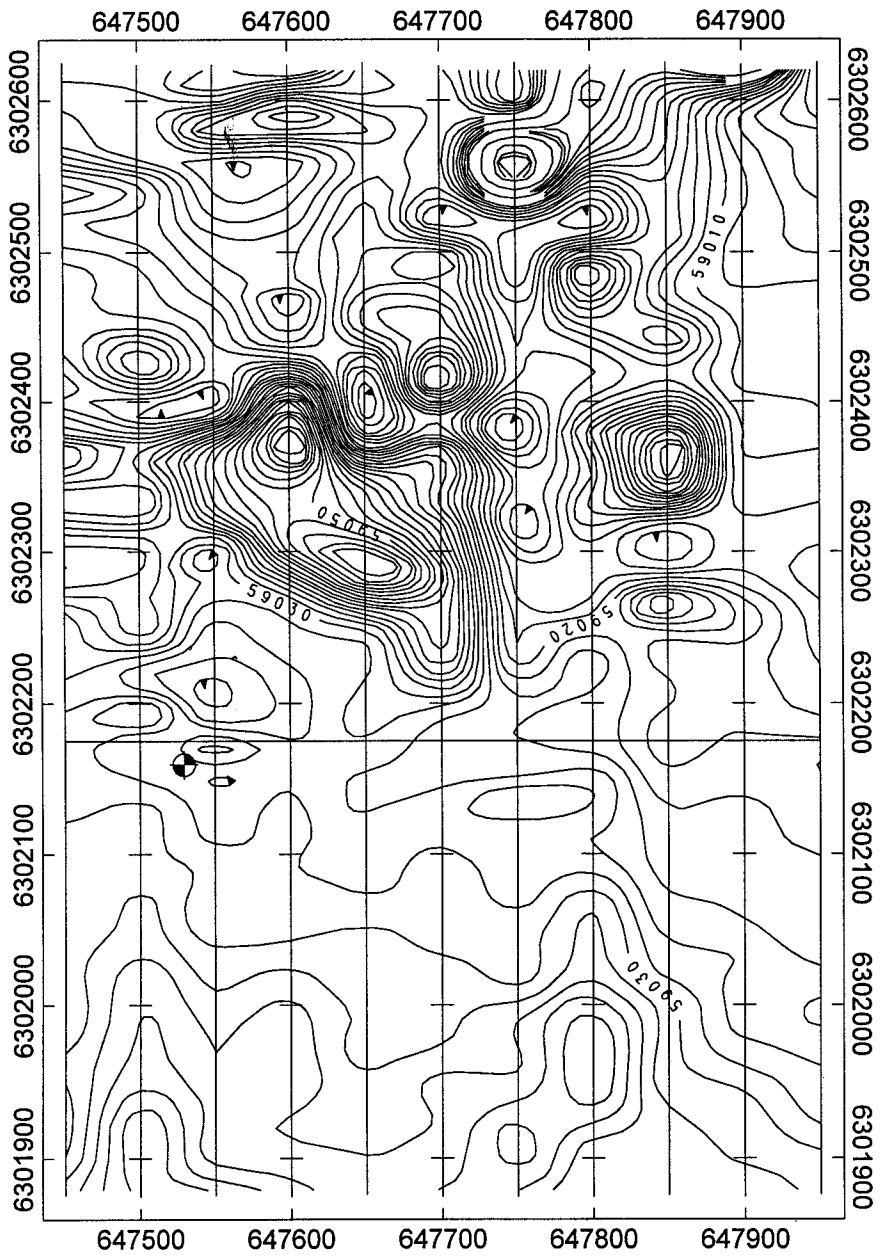
metres

Data is stored in:
\Geophysics\Loon Lake\Ground\LL75

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 75
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



! Coordinates are WGS84

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: February 13, 1999
Kilometres: 9.6

Extension of the grid done on Feb 20th.
All lines extended 250 metres north.
Coordinates for reference picket were supplied in WGS84!
Picket in WGS84: 647530.9E, 6302160.4N
Picket in NAD27: 647611.2E, 6301949.6N

The field grid coordinates are in WGS84.

Grid reference picket

Scale 1:5000

50 0 50 100 150

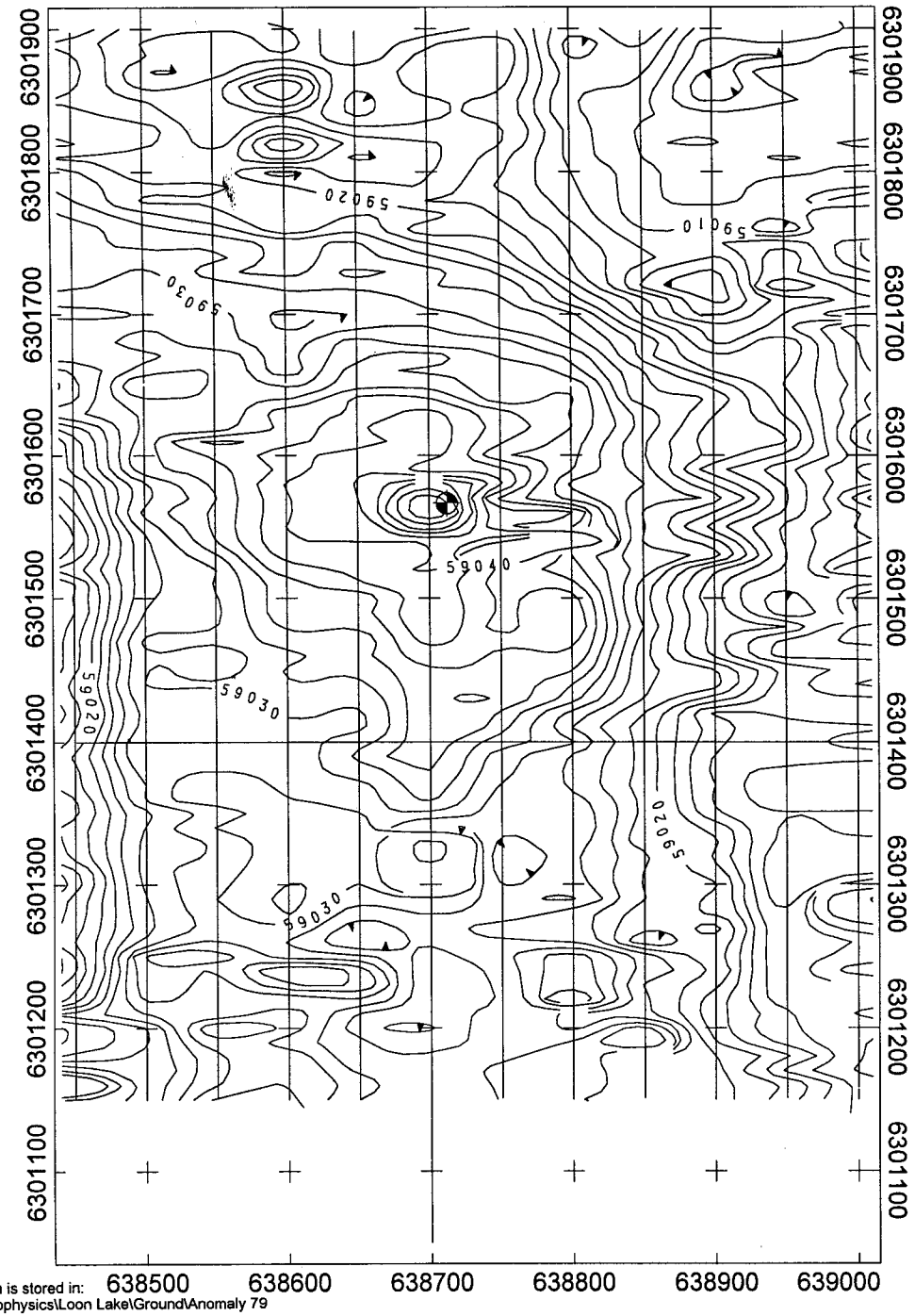
metre

Data is stored in:
\Geophysics\Loon Lake\Ground\LL78

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 78
Total Field Contours

Non-Linear(2x2),Low Pass(50pt)



Data is stored in:
\Geophysics\Loon Lake\Ground\Anomaly 79

! Coordinates are WGS84

N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: WGS84 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#803792)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: M. Thibodeau
Date: February 13, 1999
Kilometres: 9.8

Northing shift of 20 meters
BL 6301400N is actually 6301420N

N/S extension lines were added on Feb 20th to cover anomaly. Coordinates for reference picket were supplied in WGS84 not NAD27.
WGS84 picket: 638712.3E, 6301566.7N
NAD27 picket: 638792.0E, 6301355.9N

The field grid coordinates are WGS84. The gridded data is NAD27 to coincide with airborne data.

Grid Reference Picket

Scale 1:5000

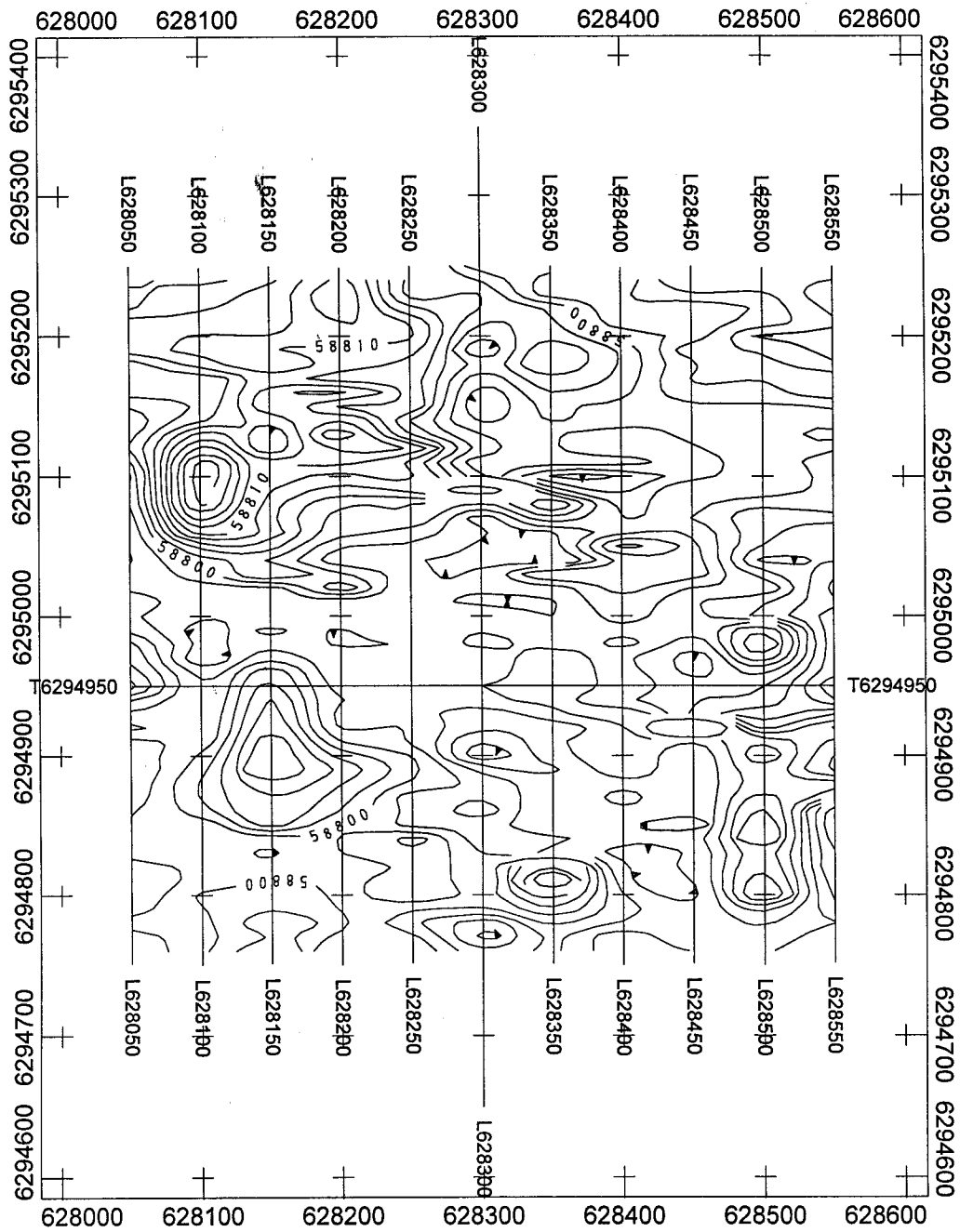
50 0 50 100 150

metre

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 79
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Legend

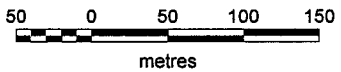
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#803798)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: M. Thibodeau
Date: January 25, 1999
Kilometres: 6.20

Scale 1:5000

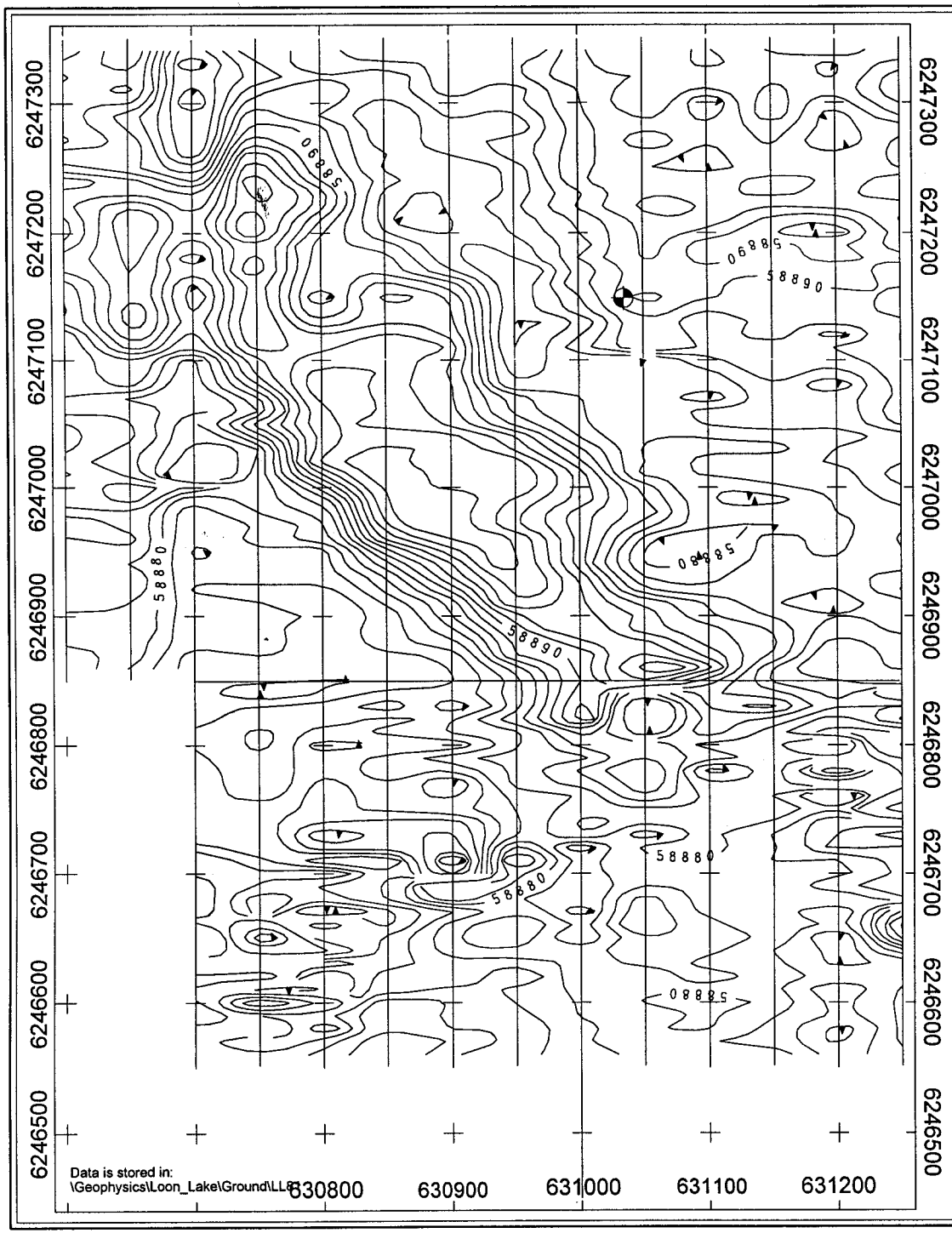


Data is stored in:
\Geophy-w99\Loon\LL-80

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 80
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: WGS84 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#903798)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: January 26, 1999
Kilometres: 11.0

The grid was extended 250 metres North on Feb 21. To compensate for establishing the grid using WGS84 coordinates from the reference picket.
WGS84 Picket location: 631034E, 6247148N
NAD27 Picket location: 631114E, 6246937N

Grid Reference Picket Location

! Coordinates are WGS84

Scale 1:5000

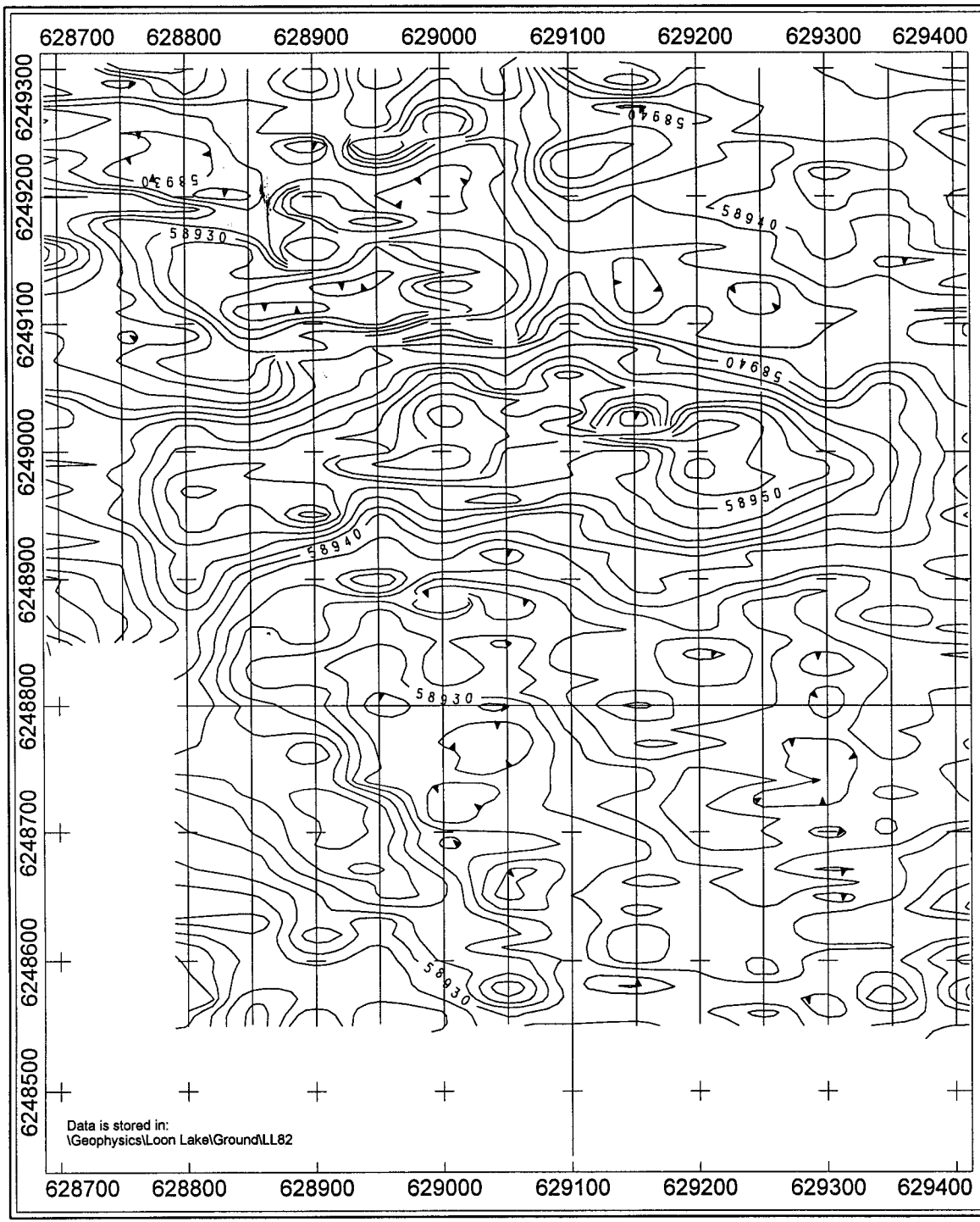
50 0 50 100 150

metre

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 81
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: WGS84 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588,803800)
Base Mag: GEM Systems GSM19 W (#803798)
Operator: W. Kahlert, M. Thibodeau
Date: February 11, 1999
Kilometres: 11.3

Data corrected from "field" base mag which was on average 74 nT lower than the camp mag. The data has been adjusted to reflect diurnal correction from camp.

Data on L629150 thru to L629400 has been lowered by 8 nT

Lines were extended north by 250 metres. Coordinates for the reference picket were supplied in WGS84 not NAD27.
WGS84 Picket location: 629162.3E, 6249004.7N
NAD27 Picket location: 629242.6E, 6248794.0N

Grid Reference Picket

! Coordinates are WGS84

Scale 1:5000

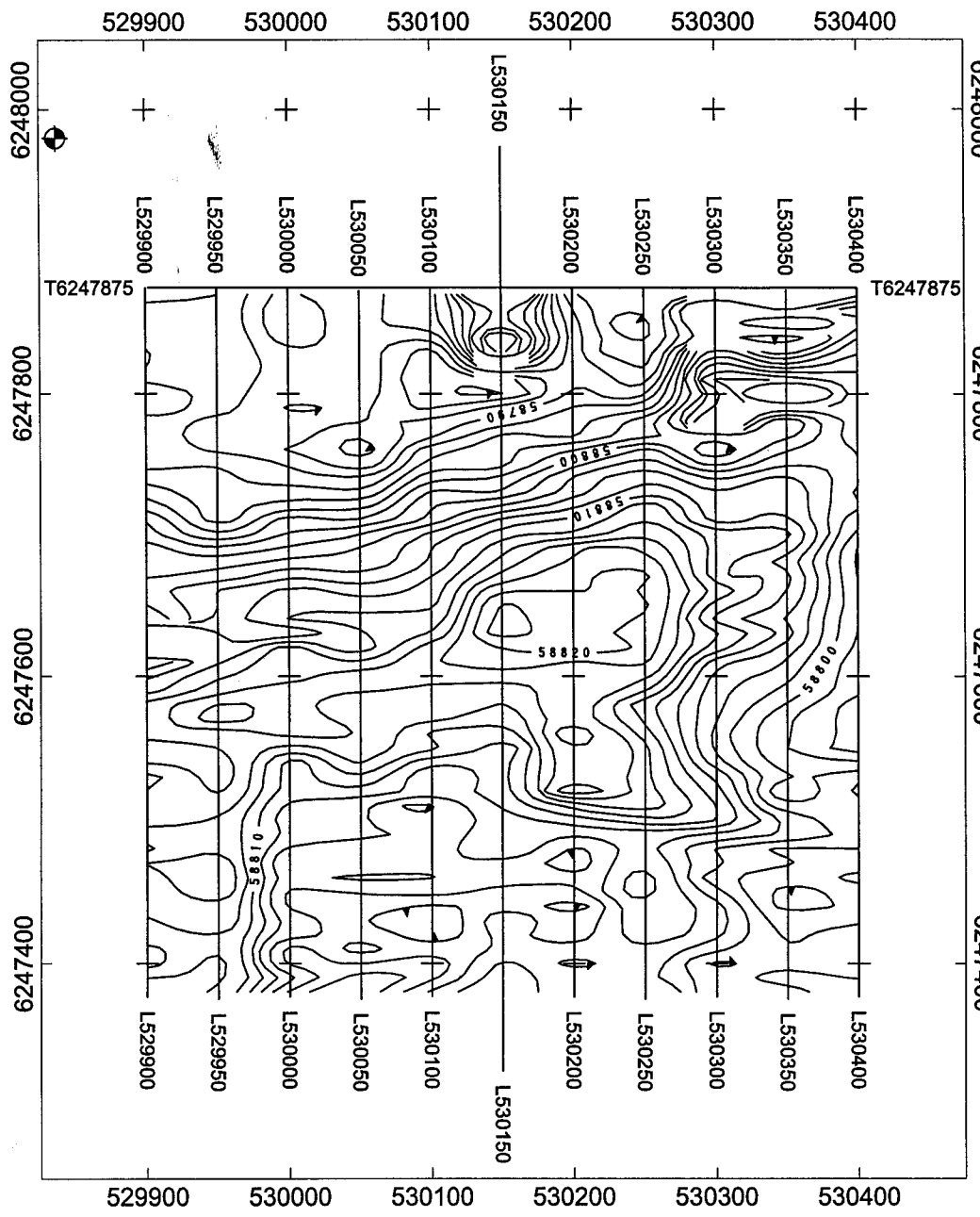
50 0 50 100 150

metre

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 82
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C.Marchildon
Date: July 24, 1999
Kilometres: 6.1

Grid reference picket

Scale 1:5000

50 0.0 50 100 150

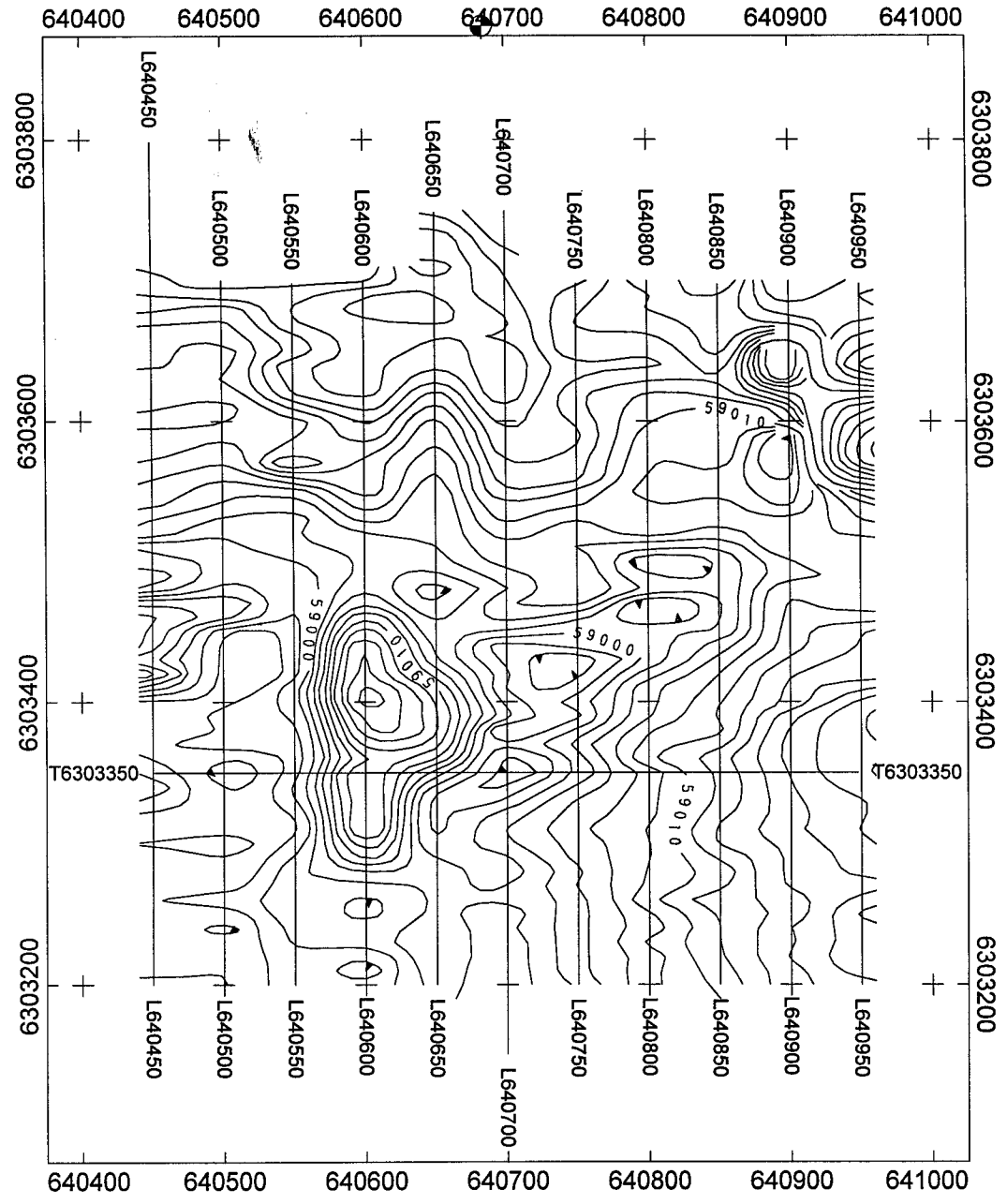
metres

Data is stored in:
\Geophysics\Loon Lake\Ground\LL89

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 89
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#811890)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B.Chore
Date: March 28, 1999
Kilometres: 6.25

Grid reference picket

Scale 1:5000

50 0 50 100 150

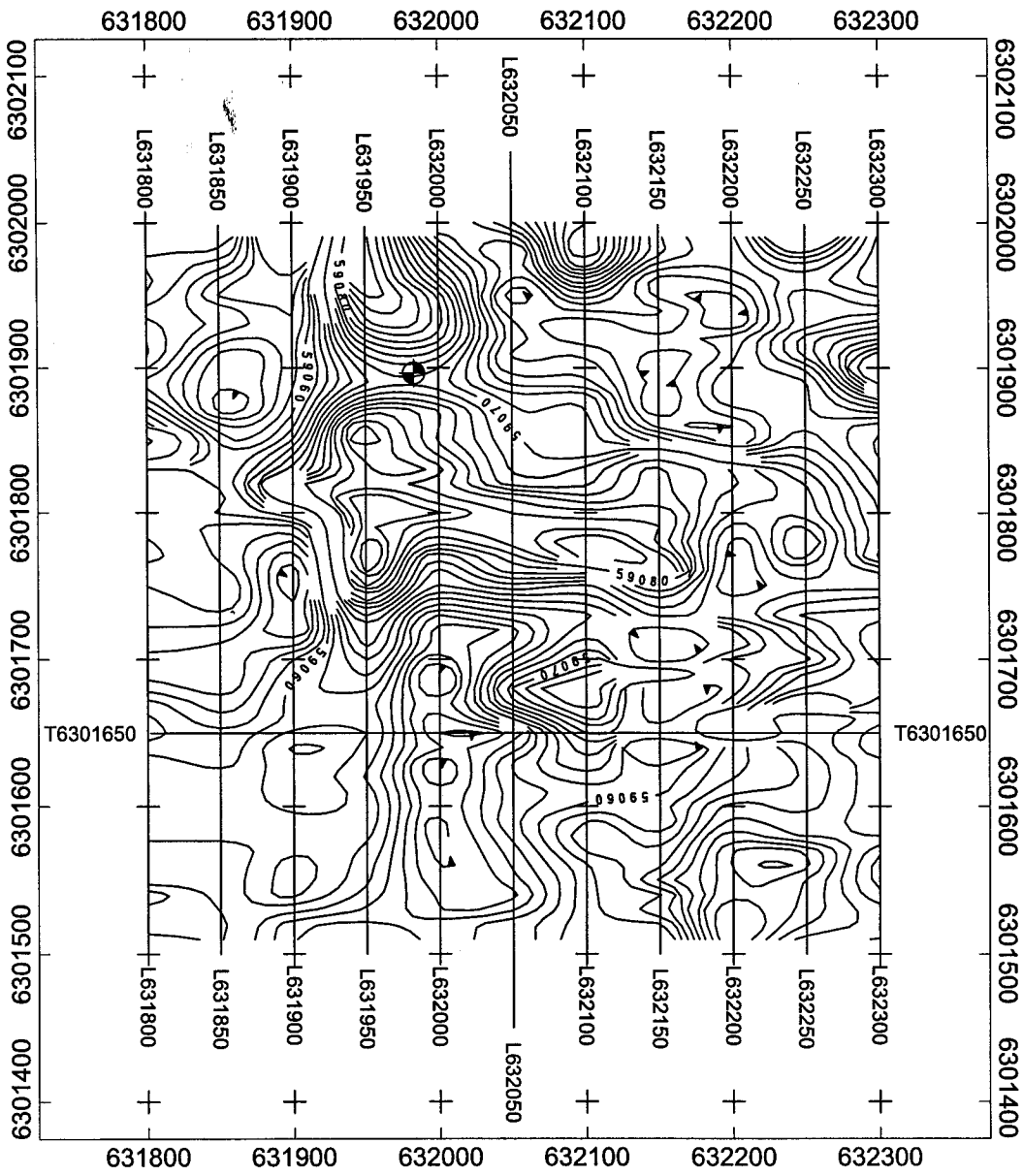
metres

Data is stored in:
\Geophysics\Loon Lake\Ground\LL90

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 90
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: August 3, 1999
Kilometres: 6.1

Grid reference picket

The grid was shifted 10 metres to the south.
eg. 6301650 N is actually 6301640 N.

Scale 1:5000

50 0.0 50 100 150

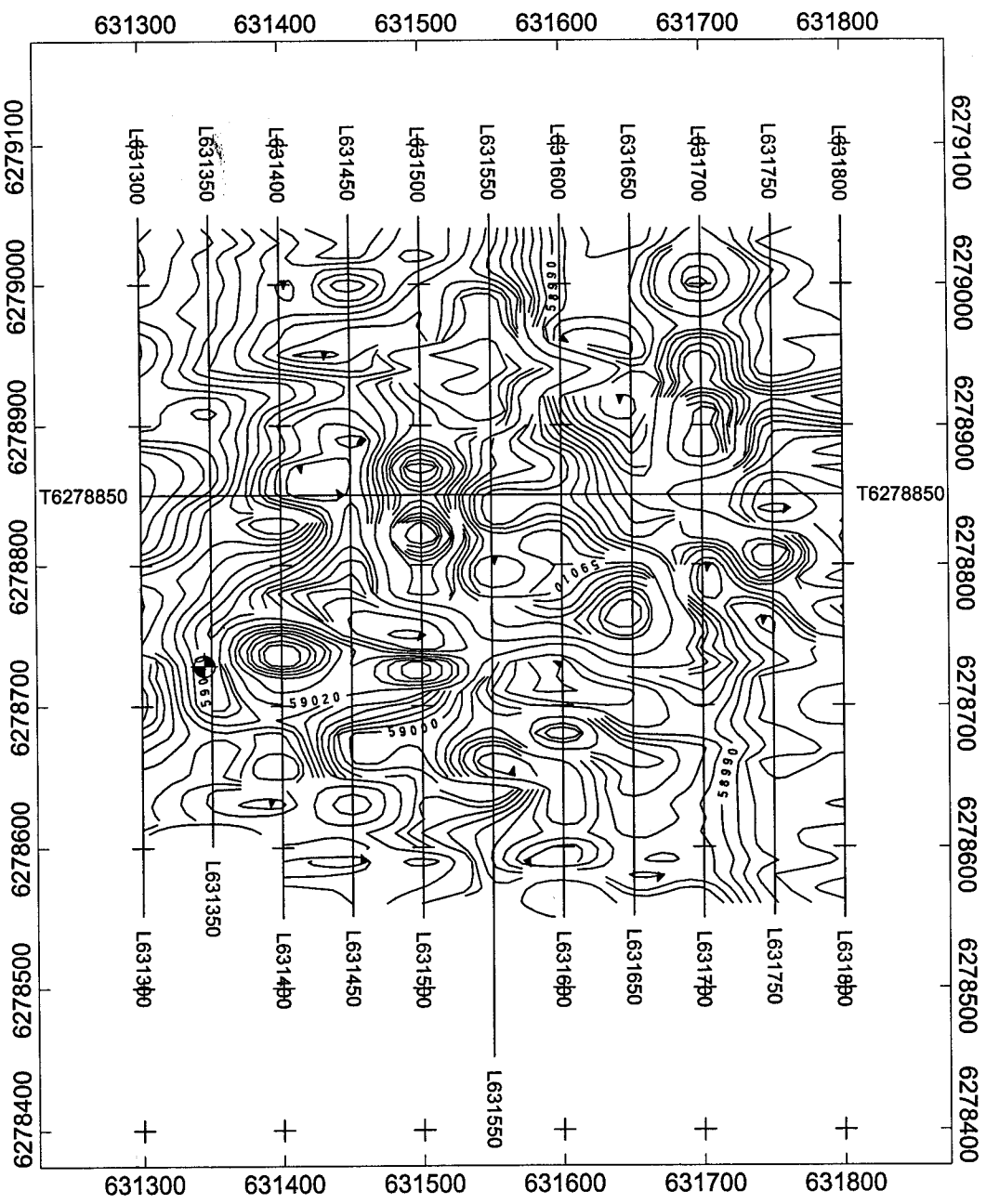
metres

Data is stored in:
\Geophysics\Loon Lake\Ground\LL95

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 95
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Field Mag: GEM Systems GSM 19 GW (#801792)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C.Marchildon, N. Jennings
Date: August 6, 1999
Kilometres: 6.05

Grid reference picket

The grid was shifted 15 metres to the south.
eg. 6278850 N is actually 6278835 N.

3.47 Nt was added to lines 631300 N to 631500 N.

Scale 1:5000

50 0.0 50 100 150

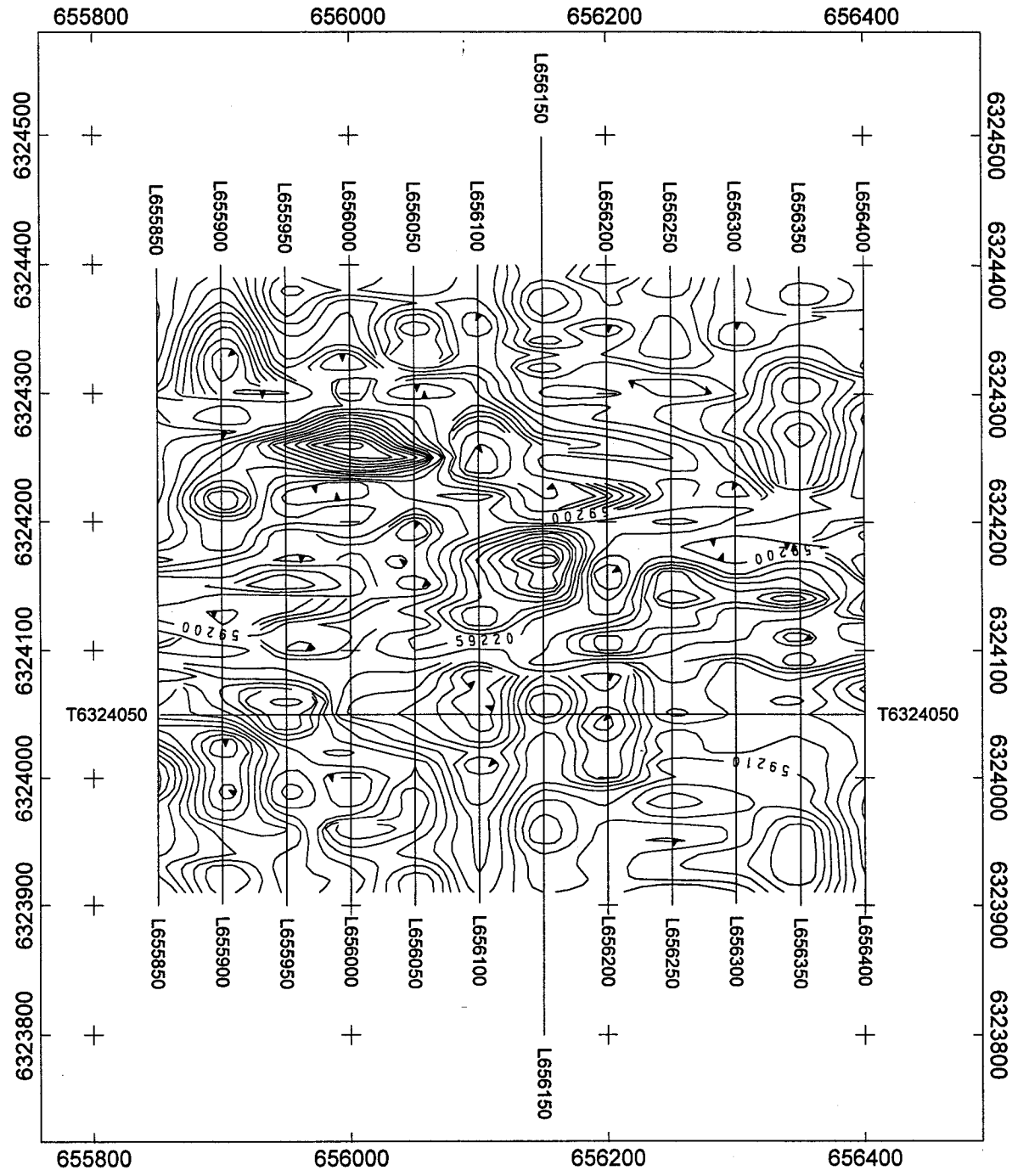
metres

Data is stored in:
\Geophysics\Loon Lake\Ground\LL98

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Loon Lake - Anomaly 98
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: February 17, 1999
Kilometres: 6.73

Scale 1:5000

50 0 50 100 150

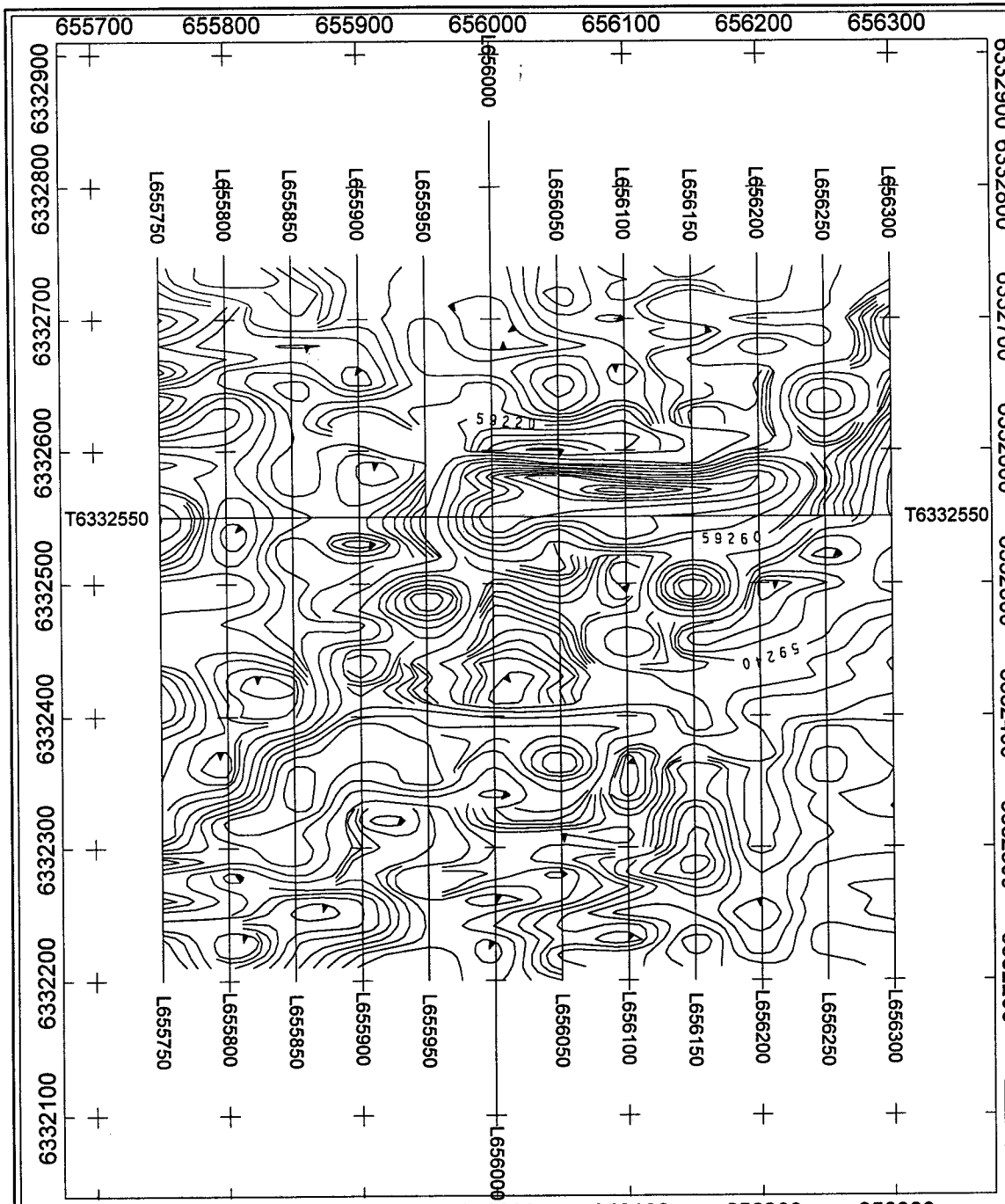
metres

Data is stored in
\Geophysics\Birch Mountain\Ground\Anomaly 9

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 9
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: February 15, 1999
Kilometres: 7.3

Scale 1:5000

50 0 50 100 150

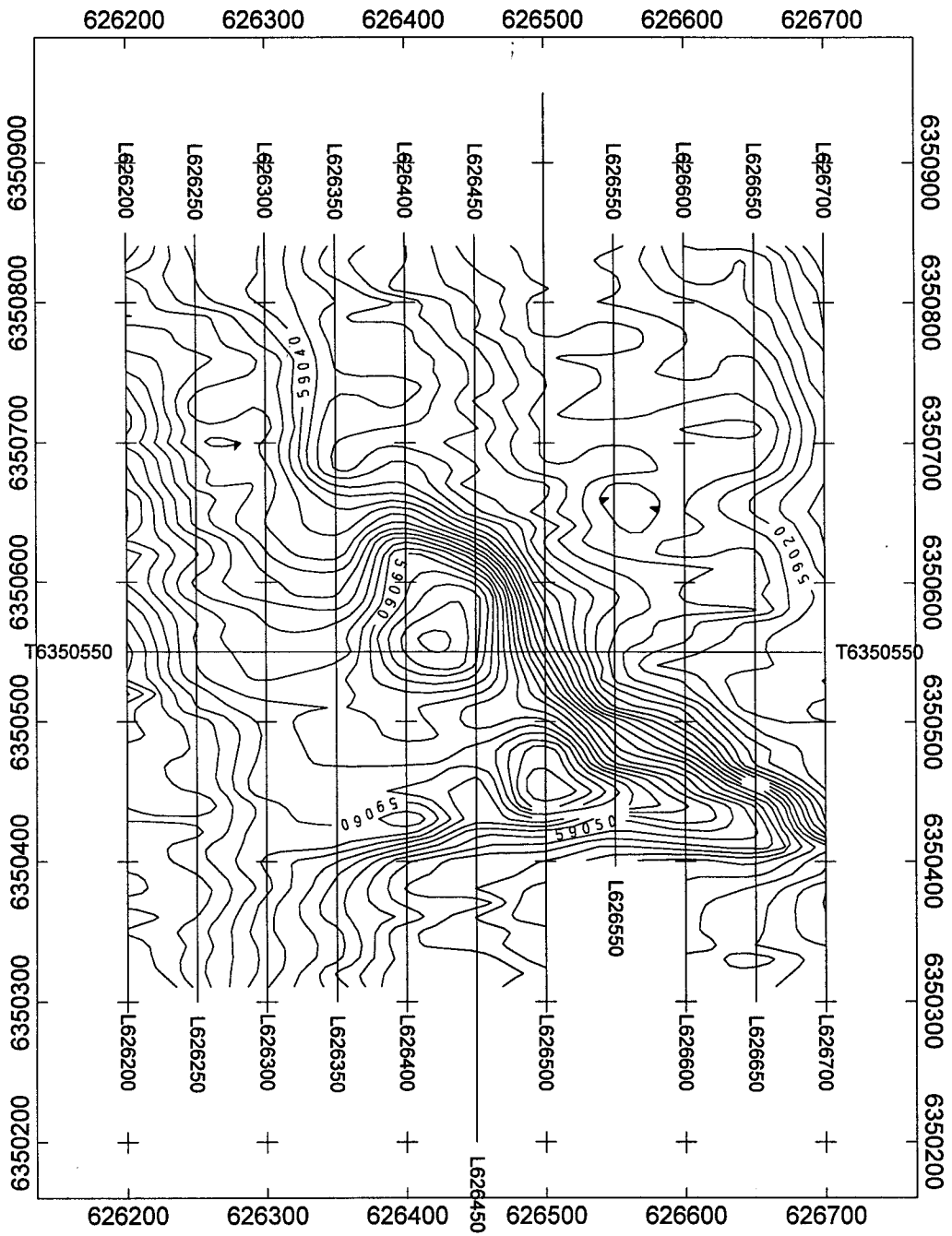
metres

Data is stored in
\Geophysics\Birch Mountain\Ground\Anomaly 10

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 10
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#801792)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: D. Willis
Date: February 1, 1999
Kilometres: 6.6

Scale 1:5000

50 0 50 100 150

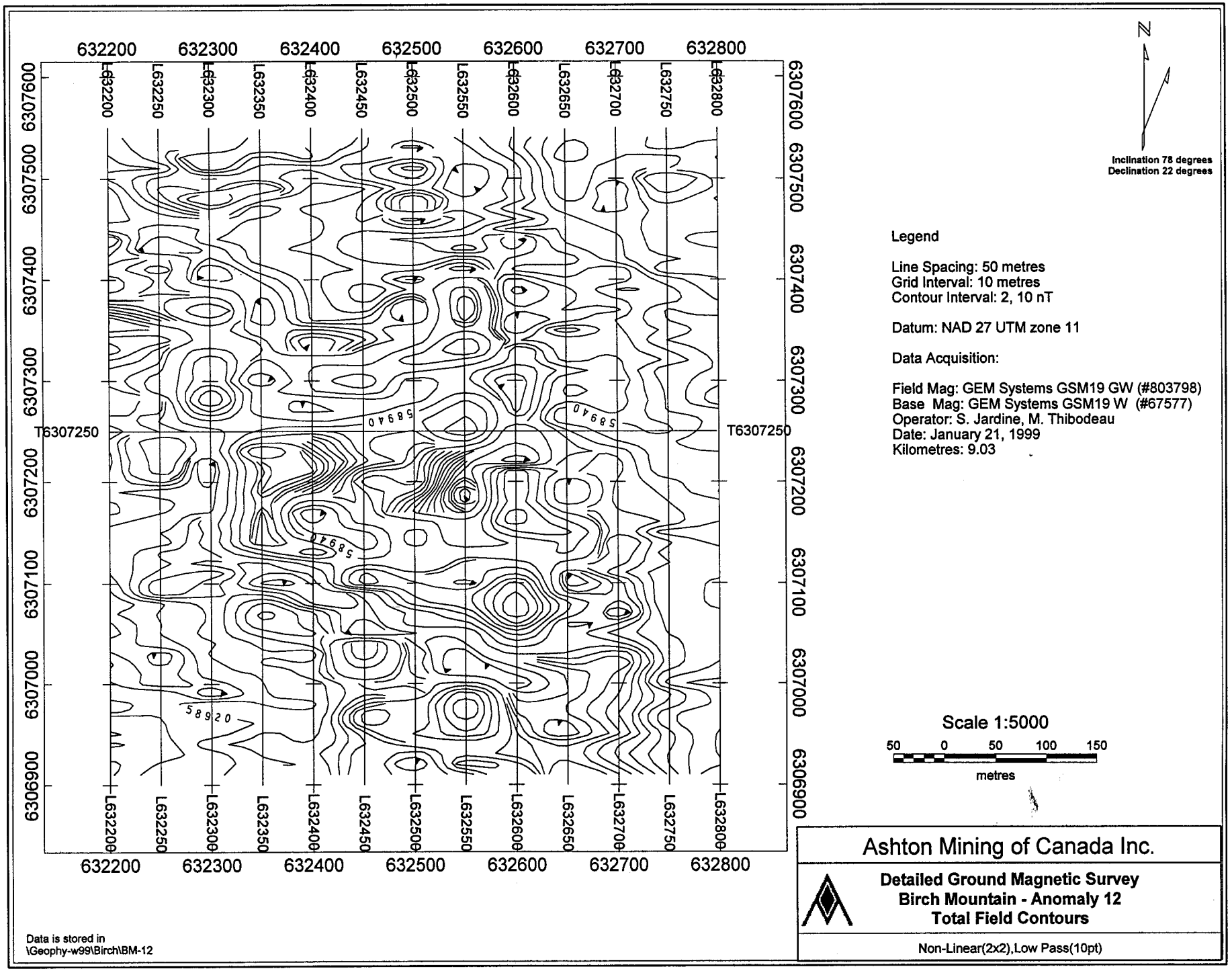
metres

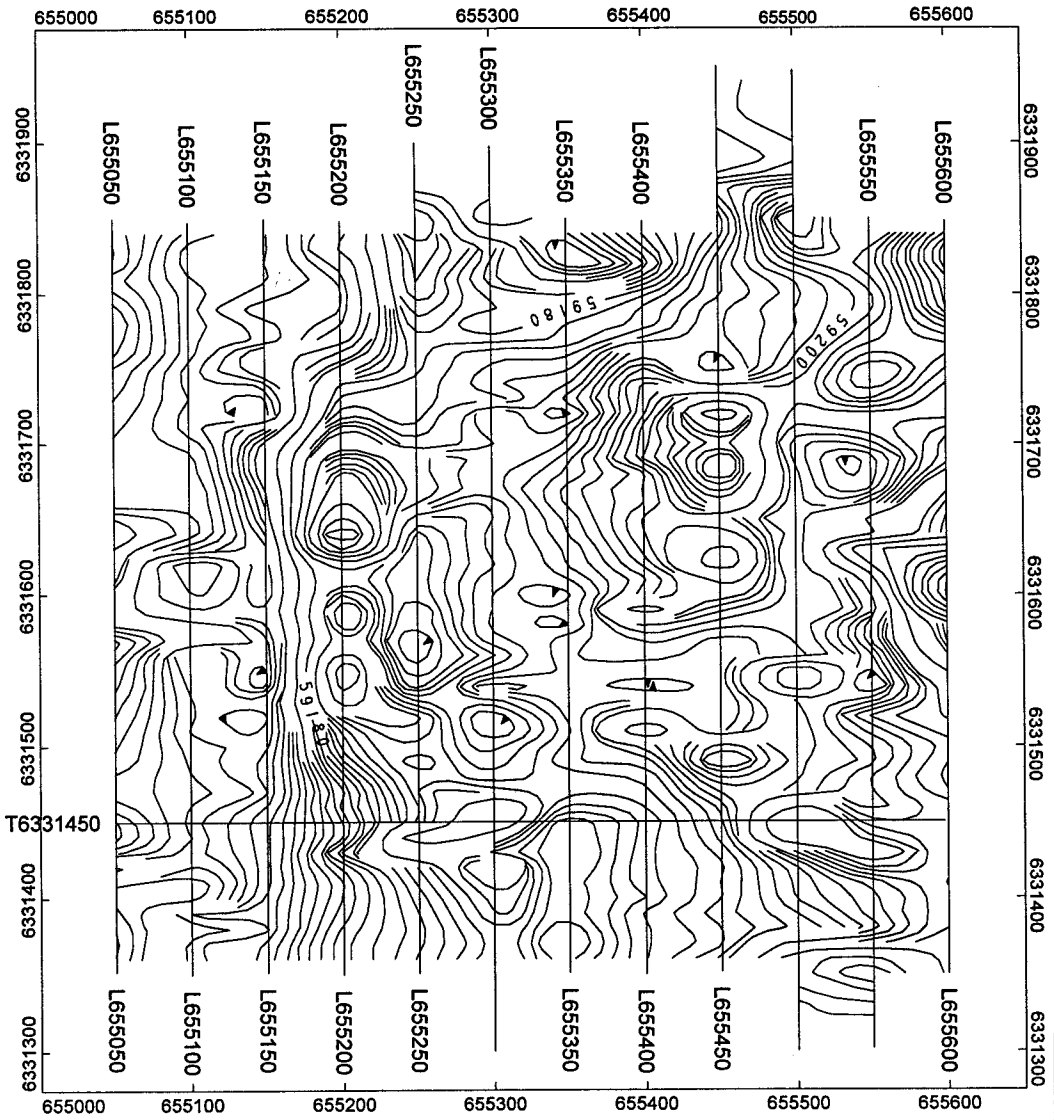
Data is stored in
\Geophy\Birch\BM-11

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 11
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)


632200
632300
632400
632500
632600
632700
632800
6307600
6307500
6307400
6307300
6307200
6307100
6307000
6306900
T6307250
T6307250
L632200
L632250
L632300
L632350
L632400
L632450
L632500
L632550
L632600
L632650
L632700
L632750
L632800
58940
58940
58940
58920
N
Inclination 78 degrees
Declination 22 degrees
Legend
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT
Datum: NAD 27 UTM zone 11
Data Acquisition:
Field Mag: GEM Systems GSM19 GW (#803798)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: S. Jardine, M. Thibodeau
Date: January 21, 1999
Kilometres: 9.03
Scale 1:5000
50 0 50 100 150
metres
Ashton Mining of Canada Inc.
Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 12
Total Field Contours
Non-Linear(2x2),Low Pass(10pt)
Data is stored in
\Geophy-w99\Birch\BM-12



Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: February 16, 1999
Kilometres: 6.97

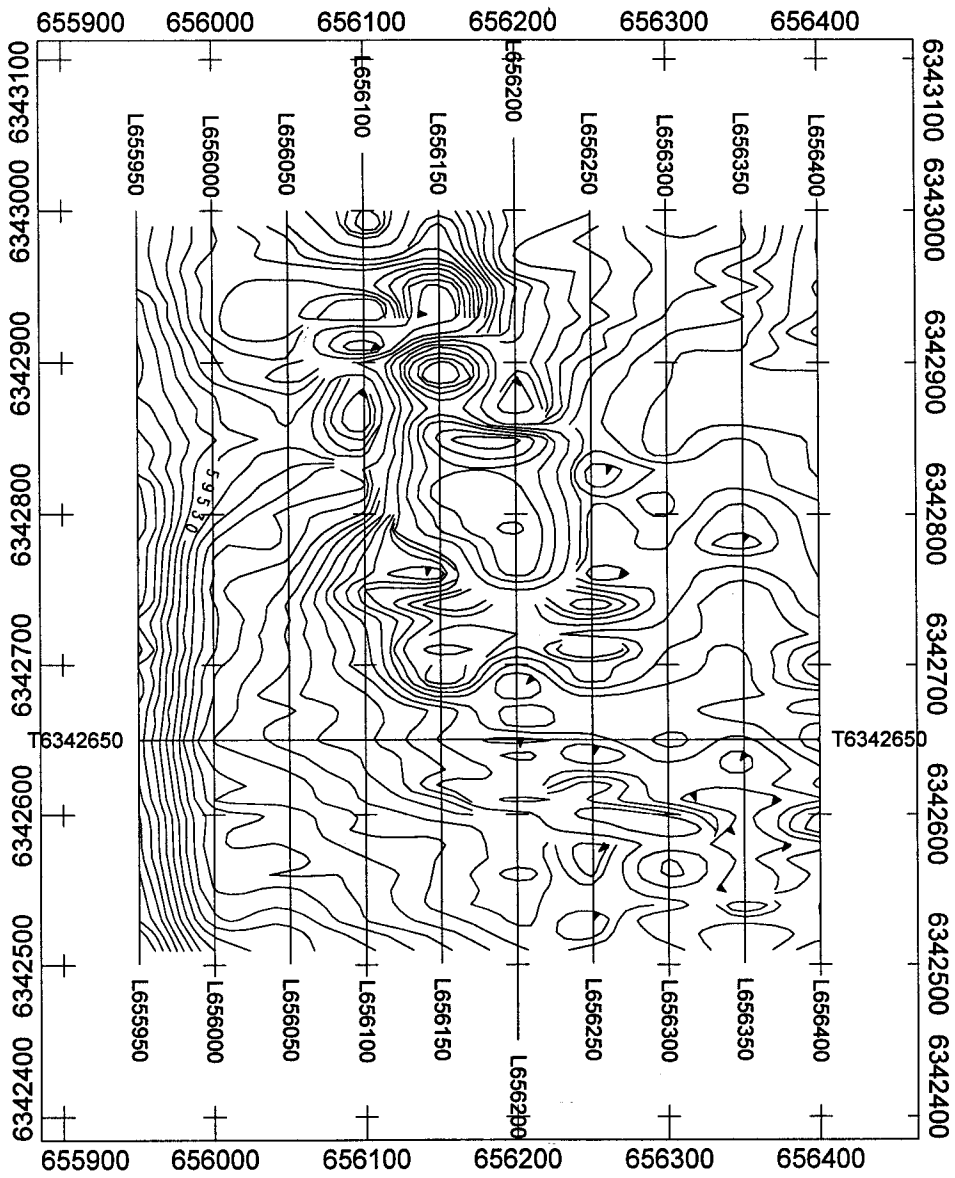
50 0 50 100 150
metres

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 13
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)

Data is stored in
\Geophysics\Birch Mountain\Ground\Anomaly 13



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#83800)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: M. Thibodeau
Date: February 5, 1999
Kilometres: 5.6

Scale 1:5000

50 0 50 100 150

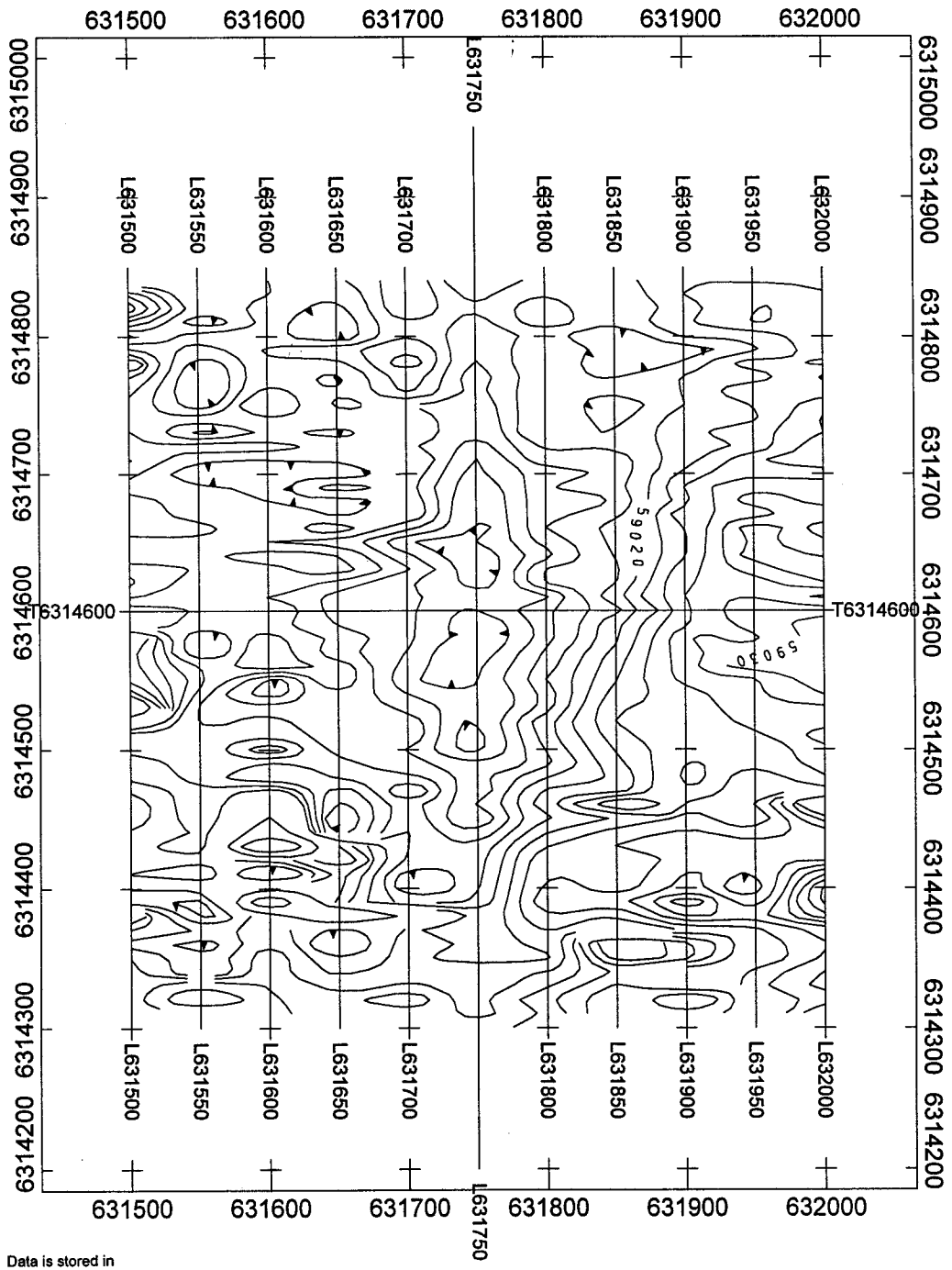
metres

Data is stored in
\Geophysics\Birch Mountain\Ground\BM-15

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 15
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

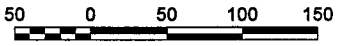
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#803800), (#801792)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: D. Willis
Date: January 11, 1999
Kilometres: 6.75

Scale 1:5000

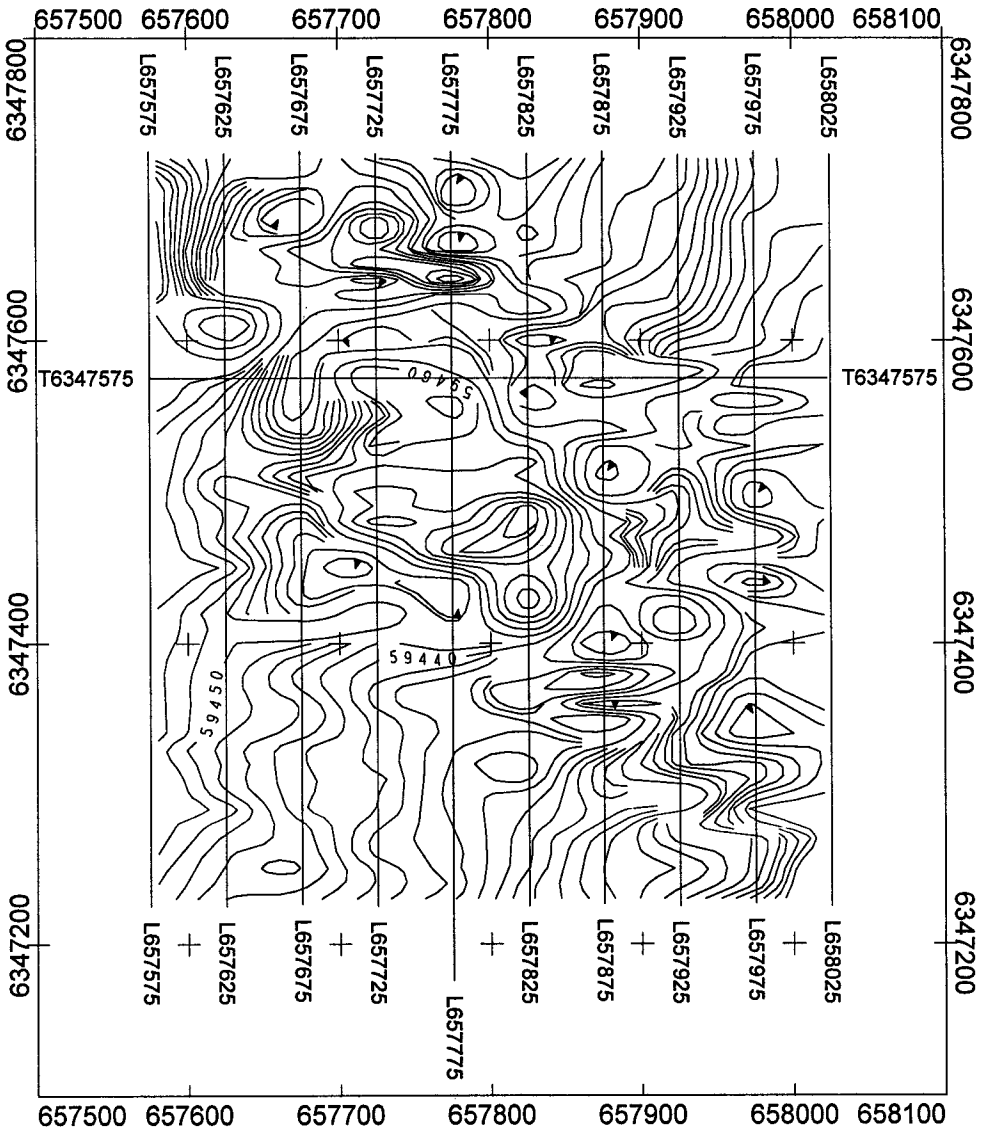


Data is stored in
\Geophy-w99\Birch\BM-16

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 16
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: February 8, 1999
Kilometres: 5.4

Scale 1:5000

50 0 50 100 150

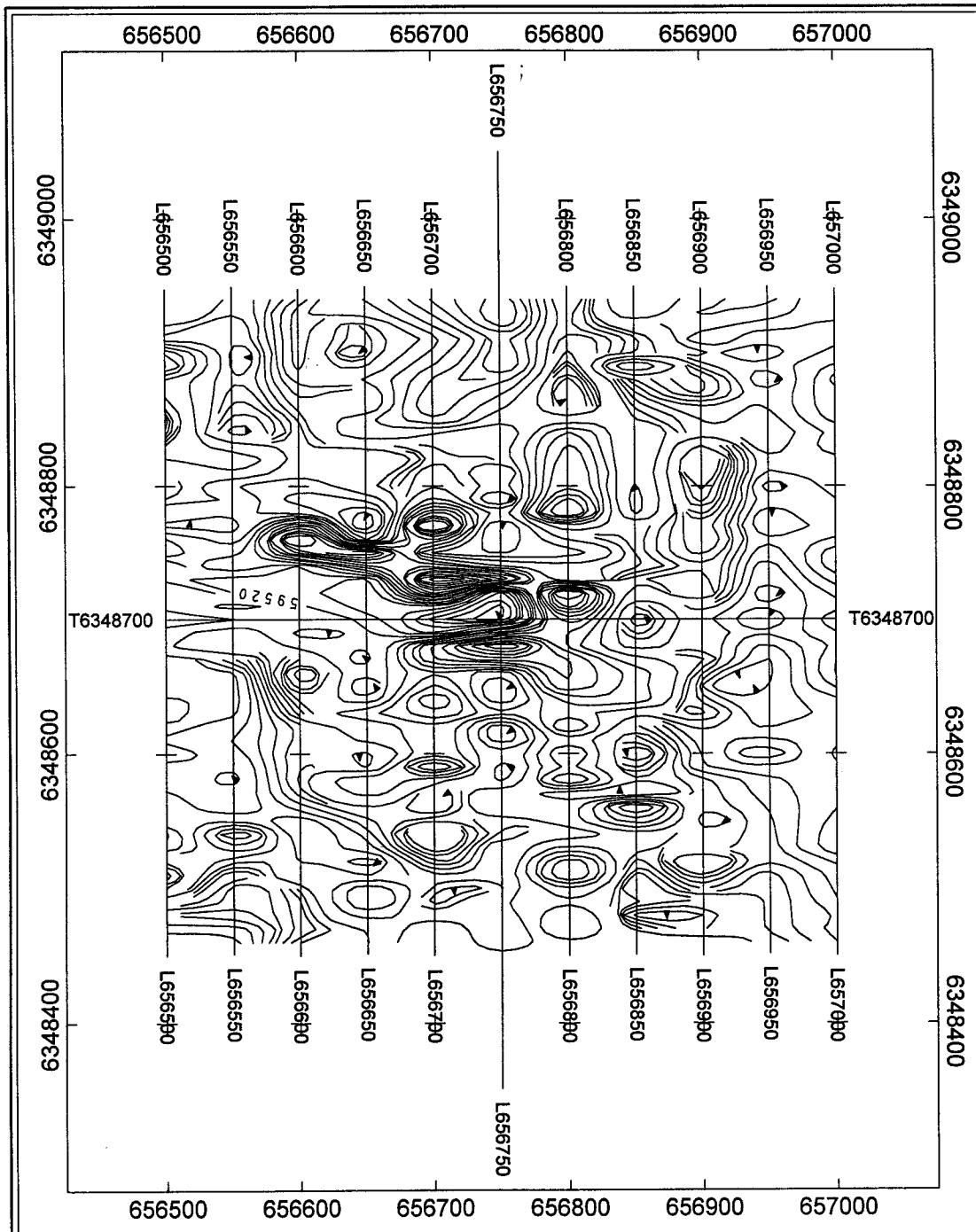
metres

Data is stored in
\Geophysics\Birch Mountain\Ground Summer 1998\Anomaly 19

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 19
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: February 10, 1999
Kilometres: 6.2

Scale 1:5000

50 0 50 100 150

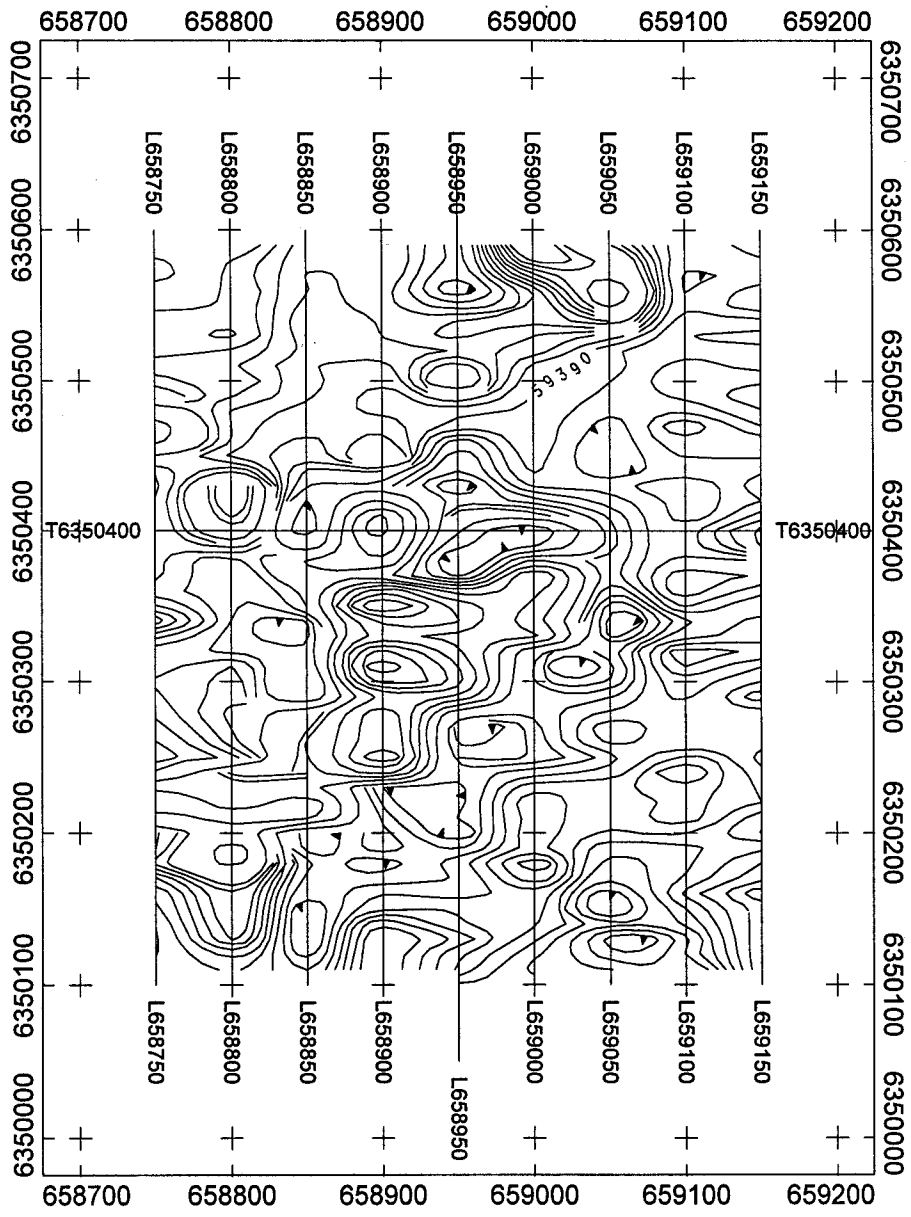
metres

Data is stored in
\Geophysics\Birch Mountain\Ground 1998\Anomaly 20

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 20
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

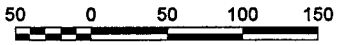
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: February 10, 1999
Kilometres: 5.0

Scale 1:5000

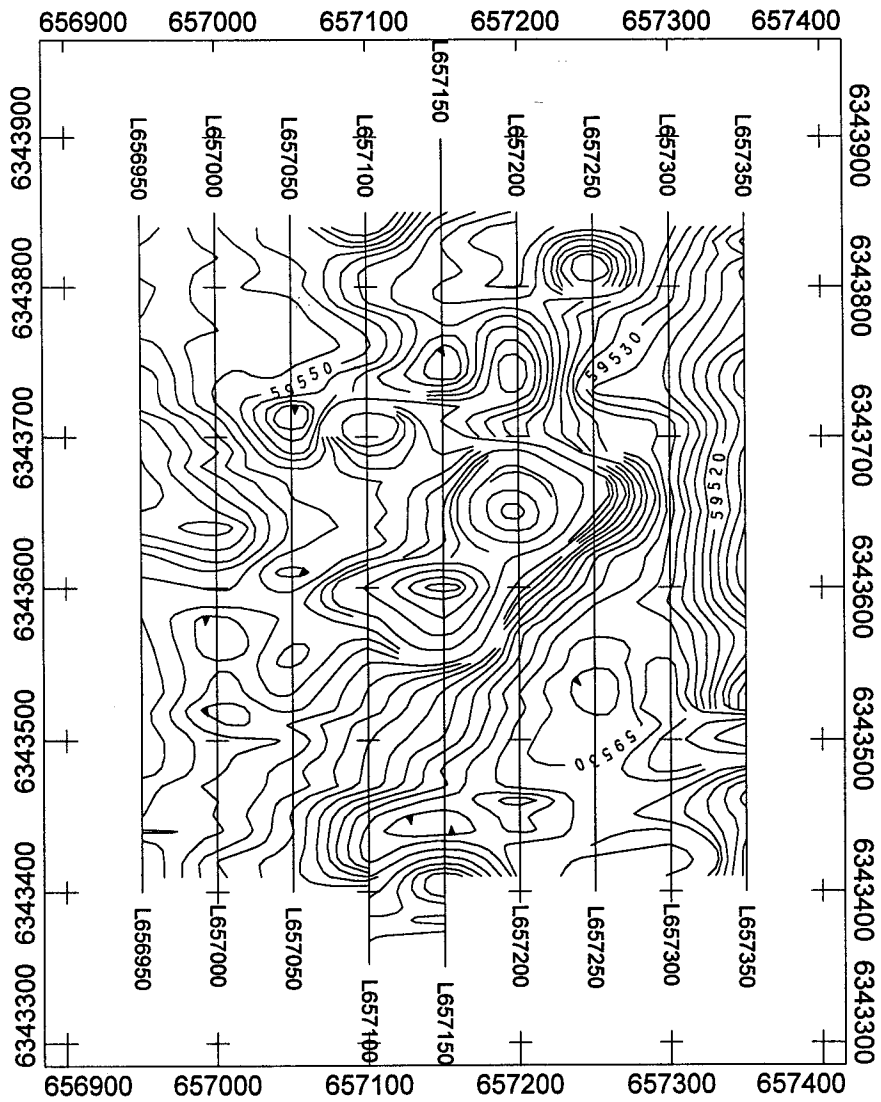


Data is stored in
\Geophysics\Birch Mountain\Ground\Anomaly 20

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 21
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

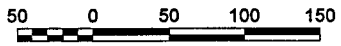
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#801792)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: February 5, 1999
Kilometres: 4.2

Scale 1:5000

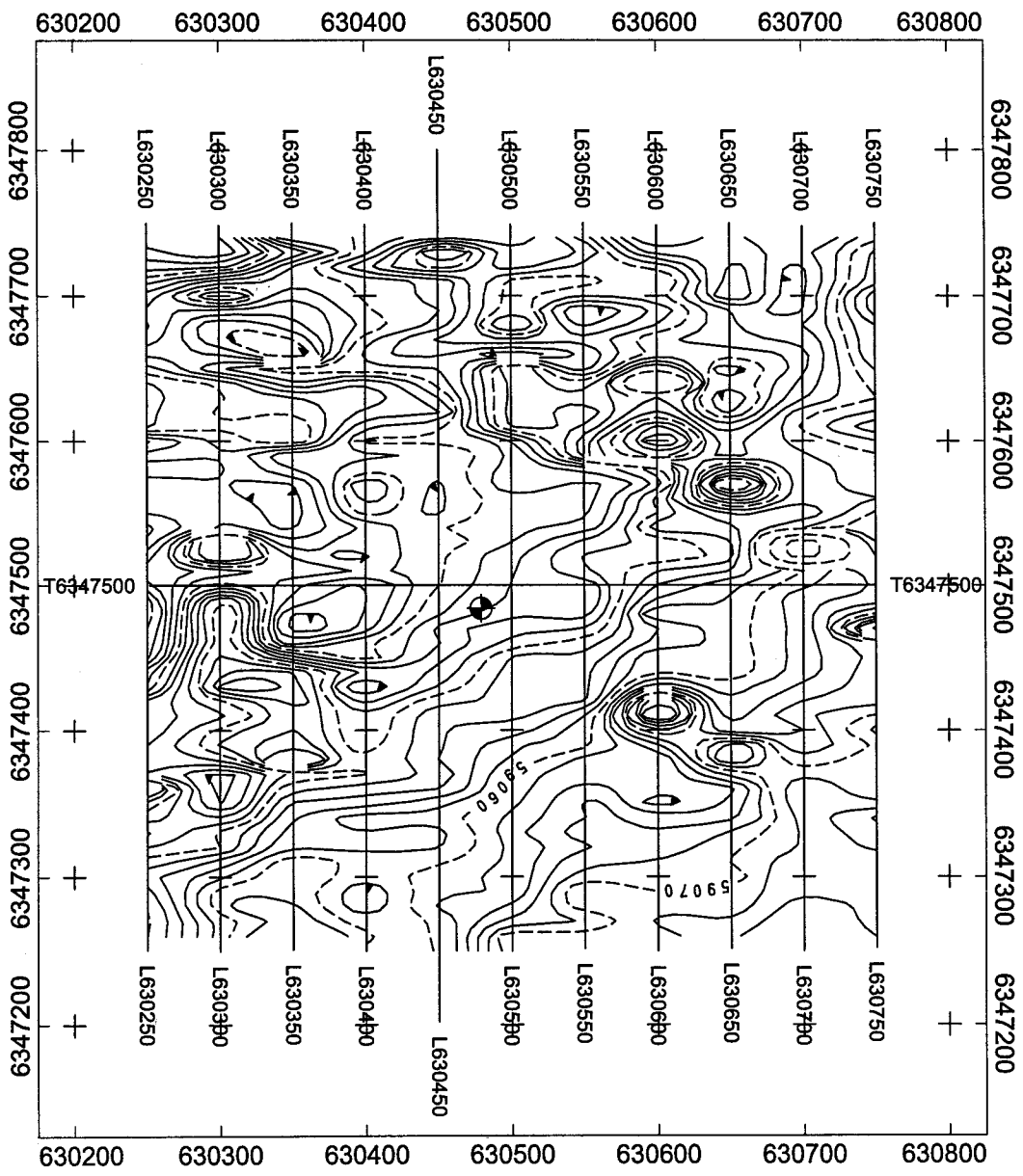


Data is stored in
\Geophysics\Birch Mountain\Ground\Anomaly 23

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 23
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: August 1, 1999
Kilometres: 6.1

Grid reference picket

The grid was shifted 10 metres to the south.
eg. 6347500 N is actually 6347490 N.
For lines 630250 E to 630500 E 0.9 nT was added.

Scale 1:5000

50 0.0 50 100 150

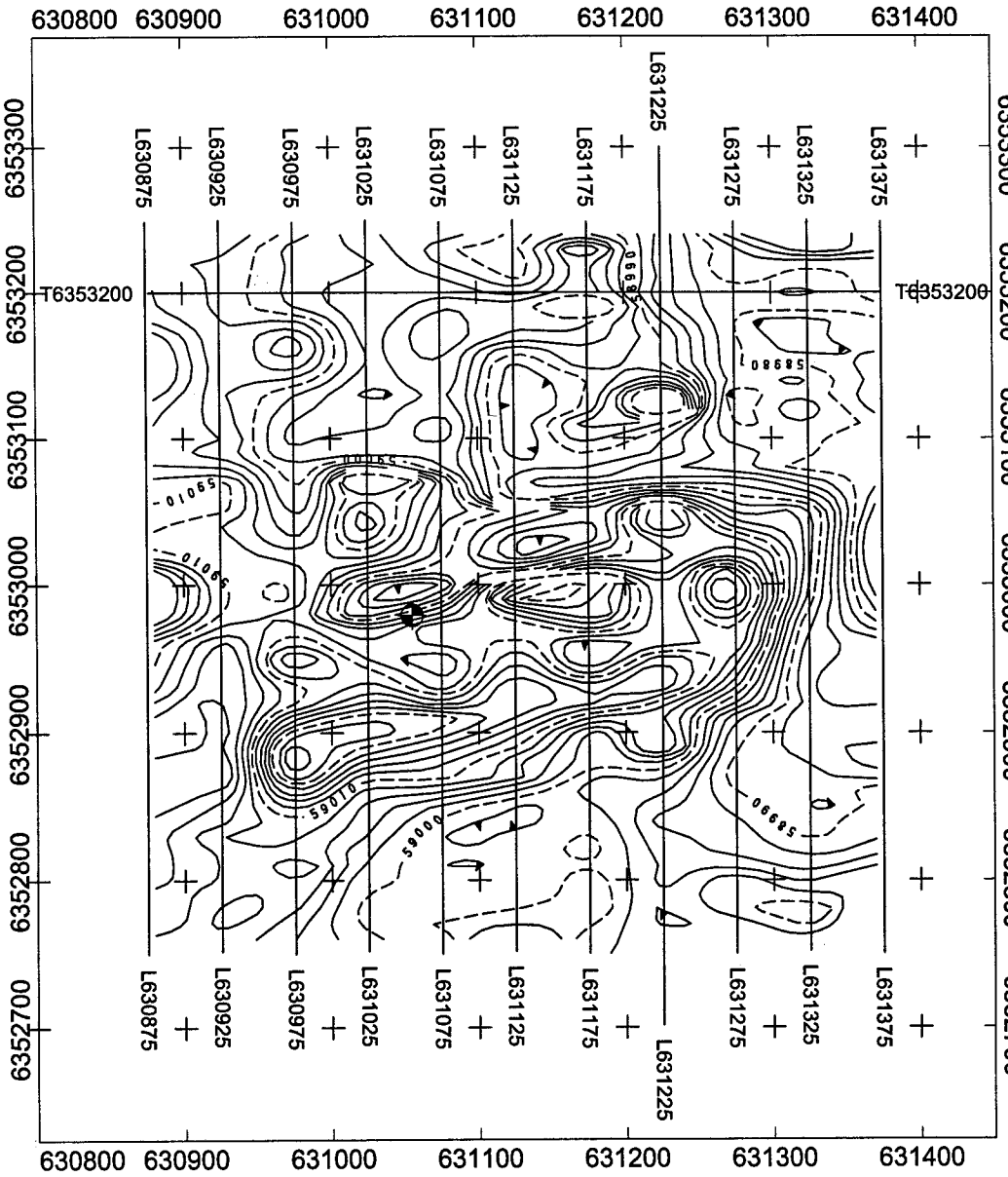
metres

Data is stored in:
\Geophysics\Buffalo Hills\Ground\BM24

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 24
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: July 31, 1999
Kilometres: 6.1

Grid reference picket

Scale 1:5000

50 0.0 50 100 150

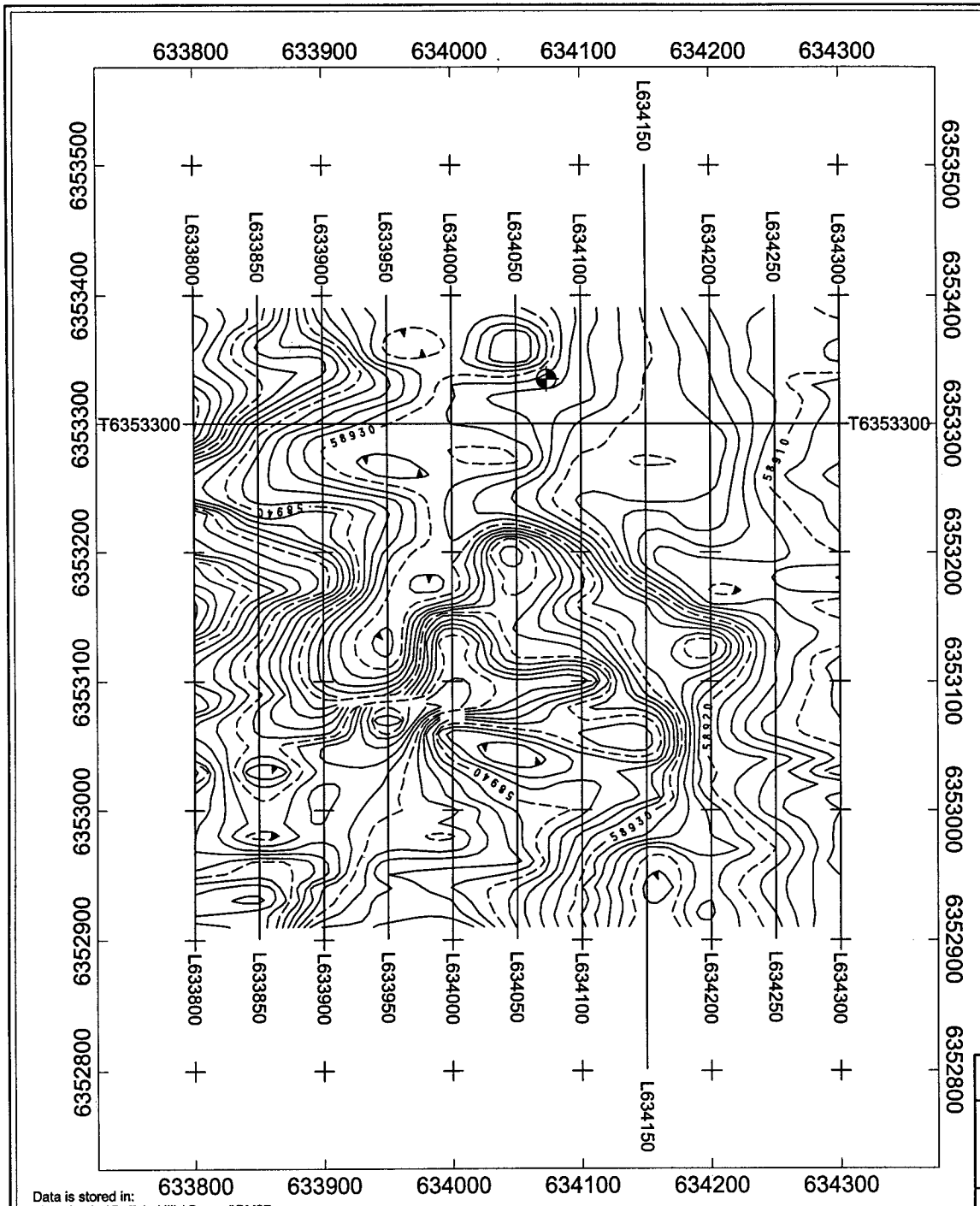
metres

Data is stored in:
\Geophysics\Buffalo Hills\Ground\BM26

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 26
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Data is stored in:
\Geophysics\Buffalo Hills\Ground\BM27

N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: August 4, 1999
Kilometres: 6.2

Grid reference picket

The grid was shifted 25 metres to the north.
eg. 6353300 N is actually 6353325 N.

Scale 1:5000

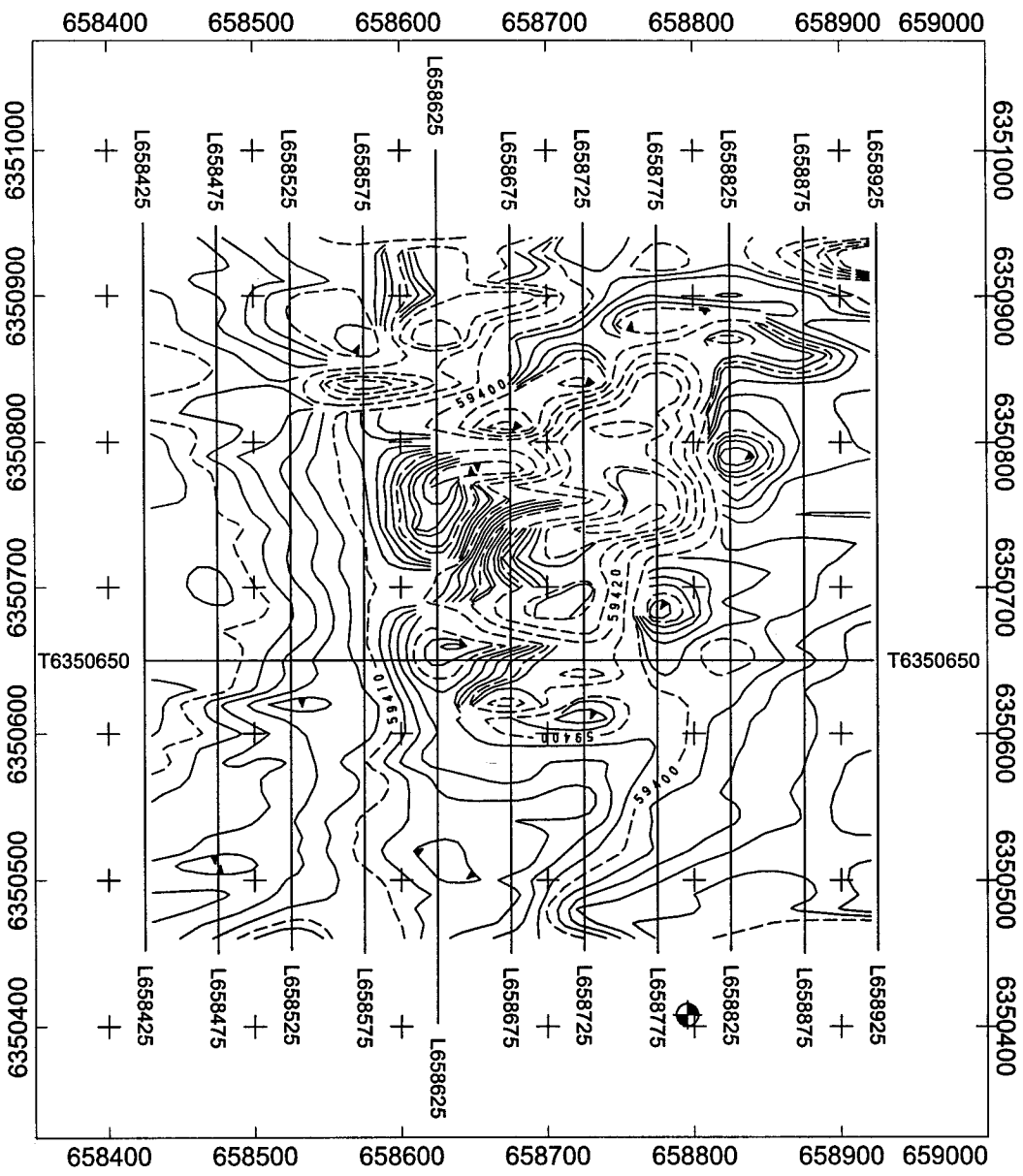
50 0.0 50 100 150

metres

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 27
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: August 5, 1999
Kilometres: 6.1

Grid reference picket

Scale 1:5000

50 0.0 50 100 150

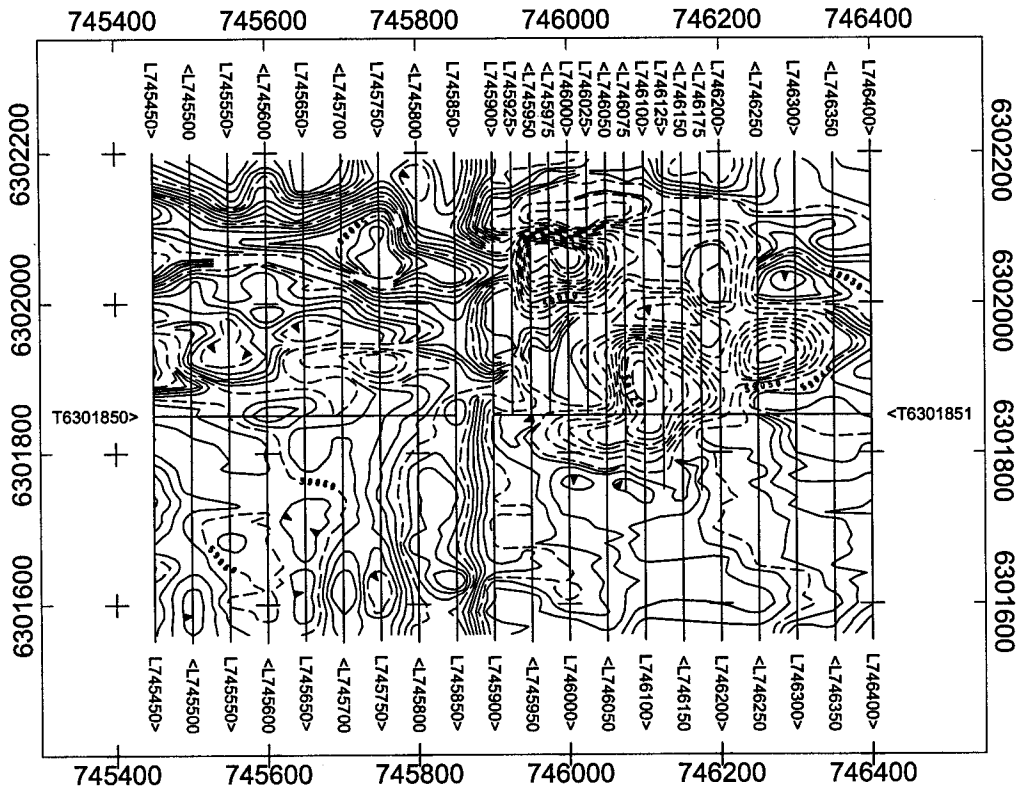
metres

Data is stored in:
\Geophysics\Buffalo Hills\Ground\BM30

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Birch Mountain - Anomaly 30
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: S.Jardine(East), M.Thibodeau(West)
Date: Sept 29 & Oct 1, 1998
Kilometres: 13.9 + 2.4 (infill)

Infill data was collected on Feb 4, 2000 by W.Kahlert. The base mag was located on the grid due to threat of diurnal storms. A heading error of -8nT was added to north bound lines and the data was shifted +78nT to be moderately leveled with the original data.

Scale 1:10000

100 0.0 100 200 300

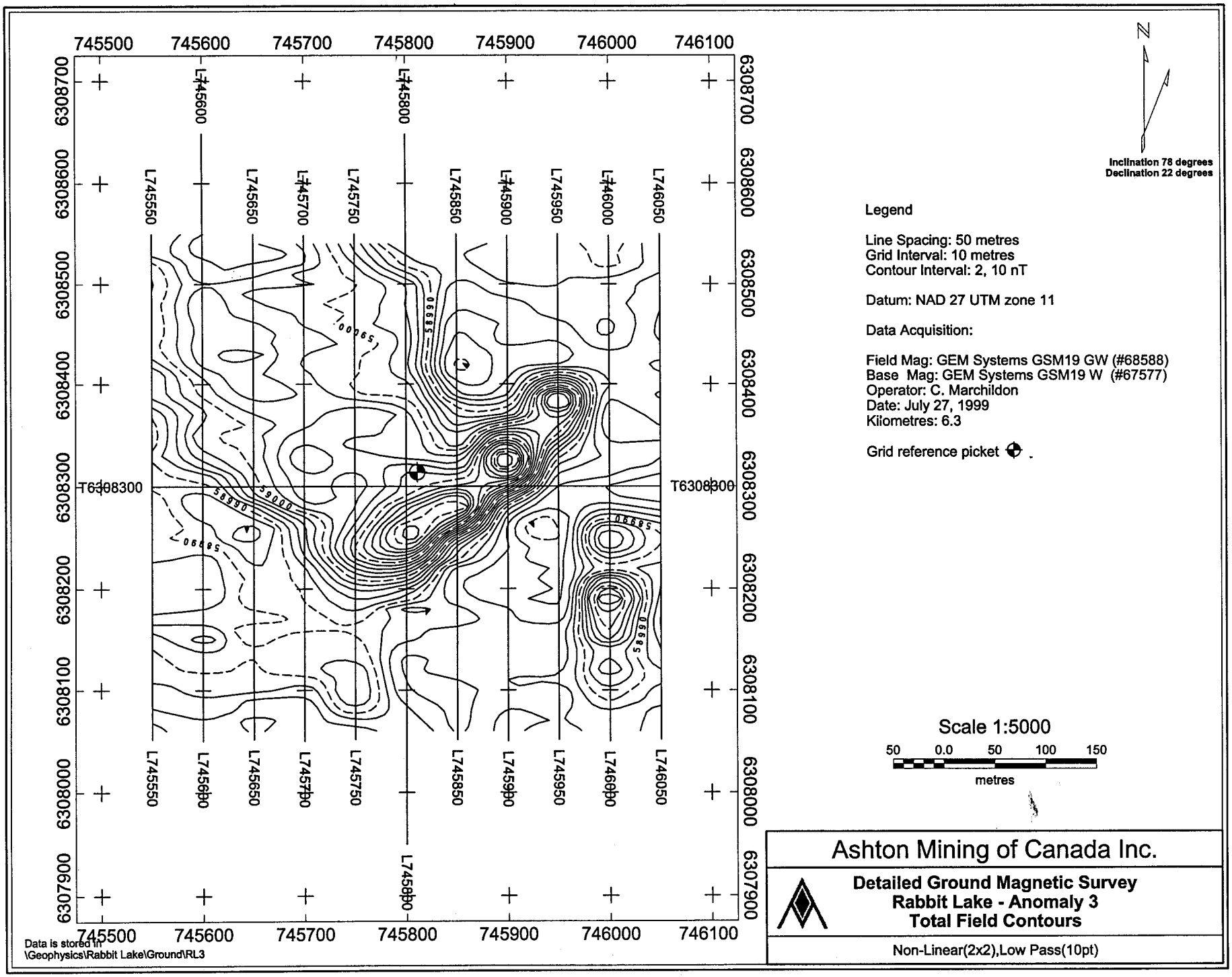
metres

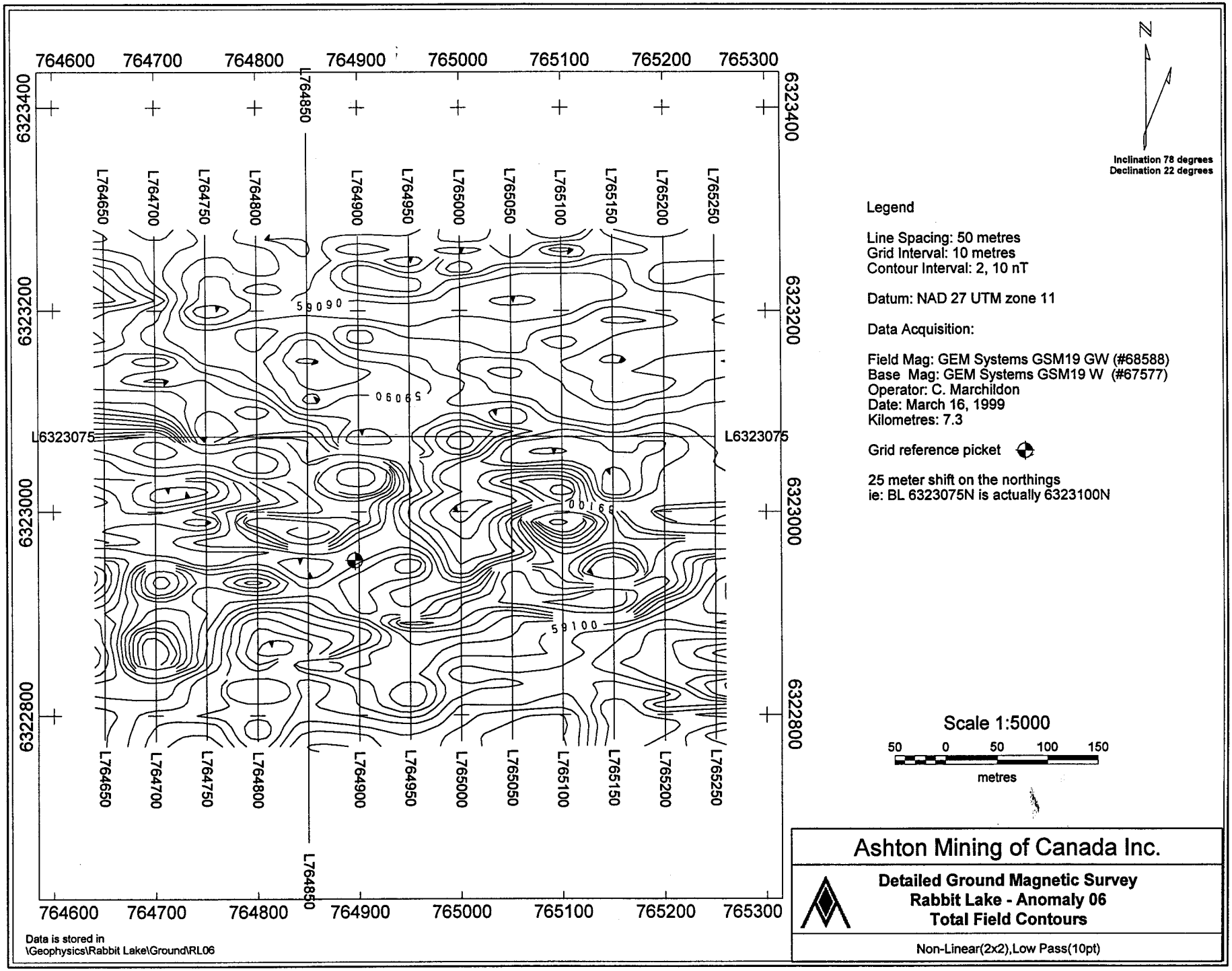
Data is stored in
\Geophysics\Rabbit Lake\Ground\Anomaly 1

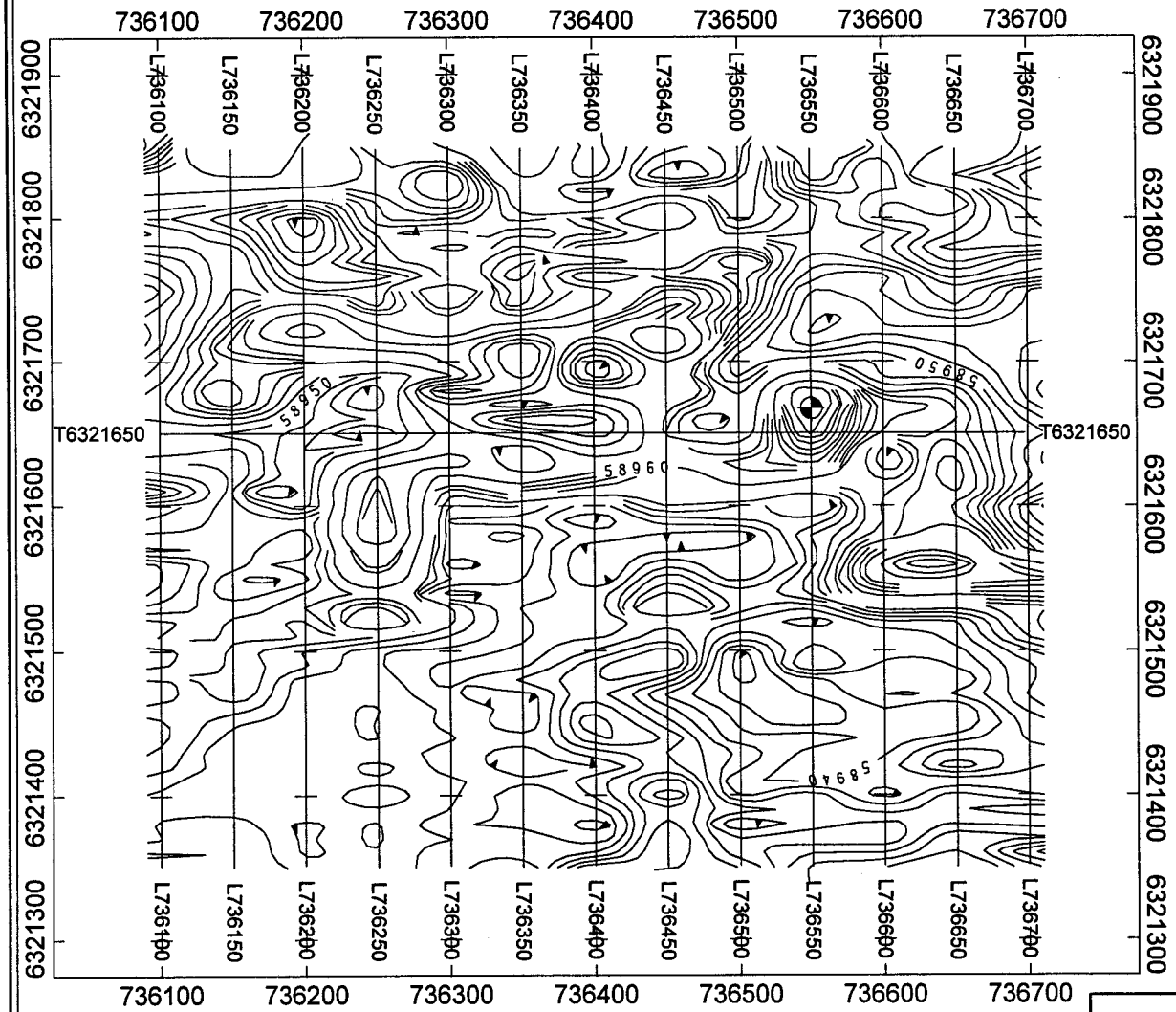
Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 1
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)


745500
745600
745700
745800
745900
746000
746100
6308700
6308600
6308500
6308400
6308300
6308200
6308100
6308000
6307900
L745550
L745600
L745650
L745700
L745750
L745800
L745850
L745900
L745950
L746000
L746050
T6308300
58990
59000
59010
Data is stored in
\Geophysics\Rabbit Lake\Ground\RL3
N
Inclination 78 degrees
Declination 22 degrees
Legend
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT
Datum: NAD 27 UTM zone 11
Data Acquisition:
Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: July 27, 1999
Kilometres: 6.3
Grid reference picket
Scale 1:5000
50 0.0 50 100 150
metres
Ashton Mining of Canada Inc.
Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 3
Total Field Contours
Non-Linear(2x2),Low Pass(10pt)


764600
764700
764800
764850
764900
765000
765100
765200
765300
6323400
6323200
6323075
6323000
6322800
L764650
L764700
L764750
L764800
L764850
L764900
L764950
L765000
L765050
L765100
L765150
L765200
L765250
59090
59100
N
Inclination 78 degrees
Declination 22 degrees
Legend
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT
Datum: NAD 27 UTM zone 11
Data Acquisition:
Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: March 16, 1999
Kilometres: 7.3
Grid reference picket
25 meter shift on the northings
ie: BL 6323075N is actually 6323100N
Scale 1:5000
50 0 50 100 150
metres
Ashton Mining of Canada Inc.
Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 06
Total Field Contours
Non-Linear(2x2),Low Pass(10pt)
Data is stored in
\Geophysics\Rabbit Lake\Ground\RL06



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: March 15, 1999
Kilometres: 7.1

Grid reference picket -

Scale 1:5000

50 0 50 100 150

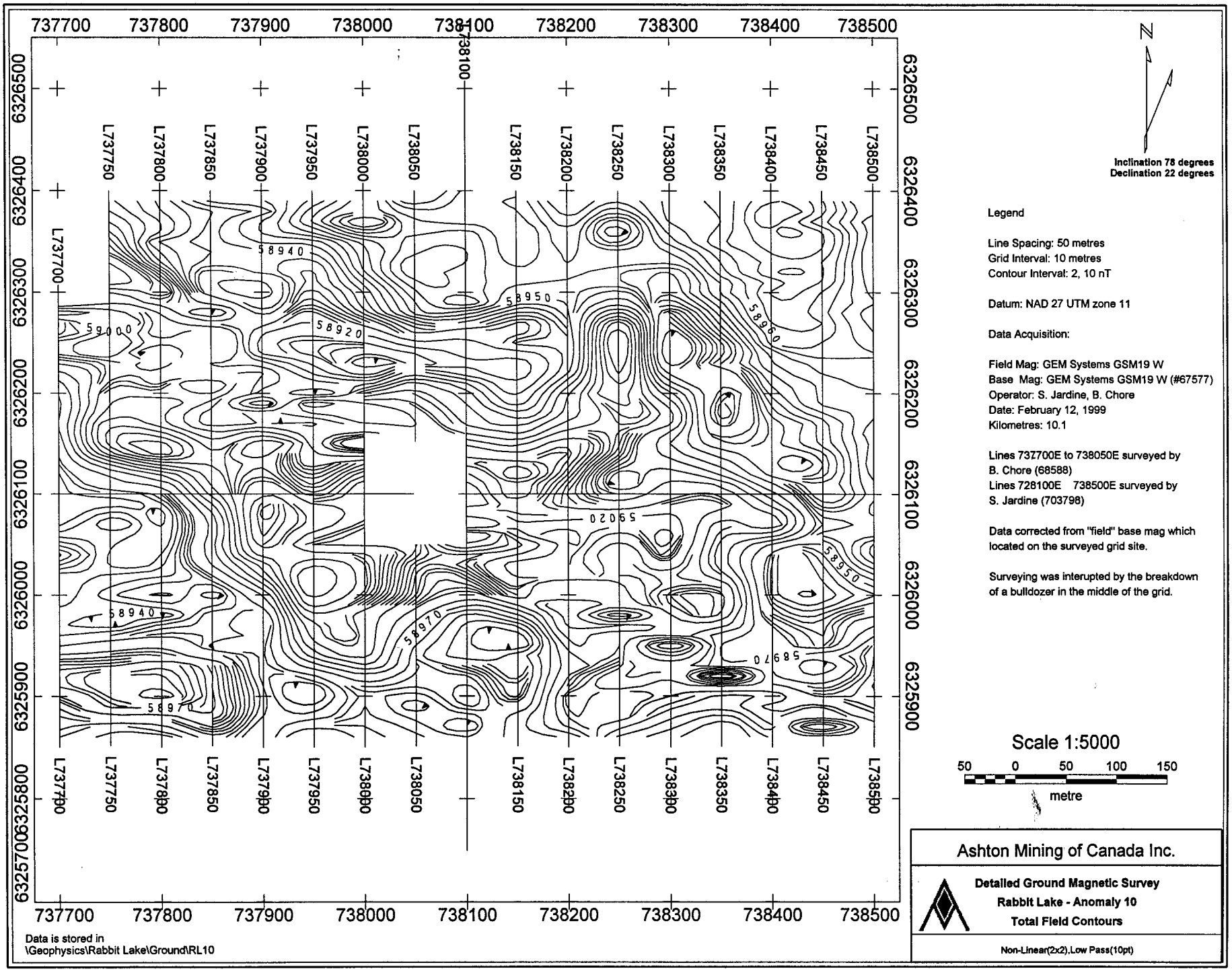
metres

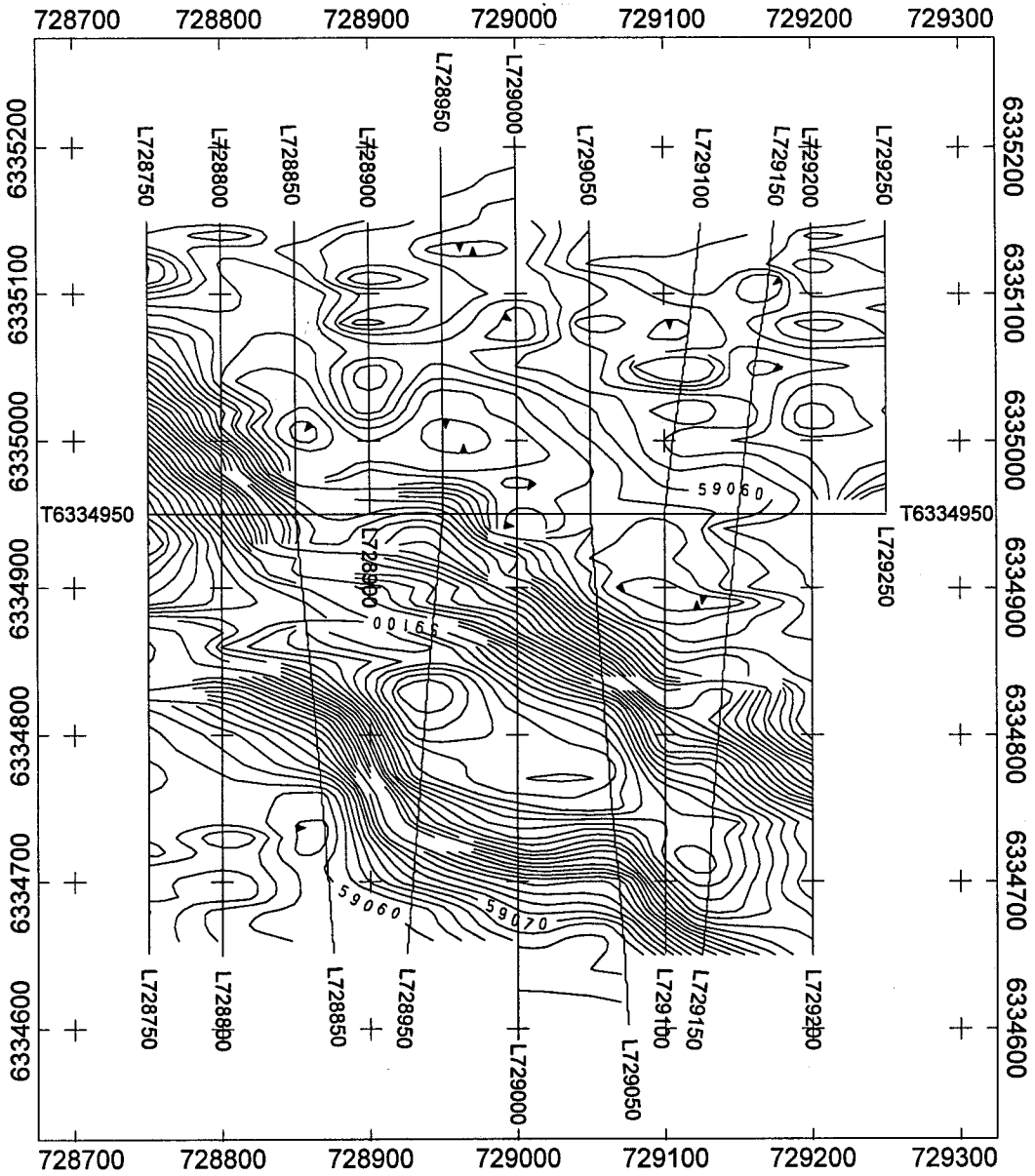
Data is stored in
\Geophysics\Rabbit Lake\Ground\RL9

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 9
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)


737700
737800
737900
738000
738100
738200
738300
738400
738500
6326500
6326400
6326300
6326200
6326100
6326000
6325900
6325800
L737700
L737750
L737800
L737850
L737900
L737950
L738000
L738050
L738100
L738150
L738200
L738250
L738300
L738350
L738400
L738450
L738500
58940
58950
58960
59000
58920
59020
58970
N
Inclination 78 degrees
Declination 22 degrees
Legend
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT
Datum: NAD 27 UTM zone 11
Data Acquisition:
Field Mag: GEM Systems GSM19 W
Base Mag: GEM Systems GSM19 W (#67577)
Operator: S. Jardine, B. Chore
Date: February 12, 1999
Kilometres: 10.1
Lines 737700E to 738050E surveyed by
B. Chore (68588)
Lines 728100E 738500E surveyed by
S. Jardine (703798)
Data corrected from "field" base mag which
located on the surveyed grid site.
Surveying was interupted by the breakdown
of a bulldozer in the middle of the grid.
Scale 1:5000
50 0 50 100 150
metre
Ashton Mining of Canada Inc.
Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 10
Total Field Contours
Non-Linear(2x2),Low Pass(10pt)
Data is stored in
\Geophysics\Rabbit Lake\Ground\RL10



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 W (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: February 7, 1999
Kilometres: 5.63

Scale 1:5000

50 0 50 100 150

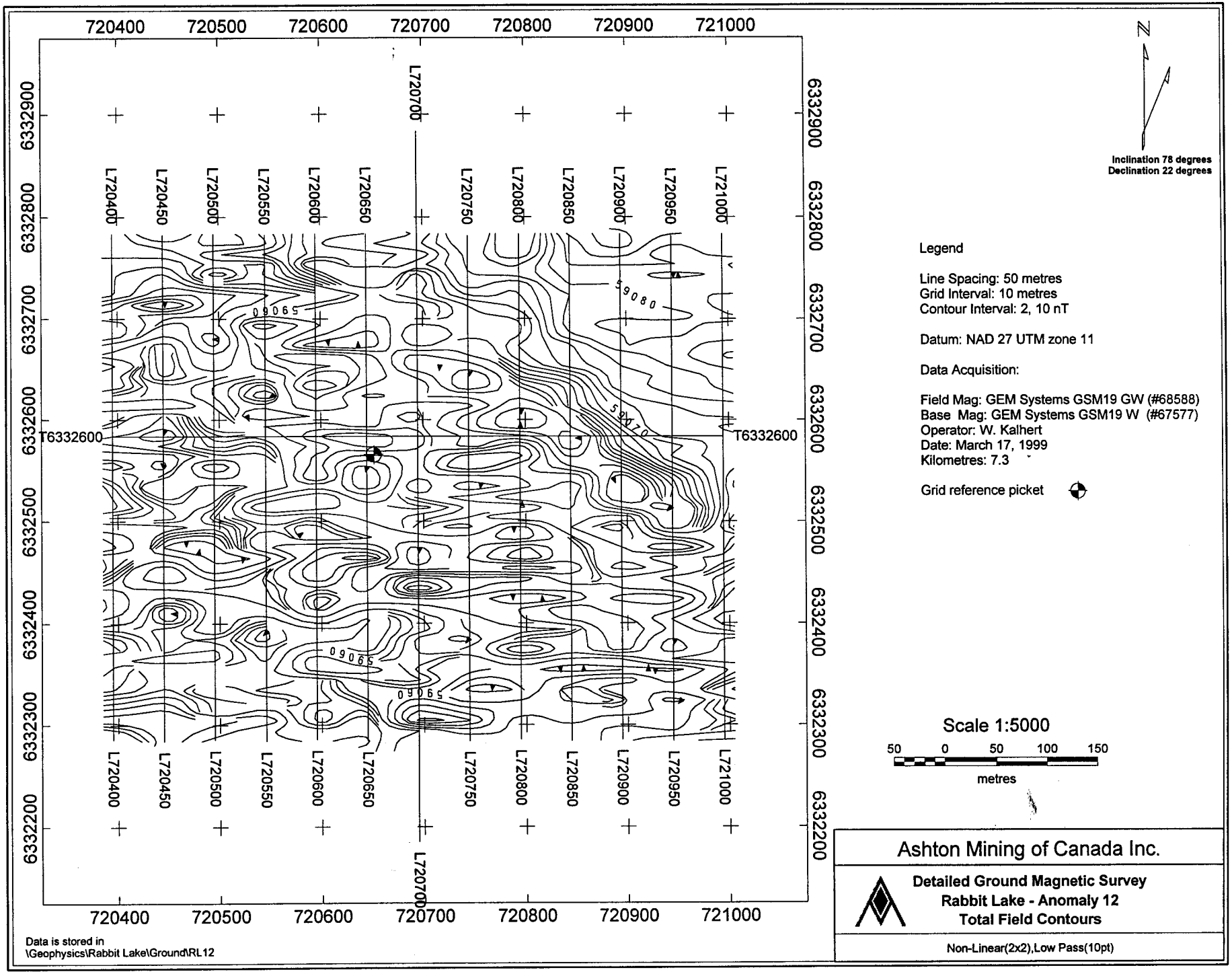
metres

Data is stored in
\Geophysics\Rabbit Lake\Ground\Anomaly 11

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 11
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)


720400
720500
720600
720700
720800
720900
721000
6332900
6332800
6332700
6332600
6332500
6332400
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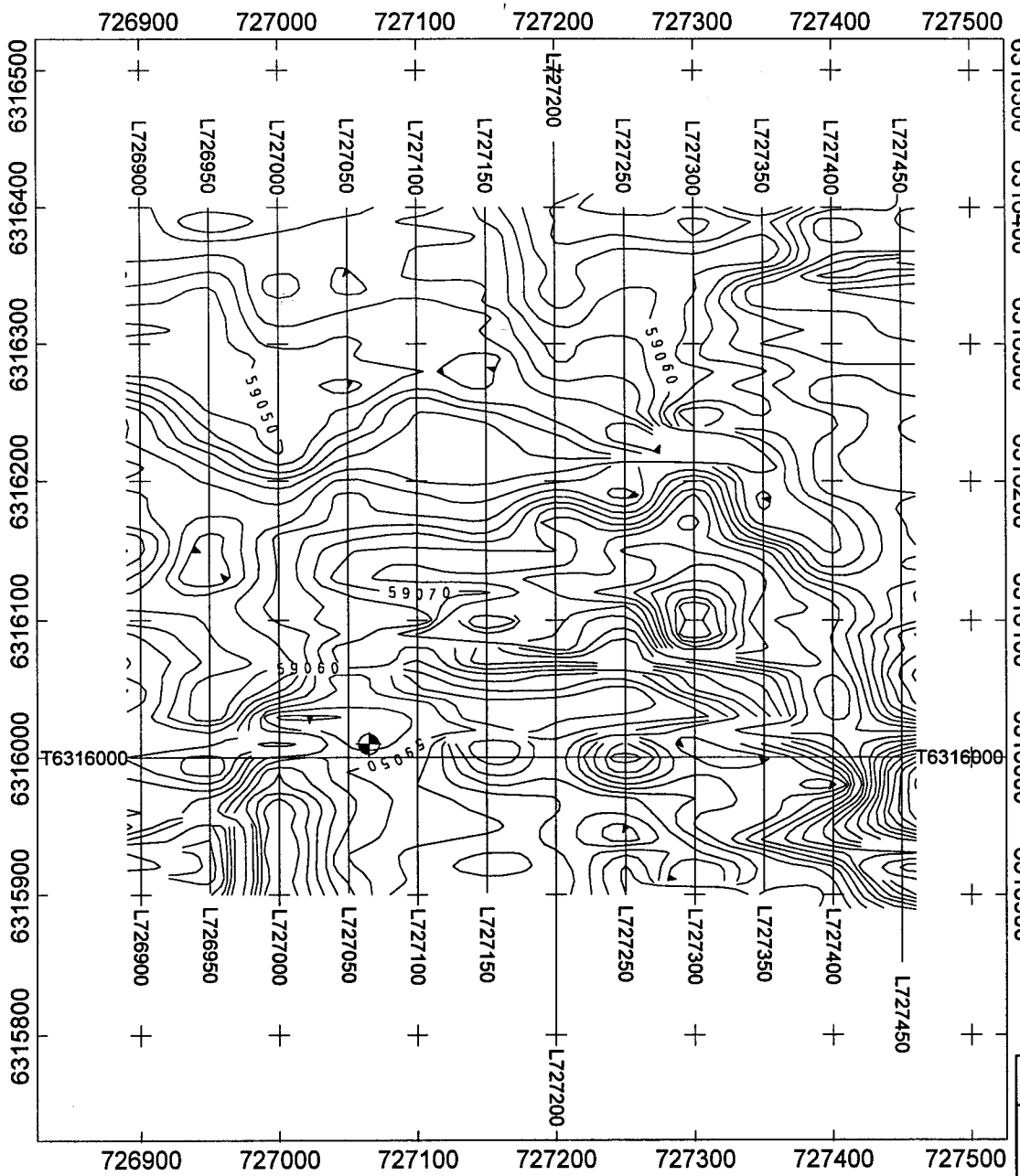
6332200
L720400
L720450
L720500
L720550
L720600
L720650
L720700
L720750
L720800
L720850
L720900
L720950
L721000
T6332600
59065
59060
59070
59080
N
Inclination 78 degrees
Declination 22 degrees
Legend
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT
Datum: NAD 27 UTM zone 11
Data Acquisition:
Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kalhert
Date: March 17, 1999
Kilometres: 7.3
Grid reference picket
Scale 1:5000
50 0 50 100 150
metres
Ashton Mining of Canada Inc.
Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 12
Total Field Contours
Non-Linear(2x2),Low Pass(10pt)
Data is stored in
\Geophysics\Rabbit Lake\Ground\RL12



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#811890)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: March 20, 1999
Kilometres: 6.73

Grid reference picket

Scale 1:5000

50 0 50 100 150

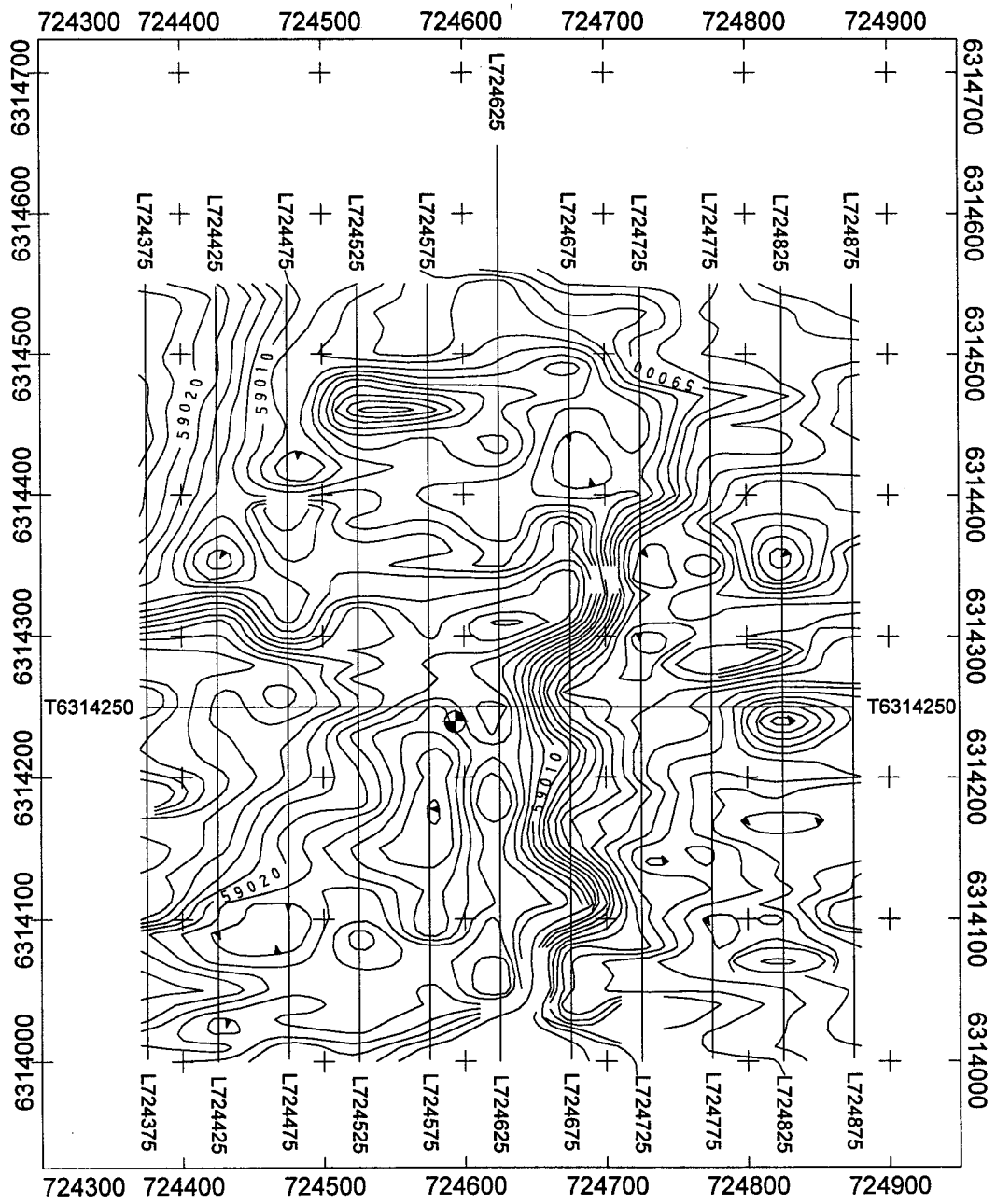
metres

Data is stored in
\Geophysics\Rabbit Lake\Ground\RL13

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 13
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: March 29, 1999
Kilometres: 6.65

Grid reference picket

Unable to locate surveyed picket. Used handheld GPS to locate starting point.

Scale 1:5000

50 0 50 100 150

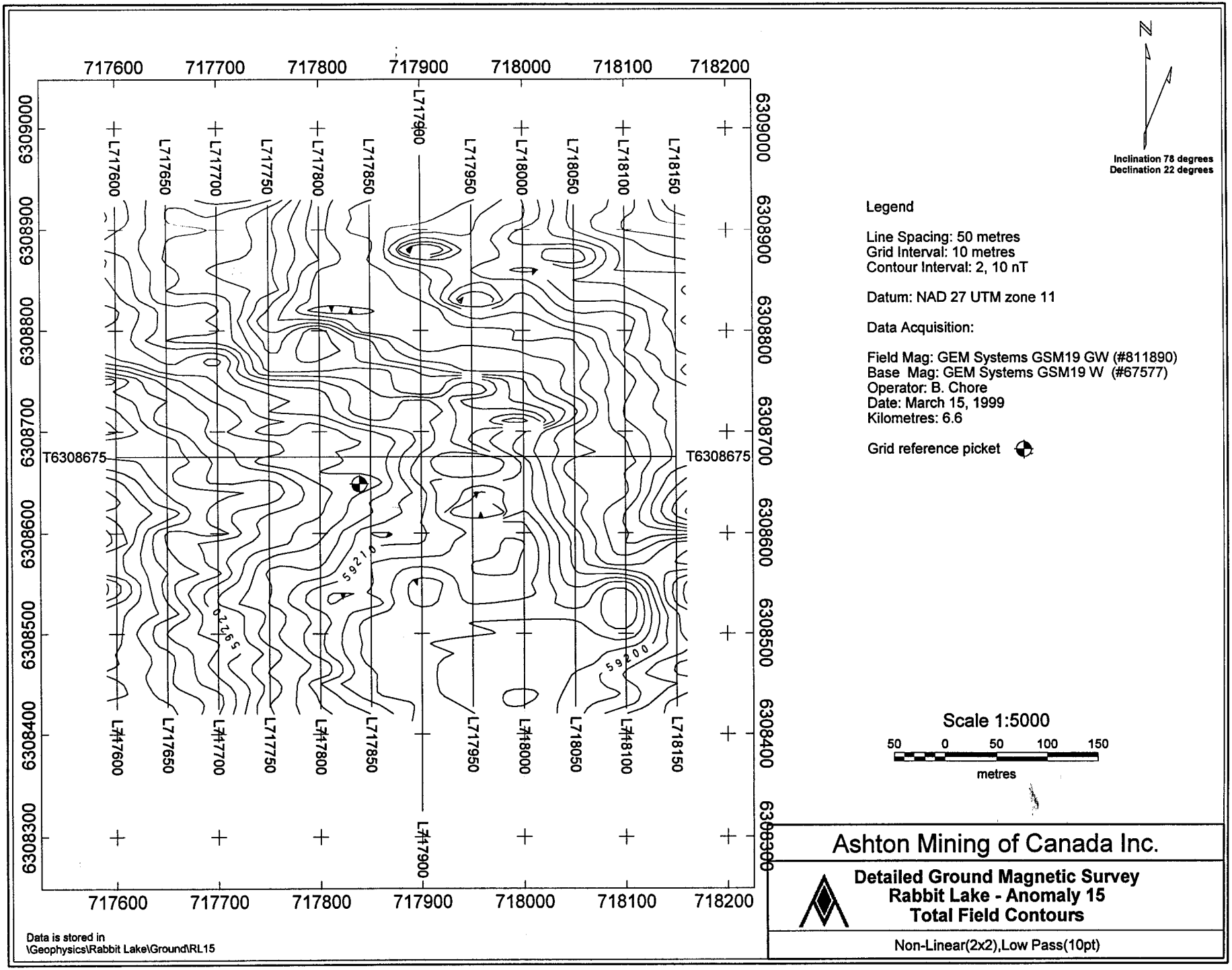
metres

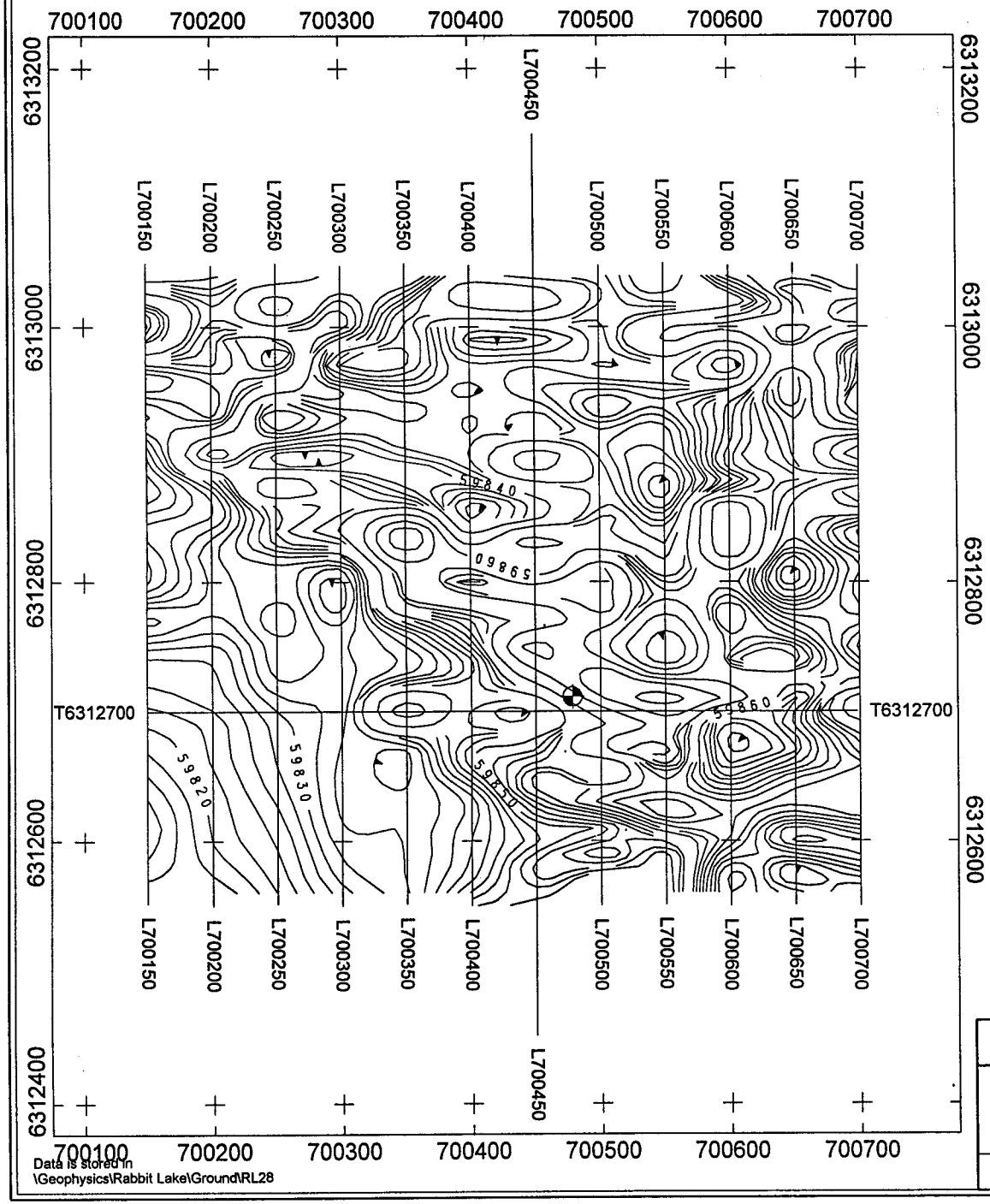
Data is stored in
\Geophysics\Rabbit Lake\Ground\RL14

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 14
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)


717600
717700
717800
717900
718000
718100
718200
6309000
6308900
6308800
6308700
6308600
6308500
6308400
6308300
L717600
L717650
L717700
L717750
L717800
L717850
L717900
L717950
L718000
L718050
L718100
L718150
T6308675
59210
59200
N
Inclination 78 degrees
Declination 22 degrees
Legend
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT
Datum: NAD 27 UTM zone 11
Data Acquisition:
Field Mag: GEM Systems GSM19 GW (#811890)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore
Date: March 15, 1999
Kilometres: 6.6
Grid reference picket
Scale 1:5000
50 0 50 100 150
metres
Ashton Mining of Canada Inc.
Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 15
Total Field Contours
Non-Linear(2x2),Low Pass(10pt)
Data is stored in
\Geophysics\Rabbit Lake\Ground\RL15



Data is stored in
\Geophysics\Rabbit Lake\Ground\RL28

N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: S. Jardine
Date: March 14, 1999
Kilometres:6.73

Grid reference picket

Scale 1:5000

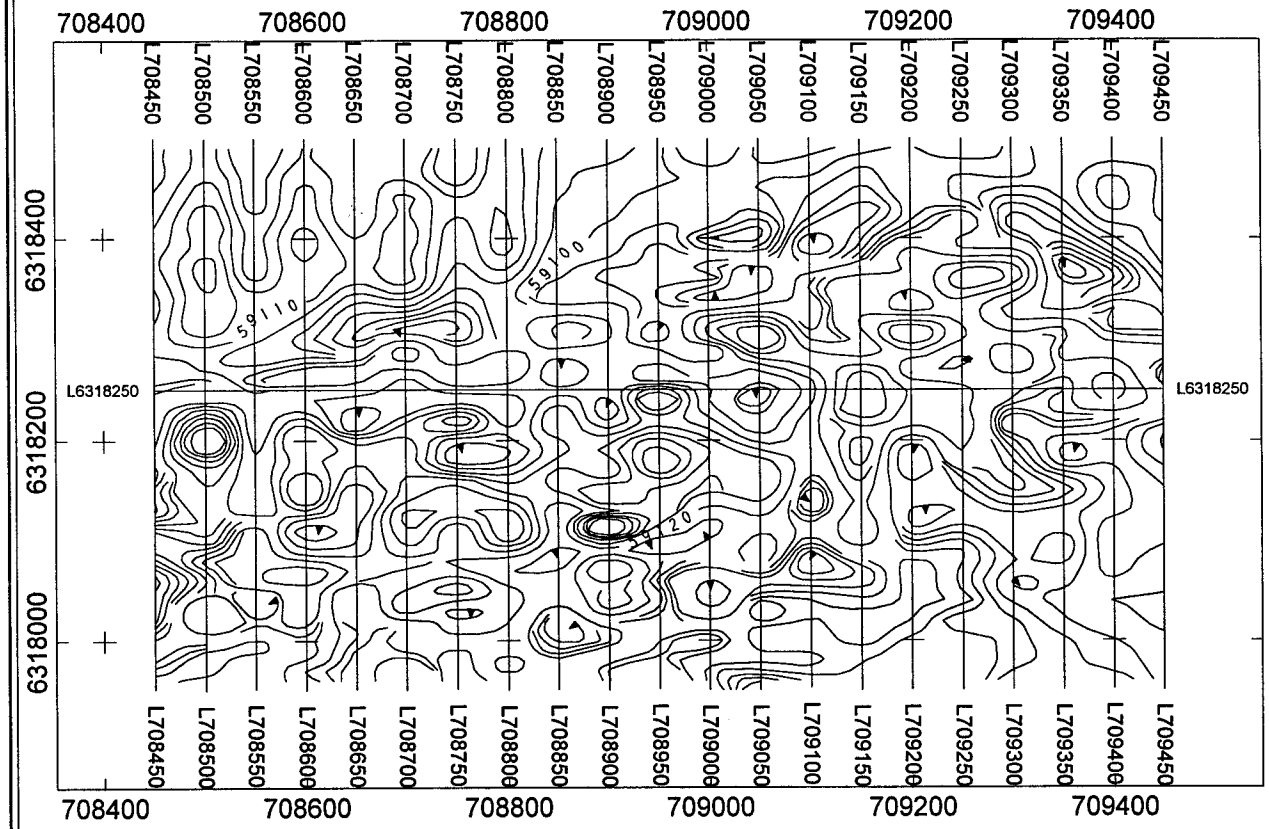
50 0 50 100 150

metres

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 28
Total Field Contours

Non-Linear(2x2),Low Pass(50pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 W (#801792,803800)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: B. Chore, M. Thibodeau
Date: February 3, 1999
Kilometres: 12.5
Lines 708450E to 709000E surveyed with 801792
Lines 709050E to 709500E surveyed with 803800

Scale 1:7500

100 0 100 200

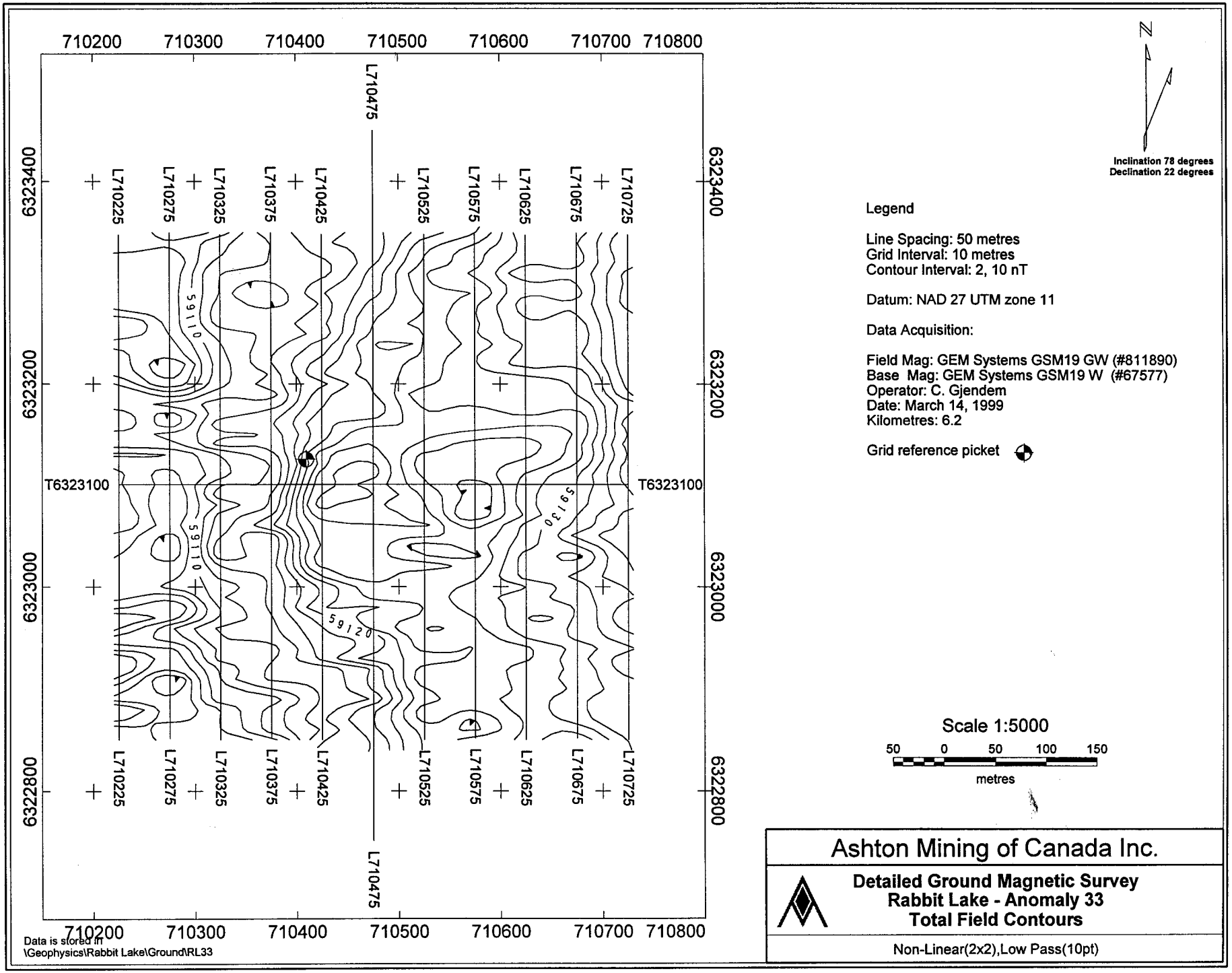
metres

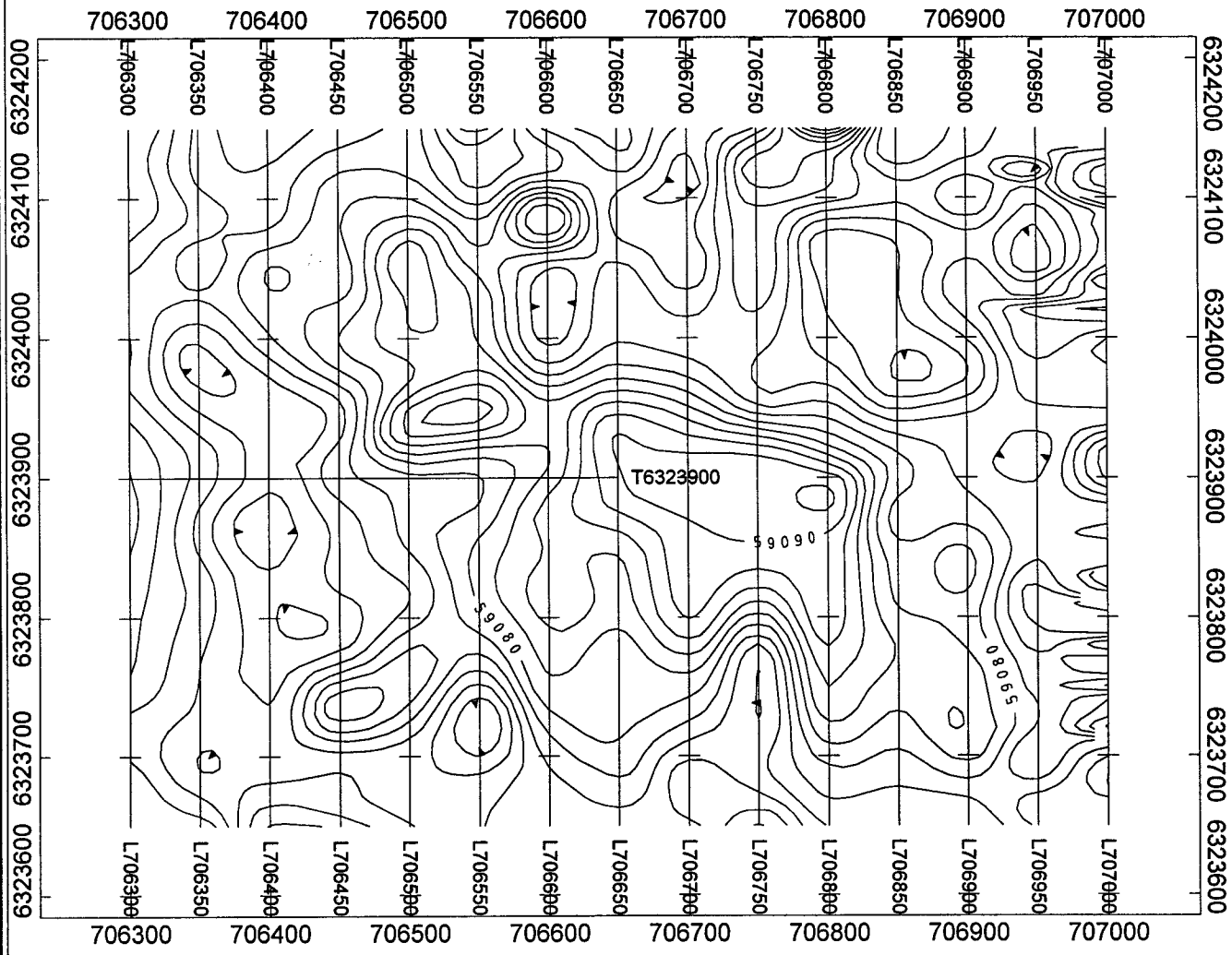
Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 32
Total Field Contours

Non-Linear(2x2),Low Pass(50pt)

Data is stored in
\Geophysics\Rabbit Lake\Ground\Anomaly 32


710200
710300
710400
710500
710600
710700
710800
6323400
6323200
6323000
6322800
L710475
L710225
L710275
L710325
L710375
L710425
L710525
L710575
L710625
L710675
L710725
T6323100
59110
59120
59130
N
Inclination 78 degrees
Declination 22 degrees
Legend
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT
Datum: NAD 27 UTM zone 11
Data Acquisition:
Field Mag: GEM Systems GSM19 GW (#811890)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Gjendem
Date: March 14, 1999
Kilometres: 6.2
Grid reference picket
Scale 1:5000
50 0 50 100 150
metres
Ashton Mining of Canada Inc.
Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 33
Total Field Contours
Non-Linear(2x2),Low Pass(10pt)
Data is stored in
\Geophysics\Rabbit Lake\Ground\RL33



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 W (#803798)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: D. Willis
Date: January 25, 1999
Kilometres: 7.85

Mag problems.
10 meter sample spacing in Mobile mode

Scale 1:5000

50 0 50 100 150

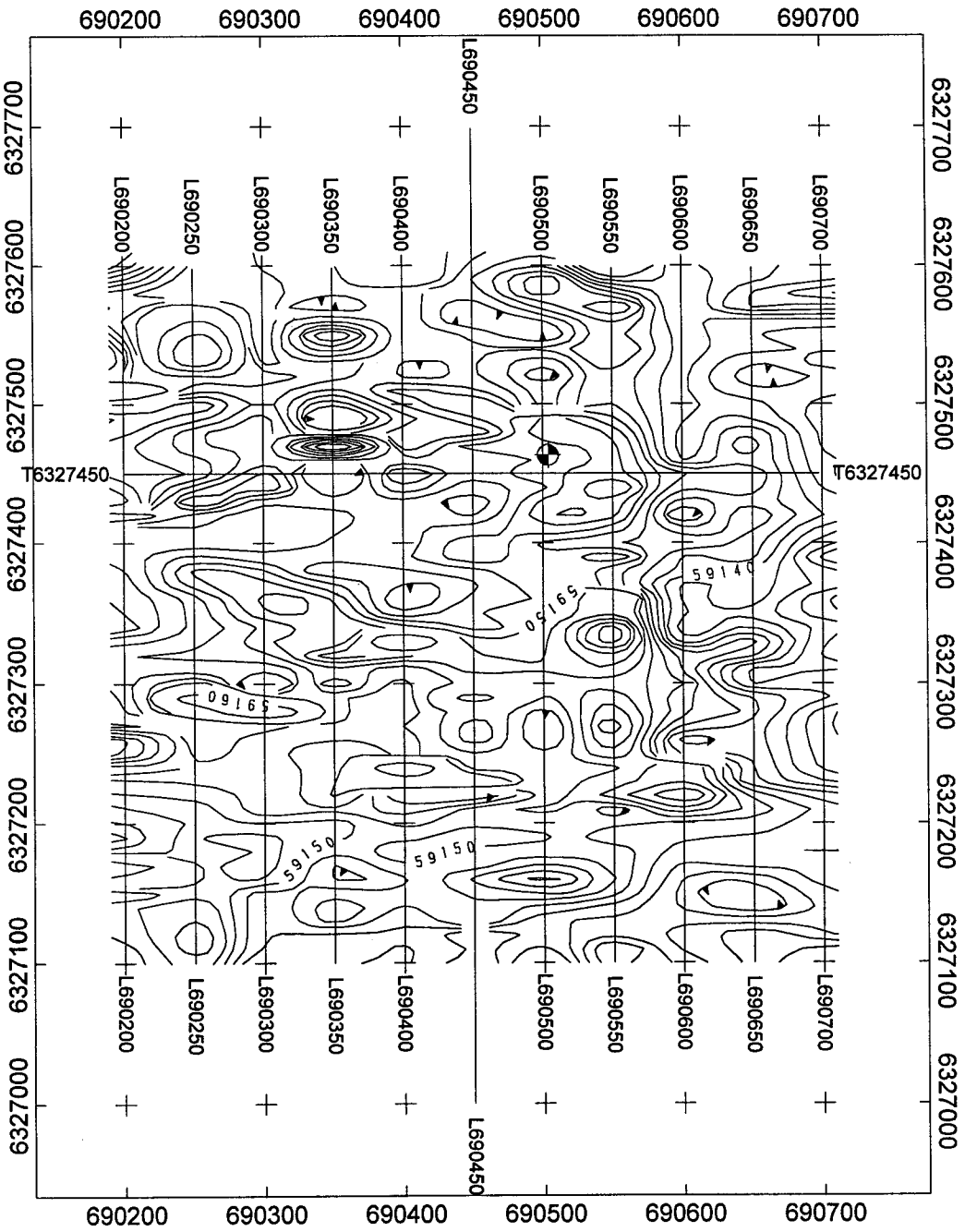
metres

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 34
Total Field Contours

Low Pass(10pt)

Data is stored in
\Geoph-w99\Rabit\RI-34



Data is stored in
\Geophysics\Rabbit Lake\Ground\RL36

N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: March 17, 1999
Kilometres: 6.2

Grid reference picket

Scale 1:5000

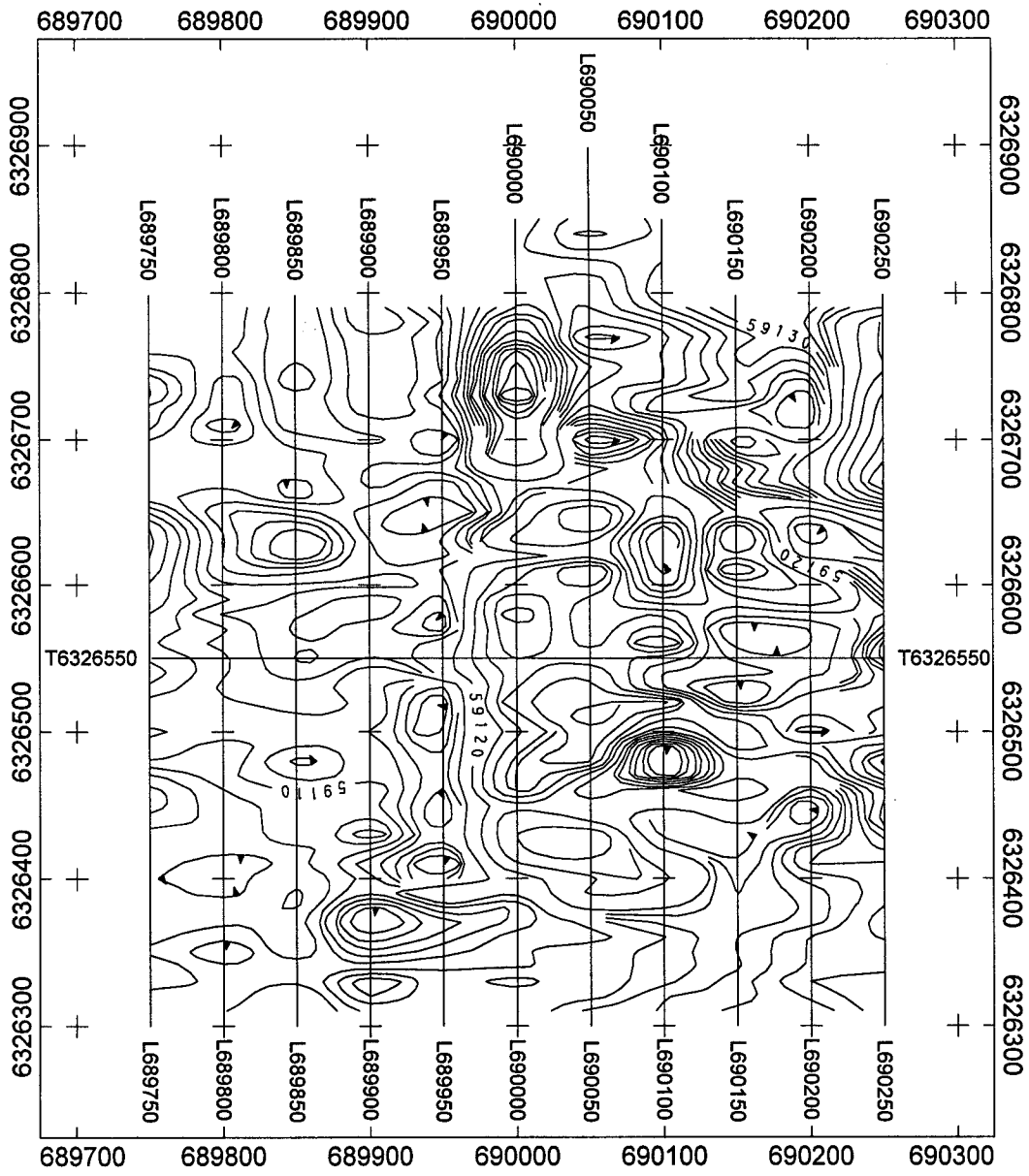
50 0 50 100 150

metres

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 36
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 W (#703800)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: February 12, 1999
Kilometres: 6.2

Data corrected from "field" base mag which was located on RL-10 grid.

Scale 1:5000

50 0 50 100 150

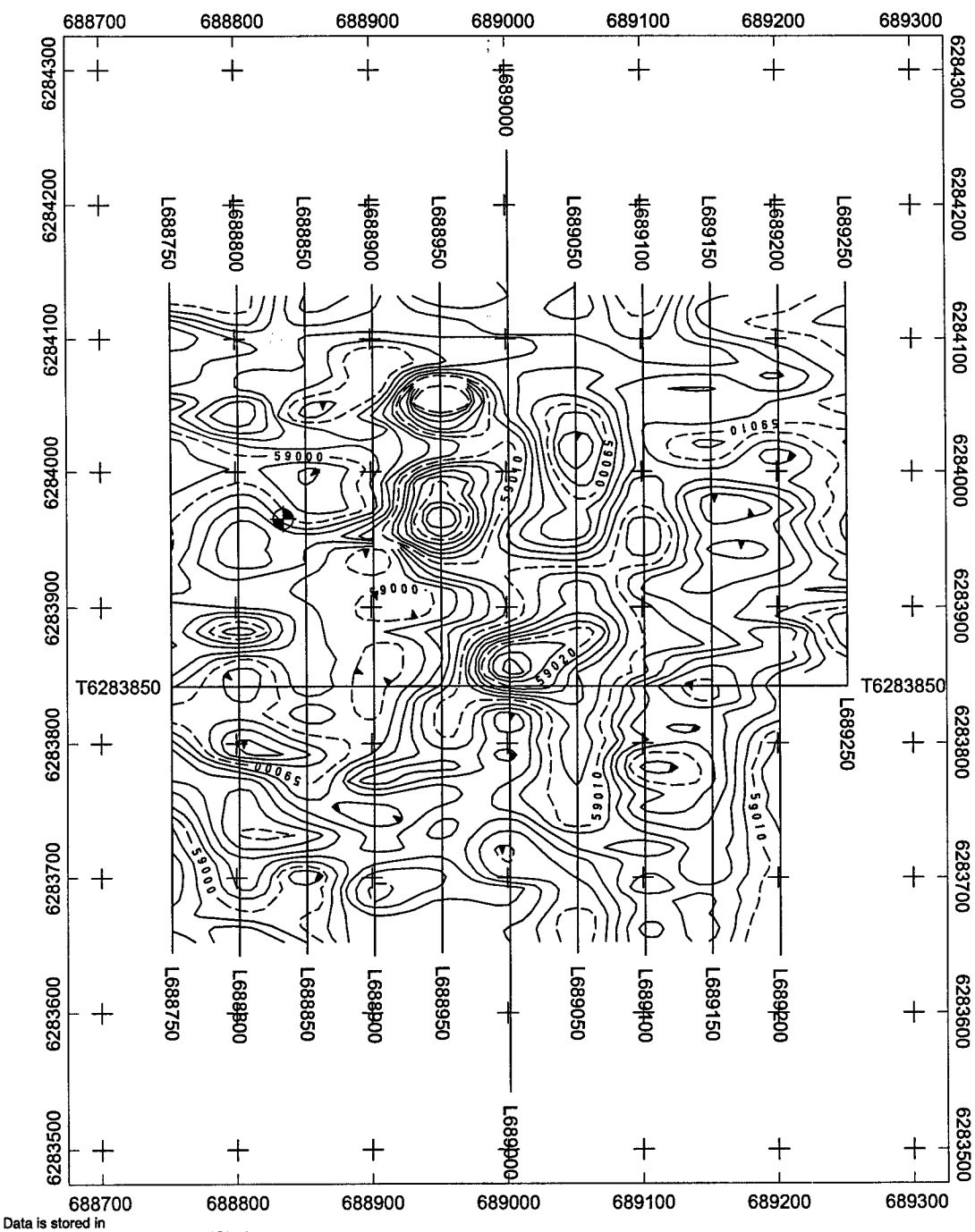
metres

Data is stored in
\Geophysics\Rabbit Lake\Ground\Anomaly 37

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 37
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: July 29, 1999
Kilometres: 6.0

Grid reference picket

Scale 1:5000

50 0.0 50 100 150

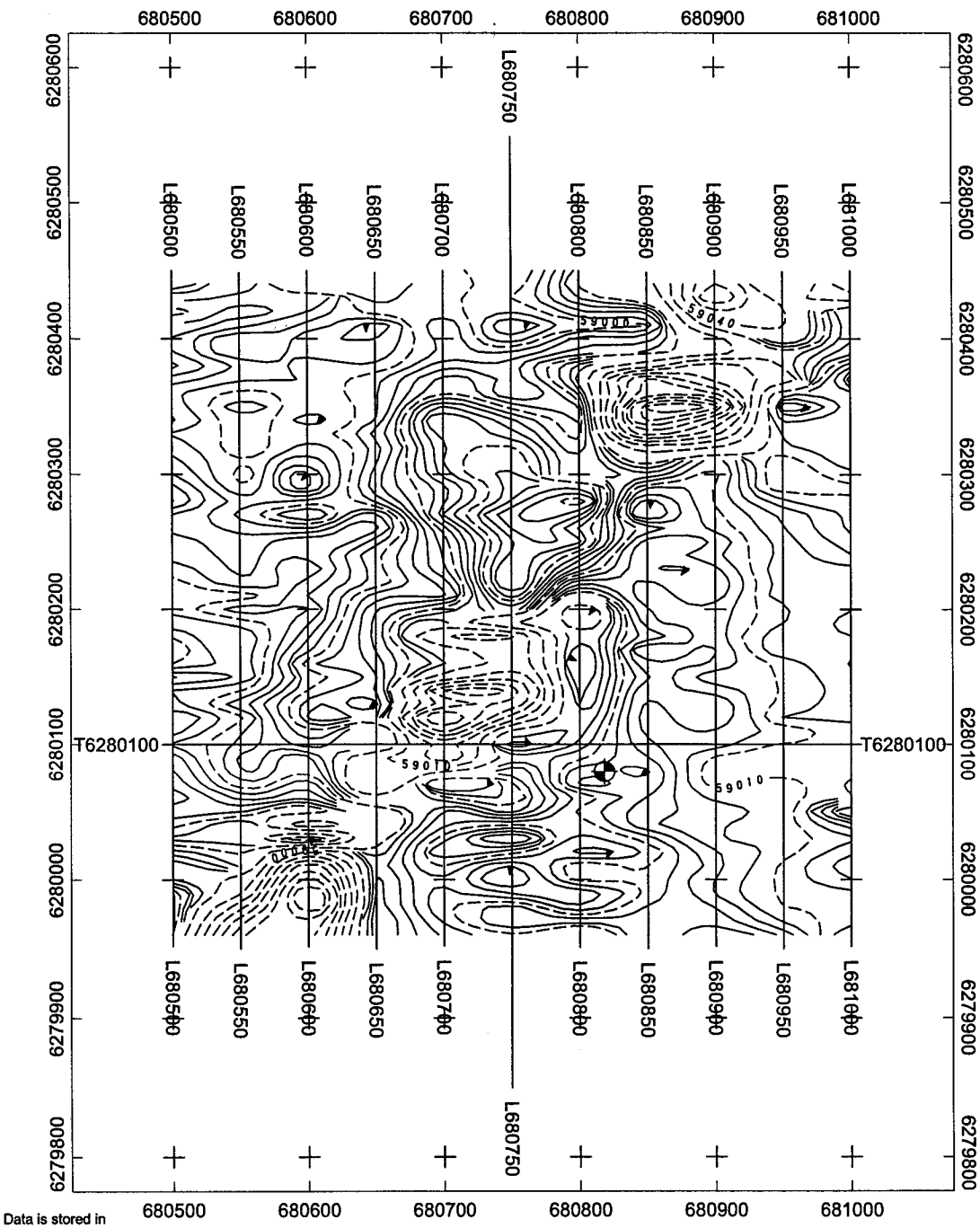
metres

Data is stored in
\Geophysics\Rabbit Lake\Ground\RL51

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 51
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Data is stored in
\Geophysics\Rabbit Lake\Ground\RL53

N

Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: July 28, 1999
Kilometres: 6.2

Grid reference picket

The grid was shifted 22 metres south.
eg. 6280100 N is actually 6280078 N.

Scale 1:5000

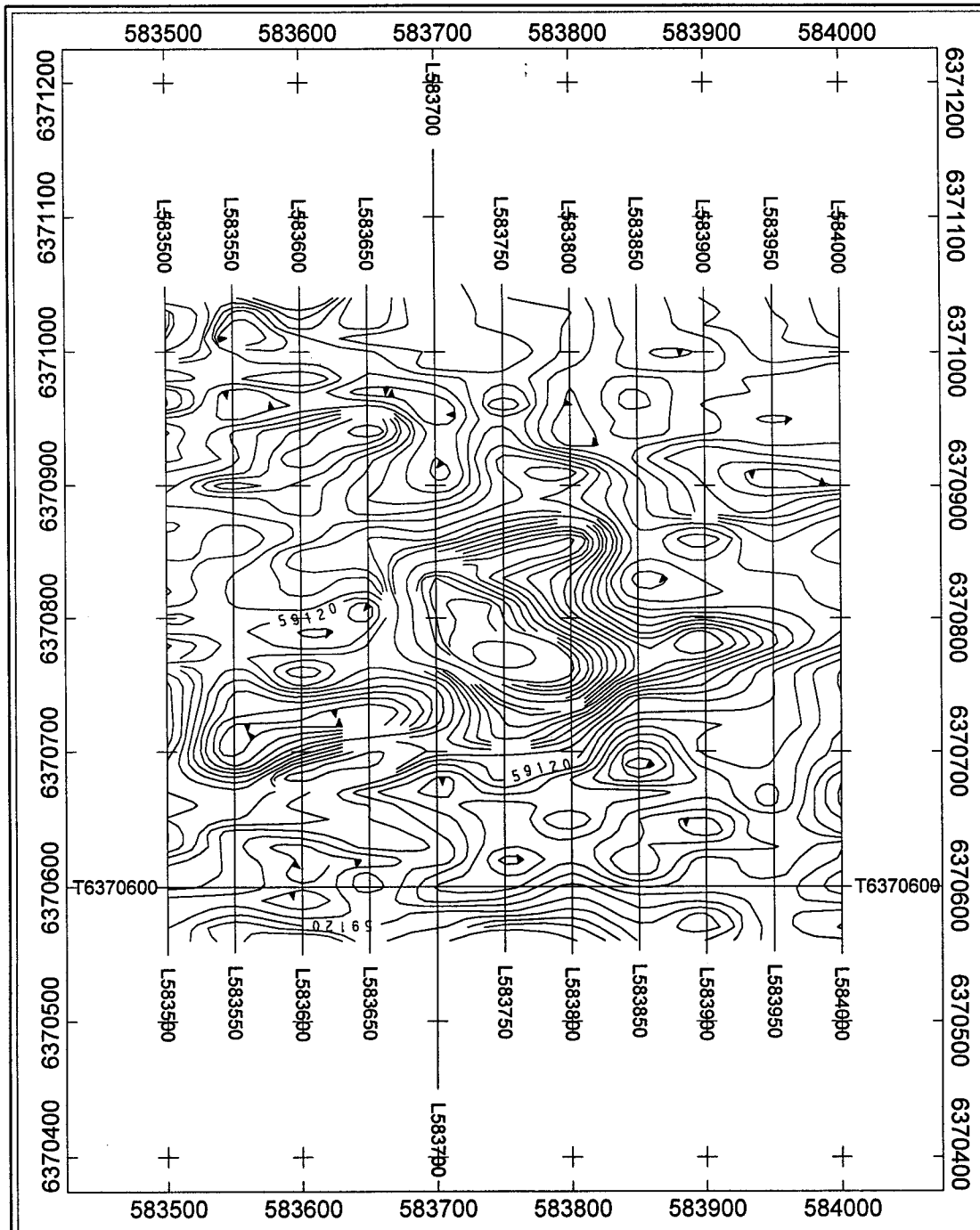
50 0.0 50 100 150

metres

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Rabbit Lake - Anomaly 53
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)



Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 W (#803798)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: S. Jardine
Date: February 13, 1999
Kilometres: 6.2

Scale 1:5000

50 0 50 100 150

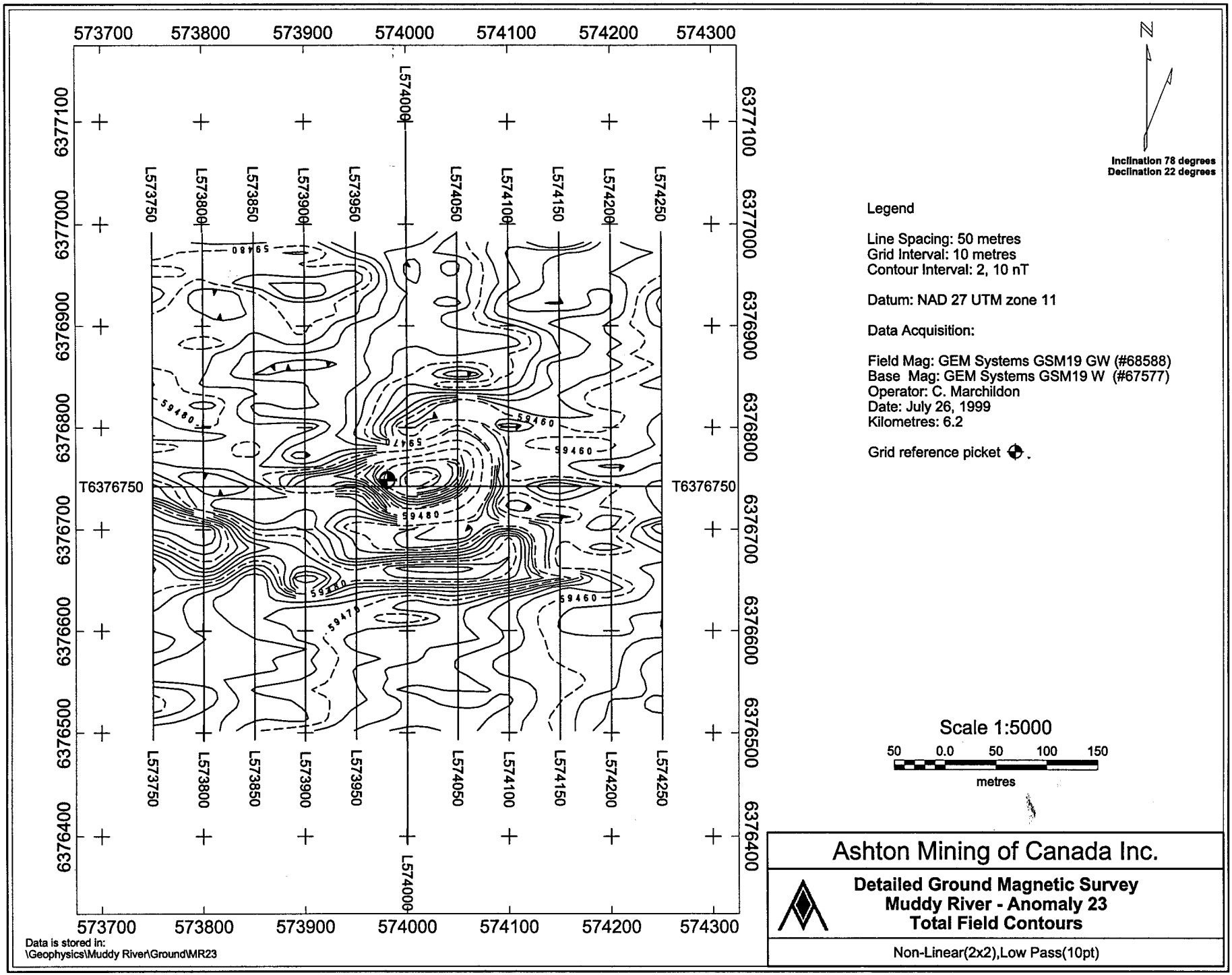
metres

Data is stored in:
\Geophysics\Muddy_River\Ground\MR-12

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Muddy River - Anomaly 12
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)


573700
573800
573900
574000
574100
574200
574300
6377100
6377000
6376900
6376800
6376700
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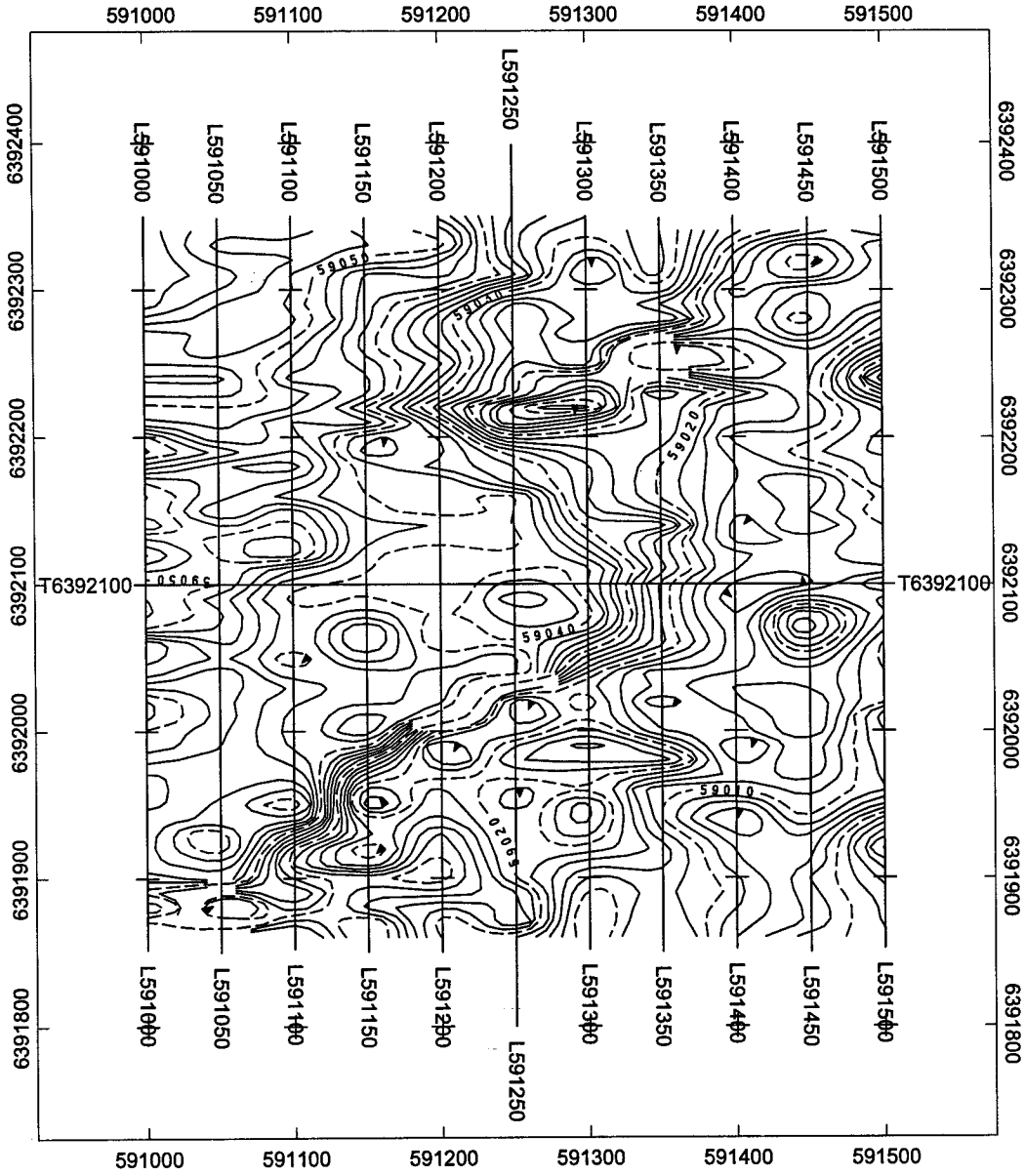
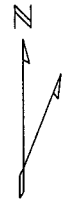
6376500
6376400
L573750
L573800
L573850
L573900
L573950
L574000
L574050
L574100
L574150
L574200
L574250
T6376750
59480
59470
59460
N
Inclination 78 degrees
Declination 22 degrees
Legend
Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT
Datum: NAD 27 UTM zone 11
Data Acquisition:
Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: C. Marchildon
Date: July 26, 1999
Kilometres: 6.2
Grid reference picket
Scale 1:5000
50 0.0 50 100 150
metres
Ashton Mining of Canada Inc.
Detailed Ground Magnetic Survey
Muddy River - Anomaly 23
Total Field Contours
Non-Linear(2x2),Low Pass(10pt)
Data is stored in:
\Geophysics\Muddy River\Ground\MR23





Inclination 78 degrees
Declination 22 degrees

Legend

Line Spacing: 50 metres
Grid Interval: 10 metres
Contour Interval: 2, 10 nT

Datum: NAD 27 UTM zone 11

Data Acquisition:

Field Mag: GEM Systems GSM19 GW (#68588)
Base Mag: GEM Systems GSM19 W (#67577)
Operator: W. Kahlert
Date: August 2, 1999
Kilometres: 6.1

Grid reference picket ⊕.

The location of the grid reference picket 590707 E 6391977 N which is 293 metres off the west edge of the grid.

Scale 1:5000

50 0.0 50 100 150

metres

Data is stored in:
\Geophysics\Muddy River\Ground\MR27

Ashton Mining of Canada Inc.

Detailed Ground Magnetic Survey
Muddy River - Anomaly 27
Total Field Contours

Non-Linear(2x2),Low Pass(10pt)

March 31, 1999

OUR FILE: KI98-4933-01

Ashton Mining of Canada Inc.
Unit 123-930 West 1st Street
North Vancouver, B.C.
V7P 3N4

Attention: Dave Skelton

Dear Mr. Skelton:

Re: February, 1999, Geophysical Logging Program

We are pleased to provide a formal letter to follow up the delivery of preliminary logs.

Background

Seven boreholes intersecting seven different kimblerlite targets were geophysically logged in the area northeast of Red Earth Creek, Alberta. The requested borehole logs included natural gamma, formation conductivity (or its inverse, resitivity), magnetic susceptibility, and vector magnetics. Temperature logs were also run. All logs were run in 2-inch PVC pipe. Field work was completed from February 23 to 26. All boreholes were reported to be vertically drilled. The total depths (TD) of the holes were not provided by the client, but it is believed that at least several of the logging runs were not able to reach TD due to hole conditions (e.g. hole collapse, blocked PVC, lost pipe, etc.). The logged holes included LL49-01, LL7-01, LL42-01, LL44-01, LL100-01, LL21-01 and MR07-01.

A borehole geophysical program can have a number of applications to a kimberlite exploration program. The natural gamma, magnetic susceptibility, and conductivity information can be used to model the effectiveness of potential airborne or ground geophysical exploration programs, or to model existing data sets. All of the collected data sets, including temperature, can be used to identify kimberlitic material that may have been overlooked in the drilling program. This is especially common where softer, weathered material overlies more competent igneous rock. The vector magnetic data can identify the existence of kimberlitic bodies existing off the borehole. Over zones where no magnetic anomalies are detected, the triaxial magnetometer can provide borehole orientation information. And of course, the geophysical logs can provide lithological information as well as precisely identify lithological contacts.

No information regarding the precise borehole location, cuttings, core descriptions, or core derived physical properties measurements were provided. This information can be valuable in interpreting the various geophysical logs. For instance, borehole location is important in removing the background effects of the earth's magnetic field from the vector magnetic data. Nevertheless, a brief interpretation of the logs is provided which highlights a number of potentially significant physical properties observations.

Logging Tool Suite

The logging suite was limited by the fact that all logs were run in 2-inch PVC casing. Magnetic susceptibility, conductivity (resistivity), and natural gamma tools were run on a 1,000 m, monocable Mount Sopris winch. The three component magnetometer and temperature tools were run on a 300 meter IFG winch. Measurements were taken every centimeter in the borehole.

MAGNETIC SUSCEPTIBILITY

The EM39S is a new, two coil magnetic susceptibility tool specifically designed to measure magnetic susceptibilities over a large dynamic range, including at very low values commonly associated with till and sedimentary rock. The vertical resolution of the EM39S is approximately the intercoil spacing, or 50 cm. Although the thickness of features smaller than 50 cm cannot be precisely resolved, they can still be "seen" if they are of significant susceptibility contrast. The instrument response is generally independent of the borehole diameter. 90% of the instrument response is from earth materials within a radius of 30 cm from the borehole axis. The response of materials from 5 to 25 cm from the borehole axis is roughly uniform. The operating frequencey is 39.2 kHz. Data are recored as 10^{-3} SI units. The instrument is described in detail by McNeill et. al. (1996).

CONDUCTIVITY (RESISTIVITY)

The EM39 electromagnetic conductivity tool is described in detail by McNeill (1986). It is very similar in design to the EM39S magnetic susceptibility probe. The intercoil spacing is 50 cm, providing a vertical resolution of approximately 50 cm. Borehole effects are negligible. Formation or annular material within a radius of 18 cm from the probe contributes very little to the measured conductivity. The peak response occurs 32 cm from the borehole. The operating frequency is 39.2 kHz. Data are output as apparent conductivity in millisiemens/meter (mS/m). To convert conductivity readings in mS/m to resistivity readings in ohm-m, one divides the conductivity values into 1000. For instance, 20 mS/m is equivalent to 50 ohm-m.

NATURAL GAMMA

The natural gamma probe counts naturally emitted gamma rays of all energy levels using a scintillation counter. The detector is a thallium activated sodium iodide crystal 2.22 cm in diameter and 7.62 cm in length. The probe counts radiation from material in a sphere of a radius of approximately 20 cm. Data are recorded as raw counts per second (cps). The influence of earth materials falls off with the square root of distance from the detector.

VECTOR MAGNETICS

The borehole vector magnetometer uses a 2-axis tiltmeter and a 3-component fluxgate magnetometer to measure the full vector orientation of the earth's magnetic field in a borehole. Where the rock intersected by, or in the vicinity of the borehole is not magnetic, the tool is used to measure the orientation of the borehole. Where an "onbody" borehole intersects strongly magnetic rocks, the tool can identify the top and bottom surfaces of the magnetic body; though, in this application, it is redundant with the magnetic susceptibility probe. However, where an "offbody" borehole passes close to, but does not intersect a magnetic body, the borehole magnetometer uniquely can identify the existence of such a body. By removing the background magnetic field, and plotting the residual vector response (Appendix I), the quadrant location of an offhole magnetic body can be identified. In certain cases, modeling of the vector response may provide an approximate geometry of, and direction to "offhole" magnetic bodies. This survey used the IFG BMP-04.

TEMPERATURE

A high resolution temperature probe is incorporated into the IFG BMP-04, and is thus run simultaneously with the borehole vector magnetometer. The temperature probe has an accuracy of plus or minus 1° C, and a precision of plus or minus 0.001° C. The temperature tool may identify lithological contacts and different rock units. For instance, shale and kimberlite may have different thermal conductivities. Competent kimberlite may also be indicated by temperature anomalies within the rock body caused by water flow through open fractures. The temperature log is usually recorded running into the hole as the first measurement in a suite of tools. In this manner, very small variations in borehole fluid, and consequently formation temperature, can be measured.

Results

The results are described in the accompanying log plots in figures 1 through 9. The logs for LL49-01, LL21-01, LL7-01 and MR07-01 are presented on a 1:500 vertical scale. The logs for LL42-01, LL44-01, and LL100-01 are presented on a 1:100 vertical scale. A boxcar filter has been applied to the natural gamma data in order to mute statistical fluctuations. Magnetic susceptibility is plotted as 10^{-3} SI units.

A few points are particularly worth mentioning, though it must be remembered that the following interpretations are done without any background information from Ashton. The log traces from LL49-01 (Figure 1) show no indication of kimberlite to a depth of at least 76 m below ground level (mbgl). At 76 mbgl a significant temperature anomaly is observed. At 77 mbgl the total magnetic field begins to rise significantly. At 78 mbgl the formation conductivity begins to drop (formation resistivity increases). The above are all suggestive of kimberlite, though there is no change in magnetic susceptibility, and natural gamma counts drop. The logged interval is of insufficient length to be provide a conclusive interpretation without supporting information. Total depth (TD) of the hole was 81 mbgl.

The logs from LL7-01 suggest kimberlite may have been intersected from 106 mbgl to TD at 148 mbgl. Over this interval, a negative total field anomaly, generally low formation conductivities (high formation resistivities), elevated gamma counts, and an increased temperature gradient are observed. Elevated magnetic susceptibilities are observed from 141 mbgl to TD. Formation conductivities are elevated from 138 to 148 mbgl. The rose diagram and vector plots of borehole LL7-01 (Appendix I) suggest that the bulk of the magnetic body is located west-northwest of the borehole.

The logs from borehole LL42-01 show no indication of a kimberlite body intersected by, or in the vicinity of the borehole. TD was at 16.5 mbgl.

The logs from borehole LL44-01 show no indication of a kimberlite body intersected by, or in the vicinity of the borehole. TD was at 12 mbgl.

The logs from borehole LL100-01 show no indication of a kimberlite body intersected by, or in the vicinity of the borehole. TD was at 8.5 mbgl. The anomalous total field, magnetic susceptibility, and conductivity responses betwwen 6 and 8 mbgl are probably due to metal pipe.

Conclusions

1. Magnetic susceptibility, conductivity (resistivity), natural gamma, vector magnetics, and temperature data were geophysically logged in boreholes LL21-01, LL49-01, LL7-01, LL42-01, LL44-01, LL100-01 and MR07-01.
2. Kimberlite may have been intersected in the bottom few meters of LL49-01 and in LL7-0101 over the interval from 106 to 148 mbgl. Kimberlite may have been intersected in boreholes; LL21-01 and MR07-01. The vector magnetic data indicate that the bulk of the magnetic body in the vicinity of LL7-01 is located west-northwest of the borehole. All interpretations were done without any knowledge of the local site geology, core descriptions, cuttings descriptions, or other background information regarding the site.

Respectfully,

KOMEX INTERNATIONAL LTD.

Russ Pagulayan, B.Sc.E.

Paul Bauman, M.Sc., P.Eng.

References

McNeill, J.D. 1986. Borehole Conductivity Meter Theory of Operation. Technical Note TN-6. Geonics Limited, Mississauga, Ontario, Canada.

McNeill, J.D., Hunter, J.A., Bosnar, M. 1996. Applications of a borehole induction magnetic susceptibility logger to shallow lithological mapping: Journal of Environmental and Engineering Geophysics, v. 0, no. 2 (January 1996), pp. 77-90.

Well Name: LL4401
File Name: J:\4933\493301\GEOFIZX\LL4401\LL4401C.HDR
Location: Red Earth Creek
Elevation: 0 Reference: Ground Surface

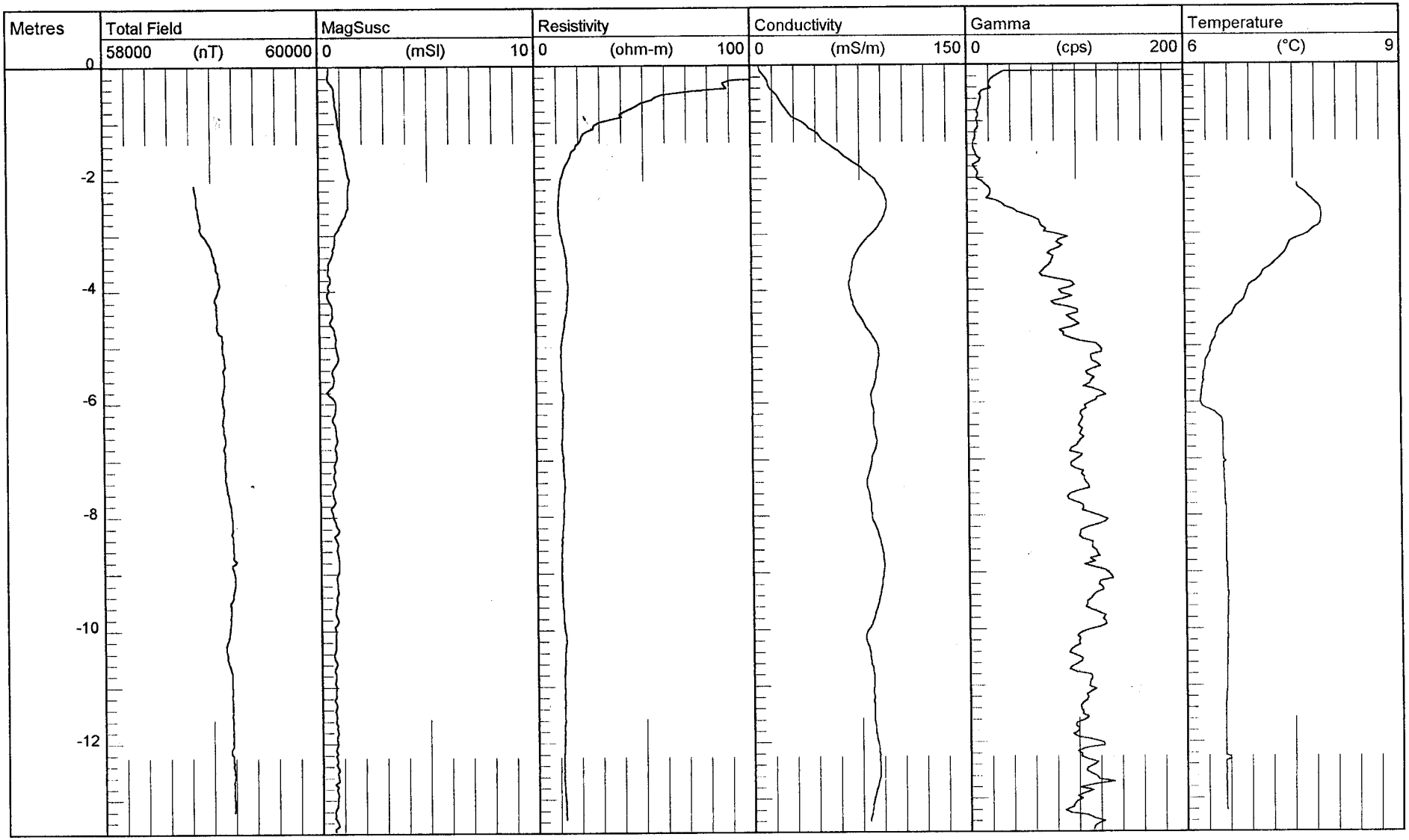


Figure 6

Well Name: LL100
File Name: J:\4933\493301\GEOFIZX\LL100\LL100C.HDR
Location: Red Earth Creek
Elevation: 0 Reference: Ground Surface

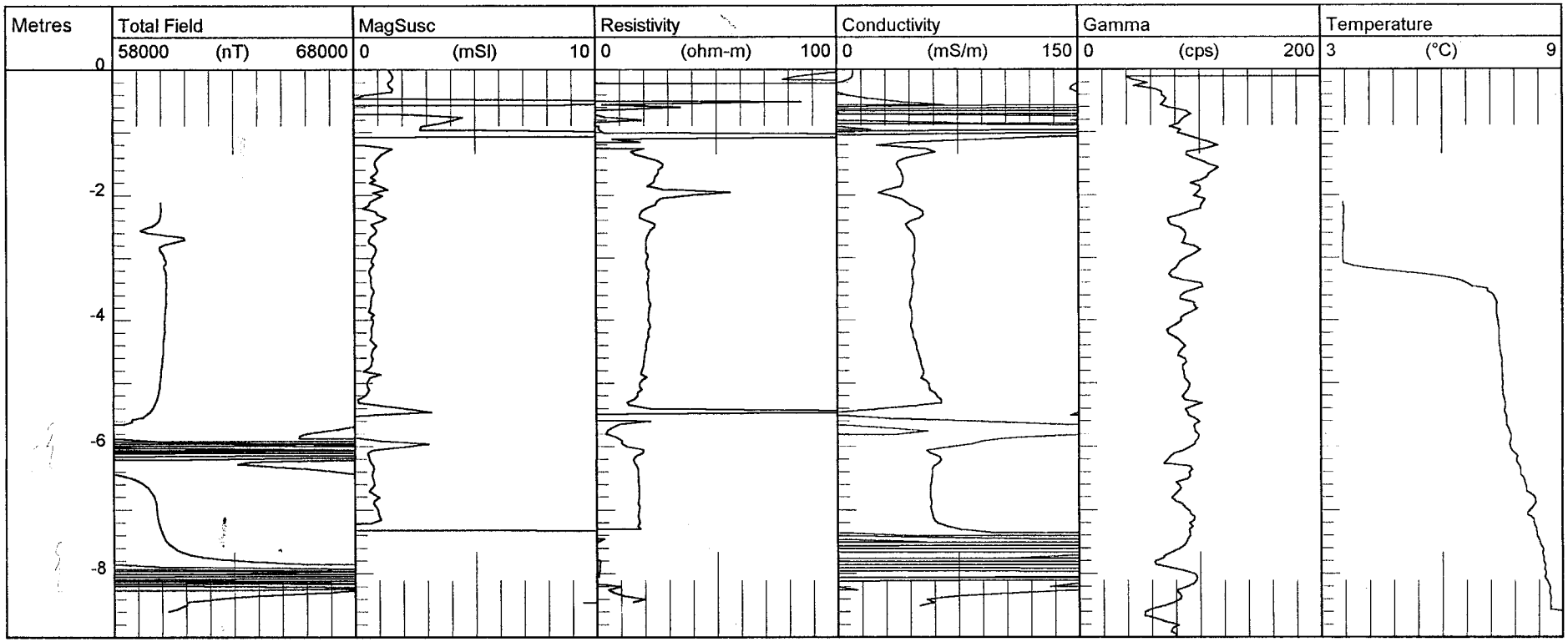
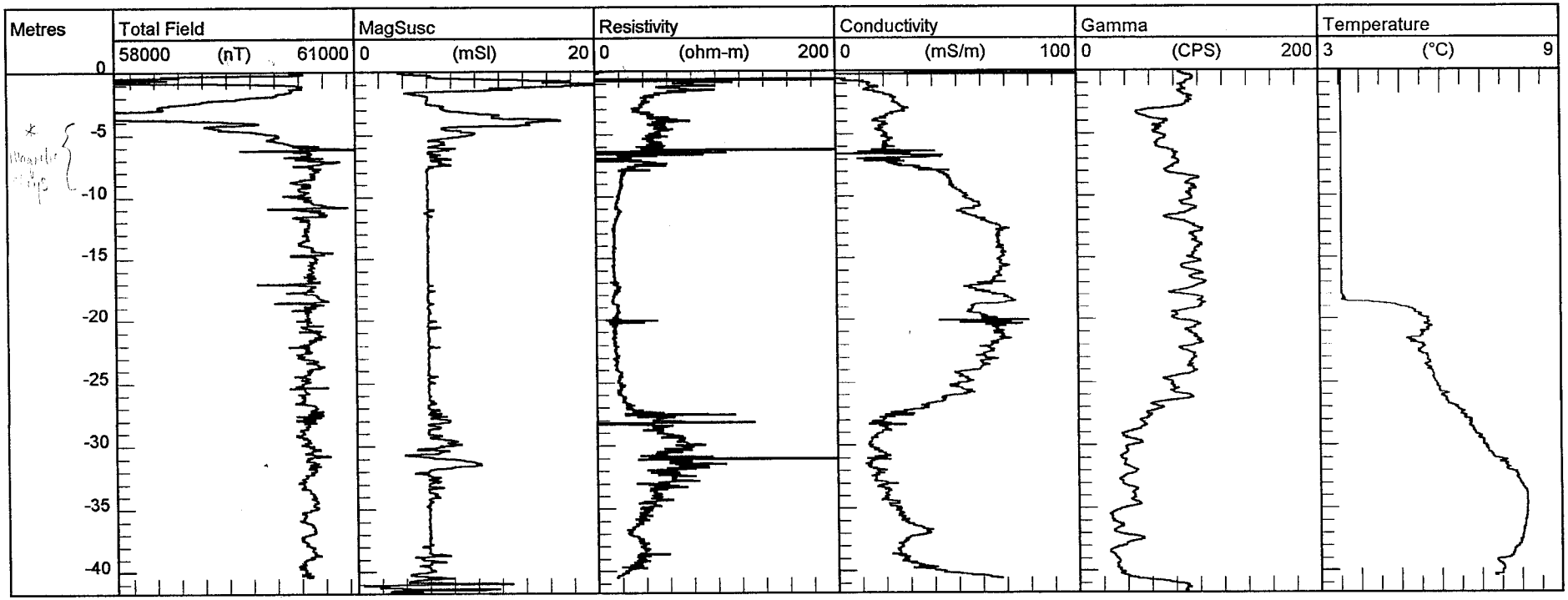


Figure 7

Well Name: MR07
File Name: J:\4933\493302\GEOFIZX2\GEOFIZX\MR7\Mr07.HDR
Location: Red Earth Creek
Elevation: 0 Reference: Ground Surface

Figure (14)



Well Name: LL49
File Name: J:\4933\493301\GEOFIZX\LL49\LI49.HDR
Location: Red Earth Creek
Elevation: 0 Reference: Ground Surface

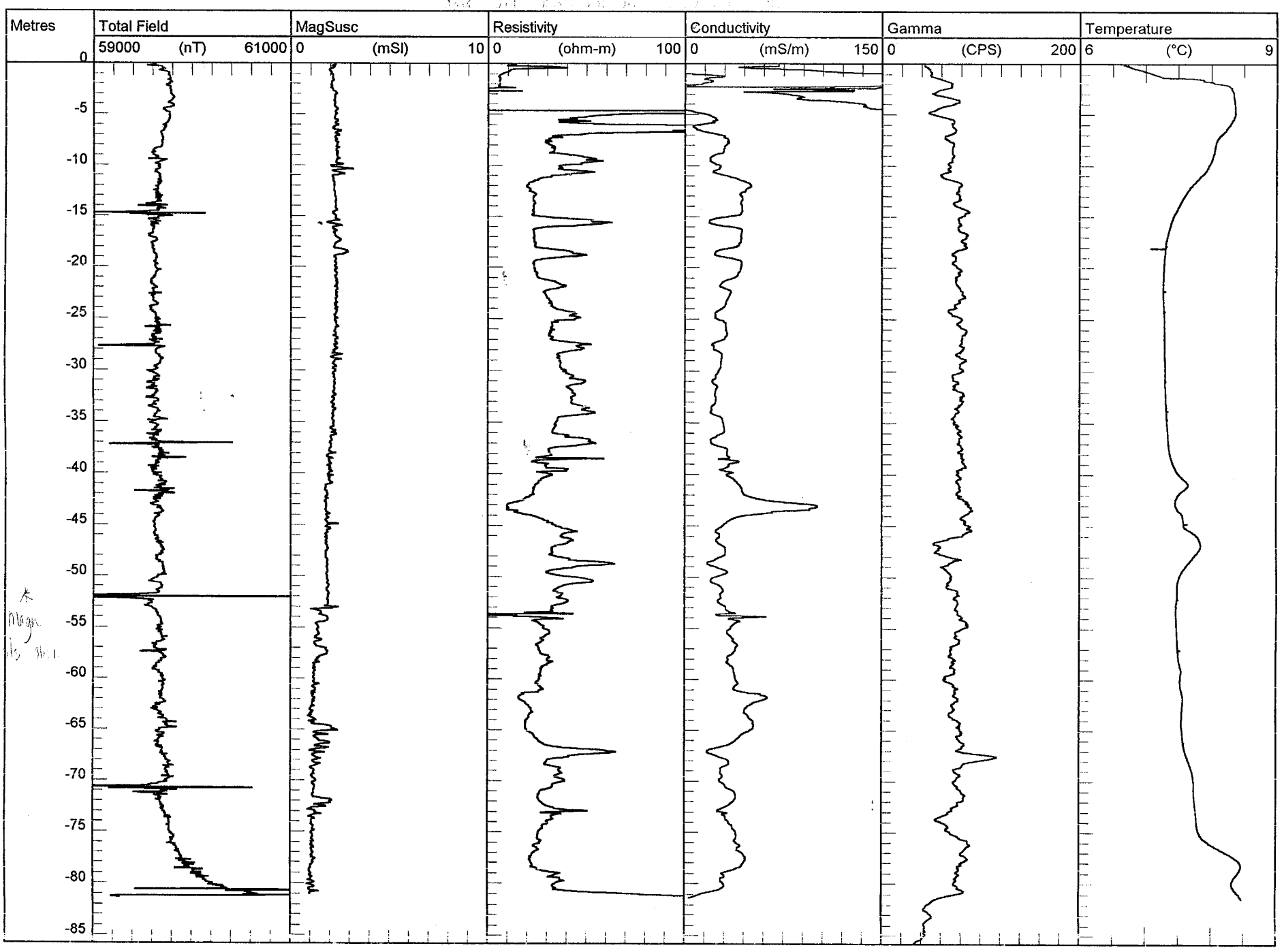


Figure 1

Well Name: LL701
File Name: J:\4933\493301\GEOFIZX\LL701\LI7.HDR
Location: Red Earth Creek
Elevation: 0 Reference: Ground Surface

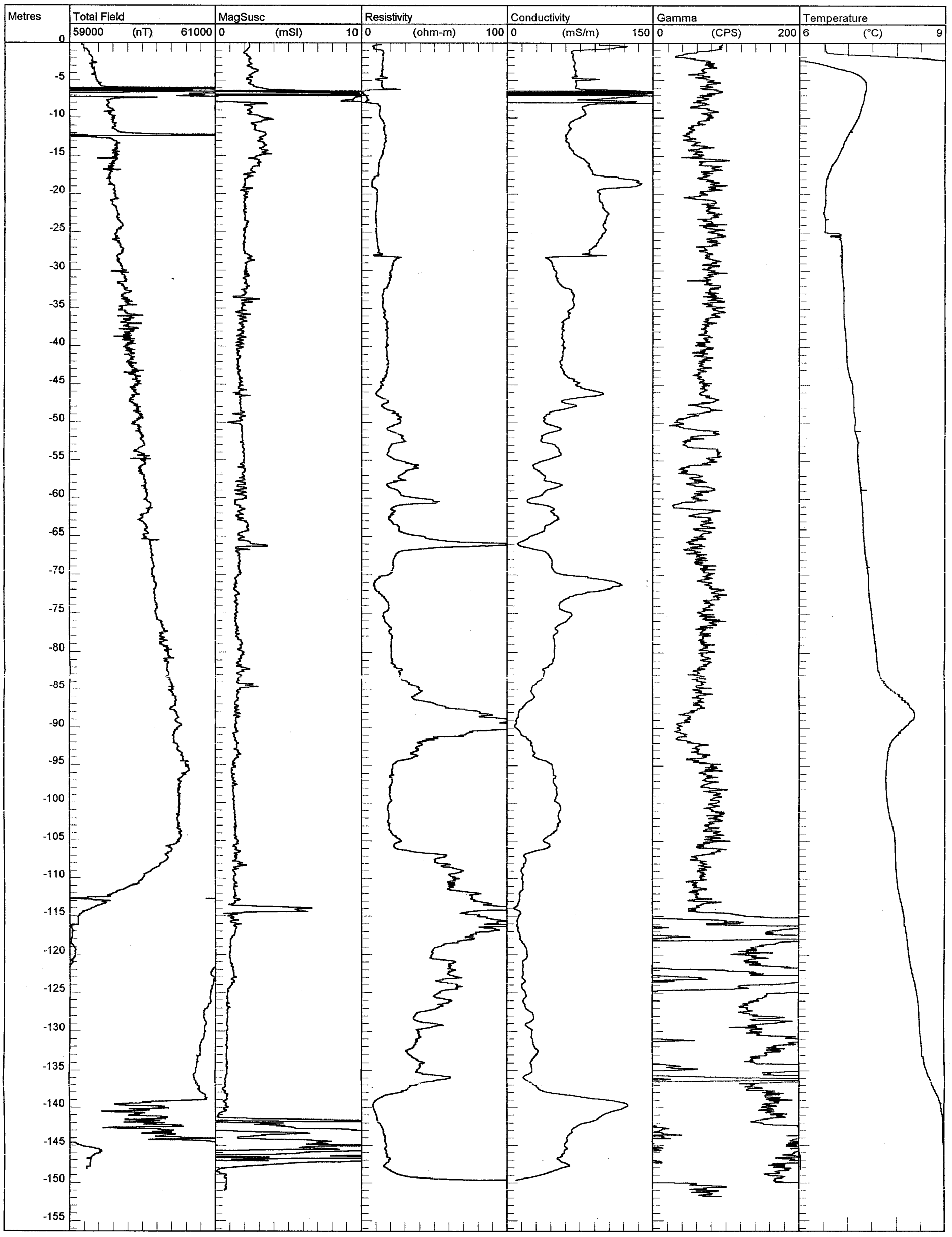


Figure 2

Well Name: LL701
File Name: J:\4933\493301\GEOFIZX\LL701\LI7_2.HDR
Location: Red Earth Creek
Elevation: 0 Reference: Ground Surface

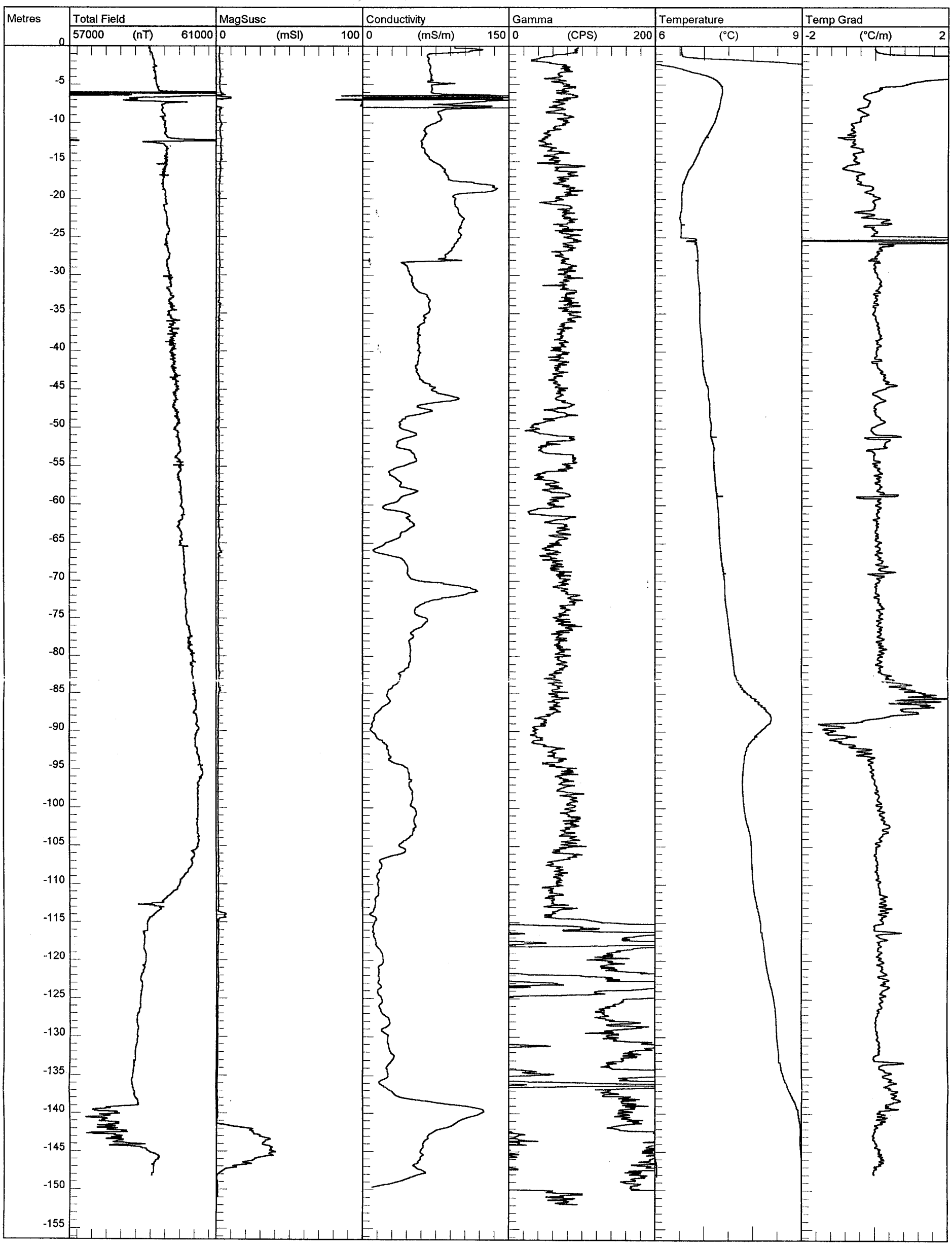


Figure 3

Well Name: LL42
File Name: J:\4933\493301\GEOFIZX\LL42\LL42.HDR
Location: Red Earth Creek
Elevation: 0 Reference: Ground Surface

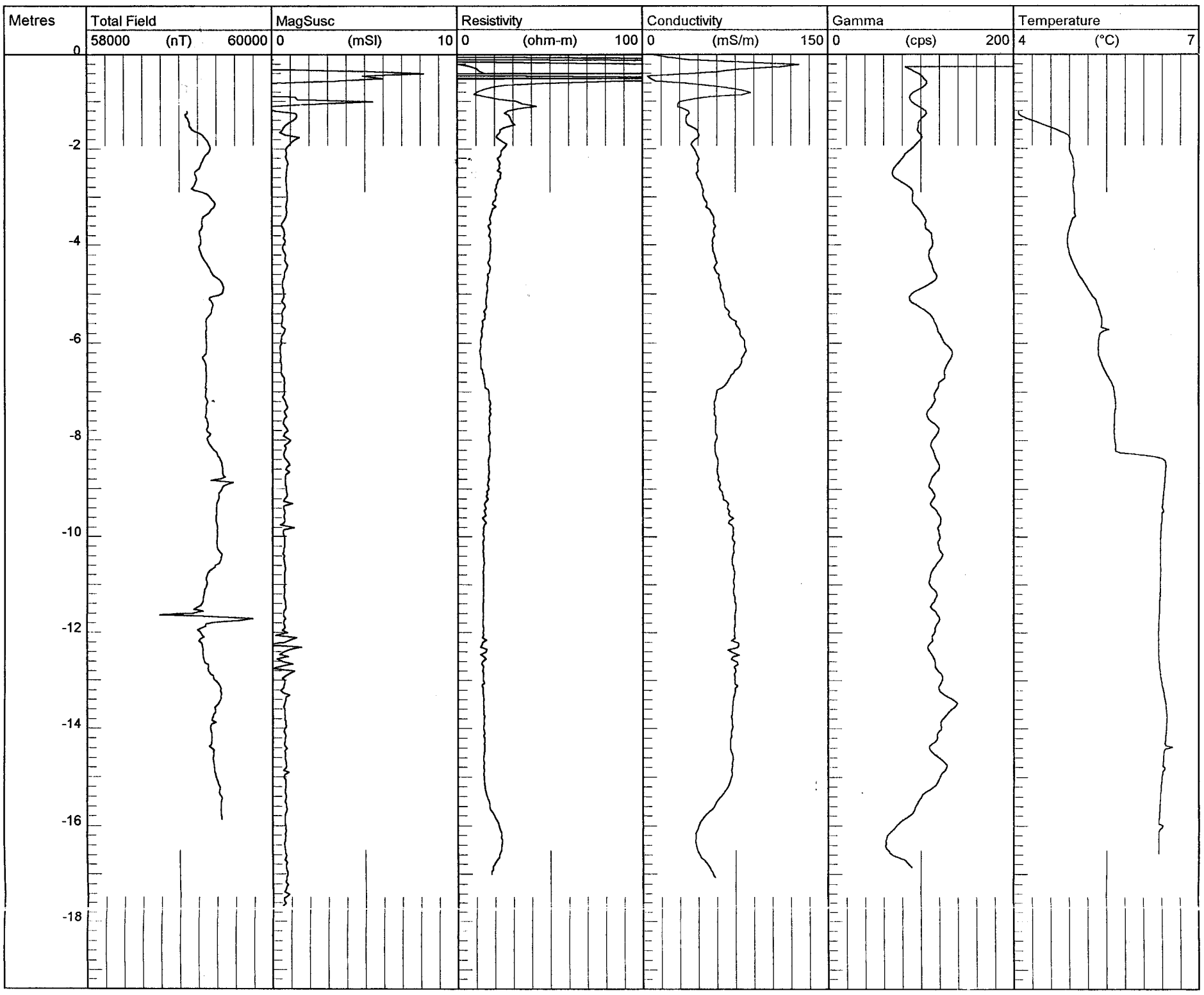
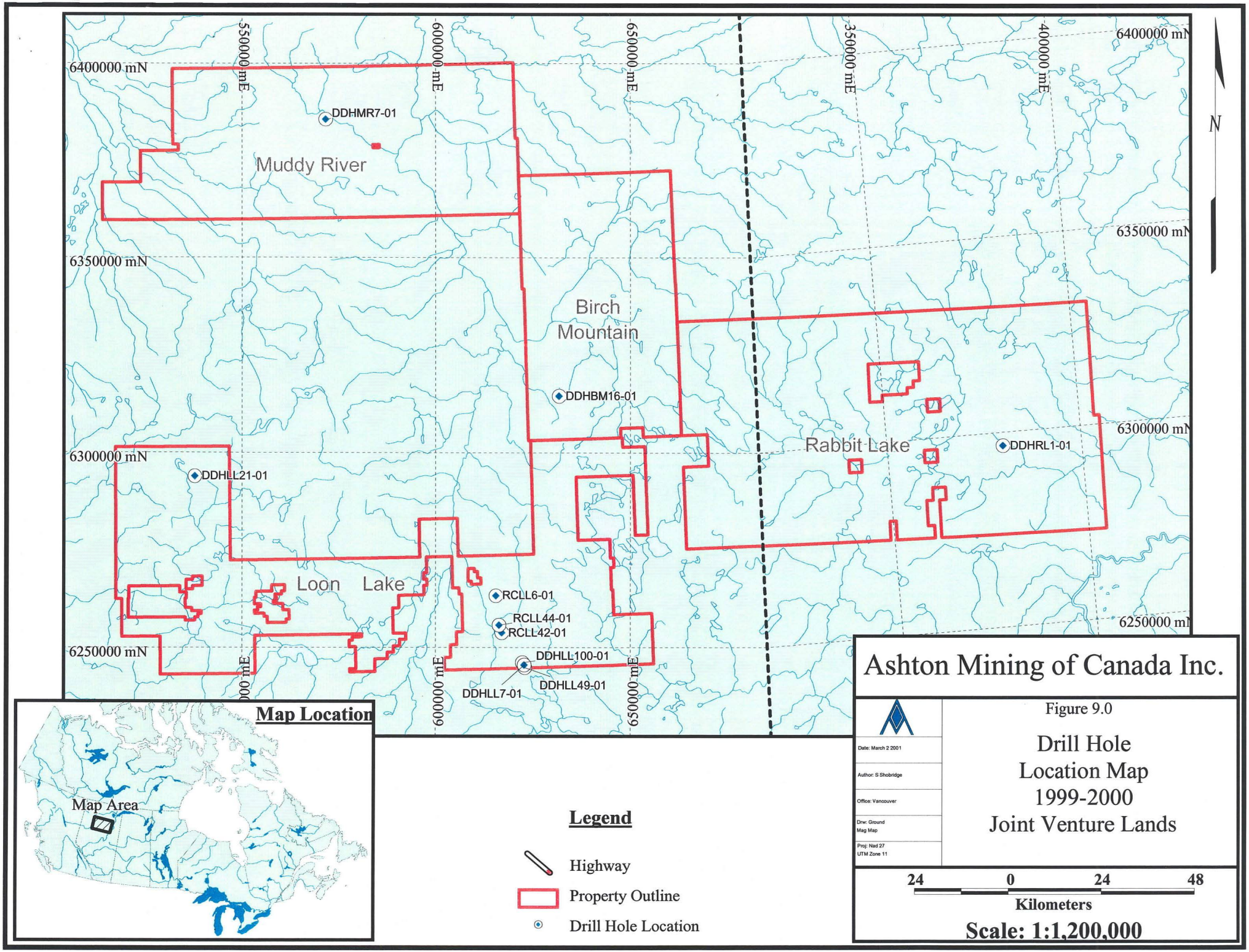


Figure 5

APPENDIX C

Drilling

- Drill Hole Location Map
- Drill Hole Logs
- Komex Down-hole Geophysics Reports
- Komex Down-hole Geophysical Plots


550000 mE
600000 mE
650000 mE
350000 mE
400000 mE
6400000 mN
6350000 mN
6300000 mN
6250000 mN
N
DDHMR7-01
Muddy River
Birch
Mountain
DDHBM16-01
Rabbit Lake
DDHRL1-01
DDHLL21-01
Loon Lake
RCLL6-01
RCLL44-01
RCLL42-01
DDHLL100-01
DDHLL7-01
DDHLL49-01
Map Location
Map Area
Legend
Highway
Property Outline
Drill Hole Location
Ashton Mining of Canada Inc.
Figure 9.0
Drill Hole
Location Map
1999-2000
Joint Venture Lands
Date: March 2 2001
Author: S Shobridge
Office: Vancouver
Drw: Ground
Mag Map
Proj: Nad 27
UTM Zone 11
24 0 24 48
Kilometers
Scale: 1:1,200,000

Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log RCLL6-01

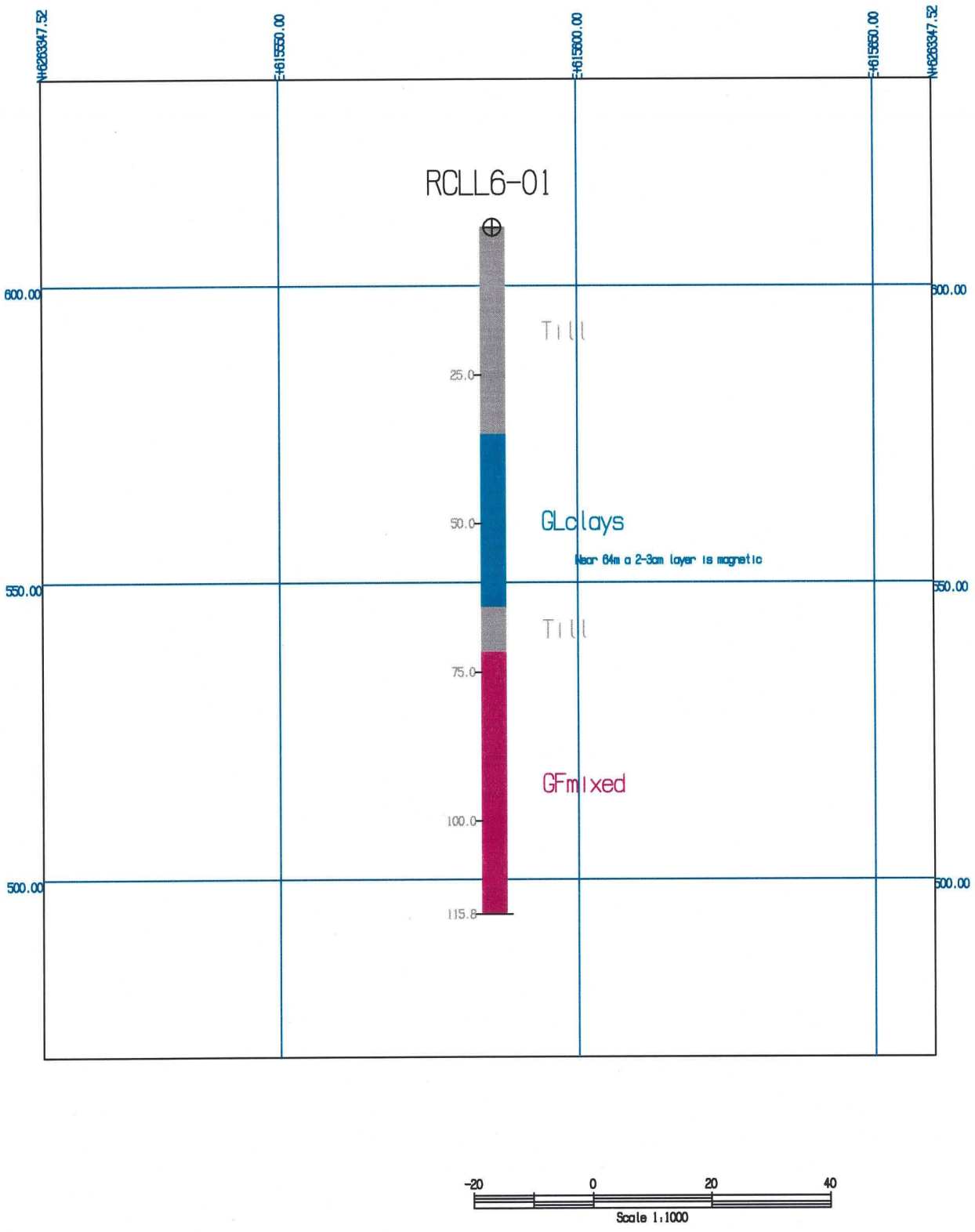
HOLE-ID	**RCLL6-01**	*Start Date*	17-Feb-99	*Wk Permit*	MME-980678
Anomaly	LL006	*End Date*	18-Feb-99	*District*	EAST PEACE
Province	ALBERTA	*Contractor*	Midnight Sun	*Legal Desc.*	N 36 86 8 5
Property	LOON LAKE	*JV*	ACA/AEC/PUG	*MIM Permit*	9397010026
Easting	615585.85	*Geologist*	D. Smith, AOC, CH,		
Northing	6263347.52	*Core Size*	5 1/2"	*Date*	17-Feb-99
Elevation	609.86	*Length (m)*	115.8	*Logged by*	C. Hood, R. Mains
UTM Zone	11	*Azimuth*	0		
Mapsheet	84B/11	*Dip*	-90		

Purpose Winter 1999 Exploration Program

Comments

Interval		*Description*
0	**35.1**	**Till**
35.1	**64**	**Glacio-Fluvial Mixed**
64	**71.6**	**Till**
71.6	**115.8**	**Glacio-Fluvial Mixed**
	115.8	**EOH (m)**

April 24, 2001



Ashton Mining of Canada Inc. North Vancouver Office Unit 123 930 West 1st Street North Vancouver, BC V7P 3N4	Vertical Section 6263350N Looking North RCLL6-01 Anomaly Model Depth = 25-30m Winter 1999 Exploration Program
UNITS : METRES DATE: 01/04/18 TIME: 15:03:50	Software by Gemcom Software International

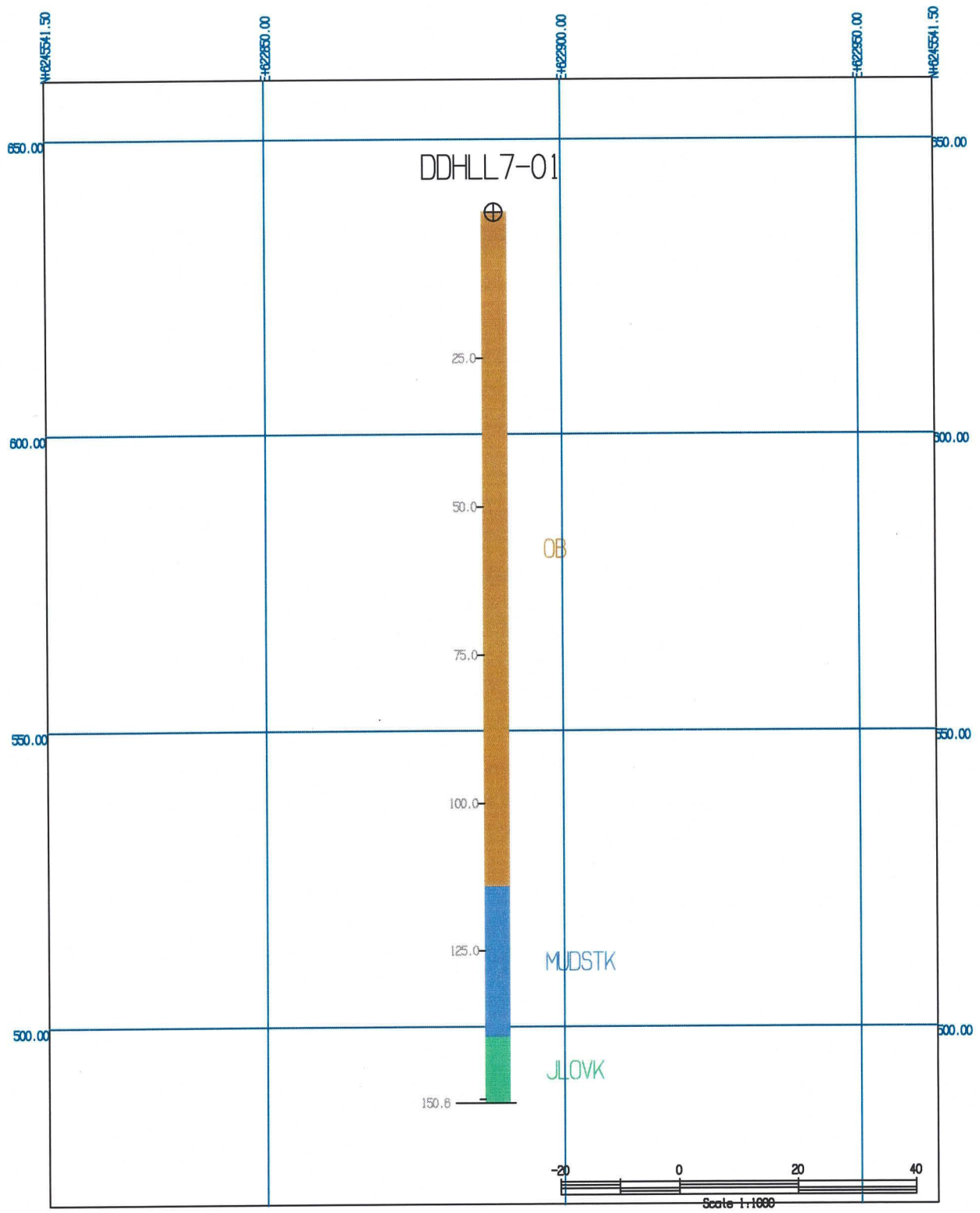
Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log DDHLL7-01

HOLE-ID	**DDHLL7-01**	*Start Date*	11-Feb-99	*Wk Permit*	MME-980678
Anomaly	LL007	*End Date*	14-Feb-99	*District*	EAST PEACE
Province	ALBERTA	*Contractor*	CONNORS	*Legal Desc.*	NE 3 85 7 5
Property	LOON LAKE	*JV*	ACA/AEC/PUG	*MIM Permit*	9397010014
Easting	622888.69	*Geologist*	D. Smith, AOC, MM		
Northing	6245541.5	*Core Size*	HQ	*Date*	15-Feb-99
Elevation	637.69	*Length (m)*	150.6	*Logged by*	M. Marchuk
UTM Zone	11	*Azimuth*	0		
Mapsheet	84B/6	*Dip*	-90		

Purpose Winter 1999 Exploration Program

Comments

Interval		*Description*
0	**91.4**	**Overburden**
91.4	**110.7**	**Till**
110.7	**114.1**	**Glacio-Fluvial Mixed**
114.1	**139.5**	**Mudstone with Kimberlite**
		-mudstone with kimberlite bombs and interbeds
139.5	**150.6**	**Kimberlite**
		-juvenile lapilli olivine kimberlite and kimberlite breccea
		-grey-gren and highly altered, dolomitized and silicified
		-olivine phenocrysts 50%, fine grained magnetite 15%, black shale xenoliths, 20%, 50% matrix
		-serpentine replaces the olivine pseudomorphs which are subhedral
		-occasional juvenile lapilli ~2%, very small (max 4mm)
		-poor preservation of core
	150.6	**EOH (m)**



Ashton Mining of Canada Inc.
North Vancouver Office
Unit 123
930 West 1st Street
North Vancouver, BC V7P 3N4

UNITS : METRES DATE: 01/04/18 TIME: 14:41:16

Vertical Section 6245540
DDHLL7-01
Looking North
Winter 1999 Exploration Program

Software by Gemcom Software International

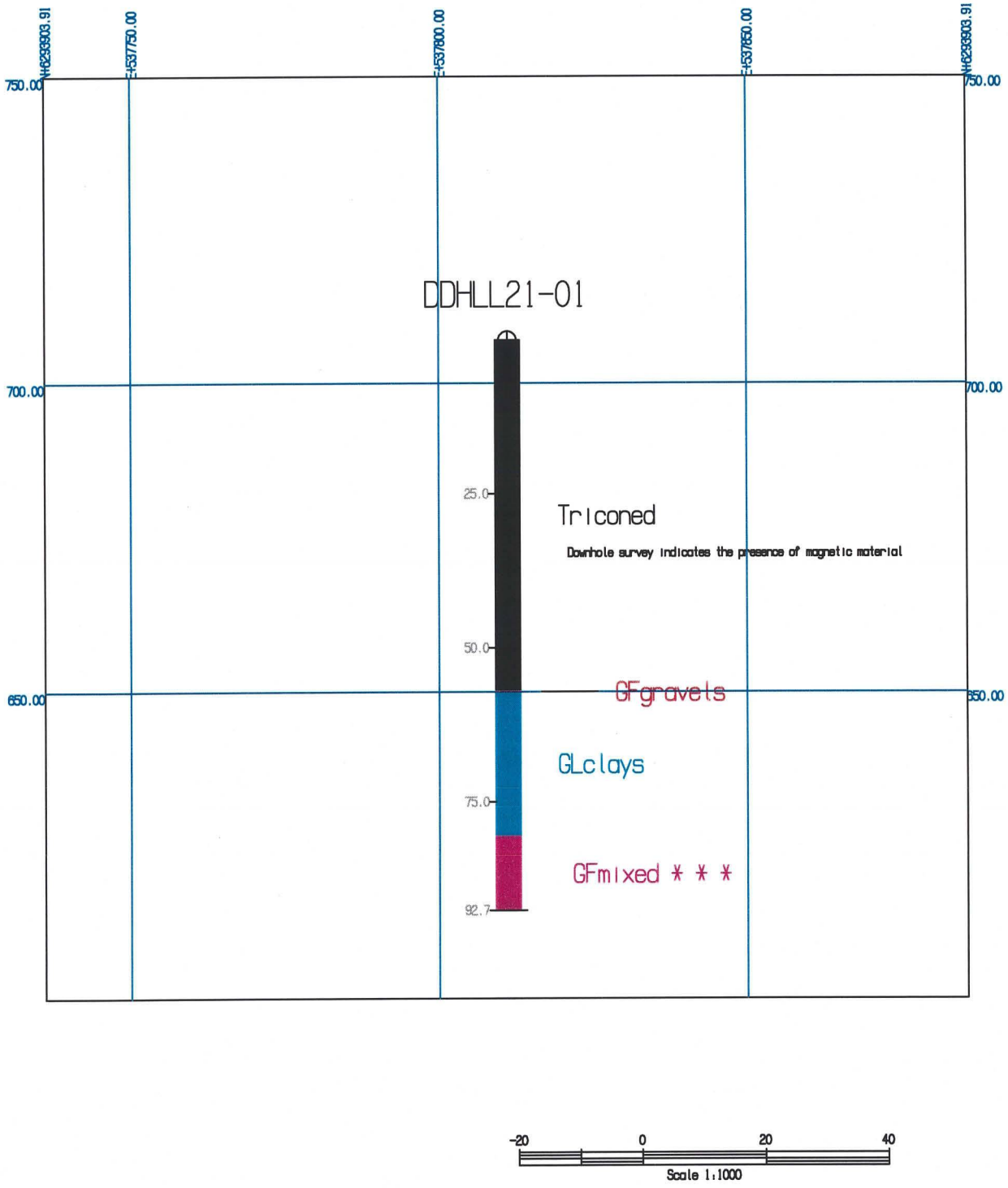
Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log DDHLL21-01

HOLE-ID	**DDHLL21-01**	*Start Date*	03-Mar-99	*Wk Permit*	MME-981090
Anomaly	LL021	*End Date*	05-Mar-99	*District*	EAST PEACE
Province	ALBERTA	*Contractor*	CONNORS (Fly Rig)	*Legal Desc.*	S 7 90 15 5
Property	LOON LAKE	*JV*	ACA/AEC/PUG	*MIM Permit*	9397010064
Easting	537811.2	*Geologist*	D. Smith, AOC, MM		
Northing	6293903.91	*Core Size*	HQ	*Date*	09-Mar-99
Elevation	707.07	*Length (m)*	92.7	*Logged by*	M. Marchuk
UTM Zone	11	*Azimuth*	0		
Mapsheet	84C/16	*Dip*	-90		

Purpose Winter 1999 Exploration Progam

Comments

Interval		*Description*
0	**57**	**Overburden**
57	**57.15**	**Glacio-Fluvial Mixed**
57.15	**80.6**	**Glacio-Lacustrine Mixed**
80.6	**92.7**	**Glacio-Fluvial Mixed**
	92.7	**EOH (m)**



Ashton Mining of Canada Inc. North Vancouver Office Unit 123 930 West 1st Street North Vancouver, BC V7P 3N4	Vertical Section 6293905N Looking North DDHLL21-01 Anomaly Model Depth = 15-50m Winter 1999 Exploration Program
UNITS : METRES DATE: 01/04/18 TIME: 14:55:53	Software by Gemcom Software International

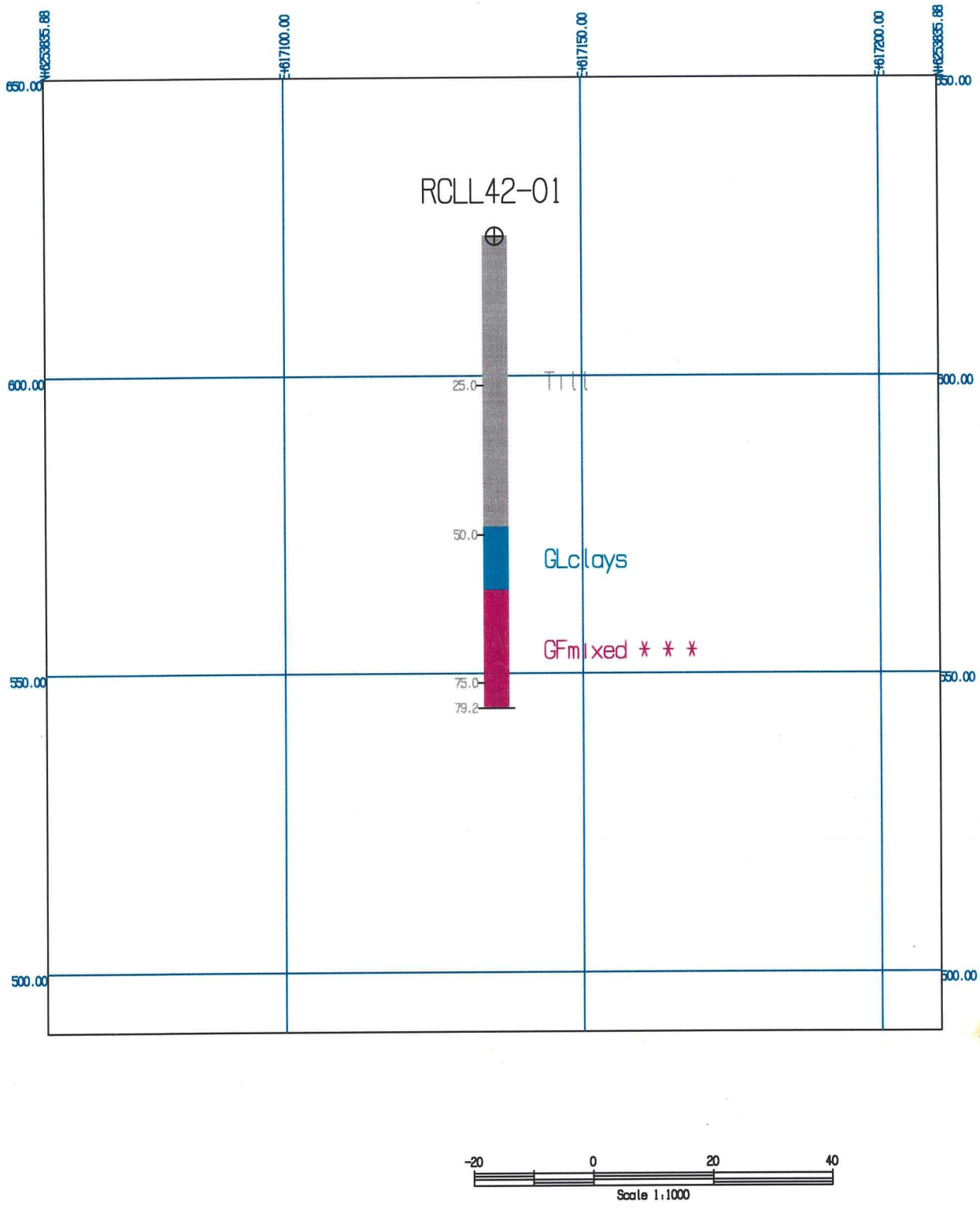
Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log RCLL42-01

HOLE-ID	**RCLL42-01**	*Start Date*	19-Feb-99	*Wk Permit*	MME-980678
Anomaly	LL042	*End Date*	20-Feb-99	*District*	EAST PEACE
Province	ALBERTA	*Contractor*	Midnight Sun	*Legal Desc.*	N 31 85 7 5
Property	LOON LAKE	*JV*	ACA/AEC/PUG	*MIM Permit*	9397010014
Easting	617135.45	*Geologist*	D. Smith, AOC, CH,		
Northing	6253835.88	*Core Size*	5 1/2"	*Date*	20-Feb-99
Elevation	623.37	*Length (m)*	79.2	*Logged by*	C. Hood, R. Mains
UTM Zone	11	*Azimuth*	0		
Mapsheet	84B/6	*Dip*	-90		

Purpose Winter 1999 Exploration Program - Hole length may be 6m deeper.

Comments

Interval		*Description*
0	**48.8**	**Till**
48.8	**59.4**	**Glacio-Fluvial Mixed**
59.4	**79.2**	**Glacio-Lacustrine Mixed**
	79.2	**EOH (m)**



Ashton Mining of Canada Inc. North Vancouver Office Unit 123 930 West 1st Street North Vancouver, BC V7P 3N4	Vertical Section 6263350N Looking North RCLL42-01 Anomaly Model Depth = 45m Winter 1999 Exploration Program
UNITS : METRES DATE: 01/04/18 TIME: 15:01:39	Software by Geocom Software International

Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log RCLL44-01

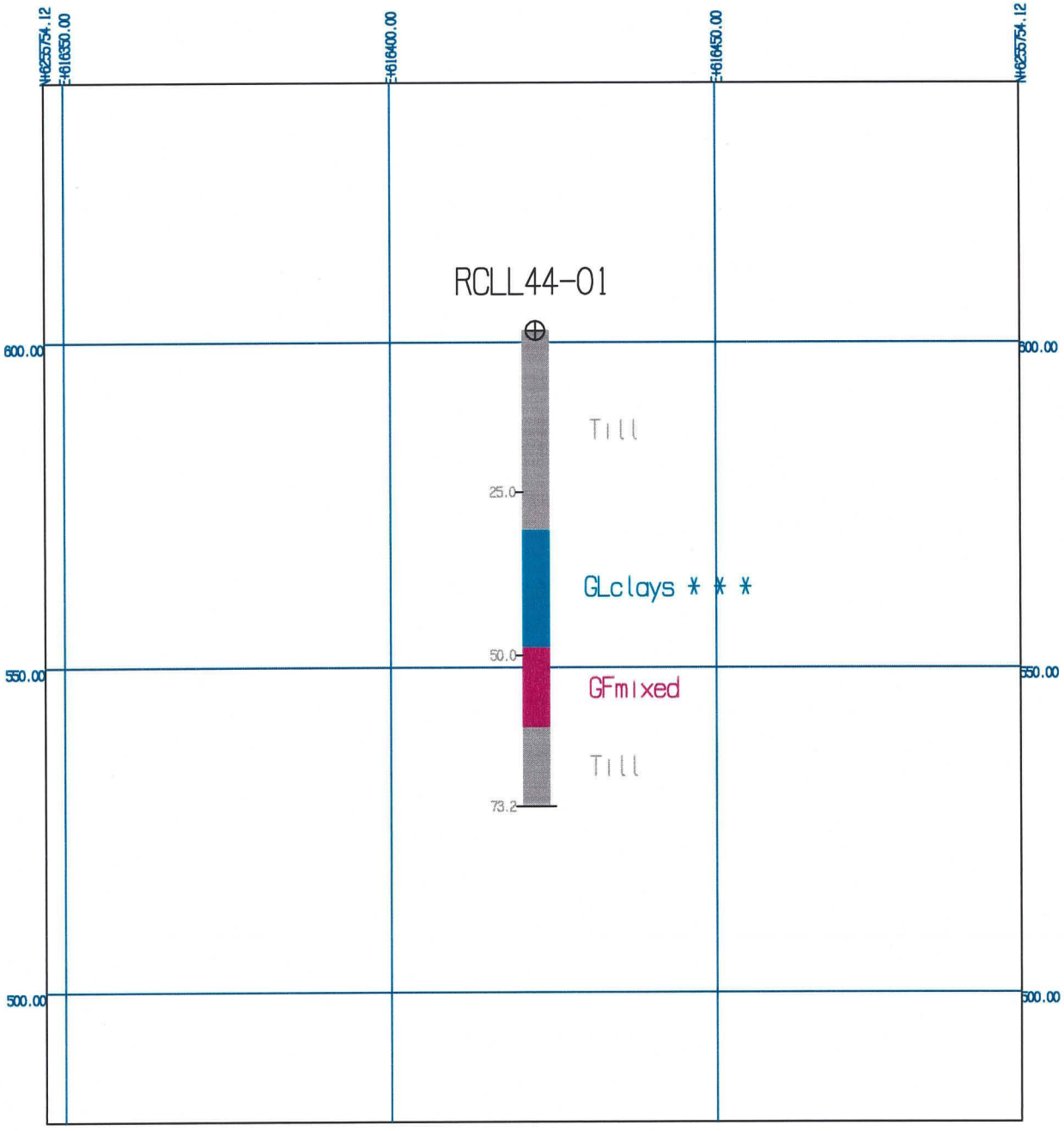
HOLE-ID	**RCLL44-01**	*Start Date*	18-Feb-99	*Wk Permit*	MME-980678
Anomaly	LL044	*End Date*	19-Feb-99	*District*	EAST PEACE
Province	ALBERTA	*Contractor*	Midnight Sun	*Legal Desc.*	NE 1 86 1 5
Property	LOON LAKE	*JV*	ACA/AEC/PUG	*MIM Permit*	9397010014
Easting	616422.34	*Geologist*	D. Smith, AOC, CH,		
Northing	6255754.12	*Core Size*	5 1/2"	*Date*	19-Feb-99
Elevation	601.78	*Length (m)*	73.2	*Logged by*	C. Hood, R. Mains
UTM Zone	11	*Azimuth*	0		
Mapsheet	84B/6	*Dip*	-90		

Purpose Winter 1999 Exploration Progam

Comments

Interval		*Description*
0	**30.8**	**Till**
30.8	**48.8**	**Glacio-Fluvial Mixed**
48.8	**61**	**Glacio-Lacustrine Mixed**
61	**73.2**	**Till**
	73.2	**EOH (m)**

April 24, 2001



Ashton Mining of Canada Inc.
North Vancouver Office
Unit 123
930 West 1st Street
North Vancouver, BC V7P 3N4

UNITS : METRES. DATE: 01/04/18 TIME: 15:00:02

Vertical Section 6255755N Looking North
RCLL44-01
Anomaly Model Depth = 45m
Winter 1999 Exploration Program

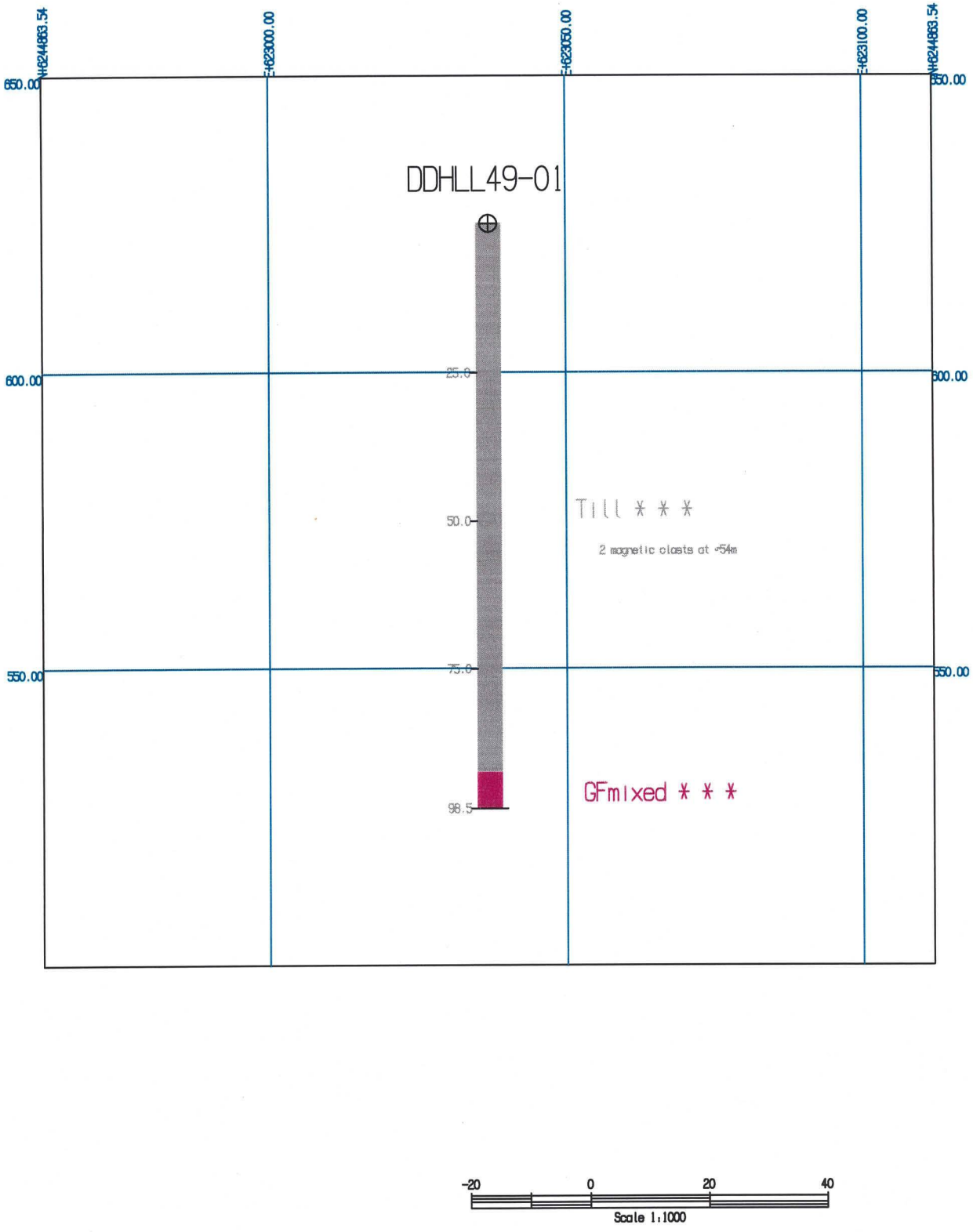
Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log DDHLL49-01

HOLE-ID	**DDHLL49-01**	*Start Date*	14-Feb-99	*Wk Permit*	MME-981090
Anomaly	LL049	*End Date*	22-Feb-99	*District*	EAST PEACE
Province	ALBERTA	*Contractor*	CONNORS	*Legal Desc.*	SE 3 85 7 5
Property	LOON LAKE	*JV*	ACA/AEC/PUG	*MIM Permit*	9397010014
Easting	623037.06	*Geologist*	D. Smith, AOC, MM		
Northing	6244863.54	*Core Size*	HQ	*Date*	19-Dec-99
Elevation	624.82	*Length (m)*	98.5	*Logged by*	M. Marchuk
UTM Zone	11	*Azimuth*	0		
Mapsheet	84B/6	*Dip*	-90		

Purpose Winter 1999 Exploration Program

Comments

Interval		*Description*
0	**92.4**	**Till**
92.4	**98.5**	**Glacio-Fluvial Mixed**
	98.5	**EOH (m)**



Ashton Mining of Canada Inc. North Vancouver Office Unit 123 930 West 1st Street North Vancouver, BC V7P 3N4	Vertical Section 6244865N Looking North DDHLL49-01 Anomaly Model Depth = 50m Winter 1999 Exploration Program
UNITS : METRES DATE: 01/04/18 TIME: 14:57:49	Software by Geocom Software International

Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log DDHLL100-01

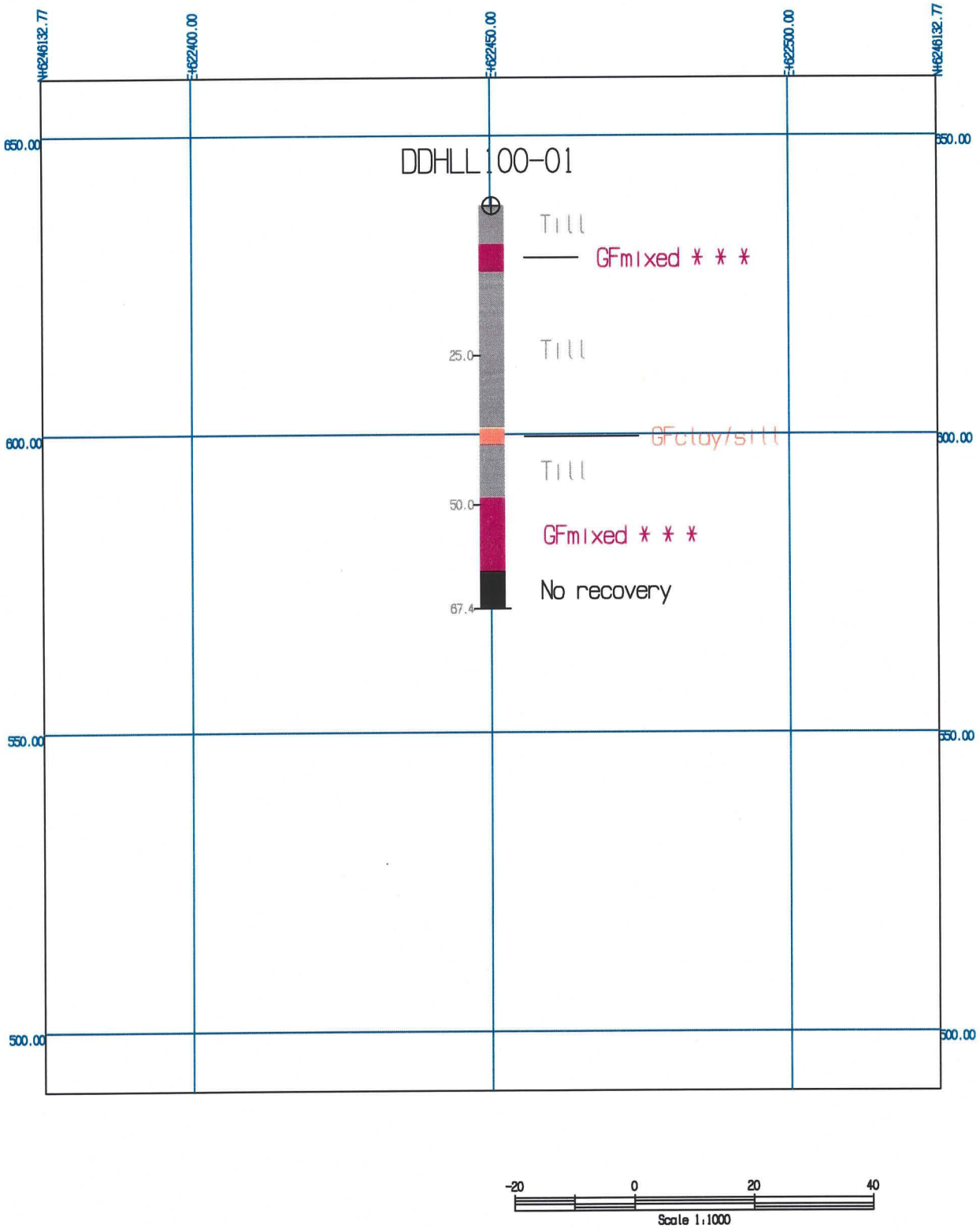
HOLE-ID	**DDHLL100-01**	*Start Date*	17-Feb-99	*Wk Permit*	MME-981090
Anomaly	LL100	*End Date*	20-Feb-99	*District*	EAST PEACE
Province	ALBERTA	*Contractor*	CONNORS	*Legal Desc.*	N 3 85 7 5
Property	LOON LAKE	*JV*	ACA/AEC/PUG	*MIM Permit*	9397010014
Easting	622450.23	*Geologist*	D. Smith, AOC, MM		
Northing	6246132.77	*Core Size*	HQ	*Date*	22-Feb-99
Elevation	638.19	*Length (m)*	67.4	*Logged by*	M. Marchuk
UTM Zone	11	*Azimuth*	0		
Mapsheet	84B/6	*Dip*	-90		

Purpose Winter 1999 Exploration Program

Comments

Interval		*Description*
0	**6.4**	**Till**
6.4	**11**	**Glacio-Fluvial Mixed**
11	**37.2**	**Till**
37.2	**40**	**Glacio-Fluvial Mixed**
40	**48.8**	**Till**
48.8	**61.3**	**Glacio-Fluvial Mixed**
61.3	**67.4**	**Overburden**
	67.4	**EOH (m)**

April 24, 2001



Ashton Mining of Canada Inc. North Vancouver Office Unit 123 930 West 1st Street North Vancouver, BC V7P 3N4	Vertical Section 6246135N Looking North DDHLL100-01 Anomaly Model Depth = 60m Winter 1999 Exploration Program
UNITS : METRES DATE: 01/04/18 TIME: 14:53:11	Software by Geocom Software International

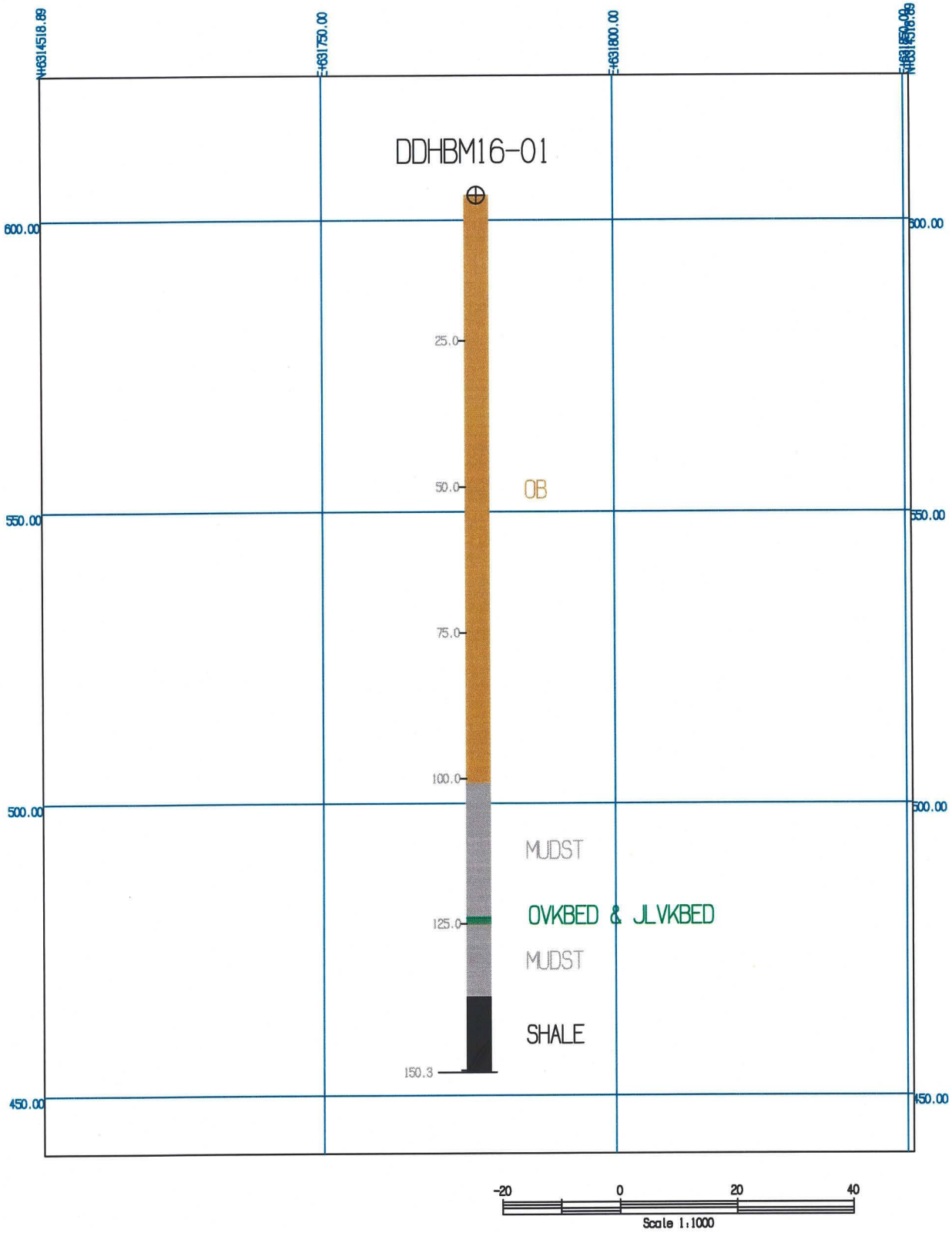
Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log DDHBM16-01

HOLE-ID	**DDHBM16-01**	*Start Date*	23-Feb-99	*Wk Permit*	MME-981090
Anomaly	BM016	*End Date*	25-Feb-99	*District*	EAST PEACE
Province	ALBERTA	*Contractor*	CONNORS	*Legal Desc.*	NE 2 92 6 5
Property	BIRCH MOUNTAIN	*JV*	ACA/AEC/PUG	*MIM Permit*	9397030022
Easting	631776.57	*Geologist*	D. Smith, AOC, MM		
Northing	6314518.89	*Core Size*	HQ	*Date*	26-Feb-99
Elevation	604.25	*Length (m)*	150.3	*Logged by*	M. Marchuk
UTM Zone	11	*Azimuth*	0		
Mapsheet	84B/15	*Dip*	-90		

Purpose "Winter 1999 Exploration Program, to test anomaly BM16, < 1km from BM3."

Comments

Interval		*Description*
0	**100.9**	**Overburden**
100.9	**123.9**	**Mudstone**
		-dark grey-brown mudstone displaying bedding planes at ~90degrees TCA
123.9	**124.2**	**Kimberlite**
		-olivine volcaniclastic kimberlite bed, 30cm thick
		-fine grained with abundant olivine phenocrysts and macrocrysts, oriented sub parallel to the mudstone beds
		-olivine has been replaced by carbonate and is subhedral
		-fine magnetite grains are present throughout the rock
		-mudstone xenoliths are present
124.2	**124.3**	**Mudstone**
		-same as above
124.3	**124.4**	**Kimberlite**
		-olivine volcaniclastic kimberlite bed, 10cm thick
		-same as above 123.9-124.2 with more xenoliths and somewhat coarser texture
124.4	**124.5**	**Mudstone**
		-same as above, bedding at ~74 degrees TCA
124.5	**124.7**	**Kimberlite**
		-olivine volcaniclastic kimberlite bed, 20 cm thick
		-same as 123.9-124.2
124.7	**124.85**	**Mudstone**
124.85	**124.95**	**Kimberlite**
		-olivine volcaniclastic kimberlite bed, 10 cm thick
		-same as 123.9-124.2 with more carbonate replacement
124.95	**125.1**	**Mudstone**
		-very soft and broken



Ashton Mining of Canada Inc. North Vancouver Office Unit 123 930 West 1st Street North Vancouver, BC V7P 3N4	Vertical Section 6314520 DDBM16-01 Looking North Winter 1999 Exploration Program
UNITS : METRES DATE: 01/04/18 TIME: 14:51:16	Software by Gemcom Software International

125.1	**125.2**	**Kimberlite**
		-juvenile lapilli bearing volcaniclastic kimberlite bed, 10cm thick
		-lapilli vary in size from 1-14mm
125.2	**137.5**	**Mudstone**
137.5	**150.3**	**Shale**
		-black shale, highly friable and broken
		-display strong bedding at 90 degrees TCA
	150.3	**EOH (m)**

April 24, 2001

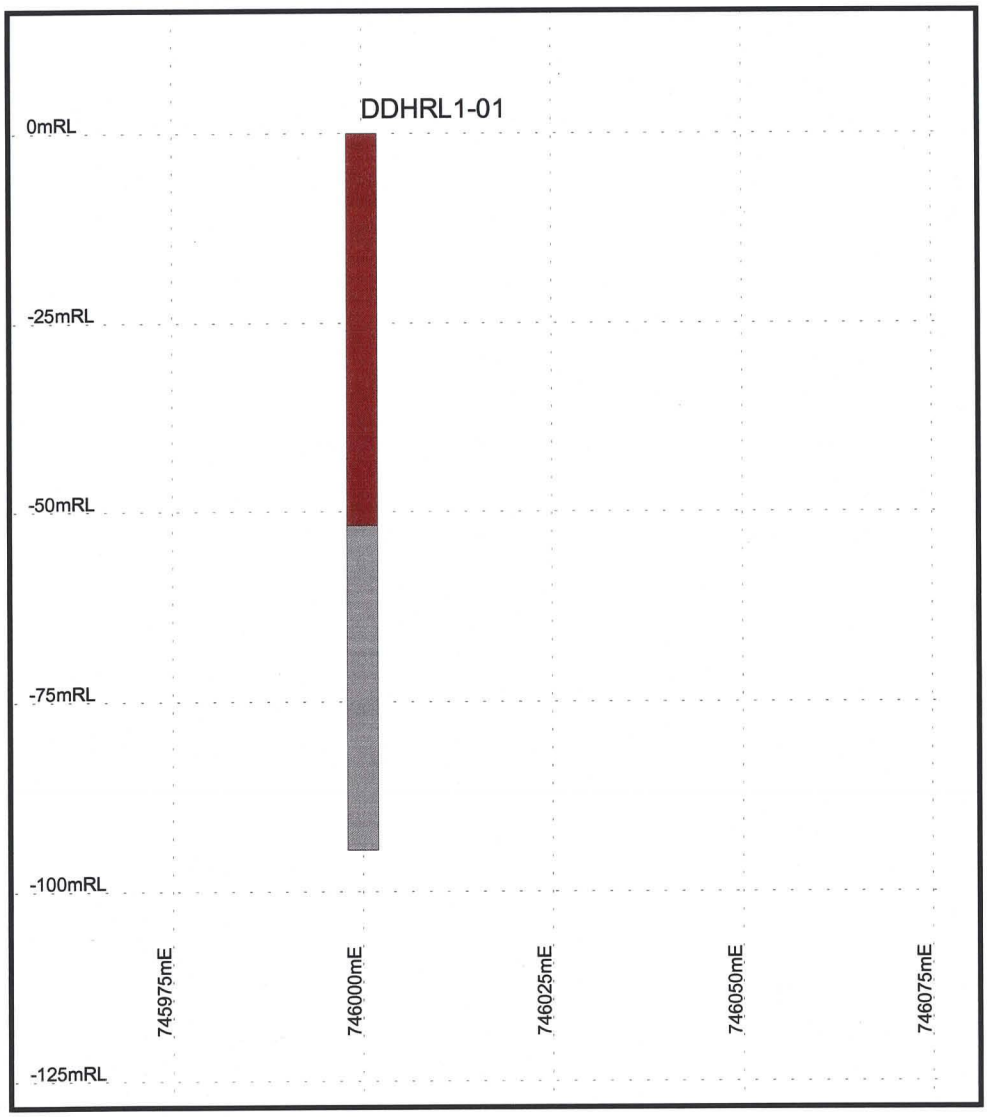
Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log DDHRL1-01

HOLE-ID	**DDHRL1-01**	*Start Date*	19-Feb-00	*Wk Permit*	MME-991094
Anomaly	RL001	*End Date*	22-Feb-00	*District*	WATERWAYS
Province	ALBERTA	*Contractor*	CONNORS	*Legal Desc.*	S 16 90 19 4
Property	RABBIT LAKE	*JV*	ACA/AEC/PUG	*MIM Permit*	9397040067
Easting	746000	*Geologist*	D. Skelton		
Northing	6302075	*Core Size*	HQ	*Date*	28-Feb-00
Elevation	600	*Length (m)*	94.5	*Logged by*	M. Marchuk
UTM Zone	11	*Azimuth*	0		
Mapsheet	84A/15	*Dip*	-90		

Purpose Winter 2000 Exploration Program

Comments Coords entered in GPS Easting/Northing are GRID COORDS ONLY because the hole was not surveyed. GRID COORDS ARE IN UTM ZONE 11 NAD27 COORDS AND THEREFORE UTM ZONE IS ENTERED AS 11 EVEN THOUGH IT ACTUALLY RESIDES IN ZONE 12.

Interval		*Description*
0	**51.8**	**Overburden**
51.8	**94.5**	**Mudstone**
	94.5	**EOH (m)**



25 0 25 50

Meters

Scale: 1:1,000

N

Legend

- Overburden
- Mudstone

Ashton Mining of Canada Inc.

Rabbit Lake

DDHRL1-01 Section
Looking North

Date: Apr 19-01
Author: TB
Office: Van
Proj: UTM11
NAD27

Drw: \Alberta\Working Maps\AL04\Drilling\RL1-01_Drill.wor

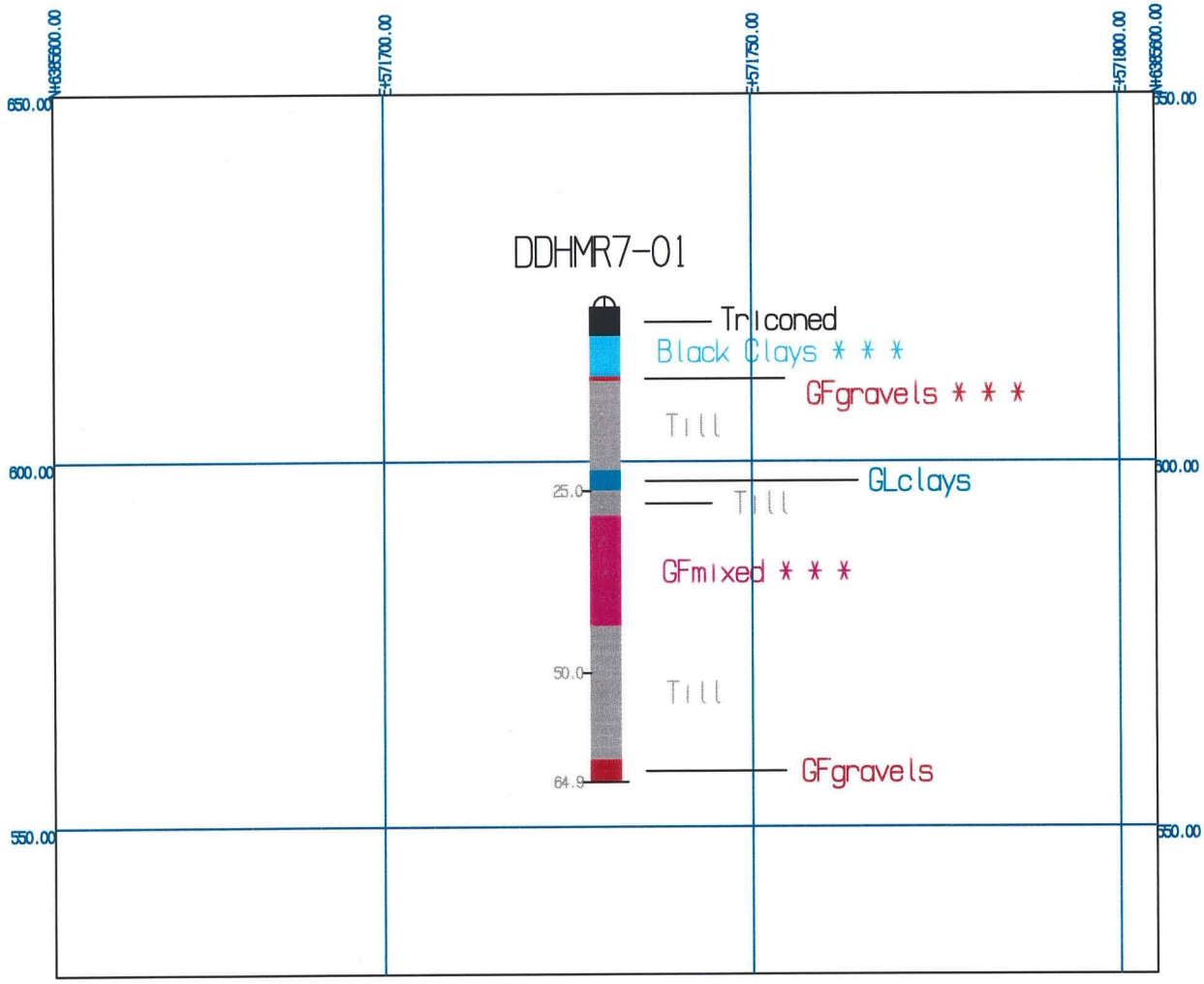
Ashton Mining of Canada Inc.
Diamond Drill Hole Summary Log DDHMR7-01

HOLE-ID	**DDHMR7-01**	*Start Date*	18-Mar-99	*Wk Permit*	MME-981245
Anomaly	MR007	*End Date*	19-Mar-99	*District*	FORT VERMI
Province	ALBERTA	*Contractor*	CONNORS (Fly Rig)	*Legal Desc.*	N 19 99 11 5
Property	MUDDY RIVER	*JV*	ACA/AEC/PUG	*MIM Permit*	9397040135
Easting	571730	*Geologist*	AOC, MM		
Northing	6385600	*Core Size*	HQ	*Date*	19-Mar-99
Elevation	0	*Length (m)*	64.9	*Logged by*	M. Marchuk
UTM Zone	11	*Azimuth*	0		
Mapsheet	84G/12	*Dip*	-90		

Purpose Winter 1999 Exploration Program

Comments

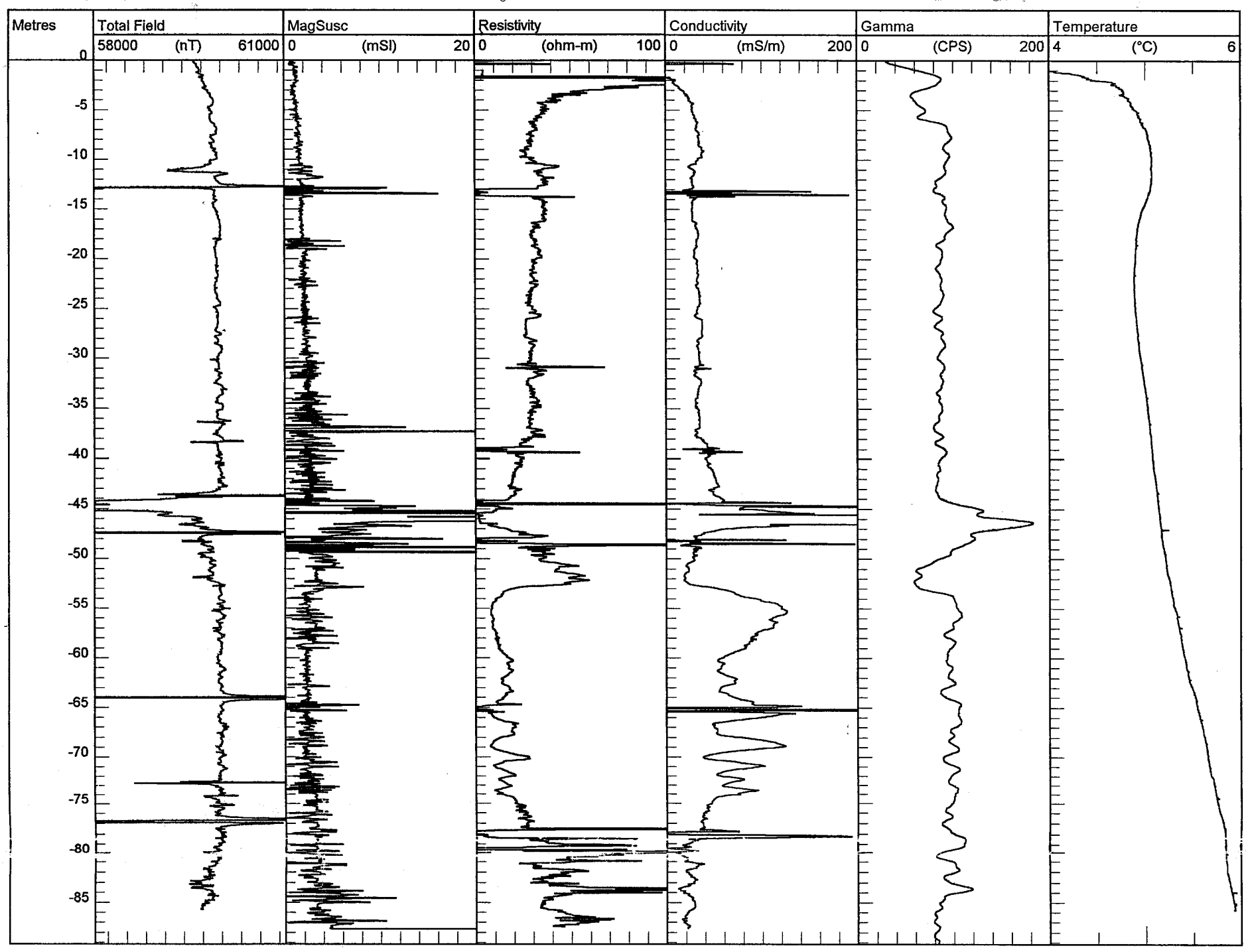
Interval		*Description*
0	**4**	**Overburden**
4	**9.5**	**Glacio-Lacustrine Mixed**
9.5	**10.1**	**Glacio-Fluvial Mixed**
10.1	**22.3**	**Till**
22.3	**25**	**Glacio-Fluvial Mixed**
25	**28.5**	**Till**
28.5	**43.6**	**Glacio-Fluvial Mixed**
43.6	**61.9**	**Till**
61.9	**64.9**	**Glacio-Fluvial Mixed**
	64.9	**EOH (m)**



Ashton Mining of Canada Inc. North Vancouver Office Unit 123 930 West 1st Street North Vancouver, BC V7P 3N4	Vertical Section 6385600 Looking North DDMR7-01 Anomaly Depth = 10m Winter 1999 Exploration Program
UNITS : METRES DATE: 01/04/18 TIME: 14:45:32	Software by Gemcom Software International

Well Name: LL21
File Name: J:\4933\493302\GEOFIZX2\GEOFIZX\LL21\LI21.HDR
Location: Red Earth Creek
Elevation: 0 Reference: Ground Surface

Figure (13)



APPENDIX D

Assessment Information

- Notarized Statement of Expenditures
- Detailed Statement of Expenditures: Loon Lake Property
- Detailed Statement of Expenditures: Birch Mountain Property
- Detailed Statement of Expenditures: Rabbit Lake Property
- Detailed Statement of Expenditures: Muddy River Property
- Permit Retention and Amendment Table
- Permit Cancellation Table
- Notice of Designation for Assessment Purposes
- Map Identifying Permit Numbers and Boundaries

Loon Lake, Birch Mountain, Rabbit Lake and Muddy River Properties

Table 1: Metallic and Industrial Mineral Permits

Property	Permit Numbers	Total Permits
Loon Lake Property:	9396080085 9397010011 to 9397010066	57
Birch Mountain Property:	9397030015 to 9397030042	28
Rabbit Lake Property:	9397040042 to 9397040108	67
Muddy River Property:	9397040131 to 9397040139 9397040142 to 9397040150 9397040109 to 9397040129	39
	Total:	191

Table 2: Total Expenditures

	Permits	Area (ha)	Expenditure ($)
Muddy River Property*	39	357,760.00	$ 110,642.65
Birch Mountain Property*	28	256,704.00	$ 177,435.17
Rabbit Lake Property*	67	582,942.56	$ 268,316.71
Loon Lake Property*	57	421,418.10	$ 530,986.76
Contiguous Totals:	191	1,618,824.66	$ 1,087,381.29

I, David P. Willis, Land Administrator of Ashton Mining of Canada Inc., hereby certify that the expenditures set out above are valid and were incurred in conducting assessment work on the Metallic and Industrial Mineral Permits set out above.

Declared before me at North Vancouver. British Columbia, this 25th day of April 2001

M. G. Hardin

Michael J. Hardin
A Notary Public in and for the Province of British Columbia. My commission is unlimited as to time.

[redacted]

David P. Willis

2001 Buffalo Hills Region Assessment Filing
Loon Lake Property Statement of Expenditures
February 1, 1999 to January 31, 2001

Categories	Description	Ground Geophysics	Heavy Mineral Sampling	Drilling	Total Cost
		$	$	$	$
Salary and Wages					
Senior Supervision		15,424.76		17,711.49	**33,136.25**
Field Technicians		19,043.75	4,415.75	9,625.00	**33,084.50**
Report Preparation		3,835.80	1,327.60	4,189.55	**9,352.95**
Drafting/Mapping		308.25	439.38	163.75	**911.38**
Clerical		263.75	51.57	937.60	**1,252.92**
	Total Salaries	**38,876.31**	**6,234.30**	**32,627.39**	**77,738.00**
Field Costs					
Accommodation/Meals		10,781.02	5,115.74	31,364.05	**47,260.82**
Field Supplies		4,242.01	638.69	9,325.20	**14,205.90**
Fuel		8,252.25	2,628.51	10,039.49	**20,920.25**
Freight		161.09	692.55	882.26	**1,735.90**
Communications		429.05	170.23	1,790.93	**2,390.21**
Travel Costs		1,508.85	773.06	1,112.93	**3,394.84**
	Total Field	**25,374.27**	**10,018.79**	**54,514.86**	**89,907.92**
Rental Equipment					
Field Equipment Rental		82.50	1,517.34	4,944.99	**6,544.83**
Geophysical Equipment Rental		6,123.24		2,487.40	**8,610.64**
Vehicle Operation and Repair		1,161.64	84.40	2,180.07	**3,426.11**
Warehouse Rental					-
	Total Equipment	**7,367.38**	**1,601.74**	**9,612.46**	**18,581.58**
Subcontracting Services					
Drilling Contractor:	Connors Drilling Ltd.			91,578.00	**91,578.00**
Geological/Geophysical	[redacted]	1,050.00		7,200.00	**8,250.00**
Contractor:	Brian's Water Hauling			5,060.00	**5,060.00**
	C Bar K Consulting			1,650.00	**1,650.00**
	[redacted]			11,550.00	**11,550.00**
	[redacted]		3,517.21		**3,517.21**
	Komex International			9,349.83	**9,349.83**
	L. R. C. Contractors			37,585.50	**37,585.50**
	Midnight Sun			45,327.90	**45,327.90**
	Zell Oilfields			4,968.97	**4,968.97**
	Miscellaneous contractors	15,480.51		10,469.50	**25,950.01**
Helicopter Contractor:	Great Slave Helicopter	32,465.72	16,527.45	2,695.50	**51,688.67**
	Highland Helicopters Ltd.			713.48	**713.48**
	Total Subcontractors	**48,996.23**	**20,044.66**	**228,148.68**	**297,189.57**
Laboratory Charges					
Processing			9,641.88		**9,641.88**
Observing			11,583.26		**11,583.26**
Diamond Laboratory Charge				24,578.00	**24,578.00**
	Total Lab Charges	-	**21,225.14**	**24,578.00**	**45,803.14**
Office Charges, Administrative, General					
Maps, Reports, Publications		327.82	128.57	397.82	**854.21**
Communication - Telephone/Fax				43.30	**43.30**
Postal, Courier, Freight				61.44	**61.44**
Miscellaneous Office Expenses		45.38		148.47	**193.85**
General Office Overhead		140.01	66.44	407.31	**613.75**
	Total Office Administration	**513.21**	**195.01**	**1,058.34**	**1,766.55**
	ACTIVITIES GRAND TOTALS	**121,127.40**	**59,319.63**	**350,539.73**	**530,986.76**

2001 Buffalo Hills Region Assessment Filing
Birch Mountain Property Statement of Expenditures
March 15, 1999 to February 28, 2001

Categories	Description	Ground Geophysics	Heavy Mineral Sampling	Drilling	Total Cost
		$	$	$	$
Salary and Wages					
Senior Supervision		801.75	772.00		1,573.75
Field Technicians		7,599.25	4,232.50	431.25	12,263.00
Report Preparation		2,293.30	1,185.00	2,104.30	5,582.60
Drafting/Mapping		67.00	99.00	43.50	209.50
Clerical		202.51	46.95	299.20	548.66
	Total Salaries	**10,963.81**	**6,335.45**	**2,878.25**	**20,177.51**
Field Costs					
Accommodation/Meals		11,285.35	17,338.76	11,199.30	39,823.41
Field Supplies		912.78	721.57	121.31	1,755.66
Fuel		2,745.88	2,056.03	152.01	4,953.92
Freight		281.24	300.52	760.98	1,342.74
Communications		482.57			482.57
Travel Costs		520.04	259.20	6.70	785.94
	Total Field	**16,227.86**	**20,676.08**	**12,240.30**	**49,144.24**
Rental Equipment					
Field Equipment Rental		220.00	1,557.80		1,777.80
Geophysical Equipment Rental		3,787.17			3,787.17
Vehicle Operation and Repair			284.65		284.65
Warehouse Rental					-
	Total Equipment	**4,007.17**	**1,842.45**	**-**	**5,849.62**
Subcontracting Services					
Drilling Contractor:	Connors Drilling Ltd.			1,505.60	1,505.60
Geological/Geophysical	[redacted]			600.00	600.00
Contractor:	[redacted]		2,116.00		2,116.00
	L. R. C. Contractors			1,908.00	1,908.00
	Zell Oilfields			1,407.37	1,407.37
	Miscellaneous contractors	3,042.34		1,426.96	4,469.30
Helicopter Contractor:	Great Slave Helicopter	12,391.00	19,348.34	263.40	32,002.74
	Total Subcontractors	**15,433.34**	**21,464.34**	**7,111.33**	**44,009.01**
Laboratory Charges					
Processing			8,847.00		8,847.00
Observing			13,424.00		13,424.00
Diamond Laboratory Charge				23,737.00	23,737.00
	Total Lab Charges	**-**	**22,271.00**	**23,737.00**	**46,008.00**
Office Charges, Administrative, General					
Maps, Reports, Publications		88.37		155.00	243.37
Communication - Telephone/Fax				14.43	14.43
Postal, Courier, Freight		22.47		15.00	37.47
Miscellaneous Office Expenses		256.80		111.16	367.96
General Office Overhead		3,282.60	5,043.38	3,257.58	11,583.56
	Total Office Administration	**3,650.24**	**5,043.38**	**3,553.17**	**12,246.79**
ACTIVITIES GRAND TOTALS		**50,282.42**	**77,632.70**	**49,520.05**	**177,435.17** ✓

2001 Buffalo Hills Region Assessment Filing
Rabbit Lake Property Statement of Expenditures
April 25, 1999 to February 28, 2001

Categories	Description	Ground Geophysics	Heavy Mineral Sampling	Drilling	Total Cost
		$	$	$	$
Salary and Wages					
Senior Supervision		384.25	597.00	1,800.00	**2,781.25**
Field Technicians		5,731.25	5,947.75		**11,679.00**
Report Preparation		2,696.00	1,070.00	19.00	**3,785.00**
Drafting/Mapping		14.50	172.00	75.00	**261.50**
Clerical		339.51	47.95	445.85	**833.31**
	Total Salaries	**9,165.51**	**7,834.70**	**2,339.85**	**19,340.06**
Field Costs					
Accommodation/Meals		13,606.30	28,319.69	21,317.09	**63,243.08**
Field Supplies		402.18	683.14	2,504.32	**3,589.64**
Fuel		2,992.28	5,770.10	718.17	**9,480.55**
Freight		2,584.15	186.36	23.00	**2,793.51**
Communications		650.05			**650.05**
Travel Costs		21.35	441.07		**462.42**
	Total Field	**20,256.31**	**35,400.36**	**24,562.58**	**80,219.25**
Rental Equipment					
Field Equipment Rental		165.00	1,557.80	865.00	**2,587.80**
Geophysical Equipment Rental		1,999.04			**1,999.04**
Vehicle Operation and Repair		287.08	86.65		**373.73**
	Total Equipment	**2,451.12**	**1,644.45**	**865.00**	**4,960.57**
Subcontracting Services					
Drilling Contractor:	Connors Drilling Ltd.			25,549.66	**25,549.66**
Geological/Geophysical	[redacted]	909.35			**909.35**
Contractor:	Brian's Water Hauling			3,320.00	**3,320.00**
	C Bar K Consulting			825.00	**825.00**
	[redacted]			1,735.00	**1,735.00**
	[redacted]		3,553.50		**3,553.50**
	Zell Oilfields			1,505.20	**1,505.20**
	Miscellaneous contractors	2,287.54		5,287.50	**7,575.04**
Helicopter Contractor:	Great Slave Helicopter	19,767.50	36,229.75	3,820.20	**59,817.45**
	Total Subcontractors	**22,964.39**	**39,783.25**	**42,042.56**	**104,790.20**
Laboratory Charges					
Processing			14,166.00		**14,166.00**
Observing			15,474.00		**15,474.00**
Diamond Laboratory Charge				15,706.00	**15,706.00**
	Total Lab Charges	**-**	**29,640.00**	**15,706.00**	**45,346.00**
Office Charges, Administrative, General					
Maps, Reports, Publications			11.80	46.80	**58.60**
Communication - Telephone/Fax				36.59	**36.59**
Postal, Courier, Freight				46.86	**46.86**
Miscellaneous Office Expenses				89.80	**89.80**
General Office Overhead		2,889.11	6,013.29	4,526.38	**13,428.78**
	Total Office Administration	**2,889.11**	**6,025.09**	**4,746.43**	**13,660.63**
ACTIVITIES GRAND TOTALS		**57,726.44**	**120,327.85**	**90,262.42**	**268,316.71**

2001 Buffalo Hills Region Assessment Filing
Muddy River Property Statement of Expenditures
April 29, 1999 to February 28, 2001

Categories	Description	Ground Geophysics	Heavy Mineral Sampling	Drilling	Total Cost
		$	$	$	$
Salary and Wages					
Senior Supervision		384.25	470.00		854.25
Field Technicians		1,063.25	2,296.40		3,359.65
Report Preparation		1,064.70	1,262.50	99.60	2,426.80
Drafting/Mapping		14.50	177.00		191.50
Clerical		141.51	47.95	18.30	207.76
	Total Salaries	**2,668.21**	**4,253.85**	**117.90**	**7,039.96**
Field Costs					
Accommodation/Meals		6,152.48	16,232.69	7,483.41	29,868.58
Field Supplies		473.01	551.94	2.40	1,027.35
Fuel		1,218.63	1,080.19	18.59	2,317.41
Freight		140.75	117.32	30.14	288.21
Communications		230.05			230.05
Travel Costs		722.17		43.51	765.68
	Total Field	**8,937.09**	**17,982.14**	**7,578.05**	**34,497.28**
Rental Equipment					
Field Equipment Rental			1,557.80		1,557.80
Geophysical Equipment Rental		282.50			282.50
Vehicle Operation and Repair			86.65		86.65
	Total Equipment	**282.50**	**1,644.45**	**-**	**1,926.95**
Subcontracting Services					
Drilling Contractor:	Connors Drilling Ltd.				-
Geological/Geophysical	[redacted]	1,050.00		27.06	1,077.06
Contractor:	C Bar K Consulting			558.69	558.69
	[redacted]		1,253.50		1,253.50
	Zell Oilfields			1,080.11	1,080.11
Helicopter Contractor:	Great Slave Helicopter	7,652.80	6,796.23		14,449.03
	Total Subcontractors	**8,702.80**	**8,049.73**	**1,665.86**	**18,418.39**
Laboratory Charges					
Processing			7,197.00		7,197.00
Observing			15,199.00		15,199.00
Diamond Laboratory Charge				15,605.00	15,605.00
	Total Lab Charges	**-**	**22,396.00**	**15,605.00**	**38,001.00**
Office Charges, Administrative, General					
Maps, Reports, Publications				37.50	37.50
Communication - Telephone/Fax				14.43	14.43
Postal, Courier, Freight				26.10	26.10
General Office Overhead		2,200.14	5,804.83	2,676.08	10,681.04
	Total Office Administration	**2,200.14**	**5,804.83**	**2,754.11**	**10,759.07**
ACTIVITIES GRAND TOTALS		**22,790.74**	**60,130.99**	**27,720.92**	**110,642.65**

Permit Retention and Amendment Table

for the

Birch Mountain, Rabbit Lake, Muddy River & Loon Lake Properties

#	Permit	Note	Township	Range	Meridian	Sections	Total Sections	Hectares	Expenditure	Current Anniversary Date	New Anniversary Date	Permit Holder
1	9396080085	*1	88	9	5	1 to 36	36	9216	Not Required	18-Jun-02	18-Jun-02	Antelope Land Services
2	9397010014		85	7	5	West half of 2 East half of 4 West half of 11 East half of 9 Sections 2, 3	4	1024	$ 10,240.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
3	9397010052		88	15	5	7 to 36	30	7680	$ 76,800.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
4	9397010053		88	16	5	7 to 36	30	7680	$ 76,800.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
5	9397010054		88	17	5	9 to 16 21 to 28 33 to 36 East half of 8 East half of 17 East half of 20 East half of 29 East half of 32	22.5	5760	$ 57,600.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
6	9397010058		89	15	5	1 to 36	36	9216	$ 92,160.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
7	9397010059		89	16	5	1 to 36	36	9216	$ 92,160.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
8	9397010060		89	17	5	1 to 4 9 to 16 21 to 28 33 to 36 East half of 5 East half of 8 East half of 17 East half of 20 East half of 29 East half of 32	27	6912	$ 69,120.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
9	9397010061		90	4	5	29 to 32	4	1024	$ 10,240.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
10	9397010062		90	5	5	25 to 36	12	3072	$ 30,720.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
11	9397010063		90	6	5	25 to 36	12	3072	$ 30,720.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
12	9397010064		90	15	5	1 to 36	36	9216	$ 92,821.29	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.

Permit Retention and Amendment Table
for the
Birch Mountain, Rabbit Lake, Muddy River & Loon Lake Properties

#	Permit	Note	Township	Range	Meridian	Sections	Total Sections	Hectares	Expenditure	Current Anniversary Date	New Anniversary Date	Permit Holder
13	9397010065		90	16	5	1 to 36	36	9216	$ 92,160.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
14	9397010066		90	17	5	1 to 4 9 to 16 21 to 28 33 to 36 East half of 5 East half of 8 East half of 17 East half of 20 East half of 29 East half of 32	27	6912	$ 69,120.00	31-Jan-01	31-Jan-03	Ashton Mining of Canada Inc.
15	9397030016		91	4	5	5 to 8 17 to 20 29 to 32	12	3072	$ 30,720.00	14-Mar-01	14-Mar-03	Ashton Mining of Canada Inc.
16	9397030017		91	5	5	1 to 36	36	9216	$ 92,160.00	14-Mar-01	14-Mar-03	Ashton Mining of Canada Inc.
17	9397030018		91	6	5	1 to 36	36	9216	$ 92,160.00	14-Mar-01	14-Mar-03	Ashton Mining of Canada Inc.
18	9397030020		92	4	5	5 to 8	4	1024	$ 10,240.00	14-Mar-01	14-Mar-03	Ashton Mining of Canada Inc.
19	9397030021		92	5	5	1 to 12	12	3072	$ 30,720.00	14-Mar-01	14-Mar-03	Ashton Mining of Canada Inc.
20	9397030022		92	6	5	1 to 12	12	3072	$ 30,720.00	14-Mar-01	14-Mar-03	Ashton Mining of Canada Inc.
						Totals:	424.50	108,672.00	$ 1,087,381.29			

Note: *1 The anniversary date for this permit is not until 2002 and, as a result, its area and sections have not been included in the totals at the bottom of the page.

Permit Cancellation Table

for the

Birch Mountain, Rabbit Lake, Muddy River & Loon Lake Properties

Permit Number	Property	Area (ha)	Recording Date	Anniversary Date	Claim Holder	Holder Percent	Instructions
9397030015	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030019	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030023	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030024	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030025	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030026	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030027	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030028	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030029	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030030	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030031	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030032	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030033	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030034	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030035	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030036	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030037	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030038	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030039	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030040	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030041	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397030042	Birch Mountain	9,216.00	3/14/97	3/14/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040042	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040043	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040044	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040045	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040046	Rabbit Lake	6,656.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040047	Rabbit Lake	8,448.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040048	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040049	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040050	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040051	Rabbit Lake	2,100.12	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040052	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040053	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040054	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040055	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040056	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040057	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040058	Rabbit Lake	8,192.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040059	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040060	Rabbit Lake	8,704.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040061	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040062	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040063	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040064	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040065	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040066	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040067	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040068	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040069	Rabbit Lake	8,192.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040070	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040071	Rabbit Lake	8,704.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040072	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040073	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040074	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040075	Rabbit Lake	4,096.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040076	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040077	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040078	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040079	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040080	Rabbit Lake	7,936.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040081	Rabbit Lake	7,424.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040082	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040083	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit

Permit Cancellation Table

for the

Birch Mountain, Rabbit Lake, Muddy River & Loon Lake Properties

Permit Number	Property	Area (ha)	Recording Date	Anniversary Date	Claim Holder	Holder Percent	Instructions
9397040084	Rabbit Lake	7,605.48	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040085	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040086	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040087	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040088	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040089	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040090	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040091	Rabbit Lake	6,400.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040092	Rabbit Lake	4,096.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040093	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040094	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040095	Rabbit Lake	7,587.48	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040096	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040097	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040098	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040099	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040100	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040101	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040102	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040103	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040104	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040105	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040106	Rabbit Lake	7,569.48	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040107	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040108	Rabbit Lake	9,216.00	4/24/97	4/24/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040109	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040110	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040111	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040112	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040113	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040114	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040115	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040116	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040117	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040118	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040119	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040120	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040121	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040122	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040123	Muddy River	9,088.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040124	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040125	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040126	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040127	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040128	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040129	Muddy River	7,680.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040131	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040132	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040133	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040134	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040135	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040136	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040137	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040138	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040139	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040142	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040143	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040144	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040145	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040146	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040147	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040148	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397040149	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit

Permit Cancellation Table

for the

Birch Mountain, Rabbit Lake, Muddy River & Loon Lake Properties

Permit Number	Property	Area (ha)	Recording Date	Anniversary Date	Claim Holder	Holder Percent	Instructions
9397040150	Muddy River	9,216.00	4/28/97	4/28/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010011	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010012	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010013	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010015	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010016	Loon Lake	3,072.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010017	Loon Lake	1,536.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010018	Loon Lake	6,976.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010019	Loon Lake	4,608.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010020	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010021	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010022	Loon Lake	3,072.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010023	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010024	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010025	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010026	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010027	Loon Lake	2,048.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010028	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010029	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010030	Loon Lake	7,975.60	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010031	Loon Lake	7,133.20	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010032	Loon Lake	9,185.20	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010033	Loon Lake	5,649.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010034	Loon Lake	5,376.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010035	Loon Lake	192.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010036	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010037	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010038	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010039	Loon Lake	8,845.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010040	Loon Lake	2,496.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010041	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010042	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010043	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010044	Loon Lake	8,746.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010045	Loon Lake	8,704.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010046	Loon Lake	8,698.80	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010047	Loon Lake	6,657.30	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010048	Loon Lake	7,168.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010049	Loon Lake	1,792.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010050	Loon Lake	4,096.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010051	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010055	Loon Lake	3,072.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010056	Loon Lake	1,536.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit
9397010057	Loon Lake	9,216.00	1/31/97	1/31/01	Ashton Mining of Canada Inc.	100%	Cancel Permit

Total Area: 1,446,408.66

Total Permits: 171

Chrono - Diana

Alberta ENERGY NOTICE OF DESIGNATION, REPLACEMENT OR REVOCATION OF REPRESENTATIVE

FOR DEPARTMENT USE ONLY:

(Do not write above this line)

A. Full name of previous designated representative (enter "NONE" if this is a new designation by a sole lessee):

NONE

B. LSAS client ID (optional):

C. Full name of new designated representative (enter "NONE" if this is a revocation by a sole lessee):

ASHTON MINING OF CANADA INC.

D. LSAS client ID (optional):

803-7908-001

E. Agreement(s) (type and number) affected by this notice:

METALLIC AND INDUSTRIAL MINERALS PERMITS: 9396060030 TO 9396060085 AND 9396080083 TO 9396080090

F. The previous designated representative and new designated representative authorize this notice by signing this form and confirm that the consent of all registered lessees of the agreements enumerated has been obtained. (Note: if the signature of the previous designated representative or the new designated representative cannot be obtained, all lessees must sign.)

G. This instrument may be executed in separate counterparts, and all of the executed counterparts shall together constitute one instrument and shall have the same force and effect as if all of the persons executing such counterparts had executed the same instrument.

H. Dated this 13th day of April 1999

I. ANTELOPE LAND SERVICES LTD.

Previous Designated Representative

[redacted]

Signature

Harry A. Higgins Pres.

Printed name and capacity

ASHTON MINING OF CANADA INC.

New Designated Representative

[redacted]

Signature

Wayne Hillier, Vice President Exploration

Printed name and capacity

Note: the signature of the lessee is required if this is a new designation by a sole lessee

FORWARD COMPLETED FORM, IN DUPLICATE, TO:

Alberta Department of Energy
Minerals Tenure Branch
9945 - 108 Street
Edmonton, AB
T5K 2G6

OR

Alberta Department of Energy
Third Floor, Monenco Place
801 - 6th Avenue SW
Calgary, AB
T2P 3W2

??? **QUESTIONS** ???

Please phone during business hours
8:15 - 4:30, Monday to Friday
Ask for "Transfers"

Phone (403) 427-7749
Fax (403) 422-1123
Web Site http://www.energy.gov.ab.ca

9711/ANTELOPE.DOT