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PROBE MINES LIMITED

TECHNICAL REPORT ON THE UPDATED MINERAL RESOURCE ESTIMATE FOR THE BLACK CREEK CHROME DEPOSIT, MCFAULDS LAKE AREA, JAMES BAY LOWLANDS, NORTHERN ONTARIO, CANADA

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1.0 SUMMARY

1.1 AUTHORIZATION AND PURPOSE

At the request of Dr. Dave Palmer, Ph.D., P.Geo., President and CEO of Probe Mines Limited (Probe), Micon International Limited (Micon) has been retained to prepare an update of the block model and mineral resource estimate of Probe's Black Creek chrome deposit located in the McFaulds Lake area, northern Ontario. Probe requires an independent Technical Report to fulfill the requirements of Canadian National Instrument (NI) 43-101 for a material change in the Black Creek chromite resources following the completion of another phase of diamond drilling in November, 2010.

1.2 PROPERTY DESCRIPTION

The Black Creek chrome deposit occurs within Probe's Black Creek property, located in the James Bay Lowlands of northern Ontario, approximately 300 km north of the town of Nakina. The property was under a joint venture agreement with Noront Resources (Noront) until August 9, 2010 when the joint venture (McFaulds West Joint Venture) was formally dissolved and Probe acquired a 100% interest in the claim hosting the Black Creek deposit.

The centre of claim block licence number 4208219 which hosts the Black Creek deposit is located at roughly 5847000 N and 550666 E in the UTM NAD83 coordinate system (Zone 16). The block comprises 16 claim units covering an area of approximately 375 ha (3.75 km^2) and is registered under Probe.

1.3 GEOLOGICAL OUTLINE

1.3.1 Regional Setting

The Black Creek property claims are located in the Superior Province of Northern Ontario, an area of 1,572,000 km^2, which represents 23% of the earth's exposed Archean crust (Thurston, 1991). The Superior Province is divided into numerous Subprovinces, each bounded by linear faults and characterized by differing lithologies, structural/tectonic conditions, ages and metamorphic conditions. These Subprovinces can be classified into four types: 1) Volcano-plutonic, consisting of low-grade metamorphic greenstone belts, typically intruded by granitic magmas, and products of multiple deformation events; 2) Metasedimentary, dominated by clastic sediments and displaying low grade metamorphism at the Subprovince boundary and amphibolite to granulite facies towards the centres; 3) Gneissic/plutonic, comprised of tonalitic gneiss containing early plutonic and volcanic mafic enclaves, and larger volumes of granitoid plutons, which range from sodic (early) to potassic (late); and 4) High-grade gneissic Subprovinces, characterized by amphibolite to granulite facies igneous and metasedimentary gneisses intruded by tonalite, granodioritic and syenitic magmas (Card and Ciesieliski, 1986). The Black Creek property claims lie within the Sachigo metasedimentary Subprovince.

1.3.2 Property Geology

The local and property geology is dominated by the McFaulds Lake mafic-ultramafic sill (elsewhere termed the Ring of Fire Intrusion or simply RFI) which has been intermittently emplaced along a granodiorite-greenstone contact over a distance of approximately 20 km and hosts a number of recognized chromite bodies. Between the Blackbird deposit in the southwest and Black Thor/Black Label in the northeast approximately 15 km of the sill are known to be mineralized. Petrographic evidence from the Blackbird deposit and petrographic and chemical evidence from the Big Daddy deposit indicate that the McFaulds Lake sill is a well-fractionated body, comprising a lower (to the northwest) sequence of primitive olivine-rich units overlain by an upper sequence of evolved olivine-poor units. The principal Black Creek chromite bodies lie at the top of the olivine-rich units. The chromite layers dip to the southeast at between 60 and 85^o.

1.3.3 Deposit Type

The Black Creek deposit is a magmatic stratiform chromite deposit. Stratiform chromite deposits typically occur in large, layered intrusions which are commonly differentiated into a lower ultramafic zone and an upper mafic zone. They are formed by magmatic segregation during fractional crystallization of mafic-ultramafic magma. The two processes thought to be responsible for the formation of massive chromite layers are magma mixing and contamination of silicate magma by pre-existing country rocks.

1.4 MINERALIZATION

The broad zone of chromite mineralization in the Black Creek deposit is about 65 m wide. Within this broad zone there four main types of mineralization as described below.

1.4.1 Massive Chromite

Three massive chromite layers of variable thicknesses form the core of the Black Creek deposit. The main layer in the stratigraphic hanging wall is in contact with pyroxenite and averages 15 m in thickness. The average thicknesses for the middle and footwall layers are 2 m and 5 m, respectively. All three massive zones average 40% Cr_2O_3.

1.4.2 Banded Chromite Zones

These are micro layers of massive chromite varying in thickness from about 5 mm to a maximum of about 15 cm. They occur inter-layered with peridotite and may represent small scale multiple fluxes of ultra-mafic magma. Individual bands assay 40% or more Cr_2O_3. The distribution of banded zones is erratic.

1.4.3 Semi-massive Chromite

Semi-massive chromite zones occur randomly beneath (in the footwall of) the massive zones. They are characterized by a mixture of chromite and occasional olivine crystals set in a fine grained peridotitic matrix. Generally these zones assay between 20% and 30% Cr_2O_3.

1.4.4 Disseminated Chromite

The peridotite host rock contains disseminated chromite in varying concentrations. The heavily disseminated zones are usually adjacent to the semi-massive zones, while the sparsely disseminated zones form the background mineralization of isolated sub-millimetric black euhedral chromite grains within the peridotite. Background assays are between zero and 10% Cr_2O_3.

1.5 EXPLORATION

The effectiveness of geochemical surveys is generally limited owing to the swampy nature of the ground and the thick overburden of 10 m or more.

The geophysical techniques employed are appropriate and effective, given the nature of the deposits discovered in the McFaulds Lake area to date. Higher EM conductances may be considered more typical of the copper and nickel bearing mineralization, while low to moderate conductances may be considered more typical of the copper-zinc or the chromitite-platinum group mineralization. Zinc sulphide is not a notable conductor. High magnetic anomalies in the McFaulds Lake area have been successfully used to define the lateral extent of the peridotite unit which hosts the chromite mineralization. Gravity techniques were impressively successful in outlining the massive chromite targets resulting in drill holes being sited with better precision.

The coincident gravity-magnetic anomaly in claim 4208219 was subsequently drilled as detailed in Section 11 leading to the discovery of the Black Creek chromite deposit in 2009.

1.6 MINERAL RESOURCES

The methodology used in the mineral resource estimation process encompasses the following sequential steps.

- Geological interpretation/modelling.
- Grade capping and compositing.
- Cut-off grade determination.
- Geostatistical analysis/variography.
- 3D modelling.
- Block grade interpolation.
- Classification.
- Validation.

The resource estimate is based on a 20% Cr_2O_3 cut-off grade and is summarized in Table 1.1. The internal dilution is a maximum of 3 m (equivalent to 3 sample lengths).

Table 1.1
Summary of the Black Creek Resources at 20% Cr_2O_3 Cut-off Grade

Category	Tonnes	Avg.Cr_2O_3 (%)	Cr:Fe Ratio
Measured	5,256,000	37.00	1.8
Indicated	3,389,000	38.04	1.8
Total Measured & Indicated	**8,645,000**	**37.41**	**1.8**
Inferred	**1,610,000**	**37.78**	**1.7**

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
(2) The quantity and grade of reported inferred resources in this estimation are conceptual in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category.

Over 80% of the Measured and Indicated resource averages 40% Cr_2O_3 as demonstrated in Table 17.7.

1.7 INTERPRETATION AND CONCLUSIONS

1.7.1 Exploration

Owing to the lack of exposure and swampy nature of the McFaulds Lake area, the most reliable regional exploration data are obtained from airborne geophysics, which has been successfully used to extrapolate from known discoveries and previous drilling results.

The Black Creek chromite deposit was discovered in July, 2009 and is the most recent chromite discovery in the RFI. A coincident magnetic EM anomaly in the eastern corner of claim block 4208219, following a northeast trend, defines the peridotite unit of the RFI which hosts the chromite mineralization. A gravity anomaly lying within, but roughly coinciding with, the eastern edge of the magnetic EM anomaly is spatially related to the massive chromite mineralization. Thus, both the EM and gravity geophysical techniques had a role in the Black Creek discovery. However, gravity techniques were more impressively successful in demarcating the massive chromite horizon(s) resulting in drill holes being sited with better precision.

1.7.2 Geology and Mineral Resources

Whether the Black Creek deposit, and the adjacent Black Thor deposit to the northeast, actually link as one continuous body is a matter of speculation. However, gravity data and aeromagnetic data suggest (a) a continuous horizon from Black Creek to Black Thor, and (b) a wrench fault with a lateral displacement of 600 m separating the southwestern tip of the Black Creek deposit from the northeastern tip of the Big Daddy deposit.

The major geological domains encountered down-hole are gabbro, pyroxenite, massive chromite (main zone layer), peridotite, massive chromite (intermediate layer), peridotite, massive chromite (secondary zone layer) and dunite. These domains reflect a fractionation trend in the up-hole direction (northwest to southeast), and are consistent with observations made at the adjacent Big Daddy deposit. The cyclic patterns exhibited by the massive chromite zones and the intervening perodotite units are interpreted to indicate multiple pulses of magma.

The multi-layered nature of the deposit provides various alternatives for exploitation.

1.7.3 Metallurgy and Marketing Analysis

Metallurgical testwork has not yet been conducted. However, the bulk of the deposit consists of massive chromite which may require minimal beneficiation to upgrade to meet market specifications. Nonetheless, metallurgical testwork is still a critical requirement in order to move project to prefeasibility study stage.

With an overall Cr_2O_3 grade of 37% and a Cr to Fe ratio of 1.8 to 2, the Black Creek deposit is comparable to some major current chrome producers, like the Kemi operations of Outokumpu Chromite in Finland, and may, with beneficiation, be able to compete successfully on the world market. The proportion of mined chromite production by independent, non-integrated companies has generally decreased over the past decade and the majority of mine capacity is now owned and operated by companies in the ferrochromium, chromium chemicals or chromite refractory sectors. There is no terminal market, such as the London Metal Exchange, for chromite and ferrochromium and prices are negotiated between buyers and sellers, either on the spot market or under contract.

1.7.4 Project Objectives

The project objectives of additional drilling followed by updating the resource estimate as detailed in the previous Micon technical report (August, 2010), have been sucessfully accomplished. The next major challenge is to complete detailed metallurgical investigations to pave the way for prefeasibility/feasibility studies.

1.8 RECOMMENDATIONS

Having increased the resource to about 9 Mt, the immediate/short term goals for Probe should be to complete metallurgical investigations to establish the product quality of the massive chromite and the optimum beneficiation process for the semi-massive and disseminated lower grade mineralization. Thus, Micon makes the following recommendations.

1.8.1 Geology and Mineral Resource

The lateral extent of the deposit has been established in the last phase of drilling and the only other means of further increasing the resource is by deeper drilling in the north-eastern section of the deposit. At this stage Micon believes that detailed metallurgical studies should precede any further drilling to identify additional resources.

1.8.2 Metallurgy

Detailed mineralogical and metallurgical investigations are recommended in order to determine the optimum beneficiation route for the resource and to establish the minimum economic cut-off grade. The current resource estimate is based on a cut-off grade of 20% Cr_2O_3; however, it is likely that lower grade material may be upgraded into marketable concentrates.

The mineralogical investigations should focus on chromite grain liberation characteristics and chemistry, and gangue mineralogy. The program of metallurgical testwork should include the beneficiation of a wide variety of chromite feed grades, encompassing all chromite mineralization styles found at the Black Creek deposit, and aim to establish product quality/recovery relationships for a variety of feed samples.

1.8.3 Infrastructural Requirements

A basic survey of infrastructural requirements and exploring possible synergies of cooperation with other parties holding prospective mineral resources in the McFaulds Lake area will be beneficial to Probe and should be initiated.

1.8.4 Program Budget

The budget for the proposed one-year program amounts to $400,000 and is broken down as shown in Table 1.2.

Table 1.2
Summary of Budget Proposal for the Black Creek Chromite Project

Period	Description of Activity	Estimated Cost ($)
Between March and August, 2011	Metallurgical drill holes	200,000
Between March and July, 2011	Mineralogical & petrological studies	15,000
Between March and December, 2011	Metallurgical testing	150,000
Between March and December, 2011	Infrastructural studies	35,000
Total		**400,000**

Micon believes that the proposed budget is reasonable and recommends that Probe conduct the planned activities subject to availability of funding and any other matters which may cause the objectives to be altered in the normal course of business activities.

2.0 INTRODUCTION

2.1 AUTHORIZATION AND PURPOSE

At the request of Dr. Dave Palmer, Ph.D., P.Geo., President and CEO of Probe, Micon has been retained to prepare an update of the block model and mineral resource estimate of Probe's Black Creek chrome deposit located in the McFaulds Lake area, northern Ontario. Probe requires an independent Technical Report to fulfill the requirements of Canadian National Instrument (NI) 43-101 for a material change in the Black Creek chromite resources following the completion of another phase of diamond drilling in November 2010.

Micon's independent Qualified Persons responsible for the preparation of this report are Jane Spooner, M.Sc., P.Geo., Alan San Martin, MAusIMM, and Charley Murahwi, M.Sc., P.Geo., MAusIMM. The report has been compiled following the format and guidelines of Form 43-101F1, Technical Report for NI 43-101, Standards of Disclosure for Mineral Projects, and its Companion Policy NI 43-101CP. All members of the Micon team are independent of Probe as defined in NI 43-101.

This report is intended to be used by Probe subject to the terms and conditions of its contract with Micon. That contract permits Probe to file this report on SEDAR (www.sedar.com) as an NI 43-101 Technical Report with the Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Micon understands that Probe may use the report for a variety of corporate purposes including financings. Except for the purposes legislated under provincial securities laws, any other use of this report, by any third party, is at that party's sole risk.

2.2 BACKGROUND

Probe owns a diversified portfolio of mineral rights in the McFaulds Lake area. The Black Creek chrome deposit forms part of this portfolio and is located in proximity to the Big Daddy (southwest) and the Black Thor (northeast) chrome deposits. Micon previously completed an initial resource estimate on the Black Creek property in August, 2010 and completed a technical report entitled "Technical Report on the Initial Resource Estimate for the Black Creek Chrome deposit, McFaulds Lake Area, James Bay Lowlands, Northern Ontario, Canada" (Spooner et al., 2010). Probe has recently completed another phase of diamond drilling on the property which has upgraded and substantially increased the chromite resources thereby triggering an independent resource update.

The property was under a joint venture agreement with Noront Resources (Noront) until August 9, 2010 when the joint venture (McFaulds West Joint Venture) was formally dissolved and Probe acquired a 100% interest in the claim hosting the Black Creek deposit.

2.3 SOURCES OF INFORMATION

With the exception of Sections 17, 19 and 20, the majority of this report has been reproduced with minor editorial changes from Micon's Technical report (Spooner et al. 2010) entitled "Technical Report on the Initial Resource Estimate for the Black Creek Chrome deposit, McFaulds Lake Area, James Bay Lowlands, Northern Ontario, Canada", dated August 31, 2010, for which the principal sources of information were:

- Data and transcripts supplied by and at the instruction of Probe.
- Observations made during the site visit by Micon, represented by Charley Murahwi.
- Review of various geological reports and maps produced by the Ontario Geological Survey (OGS), its predecessors, and the Geological Survey of Canada (GSC).
- Discussions with Probe management and consultants familiar with the property.
- Research of technical papers produced in various journals.
- Independent repeat analyses of sample pulps (assay splits).
- Personal knowledge of stratiform Cr and Ni-Cu-PGE deposits in layered intrusions and similar geological environments.

Micon is pleased to acknowledge the helpful cooperation of Probe's management who made any and all data requested available and responded openly and helpfully to all questions, queries and requests for material.

2.4 SCOPE OF PERSONAL INSPECTION

Micon's direct knowledge of the property is based on the site visit conducted by Charley Murahwi (the main author of this report) on June 8, 2010. During this time Micon verified all drill hole collar positions, examined drill cores, reviewed drill hole logs, reviewed mineralization types and discussed the quality assurance/quality control (QA/QC) protocols used by Probe. The site visit was conducted in the presence, and with the assistance of Dave Palmer, the President and CEO of Probe.

2.5 UNITS AND ABBREVIATIONS

Units of measure are reported in the metric system. Unless otherwise noted, dollar values ($) refer to Canadian dollars.

The abbreviations used in this Technical Report are listed in Table 2.1.

Table 2.1
Table of Abbreviations

Full Name	Abbreviation
Companies/Organizations	
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
Canadian National Instrument NI 43-101	NI 43-101
Geological Survey of Canada	GSC
Ontario Geological Survey	OGS
Ontario Department of Mines	ODM
Probe Mines Limited	Probe
Noront Resources Limited	Noront
Spider Resources Inc.	Spider
KWG Resources Inc.	KWG
Cliff Resources USA	Cliffs
Activation Laboratories	Actlabs
Units of Measurement	
Billion/Million years ago	Ga/Ma
Canadian Dollar(s)	$
Centimetre(s)	cm
Grams per tonne	g/t
Hectare(s)	ha
Kilometre(s)	km
Metre(s)	m
Million tonnes	Mt
Tonne(s)	t
Geophysics Terms	
Electromagnetic(s)	EM
Induced Polarization	IP
Time Domain Electromagnetic(s)	TDEM
Horizontal Loop Electromagnetic(s)	HLEM
Coordinate Systems	
Universal Transverse Mercator	UTM
North American Datum 1983	NAD’83
Mean Sea Level	MSL
Above Sea Level	ASL
Geological Terms	
Sachigo Volcanic Belt	SVB
Ring of Fire Intrusion (McFaulds Sill)	RFI
Volcanogenic Massive Sulphides	VMS
Magmatic Massive Sulphides	MMS
Platinum Group Elements	PGE
Rare Earth Elements	REE

3.0 RELIANCE ON OTHER EXPERTS

Micon has reviewed and analyzed data provided by Probe and its consultants, and has drawn its own conclusions therefrom , augmented by its direct field examination and results of its independent repeat analyses. Micon has not carried out any independent exploration work, drilled any holes or carried out any sampling and assaying on the property, other than independent repeat analyses of 26 sample pulps.

The status of the mining claims or mineral tenements under which Probe holds title to the mineral rights for the Black Creek deposits has not been investigated or confirmed by Micon, and Micon offers no legal opinion as to the validity of the mineral titles claimed. The description of the property, and ownership thereof, as set out in this report, is provided for general information purposes only.

The existing environmental conditions, liabilities and remediation have been described under the relevant section as per NI 43-101 requirements. However, the statements made are for information purposes only and Micon offers no opinion in this regard.

The general descriptions of geology and past exploration activities used in this report are taken from transcripts prepared by Probe staff and consultants, and from reports prepared by various reputable companies or their contracted consultants, as well as from various government and academic publications. Micon has relied on these data, supplemented by its own observations at site.

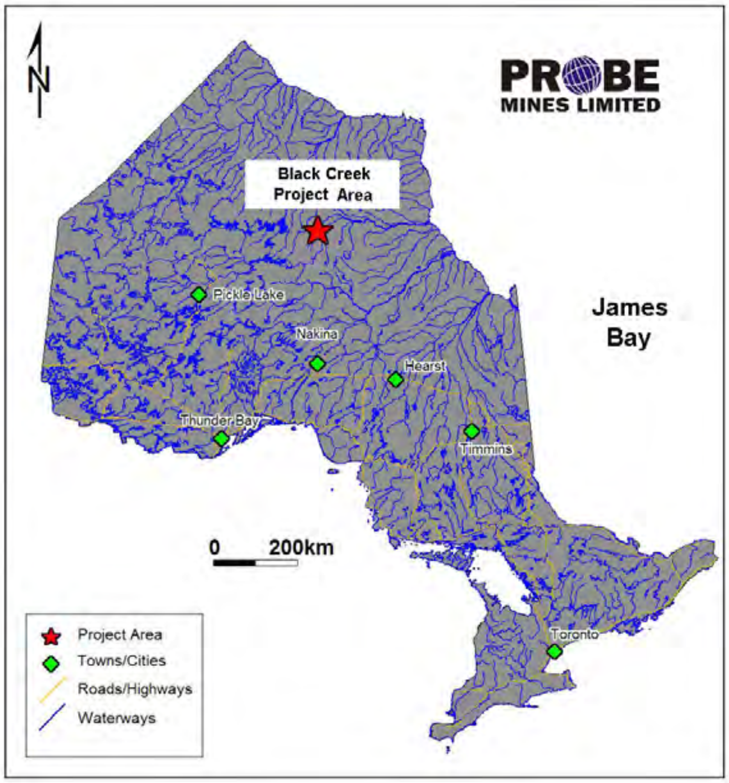
While exercising all reasonable diligence in checking, confirming and testing it, Micon has relied upon the Probe’s presentation of the project data from previous and recently completed exploration programs.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION AND GENERAL DESCRIPTION

The Black Creek chrome deposit is located in the James Bay Lowlands of northern Ontario, approximately 300 km north of the town of Nakina (Figure 4.1).

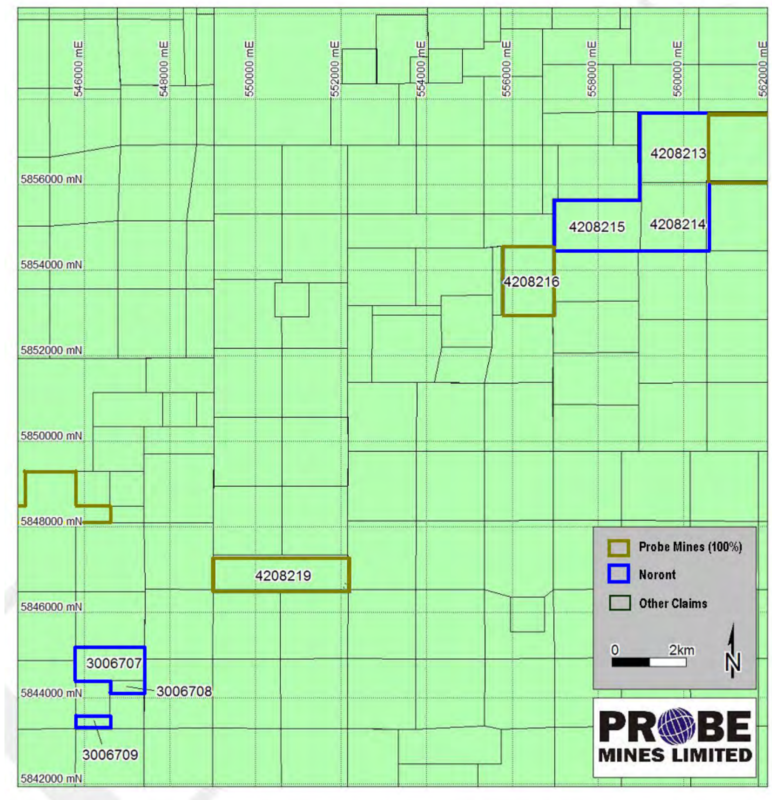
Figure 4.1
Location of the Black Creek Deposit Project Area



The former McFaulds West Joint Venture property comprised 87 unsurveyed and unpatented mineral claim units staked as four blocks of 10, 2, 16 and 59 contiguous claims (Figure 4.2, Table 4.1). The portfolios represented a variety of different environments and therefore deserve individual focus. Blocks A (licence #3006707 and 3006708) and B (licence #3006709), the southwestern-most claims, are both within 400-500 m of the Eagle's Nest nickel discovery and contain a number of features suggesting prospectivity for similar mineralization. Block C (licence #4208219), which was the central block of the joint venture, lies along the ultramafic horizon containing the main chromite deposits and hosts the 2009 discovery of the Black Creek chromite deposit, which represents a key segment for potential future chromite mining operations, lying between the Black Thor (Cliffs/Freewest) and Big Daddy (Cliffs-Spider-KWG) deposits. Block D (licence #4208213, 4208214, 4208215, and 4208216) encompasses both the chromite-bearing ultramafic horizon and the mafic complex, the latter being host to Noront's Thunderbird vanadium deposit.

The dissolution of the joint venture between Probe and Noront was accomplished by the transfer of 100% interest in claims 4208219 and 4208216, those claims lying along the interpreted chromite horizon, to Probe with the remaining claims in the joint venture being wholly-owned by Noront.

Figure 4.2
Current Claim Locations for the Former McFaulds West Joint Venture Property



The centre of Block C (licence #4208219) which hosts the Black Creek deposit is located at roughly 5847000 N and 550666 E in the UTM NAD83 coordinate system (Zone 16). The block comprises 16 claim units covering an area of approximately 375 ha (3.75 km^2).

Limited exploration was done on the Probe-Noront Joint Venture properties and, owing to their strategic location in the heart of the ultramafic horizon, these properties are considered to have high potential for further discoveries.

4.2 LAND TENURE

The 87 unsurveyed and unpatented claims comprise eight separate mineral licences (Figure 4.2, Table 4.1), which grant the title-holder mineral rights to the area. All claims were recorded in the name of Probe Mines Limited. In 2009, to avoid potential conflict, Probe and Noront agreed to administer the claims under a joint venture agreement, with each company maintaining a 50% interest. Probe was the initial operator of the joint venture. On August 9, 2010 the joint venture was formally dissolved by both parties with claims 4208219 and 4208216 being owned by Probe and the remaining claims being transferred into Noront's ownership.

There are no outstanding or pending adverse environmental issues attached to the property. Regulatory permits are not required for the current and recommended exploration activities outlined in this report.

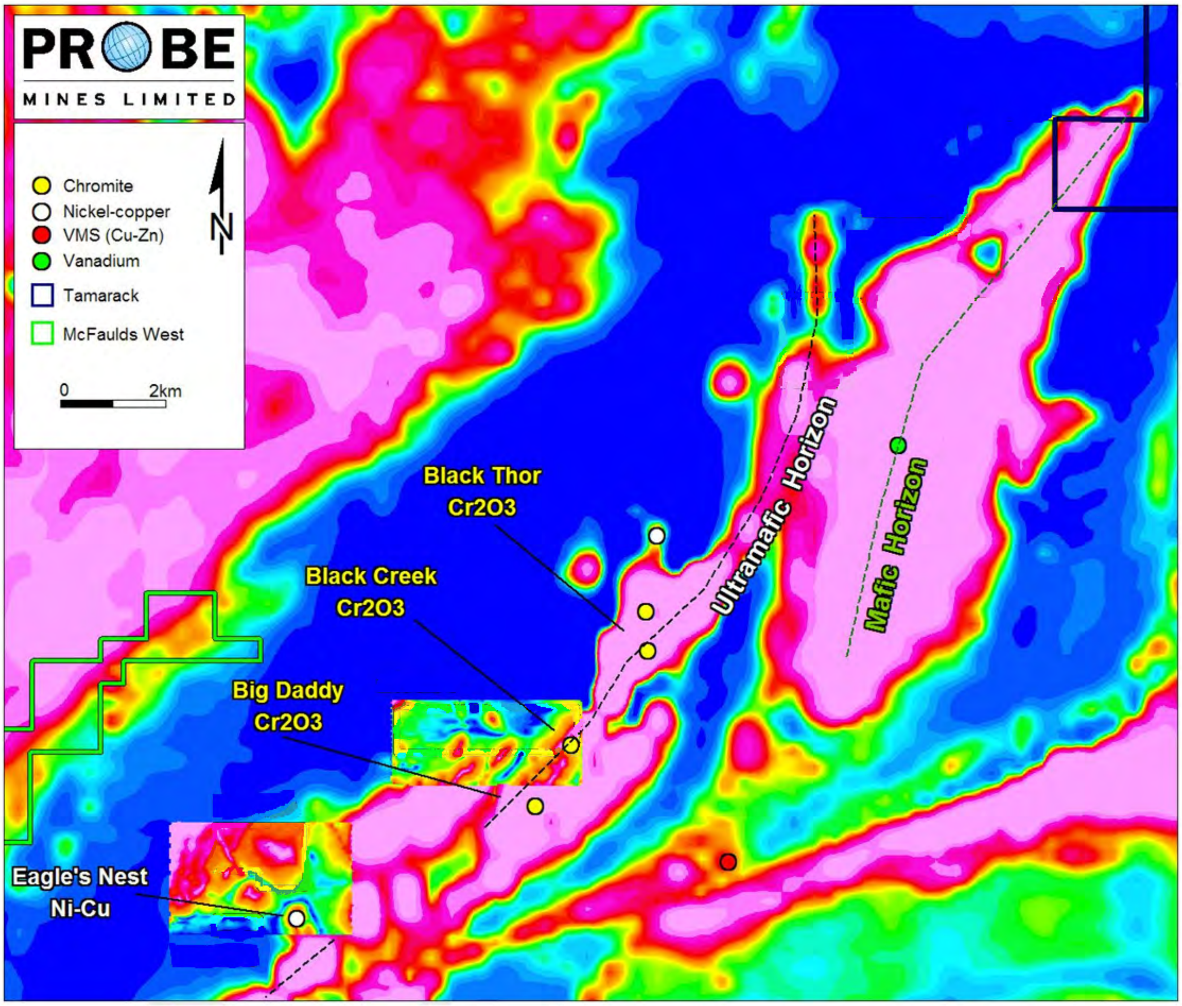
A total of $34,800 in assessment credits or payment will be required to maintain all of the claims in good standing in the year following their respective due dates (Table 4.1). The maintenance deadlines have been met through exploration expenditures that fulfill the criteria of the Ministry of Northern Development and Mines of Ontario as eligible work expenditures.

Table 4.1
Current Land Tenure Details for the Former McFaulds West Joint Venture Property

Licence No.	Number of Claims	Area	Holder	Date Recorded	Date Due	Work Required ($)
4208216	12	BMA 527 861	Probe Mines	7 March 2006	7 March 2011	4,800
4208219	16	BMA 527 861	Probe Mines	7 March 2006	7 March 2016	6,400
3006707	8	BMA 527 862	Noront	4 January 2006	4 January 2012	3,200
3006708	2	BMA 527 862	Noront	4 January 2006	4 January 2012	800
3006709	2	BMA 527 862	Noront	4 January 2006	4 January 2012	800
4208213	16	BMA 527 861	Noront	7 March 2006	7 March 2011	6,400
4208214	16	BMA 527 861	Noront	7 March 2006	7 March 2011	6,400
4208215	15	BMA 527 861	Noront	7 March 2006	7 March 2011	6,000

The property boundaries were located using a hand held, retail grade, GPS. There are no mineral reserves, mine workings, tailing ponds, waste deposits, important natural features and improvements within the property bounds or in the immediate adjacent areas. The location of all known mineralized horizons/mineral resources relative to the outside property boundaries are shown on the aeromagnetic map, Figure 4.3.

Figure 4.3
Aeromagnetic Map Showing Location of Mineral Occurrences and Salient Geological Trends Relative to the Property Bounds of the Black Creek Deposit



5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 TOPOGRAPHY, ELEVATION AND VEGETATION

The claim blocks are found within the James Bay Lowlands of Ontario, an area characterized by a plain of low relief, which gently slopes towards James Bay to the northeast. Elevation in the property area is approximately 250 m above mean sea level (MSL), with local variations of typically less than 10 m. An exception occurs along the Attawapiskat River, where elevations can change by up to 30 m. Hydrographic features include the Attawapiskat and Muketei Rivers and numerous small streams. Owing to the thick clay deposits and low relief, the area is poorly drained, resulting in numerous lakes, swamps and muskeg areas. Lakes in the area can reach up to 5 km in diameter, with the largest being McFaulds Lake itself, located approximately 10 km east of the property.

The environs of the property lie in a broad transition zone between the arctic tundra further north and the boreal forest to the south. The vegetation is primarily grasses, sedges and lichens in poorly drained parts, whilst trees dominate on well drained raised beaches and along rivers and creeks. The tree species include black spruce, white spruce and tamarack.

The wetlands provide an ideal breeding ground for swarms of mosquitoes, black flies and other biting insects. Local fish species include pickerel, northern pike, trout, whitefish and sturgeon. Animals observed include fox, wolf, marten, moose, black bear and woodland caribou.

5.2 ACCESSIBILITY AND INFRASTRUCTURE

The McFaulds Lake area is remote. Access to the property is by way of float/ski-equipped fixed-wing aircraft or helicopter from one of a number of communities found along Highway 11, notably Nakina, about 300 km to the south and Pickle Lake, about 310 km to the southwest. Local access to the properties can be achieved by helicopter, or snowmobile in winter. No water access exists for the property.

Nakina is serviced by the main transcontinental CN rail line and has a paved 1,000 m runway. All-weather highways extend to Nakina (Highway 584) and Pickle Lake (Highway 808) from where the gravel North Road extends 193 km to Opapimiskan Lake to the west. The regional centre is Thunder Bay (Figure 4.1) which provides daily air service to both Nakina and Pickle Lake.

The closest all-weather road is in Nakina, but a winter road system services the communities of Marten Falls, Webequie, Lansdowne House, Fort Albany and Attawapiskat, which could be extended to give access to the project area.

The Ontario power grid services De Beers' Victor mine about 150 km to the east, Nakina and the Musselwhite mine (Opapimiskan Lake) approximately 290 km to the west.

5.3 CLIMATE

The McFaulds Lake area and the James Bay Lowlands as a whole are characterized by a humid continental climate with cool short summers and cold winters. The area does not experience a dry season. The summer temperatures generally range from 10 to 20^{o}C; winter temperatures are generally between -10 and -30^{o}C. The period from mid-June to mid-September is generally frost free. Snowfall peaks in November gradually diminishing to March. The average annual precipitation is about 700 mm of which almost 30% falls as snow. Maximum temperatures (15 to 20^{o}C) are usually experienced in July.

5.4 SURFACE RIGHTS AND LOCAL RESOURCES

The claim block hosting the Black Creek deposit is sufficiently large to accommodate an underground operation and ancillary installations.

Local resources are rather restricted. Water is available and is of potable quality straight from the ground. The nearest Ontario power grid service is about 150 km east at the Victor mine; thus generators would be required for electrical power.

Local services available from Webequie (85 km west) and other first nations settlements (Attawapiskat, Marten Falls/Ogoki) are restricted to an airport, health clinics, public schools, mail, telephone/facsimile, internet and community stores/services.

6.0 HISTORY

The Black Creek deposit was recently discovered in 2009. The property has had no prior ownership and has not had ownership changes.

No exploitable mineral deposits are known in the area surrounding McFaulds Lake, although recent exploration by Noront, Freewest Resources Canada Inc. (Freewest) and Spider Resources Inc. (Spider) suggests that the potential for economic exploitation of base metals (Ni-Cu, Cu-Pb-Zn) and oxide (Cr) deposits is high. The bulk of the previous exploration data is taken from public disclosure documents provided by these companies, as very little published assessment work is available.

6.1 GENERAL HISTORY

Prior to the discovery of VMS mineralization in the Sachigo Volcanic Belt (SVB), only limited physical examination of the area was undertaken by the Geological Survey of Canada (GSC) and the Ontario Geological Survey (OGS), and consisted of regional-scale mapping (Thurston et al., 1975) and airborne magnetic surveys (OGS). Owing to topography, geological exposures are scarce and, within the claim boundaries, consist only of Ordovician sedimentary rocks. River cuts to the west of the properties contain outcrops of mafic flows and mafic intrusives (subvolcanics) found as layers within meta-granitoid rocks (Thurston et. al., 1975). Volcanic horizons typically show subvertical to vertical dips. A provincial airborne magnetic survey provides the most accurate depiction of the subsurface geology, displaying an arcuate belt of layered rocks approximately 100 km in length.

The recent (1990s) interest in the diamond potential of the James Bay Lowlands triggered a number of regional-scale geochemical surveys in the area (OFR-6097 Spider 3; OFR-6108 James Bay), which evaluated heavy mineral geochemistry of stream sediments. However, the presence of Paleozoic rocks overlying the prospective volcanics tends to nullify the effect of surficial geochemistry for the area.

Most of the external information available regarding volcanic rocks in the McFaulds Lake area comes from recent exploration by Spider on its adjacent mineral properties. To date, diamond drilling by Spider has intersected a number of VMS occurrences, the most notable being McFaulds #1 and #3, which are located about 10 km to the northeast of Probe's McFaulds West properties. The VMS mineralization was first identified by De Beers Canada Exploration Inc. (De Beers) in the fall of 2002, while exploring for kimberlite. Reverse circulation drilling encountered base metal sulphides, i.e., chalcopyrite, sphalerite, associated with volcanic flows consisting of highly altered mafic and felsic lithologies (Franklin, 2003). Metal zonation in sulphide mineralization is poorly developed; however, Cu-rich stringer-style mineralization has been identified in the footwall, while Zn values tend to increase in the hanging wall direction (Franklin, 2003), suggesting that VMS processes are active.

On October 3, 2006, Probe intersected a zone of copper mineralization on the west block of its Tamarack project, comprising massive pyrite with significant interstitial chalcopyrite.

This zone, termed the “A-Zone” occurs within felsic fragmental volcanics about 18 km northeast of Black Creek, and is probably stratigraphically related to the Cliffs/Spider VMS mineralization.

In August, 2007 Noront intersected high-grade nickel-copper-platinum-palladium-gold mineralization in a coarse-grained peridotite adjacent the McFauld’s West project (Figure 4.3). Drilling highlights of the Eagle’s Nest discovery included a mineralized intersection averaging 6.25% nickel, 2.75% copper, 1.85 g/t platinum, 10.23 g/t palladium, 3.0 g/t gold and 10.3 g/t silver over 46.6 m. In October, 2008 Noront released a preliminary assessment of the Noront Ni-Cu deposit which reported an estimated resource (indicated) of 1,834,000 tonnes averaging 1.96% Ni, 1.18% Cu and 5.1 g/t combined platinum, palladium and gold. Evaluation of other geophysical targets by Noront resulted in the discovery of two additional Ni-Cu occurrences, Eagle Two and AT-12.

The identification of layered massive chromite was first made by Spider in January, 2006 while exploring for VMS mineralization at what is now the Big Daddy deposit. Noront identified further chromite mineralization on its Black Bird 1 and 2 properties, while Freewest, returned significant intersections of massive chromite in its Black Thor and Black Label deposits (Figure 4.3). The chromite occurrences are all located along a singular magnetic high extending for approximately 20 km in a northeast direction along which many of Probe’s McFaulds West claims occur.

The most recent chromite discovery was made in July, 2009 on the Black Creek claim licence #4208219, formerly jointly owned by Probe and Noront under the McFaulds West Joint Venture, and consists of high-grade (up to 47% Cr_2O_3) massive chromite horizons, the Black Creek deposit, which lies between the Black Thor and Big Daddy Deposits (Figure 4.3).

The mineral resources declared in the adjacent areas of the Black Creek deposit are described in Section 15 of this Technical Report.

6.2 HISTORIC PRODUCTION

There has been no prior production from the Black Creek property and there are no historical resource or reserve estimates.

7.0 GEOLOGICAL SETTING

The following descriptions on regional geology are largely based on an internal report written for the Probe-Noront joint venture by Dave Palmer, Ph.D., P.Geo. (2009).

7.1 REGIONAL GEOLOGY

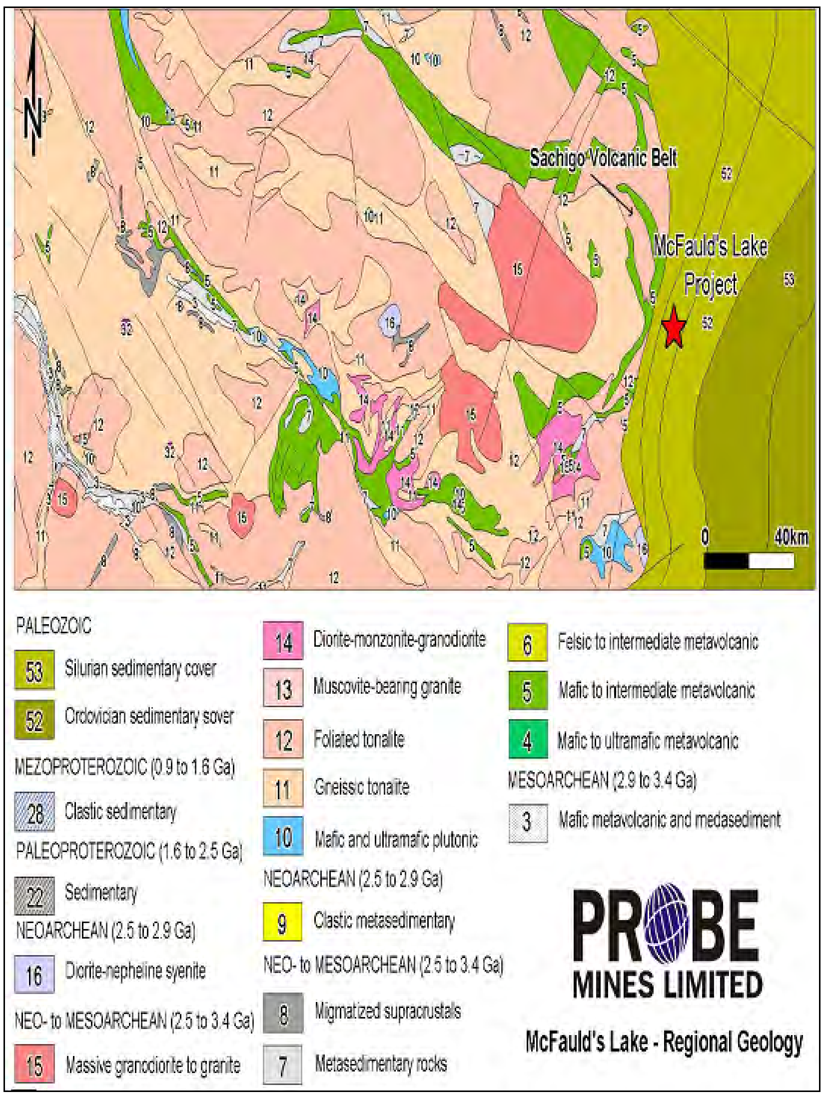
The Black Creek property claims are located in the Superior Province of Northern Ontario, an area of 1,572,000 km^2, which represents 23% of the earth's exposed Archean crust (Thurston et al., 1991). The Superior Province is divided into numerous Subprovinces (Figure 7.1), each bounded by linear faults and characterized by differing lithologies, structural/tectonic conditions, ages and metamorphic conditions. These Subprovinces can be classified into four types: 1) Volcano-plutonic, consisting of low-grade metamorphic greenstone belts, typically intruded by granitic magmas, and products of multiple deformation events; 2) Metasedimentary, dominated by clastic sediments and displaying low grade metamorphism at the Subprovince boundary and amphibolite to granulite facies towards the centres; 3) Gneissic/plutonic, comprised of tonalitic gneiss containing early plutonic and volcanic mafic enclaves, and larger volumes of granitoid plutons, which range from sodic (early) to potassic (late); and 4) High-grade gneissic Subprovinces, characterized by amphibolite to granulite facies igneous and metasedimentary gneisses intruded by tonalite, granodioritic and syenitic magmas (Card and Ciesieliski, 1986). The Black Creek property claims lie within the Sachigo metasedimentary Subprovince.

Figure 7.1
The Superior Province of Ontario

7.1.1 Sachigo Subprovince

The Sachigo Subprovince represents the northernmost extent of exposed Archean basement rocks of the Superior Province (Figures 7.1 and 7.2). To the west, the Sachigo is bounded by the Trans-Hudson-Orogen (THO) (1.8 Ga), while to the northwest the Subprovince is in contact with granitoid and mafic/ultramafic rocks of the Thompson Belt, a collisional zone formed during the THO. To the east, the Sachigo is delimited by the Winisk River Fault, which separates the Superior Province from rocks of the THO Fox River Belt, while the southern limit of the Sachigo Subprovince is defined by the Berens River Subprovince, a granite-greenstone terrane.

Figure 7.2
Regional Geology Map of the McFauld's Lake Area, Sachigo Volcanic Belt



Much less is known about the Sachigo Subprovince than the more accessible granite-greenstone belts to the south, with most work concentrating on the handful of isolated greenstone belts found enclosed within the granitic and gneissic units (e.g. Bennet and Riley, 1969; Ayres, 1974; Card and Ciesielski, 1986; Thurston et al., 1991). However, a number of differences can be noted between the greenstone belts of the Sachigo Subprovince and younger greenstone terranes to the south. The Sachigo hosts some of the oldest ages for greenstones in the Superior Province (2.9 to 3.0 Ga) (Corfu and Wood, 1986; Thurston et al., 1991), and an unusual sequence of quartz-rich metasediments within a sequence of mafic and felsic volcanic rocks (Thurston et al., 1991). The Berens River granite-greenstone Subprovince, immediately to the south of the Sachigo, is interpreted to represent a deeply eroded arc or micro continental core, while rocks of the Sachigo are considered remnants of widespread, early (3.0 Ga) sialic crust (Thurston et al., 1991). Geological similarities between the Sachigo, Berens River and the Uchi Subprovince, situated to the south of the Berens River Subprovince, have prompted some researches to define an Uchi-Sachigo-Berens River superterrane (Card and Ciesielski, 1986; Thurston et al., 1991).

7.1.1.1 Felsic/Intermediate Intrusives

Granitic rocks represent the dominant lithologies in the Sachigo Subprovince and include, from oldest to youngest, gneissic tonalites; foliated tonalites; a muscovite granodiorite-granite series; and a diorite-monzonite-granodiorite suite (Thurston et al., 1991).

Gneissic Tonalites

These intrusives are possibly the oldest example of plutonic rocks (Thurston et al., 1991), and can be divided into melanocratic (>20% amphibole) and leucocratic (<20% amphibole) series, although dominated by the latter. Rocks are heterogeneous, and are typically cut by several generations of granitic dykes, and may contain mafic inclusions up to km in diameter (Thurston et al., 1991). The origin of these inclusions can be traced back to supracrustal xenoliths and tectonized mafic dykes. Tonalitic rocks of the Sachigo Subprovince are batholithic in proportion, and display a general west to northwest strike in their layering, which shows divergence around younger intrusives and in the vicinity of shear zones. Contact relationships with greenstone terranes are almost invariably tectonic, while more gradational with other felsic intrusives (Thurston et al., 1991).

Foliated Tonalites

Foliated tonalites include amphibole-bearing and biotote-bearing varieties, and typically form irregular batholiths and stocks at the interface between greenstone terranes and massive tonalite in the Sachigo Subprovince (Stone, 1989; Thurston et al., 1991). Amphibole-bearing tonalite typically contains less than 20% mafic minerals, usually as hornblende, while more felsic versions are dominated by biotite in their mafic assemblages. Rocks are generally medium- to coarse-grained, and relatively homogeneous, although megacrysts and clotty amphibole are common in hornblende tonalites and granodiorites (Thurston et al., 1991).

The intrusions are well foliated, with foliation described by oriented lenticles of quartz, plagioclase, biotite and hornblende (Thurston et al., 1991).

Massive Granodiorite-Granite

Within the granodiorite to granite suite granodiorites predominate, with feldspar megacrystic granodiorite and biotite granodiorite forming the two most voluminous lithologies (Thurston et al., 1991). Megacrystic varieties are grey to pink, and contain feldspar megacrysts up to 2 cm in length, and generally less than 15% mafic constituents including possible relict clinopyroxene (Thurston et al., 1991). Magnetite is common in this series and accounts for its high magnetic signature in regional aeromagnetics. Massive biotite granodiorites are a weakly foliated, pale pink rock, containing irregular pods of pegmatitic material (Thurston et al., 1991). Mafic minerals, dominated by biotite, typically make up less than 10% of the rock.

Muscovite-Bearing Granite

Members of this suite range from granodiorite to granite, and are coarse-grained to pegmatitic, often containing metasedimentary xenoliths. They include two-mica granites and leucogranites, which are usually associated with major shear zones in the Sachigo Subprovince. Their young ages (2,653 Ma), compared to two-mica granites in the southern Superior Province, smaller sizes and tectonic association suggest that these granites may have formed from melting of metasedimentary units during late block-to-block movement (Thurston et al., 1991).

Diorite-Monzonite-Granodiorite

These rocks represent the youngest felsic/intermediate intrusions in the Sachigo Subprovince, and range between quartz diorite and quartz monzonite. Mafic mineral assemblages can be high, up to 30%, with hornblende typically dominant over biotite, and occasional pyroxene (Thurston et al., 1991). Rocks of this suite show a spatial association with mafic intrusives, and usually display a gradational transition to gabbroic compositions. The rocks are generally inclusion-rich, and this, coupled with the mafic mineralogy, suggests that they are mantle derived, similar to monzodiorite plutons in the southern Superior (Stern et al., 1989).

7.1.1.2 Mafic Intrusive Rocks

Pre-tectonic mafic intrusive rocks in the Sachigo Subprovince are considered to be synvolcanic by Thurston et al. (1991), and comprise predominantly mafic to ultramafic sills. Post-tectonic magmatism in the northwestern Superior Province includes three diabase dyke swarms, comprising the 2,171 Ma Marathon swarm, 1,888 Ma Molson Swarm and the 1,267 Ma MacKenzie Swarm.

Big Trout Lake Intrusive Complex

The Big Trout Lake intrusive complex represents the largest exposed mafic-ultramafic intrusion and consists of a folded 5,000 m thick sill containing a 500 m thick lower ultramafic sequence of dunite, chromite and chromite-rich layers overlain by homogeneous peridotite. Two batches of tholeiitic magma are indicated in the formation of the sill (Borthwick and Naldrett, 1984).

McFaulds Lake Ultramafic Sill (Ring of Fire Intrusion)

A mantle derived, highly magnetic ultramafic intrusion was emplaced along the margin of a regional scale granodiorite pluton which had been intruded into and caused a doming of the host Sachigo greenstone belt rocks. The sill is in contact with both lithologies of the SVB and the Archean granodiorite at its northern contact. The sill is magnetically distinct allowing it to be traced more or less uninterrupted, for tens of kilometres along the granodiorite margin. It appears that a series of conduits cutting across the granodiorite have acted as feeders to the main sill, and the Eagle's Nest deposit is interpreted to be formed in one of these conduits.

7.2 LOCAL AND PROPERTY GEOLOGY

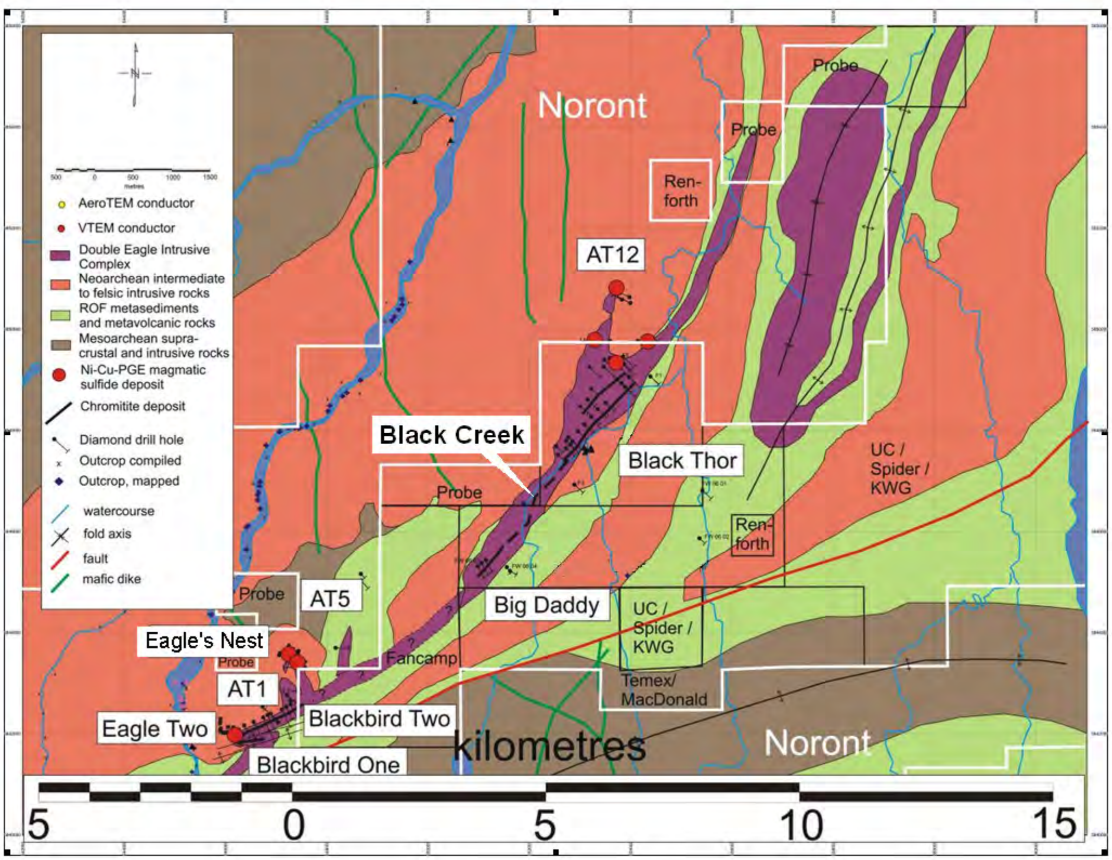
Very little is known about the geology of the McFaulds Lake area, with most of the information obtained from recent drilling in the area of the VMS discoveries at the eastern extent of the volcanics . Within the eastern section of the belt, in the area of the claims, a thin (<40 m) section of Paleozoic sedimentary rocks, comprised predominantly of limestone, overlies the volcanic package. The volcanic sequence at this location is comprised of highly altered mafic and felsic volcanic rocks, which have in some cases undergone extensive Mg-metasomatism to form talc-magnetite alteration. In most cases this replacement alteration has occurred to such a degree as to make primary lithologies indiscernible, with all units resembling basaltic flows. The hydrothermal character of the talc-magnetite rock has been established to a fair degree of confidence through whole rock geochemical comparisons utilizing major and trace element characteristics, while precursor lithologies have been demonstrated to be a bimodal population of basaltic and rhylotic-dactic volcanic rocks. The character of the felsic sequence suggests that there was significant heat available to the system, which indicates a greater potential for the formation of VMS mineralization in the volcanic strata.

The local and property geology is dominated by the McFaulds Lake mafic-ultramafic sill (elsewhere termed the Ring of Fire Intrusion or simply RFI) which has been intermittently emplaced along a granodiorite-greenstone contact over a distance 20 km, of which 15 km between Blackbird in the southwest and Black Thor/Black Label in the northeast are known to be mineralized (Figure 7.3). Petrographic evidence from the Blackbird deposit (Bronwyn Azar, pers. comm., 2009) and petrographic and chemical evidence from the Big Daddy deposit (Scoates, 2009) indicate that the McFaulds Lake sill is a well fractionated body, comprising a lower (to the northwest) sequence of primitive olivine-rich units overlain by an upper sequence of evolved olivine-poor units. The principal Black Creek chromite bodies lie at the top of the olivine-rich units. The chromite layers dip to the southeast at between 65^{o} and 85^{o}.

The ultramafic units along the contact of the volcanics consist of fine- to medium grained, talc rich rocks displaying varying degrees of alteration. In feeder dykes, grain size typically increases and relic olivine can be observed.

Owing to the buried nature of the volcanics in this area, property-scale structural data are unavailable; however, fine structural features are preserved in core samples, and comprise predominantly folding, varying from open to isoclinal. In layered sequences a weak S1 foliation is developed parallel to sub-parallel to layering, while rare S2 foliations could be discerned oblique to S1, typically 30-35^{o} from the earlier foliation.

Figure 7.3
Local Geology Map of the McFaulds Lake Area



Source: Noront Technical Report, January, 2010.

8.0 DEPOSIT TYPES

8.1 GENERAL

The geology of the McFaulds Lake area is conducive to a variety of deposit types including Cu-Zn-Pb+/-Ag and Au in volcanogenic massive sulphides (VMS), Ni-Cu + PGE in magmatic massive sulphides (MMS) and magmatic/stratiform Cr-Ni-Cu-PGE and vanadium deposits. The first type is associated with the submarine volcanics, including minor felsic volcanics which underlie the McFaulds Lake area, while the latter two are related to the RFI (also known as the McFaulds Lake sill). The Black Creek deposit and other related discoveries within the RFI (Black Thor and Black Label, Big Daddy and Blackbird) are stratiform chrome deposits.

8.2 CHROMITE DEPOSITS

Primary chromite deposits are classified as podiform or stratiform types on the basis deposit geometry, petrological character and tectonic setting. Podiform deposits are restricted to ophiolitic complexes and are generally less extensive. Stratiform chromite deposits are sheet-like accumulations of chromite that occur in layered ultramafic to mafic igneous intrusions. The best examples of Canadian stratiform chromite deposits are found in the Bird River Sill in southeastern Manitoba and in the Big Trout Lake intrusion in northwestern Ontario. Other intrusions in Canada with chromitite layers include the Muskox complex in the Northwest Territories, the Lac des Montagnes body in Quebec, and the Puddy Lake and Crystal Lake intrusions in Ontario.

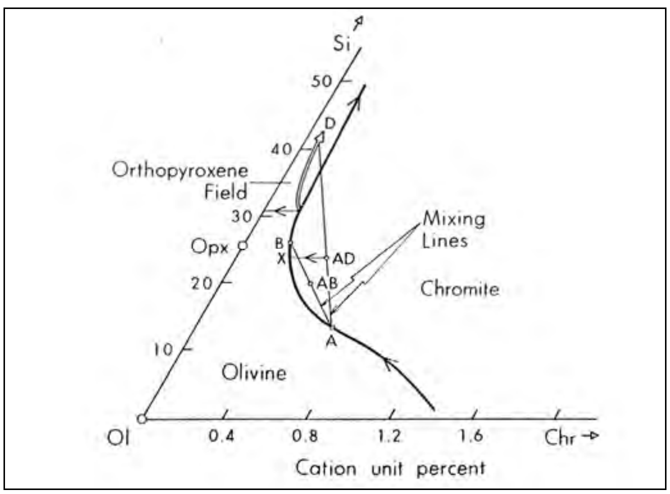
Stratiform chromite deposits typically occur in large, layered intrusions which are commonly differentiated into a lower ultramafic zone and an upper mafic zone. The intrusions fall into two broad categories with respect to morphology. The first includes conformable, tabular bodies which were emplaced as sill-like intrusions (Stillwater Complex, Bird River sill, Big Trout Lake). The intrusions occur in a range of tectonic settings, from stable cratonic platforms (Bushveld, Muskox); pretectonic, unconformable contacts between Archean basement and overlying Proterozoic supracrustal rocks; and synvolcanic intrusions in Archean greenstone belt settings (Bird River sill, Big Trout Lake).

Most stratiform chromite deposits comprise laterally extensive chromite-rich layers which are typically conformable to igneous layering. Chromite-rich layers are typically thin (cm- to m-scale) but their lateral extent is measured in kilometres or tens of kilometres. Chromite bearing horizons may be associated with a variety of rock types including dunite, peridodite, orthopyroxenite, anorthosite and norite; however, they are generally found in the more primitive olivine rich peridotite rocks.

8.3 GENETIC MODEL FOR STRATIFORM CHROMITE

Stratiform chromite deposits are formed by magmatic segregation during fractional crystallization of mafic-ultramafic magma. The formation of massive chromite cumulate layers has been attributed to a mechanism whereby a chromite saturated picritic tholeiite liquid becomes more siliceous by contamination (assimilation) with granitic material (Irvin, 1975) or alternatively by blending with a more siliceous differentiate of the parent magma (Figure 8.1), thereby causing chromite to precipitate. As illustrated in Figure 8.1 (after Irvine 1977), the mixing of liquid A which is on the olivine–chromite cotectic, with liquid D on the orthopyroxene field may, provided that points on the mixing line lie above the liquidus surface, culminate in a hybrid magma such as AD which will intersect the liquidus in the chromite field on cooling. Hence, it will crystallize chromite alone while it moves to point X on the olivine – chromite cotectic, and thereafter it will continue to crystallize chromite and olivine. It has been shown that the decrease in the solubility of chromite in basaltic magma in equilibrium with chromite per degree centigrade fall in temperature is greater at high (1,300˚C – 1,400˚C) than at low (1,100˚C – 1,200˚C) temperature. Due to this concave – upward curvature of the solubility curve, the mixing of two magmas at different temperatures saturated (or nearly saturated) in chromite places the resultant mixture above the saturation curve, which suggests that point AD in Figure 8.1 is likely to lie above the liquidus.

Figure 8.1
Phase Relations in the System Olivine-Silica-Chromite as determined by Irvine, 1977



The diagram Illustrates the consequence of mixing primitive magma (A) with well fractionated (D) and slightly fractionated (B) variants of the same primitive magma. Source: Naldrett et al., 1990.

As speculated for the adjacent Big Daddy deposit by Scoates (2009), both mixing of primitive magma with fractionated magma (Irvine, 1977) and crustal contamination of the parental magma (Irvine, 1975; Alapieti et al., 1989; Rollinson, 1997; Prendergast, 2008) appear to have had complementary roles in the formation of the Black Creek chrome deposit. The hanging wall volcanics include both banded iron formation intervals and volcanogenic sulphide accumulations which, if assimilated by the sill, could alter magma chemistry sufficiently to deposit chromite.

9.0 MINERALIZATION

Significant mineralization has been identified within the McFaulds West claims, in the form of massive chromitite grading up to 47% Cr_2O_3 in drill core samples. Immediately adjacent to the McFaulds West claims are numerous Ni-Cu and other chromite discoveries, which appear to form a trend in the southwest-northeast direction. The following description is restricted to chromite mineralization associated with the Black Creek deposit.

9.1 MINERALIZATION PROCESSES FOR STRATIFORM CHROMITE

On the evidence of field relations and mineralogical data (Jackson 1961, von Gruenewaldt 1979) combined with isotopic studies (Kruger and Marsh 1982, Sharpe 1985, Lambert et al. 1989), it has been shown that large layered intrusions are not the result of single, one-event injections of magma, but are the result of repetitive inputs. As demonstrated by Irvin (1977), the resultant mixing action could inhibit the fractional crystallization of silicate minerals such as olivine and orthopyroxene and permit the crystallization of chromite alone. This is one of the mechanism by which layers of massive chromitite can develop, without dilution by cumulate silicates. The Black Creek deposit is evidently layered with at least three discrete chromite layers. The presence of this layering is a positive indication that the necessary igneous processes took place in the intrusion.

More recently, the crustal contamination hypothesis has been supported by MELTS (Ghiorso and Sack, 1995; Asimow and Ghiorso, 1998) thermodynamic modelling software and textural observations of xenolithic clasts of iron-formation occurring stratigraphically below the massive chromitite layers within the RFI. Workers investigating similar deposits such as the Ipueira-Merado sill determined, supported by isotopic and textural observations, that crustal assimilation by a primitive and chrome enriched magma was the most likely cause for the formation of the chrome deposit (Marques et al., 2003).

9.2 DESCRIPTION OF MINERALIZED ZONES

The broad zone of chromite mineralization is about 65 m wide. Within this broad zone there four main types of mineralization as described below.

9.2.1 Massive Chromite

Three massive chromite layers of variable thicknesses form the core of the Black Creek deposit. The main layer in the stratigraphic hanging wall is in contact with pyroxenite and averages 15 m in thickness. The average thicknesses for the middle and footwall layers are 2 m and 5 m, respectively. All the three massive zones average 40% Cr_2O_3.

9.2.2 Banded Chromite Zones

These are micro layers of massive chromite varying in thickness from about 5 mm to a maximum of about 15 cm. They occur inter-layered with peridotite and may represent small scale multiple fluxes of ultra-mafic magma. Individual bands assay 40% or more Cr_2O_3. The distribution of banded zones is erratic.

9.2.3 Semi-massive Chromite

Semi-massive chromite zones occur randomly beneath (in the footwall of) the massive zones. They are characterized by a mixture of chromite and occasional olivine crystals set in a fine grained peridotitic matrix. Generally these zones assay between 20% and 30% Cr_2O_3.

9.2.4 Disseminated Chromite

The peridotite host rock contains disseminated chromite in varying concentrations. The heavily disseminated zones are usually adjacent to the semi-massive zones, while the sparsely disseminated zones form the background mineralization of isolated sub-millimetric black euhedral chromite grains within the peridotite. Background assays are between zero and 10% Cr_2O_3.

10.0 EXPLORATION

Probe began exploration of selected claims of the former McFaulds West Joint Venture property in 2007. A combination of geochemical and geophysical techniques was used systematically as detailed below.

10.1 GEOCHEMICAL SURVEYS

10.1.1 Program

In September, 2007, a soil sampling program was completed on claim blocks 3006707, 3006708 and 3006709, all of which lie to the southwest of claim block 4208219 which hosts the Black Creek deposit. (See Figure 4.2 for orientation). The program comprised ten soil samples taken for Mobile Metal Ion (MMI®) analysis. The ten samples make up two sample profiles, one on the northern claim block and one on the southwestern block, of eight and two samples, respectively. Eight samples, 342451 to 342458, were collected over a distinct magnetic anomaly on the northern claim units, identified from regional airborne magnetic surveys, while the two samples to the southwest, 342459 to 342460, were taken over a weak magnetic signature on the claims. Samples were collected on a spacing of 25 metres for both profiles, along a south-southwesterly trend. In order to utilize the MMI® technique, samples were taken at a depth of 15 cm from the organic-soil interface or, in the case of bog areas, at the beginning of decomposition of the organics. The samples were transported to Toronto, where they were stored in a locked facility before being transported by bonded courier to the laboratory, at which point they entered the chain of custody of SGS Canada Inc. (SGS).

10.1.2 MMI® Technique

MMI® analysis is an analytical technique that measures the concentration of adsorbed metal ions on charged mineral surfaces. The MMI® technique was developed to recognize hidden mineral deposits through the identification of chemical indicators, which are transferred by ground water from host lithologies/deposits to overlying soil horizons. The dissolution of mineral phases within mineral deposits by these ground waters produces charged metal species, which are attracted to oppositely charged mineral surfaces in the overlying soil horizon. A dilute acid solution is then used to remove only these adsorbed ions, producing a solution containing the chemical pathfinders. The power of MMI® lies in the relatively small distances over which charged metal species can be transported, providing near in-situ geochemical anomalies. However, for the technique to provide usable data a strict sampling procedure must be adhered to. For MMI® the typical method is to take a sieved sample of the inorganic soil horizon at a depth between 10 and 20 cm below the surface of inorganic soil development (M. Fedikow, pers. comm.).

Twenty-two elements were analyzed at the SGS laboratories using the MMI® multi-element package. A number of factors, such as overburden thickness, metal solubility and water table elevation, can affect metal concentrations and data must therefore be interpreted as comparisons within the sample population, not as absolute concentrations. The most effective method of viewing data is as a response ratio, the ratio of the concentration to background value for each element. Background values were calculated by taking the average concentration of each element in samples falling within the lower quartile of the population, taken on an element-by-element basis for the sample population.

10.1.3 Results

Results for the eight sample profile show a distinct anomaly for copper, nickel, cobalt, silver, gold and magnesium in the southern five samples of the profile. This anomaly lies just to the north of Noront's Eagle's Nest deposit. The two samples of the southwestern profile show similar results based on the background readings calculated for the northern sample profile, although there are also significant anomalies for lead and zinc.

10.1.4 Conclusion

The geochemical work conducted did not directly lead to the discovery of the Black Creek chromite deposit but was encouraging enough to justify an AeroTEM II survey covering the greater area.

10.2 AEROTEM II SURVEY

10.2.1 Program

In November, 2007 an AeroTEM II helicopter-borne magnetic and electromagnetic survey was flown over all claims comprising the McFaulds West project. The survey totaled 375 line km and was designed to identify magnetic and electromagnetic features indicative of sulphide mineralization associated with ultramafic rocks. Line spacings of 50 m were used for claims 3006707, -708 and -709, while 100 m spacing was used for the rest of the claims (Figure 10.1).

10.2.2 AeroTem II Electromagnetic System

The AeroTem II system uses a superimposed dipole configuration with the receiver located within the transmitter loop. The transmitter axis is vertical (Z). The receiver has two independent axes; vertical Z and in the direction of flight X. The transmitter current waveform is a triangular ramp, repeated with reversing polarity at 150 Hz. The receiver measures the secondary field at intervals during and after the transmitter current pulse. The system was towed 36 metres below the helicopter at a nominal terrain clearance of 30 metres. The AeroTEM II survey was conducted by Aeroquest International Limited, 7687 Bath Road Mississauga, ON CANADA - L4T 3T1.

10.2.3 Results

Results from the AeroTEM survey indicate a number of strong magnetic anomalies on the claim blocks (Figure 10.2). One conductor was isolated from the data on lines 12110 and corresponds to a coincident magnetic EM anomaly on claim 4208219, which corresponds to the interpreted ultramafic sill adjacent chromite mineralization on Cliffs/Freewest' claim to the east.

Figure 10.1
AeroTEM Survey Flight Plan

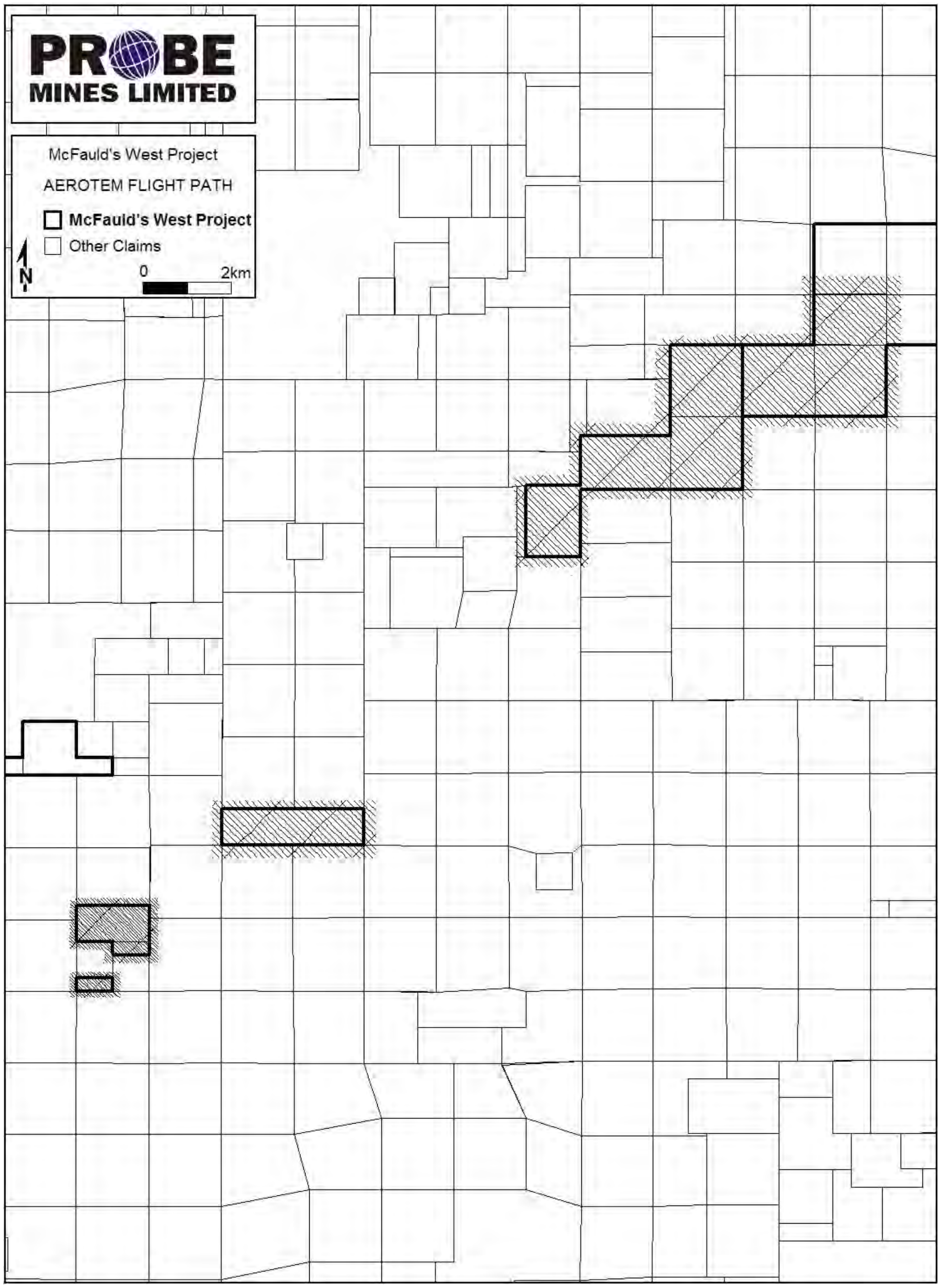
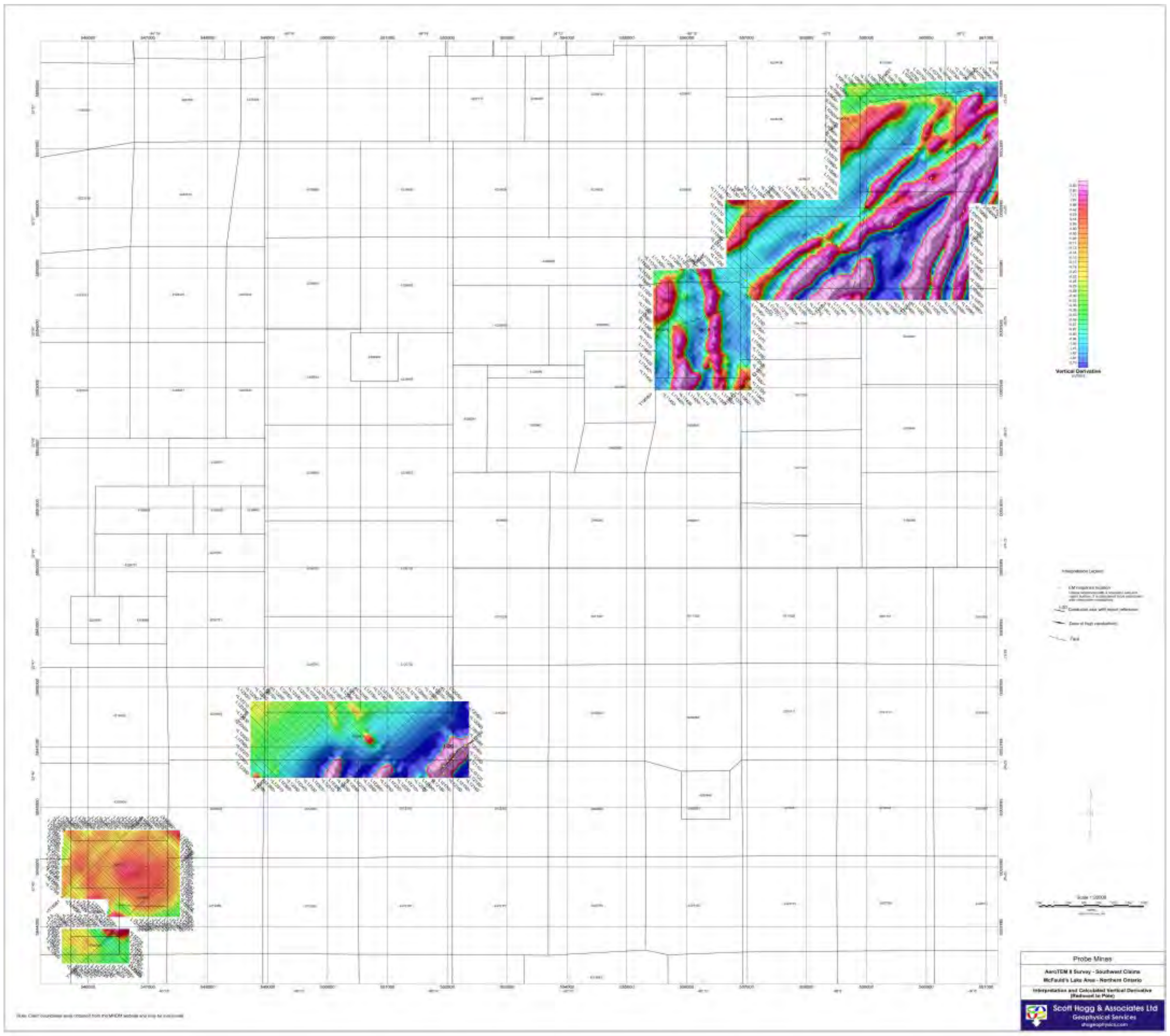


Figure 10.2
AeroTEM Magnetic Intensity Map



10.3 VTEM AIRBORNE SURVEY

10.3.1 Program

In the fall of 2008, a VTEM helicopter-borne magnetic and electromagnetic survey was flown over all claims comprising the McFaulds West project (Figure 10.3). The survey totaled 316 line km and was flown to provide better resolution and depth penetration as compared to the AeroTEM II survey. The survey was flown at 100-m line spacing for all surveyed blocks.

The helicopter was maintained at a mean height of 75 m above the ground for the McFauld's West 1 block with a nominal survey speed of 80 km/hour. This allowed for a nominal EM sensor terrain clearance of 40 m and a magnetic sensor clearance of 62 m.

Figure 10.3
VTEM Survey Flight Plan

The survey was flown using a Eurocopter Aerospatiale (Astar) 350 B2 helicopter, registration C-GCYE. The helicopter was operated by Gateway Helicopters Ltd. Installation of the geophysical and ancillary equipment was carried out by Geotech Ltd.

The recording rates of the data acquisition were 0.1 second for electromagnetics and magnetometer, 0.2 second for altimeter and GPS. This translates to a geophysical reading about every 2 m along flight track. Navigation was assisted by a GPS receiver and data acquisition system, which reports GPS co-ordinates as latitude/longitude and directs the pilot over a pre-programmed survey grid.

The VTEM survey was conducted by Geotech Ltd. The operator was responsible for monitoring of the system integrity. He also maintained a detailed flight log during the survey, tracking the times of the flight as well as any unusual geophysical or topographic feature. On return of the aircrew to the base camp, the survey data were transferred from a compact flash card (PCMCIA) to the data processing computer.

10.3.2 Results

The VTEM survey confirmed the results of the previous AeroTEM II survey; however, the EM data show a greater precision and more accurately depict the conductivity of the underlying rocks. The most notable anomaly occurs on claim 4206219, and consists of a coincident magnetic-electromagnetic anomaly which has a strike length of 750 m within the property boundaries. The magnetic data show the interpreted ultramafic units within the belt transecting a number of the other claims, although typically are not associated with strong conductivity.

10.4 GROUND GRAVITY SURVEY AND RESULTS

Data from a ground gravity geophysical survey, published by KWG Resources Inc. (KWG) and Spider, delineated a number of strong positive anomalies in the southeastern corner of claim 4208219 where the Black Creek deposit is located. The anomalies are situated along the projected extension of Cliffs/Freewest’s Black Thor chromite horizon.

The most notable anomaly occurs on lines 2500E, 2600E and 2700E at approximately 22+00N. Other anomalies, which do not lie directly on-trend, occur on lines 2200E, 2000E and 1300E to 1500E. The latter anomaly was tested at its southwestern extension by the Freewest-KWG-Spider joint venture and was explained by a nickel-bearing banded iron formation. All other anomalies were previously untested.

10.5 INTERPRETATION OF EXPLORATION INFORMATION

Although the geochemical survey conducted defined a multi-metal anomaly to the southwest of the Black Creek deposit, the application of this technique in the McFaulds Lake area is, in general, limited owing to the swampy nature of the ground and the thick overburden of 10 m or more.

The geophysical techniques employed are appropriate and effective, given the nature of the deposits discovered in the SVB to date. Higher EM conductances might be considered more typical of the copper and nickel bearing mineralization, while low to moderate conductances might be considered more typical of the copper-zinc or the chromitite-platinum group mineralization. Zinc sulphide is not a notable conductor. High magnetic anomalies in the McFaulds Lake area have been successfully used to define the lateral extent of the peridotite unit which hosts the chromite mineralization. Gravity techniques were impressively successful in outlining the massive chromite targets resulting in drill holes being sited with better precision.

The coincident gravity-magnetic anomaly in claim 4208219 was subsequently drilled as detailed in Section 11, leading to the discovery of the Black Creek chromite deposit in 2009.

11.0 DRILLING

Following a detailed review of the 2008 VTEM airborne geophysical survey and ground gravity data taken from Freewest-KWG-Spider, Probe embarked on a two-phased diamond drilling program in the second half of 2009. The main target was a coincident gravity-magnetic anomaly in extreme eastern part of claim 4208219.

11.1 JULY, 2009 DRILLING CAMPAIGN

11.1.1 Program

During July, 2009, nine drill holes of BQ size core were completed for a total of 2,228 m. The program was the first drilling on claim 4208219 and all holes were collared on this claim. Norex Drilling Ltd. of Timmins, Ontario was contracted for the diamond-drilling program.

Collar positions and elevations were established using a hand held GPS on grid cut lines aligned in a northwest-southeast direction. Down-hole surveys were conducted using a Reflex Survey instrument. The drill hole data are presented in Table 11.1.

Table 11.1
Drill Hole Data for the July, 2009 Drilling Campaign

DDH#	Easting	Northing	Collar Elevation	Azimuth (degrees)	Dip (degrees)	Depth (m)
MJV09-01	551,984	5,846,816	425	135	-45	356
MJV09-02	551,984	5,846,816	425	135	-60	431
MJV09-03	552,148	5,846,495	425	315	-45	263
MJV09-04	552,147	5,846,500	425	315	-60	284
MJV09-05	552,183	5,846,594	425	315	-45	221
MJV09-06	552,183	5,846,594	425	315	-60	251
MJV09-07	551,729	5,846,553	425	340	-45	152
MJV09-08	551,013	5,846,494	425	315	-45	148
MJV09-09	550,229	5,846,621	425	290	-45	122
					Total:	**2,228 m**

11.1.2 Results

Drill holes MJV09-01 and -02 tested the main target zone of a strong gravity anomaly on the southeast section of claim 4208219. The holes did not intersect the chromite horizon as had been expected, as it turned out that they were aligned down dip. Units of peridotite, dunites, talc- and serpentine- altered peridotites were encountered for the entire lengths of the holes. The ultramafic units range from weak to moderately magnetic.

Drill holes MJV09-03 and -04 were drilled approximately 100 m southwest of holes MJV09-05 and -06, to test the strike extension of the strong gravity anomaly. MJV09-03 intersected a 39 m zone of dominantly disseminated chromite, intermixed with massive chromite. The chromite horizon is moderately hematized and intensely fractured. MJV09-04 intersected a 1.9 m zone of disseminated chromite (157.7 to 158.8 m) before reaching the massive chromite horizon. Approximately 20% of the unit is disseminated chromite intermixed with hematized and intensely fractured massive chromite.

Holes MJV09-05 and -06, positioned approximately 300 m southeast of MJV09-01 and -02, tested the same gravity anomaly as the first two holes. MJV09-05 intersected the chromite horizon. The first chromite horizon is massive with a poikilitic texture, strongly hematized and contains moderate fractures ranging from 0.3 m to 1 m. The second chromite horizon is a 28.2 m zone of intermixed peridotite, disseminated chromite and massive chromite from 157.8 to 159 m and 164.4 to 169.1 m. MJV09-06 intersected a talc- and serpentine-altered peridotite before intersecting the chromite horizon. The massive chromite horizon is heavily fractured and hematized and is similar to that identified in MJV09-05. The lower serpentine-altered peridotite is moderately magnetic and does not contain any visible sulphides.

Hole MJV09-07 was designed to test a strong gravity anomaly. The hole intersected four main types of ultramafic units: a weak to moderately foliated peridotite, a hydrothermal altered zone containing quartz-chlorite-talc alteration, a talc altered to talc-serpentine altered peridotite and a biotite-actinolite schist. Each unit displayed variable (weak to moderate) degrees of alteration and schistosity. Sulphide (pyrrhotite and pyrite) mineralization is present in schistose units, in trace quantities. The units ranged from not magnetic to weakly magnetic.

Hole MJV09-08, drilled to a depth of 148 m, focused on testing magnetic and electromagnetic anomalies on the western section of the property. The hole intersected limestone and a sand unconformity before intersecting mafic, banded iron formation (BIF) and gabbroic units. The units are weakly to strongly magnetic. No sulphides were visible in the upper mafic unit and the lower mafic/gabbroic unit. The BIF consists of bands of chlorite and magnetite and contains up to 5% local sulphides (pyrite). The unit contains an average of 1-2% sulphides (pyrite).

Hole MJV09-09 was drilled to test both magnetic and electromagnetic anomalies on the western side of claim 4208219. The hole intersected intermixed layers of mafic, felsic (granodiorite) and the banded iron formation. Sulphides (blebby pyrite) are present within the banded iron formation and are not visible within the mafic or felsic units. Rock units are weak to moderately magnetic, with local sections being strongly magnetic.

11.2 SEPTEMBER, 2009 DRILLING CAMPAIGN

11.2.1 Program

The September, 2009 drilling campaign was designed to follow up on the significant chromite results from the July preliminary program. The aim was to evaluate the chromite zone over a 200 m strike length, at 50 m spacing of drill holes in both the horizontal and vertical axes. Thus the holes were collared to test the up-dip extensions of chromite intersected in holes MJV09-03, -04, -05 and -06, as well as between the 100 m spaced sections represented by these holes. Additional holes were also drilled to the northeast and southwest of the previously drilled sections to extend the known mineralization a further 100 m, as well as testing the near surface extent of the horizon. The drill hole data are shown in Table 11.2.

Table 11.2
Drill Hole Data for the September, 2009 Drilling Campaign

DDH#	Easting	Northing	Collar Elevation	Azimuth (degrees)	Dip (degrees)	Depth (m)
MJV09-10	552,211	5,846,638	425	315	-45	110
MJV09-11	552,211	5,846,638	425	315	-45	128
MJV09-12	552,163	5,846,684	425	315	-45	188
MJV09-13	552,163	5,846,684	425	315	-62.5	227
MJV09-14	552,136	5,846,639	425	315	-45	113
MJV09-15	552,136	5,846,639	425	315	-50	147.2
MJV09-16	552,156	5,846,553	425	315	-45	218
MJV09-17	552,156	5,846,553	425	315	-45	101
MJV09-18	552,106	5,846,601	425	315	-45	101
MJV09-19	552,106	5,846,601	425	315	-45	164
MJV09-20	552,078	5,846,566	425	315	-65	209
					Total:	**1,706.2 m**

The drilling contractor, core size and down-hole survey techniques are as for the July program.

11.2.2 Results

All the holes intersected broad zones of chromite mineralization incorporating massive, semi-massive, banded and disseminated mineralization. The mineralized intervals are summarized in Table 11.3. The layout of the drill holes for both the July and September, 2009 drilling campaigns is presented in Figure 11.1. The insert in Figure 11.1 shows the surface trace of the chromite horizon within which three massive chromite layers occur.

Table 11.3
Summary of the Mineralized Intervals in the July and September, 2009 Drill Holes

DDH #	Depth (m)	Chromite From (m)	Chromite To (m)	Chromite Interval (m)
MJV09-03	263	148	187	39
MJV09-04	284	173	202	29
MJV09-05	221	123	174	51
MJV09-06	251	160	217	57
MJV09-10	110	52	95	43
MJV09-11	128	44	78.5	34.5
MJV09-12	188	131.7	173.3	41.6
MJV09-13	227	158.7	222.3	63.6
MJV09-14	113	56.2	95.5	39.3
MJV09-15	147.2	107	133.1	26.1
MJV09-16	218	164.1	203	38.9
MJV09-17	101	51.4	81.9	30.5
MJV09-18	101	37.2	66.4	29.2
MJV09-19	164	102	142.5	40.5
MJV09-20	209	122.9	138.2	15.3
	2,725.2			

The estimated true thicknesses for the three massive chromite layers are 15 m, 2 m and 5 m for the upper, middle and lower layers, respectively. Grades in the massive zones are in the range 30% to 48% Cr_2O_3 while disseminated/banded/semi-massive zones vary between 15% and 30% Cr_2O_3.

Figure 11.1
Magnetic Map Showing Drill Hole Layout and Surface Trace of the Black Creek Deposit

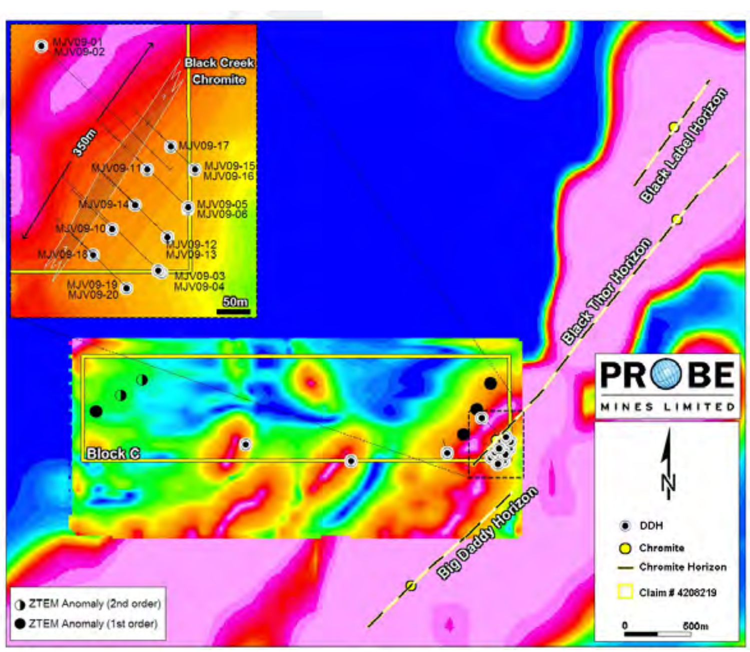


Figure supplied by Probe . Block C is claim block number 4208219.

Following the completion of the September, 2009 drilling program, Micon completed an independent resource estimate and recommended the drilling of 10 additional drill holes to increase the resource.

11.3 NOVEMBER, 2010

11.3.1 Program

The drilling program to November, 2010 was conducted to upgrade and expand the chromite resource as recommended in the August, 2010 Technical Report by Micon (Spooner et al., 2010). A total of 10 drill holes were completed with a total combined length of 2,958 m (Table 11.4)

Table 11.4
Drill Hole Data for the November, 2010 Drilling Campaign

DDH #	Easting	Northing	Collar Elev.	Azimuth(degrees)	Dip	Depth (m)	Remarks
BC10-21	552282.206	5846427.668	425	315	-52	405	
BC10-22	552282.206	5846427.668	425	315	-60	215	Lost hole
BC10-23	552343.042	5846489.899	425	315	-55	446	
BC10-24	552239.491	5846469.575	425	315	-70	524	Lost hole
BC10-25	552239.491	5846469.575	425	315	-63	443	
BC10-26	552033.116	5846489.132	425	315	-45	104	
BC10-27	552203.159	5846734.256	425	315	-45	140	
BC10-28	552323.075	5846614.397	425	315	-55	332	
BC10-29	552215.587	5846394.301	425	315	-58	239	Lost hole
BC10-30	552061.207	5846487.205	425	315	-45	110	
					Total	**2,958**	

11.3.2 Drilling Results

Six holes intersected broad zones of chromite mineralization incorporating massive, semi-massive, banded and disseminated mineralization and confirmed mineralization to a vertical depth of 320 m from surface. The program also delineated an additional 115 m of strike length and confirmed the occurrence of mineralization very close to surface and, in places, is less than 4 m of overburden, indicating it would be a likely candidate for open pit extraction.

One hole was deflected beneath the main zone of mineralization while three holes were abandoned due to bad ground. The overall results are summarized in Table 11.5.

As previously described, the estimated true thicknesses for the massive chromite zones within the chromite mineralization interval are 15 m, 2 m and 5 m for the lower, middle and upper horizons, respectively. Typically massive zones vary between 30% and 48% Cr_2O_3 while disseminated/banded/semi-massive zones vary between 15% and 30% Cr_2O_3.

Table 11.5
Summary of Mineralized Intervals in the November 2010 Drill Holes

DDH #	Depth (m)	Chromite From (m)	Chromite To (m)	Chromite Interval (m)
BC 10 - 21	405	349.20	385.20	36.00
BC 10 - 23	446	388.40	426.00	37.60
BC 10 - 25	443			Deflected beneath chromite zone
BC 10 - 26	104	9.00	30.00	21.00
BC 10 - 27	140	44.60	67.00	22.40
BC 10 - 28	332	273.30	317.40	44.10
BC 10 - 30	110	44.10	67.50	23.40

12.0 SAMPLING METHOD AND APPROACH

12.1 SAMPLING INTERVAL CRITERIA

Sample intervals were identified based on changes in lithology, structure, alteration and mineralization. Generally samples of 1 m were taken in longer sections of similarly mineralized rocks; however, sample size was reduced to as low as 0.4 m in areas of particular interest, or where lithology and mineralization were distinct.

12.2 SAMPLING METHODOLOGY

The geologist identifies and marks the beginning and the end of the sampling intervals and prepares a detailed geologic log including lithology, alteration, mineralization and structure. In addition, a detailed written and graphical description is also included in the log sheet. Before sampling, a geotechnical description is recorded paying particular attention to core recovery.

Upon completion of the logging and demarcating the sample intervals, technicians saw the core in half with a diamond saw, except for material with highly fractured and clay minerals, which are divided manually with hammer and chisel. One half of the core is bagged, tagged with a sample number and then sealed; the other half is put back in the core boxes and kept as a reference and check sample in the event that duplicate assays are required.

All core samples were recorded in the geological drill logs and in a sample chain of custody spreadsheet. While samples were en-route, the chain of custody spreadsheet was e-mailed to Actlabs.

For quality control purposes, each sub-batch consisted of a duplicate, blank and standard which were always positioned at the same sample location of each sub-batch. Repetitive quality control (QC) positioning eliminates the chance of a duplicate from the laboratory (quality control procedure for the laboratory) being run on a submitted duplicate, blank or standard and also reduces the chances of mistakes at the sampling stage.

12.3 MICON COMMENTS

In general sample recoveries beneath the overburden are excellent (+95%) and this ensures good quality samples. The restriction of sample intervals to lithological and mineralization boundaries yields a representativeness of the mineralization types encountered and facilitates geological modelling of the deposit. Micon is not aware of any actions and/or factors that may have resulted in sample biases.

13.0 SAMPLE PREPARATION AND SECURITY

13.1 PROTOCOLS BEFORE DISPATCH OF SAMPLES

A tag with a sample identification (ID) number was placed in each sample bag before being sealed. The sample ID number was also written on the outside of the sample bag. The position of the samples on the remaining half cores was marked with a corresponding ID tag. Samples were then grouped into batches before being placed into rice bags. Each rice bag was also sealed before being dispatched. Other than the insertion of control samples as described in Section 12 above, there was no other action taken at site. Thus no aspect of the sample preparation was conducted by an employee, officer, director or associate of the issuer.

Samples from Probe’s diamond drill cores were sent to Activation Laboratories (Actlabs) in Thunder Bay, Ontario. Upon receipt of the samples, Actlabs personnel ensured that the seals on rice bags and individual samples had not been tampered with.

Actlabs provides analytical services to the mining and mineral exploration industry and is registered under the ISO 9001:2000 quality standard.

13.2 LABORATORY PROTOCOLS

At the time of delivery, the laboratory would acknowledge receipt of the sample shipment in good order. Samples were both prepared and analyzed at the Actlabs laboratory.

13.2.1 Sample Preparation

Samples were prepared by drying, if necessary, then the entire sample was crushed to a nominal minus 10 mesh (1.7 mm), mechanically split (riffle) to obtain a representative sample and then pulverized to at least 95% minus 150 mesh (106 microns).

13.2.2 Analyses

Owing to the variety of mineralization, a number of analytical packages were used according to visual observations in core. For oxide mineralization, Cr_2O_3 concentrations were measured using X-Ray Fluorescence (XRF), precious metal abundances using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and remaining base and precious metals not covered by the previous packages using Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES). In the case of sulphide mineralization no XRF analyses were required. All samples were tested for specific gravity.

Further details on each analytical method can be found on the Actlabs website, www.actlabs.com.

13.3 QUALITY CONTROL MEASURES

13.3.1 Activation Laboratories

Actlabs is one of only two ISO/IEC 17025 with CAN-P-1579 registered laboratories in North America. The accreditation process allows laboratories to demonstrate proof of their technical competence and ability to meet a performance benchmark. Accreditation by the Standards Council of Canada (SCC) requires on-site assessment of the laboratory by auditors knowledgeable in the field. Accreditation also requires continued participation in proficiency testing programs.

Quality assurance and quality control (QA/QC) form an integrated part of the analyses performed and of the work of Actlabs. Actlabs' Quality System monitors all steps and phases of its operations and has a defined policy that ensures that all staff working in the laboratories are competent to perform the work required. New employees are trained to perform specific tasks and their ability to perform these tasks is formally assessed. Staff are routinely evaluated and up-to-date training and performance records are maintained. Actlabs' in-house methods are fully validated before being used on client samples. Standard material and reagent lists are also maintained. As part of its Quality System, Actlabs maintains a schedule for the maintenance and calibration of equipment used in the laboratory. Records of calibration and performance parameters are maintained for both testing and measuring equipment. Actlabs routinely monitors and documents the reliability of its sampling of submitted samples to ensure that any sub-samples taken (e.g., from a crushed rock split) are reliable and representative of the original sample submitted.

13.3.2 Probe Mines

Probe also employs an internal QA/QC program where each batch of 35 samples includes one blank, two internationally certified reference materials (ICRMs; also known as standards), one quarter-sawn field duplicate, a coarse reject duplicate, and a pulp duplicate. Under the pass/fail criteria for the Cr standard, if measured concentrations in standards differ from accepted values by more than two standard deviations, the entire batch fails and is re-analyzed. Probe's QA/QC program is supervised by Tracy Armstrong, P.Geo, of P&E Mining Consultants Inc.

13.3.3 Laboratory Control Charts for Quality Control Standards

As part of the laboratory's in-house QA/QC protocols, all data generated for quality control standards, blanks and duplicates are retained with the client's file and are used in the validation of results. For each quality control standard, control charts are produced to monitor the performance of the laboratory. Warning limits are set at +/-2 standard deviations, and control limits are set at +/-3 standard deviations. Any data points for the quality control standards that fall outside the warning limits, but within the control limits, require 10% of the samples in that batch to be re-assayed. If the results from the re-assays match the original assays, the data are validated; if the re-assay results do not match the original data the entire batch is rejected and new re-assays are performed. Any quality control standard that falls outside the control limits is automatically re-assayed and all of the initial test results are rejected.

13.4 SAMPLE SECURITY

Drill core samples were collected in the field and placed in containers containing security seals. Samples were shipped to Actlabs by bonded courier, at which point the samples entered into the laboratory's chain of custody. The chances of the samples being tampered with enroute to the laboratory are practically nil. Nonetheless, upon receipt of the samples the laboratory checks for tampers on the seals.

13.5 MICON COMMENTS

Micon considers the sample preparation, security and analytical procedures to be adequate to ensure the integrity and credibility of the analytical results used for the resource estimate. The monitoring of the laboratory's performance by an independent consultant (Tracy Armstrong) gives added confidence on the validity of the assay data.

14.0 DATA VERIFICATION

Micon achieved data verification by conducting a site visit to the project area, conducting independent repeat analyses of selected sample pulps, analyzing monitoring reports on the performance of control samples and conducting a resource database validation.

14.1 SITE VISIT

The site visit was conducted by Charley Murahwi on June 8, 2010 in the company of Dave Palmer, President and CEO of Probe. The tasks accomplished included the following:

- Verification of all drill hole collar positions and topography.
- Examination of drill cores and visual verification of chrome mineralization intersected in drill holes.
- Review of chromite mineralization styles (massive, semi-massive, banded and disseminated).
- Partial validation of analytical results by comparing assays with drill core intercepts.
- Review of QA/QC protocols.

In summary, the main observations are that (a) the mineralization intersected in drill holes is over a broad zone up to 65 m wide within which occur three discrete massive chromite horizons/layers (Figure 14.1) with intermittent zones of banded, semi-massive and disseminated chomite (Figure 14.2); (b) the ground is flat and there are insignificant elevation differences between drill hole collars; (c) QA/QC protocols are well marshalled by independent consultant Tracy Armstrong, P.Geo., and (d) assay results match the mineralization styles observed in drill cores. In the latter case, only one sample was found to be a mismatch.

14.2 REPEAT ANALYSES

Micon selected 26 sample pulps encompassing a wide range of assay values (from low through medium to high) and re-numbered them in a different sequence before submitting them to the Actlabs laboratory in Ancaster, Ontario, for repeat analyses using the Fusion XRF method previously used. The results of the repeat and original analyses are listed in Table 14.1.

Figure 14.1
Oxidized Massive Chromite Hosted in Peridotite

Figure 14.2
Disseminated and banded Chromite

Table 14.1
Listing of Original (Org.) and Repeat (Rpt.) Analyses Results

Rpt Cr_2O_3 (%)	Org Cr_2O_3 (%)	Rpt Fe_2O_3(T) (%)	Org Fe_2O_3(T) (%)
1.72	1.8	6.82	6.72
30.42	31.5	26.35	26.07
34.76	36.06	28.05	27.6
39.19	38.9	27.89	27.94
37.93	39.08	27.71	27.33
28.8	30.25	21.89	21.58
34.74	35.9	25.38	24.96
35.32	37.35	25.98	25.64
32.96	33.47	23.46	23.12
18.4	19.02	14.69	14.32
16.19	16.64	13.9	13.45
11.91	12.16	10.69	10.29
26.19	26.61	19.33	18.98
31.3	31.44	21.08	21.18
27.5	28.37	20.25	19.71
41.82	44.05	22.23	23.79
44.72	44.26	22.11	23.6
45.53	43.43	22.18	24.55
45.34	43.43	22.36	24.55
44.75	45.01	21.16	22.64
44.55	45.85	21.72	21.57
44.28	44.86	23.07	21.36
44.12	45.53	23.74	22.24
42.86	45.58	24.71	22.3
44.38	46.12	23.69	21.64
42.63	43.44	23.91	21.94

Comparisons between original and repeat assays on scatter plots (Figures 14.3 and 14.4) confirm the laboratory's high degree of accuracy (lack of bias) and precision. This is well supported by the excellent coefficients of correlation.

14.3 MONITORING REPORTS AND CONTROL CHARTS

Analysis of the monitoring reports by independent consultant Tracy Armstrong, P.Geo., reveals that adequate control samples incorporating high quality certified reference material (CRM), blanks and duplicates were used to ensure accuracy of the analytical database. Details are given in Appendix 1. Micon did not identify any flaws in the QA/QC protocols.

Figure 14.3
Scatter Plot Between Original and Repeat Assays for Cr_2O_3

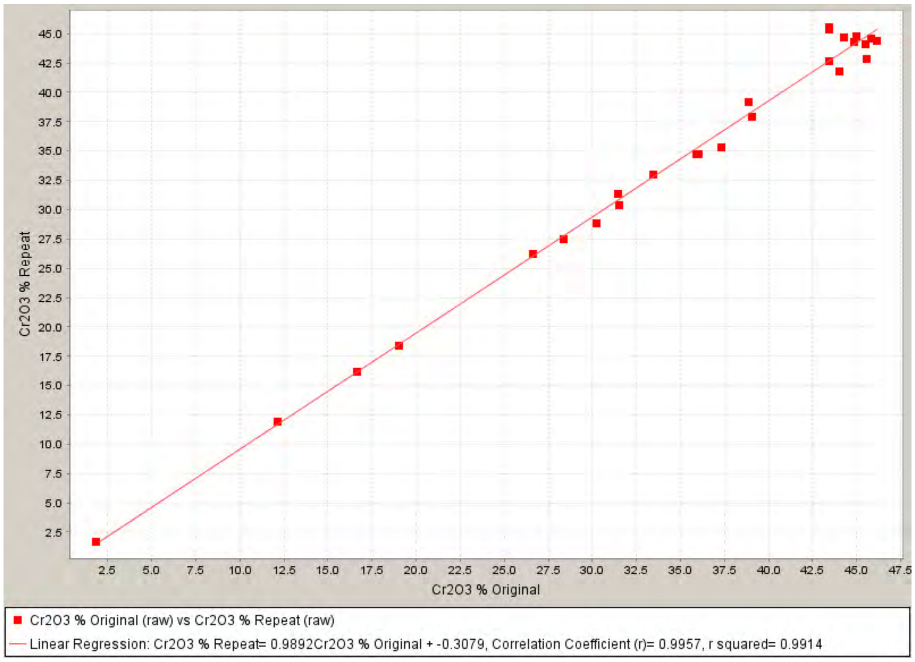
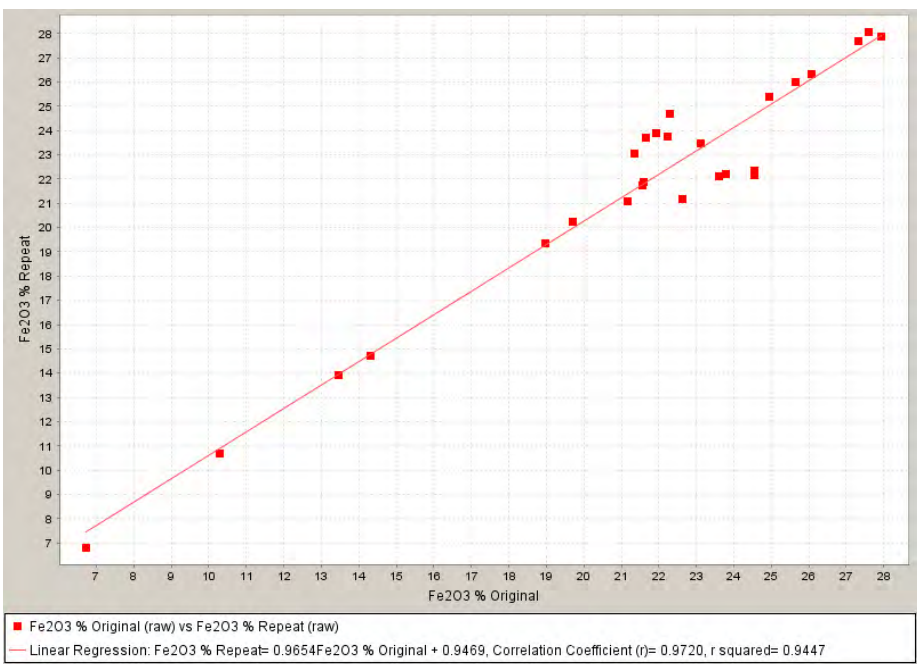


Figure 14.4
Scatter Plot Between Original and Repeat Assays for Fe_2O_3



14.4 RESOURCE DATABASE VALIDATION

The resource database was validated by the following:

- Comparing the database assays and intervals against the original assay certificates and drill hole logs.

- Reviewing the database construction, and the categories of information contained in it, to ensure that all the relevant data for the proper estimation of resources had been assembled.

- Checking for any non-conforming assay information, such as duplicate samples and missing sample numbers.

14.5 DATA VERIFICATION CONCLUSIONS

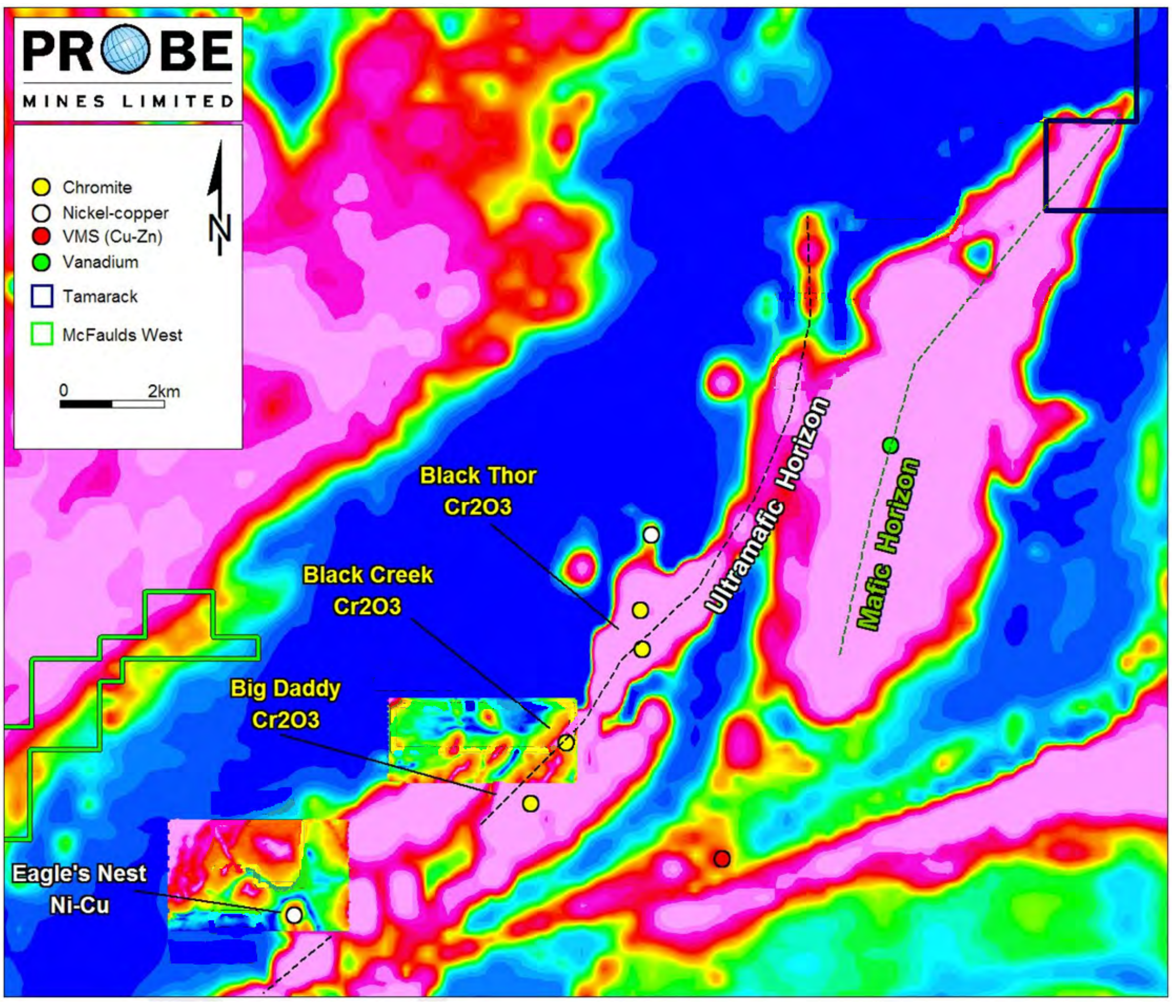
On the basis of the verification procedures described above, Micon is satisfied as to the intergrity of the database used for resource estimation in this Technical Report and considers it to be representative of the main characteristics of the Black Creek chromite deposit.

The style of high grade mineralization encountered at Black Creek is in all respects similar to that encountered at the Big Daddy deposit immediately to the southwest.

15.0 ADJACENT PROPERTIES

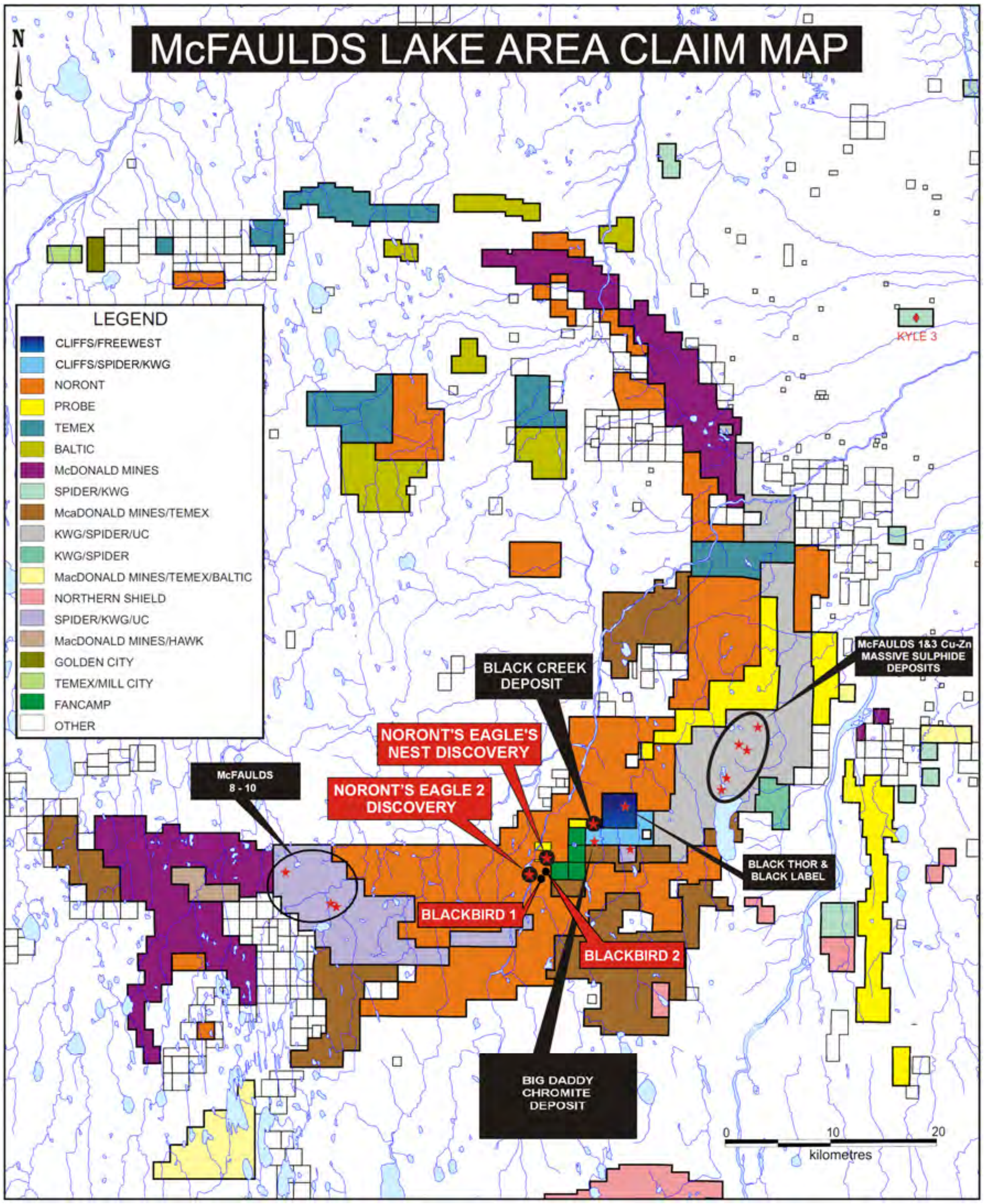
The properties adjacent to the Black Creek deposit that are clearly of major significance are the Black Thor/Black Label and the Big Daddy deposits located to the immediate northeast and southwest, respectively. As shown on Figure 15.1, all three chromite deposits lie on the same ultramafic horizon based on aeromagnetic data interpretation. These data also suggest that the same ultramafic horizon hosts the Blackbird deposit located about 10 km to the southwest of Black Creek.

Figure 15.1
Aeromagnetic Map Showing Location of Mineral Occurrences and Salient Geological Trends Relative to the Property Bounds of the Black Creek Deposit



The following is a brief description of the properties in the McFaulds Lake area. The various locations of the properties are shown on Figures 15.1 and 15.2. The resources quoted with the exception of Black Thor are taken from reports filed on SEDAR. The Black Thor estimate is taken from a January 10, 2010 press release and a report obtained from the Freewest website in late-January, 2010.

Figure 15.2
Adjacent Properties



Other than for the Blackbird and Big Daddy deposits, Micon has not indepently verified the information contained in this section.

15.1 CHROMITE PROPERTIES

The reported resources for the adjacent chromite deposits are summarized below.

15.1.1 Black Thor

The resources reported for the Black Thor deposit, all of which are in the Inferred category, are summarized in Table 15.1. All resources are in the inferred category and were estimated by Aubut, 2009.

Table 15.1
Resource Estimate for the Black Thor Deposit

Tonnes (millions)	Grade (% Cr_2O_3)	Cut-Off (% Cr_2O_3)
121.9	27.8	20
69.6	31.9	25
36.1	36.1	30
16.7	40.5	35

15.1.2 Blackbird

The mineral resources reported for the Blackbird deposits are summarized in Table 15.2. The resource estimate was prepared by Micon in 2010 (Gowans et al., 2010(a)).

Table 15.2
Summary of Blackbird Mineral Resource, All Categories

Description	Category	Tonnes x 10^6	Avg. %Cr_2O_3	Cr:Fe
BB2 Massive Chromite	Measured(M)	4.2	36.55	1.94
BB1 & BB2 Massive Chromite	Indicated (I)	3.4	36.08	1.94
BB1 & BB2 Massive Chromite	**Total M & I**	**7.6**	**36.34**	**1.94**
BB2 Massive Chromite	**Total Inferred**	**3.5**	**34.93**	**1.95**
BB2 Intercalated Chromite	Measured (M)	1.0	25.40	1.6
BB2 Intercalated Chromite	Indicated (I)	0.3	26.00	1.57
BB2 Intercalated Chromite	**Total (M & I)**	**1.3**	**25.54**	**1.6**
BB2 Intercalated Chromite	**Total Inferred**	**2.6**	**31.39**	**1.77**

15.1.3 Big Daddy

The reported resources from the massive chromite zones at the Big Daddy deposit are detailed in Table 15.3. The resource estimate was prepared by Micon in 2010 (Gowans et al., 2010(b)).

Table 15.3
Summary of the Big Daddy Massive Chromite Resources

Deposit/Code	Category	Cr_2O_3% Interval	Tonnes x 10^6	Avg. Cr_2O_3 %	Cr/Fe Ratio
BD 1 (100)	Indicated	>35.0	12.934	40.74	2.0
		30.0 – 35.0	0.435	33.63	1.8
		25.0 – 30.0	0.017	28.87	1.7
		20.0 – 25.0	0	0	0
		15.0 – 20.0	0	0	0
Sub-total			13.4	40.49	2.0
BD 2	Indicated	>35.0	9.234	41.44	2.0
		30.0 – 35.0	0.520	32.83	1.8
		25.0 – 30.0	0.090	29.36	1.7
		20.0 – 25.0	0	0	0
		15.0 – 20.0	0	0	0
Sub-total			9.8	40.88	2.0
Grand Total	**Indicated**		**23.2**	**40.66**	2.0
BD 1 (100)	Inferred	>35.0	6.216	39.34	2.0
		30.0 – 35.0	1.014	33.25	1.8
		25.0 – 30.0	0.005	27.97	1.7
		20.0 – 25.0	0	0	0
		15.0 – 20.0	0	0	0
Sub-total			7.2	38.48	2.0
BD 2	Inferred	>35.0	8.382	40.24	2.0
		30.0 – 35.0	0.609	33.32	1.8
		25.0 – 30.0	0.047	28.35	1.7
		20.0 – 25.0	0.021	22.87	1.5
		15.0 – 20.0	0.042	16.76	1.1
		.01 – 15.0	0	0	0
Sub-total			9.1	39.57	2.0
Grand Total	**Inferred**		**16.3**	**39.09**	2.0

Note: The tonnages have been rounded to 3 decimals for grade intervals and to 1 decimal for sub-totals and grand totals.

15.2 NICKEL/COPPER-PGE

Noront is the first company to make a significant discovery of a magmatic massive sulphide deposit (Ni-Cu-PGE) in the McFaulds Lake area. The most recent resource estimate for the Eagle's Nest deposit is summarized in Table 15.4 and was prepared by Golder (Golder, 2010).

Table 15.4
Eagle's Nest Resource Estimate Indicated and Inferred

Indicated							
Cut-off (Ni %)	**Tonnes**	**Ni %**	**Cu %**	**Pt gpt**	**Pd gpt**	**Au gpt**	**Ag gpt**
0.5	5,943,512	2.31	1.08	1.45	3.82	0.18	3.08
1	4,841,619	2.67	1.23	1.64	4.35	0.20	3.47
2	2,299,495	3.98	1.71	2.28	6.03	0.24	4.50
3	1,250,402	5.31	2.16	2.80	7.63	0.28	5.45
4	842,337	6.21	2.52	2.81	8.90	0.33	6.31
5	600,292	6.91	2.82	2.90	9.94	0.38	6.97
6	399,372	7.64	3.17	2.92	11.09	0.44	7.79
7	259,562	8.24	3.36	2.80	11.96	0.50	8.26
Inferred							
Cut-off (Ni %)	**Tonnes**	**Ni %**	**Cu %**	**Pt gpt**	**Pd gpt**	**Au gpt**	**Ag gpt**
0.5	4,050,123	1.50	0.91	0.83	3.60	0.25	3.54
1	2,650,781	1.88	1.11	0.90	4.21	0.28	4.24
2	685,490	3.28	1.25	0.71	5.39	0.21	4.80
3	280,372	4.60	1.17	0.56	6.33	0.14	4.32
4	164,931	5.40	1.19	0.52	7.14	0.12	4.43
5	91,834	6.12	1.22	0.47	7.93	0.10	4.62
6	44,672	6.81	1.21	0.45	8.81	0.05	4.90
7	15,870	7.52	1.15	0.42	9.22	0.05	4.69

15.3 IRON/VANADIUM/TITANIUM

Currently there are no reported resources of iron/vanadium/titanium in the McFaulds Lake area. However, in 2009 Noront tested a strong magnetic anomaly (subsequently named Thunderbird) located about 2 km northeast of the Cliffs-Freewest property (Figure 15.1). Three holes yielded about 0.5% vanadium (V_2O_5) in three ~30 m wide intersections over 900 m of strike in ferrogabbro. Noront suggests that the ferrogabbro is a more evolved portion of the McFaulds Lake sill.

15.4 VMS (COPPER-ZINC)

Although occurring in the McFaulds Lake area, the VMS deposits are not related to the McFaulds Lake sill (RFI) but rather to the greenstone belt rocks. The resource estimate reported by Spider and KWG is summarized in Table 15.5 (Lahti, 2008).

Table 15.5
Summary of Resources on McFaulds 1 and 3

Deposit	**Class**	**Tonnes**	**Cu (%)**	**Zn (%)**	**Cut-off**	**DDH**	**Drilled (m)**
McFaulds 3	Indicated	802,000	3.75	1.10	1.5% CuEquiv	39	12,114
McFaulds 1	Inferred	279,000	2.13	0.58.	1.5% CuEquiv	15	4,715

15.5 COMMENT

The foregoing descriptions signal the emergence of a potential new metal district. However, the harsh climatic/swampy conditions and the total lack of infrastructure may hinder early commercial development.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineralogical or metallurgical work has been conducted on the Black Creek property. It is proposed to commence metallurgical investigations during the next phase of investigation. Metallugical work on the adjacent properties (Black Thor/Black Label and Big Daddy) is incomplete but preliminary test results are understood to be encouraging.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

17.1 DATABASE DESCRIPTION

Following the completion of the November, 2010 drilling program the number of holes drilled in claim block 4208219 totalled 28 but only those directed at the Black Creek deposit are considered relevant for the current resource estimate. Although the first two holes were meant to test the deposit, they missed target as they were directed parallel to the dip direction and are therefore excluded from the resource database. The third hole excluded from the database tested a coincident magnetic and electromagnetic anomaly in the western part of the claim.

17.1.1 Drilling and Assay Information

The initial resource estimate reported in the August, 2010 Technical Report (Spooner et al., 2010) was based on 15 diamond drill holes on a 50 m x 50 m grid, laterally and vertically, covering a strike length of 200 m down to vertical depth of 175 m. The current resource estimate is based on 25 drill holes covering an additional 115 m strike to a vertical depth of 320 m. The deposit is covered by less than 10 m of overburden.

The assay database consists of 842 samples of which the principal analyses were for Cr_2O_3, Fe_2O_3, Al_2O_3, Cr, Fe, SiO_2 and PGEs. No significant PGE concentrations were found within the chromite zones.

17.1.2 Lithology and Mineralization

All lithologies and mineralization types encountered in the drill holes are documented in a "from – to" interval format. The major rock types encountered include both primitive types (i.e. dunite, peridotite, chromitite, pyroxene, serpentinite) and evolved types (gabbroic rocks). The overburden thickness is slightly variable but is generally below 10 m and can be as low as 4 m.

The dominant mineralization type recorded is massive chromite and to a lesser degree semi-massive, intermittent beds, heavily disseminated and disseminated types.

17.1.3 Survey

Survey data comprise the collar coordinates and elevations, and down-hole deviations. A digital terrain model is not necessary as the deposit area is entirely flat with virtually no elevation differences.

17.1.4 Specific Gravity

Specific gravity (SG) determinations were conducted for every sample submitted to the laboratory. The determinations were done using a pycnometer. The SG values obtained are representative of the range of Cr_2O_3 grades intersected at Black Creek and are comparable to those of similar deposits in the RFI. The range of SG values is summarized in Table 17.1.

Table 17.1
Range of SG Values for the Black Creek Deposit

%Cr_2O_3 Range	SG
0 – 15	2.8
15 – 20	3.0
20 – 25	3.2
25 – 30	3.3
30 – 35	3.4
>35	4.0

17.1.5 Assay Data Validation

The database validation was conducted by checking the assays in the database against the original assay certificates and survey information against the original survey data sheets.

17.1.6 Surpac Master Database

The Surpac master database was created by importing the Excel spreadsheet files of the assays, survey data, SG and lithology logs into the surpac mode files. Surpac version 6.1.3 software was used for the resource estimate using the block modelling technique.

17.2 ESTIMATION DETAILS

The methodology used in the estimation process encompasses the following sequential steps.

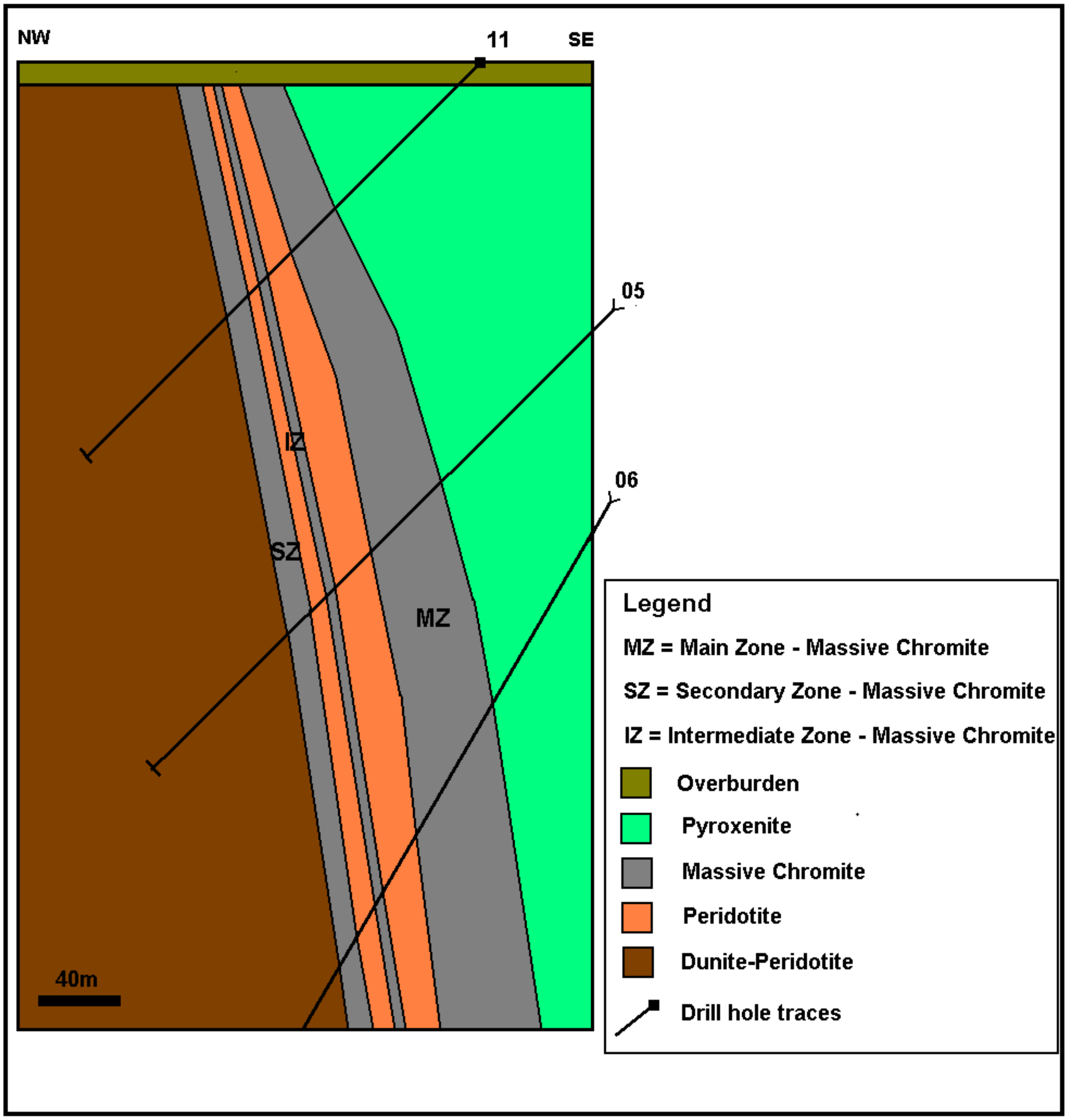
- Geological interpretation/modelling.
- Grade capping and compositing.
- Cut-off grade determination.
- Geostatistical analysis/variography.
- 3D modelling.
- Block grade interpolation.
- Classification.
- Validation.

17.2.1 Geological Modelling

17.2.1.1 Geological Domains

The major geological domains encountered down-hole are gabbro, pyroxenite, massive chromite (Main Zone), peridotite, massive chromite (Intermediate Zone), peridotite, massive chromite (Secondary Zone) and dunite (Figure 17.1). These domains reflect a fractionation trend in the up-hole direction (northwest to southeast), which is consistent with observations made at the adjacent Big Daddy deposit.

Figure 17.1
Cross-Section Through the Middle Part of the Black Creek Deposit



Semi-massive, banded and disseminated chromite (Figure 17.2) occurs within the peridotite unit found between the Intermediate zone (IZ) and the Secondary zone (SZ) making the two massive zones almost inseparable. Thus, the current resource estimate has modelled the IZ and the SZ as a combined zone necessitating the lowering of the cut-off grade to 20% Cr_2O_3. This is further discussed in Section 17.2.4.

Figure 17.2
Semi-massive, Banded and Disseminated Chromite in Between the IZ and SZ

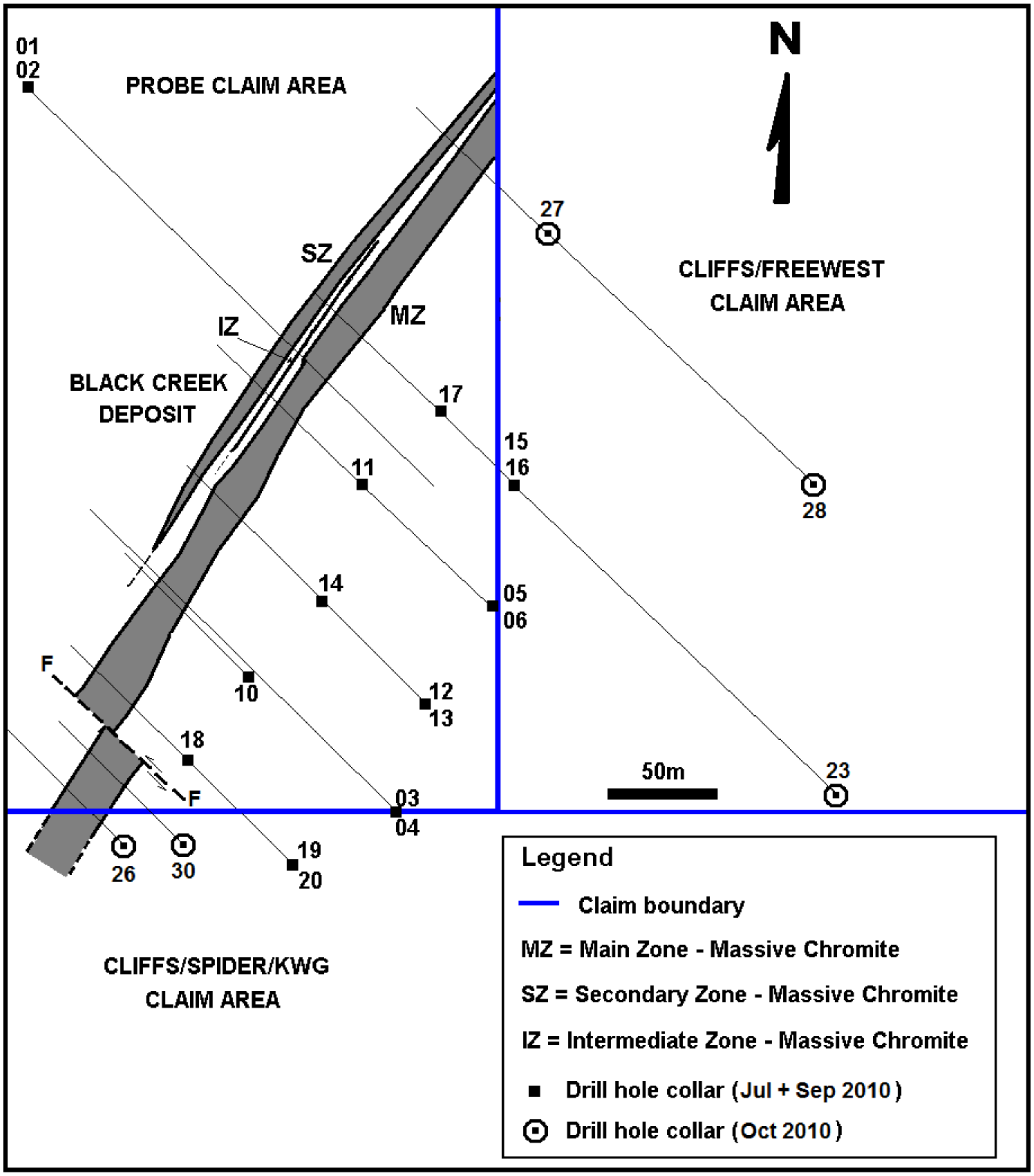
17.2.1.2 Mineralization Domains

Chromite mineralization of significance, (i.e. > 15% Cr_2O_3) occurs in a broad zone about 65 m wide. Detailed sectional interpretation shows that within the broad zone of chromite mineralization, three distinct massive chromite layers occur (Figure 17.1) with a minimum grade equal to or greater than 30% Cr_2O_3.

The presence of these distinct layers is indicative of at least three intermittent pulses (inputs) of magma into the magma chamber. The last and main magma pulse is represented by the largest chromite layer which is in sharp contact with the hangingwall pyroxenite.

The upper contact of the uppermost massive chromite with pyroxenite in the hanging wall is sharp whilst the lower contact is diffuse/semi-massive. No chromite mineralization of significance (i.e. > 15% Cr_2O_3) has been encountered within the pyroxenite and the units above it; all chromite mineralization of significance is restricted to geological domains appearing earlier than the pyroxenite. Thus, the major massive chromite (MZ)/proxenite contact is the reference point for linking both geological and mineralization domains. The updated surface trace of the massive chromite zones based on sectional projections is shown on Figure 17.3.

Figure 17.3
Surface Plan of the Mineralization Domains



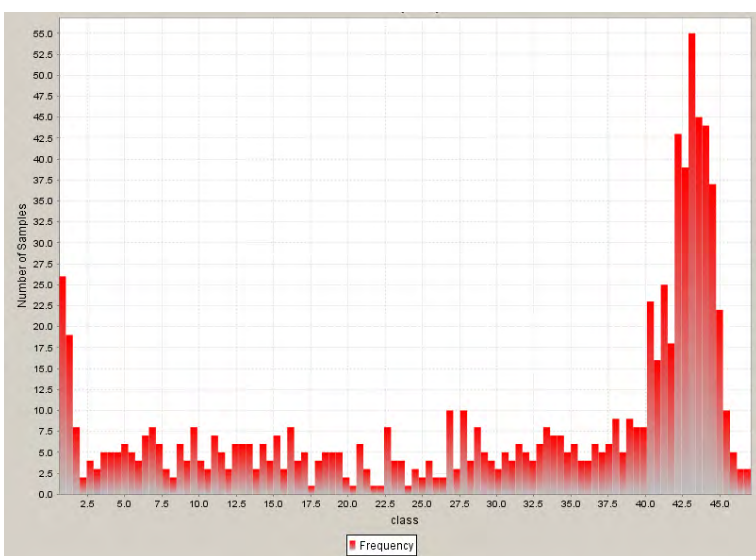
17.2.2 Statistical Analysis

Statistical analysis of the entire raw data (842 samples including those with back ground values) gives a mean of 30.42% Cr_2O_3 with minimum and maximum values of 0.58% and 47.07% Cr_2O_3 (Table 17.2). The elevated mean value of 30.42% is indicative of predominantly high grade massive zones. The histogram of the sample population (Figure 17.4) shows a distinct high grade population > 40% Cr_2O_3 which forms the major component (MZ in Figures 17.1 and 17.3) of the Black Creek deposit.

Table 17.2
Summary Statistics of the Entire Database

Variable	Cr_2O_3 (%)	Fe_2O_3 (%)
Number of samples	842	842
Minimum value	0.58	3.39
Maximum value	47.07	35.70
Mean	30.42	18.77
Median	38.20	21.09
Geometric mean	22.50	17.59
Variance	226.12	32.15
Standard deviation	15.04	5.67
Coefficient of variation	0.49	0.30
Skewness	-0.74808	-0.83
Kurtosis	2.03487	2.86
Natural log mean	3.113723	2.867389
Log variance	1.063856	0.157659
Sichel-t	38.27	19.03

Figure 17.4
Histogram of Cr_2O_3 Assays of the Entire Database



Other important aspects of the general statistics are the excellent correlations between Cr and Fe (Figure 17.5) and between Cr_2O_3 and Fe_2O_3 (Figure 17.6).

Figure 17.5
Scatter Plot Showing Relationship Between Cr and Fe

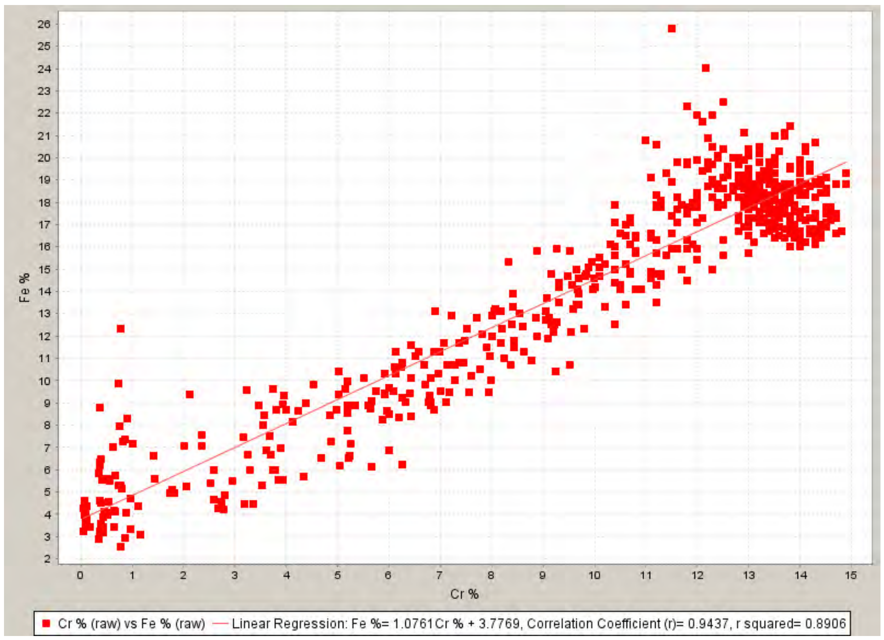
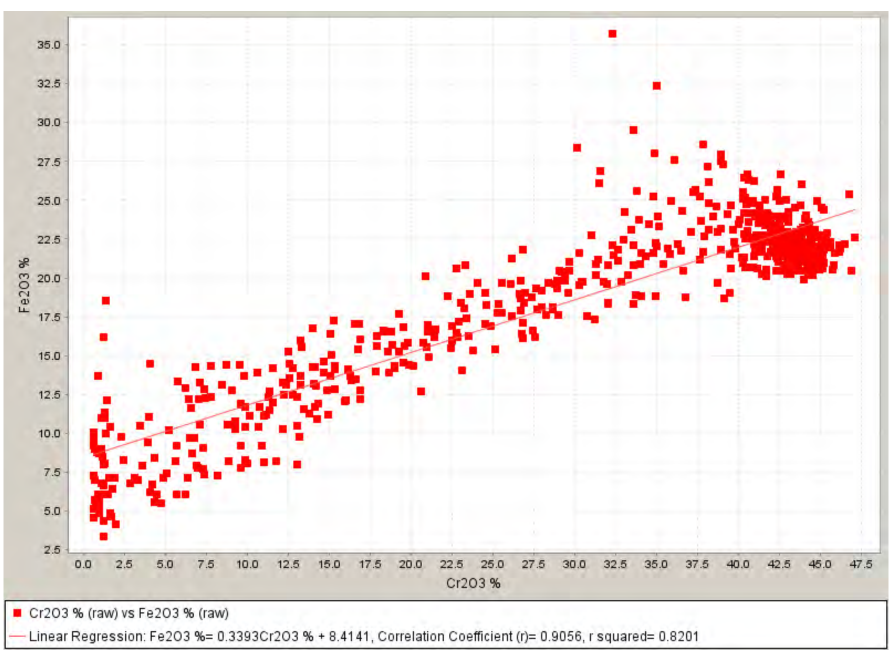


Figure 17.6
Scatter Plot Showing Relationship Between Cr_2O_3 and Fe_2O_3



A summary of the various coefficients of correlation between important components of the database is given in Table 17.3.

Table 17.3
Summary of Coefficients of Correlation

	Cr_2O_3 (%)	Fe_2O_3 (%)	Cr (%)	Fe (%)	Al_2O_3 (%)	Density
Cr_2O_3 (%)	1.00	0.91	0.98	0.94	0.99	0.97
Fe_2O_3 (%)	0.91	1.00	0.91	0.99	0.90	0.89
Cr (%)	0.98	0.91	1.00	0.94	0.97	0.94
Fe (%)	0.94	0.99	0.94	1.00	0.93	0.93
Al_2O_3 (%)	0.99	0.90	0.97	0.93	1.00	0.97
Density	0.97	0.89	0.94	0.93	0.97	1.00

17.2.3 Grade Capping and Compositing

The histogram of the entire sample population (Figure 17.4) shows no outlier high values; hence, there is no basis to conduct grade capping.

Greater than 95% of the sample lengths are 1 m and this was accordingly selected as the ideal composite length.

17.2.4 Estimation of Cut-off Grade

The usual approach to selecting a cut-off grade for the purpose of estimating resources is to look at similar deposits/mining projects around the world and apply the principle of analogy to arrive at a reasonable cut-off grade estimate.

The Bushveld Complex (South Africa) and the Greak Dyke (Zimbabwe) deposits have resources and reserves grading > 40% Cr_2O_3 with Cr to Fe ratios of =/> 1.8. These two areas rank high amongst the current world producers with many of their operations being underground mines.

The closest chromite operation to Black Creek in current production is the Kemi mine in Finland which is mainly an open pit operation with an end of 2009 reserve base of 37 Mt at 26% Cr_2O_3 (Outokumpu, 2009 Annual Report) and a Cr to Fe ratio of about 1.8. A sizeable portion of the Kemi production is upgraded by means of beneficiation.

In consideration of the above analogies, coupled with the remoteness and total lack of infrastructure of the McFaulds Lake area, a 30% Cr_2O_3 cut-off grade was considered appropriate for the initial resource estimate conducted in August, 2010 for the Black Creek deposit. The current resource estimate has used a lower cut-off of 20% Cr_2O_3 to incorporate the zone of semi-massive, banded and disseminated mineralization in between the IZ and SZ

(Figure 17.2). This was done after checking that an above average grade deposit (grading > 35% Cr_2O_3) would be maintained to ensure reasonable prospects for economic extraction.

17.2.5 Grade Domain and Statistics

The 20% Cr_2O_3 cut-off grade as determined above was used to demarcate the resource envelopes, after which composites to the standard 1 m length were created. Two separate envelopes were created, viz: one for the MZ and another one for the IZ and SZ combined to include the intervening zone of semi-massive, banded and disseminated chromite mineralization. The internal waste accepted was set at a maximum of three samples (3 m) where deemed necessary for geological continuity. The statistics of the resource envelopes for the MZ and IZ/SZ combined are compared in Table 17.4.

Table 17.4
Statistics of Raw Samples Versus Composites

File Variable	MZ Envelope 1-m Composites (Cr_2O_3 %)	IZ/SZ Envelope 1-m Composites (Cr_2O_3 %)
Number of samples	446	210
Minimum value	1.23	2.57
Maximum value	47.07	46.92
Mean	40.18	30.134
Median	42.63	31.353
Geometric mean	39.17	27.776
Variance	44.75	105.008
Standard deviation	6.68	10.247
Coefficient of variation	0.17	0.340
Skewness	-2.69	-0.441
Kurtosis	10.89	2.381
Natural log mean	3.67	3.324
Log variance	0.08	0.206
10.0 Percentile	31.515	15.181
20.0 Percentile	38.299	21.081
25.0 Percentile	40.131	22.629
30.0 Percentile	40.870	24.267
40.0 Percentile	41.982	28.076
50.0 Percentile (median)	42.625	31.353
60.0 Percentile	43.028	33.640
70.0 Percentile	43.455	37.788
75.0 Percentile	43.716	39.308
80.0 Percentile	43.971	40.633
90.0 Percentile	44.564	42.851
95.0 Percentile	44,982	44.060
97.5 Percentile	45.246	44.853

File Variable	MZ Envelope 1-m Composites (Cr_2O_3 %)	IZ/SZ Envelope 1-m Composites (Cr_2O_3 %)
98.0 Percentile	45.315	45.005
98.5 Percentile	45.447	45.145
99.0 Percentile	45.789	45.985
99.5 Percentile	46.200	46.840
100.0 Percentile	47.070	46.920
Sichel-t	40.730	30.767

The statistical results presented in Table 17.4 demonstrate the uniformity of the MZ deposit, with no outliers at the high end towards the 100.0 percentile. The apparent high variance for MZ composites is attributed to the waste inclusion in drill hole MV09-10, responsible for the minimum value of 1.23% Cr_2O_3 recorded in the table. On the other hand the variability of the IZ/SZ composites is evident from the variance and coefficient of variation both of which are double that of MZ.

17.2.6 Geostatistical Analysis/Variography

Geostatistical analysis of the Black Creek deposit was conducted to determine the adequacy of the drill hole spacing and to define the optimum parameters for the search ellipse to be used in the interpolation of block grades. The data used comprised composites within the mineral resource envelope at a 30% Cr_2O_3 cut-off grade, i.e. the MZ.

As in the previous resource estimate, three variograms were computed for the strike, down dip and down-hole directions. The results of the variographic analysis are exactly the same as those of the August, 2010 estimate and are summarized in Table 17.5. The full results are presented in Appendix 2.

Table 17.5
Summary Results on the Variographic Analysis of the Black Creek Deposit

Axis	Direction	Nugget	Structure 1	Structure 2	Range (m)	Bearing (°)	Dip (°)
Major	Along Strike	0	39.6		200	40	-80
Semi-major	Down-dip	0	39.6		200	40	-80
Minor	Down-hole	0	13.8	24	23	40	-80

Due to the limited sample information the variograms for the major and semi-major axes are bumpy/unstable; this phenomenon is referred to as hole effect. In contrast to this, the down-hole variogram is stable (smooth) and demonstrates the absence of a nugget effect. The apparent nugget effect reflected in the major and semi-major axes is due to lack of information at intervals shorter than 25 m.

The range of influence in the major and semi-major axes is about 200 m and is typical of similar stratiform deposits encountered world-wide, particularly on the Bushveld Complex.

This long range of influence in the two principal axes is consistent with the genetic model and isotropic nature of primary massive chromite deposits. The apparent shorter range of influence down-hole is due to the restricted thickness of the deposit.

Based on the ranges of influence, the maximum dimensions of the radii of the search ellipsoid for grade interpolation of the Black Creek should not exceed 200 m x 200 m x 23 m for an Indicated resource.

The variogram range of influence in the major direction is often used in the categorization of resources. As a general rule, mineral resources are classified as follows:

- Measured Resource when the drill hole spacing is less than the variogram range of influence at 66% or less of the sill. This translates to approximately 80 m for the massive chromite domain.

- Indicated Resource when the drill hole spacing is less than the variogram range of influence at between 66% and 100% of the sill. (100% corresponds to the maximum range of influence beyond which there is no spatial correlation between samples). This translates to 200 m for the massive chromite domain.

- Inferred Resource when drill hole spacing is beyond the range of influence.

(Reference: PDAC Short course, 2009. “From the Core Barrel to a Resource Estimate.”)

17.3 RESOURCE MODELLING

Except for the results, the resource modelling methodology is the same as that applied to the August, 2010 resource estimate (see Spooner et al., 2010).

17.3.1 Block Size Selection

The selection of block size is based on the drilling grid. According to Coombes (2008), the industry standard is for blocks to be no smaller than half the drill spacing. However, in practice, block size is typically selected at between half and a quarter of the drill hole spacing. As block size decreases relative to the drill spacing, the precision of individual block estimates decreases; when blocks are too small, adjacent blocks tend to have similar grades reflecting that the model is too smooth. To avoid a false sense of selectivity, Micon selected a block size of 15 m along strike x 10 m down dip x 2 m across the width.

17.3.2 Choice of Interpolation Technique

The wireframe of the mineralized mass at 30% Cr_2O_3 includes internal waste of up to three samples and with minimum and maximum assay values of 1.23% and 47.45% Cr_2O_3, respectively. For better resolution and differentiation between the predominantly high grade mass and the low grade patches, the inverse distance cubed (ID^3) interpolation method was selected.

17.3.3 Search Ellipse Parameters

According to the variographic results, the range of influence in the major direction is about 200 m which represents the optimum search radius to give an indicated resource. The range of influence at 66% of the variogram sill is about 80 m; this represents the optimum search radius for a measured resource. Using these variographic results as a guide, the search parameters selected (Table 17.6) are considered prudent to provide a high degree of confidence.

Table 17.6
Summary of Searching Parameters

Attribute	Pass 1	Pass 2	Pass 3
Major axis search radius (m) (z)	50	100	200
Semi-major axis search radius (m) (y)	50	100	200
Minor axis search radius (m) (x)	5	10	15
Maximum # of samples/drill hole	4	4	4
Minimum # of samples/interpolation	4	7	4
Maximum samples/interpolation	12	14	28
Interpolation method	ID^3	ID^3	ID^3

For all passes, the maximum number of samples per drill hole is designed to control the number of drill holes in the interpolation.

For Pass 1, the minimum and maximum samples for each interpolation are designed to ensure that the nearest sample(s) is/are accorded the highest weighting and that a maximum of the three closest holes are used in the interpolation.

For Pass 2, the minimum number of samples for interpolation is designed to ensure a minimum of two drill holes in the interpolation, while the allowable maximum samples per interpolation are increased to fourteen to go beyond the limits of Pass 1.

For Pass 3, the minimum number of samples for interpolation allows the interpolation to fill all the space in the solid/wireframe. The maximum number of samples per interpolation has been doubled from that of Pass 2 to allow the bigger ellipse to find a second hole for interpolation.

17.3.4 Block Modelling Description

Based on the mineralization wireframe at 30% Cr_2O_3 cut-off grade and the geological interpretation for the hanging wall limit, the block model solids were created to encompass the limits of the deposit. The 30% cut-off grade allows for maximum internal waste of 3 samples, i.e. 3 m.

An inclined, rotated, partial-percentage block model (i.e. the percentage of any block that is contained within the domain model is used to weight the volume and tonnage reports) was used, with the long axis of the blocks oriented along an azimuth of 040^o (parallel to the average domain orientation) and dipping at -80^o.

Cr_2O_3 grades and Cr/Fe ratios were interpolated into the individual blocks of the mineralized domains using ID^3. Ordinary kriging was used to run a parallel estimate to validate the ID^3 results.

17.3.5 Statement of Results

Based on the processes and concepts described above, the updated mineral resource estimate for the Black Creek deposit is presented in Table 17.7.

Table 17.7
Resource Modelling Results for the Black Creek Chromite Deposit

Category	Grade Cr_2O_3%	Tonnes	Avg. Cr_2O_3%	Cr:Fe Ratio	Cum. Tonnes	Cum. Avg. Cr_2O_3%
	> 35.0	3,507,000	41.36	1.9	3,507,000	41.36
	30.0 – 35.0	745,000	32.36	1.6	4,252,000	39.78
Measured	25.0 – 30.0	594,000	27.64	1.5	4,846,000	38.30
(M)	20.0 – 25.0	293,000	23.00	1.4	5,139,000	37.42
	15.0 – 20.0	117,000	18.63	1.2	5,256,000	37.00
	0.0 – 15.0					
Subtotal		**5,256,000**	**37.00**	**1.8**		
	> 35.0	2,522,000	41.18	1.9	2,522,000	41.18
	30.0 – 35.0	400,000	32.64	1.6	2,922,000	40.01
Indicated	25.0 – 30.0	299,000	27.89	1.5	3,221,000	38.88
(I)	20.0 – 25.0	136,000	22.69	1.3	3,357,000	38.23
	15.0 – 20.0	32,000	18.71	1.1	3.389,000	38.04
	0.0 – 15.0					
Subtotal		**3,389,000**	**38.04**	**1.8**		
M + I		**8,645,000**	**37.41**	**1.8**		
	> 35.0	1,106,000	40.81	1.9	1,106,000	40.81
	30.0 – 35.0	380,000	32.34	1.5	1,486,000	38.64
Inferred	25.0 – 30.0	105,000	28.17	1.5	1,591,000	37.95
	20.0 – 25.0	18,000	23.16	1.4	1,609,000	37.79
	15.0 – 20.0	1,000	19.78	1.1	1,610,000	37.78
	0.0 – 15.0					
Subtotal		**1,610,000**	**37.78**	**1.7**		

Note: tonnages have been rounded to the nearest thousand.

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.

(2) The quantity and grade of reported inferred resources in this estimation are conceptual in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category.

Based on the cumulative averages shown in Table 17.7, it is evident that over 80% of the Measured and Indicated resources will grade around 40% Cr_2O_3.

At present there are no known environmental, permitting, legal, title, taxation, socio-economic, marketing or political issues which would adversely affect the mineral resources estimated above. However, mineral resources, which are not mineral reserves, do not have demonstrated economic viability. There is no assurance that Probe will be successful in obtaining any or all of the requisite consents, permits or approvals, regulatory or otherwise, for the project. Other hindrances may include aboriginal challenges to title or interference with ability to work on the property, and lack of efficient infrastructure. There are currently no mineral reserves on the Black Creek property and there is no assurance that the project will be placed into production.

The Micon personnel with responsibility for this resource estimate are Charley Murahwi, M.Sc., P.Geo., MAusIMM, and Ing. Alan J. San Martin, MAusIMM. Both are Qualified Persons as defined in NI 43-101, and are independent of Probe.

Effective date of the estimate is 31 December, 2010 and is based on drilling and assay data up to November, 2010.

The block model is presented in Figures 17.7 and 17.8. Representative plans and sections are provided in Appendix 3.

Figure 17.7
Block Model of the Black Creek Chromite Deposit

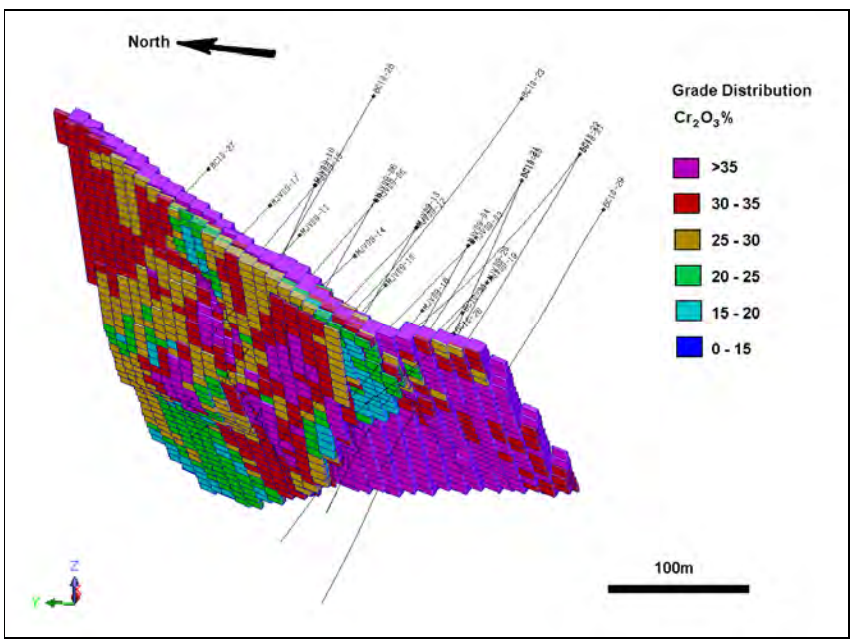
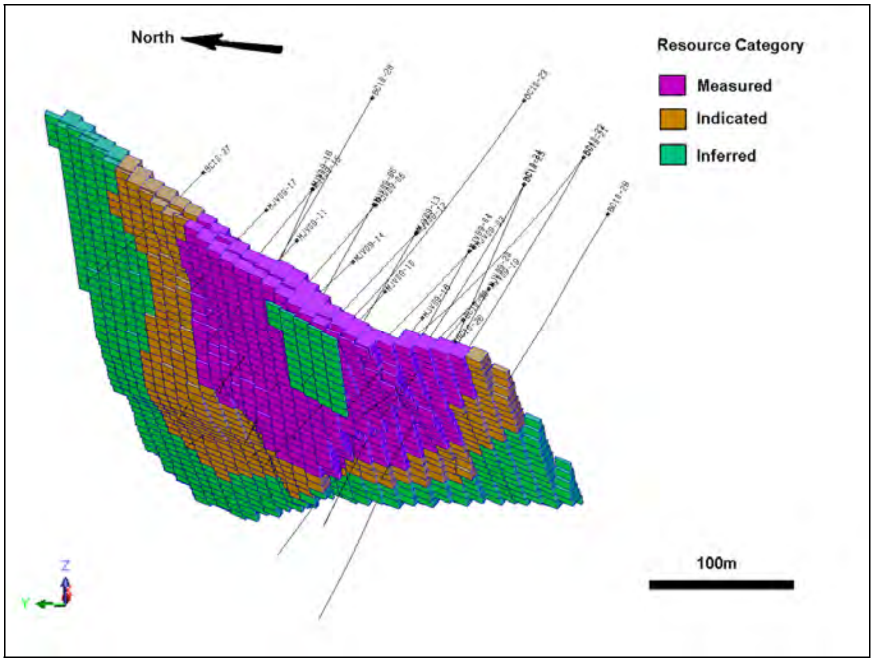


Figure 17.8
Distribution of Resources within the Black Creek Block Model



17.3.6 Resource Classification and Comments

The Measured and Indicated mineral resources for the Black Creek deposit have been categorized taking into account the search parameters in relation to variographic results, and the observed geological and mineralization continuity based on sectional interpretation. The inferred resource down to a vertical depth of about 360 m is based on drilling intercepts recorded at this depth at the adjacent Big Daddy deposit. The known mineralization in the entire McFaulds Lake sill has been considered in the process of resource categorization.

17.3.6.1 Measured Mineral Resource

The measured resource comprises blocks located within the limits of Pass 1 search parameters. Micon considers that the drill holes on a 50 m grid are spaced closely enough to confirm both geological and grade continuity. This is consistent with the variographic results and genetic model of the stratiform deposit class. Density measurements were made on every sample taken from the deposit, providing confidence in the representativeness of the tonnage factor used.

17.3.6.2 Indicated Mineral Resource

The Indicated resource is within the limits of Pass 2 search parameters and also well within the 200-m range of influence defined by the variograms. The continuity of the mineralization and the geological frame work are both reasonably assured to support this categorization.

17.3.6.3 Inferred Resource

The lateral extent of the Inferred resource is supported by the gravity anomaly with which the massive chromite zone is associated and also by aeromagnetic data which outlines the limits of the host peridotite rocks. The vertical extent to a depth of about 400 m below surface is considered conservative, based on the adjacent Big Daddy deposit to the southwest which has been drilled with success to a depth of 365 m below surface. There is no geological reason to expect the Black Creek deposit to have a shallower depth extent than the Big Daddy deposit.

17.3.7 Validation

The resource block model was validated manually using sectional and polygonal techniques and by ordinary kriging (OK). A comparison of global results using the ID^3 method and ordinary kriging is presented in Table 17.8. In all respects the two methods yield the same results, most significantly the mean and the coefficient of variation.

Table 17.8
Summary of Global Results of ID^3 Versus OK

Description	ID^3 Blocks	OK Blocks
Number of samples (count)	11,565	11,565
Minimum value (% Cr_2O_3)	16.35	9.48
Maximum value (% Cr_2O_3)	45.58	46.85
Mean (% Cr_2O_3)	37.17	37.21
Median (% Cr_2O_3)	40.18	39.76
Geometric mean (% Cr_2O_3)	36.41	36.41
Variance	47.51	48.55
Standard deviation	6.89	6.97
Coefficient of variation	0.19	0.19

18.0 OTHER RELEVANT DATA AND INFORMATION

18.1 CHROMITE MARKET

18.1.1 Overview

Chromite is the source of the metallic element chromium which is used in a wide range of applications in metallurgy, refractory materials and chemicals. The principal end-uses are in stainless steel and non-ferrous alloys, and stainless steel accounts for approximately 94% of demand for chromite. Metallurgical grade chromite is converted to ferrochromium which is then added to steel and iron melts. The foundry sands sector accounts for approximately 3% of output, followed by chromium chemicals at 2% of output and refractories at less than 1%.

Chromite is produced in metallurgical, chemical, refractory and foundry grades for which the general specifications are shown in Table 18.1.

Table 18.1
General Specifications for Chromite Grades

	Metallurgical Grade	Chemical Grade	Refractory Grade	Foundry Grade
Cr_2O_3 (%)	>46	>44	30-40	44
Cr:Fe	>2:1	>1.5	2-2.5:1	
SiO_2 (%)	<10	<3.5	6	<4

Specific end-use sectors require additional physical and chemical characteristics. In metallurgical applications, phosphorus, sulphur and other minor elements should not exceed certain levels. Foundry sands require silica at less than 1%, sub-angular grains and specific grain sizes. Premium refractory grades are relatively coarse-grained.

The majority of chromite used in metallurgical applications is smelted to ferrochromium before it is added to the steel melt. The principal ferrochromium alloys are high-carbon ferrochromium (HCFeCr) for which the chromite ores should have a Cr:Fe ratio of 2.0-3.6, and charge chrome which is produced from lower grade ores with Cr:Fe ratio of 1.3-2.0. Direct shipping, or lumpy ore, has grain a size over 6 mm and is a premium product since it can be fed directly to the ferroalloy smelter. Fine grained chromite (less than 6 mm) must be pelletized before use.

Refractory chromite is further divided into magnesia-chromite (20-70% Cr_2O_3), chromite (>30% Cr_2O_3) and picrochromite (>70% Cr_2O_3), depending on the specific end use.

18.1.2 Production of Chromite and Ferrochromium

World production of chromite reached 24 Mt gross weight in 2008, having increased steadily since 2000 (International Chromium Development Association, (ICDA), 2010). Table 18.2 shows the 10 largest producers in 2009 and world output for the five years from 2005 to 2009. Output dropped sharply in 2009 as a result of the global economic recession to just 19

Mt but preliminary figures published by the United States Geological Survey indicate that production recovered to 22 Mt in 2010.

Table 18.2
World Chromite Production
(Thousand t gross weight)

	2005	2006	2007	2008	2009
South Africa	7,244	6,865	8,720	9,268	6,215
Kazakhstan	3,581	3,366	3,687	3,629	3,333
India	3,255	3,600	3,320	3,900	3,760
Turkey	859	1,060	1,679	1,886	1,770
Russia	772	966	777	913	416
Brazil	677	604	626	787	771
Zimbabwe	820	713	664	484	279
Finland	571	549	556	613	247
Pakistan	148	199	323	320	275
Oman	18	71	338	813	730
Others	1,196	1,248	1,464	1,390	1,145
Total	**19,141**	**19,241**	**22,154**	**24,003**	**18,941**

Source: ICDA, 2010 Statistical Bulletin.

There has been a general trend towards production of ferrochromium within the vicinity of chromite output, and away from the major stainless steel production centres, although China has emerged as a significant producer of both ferrochromium and stainless steel based primarily on imported feedstocks. China has the largest non-integrated ferrochromium capacity

18.1.3 End-use Sectors

As noted above, metallurgical uses of chromite account for nearly 95% of total annual mine output. The use of chromite in foundry sands has increased steadily since 2000 while, generally, chromium chemicals have accounted for a declining share of output. The refractory chromite sector was particularly strong in 2006 through 2008 compared with earlier years, reflecting usage in products for the linings of iron and steel furnaces, flash and continuous smelters, rotary cement kilns, and glass manufacture.

Chromite foundry sands have good thermal conductivity, resist metal penetration and slag attack, resist thermal shock and have a low coefficient of thermal expansion. They are used in manganese-, carbon- and alloy-steel casting and non-ferrous casting.

Chromite is used to manufacture a wide range of chromium chemicals of which chromic acid, sodium dichromate, sodium chromate and sodium chromate tetrahydrate are the most important. The uses of chromium chemicals include metal finishing (corrosion resistance, promotion of adhesion of paint), wood preservative, dyes, oxidizing agents, pigments, leather tanning, oil well drilling and catalysts. However, a number of chromium compounds are hazardous or toxic (particularly hexavalent chromium) and the use of chromite in chromium chemicals has declined significantly with increasing control on usage and on the disposal of chromium-containing wastes.

Production of chromium metal is relatively minor, at approximately 35,000 t/y. It is valued for its resistance to chemical corrosion.

18.1.3.1 Stainless Steel

Chromium is the only element which results in steels having stainless properties. Stainless steels contain a minimum of 10.5% chromium (International Stainless Steel Forum, ISSF) and are divided into ferritic, martensitic, austenitic and duplex types. All are corrosion resistant. Ferritic steels contain 13 to 17% chromium and martensitic steels contain around 12% chromium. Austenitic steels contain the highest proportion of chromium, typically 18%. Duplex steels combine austenitic and martensitic structures and contain 18 to 28% chromium, plus nickel and molybdenum and are used in particularly stringent corrosion conditions.

The ISSF reports production of stainless and heat resisting steels, as shown in Table 18.3. Production in the first three quarters of 2010 indicates annual output of approximately 30 Mt.

Table 18.3
Production of Stainless and Heat Resisting Steels by Region
(Thousand t ingot/slab equivalent)

Region	2005	2006	2007	2008	2009[1, 2]	2010[1, 2, 3]
Western Europe/Africa	8,823	9,972	8,669	8,272	6,449	6,013
Central and Eastern Europe	310	363	364	333	237	252
Americas	2,688	2,951	2,604	2,315	1,958	2,041
Asia	12,498	15,074	16,200	15,011[2]	15,935[2]	14,731
Total	**24,319**	**28,359**	**27,836**	**25,930**	**24,578**	**23,037**

[1] Preliminary.
[2] From 2008, China's output reported separately: 6,943,000 t in 2008, 8,805 t in 2009 and 8,313 t in 2010.
[3] Figures for January-September, 2010.

18.1.4 Industry Structure

The proportion of mined chromite production by independent, non-integrated companies has generally decreased over the past decade and the majority of mine capacity is now owned and operated by companies in the ferrochromium, chromium chemicals or chromite refractory sectors.

There remains, however, significant international trade in chromite concentrates, directly between producers and end-users, or through trading houses.

18.1.5 Prices

There is no terminal market, such as the London Metal Exchange, for chromite and ferrochromium and prices are negotiated between buyers and sellers, either on the spot market or under contract. Representative prices are reported by industry publications. Prices for chromite are quoted monthly by Industrial Minerals journal based on data from industry participants (producers, traders and consumers). It should be noted that such prices are indicative of market activity and do not represent actual transactions. See Table18.4.

Table 18.4
Representative Prices for Chromite
(US$/t)

	2005	2006	2007[1]	2008	2009	2010
Metallurgical grade						
South African[2] 40% Cr_2O_3, fob	65-95	100-145	240-290	320-350	115-135	180-250
Turkish 40-402%, 2.5:1			200-300	350	240-260	240-260[3]
Kazakh 40-41% min			200-300	350	220-250	220-250[3]
46% Cr_2O_3, wet bulk, fob						
South African chemical grade	105-125	175-183	270-350	560-570	190-210	310-360
South African foundry grade	170-195	195-220	300-350	510	230-260	330-380
South African refractory grade	100-120	215-235	455	880	370-390	370-450

[1] Turkish and Kazakh metallurgical grades quoted starting January, 2007.
[2] Friable lumpy grade.
[3] November issue of Industrial Minerals.
Source: Industrial Minerals, December issues.

Chromite prices in 2009 reflected the sharp slowdown in industrial and economic activity due to the global recession. By the end of 2010, prices generally exceeded the December, 2007 quotes, with the exception of South African metallurgical grade which remained somewhat lower.

19.0 INTERPRETATION AND CONCLUSIONS

19.1 EXPLORATION

Owing to the lack of exposure and swampy nature of the McFaulds Lake area, the most reliable regional exploration data are obtained from airborne geophysics, which has been successfully used to extrapolate from known discoveries and previous drilling results.

The Black Creek chromite deposit was discovered in July, 2009 and is the most recent chromite discovery in the RFI. A coincident magnetic EM anomaly in the eastern corner of claim block 4208219, following a northeast trend, defines the peridotite unit of the RFI which hosts the chromite mineralization. A gravity anomaly lying within, but roughly coinciding with, the eastern edge of the magnetic EM anomaly is spatially related to the massive chromite mineralization. Thus, both the EM and gravity geophysical techniques had a role in the Black Creek discovery. However, gravity techniques were more impressively successful in demarcating the massive chromite horizon(s) resulting in drill holes being sited with better precision.

19.2 GEOLOGY AND MINERALIZATION

Whether the Black Creek and the adjacent Black Thor deposit to the northeast actually link as one continuous body is a matter of speculation. However, gravity data and aeromagnetic data suggest (a) a continuous horizon from Black Creek to Black Thor, and (b) a wrench fault with a lateral displacement of 600 m separating the southwestern tip of the Black Creek deposit from the northeastern tip of the Big Daddy deposit.

The major geological domains encountered down-hole are gabbro, pyroxenite, massive chromite (main zone layer), peridotite, massive chromite (intermediate layer), peridotite, massive chromite (secondary zone layer) and dunite. These domains reflect a fractionation trend in the up-hole direction (northwest to southeast), and are consistent with observations made at the adjacent Big Daddy deposit. The cyclic patterns exhibited by the massive chromite zones and the intervening perodotite units are interpreted to indicate multiple pulses of magma.

The multi-layered nature of the deposit provides various alternatives for exploitation.

19.3 METALLURGY AND MARKETING

Metallurgical testwork has not yet been conducted. However, the bulk of the deposit consists of massive chromite which might require minimal beneficiation to upgrade to meet market specifications. Nonetheless, metallurgical testwork is still a critical requirement in order to move project to prefeasibility stage.

With an overall Cr_2O_3 grade of 37% and a Cr to Fe ratio of 1.8 to 2, the Black Creek deposit is comparable to some major current chrome producers like the Kemi operations of

Outokumpu Chrome in Finland and may, with beneficiation, be able to compete successfully on the world market. The proportion of mined chromite production by independent, non-integrated companies has generally decreased over the past decade and the majority of mine capacity is now owned and operated by companies in the ferrochromium, chromium chemicals or chromite refractory sectors. There is no terminal market, such as the London Metal Exchange, for chromite and ferrochromium and prices are negotiated between buyers and sellers, either on the spot market or under contract.

19.4 MINERAL RESOURCE ESTIMATE

The mineral resource modelling of the Black Creek deposit was completed using the 6.1.4 version of the Surpac software and is summarized in Table 19.1.

Table 19.1
Summary of the Black Creek Chromite Resource at 20% Cut-off

Category	Tonnes	Avg.Cr_2O_3 (%)	Cr:Fe Ratio
Measured	5,256,000	37.00	1.8
Indicated	3,389,000	38.04	1.8
Total Measured & Indicated	**8,645,000**	**37.41**	**1.8**
Inferred	**1,610,000**	**37.78**	**1.7**

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
(2) The quantity and grade of reported inferred resources in this estimation are conceptual in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category.

Over 80% of the Measured and Indicated resource is around 40% Cr2O3 as demonstrated in Table 17.7.

19.5 PROJECT OBJECTIVES

The project objectives of additional drilling followed by updating the resource estimate as detailed in the previous Micon technical report (Spooner et al., 2010), have been sucessfully accomplished. The next major challenge is to complete detailed metallurgical investigations to pave the way for prefeasibility/feasibility studies.

20.0 RECOMMENDATIONS

Having increased the measured and indicated mineral resources to about 9 Mt, the immediate and short term goals for Probe should be to complete metallurgical investigations to establish the product quality of the massive chromite and the optimum beneficiation process for the semi-massive and disseminated lower grade mineralization. Thus, Micon makes the following recommendations.

20.1 GEOLOGY AND MINERAL RESOURCES

The lateral extent of the deposit has been established in the last phase of drilling and the only other means of further increasing the resource is by deeper drilling in the north-eastern section of the deposit. At this stage Micon believes that detailed metallurgical studies should precede any further drilling for additional resources.

20.2 METALLURGY

Detailed mineralogical and metallurgical investigations are recommended in order to determine the optimum beneficiation route for the resource and to establish the minimum cut-off grade. The current resource estimate is based on a cut-off grade of 20% Cr_2O_3; however, it is likely that lower grade material may be upgraded into marketable grade concentrates.

The mineralogical investigations should focus on chromite grain liberation characteristics and chemistry, and gangue mineralogy. The program of metallurgical testwork should include the beneficiation of a wide variety of chromite feed grades, encompassing all chromite mineralization styles found at the Black Creek deposit, and aim to establish product quality/recovery relationships for a variety of feed samples.

20.3 INFRASTRUCTURAL REQUIREMENTS

A basic survey of infrastructural requirements and exploring possible synergies of cooperation with other parties holding prospective mineral resources in the McFaulds Lake area will be beneficial to Probe and should be initiated.

20.4 PROGRAM BUDGET

The budget for the proposed one-year program amounts to $400,000 and is broken down as shown in Table 20.1.

Table 20.1
Summary of Budget Proposal for the Black Creek Chromite Project

Period	Description of Activity	Estimated Cost ($)
Between March and August, 2011	Metallurgical drill holes	200,000
Between March and July, 2011	Mineralogical & petrological studies	15,000
Between March and December, 2011	Metallurgical testing	150,000
Between March and December, 2011	Infrastructural studies	35,000
Total		**400,000**

Micon believes that the proposed budget is reasonable and recommends that Probe conduct the planned activities subject to availability of funding and any other matters which may cause the objectives to be altered in the normal course of business activities.

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22.0 DATE AND SIGNATURE PAGE

MICON INTERNATIONAL LIMITED

February 2, 2011.

"Jane Spooner" {signed and sealed}

Jane Spooner, M.Sc., P.Geo.
Micon International Limited

"Alan San Martin" {signed}

Alan J. San Martin, MAusIMM
Micon International Limited

"Charley Murahwi" {signed and sealed}

Charley Murahwi, M.Sc., P.Geo., Pr.Sc.Nat., MAusIMM
Micon International Limited

23.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON
JANE SPOONER, M.Sc., P.Geo.

As a co-author of this report entitled "Technical Report on the Updated Mineral Resource Estimate for the Black Creek Chrome Deposit, McFaulds Lake Area, James Bay Lowlands, Northern Ontario, Canada" dated December 31, 2010, I, Jane Spooner, P.Geo., do hereby certify that:

1. I am employed by, and carried out this assignment for
   Micon International Limited
   Suite 900, 390 Bay Street
   Toronto, Ontario
   M5H 2Y2
   tel. (416) 362-5135 fax (416) 362-5763
   e-mail: jspooner@micon-international.com

2. I hold the following academic qualifications:

   B.Sc. (Hons) Geology, University of Manchester, U.K. 1972
   M.Sc., Environmental Resources, University of Salford, U.K. 1973

3. I am a member of the Association of Professional Geoscientists of Ontario (membership number 0990); as well, I am a member in good standing of the Canadian Institute of Mining, Metallurgy and Petroleum.

4. I have worked as a specialist in mineral market analysis for over 30 years.

5. I do, by reason of education, experience and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes the analysis of markets for base and precious metals, industrial and specialty minerals, coal and uranium.

6. I have not visited the project site.

7. I am responsible for the preparation of Section 18 of this report entitled "Technical Report on the Updated Mineral Resource Estimate for the Black Creek Chrome Deposit, McFaulds Lake Area, James Bay Lowlands, Northern Ontario, Canada" dated December 31, 2010.

8. I am independent of the parties involved in the Black Creek property, as described in Section 1.4 of NI 43-101.

9. I have had no prior involvement with the mineral property in question.

10. I have read NI 43-101 and the portions of this report for which I am responsible have been prepared in compliance with the instrument.

11. As of the date of this certificate, to the best of my knowledge, information and belief, the sections of this Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make this report not misleading.

Effective Date: December 31, 2010
Signing Date: February 2, 2011

"Jane Spooner" {signed and sealed}

Jane Spooner, M.Sc., P.Geo.

CERTIFICATE OF QUALIFIED PERSON
ALAN J. SAN MARTIN

As a co-author of this report entitled "Technical Report on the Updated Mineral Resource Estimate for the Black Creek Chrome Deposit, McFaulds Lake Area, James Bay Lowlands, Northern Ontario, Canada" dated December 31, 2010, I, Alan J. San Martin do hereby certify that:

1) I am employed as a Mineral Resource Modeller by Micon International Limited, Suite 900, 390 Bay Street, Toronto, Ontario M5H 2Y2, tel. (416) 362-5135, fax (416) 362-5763, e-mail asanmartin@micon-international.com;

2) I hold a Bachelor Degree in Mining Engineering (equivalent to B.Sc.) from the National University of Piura, Peru, 1999;

3) I am a registered Engineer with the Colegio de Ingenieros del Peru (CIP) Membership # 79184;

4) I am a member of the Australasian Institute of Mining and Metallurgy (Membership #301778)

5) I have worked as a mining engineer in the minerals industry for 10 years;

6) I am familiar with NI 43-101 and I am a Qualified Person for the purposes of NI 43-101.

7) I have not visited the Black Creek property.

8) I have had no prior involvement with the mineral property in question.

9) As of the date of this certificate to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make this report not misleading;

10) I am independent of the parties involved in the Black Creek property as described in Section 1.4 of NI 43-101.

11) I have read NI 43-101 and the portions of this report for which I am responsible have been prepared in compliance with the instrument.

12) I am jointly responsible for the preparation of Section 17 of this Technical Report entitled "Technical Report on the Updated Mineral Resource Estimate for the Black Creek Chrome Deposit, McFaulds Lake Area, James Bay Lowlands, Northern Ontario, Canada" dated December 31, 2010,

Effective Date: December 31, 2010
Signing Date: February 2, 2011

"Alan J. San Martin" {Signed}

Ing. Alan J. San Martin, MAusIMM
Micon International Limited

CERTIFICATE OF QUALIFIED PERSON

CHARLEY Z. MURAHWI

As a co-author of this report entitled “Technical Report on the Updated Mineral Resource Estimate for the Black Creek Chrome Deposit, McFaulds Lake Area, James Bay Lowlands, Northern Ontario, Canada” dated December 31, 2010, I, Charley Z. Murahwi do hereby certify that:

1) I am employed by, and carried out this assignment for Micon International Limited, Suite 900, 390 Bay Street, Toronto, Ontario M5H 2Y2, telephone 416 362 5135, fax 416 362 5763, e-mail: cmurahwi@micon-international.com.

2) I hold the following academic qualifications:

   B.Sc. (Geology) University of Rhodesia, Zimbabwe, 1979;

   Diplome d´Ingénieur Expert en Techniques Minières, Nancy, France, 1987;

   M.Sc. (Economic Geology), Rhodes University, South Africa, 1996.

3) I am a registered Professional Geoscientist in Ontario (membership number 1618) and in PEGNL (membership # 05662), a registered Professional Natural Scientist with the South African Council for Natural Scientific Professions (membership # 400133/09) and am also a member of the Australasian Institute of Mining & Metallurgy (AusIMM) (membership number 300395).

4) I have worked as a mining and exploration geologist in the minerals industry for over 29 years.

5) I do, by reason of education, experience and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 12 years on Cr-Ni-Cu-PGE deposits (on and off-mine), and the balance on a wide variety of other mineral commodities including gold, silver, copper, tin, and tantalite.

6) I visited the Black Creek mineral property on June 8, 2010.

7) I have had no prior involvement with the mineral property in question.

8) As of the date of this certificate to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make this report not misleading.

9) I am independent of the parties involved in the Black Creek property as described in Section 1.4 of NI 43-101.

10) I have read NI 43-101 and the portions of this Technical Report for which I am responsible have been prepared in compliance with this Instrument.

11) I am responsible for the preparation of all sections except Section 18 of this Technical Report entitled “Technical Report on the Updated Mineral Resource Estimate for the Black Creek Chrome Deposit, McFaulds Lake Area, James Bay Lowlands, Northern Ontario, Canada” dated December 31, 2010,

Effective Date: December 31, 2010
Signing Date: February 2, 2011

“Charley Z. Murahwi” {signed and sealed}

Charley Z. Murahwi, M.Sc., P. Geo. Pr.Sci.Nat., MAusIMM

Appendix 1

QA/QC Reports by Independent Consultant

MEMORANDUM

TO: David Palmer, Probe Mines Limited

FROM: Tracy Armstrong, P. Geo.

DATE: September 14, 2009

SUBJECT: **August 2009 Quality Control Report for the Black Creek JV Project, James Bay Lowlands, Ontario**

This report describes the results for ten batches, which were treated in August and are described in Table 1. All samples were sent to Activation Laboratories ("Actlabs") in Thunder Bay, Ontario for sample preparation and forwarded to Actlabs in Ancaster, Ontario for analysis.

Table 1: List of Analytical Certificates Included in the August QC Report

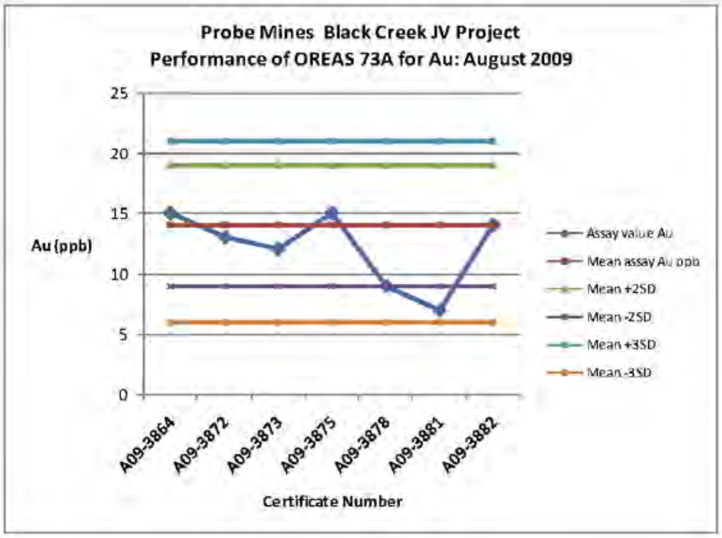
Batch no.	Lab Certificate #	Laboratory	No. of samples	Date green light
1	A09-3864	Actlabs	35	August 20
2	A09-3872	Actlabs	35	August 22
3	A09-3873	Actlabs	35	August 22
4	A09-3875	Actlabs	35	August 20
5	A09-3878	Actlabs	35	August 22
6	A09-3881	Actlabs	35	August 22
7	A09-3882	Actlabs	35	August 22
8	A09-3883	Actlabs	35	August 20
9	A09-3884	Actlabs	29	August 20
10	A09-3885	Actlabs	24	August 22
TOTAL			333	

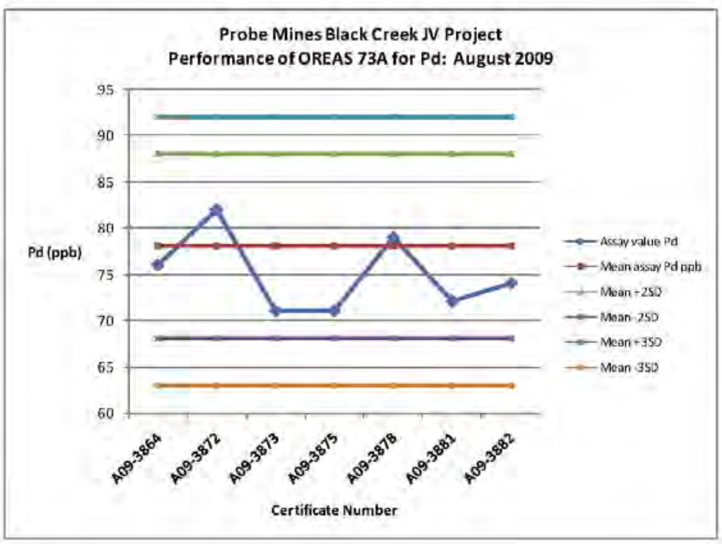
A total of 333 samples were sent to Actlabs for analysis. This number includes the QC samples inserted in each batch. Samples were assembled into batches of 35 samples which included three certified reference materials, one blank sample comprised of sterile rock, one pulp duplicate, one coarse reject duplicate and one field (1/4 core) duplicate.

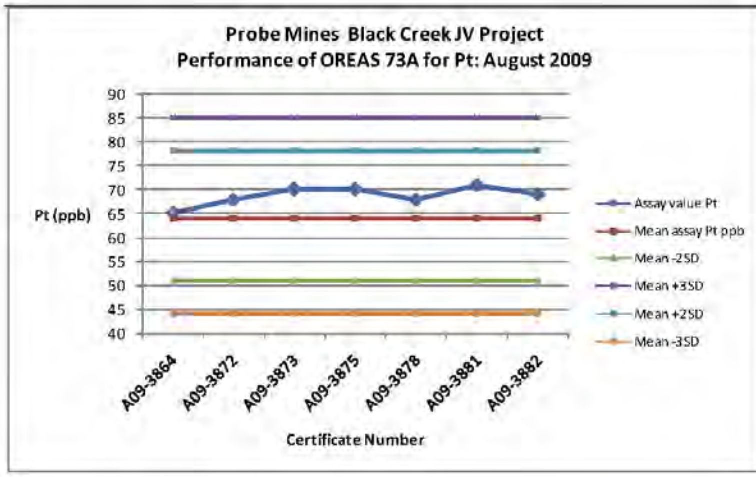
OREAS 73A Reference Material

The OREAS 73A certified reference material was purchased from Analytical Solutions Ltd. ("ASL") in Toronto, Ontario. The supplier is Ore Research & Exploration Pty Ltd. in Australia. The standard is made from a blend of ore from the Cosmos Nickel Mine in Western Australia and barren ultramafic material. It is certified for Au, Pd, Pt, Cu and Ni. There were ten data points for this reference material.

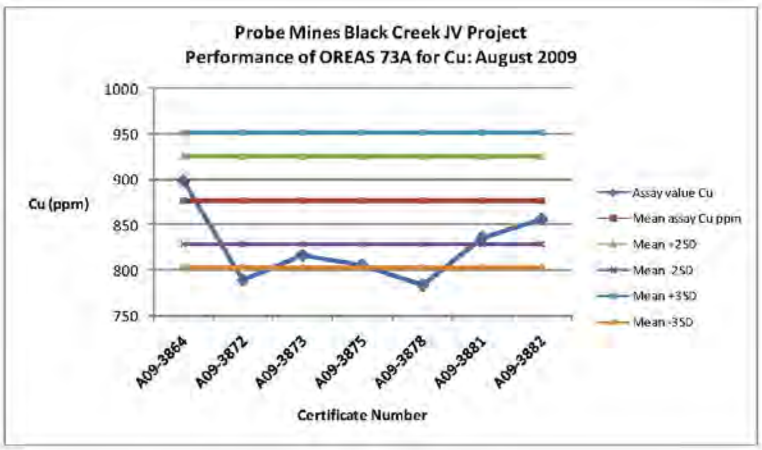
This standard performed satisfactorily with one failure each for Au and Pd, no failures for Pt and Ni, (the Ni analysis was not done for batch 10) and four failures for Cu. Copper had an unusually high failure rate, however the Cu values were very low, (highest value 0.052% Cu) and the lab QC passed. All certificates as represented by the data in these graphs have been given the green light for use in the master database. Any failures demonstrated in the graphs below were resolved, due to the other standards in the same batch passing the QC, and/or conformance of the lab's QC.



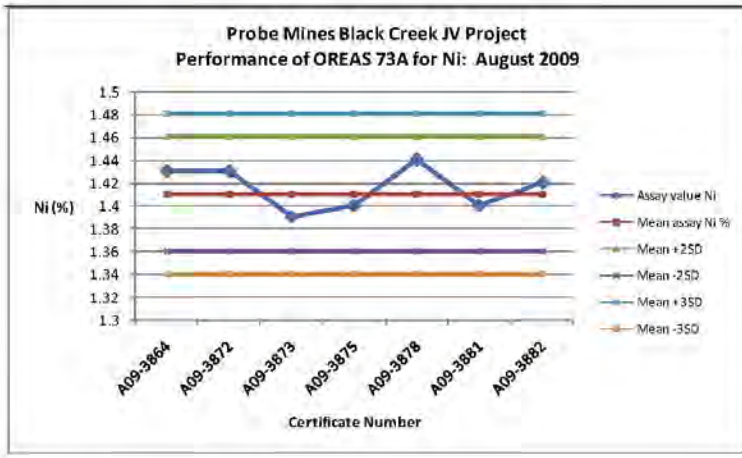




Probe Mines Black Creek JV Project
Performance of OREAS 73A for Pt: August 2009
Pt (ppb)
90
85
80
75
70
65
60
55
50
45
40
A09-3864
A09-3872
A09-3873
A09-3875
A09-3878
A09-3881
A09-3882
Certificate Number
Assay value Pt
Mean assay Pt ppb
Mean -2SD
Mean +3SD
Mean +2SD
Mean -3SD



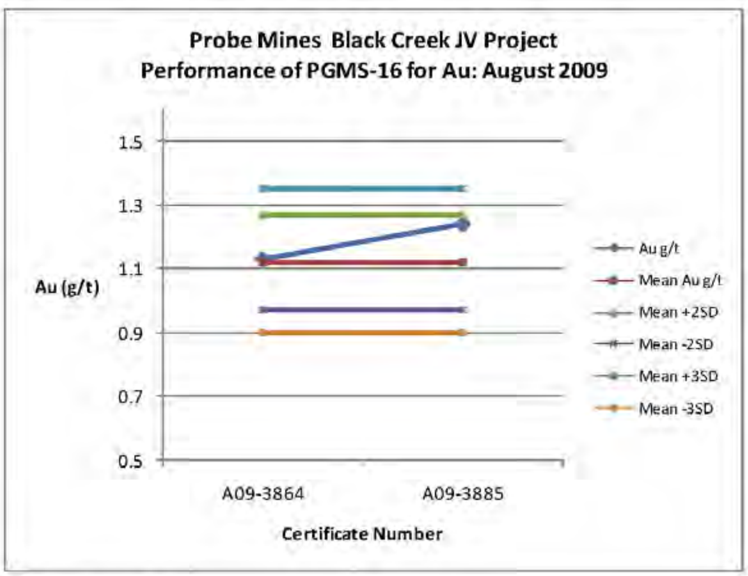
Probe Mines Black Creek JV Project
Performance of OREAS 73A for Cu: August 2009
Cu (ppm)
1000
950
900
850
800
750
A09-3864
A09-3872
A09-3873
A09-3875
A09-3878
A09-3881
A09-3882
Certificate Number
Assay value Cu
Mean assay Cu ppm
Mean +2SD
Mean -2SD
Mean +3SD
Mean -3SD

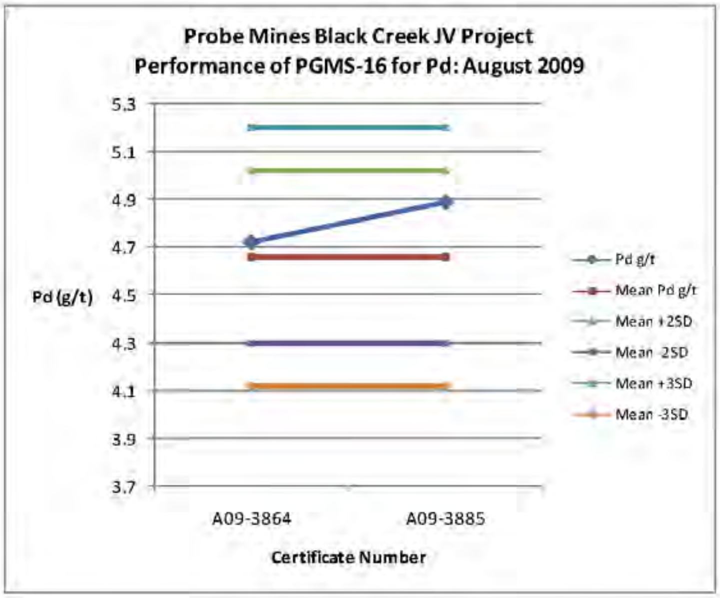


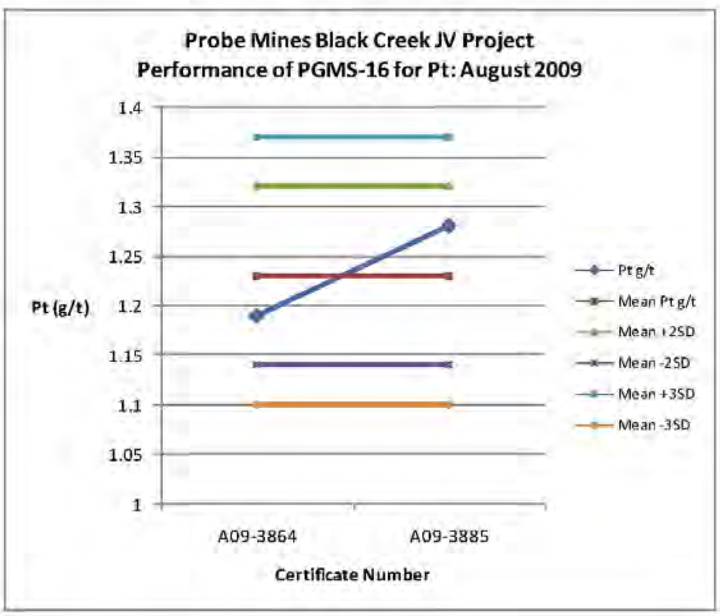
PGMS-16 Reference Material

The PGMS-16 certified reference material was purchased from CDN Resource Labs in Delta, British Columbia, who made and certified the standard. It is made from ore supplied by Stillwater Mining Corporation from the Stillwater Complex in Montana. It is certified for Au, Pd and Pt. There were two data points for this reference material.

This standard performed well with no failures.



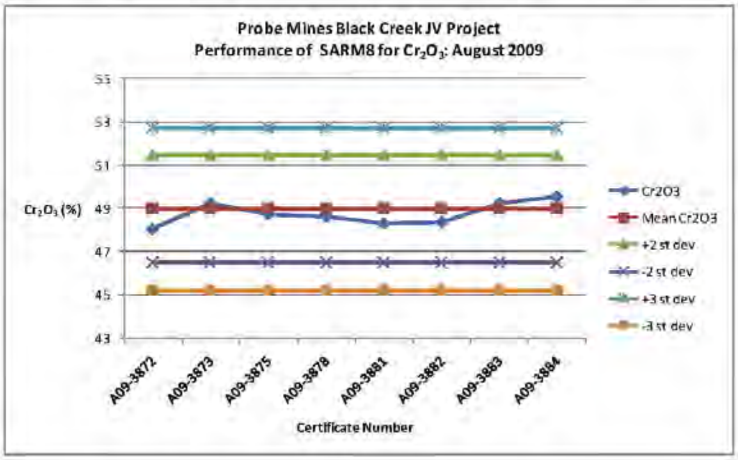

Probe Mines Black Creek JV Project
Performance of PGMS-16 for Pd: August 2009
Pd (g/t)
5.3
5.1
4.9
4.7
4.5
4.3
4.1
3.9
3.7
A09-3864
A09-3885
Certificate Number
Pd g/t
Mean Pd g/t
Mean +2SD
Mean -2SD
Mean +3SD
Mean -3SD


Probe Mines Black Creek JV Project
Performance of PGMS-16 for Pt: August 2009
Pt (g/t)
1.4
1.35
1.3
1.25
1.2
1.15
1.1
1.05
1
A09-3864
A09-3885
Certificate Number
Pt g/t
Mean Pt g/t
Mean +2SD
Mean -2SD
Mean +3SD
Mean -3SD

Chromium Standard SARM 8

The SARM 8 reference material is made from chromium ore from the basal zone of the Bushveld Complex, South Africa and was prepared and supplied by Mintek in South Africa. This reference material is certified for Cr_2O_3.

There were eight data points for this reference material and all passed.

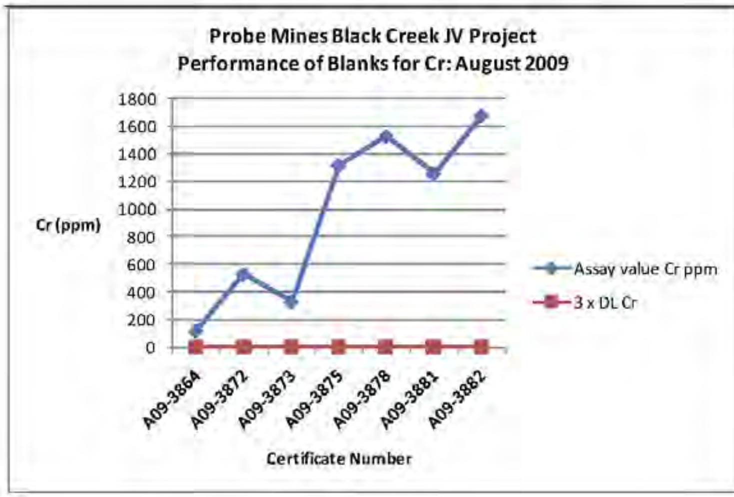


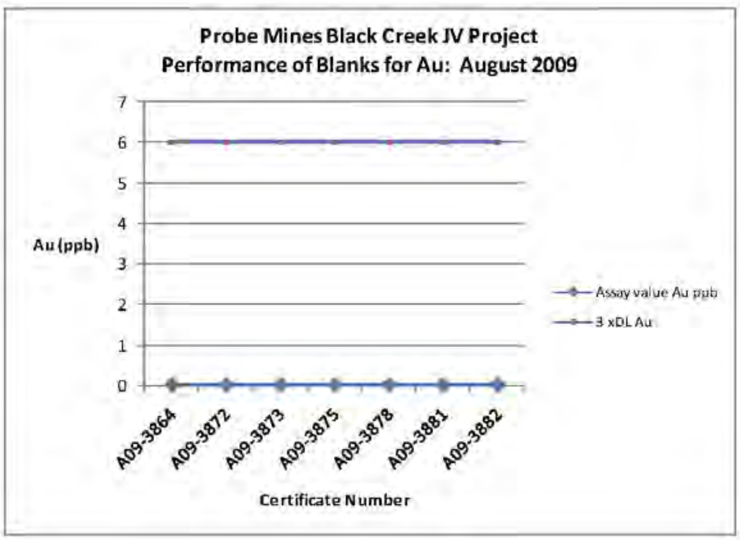
Blanks

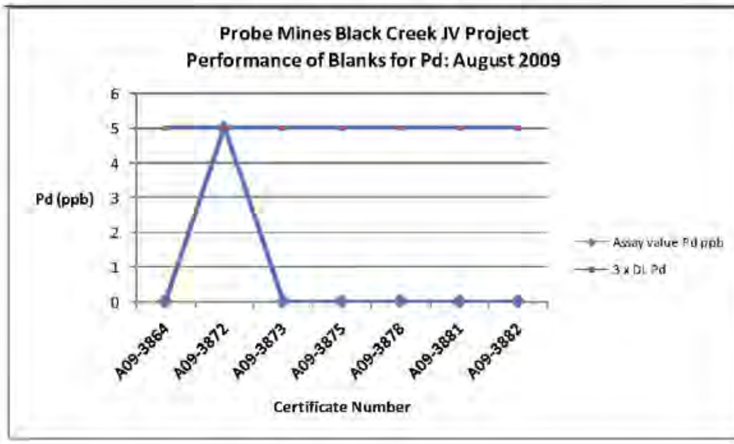
The blank material used is sterile drill core from a granitic body. All blank data for Cr, Au, Pd, Pt, Cu and Ni were graphed. An upper tolerance limit of three times the detection limit was indicated for each element. If the assayed value in the certificate was indicated as being less than detection limit the value was assigned the value of half the detection limit for data treatment purposes.

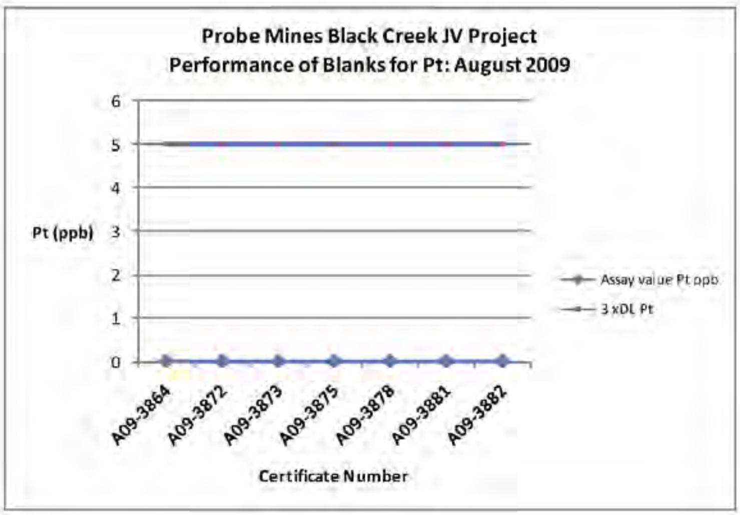
There were no failures for Au, Pd or Pt. There were two failures for each of Cu and Ni, however the highest values were 7 ppm (0.0007%) for Cu and 25 ppm (0.0025%) for Ni, neither one having any impact on the database.

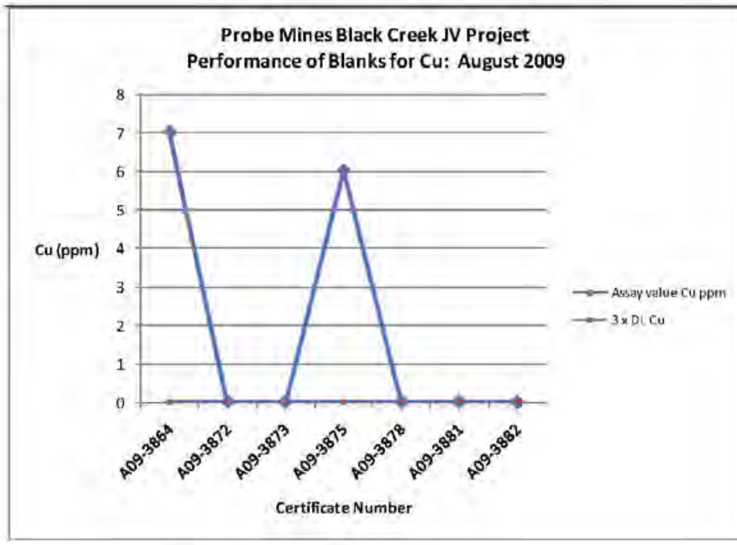
Cr failed on all ten data points with the highest value at 2800 ppm (0.28%) Cr. While the failures are likely due to contamination at the prep stage, any value under 1% Cr is considered to have no impact on the database. Actlabs was sent correspondence regarding a trend of carry-over contamination appearing in the blank samples. This issue was addressed by increasing the number of times the mill bowls are cleaned in sample preparation to three times between each sample and also by adding in blank discs into the XRF portion of the analysis to ensure there is no cross contamination in the instrument part of the analysis.

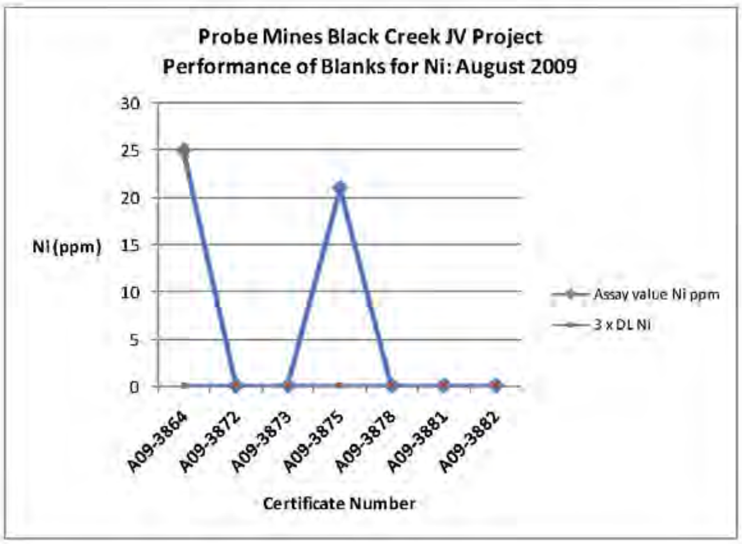

Probe Mines Black Creek JV Project
Performance of Blanks for Cr: August 2009
Cr (ppm)
1800
1600
1400
1200
1000
800
600
400
200
0
A09-3864
A09-3872
A09-3873
A09-3875
A09-3878
A09-3881
A09-3882
Certificate Number
Assay value Cr ppm
3 x DL Cr


Probe Mines Black Creek JV Project
Performance of Blanks for Au: August 2009
Au (ppb)
7
6
5
4
3
2
1
0
A09-3864
A09-3872
A09-3873
A09-3875
A09-3878
A09-3881
A09-3882
Certificate Number
Assay value Au ppb
3 xDL Au


Probe Mines Black Creek JV Project
Performance of Blanks for Pd: August 2009
Pd (ppb)
6
5
4
3
2
1
0
A09-3864
A09-3872
A09-3873
A09-3875
A09-3878
A09-3881
A09-3882
Certificate Number
Assay value Pd ppb
3 x DL Pd


Probe Mines Black Creek JV Project
Performance of Blanks for Pt: August 2009
Pt (ppb)
6
5
4
3
2
1
0
A09-3864
A09-3872
A09-3873
A09-3875
A09-3878
A09-3881
A09-3882
Certificate Number
Assay value Pt ppb
3 xDL Pt

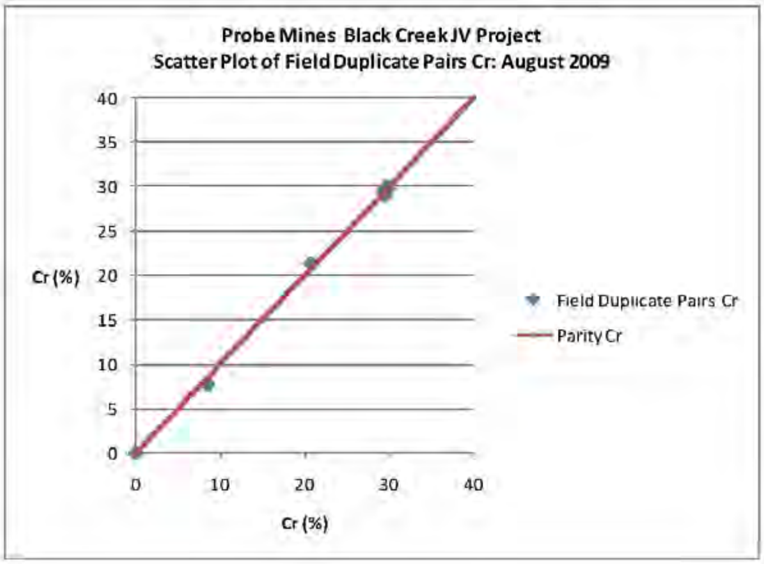


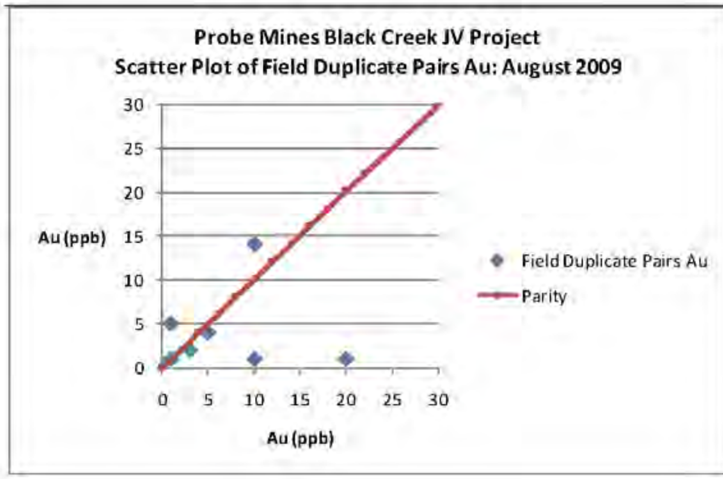


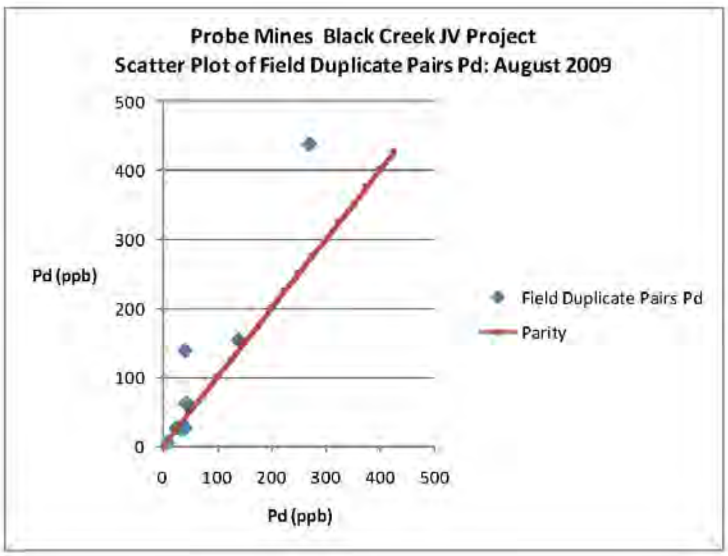
Duplicates

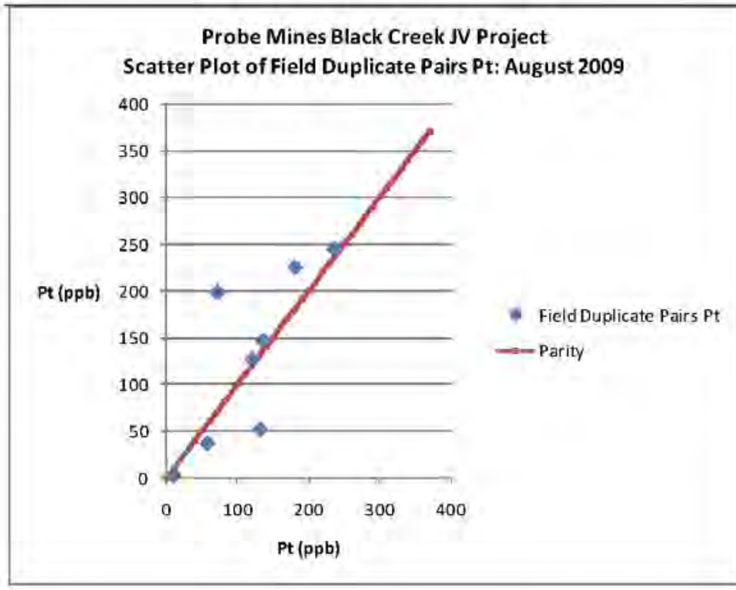
The three different duplicate types (field, coarse reject and pulp) were examined for precision. The point of evaluating all three duplicate types is to ensure that as grain size decreases and homogeneity increases from ¼ core to pulp pairs, that the precision also increases. The worst precision is expected at the field duplicate level, and with each stage reduction from coarse reject to pulp the precision is expected to increase.

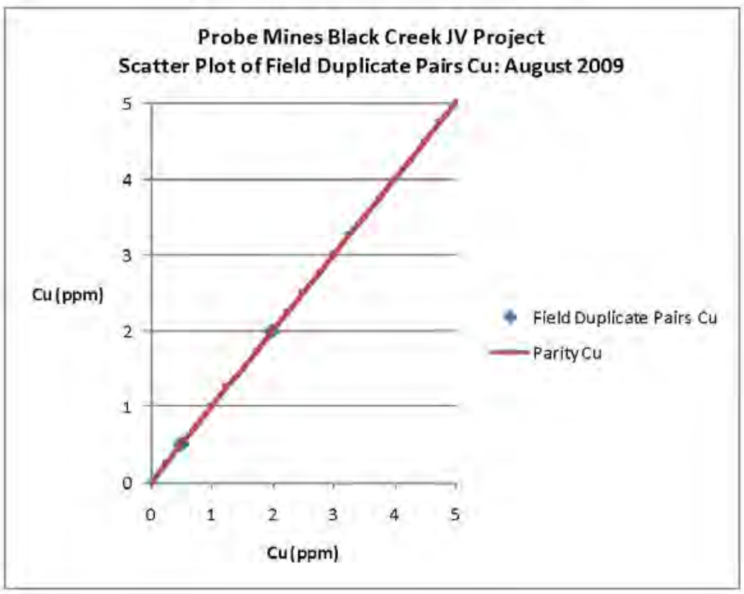
At the pulp level, Cr, Cu, Ni and Pt all have excellent precision. Pd is slightly less precise, while Au has the least precision of all, indicating a less homogeneous distribution of it throughout the rock. This is consistent with the McFaulds Lake camp. If Au grades ever increase to "interesting" levels, further probing of this matter with the lab is suggested.

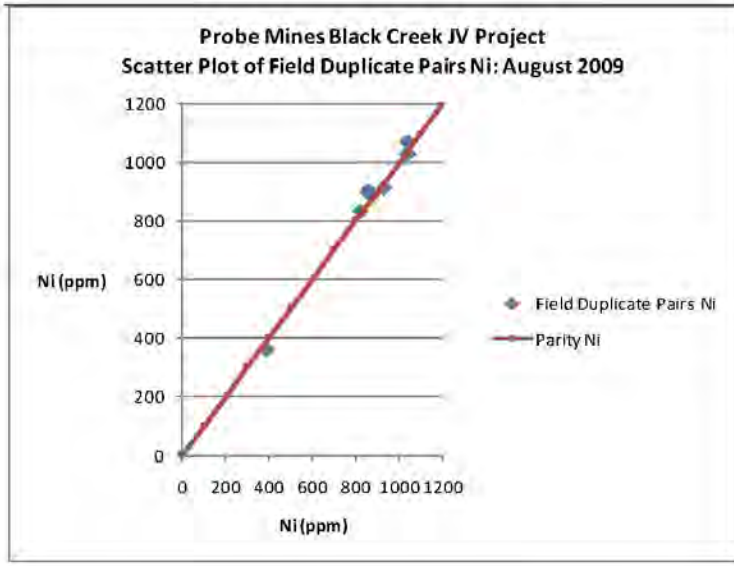


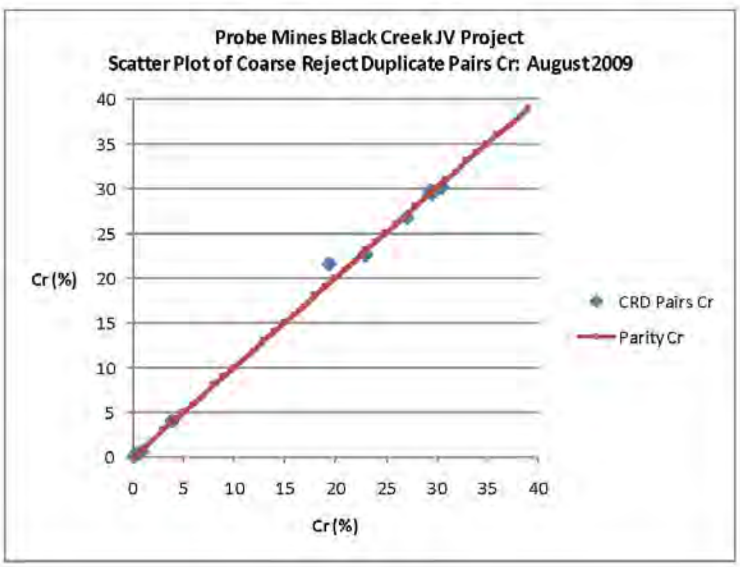

Probe Mines Black Creek JV Project
Scatter Plot of Field Duplicate Pairs Au: August 2009
Au (ppb)
0
5
10
15
20
25
30
Au (ppb)
Field Duplicate Pairs Au
Parity

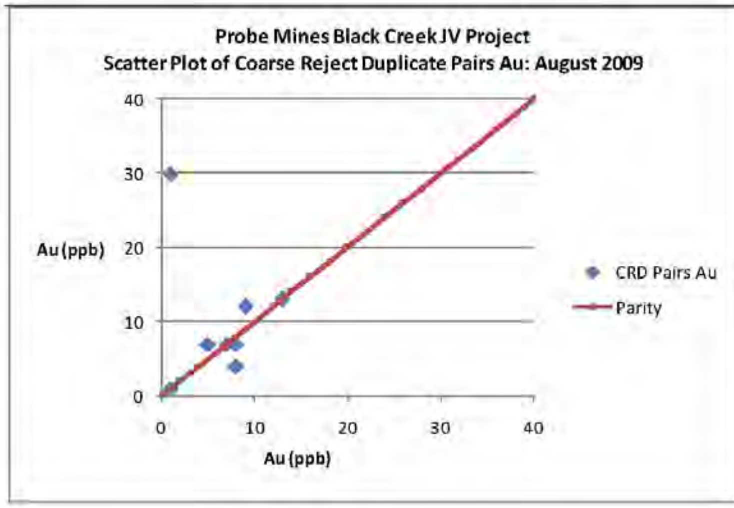

Probe Mines Black Creek JV Project
Scatter Plot of Field Duplicate Pairs Pd: August 2009
Pd (ppb)
0
100
200
300
400
500
Pd (ppb)
Field Duplicate Pairs Pd
Parity

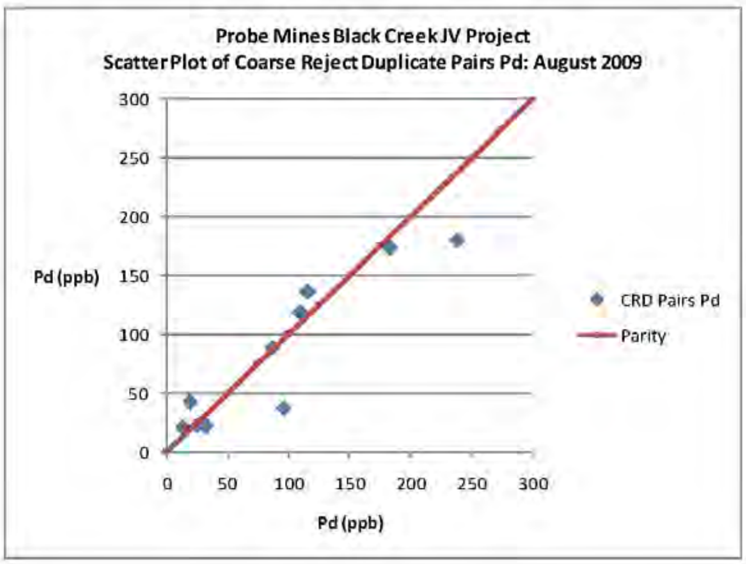

Probe Mines Black Creek JV Project
Scatter Plot of Field Duplicate Pairs Pt: August 2009
Pt (ppb)
400
350
300
250
200
150
100
50
0
0
100
200
300
400
Pt (ppb)
Field Duplicate Pairs Pt
Parity

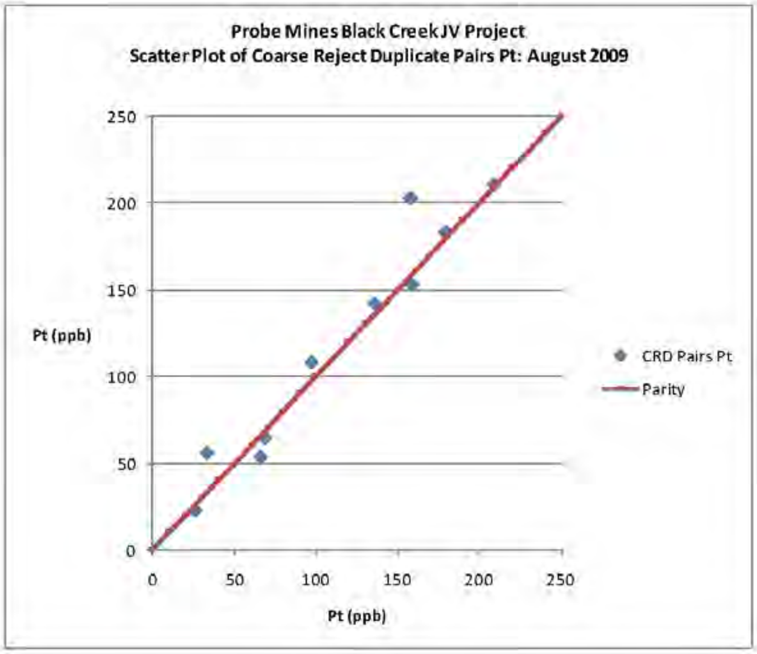

Probe Mines Black Creek JV Project
Scatter Plot of Field Duplicate Pairs Cu: August 2009
Cu (ppm)
5
4
3
2
1
0
0
1
2
3
4
5
Cu (ppm)
Field Duplicate Pairs Cu
Parity Cu

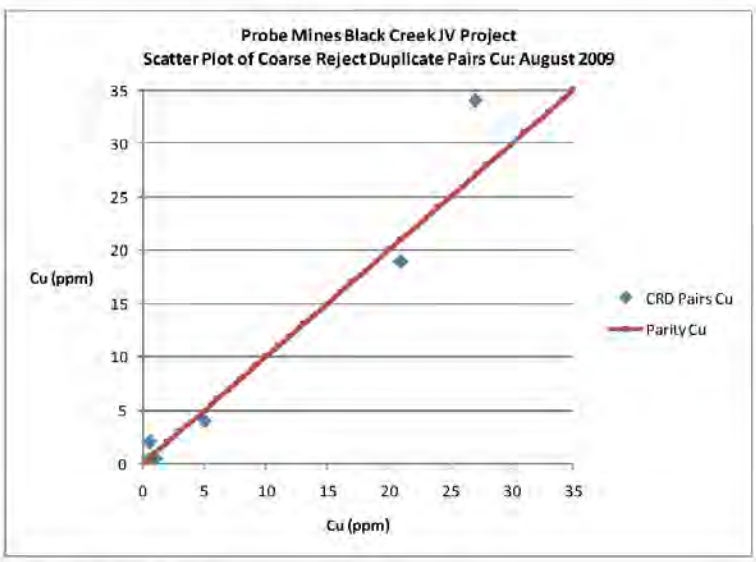

Probe Mines Black Creek JV Project
Scatter Plot of Field Duplicate Pairs Ni: August 2009
Ni (ppm)
0
200
400
600
800
1000
1200
Field Duplicate Pairs Ni
Parity Ni

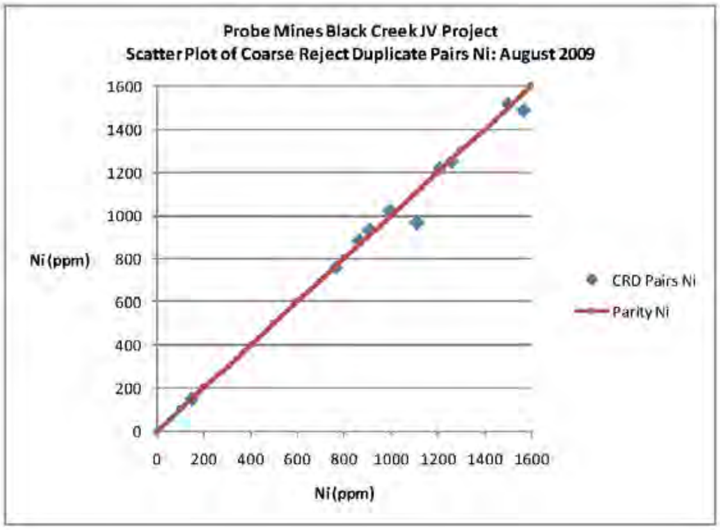

Probe Mines Black Creek JV Project
Scatter Plot of Coarse Reject Duplicate Pairs Cr: August 2009
Cr (%)
0
5
10
15
20
25
30
35
40
CRD Pairs Cr
Parity Cr

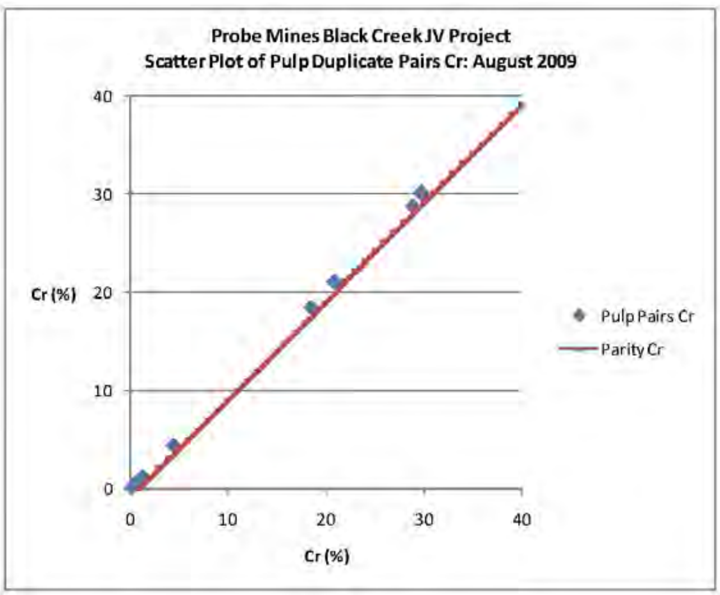

Probe Mines Black Creek JV Project
Scatter Plot of Coarse Reject Duplicate Pairs Au: August 2009
Au (ppb)
0
10
20
30
40
CRD Pairs Au
Parity

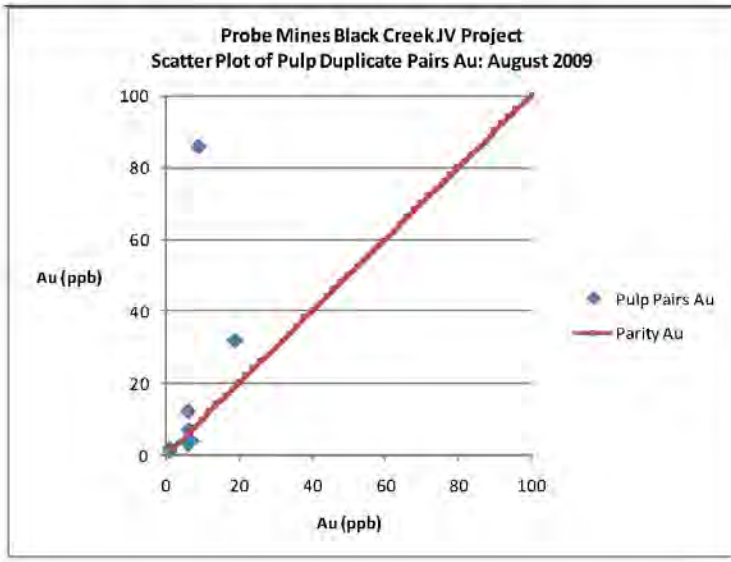

Probe Mines Black Creek JV Project
Scatter Plot of Coarse Reject Duplicate Pairs Pd: August 2009
Pd (ppb)
0
50
100
150
200
250
300
CRD Pairs Pd
Parity

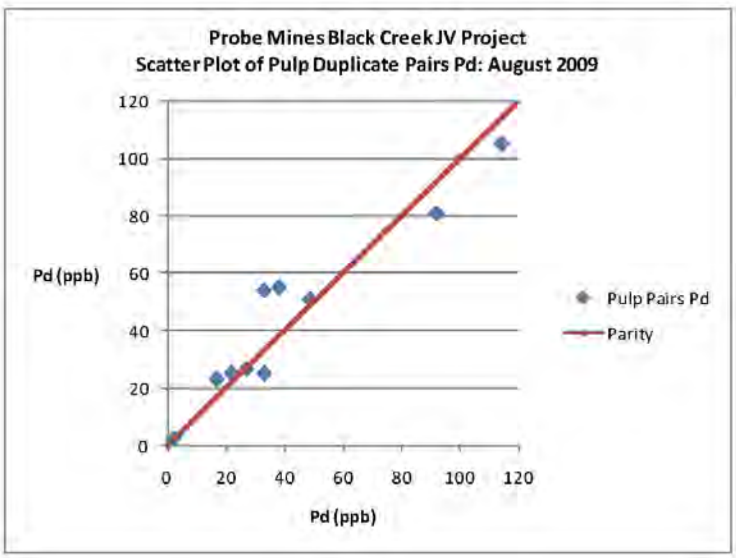

Probe Mines Black Creek JV Project
Scatter Plot of Coarse Reject Duplicate Pairs Pt: August 2009
250
200
150
100
50
0
Pt (ppb)
0
50
100
150
200
250
Pt (ppb)
CRD Pairs Pt
Parity

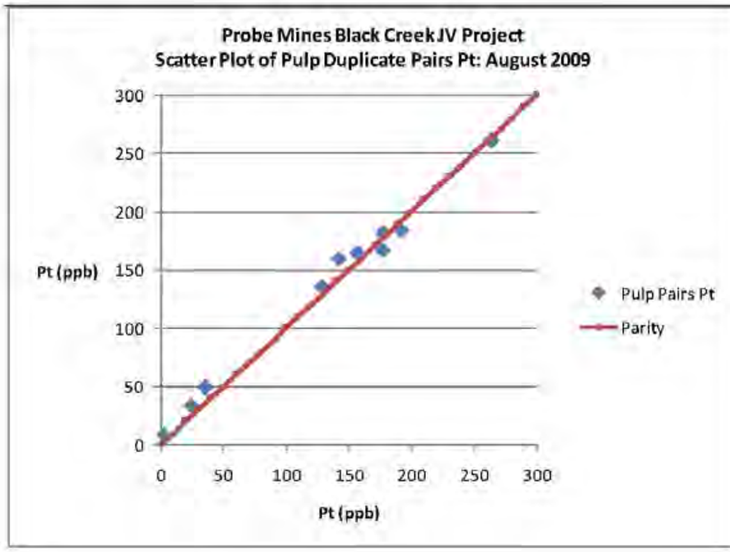

Probe Mines Black Creek JV Project
Scatter Plot of Coarse Reject Duplicate Pairs Cu: August 2009
35
30
25
20
15
10
5
0
Cu (ppm)
0
5
10
15
20
25
30
35
Cu (ppm)
CRD Pairs Cu
Parity Cu

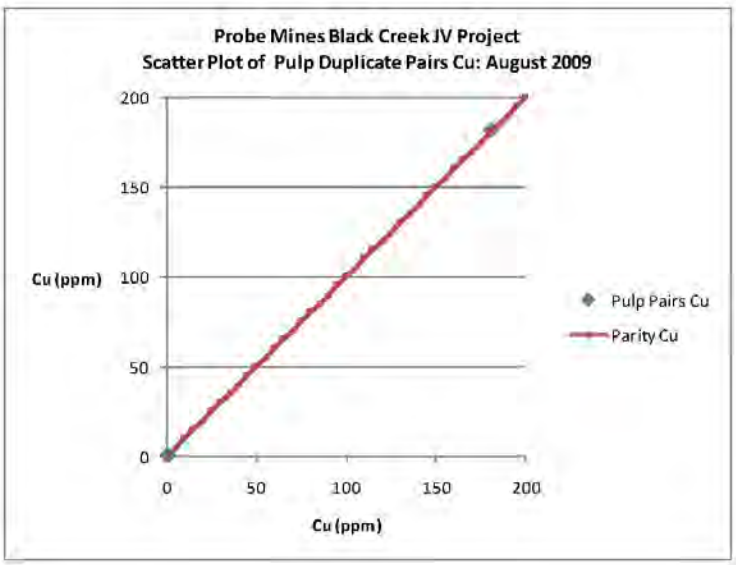

Probe Mines Black Creek JV Project
Scatter Plot of Coarse Reject Duplicate Pairs Ni: August 2009
Ni (ppm)
Ni (ppm)
0
200
400
600
800
1000
1200
1400
1600
CRD Pairs Ni
Parity Ni

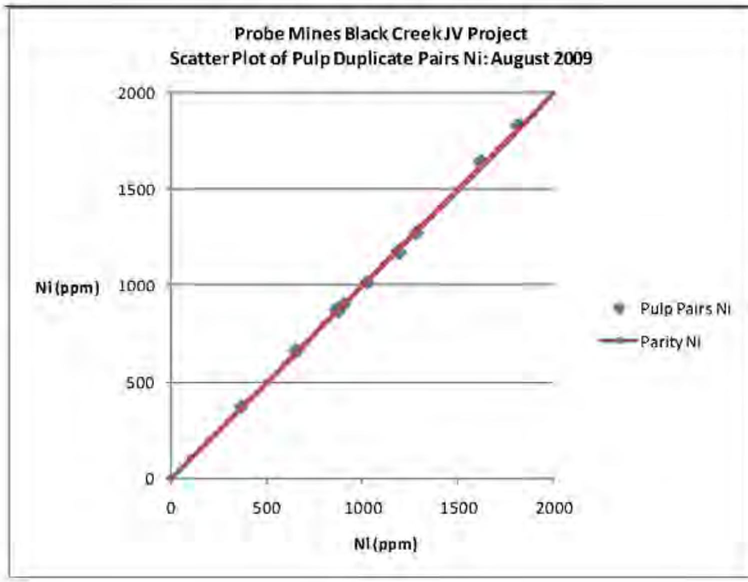

Probe Mines Black Creek JV Project
Scatter Plot of Pulp Duplicate Pairs Cr: August 2009
Cr (%)
Cr (%)
0
10
20
30
40
Pulp Pairs Cr
Parity Cr


Probe Mines Black Creek JV Project
Scatter Plot of Pulp Duplicate Pairs Au: August 2009
Au (ppb)
Au (ppb)
Pulp Pairs Au
Parity Au
0
20
40
60
80
100


Probe Mines Black Creek JV Project
Scatter Plot of Pulp Duplicate Pairs Pd: August 2009
Pd (ppb)
Pd (ppb)
Pulp Pairs Pd
Parity
0
20
40
60
80
100
120


Probe Mines Black Creek JV Project
Scatter Plot of Pulp Duplicate Pairs Pt: August 2009
Pt (ppb)
300
250
200
150
100
50
0
0
50
100
150
200
250
300
Pt (ppb)
Pulp Pairs Pt
Parity

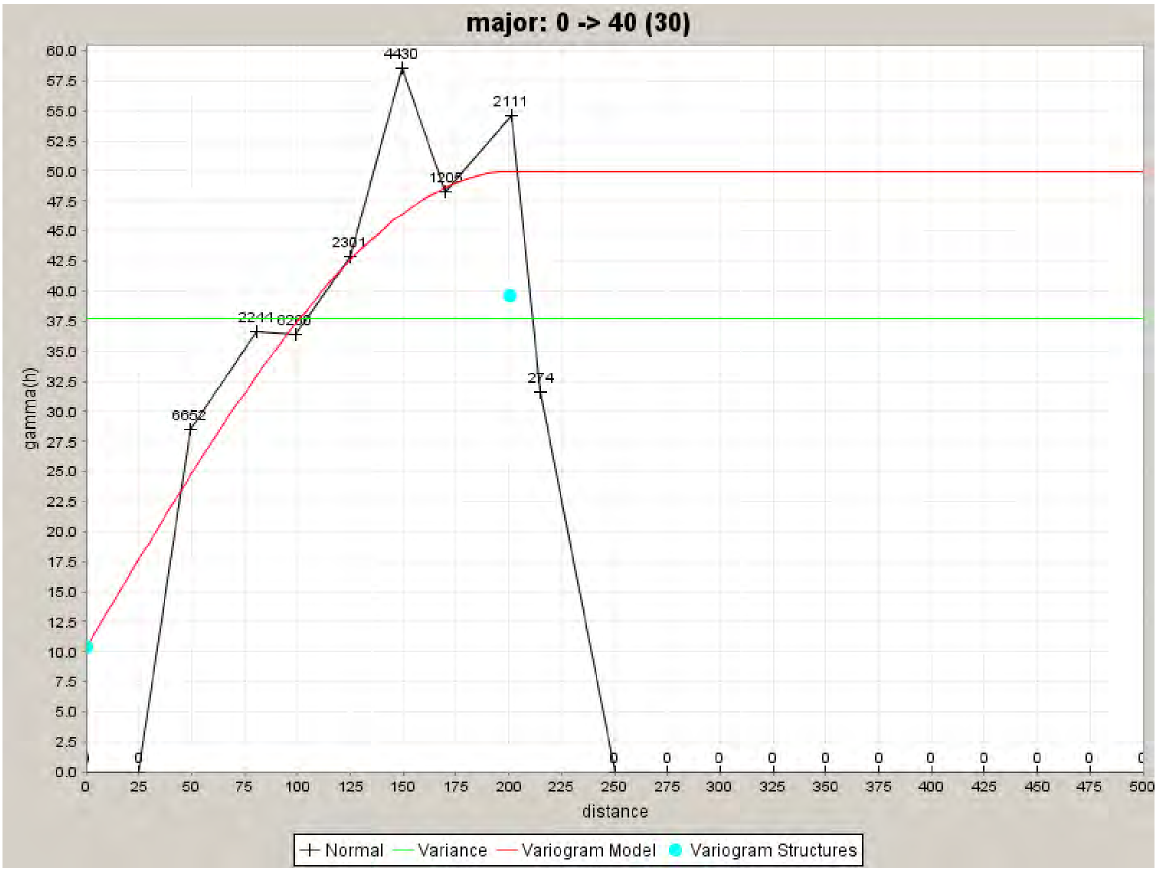

Probe Mines Black Creek JV Project
Scatter Plot of Pulp Duplicate Pairs Cu: August 2009
Cu (ppm)
200
150
100
50
0
0
50
100
150
200
Cu (ppm)
Pulp Pairs Cu
Parity Cu


Probe Mines Black Creek JV Project
Scatter Plot of Pulp Duplicate Pairs Ni: August 2009
Ni (ppm)
2000
1500
1000
500
0
0
500
1000
1500
2000
Ni (ppm)
Pulp Pairs Ni
Parity Ni

Appendix 2

Results of Variographic Analysis

MAJOR AXIS (ALONG STRIKE)



VARIOGRAM MODELLING

Anisotropy parameters

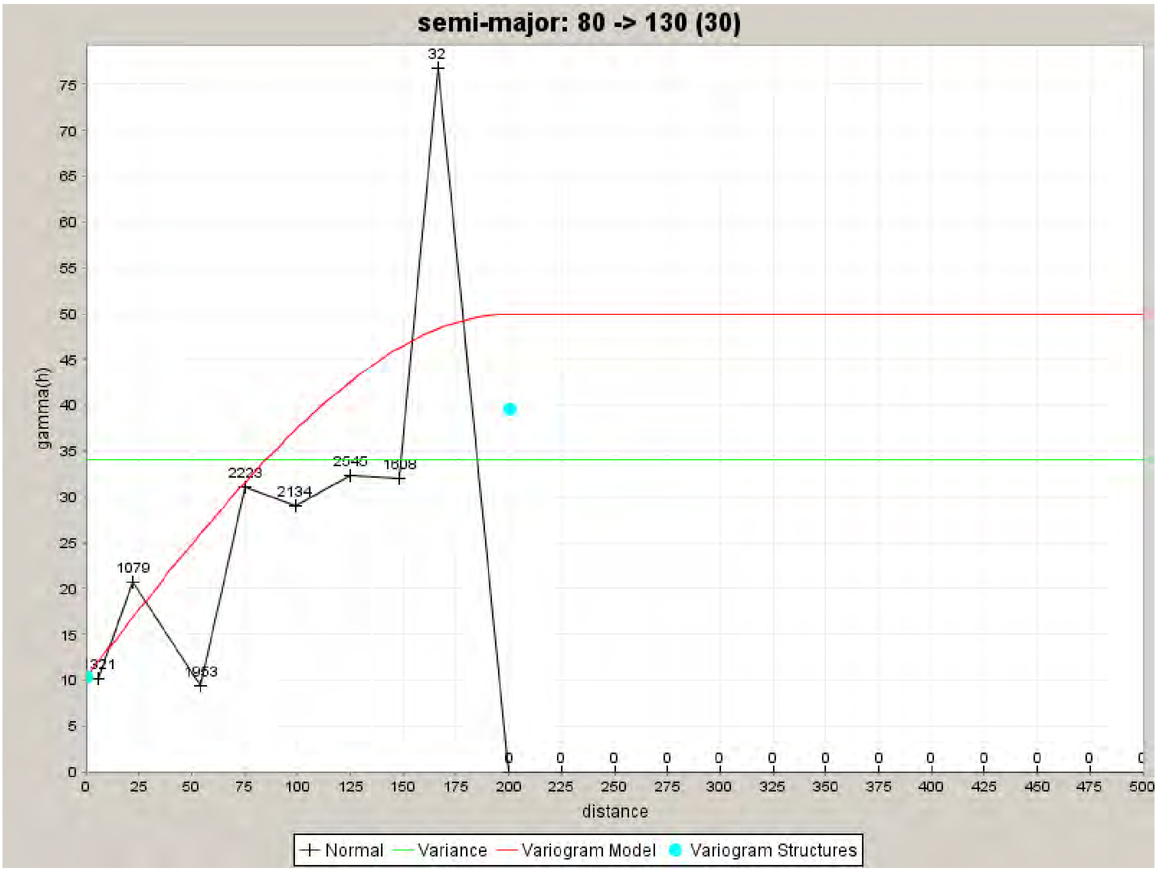
Ellipsoid plunge : 0.000000
Ellipsoid bearing: 40.000000
Ellipsoid dip : 80.000000
major:semi-major : 1.000000
major:minor : 1.000000

Variogram model parameters

Model Type : Spherical
Nugget : 10.346132

Structure	Sill	Range
1	39.590680	200.469

SEMI-MAJOR AXIS (DOWN DIP)



VARIOGRAM MODELLING

Anisotropy parameters

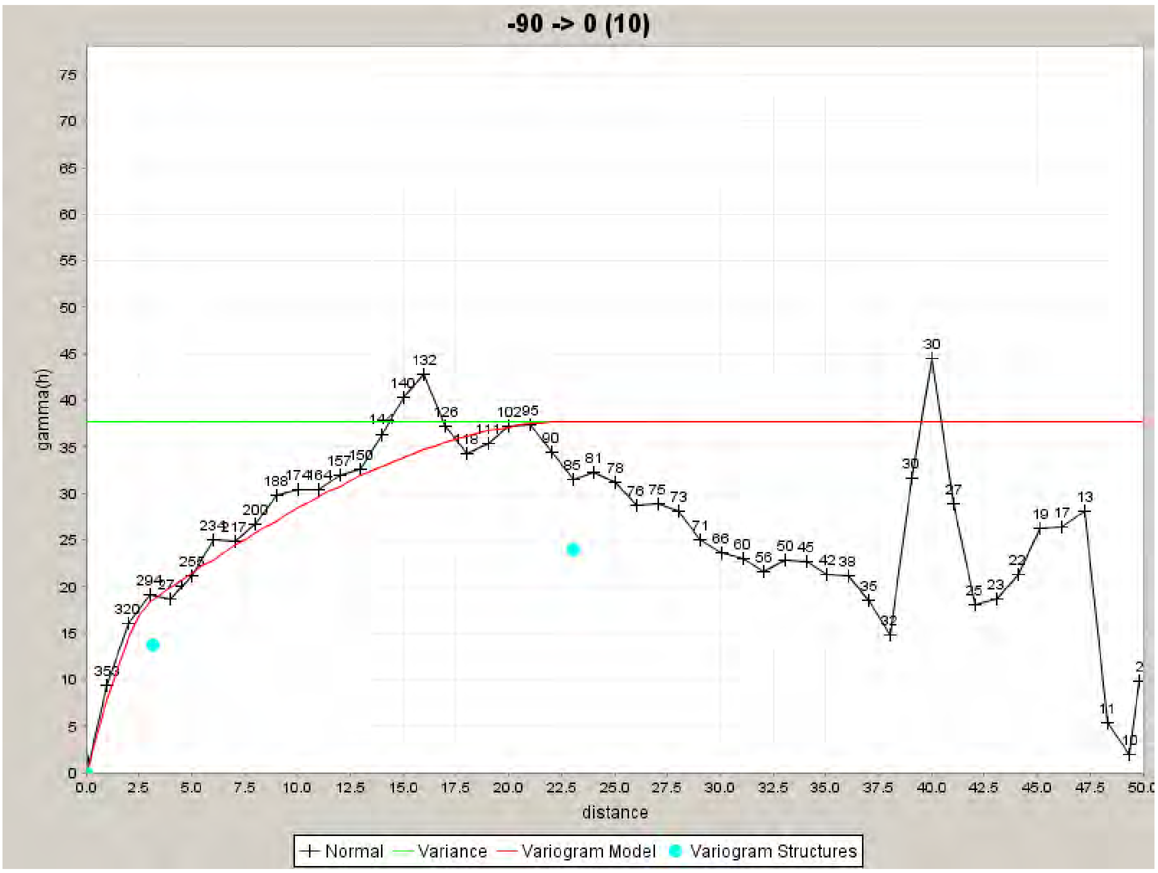
Ellipsoid plunge : 0.000000
Ellipsoid bearing: 40.000000
Ellipsoid dip : 80.000000
major:semi-major : 1.000000
major:minor : 1.000000

Variogram model parameters

Model Type : Spherical
Nugget : 10.346132

Structure	Sill	Range
1	39.590680	200.469

MINOR AXIS (DOWN-HOLE)



VARIOGRAM MODELLING

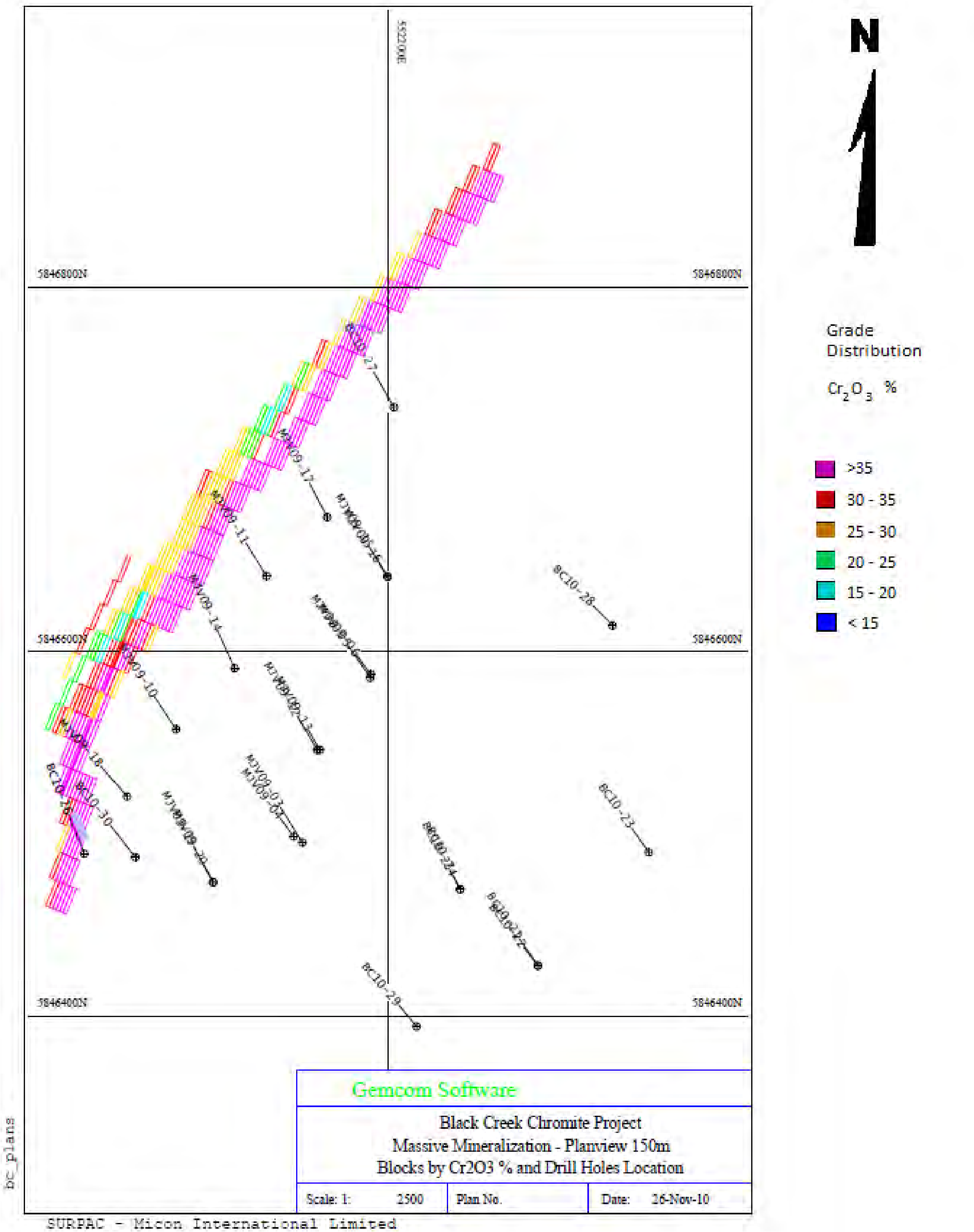
Variogram model parameters

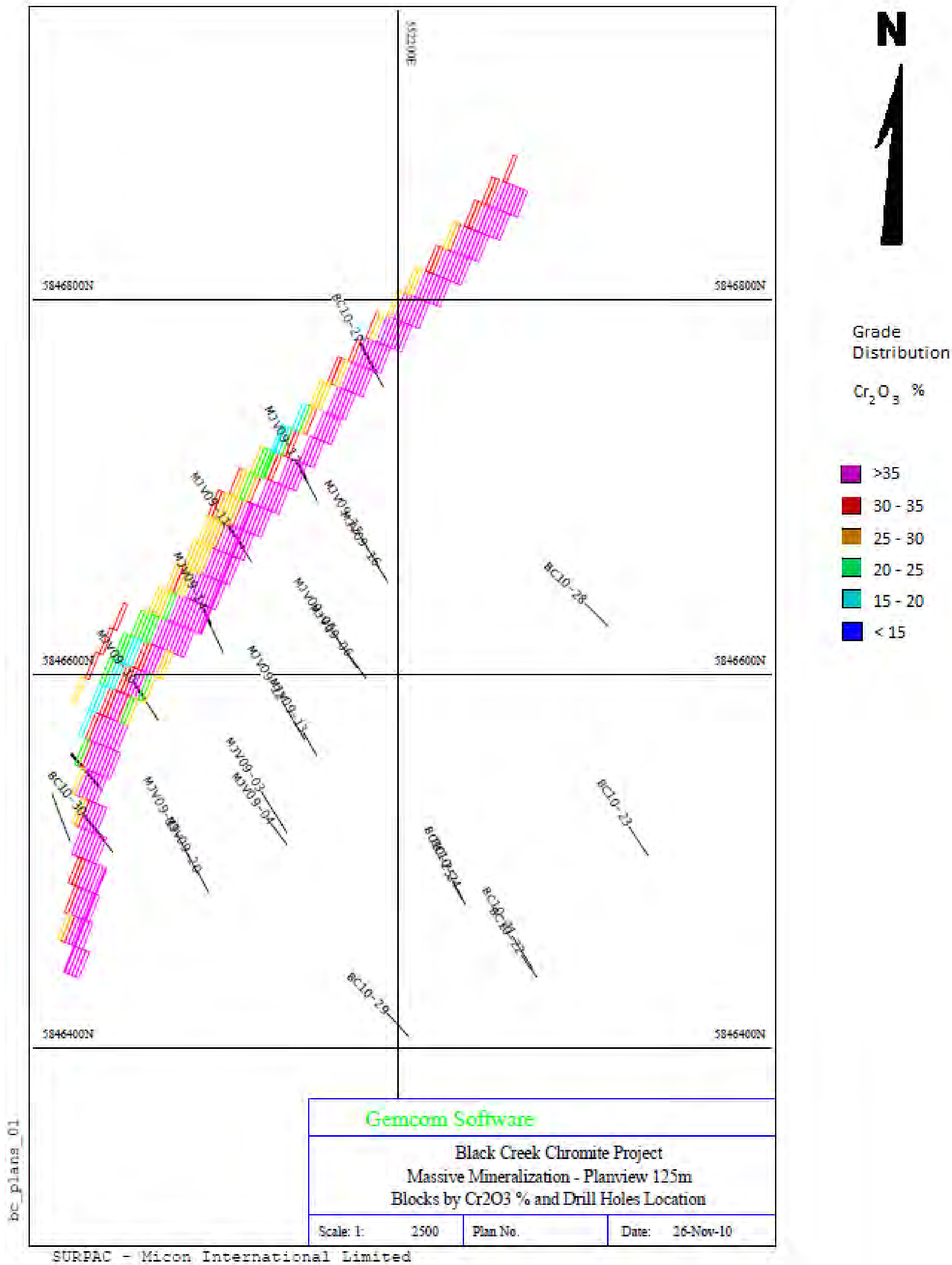
Model Type : Spherical
Nugget : 0.000000

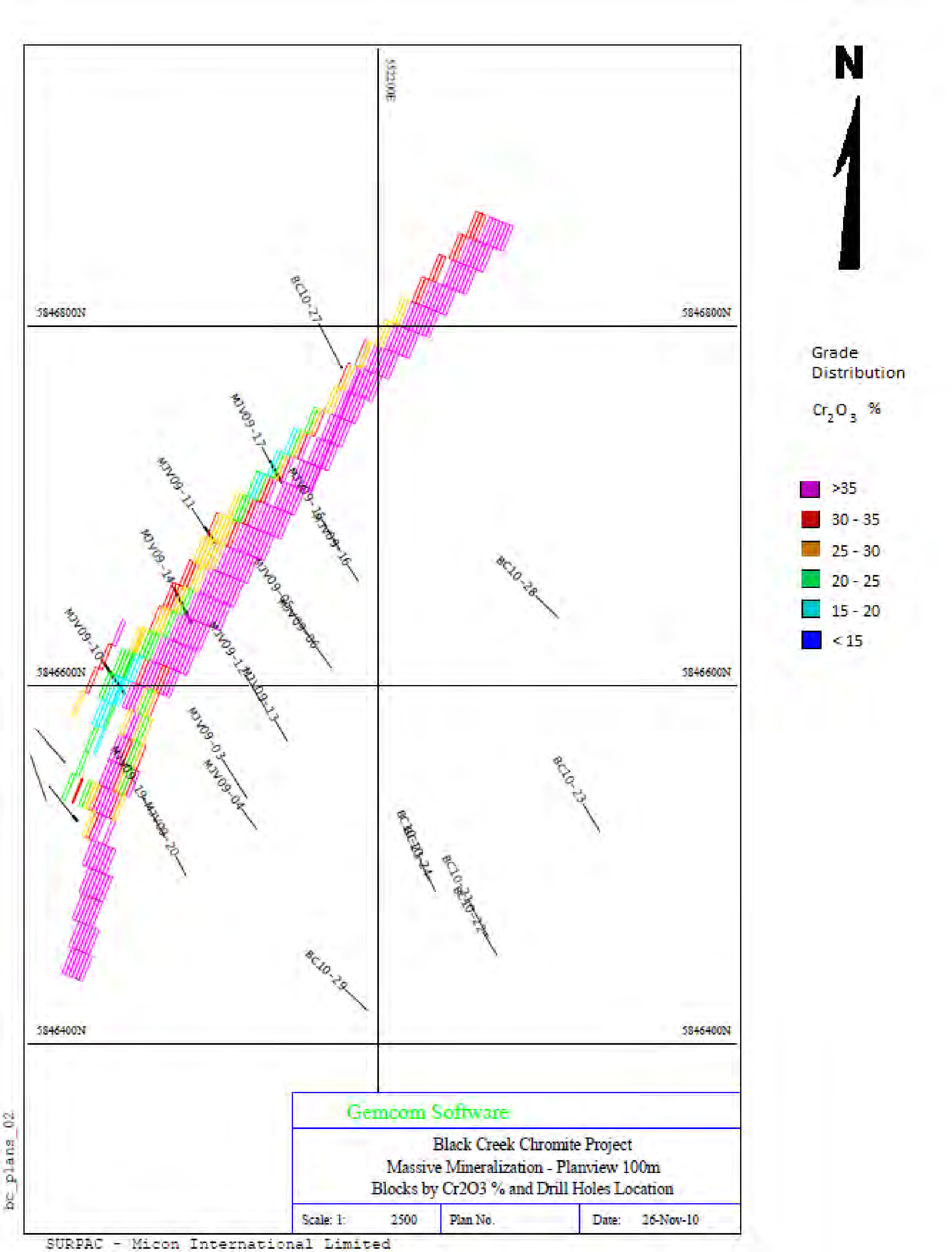
Structure	Sill	Range
1	13.753000	3.154
2	23.987270	23.024

Appendix 3

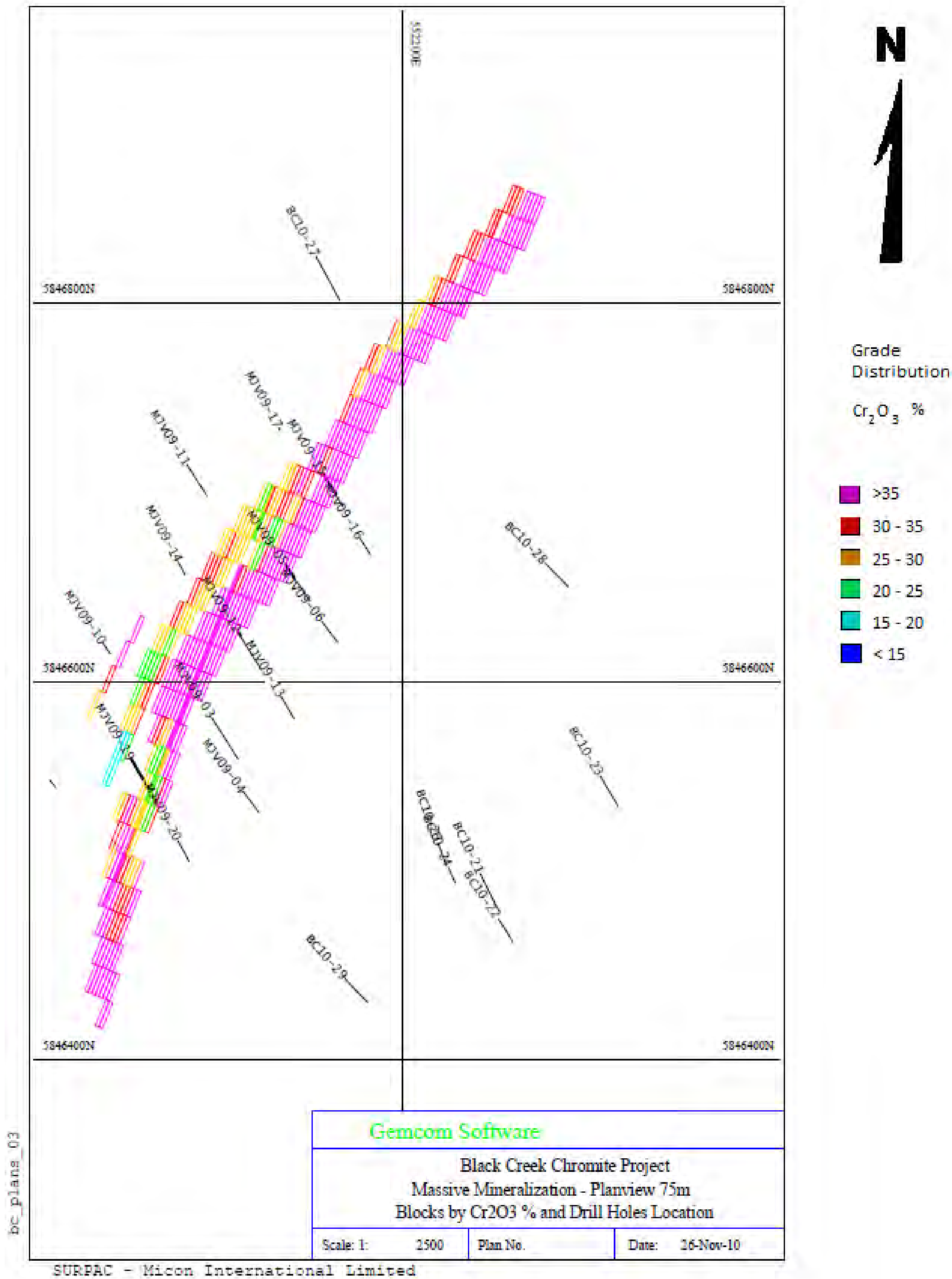
Plans and Sections
N.B. Plans are presented in descending order from top (= 150 m elevation) to bottom.
Sections start from the southwest going towards the northeast.


552100E
5846800N
5846800N
5846600N
5846600N
5846400N
5846400N
BC10-27
MJV09-17
MJV09-11
MJV09-16
BC10-28
MJV09-14
MJV09-10
MJV09-13
MJV09-18
BC10-23
BC10-30
MJV09-20
BC10-24
BC10-22
BC10-29
N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview 150m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans
SURPAC - Micon International Limited

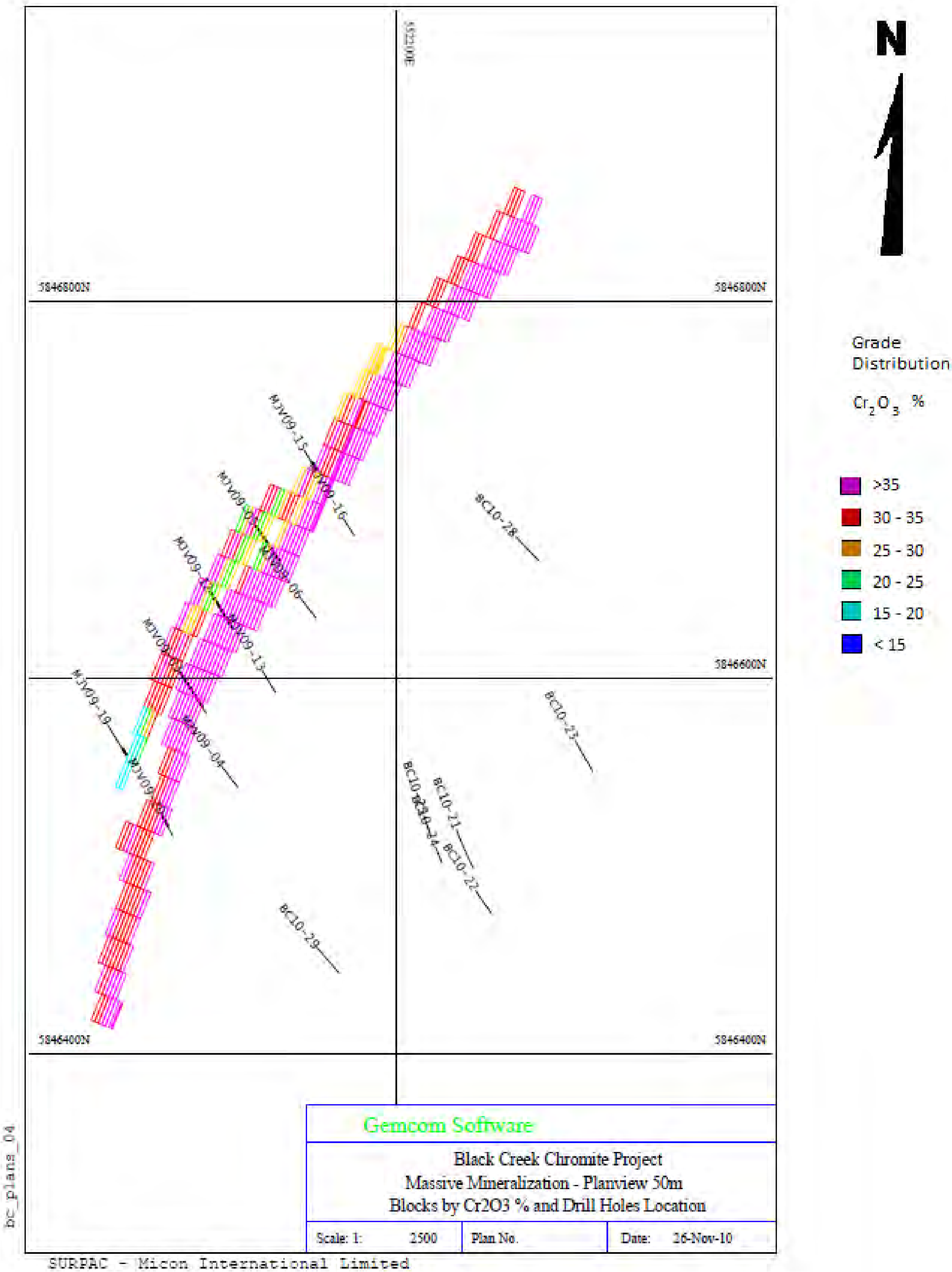

N
Grade
Distribution
Cr2O3 %
>35
30 - 35
25 - 30
20 - 25
15 - 25
< 15
552100E
5846800N
5846800N
5846600N
5846600N
5846400N
5846400N
BC10-28
BC10-23
BC10-29
BC10-30
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview 125m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_01
SURPAC - Micon International Limited

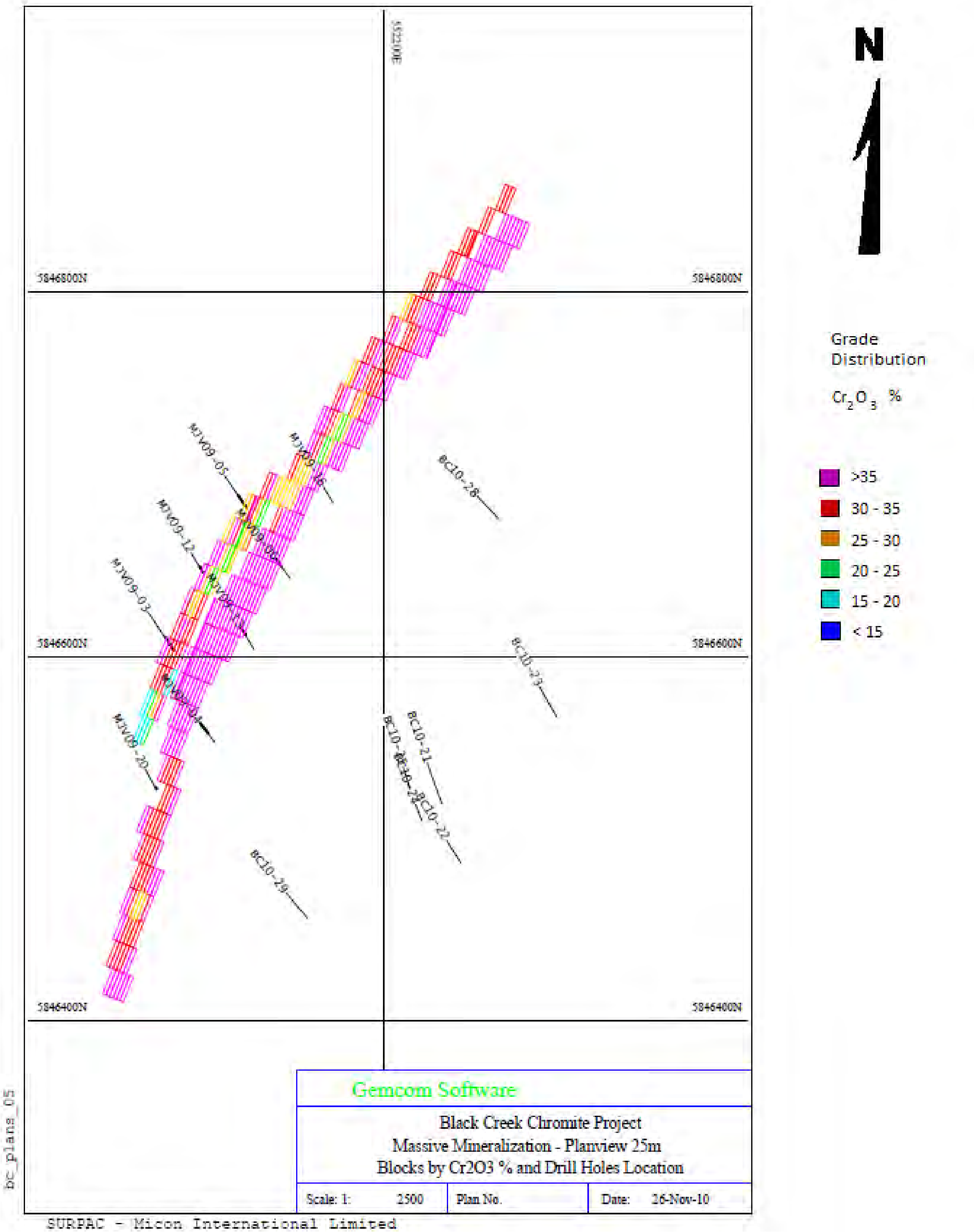


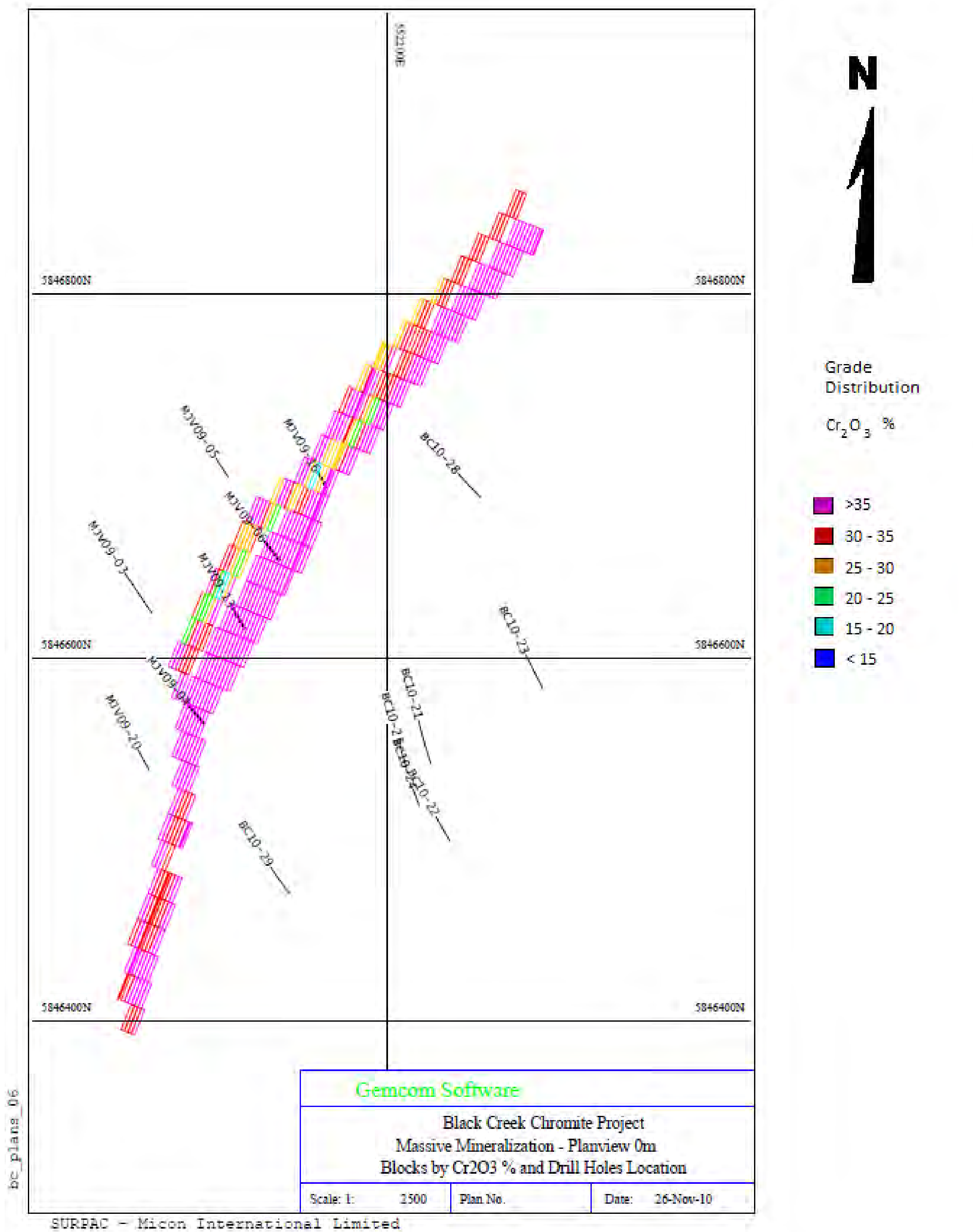
N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
5846800N
5846600N
5846400N
BC10-27
BC10-28
BC10-23
BC10-29
MJV09-17
MJV09-11
MJV09-14
MJV09-10
MJV09-03
MJV09-04
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview 100m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_02
SURPAC - Micon International Limited

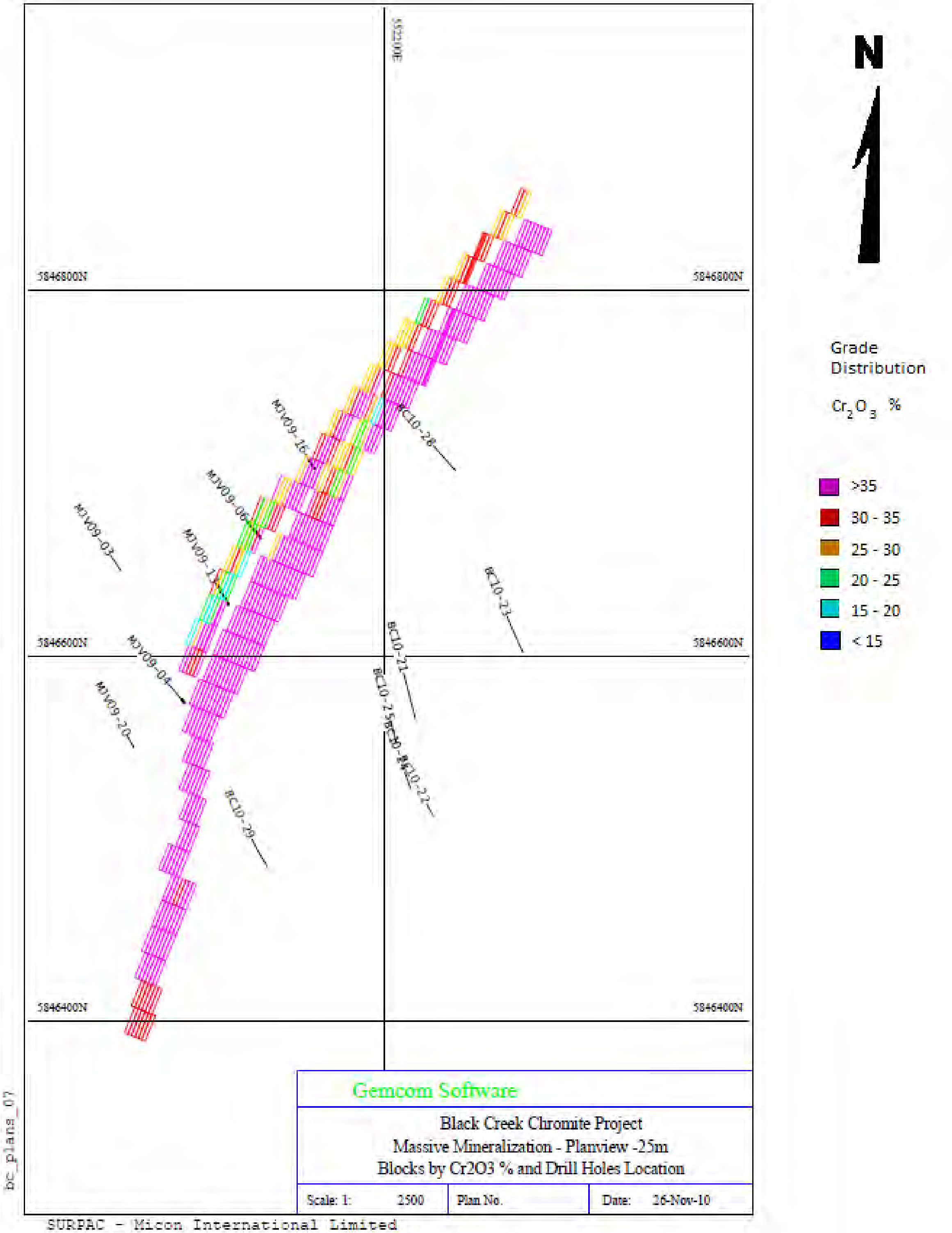


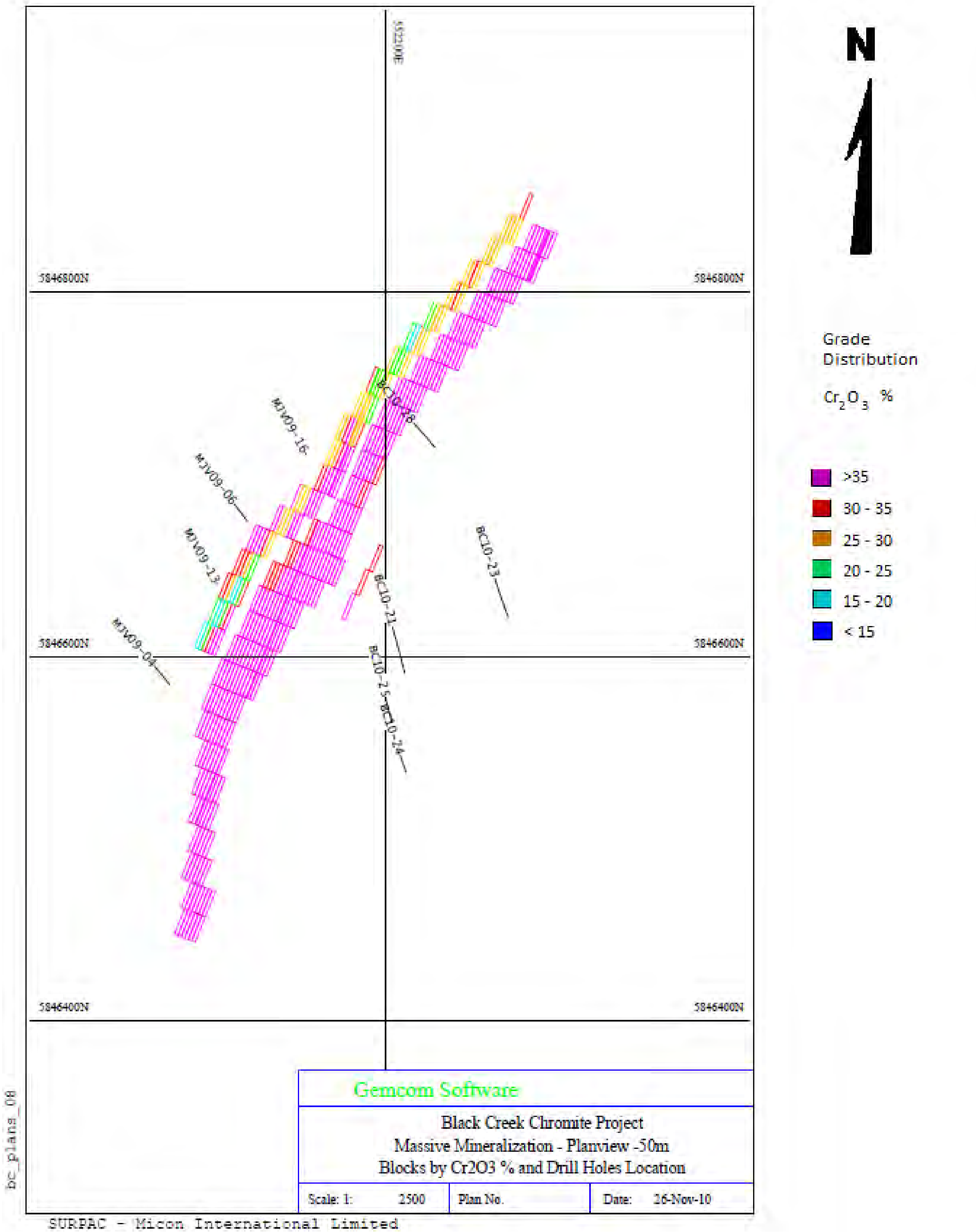
5521OE
5846800N
5846800N
5846600N
5846600N
5846400N
5846400N
BC10-27
BC10-28
BC10-23
BC10-29
BC10-21
BC10-22
MJV09-17
MJV09-11
MJV09-16
MJV09-14
MJV09-06
MJV09-10
MJV09-13
MJV09-03
MJV09-04
MJV09-20
N
Grade
Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview 75m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_03
SURPAC - Micon International Limited


5521 00E
5846800N
5846800N
5846600N
5846400N
5846400N
N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
MJV09-15
MJV09-16
MJV09-12
MJV09-06
MJV09-13
MJV09-04
MJV09-19
BC10-28
BC10-23
BC10-21
BC10-22
BC10-29
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview 50m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_04
SURPAC - Micon International Limited

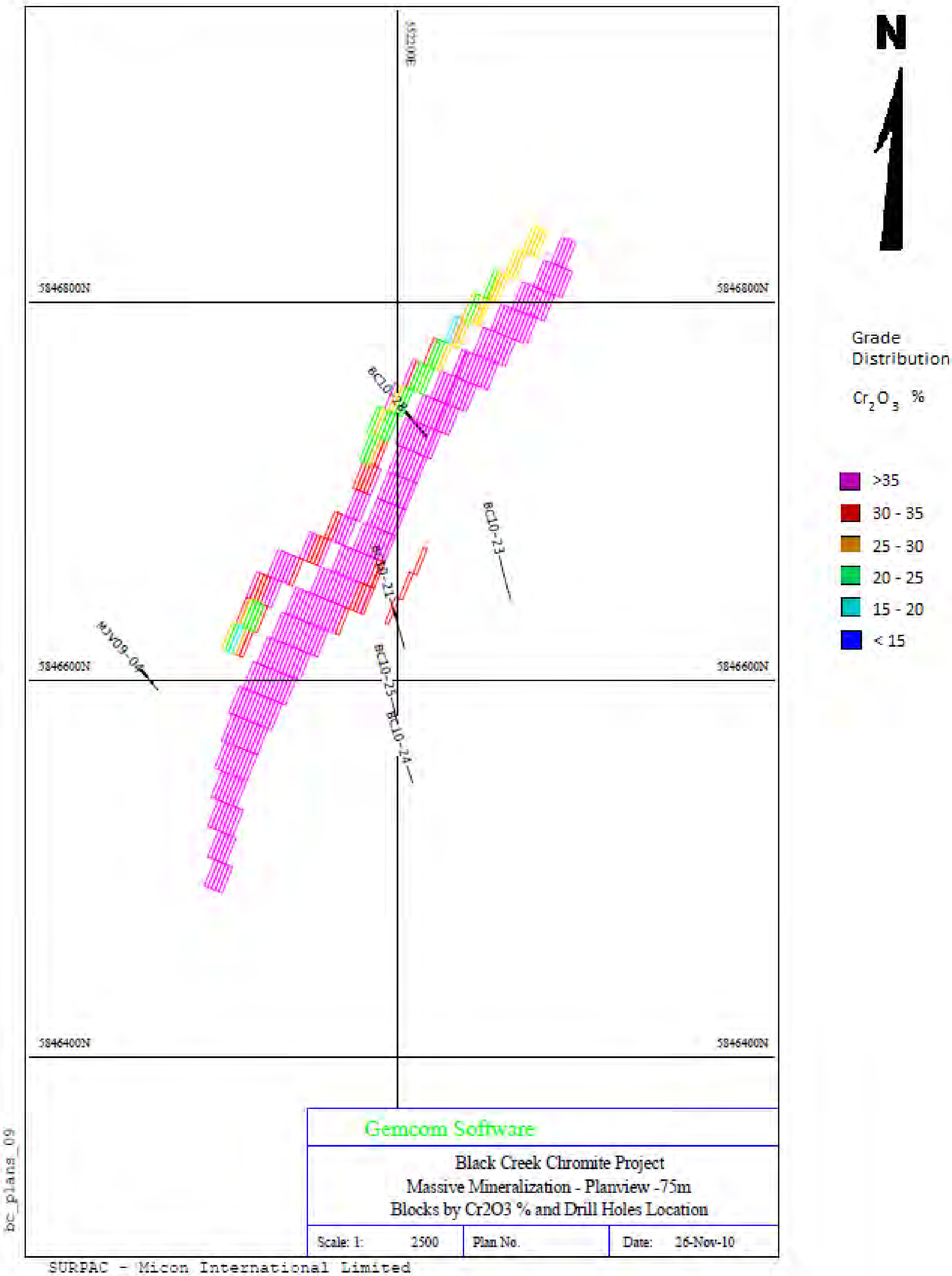

552100E
5846800N
5846600N
5846400N
N
Grade
Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
MJV09-05
MJV09-16
MJV09-12
MJV09-03
MJV09-20
BC10-28
BC10-23
BC10-21
BC10-22
BC10-29
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview 25m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_05
SURPAC - Micon International Limited


5521 0E
5846800N
5846800N
5846600N
5846600N
5846400N
5846400N
MJV09-05
MJV09-16
MJV09-06
MJV09-03
MJV09-13
MJV09-04
MJV09-20
BC10-28
BC10-23
BC10-21
BC10-29
BC10-22
N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview 0m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_06
SURPAC - Micon International Limited

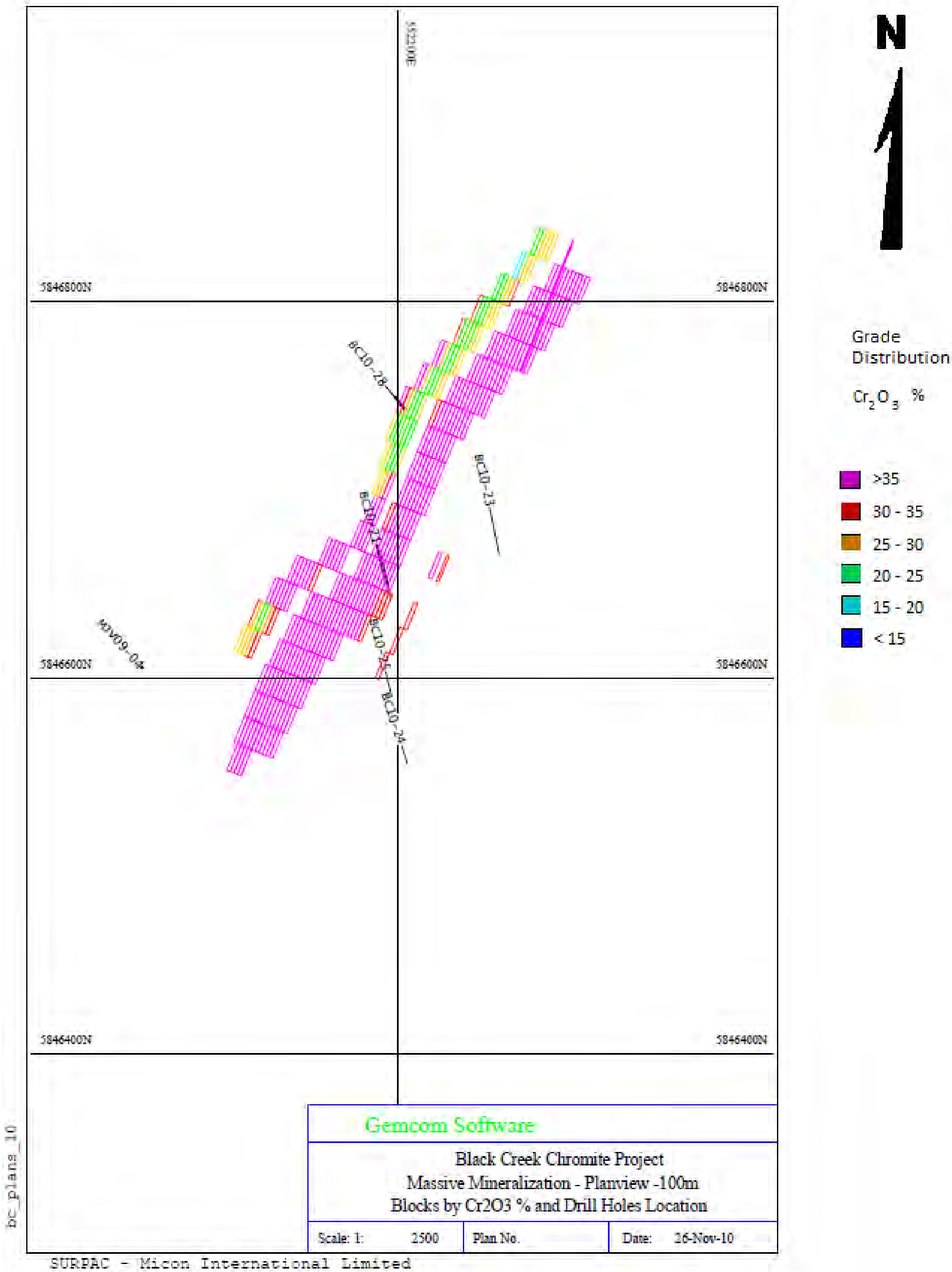

N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
5846800N
5846800N
5846600N
5846600N
5846400N
5846400N
MJV09-16
MJV09-08
MJV09-03
MJV09-04
MJV09-20
BC10-28
BC10-23
BC10-21
BC10-29
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview -25m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_07
SURPAC - Micon International Limited

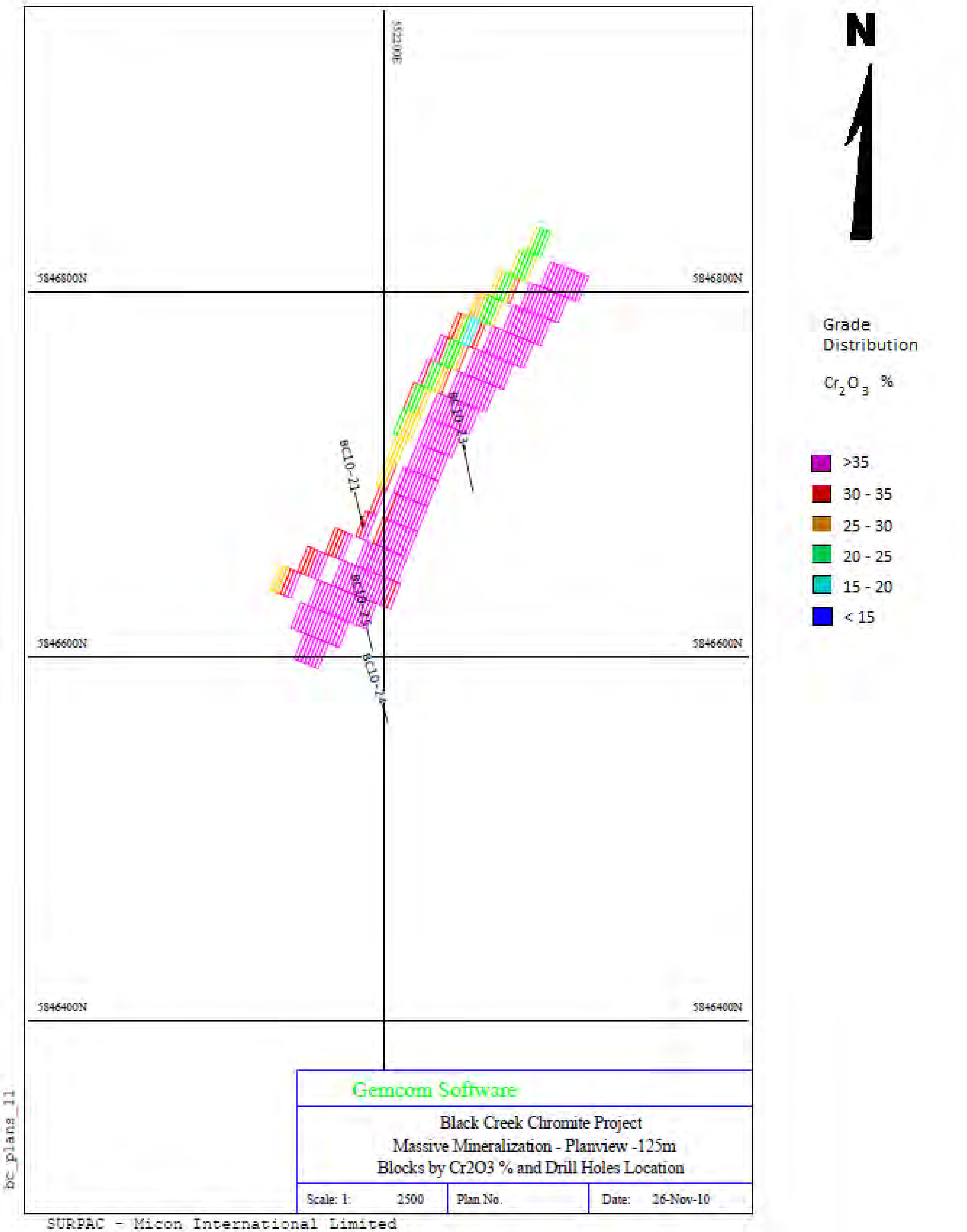


N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
552100E
5846800N
5846800N
5846600N
5846600N
5846400N
5846400N
MJV09-16
MJV09-06
MJV09-13
MJV09-04
BC10-23
BC10-21
BC10-25
BC10-24
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview -50m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_08
SURPAC - Micon International Limited

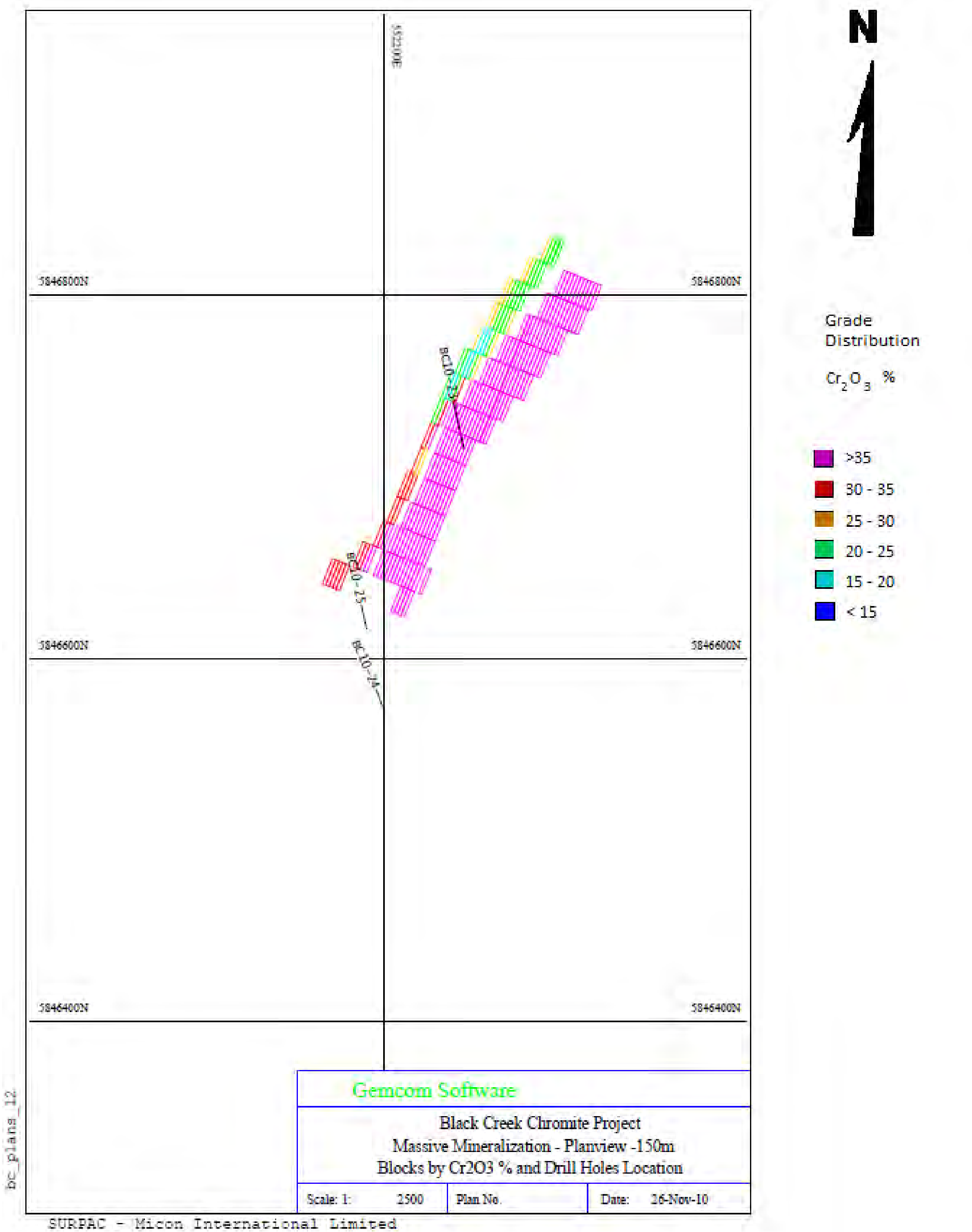


5521OOE
5846800N
5846800N
5846600N
5846600N
5846400N
5846400N
BC10-26
BC10-23
BC10-21
BC10-25
BC10-24
MJV09-04
N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview -75m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_09
SURPAC - Micon International Limited


5846800N
5846800N
5846600N
5846600N
5846400N
5846400N
BC10-28
BC10-23
BC10-21
BC10-25
BC10-24
N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview -100m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_10
SURPAC - Micon International Limited



5846800N
5846600N
5846400N
BC10-21
BC10-13
BC10-25
BC10-24
N
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview -125m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_11
SURPAC - Micon International Limited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BC10-25
BC10-24
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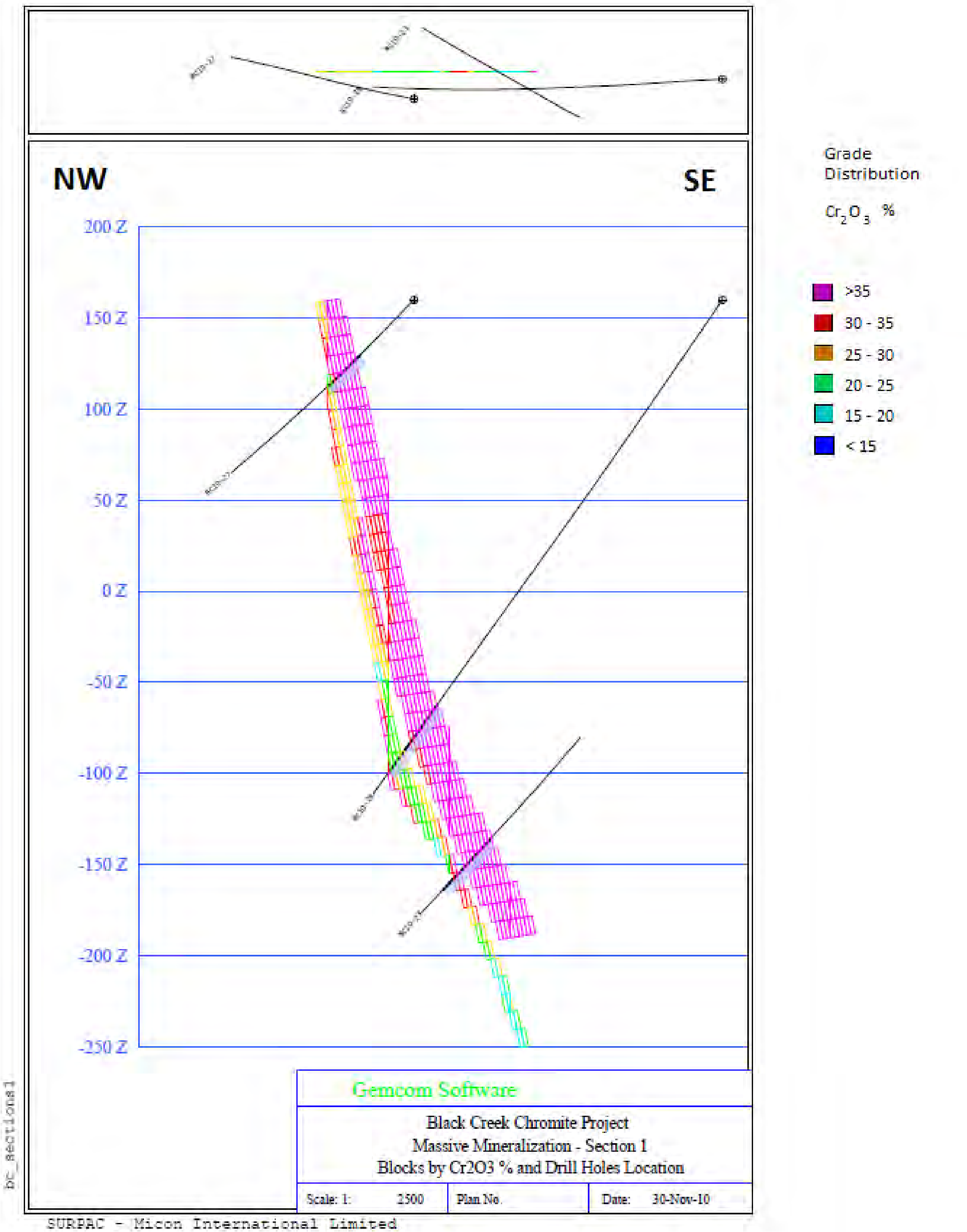
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Planview -150m
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 26-Nov-10
bc_plans_12
SURPAC - Micon International Limited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200 Z
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-50 Z
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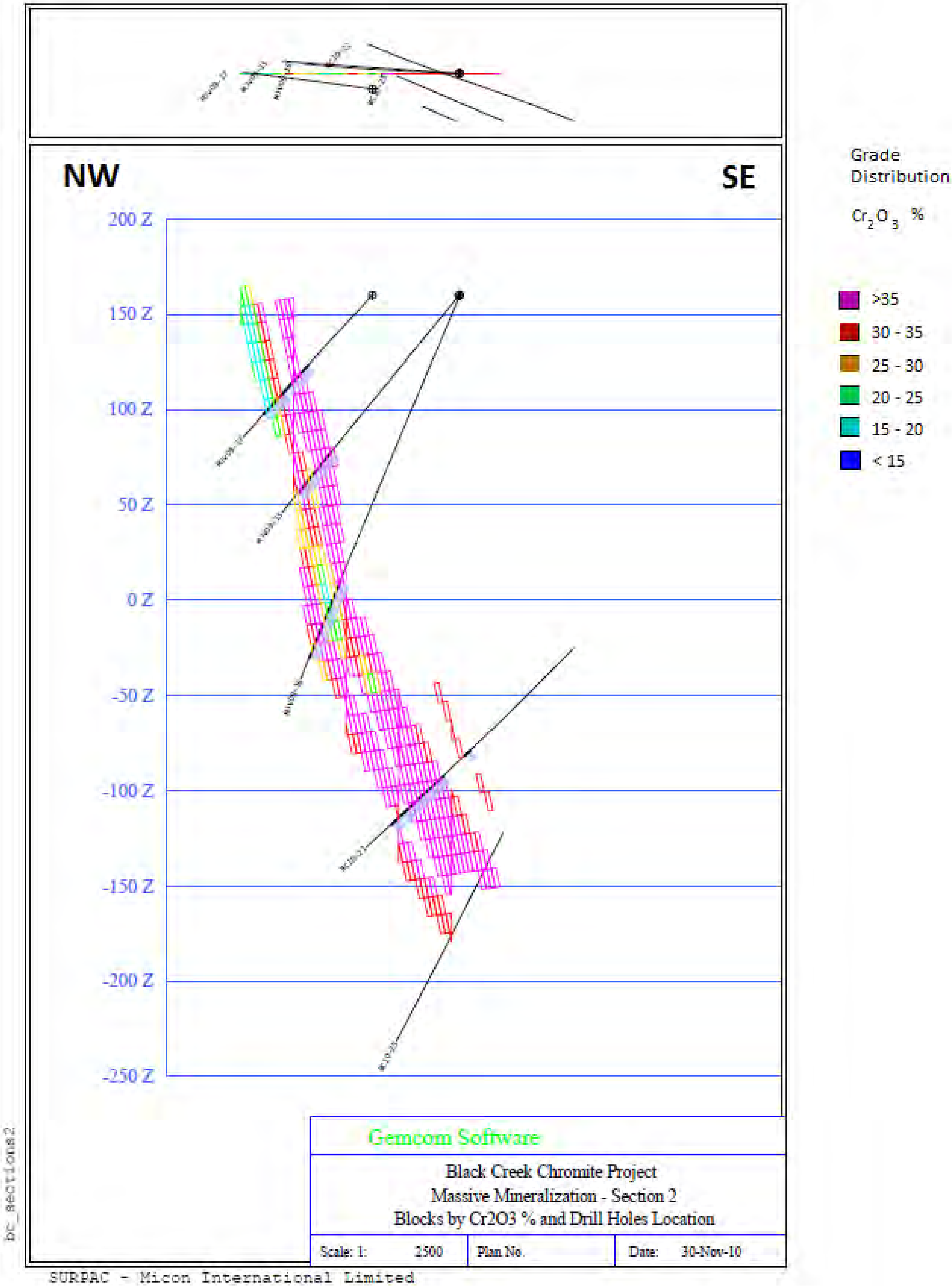
-200 Z
-250 Z
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Section 1
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 30-Nov-10
bc_sections1
SURPAC - Micon International Limited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-150 Z
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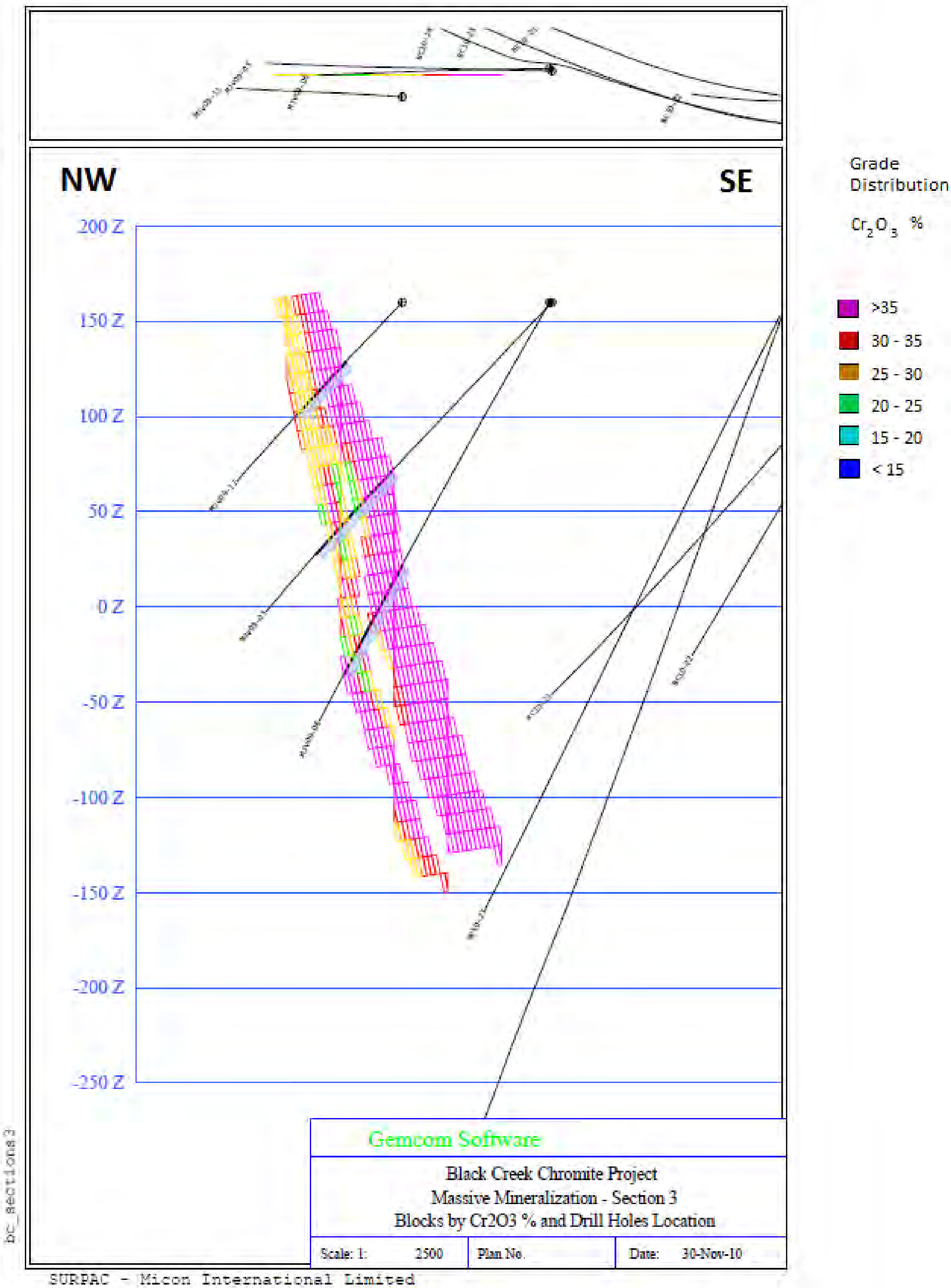
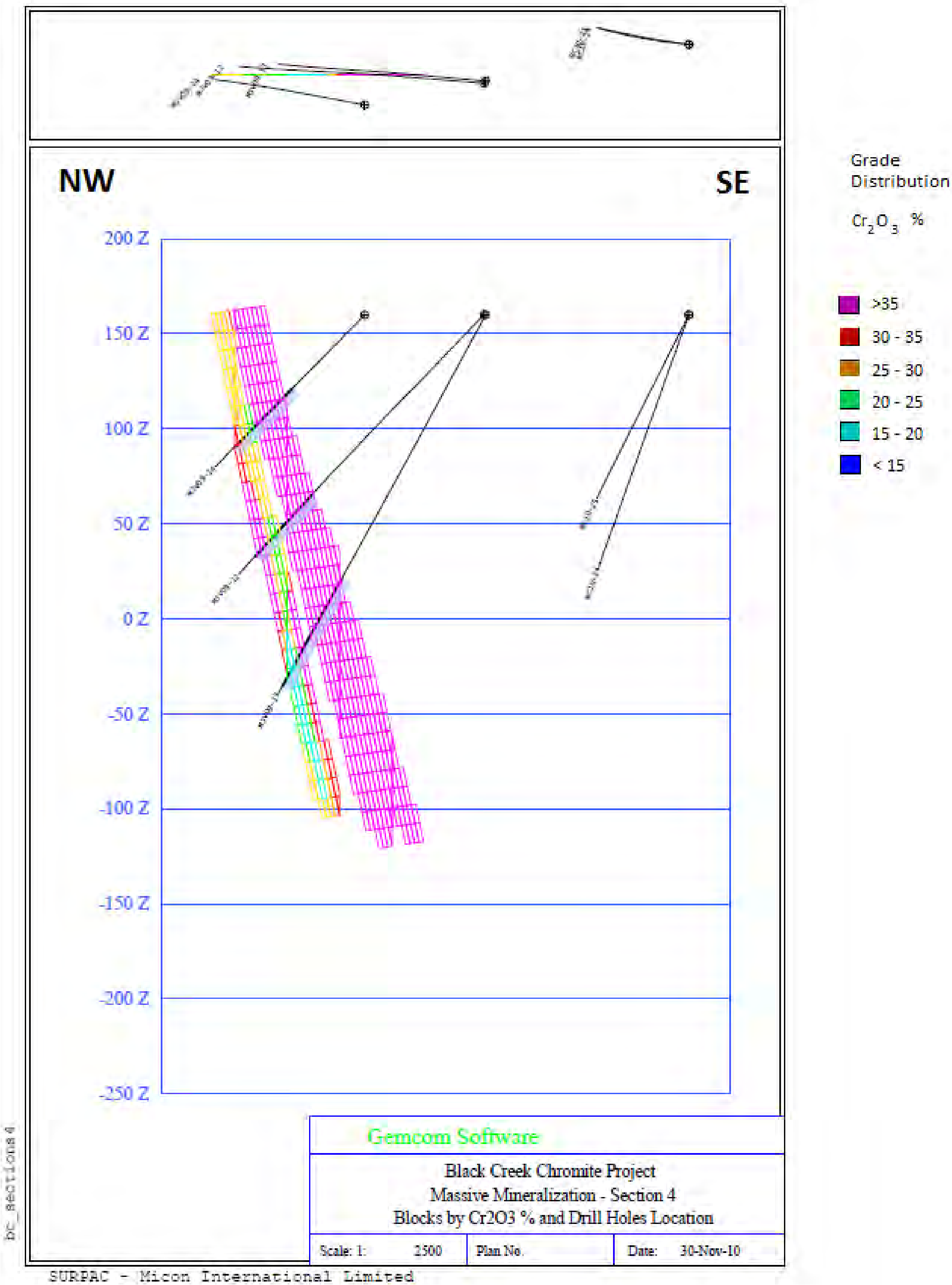
-250 Z
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Section 2
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 30-Nov-10
bc_sections2
SURPAC - Micon International Limited


NW
SE
200 Z
150 Z
100 Z
50 Z
0 Z
-50 Z
-100 Z
-150 Z
-200 Z
-250 Z
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Section 3
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 30-Nov-10
bc_sections3
SURPAC - Micon International Limited


NW
SE
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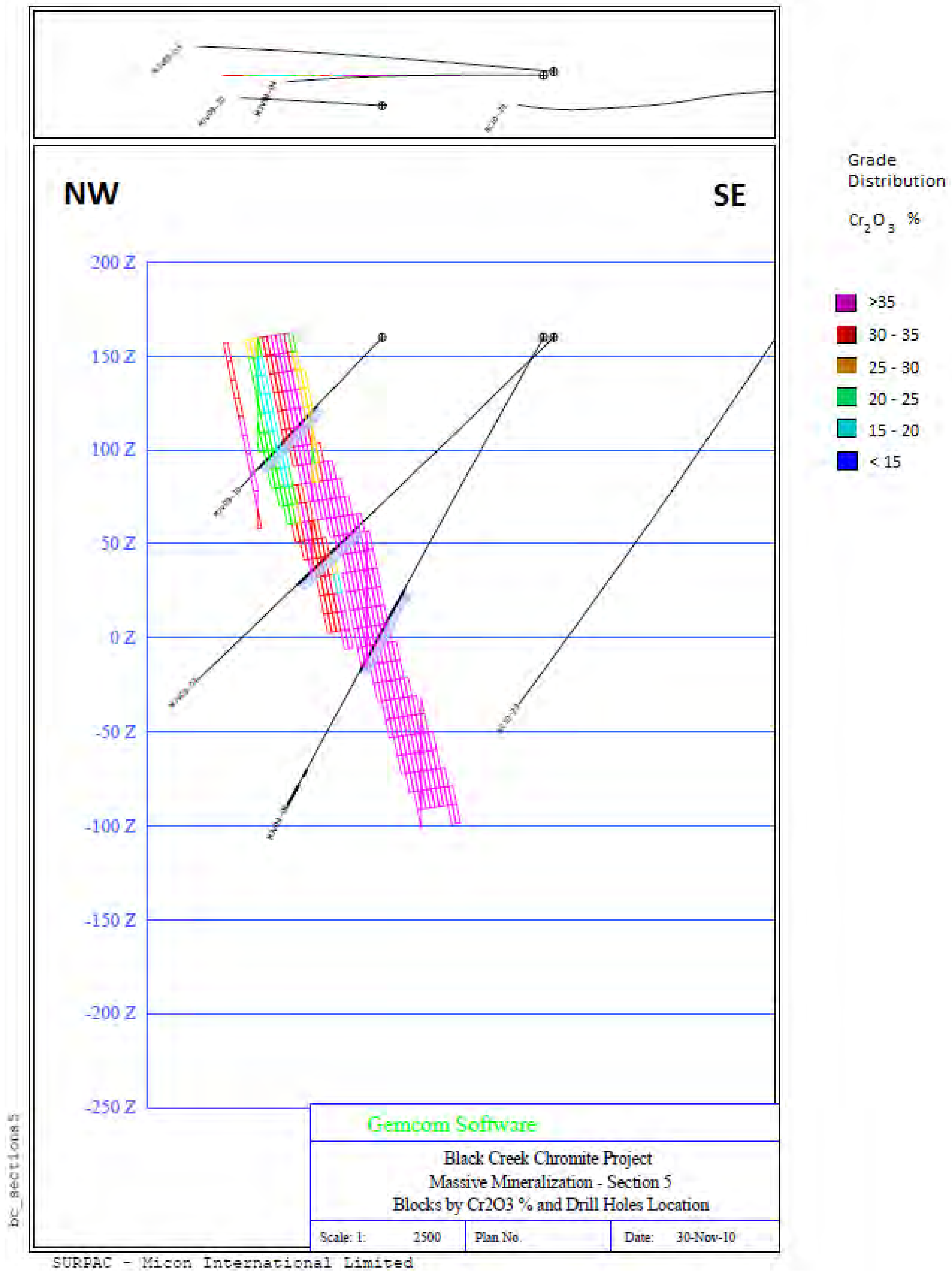
150 Z
100 Z
50 Z
0 Z
-50 Z
-100 Z
-150 Z
-200 Z
-250 Z
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Section 4
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 30-Nov-10
bc_sections4
SURPAC - Micon International Limited


NW
SE
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150 Z
100 Z
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-50 Z
-100 Z
-150 Z
-200 Z
-250 Z
Grade Distribution
Cr_2O_3 %
>35
30 - 35
25 - 30
20 - 25
15 - 20
< 15
Gemcom Software
Black Creek Chromite Project
Massive Mineralization - Section 5
Blocks by Cr2O3 % and Drill Holes Location
Scale: 1: 2500
Plan No.
Date: 30-Nov-10
bc_sections5
SURPAC - Micon International Limited