

# GM 64046

TECHNICAL REPORT, ESTIMATION OF THE MINERAL RESOURCES OF THE KEMAG IRON ORE DEPOSIT

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Énergie et Ressources  
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Québec 

**Estimation of the  
Mineral Resources of the  
KéMag Iron Ore deposit  
New Millennium Capital Corp.**

**Technical Report**

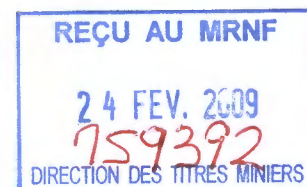
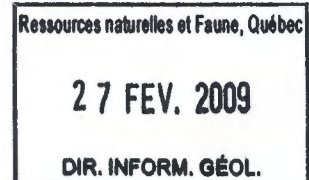
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Respectfully submitted to:  
New Millennium Capital Corp.

Date: March 20, 2007

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## 1.0 Summary

### *Introduction*

This Technical Report is prepared by Geostat Systems International Inc. (Geostat) for New Millennium Capital Corp. (NML), the owner of the KéMag iron ore deposit located in the Province of Quebec, Canada, some 50 kilometers north of Shefferville in the Labrador Trough. The purpose of this report is to support the public disclosure, for the first time, of estimated mineral resources on the Property.

All of the information used in this report was provided to Geostat by NML. Geostat's Representative Mr. Robert de l'Etoile, eng., visited the KéMag site on February 20, 2007. During the visit, Mr. de l'Etoile inspected 4 drilling sites, but due to the prevailing winter conditions, the inspection was limited to locating evidence of drilling activity at the expected drill locations. During the visit, Mr. de l'Etoile also inspected drill core at NML's core storage facility in Labrador City and took 27 core samples for independent check-assaying.

### *Reliance on other experts*

Geostat has not independently verified the legal title to the Property. We are relying on public documents and information provided by NML for our descriptions of title and status of the agreements. We have not carried out any independent geological surveys of the Property, but we independently collected 27 samples of drill core during our site visit in February 2007. We have relied solely on reports compiled by NML for our geological descriptions.

### *Property description and location*

The Property is situated in the municipality of Rivière Koksoak in Northern Quebec, centred about 50 km to the northwest of the town of Schefferville, Quebec. The Property is approximately 245km north of Labrador City, Province of Newfoundland and Labrador, and 550km due north of Sept-Iles, Quebec. The Property covers a total area of approximately 30km<sup>2</sup> (2,959ha) and comprises 62 map-staked claims held 100% by NML. In its current state, the property has only been explored by surface drillholes. There is no infrastructure and no camp has been set up. As of the writing of this report, Geostat is not aware of any royalties, back-in rights, payments or other agreements, encumbrances or environmental liabilities to which the Property could be subject.

### *Regional geology*

The Property is located on the extreme western margin of the Labrador Trough (Trough) adjacent to Archean basement gneisses. The Trough, otherwise known as the Labrador-Quebec Fold Belt, extends for more than 1,000km along the eastern margin of the Superior craton from Ungava Bay to Lake Pletipi, Quebec. The belt is about 100km wide in its central part and narrows considerably to the north and south. The Trough is comprised of a sequence of Proterozoic sedimentary rocks, including iron formations, volcanic rocks and mafic intrusions known as the Kaniapiskau Supergroup. The Kaniapiskau Supergroup consists of the Knob Lake group in the western part of the Trough and the Doublet Group, which is primarily volcanic, in the eastern part. The Knob Lake group is of interest on the Property.

The principal iron formation unit, the Sokoman Formation, part of the Knob Lake group, forms a continuous stratigraphic unit that thickens and thins from sub-basin to sub-basin throughout this fold belt.

### ***Local geology***

The deposit for the most part occurs under deep overburden cover which is boggy and strewn with basement gneissic boulders. However, the continuity of the Howells River stratigraphic sequence to the north-northwest into Harris Lake area is well established based on:

- The aeromagnetic response;
- The sporadic exposures of the lower Sokoman Formation overlying the continuous outcrops of the lowermost unit of the Knob Lake group along the south western margin of the deposit;
- The 2006 drilling results.

Units of the Knob Lake group, including the Sokoman Formation which is the major iron formation host in the Labrador Trough, underlie the majority of the Howells River and Harris Lake areas and comprise a north-northwest striking sequence of rocks. This sequence lies unconformably on Archean granitic gneisses (Ashuanipi Complex), which are exposed along the southwest margin of the Howells River, Harris Lake areas. A sharp angular unconformity marks the contact between the gently dipping, gently tilted Knob Lake group and the steeply foliated Archean basement rocks.

The lowermost unit of the Knob Lake group found in this area is composed of basal feldspathic quartzites and conglomerates of the Wishart formation. This Wishart formation is overlain conformably by the Ruth and Sokoman formations. The contact between the Wishart and the Ruth formations is commonly marked by a black chert (BC) horizon 0.6m to 3m thick containing zones of disseminated pyrite and carbonate.

The Sokoman Formation in the Howells River area has undergone only slight, very low grade metamorphism and shows very few effects of structural deformation. Furthermore, it has been subject to minimal post-depositional leaching or weathering. All three Sokoman members: Lower Iron Formation (LIF), Middle Iron Formation (MIF) and Upper Iron Formation (UIF) are present on the Property as observed in drill cores. Each of these three members is in turn broken down into individual stratigraphic units called sub-members. Drillhole logs and all geological work conducted on the Property use these sub-member names to classify samples and describe geology.

The Sokoman Iron Formation is overlain by the Menihék Formation, comprised of dark grey to black shales. Menihék Formation shales are exposed along the northeast margin of the Property.

The Wishart and Sokoman formations are essentially undeformed and strike at 145° to 148° and dip 5° to 12° east-northeast. In the KéMag property, based on drillhole data, dip appears to be around 6°.

The contacts between various sub-members are gradational. The unit occurring between GC and JUIF is distinctive and a good marker. The contact between the Sokoman and Menihék formations is probably a thrust fault. The Menihék formation in contact with Sokoman formation is generally intensely deformed and brecciated, with a locally well developed slaty cleavage.

The KéMag and LabMag deposits are iron formations of the Lake Superior type. Lake Superior-type iron formation consists of banded sedimentary rocks composed principally of bands of iron oxides, magnetite and hematite within quartz (chert)-rich rock with variable amounts of silicate, carbonate and sulphide lithofacies.

The iron formation in the Harris Lake and Howells River areas consists mostly of recrystallized chert and jasper with bands (beds) and disseminations of magnetite. Some martite, a type of hematite pseudomorphic after magnetite, also occurs. Hematite is also present, but it is not economic because it is not recovered by magnetic beneficiation. Other gangue minerals are present and these are mostly iron silicates, particularly minnesotaite and stilpnomelane and iron carbonates.

### ***Drilling***

The 2006 drilling program was initiated by NML to check airborne anomalies outlined by others during the 1950s and again in 1971. Since there are no exposures of iron formation in the Property, drilling is the only means of obtaining subsurface information. A total of 3,633.6 m in 29 holes was drilled on KéMag in 2006 out of which 2,224.7 m intersected the iron formation.

The drilling done to date indicates that the seven stratigraphic horizons are similar to those occurring at the LabMag deposit. The overall thickness of the iron formation remains the same. However, there are some minor changes in the individual thicknesses and in the magnetite content. The LC unit has very lean sections at the upper levels, and the JUIF unit is very thin but shows higher magnetite content. The LRC unit for the most part grades into LRGC and, as expected, the PGC unit shows higher a higher percentage Davis Tube Weight Recovery (DTWR%) and higher concentrate silica.

Structurally, the taconite beds are dipping at the same average  $6^\circ$  towards the east. From the drill core, no discernable fault or shear zones could be observed.

### ***Sampling and assaying***

The drill core was transferred to Shefferville for logging and sampling. After logging, the core was split in half using a hydraulic core splitter. Selected samples were bagged and labelled and the remaining half core was transferred to Labrador City for permanent storage.

A total of 488 samples, including duplicates, were sent to Midland Research Center (MRC) in Minnesota for assaying. The samples were assayed for DTWR, Total Fe in Head, Total Fe in Concentrate, and  $\text{SiO}_2$  in Concentrate. Other types of assaying were also done but in limited quantity and were not used in this study. A total of 43 core samples were also subject to specific gravity measurements.

NML inserted blind check assays in the stream of samples to check MRC performance. In addition, MRC sent randomly picked pulps to an external laboratory, Lerch Brothers Inc. (Lerch) in Minnesota.

The Quality Assurance / Quality Control program set up provided too limited results to derive statistically significant conclusions. In general, the check-assays returned values in accordance with the originals with the exception of the check samples sent to Lerch. There appears to be a slight bias between MRC and Lerch but due to the limited number of results, we cannot derive a definitive conclusion.

### ***Data verification***

Geostat visited the site and found evidence of drilling at the expected drill sites. However, even though there was evidence of drilling activity, the pegs identifying the drill sites did not show the drillhole numbers. Geostat is however confident that the drillhole data used in this study did come from the visited site.

Geostat took a total of 27 check samples from the remaining half core for independent control. The samples were sent to the Lerch laboratory in Minnesota. The results show that the core indeed contains iron in quantities similar to the values used in mineral resource estimation. However, Geostat has identified a systematic bias between the principal laboratory MRC and Geostat control laboratory Lerch. A bias has been identified in the Total Fe in Head assays, DTWR and SiO<sub>2</sub> in Concentrate assays. These biases do not affect the mineral resources estimated in this study but they will have to be addressed before the next drilling campaign samples are sent to the laboratory.

Due to the winter conditions prevailing at the time of the site visit, Geostat recommends that a second site visit be made during the coming drilling campaign in the summer of 2007.

### ***Adjacent properties***

The KéMag deposit is located some 18 kilometers to the north of the LabMag deposit, also a property of NML. Although this distance may seem important with respect to the concept of adjacent properties, given the scale of both deposits they can be treated as neighbours. Moreover, both deposits are considered geologically, stratigraphically similar and KéMag is considered to be the north extension of the LabMag deposit.

The LabMag deposit has been extensively explored and the project to develop the deposit is currently at the pre-feasibility stage. The KéMag deposit is not as advanced and does not have as much exploration data. However, because of its similarity with the LabMag deposit, Geostat relies on the knowledge gained on LabMag and feels confident to apply it in the modeling of the KéMag resources. For example, in the classification of the mineral resources of KéMag, Geostat has used the same classification criteria. This allows us to delineate Indicated mineral resources on the KéMag Property even though, based on knowledge of the Property alone, resources would probably not meet the Indicated level since KéMag only has 29 drillholes with most of the cross-sections containing only one drillhole.

### ***Mineral Resources***

Within the scope of this study, Geostat was mandated to carry out an estimation of the mineral resources of the KéMag deposit. The data from the 29 available drillholes was used. The mineral resources were estimated by means of a 3-dimensional multi-seam block model with grades interpolated by the Inverse Distance method. The geological interpretation of the seams was done by Geostat using the drillhole geological descriptions. Since most cross-sections only included one drillhole, the dip of the seams was set at 6° toward the south-east as was observed in the LabMag neighbor deposit. Each seam was estimated independently with its own set of composites.

The mineral resources were classified using a scheme identical to that used for the LabMag deposit. Based on LabMag knowledge, Geostat considers that where a drillhole intersects the iron formation, a classification of indicated material is applied provided that a spacing of 500m separates the drillholes.

As was done on the LabMag deposit, a fringe of inferred material has been added all around the drillhole layout since it is reasonable to expect that the iron formation extends beyond the limits of the drilling. A 250m fringe was added.

The mineral resources at various cut-off grades are estimated as follows:

| <b>DTWR<br/>COG (%)</b>                   | <b>Tonnage<br/>(Mt)</b> | <b>DTWR<br/>(%)</b> | <b>Fe Head<br/>(%)</b> | <b>Fe Conc<br/>(%)</b> | <b>SiO<sub>2</sub> Conc.<br/>(%)</b> |
|---|-------------------------|---------------------|------------------------|------------------------|--------------------------------------|
| <b>GLOBAL INDICATED MINERAL RESOURCES</b> |                         |                     |                        |                        |                                      |
| 0   | 1,616                   | 24.80               | 29.68                  | 67.33                  | 2.94                                 |
| 10  | 1,551                   | 25.55               | 30.12                  | 68.37                  | 2.98                                 |
| 15  | 1,464                   | 26.31               | 30.57                  | 68.91                  | 2.95                                 |
| 18  | 1,349                   | 27.13               | 30.85                  | 69.09                  | 2.92                                 |
| 20  | 1,237                   | 27.87               | 31.03                  | 69.12                  | 2.94                                 |
| 25  | 805                     | 30.71               | 31.72                  | 69.14                  | 2.98                                 |
| 30  | 431                     | 33.48               | 32.25                  | 69.09                  | 3.04                                 |
| 35  | 106                     | 36.75               | 33.00                  | 68.87                  | 3.22                                 |
| <b>GLOBAL INFERRED MINERAL RESOURCES</b>  |                         |                     |                        |                        |                                      |
| 0   | 1,214                   | 24.33               | 29.46                  | 67.19                  | 2.99                                 |
| 10  | 1,152                   | 25.26               | 30.06                  | 68.28                  | 3.02                                 |
| 15  | 1,089                   | 26.00               | 30.55                  | 68.82                  | 2.99                                 |
| 18  | 992                     | 26.91               | 30.85                  | 68.98                  | 2.97                                 |
| 20  | 898                     | 27.73               | 31.05                  | 68.99                  | 2.99                                 |
| 25  | 568                     | 30.86               | 31.74                  | 68.97                  | 3.08                                 |
| 30  | 303                     | 33.80               | 32.25                  | 68.81                  | 3.22                                 |
| 35  | 92                      | 37.26               | 32.94                  | 68.71                  | 3.30                                 |

The mineral resources are based on a cut-off grade applied on the DTWR. As was the case for the LabMag deposit, an 18% DTWR is currently applied.

At an 18% DTWR cut-off, the following mineral resources on a per seam basis stand at:

| Seam  | Tonnage (Mt) | DTWR (%) | Fe Head (%) | Fe Conc. (%) | SiO <sub>2</sub> Conc. (%) |
|---|--------------|----------|-------------|--------------|----------------------------|
| <b>Indicated Mineral Resources per seam at 18% DTWR cut-off</b> |              |          |             |              |                            |
| LC  | 212          | 27.61    | 29.32       | 68.98        | 2.79                       |
| JUIF  | 153          | 26.10    | 30.69       | 69.78        | 2.43                       |
| GC  | 13           | 20.88    | 26.21       | 69.54        | 2.35                       |
| URC   | 94           | 25.99    | 31.76       | 69.93        | 2.10                       |
| PGC   | 207          | 33.99    | 33.28       | 69.63        | 2.65                       |
| LRC   | 28           | 28.59    | 33.42       | 68.99        | 3.14                       |
| LRGC  | 575          | 26.75    | 31.52       | 68.64        | 3.41                       |
| <b>Inferred Mineral Resources per seam at 18% DTWR cut-off</b>  |              |          |             |              |                            |
| LC  | 85           | 26.13    | 28.71       | 68.16        | 2.99                       |
| JUIF  | 119          | 26.16    | 30.83       | 69.78        | 2.46                       |
| GC  | 6            | 20.63    | 26.95       | 69.77        | 2.09                       |
| URC   | 61           | 26.09    | 31.35       | 69.92        | 2.05                       |
| PGC   | 143          | 33.46    | 33.09       | 69.47        | 2.80                       |
| LRC   | 26           | 28.65    | 33.40       | 68.90        | 3.23                       |
| LRGC  | 507          | 26.86    | 31.41       | 68.75        | 3.27                       |

The above Indicated and Inferred Mineral Resources per seam do not necessarily add up to the global results as the cut-off is applied to the blocks in each individual seam as if they could be treated independently. In reality, the blocks cross the seam boundaries and the grades from each seam are weighted to derive the global block values. The Mineral Resources per seam should only be used to compare the mineral characteristics of the different seams. The global Mineral Resource Table constitutes the Mineral Resource Statement

### ***Interpretation and Conclusions***

- The KéMag taconite deposit was first drilled in 1958 by IOCC. More exploration work was conducted by the same company until 1972. The property was staked by NML in 2004 and a new exploration campaign was started. In 2005, geological mapping and outcrop sampling took place. In 2006, a 29 holes drilling campaign was carried out leading to the first mineral resource estimation on the property.
- The drilling extended over a distance of approximately 10 kilometers. The holes were mostly drilled along strike with holes every 500m. A small area near the center of the deposit was drilled more densely with one section of 4 holes every 300m.
- The KéMag deposit is interpreted as being identical to the LabMag deposit. It is considered geologically and stratigraphically similar. The drilling has intersected the same iron formations. KéMag and LabMag are located along the the strike direction of the regional formations. Some 18 kilometers separate both deposits.
- The verification of the assay data along with the analysis of 27 independently controlled samples shows that the analytical data is of a quality sufficient to support mineral resource estimation. The Quality Assurance/Quality Control program put in place was limited and considered insufficient. A more comprehensive QA/QC program will be needed to support a Measured Resource classification.

- The geological interpretation of the KéMag deposit heavily relies on the knowledge gained in the exploration of the neighboring LabMag deposit since most of the cross-sections only contain 1 drillhole. A limited area where a cross-section contains 4 drillholes allowed a detailed interpretation of the seams and confirmed a general dip of 6° to the southeast, just like the LabMag deposit. This level of geological knowledge is considered sufficient to classify the mineral resources to the Indicated level. Geostat considers that more drilling will be needed on each cross-section of the deposit to support a Measured resource classification. Essentially, Geostat considers that for KéMag, drill spacing necessary to classify the resources is as follows:
  - **Measured Mineral Resource:** part of the deposit covered by drillholes on a 250 meters between sections by 300 meters on section grid.
  - **Indicated Mineral Resource:** part of the deposit covered by drillholes on a 500 meters by 500 meters grid.
  - **Inferred Mineral Resource:** external 250m fringe around the indicated outline.
- The mineral resources were estimated using a 3-dimensional multi-seam block model with Inverse Distance interpolation. The classified mineral resources of the KéMag deposit currently stand at:

| DTWR<br>COG (%)                           | Tonnage<br>(Mt) | DTWR<br>(%) | Fe Head<br>(%) | Fe Conc.<br>(%) | SiO <sub>2</sub> Conc.<br>(%) |
|---|-----------------|-------------|----------------|-----------------|-------------------------------|
| <b>GLOBAL INDICATED MINERAL RESOURCES</b> |                 |             |                |                 |                               |
| 0   | 1,616           | 24.80       | 29.68          | 67.33           | 2.94                          |
| 10  | 1,551           | 25.55       | 30.12          | 68.37           | 2.98                          |
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| <b>GLOBAL INFERRED MINERAL RESOURCES</b>  |                 |             |                |                 |                               |
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| 15  | 1,089           | 26.00       | 30.55          | 68.82           | 2.99                          |
| 18  | 992             | 26.91       | 30.85          | 68.98           | 2.97                          |
| 20  | 898             | 27.73       | 31.05          | 68.99           | 2.99                          |
| 25  | 568             | 30.86       | 31.74          | 68.97           | 3.08                          |
| 30  | 303             | 33.80       | 32.25          | 68.81           | 3.22                          |
| 35  | 92              | 37.26       | 32.94          | 68.71           | 3.30                          |

### ***Recommendations***

Geostat recommends that:

- A more permanent drillhole location system should be used during drilling campaigns whereby drillhole names are tagged to steel pegs permanently anchored to the ground.
- Core boxes should be tagged by drillhole name and depth (From-To) instead of drillhole name and box number.
- A more comprehensive QA/QC program should be set up. Such a program should make use of blanks, duplicates and check samples. Also, for the drilling campaign as a whole, there should be at least 30, or 5% of the number of assays, whichever is the greater, for each assay type, including DTWR, Fe in Head, Fe in Concentrate and SiO<sub>2</sub> in Concentrate. Also, the presence of biases observed in the control samples should be addressed by the laboratories concerned.

- A comprehensive site visit should be made during summer when drilling activity is taking place. This visit should complete the visit made in February 2007 under winter conditions.
- The number of minor element assays should be increased order to build an adequate database to be used in more advanced stages of exploration. Also, the minor elements should also be integrated in the block model in the next phase.
- The number of drillholes should be increased in order to:
  - increase the resource base by enlarging the area covered by drilling
  - increase the quality of a significant portion of the mineral resources to the measured level

To achieve the measured level, Geostat considers that a section spacing of 250m is required, with a distance of 300m between holes on section.

## 2.0 Introduction

Geostat Systems International Inc. (Geostat) was mandated by New Millennium Capital Corp. (NML) to carry out a mineral resource estimation of its KéMag iron ore deposit, located in the Province of Quebec, Canada, some 50 kilometers northwest of the town of Shefferville, in the Labrador Trough.

The purpose of this report is to support the public disclosure, for the first time, of estimated mineral resources on the Property.

All of the information used in this report was provided to Geostat by NML. Geostat's Representative Mr. Robert de l'Etoile, eng., visited the KéMag site on February 20, 2007. During the visit, Mr. de l'Etoile inspected 4 drilling sites but due to the prevailing winter conditions, the inspection was limited to locating evidence of drilling activity at the expected drill locations. During the visit, Mr. de l'Etoile also inspected drill core at NML's core storage facility in Labrador City and took 27 core samples for independent check-assaying.

### 3.0 Reliance on Other Experts

Geostat has not independently verified the legal title to the Property. We are relying on public documents and information provided by NML for our descriptions of title and status of the agreements.

We have also not carried out any independent geological surveys of the Property, but did independently collect 27 samples of drill core during Geostat's site visit in February 2007. We have relied solely on reports completed by NML for our geological descriptions.

## 4.0 Property Description and Location

### 4.1 Property location

The Property is situated in the municipality of Rivière Koksoak in Northern Quebec, centred about 50 km to the northwest of the town of Schefferville, Quebec, as shown in Figure 1. The Property is located approximately 245km north of Labrador City, Province of Newfoundland and Labrador, and 550km due north of Sept-Iles, Quebec.

The area is centred at 55°07'N Latitude and 67°27'W Longitude in National Topographic Map reference 23O/03.

### 4.2 Property description and ownership

The Property covers a total area of approximately 30km<sup>2</sup> (2,959ha) and comprises 62 map-staked claims held 100% by NML. Map-staked claim means a claim giving the holder the exclusive right to explore for minerals in an area covered by the claim. A claim does not bestow any surface rights.

The claim group extends for a distance of about 14.5km aligned on a north-northwest – south-southeast axis as shown in Figure 2. The 62 claims were map-staked in two different phases. The first group of 48 were staked in January 2005 and the second group of 14 claims was staked in February 2006. A further group of 14 claims was submitted for registration in November 2006. The Property has not been legally surveyed but map-staked licences are defined on the basis of Universal Transverse Mercator (UTM) coordinates and consequently the Property location is accurate. Claim data are summarized in Table 1.

| Claim Number                         | Number of claims | Issuance Date    | Renewal Date            | Ownership |
|--------------------------------------|------------------|------------------|-------------------------|-----------|
| CDC0050761A to<br>CDC0050808A, incl. | 48               | 20 January 2005  | Currently being renewed | 100% NML  |
| CDC2001307A to<br>CDC2001320A, incl. | 14               | 23 February 2006 | 22 February 2008        | 100% NML  |
| <b>Total</b>                         | <b>62</b>        |                  |                         |           |

**Table 1: List of claims covering the KéMag property**

In its current state, the Property has only been explored by surface drillholes. There is no infrastructure and no camp has been set up. Figure 1 presents the location of the KéMag Property along with the location of the drillholes.

As of the writing of this report, Geostat is not aware of any royalties, back-in rights, payments or other agreements, encumbrances and environmental liabilities to which the Property could be subject.

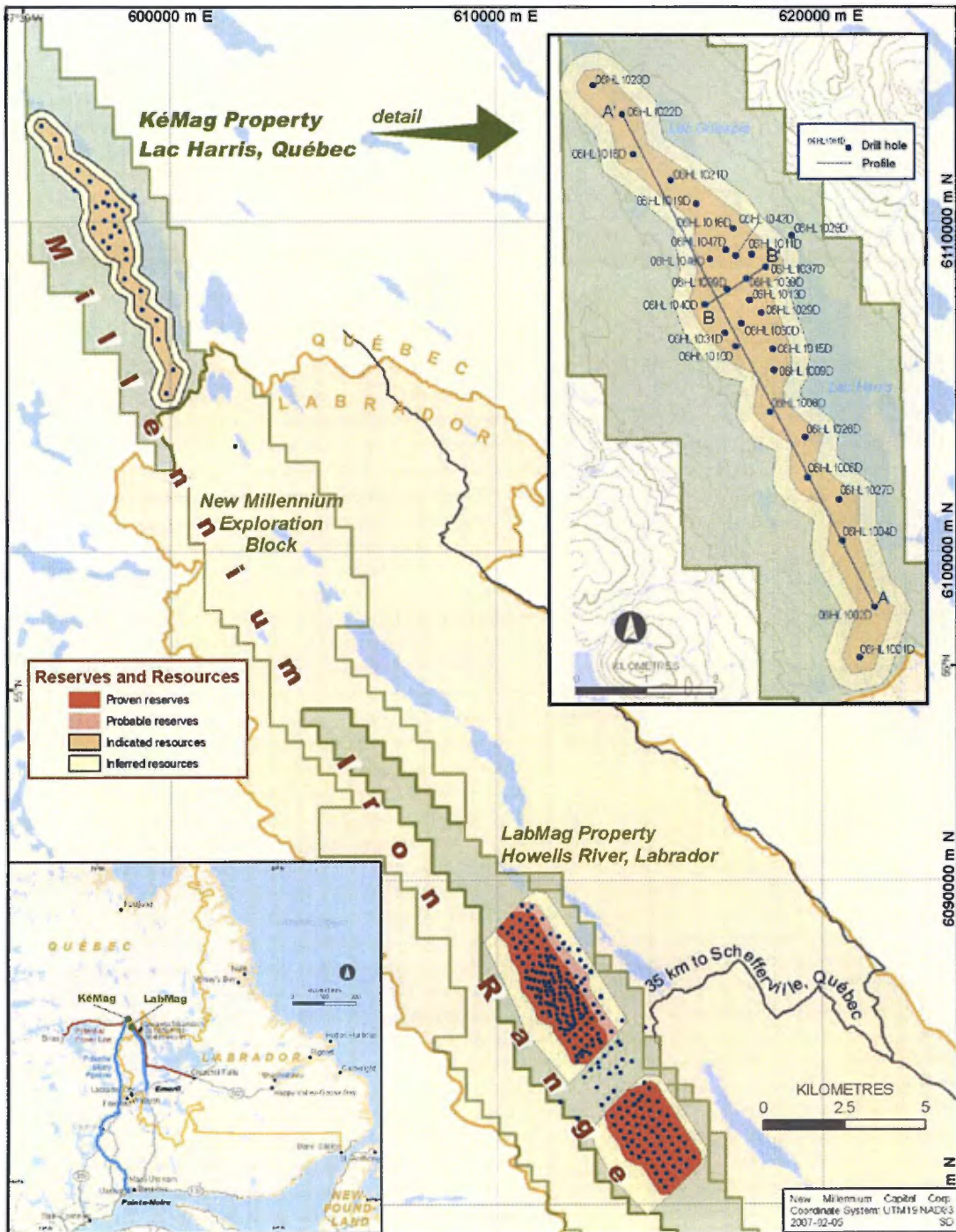


Figure 1: Location map of the KéMag Property and drillholes

### 4.3 Permitting

Only one permit was held by NML relating to the KéMag Property during the 2006 field season. The permit bears the number 3001463, was issued by the Quebec Ministry of Natural Resources in April 2006 and is valid for one year, until the end of March 2007.

## 5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

### 5.1 Accessibility

The Property is accessible to its nearest point by a good gravel road for 25km northwest of Schefferville past some former open pit mines and for a further 30km by 4x4 Pick-up truck or All-Terrain Vehicle over a road that crosses several streams before reaching Lac de la Frontière. From that point, a new 7km access road will have to be built to reach the Harris Lake property.

### 5.2 Climate

The Schefferville area and vicinity, including the Harris and Gillespie lakes lowlands, have a sub-arctic continental taiga climate with very severe winters. Daily average temperatures exceed 0°C for only five months a year. Daily mean temperatures for Schefferville average -24.1° and -22.6°C in January and February, respectively. Mean daily average temperatures in July and August are respectively, 12.4° and 11.2°C.

Snowfall in November, December, and January generally exceeds 50 cm per month and the wettest summer month is July with an average rainfall of 106.8 mm.

Vegetation is boreal forest and is sparse in the deposit area.

### 5.3 Local resources and infrastructure

Schefferville, an incorporated municipality in Quebec, suffered economically after the closing of the iron mines of Iron Ore Company of Canada (IOCC) in 1982. However, in the last five years, a number of new buildings, including medical clinics, a recreation centre, churches, and houses have been constructed, both in the town and on the contiguous Matimekosh Indian Reserve, largely to serve an expanding First Nations presence. The present population is now about 250 non-native residents, most of which work directly or indirectly for the First Nations. Some 700 members of the Nation Innu Matimekosh-Lac John live in the nearby Matimekosh community.

Kawawachikamach (Kawawa), a community located some 20km north of the town of Schefferville, is the home of the Naskapi First Nations of Canada. The community was established in this location following the signing in 1978 of the Northeastern Quebec Agreement between the Government of Quebec and the Naskapi Band of Quebec. Since 1982, some 130 housing units have been built for the Naskapi people and there are now about 750 Naskapis living in the modern community that has its own school, medical clinic, recreational complex and swimming pool.

The economy of Schefferville is based on hunting and fishing, tourism and public service administration. Several fishing and hunting camp operators are based in Schefferville and yearly thousands of hunters and fishermen fly to various camps distributed about the region, chiefly for trout fishing and hunting for caribou and black bear. In addition to the hunting and fishing outfitters, the population of the town consists mainly of motel, store and flying service operators, teachers, retired families and support staff for the town services.

While there is a potential labour force in the vicinity, training programs will be required. It is assumed that government resources would be made available for such programs.

The region is served by an airport, classified a Remote Airport under the National Airports Policy, which has a 2,000 metre runway capable of handling Boeing 737 aircraft. Kingair service to Sept-Îles is offered six days per week and Dash 7 service to Quebec City and Montreal is offered twice weekly.

Until the end of November 2005, the Quebec North Shore and Labrador Railway (QNS&L), owned by IOCC, ran between Sept-Îles and Schefferville and offered weekly passenger and freight services. On December 1, 2005, that part of the rail line that runs from Emeril to the northern terminus at Schefferville was acquired from QNS&L by Tshiuetin Rail Transportation Inc. (TRI), which is owned in equal parts by the Naskapi Nation of Kawawachikamach, the Nation Innu Matimekosh - Lac John and Innu Takuaikan Uashat mak Mani. Today, TRT operates two trains per week between Schefferville and Sept-Îles for passengers and community freight.

Schefferville is approximately 27km north of where the TRT rail line crosses the Howells River and the distance from that crossing up the Howells River valley to the main Harris Lake iron deposit is approximately 70km.

Kawawachikamach receives its electricity by a 25kV power line from Schefferville, which in turn is supplied by a 69kV power line from the hydro-electric generating station at Menihék Lake, Labrador, about 40km south of Schefferville. The electricity supply is sufficient for local needs only.

#### **5.4 Physiography**

The Property has an average elevation of 535m above sea level. It slopes gently from west to northeast away from the height of land representing the Quebec-Labrador border and towards Harris Lake and Gillespie Lake, more or less parallel to the dip of the rocks. Terrain e Property is generally flat, with total relief of about 100m.

Streams to the east and west of the height of land in Quebec flow into the Kaniapiskau watershed which flows north into Ungava Bay.

## 6.0 History

Prior to staking of the Property by NML in 2004, all recorded work had been carried out by IOCC. A brief summary of the work is presented below:

- 1949-50 Radar Geophysics Ltd. conducted regional aeromagnetic surveys in the Harris Lake/Howells River area for IOCC. Most of the data from these surveys were not interpreted until 1966 by IOCC.
- 1950 Geological mapping by IOCC on a scale of 1"=1000' and sampling were carried out by G. Perrault to the west of Howells River, extending to Gillespie Lake. During this period, exploration was mainly aimed at outlining enriched iron ore deposits.
- 1958 During the winter of 1958, additional work was carried out by M. Belland (IOCC) in an area located near Boundary Lake (Lac de la Frontière), in the valley west of the Goodwood deposit. This area was investigated by a combined program of dip-needle survey and test drilling, to locate iron formation with possible enriched sections. The area surveyed and test drilled covers 28.5km<sup>2</sup>, of which 19.5km<sup>2</sup> is in Quebec. A total of 23 holes were drilled in Quebec, mostly in lakes, to check the subsurface geology. Most of the holes intersected only slates (MS). Only three holes near the western shores of Harris and Gillespie Lakes encountered iron formation (Lean Chert or LC) below MS and were not analyzed.
- 1968 IOCC conducted a remnant magnetism study of the iron formations occurring within a 64km radius of Schefferville, which included the Harris Lake and Howells River areas. The main aim of this study was the evaluation of the magnetic taconite deposits in the area surrounding Schefferville.
- 1971 An airborne electromagnetic and magnetic survey was flown by IOCC over a 518km<sup>2</sup> area of Howells River magnetic iron formation. The purpose of the survey was to outline the best economic taconite zones in terms of tonnage and grade between Astray and Gillespie Lakes.
- 1972 Based on the results of the above cited surveys, IOCC obtained an Exploration Permit to conduct a detailed investigation in the Harris Lake area. However, no such investigation was carried out by IOCC.
- 2004 NML staked claims covering the Harris Lake taconite deposit.
- 2005 Reconnaissance mapping and sampling was carried out by geologists for NML.

## 7.0 Geological Setting

### 7.1 Regional geology

The Property is located on the extreme western margin of the Labrador Trough (Trough) adjacent to Archean basement gneisses as shown in Figure 2.

The Trough, otherwise known as the Labrador-Quebec Fold Belt, extends for more than 1,000km along the eastern margin of the Superior craton from Ungava Bay to Lake Pletipi, Quebec. The belt is about 100km wide in its central part and narrows considerably to the north and south.

The Trough is comprised of a sequence of Proterozoic sedimentary rocks, including iron formation, volcanic rocks and mafic intrusions known as the Kaniapiskau Supergroup. The Kaniapiskau Supergroup consists of the Knob Lake group in the western part of the Trough and the Doublet Group, which is primarily volcanic, in the eastern part. The Knob Lake group is of interest on the Property and the stratigraphy is outlined in more detail in Table 2.

The principal iron formation unit, the Sokoman Formation, part of the Knob Lake group, forms a continuous stratigraphic unit that thickens and thins from sub-basin to sub-basin throughout this fold belt.

The southern part of the Trough is crossed by the Grenville Front. Trough rocks in the Grenville Province to the south are highly metamorphosed and complexly folded. Iron deposits in the Grenville part of the Labrador Trough include Lac Jeannine, Fire Lake, Mont-Wright and Mont-Reed and the Luce, Humphrey and Scully deposits in the Wabush area. The high-grade metamorphism of the Grenville Province is responsible for recrystallization of both iron oxides and silica in primary iron formation producing coarse-grained sugary quartz, magnetite, and specular hematite schists (meta-taconites) that are of improved quality for concentration and processing.

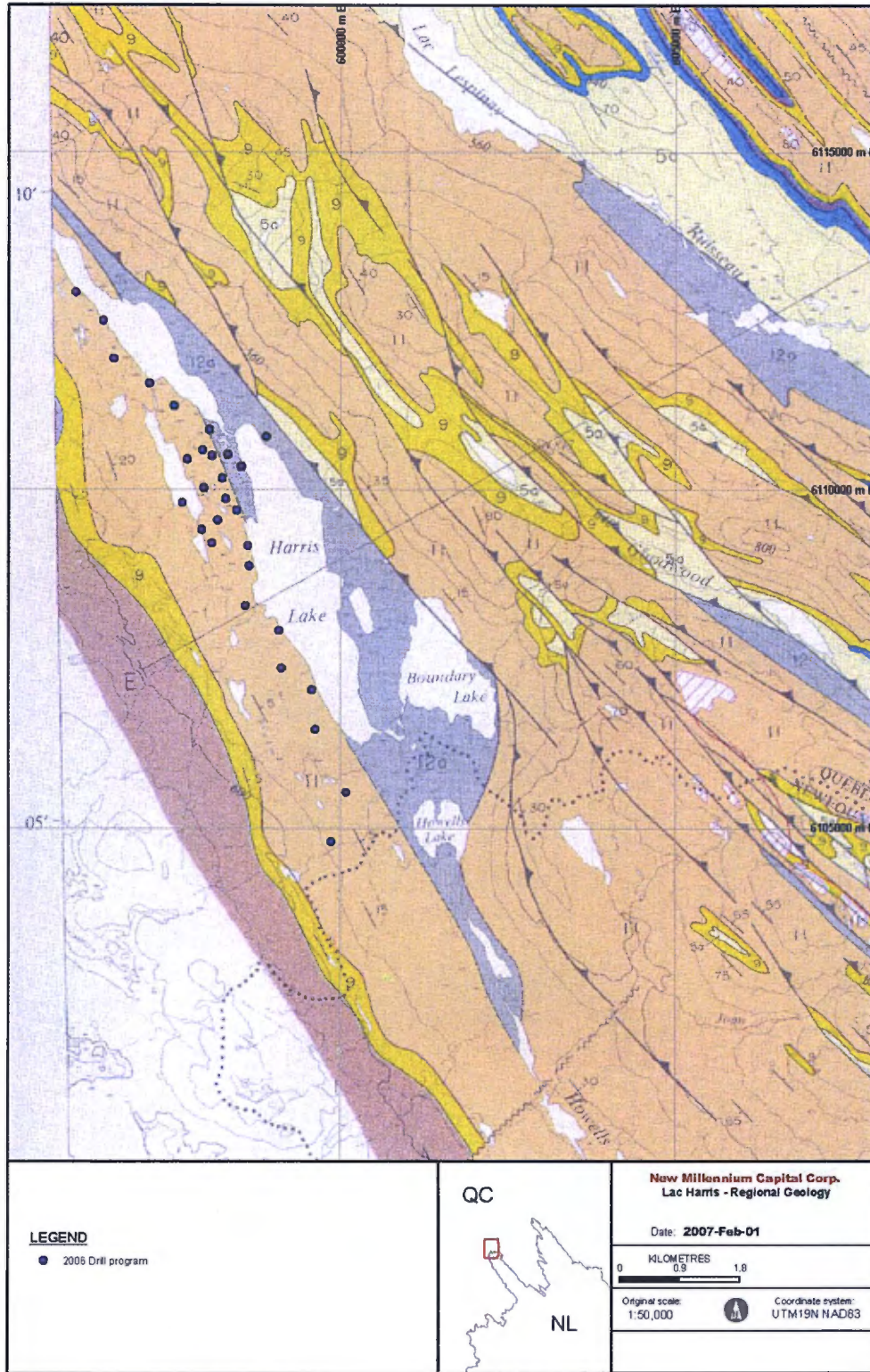


Figure 2: Regional geology of the KéMag deposit

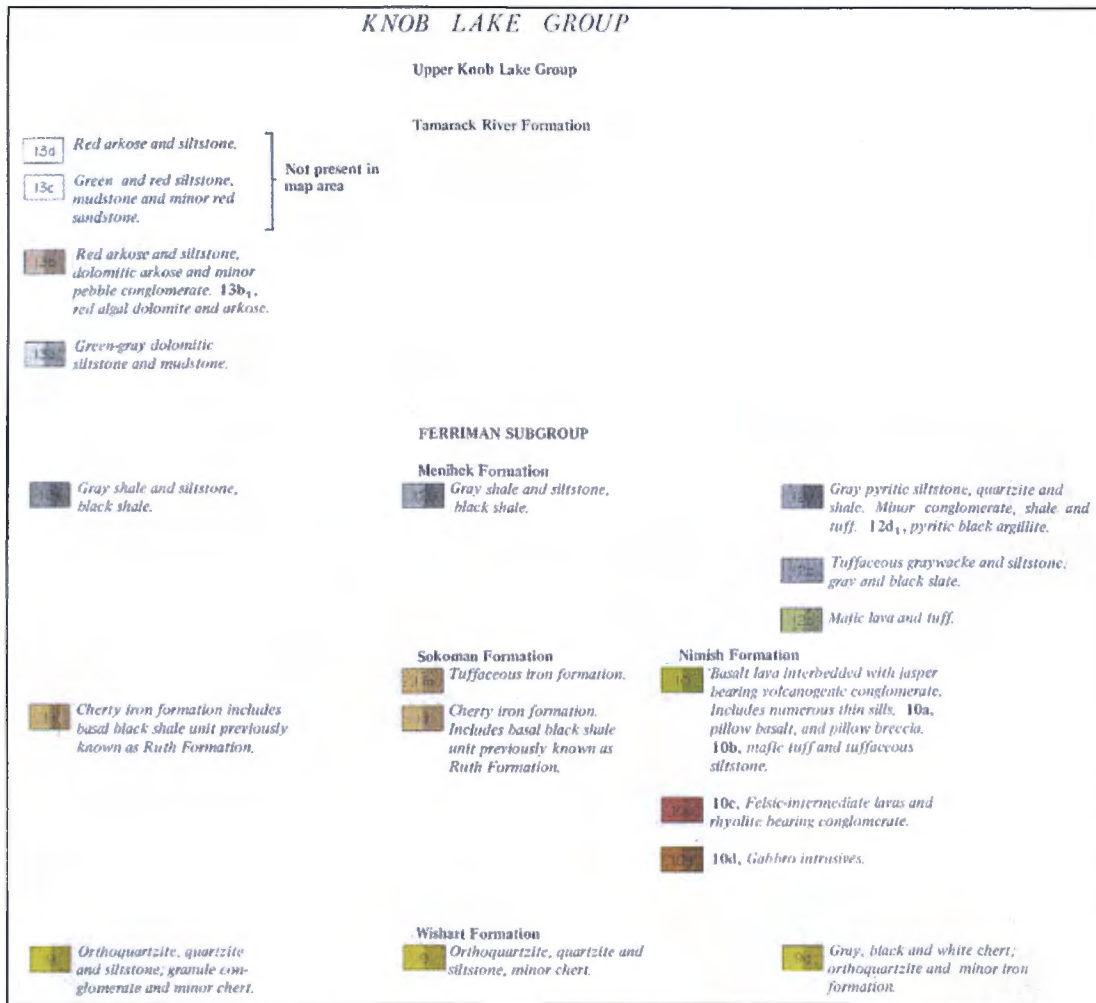


Figure 3: Regional geology map legend (1)

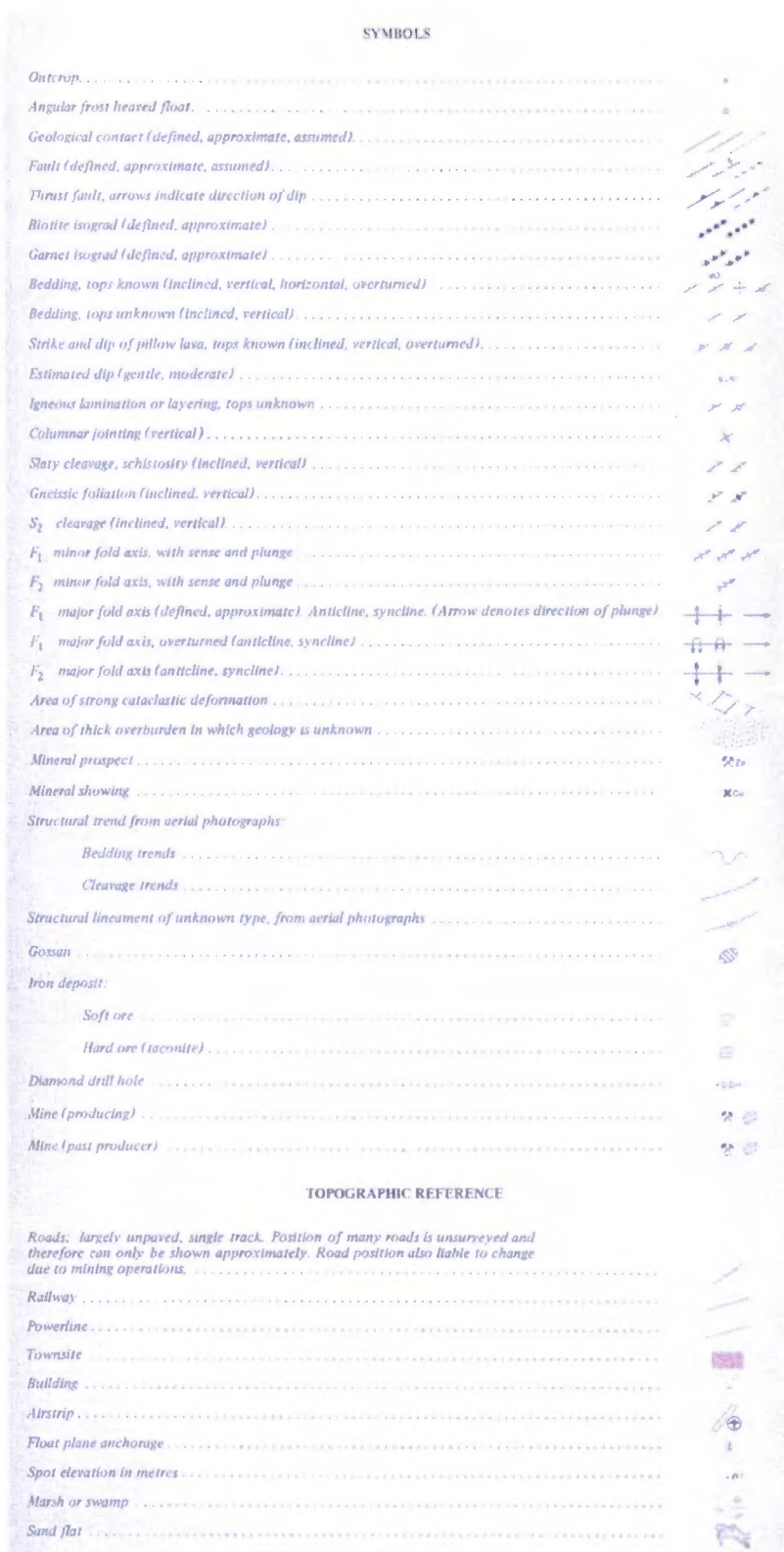


Figure 4: Regional geology map legend (2)

**PROTEROZOIC – Helikian****Shabogamo Group**

Gabbro, Diabase

*Intrusive Contact***PROTEROZOIC – Aphebian****Kaniapiskau Supergroup**Knob Lake group

|                        |   |
|------------------------|---|
| Menihek Formation      | Carbonaceous slate, shale, quartzite, greywacke, mafic volcanic rocks, minor dolomite and chert.  |
| Purdy Formation        | Dolomite, developed locally.  |
| Sokoman iron formation | Oxide, silicate and carbonate lithofacies; minor sulphide lithofacies; interbedded mafic volcanic rocks (Nimish Formation); ferruginous slate and slaty iron formation, slate and carbonaceous shale. |
| Wishart Formation      | Feldspathic quartz arenite, arkose, minor chert, greywacke, slate and mafic volcanic rocks.   |
| Fleming Formation      | Chert breccia, thin-bedded chert, limestone, minor lenses of shale and slate.   |
| Denault Formation      | Dolomite and minor chert.   |
| Attikamagen Formation  | Green, red, grey and black shale and argillite interbedded with mafic volcanic rocks.   |
| Unconformity           |   |

**ARCHEAN****Ashuanipi Complex**Granitic and Granodioritic gneiss  
and mafic intrusives**Table 2: Regional stratigraphic column - Churchill part of western Labrador Trough**

The main part of the Trough north of the Grenville Front is in the Churchill Province and has been subjected to low-grade (greenschist facies) metamorphism. In areas west of Ungava Bay, metamorphism increases to lower amphibolite grade. The mines developed in the Schefferville area by IOCC exploited residually enriched earthy iron deposits derived from taconite-type protos.

## 7.2 Property geology

### 7.2.1 General

The Property for the most part occurs under deep overburden cover which is boggy and strewn with basement gneissic boulders. However, the continuity of the Howells River stratigraphic sequence to the north-northwest into the Harris Lake area is well established based on:

- The aeromagnetic response;
- The sporadic exposures of the lower Sokoman Formation overlying the continuous outcrops of the lowermost unit of the Knob Lake group along the south western margin of the deposit;
- The 2006 drilling results.

Units of the Knob Lake group, including the Sokoman Formation, which is the major iron formation host in the Labrador Trough, underlie the majority of the Howells River, Harris Lake areas and comprise a north-northwest striking sequence of rocks. This sequence lies unconformably on Archean granitic gneisses (Ashuanipi Complex), which are exposed along the southwest margin of the Howells River, Harris Lake areas as described in Table 3. A sharp angular unconformity marks the contact between the gently dipping, gently tilted Knob Lake group and the steeply foliated Archean basement rocks.

The lowermost unit of the Knob Lake group found in this area is composed of basal feldspathic quartzites and conglomerates of the Wishart formation. This Wishart formation is overlain conformably by the Ruth and Sokoman formations. The contact between the Wishart and the Ruth formations is commonly marked by a black chert (BC) horizon 0.6m to 3m thick containing zones of disseminated pyrite and carbonate.

| Unit  | Est'd Avg True Thickness & Range (m) | Description   |
|---|--------------------------------------|---|
| Youngest  |                                      |   |
| <b>Diabase</b>  |                                      |   |
| <b>Menihék Formation</b>                                      | >79.2                                | Dark grey to black shale with minor interbedded greywacke and carbonate lithofacies, carbonaceous pyritic shale.  |
| <b>THRUST FAULT</b>   |                                      |   |
| <b>Sokoman Formation</b>                                      |                                      |   |
| <b><i>UIF Member</i></b>                                      |                                      |   |
| Lean Chert Sub-member (LC)<br>Silicate Facies                 | 25.0<br>(18.4-32.5)                  | Greenish, green to grey-green and pink-grey magnetite-chert iron formation with local zones of laminated to shaley bedded (siderite-magnetite) chert iron formation. This unit contains a stromatolite-bearing purple-red and green chert band with magnetite less than 3 m thick. Stilpnomelane-bearing magnetite-rich shales occur both above and below the stromatolitic band. |
| Jasper Upper Iron Formation (JUIF) Magnetite-Carbonate Facies | 26.2<br>(20.7-30.8)                  | Layered to laminated, magnetite-chert iron formation. Red-grey-pink in colour, red chert and oolites.   |
| Green Chert (GC)<br>Magnetite-Carbonate Facies                | 3.8<br>(1.2-9.4)                     | Silicate-rich, green chert unit, laterally continuous and an excellent marker horizon.  |
| <b><i>MIF Member</i></b>                                      |                                      |   |
| Upper Red Cherty (URC)<br>Hematite-Carbonate Facies           | 8.1<br>(4.4-16.8)                    | Predominantly arenitic oxide facies. Oolitic and granular texture with cross bedding, abundant iron oxides throughout with more jasper near the top (URC) and bottom (LRC) of unit.   |
| Pink-Grey Cherty (PGC)<br>Magnetite-Carbonate Facies          | 12.6<br>(4.0-22.9)                   | Massive to layered, jasper-magnetite-chert iron formation. Red-grey to reddish purple.  |
| Lower Red Cherty (LRC)<br>Hematite-Carbonate Facies           | 8.6<br>(0-18.6)                      | Disseminated magnetite-chert iron formation. Grey to pink-grey to green-grey.   |
| <b><i>LIF Member</i></b>                                      |                                      |   |
| Lower Red Green Cherty (LRGC)<br>Magnetite-Carbonate Facies   | 21.2<br>(0-46.0)                     | Layered silicate-magnetite-carbonate, magnetite-chert iron formation. Pink to reddish-grey to green-grey. More silicate in lower part, more oxide in upper part. Lower contact transitional with LIF.   |
| Lower Iron Formation (LIF)<br>Silicate Facies                 | 8.2<br>(1.4-32.8)                    | Massive to layered green to grey-green silicate-carbonate-magnetite-chert iron formation.   |
| <b>Ruth Formation (RF)</b><br>Sulphide Facies                 | 5.2<br>(2.9-8.7)                     | Thin bedded to laminated chert-siderite, with thin interbeds of shale. Note - Zajac (1974) argues the term Ruth Formation should be abandoned because it is for most part equivalent to LIF.  |
| <b>Wishart Formation (Qte)</b>                                | 17.7<br>(14.6-20.4)                  | Black Chert 1.4 m (0.62-2.4 m)<br>Quartzites and/or re-crystallized cherts.   |
| <b>UNCONFORMITY</b>   |                                      |   |
| <b>Ashuanipi Complex – Archean</b>                            |                                      | Granitic and Granodioritic gneiss and mafic intrusives. Paleosol on contact between Proterozoic Assemblage and Archean basement.  |

Adapted after Fink (1972) and Klein and Fink (1976).

**Table 3: Stratigraphy of the KéMag property**

The Sokoman Formation in the Howells River area has undergone only slight, very low grade metamorphism and shows very few effects of structural deformation. Furthermore, it has been subject to minimal post-depositional leaching or weathering. According to Klein and Fink (1976), it may well represent one of the least altered and best preserved sections of the Sokoman Iron Formation. All three Sokoman members: Lower Iron Formation (LIF), Middle Iron Formation (MIF) and Upper Iron Formation (UIF) defined by IOCC and Zajac (1974) are present on the Property as observed in drill cores. Each of these three members is in turn broken down into individual stratigraphic units called sub-members.

Drillhole logs and all geological work conducted on the Property use these sub-member names to classify samples and describe geology.

James (1954) proposed, on the basis of his work on iron formations in the Lake Superior region, a division of iron formation into four facies: sulphide, silicate, carbonate and oxide. Klein and Fink (1976) have classified the various sub-members of the Sokoman Iron Formation in the Howells River area into sulphide, silicate, magnetite-carbonate and hematite-carbonate facies. Although Zajac (1977) disagreed, Klein and Fink considered the Ruth shale to represent sulphide facies. The silicate facies in the Howells River area according to Klein and Fink is represented by the LIF and LC sub-members, while the LRGC, PGC, GC and the JUIF sub-members are magnetite-carbonate facies and the LRC and URC are hematite-carbonate facies, where magnetite and hematite are present in nearly equal amounts or hematite is more prevalent than magnetite.

The Sokoman Iron Formation is in turn overlain by the Menihek Formation, comprised of dark grey to black shales. Menihek Formation shales are exposed along the northeast margin of the Property.

### 7.2.2 Structure

The Wishart and Sokoman formations are essentially undeformed and strike at 145° to 148° and dip 5° to 12° east-northeast. In the KéMag property, based on drillhole data, dip appears to be around 6°.

The contacts between various sub-members are gradational. The unit occurring between GC and JUIF is distinctive and a good marker.

The contact between the Sokoman and Menihek formations is probably a thrust fault. The Menihek formation in contact with Sokoman formation is generally intensely deformed and brecciated, with a locally well developed slaty cleavage. Angular to rounded, black to grey, silty shale fragments are supported by a grey-black cherty shale matrix. The brecciated unit, approximately 3 m thick, gives way to interbedded fine-grained black carbonaceous shale with medium to dark grey siltstone.

## 8.0 Deposit Types

The Harris Lake and Howells River deposits are iron formations of the Lake Superior type. Lake Superior-type iron formation consists of banded sedimentary rocks composed principally of bands of iron oxides, magnetite and hematite within quartz (chert)-rich rock with variable amounts of silicate, carbonate and sulphide lithofacies. Such iron formations have been the principal sources of iron throughout the world (Gross, 1996). Table 4 after Eckstrand, editor (1984), presents the salient characteristics of the Lake Superior-type iron deposit model.

Lithofacies that are not highly metamorphosed or altered by weathering are referred to as taconite. The KéMag deposit is magnetite-rich taconite.

Strongly metamorphosed taconites are known as meta-taconite or itabirite. The iron deposits in the Grenville part of the Labrador Trough in the vicinity of Wabush are meta-taconite.

The deposits at Schefferville, which were mined by IOCC prior to mine shutdown in 1982, are residual deposits formed by the leaching of silica and the concentration of iron oxides from what was originally taconite (also called protore). Lake Superior-type taconite deposits have not been mined in Canada, but are a major part of the iron mined in the Great Lakes region of the United States. Salient characteristics of ores from the Mesabi Range mines are listed in Table 5.

| Commodities                                   | Fe (Magnetite)   |
|---|--|
|   | Knob Lake, Wabush Lake and Mont-Wright areas, Quebec and Labrador, Mesabi Range, Minnesota; Marquette Range, Michigan; Minas Gerais area, Brazil.  |
| Importance                                    | Canada: the major source of iron.<br>World: the major source of iron.  |
| Typical Grade, Tonnage                        | Up to billions of tonnes, at grades ranging from 15 to 45% Fe, averaging 30% Fe.   |
| Geological Setting                            | Continental shelves and slopes possibly contemporaneous with offshore volcanic ridges. Principal development in middle Precambrian shelf sequences marginal to Archean cratons.  |
| Host Rocks or Mineralized Rocks               | Iron formations consist mainly of iron- and silica-rich beds; common varieties are taconite, itabirite, banded hematite quartzite, and jaspilite; composed of oxide, silicate and carbonate facies and may also include sulphide facies. Commonly intercalated with other shelf sediments: black   |
| Associated Rocks                              | Bedded chert and chert breccia, dolomite, stromatolitic dolomite and chert, black shale, argillite, siltstone, quartzite, conglomerate, redbeds, tuff, lava, volcanoclastic rocks; metamorphic equivalents.  |
| Form of Deposit, Distribution of Ore Minerals | Mineable deposits are sedimentary beds with cumulative thickness typically from 30 to 150 m and strike length of several kilometres. In many deposits, repetition of beds caused by isoclinal folding or thrust faulting has produced widths that are economically mineable. Ore mineral distribution is largely determined by primary sedimentary deposition. Granular and oolitic textures common.   |
| Principal Ore Minerals<br>Associated Minerals | Magnetite, hematite, goethite, pyrolusite, manganite, hollandite.<br>Finely laminated chert, quartz, Fe-silicates, Fe-carbonates and Fe-sulphides; primary or metamorphic derivatives  |
| Age, Host Rocks                               | Precambrian, predominantly early Proterozoic (2.4 to 1.9 Ga).  |
| Age, Ore                                      | Syngenetic, same age as host rocks. In Canada, major deformation during Hudsonian and, in places, Grenvillian orogenies produced mineable thicknesses of iron formation.   |
| Genetic Model                                 | A preferred model invokes chemical, colloidal and possibly biochemical precipitates of iron and silica in euxinic to oxidizing environments, derived from hydrothermal effusive sources related to fracture systems and offshore volcanic activity. Deposition may be distal from effusive centres and hot spring activity. Other models derive silica and iron from deeply weathered land masses, or by leaching from euxinic sediments. Sedimentary reworking of beds is common. The greater development of Lake Superior-type iron formation in early Proterozoic time has been considered by some to be related to increased atmospheric oxygen content, resulting from biological evolution.  |
| Ore Controls, Guides to Exploration           | <ol style="list-style-type: none"> <li>1. Distribution of iron formation is reasonably well known from aeromagnetic surveys.</li> <li>2. Oxide facies is the most important, economically, of the iron formation facies.</li> <li>3. Thick primary sections of iron formation are desirable.</li> <li>4. Repetition of favourable beds by folding or faulting may be an essential factor in generating widths that are mineable (30 to 150 m).</li> <li>5. Metamorphism increases grain size, improves metallurgical recovery.</li> <li>6. Metamorphic mineral assemblages reflect the mineralogy of primary sedimentary facies.</li> <li>7. Basin analysis and sedimentation modelling indicate controls for facies development, and help define location and distribution of different iron formation facies.</li> </ol> |
| Author  | G.A. Gross   |

**Table 4: Deposit model for Lake Superior type iron formation, after Eckstrand (1984).**

Comparison of current and past producing taconite mines:

| Mine-Deposit                                   | Location  | Crude |         | Stripping Ratio<br>Waste:Ore | Concentrate<br>%Wt Recovery |
|--|-----------|-------|---------|------------------------------|-----------------------------|
|  |           | % TFe | % MagFe |                              |                             |
| Butler   | Minnesota | 32.4  | 22      | 0.3                          | 32                          |
| Mintac USS                                     | Minnesota |       | 20      | 0.66                         | 28                          |
| Hibbing Taconite                               | Minnesota |       | 19      | 0.71                         | 29                          |
| Northshore Mining                              | Minnesota |       | 24      | 0.11                         | 32.5                        |
| Ispat (formerly Inland)                        | Minnesota |       | 24      | 1.3                          | 32                          |
| Keewatin Taconite (formerly<br>National Steel) | Minnesota |       | 19      | 0.42                         | 28                          |
| Empire   | Michigan  | 34    | 21      |                              | 31                          |

Source: Skilling Review 2000, 2002, 2003, NML

**Table 5: Comparison of current and past producing taconite mines**

For iron formation to be mined economically, iron content must generally be greater than 30%, but also the iron oxides must be amenable to concentration (beneficiation) and the concentrates produced must be low in manganese and deleterious elements such as silica, aluminium, phosphorus, sulphur and alkalis. For bulk mining, the silicate and carbonate lithofacies and other rock types interbedded within the iron formation must be sufficiently segregated from the magnetite.

## 9.0 Mineralization

The iron formation in the Harris Lake and Howells River areas consists mostly of recrystallized chert and jasper with bands (beds) and disseminations of magnetite. Some martite, a type of hematite pseudomorphic after magnetite, also occurs. Hematite is also present, but it is not economic because it is not recovered by magnetic beneficiation. Other gangue minerals are present and these are mostly iron silicates, particularly minnesotaite and stilpnomelane and iron carbonates.

As shown in Table 3, the unit on the Property that contains the highest consistent concentration of magnetite is PGC. LC and JUIF also contain higher concentrations of magnetite, while hematite is most common in LRC, URC and JUIF sub-members. Silicate iron minerals are most prevalent in LC, just beneath the Menihek formation, and in LIF. Silicate iron minerals also give GC, the lowermost sub-member of UIF, its defining colour.

Siderite is also common in LC and LIF members and manganese carbonates are also present. Calcite fills some fractures. Goethite and limonite are also common as fracture facings and are likely due to percolating groundwater.

The portion of the Property that has been explored by diamond drilling has a strike length of 9.5km, oriented northwest-southeast, and iron formation is present along this entire length and continues beyond the Property boundary. The formations dip to the northeast and to a large extent the magnetite concentration as described above is controlled mostly by the formational sub-member stratigraphy and large-scale sedimentary processes. To the northeast, the Sokoman dips under the Menihek Shale.

## 10.0 Exploration

In the summer of 2005, a preliminary mapping and outcrop sampling program was undertaken in the Harris Lake area, using a fly-in, fly-out camp. The mapping revealed the boggy nature of the area with few outcrops. A few scattered outcrops of MIF and LIF were mapped and sampled near the south end of the property. Table 6 gives the location and the analyses. It also includes the samples collected during 1950 and the results.

| Sample                 | Rock Type | UTM <sup>1</sup><br>Easting | UTM<br>Northing | Sample<br>%Fe | Concentrate |       |                   |
|------------------------|-----------|-----------------------------|-----------------|---------------|-------------|-------|-------------------|
|                        |           |                             |                 |               | DTWR        | %Fe   | %SiO <sub>2</sub> |
| <b>By IOCC in 1950</b> |           |                             |                 |               |             |       |                   |
| 2115                   | PGC       | 600410                      | 6104960         |               | 34.8        | 71.2  |                   |
| 2116                   | PGC       | 600380                      | 6104890         |               | 51.9        | 69.4  |                   |
| 2117                   | PGC       | 600290                      | 6104960         |               | 39.5        | 65.9  |                   |
| 2118                   | PGC       | 600220                      | 6104890         |               | 34.4        | 68.2  |                   |
| 2119                   | LRC       | 600000                      | 6104520         |               | 26.6        | 67.0  |                   |
| <b>By NML in 2005</b>  |           |                             |                 |               |             |       |                   |
| 2099                   | LIF       | 596421                      | 6111278         | 25.11         | 9.5         | 70.18 | 2.69              |
| 2100                   | LIF       | 595909                      | 6112474         | 29.07         | 25.0        | 64.76 | 9.69              |
| 2104                   | LRC       | 596671                      | 6109602         | 30.12         | 9.0         | 70.63 | 1.93              |
| 2105                   | PGC       | 596331                      | 6109618         | 33.13         | 35.5        | 68.67 | 4.20              |
| 2106                   | LIF       | 599213                      | 6104677         | 25.60         | 8.5         | 68.00 | 5.84              |
| 2107                   | LRC       | 599306                      | 6104769         | 30.87         | 21.5        | 68.67 | 4.19              |

**Table 6: Results of outcrop sampling in 1950 and in 2005**

In the summer of 2006, exploration continued in the form of a drilling campaign the results of which are presented in the following section.

<sup>1</sup> Based on NAD83

## 11.0 Drilling

### 11.1 Historical drilling

Historical drilling on the Property, summarized in Table 7, has consisted of test drilling of favourable dip-needle survey targets, mostly over the lakes. In 1958, IOCC drilled 23 holes during the winter time to locate enriched iron ore deposits. These were shallow holes designed to probe the iron formation. Sixteen holes were drilled on Harris, Gillespie and Jacques Lakes for a total of 246m (807'). Only three holes intersected unleached UIF. Those samples were not analyzed.

None of these historical holes are used in the current mineral resource estimation. Geostat has not been supplied with the historical drilling data.

| Year | Company | Number of Holes | Drillhole Numbers | Core Size | Cumulative length (m) | Cumulative length (ft) |
|------|---------|-----------------|-------------------|-----------|-----------------------|------------------------|
| 1958 | IOCC    | 16              | Z1201c to Z1216c  | unknown   | 246                   | 807                    |

**Table 7: Summary of historic diamond drilling**

### 11.2 2006 drilling program

The 2006 drilling program was initiated by NML to check airborne anomalies outlined by others during the 1950s and again in 1971. Since there are no exposures of iron formation in the Property, drilling is the only means of obtaining subsurface information.

A total of 3,633.6 m in 29 holes was drilled on KéMag in 2006 out of which 2,224.7m intersected the iron formation.

The drilling contractor was Heath & Sherwood (1986) Inc. of Kirkland Lake, Ontario, which provided two JKS 300 diamond drills. Due to the ground conditions, a helicopter was used to move the drills to the sites, to move between holes and to provide crew transportation. Canadian Helicopters Ltd of Goose Bay, NL, provided a B2 helicopter for the duration of the program.

The drilling started on June 9, 2006 and concluded on October 14, 2006. All of the drillholes were drilled vertically and ranged in length from 59m to 186m. Core size for most drilling was BTW (42mm diameter) and BQ (36.4mm diameter). Holes were spotted using a GPS receiver. No down-hole directional or geophysical surveys were carried out. At the end of the program all the drillholes were surveyed by N. E. Parrott Surveys Ltd. of Happy Valley, Goose Bay, NL. Originally the drilling was to be at the intersection of lines spaced 1,000m apart and section lines 500m apart. However, due to boggy conditions, it was not possible to adhere to the planned grid. Moreover, due to mechanical problems and inefficient crews, the drilling was suspended from August 14 to 7 September 7, 2006. The subsequent revised drilling program fell short of the initial objective.

### 11.3 2006 drilling results

The drilling done to date indicates that the seven stratigraphic horizons are similar to those occurring at the LabMag deposit. The overall thickness of the iron formation remains the same. However, there are some minor changes in the individual thicknesses and in the magnetite content. The LC unit has very lean sections at the upper levels, and the JUIF unit is very thin but shows higher magnetite content. The LRC unit for the most part grades into LRGC and, as expected, the PGC unit shows higher DTWR% and higher concentrate silica. Structurally, the taconite beds are dipping at the same average 6° towards the east. From the drill core, no discernable fault or shear zones could be observed.

## 12.0 Sampling Method and Approach

### 12.1 Core handling procedures

At the drill site, the drill core was extracted from the core barrel and was laid out by the drill contractor in three-compartment, 4.6m-capacity core boxes. Each core box was clearly marked by the drill assistant/helper with the drillhole number, the box number and the starting and ending meterages for each box. Blocks recording drillhole depth in metres were inserted at the termination of each 3m drill core run. The core box remained capped all the time when not receiving core. When the box was full, it was capped and secured at both ends, and at the end of each shift it was delivered to the core storage facility and properly stacked outside.

The core boxes received at the core storage building were sorted by drillhole and stored in the building until required by geologists. The boxes were transferred as complete holes to the core logging facility as requested by the logging geologists.

Following logging, the core trays containing the split half-core saves were returned to the core storage facility for permanent storage on the racks. A metal tag identifying the drillhole number and the box number was affixed to one end of each core tray.

### 12.2 Logging and sampling procedures

At the request of the core logging geologist, the core boxes for a complete drillhole were opened from the top of the drillhole and laid out on the logging tables, five boxes at a time. The core was then checked to confirm that the entire core for the drillhole was present. If required, the core was cleaned with a brush and water prior to logging.

The descriptive core logging procedure began with the recording of the overburden depth and identification of the stratigraphic units based on the mineralogical assemblage. The overall thickness, magnetism, texture, colour of the chert bands and structural characteristics such as bedding thickness, banded and or massive nature of the units, fault zones were all determined and described.

Rock Quality Index (RQD) logging was also done at the same time as the descriptive logging. RQD measurements were made for the entire length of the core. The core recovery percentage was measured and the core loss intervals were recorded. Once the contacts between the stratigraphic units were established, they were clearly marked and a tag was inserted delineating the unit contacts.

The core logging geologist then selected and marked the sampling intervals on the core and also placed a tag at the end of the sample interval in the core tray, showing the drillhole number, sample number, sample interval, and the starting and ending depths. Each stratigraphic unit was sampled separately, with sample lengths varying from 1.6m to a maximum of 9.05m. All units (LC, JUIF, GC, URC, PRG, LRC, LRG, LIF) were sampled except MS and RF. Even though LIF is considered as waste, it was also sampled. The sampling interval was based on the extent of magnetite/hematite mineralization and the width of lean cherty zones. If the lean low iron oxide zones exceeded 3m, they were

sampled separately, although individual sample lengths seldom exceeded 6m in both mineralized and waste zones.

Once the sampling intervals were clearly marked, magnetic susceptibility measurements were made at 0.3m intervals along the core for each sample length. This procedure of selecting sample intervals was repeated for the entire length of the core. Each set of core trays was also digitally photographed by the logging geologist. The core was then sent for splitting and sampling.

All logging and sample descriptions were recorded on paper forms for later transfer to digital records based on Microsoft Excel spreadsheets.

The cores were split using a hydraulic core splitter and the half core for assaying was placed in a canvas sample bag with a tag showing the drillhole number, sample number, sample interval, sample width and the analysis required. The sample bags were properly tied, with a tag showing the drillhole number, sample number and the sample interval. All the collected samples were sent in wooden boxes to the processing laboratory every two weeks.

The split half save of the core was placed on the original core tray that was then returned to the core storage building.

## 13.0 Sample Preparation, Analyses and Security

### 13.1 Routine assaying and test work

All the split core samples were sent to MRC for chemical and Davis Tube (DT) analysis. A total of 488 samples were submitted, including 13 check samples. The entire LIF drill core was sampled. Table 8 summarizes the 2006 sampling program statistics.

| No. of check samples included | Number of samples  |                 |                            |                               |               | No. of DT Tails |              |
|-------------------------------|--|-----------------|----------------------------|-------------------------------|---------------|-----------------|--------------|
|                               | Total. Fe DTWR%, DT Conc. Assays for Fe and SiO <sub>2</sub> | DT Conc. ICP-12 | CrudeF or Fe <sup>++</sup> | DT Conc. For Fe <sup>++</sup> | Crude For LOI | Crude For SG    | Assay For Fe |
| 13                            | 488  | 250             | 14                         | 37                            | 37            | 43              | 25           |

**Table 8: Summary of core samples submitted to MRC in 2006 for test work and analysis.**

In addition, 12 samples on three fractions (Crude, DT Concentrate and DT Tails) were analysed for trace elements and sulphur.

The following test work and sample analyses were completed for all samples by MRC:

- Head assay for total iron (TFe);
- Determination of %DTWR on -325 mesh DT concentrates;
- Determination of iron and silica in all DT concentrates.

MRC's sample preparation and analysis flowsheet consisted of the following steps:

1. Individual core samples crushed to 3/8" with a 4"x6" jaw crusher;
2. Split 1,500 g for test work;
3. Save the balance;
4. Roll crush 1,500 g to 100% -10 mesh;
5. Split 50 g for Davis Tube (DT) test and Head (crude) sample analysis;
6. Save the balance;
7. Stage grind 50 g to -325 mesh as per MRC procedure (Hanna Procedure);
8. DT % Weight Recovery test on 25-30 g sample as per the procedure provided by MRC (Hanna Procedure);
9. Analyze DT concentrate sample for TFe and SiO<sub>2</sub>; (non-mercury titrimetric method for total iron; SiO<sub>2</sub> determination using hydrofluoric acid); and
10. Analyze Head sample for TFe; save the balance.

Stage grinding, Davis Tube procedure and various analytical method descriptions are contained in Appendix 1.

The security measures to protect the samples integrity were adequate and consisted in identifying of sample bags with drillhole name, From, To and sample number, referencing sample locations in core boxes and direct shipment of sample bags containing half core pieces to the MRC laboratory. No sample preparation was done on site. To this date, MRC has been holding the sample rejects until further notice from NML.

### 13.2 Quality Assurance/Quality Control program

In order to control the quality of the laboratory results, NML sent a total of 13 blind check samples from selected drillhole intersections.

Also, MRC had its own internal QA/QC program in which samples were randomly selected and re-assayed. The details of the MRC QA/QC protocol are as follows:

- Run standards at the start of procedure to calibrate the test /equipment.
- 4% of samples are submitted by management as blind samples by following the procedure outlined below to check the analytical accuracy of the work:
  1. Randomly pick pulp to be assayed and place in an envelope.
  2. Assign a new number.
  3. Record old and new numbers in a folder that is not in the lab.
  4. Submit for analysis.
  5. Record old and new assays for comparison purposes.

Geostat has received check results of 10 head check assays and 10 concentrate assays. Although it represents a total of 20 checks (4% of the samples), in reality the comparisons are done of groups of 10 samples only or 2% of the sample set.

Moreover, selected samples were sent by MRC to an external laboratory, Lerch Brothers Inc. of Minnesota. A total of 60 samples were sent of which 30 were assayed for Fe in Head and 30 were assayed for Fe in Concentrate.

The detailed results are presented in the following sections. Geostat considers that the number of check samples at the various stages is too low with the exception of the group sent to Lerch where it reaches 30 samples, a minimum in Geostat's opinion. Geostat cannot derive significant conclusions on whether or not the assays are biased. Here again, the Lerch sample groups did present a bias for Fe and SiO<sub>2</sub> in concentrate. Although it is not a large one, it is considered statistically significant. Geostat recommends increasing the number of check assays and investigate the potential bias source in the following sampling campaigns.

Geostat has also noted that the DTWR were not internally checked at MRC nor were they at Lerch. Only the NML blind half core check samples were. Since DTWR is a critical component of the mineral resource, it is the element on which the cut-off grade is applied, Geostat recommends adding the DTWR to its QA/QC program.

In conclusion, Geostat considers that the quality of the samples used in this study is sufficient to support mineral resource estimation and a classification of the resources at the Indicated level but that a more extensive QA/QC program will be required to support the estimation of Measured resources.

### 13.3 Results of NML check sampling

NML selected a total of 13 samples to be re-assayed blindly at MRC. The samples were taken from the remaining half core and were assigned a new drillhole name and a new sample number and were sent in the stream of sample bags. The results are presented in Table 9. Although there is only a very limited set of check samples, the check results reported consistent values with the exception of sample 4953 where a 14.41% Tot. Fe sample returned a check value of 33.02% Tot. Fe.

| Drillhole No.  | Sample No.        | Original samples |              |              |                    | Blind check samples |              |              |                    |
|----------------|-------------------|------------------|--------------|--------------|--------------------|---------------------|--------------|--------------|--------------------|
|                |                   | Tot. Fe %        | DTWR %       | Conc. Fe %   | SiO <sub>2</sub> % | Tot. Fe %           | DTWR %       | Conc. Fe %   | SiO <sub>2</sub> % |
| HL1042D        | 4839              | 28.56            | 26.0         | 68.54        | 4.24               | 29.34               | 27.0         | 67.09        | 5.38               |
| HL1030D        | 4953 <sup>2</sup> | 14.41            | 17.5         | 68.75        | 3.23               | 33.02               | 18.0         | 68.90        | 3.15               |
| HL1039D        | 4892              | 18.01            | 6.0          | 70.70        | 1.54               | 16.81               | 6.0          | 70.47        | 1.62               |
| HL1048D        | 4938              | 32.72            | 34.5         | 70.55        | 1.57               | 32.80               | 34.5         | 70.85        | 1.46               |
| HL1038D        | 4867              | 33.67            | 38.0         | 70.34        | 1.79               | 33.62               | 37.5         | 70.55        | 1.69               |
| HL1029D        | 4914              | 33.47            | 11.5         | 70.70        | 1.51               | 33.62               | 11.5         | 71.37        | 1.13               |
| HL1015D        | 5009              | 28.86            | 24.0         | 70.64        | 1.44               | 28.07               | 25.5         | 70.55        | 1.40               |
| HL1015D        | 5011              | 34.84            | 33.0         | 69.21        | 3.20               | 36.17               | 36.0         | 68.82        | 3.46               |
| HL1047D        | 4993              | 22.21            | 17.0         | 70.85        | 1.38               | 23.57               | 19.0         | 69.20        | 1.58               |
| HL1047D        | 4994              | 33.62            | 33.5         | 70.85        | 1.71               | 33.62               | 35.5         | 70.77        | 1.52               |
| HL1031D        | 4967              | 33.52            | 33.5         | 70.55        | 1.30               | 33.62               | 33.5         | 70.02        | 2.09               |
| HL1047D        | 5001              | 36.02            | 28.0         | 70.10        | 2.38               | 35.72               | 28.5         | 69.95        | 2.42               |
| HL1031D        | 4975              | 24.02            | 10.0         | 69.87        | 2.09               | 21.91               | 10.5         | 69.50        | 3.32               |
| <b>Average</b> |                   | <b>28.76</b>     | <b>24.04</b> | <b>70.13</b> | <b>2.11</b>        | <b>30.15</b>        | <b>24.85</b> | <b>69.85</b> | <b>2.32</b>        |

Table 9: Table of NML blind check samples sent to MRC

NML requested re-assays of sample 4953 and its blind counterpart. The new assays showed more realistic results and we have to assume that the original assay of sample 4953 was erroneous and passed through MRC internal quality control procedures. The corrected values of sample 4953 and its blind counterpart were:

| Drillhole No. | Sample No. | Corrected sample 4953 |        |            |                    | Corrected blind counterpart |        |            |                    |
|---------------|------------|-----------------------|--------|------------|--------------------|-----------------------------|--------|------------|--------------------|
|               |            | Tot. Fe %             | DTWR % | Conc. Fe % | SiO <sub>2</sub> % | Tot. Fe %                   | DTWR % | Conc. Fe % | SiO <sub>2</sub> % |
| HL1030D       | 4953       | 32.27                 | 17.5   | 68.75      | 3.23               | 32.61                       | 18.0   | 68.9       | 3.15               |

The mineral resource estimation presented in this report uses the original erroneous values as the new assays were only made available to Geostat after the completion of the estimation.

<sup>2</sup> Original sample 4953. Found erroneous and was later re-assayed.

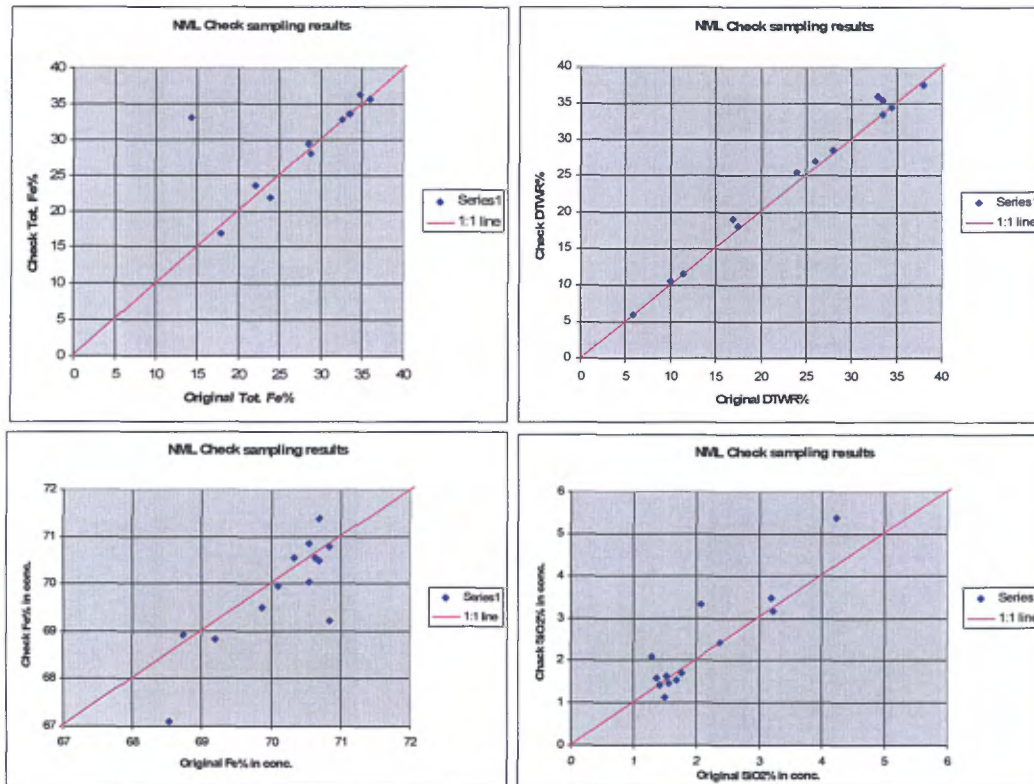


Figure 5: Scattergram of NML check sample results

### 13.4 Results of MRC internal check sampling

As mentioned above, MRC has an internal QA/QC program in which samples are randomly picked, renumbered and re-inserted in the stream of samples. This check sampling is done on the prepared original pulps. No check assaying was done on the rejects. A total of 20 check assays were selected, 10 for head assays and 10 for Davis Tube concentrates. MRC prepared a report describing their methodology. A copy is presented in Appendix 2. MRC concluded that all check assays returned values well within normal ranges and that no significant bias was observed. Their principal conclusion, from their report is as follows:

*“In reviewing the overall blind assay program for Harris Lake, it appears that, while there are differences in almost every case between the original assay and the blind assay, it appears that the differences between the original assays and the blind assays lie within normal ranges and are without significant bias, as illustrated by the calculated means for the data set and the interpretation provided above.”*

Geostat’s opinion is that although there does not appear to be a bias, the small number of pairs compared cannot yield to significant conclusion on bias. Geostat recommends that in the future, more samples are checked in order to provide a statistically significant data set from which conclusions can be drawn. Geostat considers that a minimum of 30 pairs in each group is required.

| Drillhole | Sample No. | %Fe in Head |       |
|-----------|------------|-------------|-------|
|           |            | Original    | Blind |
| 06HL1048D | 4943       | 32.65       | 32.68 |
| 06HL1002D | 4079       | 27.67       | 28.35 |
| 06HL1009D | 4386       | 29.88       | 29.82 |
| 06HL1028D | 4467       | 30.76       | 31.15 |
| 06HL1018D | 4485       | 27.13       | 27.69 |
| 06HL1016D | 4546       | 33.07       | 32.82 |
| 06HL1021D | 4608       | 29.18       | 30.37 |
| 06HL1008D | 4367       | 30.48       | 30.42 |
| 06HL1004D | 4250       | 30.78       | 30.50 |
| 06HL1027D | 4307       | 26.91       | 27.18 |

| Drillhole | Sample No. | %Fe in Conc. |       | %SiO <sub>2</sub> in Conc |       |
|-----------|------------|--------------|-------|---------------------------|-------|
|           |            | Original     | Blind | Original                  | Blind |
| 06HL1040D | 4922       | 67.85        | 66.03 | 5.01                      | 4.58  |
| 06HL1047D | 4989       | 70.62        | 70.29 | 2.21                      | 2.14  |
| 06HL1001D | 4043       | 66.37        | 66.29 | 4.42                      | 4.32  |
| 06HL1013D | 4406       | 70.29        | 70.10 | 1.60                      | 1.27  |
| 06HL1011D | 4482       | 70.54        | 70.08 | 1.82                      | 1.39  |
| 06HL1022D | 4651       | 67.48        | 69.51 | 3.79                      | 3.50  |
| 06HL1019D | 4515       | 69.18        | 69.25 | 2.56                      | 2.54  |
| 06HL1006D | 4229       | 69.59        | 69.59 | 1.90                      | 2.00  |
| 06HL1026D | 4266       | 69.62        | 69.67 | 2.04                      | 2.06  |
| 06HL1010D | 4338       | 69.10        | 69.44 | 2.94                      | 3.05  |

**Table 10: MRC Blind check assaying results**

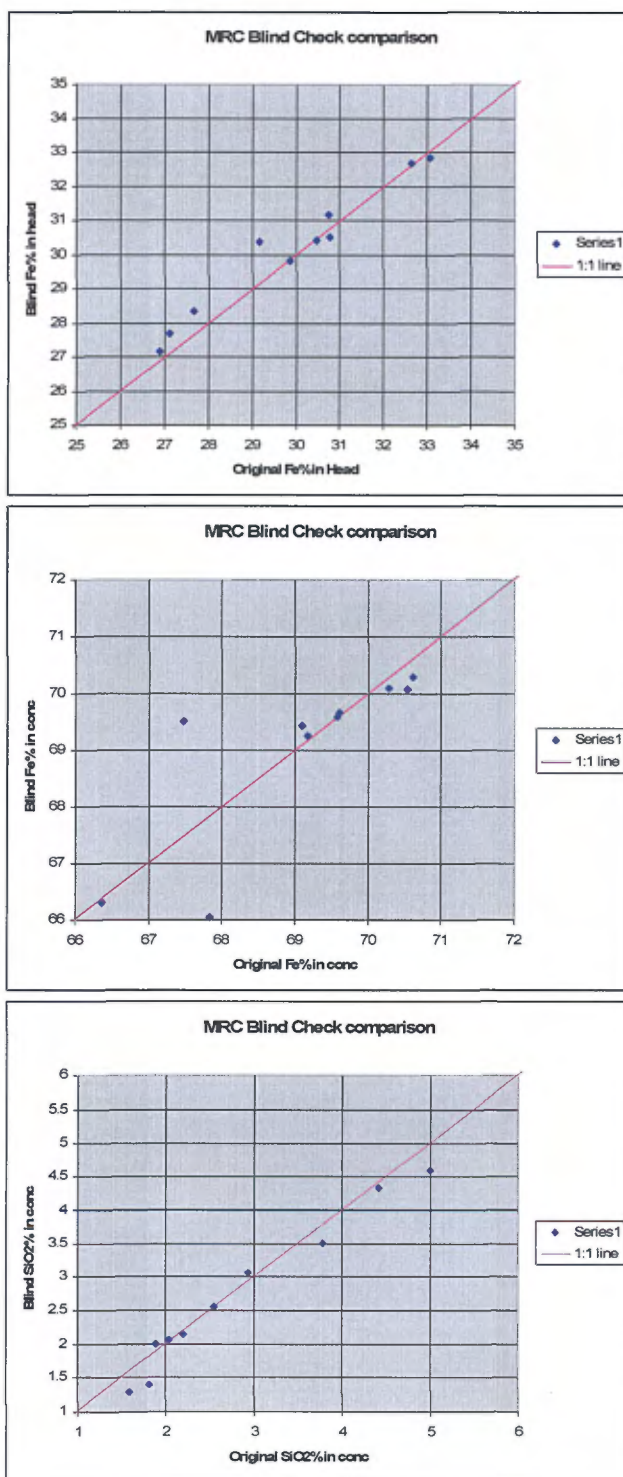


Figure 6: Scattergrams of MRC Original versus Blind check assays

### 13.5 Results of Lerch Brothers Inc. check sampling

A selection of 60 sample pulps was sent from MRC to the Lerch laboratory for an external assaying check. 29 pulps were assayed for Fe in Head and 30 pulps were assayed for Fe in Concentrate and SiO<sub>2</sub> in Concentrate. No coarse rejects were used in the check assay procedure. Table 11 presents the results of the Lerch assays.

In this case again, the number of pairs is small, more control samples would be required to be more conclusive. Geostat's findings are:

- %Fe in Head does not present a statistical bias.
- %Fe in Concentrate and %SiO<sub>2</sub> in Concentrate do present a bias.

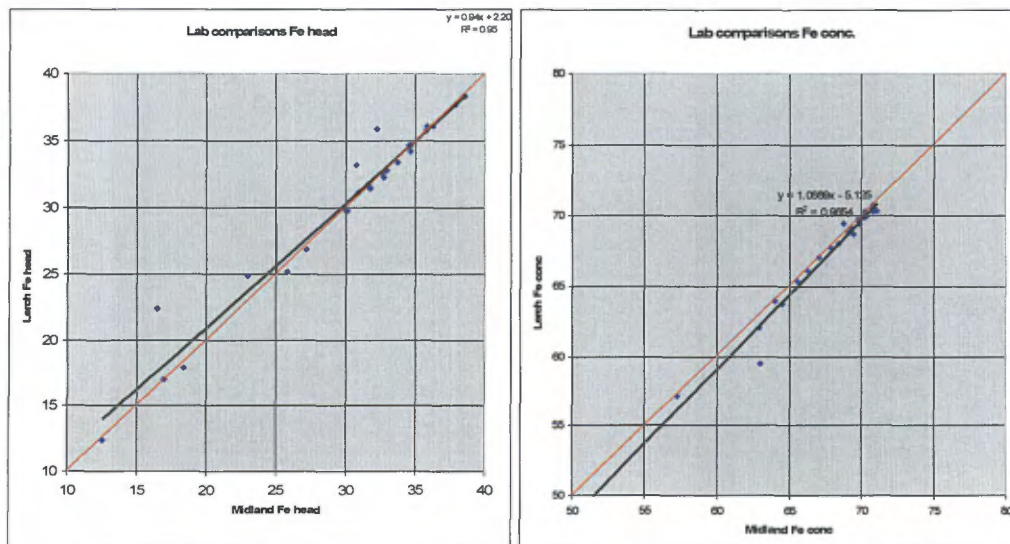
However, although a bias seems to exist, it is a small one (-0.6% for Fe in Concentrate and +10.9% for SiO<sub>2</sub> in Concentrate). Geostat recommends increasing the number of pairs in each group and further investigating the potential bias between the two laboratories in the future sampling campaigns. The biases have no impact on the current mineral resource estimates because they are based solely on DTWR% but Geostat considers that, for future campaigns, it should be addressed by the laboratories concerned.

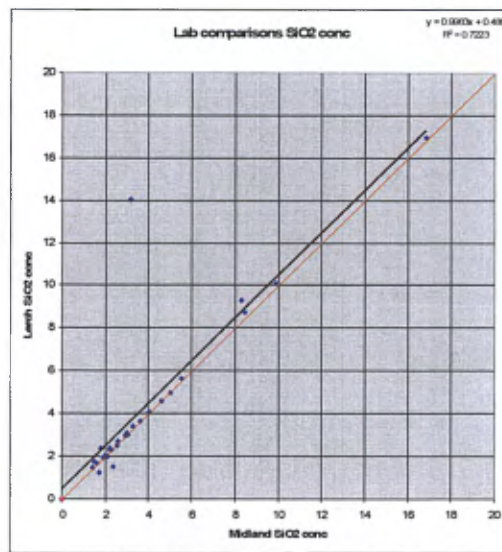
| Drillhole | Sample Number | Original %Fe in Head | Check %Fe in Head |
|-----------|---------------|----------------------|-------------------|
| 06HL1008D | 4363          | 30.78                | 33.19             |
| 06HL1006D | 4224          | 32.82                | 32.25             |
| 06HL1019D | 4510          | 32.25                | 35.88             |
| 06HL1016D | 4549          | 25.85                | 25.13             |
| 06HL1022D | 4634          | 23.01                | 24.82             |
| 06HL1018D | 4500          | 32.72                | 32.56             |
| 06HL1011D | 4477          | 30.22                | 29.72             |
| 06HL1013D | 4404          | 34.70                | 34.62             |
| 06HL1009D | 4382          | 32.99                | 32.72             |
| 06HL1021D | 4617          | 17.00                | 16.91             |
| 06HL1042D | 4846          | 34.57                | 34.62             |
| 06HL1037D | 4820          | 30.10                | 29.72             |
| 06HL1038D | 4864          | 35.92                | 36.04             |
| 06HL1031D | 4968          | 30.96                | 31.14             |
| 06HL1027D | 4292          | 38.65                | 38.32             |
| 06HL1010D | 4332          | 37.95                | 37.68             |
| 06HL1004D | 4246          | 33.76                | 33.37             |
| 06HL1026D | 4260          | 18.45                | 17.88             |
| 06HL1023D | 4661          | 12.63                | 12.29             |
| 06HL1002D | 4086          | 34.72                | 34.16             |
| 06HL1001D | 4045          | 27.21                | 26.82             |
| 06HL1047D | 4992          | 35.87                | 35.76             |
| 06HL1048D | 4946          | 31.82                | 31.45             |
| 06HL1040D | 4920          | 36.32                | 36.08             |
| 06HL1030D | 4955          | 31.67                | 31.77             |
| 06HL1029D | 4919          | 16.51                | 22.35             |
| 06HL1039D | 4885          | 31.86                | 31.45             |

| Drillhole | Sample Number | Original %Fe in Conc. | Check %Fe in Conc. | Original %SiO <sub>2</sub> in Conc. | Check %SiO <sub>2</sub> in Conc. |
|-----------|---------------|-----------------------|--------------------|-------------------------------------|----------------------------------|
| 06HL1008D | 4370          | 70.23                 | 70.02              | 1.77                                | 2.40                             |
| 06HL1006D | 4227          | 69.15                 | 68.76              | 3.25                                | 3.40                             |
| 06HL1019D | 4517          | 63.02                 | 59.43              | 3.15                                | 14.08                            |
| 06HL1016D | 4551          | 64.07                 | 63.86              | 8.28                                | 9.30                             |
| 06HL1022D | 4648          | 57.26                 | 57.06              | 16.82                               | 16.96                            |
| 06HL1018D | 4489          | 70.79                 | 70.50              | 1.61                                | 1.70                             |

| Drillhole | Sample Number | Original %Fe in Conc. | Check %Fe in Conc. | Original %SiO <sub>2</sub> in Conc. | Check %SiO <sub>2</sub> in Conc. |
|-----------|---------------|-----------------------|--------------------|-------------------------------------|----------------------------------|
| 06HL1011D | 4470          | 62.98                 | 61.96              | 9.88                                | 10.08                            |
| 06HL1013D | 4411          | 69.84                 | 69.39              | 2.58                                | 2.70                             |
| 06HL1009D | 4379          | 70.14                 | 70.02              | 2.37                                | 1.54                             |
| 06HL1021D | 4625          | 67.08                 | 67.02              | 4.03                                | 4.10                             |
| 06HL1042D | 4840          | 64.55                 | 63.70              | 8.43                                | 8.76                             |
| 06HL1037D | 4830          | 71.08                 | 70.34              | 1.49                                | 1.78                             |
| 06HL1038D | 4875          | 69.89                 | 69.39              | 2.93                                | 3.00                             |
| 06HL1031D | 4973          | 69.35                 | 69.07              | 3.01                                | 3.12                             |
| 06HL1027D | 4294          | 70.86                 | 70.56              | 1.42                                | 1.50                             |
| 06HL1010D | 4335          | 69.47                 | 68.65              | 3.60                                | 3.64                             |
| 06HL1004D | 4249          | 70.82                 | 70.25              | 1.99                                | 2.04                             |
| 06HL1026D | 4256          | 68.45                 | 68.01              | 4.61                                | 4.60                             |
| 06HL1023D | 4657          | 65.57                 | 65.30              | 3.03                                | 3.02                             |
| 06HL1028D | 4466          | 66.28                 | 66.09              | 5.51                                | 5.64                             |
| 06HL1002D | 4088          | 68.76                 | 69.45              | 2.20                                | 2.38                             |
| 06HL1001D | 4044          | 70.34                 | 69.93              | 1.90                                | 1.96                             |
| 06HL1047D | 4994          | 70.85                 | 70.72              | 1.71                                | 1.26                             |
| 06HL1048D | 4933          | 70.25                 | 70.25              | 2.28                                | 2.32                             |
| 06HL1040D | 4922          | 67.85                 | 67.69              | 5.01                                | 4.98                             |
| 06HL1030D | 4957          | 69.80                 | 69.61              | 2.54                                | 2.52                             |
| 06HL1029D | 4907          | 70.25                 | 69.93              | 2.20                                | 2.30                             |
| 06HL1039D | 4890          | 69.80                 | 69.77              | 2.08                                | 2.02                             |

Table 11 : Results from the check assaying done at Lerch laboratory.





## 14.0 Data Verification

All of the data used in this study was provided to Geostat by NML with the exception of the assay results from the Lerch laboratory that Geostat received directly from Lerch.

Geostat has made a visit to the site and to the core storage areas where it took independent samples for assaying. The report of the site visit is presented in the next Section.

Following is a summary of the principal data that Geostat has used in this study and comments regarding data verification.

- **Drillhole database:** Following Geostat recommendations made to NML during the resource estimation of the LabMag deposit, NML has used a drillhole management system to store all its drillhole related data for KéMag. The effect is that it has minimized transcriptions of the data from one system to the other before being submitted to Geostat for processing. Geostat was able to directly use the drillhole data supplied by NML without further treatment. Geostat considers that the drillhole database used in this study can support the derived mineral resource estimate at the Indicated level.
- **Assay data:** Geostat has compared the assay values of the database against the original assay certificates produced by the MRC laboratory and found no errors.
- **Lithological descriptions:** Geostat has compared a limited number of lithological descriptions from the geologist logs against the database contents and found no errors.
- **Laboratory QA/QC program:** As mentioned in the preceding Section, Geostat has reviewed the results of the QA/QC program and considers that the amount of control samples should be increased. However, Geostat has not found anything that could negatively impact on the mineral resources estimated in this study. Geostat does recommend that the QA/QC program be improved by increasing the number of checks done and by including checks of DTWR determinations.
- **Property limits:** Geostat has reviewed the status of the claims covering the Property and is confident that they are all in order. However, at the time of this writing, a number of claims were currently being renewed and the Ministry of Natural Resources on-line database was not up-to-date due to a backlog in renewal requests.

### 14.1 Site visit

Geostat visited the site on February 20, 2007 during a 3-day visit to NML offices in Labrador City. The purpose of the visit was to examine drill core from the core shack, take control samples and visits the KéMag exploration site.

All the core boxes from KéMag are stored in heated warehouses. The majority of the holes are stored in Labrador City while 2 holes were left in Shefferville at the end of the drilling campaign. They will be moved to Labrador City in 2007. Geostat found the core boxes in excellent condition, each box being tagged with the drillhole number and box number. However, for an easier archival and handling, Geostat recommends also writing the From-To limits of core on the metal tag in addition to the drillhole number and box number.

The core was split with a hydraulic core splitter. The remaining halves show that the core was appropriately split. Sampling tags were found at the end of the sample locations. The tags were not stapled to the box. Geostat recommends stapling the tags to ensure that sample tags are not lost or displaced when the core boxes are moved.

Geostat took a total of 27 samples from the remaining core halves. Unfortunately, all remaining core had to be taken. In fact, further splitting of the core would have shattered it making it impossible to keep a quarter core. Geostat has required that the rejects are all kept and stored with the core boxes for future reference. The sample selection, bagging and shipment to Geostat office was continually supervised by Geostat. Geostat used its own numbering system to further ensure sampling and assaying anonymity.

The visit to the exploration site aimed at locating and identifying drilling evidence and examining the surface features such as general landscape. The visit took place in winter conditions. Geostat' representative and the Project Geologist flew by helicopter from Labrador City to Shefferville and then to the site, some 50 kilometers north of Shefferville. As mentioned in previous Sections of the report, KéMag is located on the shore of Harris Lake. The snow cover was about 4 to 6 feet thick. Using a handheld GPS receiver, we easily located a selection of 4 holes. Geostat confirms that evidence of drilling was found in 3 of the 4 holes by means of wood sticks made from 2" x 2" lumber. Of the 3 drillholes with sticks, only one (06HL1001D) was totally buried under the snow. The other two were easily located as they were sticking out of the snow and had red flagging tape around it. The location of the drilling entered in the database is corroborated by GPS reading and is within 1.5 meters of the expected location. Following are a series of photographs taken on site by Geostat during the visit. However, even though Geostat found the wooden sticks exactly where expected, they did not bear the drillhole name. We can only assume that they correspond to the proper ones. It is a reasonable assumption but Geostat recommends that all future drillholes be referenced at the drill site by drillhole name. Also, Geostat recommends that a more permanent mean of locating the drillholes be used as the wooden sticks are not likely to survive more than one winter before they fall and disappear in the vegetation.

The landscape is generally flat on the shore of Harris Lake and the vegetation is sparse. In fact, peat bog covers most of the property but that could not be witnessed. Even in this winter season, water was found around drillhole 06HL1037D. The peat bog does not seem to completely freeze during winter.

In conclusion, Geostat confirms the drilling activity and confirms that the drill locations recorded in the database are correct and reliable. However, Geostat recommends that a more thorough site visit be done during summer time, when exploration drilling resumes.

## 14.2 Control sample results

Geostat has taken independent control samples from selected core segments to verify the analytical results. The purpose of this control sampling is principally to confirm that the core indeed contain iron and also to independently verify the laboratory used by NML. A total of 27 samples were selected and sent to the Lerch laboratory. This laboratory was also used by

MRC to check its own results but only pulps were processed. This time, Lerch has received original samples (half core) and carried out the sample preparation as well as the assaying of the pulps. The results received are presented in Table 12 .

Since Lerch received original samples, it has processed DTWR allowing us to control this assay in addition to the standard chemical assays. Geostat confirms that the core sampled indeed contain iron in quantity similar to that assayed by MRC. However, as noted in a previous section, Geostat has also observed statistical biases in its control data set. Geostat did not study the source of the observed bias as its primary objective was to confirm the iron mineralization in the control samples. Hence:

- For DTWR, Lerch overestimates MRC by 4% and the bias is systematic. Since the bias is positive, its impact on the mineral resource is conservative.
- For Fe in Head, Lerch overestimates MRC by 5.5% and the bias is systematic. Since the bias is positive, its impact on the mineral resource is conservative.
- For Fe in Concentrate, there is no bias observed.
- For SiO<sub>2</sub> in Concentrate, Lerch overestimates MRC by 15.7% and the bias is systematic. High concentration of SiO<sub>2</sub> in concentrate is potentially deleterious to mineral reserves. At this stage, it has no impact on the currently estimated mineral resources but this bias will have to be addressed since it is large.

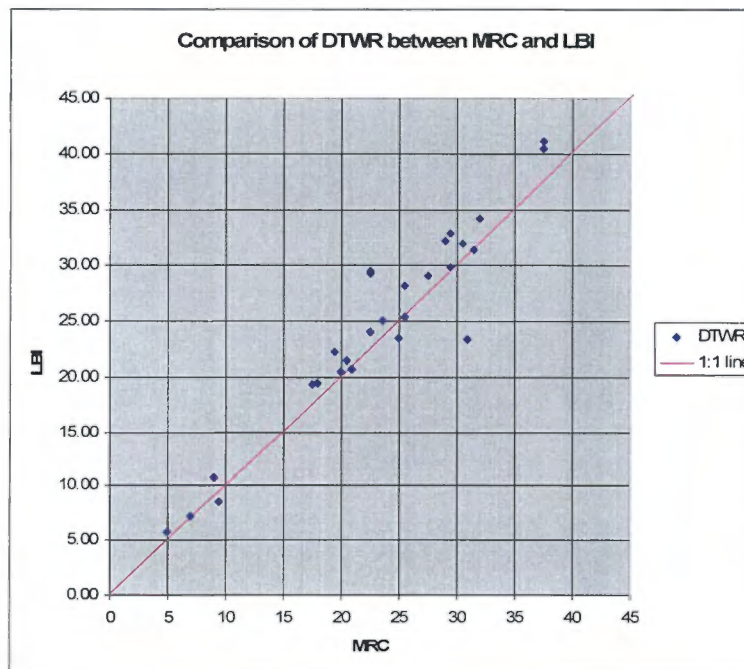


Figure 8: DTWR comparison between Geostat control samples and MRC originals

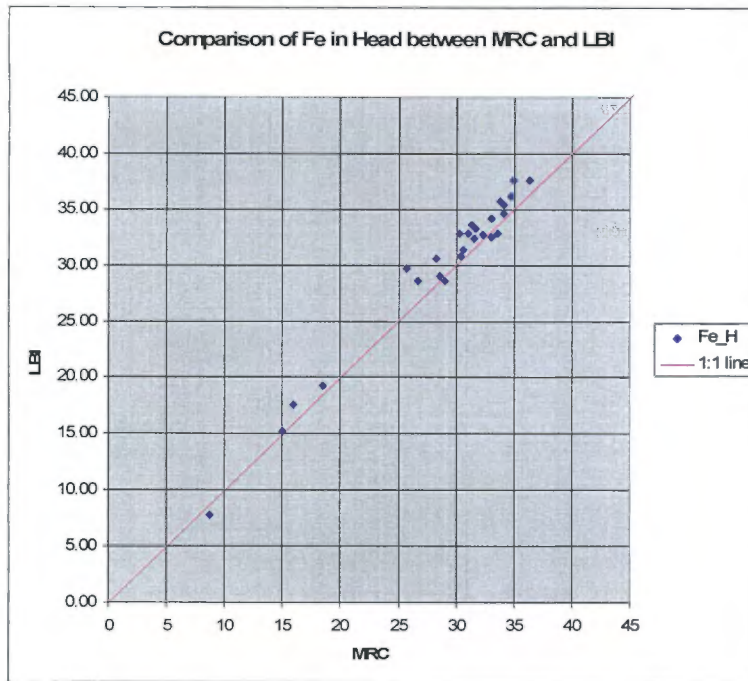


Figure 9: Fe in Head comparison between Geostat control samples and MRC originals

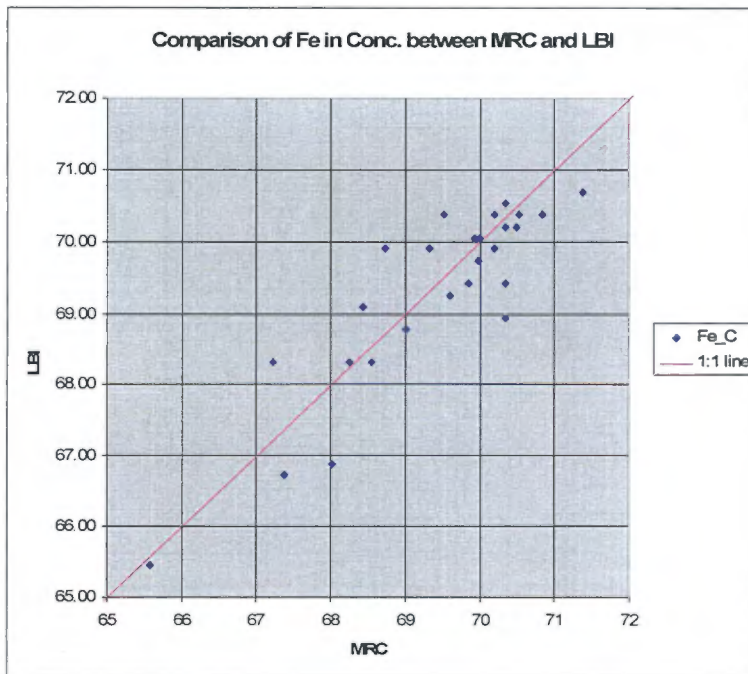


Figure 10: Fe in Conc. comparison between Geostat control samples and MRC originals

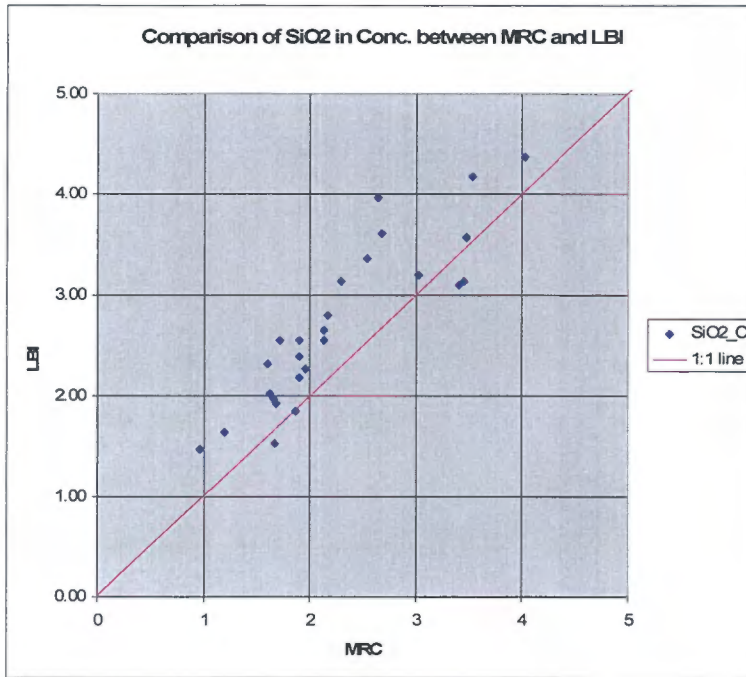


Figure 11: SiO<sub>2</sub> in Conc. comparison between Geostat control samples and MRC originals

| Drillhole      | From  | To    | NML Sample No. | Length | Assays by MRC |       |         |                       | Seam | Geostat Sample Number | Assays by Lerch |       |         |                       |
|----------------|-------|-------|----------------|--------|---------------|-------|---------|-----------------------|------|-----------------------|-----------------|-------|---------|-----------------------|
|                |       |       |                |        | Fe Head       | DTW R | Fe Conc | SiO <sub>2</sub> Conc |      |                       | Fe Head         | DT WR | Fe Conc | SiO <sub>2</sub> Conc |
| 06HL1023D      | 20    | 25    | 4657           | 5      | 26.62         | 29    | 65.57   | 3.03                  | LRGC | 348101                | 28.59           | 32.20 | 65.45   | 3.20                  |
| 06HL1023D      | 25    | 30    | 4658           | 5      | 25.72         | 22.5  | 68.43   | 3.45                  | LRGC | 348102                | 29.71           | 29.30 | 69.10   | 3.13                  |
| 06HL1037D      | 158   | 164   | 4834           | 6      | 31            | 22.5  | 71.38   | 0.97                  | LRGC | 348103                | 32.88           | 29.45 | 70.69   | 1.47                  |
| 06HL1037D      | 164   | 169   | 4835           | 5      | 32.96         | 19.5  | 70.33   | 1.66                  | LRGC | 348104                | 32.56           | 22.20 | 70.53   | 1.97                  |
| 06HL1038D      | 58.5  | 64.5  | 4859           | 6      | 33.59         | 31    | 70.34   | 2.17                  | LC   | 348105                | 32.88           | 23.30 | 68.94   | 2.80                  |
| 06HL1038D      | 64.5  | 70.5  | 4860           | 6      | 30.21         | 29.5  | 70.49   | 1.91                  | LC   | 348106                | 32.88           | 32.85 | 70.21   | 2.19                  |
| 06HL1016D      | 30    | 36    | 4540           | 6      | 15.93         | 9     | 68.24   | 2.68                  | LC   | 348107                | 17.63           | 10.70 | 68.31   | 3.61                  |
| 06HL1016D      | 36    | 42    | 4541           | 6      | 8.72          | 9.5   | 68.54   | 2.64                  | LC   | 348108                | 7.78            | 8.45  | 68.31   | 3.96                  |
| 06HL1019D      | 138.5 | 144.5 | 4518           | 6      | 30.53         | 21    | 67.23   | 3.53                  | LRGC | 348109                | 31.45           | 20.70 | 68.31   | 4.17                  |
| 06HL1019D      | 144.5 | 150.5 | 4519           | 6      | 31.58         | 25.5  | 67.38   | 4.03                  | LRGC | 348110                | 33.36           | 28.10 | 66.72   | 4.37                  |
| 06HL1018D      | 107.5 | 113.5 | 4491           | 6      | 30.37         | 31.5  | 70.19   | 1.69                  | JUIF | 348111                | 30.82           | 31.40 | 70.37   | 1.93                  |
| 06HL1018D      | 113.5 | 119.5 | 4492           | 6      | 29.01         | 25.5  | 70.19   | 1.61                  | JUIF | 348112                | 28.59           | 25.30 | 69.90   | 2.32                  |
| 06HL1009D      | 47.8  | 52.8  | 4381           | 5      | 33.73         | 37.5  | 69.84   | 2.14                  | PGC  | 348113                | 35.74           | 41.10 | 69.42   | 2.56                  |
| 06HL1009D      | 52.8  | 57.2  | 4382           | 4.4    | 32.99         | 37.5  | 69.99   | 1.63                  | PGC  | 348114                | 34.15           | 40.40 | 70.05   | 2.03                  |
| 06HL1006D      | 16    | 21    | 4221           | 5      | 28.22         | 18    | 70.33   | 1.67                  | JUIF | 348115                | 30.66           | 19.45 | 70.21   | 1.53                  |
| 06HL1006D      | 21    | 25.4  | 4222           | 4.4    | 36.31         | 17.5  | 69      | 3.47                  | JUIF | 348116                | 37.65           | 19.30 | 68.78   | 3.57                  |
| 06HL1006D      | 55.2  | 61.2  | 4229           | 6      | 31.33         | 32    | 69.59   | 1.9                   | LRGC | 348117                | 33.68           | 34.20 | 69.26   | 2.40                  |
| 06HL1006D      | 61.2  | 67.2  | 4230           | 6      | 31.56         | 25    | 70.33   | 2.14                  | LRGC | 348118                | 32.41           | 23.50 | 69.42   | 2.66                  |
| 06HL1027D      | 48    | 53    | 4298           | 5      | 34.09         | 20.5  | 68.02   | 4.44                  | PGC  | 348119                | 35.42           | 21.40 | 66.88   | 5.37                  |
| 06HL1027D      | 53    | 58    | 4299           | 5      | 33.04         | 20    | 69.97   | 2.54                  | PGC  | 348120                | 34.15           | 20.40 | 69.74   | 3.36                  |
| 06HL1002D      | 43.5  | 49.5  | 4086           | 6      | 34.72         | 30.5  | 70.83   | 1.87                  | LRC  | 348121                | 36.22           | 31.90 | 70.37   | 1.85                  |
| 06HL1002D      | 49.5  | 55.4  | 4087           | 5.9    | 32.29         | 29.5  | 69.51   | 1.2                   | LRC  | 348122                | 32.72           | 29.80 | 70.37   | 1.64                  |
| 06HL1001D      | 8     | 14    | 4044           | 6      | 28.5          | 27.5  | 70.34   | 1.9                   | LRGC | 348123                | 29.07           | 29.00 | 69.42   | 2.56                  |
| 06HL1004D      | 27.8  | 32    | 4243           | 4.2    | 14.94         | 7     | 69.92   | 1.72                  | GC   | 348124                | 15.25           | 7.20  | 70.05   | 2.56                  |
| 06HL1004D      | 32    | 36    | 4244           | 4      | 34.06         | 22.5  | 69.32   | 3.41                  | URC  | 348125                | 34.63           | 24.05 | 69.90   | 3.10                  |
| 06HL1026D      | 35.9  | 39.6  | 4260           | 3.7    | 18.45         | 5     | 68.72   | 2.3                   | GC   | 348126                | 19.22           | 5.70  | 69.90   | 3.14                  |
| 06HL1026D      | 39.6  | 45    | 4261           | 5.4    | 34.89         | 32    | 70.52   | 1.96                  | URC  | 348127                | 37.65           | 34.20 | 70.37   | 2.27                  |
| <b>Average</b> |       |       |                |        | 29.09         | 23.63 | 69.43   | 2.36                  |      |                       | 30.29           | 25.02 | 69.30   | 2.80                  |

Table 12: Geostat independent control sample results

### 14.3 14.3 Site visit photo archive

Below are a series of photographs taken by Mr. Robert de l'Etoile of Geostat during the site visit.



NMI office in the Menihék Building in Labrador City. The office is located in the basement of the building.



The project geologist, Mr. Thiagarajan Balakrishnan with an assistant the the Labrador City office.



Warehouse in Labrador City where core is stored.



The core was initially transported from the site to Shefferville where it was logged, split and sampled. At the end of the campaign, the core boxes were bundled, strapped and transported to the Labrador City warehouse for storage. Above is a typical skid of core boxes.



The core was split with an hydraulic splitter and sample limits were marked with paper tags.



Typical half core after splitting. Control samples were taken by Geostat in the top box.



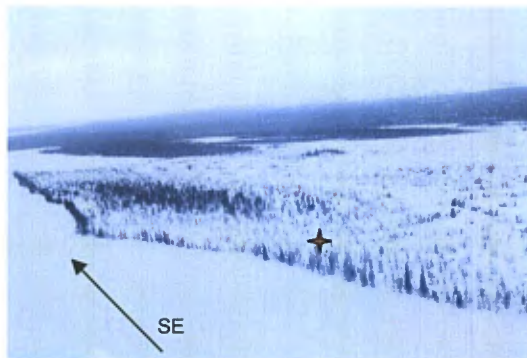
The helicopter in Labrador City is being loaded prior to departure to Shefferville and the site.



NML exploration office and temporary core shack in Shefferville.



Inside the Shefferville office where core is logged, split and sampled. Core on the table at the time of our visit was from another of NML's projects.



Arial view of Harris Lake as the Helicopter approaches the location of drillhole 06HL1037D (star).



Drillhole 06HL1037D is located by GPS and the wooden stick marking its location is found. Harris Lake can be seen just behind the tree line. The pond is not frozen and the vegetation is sparse.



View of the landscape and vegetation around drillhole 06HL1037D.



Location of second drillhole found, 06HL1038D. The wooden stick was not found but a broken tree with branches removed and flagging tape on surrounding trees indicate activity. The GPS device located the drillhole right where the trunk is.



View of the landscape and vegetation around drillhole 06HL1038D. Vegetation is sparse.



Location of the third drillhole found, 06HL1039D. The wooden stick was located along with a steel tube probably used to tie a mast stabilizing wire. Also, vegetation is sparse.



In the area of drillhole 06HL1001D, at the far south of the project, vegetation is dense and the snow cover is more important. The helicopter landed in a nearby clearing.



Drillhole 061001D was completely covered by snow. The stick was uncovered exactly where the GPS receiver expected it.



The vegetation is dense around the location of drillhole 06HL1001D at the south end of the project.

**Figure 12: Photo archive of the site visit**

## 15.0 Adjacent Properties

The KéMag deposit is located some 18 kilometers to the north of the LabMag deposit, also a property of NML. Although this distance may seem important with respect to the concept of adjacent properties, given the scale of both deposits they can be treated as neighbors. Moreover, both deposits are considered geologically, stratigraphically similar and KéMag is considered to be the north extension of the LabMag deposit.

The LabMag deposit has been extensively explored and the project to develop the deposit is currently at the pre-feasibility stage. The KéMag deposit is not as advanced and does not have as much exploration data. However, because of its similarity with the LabMag deposit, Geostat relies on the knowledge gained on LabMag and feels confident to apply it in the modeling of the KéMag resources. For example, in the classification of the mineral resources of KéMag, Geostat has used the same classification criteria. This allows us to delineate Indicated mineral resources on the KéMag Property even though, based on knowledge of the Property alone, resources would probably not meet the Indicated level since KéMag only has 29 drillholes with most of the cross-sections containing only one drillhole.

Geostat had access to all the necessary information on LabMag and has carried out the resource modeling of the LabMag deposit in 2006 (Geostat, 2006) and these resources have been included in a Technical Report produced by WGM in May 2006 (WGM, 2006a).

The reader is strongly invited to consult the LabMag deposit pre-feasibility technical report available to complement this report (WGM, 2006b).

## **16.0 Mineral Processing and Metallurgical Testing**

There has been no mineral processing and metallurgical test work done on the KéMag mineral. However, as the KéMag mineral is similar to the LabMag material both structurally and mineralogically, the reader can refer to the Technical Report on the LabMag property (WGM, 2006) for related information. Geostat does not, however, pretend that both materials are metallurgically similar. Proper test work on the KéMag material will have to be done in the advanced stages of development.

## 17.0 Mineral Resource and Mineral Reserve Estimates

**NOTE:** There are NO mineral reserves estimated in this study. Only mineral resources are estimated.

### 17.1 Data used

The data used in the mineral resource estimation consists of the drillhole data from the 2006 drilling campaign. The drillhole database consists of a total of 29 drillholes. Figure 14 presents the location of the drillholes as used by Geostat. A total of 474 samples are available for resource estimation.

NML supplied the drillhole information in the form of a database managed by the software GeoBase produced and marketed by Geostat. The database could then be directly used without further treatment. The database content is summarized below.

#### **Collar information:**

Northing, Easting and Elevation coordinates, Drillhole length  
All holes drilled vertically, no deviation tests available.

#### **Assay information:**

Assays limits (From-To)  
Fe in head  
Davis Tube Weight Recovery (DTWR)  
Fe in concentrate  
SiO<sub>2</sub> in concentrate  
Specific Gravity (partial)

#### **Lithological information:**

Description limits (From-To)  
Lithological descriptions

The lithological code represents the seam or strata intersected by the drillhole. A total of 10 strata are intersected in the deposit and are identified in Table 13:

| Strata | Lithology                   | Code |
|--------|-----------------------------|------|
| 1      | Overburden, Rubble          | OBR  |
| 2      | Menihék Slate               | MS   |
| 3      | Lean Cherty                 | LC   |
| 4      | Jasper Upper Iron Formation | JUIF |
| 5      | Green Cherty                | GC   |
| 6      | Upper Red Cherty            | URC  |
| 7      | Pink, Grey Cherty           | PGC  |
| 8      | Lower Red Cherty            | LRC  |
| 9      | Lower Red Green Cherty      | LRGC |
| 10     | Lower Iron Formation        | LIF  |

**Table 13: Lithological codes used in KéMag deposit**

Figure 13 presents a typical stratigraphic column.

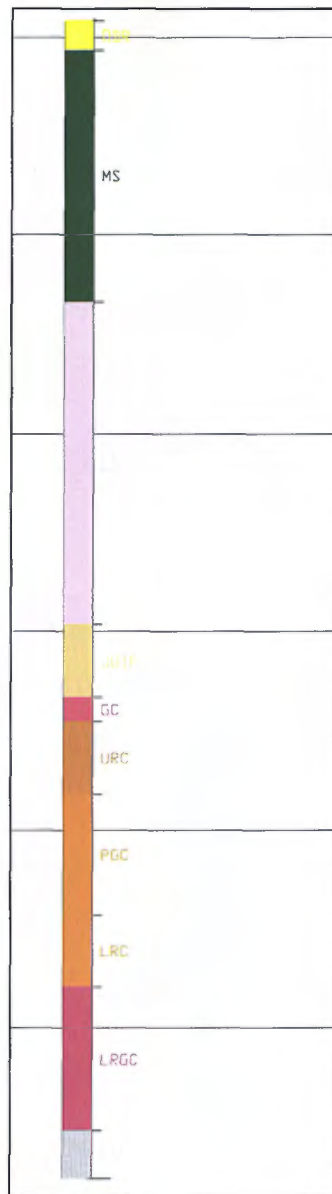


Figure 13: Typical stratigraphic column



### 17.2 Basic statistics of sample data, per seam per cut-off

Table 14 presents the basic sample statistics per seam, per cut-off.

| Cut-off % | DTWR% |       |       | %Fe in Head |       |       | %Fe in Conc. |       |       | %SiO <sub>2</sub> in Conc. |       |      | Count | Seam |
|-----------|-------|-------|-------|-------------|-------|-------|--------------|-------|-------|----------------------------|-------|------|-------|------|
|           | Min   | Max   | Avg   | Min         | Max   | Avg   | Min          | Max   | Avg   | Min                        | Max   | Avg  |       |      |
| 0         | 0.00  | 41.00 | 21.52 | 4.21        | 36.82 | 26.71 | 0.00         | 71.24 | 61.90 | 0.00                       | 10.09 | 2.89 | 131   | LC   |
| 0         | 10.00 | 38.50 | 27.72 | 14.41       | 38.65 | 32.19 | 67.13        | 71.46 | 69.73 | 1.40                       | 5.02  | 2.54 | 46    | JUIF |
| 0         | 2.50  | 24.00 | 10.90 | 12.19       | 34.12 | 19.73 | 68.36        | 70.91 | 69.76 | 0.00                       | 2.78  | 1.79 | 24    | GC   |
| 0         | 20.00 | 34.50 | 27.75 | 23.75       | 37.95 | 33.31 | 67.99        | 71.09 | 70.03 | 1.37                       | 4.00  | 2.02 | 28    | URC  |
| 0         | 13.50 | 46.00 | 34.41 | 25.85       | 35.92 | 33.28 | 64.07        | 71.32 | 69.69 | 1.01                       | 8.28  | 2.65 | 56    | PGC  |
| 0         | 9.50  | 31.00 | 22.43 | 31.48       | 34.72 | 32.84 | 65.31        | 71.16 | 69.61 | 1.20                       | 7.37  | 2.73 | 7     | LRC  |
| 0         | 6.50  | 49.00 | 25.66 | 19.06       | 38.34 | 31.48 | 54.29        | 71.61 | 68.78 | 0.87                       | 20.47 | 3.35 | 146   | LRGC |
| 0         | 0.00  | 41.00 | 21.52 | 4.21        | 36.82 | 26.71 | 0.00         | 71.24 | 61.90 | 0.00                       | 10.09 | 2.89 | 131   | LC   |
| 10        | 10.00 | 41.00 | 25.83 | 14.66       | 36.82 | 28.64 | 61.96        | 71.24 | 68.95 | 0.92                       | 10.09 | 3.27 | 106   | LC   |
| 10        | 10.00 | 38.50 | 27.72 | 14.41       | 38.65 | 32.19 | 67.13        | 71.46 | 69.73 | 1.40                       | 5.02  | 2.54 | 46    | JUIF |
| 10        | 10.00 | 24.00 | 16.18 | 16.38       | 34.12 | 23.55 | 68.46        | 70.91 | 69.77 | 1.25                       | 2.78  | 1.84 | 11    | GC   |
| 10        | 20.00 | 34.50 | 27.75 | 23.75       | 37.95 | 33.31 | 67.99        | 71.09 | 70.03 | 1.37                       | 4.00  | 2.02 | 28    | URC  |
| 10        | 13.50 | 46.00 | 34.41 | 25.85       | 35.92 | 33.28 | 64.07        | 71.32 | 69.69 | 1.01                       | 8.28  | 2.65 | 56    | PGC  |
| 10        | 13.50 | 31.00 | 24.58 | 31.48       | 34.72 | 32.98 | 65.31        | 70.83 | 69.36 | 1.20                       | 7.37  | 2.98 | 6     | LRC  |
| 10        | 10.00 | 41.00 | 25.83 | 14.66       | 36.82 | 28.64 | 61.96        | 71.24 | 68.95 | 0.92                       | 10.09 | 3.27 | 106   | LC   |
| 15        | 15.00 | 41.00 | 27.60 | 14.66       | 36.82 | 29.19 | 61.96        | 71.24 | 69.21 | 0.92                       | 10.09 | 3.08 | 94    | LC   |
| 15        | 17.50 | 38.50 | 28.11 | 14.41       | 38.65 | 32.12 | 67.13        | 71.46 | 69.77 | 1.40                       | 5.02  | 2.51 | 45    | JUIF |
| 15        | 17.00 | 24.00 | 20.30 | 22.21       | 30.22 | 25.69 | 68.75        | 70.85 | 69.90 | 1.38                       | 2.78  | 1.91 | 5     | GC   |
| 15        | 20.00 | 34.50 | 27.75 | 23.75       | 37.95 | 33.31 | 67.99        | 71.09 | 70.03 | 1.37                       | 4.00  | 2.02 | 28    | URC  |
| 15        | 16.50 | 46.00 | 35.18 | 25.85       | 35.92 | 33.42 | 64.07        | 71.32 | 69.74 | 1.01                       | 8.28  | 2.58 | 54    | PGC  |
| 15        | 20.00 | 31.00 | 26.80 | 31.48       | 34.72 | 33.09 | 65.31        | 70.83 | 69.09 | 1.20                       | 7.37  | 3.11 | 5     | LRC  |
| 15        | 15.00 | 49.00 | 28.08 | 20.11       | 38.34 | 31.55 | 54.29        | 71.44 | 68.80 | 0.97                       | 20.47 | 3.27 | 126   | LRGC |
| 17        | 17.50 | 41.00 | 28.12 | 16.54       | 36.82 | 29.46 | 61.96        | 71.24 | 69.23 | 0.92                       | 10.09 | 3.07 | 90    | LC   |
| 17        | 17.50 | 38.50 | 28.11 | 14.41       | 38.65 | 32.12 | 67.13        | 71.46 | 69.77 | 1.40                       | 5.02  | 2.51 | 45    | JUIF |
| 17        | 17.00 | 24.00 | 20.30 | 22.21       | 30.22 | 25.69 | 68.75        | 70.85 | 69.90 | 1.38                       | 2.78  | 1.91 | 5     | GC   |
| 17        | 20.00 | 34.50 | 27.75 | 23.75       | 37.95 | 33.31 | 67.99        | 71.09 | 70.03 | 1.37                       | 4.00  | 2.02 | 28    | URC  |
| 17        | 18.50 | 46.00 | 35.53 | 25.85       | 35.92 | 33.42 | 64.07        | 71.32 | 69.76 | 1.01                       | 8.28  | 2.56 | 53    | PGC  |
| 17        | 20.00 | 31.00 | 26.80 | 31.48       | 34.72 | 33.09 | 65.31        | 70.83 | 69.09 | 1.20                       | 7.37  | 3.11 | 5     | LRC  |
| 17        | 17.00 | 49.00 | 29.03 | 20.11       | 38.34 | 31.62 | 54.29        | 71.44 | 68.89 | 0.97                       | 20.47 | 3.10 | 117   | LRGC |
| 18        | 18.00 | 41.00 | 28.49 | 16.54       | 36.82 | 29.60 | 62.98        | 71.24 | 69.34 | 0.92                       | 9.88  | 2.99 | 87    | LC   |
| 18        | 18.00 | 38.50 | 28.87 | 23.60       | 38.65 | 32.39 | 67.13        | 71.46 | 69.80 | 1.40                       | 5.02  | 2.47 | 42    | JUIF |
| 18        | 19.50 | 24.00 | 22.33 | 26.01       | 30.22 | 27.56 | 69.17        | 70.61 | 69.97 | 1.61                       | 2.78  | 2.25 | 3     | GC   |
| 18        | 20.00 | 34.50 | 27.75 | 23.75       | 37.95 | 33.31 | 67.99        | 71.09 | 70.03 | 1.37                       | 4.00  | 2.02 | 28    | URC  |
| 18        | 18.50 | 46.00 | 35.53 | 25.85       | 35.92 | 33.42 | 64.07        | 71.32 | 69.76 | 1.01                       | 8.28  | 2.56 | 53    | PGC  |
| 18        | 20.00 | 31.00 | 26.80 | 31.48       | 34.72 | 33.09 | 65.31        | 70.83 | 69.09 | 1.20                       | 7.37  | 3.11 | 5     | LRC  |
| 18        | 18.00 | 49.00 | 29.13 | 20.11       | 38.34 | 31.61 | 54.29        | 71.44 | 68.89 | 0.97                       | 20.47 | 3.09 | 116   | LRGC |
| 20        | 20.00 | 41.00 | 29.47 | 16.54       | 36.82 | 30.36 | 62.98        | 71.24 | 69.41 | 0.92                       | 9.88  | 2.96 | 79    | LC   |
| 20        | 20.00 | 38.50 | 29.69 | 23.60       | 38.65 | 32.37 | 67.13        | 71.46 | 69.81 | 1.40                       | 5.02  | 2.47 | 39    | JUIF |
| 20        | 23.50 | 24.00 | 23.75 | 26.44       | 30.22 | 28.33 | 69.17        | 70.61 | 69.89 | 1.61                       | 2.78  | 2.20 | 2     | GC   |
| 20        | 20.00 | 34.50 | 27.75 | 23.75       | 37.95 | 33.31 | 67.99        | 71.09 | 70.03 | 1.37                       | 4.00  | 2.02 | 28    | URC  |
| 20        | 20.00 | 46.00 | 36.19 | 25.85       | 35.92 | 33.40 | 64.07        | 71.32 | 69.75 | 1.01                       | 8.28  | 2.56 | 51    | PGC  |
| 20        | 20.00 | 31.00 | 26.80 | 31.48       | 34.72 | 33.09 | 65.31        | 70.83 | 69.09 | 1.20                       | 7.37  | 3.11 | 5     | LRC  |
| 20        | 20.00 | 49.00 | 30.31 | 25.72       | 38.34 | 31.85 | 54.29        | 71.44 | 68.87 | 0.97                       | 20.47 | 3.06 | 104   | LRGC |
| 25        | 25.00 | 41.00 | 31.76 | 25.55       | 36.82 | 31.17 | 64.55        | 71.24 | 70.17 | 0.92                       | 8.43  | 2.30 | 59    | LC   |
| 25        | 25.50 | 38.50 | 32.03 | 26.54       | 38.65 | 32.80 | 68.28        | 71.46 | 69.87 | 1.40                       | 4.61  | 2.49 | 30    | JUIF |
| 25        | 25.50 | 34.50 | 29.50 | 23.75       | 37.95 | 33.17 | 68.99        | 71.09 | 70.19 | 1.37                       | 2.69  | 1.85 | 21    | URC  |
| 25        | 25.00 | 46.00 | 36.84 | 25.85       | 35.92 | 33.39 | 64.07        | 71.32 | 69.78 | 1.01                       | 8.28  | 2.53 | 49    | PGC  |
| 25        | 29.50 | 31.00 | 30.33 | 32.29       | 34.72 | 33.31 | 65.31        | 70.83 | 68.55 | 1.20                       | 7.37  | 3.48 | 3     | LRC  |
| 25        | 25.00 | 49.00 | 33.10 | 26.62       | 38.34 | 32.17 | 54.29        | 71.24 | 68.57 | 1.14                       | 20.47 | 3.23 | 77    | LRGC |
| 30        | 30.00 | 41.00 | 35.48 | 26.87       | 36.82 | 33.07 | 69.05        | 71.24 | 70.61 | 0.92                       | 3.58  | 1.94 | 32    | LC   |
| 30        | 30.00 | 38.50 | 33.86 | 27.49       | 38.65 | 33.09 | 68.28        | 71.46 | 69.84 | 1.40                       | 4.61  | 2.55 | 21    | JUIF |
| 30        | 30.50 | 34.50 | 32.75 | 32.72       | 37.15 | 34.89 | 69.14        | 70.85 | 70.12 | 1.57                       | 2.41  | 1.89 | 8     | URC  |

| Cut-off % | DTWR% |       |       | %Fe in Head |       |       | %Fe in Conc. |       |       | %SiO <sub>2</sub> in Conc. |       |      | Count | Seam |
|-----------|-------|-------|-------|-------------|-------|-------|--------------|-------|-------|----------------------------|-------|------|-------|------|
|           | Min   | Max   | Avg   | Min         | Max   | Avg   | Min          | Max   | Avg   | Min                        | Max   | Avg  |       |      |
| 30        | 30.50 | 46.00 | 37.92 | 25.85       | 35.92 | 33.45 | 64.07        | 71.16 | 69.74 | 1.01                       | 8.28  | 2.54 | 44    | PGC  |
| 30        | 30.50 | 31.00 | 30.75 | 32.91       | 34.72 | 33.82 | 65.31        | 70.83 | 68.07 | 1.87                       | 7.37  | 4.62 | 2     | LRC  |
| 30        | 30.00 | 49.00 | 36.12 | 28.38       | 38.34 | 32.72 | 54.29        | 71.24 | 68.43 | 1.14                       | 20.47 | 3.49 | 51    | LRGC |
| 35        | 35.50 | 41.00 | 38.71 | 32.31       | 36.82 | 34.90 | 69.05        | 71.15 | 70.57 | 0.92                       | 3.56  | 2.02 | 17    | LC   |
| 35        | 35.00 | 38.50 | 36.57 | 27.67       | 35.92 | 33.90 | 68.58        | 70.19 | 69.68 | 1.59                       | 3.19  | 2.39 | 7     | JUIF |
| 35        | 35.00 | 46.00 | 39.33 | 30.78       | 35.78 | 33.59 | 64.07        | 71.16 | 69.65 | 1.01                       | 8.28  | 2.66 | 35    | PGC  |
| 35        | 35.00 | 49.00 | 39.52 | 30.02       | 38.34 | 33.56 | 54.29        | 71.00 | 67.44 | 1.14                       | 20.47 | 4.34 | 27    | LRGC |

Table 14: basic statistics of sample data per seam

As mentioned before, KéMag is considered geologically and stratigraphically similar to the LabMag deposit. Table 15 presents comparative statistics between the sample in the LabMag deposit and those in the KéMag deposit at a cut-off of 18% DTWR. The comparison should be qualitative in nature since there is a large difference in the number of samples of both groups.

| LabMag deposit samples |       |       |       |             |       |       |              |       |       |                            |       |      |       |      |
|------------------------|-------|-------|-------|-------------|-------|-------|--------------|-------|-------|----------------------------|-------|------|-------|------|
| % DTWR                 | DTWR% |       |       | %Fe in Head |       |       | %Fe in Conc. |       |       | %SiO <sub>2</sub> in Conc. |       |      | Count | Seam |
|                        | Min   | Max   | Avg.  | Min         | Max   | Avg.  | Min          | Max   | Avg.  | Min                        | Max   | Avg. |       |      |
| 18                     | 18.00 | 62.60 | 29.95 | 17.30       | 50.40 | 29.50 | 59.25        | 71.85 | 69.87 | 0.50                       | 21.61 | 2.65 | 650   | LC   |
|                        | 18.00 | 51.60 | 27.92 | 11.90       | 47.90 | 30.87 | 65.71        | 71.88 | 70.08 | 0.10                       | 9.00  | 2.16 | 775   | JUIF |
|                        | 18.00 | 60.77 | 28.11 | 16.50       | 41.90 | 30.07 | 65.46        | 71.00 | 69.61 | 0.80                       | 12.80 | 2.64 | 143   | GC   |
|                        | 18.00 | 53.09 | 29.44 | 19.60       | 48.35 | 35.56 | 63.43        | 71.42 | 70.11 | 0.54                       | 11.55 | 2.26 | 397   | URC  |
|                        | 18.00 | 65.50 | 32.64 | 18.20       | 56.58 | 30.57 | 26.92        | 71.58 | 69.54 | 0.26                       | 19.00 | 2.91 | 804   | PGC  |
|                        | 18.00 | 43.23 | 27.28 | 18.10       | 37.30 | 29.11 | 66.64        | 71.56 | 70.08 | 0.48                       | 7.90  | 1.93 | 323   | LRC  |
|                        | 18.00 | 80.13 | 25.51 | 16.25       | 39.99 | 28.76 | 61.55        | 71.80 | 70.26 | 0.30                       | 9.00  | 1.74 | 1333  | LRGC |
| KéMag deposit samples  |       |       |       |             |       |       |              |       |       |                            |       |      |       |      |
| % DTWR                 | DTWR% |       |       | %Fe in Head |       |       | %Fe in Conc. |       |       | %SiO <sub>2</sub> in conc. |       |      | Count | Seam |
|                        | Min   | Max   | Avg.  | Min         | Max   | Avg.  | Min          | Max   | Avg.  | Min                        | Max   | Avg. |       |      |
| 18                     | 18.00 | 41.00 | 28.49 | 16.54       | 36.82 | 29.60 | 62.98        | 71.24 | 69.34 | 0.92                       | 9.88  | 2.99 | 87    | LC   |
|                        | 18.00 | 38.50 | 28.87 | 23.60       | 38.65 | 32.39 | 67.13        | 71.46 | 69.80 | 1.40                       | 5.02  | 2.47 | 42    | JUIF |
|                        | 19.50 | 24.00 | 22.33 | 26.01       | 30.22 | 27.56 | 69.17        | 70.61 | 69.97 | 1.61                       | 2.78  | 2.25 | 3     | GC   |
|                        | 20.00 | 34.50 | 27.75 | 23.75       | 37.95 | 33.31 | 67.99        | 71.09 | 70.03 | 1.37                       | 4.00  | 2.02 | 28    | URC  |
|                        | 18.50 | 46.00 | 35.53 | 25.85       | 35.92 | 33.42 | 64.07        | 71.32 | 69.76 | 1.01                       | 8.28  | 2.56 | 53    | PGC  |
|                        | 20.00 | 31.00 | 26.80 | 31.48       | 34.72 | 33.09 | 65.31        | 70.83 | 69.09 | 1.20                       | 7.37  | 3.11 | 5     | LRC  |
|                        | 18.00 | 49.00 | 29.13 | 20.11       | 38.34 | 31.61 | 54.29        | 71.44 | 68.89 | 0.97                       | 20.47 | 3.09 | 116   | LRGC |

Table 15: Comparison between LabMag and KéMag sample statistics

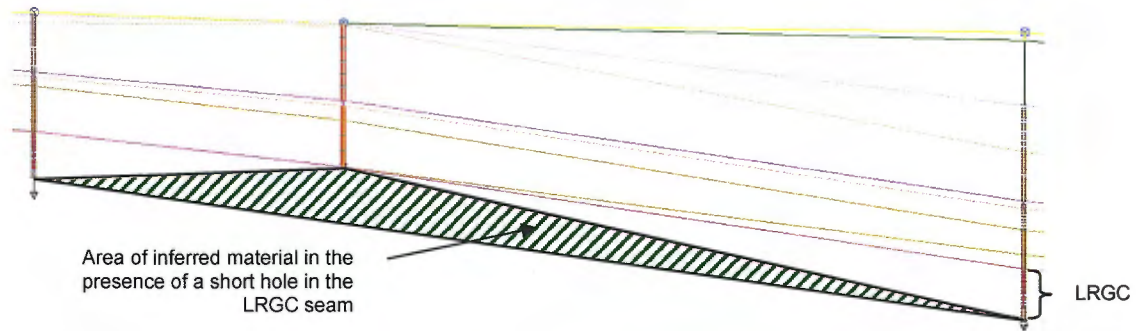
### 17.3 Geological interpretation

The KéMag deposit is composed of a series of strata or seams slightly dipping (6°) to the northeast. The seams lie flat, without significant deformation. For the purpose of resource modelling, each seam is modelled separately. The surface contacts between the seams are constructed from the lithological information available in the drillholes. In each drillhole, the elevation of each lithological contact is derived from the geological interpretation. In each cross-section and for each seam, the contact points are linked together to form contact lines. These lines are further extrapolated at both ends of the section at an angle of 6° to cover the lateral extent of the resource model. The contact lines from all the interpreted cross-sections are then combined together into a triangulated surface, one for each seam contact. The following figures present the two-step procedure; geological interpretation on cross-sections and resulting triangulated surfaces.

Since most cross-sections of the KéMag deposit only contain one drillhole, the seam contact lines are extrapolated from the drillhole at an angle of 6° to the east. Geostat considers that it is reasonable to do so, based on its knowledge of the lithology occurring at the LabMag deposit and the similarities between both deposits. Moreover, there is confirmation that the seams dip at an average angle of 6° on one cross-section of the deposit where 4 holes were drilled.

The following layers are considered mineralized: LC, JUIF, GC, URC, PGC, LRC, LRGC. The MS and LIF layers are considered barren and no resources come from them. We have therefore limited the depth of the deposit to the contact between LRGC and LIF.

On the few sections where more than two holes are drilled and one drillhole was drilled short of reaching the LIF, a small volume of lower quality resource, in the case of KéMag, inferred resource, is inserted. This same process was used for the LabMag deposit. Figure 15 illustrates this concept.



**Figure 15: Classification of mineral resources in presence of short holes**

The cross-sections are generally 500m apart and correspond to the drill spacing. One cross-section characterizes the stratigraphy and dip trend of the seam on the KéMag deposit. It has been labelled B-B' and Figure 16 illustrates the interpreted seams on that cross-section.

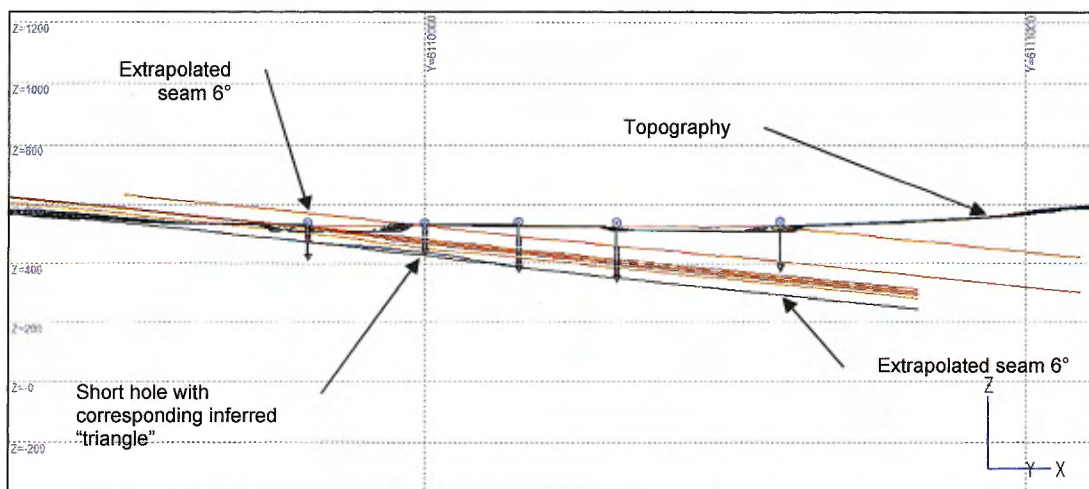
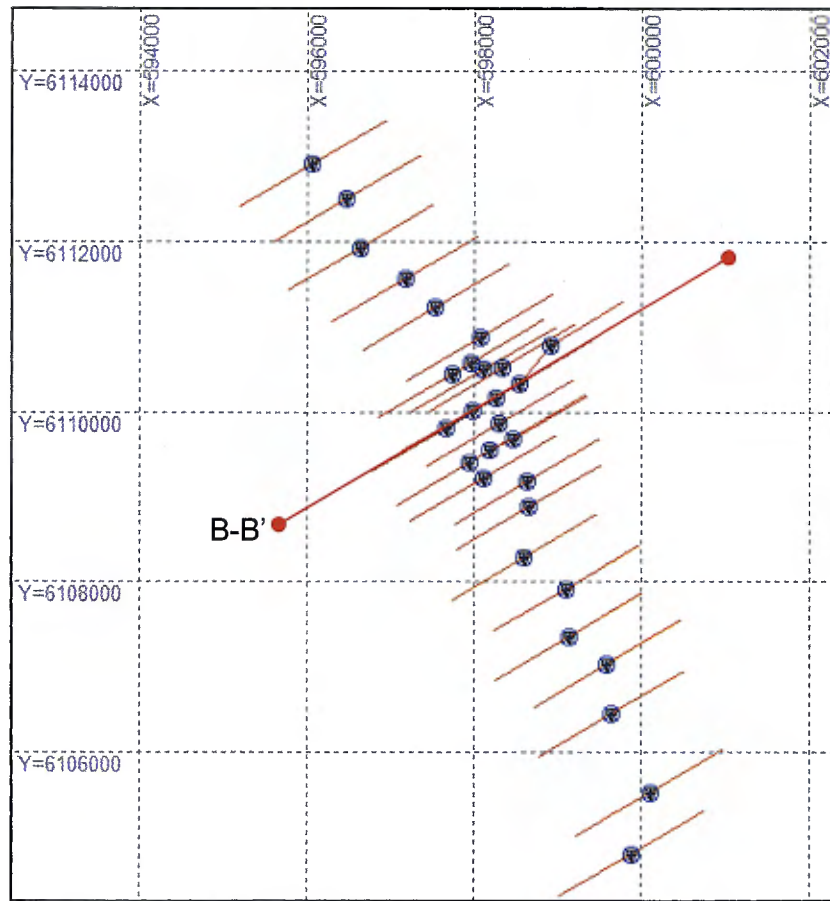


Figure 16: Lithological interpretation on cross-section B-B'

In order to cover the totality of the lateral extent of the deposit outline, Geostat has extrapolated the geological interpretation of the first and last cross-sections at the northwest and the southeast ends. In fact, we have duplicated these cross-sections at a distance of 250 meters at each end.

In addition to the vertical limits of the deposits imposed by the seam layouts, Geostat has decided to limit the lateral extent of the deposit within the property. Figure 17 present the outline of the KéMag deposit as used in the resource model.

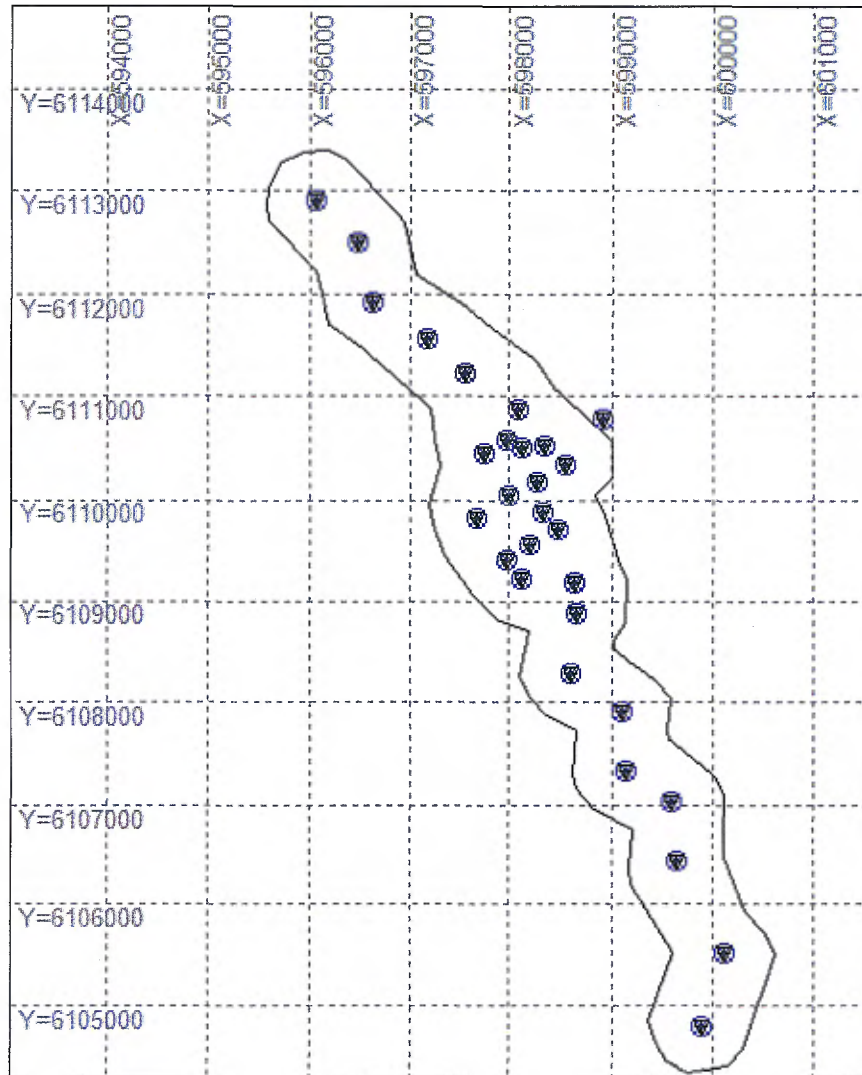


Figure 17: Lateral extent of the KéMag resource model

## 17.4 Statistical analysis of the data

### 17.4.1 Compositing

The original samples vary in length. In order to carry out statistical analyses, it is important to regularize the sample lengths so that each sample has an equivalent representativity. This process is called compositing. We have composited the assays into composites 3 meters in length. This length matches some seams that present a thin thickness, namely the GC seam. Regular down-the-drillhole compositing was used. The last composites never reach 3 meters in length. As a rule, we discarded all composites that did not contain at least 1.5m of assays to preserve a relative constant representativity.

### 17.4.2 Basic statistics of the 3m composites

Basic statistics have been calculated for each element and for each seam. Table 16 presents the statistics of the 3m composites.

| Number | Seam | Minimum     | Maximum | Average | Minimum                   | Maximum | Average |
|--------|------|-------------|---------|---------|---------------------------|---------|---------|
|        |      | DTWR        |         |         | Fe in Head                |         |         |
| 234    | LC   | 0.00        | 41.00   | 22.19   | 4.21                      | 36.82   | 27.01   |
| 75     | JUIF | 9.30        | 37.40   | 26.19   | 14.41                     | 38.65   | 31.03   |
| 35     | GC   | 5.00        | 29.00   | 14.72   | 14.80                     | 34.12   | 22.56   |
| 44     | URC  | 9.80        | 34.70   | 26.30   | 16.59                     | 37.95   | 31.73   |
| 88     | PGC  | 13.50       | 46.00   | 34.45   | 25.85                     | 35.92   | 33.35   |
| 10     | LRC  | 13.00       | 32.20   | 23.42   | 32.11                     | 34.72   | 33.01   |
| 264    | LRGC | 3.50        | 49.00   | 25.09   | 16.51                     | 38.34   | 31.25   |
|        |      | Fe in Conc. |         |         | SiO <sub>2</sub> in Conc. |         |         |
| 234    | LC   | 0.00        | 71.24   | 63.04   | 0.00                      | 10.09   | 2.89    |
| 75     | JUIF | 67.13       | 71.46   | 69.80   | 1.40                      | 5.02    | 2.40    |
| 35     | GC   | 68.46       | 70.85   | 69.71   | 0.32                      | 3.28    | 1.99    |
| 44     | URC  | 68.55       | 71.09   | 70.02   | 1.43                      | 4.09    | 2.05    |
| 88     | PGC  | 64.07       | 71.32   | 69.82   | 1.07                      | 8.28    | 2.50    |
| 10     | LRC  | 63.16       | 70.83   | 69.02   | 1.20                      | 9.89    | 3.38    |
| 264    | LRGC | 54.29       | 71.61   | 68.78   | 0.00                      | 20.47   | 3.37    |

Table 16: Basic statistics of 3m composites

## 17.5 Block model construction

The deposit's resources are estimated using a block modelling method. Basically, this method consists in filling the space within the seams with rectangular blocks disposed on a regular grid oriented along the principal axis of the deposit. Each block is assigned grades by interpolating the grades from the surrounding composites.

For the purpose of this study, KéMag has been interpolated using Inverse Distance interpolation. The study of the LabMag deposit by Geostat where geostatistical methods were compared to Inverse Distance interpolation showed that the latter gave results very similar to kriging and that Inverse Distance interpolation was appropriate. Considering the similarities between KéMag and LabMag, Geostat elected to use Inverse Distance interpolation.

**17.5.1 Block model geometry**

The block grid has been established to cover the entire deposit. The deposit lies oblique to the UTM coordinate system used. We have defined a local grid system so that the grid north is oriented along the seams strike direction as shown in Figure 18.

Origin of the local grid system: 6,109,804.74 N, 597,646.64 E

Local grid orientation: Azimuth 330°. The local grid north is oriented along UTM azimuth 330°. This origin has been chosen in order to coincide with the drillhole 06HL1040D.

Block size: 25m across strike, 50m along strike, 13m vertical

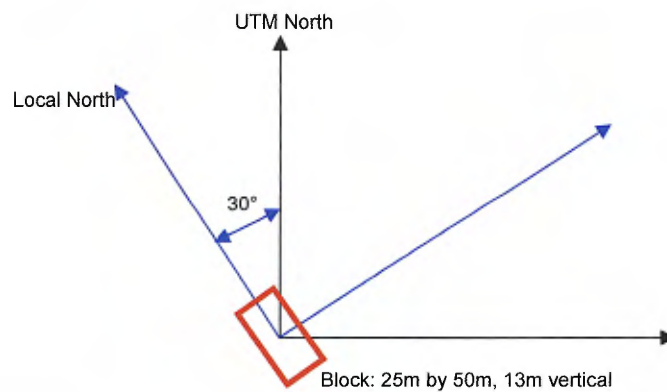
In the local coordinate system, the block grid parameters are as shown in Table 17:

|            |             | Local East | Local North | Z   |
|------------|-------------|------------|-------------|-----|
| Origin     |             | -2000      | -6100       | 800 |
| KéMag      | Min. extent | -2000      | -6100       | 306 |
|            | Max. extent | 2000       | 4200        | 800 |
| Block size |             | 25         | 50          | 13  |

Note: the coordinates above refer to block centroids

**Table 17 : Block grid geometry parameters**

Note that in the vertical direction, the origin is located at the top of the grid and level numbers increase downward. The block grid origin coincide with the center of block (1,1,1).



**Figure 18: Block grid geometry and orientation**

**17.5.2 Interpolation parameters**

Each block of the block grid is interpolated from the surrounding composites. A search ellipse method is used to define the neighbourhood within which the composites are selected

to interpolate a block. A single search ellipse has been used for all the variables in all the seams. The search ellipse used is as follows:

Ellipse: 700m by 700m dipping 6° toward the local east or to the UTM northeast.

#### **Search restrictions:**

In addition to the search ellipse, we impose a series of restriction to the composite selection to optimize the interpolation. We limit the number of composites inside the ellipse to 12. Only the 12 composites closest to the block center are used. A block is interpolated if a minimum of 1 composite is found in the ellipse. Moreover, a maximum of 4 composites per drillhole is used. Also, an octant search method is applied to the ellipse. We limit the number of composites in any one octant to 4. No restriction is applied to the minimum number of octants with at least 1 composite.

#### **17.5.3 Inverse Distance interpolation parameters**

The block model has been interpolated by Inverse Distance. All elements have been interpolated with a power of 1 applied to distance weighting. Moreover, the distance used is distorted by the search ellipse axis ratios. Each seam is interpolated independently from one another. To interpolate a seam, only the composites belonging to that seam are used.

### **17.6 Resource estimation**

The resources are simply the accumulation of those block volumes and tonnes with their corresponding average grades.

#### **17.6.1 Specific gravity used**

A series of specific gravity (SG) measurements have been done at the MRC laboratory on selected KéMag drill core samples. NML has elected to average the SG data per seam and use these average values to derive tonnes from volumes. It is interesting to compare the specific gravity values used at KéMag and those used at LabMag. The specific gravity data given in the KéMag column of Table 18 was used:

| Seam | KéMag | LabMag | Difference |
|------|-------|--------|------------|
| LC   | 3.30  | 3.31   | -0.30%     |
| JUIF | 3.48  | 3.44   | 1.16%      |
| GC   | 3.36  | 3.33   | 0.90%      |
| URC  | 3.47  | 3.62   | -4.14%     |
| PGC  | 3.53  | 3.42   | 3.22%      |
| LRC  | 3.52  | 3.37   | 4.45%      |
| LRGC | 3.43  | 3.35   | 2.39%      |

**Table 18: Specific gravity used at KéMag, per seam**

LabMag supplied Geostat with the specific gravity data to use. Geostat has not verified them. We observed a consistent positive difference between KéMag and LabMag.

#### **17.6.2 Resource classification**

Resource classification is an exercise by which the resources are assigned a relative quality. One can intuitively assume that in an orebody, the resources are not equally estimated. There are areas where the uncertainty is greater than in others and most of the time uncertainty is

intimately related to drilling density. Areas densely drilled are usually better known than areas with sparse drilling.

The experience gained by Geostat from the LabMag resource estimation (Geostat, 2006) is used on KéMag due to the fact that it is considered that both deposits are similar and an extension of each other. Both deposits feature the same stratigraphy, structure, orientation and dip. As can be seen from the assay values, the iron content is similar in both deposits as is the specific gravity. Hence Geostat considers that it is reasonable to apply to KéMag the classification scheme used on LabMag.

If KéMag classification was evaluated on its own merit, most of the resources would be classified as inferred since the drillhole layout does not really cover a grid but rather a line with holes every 500m. Based on LabMag knowledge, Geostat considers that where a drillhole intersects the iron formation, a classification on indicated material is applied provided that a spacing of 500m separated the drillholes. As can be seen from the drill layout, a small area of the drilling pattern, around section B-B', has drillholes on a tighter grid. However, Geostat has elected not classify any resource as measured at this stage of exploration.

As was done on LabMag, a fringe of inferred material has been added all around the drillhole layout since it is reasonable to expect that the iron formation extends beyond the limits of the drilling. A 250m fringe was added, as shown in Figure 19.

Geostat uses the terminology defined in National Instrument 43-101 as prescribed by the Canadian Institute of Mining and Metallurgy. The definitions of Measured, Indicated and Inferred resources are as follows:

**Measured Mineral Resource**

*A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough to confirm both geological and grade continuity.*

**Indicated Mineral Resource**

*An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough for geological and grade continuity to be reasonably assumed.*

***Inferred Mineral Resource***

*An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes.*

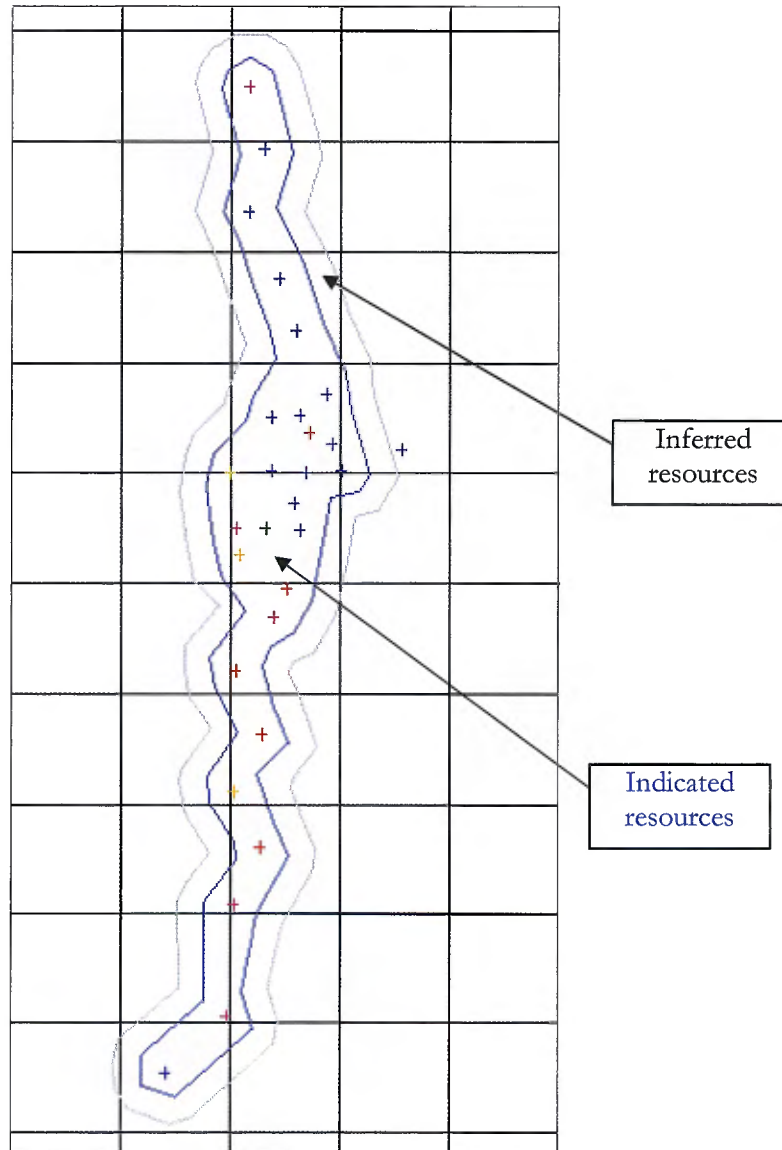


Figure 19: Outline of resource classification used at KéMag

### 17.7 17.7 Classified resources

Table 19 presents the resources for a variety of DTWR cut-off grades. A grade-tonnage curve, derived from the indicated resources, is presented as Figure 20.

The per-seam resources presented in Table 20 are the accumulation of block tonnages above given DTWR cut-offs in each seam, as if each seam could be considered independently. No dilution is taken into account.

| DTWR COG (%)                              | Tonnage (Mt) | DTWR (%) | Fe Head (%) | Fe Conc. (%) | SiO <sub>2</sub> Conc. (%) |
|---|--------------|----------|-------------|--------------|----------------------------|
| <b>GLOBAL INDICATED MINERAL RESOURCES</b> |              |          |             |              |                            |
| 0   | 1,616        | 24.80    | 29.68       | 67.33        | 2.94                       |
| 10  | 1,551        | 25.55    | 30.12       | 68.37        | 2.98                       |
| 15  | 1,464        | 26.31    | 30.57       | 68.91        | 2.95                       |
| 18  | 1,349        | 27.13    | 30.85       | 69.09        | 2.92                       |
| 20  | 1,237        | 27.87    | 31.03       | 69.12        | 2.94                       |
| 25  | 805          | 30.71    | 31.72       | 69.14        | 2.98                       |
| 30  | 431          | 33.48    | 32.25       | 69.09        | 3.04                       |
| 35  | 106          | 36.75    | 33.00       | 68.87        | 3.22                       |
| <b>GLOBAL INFERRED MINERAL RESOURCES</b>  |              |          |             |              |                            |
| 0   | 1,214        | 24.33    | 29.46       | 67.19        | 2.99                       |
| 10  | 1,152        | 25.26    | 30.06       | 68.28        | 3.02                       |
| 15  | 1,089        | 26.00    | 30.55       | 68.82        | 2.99                       |
| 18  | 992          | 26.91    | 30.85       | 68.98        | 2.97                       |
| 20  | 898          | 27.73    | 31.05       | 68.99        | 2.99                       |
| 25  | 568          | 30.86    | 31.74       | 68.97        | 3.08                       |
| 30  | 303          | 33.80    | 32.25       | 68.81        | 3.22                       |
| 35  | 92           | 37.26    | 32.94       | 68.71        | 3.30                       |

Table 19: Indicated and Inferred Mineral resources at various DTWR cut-off values

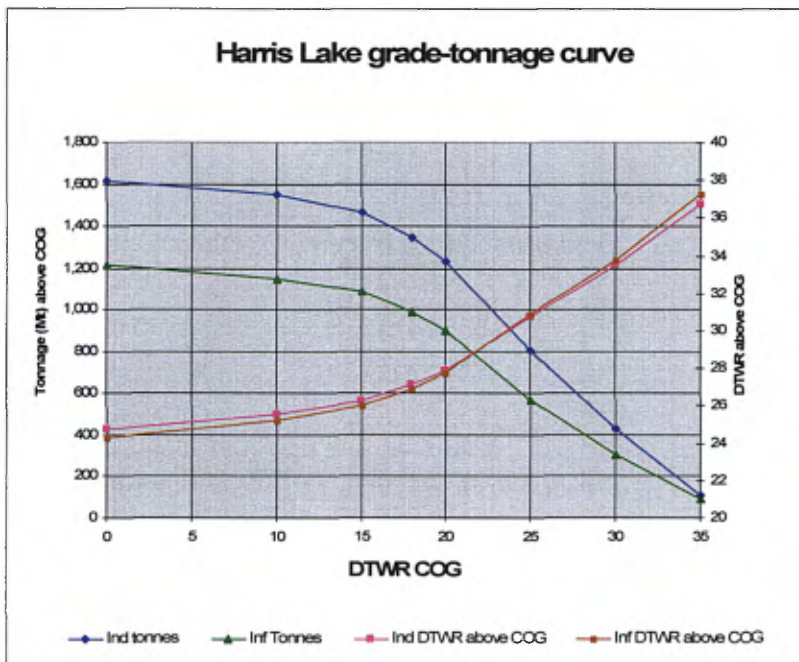


Figure 20: KéMag Mineral Resource Grade-Tonnage Curve

Note: In the above, *Ind* stands for Indicated while *Inf* stands for Inferred.

At the 18% DTWR cut-off the following mineral resources on a per seam basis stand at:

| Seam  | Tonnage (Mt) | DTWR (%) | Fe Head (%) | Fe Conc. (%) | SiO <sub>2</sub> Conc. (%) |
|---|--------------|----------|-------------|--------------|----------------------------|
| <b>Indicated Mineral Resources per seam at 18% DTWR cut-off</b> |              |          |             |              |                            |
| LC  | 212          | 27.61    | 29.32       | 68.98        | 2.79                       |
| JUIF  | 153          | 26.10    | 30.69       | 69.78        | 2.43                       |
| GC  | 13           | 20.88    | 26.21       | 69.54        | 2.35                       |
| URC   | 94           | 25.99    | 31.76       | 69.93        | 2.10                       |
| PGC   | 207          | 33.99    | 33.28       | 69.63        | 2.65                       |
| LRC   | 28           | 28.59    | 33.42       | 68.99        | 3.14                       |
| LRGC  | 575          | 26.75    | 31.52       | 68.64        | 3.41                       |
| <b>Inferred Mineral Resources per seam at 18% DTWR cut-off</b>  |              |          |             |              |                            |
| LC  | 85           | 26.13    | 28.71       | 68.16        | 2.99                       |
| JUIF  | 119          | 26.16    | 30.83       | 69.78        | 2.46                       |
| GC  | 6            | 20.63    | 26.95       | 69.77        | 2.09                       |
| URC   | 61           | 26.09    | 31.35       | 69.92        | 2.05                       |
| PGC   | 143          | 33.46    | 33.09       | 69.47        | 2.80                       |
| LRC   | 26           | 28.65    | 33.40       | 68.90        | 3.23                       |
| LRGC  | 507          | 26.86    | 31.41       | 68.75        | 3.27                       |

**Table 20: Classified Mineral Resources per seam at 18% DTWR**

The Indicated and Inferred Mineral Resources per seam as given in Table 20 do not necessarily add up to the global results as the cut-off is applied to the blocks in each individual seam as if they could be treated independently. In reality, the blocks cross the seam boundaries and the grades from each seam are weighted to derive the global block values. The Mineral Resources per seam should only be used to compare the mineral characteristics of the different seams. The global Mineral Resource Table, Table 19, constitutes the Mineral Resource Statement.

## **18.0 Other Relevant Data and Information**

To the author's knowledge, there are no other relevant data and information pertinent to this study.

## 19.0 Interpretation and Conclusions

- The KéMag taconite deposit was first drilled in 1958 by IOCC. More exploration work was conducted by the same company until 1972. The property was staked by NML in 2004 and a new exploration campaign was started. In 2005, geological mapping and outcrop sampling took place. In 2006, a 29 holes drilling campaign was carried out leading to the first mineral resource estimation on the property.
- The drilling extended over a distance of 10 kilometers. The holes were mostly drilled along strike with holes every 500m. A small area near the center of the deposit was drilled more densely with one section of 4 holes every 300m.
- The KéMag deposit is currently interpreted as being geologically and stratigraphically identical to the LabMag deposit. The drilling has intersected the same iron formations. KéMag and LabMag are located along the strike direction of the regional formations. Some 18 kilometers separate both deposits.
- The verification of the assay data along with the analysis of 27 independently controlled samples shows that the analytical data is of a quality sufficient to support mineral resource estimation. The Quality Assurance / Quality Control program put in place was limited and considered insufficient to draw significant conclusions. Geostat considers that a more comprehensive QA/QC program will be needed to support a Measured Resource classification.
- The geological interpretation of the KéMag deposit heavily relies on the knowledge gained in the exploration of the neighboring LabMag deposit since most of the cross-sections only contain 1 drillhole. A limited area where a cross-section contains 4 drillholes allowed a detailed interpretation of the seams and confirmed a general dip of 6° to the southeast, just like the LabMag deposit. This level of geological knowledge is considered sufficient to classify the mineral resources to the Indicated level. Geostat considers that more drilling will be needed on each cross-section of the deposit to support a Measured resource classification. Essentially, Geostat considers that for KéMag, drill spacing necessary to classify the resources is as follows:
  - **Measured Mineral Resource:** part of the deposit covered by drillholes on a 250 meters between sections by 300 meters on section grid .
  - **Indicated Mineral Resource:** part of the deposit covered by drillholes on a 500 meters by 500 meters grid.
  - **Inferred Mineral Resource:** external 250m fringe around the indicated outline.

- The mineral resources were estimated using a 3-dimensional multi-seam block model with Inverse Distance interpolation. The classified mineral resources of the KéMag deposit currently stand at:

| DTWR COG (%)                              | Tonnage (Mt) | DTWR (%) | Fe Head (%) | Fe Conc. (%) | SiO <sub>2</sub> Conc. (%) |
|---|--------------|----------|-------------|--------------|----------------------------|
| <b>GLOBAL INDICATED MINERAL RESOURCES</b> |              |          |             |              |                            |
| 0   | 1,616        | 24.80    | 29.68       | 67.33        | 2.94                       |
| 10  | 1,551        | 25.55    | 30.12       | 68.37        | 2.98                       |
| 15  | 1,464        | 26.31    | 30.57       | 68.91        | 2.95                       |
| 18  | 1,349        | 27.13    | 30.85       | 69.09        | 2.92                       |
| 20  | 1,237        | 27.87    | 31.03       | 69.12        | 2.94                       |
| 25  | 805          | 30.71    | 31.72       | 69.14        | 2.98                       |
| 30  | 431          | 33.48    | 32.25       | 69.09        | 3.04                       |
| 35  | 106          | 36.75    | 33.00       | 68.87        | 3.22                       |
| <b>GLOBAL INFERRED MINERAL RESOURCES</b>  |              |          |             |              |                            |
| 0   | 1,214        | 24.33    | 29.46       | 67.19        | 2.99                       |
| 10  | 1,152        | 25.26    | 30.06       | 68.28        | 3.02                       |
| 15  | 1,089        | 26.00    | 30.55       | 68.82        | 2.99                       |
| 18  | 992          | 26.91    | 30.85       | 68.98        | 2.97                       |
| 20  | 898          | 27.73    | 31.05       | 68.99        | 2.99                       |
| 25  | 568          | 30.86    | 31.74       | 68.97        | 3.08                       |
| 30  | 303          | 33.80    | 32.25       | 68.81        | 3.22                       |
| 35  | 92           | 37.26    | 32.94       | 68.71        | 3.30                       |

## 20.0 Recommendations

Geostat recommends that:

- A more permanent drillhole location system should be used during drilling campaigns whereby drillhole names are tagged to steel pegs permanently anchored to the ground.
- Core boxes should be tagged by drillhole name and depth (From-To) instead of drillhole name and box number.
- A more comprehensive QA/QC program should be set up. Such a program should make use of blanks, duplicates and check samples. Also, for the drilling campaign as a whole, there should be at least 30, or 5% of the number of assays, whichever is the greater, for each assay type, including DTWR, Fe in Head, Fe in Concentrate and SiO<sub>2</sub> in Concentrate. Also, the presence of biases observed in the control samples should be addressed by the concerned laboratories.
- A comprehensive site visit should be made during summer when drilling activity is taking place. This visit should complete the visit made in February 2007 under winter conditions.
- The number of minor element assays should be increased order to build an adequate database to be used in more advanced stages of exploration. Also, the minor elements should also be integrated in the block model in the next phase.
- The number of drillholes should be increased in order to:
  - increase the resource base by enlarging the area covered by drilling
  - increase the quality of a significant portion of the mineral resources to the measured level

To achieve the measured level, Geostat considers that a section spacing of 250m is required, with a distance of 300m between holes on section.

## 21.0 References

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- WGM, 2006a:** Updated technical report and Mineral resource estimate for the LabMag iron ore project, Labrador for LabMag services inc., May 23, 2006.
- WGM, 2006b:** A technical review of the Pre-feasibility study of the LabMag iron ore project, Labrador for LabMag Services Inc. August 18, 2006.

## 22.0 Certificate of qualification

**To Accompany the Report entitled  
“Estimation of the Mineral Resources of the KéMag Iron Ore deposit New  
Millennium Capital Corp. Technical Report” dated March 20, 2007**

I, Robert de l'Etoile, eng., do hereby certify that:

1. I reside at 963 des Capucines, Laval, Quebec, Canada, H7X 3K7.
2. I am a graduate from the École Polytechnique de Montréal, Quebec in 1980 with a B.Sc.A in geological engineering and in 1982 with a M.Sc.A in geological engineering from the same institution, and I have practised my profession continuously since that time.
3. I am a registered member of the Ordre des ingénieurs du Québec (Registration Number 35543). I am a Member of the Canadian Institute of Mining, Metallurgy and Petroleum.
4. I am a Senior Associate Engineer with Geostat Systems International Inc.
5. I have worked as an engineer for a total of 25 years since my graduation. My relevant experience for the purpose of the Technical Report is: Over 20 years of consulting in the field of geostatistical Mineral Resource estimation, orebody modelling and mineral resource auditing.
6. I have read the definition of “qualified person” set out in the National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements to be an independent qualified person for the purposes of NI 43-101.
7. I have prepared and wrote this report. I have personally visited the site on February 20, 2007.
8. I have no personal knowledge as of the date of this certificate of any material fact or change, which is not reflected in this report.
9. Neither I, nor any affiliated entity of mine, is at present, under an agreement, arrangement or understanding or expects to become, an insider, associate, affiliated entity or employee of New Millennium Capital Corp., or any associated or affiliated entities.

10. Neither I, nor any affiliated entity of mine own, directly or indirectly, nor expect to receive, any interest in the properties or securities of New Millennium capital Corp., or any associated or affiliated companies.
11. Neither I, nor any affiliated entity of mine, have earned the majority of our income during the preceding three years from New Millennium capital Corp., or any associated or affiliated companies.
12. I have read NI 43-101 and Form 43-101F1 and have prepared the technical report in compliance with NI 43-101 and Form 43-101F1; and have prepared the report in conformity with generally accepted Canadian mining industry practice, and as of the date of the certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

*(s) Robert de l'Etoile*  
Robert de l'Etoile, eng.  
March 20, 2007

**Appendix 1:**  
**Sample preparation and analytical procedures of the MRC laboratory**

### **SAMPLE PREPARATION PROCEDURE**

1. Crush the core to 100%  $-\frac{3}{8}$ " using 4" x 6" Jaw Crusher.
  - a. Screen the first crushing on  $\frac{3}{8}$ " and recrush  $+\frac{3}{8}$ "
  - b. Combine all of the second crushing with the  $-\frac{3}{8}$ " from the first crushing.
2. Weigh the  $-\frac{3}{8}$ " crushed core and record the weight.
3. Cut out 1500 grams for roll crushing to 100% -10 mesh. This is done by riffing until a 1500 g. sample is obtained.
4. Roll crush the 1500 g. of  $-\frac{3}{8}$  material to 100% -10 mesh.
  - a. Screen the first crushing on 10 mesh and recrush the +10 mesh.
  - b. Screen the recrushed material on the same 10 mesh screen and recrush the +10 mesh.
  - c. Combine the third crushing material with -10 mesh.
5. Riffle out 50 g. of the -10 mesh product for a Davis Tube test and crude analysis.
6. Bag and save the remainder of the 1500 g. -10 mesh material.
7. Stage grind the 50 g. to -325 mesh in the mortar and pestle.
8. Run a Davis Tube on the 20 g. ground product from the mortar and pestle.
9. Perform desired chemical analysis.
10. Perform desired head analysis on 30 g. sample and save the balance.

**STAGE GRINDING -10 MESH CRUSHED TACONITE DRILL CORE FOR DAVIS TUBE TEST**

1. Place the 50 gram sample into a 325 mesh screen with a bottom pan: cover the screen and hand screen approximately 1 minute.
2. Remove the O' size and place it in the coarse mortar and grind for about one minute.
3. Place the ground material in the 325 mesh screen again and hand screen about a minute.
4. Remove the O'size and place it back into the coarse mortar. Grind about thirty seconds.
5. Place the ground material in the 325 mesh screen again and hand screen about one minute.
6. Remove the O'size and place it back into the coarse mortar. Grind about 30 seconds.
7. Place the ground material in the 325 mesh screen and hand screen about a minute. There should be about 1/3 of the entire sample remaining on the 325 mesh screen. The coarse mortar reduces the sample from 10 mesh thru 65 mesh.
8. Remove the O'size from the screen and place it back in the fine mortar. Grind for about 5-6 minutes.
9. Place the material in the 325 mesh screen and hand screen for about one minute
10. Remove the O'size from the screen place it back in the fine mortar. Grind for about four minutes.
11. Place the material in the 325 mesh screen and hand screen for about one minute.
12. Remove the O'size from the screen and place it back in the fine mortar. Grind for about four minutes.
13. Repeat steps 11 and 12 using three (3) minutes grinding times until all the sample passes 325 mesh.
14. Pour the sample from the pan into a beaker, tag it, and turn it in for a Davis Tube.

**NOTES:**

- Brush off mortar and pestle between each stage grind. Brush into the screen making sure no sample is lost.
- Be sure to blow off mortar and pestle before placing new sample.
- When pouring the O'size back into the mortar, be extremely careful not to bump the edge of the mortar with the screen, as the porcelain chips quite easily.

**DAVIS TUBE PROCEDURE - TACONITE**

1. Take a 25-30 gram sample which has been pulverized to -325 mesh and cut out 20 g. for the tube test. The remainder is to be analyzed and will constitute the head which will be compared with the calculated head at the end of the test.
2. Place a pinch clamp on the tube at the discharge end of the Davis Tube.
3. Fill the tube with water to approximately 1" above the poles of the magnets.
4. Place a pan under the discharge end to collect the tailings.
5. Place the proper tag on the tailings pan.
6. Activate the magnets
7. Pour 20 g. sample into the tube.
8. Wash the sample down the tube and fill it to the point where the fresh wash water enters.
9. Place the rubber stopper in the feed end of the tube.
10. Open the pinch clamp on the discharge end of the tube.
11. Adjust the flow rate of the fresh water to approximately 380 cc/min.
12. Start the machine
  - a. 115-120 volts
  - b. 1.8 - 1.9 amps.
  - c. 60 strokes/min.
  - d. Flow water 380 cc/min.
  - e. 40° slope on the tube.
  - f. Approx. 5000 Gauss
13. Wash until the portion from the poles to the top of the tube is clear. This is approximately 5-6 minutes, but will vary depending on the amount of slimes in the crude sample.
14. Shut the machine and wash water off
15. Place the pinch clamp on the tube at the discharge end.
16. Remove the rubber stopper on the feed end of the tube.
17. Open the pinch clamp and drain the tube until it is about 1" above the poles of the magnet. This material will drain directly into the tailings pan.
18. Remove the Davis tube from the machine and drain the remainder (magnetics) into the beaker. Wash the inside of the tube allowing it to drain into the beaker.
19. Replace the tube, place the pinch clamp on the discharge end and fill to 1" above the poles with fresh water.
20. Wash the tailings which have splashed on the sides of the tailings pan into the tailings pan.
21. Hold the beaker containing the magnetics between the poles of the magnet and decant the water into a beaker. Pour the decanted water into the tailings pan.
22. Place the tag for the magnetics into the beaker and place in an oven (105-110°C) for at least 1½ hours.

23. Place tailings pan on sloped shelf and allow solids to settle out for at least 8 hours or overnight. Siphon off clear water and dry on hot plate.
24. Demagnetize cone and head before analysis.
25. Analysis will be: total iron in head, conc. and tailings with an H.F. silica and a ferrous iron on the conc.

### Total Iron Content by Non Mercury Titrimetric Method

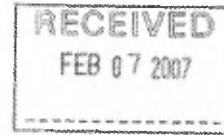
1. Weigh 0.4000 gram sample into a 250ml Erlenmeyer flask
2. Add approximately 20 ml of concentrated HCl + 10 drops HF and heat the flask on a hot plate at 70° -<100° C to dissolve the sample. Keep the temperature just below the boiling level.
3. As the digestion progresses, reduce the iron by adding stannous chloride (solution #1) dropwise until only a slight yellow colour remains in the flask. If and as the yellow colour increases add more solution #1 as needed to maintain only a slight yellow colour.
4. When digestion is complete, rinse the walls of the flask with DI H<sub>2</sub>O and bring the volume up to ~ 100ml. Heat for several minutes for temperature to return to approximately 70° -<100° C.
5. Add ~ 5 drops of indigo carmine indicator (solution #6). Add stirring bar.
6. Add the titanium Trichloride (solution#2) dropwise while swirling the flask until the solution first turns blue and then turns colourless.
7. Now add potassium dichromate (solution #3) dropwise to oxidize excess titanium trichloride. The solution will just maintain a persistent blue colour. This step requires that the solution temperature remains at 70°C, permanence of the blue colour must be extended to at least 15 seconds.
8. Cool to room temperature in cool water bath.
9. Add 30 ml of sulphuric-phosphoric acid mixture containing sodium diphenyl-sulfonate indicator (solution #4).
10. Titrate with standard potassium dichromate (solution #5) rapidly at first then dropwise as the end point is approached. The end point is obtained as the green solution progresses to bluish-green and the final drop of titrate imparts a stable violet colour.

### H.F. Silica Determination

1. Weigh one-gram (or fraction of) sample into regular clean 125 ml Philips Conical beaker
2. Wet down sample with small amount of distilled water.
3. Add 30 ml Hydrochloric Acid (HC1). (If sample will not go into solution add approximately 5 ml of Stannous Chloride and additional HC1.)
4. Take to dryness on a hot plate. Remove from hot plate and let cool.
5. Wet down with small amount of distilled water. Add 20 ml Hydrochloric Acid (HC1) and place on hot plate until sample is in solution. Remove from hot plate and add small amount of distilled water.
6. Filter on ashless Whatman #40 12.5 cm.
7. Scrub out flask very carefully. Repeat
8. Wash filter one time with hot 10% HC1. Then three (3) extra times with hot distilled water.
9. Place paper in platinum crucible.
10. Ignite sample in a muffle furnace at 1000°C for 30 minutes.
11. Dessicate sample and when cool (15 – 20 minutes) weigh platinum and contents.
12. Add 2 ml of 3% Oxalic Acid and fill crucible about  $\frac{3}{4}$  full with HydroFlouric Acid.
13. Place in sandbath and let samples go dry.
14. Ignite samples in a muffle furnace at 1000°C for 30 minutes.
15. Dessicate samples and when cool weigh platinum and contents.

The difference in weight between first and second weigh x 100 equals the % of silica.

**Appendix 2:  
MRC quality control report**



**Midland Research Center**

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3 February 2007

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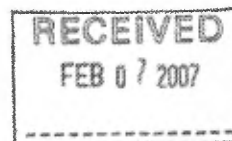
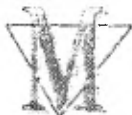
PAGES, including cover: 3

To: Mr. Bish Chanda  
NML / LabMag

From: R. D. Learmont

Bish, attached is the report summarizing the results of the blind assay program on the Harris Lake 2006 drillcore samples.

1 • 218-885-1955 Midland Research Center FEB 07 07:14P



### Midland Research Center

A WHOLLY OWNED SUBSIDIARY OF MIDLAND STANDARD, INC.  
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February 3, 2007

LabMag GP Inc.  
 1303 Greene Avenue, Suite 400  
 Westmount, Quebec, Canada H3Z 2A7

Re: Blind Assaying of LabMag Drill Core Samples – Harris Lake 2006

Dear Sir:

Part of the quality control program at Midland Research requested by LabMag GP for the 2006 drill core processing and assaying contracts consisted of blind assaying to provide confidence in the assay returns that were reported to LabMag. As part of the overall quality control program, LabMag also performed check assays through another facility, for which Midland prepared and provided drill core assay pulps. This report summarizes the blind assay program.

The blind assay program included twenty samples of Harris Lake drill core selected at random from saved laboratory pulps that were prepared and originally assayed at Midland. Of the 20 core samples, half of the blind assay samples were taken from Davis Tube heads and were re-assayed for total iron; half of the samples were from Davis Tube concentrates and were re-assayed for total iron and silica. The blind samples were selected by a person who was had not been involved in the original drill core assaying. The laboratory personnel responsible for assaying were not told the origin of the blind assay samples and had no knowledge of the original assay that could be used to bias the results. This testing protocol allowed checking the consistency and repeatability of assays for the same material through the same laboratory and using the same procedures.

All of the Harris Lake blind sample assay results are compiled on the attached table. The assays from the blind samples that were submitted are compared on the table to the iron and silica assays originally reported on the same material. There is a section for Davis Tube heads and a separate section for Davis Tube concentrates, with the two then combined for an overall program total. Drill core samples are cross-referenced by the original LabMag and Midland laboratory identification numbers, the blind sample number and related Midland assay laboratory number, drillhole number, and drill core interval.

The majority of the blind assay results were within a normal range of assay variation that can result from factors such as mixing and sampling, particle size, and wet chemistry accuracy. This can be seen from a comparison of assays in which the mean iron reported in the original assays and the blind assays are reasonably consistent; small differences between the mean original and the mean blind assay results is very small considering the sample size.

In addition to reviewing the mean assay data, the data was reviewed for single anomalies. Silica assays were consistently well within normal ranges. The largest observed uncertainties seemed to occur with respect to total iron reported in two Davis Tube heads, where the iron in both of the blind assays was higher than the iron originally reported, and in two Davis Tube concentrates, where one blind assay was higher and one blind assay was lower than the originally reported assay. Because of the indicated differences, all four blind assays were repeated. In three of the four cases, the re-assay indicated a total iron result that fell between the original assay and the first blind assay; in the fourth case, hole HL 1021 D, the second blind assay was slightly higher than the first blind assay and was also higher than the original assay.

In reviewing the overall blind assay program for Harris Lake, it appears that, while there are differences in almost every case between the original assay and the blind assay, it appears that the differences between the original assays and the blind assays lie within normal ranges and are without significant bias, as illustrated by the calculated means for the data set and the interpretation provided above.

The blind assay program for the 2006 Harris Lake drill core samples is now complete. The results of the blind assay program indicate confidence in the assay results reported from the Midland wet chemistry laboratory to LabMag GP.



**Midland Research Center**

2-03-2007

**Blind Sample Check of 2006 Harris Lake Drill Core Assays - Blind Assays Performed At Midland Lab**

| Drill Hole Number                           | Drill Core Interval | Lab/Anal. Midland Sample Number | Blind Sample Number | % Total Fe     |             | Difference Fe % | % Total Fe Blind Re-Assay | % SiO2         |             | Difference SiO2 % | % SiO2 Blind Re-Assay |
|---|---------------------|---------------------------------|---------------------|----------------|-------------|-----------------|---------------------------|----------------|-------------|-------------------|-----------------------|
|   |                     |                                 |                     | Original Assay | Blind Assay |                 |                           | Original Assay | Blind Assay |                   |                       |
| <b>Drill Tube Head Samples</b>              |                     |                                 |                     |                |             |                 |                           |                |             |                   |                       |
| HL 1040 D                                   | 87-93               | 4842/5609                       | 1673                | 32.88          | 32.88       | -0.03           |                           | N/A            | N/A         | N/A               | N/A                   |
| HL 1002 D                                   | 8-13                | 4078/3881                       | 3676                | 27.87          | 23.35       | -4.52           | 28.05                     | N/A            | N/A         | N/A               | N/A                   |
| HL 1009 D                                   | 75.2-91.2           | 4385/4253                       | 5677                | 29.89          | 29.92       | 0.03            |                           | N/A            | N/A         | N/A               | N/A                   |
| HL 1028 D                                   | 144-150             | 4867/4330                       | 7879                | 30.78          | 31.18       | 0.40            |                           | N/A            | N/A         | N/A               | N/A                   |
| HL 1018 D                                   | 76.1-82.1           | 4425/4367                       | 9691                | 27.13          | 27.99       | 0.86            |                           | N/A            | N/A         | N/A               | N/A                   |
| HL 1015 D                                   | 83-89.2             | 4848/4475                       | 11983               | 29.07          | 32.82       | 3.75            |                           | N/A            | N/A         | N/A               | N/A                   |
| HL 1021 D                                   | 38.8-42.8           | 4808/4580                       | 13985               | 29.18          | 30.37       | 1.19            | 30.42                     | N/A            | N/A         | N/A               | N/A                   |
| HL 1008 D                                   | 41-49               | 4357/3986                       | 15987               | 30.48          | 30.42       | -0.06           |                           | N/A            | N/A         | N/A               | N/A                   |
| HL 1004 D                                   | 63-68               | 4250/4031                       | 17689               | 30.78          | 30.59       | -0.19           |                           | N/A            | N/A         | N/A               | N/A                   |
| HL 1027 D                                   | 84.7-88.5           | 4307/4087                       | 16691               | 26.91          | 27.18       | 0.27            |                           | N/A            | N/A         | N/A               | N/A                   |
| Average of Drill Tube head samples          |                     |                                 |                     |                |             | -0.12           |                           |                |             |                   |                       |
| <b>Drill Tube Concentrate Samples</b>       |                     |                                 |                     |                |             |                 |                           |                |             |                   |                       |
| HL 1040 D                                   | 24-25               | 4822/5688                       | 2674                | 67.85          | 68.03       | 0.18            | 67.56                     | 5.01           | 4.58        | 0.43              |                       |
| HL 1047 D                                   | 88-75               | 4888/5692                       | 4676                | 70.82          | 70.29       | -0.53           |                           | 2.21           | 2.14        | 0.07              |                       |
| HL 1001 D                                   | 2-8                 | 4843/4888                       | 6878                | 68.37          | 68.29       | -0.08           |                           | 4.42           | 4.32        | 0.10              |                       |
| HL 1013 D                                   | 35.8-101.5          | 4408-4318                       | 8688                | 70.29          | 70.19       | -0.10           |                           | 1.60           | 1.27        | 0.33              |                       |
| HL 1011 D                                   | 151.8-188.5         | 4482-4384                       | 13682               | 70.54          | 70.06       | -0.48           |                           | 1.82           | 1.99        | 0.17              |                       |
| HL 1028 D                                   | 116.2-122.2         | 4831/4448                       | 12684               | 67.48          | 66.81       | -0.67           | 67.93                     | 3.79           | 3.50        | 0.29              |                       |
| HL 1019 D                                   | 122.5-126.5         | 4515/4550                       | 14885               | 69.18          | 69.25       | 0.07            |                           | 2.88           | 2.54        | 0.34              |                       |
| HL 1005 D                                   | 81.2-81.2           | 4229/3922                       | 16688               | 68.59          | 68.58       | -0.01           |                           | 1.90           | 2.08        | 0.18              |                       |
| HL 1026 D                                   | 68-71               | 4288/4013                       | 18689               | 69.82          | 69.87       | 0.05            |                           | 2.04           | 2.08        | 0.04              |                       |
| HL 1010 D                                   | 48-84               | 4338/4088                       | 20692               | 68.10          | 68.44       | 0.34            |                           | 2.84           | 3.08        | 0.24              |                       |
| Average of Drill Tube concentrates          |                     |                                 |                     |                |             | 0.02            |                           |                |             | 0.07              |                       |
| Average, all 2006 Harris Lake blind samples |                     |                                 |                     |                |             | -0.06           |                           |                |             | 0.07              |                       |