

**INDEPENDENT TECHNICAL REPORT
ON THE
LOMONOSOVSKOYE IRON PROJECT,
REPUBLIC OF KAZAKHSTAN**



**Prepared by Mining Associates Limited
for
KazaX Minerals Incorporated**

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1 SUMMARY

This report is a description of the Lomonosovskoye Iron Project ("the Lomonosovskoye Project" or "the Project") in the Republic of Kazakhstan prepared by Mining Associates Limited ("MA"). At the request of Mr. Juan Camus, Country Manager of KazaX Minerals Incorporated ("KMI" or the "Company"), MA was commissioned in November 2013 to prepare a revised mineral resource estimate and Independent Technical Report on the Lomonosovskoye Project in compliance with the requirements of Canadian National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI43-101"). The revised estimate for the Lomonosovskoye Project is based on the same drill database as used in the report prepared in compliance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"), which was dated December 18, 2012 (and resubmitted on SEDAR on May 9, 2013) (the "December 2012 report"), but with a re-interpretation of the geological and geophysical data and an estimation method that includes an allowance for bulk open-pit or underground mining. MA has been providing technical advice to the project since October 2011.

MA has based this report on information provided by KMI; third party technical reports; a data audit; geology models and resource estimates completed by MA using both historical and recent drilling; and a site visit by the Qualified Person ("QP") in March 2012 and December 2013.

Description and Location

The Lomonosovskoye Iron Project is located in the northwest corner of the Republic of Kazakhstan in the Kostanay Region, 618 km northwest of the country's capital of Astana and 50 km west-southwest of the regional capital of Kostanay. It is centred at latitude 53° 02' N and longitude 62° 53' E. The Project area lies 15 km northwest of the town of Rudniy. Primary access to the site is by highway from Kostanay to Rudniy and then sealed road to Lomonosovskoye.



The Project topography is flat lying and has a continental climate of short relatively warm summers and longer very cold winters. The Project is located close to the town of Rudniy and the significant iron mining-processing operations of the Sokolovsky-Sarbaisky Ore Mining and Processing Association ("SSGPO"), a subsidiary of Eurasian Natural Resources Corporation PLC ("ENRC"). The area has considerable industrial infrastructure related to the activities at SSGPO.

Tenure

The rights to explore and mine iron ore at the Lomonosovskoye Project are held under Subsoil Use Contract # 3151 owned by Lomonosovskoye Limited Liability Partnership ("LLLP"), a 100% subsidiary

of Safin Element GmbH ("Safin"), granted in March 2009 for 21 years, but extendable. According to the Legal Opinion given by GRATA Law Firm LLP, the Subsoil Use Contract has been issued to LLLP in adherence to all the procedural rules and the Subsoil Use Contract remains issued to LLLP as of 14 November 2011.

The indirect acquisition by KMI of a 74.99% interest in LLLP from Safin was completed on 15 February 2013 pursuant to a share purchase agreement ("SPA") signed on 19 December 2011. The current ownership of LLLP is as follows:

- a) KMI @ 74.99% (through its Austrian subsidiary, Kazco Beteiligungs GmbH);
- b) Safin @ 0.01%; and
- c) Tobol @ 25%.

The Subsoil Contract is registered to LLLP having been officially transferred from the original registrant, Tobol, on 31 July 2009. According to the Legal Opinion, as at the date thereof, the sole holder of participations in the capital of LLLP was Safin, a company registered under the laws of the Republic of Austria.

The SPA originally contemplated the indirect acquisition by KMI of a 99.9% legal interest and a 100% beneficial interest in LLLP by Newbridge (subsequently renamed KazaX Minerals Inc.) from Safin. The SPA was subject to conditions precedent, including government regulatory approval. Subsequently, the SPA was varied to contemplate the indirect acquisition by KMI of a 74.99% legal and beneficial interest in LLLP for aggregate consideration of US\$56,383,200 to be satisfied through a combination of cash payments and issuances of common shares of KMI ("Common Shares") to Safin.

As of the effective date of this report, KMI has made cash payments totalling approximately \$8.9 million and issued approximately 75.5 million Common Shares pursuant to the terms of the SPA. The future cash consideration due under the SPA is approximately \$22.82 million.

As of the effective date of this report, KMI and Safin are in discussions to revise the schedule for the cash payments remaining under the SPA.

In the event that KMI does not complete the cash payments to Safin, in full or in part, in accordance with the terms of the SPA, KMI is required to transfer back to Safin the unpaid portion of its interest in LLLP on a pro rata basis.

History and Drilling

Iron mineralization was discovered in the region in 1949. The Lomonosovskoye Project has been subject to various geophysical and drilling surveys from 1951 through to 1984 during, which time several mineral resource estimates were conducted.

Some 412 diamond drill holes for a total meterage drilled of 131,441 m were recorded in the database for the Contract area prior to the current drilling, of which 190 drill holes were angled holes.

A further twenty two (22) drill holes were completed in 2012 for a total of 9,049 m, selected and supervised by MA and assayed by KMI to validate the historical drilling and for this resource estimate. A further forty (40) drill holes were drilled in 2013 for a total of 11,580.8 m. Twenty two of these holes were for hydrological and geotechnical studies. The final results from the 2013 drilling were not available for inclusion in this revised mineral resource estimate.

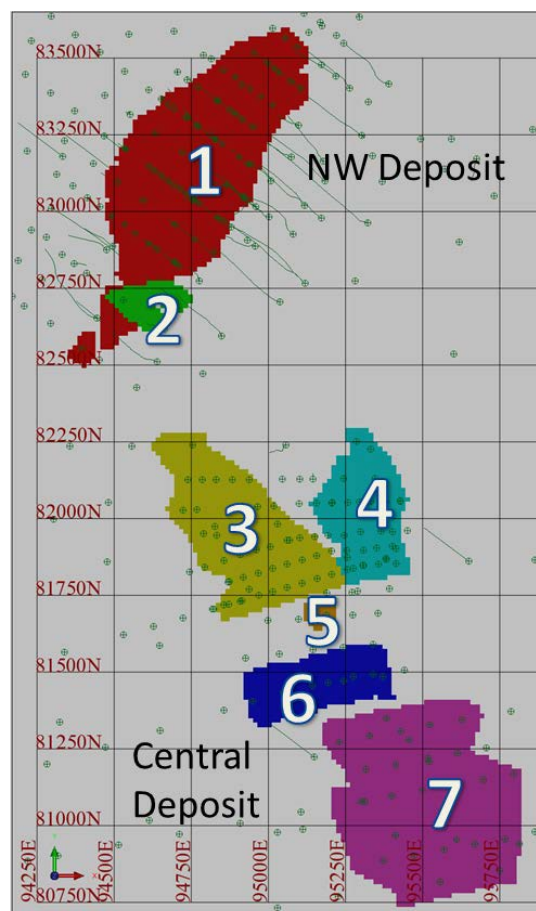
The last historical estimate was compiled after completion of drilling in 1984, and totalled 333 Mt at an average grade of 34.2% Fe, using a 20% Fe cut-off, which was classified under the Kazakhstan classification system as C1 and C2 categories. The figures quoted above are regarded as historical by MA (as they are pre-2000) and have been superseded by the estimates reported here and in the December 2012 report. It is MA's opinion that the 1984 historical mineral resource estimates have been largely verified by the new drilling and estimates and are quoted here to provide context only.

Geology and Mineralization

The Lomonosovskoye Project iron deposits, along with a number of other significant magnetite deposits, occur in the Turgai belt of the regional Valerianovskoe magmatic arc in northern Kazakhstan. Magnetite deposits of the Valerianovskoe magmatic arc are hosted by andesitic volcanics, pyroclastics, and intercalated sediments and carbonates of the Valerianovo supergroup. Large gabbro-diorite-granodiorite igneous bodies of the Sarbai-Sokolovsk and Sulukolskaya complexes are related to the mineralization, with granitic facies interpreted as having been intruded from Mid-Visean to Permian period. In some deposits, the host sedimentary sequence is cross cut by post-mineralization dioritic porphyry. The Palaeozoic units of the Turgai belt in Kazakhstan are entirely covered by Mesozoic to Cainozoic sediments which are from 40 m to 180 m in thickness.

The Lomonosovskoye deposits and other magnetite deposits in the Valerianovskoe arc are generally referred to as iron skarn deposits. Skarns result from the early high temperature alteration of limestone (or other carbonate rocks) resulting in a mineralogy dominated by calc-silicate minerals such as garnet and pyroxene, and various metallic minerals such as iron, gold, copper, zinc, tungsten, molybdenum and tin. In this case the dominant mineralization mineral is iron.

The Lomonosovskoye Project comprises two deposits split into seven estimation domains: two domains in the North-Western ("NW" or "Northwest") Deposit and five domains in the more complex Central Deposit. The domains differ in geometry but are broadly similar in geological structure, genesis and composition of mineralization, although emphasis of particular mineralization styles changes between domains. The domains are impacted by, and to some extent defined by, diorite dykes and intrusions as well as faulting.



Project Overview in plan view.

Drill traces in green, resource blocks coloured by domain

The Northwest Deposit contains stratabound magnetite mineralization along the contact between lower sedimentary (limestone) and upper volcanic-sedimentary (tuffite) members of the Sokolovskiy

suite. The mineralization is enclosed by an envelope of garnet-pyroxene skarns and forms a single skarn-mineralization zone that can be traced over 1,200 m along strike in a south-western direction, and down dip to a depth of 1,600 m with an average mineralization body thickness of about 100 m.

The Central Deposit has a complex multi-domain structure due to the widespread influence of diorite intrusions and faulting. Mineralization is defined by gradation in intensity from full skarn replacement to disseminated and partial replacement. The border between them is determined by chemical composition. Mineralized bodies are predominately of seam-like and lenticular shape. Dip angles vary from vertical to 30° for individual mineralized bodies. Average thickness of mineralized bodies is highly variable. The Central Deposit is more irregular than the Northwest Deposit but mineralization is contained within an area traced along strike over 2,300 m and to a depth of 200 to 600 m in the north, and to 800 m in the south, although depth extent is poorly tested in most areas due to the complexity of the deposit.

Mineralized bodies at Lomonosovskoye consist of a gradation from massive magnetite to disseminated and/or vein magnetite. The boundary between massive and disseminated/vein mineralization is sometimes difficult to identify as dense disseminations of magnetite grade into massive. Massive mineralization is defined as being 50% or greater iron content. Hematite is also present.

Seven types of mineralization have been recognized at Lomonosovskoye and both zones share similar mineralization types, although dominance changes from area to area.

2012 drilling included assay by modern methods and the results compared favourably with the historical data set. This assay included measurement of the magnetite content by the internationally recognised Davis Tube method at laboratories in the USA.

In terms of deleterious elements, historical metallurgical and mineralogical work indicated variations in mineralization type between the 2 deposits with sulphur content averaging 2.9% in Northwest and 3.5% in Central, and phosphorus content averaging 0.07%-0.08% and 0.34%-0.45% respectively. Silica values are not reported in the historical mineral resource estimate.

The current estimate confirms these historical figures with a variation in deleterious elements with sulphur in the Northwest averaging 3.54% and phosphate 0.09% whereas Central sulphur is lower at 2.79% but phosphate is substantially higher at 0.50%.

In addition, it was noted that the paleosurface weathering profile may impact iron mineralization up to 100 m depth below that surface, although affected areas near the contacts are poorly drilled.

Resource Estimation

The revised estimate for the Lomonosovskoye Project is based on the same drill database as used in the report prepared in compliance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"), which was dated December 18, 2012 (and resubmitted on SEDAR on May 9, 2013) (the "December 2012 report"), but with a re-interpretation of the geological and geophysical data, the addition of further assays from some un-sampled intervals and an estimation method that includes an allowance for bulk open-pit or underground mining. This better understanding of the geology and mineralization controls and additional definition provided by the down-hole geophysics has allowed an increase in the confidence levels of the estimates.

The new mineral resource estimate is outlined below, above a cut-off grade of 20% Fe:

Mineral Resource Estimate for Combined Lomonosovskoye, Effective Date of April 17, 2014, Cut-off 20% Fe					
Class	Mt	Fe %	P %	S %	FeM %
Measured	63.9	30.5	0.29	3.01	21.30
Indicated	414.2	30.6	0.22	3.3	21.04
Measured & Indicated	478.1	30.5	0.23	3.3	21.10
Inferred	28.4	28.0	0.28	3.04	16.71

The current resource estimate is based on holes drilled and assays received up to 23 November 2012. The magnetic anomaly contours and historical geological cross sections were used to constrain and extend the resource estimation domains up to 50 m beyond last drill hole, where reasonable. Three dimensional wireframes were constructed for each domain guided by 5 m bench composites, down hole magnetic susceptibility data, newly translated lithology logs and magnetic and gravity maps. Interpretations at a 10% Fe cut-off grade were made for the Northwest Central deposits.

Assay results were composited to 5 meter intervals down-hole within domains. Fe assay results were capped at the 99.5 percentile for the Northwest Deposit and 99.9 percentile for the Central Deposit while no capping was required for the magnetite content. The Block Model extents cover the combined Northwest and Central deposits, with a block size of 15mN x 15mE x 10mRL, without sub-blocking to reflect block open-pit or underground. An indicator approach was used to select blocks with a greater than 40% probability of being above a cut-off grade of 20% Fe within domains. Grade was interpolated into a constrained block model using all 5 m sample composites within above or below 20% Fe blocks, including samples with a value below or above 20% Fe respectively. This is considered to represent the true “mining block” grade, including both internal and edge dilution. Ordinary Kriging estimation technique with anisotropy was applied.

Maximum search was varied by domain, from 150 m to 300 m with 3 to 24 informing samples. Density was calculated using the following formula: $\text{density} = 0.0213 \times \text{Fe content} + 2.74$, taken from a linear regression plot for density against Fe content for over 3,000 samples. Resources are reported above 20% Fe for both zones.

Where reference is made in the table above to “Inferred”, this refers to within domain wireframes and with at least three informing samples. Where reference is made in the table above to “Indicated”, this refers to within domain wireframes and the maximum of 24 informing samples and Krig Slope greater than 0.1. Where reference is made in the table above to “Measured”, this refers to within domain wireframes and the maximum of 24 informing samples and a Krig Slope greater than 0.5.

The new estimate represents an increase in tonnage of 45% and an increase in contained iron of 25% in the measured and indicated mineral resource categories over the estimates included in the December 2012 report. The changes from the estimates in the December 2012 report relate to increased confidence levels, as well as changes in the estimation methodology. As a result of new assay information from old drill hole samples, which filled some unsampled intervals in the database, and the use of the down-hole geophysical data to better define low-grade areas, the inclusion of mining dilution within the mining blocks has increased tonnage without a corresponding loss of contained metal at an unchanged cut-off grade of 20% Fe; nevertheless, the overall effect has been to lower the average grade of estimated mineral resources.

Ongoing Activities

In conjunction with the current ongoing drilling program and metallurgical testwork, KMI has engaged Wardell Armstrong International as lead technical consultant to coordinate a Definitive Feasibility Study (DFS) on the Project. The DFS is expected to be completed by the end of 2014. Wardell Armstrong International is an independent mining consultancy providing specialized geological, geotechnical and hydrogeological mining advice as well as bringing environmental and social experience to mining projects worldwide across all commodities.

Recommendations and Conclusions

The Lomonosovskoye Project contains significant magnetite iron mineralization in two deposits comprised of seven adjacent domains which have similar geological settings to the nearby operating magnetite iron ore open pit and underground mines in the Rudnyy region.

Historical work to date has outlined skarn iron mineralization at the Northwest Deposit and the Central Deposit beneath 100 m of overburden and extending to 1600 m depth in the Northwest Deposit, and some 900 m at Central. The drilling available consisting of twenty two (22) drill holes totalling 9,049 m has allowed for confirmation of the historical drilling and for the deposit to be better understood and

extended in area leading to this resource estimate but still remains open at depth and in the poorly drilled and structurally complex region between the Northwest and Central deposits.

The revised estimate effective date April 17, 2014, is based on the data set used in the December 2012 report, with additional assaying of stored samples and interpretation of down-hole geophysical logs. It is expected that drilling completed in 2013 and 2014 will be included in the next update.

It is MA's opinion that the mineral resource estimates included in the December 2012 report have been largely verified by the new estimates, with the changes in tonnage and grade reflecting increased confidence and the use of an estimation methodology better suited to bulk surface and underground mining. The new estimates are fully diluted for internal and edge mining dilution.

The mineralization domains were redefined by 3D wireframes using drill assay data, detailed geology logs and down-hole magnetic susceptibility logs. The deposit was divided into blocks above and below 20% Fe using an indicator approach. Grades and mineralization percentages were then estimated by Ordinary Kriging into blocks 15x15x10m in size within each domain.

While there have been a number of metallurgical programs through the history of the project, further metallurgical testing will be required regardless of the historical metallurgical results. MA notes the presence of significant hematite as well as magnetite at several locations and this will need to be taken into account in the plant design. A metallurgical program is currently being undertaken by KMI with results expected in 2014.

MA notes that the Lomonosovskoye Project has a favourable location due to its proximity to transportation routes, and sources of water, gas, and power supply, which have been established with the regional mining complex based in Rudny. This may allow a reduction in capital expenditure and may reduce the cost of production if the project proceeds to development through the use of shared infrastructure.

The Legal Opinion states that there is a remote risk of the Competent Authority will not approve the transfer of Subsoil Use Contract rights. MA believes the revised ownership structure has largely off-set this risk.

In terms of to the project's potential economic viability, as the Project is considered to be in Advanced Exploration stage prior to Preliminary Economic Assessment, it is not at a stage to discuss risk in terms of potential economic viability. There are however reasonable prospects of eventual economic extraction by combined open pit and underground methods.

The QP makes the following observations and conclusions regarding the Lomonosovskoye Project:

- Significant skarn type iron mineralization exists at the Lomonosovskoye Project.
- The mineralization occurs in 3 main types – disseminated, veins and massive.
- The deposit remains open at depth and along the lateral extents in certain areas as well as being under-drilled in the mid portion between the Northwest and Central deposits. This area is currently being tested with diamond drilling.
- The resource estimates will be updated based on the results of the drilling program currently underway.
- Following a more rigorous and reliable testing of density, a calculated density has been applied to iron bearing blocks within the block model rather than fixed values as in the past.
- The Lomonosovskoye Project has a very favorable location due to its proximity to transportation routes and infrastructure.
- The historical drill-holes have been validated by a current drilling program and close examination of the statistics between old and current drilling has deemed that the historical holes are suitable to be included in this resource estimate.
- The techniques applied in the sampling, logging and storing of core are deemed appropriate QA/QC procedures and standards.
- The deposit remains open at depth and along the lateral extents in certain areas as well as being under-drilled in the mid portion between the Northwest and Central deposits.

- Selective sampling within mineralized zones has required a weighting factor to be applied to the estimation model; future drilling should be fully sampled within the interpreted mineralized zone to fill in these gaps and allow estimation of the waste as well as mineralization.

MA recommends the following activities be conducted to improve the accuracy of future mineral resource estimates and thus reserves, mine design and production schedules:

- Review paleo-weathering depth profile and effects at the top of mineralization, particularly on magnetite. This may be achieved by close spaced micro-seismic or georadar;
- Validation drilling to include more twinned holes to allow direct comparison with historical holes. Twin hole selection should pick historical holes which have reliably stored core;
- Evaluate historical holes which display no assay results and determine whether assays are available and missing or whether resampling can be carried out to further enhance the model.
- Further infill drilling is required in areas that are poorly sampled or under drilled in order to close out the deposit and improve the weighting of samples within the model.;
- To gain further confidence in the interpretation and improve the volume of the measured category for the first few years of planned production, the line spacing of 100 m should be closed to 50 m.;
- Drilling should also be focused on those areas that are likely to provide the limits to mine design, e.g. where the mineralization envelope cuts the walls of the potential pit.
- Develop and implement rigorous QAQC procedures for all new drilling including down hole geophysics.
- Investigate benefit 3D geophysical inversion modeling of ground magnetic data to ensure resources are fully closed off and target other mineralization.

Proposed Work Program & Budget

KMI has developed a US\$13M work program for 2014. The work program consists of ongoing drilling, technical studies, a Definitive Feasibility Study (DFS) and commencement of construction on the Project.

The 2013-2014 drilling program is designed for the purpose of geotechnical, hydrology and resource definition and comprises 68 boreholes totalling approximately 15,600 m. Of the planned 68 boreholes, 29 are exploration boreholes measuring approximately 11,200 m, 28 are geotechnical boreholes measuring approximately 3,400 m, and 11 are hydrogeological boreholes measuring approximately 1,000 m.

The DFS is being coordinated by Wardell Armstrong LLP as lead technical consultant and is expected to be completed by the end of 2014. Wardell Armstrong International is an independent mining consultancy providing specialized geological, geotechnical and hydrogeological mining advice as well as bringing environmental and social experience to mining projects worldwide across all commodities. The full scope of work for the DFS includes:

- review of the geological data and preparation of an updated resource model;
- technical support to all site investigation works including geological, hydrogeological, and geotechnical drilling;
- geotechnical analysis and design for the open pit slopes and waste dump;
- hydrogeological and site water balance modelling;
- design of the tailings storage facility;
- ESIA management and social impact assessment;
- mine closure and rehabilitation planning;
- ore reserves, life of mine plan, mining method and optimisation;
- metallurgical testwork and process and plant design;
- project infrastructure planning;

- CAPEX/OPEX costing development and benchmarking;
- project financial modelling, analysis and market studies; and
- preparation of the DFS document.

2014 Budget	
Description of works	\$1,000's
Drilling work (Drilling works 2013 budget: \$1.77M)	712.2
Geophysical survey	278.9
Hydrogeological works	175.78
Samples preparation	74.7
Topographical linkage of wells	0.8
Laboratory works	750.1
Feasibility study of Industrial condition	192.5
Preparation of Mining Plan and Feasibility study (inter standards),	1,689.6
Supervision of exploration programme	241.4
Preparation and Independent expertise of Project Documents	390.0
Construction works	5,097.4
Indirect costs	3,185.0
Taxes and assignments	462.9
Total cost of works	13,251.0

MA considers the budget reasonable for the work planned and sufficient to achieve the planned objectives.

Andrew James Vigar
BAppSc Geo, FAusIMM, MSEG
 Qualified Person

Hong Kong
 Effective Date: 17 April 2014
 Submitted Date 29 May 2014

2 INTRODUCTION

2.1 Issuer

This report, prepared for KazaX Minerals Incorporated (“KMI”), is an independent technical review of the geology, exploration and current mineral resource estimates for the Lomonosovskoye Iron Project located in the Republic of Kazakhstan.

KMI is a public listed company trading on the TSX Venture Exchange and is engaged in the development of natural resource projects.

2.2 Terms of reference and purpose

At the request of Mr. Juan Camus, Country Manager of KMI (or “The Client”), MA was commissioned in November 2013 to prepare a revised resource estimate and Independent Technical Report on the Lomonosovskoye Iron Project located in Kazakhstan.

KMI intends that this report be used as an Independent Technical Report as required under Part 4 “Obligation to File a Technical Report”, of Canada’s National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI43-101”).

At KMI’s request, the scope of MA’s inquiries and of the report included the following:

- Site visit to the project site
- Preparation of a NI43-101 Independent Technical Report
- Revised Mineral Resource Estimate based on data received up to 23 November 2012

2.3 Information used

This report is based on technical data provided by KMI to MA. KMI provided open access to all the records necessary, in the opinion of MA, to enable a proper assessment of the project. MA used the following report as the primary source for descriptions of historical mineral resources:

IMC Montan, 2010, *Investment Analysis and Exploration Study on the Mine Construction Project at Lomonosovskoye Iron Ore Deposit, Kostanay Region, Republic of Kazakhstan*, dated July 2010, prepared for LLP “Lomonosovskoye” by IMC Montan (IMC Group Consulting Limited, International Economic and Energy Consulting Limited DMT GmbH).

KMI has warranted in writing to MA that full disclosure has been made of all material information and that, to the best of the KMI’s knowledge and understanding, such information is complete, accurate and true. Readers of this report must appreciate that there is an inherent risk of error in the acquisition, processing and interpretation of geological and geophysical data.

Additional relevant material was acquired independently by MA from a variety of sources. The list of references at the end of this report lists the sources consulted. This material was used to expand on the information provided by KMI and, where appropriate, confirm or provide alternative assumptions to those made by KMI.

Six weeks were spent on data collection and analysis and preparation of this report.

Geological information usually consists of a series of small points of data on a large blank canvas. The true nature of any body of mineralization is never known until the last tonne of material has been mined out, by which time exploration has long since ceased. Exploration information relies on interpretation of a relatively small statistical sample of the deposit being studied; thus a variety of interpretations may be possible from the fragmentary data available. Investors should note that the statements and diagrams in this report are based on the best information available at the time, but may not necessarily be absolutely correct. Such statements and diagrams are subject to change or refinement as new exploration makes new data available, or new research alters prevailing geological concepts. Appraisal of all the information mentioned above forms the basis for this report. The views

and conclusions expressed are solely those of MA. When conclusions and interpretations credited specifically to other parties are discussed within the report, then these are not necessarily the views of MA.

2.4 Site visit by qualified persons

The summary review of geology and resource models and estimates was conducted by Mr Andrew Vigar the QP. Mr Vigar conducted a site visit from 26th to 30th March 2012. The visit consisted of visiting the laboratory in Karaganda, visiting the drill site of the current confirmation drilling program, inspecting drill core and the core storage in Rudniy and talking to the site geologists Sergey Debrov and Genadyi Shistak. The site visit was also to determine the competence of the laboratory tendered to do the geological test works, their methods and inspect equipment possessed by the lab. The Karaganda lab was proposed to conduct the geological assaying for the project's requirements, however, it was decided following the visit that the laboratory was unable to meet the international standards required and a second laboratory in Moscow, (Stewart Group) was chosen instead.

Mr Vigar conducted a site visit from 3rd December to 9th December 2013. Time was spent with the site geologists to discuss and understand in detail the geology and problems associated with sampling, preparation, its logistics and requirements of Kazakh and international certified laboratory analyses.

Mr Vigar is a Fellow of The Australasian Institute of Mining and Metallurgy (Melbourne) and a Member of the Society of Economic Geologists (Denver).

Mr Vigar has sufficient experience which is relevant to the iron style of mineralization and deposits under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (Australia). Mr Vigar is a Qualified Person as defined in NI43-101 (Canada).

Mr Vigar is employed by Mining Associates Limited of Hong Kong.

3 RELIANCE ON OTHER EXPERTS

The opinions expressed in this report have been based on information supplied to MA by KMI, its associates and their staff, as well as various government agencies including the various government departments related to mineral resource and exploration in Kazakhstan. MA has exercised all due care in reviewing and compiling the supplied information. Although MA has compared key supplied data with expected values with other similar deposits, the accuracy of the results and conclusions from this review are reliant on the accuracy of the supplied data. MA has relied on this information and has no reason to believe that any material facts have been withheld, or that a more detailed analysis may reveal additional material information.

The author has relied wholly on the legal opinion given by GRATA Law Firm LLP in respect of Subsoil Use Contract of Lomonosovskoye LLP, ("the Legal Opinion") in the content of Section 4.3 to 4.8. The Legal Opinion is dated 27 January 2012 and is titled "Legal Opinion in respect of Subsoil Use Contract of Lomonosovskoye LLP". It is an unpublished letter from A Daumov of GRATA Law Firm LLP to TSX Venture Exchange, KMI Capital Inc. and Maitland & Company.

The author has not relied on reports, opinions or statements of legal or other experts who are not Qualified Persons for information concerning legal, environmental, political or other issues and factors relevant to this report.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Area of property

The Lomonosovskoye contract area covers 31.83 km².

4.2 Property location

The Lomonosovskoye Project is located in the northwest corner of the Republic of Kazakhstan in the Kostanay Region, 618 km northwest of the country's capital of Astana and 50 west-southwest of the regional capital of Kostanay (Figure 1). It is centred at latitude 53° 02' N and longitude 62° 53' E (Figure 1). The Project area lies 15 km northwest of the town of Rudnyi.



Figure 1: Lomonosovskoye Project Location
 (Source: after CIA Factbook)

4.3 Tenure

The rights to explore and mine iron ore in the Lomonosovskoye area are held under Subsoil Use Contract # 3151 ("the Subsoil Use Contract") with the Republic of Kazakhstan Ministry of Power Supply and Mineral Resources and originally registered to Joint Stock National Company Social Business Corporation Tobol in 20 March 2009. The contract was amended in 2009 and Lomonosovskoye Limited Liability Partnership ("LLLP") became the registered holder.

Table 1: Lomonosovskoye Project Tenement Summary						
Tenement	Contractor	Interest	Area	Date	Date	Commodity
Contract # 3151	JSNCSBC Tobol * Safrin Element G.m.b.H. (Austria)	25%	31.83	20/03/2009	19/03/2030	Iron
		75%				
Contract # 3151 amended	LLLP **	100%	31.83	28/12/2010	19/03/2030	Iron
* JSNCSB Tobol = Joint Stock National Company Social Business Corporation Tobol						
** LLLP = Lomonosovskoye Limited Liability Partnership						

According to the Legal Opinion, the Subsoil Use Contract has been issued to LLLP in adherence to all the procedural rules in respect of the submission of documents and information; and the Subsoil Use Contract remains issued to LLLP as of 14 November 2011, the date of the relevant comfort letter was provided by the Competent Authority. The Subsoil Use Contract was registered with the Competent Authority as of 14 November 2011. With the exception on the underperformance of expenditure noted

in Section 4.8, LLLP has made all such expenditures to keep the Subsoil Use Contract in good standing with the Competent Authority and has complied with all requirements to date under the Subsoil Use Contract.

The Subsoil Use Contract is for 21 years, with the first 5 years for exploration, and 16 for extraction; with up to 4 years extension for the exploration period. The extraction period is also extendable. The 5 year of exploration period is from 20 March 2009 to 20 March 2014. The Subsoil Use Contract expires either upon expiration of exploration period if no commercial discovery has been made or on 20 March 2030, unless prolonged by agreement of the parties. The exploration stage under the Subsoil Use Contract maybe prolonged not more than 2 times with 2-year periods and the period necessary for assessment of commercial discovery

The contract tenement has an area of 31.83 km². The location co-ordinates are listed in Table 2 and outlined in Figure 2 and Figure 3.

Table 2: Lomonosovskoye Project Tenement Co-ordinates		
Corner	Point No.	Eastern Longitude
1	53° 03' 54"	62° 50' 40"
2	53° 03' 54"	62° 54' 08"
3	53° 04' 49"	62° 54' 54"
4	53° 05' 02"	62° 55' 37"
5	53° 03' 54"	62° 56' 19"
6	53° 01' 26"	62° 56' 19"
7	53° 01' 26"	62° 50' 40"

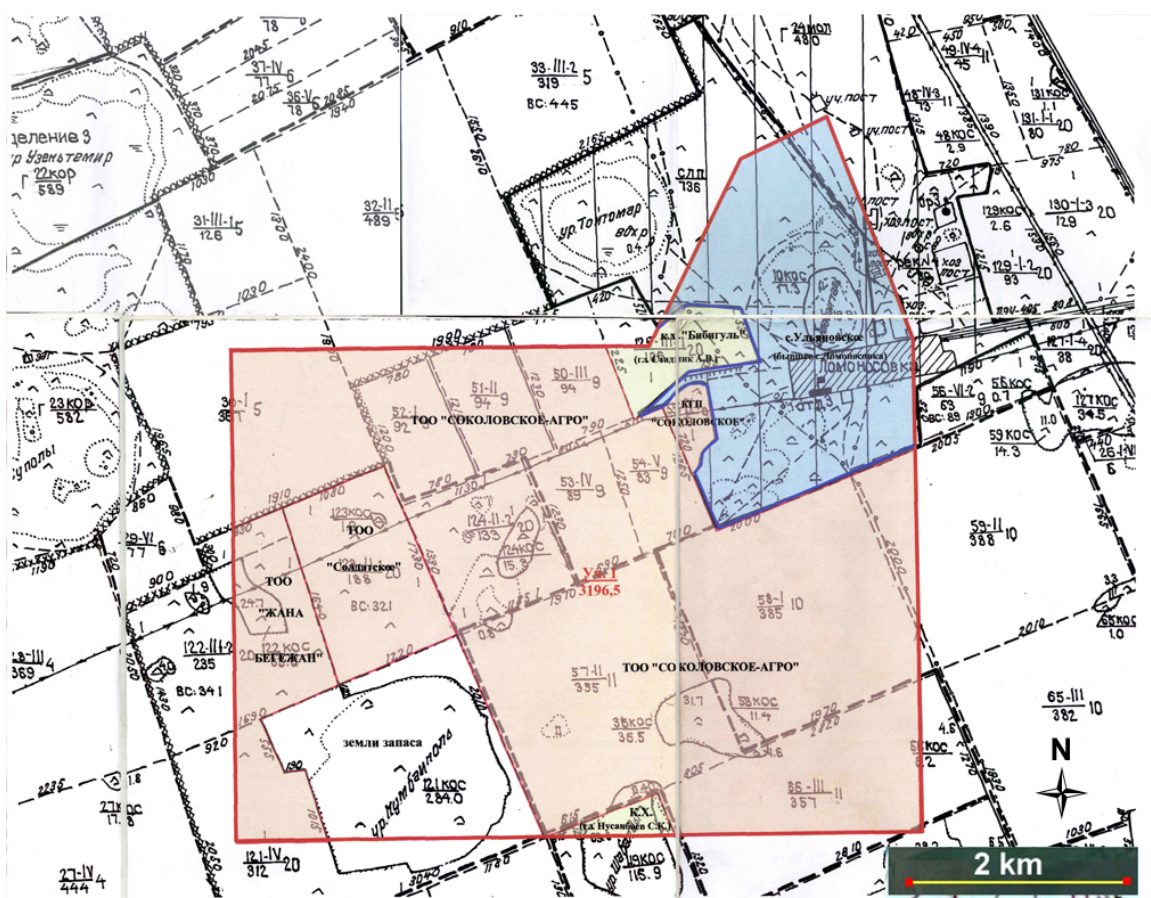


Figure 2: Lomonosovskoye Project Tenement (Contract) Map
 (Source: LLLP 2011)

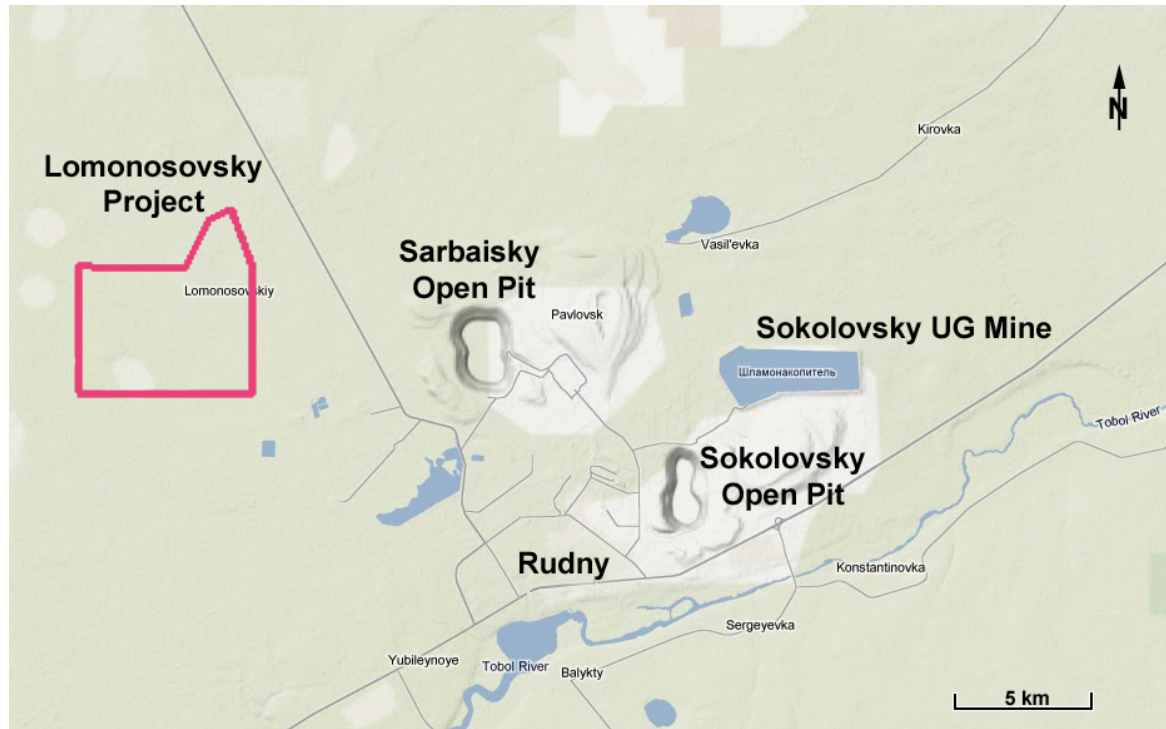


Figure 3: Lomonosovskoye Project Contract Location
(Source: Google Maps 2011)

Aside from a review of the Legal Opinion, MA has not undertaken any title search or due diligence on the tenement titles or tenement conditions and the tenement's status has not been independently verified by MA.

4.4 Property ownership

The mining license (Subsoil Use Contract) is held by LLLP. The indirect acquisition by KMI of a 74.99% interest in LLLP from Safin was completed on 15 February 2013 pursuant to a share purchase agreement ("SPA") signed on 19 December 2011. The current ownership of LLLP is as follows:

- d) KMI @ 74.99% (through its Austrian subsidiary, Kazco Beteiligungs GmbH);
- e) Safin @ 0.01%; and
- f) Tobol @ 25%.

The Subsoil Contract is registered to LLLP having been officially transferred from the original registrant, Tobol, on 31 July 2009. According to the Legal Opinion, as at the date thereof, the sole holder of participations in the capital of LLLP was Safin, a company registered under the laws of the Republic of Austria.

The SPA originally contemplated the indirect acquisition by KMI of a 99.9% legal interest and a 100% beneficial interest in LLLP by Newbridge (subsequently renamed KazaX Minerals Inc.) from Safin. The SPA was subject to conditions precedent, including government regulatory approval. Subsequently, the SPA was varied to contemplate the indirect acquisition by KMI of a 74.99% legal and beneficial interest in LLLP for aggregate consideration of US\$56,383,200 to be satisfied through a combination of cash payments and issuances of common shares of KMI ("Common Shares") to Safin.

As of the effective date of this report, KMI has made cash payments totalling approximately \$8.9 million and issued approximately 75.5 million Common Shares pursuant to the terms of the SPA. The future cash consideration due under the SPA is approximately \$22.82 million.

As of the effective date of this report, KMI and Safin are in discussions to revise the schedule for the cash payments remaining under the SPA.

In the event that KMI does not complete the cash payments to Safin, in full or in part, in accordance with the terms of the SPA, KMI is required to transfer back to Safin the unpaid portion of its interest in LLLP on a pro rata basis.

4.5 Royalties and other agreements

The Contract lists the taxes, duties, fees, royalties and other governmental charges that are payable by LLLP. The following fees and taxable are payable:

Table 3: Royalties and Fees	
Corporate Income Tax	Other Payments:
Value Added Tax	Fee for vehicle passage through Kazakhstan
Excise Taxes	Auction Fee
Subsurface Users Tax	Licence Fee for the Right to Definite Activities
Signature Bonus	Land Use Fee
Commercial Discovery Bonus	Fee for Water Resources of Surface Springs
Past Cost Recovery Payment	Environmental Emission Fee
Iron Ore Extraction Tax	Fauna Use Fee
Excess Profits Tax	Forest Use Fee
Tax on Vehicles	Fee to use Specially Protected Natural Areas
Land Tax	Radio Spectrum Fee
Property Tax	Navigable Waters Use Fee
Customs Payments	Outdoor (Visual) Advertising Fee
Transfer Pricing	State Taxes
Pension Provision and Social Contributions	
Penalties	

Required payments include the following:

- Signing fee: \$US120,000 on signing of the contract (paid)
- Commercial discover bonus: 0.1% of tax base
- Past state exploration cost repayment: US\$1,269,918 after commencement of production
- Iron Ore extraction tax/royalty: 3.50%
- Excess profits tax: sliding scale from 10 to 60%
- Decommissioning fund: 1% of annual expenditure on exploration during exploration period; 1% annual expenditure on extraction

4.6 Environmental liabilities

LLL exploration activities must comply with the environmental requirements of Kazakhstan legislation and regulations, including the Ecological Code ("EC"). Under EC, the Contractor ("subsoil user") must comply with environmental requirements during all stages of a subsoil use operation. Kazakhstan environmental legislation requires that a State environmental expert examination precede the making of any legal, organisational or economic decisions with respect to an operation that could impact the environment and public health. One of the required documents to be submitted is an environmental impact assessment ("EIA" or "OVOS").

The EC requires that the subsoil user obtain environmental permits to conduct its operations. An EC permit certifies the holder's right to discharge emissions into the environment, provided that it introduces the "best available technologies" and complies with specific technical guidelines for emissions as set forth by the environmental legislation.

Government authorities and the courts enforce compliance with these permits and violations may result in civil or criminal penalties, the curtailment or cessation of operations, orders to pay compensation, orders to remedy the effects of violations and orders to take preventative steps against possible future violations. In certain situations, the issuing authority may modify, renew or revoke the permits.

The EC and the Contract set out requirements with respect to environmental insurance. The Contractor carrying out environmentally hazardous activities is required to obtain insurance to cover these activities, as well as civil liability insurance.

4.7 Permits and obligations

The following descriptions have been extracted from the Legal Opinion unless otherwise noted.

4.7.1 Kazakhstan mining law

The subsoil, including mineral resources in their underground state, are Kazakh State property, while resources brought to the surface belong to the subsoil user, unless otherwise provided by the Subsoil Use Contract. In order to develop mineral resources, the appropriate State agency (the “Competent Authority”), grants exploration and production rights to third parties. Subsoil rights are granted for a specific period, but may be extended prior to the expiration of the applicable contract or licence. Subsoil rights may be terminated by the State if the counter-party does not satisfy its contractual obligations, which generally include compliance with long-term and annual work program commitments, payment of taxes to the State and the satisfaction of mining, environmental, safety and health requirements. Subsoil rights become effective upon conclusion of a Subsoil Use Contract and a subsoil user is accorded the exclusive right to conduct mining operations, to erect production and social facilities, to freely dispose of its share of production and to conduct negotiations for extension of the Subsoil Use Contract.

While the Subsoil Law contains guarantees providing that changes to legislation which worsen the position of the subsoil user are not applicable (with the exception of legislation involving national defence or security, ecological safety and public health), the government has gradually weakened this stabilization guarantee, particularly in relation to new projects, and the national security exception is applied broadly to encompass security over strategic national resources (Foldenauer et al, 2009).

The Legal Opinion notes that the legal framework relating to exploration, development and production of the Lomonosovskoye Subsoil Use Contract is covered by the following primary and secondary legislation currently in force:

- Law of the Republic of Kazakhstan on Subsoil and Subsoil Use dated 27 January 1996 No. 2828, as amended, effective to 5 July 2010 (the “Old Subsoil Law”);
- Law of the Republic of Kazakhstan on Subsoil and Subsoil Use dated 24 June 2010 No. 291-IV, as amended, effective since 6 July 2010 (the “New Subsoil Law”) (the New Subsoil Law together with the Old Subsoil Law are collectively referred to as the “Mining Law”);
- Presidential Decree on Further Improvement of the State Management System of the Republic of Kazakhstan dated 12 March 2010 No. 936;
- Rules on Procurement of Goods, Services and Works for Conducting Subsoil Operations dated 28 November 2007 No. 1139, as amended;
- Minutes of Direct Negotiations between the Ministry of Energy and Mineral Resources and the National Company Social Entrepreneurial Corporation “Tobol” JSC with regard to provision of subsoil use right on exploration and production of iron ores at the Deposit in Kostanay region dated 14 November 2008;
- Environmental Code of the Republic of Kazakhstan dated 9 January 2007, as amended;
- Decree of the Government of the Republic of Kazakhstan dated 10 February 2011 No. 123 on Approval of Unified Rules on Rational and Complex Use of Subsoil at Exploration and Production of Minerals; and
- Decree of the Government of the Republic of Kazakhstan dated 20 September 2010 No. 965 on Approval of Forms and Rules on Development and Submission of Annual, Middle-Term, Long-Term Programs on Procurement of Goods, Works and Services, Reports of Subsoil Users about Procured Goods, Works and Services and on Execution of Obligations on Kazakhstani Content in Staff.

4.7.2 Lomonosovskoye subsoil use contract rights

The Subsoil Use Contract provides the following rights to LLLP:

- to conduct exploration of iron mineralization of the Lomonosovskoye deposit at the contract territory on an exclusive basis;
- conduct on its own any legal actions on subsoil use within the limits of the granted contract territory in accordance with conditions of the Subsoil Use Contract;
- to use at its discretion results of its operations, including mined iron ores of the Lomonosovskoye Deposit;
- build on the contract territory, and, if necessary, on the other plots of land provided to LLLP in the prescribed order, objects of industrial and social spheres necessary for the implementation of the exploration of iron ores of the Lomonosovskoye deposit;
- on the basis of agreements with owners to use facilities and public utilities both on the contract territory and outside of it;
- in the priority order to initiate negotiations for the renewal of the contract term according to conditions of the Subsoil Use Contract;
- to engage subcontractors for execution of separate types of works related to exploration of iron ores of the Lomonosovskoye deposit;
- to transfer all or part of its rights to third parties subject to the conditions determined by the Subsoil Use Contract and legislation of the Republic of Kazakhstan;
- to cease its operations on the terms established by the Subsoil Use Contract and legislation of the Republic of Kazakhstan;
- in case of termination of the Subsoil Use Contract LLLP is entitled to dispose the property being in its ownership on its own, unless otherwise stated by the Subsoil Use Contract.

4.7.3 Lomonosovskoye subsoil use contract obligations

The Subsoil Use Contract establishes specific conditions for LLLP in respect of its grant of permission to conduct exploration activities on the Property, including the following:

- The work must start within not later than 180 days since the date of registration of the Subsoil Use Contract;
- All work set out in the minimum exploration work schedule must be concluded within the envisaged period of 5 years, unless extended in the specified order;
- LLLP shall maintain accurate and detailed notes of any work that is carried out and must, upon request, make such notes available for inspection;
- Commercial discovery of any minerals of a monetary value must be reported as soon as practicable thereafter, and within not more than 180 days after commercial discovery LLLP shall prepare report on reserves assessment to be submitted to the authorized state body;
- Upon discovery of any mineral of a monetary value or as soon as practicable thereafter, the Permit holder must report in writing to the Competent Authority;
- LLLP must take all necessary measures to prevent damage to the environment;
- No environmental damage shall be caused in the surrounding area;
- Damage in the area shall be remedied upon conclusion of work.
- LLLP shall transfer funds to liquidation fund, for social development of the region, for tuition of Kazakhstani workers.
- LLLP must report on the work carried out, its costs and results in manners specified by the subsoil legislation of the Republic of Kazakhstan

4.7.4 Subsoil use licence extension and exploration programme

Under LLLP's exploration plan for 2013 approved by MINT in late June 2013, LLLP was required to complete a scope of work and activities by December 31, 2013. As new exploration works were added to the program and this scope of work and activities would not be completed in 2013, LLLP lodged an application with MINT in September 2013 to extend the exploration period allowed under the Subsoil Use Licence from the current expiry of March 2014 to March 2016. In November 2013, MINT confirmed receipt of the application by LLLP and informed LLLP that the application would be

reviewed after receipt of supporting Project documentation. LLLP subsequently submitted a revised exploration work plan with MINT to support the extension application, including a revised plan for 2013.

In March 2014, LLLP obtained approval (the “Approval”) from MINT to extend by two years the exploration phase of the Subsoil Use Licence for the Project. The original Subsoil Use Licence had a duration of 21 years, of which five years were for exploration and 16 years for mining. Both phases could be further extended, if required. As a result of the Approval, the exploration phase of the Subsoil Use Licence has been extended to seven years, and will expire on March 19, 2016. The extension of the exploration phase does not affect the 21-year term of the Subsoil Use Licence, which continues to expire on March 19, 2030.

The Approval included a new Exploration Works Plan (“EWP”), which contemplates exploration activities concerning the Project, including drilling and cameral works. The drilling work includes exploration, geotechnical and hydrogeological boreholes considered in the 2013-2014 drilling program, while the cameral work includes all administrative and evaluation work, including work to analyse the geological information obtained from the drilling program and to prepare legal documentation for securing all applicable approvals by MINT, as well as the State Registration of Reserves and Mine Master Plan, which is a pre-requisite to start the pre-stripping and mine production activities. As all exploration expenditures contained within the new EWP are required to form part of the Subsoil Use Licence, LLLP has applied for an amendment to the Subsoil Use Licence, with approval from MINT expected to be received within Q2 2014.

4.7.5 Assignment and transfer

The Legal Opinion notes that permission is required from the Competent Authority to transfer shares. The Subsoil Law requires that assignments and transfers of subsoil use rights may be made only with the prior consent of the Competent Authority. The Ministry of Energy and Mineral Resources of Kazakhstan (“MEMR”) customarily interpreted this requirement very widely (Foldenauer et al, 2009).

The Legal Opinion notes that although mandatory consent of the Competent Authority was obtained, the transfer of 25 % of shares in Lomonosovskoye from initial co-participant “National Company “Social Entrepreneurial Corporation “Tobol” JSC to Safin might have been transferred without obtaining the waiver of the state’s pre-emptive right. If the Competent Authority or general prosecutor’s office files a claim to the court, the latter is entitled to rule the transaction of transfer of 25 % of share in LLLP as invalid. Legal Opinion notes such risk as remote.

4.7.6 Pre-emptive rights

As noted above, the Republic of Kazakhstan has a pre-emptive right to acquire subsurface use rights and equity interests in entities holding subsoil use rights and in any entity which may directly or indirectly determine or exert influence on decisions made by a subsoil user, if the main activity of such entity is related to subsoil use in Kazakhstan, when such entity wishes to transfer such rights or interests. This pre-emptive right permits the Republic of Kazakhstan to purchase any such subsoil use rights or equity interests being offered for transfer on terms no less favourable than those offered by other purchasers. The Competent Authority has the right to terminate a subsoil contract if a transaction takes place in breach of this law. According to the Subsoil Law requirements, these provisions apply both to Kazakhstan and overseas entities, including publicly traded companies (Foldenauer et al, 2009).

4.7.7 Work programs

As noted in the Seller Disclosure Schedule in the SPA, under the New Subsoil Law, the requirement for annual work programs was replaced by new medium-term document “Plan of Prospecting Works”. A new plan of work will need to be agreed upon by the Competent Authority. The new plan by LLLP was finalized in June 2011. Prior to applying for this approval, the work program needs to complete three studies (environmental impact, health protection, industrial safety) which need three departmental approvals, Ministry of the Environment, Ministry of Health and Ministry of Emergencies. The Health and Emergencies approvals have been received. The environment impact study is in

progress. Following Ministry of the Environment approval, the Plan of Prospecting Works will be sent to the Competent Authority for approval.

Under the SPA, Safin agreed to develop and submit for approval a new work program which will include LLLP's outstanding financial and other obligations including the annual Work Programs for the previous periods.

4.7.8 Decommissioning

Within 1 year of the completion of the exploration period, LLLP must submit a decommissioning program and budget. LLLP must contribute to a Decommissioning fund consisting of 1% of annual expenditure on exploration during exploration period, and 1% annual expenditure on extraction. If actual costs exceed the fund, the LLLP is required to provide additional funding; if less, the amounts are returned to taxable income.

4.8 Other significant factors

4.8.1 Work program performance to date

According to the Seller Disclosure Schedule in the SPA, there was a deviation from the registered Work Program in that a ground geophysical survey and a 2 hole drilling program and follow-up geophysical work were not conducted as planned in 2009 and 2010 respectively. The Amendment 2 of 28 December 2010 authorised the exclusion of a ground geophysical program. The work was subsequently conducted in 2011. The Vendor states that these deviations will not cause the Subsoil Contact to be terminated as it was not a material breach.

The Legal Opinion notes that LLLP has underperformance of investment contractual obligations for 2010 and 2011 which according to the New Subsoil Law, such underperformance will not be considered as breach of contractual obligations if the works specified by the Work Program were fulfilled in full in physical volume. According to LLLP's report for 2011, LLLP had obligations to invest approximately US\$665,300 under the Subsoil Use Contract and actually invested around US\$498,000. The Legal Opinion noted that part of actual expenses approximately US\$113,000 was incurred not under mandatory Subsoil users' procurement rules, which entitles Competent Authority to consider LLLP's investment obligations for 2011 as executed only with respect to around US\$385,000 or 57.9 % of annual investment obligations. Such underperformance may cause the risk of unilateral termination of the Subsoil Use Contract should LLLP fail to prove execution of contractual obligations in physical volume for 2011. The Legal Opinion estimates the risk as medium. MA notes that the Seller Disclosure Statement in the SPA states that the Vendor has agreed to develop and submit for approval a new work program which will include LLLP's outstanding financial and other obligations including the annual Work Programs for the previous periods.

4.8.2 Procurement requirements

Under Kazakhstan law, all subsoil users must procure goods, works and services for subsoil use operations under prescribed statutory procedures. In particular, subsoil users are required not later than 30 calendar days from the date of approval of an annual work program, to approve an annual procurement program for the following year.

4.8.3 Local content requirements

Since 2002, Kazakhstan has implemented a policy aimed at replacing imports, and encouraging more use of local producers ("Local Content Policy"). Under the Local Content Policy, subsoil users are obliged to purchase local goods, works and services ("GWS") as required in the Contract. The LLLP Contract obligates LLLP to use GWS unless specifically approved to the contrary by the applicable regulatory authorities to the extent of at least 40% of the costs of equipment and material, must be for equipment and materials purchased of Kazakh origin. In addition, 90% of the contract work must be of Kazakh origin.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Topography, elevation and vegetation

The area is a flat plain (steppe) with a slight slope to the east. The maximum elevation in the watersheds is 200 m above sea level. The area slopes towards the Tobol River, elevation 170 m within a strongly incised river valley. The river channel slope is approximately 0.3-0.4 m per kilometre.

During summer, the Tobol River is shallow and easily crossable by vehicles. In the spring, during the flood, the river level rises 4-6 meters due to the snow melt run off.



Photo 1: Lomonosovskoye Project area topography
(Source: MA 2011)

5.2 Access

Access to the Lomonosovskoye Project area is via the Rudniy-Kachary road located 1 km west of the Project area. The closest railway station is 20 km at Zhelezorudnaya, which is connected with Karaganda and Magnitogorsk through Tobol, and with Chelyabinsk through Kostanay. The closest airport is 50 km from the site, at Kostanay. If flights are not available, it is a 10 hour drive from Astana to Kostanay, then on to the Project area via the Kostanay-Rudniy road (Figure 4).

5.3 Population and transport

The town of Rudniy was established to support the mining operations at Sokolovsky-Sarbaisky Ore Mining and Processing Association ("SSGPO"), owned by Eurasian Natural Resources Corporation PLC ("ENRC"). Rudniy has a population of some 120,000.

The region is relatively well serviced with rail and road and air access.

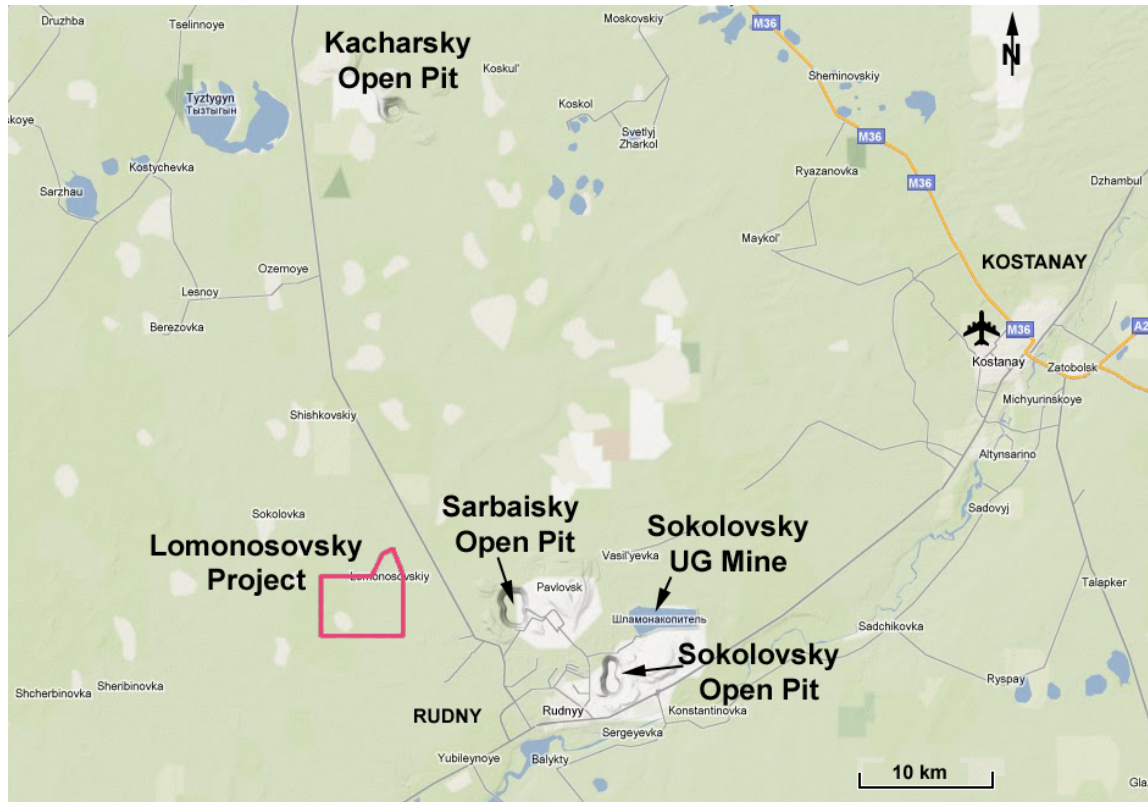


Figure 4: Lomonosovskoye Project Regional Location
 (Source: Google Maps 2011)

5.4 Climate

The climate is continental with an average annual temperature is 1.2° - 1.3° C. The coldest month is January with an average temperature of -17.5° C and the possible minimum of -45° C. The warmest month, July, has an average temperature of 19.9° C and a possible maximum of 35° C in the shade.

The greatest rainfall occurs in the summer months of June, July, and August. The driest months are December, January, and February when precipitation falls as snow.

Exploration is not significantly affected by the climate.

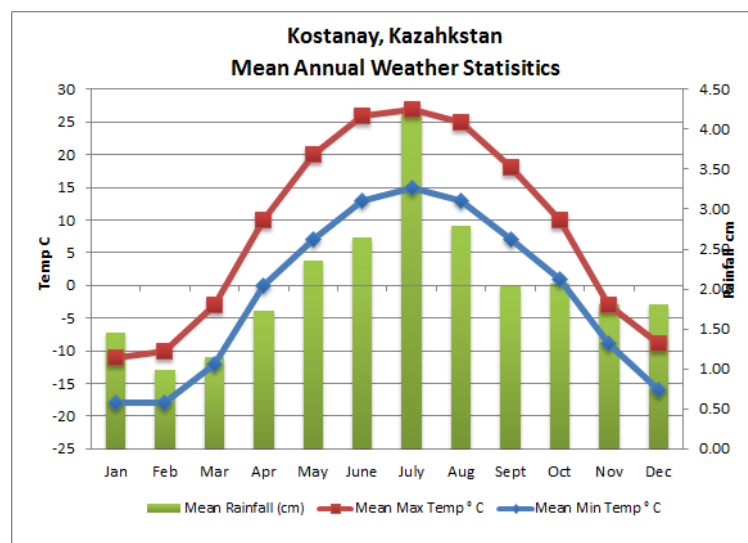


Figure 5: Rainfall, Temperature averages for Lomonosovskoye
 (Source: MSN Weather)

5.5 Infrastructure

The Lomonosovskoye Project has a very favourable location due to its proximity to transportation routes, and sources of water, gas, and power supply which have been established with the regional mining complex of SSGPO based in Rudniy.

The following facilities are run by SSGPO in the Rudniy area, as described in the ENRC 2007 prospectus (which MA notes are not part of, nor are available to the Lomonosovskoye Project):

- Central processing facility and pelletising plant where all of SSGPO mining operations' ore is processed. The pelletising plant is one of the oldest in the former Soviet Union. SSGPO aims to produce 21 Mt of concentrate by 2018;
- Power plant: This coal-fired power station has a capacity of 204 MW and supplies SSGPO with electricity and the town of Rudniy with electricity, heat and hot water through the district heating system;
- Rail network: SSGPO operates its own rail network for transporting iron ore from the mines to the central processing facility and for transporting waste from some of the open pits;
- Explosives manufacturing facility: This facility manufactures bulk explosives for each of the SSGPO mining operations; and
- Repair and maintenance workshop: This facility is responsible for providing a central maintenance support service for the major overhauls.



Photo 2: SSGPO (ENRC) Pellet Plant
(Source: MA 2011)



Photo 3: Sokolovsky railway ore transport
(Source: MA 2011)

6 HISTORY

6.1 Prior ownership

There is no previous private ownership of the project.

6.2 Previous exploration

Metallic mineralization was first noted in the region in 1949, when the Lomonosovskoye magnetic anomaly was detected by an airborne magnetometer survey, conducted by the Uralian Geophysical expedition. Exploration started in 1950 in several stages, from 1950-57 and then 1967-1970. Exploration was carried out over the Lomonosovskoye anomaly as well as various other regional geophysical anomalies (outside the current contract area).

6.2.1 Mapping

In 1951-52 a geological map at 1: 500 000 scale was prepared for the northern part of Turgaisky depression. In 1959 and then in 1962 a geological survey at 1:200 000 scale was completed within the project area. The most promising areas were surveyed at 1:50 000 scale with the preparation of schematic maps of the Palaeozoic basement. In 1970 a schematic geological map of the Sokolovo-Sarbaisky region was made at 1: 200 000 scale. A 1:5000 scale geology map was completed in 1992 (Figure 20).

6.2.2 Geophysics

The Lomonosovskoye magnetic anomaly was discovered in 1949 through an aeromagnetic survey conducted by the Urals geophysical expedition at 1: 100 000 scale. Subsequently a detailed magnetic survey at 1:10,000 scale was carried out by the Turgaisky geophysical expedition in 1951 on the basis of which an isodynamic map at 1:5 000 scale was made in 1952.

In 1963 the Turgaisky geophysical expedition conducted a detail gravimetric survey at 1:10 000 scale over the North-Western and Central sites of the deposit.

In 1984 T.V. Tychkova summarized the geophysical data over the western part of the Turgaisky depression at 1: 200,000 scale and over the iron mineralized regions at 1:50,000 scale. The 1:50,000 scale isodynamic map of the Sokolovo-Sarbaisky region is presented in Figure 6.

The magnetic surveys defined four main anomalies at the Lomonosovskoye Project (Figure 11): the North-Western epicenter with an area of 1000x600m and maximum intensity of 6000 nT, the Central epicenter (900x650m, 7000 nT), the South-Eastern epicenter (300x250m, 3000 nT) and the North-Eastern epicenter (1200x600m, 3000 nT).

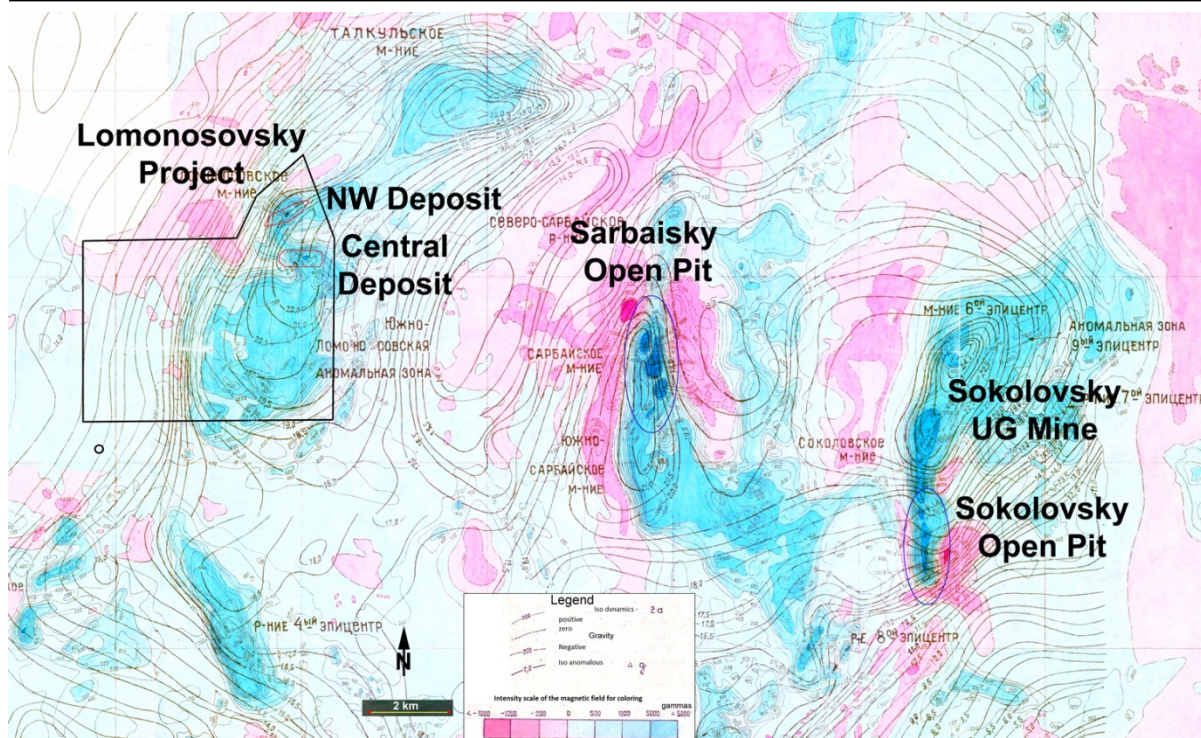


Figure 6: 1984 Compilation Map: Aeromagnetic and Gravity regional survey results
 (Source: LPP 2011)

During exploration in 1961-67, down-hole geophysical studies were widely used: magnetic susceptibility logging, magnetic logging, apparent resistivity, gamma logging, mise a la masse (electrical resistivity), as well as directional logging. Table 4 lists the down hole logging conducted.

Table 4: Down hole Geophysical Logging		
Hole geophysical study	Scope	
Hole geophysical study	Holes	metres
Magnetic susceptibility log	118	73,701
Hole magnetometry	118	73,701
Electric logging (resistivity-spontaneous potential)	107	68,064
Gamma-logging	118	87,227
Selective gamma-logging	27	11,952
Directional logging	119	99,073
Caliper logging	72	52,461
Temperature logging	6	7,721
Excitation-at-the-mass	39	-
Radio-frequency survey	29	-
Acoustic logging	1	-
Contact method of polarization curves	19	-

6.2.3 Drilling

Some 412 diamond drill holes are recorded in the database for the Contract area of which 190 were angle holes for a total of 131,441 m drilled (Appendix 1, Figure 7 to Figure 10). Due to the existing technical capabilities and limitations on historical mineable depths, drilling was initially limited to 400-500 m deep in the early stages of study, and then 600-700 m in later ones. As established later, due to the depth of the mineralization, most of the early drilling (pre-1981) drill holes ended above the mineralization zone or in poor, vein-type mineralization, without reaching the main mineralization zone. Thus, the nature of some anomalies remained unclear, or premature and erroneous conclusions were made regarding the extent of mineralization.

6.2.3.1 Drilling 1950-1956

At first, boreholes 1 and 2 were drilled at the epicentres of the Central and North-Western sites with 7,000 and 6,000 gamma intensities respectively. Both boreholes intersected magnetite mineralization, which justified further geological exploration. Exploration included core drilling for 23,410 m. A total of 104 boreholes were drilled including 51 exploration and 53 survey holes. Drilling was done with KAM-500 machines to a depth of 536 m (mostly to 200-300 m) with core diameters of 91 and 75 mm. Core recovery in mineralized sections averaged 78.1%.

Inclination angles were measured in 32 boreholes. Measurements were made every 25-50 m for a total of 136. Largest inclination angles were found in boreholes 8a (70°), 9a (60°), 11a (70°) and 113 (90°).

The exploration grid during the drilling program was 200 m spaced lines and 100 m spaced holes (200 x 150 m in the plane of mineralized bodies). During subsequent studies, the grid along some lines was reduced to 200 x 50 m, and over the northern flank of the North-Western site to 100 x 50 to 100 m.

The complete core from the mineralized zone and barren rocks within the deposit lodes was sampled. Sampling was selective, with the use of lithological control. The length of sampling sections was from 0.5 to 5.0 m.

The majority of routine and combined samples were analyzed at the Kustanaisky geological exploration trust laboratory. Magnetite iron was not determined. External analytical control was provided in laboratories of the Urals, Alma-Aty and Karaganda geological administrations. Results of internal control showed excessive permissible random errors for sulphur and phosphorus in 1951 and 1952 determinations.

6.2.3.2 Drilling 1956-1960

Exploration was only conducted in the Central site during this period of drilling. In 1956, datolite (calcium boron silicate hydroxide) was found in borehole 58 and exploration for boron mineralization started along with the evaluation of magnetite mineralization and other minerals. The boreholes were drilled along exploration lines 15-21, on a 150-200 x 100 m grid, with depths that did not exceed 300 m. The total amount of drilling was 2,384 m with core recovery of 83.7 and 82.5 % in the enclosing rocks and mineralization, respectively. Datolite mineralization was found to be of no commercial value, but at the same time a thick sequence of magnetite vein mineralization was discovered in boreholes 1761 and 1762. From 1957 to 1960 exploration for base metal mineralization revealed lead-zinc mineralization associated with garnet skarns. This data served as the justification for a survey for base metals.

6.2.3.3 Drilling 1960-1968

The period saw the preliminary exploration of the Lomonosovskoye deposit to a depth of 600 meters with 3 mineral resource estimates of the iron mineralization. These historical mineral resource estimates are described in Item 6.3.

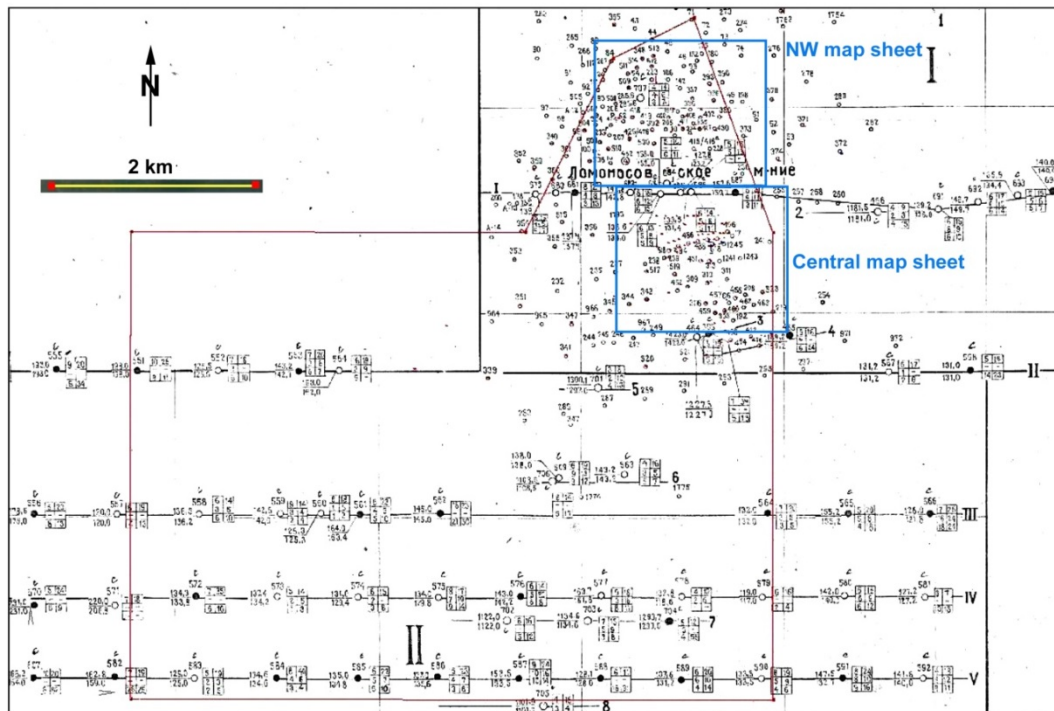


Figure 7: Historical drilling - Drill Collar locations
(Source: LLLP)

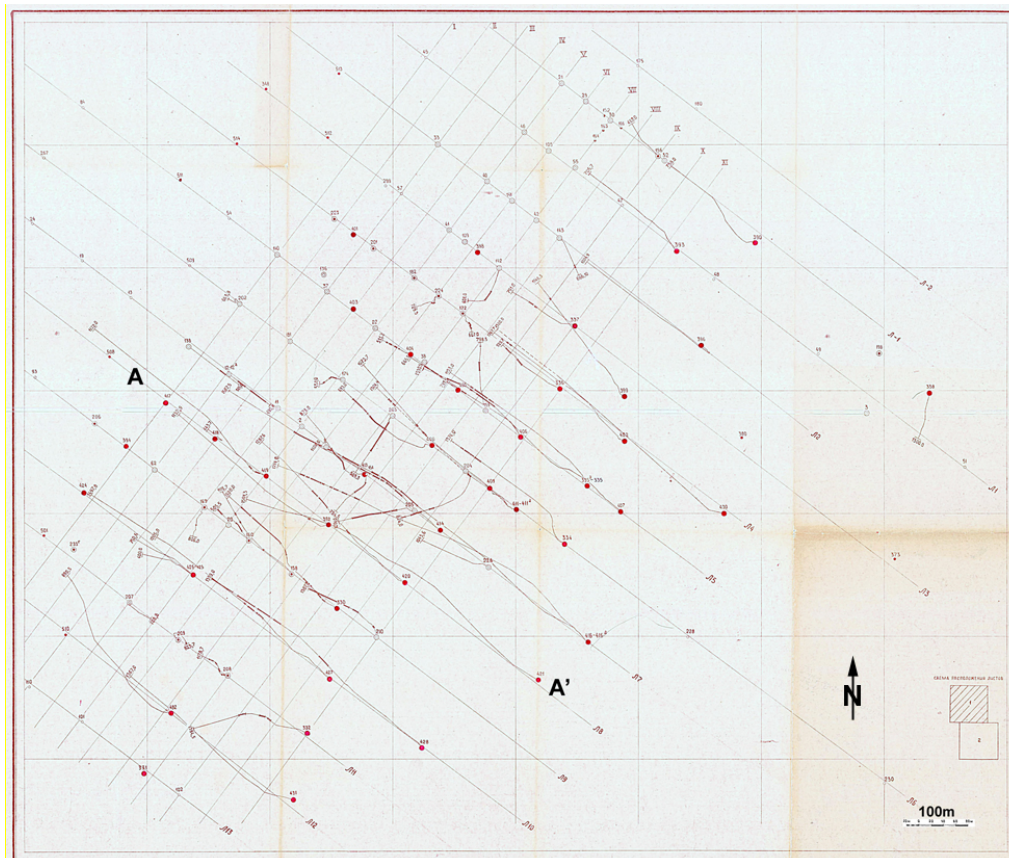


Figure 8: Historical Drilling - Drill Collar Locations & Lines Northwest resource area
Refer Figure 22 for Section A-A'
(Source: LLLP)

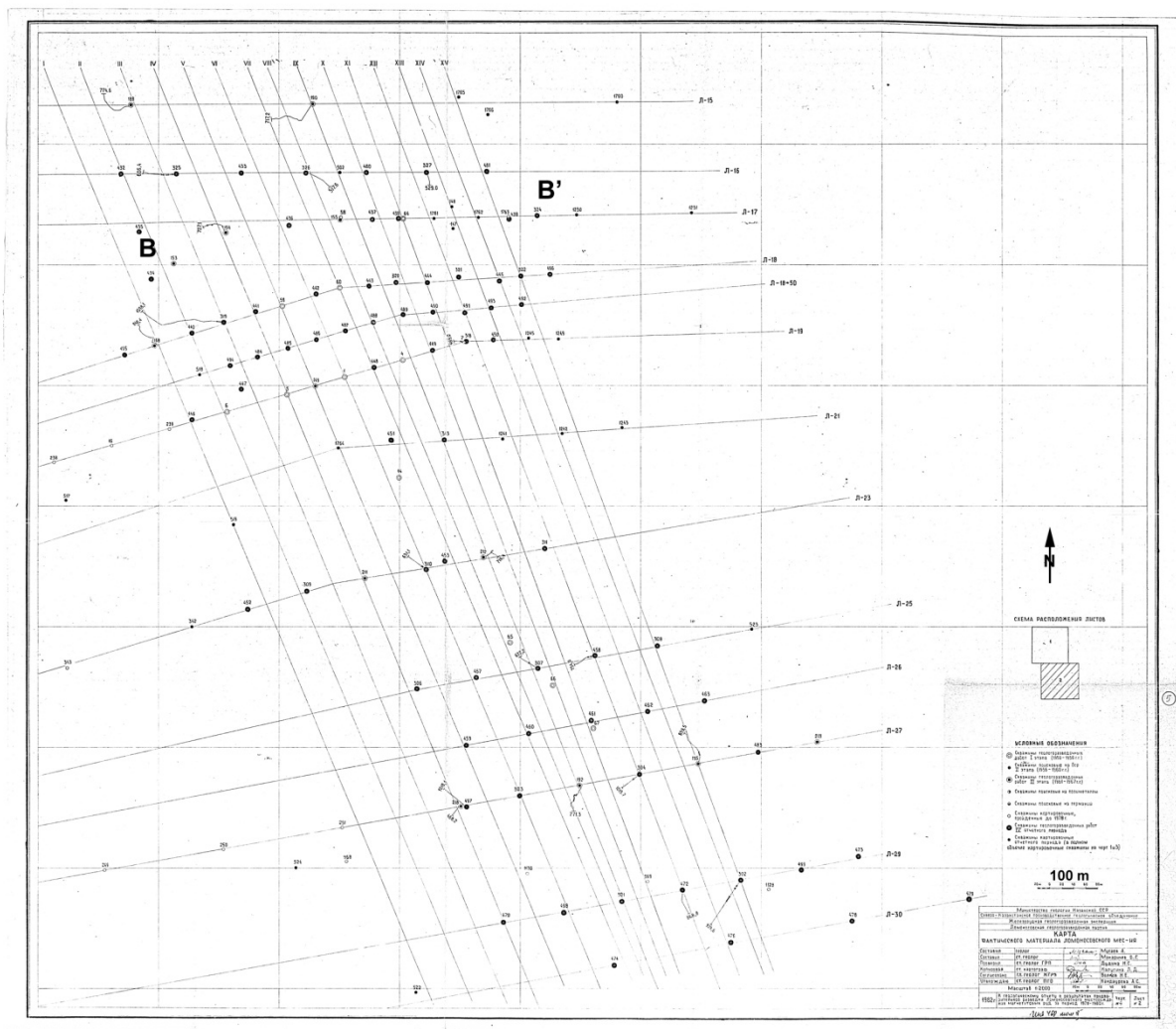


Figure 9: Historical Drilling - Drill Collar Locations & Lines Central resource area
Refer Figure 23 for Section B-B'
(Source: LPP 2011)

Table 5 lists the drill holes making up the drill lines outlined in the drill location plans (Figure 8 and Figure 9, Figure 10).

Hole	North	East	Elev collar	Max Depth	Hole Type	Line	Hole	North	East	Elev collar	Max Depth	Hole Type	Line
Northwest Deposit													
338	90821	95674	201.1	1500.0	Explore	1	435	89678	94768	198.0	398.5	Explore	17
390	91066	95390	199.7	762.9	Explore	1	436	89690	95016	197.7	901.2	Explore	17
393	91051	95263	199.9	705.1	Explore	1	437	89700	95156	197.7	487.1	Explore	17
370	90916	95856	200.9	123.7	Geotech	2	438	89700	95205	197.7	486.2	Explore	17
396	90898	95303	199.5	1004.9	Explore	2	439	89701	95381	197.7	418.0	Explore	17
337	90930	95097	200.0	791.0	Explore	3	319	89538	94893	198.3	1598.1	search	18
398	91049	94939	199.9	442.5	Explore	3	320	89595	95193	197.6	2000.0	Explore	18
399	90814	95177	199.2	1146.3	Explore	3	321	89605	95298	197.4	820.0	Explore	18
299	91159	94788	200.8	10.0	Geotech	3	322	89606	95401	198.5	430.0	Explore	18
172	90951	94914	199.9	551.8	Explore	4	330	90471	94710	201.4	1600.0	Explore	18
336	90828	95073	199.9	929.3	Explore	4	441	89547	94961	198.1	600.0	Explore	18
401	91078	94736	200.4	279.0	Explore	4	442	89577	95062	198.0	494.9	Explore	18
402	90743	95178	199.0	1200.0	Explore	4	443	89589	95149	197.9	487.0	Explore	18
430	90613	95321	201.9	1400.0	Explore	4	444	89595	95245	197.9	573.8	Explore	18

Table 5: Drill Hole and Drill Lines Northwest & Central Deposits

Hole	North	East	Elev collar	Max Depth	Hole Type	Line	Hole	North	East	Elev collar	Max Depth	Hole Type	Line
182	91008	94835	200.0	409.0	Explore	4	445	89607	95365	198.0	548.8	Explore	18
201	91055	94769	200.2	360.0	Explore	4	495	89474	94743	198.8	359.0	Explore	18
223	91104	94705	200.4	630.0	Explore	4	496	89609	95450	200.8	396.0	Explore	18
224	90979	94874	199.8	470.0	Explore	4	440a	89511	94855	198.9	500.0	Explore	18
404	90884	94829	200.1	511.2	Explore	5	484	89471	94966	197.8	540.0	Explore	18+50
405	90825	94906	200.0	740.0	Explore	5	485	89486	95013	198.5	750.0	Explore	18+51
406	90749	95008	199.4	793.5	Explore	5	486	89500	95061	197.2	440.0	Explore	18+52
407	90627	95171	199.8	1330.5	Explore	5	487	89515	95109	197.1	460.0	Explore	18+53
335A	90669	95117	198.5	1153.0	Explore	5	488	89528	95157	197.1	446.1	Explore	18+54
403a	90958	94737	200.3	365.7	Explore	5	489	89543	95205	198.1	500.0	Explore	18+55
204	90693	94919	200.2	874.0	Explore	6	490	89546	95254	198.1	496.2	Explore	18+56
230	90185	95601	202.6	10.0	Geotech	6	491	89545	95308	197.9	484.0	Explore	18+57
256	89947	95930	202.1	10.0	Geotech	6	492	89559	95402	201.2	453.1	Explore	18+58
334	90575	95080	198.5	1374.0	Explore	6	493	89553	95352	198.9	600.0	Explore	18+59
400	90734	94863	200.0	740.0	Explore	6	494	89457	94918	198.7	450.0	Explore	18+60
409	90665	94958	200.1	822.0	Explore	6	318	89497	95308	200.7	483.0	Explore	19
411	90631	95001	199.8	1100.0	Explore	6	446	89368	94856	201.1	232.1	Explore	19
411a	90631	95001	199.8	1304.4	Explore	6	447	89419	94937	200.5	304.2	Explore	19
174	90843	94720	201.0	555.0	Explore	6	448	89454	95158	199.5	449.5	Explore	19
181	90905	94633	201.1	327.2	Explore	6	449	89482	95254	200.1	480.0	Explore	19
202	90966	94551	201.6	625.0	Explore	6	450	89500	95356	201.2	539.3	Explore	19
228	90424	95281	199.8	10.0	Geotech	6	232	89045	93762	204.2	10.0	Geotech	19
263	91684	93590	202.7	10.0	Geotech	6	235	89157	94146	203.8	10.0	Geotech	19
265	91445	93910	203.1	10.0	Geotech	6	237	89213	94338	202.5	10.0	Geotech	19
266	91325	94070	203.8	10.0	Geotech	6	238	89297	94626	202.9	10.0	Geotech	19
267	91205	94230	204.1	10.0	Geotech	6	239	89353	94818	199.7	10.0	Geotech	19
203	90784	94800	200.5	840.0	Explore	6	241	89514	95863	201.3	10.0	Geotech	19
413	90687	94754	201.5	873.0	Explore	7	313	89334	95274	200.7	302.0	Explore	21
414	90598	94878	201.2	1108.0	Explore	7	451	89334	95186	201.3	313.0	Explore	21
416	90415	95118	198.2	1714.8	Explore	7	212	89140	99339	201.2	500.0	Explore	23
416a	90415	95118	198.2	1587.5	Explore	7	309	89083	95046	200.9	513.3	Explore	23
205	90629	94836	201.2	979.5	Explore	7	310	89120	95244	201.0	630.1	Explore	23
226	90537	94956	199.3	1050.0	Explore	7	311	89155	95441	201.3	331.0	Explore	23
392	90606	94697	202.4	1132.9	Explore	8	452	89053	94949	200.8	481.6	Explore	23
417	90805	94431	203.5	320.3	Explore	8	211	89104	95142	200.9	379.1	Explore	23
418	90745	94510	203.2	443.7	Explore	8	453	89133	95275	201.1	299.0	Explore	24
419	90685	94594	203.1	1172.0	Explore	8	306	88921	95229	201.3	504.6	Explore	25
420	90512	94820	200.6	1281.6	Explore	8	307	88955	95429	201.3	750.0	Explore	25
421	90354	95037	197.8	1501.3	Explore	8	308	88993	95628	201.3	674.7	Explore	25
394	90734	94365	204.0	642.0	Explore	9	457	88939	95327	201.4	701.0	Explore	25
158	90526	94636	202.6	1120.0	Explore	9	458	88977	95523	201.4	754.0	Explore	25
169	90634	94493	203.8	754.0	Explore	9	459	88831	95315	201.2	710.0	Explore	26
206	90771	94314	204.2	10.0	Explore	9	460	88847	95414	200.8	709.8	Explore	26
210	90424	94774	198.8	1390.0	Explore	9	461	88868	95517	201.2	703.6	Explore	26
424	90658	94295	204.8	277.3	Explore	10	462	88884	95612	201.4	500.7	Explore	26
425	90525	94475	203.6	498.5	Explore	10	463	88901	95706	201.3	558.4	Explore	26
426	90537	94494	203.6	790.0	Explore	10	303	88745	95399	201.3	913.0	Explore	27
427	90355	94698	198.5	1497.8	Explore	10	304	88780	95598	201.3	1020.0	Explore	27
428	90244	94847	197.7	1399.0	Explore	10	483	88817	95795	201.1	840.0	Explore	27
207	90479	94370	204.1	790.0	Explore	11	497	88726	95311	201.3	1018.1	Explore	27
208	90361	94530	202.1	1057.7	Explore	11	192	88762	95498	201.6	750.0	Explore	27
332	90267	94661	198.4	1394.5	Explore	11	195	88797	95696	201.3	530.0	Explore	27
233f	90566	94279	204.5	10.0	Hydrogeo	11	218	88727	95301	201.3	150.0	Explore	27
431	90159	94638	197.7	1367.0	Explore	12	244	88514	94120	202.3	10.0	Geotech	27
482	90302	94444	202.9	890.5	Explore	12	245	88532	94219	202.0	10.0	Geotech	27
331	90202	94394	202.5	1211.7	Explore	13	246	88550	94317	201.8	10.0	Geotech	27
Central Deposit							247	88585	94514	201.3	10.0	Geotech	27
178	89882	93358	204.4	10.0	Geotech	15	249	88621	94711	201.2	10.0	Geotech	27
183	89883	93557	206.3	10.0	Geotech	15	250	88656	94908	201.2	10.0	Geotech	27
184	89883	93957	205.9	10.0	Geotech	15	251	88691	95105	201.2	10.0	Geotech	27
185	89882	94157	204.4	10.0	Geotech	15	254	88923	96389	199.7	10.0	Geotech	27
186	89885	94356	202.8	10.0	Geotech	15	301	88569	95569	201.3	1469.1	Explore	29
187	89885	94557	201.5	155.0	Geotech	15	302	88604	95767	201.3	929.6	Explore	29
188	89888	94755	201.0	840.0	Explore	15	470	88535	95373	201.2	996.5	Explore	29
190	89889	95056	200.9	700.0	Explore	15	472	88587	95670	200.9	868.8	Explore	29
193	89883	93757	206.6	10.0	Geotech	15	473	88642	95961	200.7	796.5	Explore	29
200	89881	93154	204.1	10.0	Geotech	15	498	88550	95472	201.2	900.0	Explore	29

Table 5: Drill Hole and Drill Lines Northwest & Central Deposits

Hole	North	East	Elev collar	Max Depth	Hole Type	Line	Hole	North	East	Elev collar	Max Depth	Hole Type	Line
257	89895	96130	200.9	10.0	Geotech	15	499	88627	95865	201.1	753.5	Explore	29
258	89895	96330	200.4	10.0	Geotech	15	474	88463	95556	201.0	1600.0	Explore	30
260	89895	96530	199.9	10.0	Geotech	15	476	88501	95751	200.6	856.5	Explore	30
325	89775	94829	197.4	660.0	Explore	16	478	88537	95951	200.3	407.8	Explore	30
326	89776	95044	197.1	517.6	Explore	16	479	88572	96148	200.7	683.8	Explore	30
327	89778	95244	197.0	529.0	Explore	16	283	87778	93439	202.1	10.0	Geotech	33
432	89776	94738	197.8	412.4	Explore	16	285	87849	93833	201.5	10.0	Geotech	33
433	89776	94937	197.5	606.7	Explore	16	287	87920	94226	201.3	10.0	Geotech	33
480	89777	95144	197.0	567.5	Explore	16	289	87991	94620	201.4	10.0	Geotech	33
481	89779	95344	197.5	665.0	Explore	16	291	88061	95014	201.2	10.0	Geotech	33
324	89709	95413	198.0	355.7	search	17	293	88132	95408	201.1	10.0	Geotech	33
434	89600	94788	198.4	346.0	Explore	17	295	88207	95801	201.2	10.0	Geotech	33
							297	88278	96195	201.0	10.0	Geotech	33

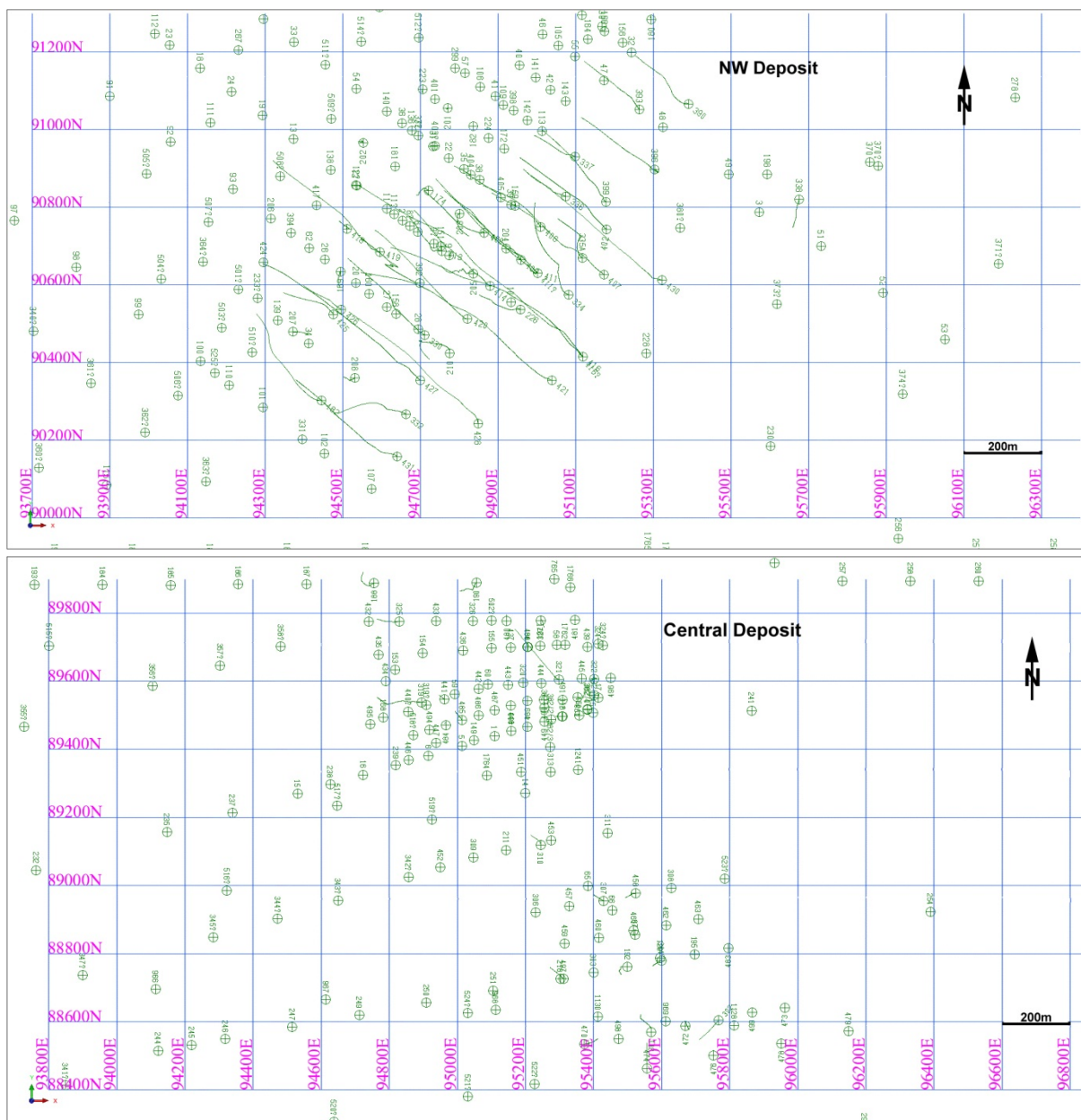


Figure 10: Historical Drill Collars and Drill lines – Northwest and Central deposit areas
(Source: MA 2011)

6.2.3.4 Exploration work 1978-1984

In 1978 after a ten-year break, exploration re-commenced with the objective of completing preliminary exploration, exploration of poly-metallic mineralization, re-estimation of resources, metallurgical studies and scoping studies.

Between 1981 and 1984 exploration continued over the south-eastern part of the Lomonosovskoye anomaly and the Northern and Central epicentres of the South-Lomonosovskoye deposit as well as other anomalies (outside the current contract area). Drilling continued with holes drilled up to 1400 meters deep testing various low-intensity magnetic anomalies.

During this period, a total of 19 deep drill holes (maximum depth 1,420 m) were drilled with a total meterage of 20,624 m as well as 156 shallower drill holes down to 200 m depth with a total meterage of 21,840 m. Seven of the deep (over 1,000 m) boreholes are located within the Contract area, DDH 464, 305, 701, 706, 702, 703 and 704 (Figure 11). Boreholes 701-706 were drilled within the South-Lomonosovskoye anomaly zone and did not reveal any iron mineralization. DDH 464 and 305 in the Central site discovered a mineralized zone at a depth of 800 m, which was first identified by an anomaly in borehole 497.

It was noted (Dudina, 1985) however that DDH 701 depth intercepted a stock work-disseminated copper mineralization from 340-700 m down hole depth. Chalcopyrite and occasionally bornite and chalcocite hosted in lavo-breccias were observed. Thickness of mineralized intervals is between 1 m and 23 m with grades between 0.2% and 1.4% Cu. Individual samples (up to 10 m) reported 2.5% copper. It was also noted that the magnetic anomalies defined by peaks of 2,000, 2,000 and 1,800 gamma within this zone have not been drilled, which suggests the potential for mineralization at depth (1,200-1,800 m).

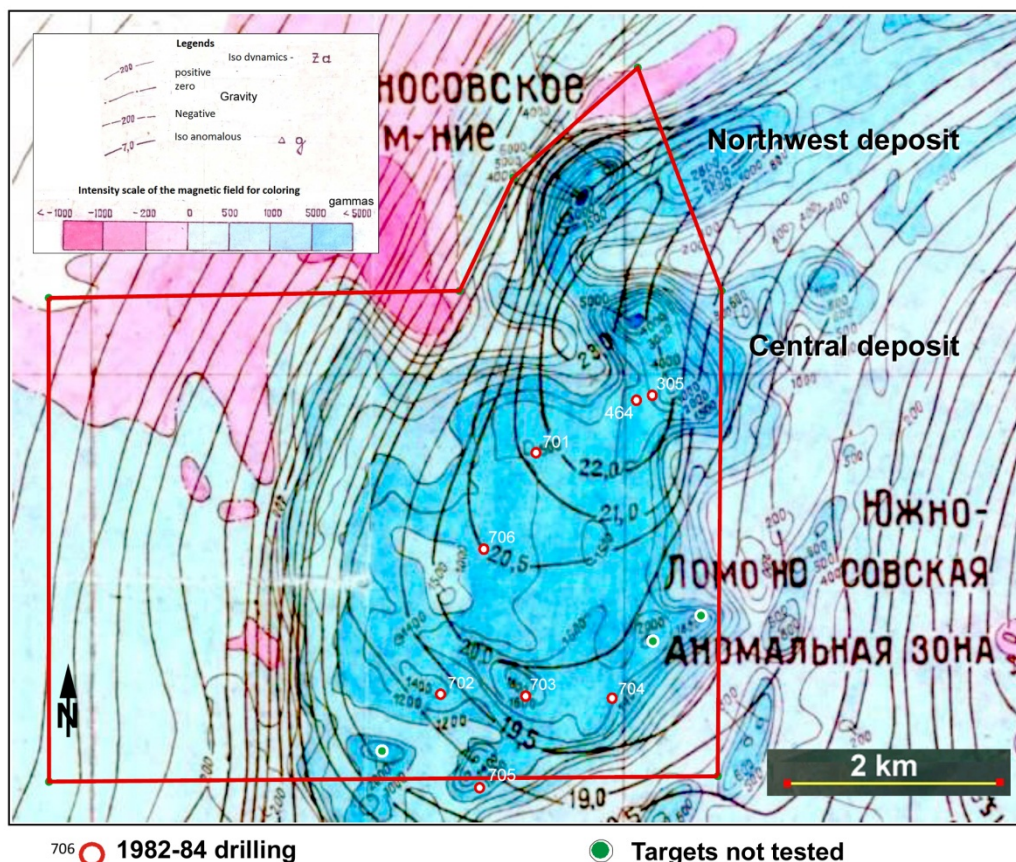


Figure 11: Aeromagnetic and gravity survey results and 1982-84 drill collars
 (Source: LPP 2011)

6.2.4 Metallurgy and mineralogy

The following historical metallurgical testing/mineralogical studies have been conducted on Lomonosovskoye Project mineralized material:

- In 1955, two technological samples were collected from core samples taken from the Northwest Deposit to test the amenability of magnetite mineralization to concentration. These samples, No.1 and No.2, had respective weights of 450 and 350 kg, and iron contents of 36.7% Fe and 25% Fe. The Uralmechanobr Institute carried out the studies. Dry and wet magnetic separation methods were used for sample concentration.
- Metallurgical testing of mineralization from the Northwest Deposit using 3 bulk samples weighing from 350 to 3200 kg. The study was carried out at the Uralmechanobr Institute and Leningrad Mining Institute ("LMI").
- Metallurgical and mineralogical study of 15 samples weighing 35-85 kg by LMI.
- 20 metallurgical samples were collected from the Central site. Two samples weighing 200 kg each were examined at the technological laboratory at SSGPO. One sample weighing 1823 kg was studied at Uralmechanobr. The remaining 17 samples were sent to LMI.

The mineral composition of mineralization from mineralogy work has been noted as 36% magnetite from the Northwest Deposit and 43% magnetite from the Central Deposit.

The metallurgical testing indicated that mineralization of both deposits are easy to concentrate. Tests produced magnetite concentrates containing 65.4% and 68% iron from the Northwest Deposit and Central Deposit respectively, and during extraction 71% and 76.4% iron with recoveries of 37% and 38%. This is lower than the adjacent SSGPO mining operations but is similar to variations within skarn type deposits.

It was noted that magnetite concentrates of coarse-graded vein-brecciated mineralization of the Central Deposit had increased concentration of vanadium (0.5%).

6.2.4.1 Sulphur content

A significant component of the iron mineralization is sulphur, which is generally associated with pyrite. Some sulphur is associated with anhydrite, gypsum, chalcopryrite, sphalerite and galena.

Sulphur distribution is varied or extremely varied in all mineralized bodies. The average sulphur content is 3.53% in the Northwest Deposit as determined by 1,896 samples, and 2.90 % in the Central Deposit as determined by 2,453 samples. The expected sulphur content in concentrate from the Northwest Deposit is 0.43 % (IMC Montan, 2010).

6.2.4.2 Phosphorus content

According to IMC Montan (2010), the phosphorus distribution in mineralization is varied. Its content in the Central Deposit mineralization is five times greater than in the Northwest Deposit. The average phosphorus content in Central is 0.455 % (2,454 samples) while that in the Northwest Deposit is 0.0892 %, (1,864 samples) possibly reflecting the apatite content of each deposit (4.4% and 0.6% respectively). IMC Montan (2010) noted that, in the process of concentration, phosphorus that occurs in apatite accumulates in the wet magnetic separation tailings.

6.2.4.3 Mineralization types

Seven types of mineralization including metasomatite (Table 6) have been recognized at Lomonosovskoye. As illustrated in Table 6 and in Figure 12, both deposits share similar mineralization types however the dominant mineralization types in each deposit are distinctive of each deposit and not found in both, i.e. banded-disseminated and solid banded mineralization (making up 48.9% of the mineralization) are only found within the Northwest Deposit; and vein-breccia and vein-like mineralization (together making up 69.3% of the mineralization) are only found in the Central deposit.

Table 6: Mineralization Types by Deposit			
Northwest Deposit	Distribution, %	Central Deposit	Distribution, %
Banded-disseminated	38.4	Vein- breccia-like	61.9
Uniformly disseminated	14.8	Metasomatites	17.7
Spotty-disseminated	14.1	Vein like	7.4
Metasomatites	11	Solid uniform	5.3
Solid banded	10.5	Breccia-like - spotty	3.2
Solid uniform	9.2	Spotty-disseminated	3
Breccia-like - spotty	2	Uniformly disseminated	2.5

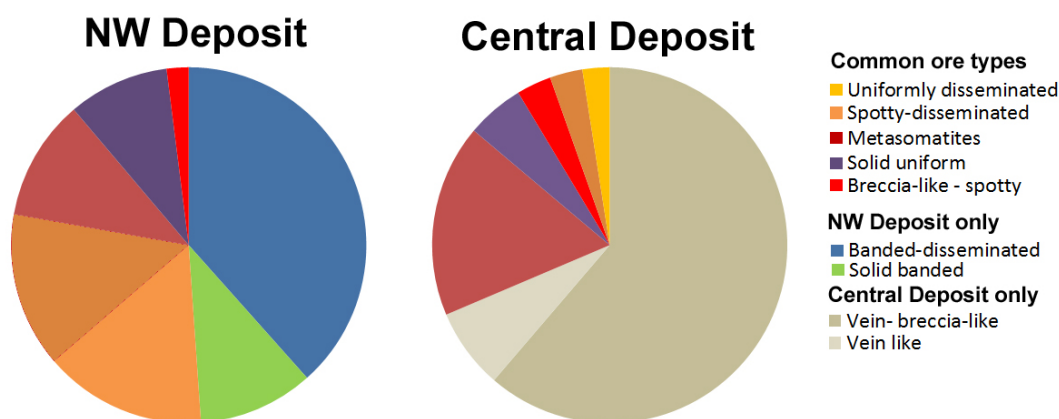


Figure 12: Lomonosovskoye mineralization types by deposit
 (Source: MA after LLLP 2011)

6.3 Historical resource and reserve estimates

6.3.1 Mineral resource estimates

The following information was summarised from the technical report entitled "Investment Analysis and Exploration Study on the Mine Construction Project at Lomonosovskoye Iron Ore Deposit, Kostanay Region, Republic of Kazakhstan" ("the IMC Montan Report") by independent consultants, IMC Montan (IMC Group Consulting Limited, International Economic and Energy Consulting Limited DMT GmbH).

IMC Montan used the following unpublished technical reports for the source of their descriptions of historical resources:

- Dudina N.S., Makarichev V.G., 1978-82, *Report on preliminary exploration for solid magnetite ores on the North-Western site and vein-breccia-like ores on the Central site*, with Graphic appendices;
- Anonymous, *Report on survey and assessment works in the area of Lomonosovskoye iron ore deposit in Kustanayskaya Oblast in 1981-84*;
- GIPRORUDA, 1983, *Feasibility study for detailed exploration of Lomonosovskoye deposit*, , Graphic appendices
- Porotov G.S., Rybakov V.V., 1982, *Report on the study of material composition and technological properties of complex magnetite ores of Lomonosovskoye and Kacharsky deposit new sites*.

The Lomonosovskoye iron deposits have had four progressive historical resource estimates. The last mineral resource estimate was based on the results of drilling of the massive iron lodes at the Northwest Deposit and of the vein- breccia mineralization of the Central Deposit in 1978-84 ("1984 historical mineral resource estimate"). The description of this mineral resource estimate was sourced from the IMC Montan Report as noted above.

A polymetallic mineral resource estimate was also completed in 1993 which was a re-estimate based on the results of the analysis of copper, lead and zinc which were excluded from the previous reports. There is insufficient data available to describe this historical estimate.

The 1984 historical iron mineral resources at the Northwest Deposit were estimated between exploration lines PR-1 and PR-13 along strike and to a depth of 1,600 m (absolute elevation –1,400 m) down dip. Approximately 59 % of the estimated historical mineral resources are located above a depth of 800 m.

In the Central deposit, the 1984 historical iron mineral resources were estimated between exploration lines PR 15 and PR 30 to a depth of 820-880 m (absolute elevation -680 m).

The 1984 historical mineral resource estimate was based on the 1978-84 exploration results assuming total iron cut-off grades of 15% (only for Central site), 20% and 25% Fe. A minimum thickness of mineralized bodies of 10 m was used for the Central site and 5 m for North-Western site. A maximum thickness of barren rock layers included within the mineralized zones was 10 m for the Central site and 8 m for the North-Western site.

The tonnage factor was determined by laboratory methods for each site separately, using 86 samples from the Northwest Deposit, and 36 from the Central Deposit. The average tonnage factors used was 3.8 m³/t for the Northwest Deposit and 3.7 m³/t for the Central Deposit.

The 1984 historical mineral resource estimate was calculated using the vertical cross-sectional method, i.e. polygonal method. Areas were measured by planimeter and checked by simple geometry. Those mineralized bodies identified by geological correlation were subject to separate reserve estimates. Mineralized bodies were not combined. The results of the reserve estimate are presented in Table 7.

Table 7: 1984 historical mineral resource estimate *						
Cut-off Fe, %	Category	Tonnage	Fe total %	Magnetite %	S %	P %
North-Western site						
20	C1	146,689,500	34.24	24.24	3.47	0.08
	C2	69,090,700	35.51	25.27	4.27	0.07
25	C1	123,406,300	36.25	26.93	3.52	0.08
	C2	62,728,500	37.27	27.19	4.35	0.07
Central site						
15	C1	124,402,930	31.48	-	-	-
	C2	19,287,270	25.2	-	-	-
20	C1	104,298,590	34.09	24.99	2.77	0.43
	C2	13,110,910	27.58	19.27	2.35	0.36
25	C1	81,818,370	37.14	27.75	2.84	0.45
	C2	6,877,790	30.55	22.5	2.3	0.38
Total for deposit						
20	C1+C2	333,189,700	34.2	24.49	3.37	0.2
This historical mineral resource estimate is not NI-43-101 compliant. The category C1 is equivalent to Indicated under CIM definitions standards The category C2 is equivalent to Inferred under CIM definitions standards						

The 1984 estimate totalled 333 Mt at an average grade of 34.2% iron, using a 20% iron cut-off, which was classified under the Kazakhstan classification system as C1 and C2 categories. In Kazakhstan, mineral resources and reserves are classified according to the 1981 "System of Classification of Reserves and Resources of Mineral Deposits". This classification system uses seven categories in three groups, based on the level of exploration performed. Table 8 presents a reconciliation of the Kazakh classification system to the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") standard definitions.

Table 8: Reconciliation of Classifications of Mineral Reserves and Resources *			
CIS Classification	CIS Categories	Comparable CIM Resources	Comparable CIM Reserves
Explored Reserves	A and B	Measured	Proven / Probable
Explored Reserves	C1	Indicated	Probable
Evaluated Reserves	C2	Inferred	-
Prognosticated Resources	P1, P2 and P3	Potential	-
* Foldenauer et al, 2010			

6.3.2 Comment of mineral resource estimates

MA notes that the C1 and C2 categories referred to above for the 1984 historical mineral resource estimate would be roughly equivalent to Indicated and Inferred categories under CIM standards (Table 8). However the figures quoted above are regarded as historical by MA as they are pre-2000 and have been superseded by the estimates reported here. It is MA's opinion that the 1984 historical mineral resource estimates have been largely verified by the new drilling and estimates; and KMI is not treating the historical estimates as current.

It is noted that the mineralization outlined by the drilling has not been closed off at depth in the Northwest Deposit, and possibly in the Central Deposit. In addition, the modelling of the individual mineralized lenses in both deposits is incomplete.

6.4 Historical production

There is no historical production from the Lomonosovskoye Project.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional geology

7.1.1 Source of data

The geology of the region was investigated by Russian geologists, following the discovery of the Sarbaisky and Sokolovsky magnetite deposits in 1949, particularly from 1958, through the 1960's and up to 1971. The tectonic framework of the southern Urals was increasingly investigated in the mid 1980's, and seismic lines across the southern Urals in the mid 1990's led to further advances in the understanding of the tectonic evolution of the region (e.g. Berzin et al, 1996; Echtler et al, 1996; Juhlin et al, 1996; Knapp et al, 1998 and Matte, 2006).

This regional data was reviewed and presented in detail by Herrington et al (2002) and Herrington et al (2005) in the context of relating the mineral deposits to the tectonic evolution and framework of the southern Urals. The magnetite deposits of the Turgai (south-eastern Urals) area, including their mineralogy, geological setting and genesis, are discussed in detail in Hawkins et al (2010). Most of the information presented in the Geological section of this report is derived from these three most recent sources.

7.1.2 Tectonic framework

The Lomonosovskoye deposits, along with a number of significant magnetite deposits, occur in the Valerianovskoe (Valerianov, Valerianovsky) magmatic arc in two districts: the Glubochensk belt in the north in Russia, and the Turgai belt to the south in northern Kazakhstan. The Valerianovskoe arc lies east of the main Urals fault zone in the southern limit of the Uralides (Urals, Ural Mountains, Ural Orogen).

The Uralides are a 2,500 km long, north-south trending mountain belt that extends from the steppes of northern Kazakhstan to the Arctic Ocean, and were formed as a result of the collision of the Baltica (largely the East European craton) and Siberia-Kazakh plates during the Late Carboniferous to Early Permian periods (Figure 13).

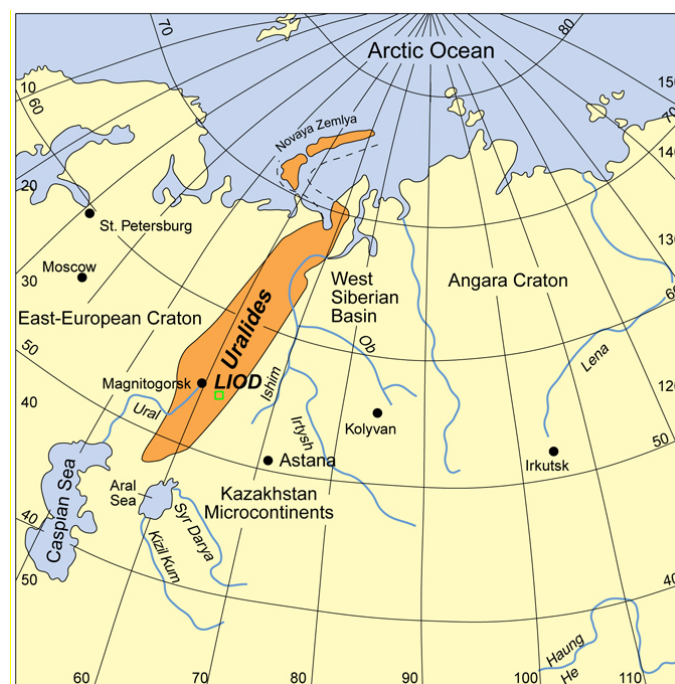


Figure 13: Location of the Urals between Europe & Asia.

LIOD = Lomonosovskoye Iron Project
 (Source: Perez-Estaun & Brown, undated)

On a regional scale, the Southern Uralides can be divided into four zones, bounded by large north-south structures (Figure 14):

- The Sakmara Zone: This is part of the foreland thrust and fold belt up to 150 km wide, representing an obducted accretionary complex of Neoproterozoic and Lower Palaeozoic sediments and arc rocks, and ophiolites/mafic-ultramafic complexes, thrust over the eastern margin of the East European craton ahead of the approaching Magnitogorsk arc to the east. Its eastern margin is a 20 km wide zone of east dipping melange of the Main Urals fault zone.
- The Magnitogorsk Zone: This zone comprises Mid-Late Devonian oceanic arc sequence of tholeiites, overlain by younger calc-alkaline volcanics, and a westward thickening volcanoclastic pile. They are overlain by Lower Carboniferous carbonates and intruded by Early Carboniferous granitoids.
- The East Uralian Megazone: This is the suture between the East European craton and the Kazakh plate and is composed of extensively strike-slip faulted, deformed and metamorphosed Proterozoic and Palaeozoic continental and island arc fragments, intruded by Late Devonian to Early Carboniferous tonalite to granodiorite masses, and by Late Carboniferous to Permian granitoid batholiths with subordinate diorite and gabbro. On its eastern margin, the Troitsk fault is a west dipping melange zone of serpentinite containing relics of harzburgite.
- The Trans-Uralian Zone: This comprises Lower Palaeozoic basement overlain by the Andean-type Valerianovskoe arc with an east-dipping subduction zone. This arc is composed of Devonian and Carboniferous calc-alkaline volcano-plutonic complexes overlain by terrigenous red beds and evaporates. Two main linear belts of iron, copper and gold mineralization in this zone are: a western belt (the Alexandrovskaya and Irgizskaya mineral zones) and the eastern Valerianovskoe mineral zone (host to the Lomonosovskoye Project deposits and SSGPO deposits, Figure 15).

The development of the four zones and evolution of the Uralides is summarised in Figure 16.

7.1.3 Valerianovskoe Arc

In the Valerianovskoe arc (Figure 15), Silurian sediments with Devonian and Carboniferous calc-alkaline volcano-plutonic and sedimentary complexes are composed mainly of volcanoclastic rocks and volcanic flows, which are intruded by gabbroic to dioritic plutons. Ophiolite units and high pressure rocks are also present. It is bounded by the major Livanovsk and Anapovsk faults in the west and east respectively.

The region was affected by major sinistral transpressional strike-slip faulting from 320 to 265 Ma (Mid Carboniferous to Late Permian) due to the oblique closure of the Uralian Ocean and continent-continent collision of the East European craton and the Kazakh plate.

By the end of the Triassic, much of the Uralides had been eroded with the development of a peneplain over the bulk of the orogen, particularly in the South Urals which includes the Trans Uralian zone. Jurassic and Lower Cretaceous marine and continental sedimentary rocks covered this peneplain, with at least three marine regression-transgression cycles recorded from the Late Cretaceous to Eocene.

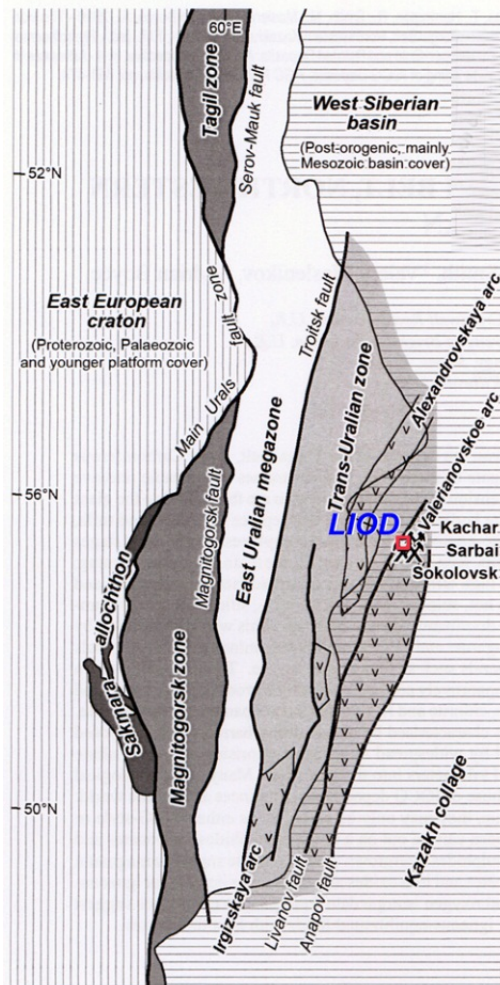


Figure 14: Tectonic zones.
Location of Valerianovskoe Arc
Showing location of the Lomonosovskoye deposits (LIOD)
(Source: Hawkins et al, 2010)

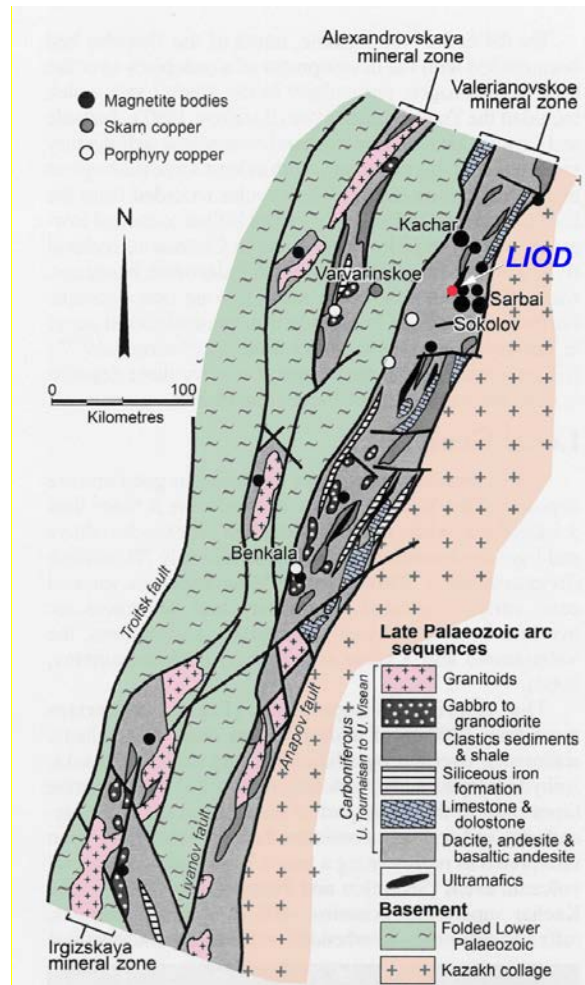


Figure 15: Valerianovskoe Mineral Zone
Sub-Mesozoic geology of the Trans-Uralian Zone
(Source: Hawkins et al, 2010)

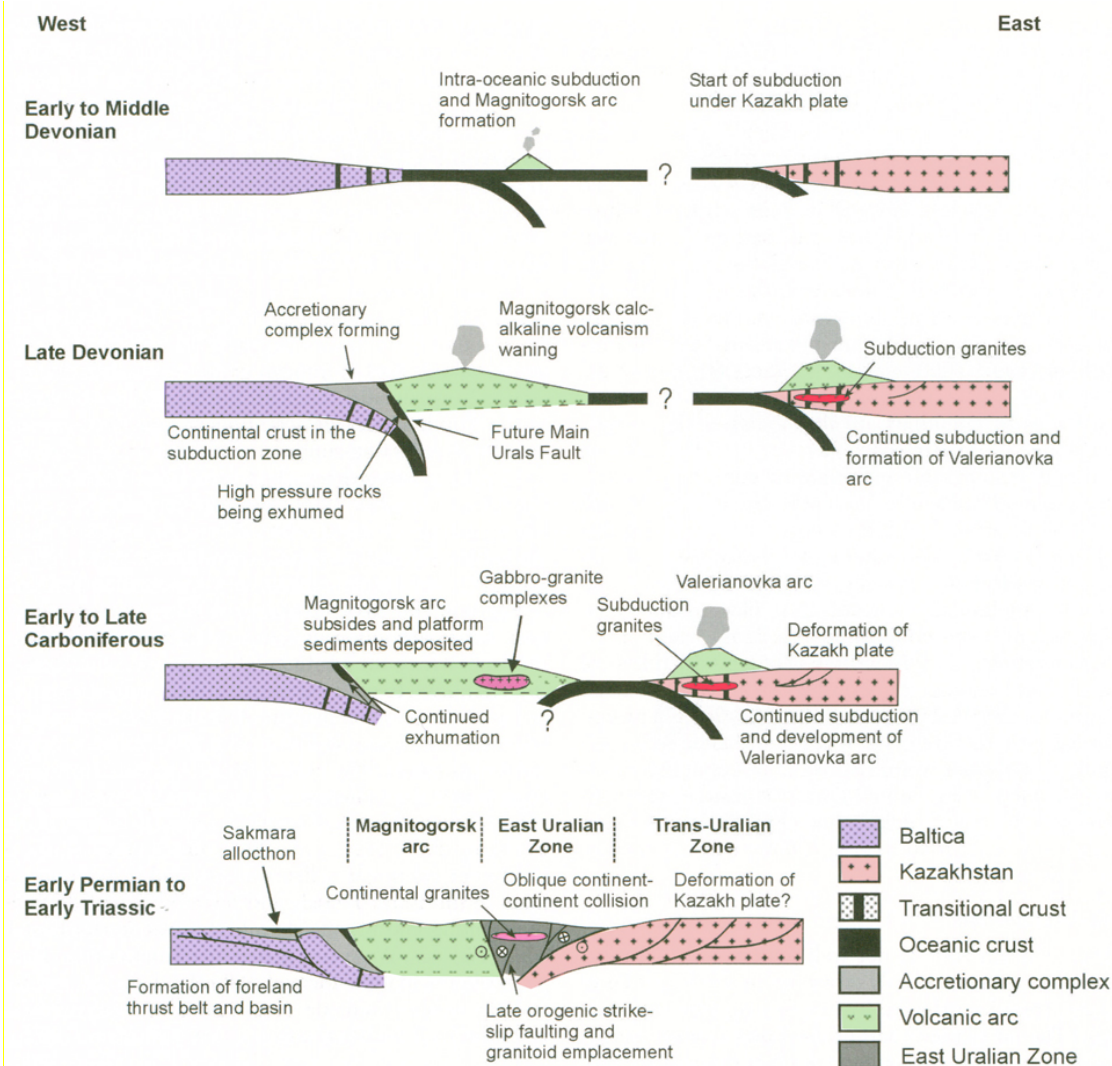


Figure 16: Tectonic evolution of Uralides.
 (Source: Herrington et al, 2005)

7.2 Local geology

The Carboniferous sequence that hosts the giant deposits of the Valerianovskoe mineral zone is more than 3.5 km thick, while in the western belt (Alexandrovskaya and Irgizskaya mineral zones) it is only 700 m thick. In the Valerianovskoe zone, early rift-related sedimentary rock sequences are overlain by two volcano-sedimentary successions, the Valerianovo and Kachar supergroups (Figure 17).

The Valerianovo supergroup consists of more than 1000 m of andesite lava and volcanoclastic sediments, overlain by siliclastic and carbonate rocks. Anhydrite layers and mudstones are found in the marine limestone in the upper part of the supergroup. Basaltic-andesite and andesite dominate the pile, which has been interpreted as representing a single large scale continental volcanic event.

The Kachar supergroup contains about 800 m of conglomerates, tuffs and sediments, interbedded with mafic to intermediate flows and their pyroclastic equivalents. These volcanic rocks are interpreted to be largely sub-aerial. Directly overlying the Valerianovo, the Kachar supergroup forms a distinct unit of red volcanic breccia containing 5 cm clasts of magnetite in a hematized matrix, with hematite rims surrounding breccia clasts. This sequence is intruded by gabbros and diorites of the Sarbai-Sokolovsk complex, considered to be comagmatic with the Kachar supergroup volcanics and as such, part of the Valerianovskoe volcano-plutonic complex.

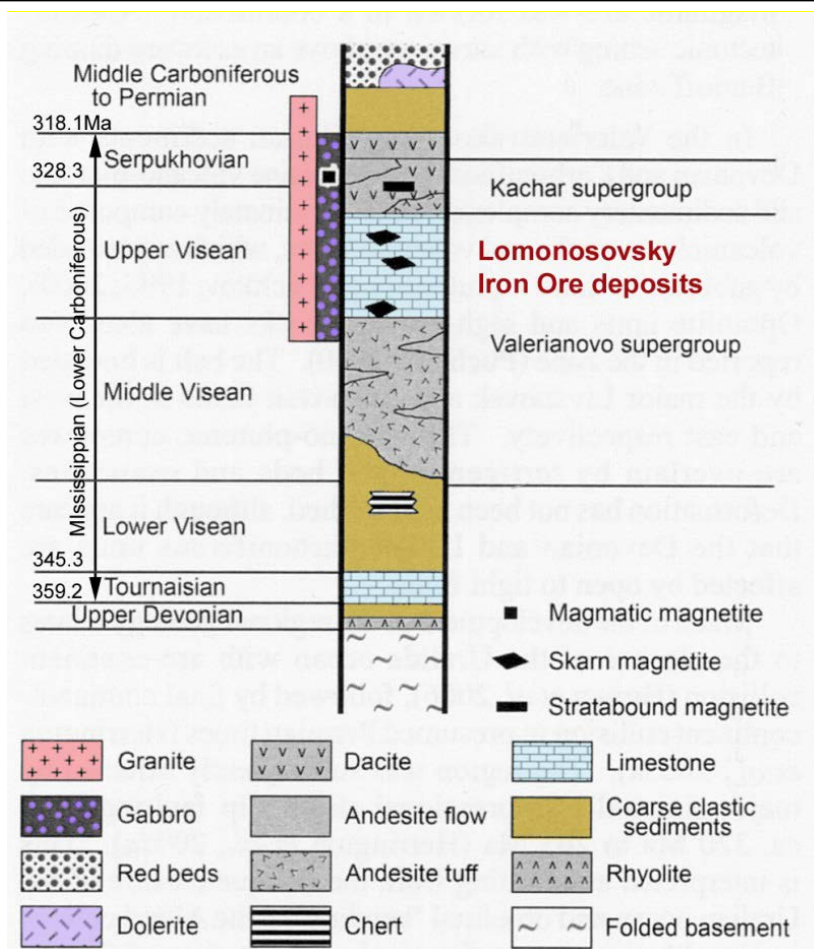


Figure 17: Idealised stratigraphic column of Valerianovskoe arc

(Source: Hawkins et al, 2010)

The Sarbai-Sokolovsk complex is a composite pluton in which orthomagmatic disseminations of titano-magnetite are found. A second intrusive suite, the Sulukolskaya complex was subsequently emplaced, containing xenoliths of the Sarbai-Sokolovsk suite.

The magnetite deposits of the Valerianovskoe mineral zone are hosted by andesitic volcanics, pyroclastics, and intercalated sediments and carbonates of the Valerianovo supergroup. Large gabbro-diorite-granodiorite igneous bodies of the Sarbai-Sokolovsk and Sulukolskaya complexes are related to the mineralization, with granitic facies interpreted as having been intruded from Mid-Visean to Permian. In some deposits, the host sedimentary sequence is cross cut by post-mineralization dioritic porphyry.

The Palaeozoic units of the Turgai belt (Kazakhstan portion of the Valerianovskoe arc) are entirely covered by Mesozoic to Cainozoic sediments which are sub-horizontal and range from 40 to 180 m in thickness. Plan and cross-sections of the nearby major deposits are shown at Figure 18 and Figure 19 which illustrate the dimensions and orientation of the host limestone units and the skarn mineralization. MA has not been able to verify that the mineralization illustrated in Figure 18 and Figure 19 for the regional deposits of Sarbaisky, Sokolovsky and Kacharsky and notes that the descriptions of the iron mineralization at these deposits is not necessarily indicative of the same on the Lomonosovskoye Project.

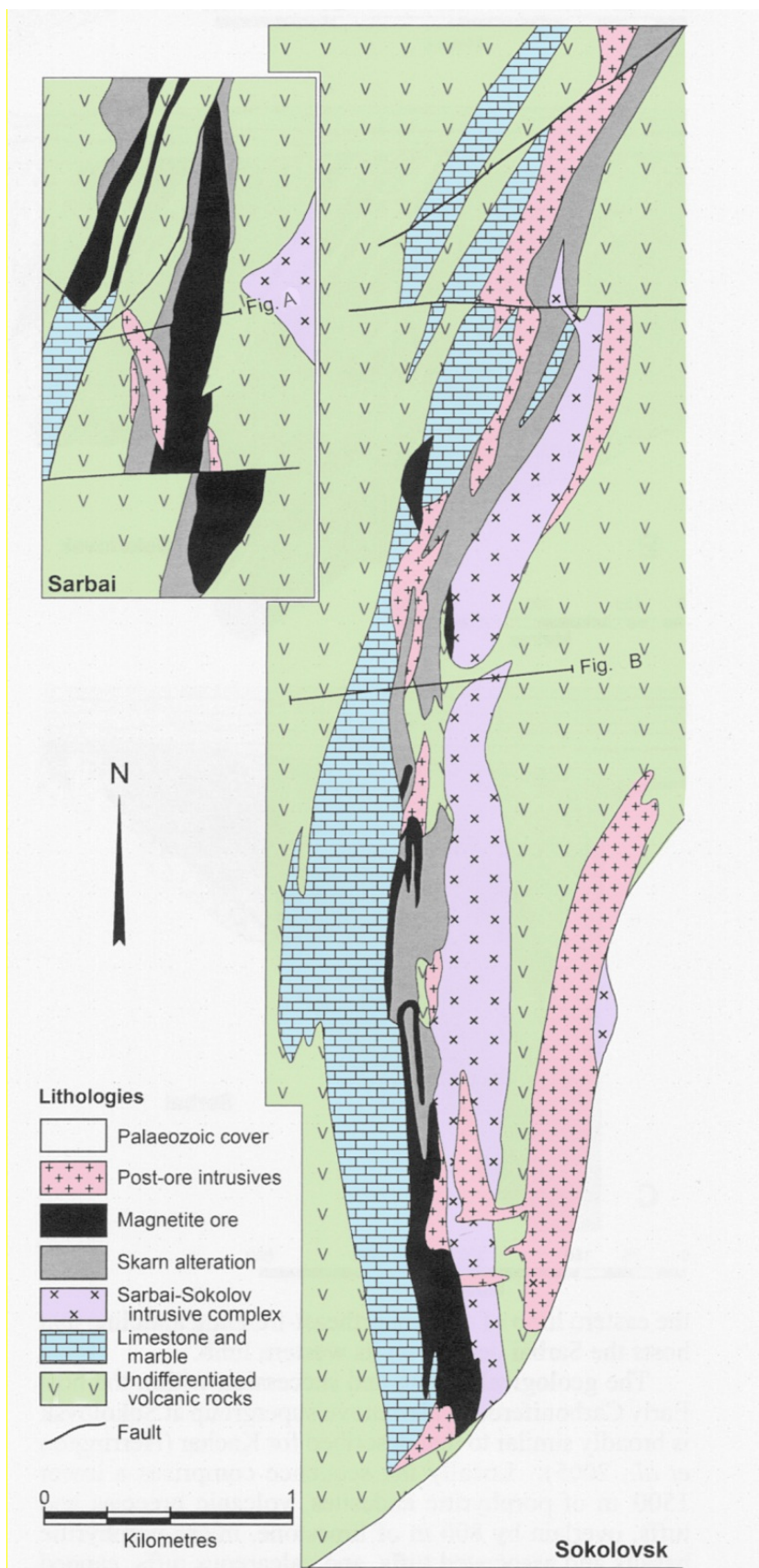


Figure 18: Sokolovsky & Sarbaysky (Sarbai) – Simplified Geology
(Source: Hawkins et al, 2010)

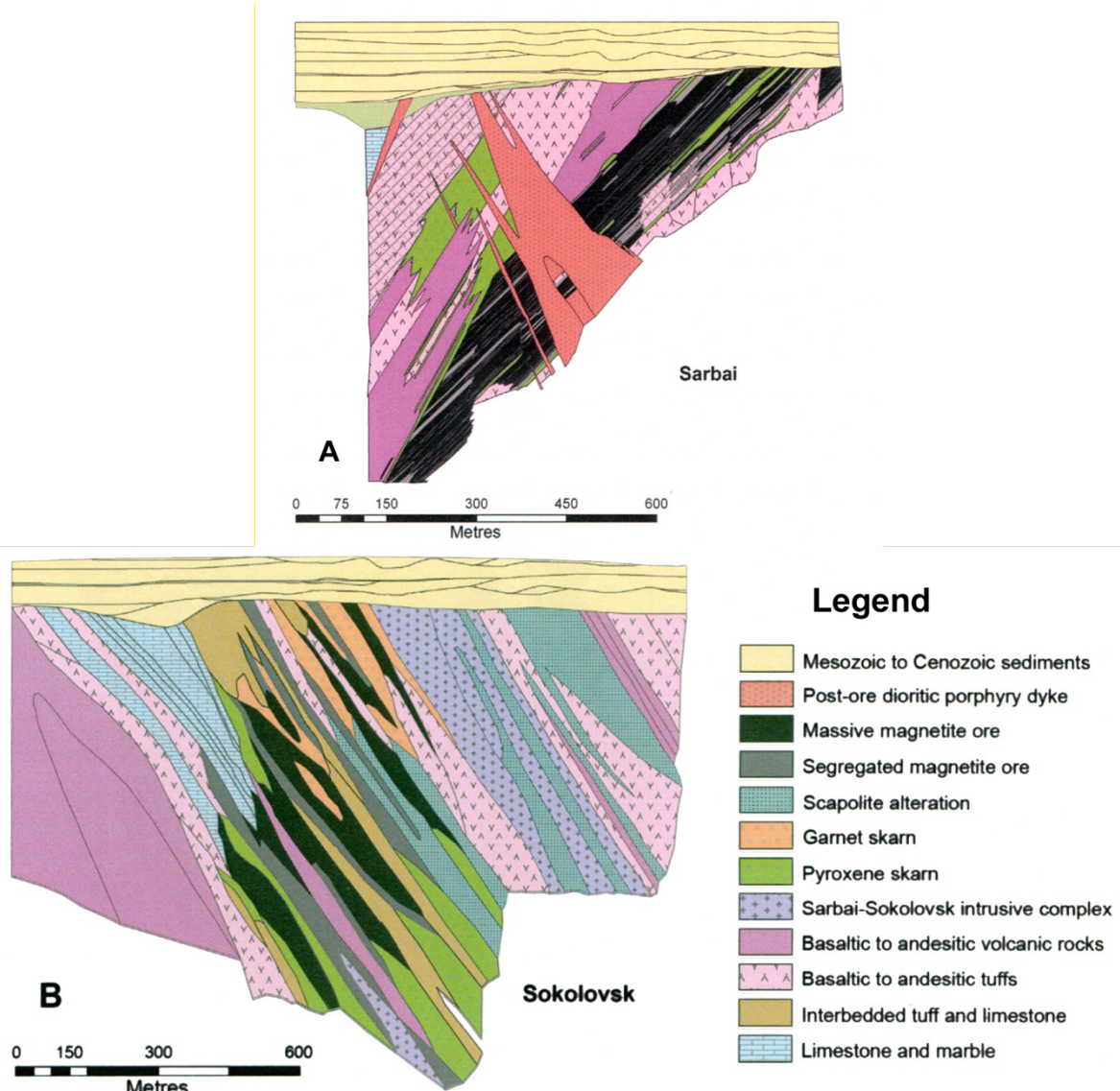


Figure 19: Geological cross-sections of Sokolovsk and Sarbai magnetite deposits
Refer Figure 4 for location relative to Lomonosovskoye & Figure 18 for location of cross-sections A and B
(Source: Hawkins et al, 2010)

7.3 Prospect geology

The following descriptions of the prospect geology are derived from IMC (2010).

The Lomonosovskoye Project comprises two deposit sites: Northwest ("NW") Deposit and Central Deposit (Figure 20), which is further refined into several domains. The domains differ in geometry but are broadly similar in geological structure, genesis and composition of mineralization. The domains are impacted by, and to some extent defined by, diorite dykes and intrusions as well as faulting.

The geological structure of the deposit is formed by the multiple dislocation of sedimentary (calcareous siltstone, limestone, and clay-carbonate rocks), volcanic-sedimentary (sand tuff, silt tuff, and tuffs of andesite and andesite-basalt porphyry) and volcanic (andesite and andesite-basalt porphyry) rocks of Lower Carboniferous age, intrusive (diorite stocks), subvolcanic (dyke aphyrite of intermediate-mafic and mafic compositions), metamorphic (marmorized limestone) and metasomatic (skarn) rocks.

7.3.1 Northwest Deposit

In the Northwest Deposit (Figure 21, Figure 22), magnetite mineralization is represented by relatively high-temperature, early metasomatic formations along the contact between lower sedimentary (limestone) and upper volcanic-sedimentary (tuffite) members of the Sokolovsky suite. The mineralization is surrounded by an envelope of garnet-pyroxene skarns and forms a single skarn-mineralization zone that can be traced over 1,200 m along strike in a south-western direction (azimuth 220°), and down dip to a depth of 1,600 m with an average mineralized body thickness of 200 m.

Dip angles vary from 55° to 65° in the upper portion of the cross-section (to an elevation -450 m), to nearly vertical at depth.

7.3.2 Central Deposit

Magnetite mineralization in the Central Deposit (Figure 21, Figure 23) has a complex multi-domain structure due to the widespread influence of diorite intrusions and faulting. Mineralized bodies are defined by gradation in intensity from full skarn replacement to disseminated and partial replacement. The border between them is determined by chemical composition. Mineralized bodies are predominately of seam-like and lenticular shape. Dip angles vary from vertical to 300° for individual mineralized bodies. Average thickness of mineralized bodies is highly variable. The Central Deposit is more irregular than the Northwest Deposit but mineralization is contained within an area that is traced along strike over 2,300 m and to a depth of 200 to 600 m in the north, and to 800 m in the south, although depth extent is poorly tested in most areas due to the complexity of the deposit.

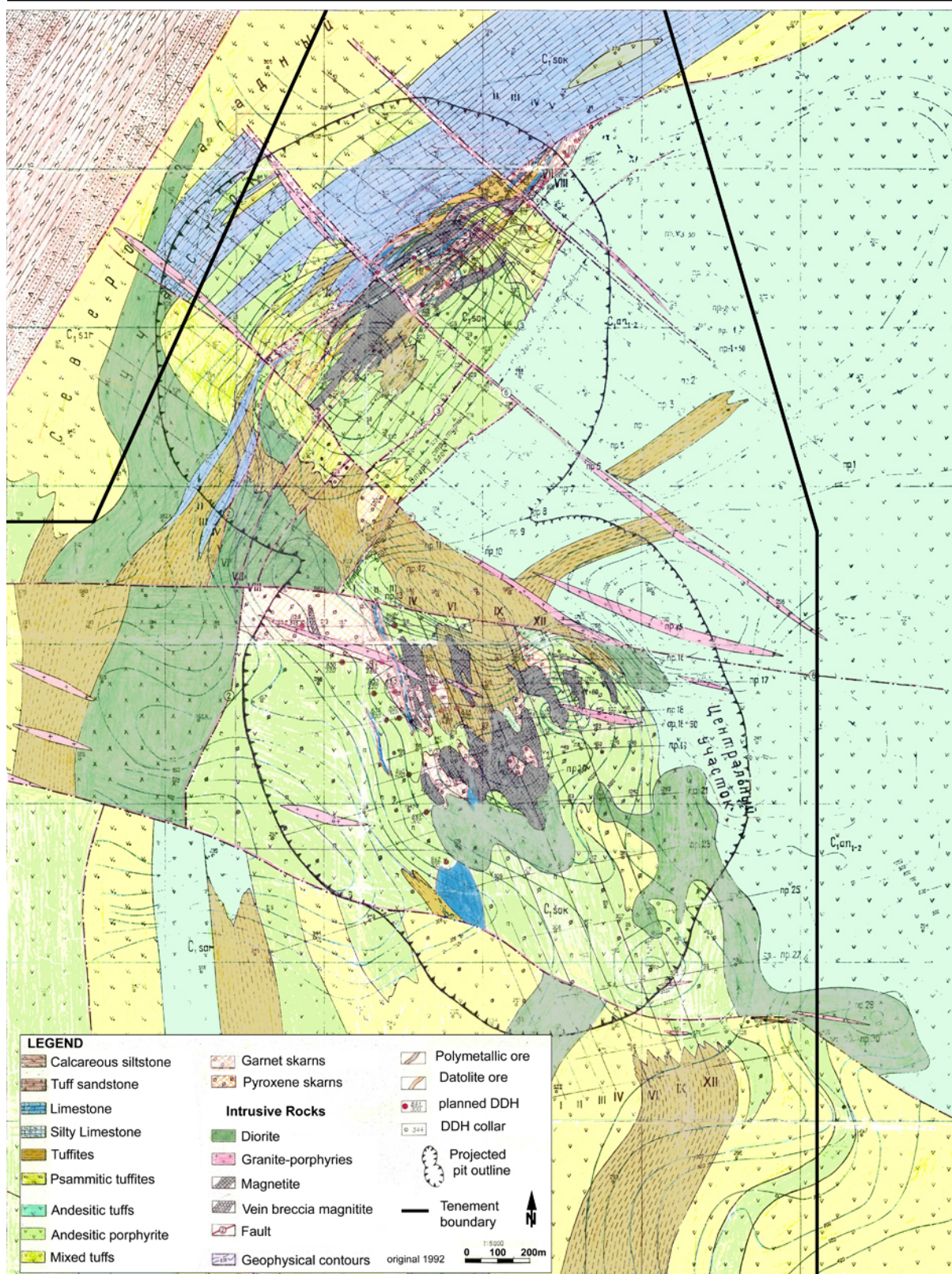


Figure 20: Lomonosovskoye Project Prospect Geology Map
(Source: LLLP, 2011)

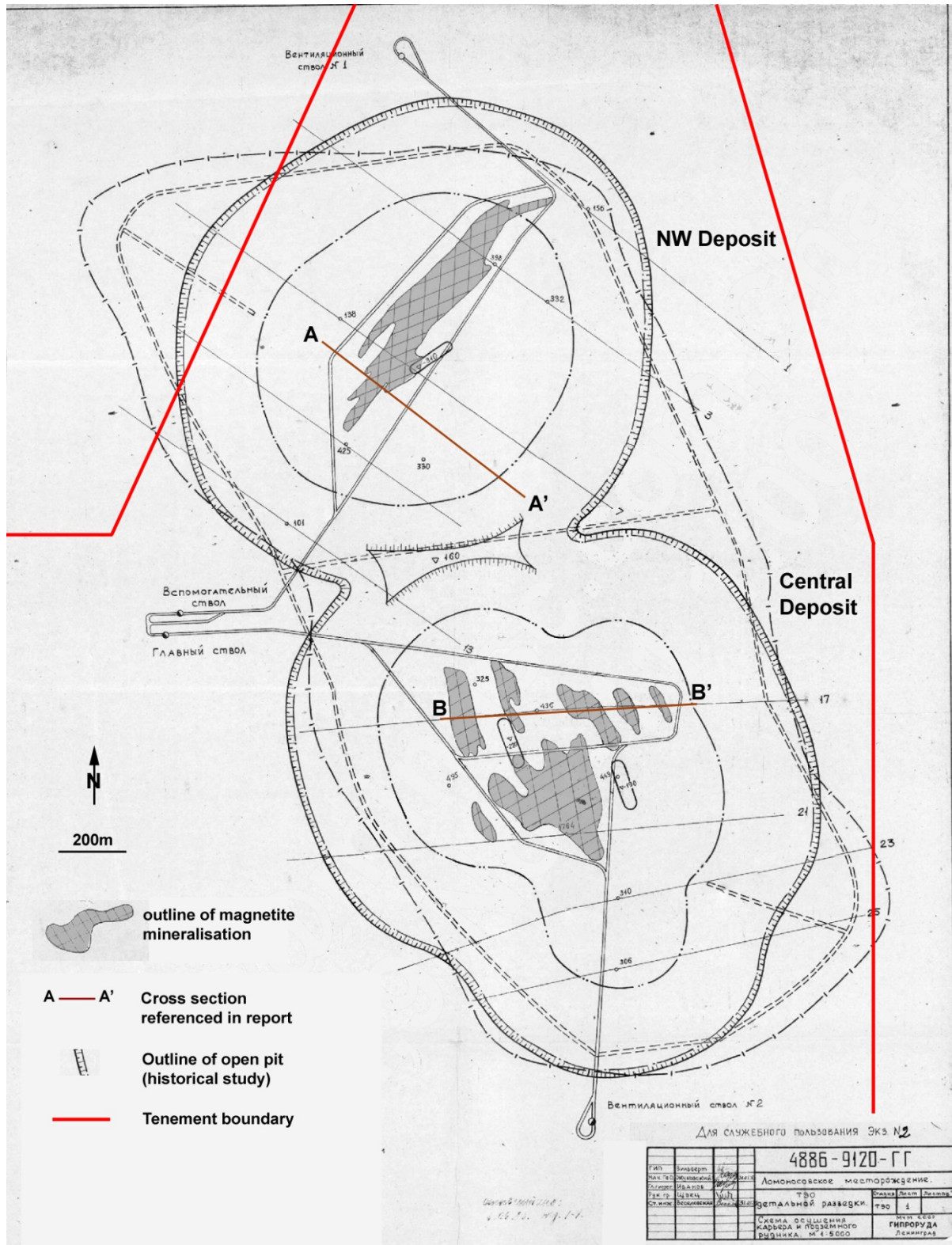


Figure 21: Outline of Magnetite mineralization: Northwest and Central deposits
Refer Figure 22 and Figure 23 for cross sections
(Source: after LLLP)

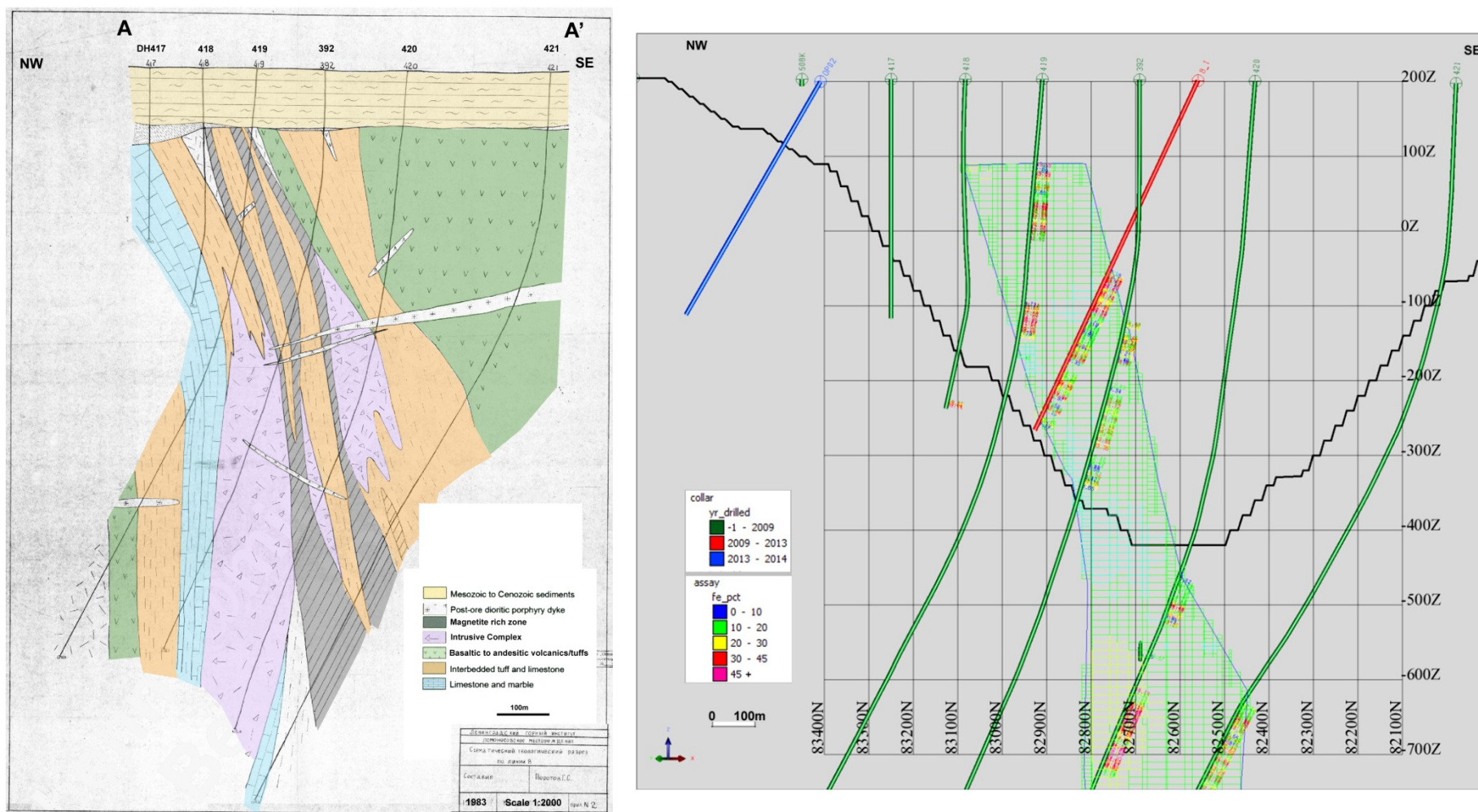


Figure 22: Drill Line 417-421 Cross Section, Northwest Area.
Left is historical interpretation, right is current Interpretation; Refer Figure 8 and Figure 21 for location
(Source: LLLP & MA)

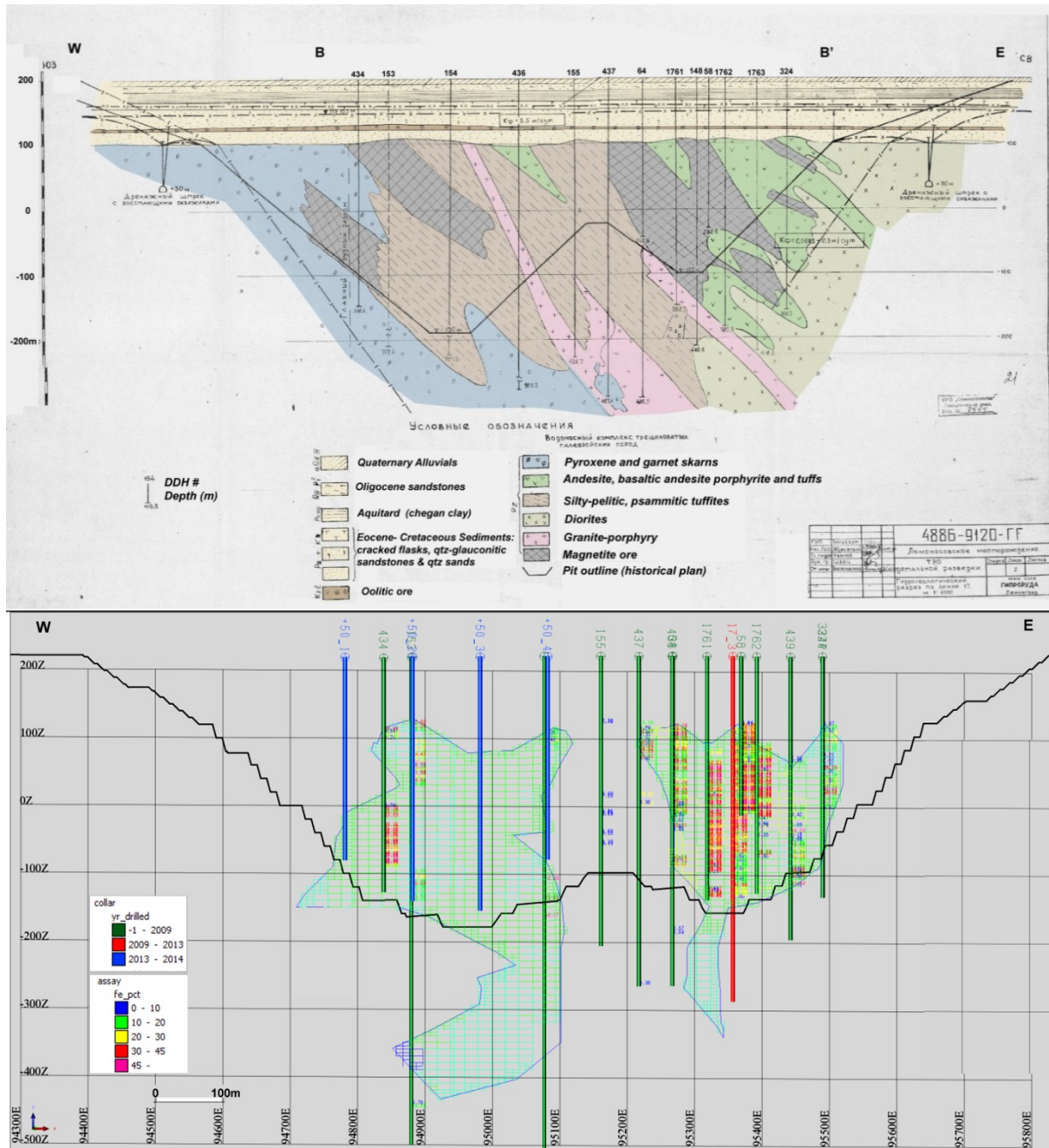


Figure 23: Drill Line 434-324 Cross-Section, Central Area.

Top is historical interpretation, beneath is the current interpretation; Refer Figure 9 and Figure 21 for location
(Source: after LLLP & MA)

7.4 Mineralization

7.4.1 Mineralization

Mineralization at Lomonosovskoye consists of a gradation from massive magnetite to disseminated magnetite. The boundary between massive and disseminated mineralization is difficult to identify as dense disseminations of magnetite grades into massive. It is clear from Figure 24 that in broad terms the mineralization styles and events which have affected both areas are similar. The basic statistics based on 5 m composites within the interpreted mineralized domains display four clear peaks, although there some mixing of populations between peaks, each representing a different style/phase

of mineralization. The first a low grade mineralization event with a mean grade around 18% Fe is similar in both the Northwest and Central deposits, as is the second event with a mean grade of 24% Fe in both areas. The third is more variable with the mean remaining the same (35% Fe) but with significantly more in the Northwest Deposit than that in Central. The last is the high grade massive magnetite with a mean grade of 57% Fe in the Northwest and 62% Fe in Central shows that there is a more pronounced phase in the Central Deposit. The massive mineralization is defined as being magnetite with 50% or greater iron content. Hematite is also present.

7.4.1.1 Massive magnetite mineralization

The massive magnetite occurs as "seams" of mineralization with barren skarn ranging from 10-15 centimetres to meters in thickness.

Macroscopically, the massive magnetite mineralization is dark grey in colour with a predominantly fine-grained structure, often with a layered appearance due to the substitution of primary stratified rocks with layered magnetite and disseminated sulphides.

The mineralogical composition of the mineralization is characterized by predominance (60% to 80%) of magnetite, and occasionally titanium-magnetite. Pyrite content is general low (1-2%) but can be up to 5% or more in places. Pyrite is often accompanied by chalcopyrite, lesser sphalerite (as single grains), and galena. Non-metallic minerals usually occur as interstitial material between magnetite grains, and include garnet, calcite, actinolite, epidote, and chlorite plus accessory apatite.

7.4.1.2 Disseminated magnetite mineralization

The disseminated mineralization consists of magnetite skarns genetically inseparable from massive magnetite mineralization. The disseminated mineralization shows a transition from massive magnetite mineralization through to an almost barren skarn. The disseminated mineralization can be divided into two groups:

1. Magnetite mineralization related to garnet skarns ("magnetite-garnet skarns"), and
2. Magnetite mineralization confined to the epidote-chlorite rocks ("magnetite epidote-chlorite").

Magnetite-garnet skarn mineralization

Magnetite-garnet skarn mineralization is the dominant type. It commonly has a dark grey irregular mottled and granular-crystalline appearance with a banded texture. The banded texture is caused by alternating layers of different density disseminations of magnetite interbedded with barren skarn and magnetite, and sometimes with layered disseminated sulphides and calcite.

The approximate average mineralogical composition of the magnetite-garnet skarn is magnetite, and titanium-magnetite from 40-60 %, pyrite about 1-2 % (with lesser chalcopyrite, sphalerite and galena as single grains). The non-metallic minerals are mainly garnet, epidote, actinolite, and chlorite.

Magnetite occurs as disseminated fine grains or irregularly shaped clusters of tiny (0.05 mm) isometric grains, sometimes forming extended chains. Phenocrysts of magnetite, sometimes merging with each other, form solid granular aggregates.

Pyrite is generally disseminated or in small intersecting veins, and in lower grade skarns it locally cements the grains of magnetite and non-metallic minerals.

Magnetite-epidote-chlorite mineralization.

The magnetite-epidote-chlorite mineralization occurs as high and low grade mineralization and has a greyish-green colour. This mineralization for the most part has a banded structure, with lesser disseminated and breccia material. It is irregularly fractured with pyrite and calcite fracture fillings, often with associated zeolites.

Magnetite (and titanium-magnetite) can make up to 50% of the material, mainly as fine-grained phenocrysts and as individual clusters of magnetite and sulphides. Sulphides identified are

disseminated pyrite, chalcopyrite, sphalerite, galena, associated with pyrite as inclusions in small isolated grains.

7.4.1.3 Oxidised mineralization

IMC Montan (2010) note that a Palaeozoic weathered horizon occurs in all cross-sections of Northwest Deposit and partially in the Central deposit. The upper and marginal parts of mineralized bodies therefore could be expected to contain oxidized mineralization similar to that which has been found in the neighbouring deposits of Sarbai-Sokolovsky.

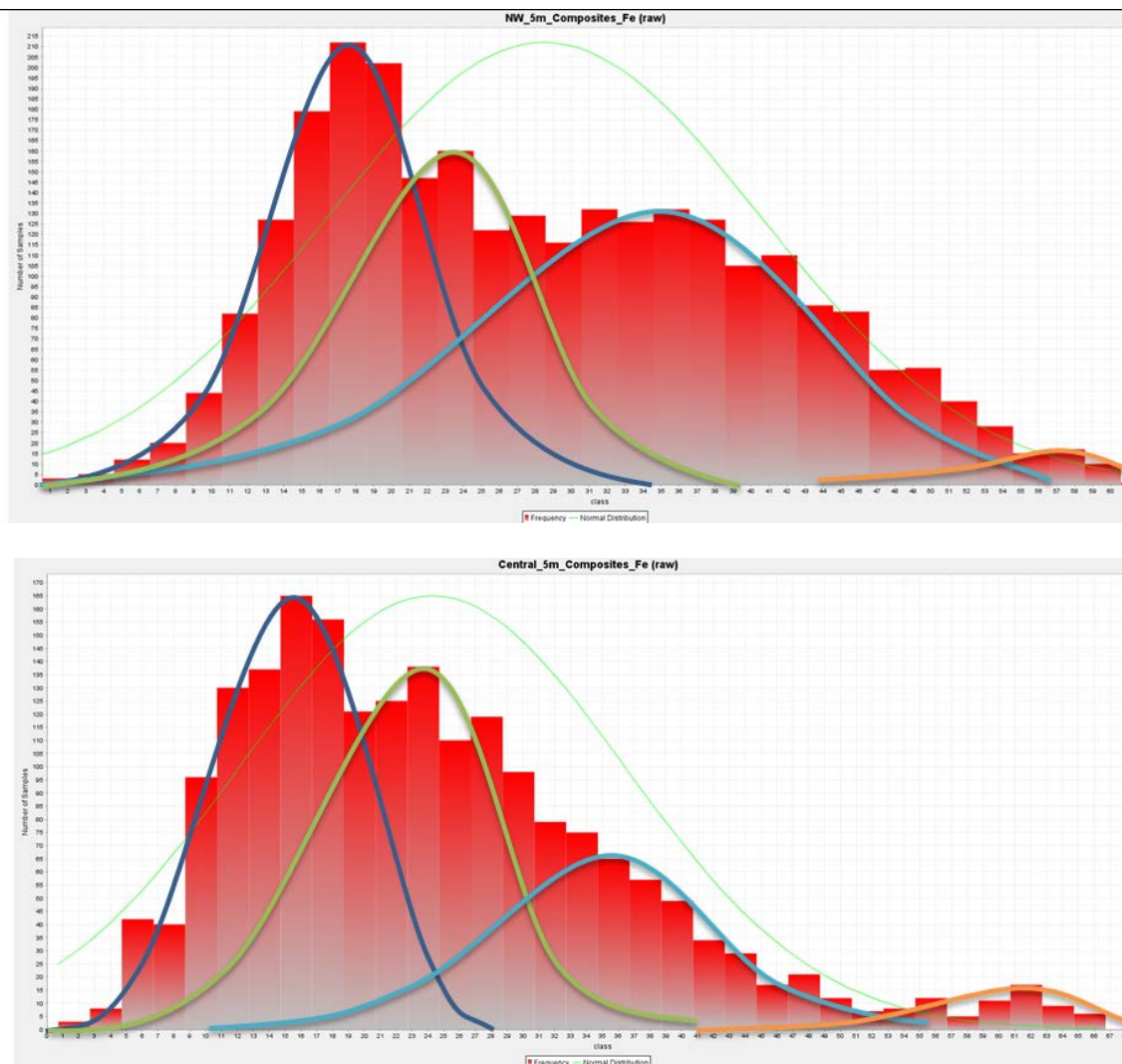


Figure 24: Comparison of mineralization events between the Northwest and Central Deposits

7.4.2 Host rocks

The deposits are enclosed in a package of carbonate sediment, basic volcanic rocks and tuffs with porphyritic granitoid and dioritic intrusions and dykes. The immediate host rocks are skarns which usually envelope mineralized zones and are extensively developed between mineralized zones. The most widely developed are pyroxene and pyroxene-garnet skarns.

Mineralized bodies of the Northwest Deposit lie in contact with limestone and tuffites of the Sokolovskaya suite. They are accompanied with aureole of garnet-pyroxene skarns, making up a single skarn and iron mineralization zone.

7.4.3 Controls

The NNE-trending orientation of the arc and major regional faults due to sinistral transpressional strike-slip faulting resulting from the oblique ocean closure and continent-continent collision (and secondary faults) resulted in probable pathways for mineralising fluids. The carbonate sediments of the Valerianovo supergroup (e.g. limestone tuffites and limestone) exert a lithological control on mineralization. Close proximity to the plutonic gabbro-diorite-granodiorite bodies of the Sarbai-Sokolovsk complex are not considered relevant, as deposits such as Kachar, are some distance from them.

7.4.4 Alteration

In general the alteration assemblage is typical of skarns, i.e. calc-silicate minerals such as wollastonite, actinolite-tremolite, andradite (garnet), diopside-augite (pyroxene) and scapolite, followed by sodic-potassic alteration in the form of K-feldspar, albite and scapolite.

Hawkins (2010) reports that alteration appears to be generally zoned outward from the main Sarbai-Sokolovsk intrusive as:

- Biotite-albite-scapolite in volcanic hosts.
- Garnet-pyroxene skarn in the footwall of the magnetite mineralization.
- Skarn mineralization (magnetite and scapolite) in the carbonate hosts.
- Scapolite-pyroxene alteration.
- Pyroxene skarns in the hanging wall.
- Outer, hornfels and albitised volcanic country rocks.

7.4.5 Dimensions and continuity

To date there are two areas of mineralization, the Northwest Deposit and the adjacent Central Deposit. Neither deposit outcrops (Figure 22, Figure 23) as both deposits are covered by about 100 m of overburden.

The Northwest Deposit contains stratabound magnetite mineralization along the contact between lower sedimentary (limestone) and upper volcanic-sedimentary (tuffite) members of the Sokolovsky suite. The mineralization is surrounded by an envelope of garnet-pyroxene skarns and forms a single skarn-mineralization zone that can be traced over 1,200 m along strike in a south-western direction, and down dip to a depth of 1,600 m with an average mineralization body thickness of about 100 m.

The Central Deposit has a complex multi-domain structure due to the widespread influence of diorite intrusions and faulting. Mineralized bodies are defined by gradation in intensity from full skarn replacement to disseminated and partial replacement. The border between them is determined by chemical composition. Mineralized bodies are predominately of seam-like and lenticular shape. Dip angles vary from vertical to 300° for individual mineralized bodies. Average thickness of mineralized bodies is highly variable. The Central Deposit is more irregular than the Northwest Deposit but mineralization is contained within an area traced along strike over 2,300 m and to a depth of 200 to 600 m in the north, and to 800 m in the south, although depth extent is poorly tested in most areas due to the complexity of the deposit.

The Northwest Deposit appears to have a more consistent continuity whereas the Central Deposit appears relatively more discontinuous; however both deposits remain to be drilled out and the dimensions and continuity are not fully defined.

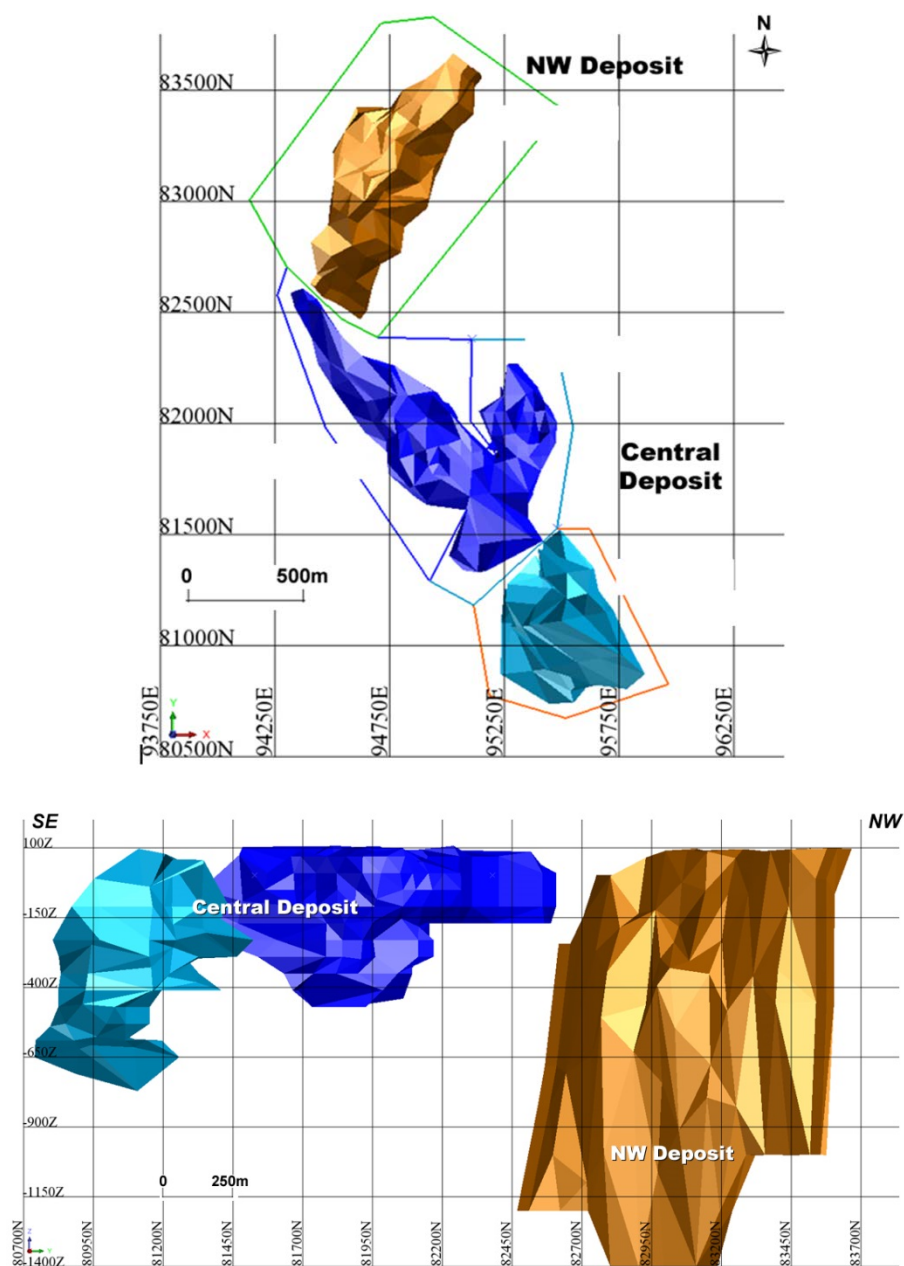


Figure 25: Plan and long section view of the Lomonosovskoye Iron Deposit

8 DEPOSIT TYPES

The Lomonosovskoye deposit and other magnetite deposits in the Valerianovskoe arc are generally referred to as iron skarn deposits.

8.1 Classification

“Skarn” and “skarn deposit” are descriptive terms based on mineralogy and free of genetic implications. There are many definitions and usages of the word “skarn”. Skarns can form during regional or contact metamorphism and from a variety of metasomatic processes involving fluids of magmatic, metamorphic, meteoric, and/or marine origin. They are found adjacent to plutons, along faults and major shear zones, in shallow geothermal systems, on the bottom of the seafloor, and at lower crustal depths in deeply buried metamorphic terrains. What links these diverse environments, and defines a rock as skarn, is the common garnet and pyroxene mineralogy.

Skarns generally result from the early high temperature ($> 500^{\circ}\text{C}$) alteration of limestone (or other carbonate rocks) resulting in a mineralogy dominated by calc-silicate minerals such as garnet and pyroxene, followed by a lower temperature ($< 400^{\circ}\text{C}$) retrograde alteration.

There is a general pattern of zoning of proximal garnet, distal pyroxene and minerals such as wollastonite, or massive sulphides and/or oxides, near the marble front.

Skarns that contain mineralization are termed skarn deposits and are generally classified based on dominant economic metal. The seven major skarn deposit types are Fe, Au, Cu, Zn, W, Mo and Sn. Plutons associated with Fe and Au skarns contain significantly more MgO and less SiO_2 and K_2O (Meinert et al, 2005).

Iron skarns

Iron skarns are mined for their magnetite content although minor amounts of Cu, Co, Ni and Au may be present. These deposits are typically very large with $> 1,000 \text{ Mt}$ and $> 500 \text{ Mt}$ contained Fe.

The skarn minerals consist dominantly of garnet and pyroxene with lesser epidote, ilvaite, and actinolite. Alteration of igneous rocks is common with widespread albite, orthoclase, and scapolites veins and replacements. When wallrocks are magnesium-rich (e.g. dolomite), the main skarn minerals are forsterite, diopside, periclase, talc and serpentine.

IOCG (Iron Oxide Copper Gold/Iron Oxide Alkali Altered)

The question of whether iron skarns also fall under the classification of Iron Oxide Copper Gold (IOCG) deposits is implicitly questioned in Herrington et al (2002), raised again in Herrington et al (2005) and discussed in Williams et al (2005). Williams et al (2005) suggested that a deposit must have economic copper to be included in the category.

Porter (2000) suggested that IOCG does not represent a single style or a common genetic model, but rather a family of loosely related mineralization that shares a pool of common characteristics, the principal common feature being the abundance of low-titanium iron oxides. Pollard (2000) further discussed the variety of characteristics and factors for this diversity.

Porter (2010a) introduced the term “iron oxide-alkali altered” mineralized systems that included IOCG deposits and similar deposits that also have abundant related hydrothermal iron oxides and associated alkali alteration, but are copper-gold deficient. This includes the iron skarns of the Valerianovskoe arc.

This compares with Groves et al (2010) who used the term “iron-oxide associated” to include IOCG, iron oxide apatite, iron skarns and other related deposits. Although the criteria of Meinert et al (2005) discussed above is clear, Porter (2010a) reasons that as IOCG and related mineralization are the products of interaction between host protoliths and hot, saline to hypersaline, volatile-rich fluids, should those protoliths be calcareous, then a skarn alteration assemblage would be expected.

Hawkins et al (2010) agree stating that the iron skarns of the Turgai belt exhibit many of the characteristics of IOCG-style mineralization, including significant early iron oxide (low Ti magnetite) deposition, followed by a late copper sulphide phase, association with extensive alkali metasomatism and a broad space-time association with batholithic intrusive masses.

In summary, the Valerianovskoe iron skarns are regarded as IOCG-related deposits by Hawkins et al (2010), iron oxide associated by Groves et al (2010) and iron oxide alkali altered by Porter (2010a) and Porter (2010b).

8.2 Valerianovskoe Arc Iron Skarns

The iron skarns of the Valerianovskoe arc are related to the gabbro-diorite-granodiorite igneous bodies of the Sarbai-Sokolovsk and Sulukolskaya complexes (interpreted from geophysics to have batholithic proportions at depths of 2 km) emplaced during the closure of the Uralian ocean and subsequent continent-continent collision. The mineralization zones of the deposit form a series of stacked, stratabound, massive magnetite lenses and may also contain up to 10 % each of hematite and sulphides. Gangue minerals include albite, K feldspar, garnet, pyroxene, scapolite, calcic-amphiboles, chlorite, epidote, calcite, wollastonite and gypsum.

The timing of alteration can be subdivided as follows (Figure 26):

1. Pre-mineralization phase: This phase is characterised by silicification, calc-silicates and low grade metamorphism of the limestone host rock. Wollastonite, calcic-amphiboles (tremolite and actinolite), calcic-pyroxenes, apatite, quartz and calcite are associated with this phase. Textures included fine grained, euhedral pyroxenes within the limestone giving a green tint to an otherwise unaltered appearance to the limestone.
2. Ore phase which can be subdivided as:
 - a. Skarn stage, replacing limestone: This stage typically contains calc-and alumina-silicates, massive iron oxide mineralization and minor iron rich sulphides. The vast majority of magnetite mineralization is formed during this phase at temperatures >500°C and characterised by intergrown coarse epidote, calcic-pyroxenes (augite and diopside), calcic-garnet (andradite), calcic-amphiboles (tremolite and actinolite), magnetite, calcite, and pyrite with minor titanite (a calcium titanium silicate) and apatite (Figure 27 A & D). Alteration has obliterated primary rock textures. The massive magnetite lenses formed in this stage are bedding parallel.
 - b. Late sulphide stage: This stage is characterised by an evolving sequence of sulphide minerals, hosted by calcite, and associated with extensive sodic and potassic alteration. The sulphide-rich calcite veins contain sparry white calcite, albite, magnetite and minor quartz, and carry very fine sulphides, including pyrite, chalcopyrite, sphalerite, galena and arsenopyrite (Figure 27 B). The gangue mineralogy also includes scapolite and chlorite. Sulphide rich alteration zones can contain up to 10 % each of chalcopyrite and pyrite. Fine veinlets of galena are deposited last. Other late stage minerals include trace silver telluride, coarse gypsum veins as well as barite with associated cuprite.
 - c. Chlorite stage: This stage is characterised by coarse grained sparry calcite veins that host coarse euhedral magnetite and coarse specularite (specular hematite) with a chlorite rich selvage. There is also development of widespread disseminated chlorite. Temperature of vein formation is estimated at 350 – 350°C.
3. Post mineralization phase: This phase is distinguished by coarse, cross-cutting veins which contain varying amounts of calcite, K feldspar and albite, and are barren of any metal bearing minerals. It is widespread, surrounding the deposits and extending for several kilometres into the host rock. It is characterised by coarse, euhedral scapolite (Figure 27 C) and albite porphyroblasts (scapolite & albite = sodic alteration), and by silicification of the host limestone. Temperatures are estimated at 100 – 140°C.

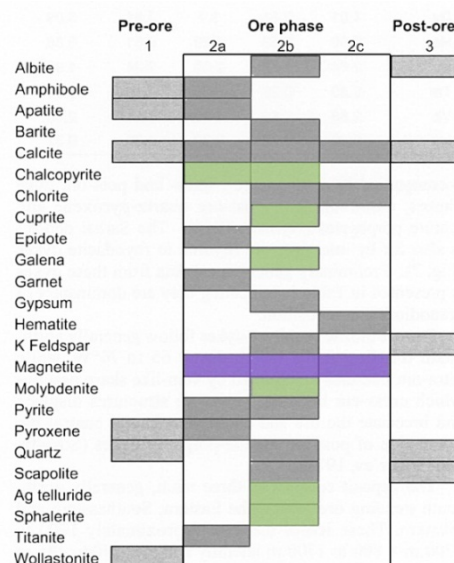


Figure 26: General paragenesis for the Valerianovskoe iron skarns
(Source: Hawkins et al, 2010)

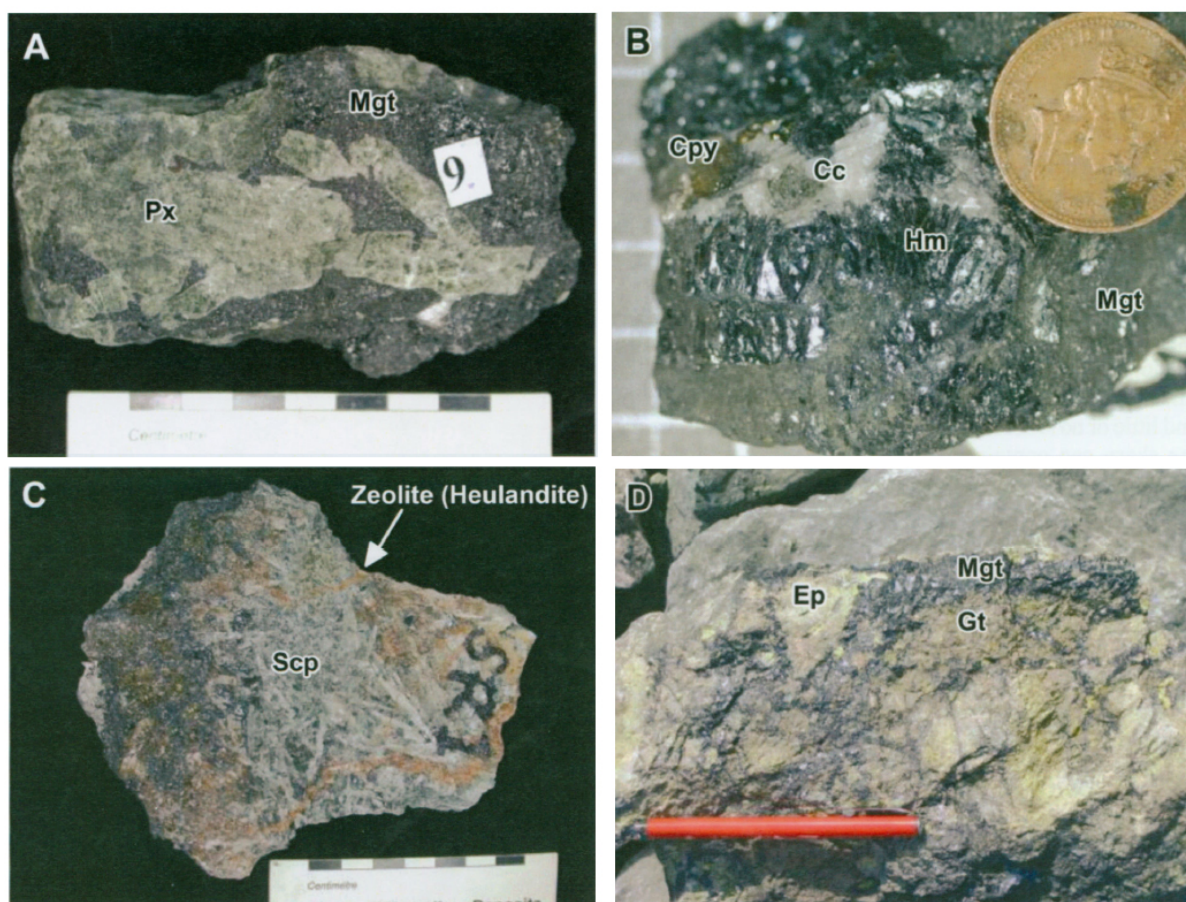


Figure 27: Alteration assemblages.

A: magnetite (Mgt) & calcic-pyroxene (Px) from the *skarn stage*. **B:** sulphide-rich calcite vein with massive magnetite & vugh fill of calcite (Cc), hematite (Hm) & chalcopyrite (Cpy), from the *late sulphide stage*. **C:** blocky magnetite on the left (*chlorite stage*), & coarse scapolite on right from the *post-mineralization phase*. **D:** skarn alteration in limestone with magnetite, garnet (Gt) & epidote (Ep) from the *skarn stage*.

(Source: Hawkins et al, 2010)

9 EXPLORATION

Exploration to date is all considered historical and is described above in Item 0.

Aside from reviewing historical material (IMC Montan, 2010), KMI have not completed any non-drilling exploration such as airborne, ground or down hole geophysical surveys within the contract area. The deposits are covered by deep cover rocks and geochemical surveys have not been conducted.

10 DRILLING

KMI completed twenty two (22) diamond drill holes from 2010-2012 to help validate the historical drilling and infill along existing drill lines (Figure 28, Table 9). In the Northwest Deposit at total of twelve (12) drill holes were completed with the drill holes angled to best intercept historical drilling. In the Central Deposit a further ten (10) vertical drill holes were completed. In total 9,049m of drilling and 2,174 samples sent for assaying. Comparisons between the historical and current drilling have been made for the iron content in all regions.

In 2013 KMI completed a further 40 drill holes for a total of 11,580.8 m (Table 9). Twenty two of these holes were for hydrological and geotechnical studies. At the time of writing this report drilling is ongoing at the project. The final assay and QAQC results from 2013-2014 drilling were not available for inclusion in this revised mineral resource estimate and will be incorporated into subsequent estimate updates.

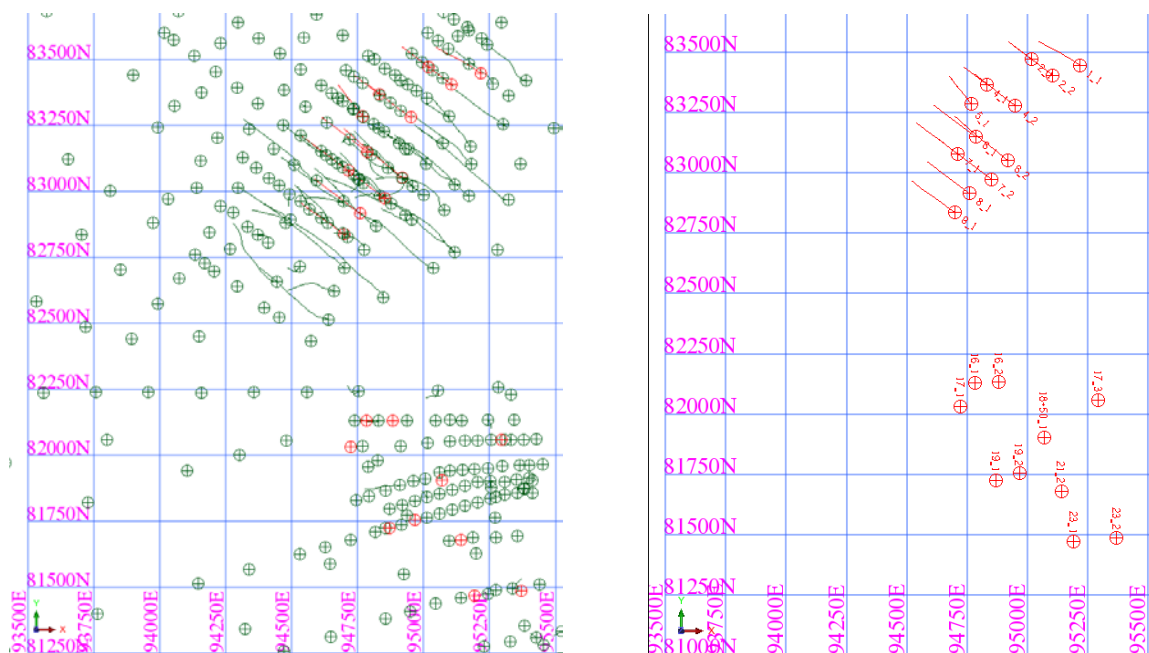


Figure 28: Historical and current drill collars with 2012 drilling in red.

Table 9. Drilling statistics for the project.

Period	Number of Holes Drilled	Total Metres Drilled	Comment
not recorded	204	100,231.2	Historical
1950-1959	109	26,343.9	Historical
1960-1967	98	37,607.3	Historical
2010	3	828.7	KMI
2011	2	1,042.5	KMI
2012	17	7,179.6	KMI
2013	18	6,810.8	KMI – results not available
2013	22 (geotechnical and hydrological)	4,770.0	KMI – results not available

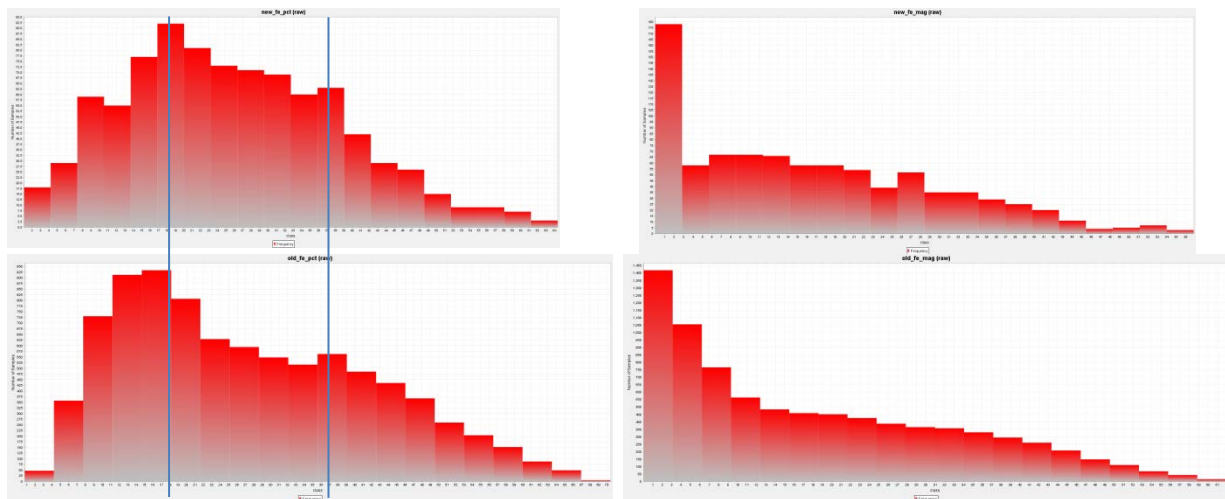
10.1 Accuracy & Reliability

In terms of the historical drilling, the core recovery for mineralization and enclosing rocks as recorded was generally good, i.e. not less than 80% (the GKZ, State Commission on Reserves requires not less than 70% recovery). However, IMC Montan (2010) noted that at least 14 boreholes were recorded as being substandard in terms of core recovery. Also noted by IMC Montan, a number of the historical holes were drilled down dip therefore the true thickness requires review. These issues will need to be taken into consideration when validating the historical database during upcoming mineral resource estimation when the current drilling program is completed.

Initial results from the recent drilling (2010-2012) correlate well with the historical drilling. The review of the new confirmation drilling data has determined the following:

- The current drilling has confirmed the location and thickness of the mineralized zones intersected by the historical drilling in the sections recently drilled.
- The new drilling has confirmed that the tenor of the mineralization (as illustrated by the matching colour coding in sections in Figure 32); that is, current assay results indicate historical assays are of similar values.
- Where additional sampling does overlap historical un-sampled intervals the grade has dropped but still holds some mineralization which is within the economic cut-off grade.
- The iron and magnetite values of the old and new drilling are similar, except for a possible smearing of grades due to large sample intervals in the low grade, disseminated mineralization in the old drilling.

A preliminary correlation analysis has been carried out to compare the total Iron (Fe) and Magnetite (FeM) results in both historical and current drilling. Due to the selective sampling used in the historical drilling, direct comparisons (i.e. matching sampled intervals in twin holes) are not possible.



Iron: Current (top) and Historical (bottom)

Magnetite: Current (top) and Historical (bottom)

Figure 29: Histogram comparison of old and new iron and magnetite

Basic histograms show similar distributions, with two peaks for iron (one at 18 and one at 38, Figure 29) and good comparison of values above 18 % Fe but evidence of different patterns below this number. The new data shows a third, lower peak around 10% Fe but the old data a large broad population around this level not seen in the new data. There was little emphasis placed on this low grade domain in the old work, sample intervals were longer, and this may explain the differences. Higher grade areas compare well. The same result is seen in the magnetite comparisons.

Q-Q plots have been used to compare the historical data and current drilling data (Figure 30). Q-Q plots compare the assay data distributions by quartile where the percentiles from each data set are plotted against each other. It is essentially a plot of sorted data set 1 against sorted data set 2. Q-Q plots are used to compare non-twinning data. If the two distributions being compared are similar, the

points in the Q–Q plot will approximately lie on the 1:1 line. If the distributions are linearly related, the points in the Q–Q plot will approximately lie on a line, but not necessarily on the 1:1 line.

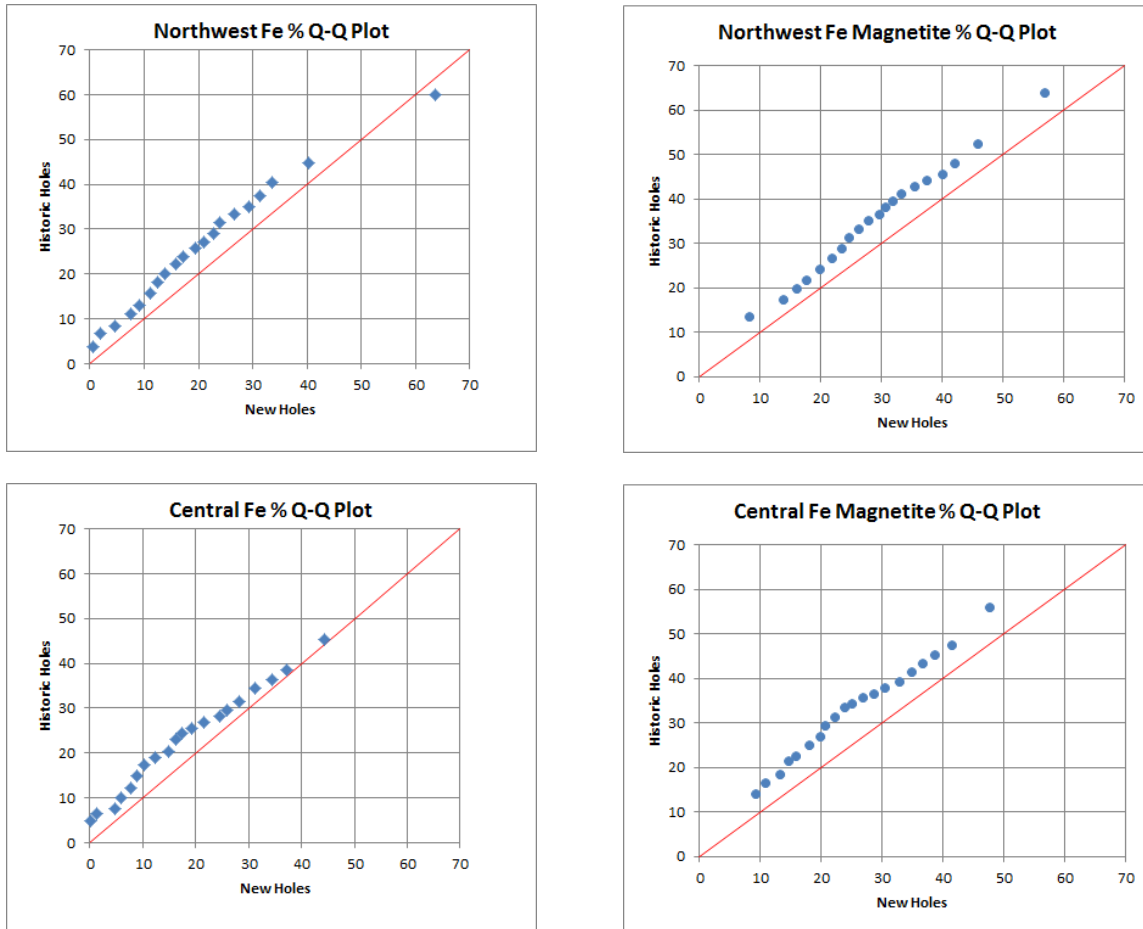


Figure 30: Q-Q plots for Iron and Magnetite at both the Northwest (top left and right) and Central (bottom left and right) deposits

MA would consider that the difference in both deposits is due to the problems discussed above with the low grade sampling creating a shift in the QQ plots.

MA notes whereas the Central Deposit Q-Q graph for FeMag % is similar to that for the Northwest Deposit. The Q-Q plot for the Fe% results also shows positive bias seen in Northwest Deposit comparison however indicates less bias for highest grades.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The Sampling and Processing Flow Chart is shown in Figure 31. Core from the current drilling was sampled according to geological/mineralogical boundaries at no less than one metre intervals within the selected zones. All core was sawn in half or quarters using a diamond saw along orientation lines drawn by the geologist. Sample numbers along with the hole and intervals were recorded in a log book by the saw operator and input into the appropriate worksheets by the geologist. Blanks were inserted after each 20 sample interval, using a stockpile of unmineralized core, whereas, duplicates were added after each 25 sample interval, where possible within mineralized zones.

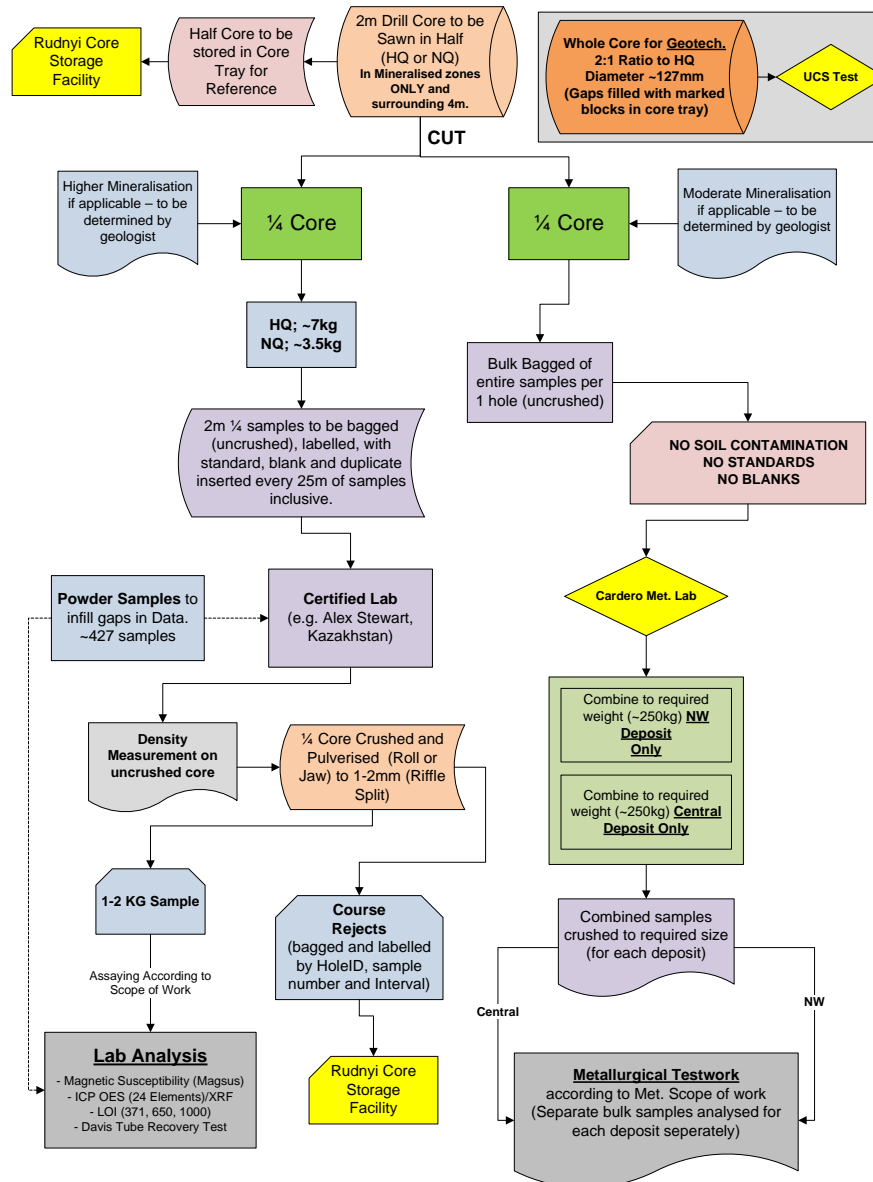


Figure 31: Sampling and Processing Flow Chart

A stockpile of certified standard samples was purchased from a reputable standard distributor for iron ore deposits. The standards were packed as 100gm quantities into sealed foil envelopes. These have been inserted into the sample stream after each 20th sample (including normal samples, blanks and duplicates in that 20-sample tally).

Standards were purchased from Geostats who are based in Perth, Western Australia and delivered to site. The standards were selected based on the characteristics of the standard matching the characteristics of the lithology and mineralization being drilled. They are similar in colour, mineralogy, oxidation and grades of the various metals being tested. Various grades should be selected at and around the perceived lower economic grade cut-off, the average grade, and the upper grades (but less than the high cut-off grade) of the deposit.

An international certified laboratory should complete all samples. The lab would have standard procedures to process the provided samples. Standard procedures include coding and weighing of the received samples, crushing and pulverisation, washing and rifle splitting.

Sample preparation and analysis methodology (Table 10) is provided as a “scope of work” from a reputable consulting Metallurgist and should include:

- Elements to be tested for and analytical methods to be used;
- A regime for the routine collection of Magnetic Susceptibility (Magsus) readings on the pulps, using a standard method in a controlled environment;
- Davis Tube Recovery tests on all sample intervals;

Table 10: Summary Table of the Assay Suites and samples taken for current drilling				
HoleID	Date Received	Total No. of Samples	Testing Methods	Elements Tested (including density)
1_1	Nov 2012	41	Davis Tube, ICP-MA, ICP-BF	Density, LOI, Fe(mag), Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, Hg, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Ti, Tl, V, W, Y, Zn, Zr
16_1	Oct 2012	70		
16_2	Oct 2012	93		
17_1	Feb 2012	78	Chemical & Spectral	Fe, Fe(mag), FeO, S, P, Sb, Mn, Pb, Ti, Zr, As, W, Cr, Ni, Bi, Ba, Be, Mo, Sn, V, Cd, Cu, Y, Zn, Ag, Co, Sr, B*
17_3	Oct 2012	146	Davis Tube, ICP-MA, ICP-BF	Density, LOI, Fe(mag), Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, Hg, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Ti, Tl, V, W, Y, Zn, Zr
18_1	Nov 2012	140		
19_1	Nov 2012	159		
19_2	Nov 2012	92		
2_1	Feb 2012	19	Chemical & Spectral	Fe, Fe(mag), FeO, S, P, Sb, Mn, Pb, Ti, Zr, As, W, Cr, Ni, Bi, Ba, Be, Mo, Sn, V, Cd, Cu, Y, Zn, Ag, Co, Sr, B*
2_2	Nov 2012	16	Davis Tube, ICP-MA, ICP-BF	Density, LOI, Fe(mag), Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, Hg, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Ti, Tl, V, W, Y, Zn, Zr
21_2	Nov 2012	36		
23_1	Oct 2012	34		
23_2	Nov 2012	35		
4_1	Feb 2012	23	Chemical & Spectral	Fe, Fe(mag), FeO, S, P, Sb, Mn, Pb, Ti, Zr, As, W, Cr, Ni, Bi, Ba, Be, Mo, Sn, V, Cd, Cu, Y, Zn, Ag, Co, Sr, B*
4_2	Nov 2012	92	Davis Tube, ICP-MA, ICP-BF	Density, LOI, Fe(mag), Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, Hg, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Ti, Tl, V, W, Y, Zn, Zr
5_1	Oct 2012	61		
6_1	Feb 2012	70	Chemical	Fe, Fe(mag), S, P
6_2	Nov 2012	66	Davis Tube, ICP-MA, ICP-BF	Density, LOI, Fe(mag), Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, Hg, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Ti, Tl, V, W, Y, Zn, Zr
7_1	Nov 2012	164		
7_2	Nov 2012	79		
8_1	Nov 2012	117		
9_1	Oct 2012	91		
Powder Samples	Oct 2012	427		

12 DATA VERIFICATION

12.1 Data verification procedures

12.1.1 Site visit

Mr Vigar conducted a site visit from 26th to 30th March 2012. The visit consisted of visiting the laboratory in Karaganda, visiting the drill site of the current confirmation drilling program, inspecting drill core and the core storage in Rudniy and talking to the site geologists Sergey Debrov and Genadyi Shistak. The Karaganda lab was proposed to conduct the geological assaying for the project's requirements, however, it was decided following the visit that the laboratory was unable to meet the international standards required and a second laboratory in Moscow, (Stewart Group) was chosen instead.

Mr Vigar also conducted a site visit from 3rd December to 9th December 2013. Time was spent with the site geologists to discuss and understand in detail the geology and problems associated with sampling, preparation, its logistics and requirements of Kazakh and international certified laboratory analyses.

MA visited current drill sites (Photo 5, Photo 6), located an historical drill collar (Photo 4), examined the core shed and core storage (Photo 7), original report files, and viewed and examined mineralized core (Photo 9, Photo 10). MA also visited the adjacent SSGPO operations (Photo 2, Photo 3, Photo 11 and Photo 12).

Due to the thick overburden, there is no outcrop to view.



Photo 4: Drill collar of historical DDH 414
 (Source: MA 2011)

12.1.1.1 Drill Site – DDH 7-2. DDH 16-1

MA representatives visited (Photo 5) to observe drilling start-up, and progress (Photo 6). The first hole viewed was DDH 7-2, which was drilled towards 310 degree azimuth at -60 degrees dip. The drill site is located in the Northwest Deposit. Elevation of the area is approximately 270 m RL and very flat. The rig used is a hydraulic Boart Longyear rig, a conventional wire-line diamond core rig which was enclosed due to the cold weather.



Photo 5: Core rig facing north – Drill hole DDH-7-2
(Source: MA 2011)

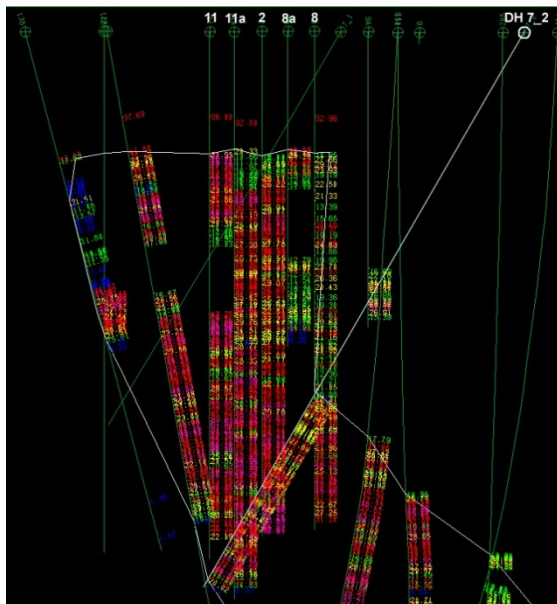


Photo 6: Drill hole DDH-16-1, looking north
(Source: MA 2012)

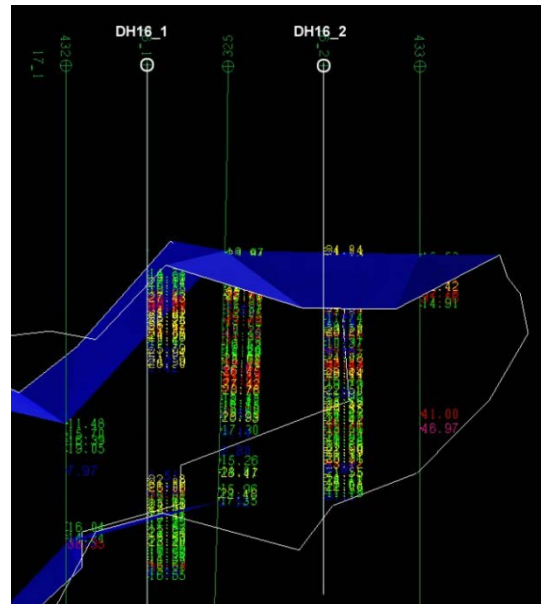
The closest historical collar to DDH 7-2 was historical DDH 414, but due to the inclination of DDH 7-2, this is some way off in terms of the location of the mineralized zone. Historical drill holes DDH 11, 11a, 2, 8 and 8a are all in close proximity to the drill stem of DDH 7-2 (Figure 32). DDH 16-1 is located in the Central Deposit.

The drilling procedures were observed and drill core recovery appears to be satisfactory. .

In order to further strengthen the confidence in the historical data against what is highlighted in Section 10.1 above and in Figure 32 below, MA have proposed four (4) holes be drilled as twin holes to directly compare the historical drilling. At this point historical drill holes DDH 174 and 11a from the Northwest Deposit as well as DDH 59 and 1 from the Central Deposit have been recommended due the large amount of continuous sampling that has been carried out previously within the mineralized zone.



Confirmation Hole 7-2 (Northwest Deposit)



Confirmation Hole 16-1 & 16-2 (Central Deposit)
Note: un-sampled intervals within 16-1.

Figure 32: Comparison of 2012 drill program iron assay results against historical

12.1.1.2 Core storage facility

MA noted that the current core storage facility is inadequate for the planned 4,270 m drill program, and can only be considered as a temporary solution to store the core (Photo 7). KMI will look at acquiring some of the available housing near the Lomonosovskoye Project site which will be used to store the core.



Photo 7: Lomonosovskoye Project Core storage
(Source: MA 2011)



Photo 8: Drill core from DDH 16-1 at about 280 m
(Source: MA 2012)

12.1.2 Independent samples

No independent samples were collected due to the inability to deliver iron samples through the local customs clearance. The historical and new drill core was viewed (Photo 7, Photo 8) and evidence of iron mineralization noted (Photo 9, Photo 10).



Photo 9: Mineralized core – historical DDH C21-2
(Source: MA 2011)

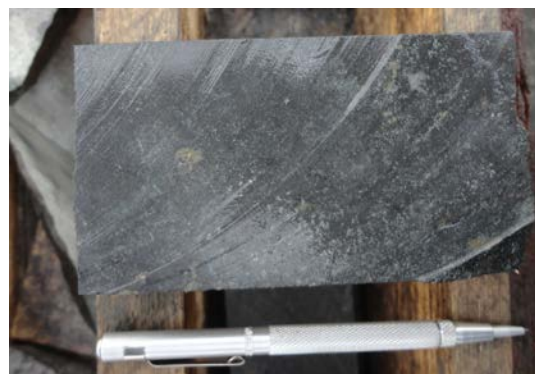


Photo 10: Mineralized core – new hole DDH 7-2
(Source: MA 2012)

12.1.3 Database verification

The database was reviewed for all new and existing historical data relevant to the areas of mineral resource estimation described in this report. A list of duplicates was cross examined against the current database for missing samples in order to add additional assay results and verify historical drilling records. Repeated samples and overlaps were removed from the database for modelling and estimation purposes.

12.2 Limitations on verification

No independent validation sampling was conducted by MA due to the inability to export samples for assaying in an independent laboratory outside Kazakhstan on a timely manner. However mineralization was observed in the historical and new drill core (Photo 9, Photo 10).

12.3 Opinion on adequacy of data

As previously discussed using the basic statistics and Q-Q plots alongside a visual inspection of validation against historical drilling, there does seem to be a basic correlation which gives a good confidence in the historical assays. Further drilling and test work in twinned holes which is planned for 2013-2014 will further assist in our confidence levels of the historical data.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

Lomonosovskoye iron mineralization will be concentrated in a beneficiation plant to separate its magnetite content to obtain concentrate, pellet or other value added product for sale to customers. The metallurgical testing carried out in Soviet times has provided some process parameters to design the preliminary processing route and main beneficiation plant technology for Lomonosovskoye deposits.

The confirmation drilling program executed between 2010 and 2012 has provided some core samples to carry out new metallurgical tests works. These are underway and results are expected in 2014.

13.1 Sample selection criteria

The criterion to select metallurgical samples focuses on the first 5 years of the production mine plan. This plan is the outcome of a scenario planning analysis, which has allowed management to select the scenario, which gives the best combination of value and risk – a beneficiation plant of 16 Mt/y. The plan view of the mine at the end of Year 5 (Period 7) together the collar coordinates of the confirmation drill holes are shown in Figure 33.

13.2 Drill hole identification for metallurgical sampling

Required procedures and methods for logging, core cutting, sampling and transport are described in Section 10 and 11 of this report. The objective here is to identify the boreholes and intervals where samples should be taken to obtain around 250 kg of sample for the Northwest and Central deposits.

Table 11 indicates the boreholes considered for sampling in each deposit, including a weighting factor for sample preparation:

Table 11: Drill holes for metallurgical samples			
Deposit	Borehole	Weighting	Interval (m)
Northwest	4-1	10%	135.5 – 193.6
Northwest	4-2	20%	130.0 – 350.0
Northwest	5-1	50%	135.0 – 305.0
Northwest	6-1	20%	130.0 – 350.0
Central	16-2	15%	100.0 – 150.0
Central	17-3	20%	100.0 – 170.0
Central	18-1	50%	100.0 – 200.0
Central	19-2	15%	100.0 – 160.0

The weighting factor is a visual approximation that considers the location of the borehole within the 5-year volume. In the Central deposit, for instance, borehole 18-1 crosses the volume close to its centre whereas the other boreholes, 16-2, 17-3, and 19-2, are in the periphery of that volume.

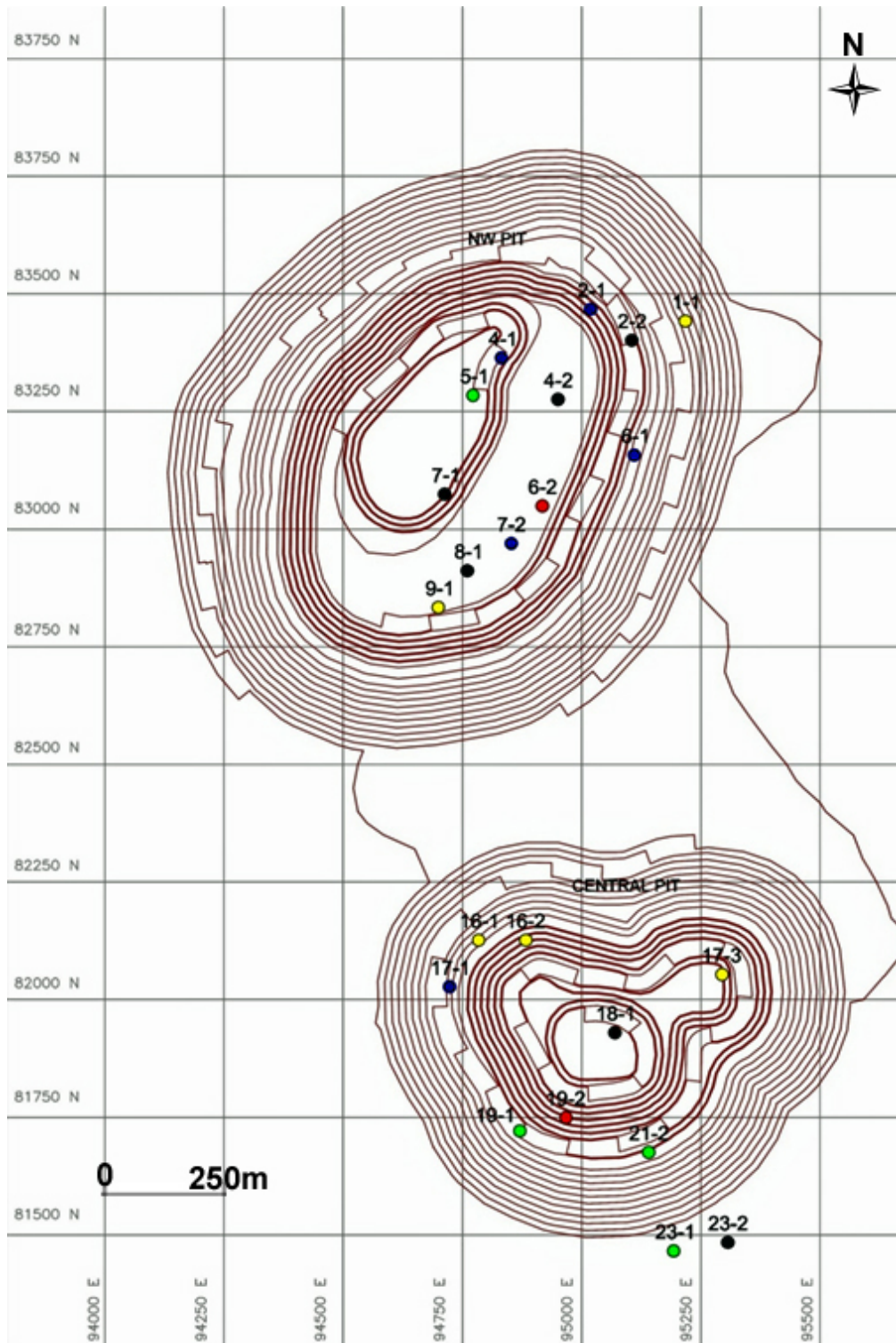


Figure 33: End of Year 5 production (Period 7) scenario and location of borehole collars

13.3 Sample preparation

Samples taken from the core intervals suggested in Table 11 were mainly mineralization. This was verified using chemical assays, when available, logging data, and magnetic susceptibility measurements. To simulate the open pit operation, samples were taken considering the open pit bench height, that is, about 10 m length for vertical holes and its equivalent for inclined ones. The weighted average grade of the whole sample was defined to be greater than 20 % Fe total, which is

the cut-off grade for the first 5 years of the production plan. This means 10-metre samples for vertical holes may contain waste or low-grade mineralized rock. This is akin to the internal dilution concept of selective mining units, SMU, or block size in open pit mining operations – where internal waste cannot be separated from the mineralization.

The average grade for the first 5 years of the production plan is 28.5 %Fe total – 29 %Fe total for the Northwest Deposit and 27.8 %Fe for the Central North Deposit. These were the targeted grades to ideally achieve with the 250-kg sample for each sector.

13.4 SGS mineral services preliminary results

Preliminary results are available for testwork conducted by SGS Mineral Services (Ontario) in 2014 on samples from the Northwest and Central deposits showed that a final grind size of 100% passing 75 microns was necessary to achieve a concentrate grading 65% Fe or higher. Flow sheets combining magnetic separation were employed to generate the final concentrates and the Northwest Deposit samples were shown to recover ~30% weight and Fe: 60-65% to the final concentrates, while the Central zone samples were shown to recover ~35% weight and Fe: >65% to the final concentrates. The difference in weight and iron recoveries between the two zones is expected due to the difference in magnetite head grade between the two zones at approximately 30% and 35% Satmagan respectively.

Additional testwork is currently being conducted to further establish the metallurgical performance of samples from both zones.

14 MINERAL RESOURCE ESTIMATES

This revised estimate for the Lomonosovskoye Project is based on the same drill database as used in the report prepared in compliance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"), which was dated December 18, 2012 (and resubmitted on SEDAR on May 9, 2013) (the "December 2012 report"), but with a re-interpretation of the geological and geophysical data and an estimation method that includes an allowance for bulk open-pit or underground mining.

Two main deposits, the Northwest and Central deposits have been drilled from surface with diamond and RC drilling. Drill access is dictated by topography and cleared drill sites. Original resource estimates carried out by IMC Montan in July 2010 clearly separated the two areas of mineralization based on the following assessments:

"Mineralization occurrence in the NW Site is represented by relatively high-temperature, early metasomatic formations along the contact between lower sedimentary (limestone) and upper volcanic-sedimentary (tuffite) members of the Sokolovsky Suite. The ore is surrounded by garnet-pyroxene skarns and forms a skarn-ore zone that is over 1,200 m along strike in a south-western direction (azimuth 220°), and down dip to a depth of 1,600 m with an average ore body thickness of 112 m. The site has a complex block structure due to the widespread development of disjunctive faults. The NW ore alternates with mineralized skarns and metasomatites. The border between them is determined by chemical composition. Ore bodies are predominately of seam-like and lenticular shape. Dip angles vary from 50° to 70° in the upper parts of the cross-section (to an elevation -600 m), to nearly vertical at depth (Figure 3-2). Average thickness of ore bodies varies from 17.5 to 142.0 m, with a minimum of 6.4 m and maximum of 303.4 m.

Mineralization in the Central Site formed later than ores in the NW area and is represented by stockwork-like bodies of vein breccia and vein magnetite ores associated with a fractured zone 10-100 m thick along the contact between a diorite intrusion and the host volcanic rocks of the Kurzunkulsky Suite. Ore bodies have irregular short prism or nest-like shapes. The zone is traced along strike over 1,600 m and to a depth of 600 m in the north, and to 900 m in the south. Average thickness of the ore bodies varies from 13.5 to 68.0 m, with a minimum of 10.3 m and a maximum of 139.0 m."

MA is in broad agreement that the two areas of mineralization are indeed separate events and therefore treated them as separate deposits for modelling purposes, however in the central zone mineralization was bulked together and treated as more continuous zone of mineralogy than that considered by IMC Montan in July 2010.

14.1 Approach

Historical drilling data obtained between the 1950's to the 1980's and twenty-two (22) confirmation drill holes completed in 2010 through 2012 were used to re-interpret and re-estimate the resource at the Lomonosovskoye Iron Project.

The 2014 mineralization domains were redefined by 3D wireframes using drill assay data, detailed geology logs and down-hole magnetic susceptibility logs. The deposit was divided into 7 mineralization domains based on the mineralogy of the skarn mineralization and continuity in 3D. A nominal 10% Fe cut-off grade, in conjunction with lithological logging, was used to define these 7 domains.

Mineralized domains were divided into blocks above and below 20% Fe using an indicator approach. Grades and mineralization percentages were then estimated by Ordinary Kriging into blocks 15x15x10m in size within each domain.

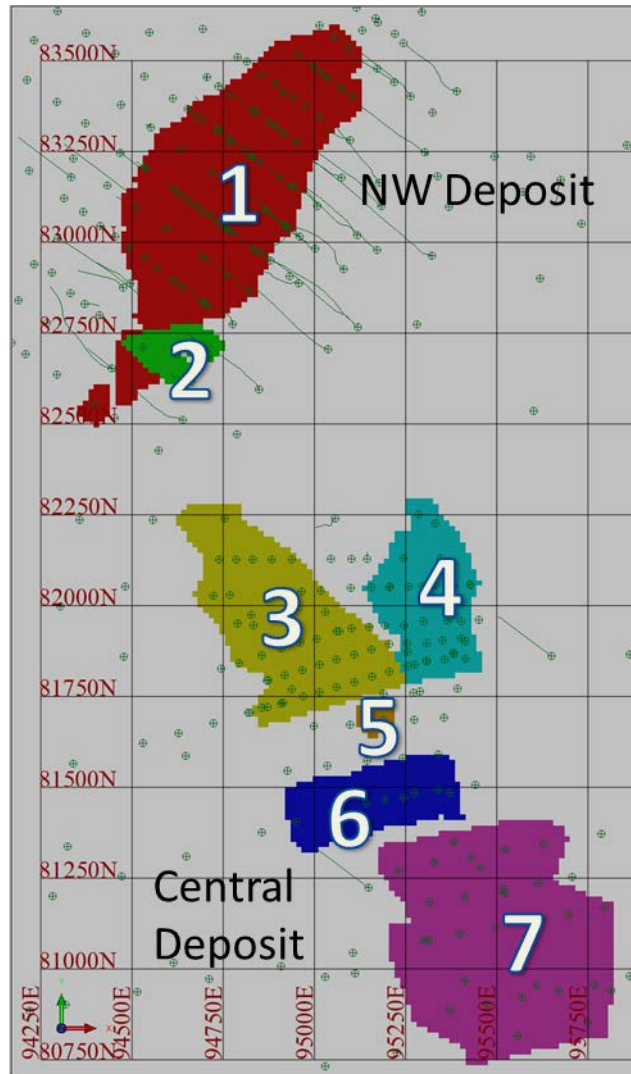


Figure 34: Plan view of the drill hole distribution and estimation domains across the Northwest and Central deposits
(green drill traces)

14.2 Supplied Data

MA was supplied with the drill hole data as Microsoft Excel spreadsheets and Microsoft Access database. Initial raw data was translated from Russian into English by TOO Geoservice (TOO). MA imported the supplied Excel spreadsheets and old MS Access database into a new MS Access database for use in Surpac™. Additional data, such as new drill hole assays, historic and new down hole magnetic susceptibility data, and historic and new geological logging was supplied as Excel spreadsheets that were validated and imported into the new MS Access database. Database structure used is presented in Table 12.

Table 12: Master Database Structure	
Table Name	Description
Collar	Location of hole id and collar coordinates
Assay	Drill hole assay results and Lithology
Survey	Down hole drill holes survey data
Lith_orig	Down hole geological logging data supplied by KMI
Magsus	Historic down hole magnetic susceptibility logs scanned from paper copies
Magsus_newholes	Down hole magnetic susceptibility log data for new holes supplied in .LAS format

Historical drill hole data collated from hardcopy paper records from the 1950's to the 1980's is summarised in Table 13 along with the current confirmation drilling to date. Database extents are summarised in Table 14.

Table 13: Drill Holes Summary				
Phase of Drilling	No. of Drill Holes	No. Samples	Total metres	Average metres
Historical	412	12,496	130,940.9	407
Current	27	1,881	111,10.66	411

Table 14: Database Extents		
	Min	Max
Northing	80129.88	84644.39
Easting	91868.57	96858.71
RL	193.92	214.46
Depth	10	2000

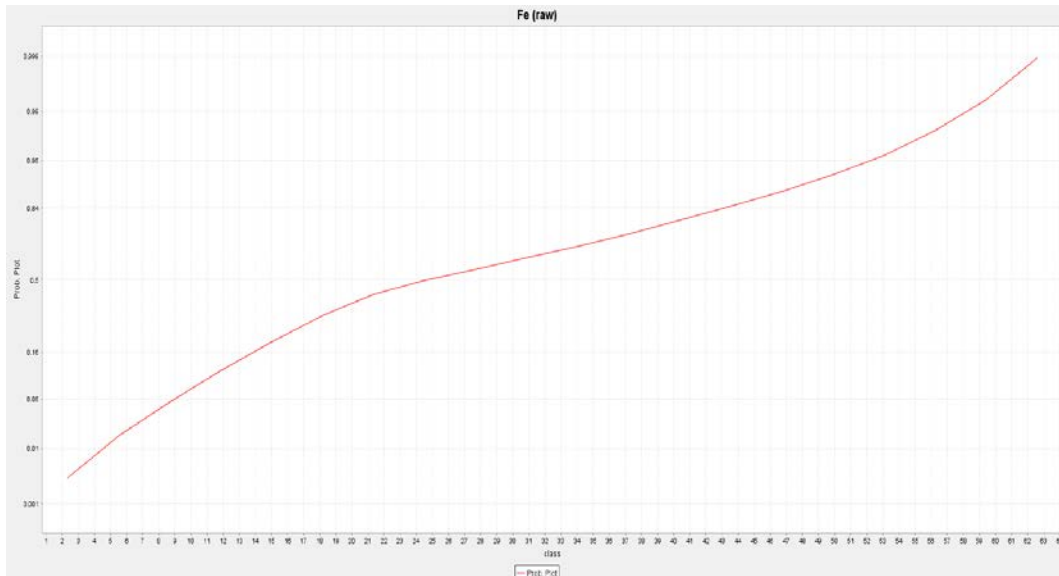
14.3 Dimensions

The Lomonosovskoye Iron Deposit can be clearly separated into two main zones: the Northwest and Central deposits. The Northwest Deposit strikes 040° for 1,200 m dipping steeply (85°) towards east-southeast (128°) in the lower portion and at 60° in the upper portion. The overall horizontal width of the deposit is on average 460 m thinning to 200 m at either extremity. It continues to hold its horizontal width with depth until terminating with a vertical distance of approximately 1,400 m.

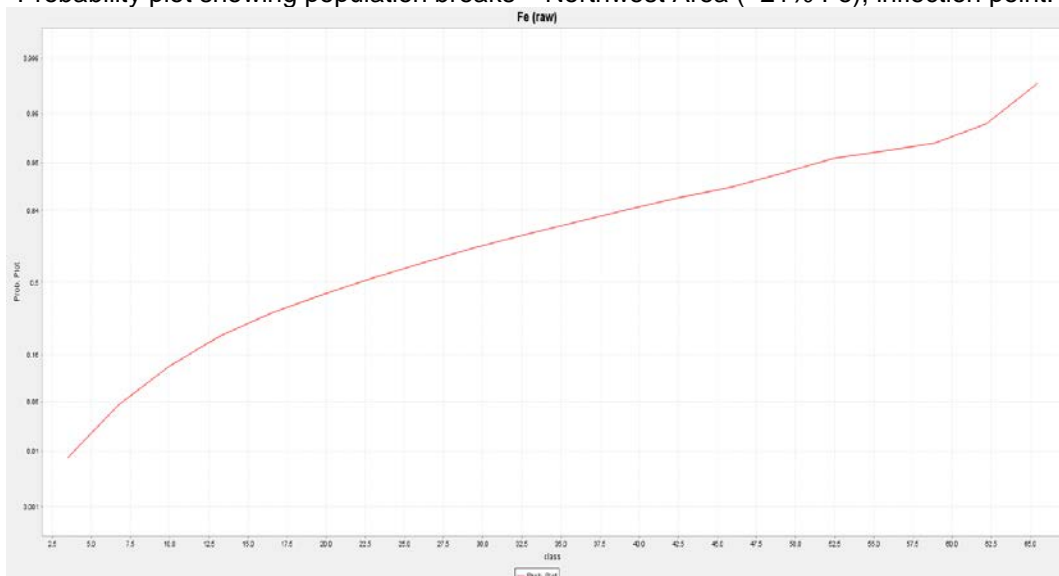
In contrast, the Central Deposit strikes south-southeast (145°) for a total length of 2,300 m. The Central Deposit is also split into two domains; North and South, which are possibly separated by a controlling structure running northeast-southwest. Further geological information would be required to verify this. The Central North zone has been split again to allow for what looks like structurally controlled mineralization following the northeast-southwest trend. The average horizontal width in the North is 200 m whereas the Southern portion begins is 550 m on average. The Central North zone northern section is dipping northeast (050°) at near vertical (88°) and is largely continuous. The Central section along structure is dipping northwest (280°) at 80°, the Central South zone dips to the southeast (128°) a 30° in the top 400 m and then more steeply (65°) below this depth. There is also a possibility the Central zone is open at depth. Deeper drilling may be required to confirm this.

14.4 Cut-off grades

Original resource estimates were based on a 20% Fe cut-off grade for both areas. This is considered standard under Russian reporting rules, but coupled with a lack of Fe assays in the database and limited lithological data the mineralized zone model becomes very discontinuous geologically. Returning to the analysis of the raw data statistics, a 20% Fe cut-off grade seems reasonable for the Northwest area, whereas a more realistic lower grade Fe cut-off for Central would be 10% (Figure 35). This allows for more continuous mapping and modelling of the mineralized body and can be compensated with an ore recovery loss factor, multiple estimation passes and block model and reporting constraints.



Probability plot showing population breaks – Northwest Area (~21% Fe); inflection point.



Probability plot showing population breaks – Central Area (~10% Fe); inflection point.

Figure 35: Probability plots for Northwest and Central Areas

14.5 Geological and mineralization interpretation

3D geological and mineralization modelling is the visual representation, derived from geological data that has been captured and interpreted. A 3D model is a representation of interpretations from sparse, often insufficient data. As the information upon which it is based is not perfect, it cannot be an exact representation of reality, but can be a close approximation. The only time you will know with confidence what was in the ground is when it is mined out or perform very close grade control drilling during the mining process. Before that, the interpretation is from drill holes, trench samples, surface samples or mapping onto sections or plans.

A 3D geological model consists of the following:

- Drill holes in 3D space
- A topographical surface
- Any structural features e.g. faults
- A volume of the mineralized body constructed from plans and sections

- A block model with grades or other variables interpolated via geostatistics from the drill hole data.

It is important to keep in consideration the uses of the geological model before attempting a model. The assumptions on the interpretations must be checked and validated to ensure consistency.

Drill hole sections were displayed on screen using Surpac™, a geological modelling software, from which sections were digitised. The known geology, lithology and assay results from both the historical and current drilling were all considered.

3D wireframes defining mineralization boundaries used in the 2012 estimate were re-interpreted, using a combination of recently loaded legacy lithology logging data and down hole magnetic susceptibility. Re-interpretation resulted in a more tightly defined boundary than the general skarn outline previously used. This was based on the realisation that within lithology broadly defined as “skarn” there were significant un-mineralized portions (based on magnetic susceptibility). Conversely, there are also mineralized intervals within rock types not specifically indicated as skarn in the logging.

14.6 Data preparation and statistics

Statistical analysis of the drilling data was carried out using the Gemcom Surpac™ geological software package. Surpac is currently used by many major global mining houses.

Prior to a statistical analysis grade domaining is normally required to delineate homogeneous areas of grade data. Statistical analysis does not take into account the spatial relationships of the data. In the case of Lomonosovskoye’s resource estimate, the Northwest and Central deposits were modelled as separate domains due to contrasting geological and structural controls. Central was then further divided due to an interpreted structural feature which trended northeast-southwest through the deposit.

The Lomonosovskoye database was connected directly to Surpac™ (geological and mining software) for data display, down-hole compositing, wire framing of homogeneous grade domains and block model estimation.

14.6.1 Missing data

Areas of missing Fe% assay and Femag % data were treated with the following protocols:

- Where a sampled interval had a Fe% assay but no Femag%, a value for Femag% was estimated using the Fe% assay-10%.
- Where there were no samples for an interval, but a calibrated down-hole magsus data was available, then a value for Fe% and Femag% was estimated from the magsus data.
- Where there were unsampled intervals within defined mineralized domains with no data of any kind, a value of 10% Fe was assigned. This approach was used on the basis that the selective historical sampling was targeted at the $\geq 20\%$ material so missing data for this data set are rare. The converse is also true, in that there are many missing intervals in the $< 20\%$ Fe data set, even after the holes with down-hole magsus data are accounted for, as there are many holes with large un-sampled intervals and no magsus data. Introduction of low values in such a high proportion would bias the final result, so estimation for the $< 20\%$ Fe blocks only used actual assays.
- Work on converting historic down hole magnetic susceptibility data into a format that could be used for deriving Fe and Femag % values was still ongoing at the time of preparing this resource estimate. No values for Fe and Femag calculated from magnetic susceptibility were used.

14.6.2 Compositing

The objective of compositing data is to obtain an even representation of sample grades and to eliminate any bias due to sample length (Volume Variance).

Compositing should be done on multiples of the original sampling interval to minimise artificially lowering the variance. Assay lengths should not be split into smaller composites lengths, as this practice results in an artificially low variance for the modified support as adjacent composites could be identical in value. (Glacken and Snowden 2001).

Raw drill hole assays were composited on five metre intervals, which was above the majority of sample lengths for both the North-western and Central domains, but allowed for all statistic variables to stabilise.

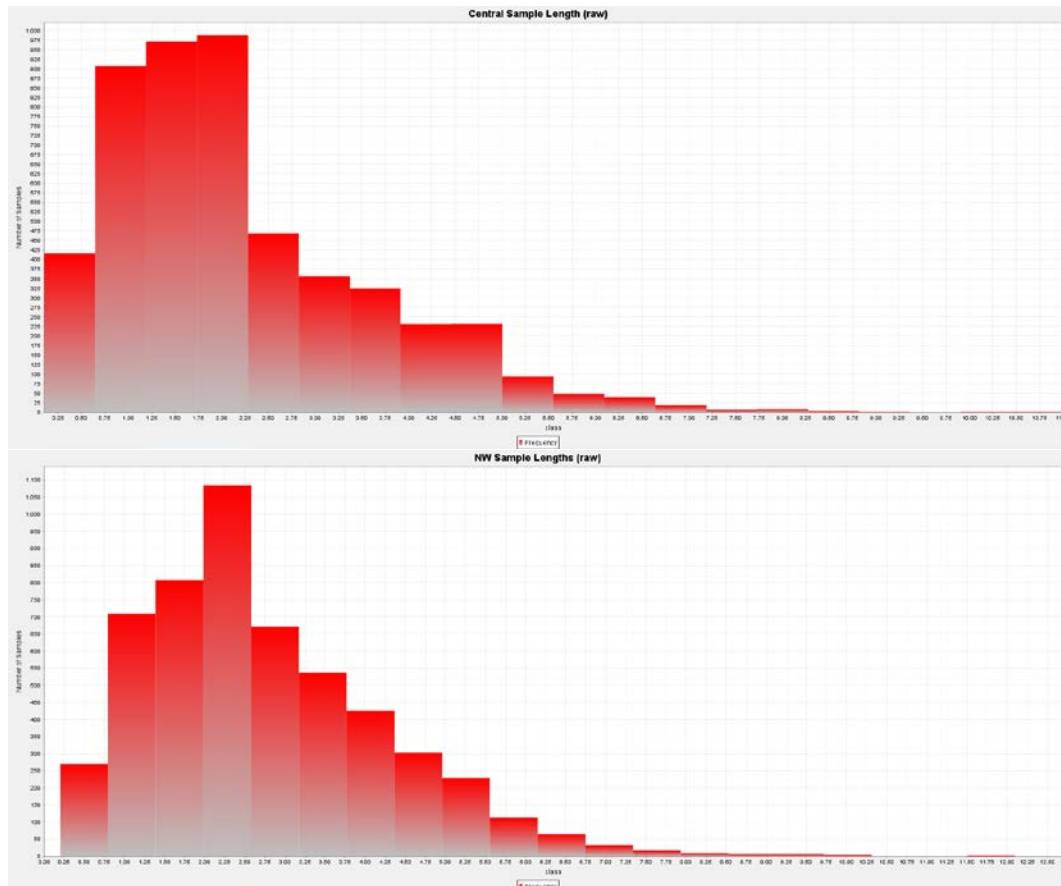


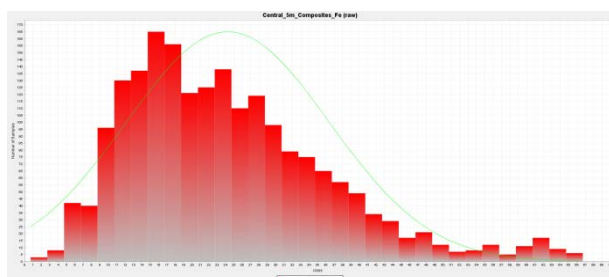
Figure 36: Histogram of all sample lengths for the Northwest and Central deposits

14.6.3 Basic statistics

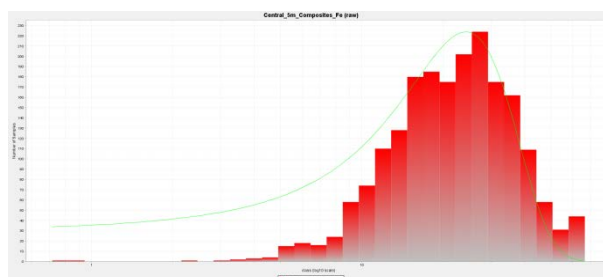
Basic statistics report the univariate statistical characteristics for each geological domain. The basic statistics are also used as a validation of the later resource estimates. The univariate statistics were generated for all mineralized domains at Lomonosovskoye.

These statistics are based on 5 metre composites, which was decided based on variable sample spacing down the historical holes and the lack of samples in some areas within the mineralized zone. This in turn will minimise the bias of areas with many samples compared to areas with less. The extracted composites have been edited to highlight partial composites with lengths less than 2.5 metres (less than 50 % of total composite length). Table 15 shows the overall maximum, mean and ranges for all mineralized domains. Figure 37 and Figure 38 display the histograms, probability plots in both raw and log format along with the correlations between Iron mineralization and impurities of Phosphorous and Sulphur for both the Central and Northwest deposits respectively.

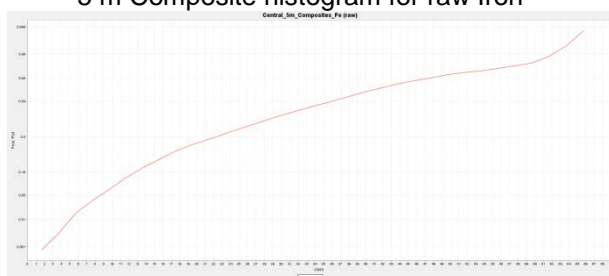
Table 15: Basics statistics for 5 m composites by domain				
Domain	Count	Mean	Maximum	CV
1	3660	24.23	61.80	0.536
2	86	24.46	54.69	0.519
3	1204	20.61	62.15	0.515
4	891	19.97	53.48	0.515
5	16	17.36	30.71	0.414
6	100	24.87	44.21	0.368
7	738	22.81	66.56	0.656



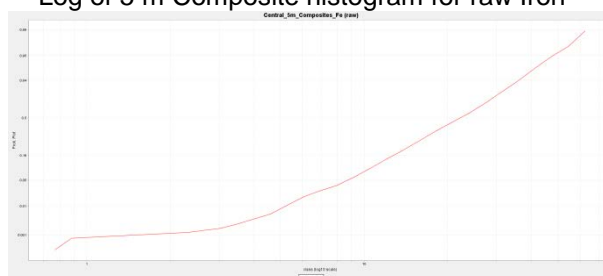
5 m Composite histogram for raw Iron



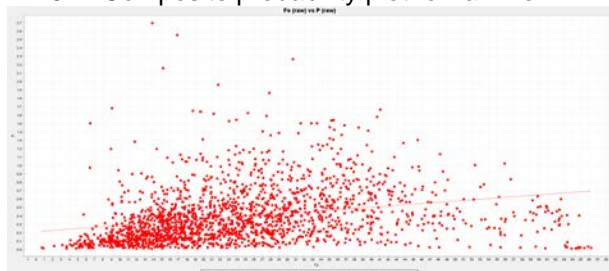
Log of 5 m Composite histogram for raw Iron



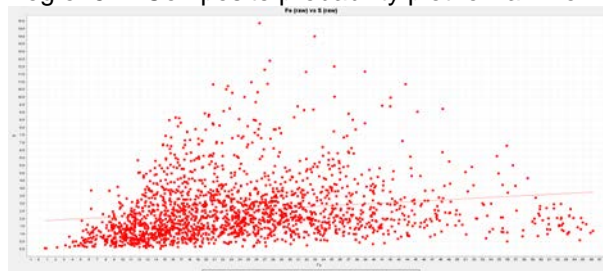
5 m Composite probability plot for raw Iron



Log of 5 m Composite probability plot for raw Iron



Correlation of Iron vs Phosphorus



Correlation of Iron vs Sulphur

Figure 37: Basic Statistics for Central Deposit

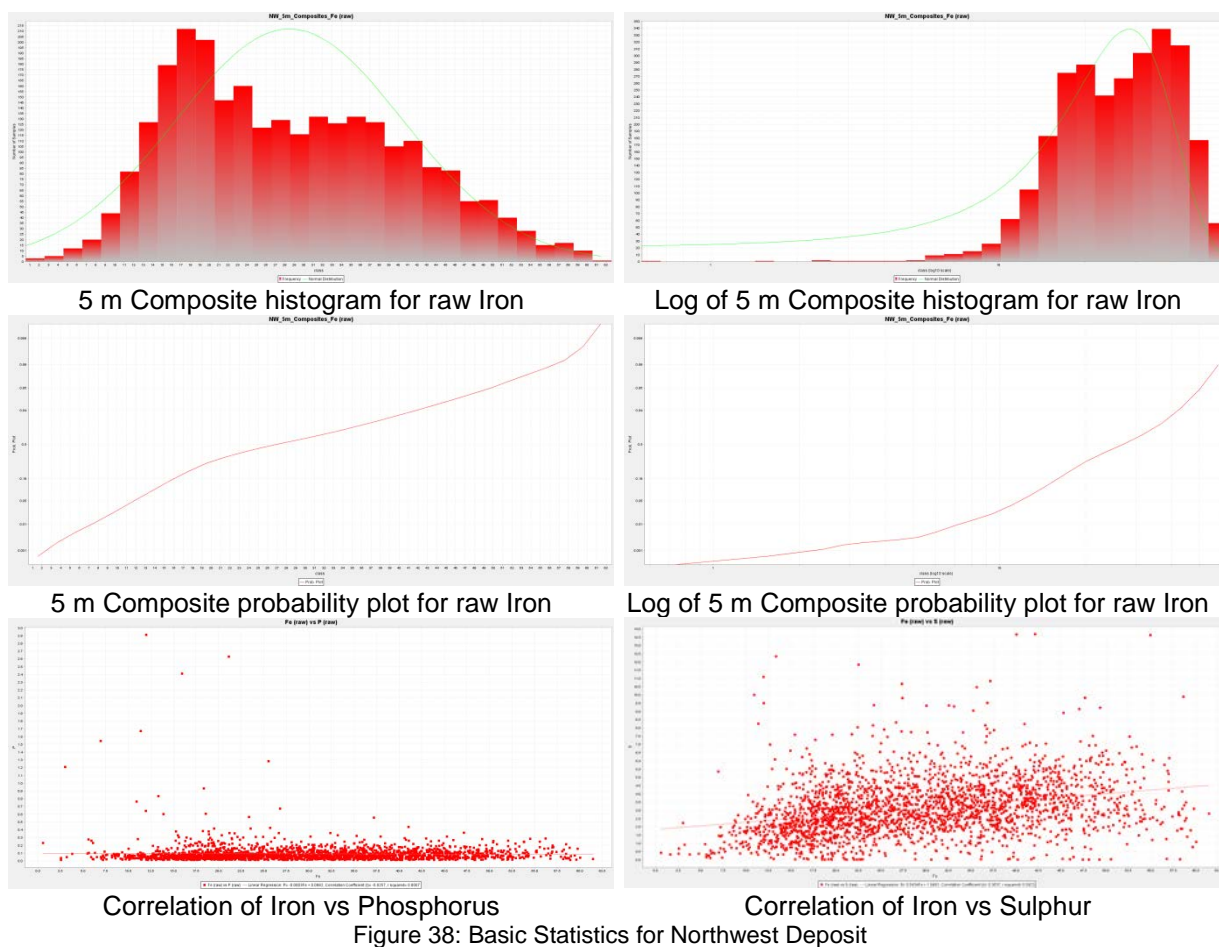


Figure 38: Basic Statistics for Northwest Deposit

14.6.4 Grade capping

Capping is the process of reducing the grade of outlier samples to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample grade minimises the overestimation of adjacent blocks in the vicinity of an outlier grade value. At no stage are sample grades removed from the database if grade capping is applied.

Fe assay results were capped at the 99.5 percentile for the Northwest Deposit (domains 1 and 2) and 99.9 percentile for the Central Deposit (domains 3-7). In general, this only reduced the grade marginally (Table 16). No capping was applied for Magnetite content (FeM%).

Table 16: Grade capping											
	Uncapped Composite Data				Capped Composite Data					Grade	
Domain	Count	Mean	Maximum	CV	Count	# Capped	Mean	Cap	CV	% Cap	% Δ
1	3660	24.23	61.80	0.536	3660	19	24.22	57.5	0.54	0.52%	0%
2	86	24.46	54.69	0.519	86	1	24.45	54.3	0.52	1.16%	0%
3	1204	20.61	62.15	0.515	1204	2	20.60	58.4	0.51	0.17%	0%
4	891	19.97	53.48	0.515	891	1	19.97	53.1	0.52	0.11%	0%
5	16	17.36	30.71	0.414	16	1	17.36	30.7	0.41	6.25%	0%
6	100	24.87	44.21	0.368	100	1	24.87	44.1	0.37	1.00%	0%
7	738	22.81	66.56	0.656	738	4	22.81	65.6	0.66	0.54%	0%

14.6.5 Grade indicators

Composites in each mineralized domain were assigned an indicator value of 0 or 1 depending on whether they were below or above a cut-off value of 20% Fe. 20% Fe was selected as a reasonable approximation of the natural break between high grade and low grade mineralization.

14.6.5.1 High-grade and low-grade subdomains

High-grade and low-grade subdomains were flagged within the block model through variography and estimation of indicators for each block varied by domain. Only data within that domain was used. Examination of distribution and grades of indicators between 0.4 and 0.6 were examined. The 0.4 indicator was selected as giving the most continuous domains and still reasonable grades. Each mineralized domain was thus divided into two subdomains – high grade and low grade. Details of indicator variography are discussed further in section 14.7.

14.7 Variography

The most important bivariate statistic used in geostatistics is the semi-variogram. The experimental semi-variogram is estimated as half the average of squared differences between data separated exactly by a distance vector 'h'. Semi-variogram models used in grade estimation should incorporate the main spatial characteristics of the underlying grade distribution at the scale at which mining is likely to occur.

The semi-variogram analysis was undertaken for individual elements within each major grade domain that contain sufficient data to allow a semi-variogram to be generated. Three dimensional (3-D) semi-variograms are generated using three orthogonal principal directions.

14.7.1 Methodology

For each variable to be examined, the experimental variogram containing the clearest structure and greatest difference in range between each direction was selected for use in model fitting where possible. The variogram modelling process using variables is described as follows:

- Experimental variograms with small lags orientated down hole to aid interpretation of nugget effect (i.e. down hole variogram).
- Omni-directional variogram to determine optimal lag distance for directional component of variogram.
- Variogram map, computing 12 directions in the reference plane and normal to the reference plane.
- Directional variogram with 2 directions in reference plane (down dip) oriented parallel to the average orientation of the wireframe models of each domain, plus variogram normal to the plane (across strike).

14.7.2 Variogram models – grade indicators

Four (4) of the defined mineralized domains contained enough data to be able to generate useable variogram models for grade indicators (Table 17). Two-structure exponential models provided the best fit to experimental variograms, with the short range in all domains between 15 m and 30 m and the longest range in domain 7 of 300 m.

Table 17: Variogram parameters by domain - grade indicators.						
Deposit	Domain	Nugget	Maximum Range	Major / Semi-major	Major / Minor	Lag
Northwest	1	0.03	265	5.3	8.8	
Central N	3	0.06	150	1	7.5	
Central N	4	0.05	150	1	7.5	
Central S	7	0.05	300	1	6	

14.7.3 Variogram models - grades

Variogram models were created for Fe% (and Femag%) based on informing samples within high grade and low grade subdomains. As for the indicators, only 4 domains contained enough samples to generate useable variograms. Two-structure exponential models provided the best fit to experimental variograms, with the short range in all domains between 18 m and 30 m and the longest range in domain 1 low grade 7 of 350 m. Variogram models are summarised in Table 18 and Table 19.

Table 18. Variogram parameters by domain – Fe %					
Zone	Domain / subdomain	Nugget	Maximum Range	Major / Semi-major	Major / Minor
Northwest	1 HG	20	240	2	8
Northwest	1 LG	5	350	1.75	11.67
Central N	3 HG	17	100	1	2.85
Central N	3 LG	2.5	85	1	2.84
Central N	4 HG	17	150	1	7.5
Central N	4 LG	10	120	1	6
Central S	7 HG	23	130	1	3.25
Central S	7 LG	10	130	1	3.25

Table 19. Variogram parameters by domain – Femag %					
Zone	Domain / subdomain	Nugget	Maximum Range	Major / Semi-major	Major / Minor
Northwest	1 HG	25	250	2.1	8.3
Northwest	1 LG	10	350	1.95	11.67
Central N	3 HG	24	80	1	2.28
Central N	3 LG	5	150	1	5
Central N	4 HG	17	150	1	7.5
Central N	4 LG	8	130	1	6.5
Central S	7 HG	23	130	1	3.25
Central S	7 LG	12	130	1	3.25

14.8 Estimation

Mineralized domains were divided into subdomains above 20% Fe (high grade) and below 20% Fe (low grade) using an indicator kriged into the block model. The indicator cut-off used was 0.4, meaning that there was a 40% probability that the block was high grade. Informing sample composites were then flagged depending on which subdomain they were located within. Fe% and Femag % were then estimated by Ordinary Kriging with anisotropy applied into blocks 15x15x10m in size within each domain-subdomain.

Fe% and Femag% in high grade blocks (blocks of $\geq 40\%$ probability of being $\geq 20\%$ Fe) were estimated using Ordinary Kriging and all the samples within the high grade subdomain, including sub-grade samples. Estimation criteria were a minimum of 2 informing samples and a maximum range of between 80 m and 300 m depending on the domains.

Fe% and Femag% in low grade blocks (blocks of $< 40\%$ probability of being $\geq 20\%$ Fe but still lying within mineralized skarn domains) were estimated using Ordinary Kriging (OK) and all samples within the low grade subdomain, including sub-grade samples, but with un-sampled intervals ignored.

Values for P% and S% were estimated for each domain and high and low grade sub-domains using all available assays. There was not enough Ca data at this time to make a meaningful model.

14.8.1 Ordinary Kriging

Ordinary Kriging (“OK”) is a robust grade estimation technique and is the main algorithm used in geostatistics. The most common use of OK is to estimate the average grades into ‘panels’ at the scale of the available drill hole spacing. OK is a globally unbiased estimator which produces the least error variance for grade estimates.

It uses the grade continuity information from the semi-variogram to estimate grades into panels. It is also able to accommodate anisotropy within the data and is able to replicate this in the panel estimates. Another important feature of Kriging is that it automatically deals with clustering of data which is important in areas where the data density is not uniform.

Due to variable non-stationary issues, OK was used in preference to simple Kriging (“SK”) as only local stationarity conditions are required for the OK algorithm.

Kriging forms a sound basis for generating panel grade estimates at a scale which is appropriate to the sample density. If tonnes and grades are required for volumes smaller than the Kriging panel size, then other more advanced non-linear techniques need to be applied.

Grades within the diffusion model show a systematic gradational relationship (Figure 39). This model is appropriate if low grades tend to be adjacent to intermediate grades, which tend to be adjacent to high grades. The transition between high, medium and low grades is generally systematic resulting in edge-effects. The different grade zones are assumed to be correlated in as much as going from low to high grades requires the transitional grades to be medium.

The ‘mosaic model’, consists of random ‘parcels’ of mineralization with grades that show no obvious systematic trend (Figure 39). High-grade zones can occur adjacent to waste zones with any combination of adjacent grade zones possible and no obvious correlation between the various ‘parcels’. The correlation between adjacent zones is very low. In this case we say that there are no edge-effects.

If the diffusion model best represents the mineralization being examined, a linear estimation method such as Ordinary Kriging or non-linear estimation method such as a Gaussian estimation methodology for recoverable resource estimation (conditional simulation) can be employed.

If the mosaic model best describes the grade continuity, it is assumed that a minimum correlation occurs between the mineralized grade zones within the broad grade envelope and an indicator based estimation methodology is preferred (i.e. Indicator Kriging).

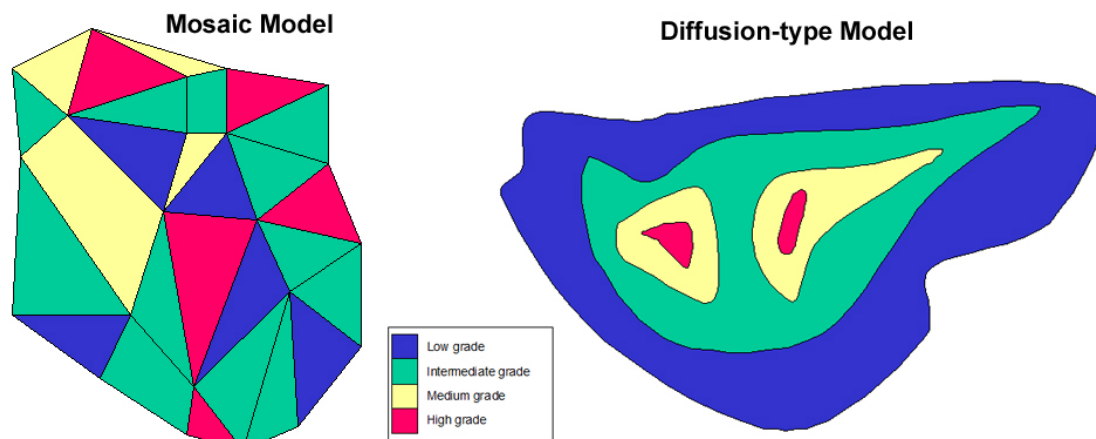


Figure 39: The two end member models of grade correlation with a domain

14.8.2 Block Model and Panel Size

The Block Model extents cover the combined Northwest and Central deposits and the dimensions and parameters for the 3D block model are shown below in Table 20. The combined deposit was defined for estimation using a block model with XYZ dimensions of 15m x 15m x 5m and the final model was later reblocked to 15m x 15m x 10m to reflect the likely dimensions of mining blocks for open pit or underground.

Table 20: Block Model Dimensions			
Type	Y	X	Z
Minimum Coordinates	80675	93525	-1500
Maximum Coordinates	84185	96225	260
User Block Size	15	15	10
Min. Block Size	15	15	10
Rotation	0	0	0

14.8.3 Search parameters

With the exception of domain 1, search ellipses used were isotropic in the orientation of the average dip plane of each domain, with limited cross strike extents. Typically the search ellipse maximum distance was greater than the maximum variogram range, which allowed all blocks in the model to be filled in a single estimation pass. The same search parameters were used for Fe% and Femag% in high grade and low grade subdomains to ensure that all blocks were filled with both variables.

Four (4) search ellipses were defined, one for each domain able to be modelled by variography. The remaining three domains used the same search parameters as adjacent modelled domains. Table 21 summarises the orientations and search distances for major, semi-major and minor axes of the search ellipses used.

Table 21. Search ellipse orientations and distances							
Domain	Major axis			Semi-major axis			Minor axis
	Dip	Dip direction	Distance (m)	Dip	Dip direction	Distance (m)	Distance
1 HG	80	135	338	0	45	95	20
1 LG	80	135	455	0	45	260	20
3 HG	65	235	136	0	145	136	18
3 LG	65	235	170	0	145	170	18
4 HG	90	070	165	0	340	165	30
4 LG	90	070	168	0	340	168	30
7	50	230	208	0	140	208	18

14.8.4 Informing samples

Due to the extensive extrapolation between drill hole and the selective nature of the sample data, only a small number of composites were permitted to inform the blocks. Between a maximum of 24 to a minimum of 2 informing composite samples were allowed. The search radius was not constrained to drill holes, forcing the estimation to select assays from several holes.

14.8.5 Block model attributes

Table 22 displays the attributes created for the Lomonosovskoye block model.

Table 22: Block Model Attributes

Attribute Name	Type	Decimals	Background	Description
code_rock	Character	-	undf	Rock Type
				air
				rock
				cover
				ore1
				ore2
				ore3
				ore4
				ore5
				ore6
				ore7
				skarn
				limest
				tuff
				tuffit
				sandst
				silst
				diorite
density	Real	2	0	Specific Gravity – cover=2, rock=2.74, ore = 2.74+fe_perc*0.0213
fe_perc	Real	2	0	Fe grade percent
inpit	Character	-	no	pit shell number - currently 19 if block centroid is above pit shell
mag_perc	Real	2	0	Mag grade percent
mcaf	Real	2	0	Mining Cost Adj Factor– not currently filled
pcaf	Real	2	0	Processing Cost Adj Factor– not currently filled
rescat	Character	-	undefined	measured, indicated, inferred or other
s_perc	Real	2	0	Sulphur grade percent
weathering	Character	-	waste	Weathering Zone – not currently filled

14.8.6 Block model validation

For each domain, raw informing sample data histograms were compared with estimated block grade histograms (Figure 40). The “spike” in the raw sample histogram at 10% Fe represents introduced 10% Fe values where no samples were present.

The impact of dividing blocks into high grade and low grade subdomains at 20% Fe is emphasised in the block grade histogram, and is more prominent in some domains than others – in Domain 4 it is almost complete. Grades just above cut-off have been pushed up, and those just below pushed down, although the analysis in the third validation panel would indicate that no overall bias was introduced.

The right-hand column in Figure 40 shows a comparison between: 1) average informing sample grade above cut-off (red line); 2) informing sample grade above cut-off after correction for sample volume from 5 m drill composites to 15x15x5m (green line) and; 3) 15x15x10m (blue line) mining blocks and actual estimated block grades (black line). The expected volume variance effect in moving from 5 m drill samples to mining blocks is as expected, but there is little difference between expected values for mining blocks and those estimated by OK. No bias has been introduced, only the expected smoothing effects. The distinctive very-high grade population in domain 7 is also clearly seen.

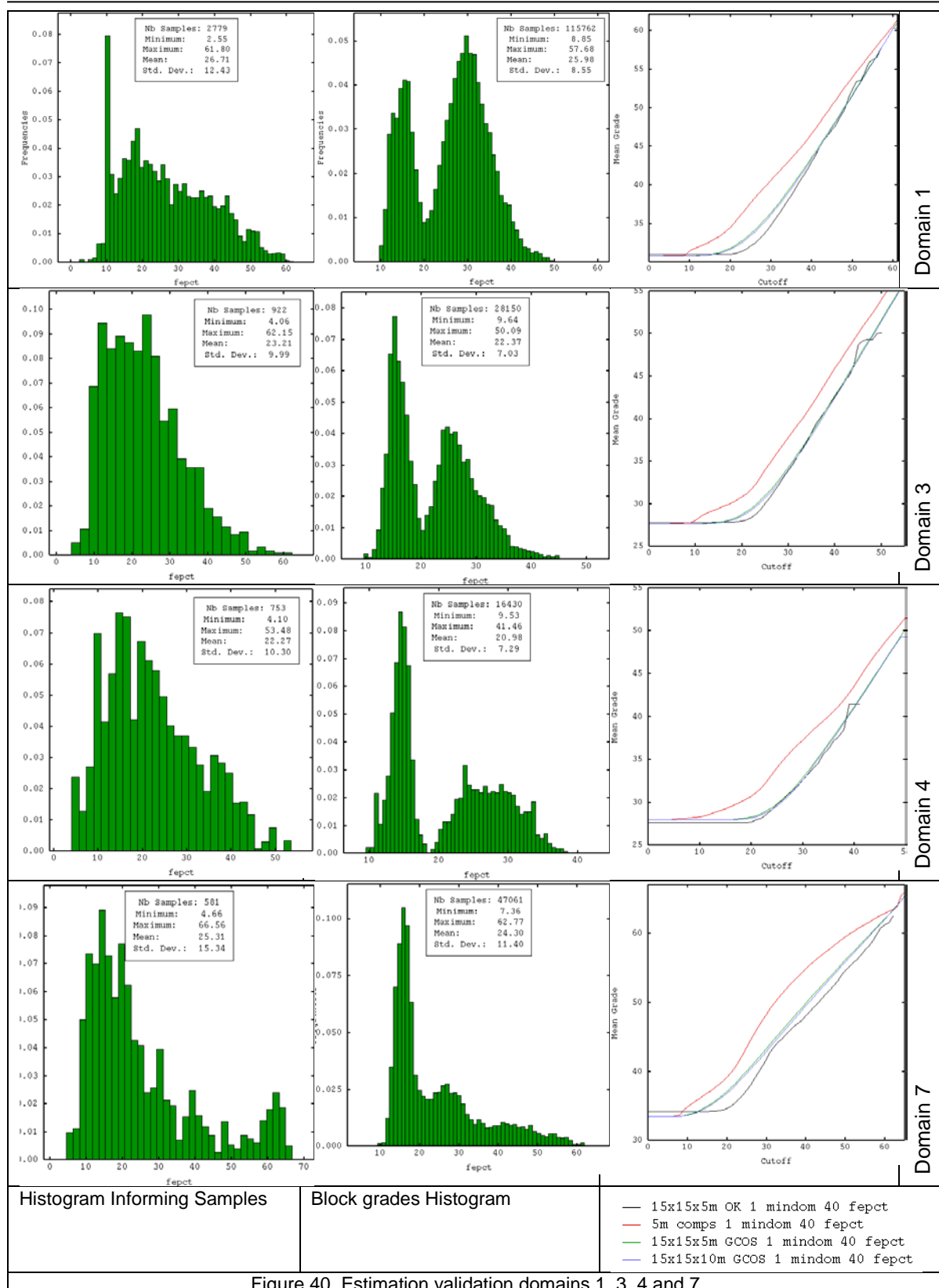


Figure 40. Estimation validation domains 1, 3, 4 and 7.

14.8.7 Bulk density

Density determinations on samples by ALS laboratories results were integrated into the model to give a more accurate reflection of the true density of the blocks containing mineralization. Initially a density of 3.75 t/m³ was used for the Northwest Deposit and 3.65 t/m³ for the Central Deposit, based on density values cited in the TOO Geoservices Resource Report, 2011. Using the current drilling results for over 3000 samples, a linear regression was plotted to test the relationship for the density against Fe% above the 20% cut off grade as shown in Figure 41. An obvious correlation can be seen of increasing density with increased Fe content. The intercept was set at the background density of 2.74 t/m³ for surrounding country rocks.

The regression line equation, density = 0.0213 x iron content + 2.74, was used to populate the ore_density column within the block model for all blocks within mineralized domains. It is this density that has been used to estimate the total tonnes and grades for the resource estimate.

The background density of 2.74 t/m³ was used for all other unweathered rock blocks.

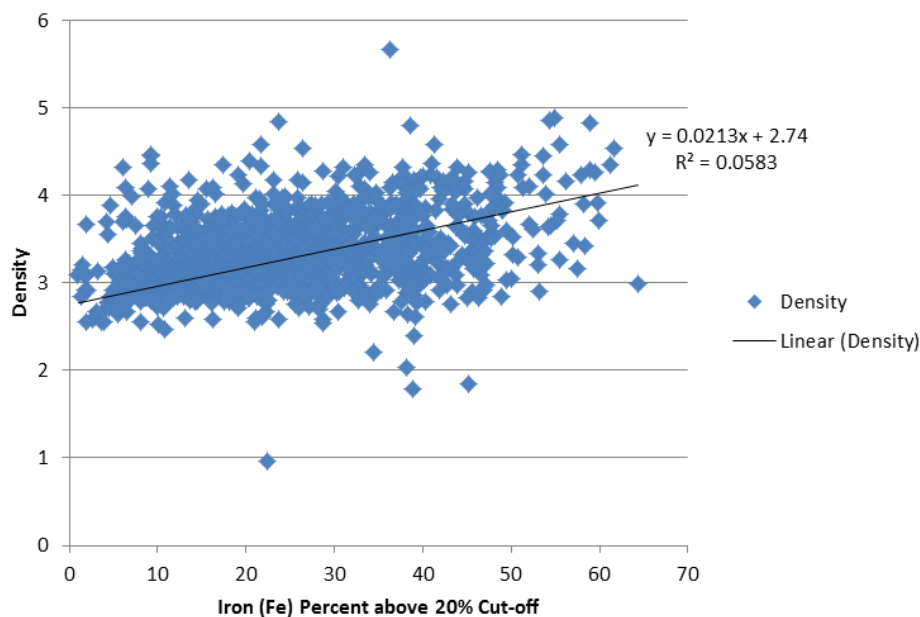


Figure 41: Linear regression plot for Iron (Fe) above 20% cut-off against laboratory recorded density

14.9 Resource classification

Based on the study herein reported, delineated mineralization of the Lomonosovskoye Project is classified as a resource according to the definitions from JORC Code standards:

A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. (JORC Code 2004)

A breakdown of the Lomonosovskoye Project resource estimate by resource category is provided in Table 23 and illustrated in Figure 42.

Table 23: Mineral Resource Estimate for Combined Lomonosovskoye, Effective Date of April 17, 2014, Cut-off 20% Fe					
Class	Mt	Fe %	P %	S %	FeM %
Measured	63.9	30.5	0.29	3.01	21.3
Indicated	414.2	30.6	0.22	3.3	21.04
Measured & Indicated	478.1	30.5	0.23	3.3	21.1
Inferred	28.4	28.0	0.28	3.04	16.71

For the classification of Mineral Resources for the Lomonosovskoye Project, the following definitions were adopted and applied to each domain separately:

- Inferred resource category – within domain wireframes and with at least 2 informing samples.
- Indicated resource category – within domain wireframes and the maximum of 24 informing samples and Krig Slope greater than 0.1.
- Measured resource category – within domain wireframes and the maximum of 24 informing samples and a Krig Slope > 0.5.

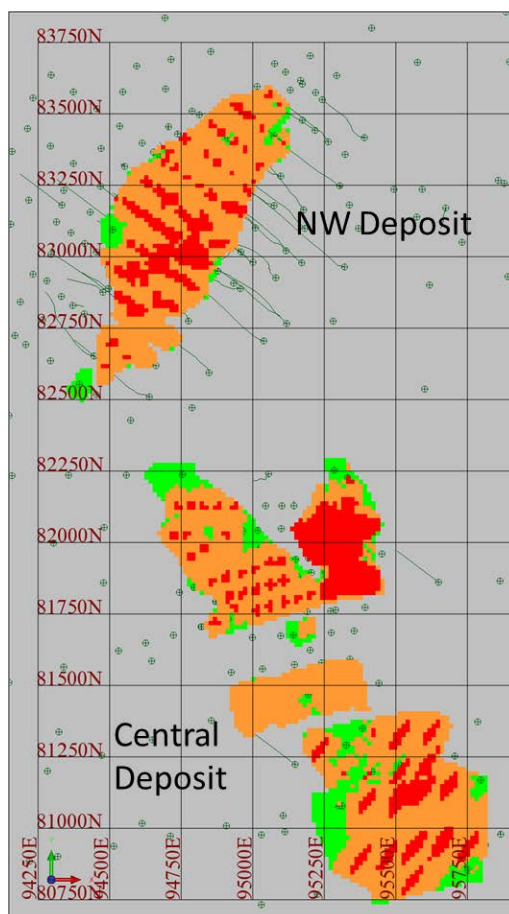


Figure 42: Project Overview, plan view showing drill traces, resource blocks by category (Measured (red), Indicated (orange) and Inferred (green) and domains.

14.10 Resource summary

From the data received as of November 2012, the resource estimate for Lomonosovskoye, effective date of April 17, 2014, stands as outlined below, above a cut-off grade of 20% iron (Table 24):

Table 24: Mineral Resource Estimate for Combined Lomonosovskoye, Effective Date of April 17, 2014, Cut-off 20% Fe					
Class	Mt	Fe %	P %	S %	FeM %
Measured	63.9	30.5	0.29	3.01	21.3
Indicated	414.2	30.6	0.22	3.3	21.04
Measured & Indicated	478.1	30.5	0.23	3.3	21.1
Inferred	28.4	28.0	0.28	3.04	16.71

Notes to the Lomonosovskoye Mineral Resource Estimate need to read in conjunction with the table above:

1. The current resource estimate is based on holes drilled and assays received up to 23 November 2012;
2. The magnetic anomaly contours and historical geological cross sections were used to constrain and extend the resource estimation domains up to 50 m beyond last drill hole, where reasonable;
3. Three dimensional wireframes were constructed for each domain guided by 5 m bench composites, down hole magnetic susceptibility data, newly translated lithology logs and magnetic and gravity maps. Interpretations at a 10% Fe cut-off grade were made for the Northwest Central deposits;
4. Assay results were composited to 5 meter intervals down-hole within domains;
5. Fe assay results were capped with at the 99.5 percentile for the Northwest Deposit and 99.9 percentile for the Central deposit;
6. No capping was required for the magnetite content;
7. Block Model extents cover the combined Northwest and Central deposits, with a block size of 15mN x 15mE x 10mRL, without sub-blocking to reflect block open-pit or underground;
8. An Indicator approach was used to select blocks with a greater than 40% probability of being above a cut-off grades of 20% Fe within domains;
9. Grade was interpolated into a constrained block model using all 5 m sample composites within above or below 20% Fe blocks, including samples with a value below or above 20% Fe respectively. This is considered to represent the true "mining block" grade, including both internal and edge dilution. Ordinary Kriging estimation technique with anisotropy was applied;
10. Maximum search was varied by domain, from 150 to 300 m with 3 to 24 informing samples;
11. Density was calculated using the formula: density = 0.0213 x Fe content + 2.74 taken from the linear regression plot for density against Fe content for over 3000 samples;
12. Resources are reported above 20% Fe for both Deposits;
13. Inferred resource category - within domain wireframes and with at least 3 informing samples.
14. Indicated resource category - within domain wireframes and the maximum of 24 informing samples and Krig Slope greater than 0.1.
15. Measured resource category - within domain wireframes and the maximum of 24 informing samples and a Krig Slope greater than 0.5.

14.10.1 Dilution and mining blocks

All 5 m sample composites within high grade blocks were selected, including samples with a value below 20% Fe. This is considered to represent the true “mining block” grade, including both internal and edge dilution. For each of the domains, the degree this dilution effects on the raw sample grades is shown in Table 25. Excluding domains 2, 5 and 6 (too few samples), below cut-off samples are from 18 to 23% of the total with an average of 19% and result in a drop in grade of about 3.6% Fe. The grade of this dilution averages 14.7% Fe. Note that this is based on raw informing data, not the Krig estimated block grades.

Table 25: Informing sample statistics, high and low grade sub-domains									
		Dom1	Dom2	Dom3	Dom4	Dom5	Dom6	Dom7	Total
below 20	count	355	17	134	85	1	6	74	672
	average	15.01	12.05	14.47	14.72	17.47	14.35	14.04	14.68
	% of total	18%	28%	22%	20%	25%	8%	23%	19%
above 20	count	1645	43	484	339	3	69	247	2830
	average	34.58	32.66	30.61	30.60	26.55	29.37	37.69	33.53
	% of total	82%	72%	78%	80%	75%	92%	77%	81%
total	count	2004	60	618	424	4	75	321	3506
	average	31.08	26.82	27.11	27.42	24.28	28.17	32.24	29.90
	Drop in grade	-3.50	-5.84	-3.50	-3.18	-2.27	-1.20	-5.45	-3.63

14.11 Comparison with previous resource estimate

The previously published resource estimate for Lomonosovskoye effective December 2012 is shown in Table 26 above a cut-off grade of 20% Fe.

Table 26: Mineral Resource Estimate for Combined Lomonosovskoye December 2012, cut-off 20% Fe					
Class	M Tonnes	Fe %	P %	S %	FeM %
Measured	7.6	29.8	0.5	3.3	19.7
Indicated	325.9	36.76	0.2	3.5	27.8
Measured & Indicated	333.5	36.6	0.2	3.5	27.6
Inferred	108.7	34.8	0.3	4.5	25.9

It is MA's opinion that the mineral resource estimates (Table 26) included in the December 2012 report have been largely verified by the new estimates (Table 24), with changes in tonnage and grade reflecting increased confidence and the use of an estimation methodology better suited to bulk surface and underground mining. New estimates are fully diluted for internal and edge mining dilution.

The new estimate represents an increase in tonnage of 45% and an increase in contained iron of 25% in the measured and indicated mineral resource categories over the estimates included in the December 2012 report. The changes from the estimates in the December 2012 report relate to increased confidence levels, as well as changes in the estimation methodology. As a result of new assay information from old drill core holes samples and the use of the down-hole geophysical data to better define low-grade areas, the inclusion of mining dilution has increased tonnage without a corresponding loss of contained metal at an unchanged cut-off grade of 20% Fe. The overall effect has been to lower the average grade of estimated mineral resources.

15 MINERAL RESERVE ESTIMATES

This section is not applicable for this NI43-101 Report as there is no current NI43-101 compliant mineral resource estimate defined for the basis of a scoping study which would allow mineral resource conversion to reserves. Ongoing work relevant to this section is detailed in section 26.1 Work program and budget.

16 MINING METHODS

This section is not applicable for this NI43-101 Report. Ongoing work relevant to this section is detailed in section 26.1 Work program and budget.

17 RECOVERY METHODS

This section is not applicable for this NI43-101 Report. Ongoing work relevant to this section is detailed in section 26.1 Work program and budget.

18 PROJECT INFRASTRUCTURE

This section is not applicable for this NI43-101 Report. Ongoing work relevant to this section is detailed in section 26.1 Work program and budget.

19 MARKET STUDIES AND CONTRACTS

This section is not applicable for this NI43-101 Report. Ongoing work relevant to this section is detailed in section 26.1 Work program and budget.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable for this NI43-101 Report. Ongoing work relevant to this section is detailed in section 26.1 Work program and budget.

21 CAPITAL AND OPERATING COSTS

This section is not applicable for this NI43-101 Report. Ongoing work relevant to this section is detailed in section 26.1 Work program and budget.

22 ECONOMIC ANALYSIS

This section is not applicable for this NI43-101 Report. Ongoing work relevant to this section is detailed in section 26.1 Work program and budget.

23 ADJACENT PROPERTIES

The Sarbaisky and Sokolovskiy iron ore open pit mines lie 10 km east, and the Kacharsky Open pit mine is 35 km north of the Lomonosovskoye Project area respectively (Figure 43). The geology and magnetite mineralization of these deposits is considered similar to that of the Lomonosovskoye Project. MA has not been able to verify that the mineralization described for the regional deposits of Sarbaisky, Sokolovskiy and Kacharsky and notes that the descriptions of the iron ore mineralization at these deposits is not necessarily indicative of the same on the Lomonosovskoye Project.

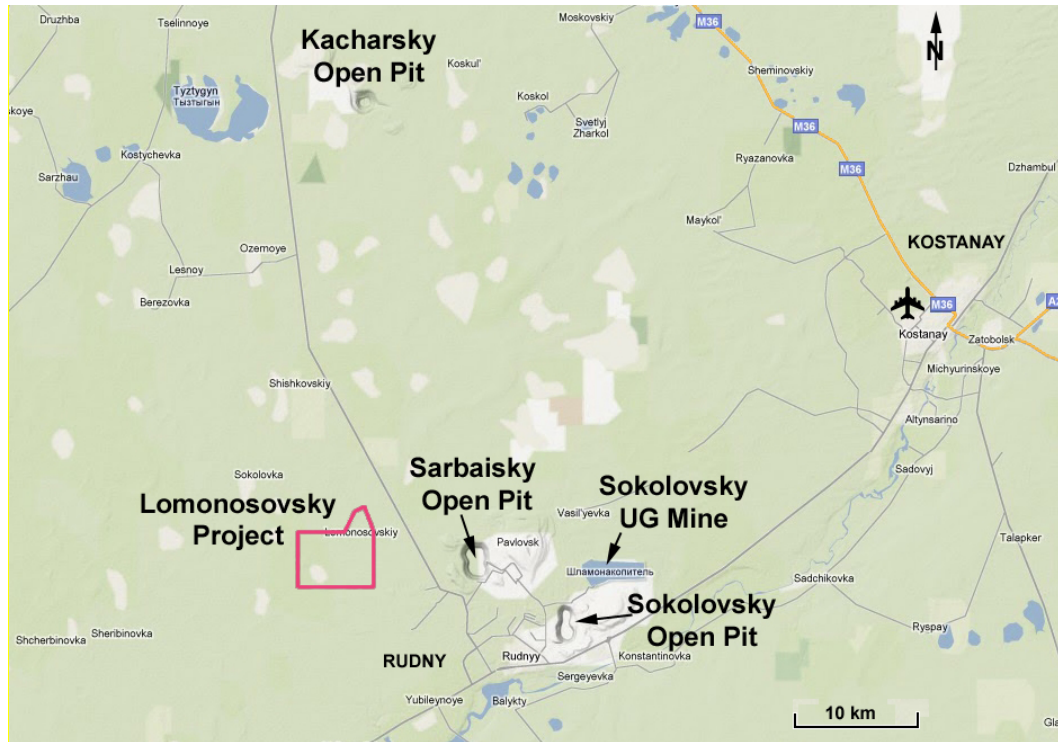


Figure 43: Adjacent Properties: Sarbaisky-Sokolosky and Kacharsky iron ore mines
 (Source: Google Maps 2011)

ENRC operates the 3 deposits listed above. The adjoining mining operation is registered to SSGPO. SSGPO is a vertically integrated business producing iron ore concentrate and pellets. The operations are centred on the town of Rudniy which was established to support the iron ore operations. The centralised facilities are located near Rudniy whilst the mines are located between 5 and 50 kilometres from the town. In April 2007, ENRC entered into a long-term contract with Magnitogorsk Iron & Steel Works OJSC, a leading Russian steel producer, that extends until 2016 (ENRC 2008).

The following descriptions are taken from the ENRC 2007 prospectus.

The principal mining assets of SSGPO are:

- **Sokolovskiy Underground Mine.** The Sokolovskiy deposit is located five kilometres north of Rudniy. This business unit is responsible for mining the iron ore deposits that are scheduled to be mined using underground methods. These comprise under pit resources of the Southern and Central areas and the Northern and Epicentre 6 production areas. In 2006, 1.56 Mt of iron ore was mined at a grade of 30.8% Fe using sub-level caving techniques.
- **Sokolovskiy-Sarbaisky Open Pit Mines.** The Sarbaisky and Sokolovskiy groups of deposits are located within five kilometres of each other. This business unit is responsible for the open pit operations at both Sarbaisky and Sokolovskiy. In 2006, 9.8 Mt at 27.1% Fe was mined from Sokolovskiy open pit and 9.9 Mt at 38.3% Fe from Sarbaisky open pit. The ore and waste are drilled, blasted and loaded into either railway trucks or off-highway trucks. Ore is transported to the central processing facilities by rail.



Figure 44: Lomonosovskoye Project Location relative to Sarbaisky Open Pit
(Source: Google Maps 2011)

- Kacharsky Open Pit Mine. This open pit is located 50 kilometres north of Rudniy. In 2006, 15.3 Mt was mined at 32.2% Fe. The ore is railed to the central processing facility in Rudniy. The iron ore deposit was covered by a very thick layer of recent sediments, up to 200 metres thick. The pit was 343 metres deep as of 2008 and was planned to be 700 metres deep by the end of the mine's life. One cut-back was planned. The ore and waste are drilled and blasted and then loaded into either railway trucks or off-highway trucks. An in-pit crushing and conveying system is planned to enhance material handling for mining from the deeper level.



Photo 11: SSGPO Sokolovsky Open Pit operation, facing north
(Source: MA 2011)



Photo 12: SSGPO Sokolovsky Open Pit operation
 (Source: MA 2011)

23.1 Geology and resources of adjacent ENRC deposits

The following descriptions are summaries in most part from the ENRC prospectus (2007).

ENRC describes the mineralization of its Sokolovsk- Sarbaskyi deposits as being hosted in Carboniferous carbonate sediments and extrusive volcanic rocks, underlain by porphyritic granitoid intrusions. ENRC considers that the economic mineralization is a result of highly iron-enriched, hot metasomatising fluids passing through the limestone and tuffaceous volcanics, along pre-existing faults and weak zones in the generally porous volcanic rocks, as a result of the intrusion of the granitoids.

All of the ENRC deposits are covered by sedimentary waste rocks with thicknesses varying from around 100 metres at Sarbaisky and Sokolovsky to up to 200 metres at Kacharsky. The mineralization host rocks are folded into large, generally open, fold structures. Both the Paleozoic rocks and the granitoids are affected by faulting. In some areas, the Palaeozoic sequences show evidence of weathering, and some collapse structures, and oxidation of the magnetite to martite and hematite.

The Sarbaisky and Sokolovsky deposits are situated on opposite limbs of an anticlinal structure, with a porphyritic granite intrusion between the remnant limbs of the partially eroded feature. The dip of the strata ranges from around 45 degrees to vertical or slightly overturned.

ENRC note that while there are local variations in all the deposits, they have similar genesis, and as a result can be described with certain general characteristics. The mineralization occurs as massive, banded, disseminated, and stockwork vein types in various portions of the deposits. The major iron bearing minerals are magnetite, pyrite, pyrrhotite, and, less commonly, markasite. Titanomagnetite occurs only in specific parts of the deposits.

The magnetite content of the massive mineralization ranges from 60 to 80%, from 20 to 60% in the banded mineralization, and from 20 to 55% in the disseminated and stockwork vein mineralization types. The pyrite content of the mineralization varies between 0.1 and 15%. Concentrations of pyrite are generally highest at Sokolovsky. Hypogene alteration together with calcite forms veins of up to 0.5 metres wide.

23.1.1 Kacharsky

ENRC reported the following JORC compliant reserves and resources for the Kacharsky deposit in July 2007 (Table 27):

Table 27: Kacharsky - Ore Reserves and Mineral Resources -1 July 2007			
Ore Reserve Category	(Mt Dry)	(% Fe)	(Mt Fe)
Proved	187.7	42.5	79.6
Probable	676.7	35.6	241.0
Total Proved & Probable	864.4	37.1	320.6
Mineral Resource Category	(Mt Dry)	(% Fe)	(Mt Fe)
Measured	204.6	44.5	91.0
Indicated	998.9	36.7	366.8
Total Measured & Indicated	1203.5	38.0	457.8
Inferred	278.4	33.2	92.6
(Source: ENRC 2007) MA has not been able to verify that the mineralization described for Kacharsky and notes that the descriptions of the iron ore mineralization at Kacharsky is not necessarily indicative of the same on the Lomonosovskoye Project			

Kacharsky was the largest deposit in the Turgai belt (Figure 19) but has been overtaken in size by Sokolovsky. It is hosted by the Valerianovo supergroup. Mineralization is largely hosted by altered limestone lenses and beds, enclosed within porphyritic basalts and andesites and associated intermediate tuffs.

At Kacharsky, the host rocks have been extensively folded with fold axes along azimuths of between 10 and 50 degrees. The limbs of the folds dip at angles varying between 15 and 70 degrees. The wavelength of the folds range from 2 to 4 km, but are interrupted by extensive faulting of various directions and magnitude with displacements up to 300 metres. Three main areas of mineralization have been outlined at the deposit. These zones comprise a total length of 4.5 kilometres along strike, between 50 and 2,000 metres down dip, and between 7 and 170 metres in width. Forty distinct mineralized bodies have been defined in the Mineral Resources, with the higher grade of them being massive and stockwork vein types

MA has not been able to verify that the mineralization described for Kacharsky and notes that the descriptions of the iron mineralization at Kacharsky is not necessarily indicative of the same on the Lomonosovskoye Project.

23.1.2 Sokolovsky

ENRC reported the following JORC compliant reserves and resources for Sokolovsky deposit in July 2007 (Table 28):

Table 28: Sokolovsky - Ore Reserves and Mineral Resources -1 July 2007				
Ore Reserve Category		(Mt Dry)	(% Fe)	(Mt Fe)
Proved	Underground	16.9	39.0	6.6
Probable	Underground	231.4	31.3	72.5
	Open Pit	36.1	33.5	12.1
Total Probable		267.5	31.6	84.6
Total Proved & Probable		284.4	36.7	91.2
Mineral Resource Category		(Mt Dry)	(% Fe)	(Mt Fe)
Measured	Underground	85	48.5	41.2
Indicated	Underground	1,099.9	38.8	427.2
	Open Pit	35.6	34.5	12.3
Total Indicated		1,135.5	38.7	439.5
Total Measured & Indicated		3,646.5	38.9	480.7
Inferred	Underground	275.6	42.3	116.7
	Open Pit	11.1	26.6	3.0
Total Inferred		286.7	41.7	119.7
(Source: ENRC 2007) MA has not been able to verify that the mineralization described for Sokolovsky and notes that the descriptions of the iron mineralization at Sokolovsky				

is not necessarily indicative of the same on the Lomonosovskoye Project

The mineralization at Sokolovsky is in stacked magnetite lenses distributed over a strike length of 5.6 km (Figure 18 & Figure 19). Sokolovsk is located on the eastern limb of a NNE-trending anticline that hosts the Sarbai deposit on its western limb. As with Kacharsky, the deposit is hosted by carbonates with lesser intercalated tuffaceous sediments, and by intermediate volcanics, in the middle unit of the Valerianovo supergroup. Unlike Kacharsky, the host sequence is intruded by the northeast elongated, 15 by 3.5 km Sarbai-Sokolovsk gabbro-diorite-granodiorite suite, which is bounded by a series of NNE-trending faults.

At Sokolovsky, mineralization has been traced for approximately 7.5 kilometres along its length, with widths varying from 180 to 650 metres. The Lower Carboniferous rocks were reworked during the middle and upper Carboniferous period, and this resulted in subsidence of the original rock mass creating conglomerates and breccias consisting of the original limestone and volcanic rocks with the resultant cavities filled with clay material. This has not affected the mineralization of the mining operations.

MA has not been able to verify that the mineralization described for Sokolovsky and notes that the descriptions of the iron mineralization at Sokolovsky is not necessarily indicative of the same on the Lomonosovskoye Project.

23.1.3 Sarbaisky

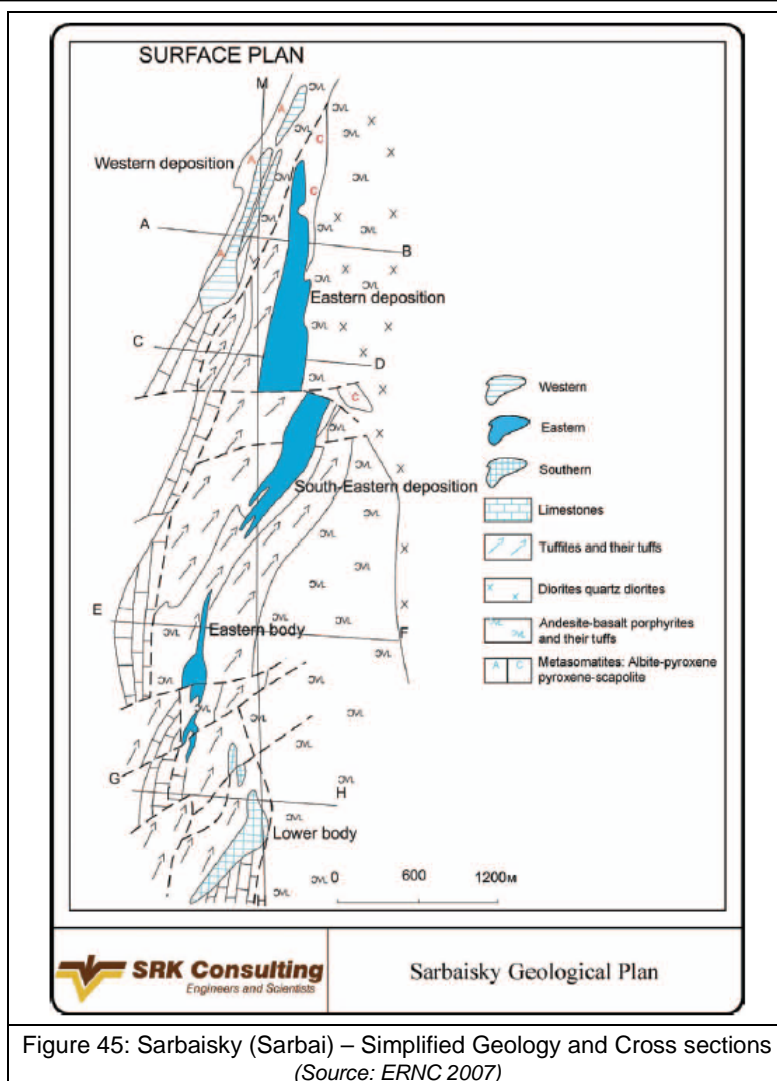
ENRC reported the following JORC compliant reserves and resources for the Sarbaisky deposit in July 2007 (Table 29):

Table 29: Sarbaisky - Ore Reserves and Mineral Resources -1 July 2007			
Ore Reserve Category	(Mt Dry)	(% Fe)	(Mt Fe)
Proved	42.2	38.9	16.4
Probable	78.9	33.8	26.7
Total Proved & Probable	121.1	35.58	43.1
Mineral Resource Category	(Mt Dry)	(% Fe)	(Mt Fe)
Measured	56.8	37.9	21.5
Indicated	805.4	37.4	301.0
Total Measured & Indicated	862.2	37.43	322.5
Inferred	157.9	38.8	61.3
(Source: ENRC 2007)			
MA has not been able to verify that the mineralization described for Sarbaisky and notes that the descriptions of the iron mineralization at Sarbaisky is not necessarily indicative of the same on the Lomonosovskoye Project			

The Sarbaisky deposit (Figure 18, Figure 19, Figure 45) lies on the western limb of the anticline. The geological setting is similar to Sokolovsky. The SSGPO complex is located between the two deposits.

At Sarbaisky, three mineralization zones have been identified that are present in a complex of contact metasomatic formations, consisting of magnetite mineralization and barren skarns and hornfels. The zones are continuous along strike and dip, except where they are disrupted by faults and diorite intrusions. The eastern and western mineralized bodies are larger, similar in size at 1,700 metres and 1,900 metres strike length respectively, and 180 metres wide. Both orebodies have also been intersected at depths of over 800 metres. The smaller southeastern mineralized body is approximately 100 metres long, 170 metres wide, and has been drilled to depths of just less than 800 metres. Exploration in the 1980's has outlined a region of stockwork vein type mineralization, close to surface near the southern boundary of the current open pit.

MA has not been able to verify that the mineralization described for Sarbaisky and notes that the descriptions of the iron mineralization at Sarbaisky is not necessarily indicative of the same on the Lomonosovskoye Project.



23.2 Production from adjacent ENRC deposits

Table 30 lists the published production data from the adjacent mines (ENRC 2007).

Table 30: Production Statistics for the adjacent SSGPO Mining Operations					
		Historical			
		2004	2005	2006	H1 2007
Mining					
Underground mining	(Mt)	3.1	2.0	1.6	1.2
Open pit mining	(Mt)	32.7	28.6	37.2	18.3
Total Mined*	(Mt)	35.8	30.7	38.8	19.5
Processing					
Concentrate Produced	(Mt)	15.4	12.9	16.1	8.3
Sales⁽⁴⁾					
Concentrate sold	(Mt)	5.2	4.7	7.0	3.6
Pellets sold	(Mt)	9.4	7.2	9.0	4.3

(Source: ENRC 2007)

The above statistics have been used to produce the results listed in Table 31 which indicates the weight recovery of concentrate at SSGPO is in the range 41.5% to 43%.

Table 31: Weight recovery of concentrate for the adjacent SSGPO Mining Operations				
Year	2004	2005	2006	H1 2007
Total Mined Mt	35.8	30.7	38.8	19.5
Concentrate Produced Mt	15.4	12.9	16.1	8.3
Weight Recovery	43.02%	42.02%	41.49%	42.56%

This weight recovery is similar to most skarn type magnetite deposits including the Savage River deposit in Tasmania and the Grange Resource's Southdown Project in Western Australia.

24 OTHER RELEVANT DATA AND INFORMATION

In September 2013 KMI engaged Wardell Armstrong International as lead technical consultant to coordinate a Definitive Feasibility Study (DFS) on the Project. The DFS is expected to be completed by the end of 2014. Wardell Armstrong International is an independent mining consultancy providing specialized geological, geotechnical and hydrogeological mining advice as well as bringing environmental and social experience to mining projects worldwide across all commodities. The full scope of work for the DFS includes:

- review of the geological data and preparation of an updated resource model;
- technical support to all site investigation works including geological, hydrogeological, and geotechnical drilling;
- geotechnical analysis and design for the open pit slopes and waste dump;
- hydrogeological and site water balance modelling;
- design of the tailings storage facility;
- ESIA management and social impact assessment;
- mine closure and rehabilitation planning;
- ore reserves, life of mine plan, mining method and optimisation;
- metallurgical testwork and process and plant design;
- project infrastructure planning;
- CAPEX/OPEX costing development and benchmarking;
- project financial modelling, analysis and market studies; and
- preparation of the DFS document.

25 INTERPRETATION AND CONCLUSIONS

25.1 Interpretation

The Lomonosovskoye Project contains significant magnetite iron mineralization in two deposits comprised of seven adjacent domains which have similar geological settings to the nearby operating magnetite iron ore open pit and underground mines in the Rudny region.

Historical work to date has outlined skarn iron mineralization at the Northwest Deposit and the Central Deposit beneath 100 m of overburden and extending to 1600 m depth in the Northwest Deposit, and some 900 m at Central.

The drilling available consisting of twenty two (22) drill holes totalling 9,049 m has allowed for confirmation of the historical drilling and for the deposit to be better understood and extended in area leading to this resource estimate but still remains open at depth and in the poorly drilled and structurally complex region between the Northwest and Central deposits.

From the data received as of November 2012, the resource estimate for Lomonosovskoye effective date of April 17, 2014 stands as outlined below, above a cut-off grade of 20% iron:

Table 32: Mineral Resource Estimate for Combined Lomonosovskoye, Effective Date of April 17, 2014, Cut-off 20% Fe					
Class	Mt	Fe %	P %	S %	FeM %
Measured	63.9	30.5	0.29	3.01	21.3
Indicated	414.2	30.6	0.22	3.3	21.04
Measured & Indicated	478.1	30.5	0.23	3.3	21.1
Inferred	28.4	28.0	0.28	3.04	16.71

The revised estimate is based on the data set used in the December 2012 report, with additional assaying of stored samples and interpretation of down-hole geophysical logs. It is expected that drilling completed in 2013 and 2014 will be included in the next update.

It is MA's opinion that the mineral resource estimates included in the December 2012 report have been largely verified by the new estimates, with the changes in tonnage and grade reflecting increased confidence and the use of an estimation methodology better suited to bulk surface and underground mining. The new estimates are fully diluted for internal and edge mining dilution.

The mineralization domains were redefined by 3D wireframes using drill assay data, detailed geology logs and down-hole magnetic susceptibility logs. The deposit was divided into blocks above and below 20% Fe using an indicator approach. Grades and mineralization percentages were then estimated by Ordinary Kriging into blocks 15x15x10 m in size within each domain.

While there have been a number of metallurgical programs through the history of the project, further metallurgical testing will be required regardless of the historical metallurgical results. MA notes the presence of significant hematite as well as magnetite at several locations and this will need to be taken into account in the plant design. A metallurgical program is currently being undertaken by KMI with results expected in 2014.

MA notes that the Lomonosovskoye Project has a favourable location due to its proximity to transportation routes, and sources of water, gas, and power supply, which have been established with the regional mining complex based in Rudny. This may allow a reduction in capital expenditure and may reduce the cost of production if the project proceeds to development through the use of shared infrastructure.

The Legal Opinion states that there is a remote risk of the Competent Authority will not approve the transfer of Subsoil Use Contract rights. MA believes the revised ownership structure has largely offset this risk.

In terms of to the project's potential economic viability, as the Project is considered to be in Advanced Exploration stage prior to Preliminary Economic Assessment, it is not at a stage to discuss risk in

terms of potential economic viability. There are however reasonable prospects of eventual economic extraction by combined open pit and underground methods.

25.2 Conclusions

The QP makes the following observations and conclusions regarding the Lomonosovskoye Project:

- Significant skarn type iron mineralization exists at the Lomonosovskoye Project.
- The mineralization occurs in 3 main types – disseminated, veins and massive.
- The deposit remains open at depth and along the lateral extents in certain areas as well as being under-drilled in the mid portion between the Northwest and Central deposits. This area is currently being tested with diamond drilling.
- The resource estimates will be updated based on the results of the drilling program currently underway.
- Following a more rigorous and reliable testing of density, a calculated density has been applied to iron bearing blocks within the block model rather than fixed values as in the past.
- The Lomonosovskoye Project has a very favorable location due to its proximity to transportation routes and infrastructure.
- The historical drill-holes have been validated by a current drilling program and close examination of the statistics between old and current drilling has deemed that the historical holes are suitable to be included in this resource estimate.
- The techniques applied in the sampling, logging and storing of core are deemed appropriate QA/QC procedures and standards.
- The mineralization remains open at depth and along the lateral extents in certain areas as well as being under-drilled in the mid portion between the Northwest and Central deposits.
- Selective sampling within mineralized zones has required a weighting factor to be applied to the estimation model; future drilling should be fully sampled within the interpreted mineralized zone to fill in these gaps and allow estimation of the waste as well as mineralization.

26 RECOMMENDATIONS

MA recommends the following activities be conducted to improve the accuracy of future mineral resource estimates and thus reserves, mine design and production schedules:

- Review paleo-weathering depth profile and effects at the top of mineralization, particularly on magnetite. This may be achieved by close spaced micro-seismic or georadar;
- Validation drilling to include more twinned holes to allow direct comparison with historical holes. Twin hole selection should pick historical holes which have reliably stored core;
- Evaluate historical holes which display no assay results and determine whether assays are available and missing or whether resampling can be carried out to further enhance the model.
- Further infill drilling is required in areas that are poorly sampled or under drilled in order to close out the deposit and improve the weighting of samples within the model.;
- To gain further confidence in the interpretation and improve the volume of the measured category for the first few years of planned production, the line spacing of 100 m should be closed to 50 m.;
- Drilling should also be focused on those areas that are likely to provide the limits to mine design, e.g. where the mineralization envelope cuts the walls of the potential pit.
- Develop and implement rigorous QAQC procedures for all new drilling including down hole geophysics.
- Investigate benefit of 3D geophysical inversion modeling of ground magnetic data to ensure resources are fully closed off and target other mineralization.

26.1 Work program and budget

KMI has developed a US\$13M work program for 2014. The work program consists of ongoing drilling, technical studies, a Definitive Feasibility Study (DFS) and commencement of construction on the Project.

The 2013-2014 drilling program is designed for the purpose of geotechnical, hydrology and resource definition and comprises 68 boreholes totalling approximately 15,600 m. Of the proposed 68 boreholes, 29 are exploration boreholes measuring approximately 11,200 m, 28 are geotechnical boreholes measuring approximately 3,400 m, and 11 are hydrogeological boreholes measuring approximately 1,000 m.

The DFS is being coordinated by Wardell Armstrong International as lead technical consultant and is expected to be completed by the end of 2014. Wardell Armstrong International is an independent mining consultancy providing specialized geological, geotechnical and hydrogeological mining advice as well as bringing environmental and social experience to mining projects worldwide across all commodities. The full scope of work for the DFS includes:

- review of the geological data and preparation of an updated resource model;
- technical support to all site investigation works including geological, hydrogeological, and geotechnical drilling;
- geotechnical analysis and design for the open pit slopes and waste dump;
- hydrogeological and site water balance modelling;
- design of the tailings storage facility;
- ESIA management and social impact assessment;
- mine closure and rehabilitation planning;
- ore reserves, life of mine plan, mining method and optimisation;
- metallurgical testwork and process and plant design;
- project infrastructure planning;
- CAPEX/OPEX costing development and benchmarking;
- project financial modelling, analysis and market studies; and

- preparation of the DFS document.

Table 33. 2014 Budget	
Description of works	\$1,000's
Drilling work (Drilling works 2013 budget: \$1.77M)	712.2
Geophysical survey	278.9
Hydrogeological works	175.78
Samples preparation	74.7
Topographical linkage of wells	0.8
Laboratory works	750.1
Feasibility study of Industrial condition	192.5
Preparation of Mining Plan and Feasibility study (inter standards),	1,689.6
Supervision of exploration programme	241.4
Preparation and Independent expertise of Project Documents	390.0
Construction works	5,097.4
Indirect costs	3,185.0
Taxes and assignments	462.9
Total cost of works	13,251.0

MA considers the budget reasonable for the work planned and sufficient to achieve the planned objectives.

Respectfully submitted,
 Andrew James Vigar
BAppSc Geo, FAusIMM, MSEG
 Qualified Person

Hong Kong

Effective Date: 17 April 2014
 Submitted Date 29 May 2014

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28 DATE AND SIGNATURE PAGE

This report titled "Independent Technical Report on the Lomonosovskoye Iron Project, Republic of Kazakhstan" and dated effective 17 April 2014, was prepared and signed by the following authors:

Dated at Hong Kong
29 May 2014



Andrew James Vigar
BAppSc Geo, FAusIMM, MSEG
Qualified Person

29 CERTIFICATES OF QUALIFIED PERSONS

CERTIFICATE ANDREW J VIGAR

I, Andrew James Vigar hereby certify that:

I am an independent Consulting Geologist and Professional Geoscientist residing at 97 Isaac Street, Spring Hill, Queensland 4000, Australia with my office at Level 4, 67 St Paul's Terrace, Brisbane, Queensland 4001, Australia (Telephone +61-7-38319154).

I graduated from the Queensland University of Technology, Brisbane, Australia in 1978 with a Bachelor Degree in Applied Science in the field of Geology. I have continuously practised my profession as a Geologist for the past 32 years since graduation, in the fields of mineral exploration, mine geology and mineral resource estimation. I have held senior positions with Emperor Gold, Western Mining Corporation, Costain Australia and Conzinc Riotinto of Australia Ltd ("CRA") (now Rio Tinto Limited) prior to commencing full-time consulting in 1996. I have been involved in consulting to the minerals industry both independently (Vigar & Associates and now Mining Associates Pty Ltd, and Mining Associates Limited) and as an employee of the international consultancy, SRK Consulting.

My specific experience concerning the Lomonosovskoye Iron Project is my extensive experience in bulk mineral deposits in general and iron deposits in particular; including a detailed technical review and resource estimate for the Sishen deposits (Republic of South Africa), and Hope Downs (Western Australia), and reviews of various hematite and magnetite deposits in the Philippines, Indonesia, Papua New Guinea and Australia.

I was elected a Fellow of the Australasian Institute of Mining and Metallurgy ("The AusIMM") in 1993. My status as a Fellow of The AusIMM is current. I am a Member of the Society of Economic Geologists (Denver). I am recognized by the Australian Securities and Investments Commission and the Australian Stock Exchange as a Qualified Person for the submission of Independent Geologist's Reports.

I am responsible for all Sections of this Technical Report.

I have visited the Lomonosovskoye Iron Project site from 26th to 30th March 2012 and from 3rd December to 9th December 2013.

For the purposes of the Technical Report entitled: "Independent Technical Report on the Lomonosovskoye Iron Project, Republic of Kazakhstan" dated 17 April 2014, of which I am the author, I am a Qualified Person as defined in National Instrument 43-101 ("the Policy").

I have read the Policy and this technical report is prepared in compliance with its provisions. I have read the definition of "qualified person" set out in the Policy and certify that by reason of my education, affiliation with a professional association (as defined in the Policy) and past relevant work experience, I fulfil the requirement to be a "qualified person" for the purposes of the Policy.

At the effective date, to the best of my knowledge, information and belief, the portions of the technical report that I am responsible for contain all scientific and technical information that is required to be disclosed in order to make this report not misleading.

I have no direct or indirect interest in the properties which are the subject of this report. I do not hold, directly or indirectly, any shares in KMI Capital Inc. or other companies with interests in the iron exploration assets of KMI Capital Inc. I am independent of KMI Capital Inc. as described in Section 1.5 of the Companion Policy 43-101CP.

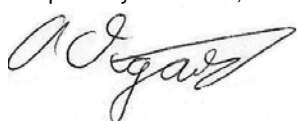
I do not hold, directly or indirectly, any shares in Safin Element GmbH, ("the Vendor"), or other companies with interests in the iron exploration assets of the Vendor. I am independent of the Vendor.

With the exception of the co-authorship of an independent valuation report dated December 2011, previous independent technical reports dated 12 April 2012 and 18 December 2012, I have had no prior involvement with the property which is the subject of this report. I do not hold any direct interest in any mineral tenements in Kazakhstan.

I will receive only normal consulting fees for the preparation of this report.

Dated at Hong Kong this 29th day of May, 2014.

Respectfully submitted,



Andrew James Vigar
BAppSc Geo, FAusIMM, MSEG

30 GLOSSARY OF TECHNICAL TERMS

This glossary comprises a general list of common technical terms that are typically used by geologists. The list has been edited to conform in general to actual usage in the body of this report. However, the inclusion of a technical term in this glossary does not necessarily mean that it appears in the body of this report, and no imputation should be drawn. Investors should refer to more comprehensive dictionaries of geology in printed form or available in the internet for a complete glossary.

"200 mesh"	the number of openings (200) in one linear inch of screen mesh (200 mesh approximately equals 75 microns)
"Au"	chemical symbol for gold
"block model"	A block model is a computer based representation of a deposit in which geological zones are defined and filled with blocks which are assigned estimated values of grade and other attributes. The purpose of the block model (BM) is to associate grades with the volume model. The blocks in the BM are basically cubes with the size defined according to certain parameters.
"bulk density"	The dry in-situ tonnage factor used to convert volumes to tonnage. Bulk density testwork is carried out on site and is relatively comprehensive, although samples of the more friable and broken portions of the mineralized zones are often unable to be measured with any degree of confidence, therefore caution is used when using the data. Bulk density measurements are carried out on selected representative samples of whole drill core wherever possible. The samples are dried and bulk density measured using the classical wax-coating and water immersion method.
"cut off grade"	The lowest grade value that is included in a resource statement. Must comply with JORC requirement 19 " <i>reasonable prospects for eventual economic extraction</i> " the lowest grade, or quality, of mineralized material that qualifies as economically mineable and available in a given deposit. May be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification.
"diamond drilling, diamond core"	Rotary drilling technique using diamond set or impregnated bits, to cut a solid, continuous core sample of the rock. The core sample is retrieved to the surface, in a core barrel, by a wireline. The drill core is taken from the drill site to a secure compound at the Company's field camp and is logged by the geologist. The drill core is then split into two equal halves along its long axis, with one half being sampled at predetermined intervals, collected in calico bags and sent for analysis. The remaining half-core is retained in core boxes and stored on site for future reference. Core sizes are PQ3 (ø 83 mm) from surface to approximately 50 metres depth, then HQ3 (ø 61 mm) to the end of the hole.
"down-hole survey"	Drill hole deviation as surveyed down-hole by using a conventional single-shot camera and readings taken at regular depth intervals, usually every 50 metres.
"drill-hole database"	The drilling, surveying, geological and analyses database is produced by qualified personnel and is compiled, validated and maintained in digital and hardcopy formats.
"g/t"	grams per tonne, equivalent to parts per million
"g/t Au"	grams of gold per tonne
"gold assay"	Gold analysis is usually carried out by an independent ISO17025 accredited laboratory by classical 'Screen Fire Assay' technique that involves sieving a 900-1,000 gram sample to 200 mesh (~75 microns). The entire oversize and duplicate undersize fractions are fire assayed and the weighted average gold grade calculated. This is one of the most appropriate methods for determining gold content if there is a 'coarse gold' component to the mineralization.
"grade cap, also called top cut"	The maximum value assigned to individual informing sample composites to reduce bias in the resource estimate. They are capped to prevent over estimation of the total resource as they exert an undue statistical weight. Capped samples may represent "outliers" or a small high-grade portion that is volumetrically too small to be separately dominated.
"inverse distance estimation"	It asserts that samples closer to the point of estimation are more likely to be similar to the sample at the estimation point than samples further away. Samples closer to the point of estimation are collected and weighted according to the inverse of their separation from

	<p>the point of estimation, so samples closer to the point of estimation receive a higher weight than samples further away.</p> <p>The inverse distance weights can also be raised to a power, generally 2 (also called inverse distance squared). The higher the power, the more weight is assigned to the closer value. A power of 2 was used in the estimate used for comparison with the OK estimates.</p>
"JORC"	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2004 (the "JORC Code" or "the Code"). The Code sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The definitions in the JORC Code are either identical to, or not materially different from, those similar codes, guidelines and standards published and adopted by the relevant professional bodies in Australia, Canada, South Africa, USA, UK, Ireland and many countries in Europe.
"JORC Inferred Resource"	That part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.
"JORC Indicated Resource"	That part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.
"JORC Measured Resource"	That part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.
"kriging neighbourhood analysis, or KNA"	The methodology for quantitatively assessing the suitability of a kriging neighbourhood involves some simple tests. It has been argued that KNA is a mandatory step in setting up any kriging estimate. Kriging is commonly described as a "minimum variance estimator" but this is only true when the block size and neighbourhood are properly defined. The objective of KNA is to determine the combination of search neighbourhood and block size that will result in conditional unbiasedness.
"lb"	Avoirdupois pound (= 453.59237 grams). Mlb = million avoirdupois pounds
"Ma"	Million years
"micron (μ)"	Unit of length (= one thousandth of a millimetre or one millionth of a metre).
"Mineral Resource"	A concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories when reporting under JORC.
"Mo"	Chemical symbol for molybdenum
"molybdenum assay"	Molybdenum analysis is usually carried out by an independent ISO17025 accredited laboratory. The sample is dissolved in Aqua Regia (3:1 HCl:HNO ₃) and analysis is carried out by Inductively Coupled Plasma - Optical Emission Spectrometry (ICP-OES) method.
"nearest neighbour estimation" "Inferred"	Nearest Neighbour assigns values to blocks in the model by assigning the values from the nearest sample point to the block attribute of interest. that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.
"ordinary Kriging estimation, or"	Kriging is an inverse distance weighting technique where weights are selected via the variogram according to the samples distance and direction from the point of estimation.

OK""Indicated"	The weights are not only derived from the distance between samples and the block to be estimated, but also the distance between the samples themselves. This tends to give much lower weights to individual samples in an area where the samples are clustered. OK is known as the "best linear unbiased estimator. The kriging estimates are controlled by the variogram parameters. The variogram model parameters are interpreted from the data while the search parameters are optimised during kriging neighbourhood analysis.
"oz"	Troy ounce (= 31.103477 grams). Moz = million troy ounces
"QA/QC"	Quality Assurance/Quality Control. The procedures for sample collection, analysis and storage. Drill samples are despatched to 'certified' independent analytical laboratories for analyses. Blanks, Duplicates and Certified Reference Material samples are included with each batch of drill samples as part of the Company's QA/QC program. Mining Associates, as part of database management, monitors the results on a batch-by-batch basis.
"RC drilling"	Reverse Circulation drilling. A method of rotary drilling in which the sample is returned to the surface, using compressed air, inside the inner-tube of the drill-rod. A face-sampling hammer is used to penetrate the rock and provide crushed and pulverised sample to the surface without contamination. 1 metre samples are collected in a plastic bag from the bottom discharge chute of a cyclone. Sub-sample splits are collected in calico bags using a 'jones-type' riffle splitter to obtain a 3-4kg subsample for submission to the laboratories for analyses. RC is carried out using a face-sampling hammer with a bit diameter of 5¼" (ø 135mm).
"survey"	Comprehensive surveying of drill hole positions, topography, and other cadastral features is carried out by the Company's surveyors using 'total station' instruments and independently verified on a regular basis. Locations are stored in both local drill grid and UTM coordinates.
"t"	Tonne (= 1 million grams)
"variogram"	The Variogram (or more accurately the Semi-variogram) is a method of displaying and modelling the difference in grade between two samples separated by a distance h, called the "lag" distance. It provides the mathematical model of variation with distance upon which the Krige estimation method is based.
"wireframe"	This is created by using triangulation to produce an isometric projection of, for example, a rock type, mineralization envelope or an underground stope. Volumes can be determined directly of each solid.

31 Appendix 1: Historical drill holes

Hole	North	East	Elev collar	Max Depth	Hole Type		Hole	North	East	Elev collar	Max Depth	Hole Type
1	89438	95108	199.9	270.0	Expl		324	89709	95413	198.0	355.7	search
2	90766	94652	202.5	480.0	Expl		325	89775	94829	197.4	660.0	Expl
3	90788	95572	201.9	10.0	Expl		326	89776	95044	197.1	517.6	Expl
4	89466	95205	200.0	200.0	Expl		327	89778	95244	197.0	529.0	Expl
5	89410	95013	200.9	220.0	Expl		330	90471	94710	201.4	1600.0	Expl
6	89381	94915	201.3	205.0	Expl		331	90202	94394	202.5	1211.7	Expl
7	89496	95307	200.7	10.0	Expl		332	90267	94661	198.4	1394.5	Expl
8	90736	94692	202.4	470.0	Expl		334	90575	95080	198.5	1374.0	Expl
8a	90751	94672	202.4	300.0	Expl		336	90828	95073	199.9	929.3	Expl
9	90676	94772	201.3	10.0	Expl		337	90930	95097	200.0	791.0	Expl
9a	90707	94734	201.8	280.0	Expl		338	90821	95674	201.1	1500.0	Expl
10	90555	94932	200.3	10.0	Expl		370	90916	95856	200.9	123.7	Geotech
11	90797	94613	202.1	490.0	Expl		390	91066	95390	199.7	762.9	Expl
12	90857	94532	202.6	290.0	Expl		392	90606	94697	202.4	1132.9	Expl
13	90976	94372	203.2	10.0	Expl		393	91051	95263	199.9	705.1	Expl
14	89272	95199	201.6	10.0	Expl		394	90734	94365	204.0	642.0	Expl
15	89269	94530	203.3	10.0	Expl		396	90898	95303	199.5	1004.9	Expl
16	89325	94722	202.5	10.0	Expl		398	91049	94939	199.9	442.5	Expl
17	89551	95413	202.5	10.0	Expl		399	90814	95177	199.2	1146.3	Expl
18	91158	94131	204.3	10.0	Expl		400	90734	94863	200.0	740.0	Expl
19	91037	94292	204.1	10.0	Expl		401	91078	94736	200.4	279.0	Expl
20	90606	94533	203.7	250.0	Expl		402	90743	95178	199.0	1200.0	Expl
21	91324	95075	201.2	10.0	Expl		404	90884	94829	200.1	511.2	Expl
22	90926	94772	200.3	360.0	Expl		405	90825	94906	200.0	740.0	Expl
23	91218	94052	204.6	10.0	Expl		406	90749	95008	199.4	793.5	Expl
24	91097	94212	204.6	10.0	Expl		407	90627	95171	199.8	1330.5	Expl
26	90666	94453	203.8	10.0	Expl		409	90665	94958	200.1	822.0	Expl
27	90543	94612	202.9	10.0	Expl		411	90631	95001	199.8	1100.0	Expl
28	90486	94694	201.8	10.0	Expl		413	90687	94754	201.5	873.0	Expl
29	91295	95114	201.0	10.0	Expl		414	90598	94878	201.2	1108.0	Expl
30	91266	95167	200.6	150.0	Expl		416	90415	95118	198.2	1714.8	Expl
31	90957	94732	203.0	520.0	Expl		417	90805	94431	203.5	320.3	Expl
32	91199	95243	200.0	10.0	Expl		418	90745	94510	203.2	443.7	Expl
33	91225	94373	200.0	285.0	Expl		419	90685	94594	203.1	1172.0	Expl
34	90449	94411	203.5	10.0	Expl		420	90512	94820	200.6	1281.6	Expl
35	90899	94811	200.3	390.0	Expl		421	90354	95037	197.8	1501.3	Expl
36	91016	94651	201.1	10.0	Expl		424	90658	94295	204.8	277.3	Expl
37	90985	94693	200.6	195.0	Expl		425	90525	94475	203.6	498.5	Expl
38	90871	94851	199.9	285.0	Expl		426	90537	94494	203.6	790.0	Expl
39	90806	94932	193.9	10.0	Expl		427	90355	94698	198.5	1497.8	Expl
40	91166	94954	200.2	280.0	Expl		428	90244	94847	197.7	1399.0	Expl
41	91086	94892	199.9	285.0	Expl		430	90613	95321	201.9	1400.0	Expl
42	91102	95033	199.8	460.0	Expl		431	90159	94638	197.7	1367.0	Expl
43	91606	94533	202.3	10.0	Expl		432	89776	94738	197.8	412.4	Expl
44	91486	94694	201.7	10.0	Expl		433	89776	94937	197.5	606.7	Expl
45	91367	94853	200.1	10.0	Expl		434	89600	94788	198.4	346.0	Expl
46	91246	95014	200.4	10.0	Expl		435	89678	94768	198.0	398.5	Expl
47	91127	95172	199.9	10.0	Expl		436	89690	95016	197.7	901.2	Expl
48	91006	95323	199.6	10.0	Expl		437	89700	95156	197.7	487.1	Expl
49	90885	95494	200.0	10.0	Expl		438	89700	95205	197.7	486.2	Expl
51	90700	95731	201.3	10.0	Expl		439	89701	95381	197.7	418.0	Expl
52	90580	95891	202.0	10.0	Expl		441	89547	94961	198.1	600.0	Expl
53	90459	96050	200.5	10.0	Expl		442	89577	95062	198.0	494.9	Expl
54	91106	94534	202.7	10.0	Expl		443	89589	95149	197.9	487.0	Expl
55	91189	95097	200.1	400.0	Expl		444	89595	95245	197.9	573.8	Expl
57	91146	94813	199.9	10.0	Expl		445	89607	95365	198.0	548.8	Expl
58	89706	95291	197.5	235.0	Expl		446	89368	94856	201.1	232.1	Expl
59	89562	94992	198.3	355.0	Expl		447	89419	94937	200.5	304.2	Expl
60	89591	95090	198.0	275.0	Expl		448	89454	95158	199.5	449.5	Expl
62	90695	94412	204.0	10.0	Expl		449	89482	95254	200.1	480.0	Expl
64	89700	95206	198.0	240.0	Expl		450	89500	95356	201.2	539.3	Expl
65	88998	95383	201.1	10.0	Expl		451	89334	95186	201.3	313.0	Expl
66	88927	95454	201.2	10.0	Expl		452	89053	94949	200.8	481.6	Expl
67	88856	95521	201.3	180.0	Expl		453	89133	95275	201.1	299.0	Expl

Table 2: Historical Drill Holes: Coordinates, Elevation, Depth

Hole	North	East	Elev collar	Max Depth	Hole Type		Hole	North	East	Elev collar	Max Depth	Hole Type
70	91809	94934	201.6	10.0	Expl		457	88939	95327	201.4	701.0	Expl
71	91688	95094	201.3	10.0	Expl		458	88977	95523	201.4	754.0	Expl
72	91560	95254	201.5	10.0	Expl		459	88831	95315	201.2	710.0	Expl
73	91448	95416	201.6	10.0	Expl		460	88847	95414	200.8	709.8	Expl
74	91328	95575	202.4	10.0	Expl		461	88868	95517	201.2	703.6	Expl
83	91405	94136	203.3	10.0	Expl		462	88884	95612	201.4	500.7	Expl
84	91285	94295	203.7	10.0	Expl		463	88901	95706	201.3	558.4	Expl
90	91327	93571	203.0	10.0	Expl		470	88535	95373	201.2	996.5	Expl
91	91086	93898	204.2	10.0	Expl		472	88587	95670	200.9	868.8	Expl
92	90968	94055	204.9	10.0	Expl		473	88642	95961	200.7	796.5	Expl
93	90847	94217	204.8	10.0	Expl		474	88463	95556	201.0	1600.0	Expl
97	90765	93652	201.4	10.0	Expl		476	88501	95751	200.6	856.5	Expl
98	90645	93812	204.4	10.0	Expl		478	88537	95951	200.3	407.8	Expl
99	90525	93973	206.6	10.0	Expl		479	88572	96148	200.7	683.8	Expl
100	90404	94132	205.2	10.0	Expl		480	89777	95144	197.0	567.5	Expl
101	90285	94293	204.3	10.0	Expl		481	89779	95344	197.5	665.0	Expl
102	90166	94452	201.9	145.0	Expl		482	90302	94444	202.9	890.5	Expl
105	91216	95054	200.2	275.0	Expl		483	88817	95795	201.1	840.0	Expl
106	91110	94853	199.9	320.0	Expl		484	89471	94966	197.8	540.0	Expl
107	90075	94573	198.8	10.0	Expl		485	89486	95013	198.5	750.0	Expl
109	91063	94912	199.9	245.0	Expl		486	89500	95061	197.2	440.0	Expl
110	90342	94206	205.1	10.0	Expl		487	89515	95109	197.1	460.0	Expl
111	91018	94158	205.1	10.0	Expl		488	89528	95157	197.1	446.1	Expl
112	91246	94015	204.2	10.0	Expl		489	89543	95205	198.1	500.0	Expl
113	90997	95012	199.7	10.0	Expl		490	89546	95254	198.1	496.2	Expl
115	90084	93891	206.0	10.0	Expl		491	89545	95308	197.9	484.0	Expl
129	88788	95594	201.3	10.0	Expl		492	89559	95402	201.2	453.1	Expl
134	91507	95884	201.2	10.0	Expl		493	89553	95352	198.9	600.0	Expl
135	91749	95015	201.6	10.0	Expl		494	89457	94918	198.7	450.0	Expl
136	90998	94676	200.7	170.0	Expl		495	89474	94743	198.8	359.0	Expl
137	91810	95257	201.5	10.0	Expl		496	89609	95450	200.8	396.0	Expl
138	90896	94468	202.3	510.0	Expl		497	88726	95311	201.3	1018.1	Expl
139	90509	94331	214.5	10.0	Expl		498	88550	95472	201.2	900.0	Expl
140	91046	94612	201.1	220.0	Expl		499	88627	95865	201.1	753.5	Expl
141	91134	94995	199.8	361.9	Expl		965	88728	93614	204.3	10.0	Expl
142	91024	94974	199.8	548.3	Expl		966	88696	94113	203.1	10.0	Expl
143	91073	95073	199.8	610.0	Expl		967	88666	94612	201.0	10.0	Expl
149	89427	95048	200.5	330.0	Expl		968	88635	95111	200.8	10.0	Expl
151	90700	94752	201.5	780.0	Expl		969	88602	95611	201.4	10.0	Expl
153	89633	94817	198.1	665.0	Expl		1128	88590	95813	201.0	10.0	Expl
154	89682	94898	197.9	640.0	Expl		1130	88615	95412	201.5	10.0	Expl
155	89697	95100	197.7	280.0	Expl		1241	89340	95354	201.0	320.0	Expl
156	91224	95219	199.8	410.0	Expl		1245	89507	95398	201.1	350.0	Expl
158	90526	94636	202.6	1120.0	Expl		1761	89704	95242	197.7	360.0	Expl
159	90804	94943	199.8	760.0	Expl		1762	89706	95316	197.7	350.0	Expl
160	90578	94566	203.0	505.0	Expl		1764	89323	95085	201.2	170.0	Expl
164	91233	95130	199.8	310.0	Expl		1765	89901	95284	197.5	310.0	Expl
166	91254	95173	199.8	190.0	Expl		1766	89875	95331	197.5	305.0	Expl
168	89494	94782	198.8	840.0	Expl		11a	90782	94631	202.2	540.0	Expl
169	90634	94493	203.8	754.0	Expl		12a	90855	94534	202.5	580.0	Expl
172	90951	94914	199.9	551.8	Expl		233Г	90566	94279	204.5	10.0	Hydrogeo
174	90843	94720	201.0	555.0	Expl		319П	89531	94908	198.3	10.0	Expl
175	91353	95199	201.3	165.0	Geotech		324П	89706	95428	198.0	10.0	Expl
178	89882	93358	204.4	10.0	Geotech		335A	90669	95117	198.5	1153.0	Expl
180	91284	95294	202.1	430.0	Expl		339K	88194	93081	203.9	10.0	Geotech
181	90905	94633	201.1	327.2	Expl		340K	90481	93702	203.0	10.0	Geotech
182	91008	94835	200.0	409.0	Expl		341K	88414	93848	203.1	10.0	Geotech
183	89883	93557	206.3	10.0	Geotech		342K	89025	94855	201.0	10.0	Geotech
184	89883	93957	205.9	10.0	Geotech		343K	88957	94648	201.4	10.0	Geotech
185	89882	94157	204.4	10.0	Geotech		344K	88902	94471	201.3	10.0	Geotech
186	89885	94356	202.8	10.0	Geotech		345K	88849	94282	202.5	10.0	Geotech
187	89885	94557	201.5	155.0	Geotech		346K	88281	92354	203.0	10.0	Geotech
188	89888	94755	201.0	840.0	Expl		347K	88737	93898	204.0	10.0	Geotech
190	89889	95056	200.9	700.0	Expl		348K	91316	94593	204.8	10.0	Geotech
192	88762	95498	201.6	750.0	Expl		349K	88469	91869	204.4	10.0	Geotech
193	89883	93757	206.6	10.0	Geotech		350K	88699	92671	203.2	10.0	Geotech
195	88797	95696	201.3	530.0	Expl		351K	88905	93401	203.4	10.0	Geotech

Table 2: Historical Drill Holes: Coordinates, Elevation, Depth

Hole	North	East	Elev collar	Max Depth	Hole Type	Hole	North	East	Elev collar	Max Depth	Hole Type
198	90885	95592	200.6	10.0	Expl	352Г	90301	93380	201.1	10.0	Hydrogeo
200	89881	93154	204.1	10.0	Geotech	353K	89348	93342	204.3	10.0	Geotech
201	91055	94769	200.2	360.0	Expl	354K	89616	93407	204.8	10.0	Geotech
202	90966	94551	201.6	625.0	Expl	355K	89466	93726	205.7	10.0	Geotech
203	90784	94800	200.5	840.0	Expl	356K	89587	94104	203.8	10.0	Geotech
204	90693	94919	200.2	874.0	Expl	357K	89646	94303	203.0	10.0	Geotech
205	90629	94836	201.2	979.5	Expl	358K	89701	94480	201.3	10.0	Geotech
206	90771	94314	204.2	10.0	Expl	359K	90226	93529	204.9	10.0	Geotech
207	90479	94370	204.1	790.0	Expl	360K	90130	93716	206.0	10.0	Geotech
208	90361	94530	202.1	1057.7	Expl	361K	90347	93850	206.0	10.0	Geotech
210	90424	94774	198.8	1390.0	Expl	362/4Г	89519	95381	201.1	10.0	Hydrogeo
211	89104	95142	200.9	379.1	Expl	362K	90220	93990	206.0	10.0	Geotech
212	89140	99339	201.2	500.0	Expl	363K	90093	94147	204.7	10.0	Geotech
218	88727	95301	201.3	150.0	Expl	364K	90659	94139	205.1	10.0	Geotech
223	91104	94705	200.4	630.0	Expl	365K	91645	94324	202.4	10.0	Geotech
224	90979	94874	199.8	470.0	Expl	366K	92126	95496	202.0	10.0	Geotech
226	90537	94956	199.3	1050.0	Expl	367K	91890	95817	202.0	10.0	Geotech
228	90424	95281	199.8	10.0	Geotech	368K	92193	94229	201.8	10.0	Geotech
230	90185	95601	202.6	10.0	Geotech	369K	92245	95335	201.3	10.0	Geotech
232	89045	93762	204.2	10.0	Geotech	370K	90907	95878	200.9	10.0	Geotech
235	89157	94146	203.8	10.0	Geotech	371K	90655	96189	201.0	10.0	Geotech
237	89213	94338	202.5	10.0	Geotech	372Г	90387	96551	201.1	10.0	Hydrogeo
238	89297	94626	202.9	10.0	Geotech	373K	90550	95617	202.5	10.0	Geotech
239	89353	94818	199.7	10.0	Geotech	374K	90318	95941	201.8	10.0	Geotech
241	89514	95863	201.3	10.0	Geotech	375K	92293	95903	201.0	10.0	Geotech
244	88514	94120	202.3	10.0	Geotech	376K	91949	95737	201.8	10.0	Geotech
245	88532	94219	202.0	10.0	Geotech	377K	91771	95976	202.4	10.0	Geotech
246	88550	94317	201.8	10.0	Geotech	378K	92009	95656	201.7	10.0	Geotech
247	88585	94514	201.3	10.0	Geotech	379K	91965	94564	201.4	10.0	Geotech
249	88621	94711	201.2	10.0	Geotech	37a	90985	94693	200.6	250.0	Expl
250	88656	94908	201.2	10.0	Geotech	380K	90747	95368	200.6	10.0	Geotech
251	88691	95105	201.2	10.0	Geotech	382/1Г	89516	95381	201.1	10.0	Hydrogeo
254	88923	96389	199.7	10.0	Geotech	382/2Г	89487	95274	201.1	10.0	Hydrogeo
256	89947	95930	202.1	10.0	Geotech	382/3Г	89407	95272	201.1	10.0	Hydrogeo
257	89895	96130	200.9	10.0	Geotech	382ЛГ	89522	95255	201.1	10.0	Hydrogeo
258	89895	96330	200.4	10.0	Geotech	385/1Г	91939	95097	201.1	10.0	Hydrogeo
260	89895	96530	199.9	10.0	Geotech	385/2Г	91827	95243	201.1	10.0	Hydrogeo
263	91684	93590	202.7	10.0	Geotech	385/3Г	91829	95265	201.1	10.0	Hydrogeo
265	91445	93910	203.1	10.0	Geotech	385/4Г	92079	95438	201.1	10.0	Hydrogeo
266	91325	94070	203.8	10.0	Geotech	385ЛГ	91824	95257	201.1	10.0	Hydrogeo
267	91205	94230	204.1	10.0	Geotech	386/1Г	91843	95365	201.1	10.0	Hydrogeo
269	92289	94616	201.7	10.0	Geotech	386/2Г	91837	95319	201.1	10.0	Hydrogeo
271	92049	94036	201.8	10.0	Geotech	386/3Г	91833	95293	201.1	10.0	Hydrogeo
272	91929	95097	201.6	10.0	Geotech	386/4Г	91835	95219	201.1	10.0	Hydrogeo
273	91690	95417	202.5	10.0	Geotech	386/5Г	91831	95293	201.1	10.0	Expl
274	91570	95577	202.5	10.0	Geotech	386ЛГ	91823	95243	201.1	10.0	Hydrogeo
276	91331	95898	201.8	10.0	Geotech	403a	90958	94737	200.3	365.7	Expl
278	91082	96231	201.0	10.0	Geotech	411a	90631	95001	199.8	1304.4	Expl
280	90852	96538	200.6	10.0	Geotech	416a	90415	95118	198.2	1587.5	Expl
282	90612	96859	200.3	10.0	Geotech	440a	89511	94855	198.9	500.0	Expl
283	87778	93439	202.1	10.0	Geotech	501K	90588	94230	204.7	10.0	Geotech
285	87849	93833	201.5	10.0	Geotech	502K	89778	95100	197.1	10.0	Geotech
287	87920	94226	201.3	10.0	Geotech	503K	90490	94187	205.1	10.0	Geotech
289	87991	94620	201.4	10.0	Geotech	504K	90615	94031	206.5	10.0	Geotech
291	88061	95014	201.2	10.0	Geotech	505K	90887	93993	205.6	10.0	Geotech
293	88132	95408	201.1	10.0	Geotech	506K	90315	94074	205.9	10.0	Geotech
295	88207	95801	201.2	10.0	Geotech	507K	90762	94153	205.9	10.0	Geotech
297	88278	96195	201.0	10.0	Geotech	508K	90880	94338	203.5	10.0	Geotech
299	91159	94788	200.8	10.0	Geotech	509K	91028	94469	202.4	10.0	Geotech
301	88569	95569	201.3	1469.1	Expl	510K	90427	94265	204.6	10.0	Geotech
302	88604	95767	201.3	929.6	Expl	511K	91168	94454	203.3	10.0	Geotech
303	88745	95399	201.3	913.0	Expl	512K	91236	94694	200.6	10.0	Geotech
304	88780	95598	201.3	1020.0	Expl	513K	91340	94713	201.1	10.0	Geotech
306	88921	95229	201.3	504.6	Expl	514K	91227	94546	202.5	10.0	Geotech
307	88955	95429	201.3	750.0	Expl	515K	89704	93800	201.5	10.0	Geotech
308	88993	95628	201.3	674.7	Expl	516K	88986	94322	202.8	10.0	Geotech
309	89083	95046	200.9	513.3	Expl	517K	89234	94646	200.6	10.0	Geotech

Table 2: Historical Drill Holes: Coordinates, Elevation, Depth

Hole	North	East	Elev collar	Max Depth	Hole Type		Hole	North	East	Elev collar	Max Depth	Hole Type
310	89120	95244	201.0	630.1	Expl		518K	89442	94870	198.8	10.0	Geotech
311	89155	95441	201.3	331.0	Expl		519K	89194	94925	200.6	10.0	Geotech
313	89334	95274	200.7	302.0	Expl		520K	88306	94637	201.2	10.0	Geotech
318	89497	95308	200.7	483.0	Expl		521K	88380	95030	201.1	10.0	Geotech
319	89538	94893	198.3	1598.1	search		522K	88417	95226	201.3	10.0	Geotech
320	89595	95193	197.6	2000.0	Expl		523K	89021	95785	201.0	10.0	Geotech
321	89605	95298	197.4	820.0	Expl		524K	88625	95029	201.2	10.0	Geotech
322	89606	95401	198.5	430.0	Expl		525K	90373	94169	205.0	10.0	Geotech