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FORM 6-K

REPORT OF FOREIGN ISSUER PURSUANT TO
RULE 13a-16 AND 15d-16 UNDER THE
SECURITIES EXCHANGE ACT OF 1934

For the month of: September 2005
Commission File Number: 000-24980

KENSINGTON RESOURCES LTD.

(Translation of registrant's name into English)

Suite 2100, 650 W. Georgia Street, Vancouver, British Columbia, Canada, V6B 4N9
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.
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Summary of Exploration and Evaluation of the Fort à la Corne Kimberlite Field, East-Central Saskatchewan

A Technical Report Prepared for:

KENSINGTON
RESOURCES LTD

By:

Brent C. Jellicoe, P.Geo.
Qualified Person

Updated on September 8th, 2005

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Summary

The Fort à la Corne Project consists of 52 drill-confirmed kimberlite bodies located in the main northwesterly trend with an additional 11 drill-confirmed kimberlites in a satellite cluster located 25 km to the northeast. The Fort à la Corne kimberlite field is distinctive in that it contains many of the world's largest kimberlite bodies that have been remarkably well-preserved since emplacement during Cretaceous time some 100 million years ago. The kimberlite bodies range in size from 3 to >250 hectares with early estimates of individual mass as high as 675 million tonnes. In excess of 349 drillholes have either penetrated kimberlite or have been terminated above a reasonable expectation of kimberlite. In general, the kimberlites are composed of crater facies, volcaniclastic Type 1 kimberlite with irregular "champagne-glass" to disc-shaped forms, typically described as thicker in the middle and attenuating towards the margins. The areal outlines and estimated masses of the kimberlites are based on geophysical modeling of ground magnetic data and drillhole intersections based on an outside 30 metre thickness cut-off. The architecture of the kimberlite bodies ranges from simple to complex in terms of number of discrete units or layers and occurrence and coalescence of proximal eruptive centres. The overall horizontal to sub-horizontal attitude of the kimberlite units changes with proximity to eruptive centres where more vertical kimberlite phase relationships are present.

Diamond recovery from kimberlite samples show 70% of the kimberlites are diamond-bearing, and 50% are macrodiamond-bearing (based on recovery of stones >0.85 mm in one dimension). These figures indicate Fort à la Corne to be the largest macrodiamond-bearing kimberlite field in the world. Some targets have become the focus of more detailed exploratory and evaluation work during the life of the project (e.g. kimberlite bodies 120, 122, 140, 141, 145, 148, 169). Throughout the project, various drilling methods ranging from small diameter core to large diameter reverse circulation drilling have been utilized, while sampling protocols have evolved from single sample per drillhole to interval testing with resolution as fine as several metres. In addition to testing for diamond content, a series of geophysical surveys, geochemical, and petrologic studies have contributed to understanding the architecture and emplacement history of the kimberlites.

In general, the project objective is to delineate mineable diamond resources from high-priority kimberlite bodies in a methodical and step-wise approach. All exploration efforts during 1989 – 1999 contributed to characterizing the size, shape, internal structure and diamond content of the kimberlites. This work provided the basis of which key targets could be identified for continued work towards proving an economic resource. At the beginning of 2000, the De Beers' Mineral Resource Evaluation Department (MINRED) reviewed all available macrodiamond and microdiamond data and re-prioritized the kimberlites. Priority targets 122 and 141 were selected for bulk sampling by large-diameter (24-inch) reverse circulation drilling in the 2000 program. Results included the recovery of 212 macrodiamonds from body 122, while body 141 yielded 275 macrodiamonds. De Beers employed a statistical treatment of the results from the samples to estimate macrodiamond grades (using a 1 mm cutoff size) between 8 and 13 cpht for body 122, and 19 cpht for body 141. In addition, the 2000 drill program recovered sufficient stones to permit preliminary revenue modeling. Modeled dollar per carat values takes into account the expected diamond size distribution from any potential, future production scenario. Modelled *in situ* value estimates were expressed by utilizing conservative, best fit and optimistic models. Values ranged from $US 90/carat to $US 178/carat (>1.5 mm) corresponding to *in situ* gross value estimates from $US 16/tonne to $US 32/tonne for the 141 body. Similar modeling for stones greater than 1.5 mm for 122 yielded model values between $US 144 and 147/carat with gross value estimates between $US 11 and 18/tonne.

Encouraged by the results from the 2000 program, the joint venture approved a $4.79 million, two phase 2001 program with the main goal of obtaining additional carats from body 141 to improve confidence in average diamond value modeling. In 2001, 16 core holes and 10 large diameter (24-inch) holes (9 in body 141 and 1 in body 150) were completed. A total of 890 theoretical tonnes of kimberlite were sampled by the large diameter rig. Results from the 2001 sampling program recovered an additional 45.6 carats of diamonds including a 3.335 carat stone. Based on this additional sample set, modeled grade estimated for the 141 kimberlite were recast and ranged from 5 to 12 cpht (>1.5 mm). Actual average parcel diamond values for the 2001 stones were posted at

$US 52.60/carat, reflecting a substantial increase from $US 33.67/carat for the 2000 stones. Based on the additional diamonds recovered from the 2001 program and the recognition of multiple-kimberlite phases within kimberlite bodies an updated modeled revenue curve and diamond size distribution for 140/141 was developed. This, in turn, yielded updated dollar per carat value estimates. This gave modeled values for macrodiamonds from 141 that ranged from $US 20 to $US 220/carat. Consequently, ore value estimates were updated at a range between $US 1 and $US 26/tonne.

Valuation of the 2000/2001 diamonds was conducted during November 2002 by WWW International Diamond Consultants Ltd. (WWW). WWW indicated an overall average value based on its open market price book some 15-20% higher than that listed by De Beers for the same diamond parcels. The De Beers valuations were made utilizing the DTC (Diamond Trading Company, the diamond marketing company of De Beers) June 2002 price book. The single large stone measuring 3.335 carats was given a value of $US 450/carat, compared to $US 390/carat attributed by De Beers. WWW also pointed out the technical difficulties of putting a realistic market value on a relatively small geological sample.

Detailed core logging of the 140/141 kimberlite revealed distinct kimberlite units or phases, the recognition of which has aided in the appreciation of variable diamond recoveries throughout boreholes. Accordingly, the 2002 program involved drilling 25 NQ core holes to develop a better understanding of the kimberlite geology. Based on this improved understanding, 8 large diameter mini-bulk drill holes were completed to provide additional carats to increase confidence in grade forecasts, valuation and revenue modeling. Three 36-inch LDDH holes were drilled in close-proximity in the 141 portion of the body where higher stone recoveries were expected. Five 24-inch LDDH holes were drilled in poorly sampled portions of the kimberlite, mostly in the 140 portion of the complex.

Results from the 2002 mini-bulk sampling of the 140/141 kimberlite complex included a total of 669 diamonds recovered from a sieve size of 1.5 mm. The stones had an aggregate weight of 93.76 carats. Importantly, the 24-inch LDDH holes recovered a number of large stones from the 140 portion of the kimberlite. These stones included a 10.23 carat stone with two dimensions of 14 and 10.5 mm along with stones weighing 3.61, 2.59, 2.57, and 1.82 carats. Breakdown of the kimberlite into phases revealed discrete differences in grade. Grades from a 'mega-graded bed' unit from the 141 body, sampled by three closely spaced 36-inch diameter RCA drill holes, had a consistent recovered grade of about 6.6 cpht. In contrast, a distinctive breccia phase intersected in two drill holes in the 140 portion of the 140/141 complex had recovered grades of 9.5 and 17.0 cpht respectfully, with an increase in the proportion of larger diamonds compared to the other phases.

The average borehole sample grades ranged from 2.86–17.03 cpht, while grade forecasts based on statistical extrapolation of combined micro- and macrodiamond recoveries show a range of averages per kimberlite phase from 5 to 15 cpht. Corresponding modeled value figures derived from average grades and actual values ranged from $US 67–97/carat. The kimberlite breccia phase which had only been intersected in two 24" LDDH drill holes in 2002, and thus has a relatively small sample size, had the highest modeled grades of 15 cpht and a modeled value of $US 97/carat.

A considerable expansion of exploratory work was implemented in 2003 with the drilling of 49 HQ coreholes over 4 different bodies. The southern and western parts of 140/141 were targeted with 10 coreholes to test kimberlite phases with perceived higher grades. The remainder of the program drilling was divided between kimberlites 122, 148, and 150. In each body the core was logged in detail to identify discrete phases and contacts to guide sampling for diamond recovery using caustic dissolution methods. Diamond recoveries for kimberlites 148, 140/141, and 122 totaled 3,545 stones (2,059, 1,159, and 327, respectively). Diamond abundances for 148 and 140/141 were both exceptionally high compared to historical results for those bodies, and for the kimberlite field as a whole. In addition to caustic recoveries, a single white, clear 0.77 carat octahedroid macrodiamond was encountered while splitting core from the top of kimberlite in drillhole 140-34.

This stone was not incorporated in the stone counts or dataset utilized for grade forecasts. Rather it stands alone as further proof for the large stone potential of the 140/141 kimberlite.

In June of 2004 the Fort à la Corne joint venture had a significant revision to its strategy of investigating the Fort à la Corne kimberlites. In the past, programs focused on assessing individual kimberlites as a whole. This approach eventually led to the recognition of discrete phases within the kimberlites having higher-grade and value potential. To this end, the new strategy considers the economic potential of combined resources within higher-grade units within closely spaced kimberlites.

Exploratory work was implemented in 2004 with the drilling of 39 HQ coreholes over 6 different bodies and 5 geophysical anomalies. Microdiamond recoveries from the six targeted kimberlites included some of the highest stone counts (stone/10kg) recovered from the Fort à la Corne kimberlites. In each body the core was logged in detail to identify discrete phases and contacts to guide sampling for microdiamond recovery using caustic dissolution methods. Eight coreholes on 120 provided a total of 962 microdiamonds which were recovered from 643.4 kg of kimberlite core, while eight coreholes completed on 147 produced a total of 2,429 microdiamonds from 515.20 kg of core. Five coreholes on 121 revealed 326 microdiamonds from 295.25 kg of core, with three coreholes on 221 providing 168 microdiamonds from 195.08 kg of core. Four HQ coreholes (04-140-41, 42, 43, 50) were completed on the 140 portion of the 140/141 kimberlite in order to provide geological control for five large diameter drillholes completed in the south central portion of the 140/141 kimberlite body testing the diamond potential of an oscillating kimberlite breccia unit. A total of 658 microdiamonds were recovered from 496 kg of core. Similar to 2003 results, the “breccia beds” yielded the better stone abundances. Four HQ coreholes were completed on 122 in order to provide geological control for five large-diameter drillholes completed in the south central portion of the 122 kimberlite body. The average microdiamond abundance for all 122 samples from 2004 is 5.8 stones per 10 kg while the upper 122 North beds (UCSK-N) gave the best results with average microdiamond abundances of 8.3 stones per 10 kg. Selected 2003 coreholes were re-sampled to provide additional material for diamond recoveries utilizing caustic dissolution methods. Additional kimberlite samples totaling 464 kg from eight 2003 coreholes located across the body were submitted for diamond recovery utilizing caustic dissolution methods. A total of 269 additional microdiamonds were recovered for use in grade forecasting of specific kimberlite zones.

Five geophysical anomalies were tested with the objective of identifying new, low to non-magnetic kimberlite bodies in the Fort à la Corne area. Kimberlite was not intersected in most of the holes targeted on the anomalies, although approximately 27 m of kimberlite was intersected in a subtle magnetic anomaly located directly north of Kimberlite 147. More work is required on integration and modeling of geophysical survey data.

As part of the 2004 program, five large diameter mini-bulk sampling holes were targeted on the south part of Kimberlite 122 (MPK - South Kimberlite Unit) in order to expand the parcel of diamonds from this body so that confidence levels in grade and revenue estimates could be increased. The total estimated mass of kimberlite excavated from body 122 was 739.2 tonnes, of which 318.1 tonnes of material greater than 1.5 mm in size was retained for macrodiamond recoveries. All five drillholes primarily sampled the main, massive to bedded pyroclastic kimberlite unit (MPK). A total of 248 macrodiamonds weighing 28.81 carats, including 23 stones larger than 0.25 carats, were recovered from three 36-inch (914 mm) diameter drillholes (two holes failed before reaching kimberlite). The recovery of many stones larger than 0.25 carats plus two larger than one carat supports the model of a larger stone population in 122.

Five large diameter mini-bulk sampling holes were targeted on the oscillating breccia beds unit located in the south part of 140/141 in order to expand the parcel of diamonds from this body so that confidence levels in grade and revenue estimates could be increased. The total estimated mass of kimberlite excavated from body 140/141 in 2004 was 792.216 tonnes, of which 494.066 tonnes of material greater than 1.5 mm in size was retained for macrodiamond recoveries. All five drillholes primarily sampled the oscillating pyroclastic breccia group (OPKBGP). Total macrodiamond recovery was 553 stones with a combined weight of 83.20 carats.

Individual sample grades ranged from 1.68 cpht to 69.15 cpht, the latter grade being markedly influenced by recovery of the 10.23 carat stone. Drillhole grades range from 7.05 to 12.20 cpht. Two large macrodiamonds weighing 10.53 carats and a 4.09 carats and 58 other stones larger than 0.25 carats were added to the inventory of large macrodiamonds recovered from the 140/141 breccia beds during the 2004 program. These larger stones and historical recoveries including diamonds weighing: 1.0, 1.16, 1.18, 1.26, 1.32, 1.39, 1.48, 1.5, 1.8, 2.57, 2.59, and 3.61 carats contribute significantly to the evidence supporting a large stone distribution in the oscillating breccia unit.

Also in 2004, the joint venture released a preliminary summary of information from a detailed MRM report (De Beers Mineral Resource Management Department) based on geological modeling and grade forecasting for kimberlites 140/141, 148 and 122. Taken as a whole the high-interest zones in these three kimberlite have an average grade of 10 cpht (>1.5 mm) and an estimated tonnage of 369 million tonnes. In detail, the combined units of higher interest in 140/141 have an estimated mass of 134 million tonnes at a modeled average grade of 11 cpht with an estimated average value of US$ 115/carat. Likewise, the higher grade part of 122 has a combined tonnage of 79 million tonnes at an average grade of 13 cpht.

Consideration of the longer term view for the Fort á la Corne Project has provided the Joint Venture Partners with a clear perspective on the way forward. Predicted supply, demand, and price trends for rough diamonds into the next decade provide a rationale for accelerating the present rate of work on the project in order to be well positioned with respect to the favourable forecasts. In late 2004, an overview perspective of the Fort á la Corne Project, from present day to an assumed eventual mining operation, was examined and a time-line developed. The current phase of the project was denoted as the Advanced Exploration and Evaluation Study (AE&E) and was estimated to require 3 years in order to complete. The overall time-line for the Fort á la Corne Project is considered to be aggressive, being driven by the need to favourably position the commencement of mining operations in relation to the long term rough diamond supply and demand predictions.

Results from the historical programs have shown that the Fort à la Corne kimberlites contain higher-grade zones. As such, it is possible that higher-grade units from a number of kimberlites, when considered collectively, may form a resource which can be profitably mined. At present, some 35 million carats distributed over 369 tonnes and 3 different kimberlites have been identified at a deposit level of confidence. The project strategy has now been revised to focus on the higher-grade units within proximally-located priority kimberlite bodies and to consider them in combination. This approach has the advantage of considerably increasing the size of the potential resource and may permit significant economy of scale to be achieved for a large scale mining operation.

The AE&E Plan seeks to delineate a total of at least 70 million carats in the ground from the higher-grade units within the larger kimberlites (greater than 20 hectares) in the south-central cluster. Twenty primary kimberlite targets have been identified to date, most within a radius of five kilometres in the southern cluster of kimberlites. Four of the twenty targets were investigated by evaluation and delineation drilling programs during 2000-2003, namely kimberlites 122, 140/141, 148 and 150. One of the four, kimberlite 150, was determined to be of no further interest. Two kimberlites, 122 and 140/141, were determined to be of significant interest, and mini-bulk sampling was conducted on them as part of the 2004 Exploration Program. Three more bodies including 120, 147 and 121/221 were drilled in the 2004 work program. The remaining bodies of interest are in the process of being tested with up to 10 coreholes each to determine the existence of higher-grade units.

A notable and relevant aspect of diamond resource evaluation at Fort à la Corne is that most historical microdiamond recovery, all current macrodiamond recovery, and all diamond content interpretation is conducted by De Beers or corporate affiliates/subsidiaries of De Beers Consolidated Mines Limited of South Africa. De Beers is the operator of the project and a senior participating partner of the Fort à la Corne Joint Venture Project. Hence, all analytical work, diamond recovery, and interpretive diamond evaluation is done "within arms reach", although Kensington Resources Ltd. frequently monitors, audits, and reviews procedures and results utilizing both affiliated and independent consultants.

Reports and diamond results received from De Beers for the project are reviewed and utilized by Kensington Resources under the supervision of Brent C. Jellicoe, P.Geo., who is the recognized Qualified Person for the Company.

1.0 Introduction and Terms of Reference

A technical report detailing exploration and evaluation of the Fort à la Corne Kimberlite Field in east-central Saskatchewan was prepared for Kensington Resources Ltd. for various informational uses, though primarily for an updated description of technical work carried out by the Fort à la Corne Joint Venture (FalC-JV) and results reported by the operators of the FalC-JV. In addition, some results are included from independent consultants working for the Company. This report was prepared by Brent C. Jellicoe, of Jellicoe Resource Associates (Saskatoon). Mr. Jellicoe is a professional geoscientist, registered in the Province of Saskatchewan, who operates a sole proprietorship consulting business, focused on project management, drilling, kimberlite exploration and evaluation, and regional subsurface geology. Mr. Jellicoe is currently working with Kensington as a consultant under the title of Project Manager, and periodically as the onsite Drilling Manager for the FalC-JV partners during implementation of field programs. From time to time, the consultant also conducts independent geological investigations and drilling programs for other companies operating in the Fort à la Corne vicinity.

Sources of data for this report include:

- public reports issued by Saskatchewan Industry and Resources (SIR), typically in the form of Assessment Reports and Open File Reports,
- non-proprietary descriptions and results released by the FalC-JV,
- information derived from various journals and scientific papers, and
- data and interpretations collected by, and formed by the author during an extended period of time intimately associated with the project area (1992-2002).

The author has worked in and around the Fort à la Corne area since 1992 as a consultant and employee, both in the office and in the field, for several different organizations including those considered to be junior exploration companies and for senior mining companies. In addition, the author has previous experience garnered from 5 years of research concerning geochemical and stratigraphic concepts of the kimberlite host rocks within the Western Canada Sedimentary Basin, and most particularly within Saskatchewan.

The purpose of the report is to summarize historical investigations into the geology, size, and diamond content of the Fort à la Corne kimberlites and to document recent results, particularly those relevant to the current focus of attention. This report is to be updated as required and utilized as the technical basis for legal, financial, and securities related business of Kensington Resources Ltd. It should be recognized that a few inconsistencies and variances are apparent between subsequent reports of yearly exploration activities and results. This Technical Report is updated on an annual basis to add new information and little effort is made to revise and update older sections in order to preserve, to some extent, the essence and direction of those programs.

2.0 Disclaimer

Analytical results and interpretations specifically including indicator mineral abundances and geochemistry, Ni-thermo-barometry, PIMA, received during the period 1992-1997 and not including any actual diamond recovery and statistical results, are not relied upon for qualification or estimate of economic potential for any kimberlite bodies. Analytical procedures, personnel, and facilities typically were "within arms reach" and it is not known if the authors of those reports were "Qualified Persons" as defined by National Instrument 43-101.

Although macro- and microdiamond recoveries from kimberlite bodies are noted where relevant, the economic significance of these values is not discussed and is beyond the intended scope of this report. The FalC-JV, Shore Gold and the Candle Lake joint venture have reported diamond recoveries in various news releases. The FalC-JV announced revenue modeling results completed by De Beers for the 122 and 141 bodies (2000 drilling and sampling program) based on stone size population projections and value models. The modeling process utilizes accumulated historical information which is proprietary to De Beers and cannot be directly verified by Kensington Resources Ltd. at this time.

Sources of information on prior exploration work in the Fort à la Corne area are available as technical reports filed with Saskatchewan Industry and Resources in fulfillment of annual assessment requirements that become non-confidential after 3 years. These reports, dating from 1989, do not necessarily provide a complete record of exploration work. Assessment reports have not been filed for the last two years because sufficient assessment credits remain available to the FalC Joint Venture to retain claim to most of the land base for the maximum allowable time period. Other sources are peer-reviewed papers which contain data deemed to be accurate, along with interpretations which may be subject to change.

The Phanerozoic stratigraphy in the Fort à la Corne area and the processes of kimberlite emplacement, erosion and preservation are topics of on-going research by the Geological Survey of Canada (GSC), Saskatchewan Geological Survey, and the FalC-JV. Detailed stratigraphic correlations have not been attempted within the present report, and inferences drawn from previously reported stratigraphy may be subject to revision, pending a compilation of available information.

Property descriptions and land status were provided for this report by Barbara Stehwien, a consultant in Saskatoon, tasked with maintaining the land records of the project by De Beers Canada Inc.

Results and interpretations for the 2001 diamond recovery program were summarized from a report signed by Wynand Kleingeld (identified as the De Beers Qualified Person) and a team of geoscientists working for De Beers Mineral Resource Services (MRS). This report comments on statistical grade forecasts, modeled diamond valuations, and correlation of described lithology with distribution of diamond size frequency models. These interpretive results are very important for providing indicators of economic potential and for influencing exploration strategy. Results from the MRS Report are considered contentious at this time and a third party opinion of the report assertions was sought from an independent Qualified Person. Reports from the independent QP indicated assertions concerning certain concepts and associations included in the interpretive results were premature, or not well supported. In order to provide timely release of material information, the main results of the MRS grade forecast results were reported by Kensington Resources Ltd. in a news release, but without explanation of the controversial interpretations or dissenting opinion. The decision to release a summary of the MRS interpretive results as ranges of values, without a full discussion, is supported by consideration of the early stage of evaluation for the 140/141 kimberlite.

In November 2002, the FalC-JV partners initiated a Conceptual Modeling Study for the Fort à la Corne diamond property through the operator, De Beers Canada Inc. The main objectives of the study were to determine the ore values ($/t) that would be needed to reach minimum hurdle rates for a number of diamond mining scenarios. Also tasked in the study was identification of critical information that would be needed if the project proceeds to more detailed engineering studies and to identify high-risk areas, which require planning of mitigation measures as the project evolves. Most information comprising the bulk of the investigation was available through the operator, derived from expertise gained in similar mining ventures elsewhere in the world, from local sources, and from multi-disciplinary input from AMEC experts and the FalC-JV partners. No engineering designs were produced and assumptions and estimates were made in many areas given the generic sense of the report and that the project is still in the early phase of evaluation. Consequently, grades and diamond values were not utilized in calculating revenue streams, nor was any reference given to an inferred resource, which as yet, does not exist. The study was facilitated by framing the mine modeling after the basic characteristics of some of the larger Fort à la Corne kimberlite bodies, primarily the 140/141 kimberlite, which is the focus of current exploration by the FalC-JV partners. The primary use of the financial models and results from the study is to indicate resource and revenue criteria that would be required to meet the stated Joint Venture pre-tax hurdle rate. Hence, the study is primarily an internal tool designed to provide direction for further exploration and evaluation in the project area. Any release of information to the public is purely as a matter of record in regard to certain aspects of the report being deemed material to Kensington Resources Ltd.. At present, the results of this study have not been made public by Kensington Resources Ltd. in deference to the JV partners who have indicated a desire to maintain the document as an "in-house" reference

3.0 Property Description and Location

The Fort à la Corne Project is located in central Saskatchewan and is contained within NTS map sheet 73H. A legally surveyed claim block covering much of the main trend of kimberlites lies approximately 65 km east of Prince Albert and extends northward from the Saskatchewan River to a few kilometres north of Shipman. An additional smaller claim (also legally surveyed) covers magnetic anomalies near Snowden, located some 120 km northeast of Prince Albert.

Claims which fall within the surveyed (southern) portion of the province are defined in terms of legal sections or subdivisions. Road allowances, typically 20 m in width, fall between sections and are separate legal entities. In November 2001, Saskatchewan Energy and Mines (now Saskatchewan Industry and Resources or SIR) amended the description of mineral claims in the surveyed portion of the province to allocate road allowances to adjacent claim holders so that claim coverage can be seamless. The FalC-JV land holdings are spread across portions of township blocks from T.49 to T.52 and R.18 to R.21. Approximately 70% of the claims are within the boundaries of the Fort à la Corne Provincial Forest Reserve (Government of Saskatchewan crown lands) and the remainder is under private landholder's surface rights, but without freehold mineral rights. Surface access to private land is by negotiation usually resulting in payment of an access fee. A map indicating kimberlite outlines and the FalC-JV's land holdings is shown in Figure 1. A total of 63 kimberlite bodies are held by the FalC-JV at this time.

After ten years, the annual expenditure requirement to maintain good standing for claims increases from $12 to $25 per hectare. Grouping of contiguous claims is allowed to a maximum block size of 10,000 hectares. Reports submitted in support of assessment fillings are held confidential by Saskatchewan Industry and Resources for a period of 3 years.

In agricultural areas, surface access must be negotiated with individual landholders, and with the approval of the Rural Municipality (in this case, the RM of Torch River, with offices in White Fox, Saskatchewan). The Rural Municipalities commonly impose heavy vehicle restrictions (road bans) during spring thaw (2-3 weeks). Permits for all exploration field activities are administered by Saskatchewan Environment and Resource Management (SERM), in this case from their Prince Albert office. No part of the project lands are subject to specific environmental liabilities above or beyond those responsibilities assumed under permitting of exploration programs.

As of September 1, 2005, land holdings held under the joint-venture agreement included 121 claims totaling 22,544 hectares that are divided into four groups for assessment purposes. The property status for the FalC-JV land holdings is shown in Table 1. All claims were acquired during the period 1988-1990 and are subject to assessment rates proscribed for claims older than 10 years. All disposition groups are protected until at least 2009, with the main claims of interest in group FalC (E) protected until at least 2021. Assessment credits for Group 44961 (known as FalC East) were not applied for in 2002 for the 2001 expenditures given consideration of the new Saskatchewan Mining legislation that puts a maximum on the number of years to hold an exploration disposition (21 years total, from 2002 onwards). Assessment reports were prepared for exploration work conducted in 2002 and 2003 and credits were received and applied to the appropriate claim groups. Suitability of application for assessment credits will be reviewed by the FalC-JV partners on a yearly basis.

Claim Group	Area (Ha)	Annual Assessment	Year Protected To
44961 FalC East	9,984	$238,784	2015-2016
45031 Snowden	2,176	$54,400	2009
45130 FalC Southwest	5,328	$128,632	2020
45131 FalC Northwest	5,056	$111,008	2014-2016
Total:	**22,544**	**$527,824**	

Table 1: FalC-JV Property Status as of September 1, 2005

The Fort à la Corne Project is a Joint Venture among Kensington Resources Ltd., (42.245%), De Beers Canada Inc. (formerly Monopros Limited) (42.245%), Cameco Corporation (5.51%) and UEM Inc. (10%). Cameco Corporation and Cogema Ltd hold UEM's North American interests. Neither UEM nor Cameco elected to fund exploration in 1999 or 2000, although Cameco did fund to their percentage interest in the FalC-JV during subsequent programs. UEM retains a 10% free carried interest in the project. Monopros Limited replaced Uranerz as operator of the FalC-JV in December 1998. At the end of November 2002, participating interests (PI's) in the FalC-JV were and remain as follows:

Kensington Resources Ltd. 42.245%
De Beers Canada Inc. (operator) 42.245%
Cameco Corporation 5.510%
UEM Inc. (carried) 10.000%

3.1 Historical Landmarks for the Fort à la Corne Diamond Project

- In August of 1988, spurred by rumours of kimberlite discoveries near Prince Albert, the presence of kimberlite-type intrusions in and around the Fort à la Corne Provincial Forest were interpreted by Uranerz Exploration and Mining Ltd. using published aeromagnetic maps of the area compiled by the Geological Survey of Canada (GSC).

- In June of 1989, the Fort à la Corne joint-venture project was created between Uranerz Exploration and Mining Ltd. and Cameco Corporation; Uranerz remained as project operator until 1998. Kimberlite was successfully intersected in each of 7 drillholes targeted on geophysical anomalies.

- De Beers Canada Inc. joined the Joint Venture in 1992 under a three-year earning-in period, after which time, the three partners each held a $33^{1/3}$% equity in the project. De Beers Canada Inc. satisfied earn-in requirements by the end of 1994.

- Kensington Resources Ltd., a junior exploration company involved in the search for diamonds in Saskatchewan, was invited to the Joint Venture in 1995 under a three-year earning-in period, after which time the four partners each held a 25% equity in the project. Kensington satisfied earn-in requirements by the end of 1997.

- Cameco Corporation acquired Uranerz Exploration and Mining Ltd. during the third quarter of 1998. Cameco assumed the 10% carried participating interest held by Uranerz and became interim operator of the project.

- De Beers Canada Inc.became operator of the project effective December 1998.

- Review of available data in a desktop study during 1999-2000 delineated four most high-priority targets (140/141,122,148,150);

- Kensington and De Beers have actively funded exploration throughout their involvement in the project, while the participating interests of Uranerz and Cameco have been reduced due to periods of non-funding from 1992 to 1999 (not including periods of time when new Joint Venture partners were earning-in).

- During 2001, the FalC-JV sold a block of 4 claims located near Weirdale (1024 ha in area) which contain 2 drilled kimberlite bodies,

- During 2002, the FalC-JV sold a block of 12 claims near Foxford (1088 ha), which contain 2 drilled kimberlite bodies, and a block of 5 claims located northeast of Birchbark Lake (320 ha) which contains a single drilled kimberlite body to Shore Gold Inc.

- All FalC-JV partners funded exploration and evaluation programs during 2001 - 2004 except for UEM (carried interest).

- In late 2004 strategic refocusing resulted in the development of an Advanced Exploration and Evaluation program (AE&E) to advance the project to pre-feasibility within a three year timeframe based on identification and evaluation of 70 million carats from high-grade zones in the central cluster of kimberlites.

4.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The property lies 65 km northeast of the City of Prince Albert, population 42,000, which is served by road, rail and scheduled air links. The closest settlements are a series of villages located along Provincial Highway 55, which link Prince Albert and the town of Nipawin. The highway roughly marks the northern margin of an agricultural belt which extends to the White Fox River in the south. This region is close to the northern limit of arable agriculture in this segment of the province. The nearest point of juncture for power and phone lines is 25 km towards the town of Smeaton.

A network of logging roads and 4-wheel drive trails provides access within the forested areas. The best of these sand roads are open all year and are maintained by area logging companies and by the FalC-JV during field operations. Provincial Highway 55 traverses the Snowden claims and also is a main trunk road from which gravel grid roads surround the northern claims situated under cultivated land.

The Fort à la Corne Forest and this portion of the Northern Provincial Forest fall within the boreal transition eco-region which defines the gradation from the grasslands and aspen groves of the south to the true boreal forest of the north. The Forests are mature, with a predominance of jack pine. Aspen, alder, white and black spruce, poplar and tamarack are found in local stands. The average elevation of the area is 450 m above sea level, with local relief of less than 50 m in narrow creek valleys. The immediate area of the main exploration/evaluation focus around kimberlite 140/141 has local relief of less than 20 m and is predominantly flat with subtle hills.

Climate data has recently been compiled by the University of Saskatchewan Geography Department as part of the Atlas of Saskatchewan Project (1999). The climate of the Prince Albert region is described as humid continental, cool summers (Köppen temperature and precipitation classification). The annual mean temperature (100 year average) is 0.8°C. Monthly mean temperatures vary from -19°C (January) to +17°C (July). The average annual number of hot days (30°C or higher) is 6. The average annual number of very cold days (-30°C or lower) is 29. The annual mean precipitation is 406 mm, with precipitation (0.2 mm or greater) in 21 days per year, on average.

The uranium and gold mining operations of northern Saskatchewan are serviced in part by Prince Albert area businesses, and draw skilled labour from this area. Electrical power is generated nearby (the E.B. Campbell Hydro Generating Station on the Saskatchewan River east of Nipawin) and telecommunications infrastructure is in place.

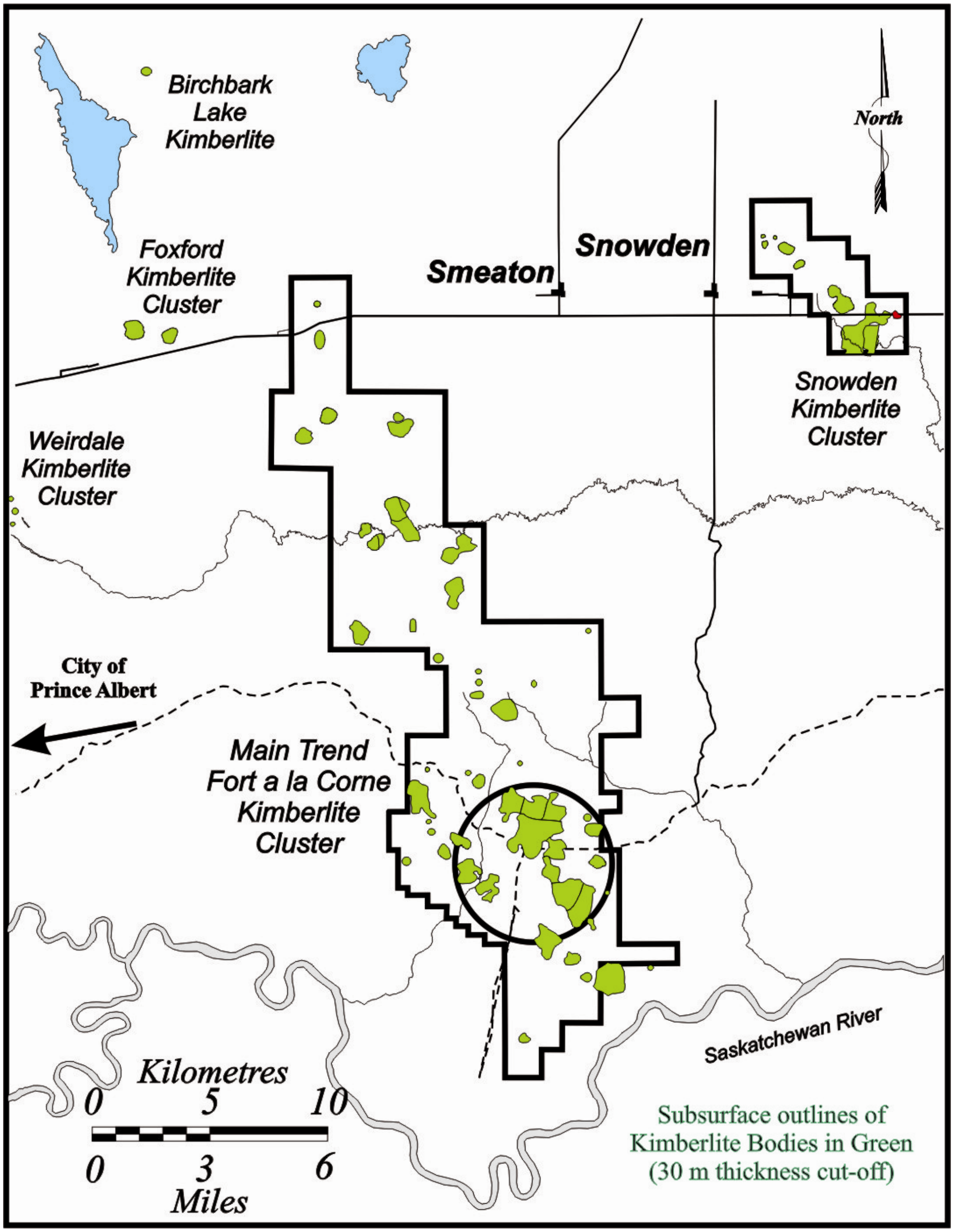


Figure 1: Map showing Fort à la Corne Joint Venture Land Boundaries and Kimberlite Outlines

5.0 History

The area has not been explored for the occurrence of kimberlites previously, although there are reports of a prospector having found as many as five diamonds in the Melfort-Nipawin area sometime prior to the Second World War. The story however, remains unsubstantiated as the diamonds were reportedly lost in a fire. A prospector hoping to follow-up on this report requested a permit from the provincial government in 1948 for exclusive diamond prospecting within Saskatchewan. The venture was abandoned because the government was only willing to grant a permit area of 259 km^2.

The next report of diamond related activity was in 1961 when several stones were reportedly discovered in gravels downstream from Sturgeon Lake (northwest of Prince Albert). However, nothing of any substance developed as a result. At around the same time, a subsidiary of De Beers was reportedly conducting a regional exploration program throughout southern Saskatchewan. A full description of exploration activities leading up to the discovery of diamondiferous kimberlites in the Fort à la Corne area is given in Lehnert-Thiel *et al.* (1992). To date, no formal mineral resource or mineral reserve estimates for diamond have been made in the Fort à la Corne area.

Other than several aggregate deposits, no economic occurrences of minerals, oil or gas are known in the project area. Zones of banded iron formation in the Precambrian basement near Choiceland were investigated in 1955 by IREX and IPSCO. The IREX-Zone (155 Mt grading 28% Fe) and the IPSCO-Zone (55 Mt grading 27% to 29% Fe) were found to be uneconomic. A third body, the Kelsey Lake Zone investigated in 1975 (390 Mt at 34% Fe), was also found to be uneconomic. These deposits lie approximately 600 m below surface and were found to consist of interlayered bands of magnetite and hematite dipping 65 to 70 degrees to the east.

Oil and gas exploration wells have been drilled throughout the area, but none currently produce hydrocarbons. Groundwater exploration holes, water well, and oil and gas exploration holes are the main sources of information on the sub-Quaternary geology within the project area. Notably, none of these holes was ever reported to have encountered kimberlite.

Geological information on the area is available from groundwater test holes and oil and gas exploration wells. Geological maps of Quaternary deposits and other Phanerozoic units are available at a scale of 1:250,000. Information on the Precambrian basement within the project area is largely restricted to inferences gathered from airborne magnetic surveys. Data from a 1969 GSC airborne magnetic survey is available on 1:253,440 scale map sheets.

5.1 Activities by Competitors in the Fort à la Corne Area

Spurred by the public interest generated both by the results obtained from the Fort à la Corne Project and by the activities of the large number of companies actively exploring for diamonds across much of Canada, an area in excess of 100 km north-south x 80 km east-west, centred on the FalC-JV dispositions, is almost completely staked by in excess of 20 different companies. (NTS map sheets 63L, 73G, H, I, and J).

Great Western Minerals Group (GWG) holds two claim blocks , termed the Candle Lake properties, at the north end of the Fort à la Corne kimberlite field. The southern block of claims is adjacent to the Rampton/Consolidated Pine Channel/United Carina Smeaton Property and contains the Candle Lake #28 kimberlite body. In all, and including a block of claims registered to Northmin Development, Great Western Minerals Group control 48 claims for a total of 22,882 ha. GWG conducted delineation drilling on Kimberlites 28, 29, and 30 during the mid 1990's and was joined by Kennecott Canada in a joint venture to bulk sample Kimberlite 28. Kennecott collected a small minibulk kimberlite sample from drilling, but experienced severe drilling difficulties due to poor ground conditions. Kennecott eventually withdrew from the earn-in agreement for corporate reasons. During 2003, a new core drilling program was implemented and results have not yet been released by GWG.

United Carina Resources and Consolidated Pine Channel Gold were major participants in the exploration boom of 1993-94, with programs of aeromagnetic and follow-up ground magnetic surveys and drilling in the Montreal Lake – Wapawekka Lake area to the north, and the Torch River area east of Fort à la Corne. These companies recently renewed their kimberlite exploration programs by acquiring sizeable properties in the wider Fort à la Corne area and claims adjacent to the Cameco/De Beers Canada Inc./Kensington kimberlite 122 on the west side of the main kimberlite cluster, during 2000. United Carina and Consolidated Pine Channel currently hold 55,147 hectares in 259 claims in the Fort à la Crone area.

A very large land position was acquired by Buckshot Holdings and Commando Holdings during 2001, and was expanded upon during 2002. The 597 claims cover 237,388 ha and extend from the Paddockwood area north of Prince Albert to Choiceland and Highway 6 in the east, surrounding the FalC-JV land on all sides except south of the Saskatchewan River.

Two more large land positions were acquired in December 2001. Twin Oaks Management staked most of 3 townships near Foxford and northeast of Birchbark Lake. The 30 claims cover 24,736 ha. General Resources Inc. acquired 46,694 ha in 100 claims, which incorporate most of 5 townships and parts of 2 more, extending north and northwest of the Rampton/Consolidated Pine Channel/United Carina Smeaton Property towards Candle Lake and also in the Weirdale area. In addition, Geodex and Forest Gate Resources each have claims located south and east of the FalC-JV lands, respectively.

Up to 2003, some limited drilling has been completed in the immediate vicinity of the FalC Kimberlite Field as well as further to the north (Smeaton, Wapawekka, and Candle Lake), although much of the work is of a speculative and promotional nature. These activities have indicated the presence of three kimberlites north of the Fort à la Corne area and two kimberlites (anomalies 137 and 139) in the former Crown Reserve along the southeast margin of the joint-venture land holdings. Shore Gold Inc. continues to maintain an interest in these southern-most bodies, and has extensively drilled the Star Kimberlite Body (anomaly #139) including core drilling and one 24 inch diameter, reverse circulation drillhole. On the basis of extensive work to produce a geological model for the Star Kimberlite by the GSC, the Saskatchewan Geological Survey, Dr. John Bowles of Mineral Science Ltd., and consultants with ACA Howe, Shore Gold planned and initiated a bulk sample program to sample up to 30,000 tonnes of kimberlite for diamond recovery. A 4.5 metre diameter shaft was excavated during 2003 and 2004, and work continues on sampling the vertical and horizontal extent of kimberlite near the interpreted main vent of the Star Kimberlite. The shaft extends to a depth of 250 m and extensive horizontal drifting and limited underground delineation drilling are ongoing. Kimberlite samples are processed through a 10 tonne per hour Dense Media Separation facility with final diamond recovery from DMS concentrate in a procedure combining x-ray sorting, grease table technology, and hand-picking. An additional 10,000 tonnes of kimberlite was excavated during 2005 to provide an additional 1,500 carats to the 4,000+ carats already recovered to date. An extensive drillhole program was initiated during the summer of 2005 with two rigs drilling PQ (3-inch) coreholes in a 100 to 200 metre grid across the body. Large diameter drillholes targeted on a subset of the coreholes will provide representative samples from the central part of the body. These samples will be run through the processing plant onsite and diamond results will be integrated with subsurface correlation in the geological model to develop a 43-101 and CIM compliant *Indicated Resource* for the Star Kimberlite.

In addition to the Weirdale, Foxford, and Birchbark Lake claims recently purchased from the FalC-JV, Shore Gold Inc. have progressively increased their land holdings at the southern margin of the Fort à la Corne area since 1995. Their most recent staking acquisitions were 3 small claims (60 ha) located at the junction of the North and South Saskatchewan Rivers. Shore Gold Inc. currently holds 138 claims for a total of 23,952 ha. Under an earn-in agreement with Shore Gold, Skeena Resources drilled two NQ coreholes into two different kimberlites within the Weirdale cluster. Both holes intersected kimberlite and core samples were submitted for diamond recovery. The evaluation program did not continue due to low diamond recoveries and Skeena withdrew from the earn-in agreement.

IPSCO maintains a small, scattered land base within a few 10's of kilometres of the Joint Venture land holdings. A core-drilling program, reputed to include 3-4 drillholes, was conducted during the third quarter of 1999 on claims located east of the Joint Venture land holdings and close to Highway #6, which bisects the Fort à la Corne Forest Reserve from north to south. Results from these drillholes have not been reported yet.

Shane Resources Ltd. and a small consortium of companies have several coreholes in the vicinity of Smeaton, in the southern part of the Fort à la Corne Forest, and immediately west of the Joint Venture holdings near the 122 kimberlite body. Drilling in the Smeaton area intersected thin kimberlite stringers on the margin of a known kimberlite body and a few, thin kimberlitic horizons were interpreted from the more recent drillholes (2001) located near the 122 kimberlite. The latter claims are now being managed by Forest Gate Resources Inc.

Forest Gate Resources Inc. drilled a small geophysical anomaly east of the Joint Venture landholdings approximately 2 kilometres from kimberlite body 119 during the 2nd quarter of 2003. Their first NQ drillhole intersected kimberlite, but the hole was lost after intersecting some 26 m of kimberlite. Subsequent attempts to intersect kimberlite by NQ and HQ coreholes were defeated due to bad ground conditions in the glacial overburden causing the holes to be lost above kimberlite. Forest Gate resumed investigation of the Dizzy Kimberlite during November 2003. Five NQ holes were targeted on the central part of the magnetic anomaly, all within some 50 m of the discovery hole. Details and results of the drilling program have not yet been released by Forest Gate. Core drilling continued on the property during 2004 and 2005 and a second kimberlite (Duke) was discovered during June 2005 located on their south boundary with Shore Gold Inc.. Additional drilling during the summer of 2005 re-tested ground adjacent to the eastern boundary of the Joint Venture property in the vicinity of Kimberlite 121 and 119. An unknown thickness of resedimented kimberlite hosted within the Cretaceous mudstones was intersected.

In early 2004, Casavant Mining Kimberlite International (CMKM) drilled a known, small kimberlite body (the "Smeaton Kimberlite") located approximately 10 km north of the northwestern end of the main FalC kimberlite trend. Their drillhole encountered kimberlite, but the extent of sampling currently is unknown. Historically, the Smeaton Kimberlite has been penetrated during at least three other drilling programs by junior exploration companies including Shane Resources Ltd. Meager recovery of microdiamonds has previously been reported, but no effort has been made to substantially sample the kimberlite. In 2004, Casavant drilled coreholes located northeast of kilometre 54 of the Division Road in the FalC Forest Reserve based on airborne geophysical anomalies and did not intersect kimberlite.

During April of 2004, Garnet Point Resources Corp. and Global Prospecting Ventures Inc. created a joint venture to evaluate potential for small-scale mining of the Sturgeon Lake glacially-rafted kimberlite block located west of Prince Albert. The companies also mobilized a drill at their Candle Lake Claims located east of the narrow Hills Provincial Park for a 5 hole NQ drilling program. Geophysical anomalies identified in a ground geophysical program by contractor, Spectra management Corp., were targeted by the holes, but no kimberlite was intersected. The target anomalies occur in a broad tract of land that was thought to be in line with the northwest trend of the main FalC Kimberlite Field.

6.0 Geological Setting

6.1 Basement Geology

The project area lies near the northeastern rim of the Interior Platform of North America. The platform is covered by a series of sedimentary rocks over Precambrian basement in a 600 to 1,200 km wide belt between the Rocky Mountains to the west, and the Canadian Shield, which crops out towards the northeast. Little is known of the metamorphic basement underlying the kimberlite area except from 1950's- and 1960's era exploration work at the nearby Choiceland banded iron formation deposit. Aeromagnetic and gravity data suggest that crystalline basement in the Fort à la Corne area is geologically similar to the Glennie Domain, which is exposed further to the north in the vicinity of Lac La Ronge (Lewry, 1981; Green *et al.*, 1985 Collerson *et al.*, 1989; Kjarsgaard, 1995; Leclair and Lucas, 1995). The Glennie Domain is part of the Reindeer Zone of the 1.8 Ga Trans-Hudson Orogen (Lewry *et al*., 1994) and is composed of Paleoproterozoic island arc volcanogenic successions separated by reworked Archean granitoids and granitic gneisses (McNichol *et al*., 1992). Recent integration of field mapping, radiometric dating and LITHOPROBE seismic investigations, summarized by Chiarenzelli *et al.* (1996), indicates that the Glennie Domain blankets the apex of a largely buried Archean microcontinent (see also, Ashton *et al.*, 1997; Ansdell *et al.*, 1995), which has been named the Sask Craton (Chiarenzelli *et al.*, 1996).

The shape and size of the Sask Craton is poorly understood; however it has been described as a roughly 500 km long by 200 km wide westward convex bow bounded on the west by (and dipping under) the La Ronge belt and on the east by the Flin Flon belt and Caisson Domain (Chiarenzelli *et al.* 1996; Green *et al.*, 1985). It is suggested that the Sask Craton provided a thick lithospheric keel, which is a feature of diamondiferous kimberlite provinces elsewhere. A recent teleseismic study of south-central Saskatchewan (Bank *et al.*, 1997) supports this model.

6.2 Phanerozoic Geological Setting

Throughout much of Phanerozoic time, most of Saskatchewan was the site of episodic marine deposition, with periodic intervals of erosion brought about both by craton uplift and by regression of marginal and epeiric seas which extended over much of the North American continent (Kauffman and Caldwell, 1993).

The central Saskatchewan region is underlain by over 700 m of Phanerozoic sedimentary rocks. The basal 440 m consist of Cambro-Ordovician to Devonian sandstones and carbonates, followed by 150-170 m of Cretaceous shale and sandstone which are overlain by up to 130 m of unconsolidated Quaternary deposits. Paleozoic and Mesozoic strata dip gently toward the southwest. In central Saskatchewan, this results in successively lower strata being exposed at the sub-Quaternary interface towards the northeast. Within the project area, subcrops of Cretaceous Colorado Group and Mannville Group strata underlie the topographically irregular basal Tertiary/Quaternary unconformity.

Potential diamond-bearing strata in Saskatchewan are dominantly of Cretaceous age and were emplaced along the northeastern margin of a broad sedimentary basin known as the "Western Canada Sedimentary Basin" during a time of broadly oscillating sea level, affecting a variously embayed to confluent seaway cutting north-south through the Prairie region. This feature was bound to the east by the Precambrian Shield and to the west by the Jura-Cretaceous Rocky Mountain geosyncline. In Saskatchewan, deposition of generally fine-grained and laterally continuous Lower Cretaceous sedimentary strata occurred within or proximal to the seaway during a series of cyclic transgressive-regressive sequences. Complete stratigraphic sections of the Colorado Group lithostratigraphy, as determined in cored drillholes, show this area to be closely comparable to the west-central Saskatchewan stratigraphic column.

The regional Quaternary geology consists of several till sheets of diverse origin and variable areal continuity from several glacial episodes as well as interglacial fluvial and lacustrine sediments. As a first approximation, the Quaternary section can be described as alternating layers of predominantly shale-derived, impermeable till, and sandy to gravelly aquifers (Schreiner, 1990; Christiansen and Sauer, 1993). In some areas, these aquifers are exploited for potable water.

6.3 Cretaceous Bedrock Stratigraphy

In a regional stratigraphic section, a sequence of Quaternary tills and outwash gravels overlie light grey, non-calcareous mudstones of the Pierre Shale and a thin interval of Gammon Member carbonaceous mudstone. Both bedrock units form the lower part of the Montana Group. Dark grey, calcareous, shaley mudstones and shales of the Single White Speckled Shale are separated from the overlying Pierre Shale by an unconformity of regional extent. The presence of only a single white-speckled zone (dominantly the Upper White-Speckled Shale) corresponds to a regional unconformity at the base of the unit and probably represents the exclusion of all or most of the Lower White Speckled Shale and the intervening Morden Formation. Where both speckled shales are present, the base of the Lower White-Speckled Shale overlies another major unconformity of regional extent representing loss of the middle to uppermost portion of the Cenomanian Belle Fourche Formation. Upper and Middle Cretaceous sedimentary units are preserved only sporadically in the areas of kimberlite and are much more continuously preserved to the immediate northwest of the Fort à la Corne area.

Partially preserved intervals of sandy and shaley mudstones of the Belle Fourche Formation are chronologically equivalent in part to the Belle Fourche Shale Member of the Ashville Formation in Manitoba (McNeil and Caldwell, 1981) and to the upper portion of the Big River Formation in central Saskatchewan (Simpson, 1982). The base of this formation is delineated by the regionally extensive Fish Scale Marker, a vaguely expressed lithologic zone of slightly higher organic carbon content, silty interbeds, and comminuted fish debris including fish scales. The Fish Scale Marker separates nearly identical mudstones of the Westgate Formation below from those of the Belle Fourche formation above. Sandy and shaley mudstones of the Westgate Formation are equivalent to the Westgate Member of the Ashville Formation (McNeil and Caldwell, 1981) and the lower portion of the Big River Formation (Simpson, 1982). The Westgate Formation is interrupted by silty and sandy units of the southward extending St. Walburg Sandstone and terminates above the Flotten Lake Sandstone.

Siltstones, sandstones, and sandy mudstones of the Flotten Lake Sandstone in central Saskatchewan are the stratigraphic equivalent to the Viking Formation found throughout the subsurface of southern Saskatchewan and eastern Alberta (Simpson, 1982). Following the paleogeographic propositions made by Koziol (1988), a shaley fine-grained equivalent of the westward attenuating Newcastle Member may be present between the Flotten Lake Sandstone and St. Walburg Sandstone east of Shipman.

Below the Flotten Lake Sandstone, laminated to thinly bedded shaley mudstones of the Joli Fou Formation encase an interval of glauconitic sandstones and mudstones of the Spinney Hill Member. Generally, the Spinney Hill is a westward attenuating wedge of coarser clastics marked by emerald-green glauconite clusters in mudstone and carbonate-cemented lenses of pale green glauconitic sandstone. The lower portion of the Joli Fou Formation (informally, the Lower Joli Fou in this report) is characterized by glauconitic mudstones and often includes areally disjunct, thin, bimodal, muddy sandstones related to the Basal Colorado Sandstone (informally, the Basal Colorado in this report), a unit that is thicker and better developed basinward in Alberta (Banerjee et al., 1994). Stratigraphic variability of these distinctive muddy sandstones is related to episodic shallowing and reworking of sandstones during the initial Colorado transgression. As such, delineation of the muddy sandstones as a separate stratigraphic entity is not always practical and the Lower Joli Fou and Basal Colorado sandstone are combined.

Period/Epoch/Stage		Group/Formation	Approx. Depth (m)	Basal Boundary Age (Ma)
QUATERNARY				
Holocene		post-glacial sediments		0.011
Pleistocene		Saskatoon Group		
		Sutherland Group		
		Empress Group	100	1.6
CRETACEOUS				
Late Cretaceous				
	Campanian	Montana Group		84.0
	Santonian	Upper Colorado Subgroup		87.5
	Coniacian	Upper Colorado Subgroup		88.5
Early Cretaceous				
	Turonian	Upper Colorado Subgroup		91
	Cenomanian	Lower Colorado Subgroup		98.5
	Albian	Lower Colorado Subgroup		*102**
		Mannville Group	200	112
	Aptian	Mannville Group		119
DEVONIAN				
Middle Devonian		Manitoba Group	300	
		Elk Point Group	400	387
SILURIAN				
Early Silurian		Interlake Group	500	438
ORDOVICIAN				
Late Ordovician		Big Horn Group		458
Middle Ordovician		Big Horn Group	600	478
Early Ordovician		Winnipeg Formation		505
CAMBRIAN				
Late Cambrian		Deadwood Formation	700	523
PRECAMBRIAN				
Palaeoproterozoic		Glennie Domain	720+	2100-1800

**Approximate age for the base of the Colorado group*

Table 2: Generalized Stratigraphic Table for the Fort à la Corne Area

Beneath a thin basal tongue of Joli Fou black shale, underlying the Spinney Hill, is the regional unconformity separating the shale dominated Colorado Group from the Mannville Group characterized by interbedded nearshore marine and terrestrial sands, silts, and mudstones. Dominantly marine mudstones and sandstones of the Pense Formation form a variably thick veneer over a thick interval of sandstone-shale bedding sequences comprising the six members of the Cantuar Formation including the Waseca, Sparky, General Petroleums, Rex, Lloydminster, Cummings, and Dina at the base of the formation (Christopher, 1983). The Pense Formation is equivalent to the combined Colony and McLaren formations, both of which are prevalent in west-central Saskatchewan. Some portion of the upper Cantuar Formation is correlatable to the Swan River Formation, a distinctive northeastern-derived facies of quartzose-dominated, stacked fluvial and fluviodeltaic sequences, which is present in the northeastern and north-central Saskatchewan.

7.0 Deposit Types

The main group of kimberlites is located within the Fort à la Corne Provincial Forest and forms a north-northwest elongated cluster approximately 32 km in length, extending from the Saskatchewan River to Highway 55 near Shipman. Smaller outlying kimberlite clusters occur near Weirdale in the west, near Foxford in the north and near Snowden in the northeast. A main grouping of very large kimberlite bodies occurs in the southern part of the trend.

The footprint sizes of 69 kimberlite bodies originally held by the FalC-JV were estimated from geophysical models to fall in the 2.7 to 184 hectare range. The mass of kimberlite at each body was also estimated, using a conservative density value of 2.5 gm/cc, and was reported to range from 3 to 675 million tonnes. From the same report, the cumulative surface area of the kimberlite bodies contained within the FalC-JV was estimated to be 2,818 hectares, and the total mass of these kimberlites was estimated at 9 billion tonnes. More recently, the 140 and 141 kimberlites were shown to be part of a single large structure with estimated footprint of 250 hectares and >500 million tonnes, based on a density value of approximately 2.2 gm/cc.

Kimberlite Emplacement and Post-depositional Modification

During Cretaceous time, kimberlite volcanoes erupted into the sedimentary basin in the Weirdale, Foxford, White Fox, Snowden, and Fort à la Corne areas. Stratigraphic constraints on kimberlite emplacement and radiometric ages suggest that formation of the main bodies was likely in the range of 112 to 98.5 Ma (Kjarsgaard *et a*l., 1995). Rb/Sr age dates of 94-96 Ma were acquired from phlogopite separates analyzed by the Anglo American Research Laboratory (1991 UEM Seasonal Report). Significant precursor kimberlites were also deposited at the base, middle and top of the Mannville Group beneath the base of the main kimberlite sequences. If the base of the Mannville Group is 119 Ma, and the youngest kimberlite was transgressed over during the waning stages of eruption at about 94 Ma during deposition of the St. Walburg Sandstone, then kimberlite activity in Fort à la Corne area spanned some 25 Ma.

In general, most episodes or pulses of kimberlite volcanism occurred during intervals of sedimentary deposition over a time span of about eight million years corresponding to middle to late Albian time. At this time, central Saskatchewan was either proximal to-, or covered by shallow Cretaceous epeiric seas during an extended period of oscillatory transgressive-regressive conditions that helped to preserve the volcanic and sedimentary facies. Since the exact time of each kimberlite eruption is loosely constrained, only broad interpretations of the prevalent depositional environments can be made. Older precursor kimberlites encased within brownish-grey sands and mudstones of the Mannville Group were deposited in dominantly regressive/ fluvial/deltaic/terrigenous-dominated, terrestrial to nearshore shallow marine sedimentary regimes. Kimberlite is also found as thinly bedded ashfalls throughout much of the Mannville Group section.

Younger kimberlites which are thought to have erupted during deposition of the Lower Colorado Group are interpreted to have formed in dominantly subaerial conditions; however, some evidence indicates deposition of water-lain and resedimented kimberlite. Cretaceous sediments preserved above the main kimberlites are often sand- and silt-dominated facies, which are associated with one of the regressive seaway episodes that deposited the St. Walburg, Newcastle, or Viking/Flotten Lake coarser terrigenous units. However, some kimberlite bodies have a preserved upper transitional sequence of interbedded kimberlitic siltstones, marine mudstones, and ashfall tuffs. Furthermore, interbedded marine mudstones and kimberlitic mudstones are common towards the margins of some kimberlite bodies. These younger kimberlites are thought to have erupted into shallow seaway conditions subject to periodic strandline migration.

Geologically, the Fort à la Corne kimberlites are somewhat unique in that they apparently consist only of crater volcaniclastic material (Scott-Smith, 1996). Texturally, these rocks are classified as pyroclastic kimberlites, which may have accumulated within shallow blast-excavated craters that built upwards into low-relief tuff-cones. Many of the kimberlites appear to have formed in a two stage process including initial excavation of a relatively shallow and wide crater followed by infilling by both primary pyroclastic kimberlite and slumping of kimberlitic material from the margins of the crater. In general, the kimberlites have geometries ranging from narrow steep-sided pseudo-pipes to moderately steeply dipping funnel shapes to large irregular "champagne-glass" to disc-shaped forms, typically described as thicker in the middle and attenuating towards the margins. The architecture of the kimberlite bodies ranges from simple to complex in terms of number of discrete units or layers and occurrence and coalescence of proximal eruptive centres. The overall horizontal to sub-horizontal attitude of the kimberlite units changes with proximity to eruptive centres where more vertical kimberlite phase relationships and vent margins are anticipated. Feeders for the kimberlite bodies are probably small in area and steep. Some drill holes penetrate what are thought to be feeder zones filled with crater and pipe volcaniclastic material. Diatreme volcaniclastic kimberlite has only tentatively been identified from the deepest of these intersections.

Pyroclastic airfall kimberlites composed of variable proportions of olivine and juvenile lapilli formed subtly graded beds resulting from physical separation of grain components within high energy eruptive columns. These columns were the product of rapid degassing of volatile-rich magma at the vent and may be considered to be the extrusive equivalent of diatremes in other kimberlites (Scott-Smith *et al.*, 1994). The fine ash component of these eruptive columns may have reached up to 15 km high and been effectively removed by wind action, allowing concentration of distinct grain size and density populations dependent on local weather conditions and proximity to the vent (Scott Smith *et al.*, 1994). Olivine-dominated crystal tuffs with absent to rare lapilli are thought to have formed through extreme examples of this process or possibly by the disintegration of lapilli followed by winnowing of fines in a sedimentary environment. Juvenile lapilli form as the result of fragmentation of fluidal magmas in explosive to relatively passive eruptive conditions, and may be most concentrated in areas proximal to eruptive vents. Some lapilli are vesicular, but scoriaceous clasts are extremely rare. Up to four distinct generations of lapilli have been observed to coexist in the same rock type in some Fort à la Corne kimberlites, indicating that material from old eruptions is recycled to a limited extent during later eruptions in some bodies (Scott Smith *et al.*, 1994).

The internal geology of each kimberlite body varies considerably. Pyroclastic airfall and lava-spattering are interpreted as the principle modes of kimberlite accumulation and are likely the result of several styles of eruption due to variations in volatile content and degree of interaction with groundwater. Reworked kimberlite and intervening fine-grained sediments occur occasionally and provide time markers within the pyroclastic piles. These markers are thought to record times of erosion, transgression, and/or shallow marine deposition. Changes in eruptive style, both within and between discrete pulses of kimberlite volcanism ultimately resulted in complex layering of stratigraphically distinct kimberlite lithotypes during late Mannville time and throughout much of early Colorado time. The specific physical setting of each of the bodies would impact the formation and character of graded and massive bedded lapilli tuffs and olivine-dominated crystal tuffs. Some factors to consider include the location of eruptive centres, depositional environment, original magma composition, and morphology of the crater-cone development. Within a single pulse, progressive loss of abundant, primal volatile content (CO_2 and H_2O) and an increase in magma viscosity would have dampened the escape of pyroclastic material from the vent, allowing the formation of thicker mega-graded beds and lapilli-rich lithotypes characteristic of lava-spattering. Collectively, these deposits may have overfilled the shallow crater allowing a period of cone development dependent on the volume of material extruded and the size of the crater. Cone-margin deposits formed and were composed of coarse-grained xenolith-rich base surge and airfall deposits overlain by distal, finer-grained, xenolith-poor, airfall facies (Leckie *et al.*, 1997). Different eruptive styles ranging from explosive Strombolian-type ash columns to more passive Hawaiian-style lava fountaining which are thought to be appropriate for the Fort à la Corne eruptions based on petrographic examination of kimberlite core and chips (Scott-Smith *et al.*, 1994; Leckie *et al.*, 1997). The close stratigraphic and spatial association of kimberlites produced from different eruptive styles indicates some alternation of styles or perhaps the presence of a composite eruptive mode.

The morphologies and resulting pyroclastic assemblages of the Fort à la Corne kimberlites are the product of the local geology. In contrast to kimberlites elsewhere in the world, the broad, initially shallow craters and low-relief cones are the result of having been emplaced within several hundred metres of poorly consolidated sediments, which could not effectively cap or contain the volatile-rich magmas. The bodies began as craters, which were explosively excavated into the Mannville Group and Lower Colorado Group sediments. The base of the kimberlite bodies appear to flare upwards at either the Mannville/Paleozoic carbonate contact or within the uppermost portion of the Mannville Group, just below the contact with the Colorado Group. Synthesis of petrographic information, interpretations of body geometry, and internal correlation of kimberlite and marker strata indicate kimberlite body architectures that range from simple, mono-eruptive, essentially stratiform bodies to stratigraphically complex, temporally diverse, multi-centred, multi-eruptive edifices marked by stacking of lensoidal to pancake shaped eruptive deposits. Correlation of internal marker beds and erosive horizons indicate the very common occurrence of stacked severely beveled kimberlite masses at several stratigraphic levels. In larger bodies, coalescence of kimberlite lenses sourced from proximal eruptive centres produced clusters of intercalated kimberlites.

Subsequent to each eruption, terrestrial or marine depositional and erosional processes may have affected the exposed portions of the body causing truncation of beds and accumulation of reworked kimberlites. Furthermore, continued eruption from the current vent or proximal new vents may have locally truncated existing beds. The bulk of petrographic evidence suggests that most of the kimberlites accumulated in dominantly subaerial conditions as crater-fill pyroclastic deposits (Scott-Smith *et al.*, 1994), however, it is not known to what extent positive-relief cone building occurred above the plane of the surrounding surface. Some vent-distal deposits indicate deposition of water-lain kimberlite, but drillhole control is typically poor away from the centres of the kimberlite bodies. Lower Colorado Group sediments preserved above the top of the main kimberlites are often sand- and silt-dominated facies which were associated with one of several regressive seaway episodes coeval with deposition of the St. Walburg, Newcastle, or Viking/Flotten Lake coarser terrigenous units. However, some kimberlite bodies have a preserved upper transitional sequence of interbedded kimberlitic siltstones, marine mudstones, and ashfall tuffs. Furthermore, interbedded marine mudstones and kimberlitic mudstones are common towards the margins of some kimberlite bodies. These particular kimberlites are thought to have erupted into nearshore terrestrial to shallow marine seaway conditions subject to periodic strandline migration and erosion.

8.0 Mineralization

Diamond recovery from kimberlite samples from the tested bodies indicate approximately 70% of the kimberlites are diamond-bearing, and 50% are macrodiamond-bearing (based on recovery of stones >0.85 mm in one dimension). These figures indicate Fort à la Corne to be the largest macrodiamond-bearing kimberlite field in the world. Many of the kimberlites have been tested by few drill holes and, given the number of very large and heterogeneous kimberlites in this field, coupled with the chaotic occurrence of diamonds, only small, poorly representative samples have been acquired from most of the bodies. Regardless, best efforts were made to categorize the kimberlites based on size, petrography, and diamond content. Typically resolution of discrete mineralized zones within the kimberlite bodies has not been attempted except for those bodies prioritized by the FalC-JV in 2000, due to time and cost restraints. For prioritized bodies such as 140/141, grid drilling is now providing information for detailed geological modeling and evidence of patterns in areal and vertical diamond distribution patterns.

8.1 Petrographic Characteristics of Fort à la Corne Kimberlite

The Fort à la Corne bodies are classified as Group 1 kimberlites based upon a composition including two generations of olivine (phenocrysts and macrocrysts) and a groundmass of monticellite, spinel, perovskite, mica, primary serpentine and carbonate (Scott Smith *et al.*, 1994). Most bodies also contain rare amounts of mantle-derived, xenocrystic/xenolithic constituents including garnet, ilmenite, and olivine macro- and megacrysts, as well as eclogites and coarse grained, garnet-bearing peridotites. Basement rocks, Paleozoic carbonates and Cretaceous terrigenous and marine lithologies may also be found as fine to very coarse xenolithic fragments within the kimberlites. The Fort à la Corne kimberlites are dominated by olivine/lapilli pyroclastics of variable composition with rare to common country rock and mantle xenoliths, minor very fine-grained inter-clast matrix, and rare garnet, ilmenite, and chromite.

Texturally, these rocks are classified as pyroclastic kimberlites, however, reworked kimberlite sediments occur occasionally throughout the sequence, but are usually found in the upper few tens of metres of the body.

The main rock type end-members are juvenile lapilli-dominated kimberlites and olivine-dominated crystal tuffs. While pure end-member rock types do occur, they are rare with olivine/lapilli kimberlite of variable composition being most common. Clast sizes range from <1 mm to 10 cm, although most rocks are dominated by fine to medium-grained textures ranging from 0.5 to 5 mm with a notable paucity of fines or material less than 0.2 mm in size. The pyroclastic components are dominated by varying sizes and proportions of juvenile lapilli and single crystals of olivine. Lapilli vary in shape from spherical to ovoid, to more commonly fluidal, irregular amoeboid forms and are composed of olivine grains and rare garnet and black macrocrysts set within very fine-grained matrix. Lapilli generally show definable edges and subtle to striking differences in colour compared to the inter-clast matrix or cement.

Olivine occurs in two significantly different populations, which often coexist in varying proportions (and seemingly were both present in the postulated precursor magma and in hypabyssal equivalents) that were controlled by physical separation processes either prior to, or during eruption. A finer grained population is composed of euhedral to subhedral olivine phenocrysts generally <2 mm in size and most probably crystallized from the precursor kimberlitic magma. A second, coarser-grained population consists of subhedral to anhedral olivine macrocrysts usually >2 mm in size and is xenolithic in nature, having been derived from either the kimberlite magma source or from mantle wallrocks during ascent. Olivine-dominated crystal tuffs with absent to rare lapilli are thought to have formed through the physical separation of discrete crystals from fine and coarse ash during violently explosive eruptions, or possibly by the disintegration of lapilli followed by winnowing of fines in a sedimentary environment.

The inter-clast matrix of the rock and intra-lapilli matrix are composed of dense, often massive serpentine, carbonate, magnetite and a highly variable assortment of very fine grains including spinel, apatite, monticellite, perovskite, mica, primary carbonate and coarse ash-sized olivine microphenocrysts (Scott Smith *et al.*, 1994). Inter-clast matrix or cement may form through the crystallization of minerals from kimberlitic fluids derived from subsequent eruptions, or may be the alteration product of fine ash deposited coevally with the coarser grains. Scott-Smith noted the common absence of matrix fines in many of the kimberlites. As these fines may be representative of the pre-eruptive kimberlite “magma”, their absence indicates syn-eruptive sorting and removal. Multiple and sequential phases of identifiable cementation show that lithification occurred early on, but with modification of the cementing components during subsequent eruptive pulses, subsidence and compaction (Scott Smith *et al.*, 1994). Hence, the matrix of the kimberlite is highly variable in appearance and composition. In comparison, the presence of very fine, microphenocrysts of olivine, and what is thought to be spinel, perovskite, mica, and monticellite often characterize intra-lapilli matrix and may represent preserved fines and ash derived from explosive eruption of the original, highly-fragmented “magma”.

8.2 Indicator Mineral Geochemistry

Major and trace element geochemistry of garnets can be used in conjunction with garnet Ni-thermometry to synthesize an interpretation of the mantle source rocks for kimberlite (Gurney *et al*., 1993; Griffin and Ryan, 1995). Garnet geochemical data from Fort à la Corne kimberlites indicate a predominantly lherzolitic population with lesser harzburgitic, websteritic, megacrystic and eclogitic components. Ni-thermometry data are trimodal, which is a strong indication that mantle material at three separate depths was sampled by the ascending kimberlitic magma. Geochemical analyses of ilmenite and chromite also have provided clues to the potential for diamonds and the magmatic history of the kimberlites.

The main mantle sampling interval or depth straddles the lower threshold of the diamond window based on application of a cratonic geotherm of 40 mWm^{-2}. Most of the kimberlites are dominated by G9 lherzolitic garnets, but also include other peridotitic, eclogitic and macrocrystic garnets. Garnet Ni-thermometry data indicates a common triple sampling pattern or entrainment of lithospheric mantle material variably split between the 700-800°C, 950°C, and 1150-1200°C temperature regimes. The middle sampling interval (950°C) is the dominant peak in the temperature distributions and it lies just within the lower threshold of the diamond stability field. The abundance of high-TiO_2 lherzolitic garnets close to 1200°C suggests that this temperature marks the base of the lithosphere and the lower depth of diamond entrainment.

Prospective harzburgitic G10 garnets are present in most of the kimberlites, but generally in low abundance (<7 percent of total garnet, averaging 3.4 percent) and are usually associated with sampling in the 950°C range. Sampling of the mantle was dominantly at or near 950°C, however, the source rocks seem to have been fertile lherzolites (i.e. not melt-fractionated), thus diamond grades could be low. Where material was entrained over the lower temperature interval (700-800°C), the mantle also was fertile and consequently of low diamond potential. Mantle material from the upper temperature interval (1200-1400°C) was enriched by melt-metasomatic processes and is considered to have low diamond preservation potential.

Chrome spinel is common in most of the kimberlites tested. On a plot of weight percent MgO vs Cr_2O_3, chrome spinels often plot in an inverted U pattern or portion thereof, representing entrainment of material from a number of different mantle sources. High interest spinels have very high Cr_2O_3 contents (>61 percent), which may place them within the diamond inclusion field at appropriate MgO contents (11.5-16.5 wt. percent). Generally, Fort à la Corne kimberlites may contain only a few percent chrome spinel grains that plot in the diamond inclusion window, but a few bodies range up to 8 percent. Picroilmenite is also common in most of the kimberlite bodies. Most of the ilmenites have major chemistry signatures indicative of the megacryst suit, although distinct populations are seen in some Cr_2O_3 vs. MgO plots that probably reflect sampling from several different sources in the lithosphere. Some kimberlite bodies have ilmenite subpopulations characterized by low MgO contents (<7 wt. percent). In general, Gurney *et al.* (1993) consider the presence of picroilmenites with low MgO compositions to be indicative of exposure to conditions promoting low diamond preservation potential. In the past, De Beers considered these low MgO and low Cr_2O_3 ilmenites simply to be non-kimberlitic. Recently, Schulze *et al.* (in press) found no evidence to support the hypothesis that oxidized ilmenite populations were indicative of increased potential for diamond resorption in kimberlites.

Although many Fort à la Corne kimberlites incorporated mantle material from within the diamond stability field, the contribution of diamonds from depleted, harzburgitic mantle and eclogitic mantle appears to have been diluted by potentially diamond-poor, fertile and enriched lherzolites. An understanding of the relative contribution of xenocrysts (including picroilmenite, chrome spinel, and diamonds) to the kimberlite magma from distinct mantle lithosphere sources including harzburgite, lherzolite, websterite, and eclogite from within distinct temperature ranges, contributes to the explanation of why the diamond contents of the Fort à la Corne kimberlites are highly variable. However, for many of the Fort à la Corne kimberlites, major and minor element chemistry have identified abundant peridotitic garnets potentially from diamondiferous mantle source rocks (G1, G9, G10, and G11), which justifies continued exploration interest.

9.0 Exploration

Exploration activities in the field were conducted every year since 1989, except 1998, and included local and regional geophysical surveys, drilling, and sampling for the recovery of macrodiamonds, microdiamonds, and indicator minerals.

9.1 Geophysical Exploration

A total of 88 magnetic targets were obtained from 15,500 line-kilometres of airborne magnetic survey. Seventy-one anomalies were interpreted as kimberlite-type signatures. Extensive ground magnetic surveys were utilized to refine the area and estimated thickness of each of the anomalies and in many cases further work was done subsequent to discovery drilling of the kimberlite bodies. While the geophysical emphasis has been on magnetics and gravity, several other methods including CSAMT, seismic, and GEOTEM have been tested. Information and results of geophysical surveys are briefly described in this section, but more detail is provided in the year by year summaries described in section 9.2.

9.2.1 Magnetic Survey Coverage

The Fort à la Corne kimberlite bodies lie beneath 75 to 150 m of overburden and have no surface expression. During the 1988 staking rush, Uranerz Exploration and Mining Limited acquired a large land position in the Fort à la Corne area, some 60 km east of Prince Albert. The ground was chosen on the basis of aeromagnetic anomalies which were thought to resemble kimberlite-type targets in the available GSC regional aeromagnetic coverage. Twenty-eight isolated contour highs were identified and staked. Since the known kimberlite bodies were discovered from aeromagnetics, all are magnetic to some degree. Apparent magnetite contents for the kimberlites range from 0.1% to 4%, in contrast to the non-magnetic Phanerozoic sediments, which host the kimberlites. Magnetic responses from crystalline basement, which is greater than 600 m below the ground surface, are sufficiently longer in wavelength to be clearly differentiated from the sharper signatures of the kimberlite bodies. The cost effectiveness of magnetic surveys in delineating the kimberlites was recognized at an early stage, although some refinements in interpretation and modeling have been necessary to comply with the unusual geometry of these bodies as subsequently revealed by drilling.

Additional geophysical coverage of the 140/141 kimberlite was completed during the Fall of 2002, including new ground magnetic survey, ground gravity survey, and magneto-telluric methods. Results will be submitted as they are finalized by the operator of the FalC-JV.

In 2003, work commenced with a fixed-wing airborne tri-sensor magnetic gradiometer survey over the entire Joint Venture project claim area that was run by Goldak Airborne Surveys. The survey had some over-run beyond the claim boundaries. Two blocks were flown for a total of 3,090 line kilometres at 150 metre line spacing. The airborne survey provides a much improved magnetic dataset compared to previous airborne data acquired in 1989 and 1990. The survey results were evaluated for new potential kimberlite targets, and where necessary, higher-priority kimberlites will be re-modeled to update body outlines based on a 30 metre thickness cut-off.

9.1.2 3D Models from Magnetic Survey Coverage

A working model for the Fort à la Corne kimberlite bodies, up until late 1990, consisted of a vertical, near-circular pipe based on the published and widely accepted diatreme-type occurrences of Southern Africa (Gerryts, 1970, Macnae, 1979), although quite significantly under 100 m of overburden in this case. Magnetic signatures, particularly over some smaller bodies, were found to be reasonably consistent with this model. The larger magnetic features were assumed to be aggregates of coalesced pipes. Drilling in 1989 had sampled only the top few tens of metres of seven kimberlite bodies. More intensive drilling, beginning in 1990, soon revealed that many of the kimberlite bodies were limited to +/- 100 m in thickness. Revised geophysical modelling confirmed that the typical pipe-like magnetic signatures could also be caused by lensoidal magnetic bodies, which would be somewhat larger in footprint area than the prior pipe-type models. Grid-style ground magnetic coverage over most kimberlite bodies in the central Fort à la Corne Forest area also revealed irregular shaped outlines, implying that a considerable amount of detailed ground magnetic survey work would be necessary to fully define the outlines of the seventy or so suspected kimberlite bodies.

A further refinement to modelling was in recognizing that many bodies appear to have a weakly magnetic halo, which commonly seems to be developed more extensively towards the south or southwest of the main magnetic feature. This could represent a reworked peripheral apron of kimberlite, or perhaps distally deposited material, which might be down-current or down-wind from a volcanic centre. The working geophysical model at this point could be described in terms of a central thick kimberlite block, 100 m to 200 m in thickness, with an irregular, peripheral apron perhaps 30 m to 50 m in thickness. The apron areas of many of the kimberlite bodies can be quite large and contributes significantly to overall footprint areas, requiring more extensive ground magnetic coverage to assess. Ultimately, in support of mapping these bodies in detail, almost 1000 km of ground magnetic profiles were completed over the 71 kimberlite targets, much of it with 100 m line spacing and 25 m stations.

The sizes of the kimberlite bodies, estimated according to current geophysical models for each body, fall in the range 2.7 to 184 hectares. The mass of kimberlite at each body has also been estimated, using a conservative density value of 2.5 gm/cc, and ranges from 3 to 675 million tonnes. The total kimberlite footprint area for the 71 bodies is estimated to be 2818 ha. The total mass of kimberlite is estimated at close to 9 billion tonnes.

The “puck and apron” model is recognized to be inadequate for many of the larger kimberlite bodies, where kimberlite thicknesses are difficult to predict from magnetics due to uneven distribution of magnetite. Many bodies contain multiple magnetic peaks, which do not correspond to thick kimberlite segments but which are more likely caused by zones of strongly magnetic kimberlite near the top of the kimberlite section. A more complex but probably more realistic working model is to simulate each kimberlite body by a stack of horizontal disks of varying dimensions, corresponding to stratigraphically discrete kimberlite layers. This is supported by geological evidence of sub-horizontal stratification, which is thought to be caused by sequences of kimberlite deposition separated by erosional intervals. Models of this complexity need control from drilling and detailed stratigraphic input. However, several of the Fort à la Corne kimberlites are already at this stage of exploration.

9.1.3 Magnetic Susceptibility Logging

Magnetic susceptibility measurements were completed on core from 16 drillholes obtained from 11 different kimberlites. In all, over 7,500 magnetic susceptibility measurements were acquired. The data were used to establish reasonable average magnetic susceptibility values for the kimberlites for comparison with model-derived values from ground magnetic data and to assess the variability of magnetic properties within each body. Magnetic susceptibility logging indicates that some segments of some kimberlites are essentially non-magnetic. Whether wholly non-magnetic kimberlites might exist is conjectural, and none have been detected, thus far. However, gravity, resistivity (airborne and ground surveys) and seismic might be employed if such targets were suspected. Recent gravity surveys conducted in 2002 and 2003 indicate the presence of potential kimberlite anomalies that have subtle or no significant associated magnetic signature. Follow-up interpretation of these data is on-going by the operator. Magnetic susceptibility measurements were routinely taken on all kimberlite and host rock core acquired during the 2001, 2002, and 2003 field programs. This information is utilized in interpretation of recent ground magnetic surveys conducted on the 140/141kimberlite and other high priority bodies in 2002 and 2003.

9.1.4 Gravity Coverage

Since kimberlite can have significantly higher density than the Phanerozoic sediments (i.e. perhaps 2.6 gm/cc versus 2.4 gm/cc), gravity surveys have proved to be effective. Gravity surveys were completed in 1989, '90, '91 and '93 with a total of 219 km of profiles. The surveys provide gravity signatures from 29 of the kimberlite targets, which are all positive peak anomalies ranging from 0.1 to over 1.0 milliGals in amplitude. The gravity data provides assistance in modelling some of the larger kimberlite bodies, where kimberlite thicknesses are difficult to predict from magnetics. Also, some weak magnetic anomalies have been screened by gravity coverage to ascertain their cause, since magnetite concentrations in till or within the Phanerozoic sediments are possible sources of false anomalies. Three large bodies in the central Fort à la Corne Forest area provided the highest amplitude gravity signatures (1.0 milliGal), and drilling has confirmed that thick (>200 m) kimberlite segments are present.

A more detailed and extensive gravity survey of Kimberlite 140/141 was completed in October 2002. In addition to expanding the footprint of the kimberlite body, two new anomalies were discovered close to the 140/141 body, but lacking any substantial anomalous magnetic signature (compared to background).

Gravity coverage was acquired in 2003 for the 148, 150, and 122 kimberlite bodies. The individual surveys around 150, 148, and 140/141 were extended to provide unbroken coverage in the central part of the main kimberlite trend.

9.1.5 Galvanic Resistivity Surveys

In comparison to the enclosing Phanerozoic sediments, which are largely mudstones and shales, the kimberlite bodies should tend to be more resistive, although contrast between the two rock types is minimal. This tends to reduce the utility of electro-magnetic data in highlighting kimberlite based anomalies, and more specifically, in delineating geometry of the kimberlite bodies. The 100 m-thick overburden comprises various interbedded sands and sandy tills grading to clayey tills that average 10 to 20 ohm-metres in resistivity. Bedrock is composed of the Phanerozoic Colorado Group shales with resistivity of perhaps 5 ohm-metres, overlying Mannville Group sandstone units, which might have resistivities in the 100 ohm-metre range. Kimberlite resistivities can be highly variable, depending on the degree of alteration and porosity. From test survey data over a low number of bodies it seems that these kimberlites fall in the range 20 to 100 ohm-metres.

Ground resistivity surveys were conducted at 4 sites in 1990. Dipole-dipole array tests were not successful, presumably due to the thick, conductive overburden. However, a gradient array survey provided clear, high resistivity anomaly signatures at two of the four sites. Dipole-dipole array and gradient array coverage was tested over Kimberlite 219. The gradient array resistivity peak corresponds with the centre of the 219 kimberlite as defined by magnetic and gravity coverage and as also confirmed by drilling. At the two other sites, the resistivity profiles did not extend beyond the kimberlite outlines as presently recognized.

9.1.6 GEOTEM Test Survey

Resistivity mapping can also be performed from the air using electromagnetics. A time domain EM and aeromagnetic survey (GEOTEM) was flown over a 12 km x 4 km block in 1996. The line spacing for this work was 300 m. The survey area contained 10 known kimberlite bodies and a variety of surficial conditions ranging from cultivated farmland to forest, with a belt of swamp along the White Fox River. Overburden thicknesses range from 130 m in the north to 90 m at the White Fox River and increasing again to 110 m in the south.

All of the known kimberlite bodies are represented by prominent magnetic anomalies in the GEOTEM aeromagnetic coverage. Coincident EM data are presented as apparent resistivity contours. Nine of the 10 kimberlites are detected as high resistivity anomalies, and one (target 326) is associated with a low resistivity anomaly. Kimberlite 326 is also one of the most strongly magnetic features at Fort à la Corne, with an estimated magnetite content of over 2%. Analysis of borehole logging data from a nearby kimberlite body by the GSC indicated a strong correlation of lower kimberlite resistivities with higher magnetic responses (Richardson *et al.*, 1995), presumably due to the high metallic magnetite content. However, an equally strongly magnetic anomaly located 4 km further west (Kimberlite 126) is represented by a conductivity low. An alternative possible cause of the high conductivity feature is an overlying conductive zone, which might mask the kimberlite response. A prominent east-west conductivity low which traverses the north part of the GEOTEM survey correlates with deeper overburden (up to 130 m in drilling) and is probably a glacial erosion feature.

Overall, the EM-derived resistivity background is quite active, which might tend to mask kimberlite signatures. Nevertheless, the combination of aeromagnetics and coincident EM data provided by the GEOTEM system is a powerful exploration tool in this environment.

9.1.7 TEM In-loop Soundings

As a follow-up to the GEOTEM survey, three profiles of in-loop time domain electromagnetic (TEM) depth soundings were obtained at Kimberlite 169. Instrumentation for this work was a Geonics EM-37 unit using 100 m x 100 m transmitter loop and a 30 Hz pulse repetition rate, with the receiver at the centre of the loop. Soundings were obtained at 100 m intervals on each profile. This work confirmed that a reasonable resistivity target exists and can be detected by this method. A benefit of in-loop TEM soundings is that 1D inversions may be performed to image the ground resistivity in a pseudo-depth section format, producing a conductivity-depth image section.

The 169 image begins at around bedrock level. A 100 m-thick layer of high conductivity material (0.2 Siemens/metre) represents the Lower Colorado shales. The underlying Mannville sandstones are less conductive (0.02 Siemens/metre). A prominent 300 m-wide disruption in the horizontally stratified conductivity section correlates with the shallowest and thickest portion of the 169 kimberlite body. The kimberlite conductivity seems to be less than the Lower Colorado shales and greater than the Mannville sandstones.

9.1.8 Seismic Test

During 1992 and 1993, high resolution reflection seismic data were obtained over Kimberlite 169 in farm land near Smeaton. This work was performed under the supervision of Don Gendzwill of the University of Saskatchewan in collaboration with the GSC (Matieshin, 1998; Gendzwill and Matieshin, 1996). Seismic data complemented a suite of studies including multi-parameter borehole logging also conducted by the GSC on a corehole at the same kimberlite target. The strong velocity and density contrasts between kimberlite and host sediments, and the normally horizontal stratification of the Phanerozoic sediments provided a favourable setting for seismic imaging. After suitable processing, the upper kimberlite surface and two possible intra-kimberlite horizons were well-resolved. The base of kimberlite is not distinctly imaged and appears to diverge from drill-indicated data in some regions. The overall size of the kimberlite body indicated by the seismic coverage is considerably larger than that from magnetic modelling, apparently due to an extensively developed, thin apron zone, which was not fully identified in magnetics. Kimberlite 169 is enclosed and overlain by Colorado Group sediments and displays subdued topographic relief on the upper surface with a domal feature at its centre. Many other kimberlite bodies seem to be eroded to a flat upper surface, which is commonly at the subcrop level of the Colorado Group strata below glacial overburden. The sub-horizontal intra-kimberlite reflectors were interpreted as erosion surfaces separating distinct eruptive packages (Matieshin and Gendzwill, 1995). This multi-temporal, multi-erosional genetic model has since been confirmed by intra-body petrographic comparisons and stratigraphic correlations derived from drilling sections from numerous bodies.

A similar, but more detailed 2D seismic survey was completed on Kimberlite 140/141 body late in 2002 by a combined effort of the GSC and the Saskatchewan Geological Survey. Processing of data is ongoing and results are expected during 2003.

9.1.9 GSC Downhole Geophysical Logging

During 1992, the GSC funded drilling of a 242 m vertical corehole near the centre of Kimberlite 169, which intersected approximately 100 m of kimberlite. Borehole geophysical measurements were obtained in the drillhole with a near comprehensive suite of logs acquired including seismic velocity, density, natural gamma-ray spectroscopy, and magnetic susceptibility, which complemented ground geophysical surveys in the area. The wide range of geophysical parameters investigated assisted in characterization of the physical properties of the kimberlites and in the interpretation of other, geophysical measurements (Richardson *et al.*, 1995; Mwenifumbo *et al.*, 1996).

A second study of multi-parameter downhole geophysical logging was completed on four additional coreholes on the 140/141 kimberlite body in 2001. This work was associated with the multi-disciplinary Targeted Geoscience Initiative (TGI) project mounted in 2001-2002 which encompassed petrographic logging, geochemistry, and 2-dimensional seismic on the 140/141 kimberlite. More details of this work are discussed in the section of this report concerned with 2002 exploration activities.

9.2 Yearly Exploration Programs – Geophysical Surveys, Drilling, and Diamond Recovery

A total of 349 drillholes have been completed to the end of 2004-2005 program using various methods to produce core or chips from boreholes ranging from small to very large diameter (64 to 914 mm). As of 1997, 69 of the original 71 (98.6%) targets in the project area were tested by drilling. Of these, all but one of the 45 anomalies with estimated areas >20 ha have been drilled. The FalC-JV currently retains 63 kimberlite bodies after selling several lower priority satellite kimberlite clusters. At least 5,600 tonnes of kimberlite have been tested for macrodiamond content and thousands of samples for complete diamond recovery were completed using caustic fusion or jigging procedures and continue to be run to present-day. Close to half of this mass of kimberlite has come from Kimberlite 140/141. Other investigations have included: grade estimate studies, diamond valuations, diamond breakage studies, tracer studies, core and chip logging, microscopic petrography, sedimentary and volcanological studies, stratigraphic studies, radiometric age dating, zonation studies, downhole geophysical logging, caliper logging, lithogeochemistry, micropaleontology studies, magnetic susceptibility measurements, specific gravity measurements, and drillhole location surveys. A historical accounting of exploration activities and results from 1988 to 1997 is available in Jellicoe *et al*. (1998) and Lehnert-Thiel *et al*. (1992). During 1999 and the early part of 2000, an in-depth evaluation and synthesis of all available information for each kimberlite body was conducted separately by De Beers Canada Inc. and Kensington staff. Based on these studies, De Beers Canada Inc. identified 17 kimberlites having sufficient information on which to prioritize their diamond resource potential. From this list, five targets were selected for continued evaluation of diamond content and value.

9.2.1 1988 Exploration and Sampling Program

In August, spurred by rumours of kimberlite discoveries near Prince Albert, the possible presence of kimberlite-type intrusions in and around the Fort à la Corne Provincial Forest were interpreted by UEM using published GSC aeromagnetic maps of the area. Ground-magnetic investigations of several anomalies in the area indicated that they were caused by sources in the Phanerozoic sediment cover, and not sources in the metamorphic basement. A detailed airborne magnetic survey completed over the main cluster of GSC anomalies resulted in the identification of 29 discrete anomalies.

9.2.2 1989 Exploration and Sampling Program

In June, the FalC-JV Project was created between UEM and Cameco. Exploration consisted of 7 shallow 120.65 mm diameter rotary testholes, airborne magnetic surveys by *Terraquest Ltd.* (10,254 km), ground magnetic surveys (108.7 km), and gravity surveys (17.5 km). Kimberlite was intersected in all seven drillholes and microdiamonds were recovered in five of the seven drill-chip samples (<100 kg) submitted to *C.F. Minerals*. The recovered stones were small, but of generally gem quality. A total of seven macrodiamonds were recovered having an aggregate weight of 0.0155 carats. The largest individual stone had a diameter of 1.27 mm and weighed 0.0035 carats. Geophysical surveys showed the Fort à la Corne kimberlite field to consist of three clusters (Weirdale, Snowden, and Fort à la Corne proper) with a total of some 82 anomalies. The first age date for these kimberlites was obtained by *American Research Laboratories.* An Rb/Sr age of 94±3 Ma was derived from four mica separates from the 122 kimberlite body. During 1989, reconnaissance ground magnetic surveys were completed at 29 anomaly sites derived from the aeromagnetic survey. This work involved minimal profile coverage to establish the location and approximate size of each magnetic target. The profiles indicated at least seven kimberlites had surface areas >20 ha.

9.2.3 1990 Exploration and Sampling Program

Geophysical work (ground magnetic, gravity and resistivity) involved surveys at 42 sites, bringing the total number of aeromagnetic anomalies investigated to 54 (out of 88 indicated by the 1989 Terraquest survey). Geophysical surveys consisted of 126.1 km of ground magnetics, 19.15 line-km of gravity, and 8.75 km of resistivity profiles. Forty-seven of the targets investigated during this period were interpreted to be kimberlites; the remaining seven being either basement or cultural features.

Seven targets were tested by 171.45 mm RCA drillholes. A total of 15 drillholes intersected a combined total of 3,684 m of kimberlite. Five of the targets, including the 120, 169, 180, 216 and 426 bodies had not been drill tested previously, while the remaining two (219 and 611) had been tested earlier during the 1989 reconnaissance program. The drillholes produced a total of 97.088 tonnes of kimberlite of which 41.297 tonnes (material >1.7 mm) was retained for macrodiamond recoveries.

Five macrodiamonds with a combined weight of 0.84 carats were recovered from Kimberlite 169. All were brown industrial grade diamonds. Eleven macrodiamonds were also recovered from Kimberlite 120 having an aggregate weight of 1.19 carats with a mix of gem quality stones, and brown industrial-grade stones.

In every case deep drilling passed through kimberlite into the underlying country rock, suggesting that the kimberlites were tabular in shape. Feeder dykes were not identified among any of the targets drilled. Rb/Sr age determinations of 96 Ma were obtained from micas separates in the 120 kimberlite. Radiometric ages determined in 1989 and 1990 were corroborated in part by micropaleontology studies of country rocks proximal to Kimberlites 169 and 611, which gave ages between 94 and 98 Ma in terms of the K/Ar radiometric time scale, and fall within the lower portion of the Lower Colorado Group.

During 1990, detailed ground magnetic coverage was obtained over six of the larger kimberlite bodies which revealed a greater degree of complexity in the outline and magnetic zonation of the bodies than that represented by the earlier reconnaissance-style magnetic coverage. As a consequence, many of the kimberlite bodies were thought to be more extensive in area than originally believed.

9.2.4 1991 Exploration and Sampling Program

A geophysics program involving 106.8 line-km of linecutting, 283.75 km of ground magnetic and 99.15 km of gravity was completed which was intended to evaluate the remaining aeromagnetic targets from the 1989 *Terraquest* survey and to upgrade coverage over a number of potentially large targets (>20 ha in size). A detailed grid of handcut lines was established over the main grouping of large targets in the Fort à la Corne Forest (120/147/148) with a network of 17 GPS control points established to provide precise geographic control for the grid network. Gravity coverage was significantly increased and was used to enhance the interpretation of kimberlite body outlines and thicknesses.

A total of 26 drillholes (7,223.8 m) were completed by a combination of drilling techniques: (158.8 mm diameter RCA plus 279.4 mm diameter underreaming). In all, 253.758 tonnes of kimberlite was recovered with individual bulk samples ranging between 1.499 and 28.638 tonnes. The sample recovery cut-off in the field varied between 30 and 50 mesh, with 145.302 tonnes of kimberlite retained and processed for macrodiamond recoveries.

Total diamond recovery in 1991 was 146 stones, with an aggregate weight of 5.109 carats. Diamond grades for individual drillholes ranged between 0 and 0.083 carats/tonne, with the best overall average from one target being 0.082 carats/tonne for the 150/151 kimberlite.

9.2.5 1992 Exploration and Sampling Program

De Beers Canada Inc. (then Monopros Limited) joined the Joint Venture under a three-year earning-in period, after which the three partners would each hold 33% equity in the project. The 1992 geophysical program included 5,475 line-km of airborne magnetometer survey by *Sander Geophysics Limited* in the Forest Gate area in order to obtain magnetic coverage in the area immediately northwest of the FalC-JV's claims. Delineation of a possible source of the rafted kimberlite blocks in the Sturgeon Lake area was one of the major objectives of this program. A follow-up program of 19.05 line-km of ground magnetometer survey was conducted over 12 anomalies identified by the aeromagnetic survey. In the Fort à la Corne area, 102.05 line-km of ground magnetic survey was completed over 14 anomalies. At ten of the sites, the objective of the work was to improve the outlines of shallow magnetic bodies located by earlier ground magnetic surveys. Four new targets derived from the 1969 GSC aeromagnetic coverage in the Bittern Lake and Weirdale area were also investigated. Two test reflection seismic profiles were obtained in the vicinity of Kimberlite 169 by the Department of Geological Sciences, University of Saskatchewan. This work was funded primarily by the GSC. The purpose of the seismic modeling was to delineate morphological features of the buried kimberlite which may be pertinent to further exploration for non magnetic kimberlites in the area.

The GSC drilled a 242 m vertical corehole near the centre of the 169 kimberlite that intersected approximately 100 m of kimberlite. Borehole geophysical measurements were obtained in the drillhole with a near comprehensive suite of logs acquired including seismic velocity and magnetic susceptibility which complement ground geophysical surveys in the area. The wide range of geophysical parameters investigated assisted in characterization of the physical properties of the kimberlites and in the interpretation of other, more remote geophysical measurements. Magnetic susceptibility measurements were completed on 16 coreholes from 11 different kimberlites, resulting in the acquisition of over 7,500 data points. The data was used to establish reasonable average magnetic susceptibility values for the kimberlites for comparison with model-derived values from ground magnetic data and to assess the variability of magnetic properties within each body.

Nineteen targets were tested by HQ corehole drilling (7,041.5 m). Eight of the targets were previously untested geophysical anomalies. Ten large diameter RCA drillholes (260 mm diameter) were completed at several follow-up targets for a total of 2,177 m. In all, 237.713 tonnes of material (27.825 tonnes core and 209.888 tonnes chip cuttings) were recovered with 161.7 tonnes of sample retained for diamond recovery. Unfortunately, kimberlite samples destined for processing were hijacked en-route to the facility in South Africa, with 21 drillholes samples and approximately 10.3 tonnes of kimberlite affected. A total of 187 macrodiamonds collectively weighing 9.475 carats were separated from the samples including a large composite sample composed of kimberlite recovered from the hijacked material. Grade forecasts based on diamond recoveries ranged from 0 to 0.234 carats/tonne.

Microdiamond analyses were completed on 200 samples of approximately 20 kg size from selected drillholes by caustic dissolution. An additional 93 samples were submitted for heavy mineral separation (including microdiamonds) and indicator mineral chemistry. A total of 602 samples were collected for detailed petrographic examination.

9.2.6 1993 Exploration and Sampling Program

Geophysical investigations included ground magnetic and gravity surveys. A total of 252.775 line-km of ground magnetometer survey was completed over 29 separate targets in order to define better the outlines of several shallow magnetic anomalies. Gravity coverage at 11 sites representing 14 kimberlite-type targets was also obtained with the objective of continuing the reconnaissance scale assessment of various kimberlite gravity signatures. This work was meant to demonstrate which kimberlites were most amenable to mapping by gravity among targets with little or no magnetite and to enhance interpretation of kimberlite thicknesses among some of the larger bodies. The acquisition of magnetic susceptibility data for a range of kimberlites was continued this year with over 3,000 data points measured in 18 coreholes.

The 1993 drill program consisted of 35 reconnaissance and redrill coreholes (63.5 mm diameter), RCA holes (311.2 mm diameter), and rotary testholes (101.6 mm diameter). Thirty-three drillholes successfully intersected kimberlite. A total of 4,883.0 m of HQ coring was completed at 19 locations providing 13.212 tonnes of kimberlite for diamond recovery processing. Ten RCA drillholes penetrated 2,414.2 m of kimberlite resulting in 126.315 tonnes of retained kimberlite submitted for diamond recovery processing. Six testholes yielded an additional 9.900 tonnes of material from 5 targets. A total of 61 macrodiamonds having a cumulative weight of 2.291 carats were recovered from 15 of the drillholes. Grade estimates for the tested intervals range from 0 to 0.300 carats/tonne

Microdiamond analysis was conducted on 148 samples from 16 drillholes. An additional 56 samples from 15 drillholes were submitted for heavy mineral separation (including microdiamonds) and analysis of indicator mineral chemistry. A total of 1,760 microdiamonds were recovered from 14 drillholes.

Petrographic examination of 562 samples was completed along with separate consultant studies of the stratigraphy, sedimentology, and volcanology of the Fort à la Corne area.

9.2.7 1994 Exploration and Sampling Program

The 1994 exploration program concentrated on the acquisition of bulk samples to assess macrodiamond potential, hence, only minor geophysical surveys were conducted in three locations requiring sufficient coverage to spot drillholes (9.45 line-km).

Large diameter drilling (298.45 mm diameter) was completed in order to maximize the size of minibulk samples. Drillhole selection was based on completion of the first-pass drill-testing of anomalies which were about 20 ha in size, as well as the need for additional sample material from inadequately tested kimberlites. Seven previously untested targets and five kimberlites which had indications of positive potential based upon earlier corehole drilling were tested by 13 drillholes which provided 209.300 tonnes of kimberlite for macrodiamond processing in 29 petrographically defined sample intervals. A total of 147 macrodiamonds with a cumulative weight of 10.080 carats were recovered from 11 drillholes. Grade estimates for the tested targets ranged from 0 to 0.157 carats/tonne.

Microdiamond analysis was conducted on 29 samples from the 13 drillholes corresponding to the intervals defined for the bulk samples. In addition, one sample was selected from each drillhole for heavy mineral separation (including microdiamonds) and indicator mineral chemistry. A total of 227 microdiamonds were recovered from 11 drillholes.

9.2.8 1995 Exploration and Sampling Program

Kensington Resources Ltd. joined the Joint Venture under a three-year earning-in period, after which the four partners would each hold a 25% interest in the project.

Eight large diameter drillholes (LDDH) with diameters of approximately 300 mm were completed on eight different kimberlite bodies. A total of 247.721 tonnes of kimberlite were recovered (168.669 t actually retained for analyses) from a cumulative kimberlite intersection of 1,355.6 m. Four LDDH were targeted on untested magnetic anomalies (Kimberlites 116, 126, 133, 163). The remaining four drillholes tested kimberlites where earlier drilling warranted additional work (Kimberlites 119, 122, 140, 147). A total of 28 microdiamond and 16 indicator mineral chemistry samples were also submitted for analysis. Seven additional samples from DH 145-04 completed earlier were also analyzed for microdiamonds. Microdiamonds were recovered in 5 of 8 LDDH, with 242 microdiamonds recovered by both caustic dissolution and jigging methods. A total of 51 macrodiamonds cumulatively weighing 2.815 carats were recovered from 13 of the 35 minibulk samples processed in 1995. The best recoveries were noted in drillholes 140-08 and 147-03, yielding average grades of 0.0123 and 0.0751 carats/tonne, respectively. Individual samples were found to range in grade from 0 to 0.11857 carats/tonne. The largest diamond recovered was 0.27 carats from LDDH 147-03. Valuations on macrodiamond parcels were performed by De Beers, with a value as high as $US 104.20 assigned to a two stone parcel from DH 140-08 weighing 0.225 carats.

9.2.9 1996 Exploration and Sampling Program

Thirty rotary testholes (7,079.6 m) tested 22 previously untested kimberlite-type anomalies with the purpose of recovering samples for indicator mineral chemistry and microdiamond analyses. The drillholes also yielded small tonnage samples for macrodiamond processing. Eight additional drillholes were also completed on previously tested targets were existing results warranted further investigation. In all of the drillholes, sampling was directed at testing geologically distinct kimberlite intervals for microdiamonds (2,308 kg, 180 samples) as well as macrodiamonds (67.751 t kimberlite retained, 28.404 t processed). An additional 84 intervals from 20 different drillholes drilled in previous years also were tested for microdiamond content. A total of 24 representative samples from 24 different kimberlite bodies drilled in 1996 were submitted for indicator mineral studies.

Prior to drilling, ground magnetic profiles were completed across 17 targets (90.125 line-km) to complete the ground magnetic coverage of all known targets in the project area. Airborne GEOTEM (400 line-km) and time-domain TEM test surveys (4.5 line-km) were also undertaken to test the applicability of these geophysical methods in delineating kimberlites in the Fort à la Corne environment.

A total of 66 macrodiamonds with an aggregate weight of 1.2 carats were recovered from the minibulk samples processed during 1996. A consultant's valuation of all the Fort à la Corne diamonds recovered to date (689 stones submitted, 34.7 carats) indicates the average carat price for the parcel is US$ 43/carat, with the potential for many kimberlites to yield stones in the range of US$50-100/carat range.

9.2.10 1997 Exploration and Sampling Program

The primary objective of the 1997 Fort à la Corne drilling program was to collect minibulk samples for macrodiamond recoveries and small representative samples for microdiamond and indicator mineral recoveries. A total of two small diameter drillholes with 130.2 mm diameter (SDDH) and three RCA under-reammed large diameter drillholes with 444.6 mm diameter (LDDH-UR) were completed on five different kimberlite bodies. A total of 137.294 tonnes of kimberlite (theoretical) were recovered giving an actual minibulk sample of 72.897 t from a cumulative kimberlite intersection of 592.0 m. Twenty-seven composite intervals of kimberlite ranging from 18 to 51 m thick were created from 135 individual sample bags and were then submitted for macrodiamond recoveries. A downhole tracer program was initiated to test the recovery efficiency of materials from the borehole environment during both reverse circulation drilling and under-reaming.

A total of 31 macrodiamonds cumulatively weighing 2.520 carats was recovered from three of the five drillholes processed in 1997. The best recoveries were from LDDH-UR 220-02, which yielded a weighted average grade of 4.4 cpht. Individual sample grades ranged from 1 to 10.9 cpht. The largest diamond recovered was 0.7 carats from drillhole 220-02. SDDH 605-01 and SDDH 612-01 were barren of macrodiamonds. Fourteen intervals were tested for microdiamond contents from composite representative grab samples. Microdiamonds were produced from four of five drillholes including 150-05, 176-02, 220-02, and 605-01. Microdiamonds were not recovered from SDDH 612-01 and it is considered to be barren. A total of 206 stones, collectively weighing 0.04421 carats, were recovered by the caustic fusion process.

9.2.11 1998 Exploration and Sampling Program

The primary objective of the 1997 Fort à la Corne drilling program was to maintain the Joint Venture assets and to promote interest in testing selected prospective kimberlites. No exploration activities were conducted in the field during 1998, although a drilling program was planned for the winter of 1999. Results for 1997 program initiatives received in 1998 were evaluated and reported.

Other work included preparation of a summary of exploration activities from 1992 to 1997, which was disseminated to the public by way of technical papers and slide presentations. In addition, much of the petrographic and stratigraphic data available from downhole studies were integrated with geophysical modeling in a new interpretation of the geometry and architecture of the Fort à la Corne kimberlite bodies. At the end of 1998, De Beers Canada Inc. became operator of the project.

9.2.12 1999 Exploration and Sampling Program

A large diameter drill program was conducted by *SDS Drilling* with four holes placed in two kimberlites (147 and 220), yielding a theoretical mass of 87 tonnes over a kimberlite interval of 475.1m. The weighted average recovery was in the order of 65%. Processing resulted in the recovery of 130 macrodiamonds (4.045cts).

A total of 400 kg of kimberlite was sent for microdiamond analysis, and further grab samples were extracted for moisture, density, magnetic susceptibility and granulometry tests. Results of the kimberlite processing were somewhat disappointing in that neither the macrodiamond grade, nor the extrapolated microdiamond grades (both by Terraconsult and MINRED, the research arm of De Beers) were significantly upgraded by the 1999 work. In addition, low confidence average stone valuations for these two bodies indicated low prospectivity and further evaluation work was discontinued. The additional microdiamond work however improved confidence levels on grade prediction figures.

9.2.13 2000 Exploration and Sampling Program

A full review of all diamond recovery including 1999 work was completed by MINRED in early 2000. This prioritization was based on body size, depth, grade, and diamond size frequency distribution. Two kimberlites were chosen for further work (large diameter drilling). Three 609 mm holes were placed into body 122 and two were placed into 141. A total of 487 macrodiamonds weighing 38.37 carats were recovered from the entire exercise. Best-fit and optimistic modeled ore value estimates at +1.5 mm ranged from $US 11-18 per tonne for Kimberlite 122 and $US 28-32 per tonne for Kimberlite 141. These estimates provided the basis for the 2001 field program.

9.2.13.1 2000 Grade Forecasts and Focus on Prioritized Kimberlites

Evaluation of the Fort à la Corne kimberlite bodies during 2000 and early 2001 utilized a synthesis of diamond recoveries, previous diamond valuations, and estimated body size to prioritize the bodies with the most potential for economic diamond deposits. Results of the desktop studies conducted in 1999 and 2000 are summarized in Table 3. Despite incomplete testing and difficulties in rationalizing diamond recoveries from a variety of drilling and processing methods, exploration was focused on five high-priority bodies. Prioritization was greatly facilitated by development of enhanced grade forecasts by De Beers that have a higher degree of confidence than previously available for Fort à la Corne kimberlites.

Kimberlites with grade forecasts indicating robust, commercial-sized stone populations were given the highest priority and it is significant that De Beers grade experts consider the bodies listed in Table 4 to have very favourable potential. Grade forecasts and sample information for Kimberlites 122 and 141 were updated to reflect macrodiamond recoveries from 2000.

9.2.13.2 2000 Large Diameter Drilling, Sampling, and Macrodiamond Recovery

The primary objective of the 2000 program was to obtain large minibulk samples from two high priority bodies. The drilling program was structured to enable maximum recovery of macrodiamonds in order to provide a first-order, average value ($US/carat) of the stones in each body. Five – 24 inch diameter reverse circulation mudflood with air-assist drillholes were completed in the 2000 program. Three holes were located over the deeper-going part of the 122 kimberlite body and two over the central part of Kimberlite 141. The holes were placed within 200 m of known kimberlite intersections, so a small measure of geological control was available. A 1.2 mm screen was utilized in the field to separate fines from the minibulk samples. All minibulk sample material was processed at the De Beers-owned dense media separation (DMS) plant located in Grande Prairie, Alberta. Heavy mineral concentrates produced here were then air-freighted to Johannesburg, South Africa for final diamond recovery by De Beers under high-security conditions in a process utilizing screening to specific size fractions followed by hand sorting.

9.2.13.3 2000 Macrodiamond Recovery Results

A total of 487 macrodiamonds were recovered form this program and specific results are shown in Table 5. Past stone valuations were considered rough estimates only due to very small parcel sizes and a lack of larger stones. Due to these factors, average diamond values per body were often understated, despite a large fraction of gem-quality stones. Concern for these problems by Kensington and De Beers Canada Inc. have led to the use of two methods to understand the quality of diamond at Fort à la Corne. De Beers formulates *modeled values* based on integration of average sieve fractions for commercial-sized stones with the diamond size distributions and grade forecasts. In concert with this approach, individual stone values and average body values were assessed by an independent diamond consultant with specific expertise in this area. All forecast grades and modeled values were evaluated during revenue modeling for the prioritized bodies. Modeled values and revenues for kimberlite bodies 122 and 141 are shown in Table 6, although the conservative figures are not included.

Body	Size of Body	Total Micro-diamonds	Sample wt (kg)	Total Microdiamond weight (octacarats)*	Total Macro-diamonds	Total carats	Sample weight (tonnes)	Average Stone size (carats)	Sample Grade (cpht)
101	15.8	1	210.0	6,450	Not sampled				
116	27.3	0	17.0	0	0	0.000	27.8		0.0
118	76.0	81	410.4	2,692,565	2	0.020	8.8	0.010	0.2
119	23.7	7	267.6	71,750	0	0.000	34.9		0.0
120	134.1	655	884.0	9,895,830	149	5.746	205.7	0.039	2.8
121	34.8	357	776.5	9,196,102	63	2.340	60.6	0.037	3.9
122	108.0	211	622.0	6,436,950	77	5.820	87.4	0.076	6.7
123	24.4	153	300.3	29,207,503	7	0.132	18.3	0.019	0.7
126	21.6	0	73.0	0	1	0.130	38.5	0.130	0.3
133	17.0	42	152.0	87,400	1	0.045	42.7	0.045	0.1
134	17.0	11	84.9	74,345	1	0.010	3.2	0.010	0.3
135	41.0	1	52.8	18,597	Not sampled				
140	143.6	391	1122.6	12,410,200	39	2.010	77.6	0.052	2.6
141	106.8	102	574.2	4,175,600	18	0.925	34.8	0.051	2.7
144	32.0	2	68.8	11,250	Not sampled				
145	42.7	490	985.4	22,711,356	32	0.908	52.7	0.028	1.7
147	135.4	658	207.0	12,113,910	114	4.180	78.3	0.037	5.3
148	184.0	374	262.0	3,711,050	70	2.369	121.4	0.034	2.0
150	67.2	162	473.0	9,894,000	37	2.885	117.1	0.078	2.5
151	No data				4	0.460	5.5	0.115	8.3
152	24.8	47	166.0	697,500	0	0.000	0.4		0.0
154	32.0	4	100.0	95,345	Not sampled				
155	18.0	12	105.6	1,093,587	7	0.080	4.3	0.011	1.9
156	6.9	11	140.8	209,621	0	0.000	5.8		0.0
157	2.7	3	58.7	19,185	Not sampled				
159	10.0	2	52.8	4,233	Not sampled				
162	55.5	33	234.0	262,950	3	0.120	17.9	0.040	0.7
166	15.0	19	88.0	177,821	3	0.042	3.0	0.014	1.4
167	69.5	30	252.0	50,000	8	0.315	15.4	0.039	2.0
168	31.9	1	20.0	1,450	5	0.215	30.6	0.043	0.7
169	78.5	128	626.4	4,581,540	47	4.075	74.0	0.087	5.5
170	25.0	36	93.6	573,415	7	0.099	5.1	0.014	1.9
174	37.8	112	296.8	9,632,700	2	0.035	11.7	0.018	0.3
175	36.8	47	251.6	343,500	5	0.290	10.1	0.058	2.9
176	26.0	172	258.7	15,993,385	17	0.966	49.3	0.057	2.0
181	13.0	2	339.6	17,750	0	0.000	30.7		0.0
218	22.0	5	143.0	8,400	2	0.180	17.8	0.090	1.0
219	42.4	47	192.2	1,927,950	4	0.185	39.9	0.046	0.5
220	23.7	409	199.4	13,195,244	69	3.133	69.7	0.045	4.5
221	7.2	73	264.4	7,658,734	21	0.341	5.5	0.016	6.2
223	4.7	10	60.5	227,442	2	0.123	2.2	0.062	5.6
269	8.3	3	8.3	9,884	Not sampled				
326	43.4	0	18.0	0	2	0.060	20.2	0.030	0.3

Body	Size of Body	Total Micro-diamonds	Sample wt (kg)	Total Microdiamond weight (octacarats)*	Total Macro-diamonds	Total carats	Sample weight (tonnes)	Average Stone size (carats)	Sample Grade (cpht)
601	86.2	24	100.1	108,158	1	0.008	4.8	0.008	0.2
602	68.3	4	234.0	36,200	0	0.000	3.0		0.0
603	19.3	1	18.0	4,850	1	0.270	36.2	0.270	0.7
606	43.8	21	213.0	229,550	0	0.000	3.9		0.0
611	1.8	1	57.3	1,000	0	0.000	2.9		0.0
614	24.0	1	139.0	900	17	1.425	26.7	0.084	5.3
615	12.2	3	68.6	4,632	Not sampled				

* 1 octacarat is equivalent to $1x10^{-8}$ carat

Table 3: Kimberlite and Diamond Information Utilized in 2000 Prioritization Study

Kimberlite Body	Est. Area (Ha)	Modeled Mass (millions of tonnes)	# of Drill Holes	Minibulk Mass (tonnes)	Average Micro-diamond (stones/tonne)	Macro-diamond Grade (cpht)	De Beers Forecast Commercial Grade (cpht)
122	108	540	11	388	340	5.2	16
140	144	537	8	74	377	4.4	5-19
141	107	395	5	271	180	4.8	19
147	135	497	5	73	3,180	7.2	15
148	184	675	12	121	1,425	2.2	10
150/151	112	336	6	120	340	4.8	16

Table 4: Prioritized Kimberlite Bodies

9.2.13.4 2000 Microdiamond Recovery

Samples slated for microdiamond recovery were collected by hand from the oversize pieces of kimberlite prior to DMS processing. This kimberlite was collected on a per sample basis and represented 12 metre intervals of the full kimberlite intersection from selected drillholes. Microdiamond recovery was primarily undertaken by Kimberley Acid Laboratory (KAL) in South Africa, although one third of the samples were processed at Lakefield Laboratories in Ontario for a comparative check on recovery at the De Beers facility.

Microdiamonds recovered from this program were integrated into the existing diamond database for the 122 and 141 kimberlites and utilized for grade forecasts based on statistical diamond size distribution methods.

Drillhole	Kimberlite Intersection (m)	Minibulk Mass (kilograms)	Number Of Stones	Carats	Average Sample Grade (cpht)	Large Stone Recovery
122-09	155.7	129.153	63	4.235	3.3	1 stone >0.5 carats
122-10	146.0	118.092	57	5.105	4.3	1 stone >0.5 carats
122-11	102.8	81.078	92	7.970	9.7	4 stones >0.5 carats
Subtotal	**404.5**	**328.324**	**212**	**17.310**	**5.3**	

Drillhole	Kimberlite Intersection (m)	Minibulk Mass (kilograms)	Number Of Stones	Carats	Average Sample Grade (cpht)	Large Stone Recovery
141-04	168.1	138.590	169	12.840	9.3	2 stones >0.5 carats; 2 stones >1.0 carat
141-05	144.5	113.260	106	8.220	47.2	4 stones >0.5 carats
Subtotal	**312.6**	**251.850**	**275**	**21.060**	**8.4**	
2000 Total	**717.1**	**580.175**	**487**	**38.370**		

Table 5: Macrodiamond Recoveries from 2000 Drillholes

Body	Sample Carats (+1mm)	Grade Forecast /cpht(+1 mm)	Grade Forecast/ cpht (+1.5mm)	Model Value US$/ct. (+1mm)	Model Value US$/ct. (+1.5mm)	Model Revenue US$/t (+1.0mm)	Model Revenue US$/t (+1.5mm)	Model Description
122	17.31	8	7.5	133	144	11	11	Best fit
122		13	12	136	147	18	18	Optimistic
141	21.06	19	18	148	153	28	28	Best fit
141		19	18	173	179	33	32	Optimistic

Table 6: Modeled Values and Revenue for Kimberlites 122 and 141

9.2.14 2001 Exploration and Sampling Program

The 2001 kimberlite evaluation program was a combined drilling program of core and large diameter, reverse circulation holes followed by macrodiamond recovery from the acquired kimberlite bulk samples. Following the initial macrodiamond recoveries, and subsequent revenue modeling by MINRED in 2000 and early 2001, it was noted that at the middle and upper end of ore value estimates, the 141 kimberlite had the potential to be economic, when compared to the 1996 *Fluor Daniel Wright* Scoping Study.

A program was designed to collect sufficient diamonds to reduce the uncertainty surrounding the diamond value estimates for Kimberlite 141. MINRED suggested that 100 carats (total recovery) should be sufficient to achieve this aim. Some discussion was held to determine the best method to collect these stones as well as to test or investigate a larger part of the kimberlite.

Added to this was the possibility that both Kimberlites 141 and 140 were in fact part of the same body. Barbara Scott Smith first suggested this possibility in 1994 after viewing core and data from both kimberlite areas. While diamond size frequency plots for the two bodies looked quite different, it was felt that this difference may have been a reflection of sample bias. Removing some questionable drill hole diamond size frequency data from plots of kimberlite 140 flattened the curve to resemble the relatively coarse size frequency distribution of kimberlite 141.

MINRED stated they would require 100 carats from Kimberlite 141 to enable them to model diamond value with a higher degree of confidence. Calculated from the 2000 kimberlite intersections and results, eight large diameter drill holes would be necessary to recover the additional 80cts required. Some work was proposed on Kimberlite 150 as this was the third prioritized target from the MINRED 2000 review. Two large diameter drill holes were planned for 150. As the 2000 Large Diameter Drillhole (LDDH) program produced high volumes, diamonds larger than one carat and minimal breakage, the 24" reverse flood method was again chosen as the preferred drilling technique.

9.2.14.1 2001 Core Drilling Program

The high cost of large diameter drilling, along with the poorly understood but possibly complex kimberlite geology of kimberlite 141, prompted a proposed program of core drilling to ensure planned LDDH's were correctly sited. Up to eight PQ sized holes were originally proposed but upon receiving drill quotes from contractors, and discussing petrographic requirements with the De Beers' petrographic consultant, Barbara Scott Smith, it was decided that up to 16 NQ sized (47.6 mm) core holes could be installed for the same cost and benefit.

A core hole was therefore planned for each proposed large diameter site to gain some geological control before the larger diameter work. This left a further 6 core holes available for geology-only investigations. Large diameter drill holes were planned in the expectation that reasonable intersections of kimberlite could be obtained around the 2000 sites. All drill holes were sighted on a UTM grid established over the kimberlites and field staff were prepared to relocate large diameter sites based on corehole intersections. The final program therefore called for sixteen core holes (14 planned on Kimberlite 140/141 and 2 on Kimberlite 150) and ten 24" drill holes (8 holes into Kimberlite 141, 2 holes into Kimberlite 150).

Drilling of sixteen NQ (1.875 inch diameter) cores, predominantly from the 141 body, permitted geological evaluation of the kimberlites and was a means to spot the locations of the large diameter drillholes. Sixteen NQ (47.6 mm) diameter drill holes were completed, comprising 13 holes on Kimberlite 141, one hole into Kimberlite 140 and two core holes into Kimberlite 150. A summary of corehole statistics is summarized in Table 7.

Drillhole	Top of Kimberlite (m)	Bottom of Kimberlite (m)	Kimberlite Thickness (m)
141-06	103.5	246.0	142.5
141-07	109.5	238.5	129.0
141-08	109.5	273.5	164.0
141-09	105.0	362.8	257.8
141-10	101.5	254.9	153.4
141-11	102.5	192.0	89.5
141-12	112.5	266.5	154.0
141-13	111.16	450+	338.84
141-14	105.01	207.8	102.79
141-15	115.3	233.6	118.3
141-16	105.8	221.1	115.3
141-17	114	250.8	136.8
141-18	110.95	201	90.05
140-09	116	229.5	113.5
150-06	97.4	282.6	185.2
150-07	95.6	236.4	140.8
Total:			**2,431.78**

Table 7: 2001 Core Intersection Summary

In general, coreholes were constructed with the use of three bits of different size. Surface holes were installed using a mud circulation system and an HW tricone milled tooth bit (130.2 mm diameter). At around 30 m, the HW tricone was replaced with a NW tricone bit (98.4 mm) and again mud was used for circulation. This was used until 93-96 m when an NQ core bit replaced the tricone and coring commenced. Core drilling was generally conducted with either fresh water or at least low viscosity mud. Casing was generally installed to 80 m although on occasion this dropped so additional lengths had to be added.

Two exceptionally thick intersections of kimberlite were sampled. The first was in drillhole 141-09 (Table 7) where 257.8 m of kimberlite was intersected. This hole was located on the modeled margin of kimberlite 141. The second deep intersection occurred in hole 141-13. Kimberlite was intersected between 111 m and the bottom of the hole at 450 m. The hole was terminated in kimberlite. It is believed that both holes are located near or within the main feeder vent of the 141 body.

Petrographic studies suggest that the core hole geology can be broadly separated into three main types. These features were the "megagraded bed", "multigraded beds" and fine grained dominated texture. Descriptions by Dr. Barbara Scott-Smith of these beds are as follows:

Megagraded bed: (Holes dominated by a single mega-graded bed up to 130 m thick)
The brief macroscopic examination of the chips from 141-04, the 2001 macrodiamond results, and the 1994 macrodiamond results for 141-03 all suggest that significant diamond contents found in previous drilling were derived from the mega-graded bed.

Fine Grained Kimberlite: (Holes dominated by fine grained kimberlite (FK), although of variable type and with other types of kimberlite present)
Based on the nature of the 141-04 and 141-02 drill chips, and the related microdiamond results, it appears that at least some FK's have low grade or is barren. Thus it is recommended that these areas not be used for the 2001 RC drilling program, which is aimed at recovering carats. It is suggested, however, that these holes should be extensively sampled for microdiamonds.

Multigraded beds: (Holes dominated by repetitive graded beds <10m thick)
The third group of cores reflect a mode of pyroclastic deposition not previously encountered in 141. It is not known, therefore, whether this type of kimberlite will yield the required relatively high quantities of diamond. Thus taking bulk samples at these sites has an element of risk. However, the kimberlitic constituents forming these kimberlites more closely resemble those of the mega-graded bed. It seems, therefore, that drilling at these sites is a reasonable risk.

The dominant kimberlite phase intersected in each drillhole is as follows:

141-01 – mega-graded bed
141-06 – mega-graded bed
141-07 – mega-graded bed
141-08 – mega-graded bed plus additional complex kimberlite below
141-14 – mega-graded bed
140-09 – mega-graded bed
141-12 – multiple graded beds
141-15 – multiple graded beds
141-17 - multiple graded beds
141-02 – dominated by FK
141-09 – dominated by FK plus deeper different kimberlite

141-10 – dominated by FK plus deeper different kimberlite
141-11 – dominated by FK plus deeper different kimberlite
141-13 – dominated by FK plus deeper different kimberlite

The geology of 141-16, 141-17 and 141-18 were described as being somewhat nondescript and it was not clear how they fit the present geological model. Each of these three holes is dominated by pyroclastic kimberlite (PK) composed of constituents, which are similar to those forming the multi and megagraded kimberlites. Drillcore 141-17 contains sufficient recognizable repeated graded beds to suggest that it belongs to the multigraded group. The dominant kimberlite in holes 141-16 and 141-18 is similar to the mega-graded bed but the full sequence is not represented; for example, the basal kimberlite breccia is missing. It is distinctly possible that these intersections may represent distal lateral equivalents of the mega-graded bed. 141-16 and 141-18 also display some internal fluctuations that could alternatively suggest that they belong to the multigraded group.

At Kimberlite 150, Scott Smith used her previous notes on drillhole 150-02 to help interpret the geology of the core holes completed in 2001. Her on-site comments are as follows: *"The total drillcore can be subdivided into at least 5 different, and mostly distinctive, phases of pyroclastic kimberlite (PK). The contrasting phases of kimberlite are very likely to have different diamond grades showing that the internal geology of this pipe should have an important impact of the evaluation of this body. Two of these kimberlites form extensive intersections and are repeated in different holes".*

(1) A medium grey poorly sorted medium to coarse grained (M-CK) olivine lapilli tuff forms the uppermost parts of all three holes and occurs in the following intersections:
150-02 105-244.6m
150-06 97.4-221.8m
150-07 95.1-134m.
(2) A pale green coloured better sorted bedded very very fine to medium grained olivine tuff forms the following intersections:
150-02 254.1-265.3m
150-06 134-235.75m (probable, in disintegrated core).

Based on these recommendations and the intersection thicknesses encountered, it was decided that ten 2001 large diameter drill holes would be placed next to (within 5m) the following core holes: 141-06, 141-07, 141-08, 141-12, 141-14, 141-15, 141-16, 150-06, 150-07, and one additional site located 100m east of 141-15 (actually between 141-15 and 141-03).

9.2.14.2 2001 Large Diameter Drilling and Minibulk Sampling Program

The main objective of the 2001 program was to obtain sufficient macrodiamonds to give 60 additional carats for valuation in order to increase the confidence level of reported modeled values and revenue for the 141 kimberlite. Also, the shape, size, diamond distribution, and internal architecture of the body will be estimated using the 3D capabilities of GEMCOM, a computer program that plots drillhole and diamond recovery information. A combined kimberlite intersection of 1,327.2 m facilitated excavation of a total of 889.8 tonnes of kimberlite of which 471 tonnes of wet chips greater than 1.5 mm in size were retained for diamond recovery. Of these totals, 120.96 tonnes were excavated from the kimberlite 150 body with 60.37 tonnes of wet, coarser chips saved for processing. A total of 768.85 tonnes of wet chips were excavated from kimberlite 141. Theoretical (excavated) kimberlite masses shown in Table 8 were calculated using continual borehole diameter information from downhole caliper surveys. Some sample information listed here was revised from previous news releases.

Drillhole Number	Kimberlite Intersection (m)	Theoretical Mass Kimberlite (tonnes)	Total Depth of Hole (m)
141-20	145.5	95.586	255.2
141-21	142.2	93.399	245.0
141-22	119.0	84.129	231.0
141-23	160.8	104.589	267.0
141-24	115.7	76.940	231.0
141-25	101.3	66.681	206.6
141-26	126.1	82.472	236.2
141-27	115.6	76.463	219.5
141-28	135.2	88.589	244.7
150-08	165.9	120.958	262.0
Total:	**1,327.2**	**889.8**	**2,398.2**

Table 8: 2001 Summary of Minibulk Sampling

Initial processing of 117 samples (each representing approximately 12 m of kimberlite intersection) was conducted at the De Beers DMS facility at Grande Prairie between September 19, 2001 and October 20, 2001. The total headfeed weight of drained kimberlite was 413.134 tonnes for the bulk sample from kimberlite 141 and 57.988 tonnes for the kimberlite 150 minibulk sample. Reduction of material for diamond recovery by concentration of heavy minerals (and diamonds) resulted in a 99.2% decrease in mass. Consequently, only 3,773 kilograms of +1.5mm material were shipped to De Beers facilities in South Africa for final diamond recovery and sorting (Table 9). Ten audit samples and 5 repeat samples were run during processing.

Drillholes	Number of Samples	Dense Media Headfeed Mass (tonnes)	Heavy Mineral Concentrate Weight (kilograms)	Concentrate % of Headfeed Mass
141-20 to 28	103	413.134	2,852.08	0.7
150-08	14	57.988	920.90	1.6
Program Total:	**117**	**471.122**	**3,772.98**	**0.8**

Table 9: Summary of 2001 Initial Processing by Dense Media Separation

9.2.14.3 2001 Macrodiamond Recovery and Grade Estimates

A total of 769 tonnes of kimberlite was excavated in 2001 from kimberlite 141 utilizing large diameter drillholes. Final diamond recovery from 3,773 kilograms of heavy mineral concentrate, derived from the dense media separation process, gave recovery of a total of 466 stones with cumulative mass of 45.59 carats. Of this total, 431 macrodiamonds (>1.5 mm in size) weighing 42.455 carats were recovered and added to the existing kimberlite 141 inventory of 248 stones weighing 21.22 carats recovered from program samples acquired in 2000. Notably, a single stone weighing 3.335 carats was recovered from the 141 samples. The average sample grade (total program carats divided by total sample tonnes) was 5.5 carats per hundred tonne; this compares with 18 cpht from forecast grades, which are expected to better reflect the average grade over the entire kimberlite rather than localized (areal and stratigraphic) deficiencies or abundances due to extreme nugget effects known to be common to heterogeneous diamond deposits. Diamond recovery for the samples from kimberlite 150 yielded 35 stones weighing 3.135 carats. Fewer carats than initially anticipated were recovered from the 2001 program resulting in lower minibulk sample grades and less stones in the greater than 0.5 carat range (particularly, in comparison to 2000 samples for kimberlite 141). Some reasons for this discrepancy include:

i) Poor drilling completion in 3 of 10 holes resulting in the inability to sample the bottom-most kimberlite strata that were expected to yield significant numbers of stones;
ii) Change in lower treatment size cut-off from 1.0 mm to 1.5 mm in 2001, which resulted in fewer stones and less carats recovered;
iii) Re-calculation of kimberlite density from 2.5 to 2.21, based on several hundred sample measurements; this re-calculation impacts on the sample grade calculation; and
iv) Complexity in kimberlite lithotype encountered by drilling that may reflect variations in diamond distribution.

Table 10 shows sample grades for the eleven 610 mm diameter boreholes drilled in 2000 and 2001 that range up to 41.5 carats per 100 tonnes (cpht) and cumulatively average 5.5 cpht. Notably, the high-end sample grade includes the 3.335-carat stone recovered from a 2001 sample. Individual minibulk sample grades are not considered representative of the average grade of the kimberlite, rather the range of values likely brackets the actual grade of specific kimberlite phases or units, of which there may be several within a given drillhole. Grade estimates derived from statistical modeling of diamond size distributions for Kimberlite 141 ranged from 5 to 12 cpht. These estimates are extrapolations for stones greater than 1.5 mm in size and pertain only to the central portion of Kimberlite 141 where testing was conducted during 2000 and 2001.

Drillhole	Year Drilled	Range of Minibulk Sample Grade (cpht)	Average Borehole Sample Grade (cpht)	Preliminary Estimate of Number of Kimberlite Phases
141-20	2001	0 - 41.5	6.6	3
141-21	2001	0 - 16.1	6.4	4
141-22	2001	0 - 17.7	7.2	2
141-23	2001	0 - 11.4	5.5	2
141-24	2001	0 - 21.3	5.2	3
141-25	2001	0 - 9.7	2.7	2
141-26	2001	0 - 17.2	5.5	at least 2
141-27	2001	0 - 6.9	2.1	2
141-28	2001	0 - 13.9	4.2	3
141-04	2000	0 - 34.3	8.4	4
141-05	2000	0 - 19.7	7.1	4

Table 10: Minibulk Sample Grades for 2000 and 2001 Drillholes in Kimberlite 141

9.2.14.4 2001 Microdiamond Recovery

Representative core samples from drillholes 141-09 and 141-12 were selected for total diamond recovery using caustic dissolution methods in De Beers facilities. A total of 424 microdiamonds were recovered from this procedure with a cumulative weight of 0.143 carats. Data derived from this exercise were incorporated in the forecast grade estimates for parts of Kimberlite 141.

9.2.14.5 2001 Interpretive Results for 2001 Drilling and Sampling Program

De Beers Canada Inc., the operator of the project, oversaw preparation of an evaluation report authored by managers and geoscientists in Mineral Resource Services (MRS) a department of De Beers located in Johannesburg, South Africa. The report, for which preliminary results were supplied during July 2002, was finalized in November 2002 from currently available information and modeled by De Beers using proprietary techniques. Macrodiamond recoveries for 2000 and 2001 were carried out at De Beers' facilities located in Canada and South Africa. The total microdiamond inventory that was recovered in early 2002 and utilized in the current grade forecasts was recovered both from Lakefield Laboratory in Canada and De Beers' laboratories in Kimberley, South Africa. Services and interpretations rendered to the FalC-JV by De Beers are not independent or "at arms-length" due to their involvement in the project as a partner.

2001 Modeled Diamond Values and Preliminary Assessment of Revenue
Actual average parcel diamond values for the 2001 stones were posted at $US 52.60/carat, reflecting a substantial increase from $US 33.67/carat for the 2000 stones. De Beers notes that since the valuation of the 2000 diamond parcel, the rough market has undergone a negative shift, a trend that only recently is showing signs of a reversal. For the purpose of modeling diamond value, the 2000 and 2001 parcels were not valued as a single parcel; rather they were combined on paper only, keeping the diamonds separate for later layout exercises that are used to determine if the recovered diamonds differ in a gross sense across the 140/141 kimberlite body as drilled to date.

Modeled dollar per carat values in diamond exploration takes account of the expected diamond size distribution from any potential, future production scenario. An average dollar/carat value is based on diamond values extrapolated upwards to include recoveries modeled in the larger diamond sieve sizes. A model for 141 was fitted around the actual dollar per carat per sieve class recoveries leading to average values for all of the applicable diamond sieve categories. Combination of the modeled revenue curve and diamond size distribution yielded updated dollar per carat value estimates. This gave modeled values for macrodiamonds from 141 that range from $US 20 to $US 220/carat. In light of the difference between modeled parcel and actual values, De Beers suggests that for small diamond samples, the actual parcel value is highly variable and the actual dollar per carat value for a potential producer is usually understated.

Modeled values were combined with grade estimates and dollar per tonne values were calculated for the modeled size distributions. Hence, as a preliminary assessment of revenue based on value and grade estimates, De Beers indicates a range from $US 1 to 26/tonne. Confidence limits of 80% for the modeled values and preliminary assessment of revenue reflect variability in diamond size distribution and diamond value, and not of grade. However, the Company considers all estimates, particularly those of grade, with low confidence in respect of newly-defined geological complexity (at least 4 phases of kimberlite) and variations in diamond size distribution in the 141 and 140 bodies, overall small diamond parcel sizes, and low levels of sampling across the breadth of the body (nugget-effect).

Valuation of the 2000/2001 diamonds was conducted during November 2002 by WWW International Diamond Consultants Ltd. (hereafter, WWW). WWW indicated an overall average value based on its open market price book some 15-20% higher than that listed by De Beers for the same diamond parcels. The De Beers valuations were made utilizing the DTC June 2002 price book. The single large stone measuring 3.335 carats that was recovered from large diameter drillhole 141-20 was given a value of $US 450/carat, compared to $US 390/carat attributed by De Beers. WWW also pointed out the technical difficulties of putting a realistic market value on a relatively small geological sample. The principals of WWW are associated with the Kensington Technical Committee and also may have a financial interest in Kensington Resources Ltd..

9.2.14.6 2001 Macrodiamond Breakage Study

A total of 441 macrodiamonds from Kimberlites 141 and 150 were examined for fresh, unetched surfaces that are considered the result of man-made breakage caused by drilling or diamond recovery procedures. Of the 33 stones examined from kimberlite 150, thirteen were significantly broken with estimated loss of diamond ranging from 50% to >75%. Two stones were "fragments", which are defined as diamonds that have no original faces intact, thus obscuring determination of the size of the original stone, and three stones were "minor" to "very minor" fragments with estimated diamond loss of greater than 50% of the stone that strongly suggests shattering of larger diamonds. In total, 39.4% of the diamonds from Kimberlite 150 were broken to some degree. All stones recovered from Kimberlite 150 were captured in round diamond sieves having openings 2.845 mm and smaller. The increased breakage is due to the relatively harder and higher density rock in kimberlite 150 compared to softer, more altered kimberlites as seen in bodies 141 and 122.

Seventy-six macrodiamonds of a total of 407 examined from kimberlite 141 samples were damaged to some degree. Of the total number from Kimberlite 141, approximately 3% (12 stones) were "fragments" and 4% (17 stones) classed as "minor" to "very minor" pieces that strongly suggest shattering of a larger diamond. The remaining 47 broken stones constitute 10.8% of the diamonds making a cumulative macrodiamond breakage of 18.7%. This figure is marginally higher than the 17% breakage observed in the investigation of samples from body 141 in 2000 and is considered an acceptable low level of breakage by De Beers during a large diameter drill program. Of the 98 stones captured by a 2.464 mm round diamond sieve or larger, 11 stones had estimates of greater than 25% loss due to breakage, although, most of the largest stones captured by 3.454 mm sieves and larger did not have significant breakage. However, loss of "fragments" and "minor" pieces to the discarded, undersize fraction of the excavated kimberlite (<1.5 mm) cannot be adequately quantified and shattering of larger diamonds may still be an issue beyond simple estimation of loss from recovered stones. Estimation of the actual amount of diamond lost from broken pieces is not factored into the grade calculations or grade forecasts, which are based on size distribution of the recovered stones.

9.2.15 2002 Exploration and Sampling Program

The budget for this program was estimated at $5.2 million. A two-stage drilling program (coring and minibulk sampling) was focused on improving the understanding of geology, diamond distribution, and diamond values within the combined 140/141 body with a goal of ultimately proving up resource tonnage. Minibulk samples were acquired from three large diameter, reverse-circulation drillholes (914.4 mm or 36 inch), which were targeted on the central part of the northwest eruptive centre. These drillholes were targeted to provide additional stones in order to improve confidence levels in diamond valuations for this part of the body. In addition, five favourable locations were chosen from the sparsely-tested southeastern and central portions of the 140/141 body for minibulk sampling using large diameter (609 mm or 24 inch) reverse circulation drilling.

The program gave emphasis to the following:

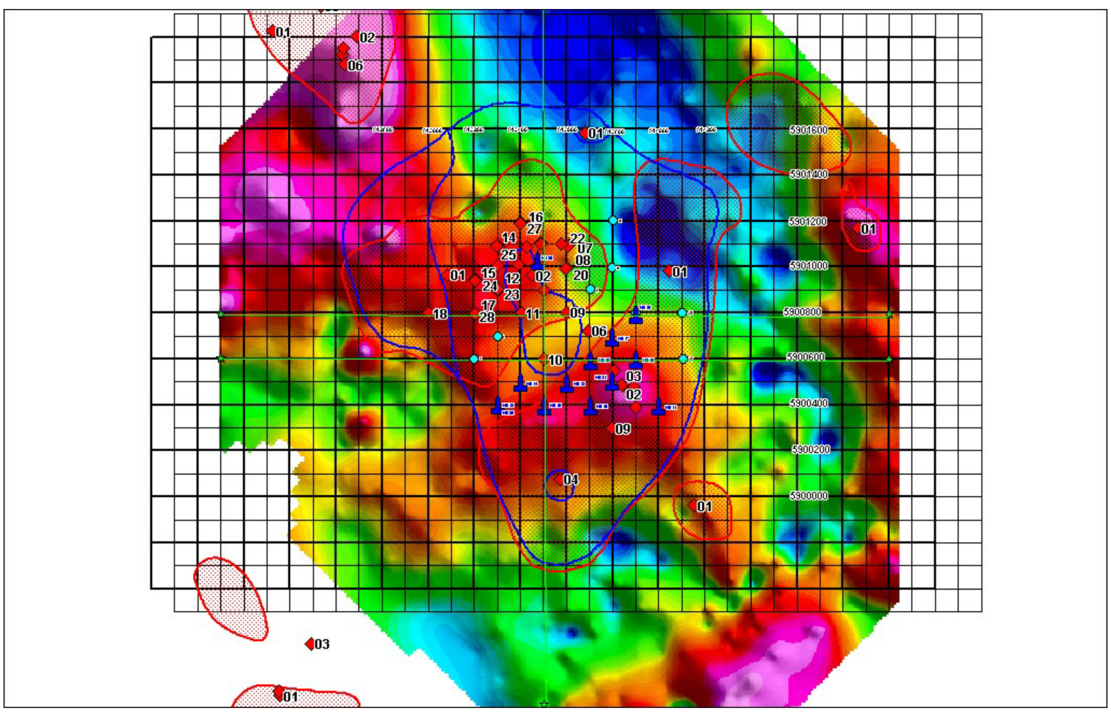
- i) A 2 Phase Drilling Program composed of 25 NQ coreholes (1.875 inch diameter), three - 36 inch diameter RC boreholes, and five - 24 inch diameter RC boreholes;
- ii) Geophysical Studies: Ground Magnetic and Gravity Surveys, and a Magneto-Telluric Survey;
- iii) De Beers Evaluation by MRS: Grade Forecasts, Valuation, and Revenue Calculations;
- iv) Geotechnical Studies – Test structural integrity of bedrock and kimberlite;

v) GEMCOM Modeling of the Kimberlite and Economic Parameters; and
vi) Conceptual Modeling Exercise: an in-house study conducted by AMEC engineering with assistance from the JV partners, to define thresholds for continued economic evaluation of the kimberlites. This is an internal report that is not specifically applicable to a single body.

Large diameter, air-assist, mud-flood, reverse circulation drilling (LDDH) was conducted by Layne-Christensen Drilling. Three cased 36-inch LDDH are targeted in a tight cluster around corehole 141-29 and LDDH 141-04 which returned significant grades and larger stones in 2000. The remainder of the LDDH program included five 24-inch boreholes strategically placed in locations of favourable corehole intervals with indications of higher diamond prospectivity. The eight large diameter drillholes will provide additional carats to increase the level of confidence in grade forecasts, valuations and revenue modeling by De Beers.

9.2.15.1 2002 Geophysical Program

Ground geophysical surveys completed in summer of 2002 on the 140/141 body and surrounding areas indicated the possibility of thicker kimberlite than originally expected in areas extending from and close to the combined body (Figure 2). One such adjacent area was shown by coincident gravity and magnetic anomalies as a large extension (approx. 600 x 600 m) westwards from the southern part of kimberlite body 140. In addition, an intense gravity anomaly coincident with a weak magnetic dipole occurs off the western flank of 141. Another gravity anomaly of similar magnitude and size (approx. 600 x 600 m) exists approximately 800 m to the southeast of body 140. These anomalies fit in well with the linear northwest trend apparent in the main kimberlite cluster. JV geophysicists are evaluating these anomalies to ascertain whether they are prospective for new areas of kimberlite.



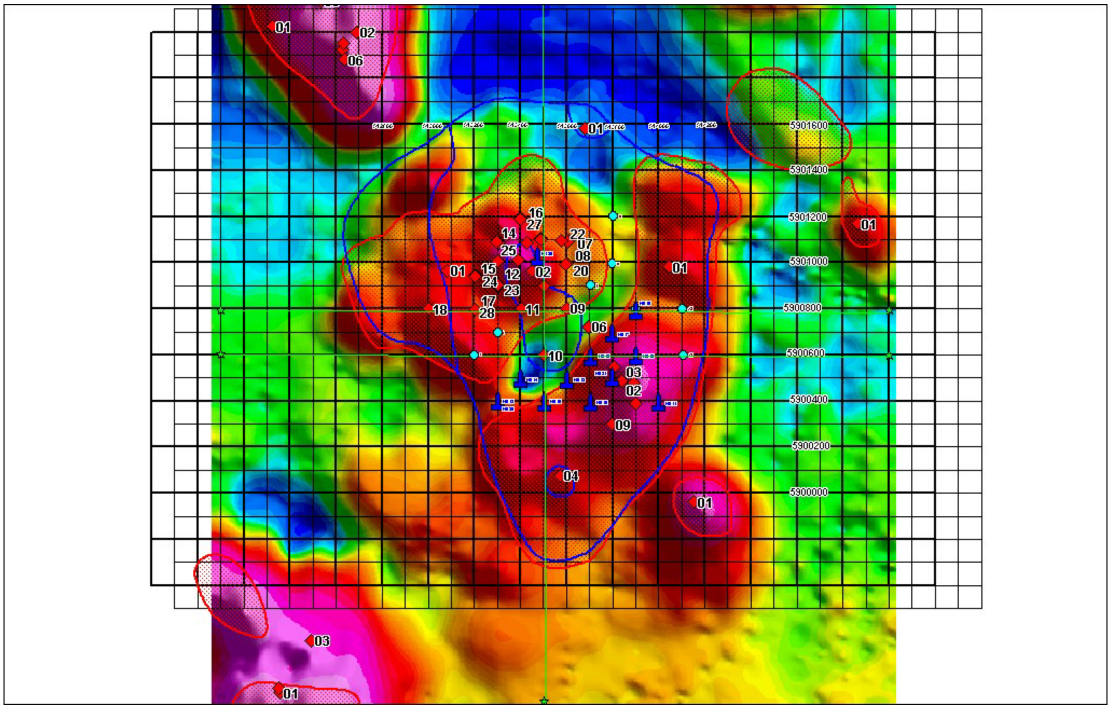


Figure 2: 2002 Geophysical Surveys on Kimberlite 140/141
Ground gravity above and Ground magnetic below. Grid is 100 metre spacing; symbols represent historical drillholes.

9.2.15.2 2002 Core Drilling Program

A total of 25 NQ coreholes (diameter of 1.875 inches or 47.6 mm) were completed on kimberlite 141/140. Drillhole 141-36 intersected 171.0 m of kimberlite, and corehole 140-21 produced 264.2 m of kimberlite and was terminated while still in kimberlite due to poor drilling conditions. The coarseness of kimberlite and thicker interval may indicate that this hole is on or near the vent of kimberlite 141/140 and is considered highly prospective for diamonds due to indicator mineral abundance, coarse grain size, and presence of mantle xenoliths. Preliminary evaluation of core from the south-central portion of the 140/141 body indicated a new area of stratigraphically distinct upper kimberlite which exhibits characteristics that are considered prospective for diamond grade. Boreholes 141-18 and 141-37 were both terminated in kimberlite due to lost steel downhole, and borehole 140-20 was shut down in kimberlite due to drilling difficulties. Table 11 summarizes the core drilling program.

Drillhole Number	Top of Kimberlite (m)	Bottom of Kimberlite (m)	Kimberlite Thickness (m)	Total Drill Depth (m)
140-10	110.0	242.0	132.0	250.8
140-11	102.0	167.0	65.0	201.0
140-12	102.0	242.9	140.9	247.5
140-13	110.0	236.6	126.6	243.0
140-14	109.0	244.3	135.3	249.0
140-15	102.0	336.5	234.5	342.0
140-16	99.7	237.3	137.6	243.0
140-17	104.1	258.2	154.1	261.0
140-18	99.8	120.0	20.2	120.0
140-19	104.1	218.1	114.0	231.0
140-20	99.5	221.0	121.5	221.0
140-21	105.3	369.5	264.2	369.5
140-22	107.8	185.0	77.2	198.0
140-23	125.0	180.9	55.9	192.0
140-24	110.7	214.8	104.1	225.0
140-25	108.2	189.6	81.4	195.0
140-26	110.7	218.5	107.8	225.0
140-27	118.7	207.4	88.7	219.0
141-29	105.8	273.0	167.2	279.0
141-34	101.4	238.1	136.7	246.0
141-35	109.0	215.0	106.0	222.0
141-36	102.5	273.5	171.0	280.0
141-37	104.8	124.0	19.2	124.0
141-37	104.8	255.1	150.3	261.0
141-38	106.2	218.5	112.3	231.0
Totals:			**3,023.7**	**5,875.8**

Table 11: Summary of 2002 Core Drilling Program

9.2.15.3 2002 Reverse Circulation Drilling and Sampling for Macrodiamond Recovery

Three large diameter drillholes (914.4 mm or 36 inch) were targeted on the central part of the northwest eruptive centre in order to maximize recovery of diamonds to improve confidence levels for diamond valuations in this part of the body. Each of the three drillholes were spotted within 15 m of a centrally located NQ corehole (141-29) that was drilled in 2002 to permit better understanding of the kimberlite intersection, which provided the best macrodiamond recoveries in 2000 (large diameter drillhole 141-04).

Subsequent to core drilling, several of the most prospective kimberlite intersections were identified for minibulk sampling by large diameter (609 mm or 24 inch) reverse circulation, mud-flood with air-assist drilling methods, which were conducted from September 29th to November 22nd. A total of 1,271.9 tonnes of kimberlite was excavated from the boreholes and then screened onsite for disposal of fines <1.5 mm in size. Drilling and sampling information for all eight large diameter boreholes is shown in Table 12.

RCmud[1] Drillhole Number	Hole Diameter (mm)	Proximal NQ Corehole[2] (Pilot hole)	Kimberlite Thickness (m)	Number of Samples[3]	Total Drill Depth (m)	Excavated Mass (tonnes)	Sample Mass (tonnes)
141-30	914.4	141-29	161.6	14	264.6	233.82	104.09
141-31	914.4	141-29	166.8	14	269.8	241.39	95.88
141-32	914.4	141-29	165.8	28 [4]	268.8	253.78	96.59
141-33	609	141-09	252.6	23	359.0	176.48	100.83
140-28[5]	609	140-21	111.8	10	217.1	72.16	57.65
140-29	609	140-16	131.2	12	230.8	84.87	58.22
140-30	609	140-17	150.0	13	259.0	100.10	63.82
140-31	906	~80 m from 140-21	166.4	15	274.7	109.24	69.93
Totals:			1,306.3	129	2,143.8	1,271.87	647.01

[1] = RCmud refers to Reverse Circulation, mud-flood with air-assist drilling methods
[2] = Information for the core drilling program was reported in a news release by Kensington Resources Ltd. dated Oct. 15, 2002
[3] = Typically 12 metre sample interval
[4] = 6 metre sample interval utilized to improve resolution
[5] = Drillhole terminated prematurely at a depth of 217.1 m due to downhole problems

Table 12: Kimberlite Intersections and Sample Tonnages for 2002 Program

The initial stage of diamond recovery was conducted at a Dense Media Separation plant (DMS) with 5 tonnes/hour capacity that treated material in the size range of 1.5 mm to 12.5 mm after preparations to remove clayey fines and crushing of >12.5 mm oversize material. The plant is located in Grande Prairie and is operated by De Beers Canada Inc. Separation procedures produced 1.5 tonnes of diamond-bearing heavy mineral concentrate from the eight large diameter drillholes. Final diamond recovery occurred at high-security facilities operated by De Beers in Johannesburg, South Africa.

9.2.15.4 2002 Results of Macrodiamond Recovery

On March 28, 2003, the Company reported the initiation of final diamond recovery for minibulk samples from the 2002 program. Approximately 1.5 tonnes of DMS heavy mineral concentrate samples containing macrodiamonds were separated from 1,272 tonnes of kimberlite excavated by three 914 mm (36 inch) and five 610 mm (24 inch) diameter drillholes targeted on the 140/141 composite kimberlite body. The Company conducted on-site due-diligence auditing and monitoring of the final diamond recovery procedures by Brent C. Jellicoe, P.Geo., the Company's Qualified Person, and Anthony Bloomer of Venmyn Rand (Pty) Ltd. of Johannesburg, South Africa, an independent firm of mining and minerals management advisors. Final diamond recovery for the Fort à la Corne drillholes was conducted at the newly renovated De Beers' Group Exploration Macro-diamond Laboratory (GEMDL), located in Johannesburg, South Africa. Laboratory renovations completed during 2003 focused on increasing the levels of efficiency and security in the facility, while in compliance with ISO 17025 accreditation standards.

The final macrodiamond recovery values were reported to the Joint Venture partners in July of 2003. A summary of all recoveries is shown in the Table 13 followed by a summary of large stone recovery by drillhole in Table 14. Recovered macrodiamonds were subjected to characterization studies including; luminescence, magnetic susceptibility, and photography. The stones were then cleaned, re-weighed, and re-sized before valuation in Charter House, London England, a De Beers facility. The stones were then sent back to Kimberley, South Africa for a Breakage Study.

RCmud[1] Drillhole Number	Kimberlite Thickness (m)	Excavated Mass (tonnes)	Sample Mass (tonnes)	Total Stones	Total Carats	Range of Minibulk Sample Grade (cpht)	Average Borehole Sample Grade (cpht)
141-30	161.6	233.82	104.09	155	14.77	0 – 15.6	6.317
141-31	166.8	241.39	95.88	153	16.62	0- 22.1	6.885
141-32	165.8	253.78	96.59	144	16.93	0 – 17.6	6.671
Subtotal 36" LDDH	494.2	729.99	296.56	452	48.32		
141-33	252.6	176.48	100.83	45	16.795	0 – 114.4	9.516
140-28[2]	111.8	72.16	57.65	15	1.22	0 – 8.2	1.691
140-29	131.2	84.87	58.22	72	14.45	1.6 – 58.1	17.026
140-30	150.0	100.10	63.82	55	9.49	0 – 46.7	9.490
140-31	166.4	109.24	69.93	29	3.125	0 – 16.6	2.861
Subtotal 24" LDDH	812.0	542.87	350.45	216	45.09		
Other[3]				1	0.35		
Totals:	1,306.3	1,271.87	647.01	669	93.760		

[1] = RCmud refers to Reverse Circulation, mud-flood with air-assist drilling methods
[2] = Drillhole terminated prematurely at a depth of 217.1 m due to downhole problems
[3] = Recovery from composite granulometry samples and Gravel Purge after processing

Table 13: Summary of Final Macrodiamond Recovery Results and Grades for 2002 Program

A total of 54 macrodiamonds larger than 0.25 carats were recovered from the samples. These stones had a combined weight of 42.03 carats. Only 5 macrodiamonds weighing 0.645 carats were recovered from concentrate cage cleanups, DMS Audits, and composite granulometry samples. This is less than 1% of the total stone recovery.

RCmud[1] Drillhole Number	>0.25 and <0.5 ct.		>05. and <0.75 ct.		>0.75 and <1.0 ct.		>1.0 carat	
	Number of Stones	Number of Carats	Number of Stones	Number of Carats	Number of Stones	Number of Carats	Number of Stones	Number of Carats
141-30	8	2.910	0	0	0	0	0	0
141-31	8	2.985	1	0.695	1	0.860	0	0
141-32	7	2.320	4	2.230	0	0	1	1.045
141-33	4	1.340	1	0.630	1	0.855	1	10.230
140-28[2]	0	0	0	0	0	0	0	0
140-29	5	1.490	0	0	0	0	4	8.145

RCmud[1] Drillhole Number	>0.25 and <0.5 ct.		>05. and <0.75 ct.		>0.75 and <1.0 ct.		>1.0 carat	
	Number of Stones	Number of Carats	Number of Stones	Number of Carats	Number of Stones	Number of Carats	Number of Stones	Number of Carats
140-30	3	0.825	0	0	1	0.895	1	3.610
140-31	1	0.325	1	0.515	0	0	0	0
Other[3]	1	0.35	0	0	0	0	0	0
Totals:	37	12.545	7	4.070	3	2.610	7	23.030

[1] = RCmud refers to Reverse Circulation, mud-flood with air-assist drilling methods
[2] = Drillhole terminated prematurely at a depth of 217.1 m due to downhole problems
[3] = Recovery from composite granulometry samples and Gravel Purge after processing

Table 14: Summary of Large Stone Recovery for 2002 Program

9.2.15.5 2002 Results of Macrodiamond Breakage Study

Macrodiamond breakage studies indicate potential diamond loss due to adverse drilling methods and recovery procedures. Recent breaks in a diamond caused by mechanical damage can often be discriminated from those formed by natural causes. A total of 644 diamonds recovered from the Fort à la Corne kimberlite bodies 140 and 141 during 2002 were examined for fresh breakage by the Harry Oppenheimer House (HOH) Geology team. Only breakage with unetched (i.e. "fresh") surfaces were considered. "Chipped" stones, or those that have less than 5% of the original diamond having been removed through fresh breakage, are considered "whole". "Significantly broken" is defined as more than 5% of the original diamond lost due to fresh (man-made) breakage. "Major" particles refer to the breakage of diamonds to the extent where more than 50%, but less than 95% of the original diamond is remaining A "minor" fragment constitutes less than half of the original diamond. The presence of minor fragments, especially very minor or "less than 25% remaining and fragment", strongly suggests the shattering of stones. A fragment is defined as a diamond that has no original faces remaining, rendering it impossible to determine the original size of the stone.

Some 22% of the total 644 diamonds examined from kimberlite 140/141 samples were damaged to some degree. Approximately 10.4% were chipped and are considered "whole". Seventy diamonds or 10.87% are major particles with greater than 50% of the stone remaining. Only three diamonds or 0.47% are "minor" fragments that have less 50% remaining. This indicates that shattering of larger stones was minimal in 2002, and much lower than the 3-4% seen in 2001. However, loss of "fragments" and "minor" pieces to the discarded, undersize fraction of the excavated kimberlite (<1.5 mm) cannot be adequately quantified and shattering of larger diamonds may still be an issue beyond simple estimation of loss from recovered stones. Total diamond breakage (not including "chipped" stones) is 11.34%, which is significantly lower than total breakage seen in 2000 and 2001. In 2002, Kimberlite 141 displayed a higher level of breakage (13.66%) than body 140 (4.35%). However, due to the small number of stones recovered from each drillhole from 140, comparison on a percentage basis should be made with considerable caution. Estimation of the actual amount of diamond lost from broken pieces is not factored in to the grade calculations or grade forecasts, which are based on size distribution of the recovered stones only.

9.2.15.6 2002 Raw Valuations of Macrodiamonds

Macrodiamonds recovered from the 2002 drill program were valued in August 2003 using the De Beers July 2003 price book. Macrodiamonds from the 2000 and 2001 programs were updated to this price book at the same time. Table 15 summarizes the raw macrodiamond values. The full spread of values per sieve size were utilized to calculate modeled values, which are reported in the De Beers' Mineral Resource Management (MRM) Report summarized later in this overview.

2000			2001			2002		
Carats	**Value**	**Av/Pr ($/ct)**	**Carats**	**Value**	**Av/Pr ($/ct)**	**Carats**	**Value**	**Av/Pr ($/ct)**
21.6	**806.62**	**37.34**	**42.08**	**2,733.38**	**64.96**	**90.96**	**3,371.12**	**37.06**

Table 15: Raw Stone Values Based on the De Beers' July 2003 Price Book

9.2.15.7 2002 Results of Microdiamond Recoveries

Representative core samples from drillholes 140-16 and 140-17 were selected for total diamond recovery using caustic dissolution methods at Lakefield Research in Ontario. Residues from the caustic procedures conducted at Lakefield were shipped to the De Beers' Kimberley Acid laboratory in South Africa for final picking and imaging. The coreholes intersected previously untested kimberlite phases including thick intervals of xenolith-rich breccia, coarse olivine pyroclastic kimberlite, and matrix-supported kimberlite located in the south and central part of the combined 140/141 kimberlite body. Recoveries of a total of 446 microdiamonds (206 stones from 140-016 and 240 stones from 140-17) were combined with the existing diamond dataset and incorporated into the 2002 grade modeling exercise conducted by De Beers.

Samples also were collected from corehole 140-12 for the dual purpose of increasing the microdiamond inventory from two distinct kimberlite phases identified in the southern part of the 140/141 kimberlite, and to test diamond recovery procedures at the SRC. Thirty-one microdiamonds were recovered from 41.54 kg sampled from the "speckled beds"; this calculates to 74.6 stones per 100kg. Eighty microdiamonds were recovered from 40.92 kg sampled from the "kimberlite breccia beds"; this calculates to 195.9 stones per 100kg. Comparable stone concentrations numbers are as follows,

Kimberlite Breccia in 140-16:	162.5 stones/100kg
Kimberlite Breccia in 140-17:	120.3 stones/100kg
Speckled beds in 140-16:	72 to 128 stones/100kg
Speckled beds in 140-17:	88 to 102 stones/100kg
Range for "Coarse" Megagraded bed:	5 to 194, but averaging about 75 stones/100kg
Range for "Fine" Megagraded bed:	5 to 175, but averaging about 50 stones/100kg

It is very important to keep in mind that it is the *size distribution of the stones* that is most important, not the stone concentration. Five stones were large enough to be recovered on the +212 micron screen and one stone was recovered on a +1180 micron screen; this single large stone weighed 9.52 mg or 0.0476 carats and is considered a macrodiamond; the three axes of the stone measure 2.14 x 1.78 x 1.70 mm. Proper allocation of diamonds to specific kimberlite phases by De Beers in the 140/141 body remains contentious until the geology of this complex body is better resolved.

A PQ corehole was drilled proximal to the three 36 inch diameter drillholes near the centre of the 141 deeper-going zone. This core was slabbed and then representatively sampled for diamond recovery using caustic dissolution at Lakefield Research Laboratory. All diamonds and residues from processing were forwarded to Kimberley Microdiamond Laboratory for routine weighing, shape classification, and normal due diligence. A total of 396 stones were recovered from 636.9 kg of kimberlite sample. These stones were added to the diamond inventory for the megagraded beds of 141 and form part of the diamond dataset utilized for grade forecasting by De Beers.

9.2.15.8 2002 Grade Forecasts, Modeled Values, and Modeled Revenue Estimates

The MRM department of De Beers Consolidated Mines has carried out annual reviews of the Fort à la Corne project since 1999 that included resource estimation work as well as recommendations for prioritization of the kimberlite bodies. MRM prepared an update for kimberlite 140/141 incorporating all relevant historical microdiamond and macrodiamond diamond recovery data as well as geological information current to Spring of 2003. This report was received in a final format during September 2003.

In 2002, the 140/141 body was classified at the "deposit" level for all variables considered including geology, grade, revenue, and sampling data. The 2002 Fort à la Corne MRM review utilized data to differentiate the kimberlite into coarse and fine zones based on diamond size frequency. Grade forecasts for these zones ranged from 7 to 12 cpht and corresponding revenues, US$ 20-220/tonne.

Based on these findings, MRM recommended a program of large diameter drilling in the vicinity of holes 141-04 and 141-05 aimed at increasing the macrodiamond parcel for revenue modeling. A cluster of three 36" diameter holes were drilled within close proximity of 141-04 and a total of 48.24 carats were recovered. In addition, MRM recommended improving understanding of the geological model for the kimberlite through core drilling that would also provide opportunities for identification of coarser grained zones. Based on kimberlite intersections in these coreholes, five 24" diameter drillholes were drilled in locations extending from the 141 central area to the 140 central area. Of these holes, one was targeted to investigate the "fine-grained vent" intersected at corehole 141-33, and the others to test the assumed extension of the mega-graded bed. A total of 45.09 carats were recovered from these drillholes.

9.2.15.9 2002 Geological Subdivisions of the 140/141 Kimberlite

A substantial amount of geological investigation continues on core drilled from the 140/141 body. In summary, five geological subdivisions were utilized for modeling evaluating diamond results.

These units are very briefly described as follows:

- **Mega-graded Bed** – overall fining-upwards kimberlite commencing with xenolith-rich breccia units at the base and terminating in fine to very fine-grained material on top; the mega-graded bed itself can be separated into "fine" and "coarse" size distributions, which in terms of spatial location, are related to proximity to the interpreted eruptive centre of the 141 mega-graded bed – i.e., coarser diamond distribution closer to the centre of eruption.

- **Cyclic/repeated gradational Beds** – similar to the mega-graded bed but consisting of stacked, internally fining-upwards beds with subtle to very obvious subdivisions or contacts in an overall fining-upwards sequence; these beds likely represent clear changes in energy levels during eruption and asymmetry within the eruption column.

- **Fine-grained Kimberlite (Vent)** – postulated younger central vent feature characterized by relatively fine-grained kimberlite.

- **Kimberlite Breccia** – a separate xenolith-rich unit distinguished from the breccias located at the base of the mega-graded unit containing variably abundant mantle-derived material.

- **Speckled Kimberlite** – a distinctive matrix-supported kimberlite containing variably abundant mantle-derived material (ilmenites and garnets, in particular); this phase contains subordinate units of both kimberlite breccia and macrocrystic, coarse olivine kimberlites.

9.2.15.10 2002 Grade Forecasts

The relatively sparse data, particularly when separated into the different geological units, implies that global estimates per geological subdivision are the only meaningful calculations possible. A grade-size plot was derived from the combination of micro- and macro-diamond data for each of the five geological units. Size frequency distributions were plotted from these data leading to calculation of grade estimates that were then both incorporated into revenue models. A sixth unit was created by division of the mega-graded bed into fine and coarse size frequency distributions.

The coarsest diamond size distributions were seen in the Mega-graded-coarse, Kimberlite Breccia and Fine-grained Vent units, although the distribution of the latter unit appears anomalously coarse due to the presence of a 10.23 carat stone. The Mega-graded bed-coarse shows the most consistency across the micro- and macro-diamond size ranges reflecting the larger number of recovered stones of all sizes, particularly with addition of the diamonds from the three 36 inch diameter holes. The other kimberlite units show varying numbers of stone counts, but all are substantially less than the coarse mega-graded bed and highlight the uncertainty associated with grade results generated in this report. Stone counts utilized in the size frequency distributions and grade forecast results are shown in Table 16.

9.2.15.11 2002 Revenue Models

Raw values of the macrodiamonds were determined by the DTC in London, England based on the July 2003 price book. Valuation data was electronically compiled into six geological/size distribution units as previously described. Actual and forecast grade data is shown in Table 17 with revenue per geological unit in dollars per carat.

Geological Unit	Tonnes[1] of Kimberlite	Stone Counts		Carats	
		Micro-diamond	Macro-diamond	Total	>1.5 mm
Mega-graded-coarse	1,048.9	311	888	95.8	88.6
Mega-graded-fine	371.1	226	86	10.9	10.0
Mega-graded-repeated	254.9	180	155	13.6	12.7
Fine Kimberlite (Vent)	176.5	171	43	16.5	16.5
Speckled kimberlite	93.9	126	45	4.6	4.3
Kimberlite Breccia	74.0	183	67	14.3	13.7

[1] Some barren samples have been excluded for grade calculation purposes

Table 16: Total Microdiamond and Macrodiamond Stone Counts and Weights

Geological Unit	Grade in cpht (>1.5 mm)			Revenue in US$/carat (>1.5 mm)		
	Actual Sample	2001 Forecast	2002 Forecast	2002 Raw Values	2001 Forecast	2002 Forecast
Mega-graded-coarse	8.4	12	**12**	32.9	115	**97**
Mega-graded-fine	2.7	5	**7**	17.2	38	**71**
Mega-graded-repeated	5.0	-	**8**	22.2	-	**75**
Fine Kimberlite (Vent)	9.3	-	**5**	33.7	-	**93**
Speckled kimberlite	4.5	-	**9**	40.0	-	**67**
Kimberlite Breccia	18.6	-	**15**	53.6	-	**97**

Table 17: 2002 Evaluation Program – Actual and Modeled Grade and Revenue Data with Comparison to 2001 Program

Each of these sub-parcels were plotted in log-space showing average sieve size against dollar per carat. Some 150 carats of macrodiamonds were available for revenue modeling, but the number per sub-parcel was considerably smaller. As would be expected, the extremely small parcels showed no consistent trends or obvious differentiation and the decision was made to combine electronically the complete data and model a single dollar per carat per sieve class. A geologically-based revenue split could be made in the future if sufficiently more stones are added to each dataset.

Plotted in log-space, the combined data showed a degree of consistency from a revenue perspective in the smaller sieve classes below +13 diamond sieve (4.521 mm). Very few carats exist in the larger size classes (only 15% by weight of the total parcel) and considerable modeling of assortment (model, quality, and colour) is required. Existing data from De Beers' group operations, combined with the assortment profile of the smaller diamonds was used to extrapolate the revenue curve up to the +23 diamond sieve (10.312 mm). The resultant dollar per carat per sieve class table has subsequently been applied to the six modeled size frequency distributions. Variations in diamond coarseness of the units lead to six distinct overall dollar per carat figures at a bottom cut-off of 1.5 mm and at SSV on the DTC July 2003 price book.

9.2.15.12 2002 Deposit Risk

Attempting to define confidence limits or upside and/or downside potential on deposit level resource data is problematic. By definition deposit level resources imply considerable risk and hence broad confidence limits. The estimation of the microdiamond-macrodiamond relationship and hence grade estimation from limited data is, to some degree, a subjective process.

Furthermore, it is likely that the emplacement model of the Fort à la Corne deposits will have some bearing on the microdiamond -macrodiamond relationship. The microdiamond content (and size distribution) can vary as a function of emplacement, under-recovery of microdiamonds from wind action during the sub-aerial pyroclastic event(s), and gravity sorting, which will result in different ratios of macrocrysts, phenocrysts and interstitial material. These processes can cause either dilution or concentration of micro diamond potential.

The impact of dilution or concentration of microdiamonds can affect the grade estimation process. In addition, any physical "sorting" within the microdiamond size ranges will affect the size frequency distribution and hence revenue estimation.

The deposit risk can be summarized into four main areas:

- internal geology, the lateral and vertical extent (i.e. volume) of each geological identified unit,
- the grade of each geological unit,
- the size distribution of each geological unit, and
- the assortment (US$/carat/per size) per geological unit.

The risk associated with grade and size frequency distribution has been previously mentioned. In terms of the assortment profile, the revenue modeling process was forced to assume a similar assortment for all the geological units. Despite this amalgamation the diamond parcel consists of about 150 carats, which is well below the 2000 to 5000 carats considered necessary to make a forecast with reasonable levels of confidence.

9.2.15.13 Conclusions and Recommendations from the 2002 MRM Report

The advances made in the geological model of 140/141 necessitated a complete rethinking of the grade and revenue estimation processes. It is likely that as geological knowledge and deposit delineation evolve so will the estimation methodologies. A natural consequence of refining a geological model is that the available sampling data has to be separated into the relevant geological subdivisions. This frequently results in creating a situation where there is insufficient data per geological subdivision for evaluation purposes.

The 2002 Fort à la Corne update classified the project at the Deposit stage for all variables and parameters. Subsequent to the report the geological model has been revised and further LDD drilling has been conducted. The recognition of a more complex internal geology resulted in the necessity of more detailed data per geological unit. Thus despite additional data from the 2002 program, the project status has not changed significantly and remains at the Deposit stage for geology, volume, grade, density and revenue.

Based on the current geological understanding of 140/141 the following recommendations can be made:

- Petrographic studies from existing material (chemical fingerprint, XRF etc) should be done to assist in geological unit identification, differentiation and the emplacement model.
- Increase micro diamond database (from existing core) for the fine, speckled and breccia kimberlites.
- Investigate the potential for diluting and or concentrating micro diamonds as a function of the host kimberlite.
- Improve the geological understanding and the extent of the kimberlite breccia unit by delineation drilling.
- Should the volumetric extent of the kimberlite warrant further investigation this should be in the form of single 36" diameter LDD holes on a systematic grid.

9.2.15.13.1 Discussion Points Concerning the 2002 MRM Report

In consideration of the MRM Report, the following discussion points are relevant:

1. The 140/141 kimberlite is characterized by stratigraphic complexity and there appears to be a high degree of variability in grade and diamond size distribution; it is very likely that the 140/141 kimberlite is the product of at least two eruptive centres or feeders that have produced a coalescent kimberlite body; at present the geological model is complex and it is very important to recognize different kimberlite phases and then to properly allocate diamond recoveries to these units in preparation for modeling grade and revenue; *it is the opinion of the author that further work is required on the geological model and that allocation of diamond results may change as the geological model evolves.*

2. Most data relates to the mega-graded bed; the mega-graded bed is more a local feature rather than a pervasive kimberlite wide feature; 50% of the mega-graded samples are "Fine" and are tested only in the central part of the 141 sector (about 20 ha); the grades and values are not representative of the entire body; combining data from the mega-graded bed at 140 and from 141 is not advisable as they likely came from two different vents and eruptive events.

3. Considerable additional sampling will be required to obtain a confident geological model for the entire kimberlite; this model requires broad distribution of drillholes and representative sampling both vertically and horizontally in order to model the spatial distribution of diamonds in terms of size and number; however, delineation of the extent of higher grade zones may permit early estimation of the volume and tonnage of that phase – this becomes a relevant evaluation criterion that may discourage further work if the calculated tonnage falls below that which is thought to be required for an economic deposit.

4. In previous years, grade forecasts for Fort à la Corne Grade kimberlites typically have been 2-3 times higher than actual sample grades. Two forecasts this year are lower than the actual sample grades. De Beers has explained that this is the other side of the nugget-effect whereby a greater amount of diamond is recovered from a sample than that which would be representative of a larger sample. Both the *breccia* and *Fine Kimberlite (Vent)* would fall under this explanation if the kimberlite unit contacts and corresponding allocation of diamonds were correctly determined.

5. Recovery derived from total content models for the subdivisions was factorised in respect of the smaller diamond to represent a probable production type diamond size distribution, thus eliminating smaller diamonds that would normally be screened out to undersize or locked in tailings during production.

6. Small parcel sizes limit confidence in the modeled grades, values, and revenues; in particular, all phases besides the mega-graded bed have very small diamond parcels.

7. It is difficult to compare results from 2000, 2001, and 2002 due to different presentation formats and different (evolving) ways of modeling the data.

9.2.15.13.2 Disclaimers and Cautionary Points - 2002 MRM Report

1. Grade was derived from the total diamond content model. This procedure assumes that the observed diamond content distribution with size is reflected correctly by sampling and provides a global grade estimate for the part of the kimberlite covered by sampling.

2. Revenue figures supplied in this report are based on very small amounts of diamonds and could vary substantially from actual average values determined from larger diamond parcels.

3. Actual parcel value is calculated by dividing total dollar value by total carats in the parcel. For small samples, this value is highly variable and simulations have shown that the actual dollar per carat value for a producer is usually understated this way.

4. Modeled dollar per carat value takes account of the expected diamond size distribution for the producer and is based on average values extrapolated for larger diamond sieves.

5. Under normal conditions, it is possible to draw a valid comparison only if the diamond parcel contains more than 2000 carats. The absence of a sufficient number of large stones means that there is still considerable uncertainty associated with the revenue model.

6. If the presence of any part of the size distribution has been influenced by secondary events in any part of the body, local grade derived from these methods would not be valid and serious difference in diamond size distribution and grade may occur locally within the kimberlite.

7. More confidence in the extrapolated values can only be achieved by having a larger diamond parcel for valuation.

8. Diamonds could be lost during sampling and treatment as a result of breakage or non-recovery due to low luminescence; breakage is not accounted for in any of the modeling, despite the preponderance of breakage in larger stones.

9.2.15.14 Targeted Geoscience Initiative - 2002 Update

A joint Federal / Provincial Targeted Geoscience Initiative (TGI) was established between the GSC and the Saskatchewan Energy and Mines (SEM, now Saskatchewan Industry and Resources or SIR, and including the Saskatchewan Geological Survey or SGS) to further the study of the Fort à la Corne kimberlite field. The project was initiated in 2001 and designed to encourage an interest and understanding of the diamond potential of central Saskatchewan. The TGI group primarily is driven by Gary Delaney (SGS), J.P Zonneveld (GSC), and Bruce Kjarsgaard (GSC).

The TGI is made up of two main components/phases. The first is an update of the Diamonds of Saskatchewan SEM review. The second is to involve both a limited 3D seismic survey over the Star Kimberlite (located on ground held by Shore Gold Inc.) and a more extensive 2D survey over kimberlite 141 (now defined as the northwest part of the combined 140/141 complex) held by the FalC-JV. The FalC-JV indicated an interest in participating in the second phase of the program as it was seen as a way of increasing an understanding of what is thought to be a relatively complex kimberlite without the need for further drilling. The FalC-JV agreed to donate $10,000 to the exercise, and Cameco later agreed to complement an additional $5,000 to the program.

The TGI group suggested that it would be useful to run downhole logs in a number of core holes to aid in the seismic profile. The FalC-JV therefore purchased and installed 2" PVC casing in four drill holes. Casings were installed in drillholes 140-09, 141-11, 141-12, and 141-15 to depths of 183 m, 171 m, 240 m, and 243 m, respectively. Multi-parameter downhole geophysics was conducted in these holes by the GSC/SGSgroup (and therefore independent to the JV) between the 16th and 19th of August. The geophysical tools that were run included natural gamma ray, magnetic susceptibility, density and sonic (porosity). The GSC and SIR have been allowed full access to the core for geological logging. The need for additional sampling will be assessed on a case by case basis. Samples collected from core to date will be used for micropaleontological studies (examination of foraminifera for biostratigraphic age and paleoenvironment), sedimentology (polished slabs to be photographed and returned), petrology/volcanology, whole rock geochemistry, and geochronology (perovskite/phlogopite/zircon recovery – small samples).

Data from the multi-parameter downhole geophysics program on four FalC drillholes has been integrated into the TGI results. Field work for a broad 2D survey over most of the 140/141 kimberlite was completed during the first quarter of 2003. Data from both of these surveys was processed during the remainder of 2003.

Coreholes from 2002 and prior have at least a simple log showing major contacts; works continues on constructing full petrographic and stratigraphic logs for each of the coreholes. These graphic logs will be incorporated into fence diagrams that approximate the 2D seismic lines and several other cross-sectional views. Coreholes drilled in 2003 from kimberlite 140/141 have been logged and incorporated into cross-sections and 3D block diagrams. The geological model for this body is undergoing review by the JV partners and a final report is in preparation. Approximately 128 samples have been collected from core to date, which will be used for micropaleontological studies, sedimentology, petrology/volcanology and geochronology.

9.2.15.15 2002 Venmyn Rand Mini-Audit Report on Macrodiamond Recovery

Venmyn Rand (Pty) Ltd. was hired by the Company to evaluate efficiency and suitability of final diamond recovery procedures and equipment at the newly renovated GEMDL facility. The end-product of the evaluation was an independent Qualified Person's report documenting the new configuration of the laboratory and recommendations for future analytical work. This report remains as an internal reference document for the company and is not considered material. In addition to monitoring diamond recovery, Mr. Jellicoe (Kensington's Qualified Person) visited several highly successful De Beers-operated, small to large, open pit mines in Botswana and South Africa. During these visits, he familiarized himself with scales of mining and ore processing that may one day be applied to high priority Fort à la Corne Joint Venture kimberlite bodies.

9.2.16 2003 Exploration and Sampling Program

During the first eight months of 2003, no field programs were conducted at Fort à la Corne as the bulk of the 2002 diamond recovery and interpretation program was underway. In August 2003, the Joint Venture partners met to discuss a work program for 2003 and decided to implement a $3.0 million program in part based on recommendations put forward by geoscientists of De Beers' MRM following evaluation of draft interpretations of results from the combined 2000, 2001, and 2002 programs. This program focused on improving the understanding of geology, diamond distribution, and diamond values of the southern part of the 140/141 body with a goal of ultimately proving up resource tonnage for the "kimberlite breccia". In addition, a significant drilling and sampling effort was aimed at investigating the geology and diamond distribution in other high priority bodies including Kimberlites 122, 148, and 150.

9.2.16.1 2003 Airborne Geophysical Survey

The 2003 work program commenced with a fixed-wing airborne tri-sensor magnetic gradiometer survey over the entire Joint Venture project claim area that was run by *Goldak Airborne Surveys*. The survey had some over-run beyond the claim boundaries and the affected claim holders were offered hard copy results covering their land. Two blocks were flown for a total of 3,090 line kilometres at a 150 metre line spacing. The airborne survey provides a much improved magnetic dataset compared to previous airborne data acquired in 1989 and 1990. An example of the survey results is shown in Figure 3.

Kensington received a final report documenting the program and including a full digital record of the results. The project operator has produced full scale colour maps and interpreted the results. Six new magnetic anomalies potentially representing un-tested kimberlite bodies were identified. These targets required drill-testing to confirm the presence of kimberlite and to permit logging for petrographic character.

9.2.16.2 2003 CSAMT Survey

Although CSAMT (a type of magneto-telluric survey) was unsuccessful in 2002, this type of geophysical survey was attempted again using a different array of frequencies to produce a better resistivity differentiation between kimberlite and country rock. The survey was run by *Empulse Geophysics* in September 2003 over the 140/141 kimberlite. Results are held by the Operator, De Beers, and are not considered relevant or material due to operational difficulties.

9.2.16.3 2003 Ground Gravity Surveys

Ground gravity surveys accompanied by differential GPS were conducted by an in-house De Beers' crew over kimberlite 122, a large area embracing kimberlites 148, 150, and the area around kimberlite 140/141, which was partially surveyed in 2002. The surveys used 100 m line spacing and 100 m stations; a total of 2,482 stations were acquired over a 3 month period. A large gravity anomaly of significant amplitude was delineated immediately east of, and contiguous to, the 150 kimberlite (shown as the central mass of red colour contours in Figure 4). The anomaly covers an area three times that of the known 150 kimberlite body, or about 200 hectares. Both the gravity and magnetic data indicate that some kimberlites may have greater extents than previously outlined. The outlined extent of kimberlite bodies to a 30 metre thickness cut-off by modeling geophysical data is in progress by the operator. Kensington has received a final report documenting the program and including a full digital record of the results. The project operator has produced full scale colour maps and interpreted the results.

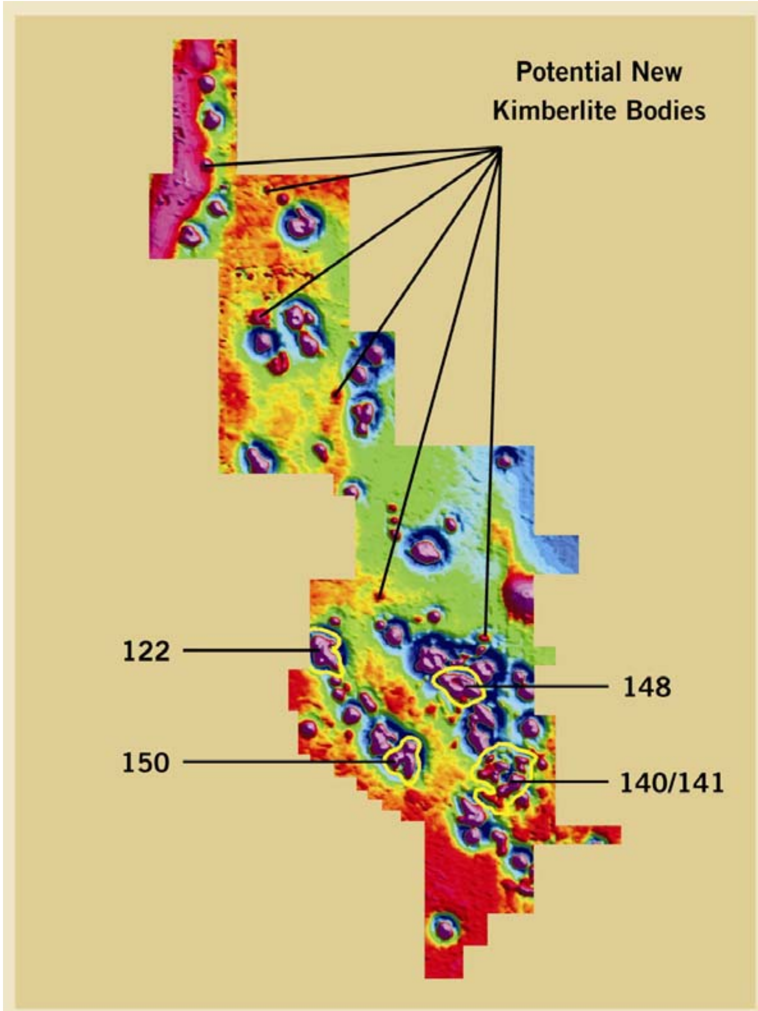


Figure 3: **2003 Airborne Tri-sensor Magnetic Gradiometer Survey**
Colour contour map of gradiometer results; circular to ovoid purple masses are FalC kimberlites held by the FalC Joint Venture

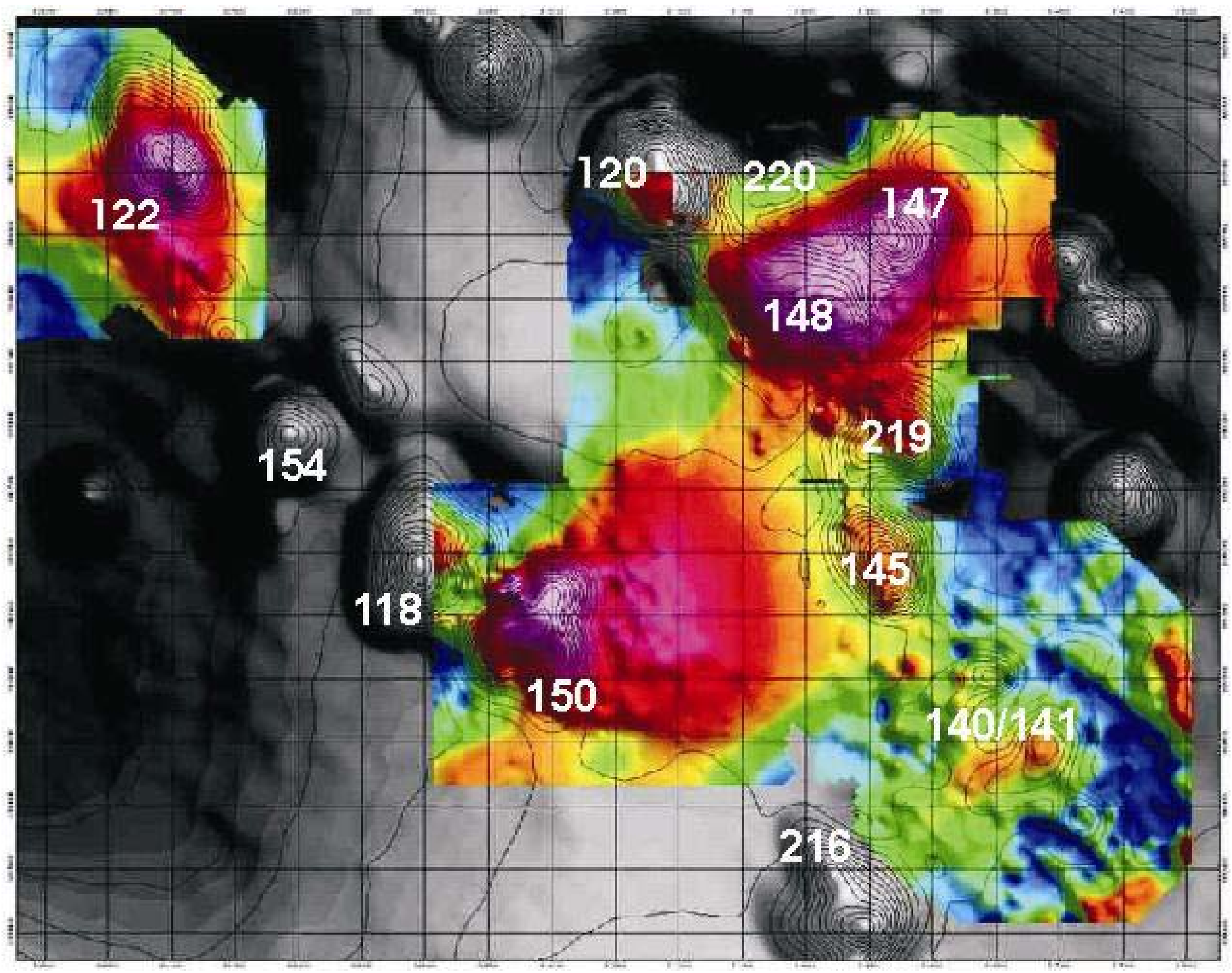


Figure 4: Compilation of 2002 and 2003 Ground Gravity Survey and 2003 Magnetic Survey
Ground gravity data superimposed over a gray-tone image of airborne magnetic contours.

9.2.16.4 2003 Core Drilling Program

Boart-Longyear mobilized three LF-70 hydraulic core drilling rigs for this program. A total of 49 core holes provide significant opportunities for understanding the geology of 4 separate, prioritized kimberlite bodies and for diamond recovery geared to better understanding their diamond content and distribution.

Drilling concluded during mid-November with a total of 48 HQ (63.5 mm or 2.5 inches) coreholes and one NQ (47.6 mm or 1.875 inches) corehole. Diamond core bits are composed of traceable synthetic cutting diamonds that can easily be distinguished from natural stones. Significant intersections of prospective kimberlite were encountered in each of the kimberlite bodies investigated and sufficient coverage of the bodies from this program and previous drilling will permit construction of geological models. The table shown below summarizes the drilling program. The core was subsequently petrographically logged in detail and sampled for microdiamond recovery and geochemistry according to priority and prospectivity. A summary of kimberlite core intersections is shown in Table 18.

Kimberlite Body / Drillhole	Thickness of Till (m)	Top of Main Kimberlite (m)	Base of Main Kimberlite (m)	Thickness of Main Kimberlite (m)	Thickness of Total Kimberlite (m)	End of Hole (m)
140-32	101.06	101.06	244.30	143.24	146.29	291.00
140-33	100.42	100.42	199.35	98.93	98.93	208.00
140-34	100.20	100.20	205.50	105.3	105.72	219.00
140-35	104.95	113.60	152.43	38.83	56.85	216.00
140-36	99.00	99.00	139.62	40.62	40.62	142.00
140-37	102.92	131.93	142.33 [1]	10.40	10.40	147.00
140-38	101.90	105.00	214.96	109.96	109.96	228.00
141-40	109.20	138.93	161.35	22.42	25.23	272.00
140-39	100.17	100.17	243.40	143.23	143.23	249.00
140-40	102.00	102.00	237.35	135.35	138.55	246.00
140/141 Total	**1,021.82**			**837.88**	**875.78**	**2,218.00**
03-150-01	106.32	106.32	198.85	92.53	92.53	207.00
03-150-02	112.78	112.78	214.13	101.35	101.35	225.00
03-150-03	110.42	123.96	169.17	45.21	45.21	180.00
03-150-04	106.80	111.23	169.70	58.47	60.59	192.00
03-150-05	99.90	104.53	154.90	50.37	50.42	174.00
03-150-06	96.28	96.28	216.16	119.88	119.88	222.00
03-150-07	104.15	121.49	157.56	36.07	36.07	165.00
03-150-08	113.73	117.67	205.96	88.29	88.29	213.00
03-150-09	99.00	101.16	183.05	81.89	81.89	192.00
03-150-10	103.47	109.63	135.00 [2]	31.60	31.60	135.00
03-150-11	113.47	120.90	158.00 [3]	35.33	35.33	158.00
03-150-12	102.90	102.90	192.50	89.60	89.60	201.00
150 Total	**1,269.22**			**763.66**	**832.76**	**2,264.00**
03-148-01	92.39	92.39	251.20	158.81	158.81	258.00
03-148-02	93.65	93.65	201.50	107.85	107.85	231.00
03-148-03	92.75	92.75	203.87	111.12	111.12	216.00
03-148-04	99.15	99.15	153.38	54.23	54.23	183.00
03-148-05					0.00 [4]	67.00
03-148-05a	92.18	92.18	181.00	88.82	91.77	204.00
03-148-06	91.80	91.80	200.09	108.29	108.29	207.00
03-148-07	100.88	100.88	147.24	46.36	46.36	153.00
03-148-08	99.31	99.31	147.12	47.81	47.81	156.00
03-148-09	109.90	109.90	124.93	15.03	16.95	156.00
03-148-10	112.54	112.54	152.31	39.77	39.77	159.00
03-148-11	102.49	102.49	134.80	32.31	36.64	150.00
03-148-12	92.20	92.20	272.85	180.65	180.65	282.00
03-148-13	96.00	96.00	193.33	97.33	97.33	210.00
03-148-14	93.02	93.02	222.85	129.83	129.83	234.00
03-148-15	92.56	92.56	198.31	105.75	105.75	207.00
148 Total	**1,460.82**			**1,323.96**	**1,333.16**	**3,073.00**

Kimberlite Body / Drillhole	Thickness of Till (m)	Top of Main Kimberlite (m)	Base of Main Kimberlite (m)	Thickness of Main Kimberlite (m)	Thickness of Total Kimberlite (m)	End of Hole (m)
03-122-01	117.05	140.36	204.25	63.89	63.89	213.00
03-122-02	117.10	118.70	230.29	111.59	111.59	249.00
03-122-03	119.45	119.45	195.00	75.55	75.55	204.00
03-122-04	107.20	107.20	225.00	117.80	117.80	231.00
03-122-05	108.48	113.80	183.20	69.40	69.60	195.00
03-122-06	112.41	112.41	178.24	65.83	66.02	186.00
03-122-07	106.80	119.25	195.28	76.03	83.63	204.00
03-122-08	114.00	114.00	193.92	79.92	79.92	204.00
03-122-09	111.60	111.60	268.30	156.70	158.06	279.00
03-122-10	112.00	112.00	140.62	28.62	28.89	144.00
03-122-11	108.00	108.00	153.39	45.39	45.39	165.00
122 Total	**1,234.09**			**890.72**	**900.34**	**2,274.00**
Grand Total	**4,985.95**			**3,816.22**	**3,942.04**	**9,829.00**
% of Total	50.7			38.8	40.1	

[1] = drillhole 140-37 prematurely terminated in disturbed kimberlitic sediments
[2] = drillhole 03-150-10 prematurely terminated in kimberlite due to drilling difficulties
[3] = drillhole 03-150-11 prematurely terminated in kimberlite due to drilling difficulties
[4] = drillhole 03-148-05 prematurely terminated in overburden due to drilling difficulties

Table 18: Preliminary Summary of 2003 Core Drilling at Fort à la Corne

An initial allocation of 12 drillholes was targeted on Kimberlite 148 (drillhole 03-148-05 was terminated prematurely due to downhole problems). This was later complimented by an additional 4 holes located on the north-central portion of the body where highly prospective, medium- to coarse-grained, macrocrystic kimberlite was identified. Seven of the drillholes intersected greater than 100 m of kimberlite, with an additional two between 90-100 m. Prospective core intersections range up to 150 m in thickness and occur over an area of at least 800x400 m in size. Figure 5 shows the locations of coreholes drilled in 2003.

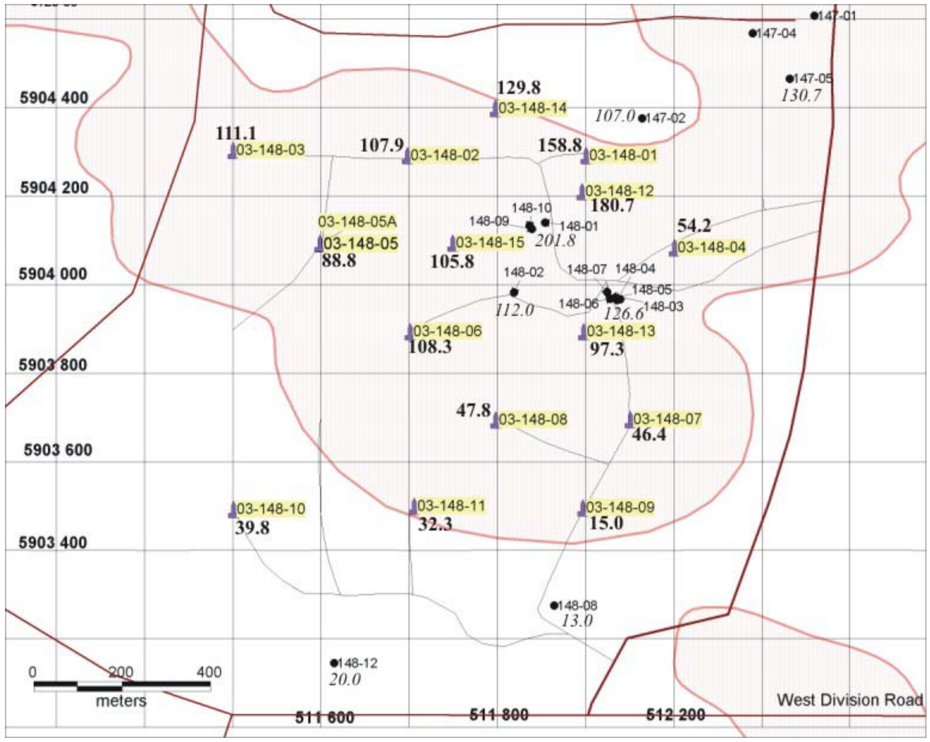


Figure 5: Location of 2003 Coreholes on Body 148 Showing Main Kimberlite Thicknesses

Drillholes were widely spread over a grid encompassing most of the deeper-going zone interpreted from geophysical surveys in the 1990's. The deepest intersections were encountered over the north-centrally located gravity anomaly. Prospective core from 03-148-01, 02, 12,14, and 15 proved to be susceptible to varying amounts and degrees of disintegration due to hydration and swelling. The core was split and sampled for diamond recovery utilizing caustic dissolution methods at the SRC, in Saskatoon. Diamonds recovered from these samples were added to the inventory for this body.

A broad pattern of drilling across Kimberlite 150 produced an additional two 100+ m intersections. Kimberlite thicknesses show a significant deeper-going zone located in the west central part of the body. Prospective medium-grained, macrocrystic kimberlite types were common in this area. The core was split and sampled for diamond recovery utilizing caustic dissolution methods at the SRC, in Saskatoon. Diamonds recovered from these samples were added to the inventory for this body. See Figure 6 for location of the 150 drillholes.

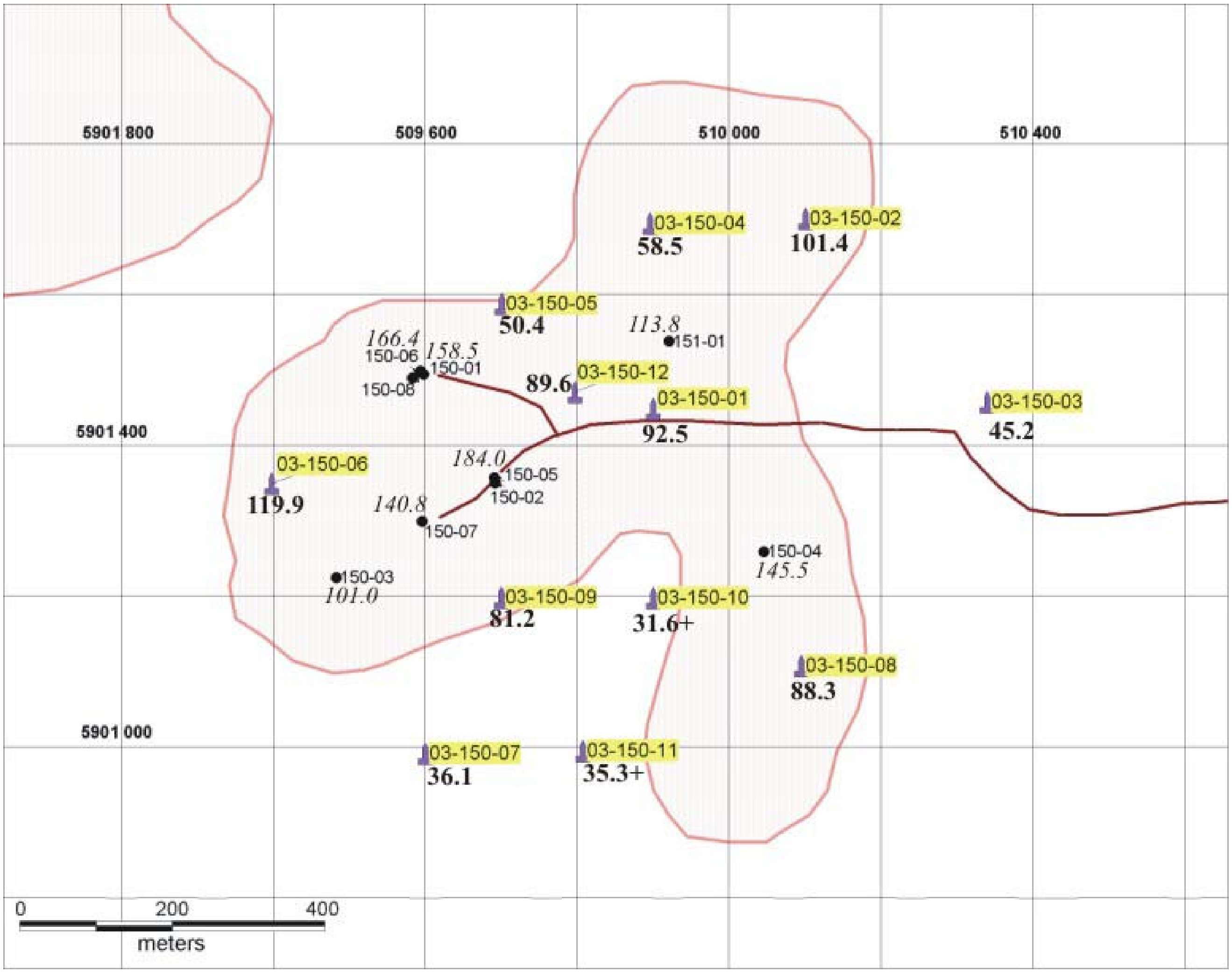


Figure 6: Location of 2003 Coreholes on Body 150 Showing Main Kimberlite Thicknesses

Drillhole placement on Kimberlite 140/141 was targeted to maximize intersection of kimberlite phases including the "speckled beds" and the "breccia beds". The objective of this drilling was to delineate the vertical and areal extent of the breccia beds in particular. These prospective kimberlite units appear to thin towards the southwest and the west into the interpreted extension of the 140/141 body as delineated in the 2002 geophysical program. Geological interpretation and modeling of deposit tonnages for this body are a priority for the operator.

Corehole 141-40 was targeted on a significant gravity anomaly located to the west of the 140/141 body; only 25.23 m of kimberlite were intersected within mudstones of the Colorado Shale. Hence the anomaly is not attributed to a substantial new kimberlite body. Similarly, corehole 141-37 intersected only 10.4 metres of main kimberlite, indicating significant kimberlite thickness is not through-going to the southwest extension, or the gravity anomaly may not be entirely related to the presence of kimberlite. Four of the 140/141 kimberlite cores were digitally imaged using a test machine by De Beers. See Figure 7 for location of the 140/141 drillholes.

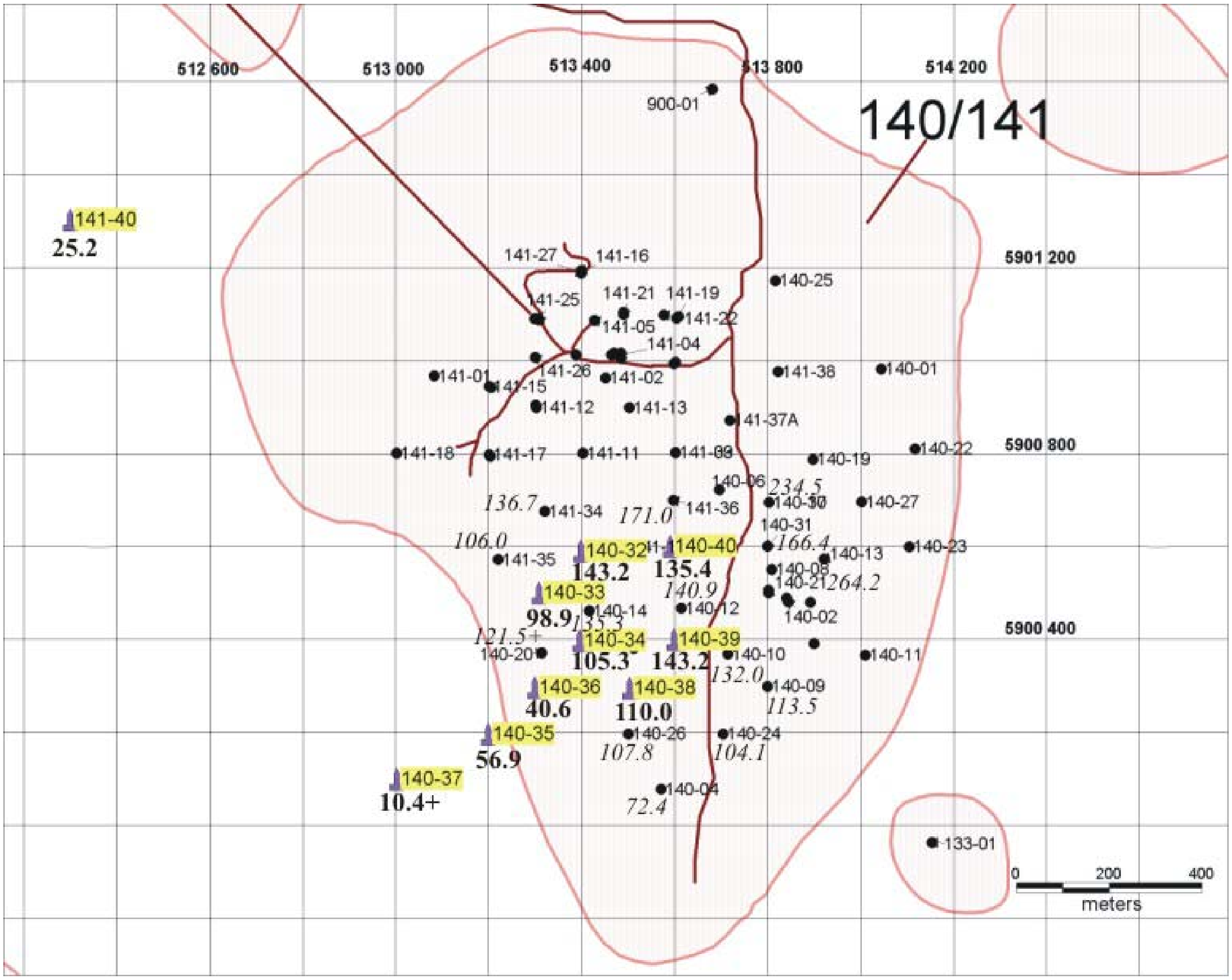


Figure 7: Location of 2003 Coreholes on Body 140/141 Showing Main Kimberlite Thicknesses

Drillholes targeted on Kimberlite 122 were placed over a broad grid to provide better representivity over the body for both an understanding of the geology and for microdiamond sampling. Three drillholes encountered intervals of greater than 100 m of kimberlite and prospective medium- to coarse-grained, macrocrystic kimberlite phases were intersected in 8 of the drillholes. The core was split and sampled for diamond recovery utilizing caustic dissolution methods at the SRC, in Saskatoon. Diamonds recovered from these samples were added to the inventory for this body. See Figure 8 for location of the 122 drillholes.

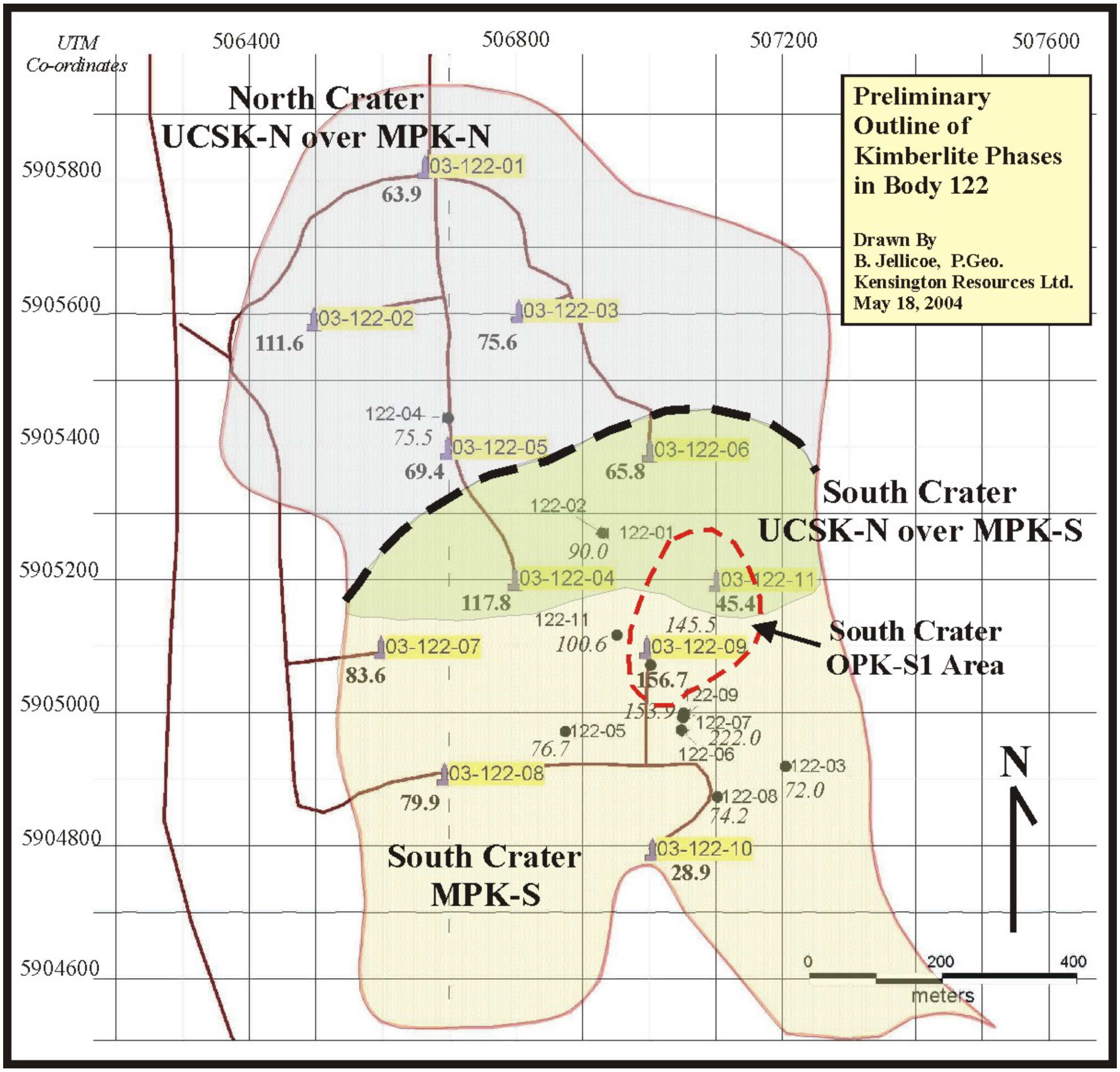


Figure 8: **Location of 2003 Coreholes on Body 122 Showing Main Kimberlite Thicknesses and Areas Dominated by Discrete Kimberlite Phases**
Roads are shown in red and the dashed lines indicate estimated boundaries between sectors based on lithological predominance. The light grey grid denotes UTM lines.

9.2.16.5 Geology of Kimberlite Bodies Drilled in 2003

9.2.16.5.1 Kimberlite 140/141

Geological modeling of Kimberlite 140/141 shows it is dominated by a thick interval of graded fine to coarse-grained olivine pyroclastic kimberlite that have relatively thin intervals of xenolith-rich, breccia beds in the northern part of the body. Diamond grades and revenue modeling for these units were reported between 2000 and 2003. Investigation of the southern part of the extensive body during 2002 and 2003 by core drilling and a limited numbers of 24-inch reverse circulation drillholes showed the presence of several new kimberlite phases, although the dominant kimberlite types are medium to very coarse grain xenolith-rich breccias and matrix-supported kimberlites (“speckled” kimberlites) considered to be older than the overlying, relatively thin veneer of graded olivine-rich pyroclastic beds.

Preliminary geological modeling of the southern part of the body, in part from the new core intersections revealed four main phases of kimberlite including: 1.) repeated graded beds similar to the graded fine to coarse-grained olivine pyroclastic kimberlite beds located to the north and east; 2.) a moderately thick interval of older breccia beds having a closer textural affinity to the speckled beds below; 3.) variably thick intervals of underlying “speckled”, matrix-supported kimberlite containing thin, areally limited, interbedded coarse-olivine pyroclastic beds and breccias; and 4.) several stratigraphically diverse “other” kimberlites that are currently grouped together until better differentiation of the phases can be made.

The current GEMCOM 3D model for Kimberlite 140/141 has being updated by De Beers to include information from the 2003 drillholes with due consideration given to work by the GSC under the TGI Program in this area. Figure 9 shows an in progress cross-sectional geological model through the central part of the 140/141 body constructed by the GSC and SGS. Several discrete kimberlite units are shown in different colours. A 3D block diagram constructed by the GSC and SGS is shown in Figure 10. These two figures give an approximation of the size, geometry, and complex architecture of a large, multi-vent Fort à la Corne kimberlite.

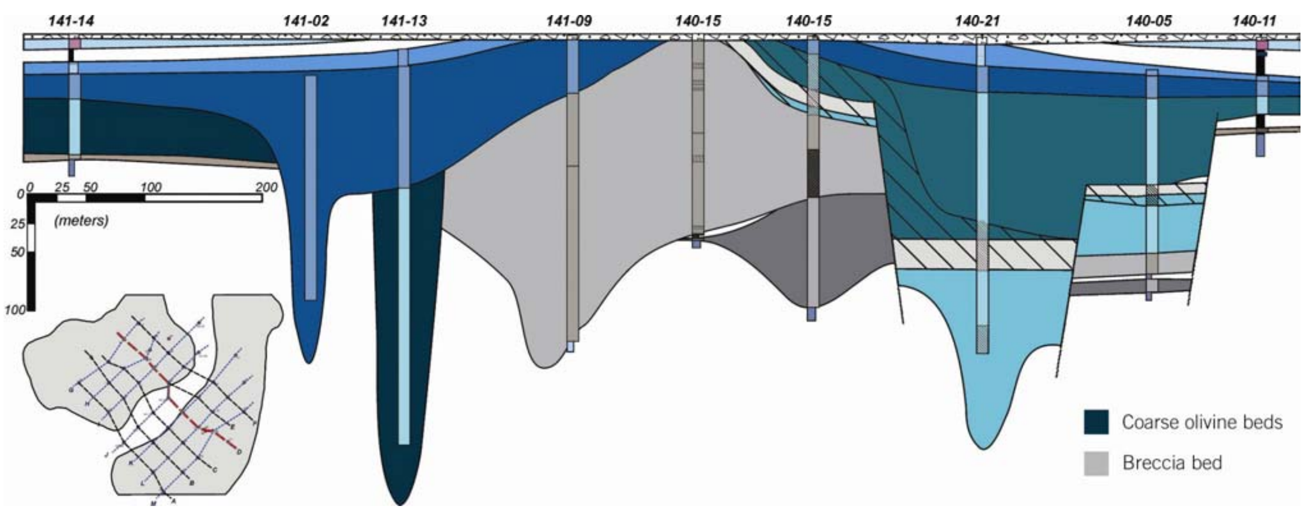


Figure 9: Geological Cross-section oriented NW-SE across the 140/141 Kimberlite Body (Courtesy of the Geological Survey of Canada and Saskatchewan Geological Survey)

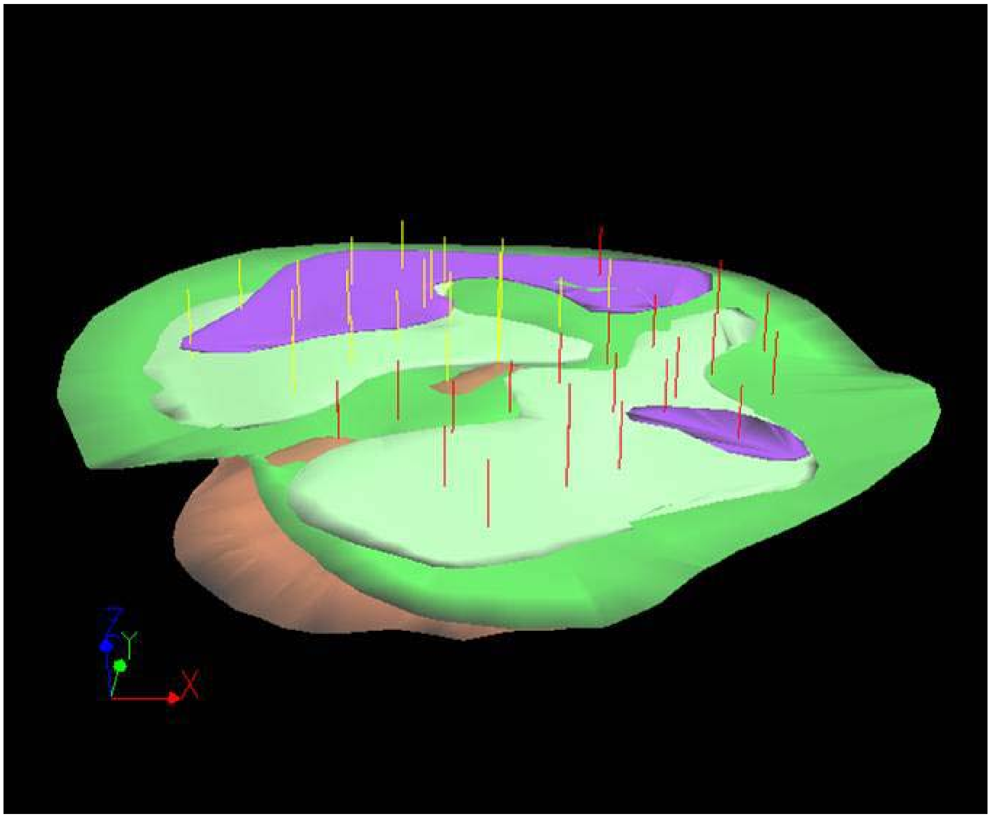


Figure 10: 3D Diagram of Geological Model for Kimberlite 140/141. Drillholes in the 141 portion of the kimberlite are shown in yellow while those in the 140 portion are shown in red (view towards north).

9.2.16.5.2 Kimberlite 148

Preliminary geological modeling of Kimberlite 148 shows the body is dominated by a relatively uniform and extensive, medium to coarse-grained olivine pyroclastic kimberlite (MPK) that contains thin intervals of xenolith-rich, breccia beds (MPK-B). Three other subordinate kimberlite types have been identified from core drilled in 2003, although geological interpretation of the body continues. The additional kimberlite phases include: finely bedded volcaniclastic kimberlite (FBVK), other pyroclastic kimberlite units (OPK), and well sorted – fines enriched pyroclastic kimberlite (WS-FE).

9.2.16.5.3 Kimberlite 122

Initial geological modeling of distinct kimberlite phases by De Beers based on drill core from Kimberlite 122 shows the body is divisible into two main craters, with a subordinate third area based on relatively sparse drill control. Figure 8 shows the estimated areal extent of the craters in Kimberlite 122. Also shown are kimberlite intersection thicknesses for the 2003 drillholes (normal text) and for historical drillholes (in italicized text). The northern half of the body is dominated by massive to graded beds of olivine/lapilli pyroclastic kimberlite (MPK-N) with common indicator minerals. This is overlain by up to 43 m of interbedded sediments, resedimented kimberlite, and kimberlite (UCSK-N).

Similarly, the south crater is dominated by variably massive to bedded, fine- to coarse-grained, olivine/lapilli pyroclastic kimberlite (MPK-S) to a thickness of some 103 m in the 2003 drillholes. The thicker, more massive intersections occur proximal to drillhole 03-122-09 with more obvious bedding intervals increasing in abundance and thickness towards the north and west, and being more pronounced in the upper part of the MPK intersections of the proximal drillholes. The northern fringe of the southern crater has a partial cap of interbedded sediments and resedimented kimberlite ranging from 0 to 12 m thick (UCSK-S). In general, the pyroclastic kimberlite within the north crater is finer grained than the pyroclastic kimberlite within the south.

Towards the southeast and southern-most part of the body, at least three distinct intervals of other pyroclastic kimberlite (OPK) were noted. OPK dominates the kimberlite intersection at drillhole 03-122-10, but the overall kimberlite intersection here has attenuated to 28.9 m from a thicker interval of 53.4 m in drillhole 03-122-09. The distribution of OPK beds are not shown in detail in Figure 8 with the exception of OPK-S1 which forms a small pod near the centre of the southern crater. The OPK (and limited occurrence of other volcaniclastic kimberlite (OVK)) phases will be better understood as more drillholes provide data that allows the geological model to be further refined. As such, results for the OPK beds in 03-122-10 were added to the MPK-S unit. Drillhole 03-122-07 is the only intersection that has a basal unit of interbedded sediments and kimberlite (SAK).

In general, average grain size of the kimberlites and thickness of kimberlite intersection decreases towards the margins of the body. The order of emplacement for the individual kimberlites and their contact relationships within, and between, the two main parts of body 122 are not fully understood at this time.

9.2.16.5.4 Kimberlite 150

Due to geological complexity in the 150 kimberlite body, the results from the 2003 drillholes were divided into three groups corresponding to the three areal lobes of the kimberlite outline (see Figure 6) that may correspond to three separate eruptive vents.

9.2.16.6 2003 Sampling and Micro-diamond Recovery

A selection of representative intervals were sampled from each of the kimberlite bodies drilled in 2003. Core from each of the bodies drilled in 2003 were macroscopically logged, slabbed longitudinally by saw, and then selectively sampled. The main sampling effort was two-fold: to collect representative samples for petrographic examination and archiving, and for complete diamond recovery down to a lower cut-off of 75 microns using caustic dissolution methods. Samples of slabbed core measuring up to 40 cm long were collected for archiving and future petrographic studies. Representative samples for diamond recovery were collected over variable intervals within attention to sampling discrete phase of kimberlite.

Diamond recovery was completed in two stages. The SRC recovered diamonds using caustic dissolution and concentrate beneficiation methods. Stones were hand-picked from the resulting residue, and then described and weighed. Recently, the SRC was certified under ISO 17025 for Diamonds (see CAN-P-1579 in the Guide to the Accreditation of Mineral Analysis Lab). The second stage involved shipping the recovered diamonds and selected caustic residue to the De Beers' *Kimberley Microdiamond Lab* (KMDL), in South Africa for further auditing and verification of individual stone size, shape, and sieve category using proprietary techniques. Both sets of data were released to the Joint Venture partners, however, the KMDL weighs were utilized in grade forecasting based on statistical evaluation of diamond size distributions.

For results following in this section, the reader is cautioned that viewed in isolation, microdiamond stone counts can be misleading and the estimation of macrodiamond grade from microdiamond results require an interpretation of the diamond size frequency distributions.

9.2.16.6.1 Diamond Recovery from Kimberlite 140/141 in 2003

Average microdiamond recoveries from three of the 2002 coreholes targeted on the central and southern parts of the body ranged from 12.7 to 13.5 stones per 10 kg, but these averages reflect sampling of at least three different kimberlite phases. These drillhole averages are at least twice that seen for similar recoveries from other parts of the body. Allocation of diamonds to appropriate kimberlite phases by De Beers' experts facilitated an early grade forecast of 18.6 cpht for the breccia beds and 4.5 cpht for the speckled beds. Given the relatively small numbers of microdiamonds in the dataset for discrete kimberlite types or phases, and the need to better delineate the extent of the new kimberlite phases, nine HQ coreholes (2.5 inch or 63.5 mm diameter) were drilled.

A total of 1,159 microdiamonds were recovered utilizing caustic dissolution methods from 595.15 kilograms of core submitted to the SRC from Kimberlite 140/141. Samples for microdiamond recovery were extracted from six of the corehole intersections. The SRC reported 97% recovery of internal tracers during diamond recovery and stone picking was routinely audited by a supervisor. The microdiamond results from these drillholes were integrated with the 140/141 dataset including results from similar kimberlite types intersected in earlier drillholes (140-12, 140-16, 140-17, and 141-09), followed by modeling of grade forecasts for the southern part of the 140/141 body. A summary of diamond recovery results for the drillholes and these phases are reported in Tables 19 and 20 illustrating how the best stone abundances were recovered from the repeated graded beds and the breccias immediately underlying them. Table 21 shows diamond recovery results by sieve size range for the same kimberlite types. Locations for the 2003 coreholes are shown in Figure 7.

Drillhole	Sample Mass (kg)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm
140-32	99.90	173	17.3	1
140-33	92.65	219	23.6	1
140-38	100.80	173	17.2	1
140-34	91.85	166	18.1	0
140-39	110.60	199	18.0	1
140-40	99.35	229	23.0	0
Total:	**595.15**	**1159**	**19.5**	**4**

Table 19: Summary of 140/141 Microdiamond Results by Drillhole

Kimberlite Type	Sample Mass (kg)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm
Repeated Graded Beds	142.55	323	22.7	2
Breccia Beds	274.90	593	21.6	2
Other Kimberlite Units	68.00	109	16.0	0
Speckled Beds	109.70	134	12.2	0
Total:	**595.15**	**1159**	**19.5**	**4**

Table 20: Summary of 140/141 Microdiamond Results by Kimberlite Type

Kimberlite Type	+0.075mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.425mm Sieve	+0.600mm Sieve	+0.850mm Sieve
Repeated Graded Beds	176	94	30	17	3	1	0	2
Breccia Beds	309	159	87	26	9	1	2	0
Other Kimb. Units	58	34	10	5	2	0	0	0
Speckled Beds	66	40	20	6	2	0	0	0
Total:	**609**	**327**	**147**	**54**	**16**	**2**	**2**	**2**

Table 21: 140/141 Microdiamond Recoveries by Sieve Category and Kimberlite Type

The "repeated graded beds" and the "breccia beds" immediately underlying them yielded the best stone abundances. The average microdiamond abundance for all 140/141 samples is 19.5 stones per 10 kg while the repeated graded beds and breccia beds yielded average microdiamond abundances of 22.5 and 21.6 stones per 10 kg, respectively. This is much higher than previous results for Kimberlite 140/141. A total of four stones larger than 0.5 mm were recovered from the repeated graded beds and the breccia beds, two of which was recovered from the 0.850 sieve screen. Simple evaluation of microdiamond stone counts in isolation are insufficient to estimate macrodiamond contents, but can be utilized in diamond size frequency distributions to give grade forecasts.

In addition to the results from caustic dissolution, a high quality diamond weighing 0.77 carats was encountered during sample preparation of kimberlite core in the Fort à la Corne Joint Venture warehouse. The diamond was liberated while HQ core, from a depth of 117.86 m in drillhole 140-34, was being slabbed by a rock saw utilizing a non-diamond masonry blade. The diamond was not damaged by the blade, although the stone halted the cutting process and scored the blade. Both halves of the slabbed core retained a clear impression of the stone within kimberlite of the repeated graded beds. The diamond was weighed and measured by the SRC in Saskatoon. According to the SRC, the stone measures 5.50 x 4.40 x 4.20 mm in three dimensions and was described as a colourless, clear octahedroid with etched trigons and hillocks (Figure 11).

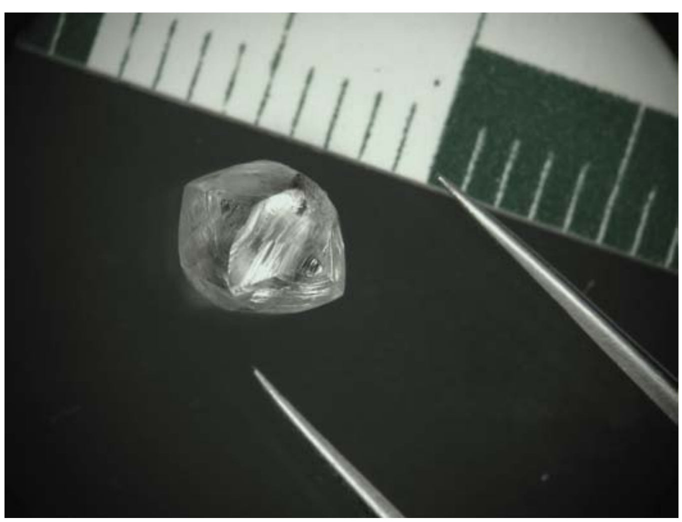


Figure 11: Photograph of the 0.77 carat stone recovered from 140-34 core (117.86 m depth)

In addition to testing new core, ten kimberlite core samples collectively weighing 82.46 kg were collected from a 55 metre interval of hole 140-12 (drilled in 2002) located on the southern part of Kimberlite 140/141 during the 4th Quarter of 2003 for a due diligence audit of the SRC diamond recovery process. A total of 127 diamonds were recovered, of which 6 stones were larger than a 0.212 square sieve. The larger stones ranged in size from 0.36 x 0.34 x 0.3 mm up to 2.14 x 1.78 x 1.7 mm. These diamond recoveries were added to the 140/141 diamond dataset for grade forecasting.

9.2.16.6.2 Diamond Recovery from Kimberlite 148 in 2003

A total of 2,059 microdiamonds were recovered from 739.8 kilograms of core sampled from Kimberlite 148. The average diamond grade for all samples was 27.8 stones per 10 kg, which compares favourably to previous results from corehole 148-09 (drilled and tested in 1993) showing 14.3 stones per 10 kg from a total of 262 kg of sample. The highest stone abundance figures for previous Fort à la Corne samples range up to 18.3 stones per 10 kg.

The best stone abundances were seen in the FBVK and the MPK units, although the three largest stones were recovered from OPK. A total of 14 macrodiamonds with at least one dimension larger than 0.5 mm were recovered from the samples. Diamond results by kimberlite type are shown in Table 22. Diamond results by kimberlite type and sieve category are shown in Table 23.

Kimberlite Type	Sample Mass (kilograms)	Number of Stones	Carat Weight (milligrams)	Microdiamond Abundance (stones/10 kilograms)	Stones larger than 0.5 mm
FBVK	194.75	708	10.033	36.4	4
MPK	316.95	983	10.809	31.0	4
WS-FE	40.70	79	3.705	19.4	0
OPK	146.55	226	5.785	15.4	4
MPK-B	40.85	63	1.008	15.4	2
Total	**739.80**	**2,059**	**31.340**	**Average of 27.8**	

Table 22: 148 Microdiamond Results by Kimberlite Type

Kimberlite Type	+0.075mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.425mm Sieve	+0.600mm Sieve	+0.850mm Sieve
FBVK	310	195	121	60	15	5	2	0
MPK	422	336	135	63	21	4	2	0
WS-FE	29	22	12	10	3	2	0	1
OPK	116	53	30	18	5	1	2	1
MPK-B	26	20	9	7	0	1	0	0
Total	**903**	**626**	**307**	**158**	**44**	**13**	**6**	**2**

Table 23: 148 Microdiamond Results by Sieve Category and Kimberlite Type

The SRC reported 97% recovery of internal tracers during diamond recovery and stone picking was routinely audited by a supervisor. Microdiamond results from these drillholes were integrated with the 148 dataset including results from similar kimberlite types intersected in earlier drillholes. Modeling of grade forecasts for the different major kimberlite units currently is in progress.

9.2.16.6.3 Diamond Recovery from Kimberlite 122 in 2003

A total of 327 microdiamonds were recovered from 412.65 kilograms of core sampled from Kimberlite 122. Representative slabbed core samples were collected from 11 HQ coreholes widely spaced across the 122 body. Six of these stones have at least one dimension exceeding 0.5 mm in length and are considered to be macrodiamonds.

Samples from the north crater of Kimberlite 122 gave total recovery of 133 stones, of which 2 macrodiamonds had at least one dimension greater than 0.5 mm. Most of the stones were recovered from the MPK-N kimberlite phase producing the best average stone abundance of 9.8 stones/10kg. In addition, the overlying UCSK-N gave an average abundance of 7.5 stones/10kg based on recovery of 18 stones from a much smaller sample mass. Table 24 shows the recovery of stones by kimberlite type and area.

Kimberlite Type	Range of Sampled Phase Thickness (m)	Sample Mass (kg)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm
North Main Pyroclastic Kimberlite (MPK-N)	56 - 74	117.55	115	9.8	1
North Upper Complex sediments and Kimberlite (UCSK-N)	11 – 43	23.95	18	7.5	1
Total 122 North Crater:		**141.50**	**133**	**9.4**	**2**
South Main Pyroclastic Kimberlite (MPK-S)	36 – 103	222.55	163	7.3	4
South Upper Complex sediments and Kimberlite (UCSK-S)	3 – 12	7.75	3	3.9	0
South Other Pyroclastic Kimberlite (OPK-S1)	23 – 53	32.40	26	8.0	0
Total 122 South Crater:		**262.70**	**192**	**7.3**	**4**
Basal Sediments and Kimberlite (SAK), south periphery of body	7	8.45	2	2.4	0
Total 122:		**412.65**	**327**	**7.9**	**6**

Table 24: Summary of 122 Microdiamond Results by Kimberlite Type

By comparison, samples from the south crater returned lesser stone abundances of 7.3 and 3.9 stones/10kg for the MPK-S and UCSK-S phases, respectively. The MPK-S unit had four macrodiamonds with at least one dimension greater than 0.5 mm. OPK-S1 in the southeastern part of the body returned an average value of 8.0 stones/10kg based on the recovery of 26 stones from 32.40 kg of sample.

In terms of size fractions, approximately 38% of the stones were recovered on the 0.075 mm sieve and 83% of the stones retained in sieves less than 0.212 mm (Table 25). Overall, percentage recoveries by sieve class were very similar for the north and south sectors.

Stone recoveries from 122 cannot easily be compared to those from bodies 148 and 140/141 as these kimberlites were formed from separate volcanic eruptions that most likely have a distinct population of micro- and macrodiamonds. Simple evaluation of microdiamond stone counts in isolation are insufficient to estimate macrodiamond contents, however, they can be utilized in diamond size frequency distributions to give grade forecasts.

Kimberlite Type	+0.075mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.425mm Sieve	+0.600mm Sieve	+0.850mm Sieve
MPK-N	50	30	19	8	4	3	0	1
UCSK-N	4	7	4	2	0	1	0	0
North Crater:	**54**	**37**	**23**	**10**	**4**	**4**	**0**	**1**
% of North:	***40.6***	***27.8***	***17.3***	***7.6***	***3.0***	***3.0***	***0***	***0.7***
MPK-S	61	48	26	16	5	3	4	0
UCSK-S	0	3	0	0	0	0	0	0
OPK-S1	8	4	6	7	1	0	0	0
South Crater:	**69**	**55**	**32**	**23**	**6**	**3**	**4**	**0**
% of South:	***35.9***	***28.6***	***16.7***	***12.0***	***3.1***	***1.6***	***2.1***	***0***
SAK	1	0	1	0	0	0	0	0
Total 122:	**124**	**92**	**56**	**33**	**10**	**7**	**4**	**1**
% of 122:	***37.9***	***28.1***	***17.1***	***10.2***	***3.1***	***2.1***	***1.2***	***0.3***

Table 25: 122 Microdiamond Recoveries by Sieve Category and Kimberlite Type

A comparison of recent stone recoveries from caustic dissolution to similar types of historical results can be made on a limited basis. For the 122 north crater, combined MPK-N/UCSK-N diamond abundances are 3 times that seen in rotary hole 122-01, which was drilled in 1989. This drillhole produced kimberlite samples in the form of chips. Diamond recovery was achieved by combined crushing, jigging, heavy liquid separation, and caustic fusion. A total of 77 kg of kimberlite chips were analyzed for diamond content and produced 22 stones, of which five were macrodiamonds having at least one dimension greater than 0.5 mm and two of the stones had their largest dimension close to 1 mm. It is not known what the bottom cutoff for recovery was for this procedure, although the smallest stone size recovered from these samples was 0.10 mm, a relatively coarse bottom cut-off may explain the comparatively low stone abundances for 122-01, despite recovery of a significant proportion of larger diamonds. Table 26 shows a comparison of diamond abundances for historical and recent results.

Several drillholes located on the south part of 122 were tested for diamond content from 1993 to 1996. Diamond abundances for these drillholes ranged from 2.5 to 4.5 stones/10kg compared to an average of 7.3 stones/10kg for the 2003 coreholes located in the 122 south crater (MPK-S and OPK areas). Kimberlite core samples totaling over 400 kg from coreholes 122-05 and 122-06, and an additional 252 kg of chip samples from large diameter reverse circulation drillholes 122-07 and 122-08 averaged between 2.5 to 4.5 stones/10kg based on recovery of 218 diamonds. All four of these drillholes are located within the south and southeastern part of body 122 (Figure 8). Stone abundances for 2003 coreholes in the 122 south crater (MPK-S and OPK-S1 areas) were about twice these recoveries with an average of 7.3 stones/10kg.

The SRC reported 95.3% recovery of internal tracers during diamond recovery and stone picking was routinely audited by a supervisor. Microdiamond results from these drillholes were integrated with the 122 dataset including results from similar kimberlite types intersected in earlier drillholes (122-01, 122-05, 122-06, 122-07, 122-08).

9.2.16.6.4 Diamond Recovery from Kimberlite 150

Kimberlite 150 was selected for delineation drilling and microdiamond sampling due to favourable historical diamond recoveries and its size. The new results were combined with historical data in order to make grade forecasts based on stone size distributions.

Drillhole/Area Comparison	Year of Diamond Recovery	Diamond Recovery Facility[1]	Diamond Recovery Bottom Cut-off (mm)	Sample Mass (kg)	# of Stones	Average Stones/10kg
122 North Crater						
122-01	1989	C.F. Minerals	?	77	22	2.9
MPK-N, UCSK-N	2003	SRC	0.075	141.5	133	9.4
122 South Crater						
122-05	1992	KAL	0.074	169	42	2.8
122-06	1993	KAL	0.074	239	99	4.5
122-07	1994	KAL	0.074	181	51	2.5
122-08	1995	KAL	0.074	71	26	4.1
122-09	2001	KAL	0.074	264	22	0.8
122-10	2001	KAL, Lakefield	0.074	417	38	0.9
122-11	2001	KAL	0.074	167	20	1.2
MPK-S, UCSK-S, OPK-S1	2003	SRC	0.075	262.70	192	7.3

[1] = Abbreviated forms are as follows: Saskatchewan Research Council, Saskatoon (SRC), De Beers' Kimberley Acid Laboratory, South Africa (KAL), Lakefield Research Labs, Ontario (Lakefield)

Table 26: Comparison of Recent and Historical 122 Microdiamond Results by Area

Representative slabbed core samples were collected from 12 HQ coreholes widely spaced across the 150 body. A total of 392 microdiamonds were recovered from 51 samples utilizing caustic dissolution methods on 422 kilograms of core submitted to the SRC. The SRC recovered and reported diamonds down to a lower cutoff of 0.075 mm in size; diamonds passing through a 0.075 mm screen were not included in the stone tallies. The SRC reported 98.6% recovery of internal tracers during diamond recovery and stone picking was routinely audited by a supervisor.

Recovered diamonds and selected caustic residues were sent to the De Beers' Kimberley Microdiamond Laboratory (KMDL) for further auditing and verification of individual stone size, shape, and sieve category using proprietary techniques. KMDL reported 238 stones with dimensions equivalent to a +74 micron sieve cut-off and having a combined weight of 0.248 carats including one macrodiamond weighing 0.226 carats recovered in the 2 mm sieve category. The average diamond grade for all samples was 5.7 stones per 10 kg utilizing only stones greater than 74 microns.

Due to geological complexity in the 150 kimberlite body, the results from the 2003 drillholes were divided into three groups corresponding to the three areal lobes of the kimberlite outline (Table 27). Diamond results by kimberlite type and sieve category are shown in Table 28.

In terms of stone size fractions, approximately 49.4% of the stones were recovered on the 0.074 mm sieve and 94.1% of the stones were retained in sieves less than 0.212 mm (Table 28). However, 91% of the total carat weight of diamond from these samples was recovered in a single stone from the west lobe. Viewed in isolation, microdiamond stone counts can be misleading and the estimation of macrodiamond grade from microdiamond results will require an interpretation of the diamond grade-size plots.

The 2003 microdiamond dataset was made available for modeling grade estimates by MRM. From the combined dataset of historical and new results, 352 microdiamonds from the west lobe were available for modeling, of which 46 were re-categorized as less than 74 microns in size, and therefore not used. Due to the prevalence of stones in only four size classes, historical macrodiamond data for 56 stones was utilized to stabilize the grade-size curve. The grade forecast for this lobe is 3 cpht and encompasses an estimated mass of 68 million tonnes of kimberlite based on integration of drillhole information and geophysical data. Currently, confidence limits for the modeled data are not available.

150 Kimberlite Area	Sample Mass (kg)	Total Stones	Total Carat Weight (octacarats)	Stones > 74 microns	Microdiamond Abundance > 74 microns (stones/10 kg)	Stones larger than 0.5 mm
North Lobe	82.7	80	394,500	47	5.7	
West Lobe	239.5	258	24,332,850	161	6.7	1; 0.226 cts.
South Lobe	99.5	54	183,400	31	3.1	
Total	421.7	392	24,910,750	239	Average of 5.7	

One octacarat is equivalent to $1x10^{-8}$ carats

Table 27: 150 Microdiamond Results by Kimberlite Type

Kimberlite Type	+0.074mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.425mm Sieve	+0.600 to +0.850 mm Sieves	+2 mm Sieve
North Lobe	22	18	3	4	0	0	0	0
West Lobe	78	49	25	6	2	0	0	1
South Lobe	18	9	3	1	0	0	0	0
Total	118	76	31	11	2	0	0	1

Table 28: KMDL 150 Microdiamond Results (>74 microns) by Sieve Category and Kimberlite Type

Modeling of the south lobe of the body utilized 129 microdiamonds (23 unused stones were categorized as less than 74 microns in size) grouped into four size categories. Only 15 macrodiamonds were recovered from this lobe in the past and this number of stones was insufficient to include in the modeling. The south lobe was assigned a forecast grade of 3 cpht encompassing a mass of 50.5 million tonnes based on integration of drillhole information and geophysical data. The north lobe was not modeled due to the availability of only 67 microdiamonds and no historical macrodiamonds. The estimated mass for this lobe is 32.1 tonnes.

The reader is cautioned that the grade estimates are conceptual in nature. The grade of kimberlite above a 1.5 mm bottom cutoff is estimated from a combination of micro- and macrodiamond data. Confidence levels for these figures are low and additional testing of macrodiamond content may be required to increase confidence levels in the grade forecasts. The reader should also be aware that insufficient geological control and quantity of sampling has been obtained to permit rigorous application of economic considerations and that there is no certainty that these preliminary assessments will be realized. In short, the figures presented herein are utilized as an exploration tool and their primary value is for comparison of diamondiferous kimberlite targets within the focus of the ongoing evaluation program.

Both the new data and the grade forecasts by MRM of De Beers do not support further drilling and sampling work on this kimberlite but efforts on the other prospective bodies will continue under the current, accelerated program.

9.2.17 2004 Exploration and Sampling Program

During the first eight months of 2004, no field programs were conducted at Fort à la Corne. In July 2004, the Joint Venture partners implemented a $7.62 million program in part based on recommendations put forward by geoscientists of De Beers' MRM and in recognition of large, relatively sparsely tested kimberlite bodies located proximally to the centre of the large cluster in the southern part of the main kimberlite trend.

The 2004 exploration program had three main objectives. One was to determine geological models for four high-interest kimberlite bodies and to adequately sample individual kimberlite units in each body for diamond content. The four bodies include kimberlites 120, 147, 121, and 221. None of these four bodies have been drilled in at least the past 5 years. The second objective was to test for the presence of kimberlite in five geophysical anomalies located around the central cluster using HQ core holes. The third objective was to improve the understanding of geology, diamond distribution, and diamond values of the southern parts of both the 140/141 body and 122 body with a goal of ultimately proving up resource tonnage for the higher grade zones. A combination of coreholes (as pilot holes) and large diameter reverse circulation drillholes were used in these two bodies. The 2004 program included ten large diameter minibulk drillholes positioned on the higher-grade zones in Kimberlites 140/141 and 122. The 140/141 kimberlite had been the subject of drilling in 2000, 2001, 2002, and 2003, however the 2004 work focussed on the south west portion of the kimberlite where little information was available. Kimberlite 122 was last drilled in 2000 when three large diameter (610 mm) reverse circulation drillholes (LDDH) were completed on the south-central part of the body. The rationale for mini-bulk sampling in 2004 was to increase the confidence in the grade forecast models and the average diamond values in the kimberlite units of higher grade interest in bodies 140/141, 122 and 148. During 2004, mini-bulk sampling was carried out on the oscillating breccia unit of body 140/141 and the MPK unit within the southern crater of body 122.

9.2.17.1 Recent Geological Modeling, Grade Forecasts, and Prioritization

During 1999 and the early part of 2000, an in-depth evaluation and synthesis of all available information for each kimberlite body was conducted separately by De Beers Canada Inc. and Kensington staff. Based on these studies, De Beers identified 17 kimberlites having sufficient information on which to prioritize their diamond resource potential. From this list, five targets were selected for continued evaluation of diamond content and value. These targets included kimberlites 122, 140/141, 147, 148, and 150. Drilling and sampling programs have been conducted on Kimberlites 140/141, 122, and 150 since the 2000 prioritization study.

Preliminary results determined by the De Beers' Mineral Resource Management Department ("MRM") on geological modeling and grade forecasts for kimberlite bodies 140/141, 148 and 122 were reported in June 2004. Table 29 shows relevant data supplied by MRM and utilized by the Joint Venture partners in planning the work program for 2004/2005. Currently, confidence limits for the data supplied in Table 29 are not available.

Body	**Estimated Area of Body (Hectares)**	**Unit of Interest**	**Estimated Tonnage (Million tonnes)**	**Average Grade >1.5 mm (cpht)**
140/141	250	Coarse Mega-graded Beds	105	9
		Breccia Beds	29	16
148	239	Main Pyroclastic Unit	156	7
122	126	Main South Pyroclastic Unit - upper	45	14
		Main South Pyroclastic Unit - lower	34	12
Totals			**369**	**10**

Table 29: Fort à la Corne Kimberlite Units of Economic Interest

The reader is cautioned that the grade and value estimates are conceptual in nature and were determined by MRM using statistical diamond size distributions combining both microdiamonds and macrodiamonds, and application of resulting grade forecasts to valuations of small parcels of macrodiamonds to determine modeled (average) values should be viewed with caution. Confidence levels for these figures are low and additional testing of macrodiamond content is required to increase confidence levels in the grade forecasts, especially for kimberlite bodies 122 and 148 as their grade forecasts were based primarily on extrapolation of microdiamond size distributions only. The reader should also be aware that insufficient geological control and quantity of sampling has been obtained to permit rigorous application of economic considerations and that there is no certainty that these preliminary assessments will be realized. In short, the figures presented in Table 29 are utilized as an exploration tool and their primary value is for comparison of diamondiferous kimberlite targets within the focus of the ongoing evaluation program.

Volumes for each of the high interest zones are early estimates derived from computer-generated 3-dimensional models of kimberlite units within areas defined by drillhole intersections. Volume to tonnage estimates were calculated using a specific gravity 2.4 g/cm^3 for all kimberlite units. The tonnage estimates require further delineation drilling to better ascertain lateral and vertical extents of the geological units. The surface area of the kimberlites of interest were based on estimated 30 metre thickness cut-offs applied to integrated and modeled geophysical data for the body.

The combined kimberlite units of economic interest within body 140/141 total 134 million tonnes grading an average of 11 carats per hundred tonnes with an estimated average value of US$115 per carat. Grade forecasts for this kimberlite unit and four others were based on a statistical treatment of 3,683 microdiamonds and 1,361 macrodiamonds weighing 155.695 carats; this number of macrodiamonds was used in the determination of average values shown for the specific units, although 105 carats (1071 macrodiamonds) were utilized in the modeling of grade and value for the "Coarse Mega-graded Beds", and 14.3 carats (69 macrodiamonds) were utilized for the breccia beds.

Average grade and value estimates, rather than ranges of value, were provided by MRM for Kimberlite 140/141 due to the nature of the statistical grade forecasting and modeling of average diamond value. The tonnage estimate was based on kimberlite core descriptions and determinations of unit contacts from fifty NQ, HQ, and PQ coreholes within an area measuring 1400 by 1200 m. Drillhole spacing is primarily on mixed 100 and 200 metre intervals with total depth of holes ranging from 150 to 450 m.

Within body 148 the main pyroclastic unit is of economic interest and contains 156 million tonnes of kimberlite at a grade of 7 carats per hundred tonnes. Grade forecasts for this unit and two others were based on the statistical treatment of 2,448 microdiamonds and 70 macrodiamonds weighing 2.369 carats. All macrodiamonds and 1,618 microdiamonds were utilized in modeling the "Main pyroclastic unit" of body 148. Average diamond value is not currently available for this unit due to insufficient quantities of macrodiamonds. The tonnage estimate for this unit was based on kimberlite core descriptions and determinations of unit contacts from eleven HQ coreholes within an area measuring 1000 by 600 m. Drillhole spacing is primarily on mixed 200 and 400 metre intervals with total depth of holes ranging from 150 to 282 m.

The combined units of economic interest in body 122 contain 79 million tonnes at a grade of 13 carats per hundred tonnes. Grade forecasts were based on the statistical treatment of 693 microdiamonds and 289 macrodiamonds weighing 23.13 carats. Grade and value modeling for the "Main South Pyroclastic Unit – upper" and "Main South Pyroclastic Unit – lower" units was based on 513 microdiamonds and 269 macrodiamonds (19.885 carats). In 2000, the Mineral Resource Evaluation Department (now MRM) of De Beers indicated a grade forecast for commercial-size stones (>1.5 mm) ranging from 7.5 to 12 cpht and a value ranging from US$144 to US$146 per carat for the 122 kimberlite. Estimates of diamond value for Kimberlite 122 were based on modeling of both *Best Fit* and *Optimistic* grade forecasts. The tonnage estimate for this unit was based on kimberlite core descriptions and determinations of unit contacts from eight HQ coreholes and three large diameter drillholes within an area measuring 600 by 500 m. Drillhole spacing is primarily on mixed 200 and 300 metre intervals with total depth of holes ranging from 144 to 279 m.

Exploration work in 2004 was conducted on additional higher priority kimberlite bodies located within the central cluster of the main kimberlite trend including 120, 147, and the combined 121/221 bodies.

9.2.17.2 Planning, Permits, Environmental Health and Safety

At the project level, De Beers submitted a detailed exploration/evaluation program plan to Saskatchewan Environment (SE) prior to the start of the field program which included all anticipated impacts caused by the drilling activities in the Fort à la Corne Forest area (road construction, drill pad preparation, water sources and rehabilitation). Approval for drillsite access and drill pad construction was granted through a Timber Permit issued separately by Saskatchewan Environment. Authority to withdraw surface water for drilling was covered by a Temporary Water Rights Licence issued by the Saskatchewan Watershed Authority. The Department of Fisheries and Oceans (DFO) was advised by letter of the programme and responded with several guidelines.

Prior to mobilization, a field visit was conducted by an SE conservation officer who inspected each of the proposed drillsites. Photographs were taken at each site so that rehabilitation could be checked against the original features of the land surface after drilling was completed.

9.2.17.3 2004 Core Drilling Program

Boart-Longyear mobilized two LF-70 hydraulic core drilling rigs for this program. A total of 39 HQ core (2.5 inches or 63.5 mm diameter) core holes provided significant opportunities for understanding the geology of 6 separate, prioritized kimberlite bodies and for diamond recovery geared to better understanding their diamond content and distribution. Ten of the coreholes were used as pilot holes for large diameter, reverse circulation drilling in kimberlites 122 and 140/141. As well, five of the coreholes were targeted on geophysical anomalies to test for the presence of kimberlite.

Drilling concluded during mid-November with a total of 38 HQ or HQ/NQ (63.5 mm or 2.5 inches) coreholes and one NQ (47.6 mm or 1.875 inches) corehole. Diamond core bits are composed of traceable synthetic cutting diamonds that can easily be distinguished from natural stones. Significant intersections of prospective kimberlite were encountered in each of the prioritized kimberlite bodies investigated and sufficient coverage of the bodies from this program and previous drilling will permit construction of geological models. Kimberlite was intersected in two of the five geophysical anomalies, but will not be further discussed in this report. A summary of kimberlite core intersections is shown in Table 30.

Drillpad construction and site access was contracted to T&P Enterprises of Choiceland, Saskatchewan. In most cases, a short trail was constructed to link up to pre-existing trails. At each of the drillpads, an area of approximately 40 x 40 m was cleared. Temporary in-ground tailings sumps were also constructed in order to receive, store, and re-circulate mud and effluent produced during the corehole drilling. HQ corehole drilling was completed using three different sized bits. Initial surface holes were drilled using a mud and water circulation system and a PW milled tooth tricone bit (139 mm diameter). At around 12-18 m, the tricone bit was replaced by a HW tricone bit (130.2 mm diameter) with bentonite mud and water used as a circulant in the hole. Casing was generally installed to a depth of approximately 100 m, although on occasion this was extended downwards to find a suitable seat. Once casing was installed, the HW tricone was replaced by an HQ tungsten carbide bit and coring commenced. In a few tight holes, coring could only proceed at depth after down-sizing the diameter of the hole to produce NQ core (1.875 inches or 47.6 mm diameter). Most core drilling was conducted with either fresh water or low viscosity mud.

Evaluation of the core included: measurements of rock density, magnetic susceptibility, rock hardness (point load tests), core quality, baseline geotechnical parameters such as: strength of the rock (point load tests), fracture counts, measurement of core angles, description of joints, identification of natural and mechanical breaks, total core recovery, and solid core recovery. Only selected geotechnical information and the main characteristics of the kimberlite such as density, magnetic susceptibility, and petrography are included in this report. Digital photos were taken of all kimberlite core intervals.

Density measurements on the core were determined using the water displacement method with sampling undertaken at approximately 10 m intervals or at lithological changes in drillholes. The density obtained from these measurements is classified as an "in-situ" bulk density. Measurements for "dry" density were completed after drying samples in an oven for forty-eight hours. The in-situ and dry density values were obtained by dividing the wet and dry masses by the volume.

Magnetic susceptibility data for each of the coreholes was collected at one-metre intervals along the entire length of the drillcore using a hand held Exploranium Kappameter KT-9. The data were used to establish average magnetic susceptibility values for the kimberlites for comparison with model-derived values from ground magnetic data and to assess the variability of magnetic properties within each body. The results show the magnetic susceptibility response to be variable and often related to lithology. The overburden, kimberlite and country rocks were all seen to have different responses. The overburden composed of till was found to have a low magnetic response. Although magnetic susceptibility values for the kimberlite were seen to vary within the body (at the contact zones and within kimberlite), they were generally higher than those of the enclosing country rocks.

All holes were surveyed by a single shot Reflex instrument (EZ Shot) supplied by the drill contractor to determine the deviation of drillholes from the vertical. Measurements were made at the bottom of each of the drillholes, with azimuth and dip data entered into a database for later 3D modeling of the kimberlite in GEMCOM. The Reflex survey results show that the drillholes generally remained within 3^o of vertical.

9.2.17.4 2004 Sampling of Core and Microdiamond Recovery

A selection of representative intervals were sampled from each of the kimberlite bodies drilled in 2004. Core from each of the bodies drilled in 2004 were macroscopically logged, slabbed longitudinally by saw, and then selectively sampled. The main sampling effort was two-fold: to collect representative samples for petrographic examination and archiving, and for complete diamond recovery down to a lower cut-off of 75 microns using caustic dissolution methods.

At present, the sampling strategy for diamond recovery utilizing caustic dissolution methods is based on collection of representative material from within boundaries marking lithological contacts. Representative samples for diamond recovery were collected over variable intervals, but from within discrete phase of kimberlite. Samples are made up to a maximum of 8 kg each and closed with numbered seals that cannot be tampered with. In addition, during 2004, samples of slabbed core measuring up to 40 cm long were collected for archiving and future petrographic studies. The number of samples collected per drillhole is a function of several factors including:

-budgetary considerations for the diamond recovery program
-number of discrete phases present in the drillhole and in the kimberlite as a whole (complexity of geology)
-thickness of intersection and discrete kimberlite phases
-estimate of diamonds required for further evaluation

Drill hole #	Core Size[1]	Top of Kimberlite (m)	Base of Kimberlite (m)	Thickness of Main Kimberlite (m)	Total Kimberlite Intersection (m) [2]	End of Hole (m)
04-140-041	HQ	97.40	246.00	106.44	128.28	252.00
04-140-042	HQ	97.56	241.22	138.59	140.76	243.00
04-140-043	HQ	100.57	232.35	119.84	124.89	236.00
04-140-048	NQ	104.90	137.66	32.76	58.65	180.00
04-140-050	HQ	100.19	236.62	129.18	131.59	243.00
140 Subtotal					**584.17**	**1,154.00**
04-121-009	HQ/NQ	112.03	289.53	177.50	177.50	291.00
04-121-010	HQ	112.67	204.50	91.83	91.83	222.00
04-121-011	HQ	109.84	200.78	90.94	90.94	207.00
04-121-012	HQ	116.33	154.61	29.75	36.63	168.00
04-121-013	HQ	131.24	168.33	30.76	32.27	179.00
121 Subtotal					**429.17**	**1,067.00**
04-221-002	HQ	112.05	170.80	28.99	51.16	180.00
04-221-003	HQ	121.35	196.73	75.38	75.38	303.00
04-221-004	HQ	109.55	183.49	34.05	68.59	195.00
221 Subtotal					**195.13**	**678.00**
04-147-006	HQ	106.28	181.22	74.94	74.94	192.00
04-147-007	HQ	101.35	184.56	83.21	83.21	195.00
04-147-008	HQ	101.12	218.19	117.07	117.07	228.00
04-147-009	HQ	103.40	221.82	118.42	118.42	231.00
04-147-010	HQ	96.00	221.68	125.68	125.68	231.00
04-147-011	HQ	99.78	218.03	118.37	118.25	228.00
04-147-012	HQ	101.42	202.96	101.54	101.54	213.00
04-147-013	HQ	95.16	211.31	116.15	116.15	222.00
147 Subtotal					**855.26**	**1,740.00**
04-120-021	HQ	104.00	236.97	132.97	132.97	242.00
04-120-022	HQ	108.00	293.80	185.80	185.80	306.00
04-120-023	HQ	111.00	234.88	123.88	123.88	246.00
04-120-024	HQ	115.88	125.50	9.62	9.62	192.00
04-120-025	HQ	111.00	240.55	129.55	130.55	244.00
04-120-026	HQ/NQ	105.00	243.60	7.36	131.96	255.00
04-120-027	HQ	102.00	234.50	57.61	126.00	246.00
04-120-028	HQ	119.52	218.80	99.28	99.28	237.00
120 Subtotal					**940.06**	**1,968.00**
04-122-012[3]	HQ	n/a	n/a	n/a	n/a	102.00
04-122-012A	HQ	108.00	313.15	198.49	202.88	357.00
04-122-013	HQ	114.00	200.37	86.37	86.37	213.00
04-122-014	HQ	110.45	299.00	141.84	176.80	299.00
04-122-019	HQ	107.24	314.65	207.41	207.41	345.00
122 Subtotal					**673.46**	**1,316.00**
Total					**3,677.25**	**7,923.00**

[1] = HQ core has a diameter of 2.5 inches or 63.5 mm; NQ core has a diameter of 1.875 inches or 47.6 mm; drillholes listed with both core sizes started with HQ diameter, but were forced to decrease to NQ size due to drilling difficulties
[2] = These values may not be equal to *Base of Kimberlite* minus *Top of Kimberlite* due to intervening layers of country rock
[3] = Drillhole 04-122-012 was lost due to drilling difficulties at a depth of 102 m

Table 30: Summary of 2004 Core Drilling at Fort à la Corne

Diamond recovery was completed in two stages. The SRC recovered diamonds using caustic dissolution and concentrate beneficiation methods. Stones were hand-picked from the resulting residue, and then described and weighed. The second stage involved shipping the recovered diamonds and selected caustic residue to the De Beers' Kimberley Microdiamond Lab (KMDL), in South Africa for further auditing and verification of individual stone size, shape, and sieve category using proprietary techniques. Both sets of data are to be released to the Joint Venture partners, however, the KMDL weights which were utilized in grade forecasting based on statistical evaluation of diamond size distributions is to be compiled and finalized before release.

Diamond recovery information and results for each drillhole and kimberlite are recorded in tabular form. De Beers (Mineral Resource Management Department or MRM) and independent consultants/experts use this data for grade calculation exercises and prediction of stone sizes. For some bodies, microdiamond data are relatively sparse, sometimes being derived from a single drillhole, and represent the only diamond data (macro or micro) available for a given body.

For results following in later sections, the reader is cautioned that viewed in isolation, microdiamond stone counts can be misleading and the estimation of macrodiamond grade from microdiamond results will require an interpretation of the diamond size frequency distributions.

9.2.17.5 2004 Large Diameter Drilling Program

Drill operations were conducted by Encore Drilling, who subcontracted Central Caissons of Saskatoon, to complete initial pilot holes. Central Caissons used an HR150 Mait auger rig to drill the overburden and seat the casing. Drilling of 910 mm diameter (36") reverse flood holes was conducted over two twelve-hour shifts using a TH150 top drive drill rig. Up to nine technical staff were utilised for data monitoring and sample collection.

Site preparation was contracted to T&P Enterprises, which is based in Choiceland, Saskatchewan. T&P have provided heavy machinery field services to the Joint Venture on a regular basis since 1990, and have extensive experience in drill-pad preparation and restoration, sump construction, and trail building and maintenance.

Site access to Kimberlite Bodies 141/140 and 122 was through use of existing roads and trails and all road and pad preparation was cleared with Saskatchewan Environment prior to construction. All drilling pads were roughly circular or square and centred on previously constructed pads of ~ 40 m diameter hosting staked targets for pilot hole/core drilling. Once the decision was made to drill a large diameter hole at a core site, the drill pad was expanded to approximately 80m in diameter. Actual sizes varied as topography allowed. In each case though, the duff or organic layer was scraped to one side and retained to allow acceptable rehabilitation to occur later. No marketable wood product needed clearing during pad construction. T&P also constructed in-ground tailing sumps, which were designed to receive, store and allow the re-circulation of mud effluent and fines from the drilling process. Large sump pit areas were constructed to act as central repositories for used drilling mud and for freshwater holding pits.

Drilling in 2004 at Fort à la Corne used the same basic methodology as was used in 2002. Drilling however was conducted on a greater scale with only 910 mm diameter holes attempted. Production drilling was conducted using the reverse flood, air lift assist method. This technique introduces air into the hole two-thirds of the way to the bottom of the drill string via 1-1/4" PVC pipe. This pipe runs down the centre of single wall drill pipe and allows a pressure equilibrium point to be reached within the hole relatively easily. Small pressure increases ensure chip removal from the hole at relatively low exit velocities. The drill product is removed in a mud / water / product slurry that cushions the material from heavy impact. The drilling method is therefore relatively kind to the drill product (and therefore diamonds) and requires only a fraction of the air pressure (and therefore fuel to the compressor) to recover the drill product.

Surface holes and initial 30" or 42" casings were constructed by subcontractor Central Caissons, using a 1992 HR150 Mait auger rig. This rig weighed 46,500kg and generated up to 206kw of power. It had a 100KN pull-up force. Pilot holes were drilled with 42" auger bits. These bits were tipped with steel teeth. Tungsten carbide tips were available but were not required. Casing was installed through the surficial sand cover and was seated in thick overburden clay at around 35m. The clay provided a quality seal that allowed a circulation system to be created when reverse flood drilling commenced. A water/drilling mud (Quick Gel) slurry was used in all subsequent drilling and this was sufficient to hold the remaining (approximately) 70 m of overburden in place.

Encore utilized a heavily fortified TH-100 (referred to as a TH150) top drive drill rig, which contained a winch rated to 110,000lb. The rig mast was rated to 120,000 lbs. and the top drive had an estimated torque of 25,000 ft.lbs. Encore had "tuboscoped" all drill rods and joiners prior to mobilisation to ensure quality fittings on the drill string. The drill string and collars are 50% owned by De Beers Canada. Drill rods were consistently 6 m in size. The drill rig mast had been lengthened to 60' in length so drill rods could be added in two's. The rig equipment also included five collars, designed to apply weight on the bit during the early stages of drilling. The rods and collars permitted drilling to occur as deep as 400m. A kelly linked the drill rods with the swivel and outlet hose. The kelly sat above the top drive motor and was a constant source of repair time during drilling. The rig design allowed too much weight to be applied to the Kelly and swivel, hence the breakdowns. Reverse flood drilling was conducted with 36" milled tooth tricone and drag bits. During reverse flood drilling, kimberlite was brought to the surface in a slurry of water and bentonite mud. Mud was generally mixed directly into the recirculation pit. A mud viscosity of between 45 and 50 seconds (viscup measure) was considered optimum for hole integrity, although this figure was increased for some of the more difficult 24" holes.

During drilling, the drill product would leave the rods / kelly through a feeder pipe linking the rig kelly with a De Beers designed dropout box. This box was constructed to slow the flow of kimberlite / water / mud in a controlled manner, thereby limiting potentially harmful impacts. The box was coated with linatex to reduce wear, but because of the design, this linatex continually required repair. The kimberlite was then split and dropped onto one of two Brandt King Cobra vibrating shaker tables, which was lined with silicon sealed 1.58 mm screens. The kimberlite was dewatered and washed via Bex FP5025 high impact flat spray nozzles, before falling into Endurapak 38" x 38" x 42" double walled minibulk bags. Given the speed of discharge and the angle of the 1.58mm screens, kimberlite was deemed to have been screened to 1.5mm. A common hopper into which the washed sample dropped linked both shaker tables. As high clay contents were observed and viscous muds used during drilling, the clay content of the retained sample was relatively high. A high pressure water pump was installed part of the way through the programme to supply more water to the spray bars to reduce this problem.

The fines were discharged through the 1.58 mm screens into a split sump at the bottom of the screen. This sump was divided so that the discharge from the spray nozzles did not enter the mud circulation system and water down the mud and thereby reduce the effectiveness of overburden hold-back (and increase hose and equipment wear). The majority of the mud and a reasonable percentage of the kimberlite fines were gravity fed from the shaker sump to a "U" shaped sump pit. This discharge was dropped into one end of the pit and re-circulated back down the hole from the other end of the pit via a 12" plastic pipe inserted into the conductor casing of the hole.

During overburden drilling, material extracted from the hole was allowed to fall into the bucket of the T&P backhoe and stockpiled for later hole backfilling.

Data was recorded at the drill site by a Drill Parameter Recorder (DPR). This unit uses sensors mounted on the drill rig to provide real-time parameter recording on a computer screen in the geologists shack, on a touch screen next to the driller and to a secure internet site via direct uplink to satellite. The data recorded included bit RPM, weight on bit, depth of bit, air pressure and most importantly, rate of penetration (ROP). This data is displayed both numerically and graphically. Drill holes were calipered on site using downhole tools that measured the change in diameter on a cm-basis.

9.2.17.6 2004 Minibulk Sampling and Macrodiamond Recovery

The core drilling was designed to aid LDDH placement and to improve geological understanding of the thicker parts of the kimberlite. Large diameter drilling was designed to both recover sufficient diamonds to improve diamond value data, and to test the southern part of the kimberlite from macrodiamonds. Various sample parameters were therefore geared to achieve this aim. Minibulk samples were collected at the end of a shaker screen with 1.58mm screens. The samples were deemed to have been screened to +1.5mm through this flow sheet. Samples were divided into (approximately) 12 metre intervals, corresponding to two drill rods. Each sample was assigned a specific sample number with a "DGF" prefix. This number was allocated to each sample (6 metre or12 metre) intersection and minibulk bags were labelled with this number and a letter (e.g. DGF220A), representing each bag in the sample. The DGF number is easily transferred to the De Beers African laboratories and is a security measure to prevent kimberlite number, sample number and depth data to become common knowledge.

When bulk sample bags were full, they were sealed with Envopak Posigrip plastic security seals. These seals were single piece 475mm plastic strips with 5 digit security numbers. When conditions cooled, steel security seals were used for added security. Bags were weighed on site and loaded on trailers provided by Ridsdale Transport. The bags were securely covered, affixed with security seals, and transported immediately to the De Beers Processing Facility in Grande Prairie.

Small archive samples were collected on a per-metre basis at the end of the shaker table hopper. The samples included standard drill chips and usually one slightly larger fragment to aid in petrographic identification. These were visually inspected on site by the shift geologist, but most geological interpretation was made on core material. These samples were collected in 400 ml plastic containers and stored in 20 litre plastic pails. Granulometry samples were collected over each minibulk sample interval (either 6m or 12m interval) at the bottom of the shaker table and assigned the same DGF number. Samples were collected consistently throughout the 12m intersections at the end of the shaker table. Therefore some of the –1.5mm material had been removed prior to sample collection, except for particularly clay rich intervals. Granulometry samples were sealed in plastic bags and were analysed on site.The samples were generally 2-3 kg in size and had been pre-washed over the 1.58 mm screen. The configuration of the shaker table made alternative sampling arrangements difficult. Samples were collected in plastic bags and sealed in the same way as the minibulk bags. Granulometry samples were analysed on site. Samples were dried and split into –1.4mm, -4.0+1.4mm, -8.0+4.0mm, 12.5+8.0mm, -16.0+12.5 mm and +16.0 mm fractions using a Rotap vibrator.

Minibulk samples were shipped to the De Beers' dense media separation plant located in Grande Prairie, Alberta for the first stage of diamond recovery procedures. This process included rinsing and sizing (combined screening and crushing circuits) of the kimberlite chips to produce a uniform feed within a size range of 1.5 – 12 mm to ensure efficient and complete separation of heavy minerals (including diamond). Separation of heavy minerals in the dense media process typically produced a concentrate of only a few percent of the original mass of sample. Concentrates were then air-freighted to an ultra-high security facility in Johannesburg, RSA for final diamond recovery and stone characterization procedures. The diamonds were then studied for the presence of drilling or process-induced breakage, then cleaned in an acid bath, and valued in parcelsbased on sieve class size.

9.2.17.7 2004 Drilling and Sampling Results

9.2.17.7.1 Kimberlite 120

The 120 kimberlite occurs in the main cluster of the Fort à la Corne Kimberlite Province and is located on western end of the irregular shaped 148/147/120/220 volcanic complex with the 148 kimberlite directly to the southeast and the 220 kimberlite immediately to the east. Eight coreholes on Kimberlite 120 (Figure 12) provided 940.05 m of kimberlitic material from a total meterage of 1,968.0 m. The top of the first kimberlite intersection ranged between 102.0 to 115.88 m and the bottom of the last kimberlite unit situated between 234.5 and 243.6 m. Kimberlite thicknesses varied between 9.62 and 185.8 m. The average total core recovery for the 2004 drillholes was 93.7%.

9.2.17.7.1.1 Previous Drilling on Kimberlite 120

As summarized in Table 31, twenty drillholes were completed on the 120 kimberlite body between 1990 and 1993. Various thicknesses of kimberlite ranging between 0.0 and 170.0 m were encountered by the drilling. The top of the kimberlite in the drillholes was noted to be between 97.0 and 115.0 m depth.

The initial drilling programme testing the 120 body in 1990 consisted of four reverse circulation drillholes (120-01 to 120-04). Follow-up holes (DH's120-02 to 120-17) were completed in 1991 and 1992. These consisted of reverse circulation mini-bulk sample and coreholes (76 mm). One of the reconnaissance holes drilled in 1992 (DH 120-18) did not recover any kimberlite. One other hole, DH 120-05X, had to be abandoned while drilling overburden when problems were encountered in the hole. A second hole, DH 120-05 was completed at the same location. The following year 120-14 was abandoned and was replaced by 120-15. The reconnaissance drillhole 120-18 did not intersect any kimberlite in 1992. Drillhole 120-20 was a redrill of holes 120-12 and 120-13 in order to confirm macrodiamond recoveries in the earlier drillhole.

9.2.17.7.1.2 Geology of the 120 Kimberlite

Eight coreholes were completed in the 120 kimberlite body in 2004. The body forms part of the so-called 148 complex which includes the 120, 147, and 220 kimberlites. Petrographic logging of the 120 drillholes and subsequent macroscopic and microscopic investigation of the core samples has led to the identification of four main phases of kimberlite and a zone of mixing between two of the phases.

The four main phases are: the Main Pyroclastic Kimberlite (MPK); the Carbonate Lath-Rich Volcaniclastic Kimberlite (CLR-VK); the Brown Mantle Rich Pyroclastic Kimberlite (BMR-PK); and the Olivine Phenocryst-Rich Pyroclastic Kimberlite (OPR-PK). The MPK and CLR-VK phases have been variably mixed to produce intermediate zones within the pipe, termed MPK+CLR-VK where the relative proportion of MPK-derived components is greatest, or CLR-VK+MPK where the reverse is true. In a preliminary geological model, these variably mixed intervals have been modeled as a single pipe. An interval of volcaniclastic kimberlite intersected in a hole collared near the previously modeled contact between the 120 and 148 pipes is broadly comparable to the TBVK phase in the 148 kimberlite body and has been modeled as part of that pipe, although further work is required to improve confidence in this preliminary model.

Drillhole	Year Drilled	Type[1]	TOK	BOK	Kimberlite Thickness	EOH	Sample Mass (t)	Recovered Stones	Recovered Carats
120-01	1990	RCA	105.0	228.0	123.0	265.0	7.10	0	0
120-02	1990	RCA	114.0	223.0	109.0	223.0	6.29	26	0.070
120-03	1990	RCA	108.0	222.0	114.0	270.0	6.58	5	0.280
120-04	1990	RCA	106.0	238.0	132.0	250.0	7.62	12	0.865
120-05	1991	RCA/UR	102.6	198.0	92.0	230.0	14.07	15	0.175
120-05X	1991	RCA	-	-	0	110.0	0	0	0
120-06	1991	RCA/UR	110.0	203.0	90.0	231.8	13.17	1	0.445
120-07	1991	RCA	97.0	179.0	59.0	207.4	2.92	8	0.010
120-08	1991	RCA/UR	107.0	240.0	130.8	264.0	19.50	22	0.160
120-09	1991	RCA/UR	108.0	238.0	128.0	246.0	19.10	11	0.460

Drillhole	Year Drilled	Type[1]	TOK	BOK	Kimberlite Thickness	EOH	Sample Mass (t)	Recovered Stones	Recovered Carats
120-10	1991	RCA/UR	106.5	190.0	81.0	204.0	12.18	2	0.240
120-11	1991	Core	109.0	232.3	123.3	232.3	4.72	0	0.045
120-12	1992	Core	112.0	184.5	71.5	221.0	1.71	0	0
120-13	1992	Core	115.0	240.4	122.4	246.0	0	0	0
120-14	1992	RCa	108.0	109.0	0	111.5	0	0	0
120-15	1992	RCA	108.0	236.5	125.0	236.5	17.46	12	0.420
120-16	1992	RCA	114.0	246.5	130.0	246.5	18.16	22	1.620
120-17	1992	RCA	104.0	276.5	170.0	276.5	23.74	20	0.610
120-18	1992	Rotary	-	-	0	160.0	0	0	0
120-19	1993	Core	110.0	283.1	168.0	293.0	0.99	1	0.055
120-20	1993	RCA	110.0	276.3	163.5	276.3	29.82	12	0.316
Total:					**2132.5**	**4800.8**	**205.14**	**151**	**5.771**

[1] RCA= 152-914 mm reverse circulation airblast; UR= under-ream; Rotary= conventional circulation tricone

Note: This table does not include microdiamonds and macrodiamonds that may have been recovered from caustic dissolution or jigging recovery methods.

Table 31: Summary of Historic Drillholes and Minibulk Macrodiamond Recovery for 120

The main petrographic units encountered in the drillholes are described below:

Main Pyroclastic Kimberlite

The MPK intersected in five of the eight drillholes completed in the 120 body represents the dominate rock type in terms of total metres logged. The MPK consists mainly of units classified during logging as PK, as well as minor units classified as VK. The PK intervals are massive to diffusely bedded lapilli tuffs, whereas the VK intersections are either massive or well-bedded olivine ash/lapilli tuffs. The dominant grain sizes in the PK units are medium and coarse grained, while the VK units include a greater proportion of very fine and fine grained material. The MPK is characterized by a high proportion of mantle-derived indicator minerals (garnet, ilmenite and chrome diopside). The country rock xenolith content of the PK intersections is low (<3%) and includes altered basement gneiss/schist, limestone and lesser mudstone. The VK units are characterized by higher country rock xenolith contents (5-80%) and include localized breccias typically dominated by mudstone xenoliths.

Carbonate Lath Rich Volcaniclastic Kimberlite

The CLR-VK was intersected in only two of the 2004 coreholes and its volume is therefore poorly constrained in the current model. The CLR-VK is a diffusely to more distinctly bedded lapilli/ash tuff. The average olivine macrocryst grain size varies from very fine to medium grained. Phlogopite macrocrysts are common and are a distinctive feature of this phase. The proportion of mantle-derived indicator minerals (garnet, ilmenite and chrome diopside) is moderate to high. The country rock xenolith content is low (<2%) and includes limestone and altered basement gneiss/schist xenoliths.

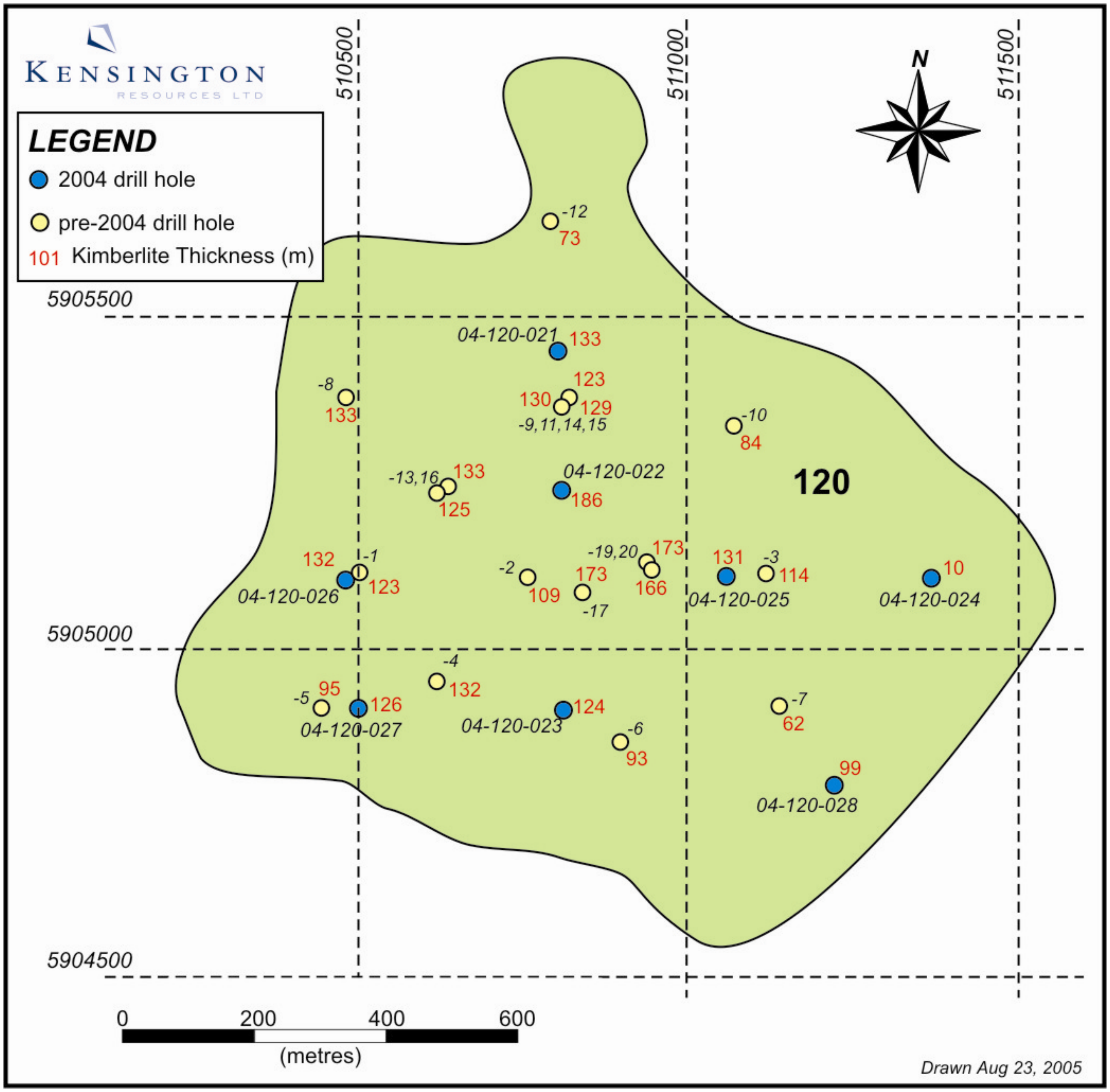


Figure 12: **Location of 2004 Coreholes on Body 120 Showing Kimberlite Thickness**

Mixed Zone
The MPK and CLR-VK phases have been variably mixed to produce intermediate zones within the pipe. These variably mixed intervals were intersected in four of the eight 2004 drillholes and have been modeled as a single pipe-like body in the preliminary geological model. These lapilli/ash tuffs display a range of structures that include massive, to diffuse, to well bedded intervals. The average olivine macrocryst grain size of the mixed units is highly variable between drillholes and depends on the relative location of the holes and the presence and nature of bedding structures within the intervals. The defining feature of these mixed units is the presence of juvenile lapilli/ash derived from both the MPK and CLR-VK phases. The presence and nature of the two types of lapilli can only be discerned microscopically. The proportion of mantle-derived garnet, ilmenite and chrome diopside is moderate to high or high throughout the mixed zone. The country rock xenolith content is typically low (<2%) and includes limestone and altered basement gneiss/schist. Green-black mudstone occurs in variable proportions.

Brown Mantle Rich Pyroclastic Kimberlite
The BMR-PK is a distinct phase that occurs in a 32.5 m thick intersection in only one of 2004 coreholes. The same unit was identified in only one of the previous drillholes. The BMR-PK is a massive to diffusely bedded olivine lapilli tuff, characterized by a high proportion of mantle-derived constituents, particularly in the very coarse grained intervals. The country rock xenolith content is low (<2%) and includes limestone and altered basement gneiss/schist.

Olivine Phenocryst-Rich Pyroclastic Kimberlite
The OPR-PK is a distinct phase that occurs in a 40.4 m thick intersection in one of 2004 drill holes. The unit consists of a diffuse and thickly bedded olivine lapilli/ash tuff. The dominant average olivine macrocryst grain sizes are very fine to fine and fine to medium grained. The proportion of mantle-derived indicator minerals (garnet, ilmenite, chrome diopside) and xenoliths is low compared to the other main phases. The country rock xenolith content is variable. It is very low (<1%) through most of the intersection, but below approximately 146.5 m depth, a number of the very fine to fine grained intervals contain common mudstone xenoliths forming localized breccias."

9.2.17.7.1.3 Density Measurements

The calculation of 98 in-situ density values on kimberlite samples in 2004 was found to have a mean value of 2.53 g/cm^3, a median value of 2.53 g/cm^3 and a standard deviation of ± 0.1 g/cm^3. The frequency distribution of density values shown in Figure 13 appears tightly constrained, with a limited range of values between 2.48 and 2.78 g/cm^3. In drillholes 04-120-022, -023 and -028 density values were noted to decrease at the bottom of the hole where larger quantities of country rock were noted. At the bottom of hole 04-120-027, coarse to medium grained kimberlite was noted which likely explains the slight increase in density at depth in this drillhole. A plot of in-situ density versus depth is shown ion Figure 14.

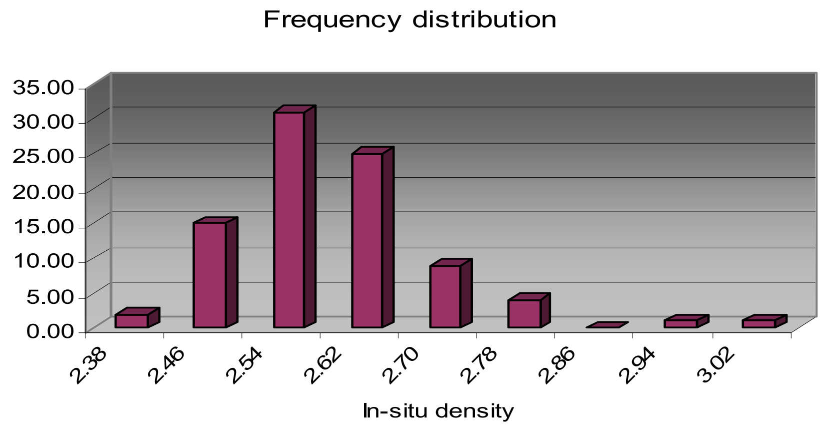


Figure 13: Frequency Histogram of 2004 Density Measurements for the 120 Kimberlite

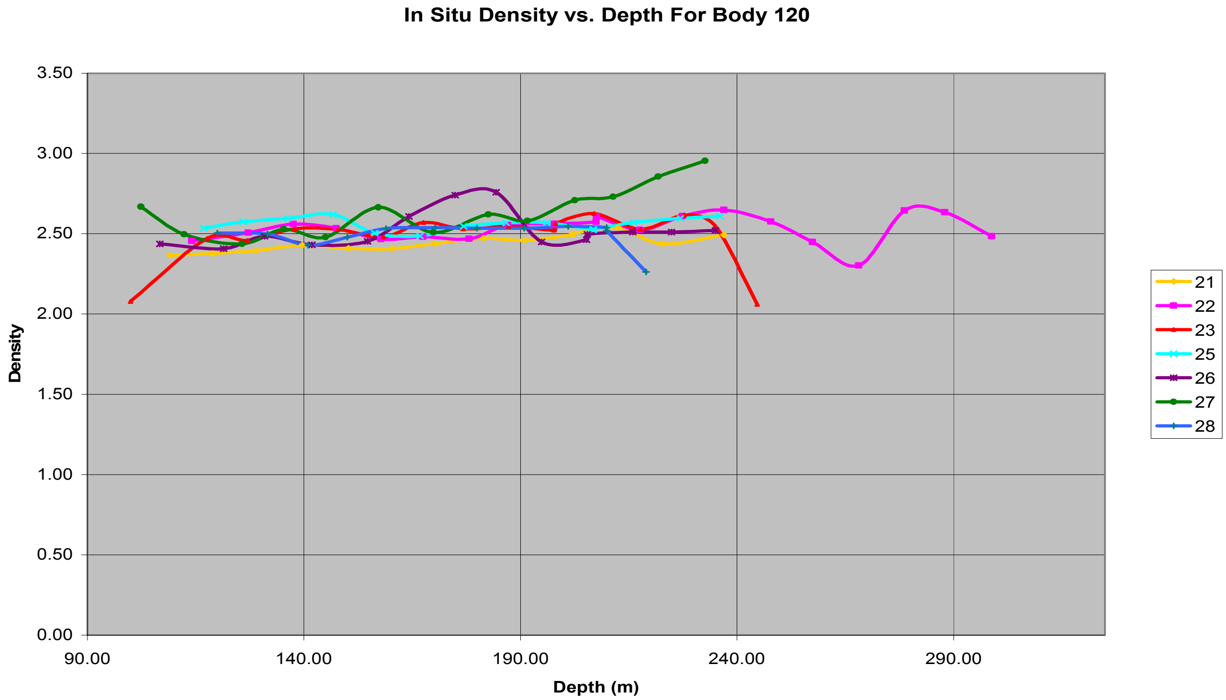


Figure 14: Chart of 2004 In-Situ Density Measurements for the 120 Drillholes
(Kimberlite, Overburden and Country Rock Samples)

9.2.17.7.1.4 Magnetic Susceptibility

Magnetic susceptibility for each of the holes completed is shown graphically in Figure 15. Of all the drillholes completed during the reporting period, DH 04-120-026 was found to have the highest magnetic response (max. value: 159 x10^{-3} SI units) due to the presence of magnetite in various sections of the kimberlite. Overall higher magnetic responses were also noted among drillholes in the western portion of the body (DH's 120-22, 23, 26, 27, 28).

9.2.17.7.1.5 Archeological and Flora/Fauna Surveys

Golder Associates Ltd. of Saskatoon, Saskatchewan was contracted to undertake a flora and fauna survey of the 120 kimberlite body as well a heritage resource review of proposed drillsite areas in accordance with the provincial Heritage Property Act. Once reports of the findings of the various surveys were submitted and reviewed by the Cultural and Heritage Branch (Heritage Resource Review) and Saskatchewan Environment (Flora and Fauna Survey) approval was granted by the various regulatory bodies for drilling activity. Nine drillpads were surveyed by the archaeological crew encompassing approximately 9 hectares. No major archeological artifacts were found in the Kimberlite 120 area.

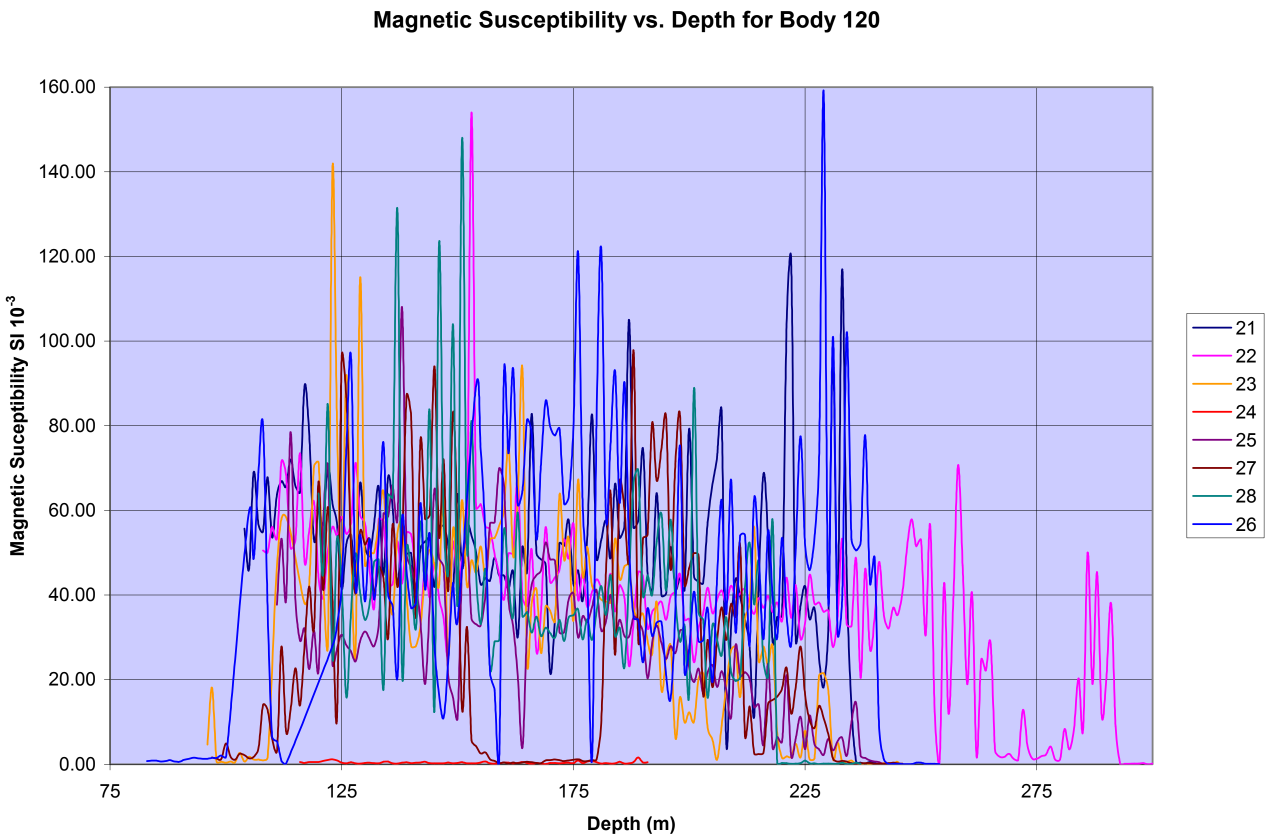


Figure 15: Chart of 2004 Magnetic Susceptibility Measurements for the 120 Kimberlite Drillholes

9.2.17.7.1.6 120 Sampling and Microdiamond Recoveries

A total of 962 microdiamonds were recovered from 643.4 kg of kimberlite core in 79 samples utilizing caustic dissolution methods at the SRC. Microdiamond recoveries were audited and individual stone sizes calculated by experts at the De Beers Kimberley Microdiamond Laboratory (KMDL) in South Africa. Since the Joint Venture partners have not received the full suite of modeled size data from KMDL, only microdiamond data from the SRC are reported here. Summaries of diamond recovery by kimberlite drillhole and by sieve category are shown in Tables 32 and 33.

Microdiamond recoveries in 2004 compare favourably with historical recoveries which are shown at the bottom of Table 32. The average stone density of the 2004 recoveries is significantly higher at 15 stones/10kg and there are similar recoveries of stones larger than 0.5 mm (per kg). Microdiamonds recovered from the 2004 program will be combined with all suitable historical diamond results and submitted to MRM of De Beers for grade forecasts of commercial-sized diamonds based on statistical and graphical treatment of the data.

Drillhole	Number of Samples[1]	Sample Mass (kg)	Carat Weight (carats)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm[2]
04-120-021	12	97.75	0.0073550	127	13.0	0
04-120-022	16	129.62	0.0104550	155	12.0	1
04-120-023	10	82.05	0.0095050	102	12.4	1
04-120-024	1	8.05	0.0004100	9	11.2	0
04-120-025	12	98.40	0.0355650	196	19.9	1
04-120-026	10	81.65	0.0072700	137	16.8	0
04-120-027	11	89.16	0.0061850	99	11.1	0
04-120-028	7	56.72	0.0075550	137	24.2	0
Total:	**79**	**643.40**	**0.0843000**	**962**	**15.0**	**3**
120 Historical[3]	13 DH; 59 samples	1104.68	0.1664583	734	5.36	6

[1] = For the 2004 samples, representative sample intervals ranged from 6.5 to 18 metres of kimberlite intersection; sample weights ranged from 8.05 to 8.35 kg
[2] = Stones with at least one axis greater than 0.5 mm in length
[3] = Due to the wide variance in sample mass per historical drillhole, the average stones/10 kg for the historical results was weighted by the mass of individual samples (a simple average of drillhole values was calculated at 4.77 stones/10 kg)
10 kg).

Table 32: Summary of 2004 and Historical Kimberlite 120 Microdiamond Results

Drillhole	+0.075mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.425mm Sieve	+0.600mm Sieve	+1.400mm Sieve
04-120-021	39	54	19	10	5	0	0	0
04-120-022	58	54	31	9	2	1	0	0
04-120-023	37	35	14	10	5	0	1	0
04-120-024	3	4	1	1	0	0	0	0
04-120-025	79	74	32	10	0	0	0	1
04-120-026	56	40	21	17	2	1	0	0
04-120-027	25	49	13	7	5	0	0	0
04-120-028	59	44	22	10	1	1	0	0
Total:	**356**	**354**	**153**	**74**	**20**	**3**	**1**	**1**

Table 33: Kimberlite 120 Microdiamond Recoveries by Drillhole and Sieve Category

9.2.17.7.2 Kimberlite 147

The 147 kimberlite occurs in the main cluster of the Fort à la Corne Kimberlite Province and is located at the eastern section of the irregular shaped 148/147/120/220 volcanic complex with the 148 kimberlite directly to the south-west and the 220 kimberlite immediately to the west. Eight HQ coreholes (1,740.0 m) were completed during October and November 2004 in order to provide geological information on the 147 kimberlite and to provide additional information on the diamond potential of the body through microdiamond sampling. The location of the drillholes is shown in Figure 16.

The coreholes provided 855.38 m of kimberlitic material from a total meterage of 1,740.0 m. The top of the first kimberlite intersection ranged between 96 to 106.28 m and the bottom of the last kimberlite unit situated between 181.22 and 221.82 m. Kimberlite thicknesses varied between 74.94 and 125.68 m. Three main kimberlite units were recognized within body 147. The average total core recovery for the 2004 drillholes was 97.4%.

9.2.17.7.2.1 Previous Drilling

Five reverse circulation drillholes were completed in the 147 kimberlite prior to 2004. Drillhole information for these holes is summarized in Table 34.

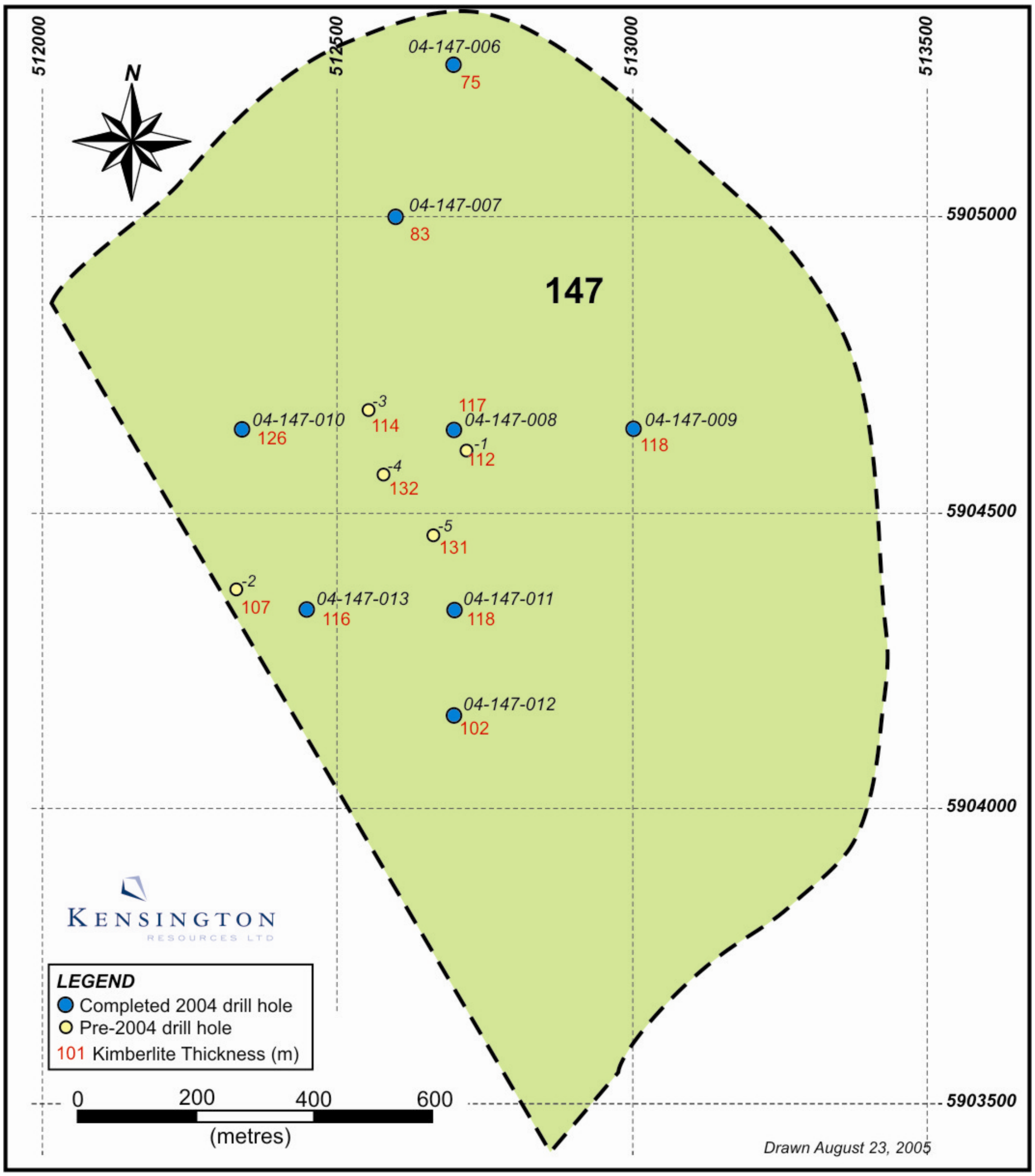


Figure 16: Location of 2004 Coreholes on Body 147 Showing Kimberlite Thickness

The initial drillhole testing in 1991 consisted of a single reverse circulation drillhole. Follow-up holes (DH's147-002 and 147-003) were completed in 1992 and 1995. Between1995 and 1999, larger RCA holes were completed within the kimberlite. Each of drillholes encountered technical problems. While completing DH 147-03 in 1995, the casing seal was lost and subsidence around the rig caused it to tilt. Ground collapse around the casing once again in 1999 (DH147-04) was corrected with the drillhole completed without further incident. In drillhole 147-05, a hard ledge at the bottom of the kimberlite body could not be penetrated and the hole was ended in kimberlite. Subsequent drilling in the 147 kimberlite area was aimed towards determining if 120, 147 and 148 bodies constituted a single kimberlite. The 148 body was tested by four holes in 2003. Kimberlite thicknesses in this body ranging in thickness from 15.03 to 180.65 m were found to be more variable than holes drilled in the 147 kimberlite body.

Drillhole	Year Drilled	Type[1]	TOK	BOK	Kimberlite Thickness	EOH	Sample Mass (t)	Recovered Stones	Recovered Carats
147-01	1991	RCA	101.0	213.0	112.0	222.0	5.39	6	0.130
147-02	1992	RCA	91.0	198.0	107.0	198.0	0.91	4	0.150
147-03	1995	RCA	98.5	212.5	114.0	213.0	20.04	23	1.495
147-04	1999	RCA	99.5	231.5	132.0	232.0	23.38	41	1.200
147-05	1999	RCA	100.5	231.2	130.7	231.2	22.94	44	1.230
Total:					**595.7**	**1096.2**	**72.66**	**118**	**4.205**

[1] RCA= 152-914 mm reverse circulation airblast; UR= under-ream; Rotary= conventional circulation tricone
Note: This table does not include microdiamonds and macrodiamonds that may have been recovered from caustic dissolution or jigging recovery methods.

Table 34: Summary of Historic Drillholes and Minibulk Macrodiamond Recovery for 147

There is limited geological information available on previous work completed on the 147 kimberlite in reports produced by Uranerz (UEM Annual Report 1991, 1992, 1995, 1999). Although drill chips were logged, drill logs provided minimal useable information on the geology of the body. Slabs or thin sections were not produced from any drillholes, nor were any detailed macroscopic or petrographic investigations completed on the cuttings.

9.2.17.7.2.2 Preliminary Geology of the 147 Kimberlite

The purpose of the macroscopic and microscopic investigations was to establish petrographic descriptions for the kimberlite phases composing the body and to highlight any rock types characterized by a high diamond carrying capacity. The 147 kimberlite pipe occurs in the main cluster of the Fort à la Corne Kimberlite Province, Saskatchewan, Canada. The 147 kimberlite is located at the eastern section of the irregular shaped 148/147/120/220 volcanic complex (148 complex) with the 148 kimberlite directly to the south-west and the 220 kimberlite immediately to the north-west.

Three main petrographic units were recognized in the 147 body: TBVK (Thinly Bedded Volcaniclastic Kimberlite, DGBPK (Dark Grey Bedded Pyroclastic Kimberlite) and MGU (Mega Graded Unit). A fourth minor unit, FLVK (Fine Laminated Volcaniclastic Kimberlite), was also identified in several drillholes. The thinly bedded volcaniclastic kimberlite unit appears to be the main kimberlite type infilling the 147 body based on its extent in the 2004 drillholes. This unit occurs predominantly within the centre portion of the 147 body outline. The TBVK unit is similar in character to the TBVK unit in the adjacent 148 kimberlite.

9.2.17.7.2.3 Density Measurements

Density values for 117 kimberlite samples from the adjacent Kimberlite 148 in 2003 were found to have a mean value of 2.41 g/cm^3 for in-situ density. A slightly lower range in values was noted for 88 kimberlite samples obtained from the 2004 drilling on Kimberlite 147. This suite of data indicated a mean value of 2.38 g/cm^3, a median of 2.37 g/cm^3 and a standard deviation of ± 0.08 g/cm^3. The frequency distribution of in-situ density values for the 147 kimberlite is shown graphically in Figure 17.

Fine grained kimberlite at the bottom of drillholes 04-147-007 and 012 was noted to have lower density values compared to holes 04-147-008 and 010 which had higher values associated with medium grained kimberlite. The results of the 2004 density measurements versus depth are shown graphically in Figure 18. At a depth of approximately 200m the density values seem to slightly increase in drillholes 04-147-008, -009 and -013 where mainly medium grained kimberlite was logged.

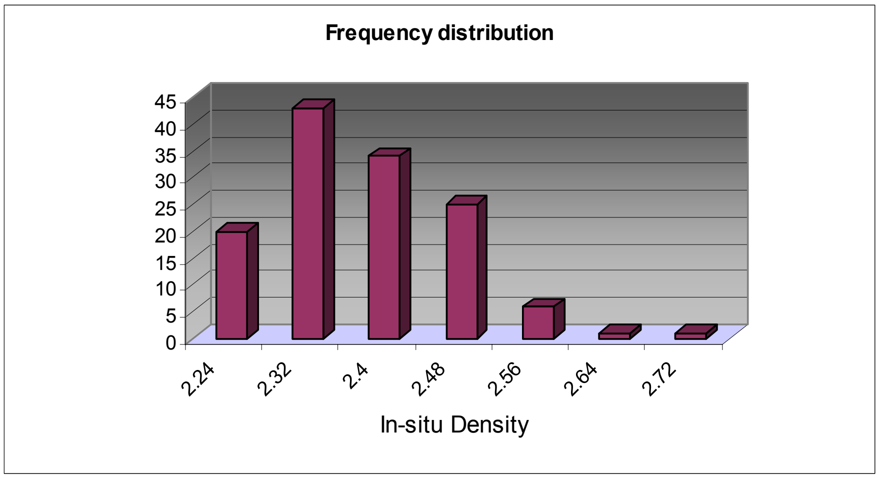


Figure 17: Frequency Histogram of the 2004 Density Measurements for the 147 Kimberlite

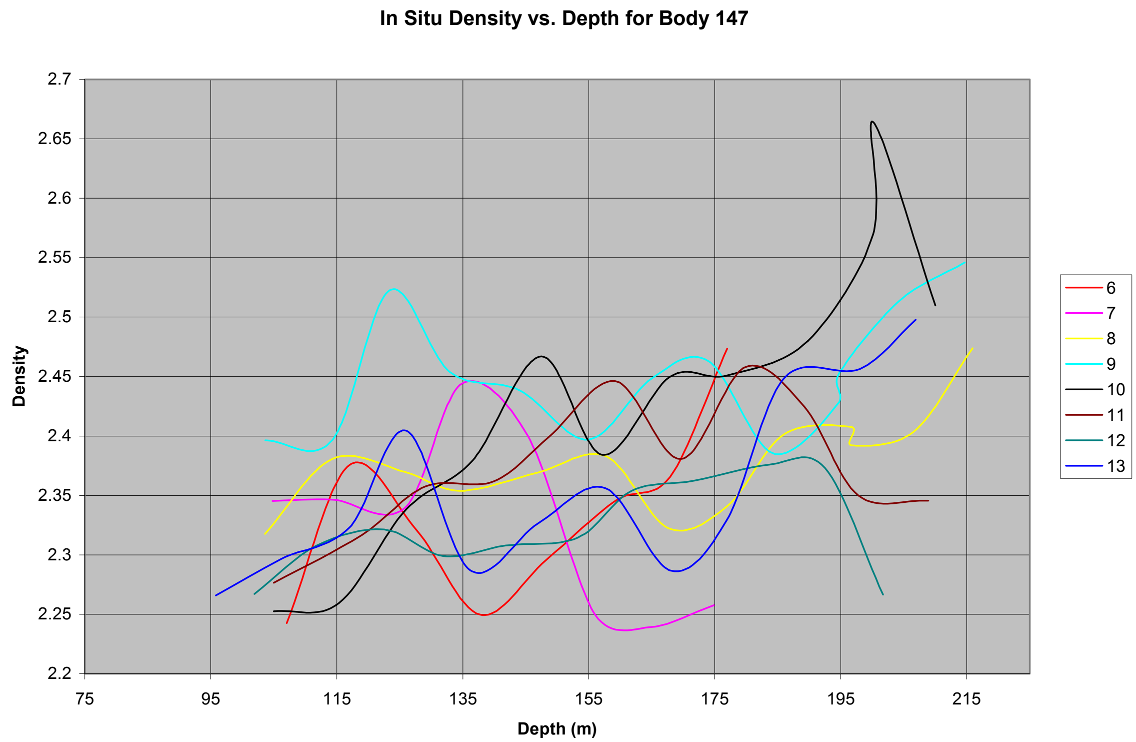


Figure 18: Chart of 2004 In-Situ Density Measurements for the 147 Drillholes
(Kimberlite, Overburden and Country Rock Samples)

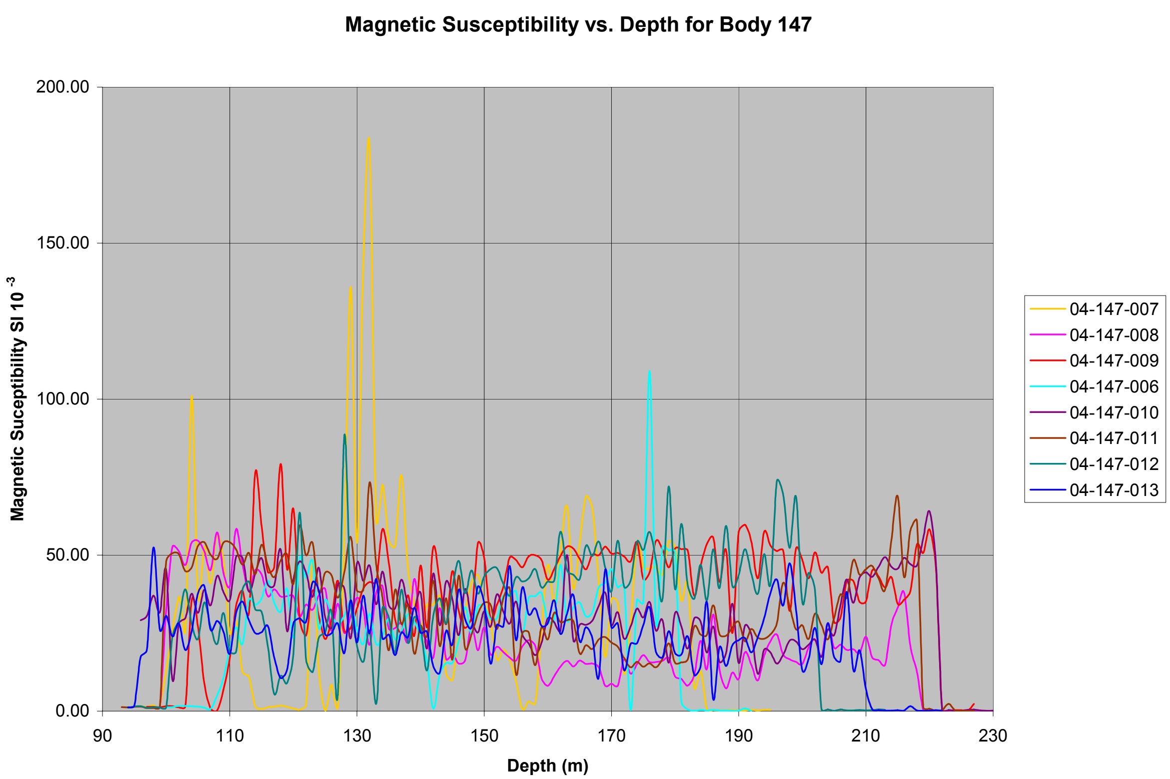


Figure 19: Chart of Magnetic Susceptibility Measurements for the 147 Drillholes

9.2.17.7.2.4 Magnetic Susceptibility

The susceptibility data is summarized for each drillhole in Figure 19. Of the drillholes completed, holes 04-147-007 (max value: 181 SI 10^{-3}) and 04-147-006 (max. value: 109 SI 10^{-3} units) were found to have higher magnetic susceptibility responses due to the presence of magnetite in various sections of the kimberlite.

9.2.17.7.2.5 Archeological and Flora/Fauna Surveys

Golder Associates Ltd. of Saskatoon, Saskatchewan was contracted to undertake a flora and fauna survey of the 147 kimberlite body as well a heritage resource review of drillsite areas in accordance with the provincial Heritage Property Act. Once reports of the findings of the various surveys were submitted and reviewed by the Cultural and Heritage Branch (Heritage Resource Review) and Saskatchewan Environment (Flora and Fauna Survey) approval was granted by the various regulatory bodies for drilling activity. The collar location for drillhole 04-147-012 was moved after tool construction rock chip artefacts were discovered at the originally proposed drillsite location. At total surface of about 9 hectares was surveyed by the archeologists in order to cover 8 drillpads and the drillpad area of 04-147-012 that was avoided.

9.2.17.7.2.6 Sampling and Microdiamond Recoveries for 147

A total of 2,432 microdiamonds were recovered from 515.20 kg of kimberlite core in 63 samples utilizing caustic dissolution methods at the SRC. Microdiamond recoveries were audited and individual stone sizes calculated by experts at the De Beers Kimberley Microdiamond Laboratory (KMDL) in South Africa. Since the Joint Venture partners have not received the full suite of modeled size data from KMDL, only microdiamond data from the SRC are reported here. Summaries of diamond recovery by kimberlite drillhole and by sieve category are shown in Tables 35 and 36.

Drillhole	Number of Samples[1]	Sample Mass (kg)	Carat Weight (carats)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm^2
04-147-006	13	106.40	0.025255	378	35.53	0
04-147-007	4	32.65	0.004075	67	20.52	0
04-147-008	7	57.35	0.052650	650	113.34	2
04-147-009	7	57.20	0.036245	155	27.10	1
04-147-010	7	57.40	0.030035	311	54.18	0
04-147-011	7	57.25	0.017215	238	41.57	1
04-147-012	6	48.90	0.014190	201	41.10	1
04-147-013	12	98.05	0.025415	432	44.06	1
Total:	**63**	**515.20**	**0.205080**	**2432**	**47.21**	**6**
147 Historical[3]	***3 DH; 10 samples***	***292***	***0.1042626***	***559***	***21.1***	***7***

[1] = For the 2004 samples, representative sample intervals ranged from 3.2 to 24.2 metres of kimberlite intersection; sample weights ranged from 8.05 to 8.25 kg

[2] = Stones with at least one axis greater than 0.5 mm in length

[3] = Due to the wide variance in sample mass per historical drillhole, the average stones/10 kg for the historical results was weighted by the mass of individual samples (a simple average of drillhole values was calculated at 21.4 stones/10 kg)

Table 35: Summary of 2004 and Historical Kimberlite 147 Microdiamond Results

Drillhole	+0.075mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.425mm Sieve	+0.850mm Sieve	+1.000mm Sieve
04-147-006	130	118	67	48	15	0	0	0
04-147-007	26	17	14	9	1	0	0	0
04-147-008	195	229	123	64	34	5	0	0
04-147-009	51	58	22	12	8	3	0	1
04-147-010	93	112	58	28	11	9	0	0
04-147-011	92	74	34	27	8	2	1	0
04-147-012	80	66	28	20	5	1	1	0
04-147-013	168	156	64	29	11	4	0	0
Total:	**835**	**830**	**410**	**237**	**93**	**24**	**2**	**1**

Table 36: Kimberlite 147 Microdiamond Recoveries by Drillhole and Sieve Category

Microdiamond recoveries in 2004 were significantly higher than historical recoveries which are shown at the bottom of Table 35. At 47 stones/10kg, the average stone density of the 2004 recoveries is more than double that of the historical recoveries and is actually much higher if the 128 microdiamonds measuring less than 0.075 mm are not included in the historical tally. In comparison, less than half of the stones larger than 0.5 mm were recovered. Microdiamonds recovered from the 2004 program will be combined with all suitable historical diamond results and submitted to MRM of De Beers for grade forecasts of commercial-sized diamonds based on statistical and graphical treatment of the data.

9.2.17.7.3 Kimberlites 121 and 221

The 121 and 221 kimberlites occur in the main cluster of the Fort à la Corne Kimberlite Province and are located east of the 148/147/120/220 volcanic complex. Eight HQ coreholes (120-09 to 13, 221-02 to 04) were completed during October and November 2004 in order to improve the geological understanding of the 121 and 221 kimberlite bodies (Figure 20). The eight holes provided a total metreage of 1,745 m of core with a total of 624.3 m of kimberlitic material cored. Kimberlite thicknesses varied between 32.27 m and 177.5 m for kimberlite body 121 and between 51.16 m and 75.38 m for kimberlite body 221. Drillholes 04-121-011 and 04-221-002 were reduced to NQ size core at a depth of 165 m due to technical problems encountered while drilling. From the core logging of the eight drill cores examined from kimberlite bodies 121/221, it has been determined that the medium to coarse-grained pyroclastic units intersected in the centre of the 121 and 221 bodies represent the material of highest interest. The average total core recovery for the 2004 121/221 drillholes was 97.1%.

9.2.17.7.3.1 Previous Drilling

Eight previous drillholes of various types (rotary, NQ core and reverse circulation mini-bulk sample holes) have tested the 121 kimberlite during the period 1989 through 1996. As shown in Table 37, the majority of past drillholes in the target area are clustered towards the centre of the circular to ovoid shaped 121 kimberlite body which ground magnetic modelling has forecasted to be 28 ha in size.

Drillhole	Year Drilled	Type[1]	TOK	BOK	Kimberlite Thickness	EOH	Sample Mass (t)	Recovered Stones	Recovered Carats
121-01	1989	Rotary	110.9	158.5	47.60	158.5	0	0	0
121-02	1991	RCA	112.0	276.0	162.30	276.0	8.80	4	0.100
121-03	1992	Core	120.0	194.0	72.00	221.5	1.72	1	0.030
121-04	1992	Core	114.0	294.2	172.20	297.0	6.08	8	0.230
121-05	1992	RCA	120.0	185.0	62.50	185.0	8.73	2	0.095
121-06	1992	RCA	117.0	258.0	139.00	258.0	19.41	32	1.210
121-07	1992	RCA	111.0	216.5	104.50	216.5	14.52	15	0.665
121-08	1993	Core	112.0	299.0	172.00	305.0	0.97	1	0.010
221-01	1996	Rotary	123.1	298.4	168.55	299.0	4.66	21	0.341
Total:					**595.7**	**1096.2**	**64.89**	**84**	**2.681**

[1] RCA= 152-914 mm reverse circulation airblast; UR= under-ream; Rotary= conventional circulation tricone

Note: This table does not include microdiamonds and macrodiamonds that may have been recovered from caustic dissolution or jigging recovery methods.

Table 37: Summary of Historic Drillholes and Minibulk Macrodiamond on 121 and 221

Variable thicknesses of kimberlite were also encountered by previous drillholes testing the 121 body ranging from 47.6 m (incomplete, rotary test hole) to 172.0 m depth. The average thickness of kimberlite encountered by the seven complete historic holes testing the body is 126.4 m. Taking local variations in elevation into consideration, the top of the kimberlite in the 121 body is approximately at 111-116 m depth.

The magnetic indicated outline of the 221 body indicates a circular 15 ha body appended to the northwest margin of the 121 kimberlite. A single 4¾" rotary drillhole (DH 221-01) collared at the centre of the body tested the target in 1996. A 168.6 m intersection of kimberlite was recovered in the hole.

9.2.17.7.3.2 Geology of the 121 and 221 Kimberlites

The results of logging eight drillholes from the 121/221 kimberlite bodies indicate that the 121 kimberlite is asymmetric and steep walled. The 221 kimberlite is smaller in size, slightly more symmetric, but even more steep walled. A GEMCOM model for the combined bodies (Figure 21) prepared by De Beers shows that each kimberlite consists of two main petrographic units.

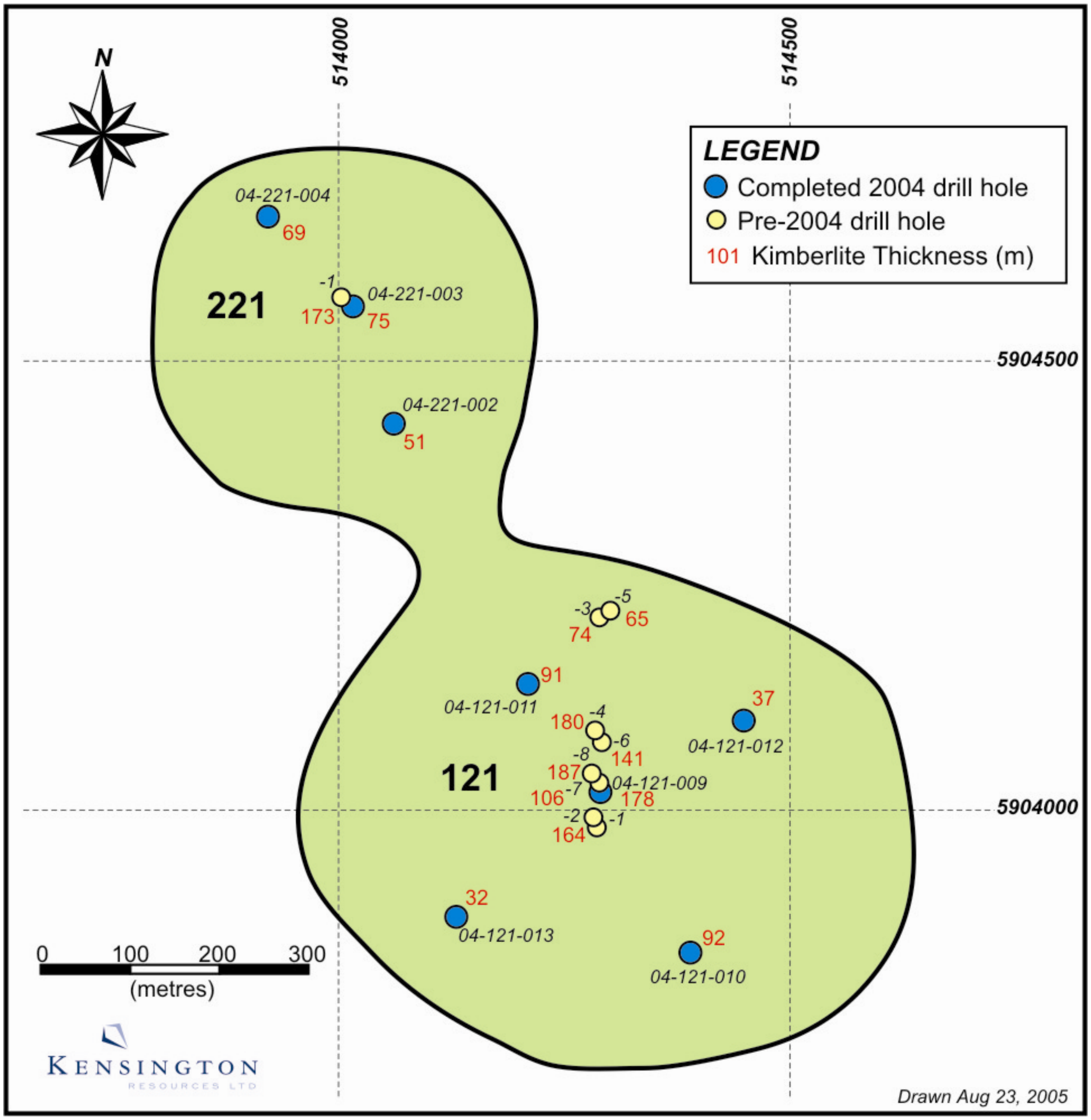


Figure 20: Location of 2004 Coreholes on Body 121/221 Showing Kimberlite Thickness

The occurrence of distinctively pyroclastic kimberlite units is limited almost entirely to the centre of each body i.e. drill holes 04-121-09 and 04-221-03. Both of these holes are dominated by pyroclastic material with only minor occurrences of resedimented volcaniclastic kimberlite at the tops of the either hole. Another drillhole (04-121-11) collared between the centres of the 121 and 221 kimberlites, also contains a dominant pyroclastic phase. The pyroclastic kimberlite in this area may represent a more distal, finer-grained equivalent (fine-medium grained kimberlite) of the proximal material intersected in drillhole 04-121-09 (medium-coarse grained kimberlite) near the 121 vent, whereas the fine to medium pyroclastic kimberlite in DH 04-221-03 is thought to represent proximal material from a separate, smaller vent at 221. Petrographically, the highest interest packages are the medium to coarse grained pyroclastic kimberlite units intersected in drillhole 04-121-09, followed by the fine to medium grained pyroclastic kimberlite units noted in holes 04-121-11 and 04-221-03 respectively.

Overall the pyroclastic units in the 121/221 kimberlites contain both single olivines, often with very thin possible magmatic rims (these could also be alteration rims), and pyroclasts. The pyroclasts are variable in their composition, size and shape. Pyroclasts can comprise single olivines (macrocrysts or phenocrysts) with a thin magmatic rim, to single olivines with much thicker rims often containing groundmass spinel, phlogopite and olivine phenocrysts or even other macrocrysts. In some cases, the pyroclast rims comprise only light-green serpentine and can be difficult to distinguish from the matrix. Shapes vary from round to curvilinear. The size of the juvenile grains varies from fine to coarse grained. The juvenile component of the pyroclastic kimberlite (olivine grains and pyroclasts) varies between 55-85% depending on the size and packing of the juvenile grains. Overall the units are fairly massive in character, but the size of juveniles often varies on a cm-scale and often resembles a coarsely defined bedding or layering. These variations can also occur on a scale of metres or even several metres. The packing of these juveniles can also vary from well packed to poorly-packed.

Overall the pyroclastic kimberlite units contain a full range of mantle indicators known from Fort à la Corne i.e. garnet, clinopyroxene, ilmenite, mica. The garnets present are mainly orange and red in colour. Garnet is usually the most abundant indicator mineral. The clinopyroxenes are difficult to recognize and are altered to a whitish/pink colour. Ilmenite can also be difficult to recognize in places, mainly due to the presence of secondary magnetite. Mica is not usually a common mineral. Spinel was not identified. Coarser units tend to contain mantle xenoliths which include both peridotites and eclogites (clinopyroxene and garnet), which often have magmatic rims.

Country rock xenoliths are generally not abundant and most of the pyroclastic kimberlite units contain between 2-5% country rock, but this can be higher in places. The country rock xenoliths comprise rounded to angular black, beige and grey mudstones, limestones and basement gneisses. The mudstones usually appear to have been competent fragments included in the pyroclastic kimberlite, but rarely appear to have been soft by their deformed and even 'interstitial' nature (they appear to form a matrix component in places). Many of these dark mudstones also show olivines penetrating into their margins. The limestones can be difficult to recognize in places as they are often totally altered to the light-green matrix serpentine. Likewise, the basement xenoliths are also often highly altered and are often difficult to recognize.

The dominant intra-clast matrix type in the pyroclastic kimberlites is serpentine, which is predominantly light-green in colour but can be very dark-green in places. The light-green serpentine often forms veins and even pools in places. Magnetite is also a common matrix mineral and often forms patches in the matrix and also replaces olivine in places. Carbonate is not generally common in the matrix, but can be locally abundant.

The resedimented volcaniclastic kimberlite units are not volumetrically significant and are represented in the 121/221 bodies by units from 2.7 m up to 15.4 m. These units are located within the central portions of the bodies as well as along the margins of the bodies and are always located at the top contact of the kimberlite with the overburden.

Overall the resedimented volcaniclastic kimberlite units varies from 'kimberlitic shale' to finely bedded, fine grained kimberlitic material containing olivine and spinel. The kimberlitic shales comprise extremely fine-grained, very clay-rich and horizontally laminated material with only traces of mica and garnet. The 'bedded' resedimented volcaniclastic kimberlites are generally very well packed, fine-grained units containing mainly juvenile material with minor country rock as black mudstone, and mantle indicator minerals (garnet, clinopyroxene, ilmenite, and mica). The juvenile material usually comprises single olivines but in one case comprised altered spinel grains. This spinel-rich unit also contained a vermiform secondary mineral (antigorite) which appears to replace much of the original mineralogy and texture in the redsedimented units. These spinel-rich units have been noted in other bodies in the cluster. The intra-clast matrix of the 'bedded' resedimented volcaniclastic kimberlite units comprises serpentine and carbonate. Bedding in these resedimented volcaniclastic kimberlite units is normally well defined and upward fining on a cm scale, often with a coarser basal lag. The bedding normally has a very shallow dip and is usually horizontally laminated with very little internal structure, although trough crossbedding is observed in places. The well sorted and bedded nature of these deposits implies reworking, possibly in a sub-aqueous environment. The resedimented volcaniclastic kimberlite units are still poorly understood and further work is required in order to determine their process of deposition.

Volcaniclastic kimberlites in the 121/221 drillholes display characteristics of both pyroclastic kimberlite and resedimented volcaniclastic kimberlite. These units are thought to represent distal pyroclastic fall deposits or fine-grained, reworked tephra ring deposits (possibly a combination of both). All of the drillholes completed during the reporting period (except 04-121-12) contain a volcaniclastic kimberlite unit and these can be divided into two main types:

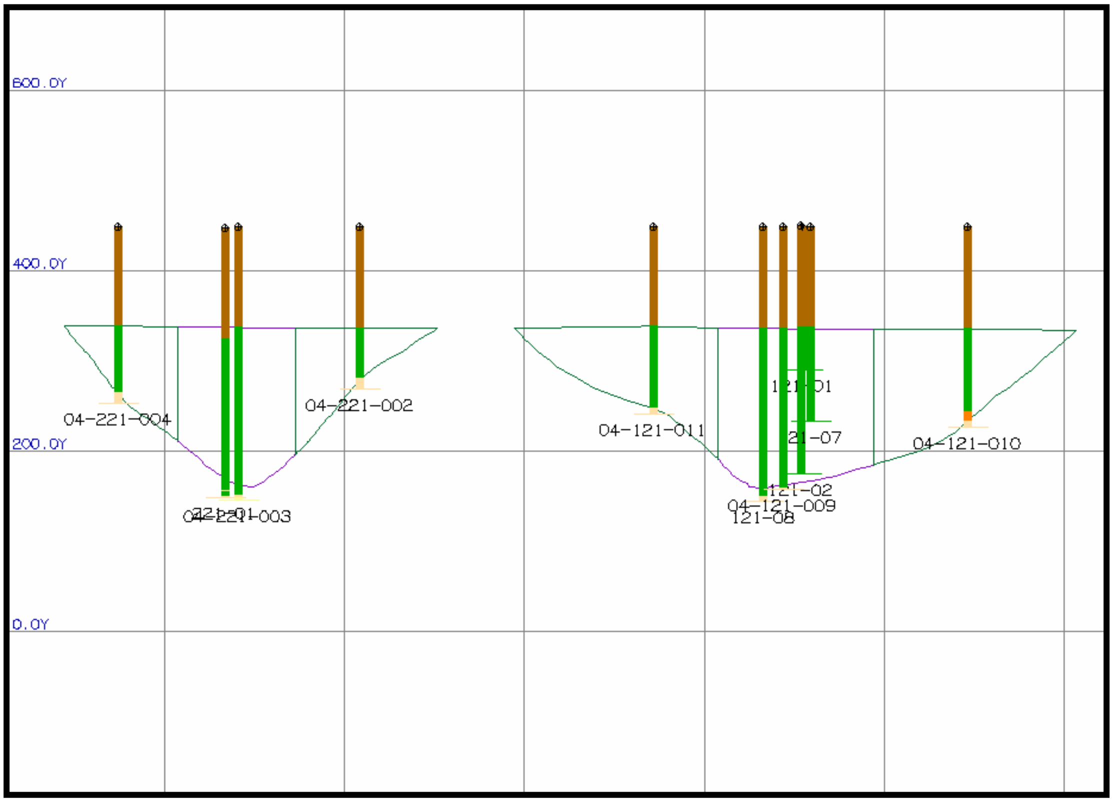
Coarse-grained basal contact volcaniclastic kimberlite units are generally thin (~1 metre but up to ~4 m) and are located at the basal contact of the kimberlite and the country rock. These units probably represent the first phase of crater infill and are rich in coarse-grained juveniles, mainly single olivines with minor pyroclasts, and large sub-rounded to sub-angular country rock xenoliths (mudstones, basement and limestone) and rounded mantle xenoliths and indicator minerals. The intra-clast matrix is serpentine but closer to the contact this can be replaced by carbonate. It is unclear whether these units are coarse-grained pyroclastic fall deposits from the initial crater forming explosion, or whether they are avalanche or debris-flow deposits formed by slumping of the outer tephra ring. They may in fact form by a combination of both processes. Fine grained upper volcaniclastic units are usually located on the margins of the bodies and range from 1 to 50 m thick. They are either found as units between overlying resedimented volcaniclastic kimberlite and underlying pyroclastic kimberlites or as generally thicker units below a resedimented volcaniclastic kimberlite, usually comprising the rest of the hole. These deposits are generally fine-grained, juvenile rich (single olivines and pyroclasts), crustal xenolith and mantle xenocryst poor. Variations in sorting, packing and structure (bedding, grading) of these components are observed. Alteration is also highly variable in these units, from fresh to highly carbonate veined and totally carbonatized in places.

From the logging of the eight drillholes in 2004, it has been determined that the medium to coarse grained pyroclastic units intersected in the centres of the 121 and 221 bodies represent the highest interest material. If it becomes necessary to further define the extent of individual units, then further drilling will be required and must be completed at a closer spacing.

9.2.17.7.3.3 Density Measurements

The 2004 density data for the 121 kimberlite body (43 kimberlite samples) indicates a mean value of 2.42 g/cm^3 for in-situ density, a median of 2.41 g/cm^3, and a standard deviation of ± 0.15 g/cm^3. The density data for the 221 kimberlite (29 kimberlite samples) was found to be somewhat lower with a mean value of 2.25 g/cm^3, a median of 2.26 g/cm^3, and a standard deviation of ± 0.21 g/cm^3.

The difference in density values between the two bodies suggests they may constitute two separate bodies. The slightly higher average density for the 121 body may be explained by the fact that this kimberlite consists of fine-medium grained kimberlite whereas the 221 body contains mostly very fine-fine grained kimberlite. The 121 kimberlite also contains a higher, more consistent content of limestone and mudstone xenoliths which may also contribute to the higher density for the body. The increase in density at a depth of 180 m at drillhole 04-121-009 might be explained by the increase of the size of limestone xenoliths. The results of the 2004 density measurements are shown graphically in Figures 22 and 23.



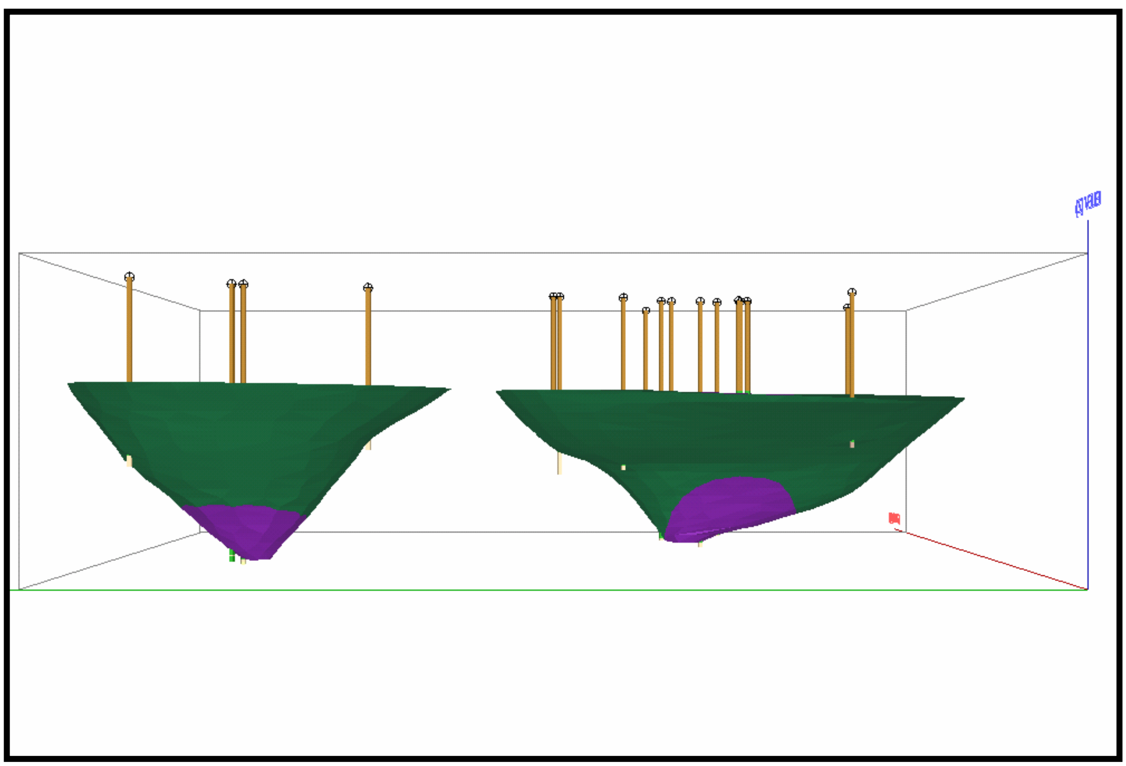
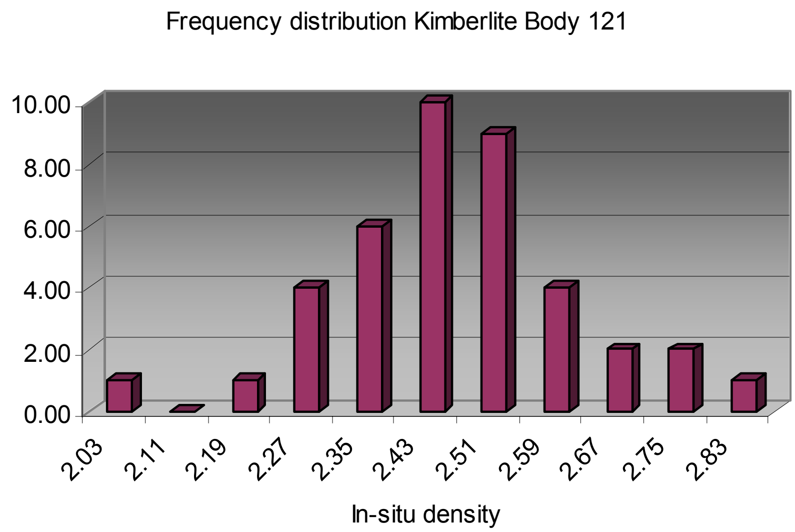


Figure 21: Views of the GEMCOM Model for the 121 and 221 Kimberlites



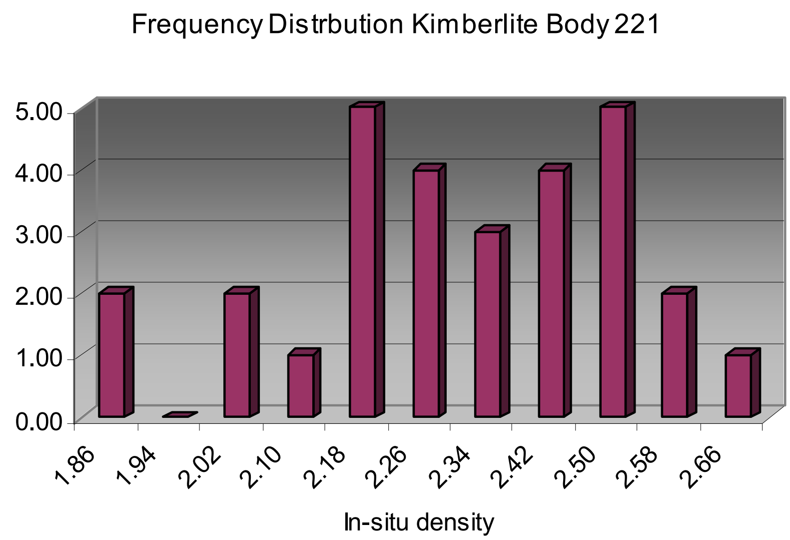
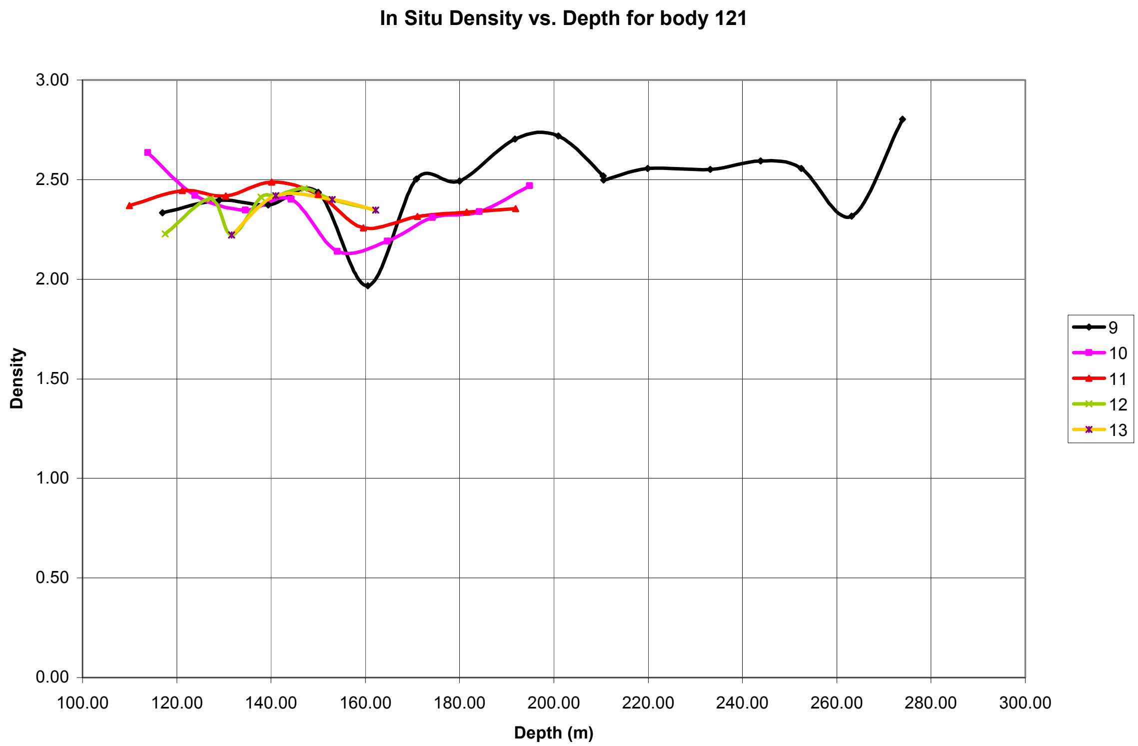


Figure 22: Frequency Histograms of 2004 Density Measurements for the 121 and 221 Kimberlites



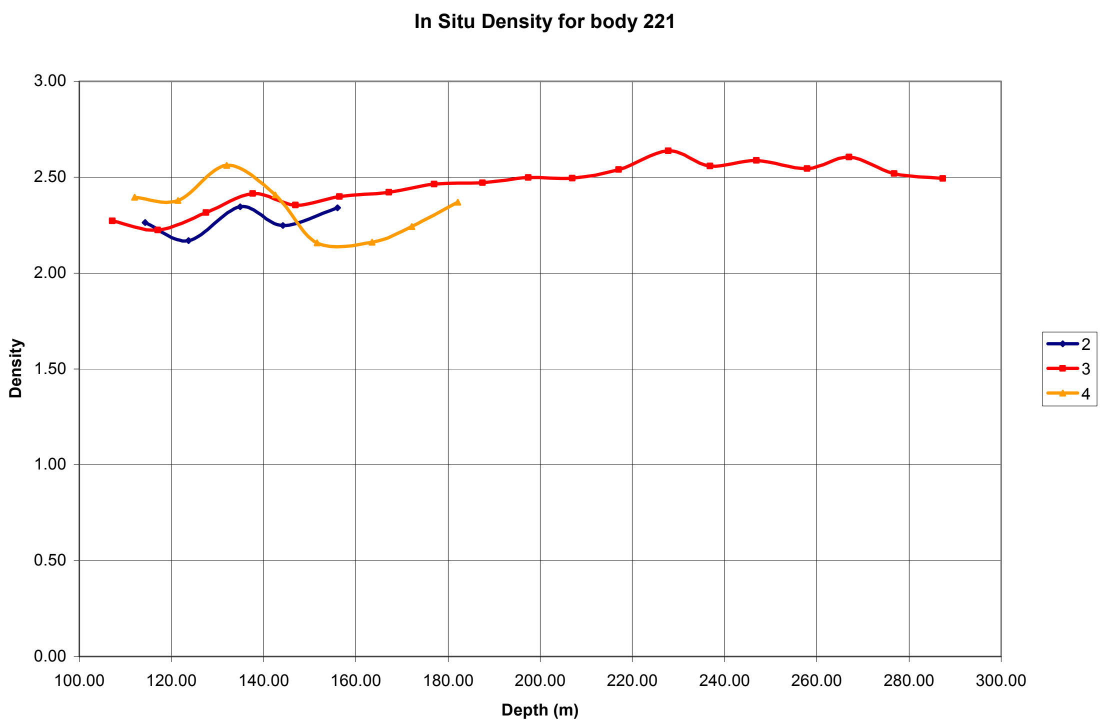
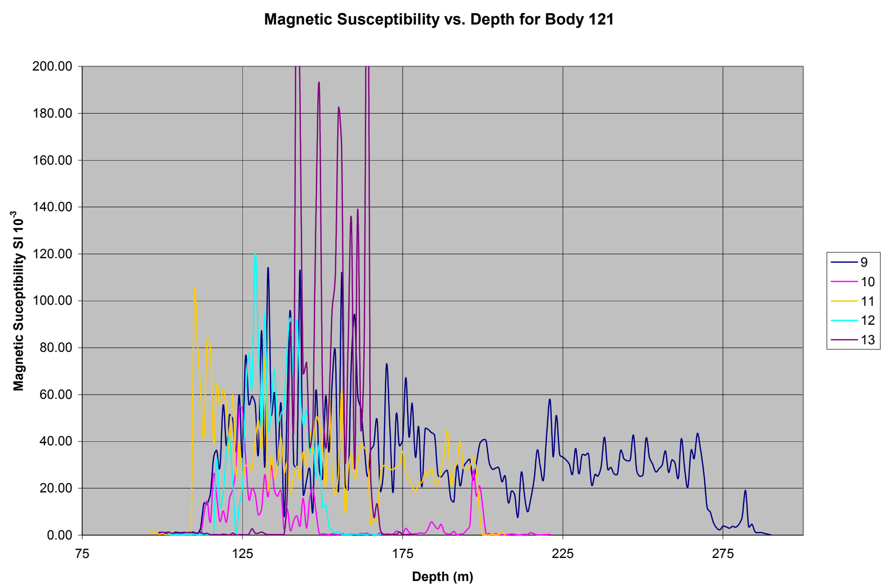


Figure 23: Charts of 2004 In-Situ Density Measurements for the 121 and 221 Kimberlite Drillholes (Kimberlite and Country Rock Samples)

9.2.17.7.3.4 Magnetic Susceptibility

The results show the magnetic susceptibility response to be variable and often lithology-related. The overburden, kimberlite and country rock were all seen to have different responses. The overburden composed of till was also seen to have a low magnetic susceptibility. Although magnetic susceptibility values for the kimberlite were seen to vary within the body (at the contact zones and within kimberlite), they were generally higher than those of the enclosing country rocks (Figure 24).

Rather high magnetic values of up to 276 10^{-3} SI units in drillhole 04-121-013 are due to the presence of magnetite veins and blebs within the kimberlite. Hole 04-221-003 drilled in the centre of the 221 body was also seen to contain abundant magnetite with magnetic susceptibility values of 242 10^{-3} SI units.



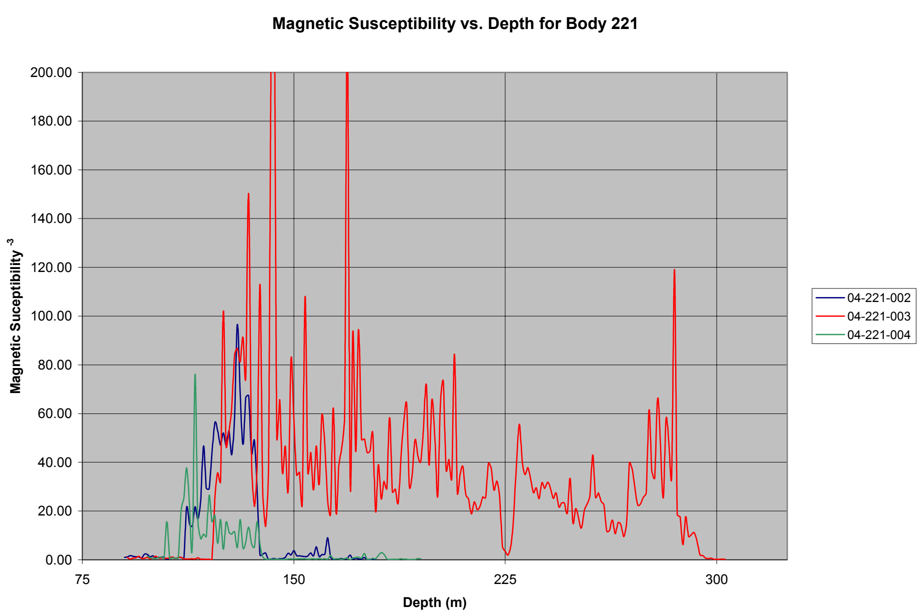


Figure 24: Charts of Magnetic Susceptibility Measurements for the 121 and 221 Kimberlite Drillholes

9.2.17.7.3.5 Archeological and Flora/Fauna Surveys

Golder Associates Ltd. of Saskatoon, Saskatchewan was contracted to undertake a flora and fauna survey of the 121 and 221 kimberlite bodies as well a heritage resource review of proposed drillsite areas in accordance with the provincial Heritage Property Act. Once reports of the findings of the various surveys were submitted and reviewed by the Cultural and Heritage Branch (Heritage Resource Review) and Saskatchewan Environment (Flora and Fauna Survey) approval was granted by the various regulatory bodies for drilling activity. Ten planned drillpads were surveyed by the archaeological crew in the 121/221 kimberlite area encompassing approximately 10 hectares.

While conducting ground checks on an existing access road connecting the 221 and 147 target areas, a stone tool was found by the archaeologists. As the ground had been bladed and no in-situ findings were made, a recommendation to proceed with work was received from Cultural and Heritage Branch.

9.2.17.7.3.6 121 and 221 Sampling and Microdiamond Recoveries

Kimberlite 121

A total of 326 microdiamonds were recovered from 295.25 kg of kimberlite core in 36 samples utilizing caustic dissolution methods at the SRC. Microdiamond recoveries were audited and individual stone sizes calculated by experts at the De Beers Kimberley Microdiamond Laboratory (KMDL) in South Africa. Since the Joint Venture partners have not received the full suite of modeled size data from KMDL, only microdiamond data from the SRC are reported here. Summaries of diamond recovery by kimberlite drillhole and by sieve category are shown in Tables 38 and 39.

Drillhole	Number of Samples[1]	Sample Mass (kg)	Carat Weight (carats)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm[2]
04-121-009	19	155.95	0.430420	248	15.90	1
04-121-010	4	32.95	0.000715	13	3.95	0
04-121-011	5	41.00	0.000710	25	6.10	0
04-121-012	4	32.65	0.005110	25	7.66	1
04-121-013	4	32.70	0.000530	15	4.59	0
Total:	**36**	**295.25**	**0.437485**	**326**	**11.04**	**2**
121 Historical[3]	7 DH; 43 samples	875.75	0.1049610	378	5.18	17

[1] = For the 2004 samples, representative sample intervals ranged from 4.2 to 33.6 m of kimberlite intersection; sample weights ranged from 8.05 to 8.35 kg

[2] = Stones with at least one axis greater than 0.5 mm in length

[3] = Due to the wide variance in sample mass per historical drillhole, the average stones/10 kg for the historical results was weighted by the mass of individual samples (a simple average of drillhole values was calculated at 4.32 stones/10 kg)

Table 38: Summary of 2004 and Historical Kimberlite 121 Microdiamond Results

At first look, microdiamond recoveries in 2004 appear considerably higher than historical recoveries, which are shown at the bottom of Table 38. At 11 stones/10kg, the average stone density of the 2004 recoveries is more than double that of the historical recoveries and is actually much higher if the 94 microdiamonds measuring less than 0.075 mm are not included in the historical tally. However, the average is affected significantly by very high stone recoveries in 04-121-009, which was located near the centre of the body (see Figure 20) and proximal to three historical holes with drillhole averages of greater than 6 stones/10 kg. While stone densities for the four drillholes located some 200 to 250 m away from the postulated central eruptive vent are comparable to the historical results, there is some indication that the centre of the pipe is more microdiamond-rich than the margins.

It is not known why only one stone larger than 0.5 mm was recovered in the 2004 program (notably, it was recovered on the 2.8 mm sieve screen and weighs 0.41667 carats), but most of the larger stones recovered in the historical programs were from the same central area of the body.

Microdiamonds recovered from the 2004 program will be combined with all suitable historical diamond results and submitted to MRM of De Beers for grade forecasts of commercial-sized diamonds based on statistical and graphical treatment of the data.

Drillhole	+0.075mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.425mm Sieve	+2.800mm Sieve
04-121-009	96	85	39	19	7	1	1
04-121-010	6	2	3	2	0	0	0
04-121-011	11	10	4	0	0	0	0
04-121-012	4	7	4	4	3	3	0
04-121-013	7	4	3	0	1	0	0
Total:	**124**	**108**	**53**	**25**	**11**	**4**	**1**

Table 39: Kimberlite 121 Microdiamond Recoveries by Drillhole and Sieve Category

Kimberlite 221

A total of 168 microdiamonds were recovered from 203.33 kg of kimberlite core in 25 samples utilizing caustic dissolution methods at the SRC. Microdiamond recoveries were audited and individual stone sizes calculated by experts at the De Beers Kimberley Microdiamond Laboratory (KMDL) in South Africa. Since the Joint Venture partners have not received the full suite of modeled size data from KMDL, only microdiamond data from the SRC are reported here. Summaries of diamond recovery by kimberlite drillhole and by sieve category are shown in Tables 40 and 41.

Drillhole	Number of Samples[1]	Sample Mass (kg)	Carat Weight (carats)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm
04-221-002	3	24.65	0.001030	16	6.49	0
04-221-003	19	154.44	0.034955	137	8.87	2
04-221-004	3	24.24	0.001370	15	6.19	0
Total:	**25**	**203.33**	**0.037355**	**168**	**8.26**	**2**
121 Historical	1 DH; 8 samples	264.35	0.0781664	74	2.78	3

[1] = For the 2004 samples, representative sample intervals ranged from 5.15 to 25.8 m of kimberlite intersection; sample weights ranged from 8.08 to 8.25 kg

Table 40: Summary of 2004 and Historical Kimberlite 221 Microdiamond Results

Microdiamond recoveries in 2004 were considerably higher than historical recoveries which are shown at the bottom of Table 40. At 8.26 stones/10kg, the average stone density of the 2004 recoveries is close to three times that of the historical recoveries and is slightly higher if the 12 microdiamonds measuring less than 0.075 mm are not included in the historical tally. Most of the stones were recovered from a large amount of sample taken from the centrally located corehole 04-221-003 that was targeted on the eruptive vent and near to historic drillhole 221-001 drilled in 1996 using a conventional circulation rotary drilling method. A single large stone was recovered from corehole 04-221-003 weighing just over 0.025 carats and caught on a 1.18 mm sieve screen. Stone densities for all three 2004 coreholes are comparable despite drillholes 04-221-002 and 04-221-004 being located some 200 m away towards the margins of the body.

Microdiamonds recovered from the 2004 program will be combined with all suitable historical diamond results and submitted to MRM of De Beers for grade forecasts of commercial-sized diamonds based on statistical and graphical treatment of the data.

Drillhole	+0.075mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.425mm Sieve	+1.180mm Sieve
04-221-002	8	6	0	1	1	0	0
04-221-003	55	33	27	15	5	1	1
04-221-004	6	5	2	1	1	0	0
Total:	**69**	**44**	**29**	**17**	**7**	**1**	**1**

Table 41: Kimberlite 221 Microdiamond Recoveries by Drillhole and Sieve Category

9.2.17.7.4 Kimberlite 140/141

Four HQ coreholes (04-140-41, 42, 43, 50) were completed during September and October 2004 in order to provide geological control for five large diameter drillholes completed in the south central portion of the 140/141 kimberlite body testing the diamond potential of an oscillating kimberlite breccia unit. The holes provided material for petrographic logging and microdiamond sampling. A total of 974.0 m of core was drilled with a total kimberlite intersection of 525.52 m. The top of the first kimberlite intersection was encountered at a depth of 97.4 to 100.57 m; the bottom of the last kimberlite unit was drilled at a depth of 232.35 to 241.22 m. In three of the four drillholes three different kimberlite intersections were cored. A fifth corehole, 04-140-048 was completed on the southern-most part of the 140/141 magnetic anomaly. It was drilled to a depth of 180.0 m and intersected three separate kimberlite units totaling 158.65 m. New geological information from these coreholes together with the existing geological model was used to determine the location of several large diameter drillholes. Intersections of the Oscillating Breccia unit were shorter than that predicted by the model, with a maximum thickness of 81 m found for the unit. At greater depth, all the holes intersected the “speckled kimberlite” (SPK). The average total core recovery for the 140 drillholes completed in 2004 was 98.6%.

9.2.17.7.4.1 Previous Drilling

Between 1992 and 2003, seventy-seven drillholes were completed on the composite 140/141 kimberlite involving 18,738.2 m of drilling. This total includes 9,044.3 m of kimberlite. Past drilling of the composite 140/141 body indicates that a relatively deep intersection of kimberlite exists near DH 140-21 which may correspond to the location of a second vent in the 140/141 body, the first being identified in DH 141-02 in 1992 and the second identified in DH 141-13 in 2001. As summarized in Tables 42 and 43 and shown in Figure 25, past drilling along the eastern margin of the 140/141 body intersected relatively thin intersections of kimberlite. Several holes drilled along the western margin of the body resulted in deeper than expected intersections. It would also appear from these results that kimberlite with some thickness also extends beyond the currently modelled western margin of the 140/141 body.

Ground magnetic and gravity surveys completed during 2002 more clearly defined internal complexities of the 140/141 body. It is most likely that variations in magnetic susceptibility and density measurements noted in drillholes testing the body are attributable to secondary alteration and therefore may not accurately reflect distinct phases or petrographic units within the kimberlite. The integrated magnetic and gravity datasets do suggest however that the body is larger laterally than initially estimated, and may in fact incorporate parts of the adjacent 133 and 145 kimberlite bodies.

Drillhole	Year Drilled	Type[1]	TOK	BOK	Kimberlite Thickness	EOH	Sample Mass (t)	Recovered Stones	Recovered Carats
140-01	1992	Core	120.0	182.5	49.5	204.0	0.45	0	0
140-02	1992	Core	127.0	153.7	26.7	153.7	0.54	0	0
140-03	1992	Core	124.0	320.0	194.0	323.7	6.10	8	0.495
140-04	1992	Core	133.0	207.0	70.9	275.5	2.46	1	0.035
140-05	1993	Core	123.0	315.9	184.2	323.0	1.10	2	0.090
140-06	1993	Rotary	102.0	204.0	102.0	204.0	4.09	3	0.340
140-07	1994	RCA	128.0	232.0	100.0	246.0	17.14	2	0.040
140-08	1995	RCA	120.0	354.0	234.0	354.0	41.63	23	1.010
140-09	2001	Core	116.0	229.5	113.5	245.7			
140-10	2001	Core	110.0	242.0	132.0	250.8			
140-11	2002	Core	102.0	167.0	65.0	201.0			
140-12	2002	Core	102.0	242.9	140.9	247.5			
140-13	2002	Core	110.0	236.6	126.6	243.0			
140-14	2002	Core	109.0	244.3	135.3	249.0			
140-15	2002	Core	102.0	336.5	234.5	342.0			
140-16	2002	Core	99.7	237.3	137.6	243.0			
140-17	2002	Core	104.1	258.2	154.1	261.0			
140-18	2002	Core	99.8	120.0	Hole Lost	120.0			
140-19	2002	Core	104.1	218.1	114.0	231.0			
140-20	2002	Core	99.5	221.0	Hole Lost	221.0			
140-21	2002	Core	105.3	367.5	264.2	369.5			
140-22	2002	Core	107.8	185.0	77.2	198.0			
140-23	2002	Core	125.0	180.9	55.9	192.0			
140-24	2002	Core	110.7	214.8	104.1	225.0			
140-25	2002	Core	108.2	189.6	81.4	195.0			
140-26	2002	Core	110.7	218.5	107.8	225.0			
140-27	2002	Core	118.7	207.4	88.7	219.0			
140-28	2002	RCA	105.3	217.1	111.8	217.1	72.16	15	1.220
140-29	2002	RCA	99.6	230.8	131.2	230.8	84.87	72	9.300
140-30	2002	RCA	103.5	253.5	150.0	259.0	100.10	55	9.500
140-31	2002	RCA	105.0	271.5	166.5	274.7	109.25	29	3.125
140-32	2003	Core	101.1	244.3	143.2	291.0			
140-33	2003	Core	100.4	199.4	98.9	208.0			
140-34	2003	Core	100.2	205.5	105.3	219.0			
140-35	2003	Core	113.7	152.6	38.9	216.0			
140-36	2003	Core	99.0	138.6	39.6	142.0			
140-37	2003	Core	131.9	142.3	10.4	147.0			
140-38	2003	Core	108.3	215.0	106.7	228.0			
140-39	2003	Core	100.2	239.4	139.2	249.0			
140-40	2003	Core	102.0	242.9	140.9	246.0			
Total:	**40 Holes**				**4476.7**	**9490.0**	**439.89**	**210**	**25.155**

[1] RCA= 152-914 mm reverse circulation airblast; UR= under-ream; Rotary= conventional circulation tricone

Note: This table does not include microdiamonds and macrodiamonds that may have been recovered from caustic dissolution or jigging recovery methods.

Table 42: Summary of Historic Drillholes and Minibulk Macrodiamond Recovery for 140

9.2.17.7.4.2 140/141 Corehole Drilling

The purpose of the 2004 drill program in the central portion of the 140/141 kimberlite was to generate additional geological information about the kimberlite and to enhance the geological model of the kimberlite body. Three of the four coreholes were used primarily as pilot holes for subsequent large diameter drillholes which tested the areal extent of the oscillating kimberlite breccia unit and provided sufficient diamonds to obtain a preliminary diamond revenue estimate for the unit. The location of the drillholes is shown in Figure 25 and in a more detailed map in Figure 26.

Drillhole	Year Drilled	Type[1]	TOK	BOK	Kimberlite Thickness	EOH	Sample Mass (t)	Recovered Stones	Recovered Carats
141-01	1992	Core	136.1	210.5	74.4	226.5	2.61	1	0.015
141-02	1992	Core	136.0	320.0	183.0	320.0	6.14	2	0.040
141-03	1994	RCA	105.0	258.0	144.0	274.0	24.93	15	0.870
141-04	2000	RCA	103.9	272.0	168.1	272.0	137.97	169	12.840
141-05	2000	RCA	104.3	245.5	141.2	248.8	112.82	106	8.220
141-06	2001	Core	103.5	246.0	142.5	249.0			
141-07	2001	Core	109.5	238.5	129.0	245.0			
141-08	2001	Core	109.5	273.5	164.0	285.0			
141-09	2001	Core	105.0	362.8	257.8	372.0			
141-10	2001	Core	101.5	254.9	153.4	264.0			
141-11	2001	Core	102.5	192.0	89.50	204.0			
141-12	2001	Core	112.5	266.5	154.0	273.0			
141-13	2001	Core	111.2	N/A	338.0	450.0			
141-14	2001	Core	105.0	207.8	102.8	222.0			
141-15	2001	Core	115.3	233.6	118.3	243.0			
141-16	2001	Core	105.8	221.1	115.3	228.0			
141-17	2001	Core	114.0	250.8	136.8	264.0			
141-18	2001	Core	111.0	201.0	90.0	213.0			
141-19	2001	RCA	N/A	N/A	0	65.7	0	0	0
141-20	2001	RCA	109.7	255.2	145.5	255.2	95.59	46	3.770
141-21	2001	RCA	102.8	245.0	142.2	245.0	93.40	53	6.225
141-22	2001	RCA	112.0	231.0	119.0	231.0	84.13	50	6.115
141-23	2001	RCA	106.2	267.0	160.8	267.0	104.59	72	6.140
141-24	2001	RCA	115.3	231.0	115.7	231.0	76.94	43	4.205
141-25	2001	RCA	105.3	206.6	101.3	206.6	66.68	35	1.925
141-26	2001	RCA	110.1	236.2	126.1	236.2	82.47	63	5.165
141-27	2001	RCA	103.7	219.3	115.6	219.5	76.46	26	1.655
141-28	2001	RCA	109.2	244.7	135.5	244.7	88.59	40	3.515
141-29	2002	Core	105.8	273.0	167.2	279.0			
141-30	2002	RCa	105.0	264.6	161.6	264.6	233.83	155	14.770
141-31	2002	RCA	104.9	269.8	166.8	269.8	241.40	153	16.620
141-32	2002	RCA	102.2	268.8	165.8	268.8	253.78	144	16.930
141-33	2002	RCA	103.6	359.0	252.6	359.0	176.49	45	16.795
141-34	2002	Core	101.4	238.1	136.7	246.0			
141-35	2002	Core	109.0	215.0	106.0	222.0			
141-36	2002	Core	102.5	273.5	171.0	280.0			
141-37	2002	Core	104.8	-	0	124.0			
141-37A	2002	Core	104.8	255.1	150.3	261.0			
141-38	2002	Core	106.2	218.5	112.3	231.0			
141-39	2002	Core	105.8	275.0	169.2	278.0			
141-40	2003	Core	132.5	161.3	28.9	272.0			
900-01	1993	Core	114.0	167.2	299.0	299.0	0.42	0	0
Total:	**42 Holes**				**5951.2**	**10709.4**	**1959.24**	**1218**	**125.815**

[1] RCA= 152-914 mm reverse circulation airblast; UR= under-ream; Rotary= conventional circulation tricone

Note: This table does not include microdiamonds and macrodiamonds that may have been recovered from caustic dissolution or jigging recovery methods.

Table 43: Summary of Historic Drillholes and Minibulk Macrodiamond Recovery for 141

One hydraulic LF-70 corehole rig was mobilised into the Fort à la Corne Forest by Boart Longyear Ltd. on September 2, 2004. As summarized in Table 30, four coreholes were completed in the area. Drill pad construction and site access was contracted to T&P Enterprises of Choiceland, Saskatchewan with access to the 141/140 kimberlite gained via previously constructed trails. At each of the drill pads an area approximately 40 x 40 m was cleared. Temporary in-ground tailings sumps were also constructed in order to receive, store, and re-circulate mud and effluent produced during the corehole drilling.

HQ corehole drilling during the reporting period was generally completed using three different sized bits. Initial surface holes were drilled using a mud and water circulation system and a PW milled tooth tricone bit (139 mm diameter). At between 12 and 35 m depth, the tricone bit was replaced by a HW tricone bit (130.2 mm diameter) with bentonite mud and water used as a circulant in the hole. At a depth of around 90-96 m, the HW tricone was replaced by an HQ tungsten carbide bit and coring commenced. The core drilling was conducted with either fresh water or low viscosity mud. Casing was generally installed to around 95 m in the hole, although on occasion the casing string slipped downhole, so that additional lengths of casing had to be added.

A total of 168 m of HWT schedule casing and 37.5 m of PWT casing were lost in three of the four holes completed during the drillhole program.

9.2.17.7.4.3 Geology of the 140/141 Kimberlite

Geological modeling of Kimberlite 140/141 shows it is dominated by a thick interval of graded fine to coarse-grained olivine pyroclastic kimberlite that have relatively thin intervals of xenolith-rich, breccia beds in the northern part of the body. Diamond grades and revenue modeling for these units were reported during 2000 to 2003. A substantial amount of geological investigation continues on core drilled from the 140/141 body.

In summary, five geological subdivisions were developed in previous programs for evaluation and modeling of diamond results. These units were described very briefly as follows:

- **Mega-graded Bed** – overall fining-upwards kimberlite commencing with xenolith-rich breccia units at the base and terminating in fine to very fine-grained material on top; the mega-graded bed itself can be separated into “fine” and “coarse” size distributions, which in terms of spatial location, are related to proximity to the interpreted eruptive centre of the 141 mega-graded bed – i.e., coarser diamond distribution closer to the centre of eruption.

- **Cyclic/repeated gradational Beds** – similar to the mega-graded bed but consisting of stacked, internally fining-upwards beds with subtle to very obvious subdivisions or contacts in an overall fining-upwards sequence; these beds likely represent clear changes in energy levels during eruption and asymmetry within the eruption column.

- **Fine-grained Kimberlite** – postulated younger central vent feature characterized by relatively fine-grained kimberlite.

- **Kimberlite Breccia** – a separate xenolith-rich unit distinguished from the breccias located at the base of the mega-graded unit containing variably abundant mantle-derived material.

- **Speckled Kimberlite** – a distinctive matrix-supported kimberlite containing variably abundant mantle-derived material (ilmenites and garnets, in particular); this phase contains subordinate units of both kimberlite breccia and macrocrystic, coarse olivine kimberlites.

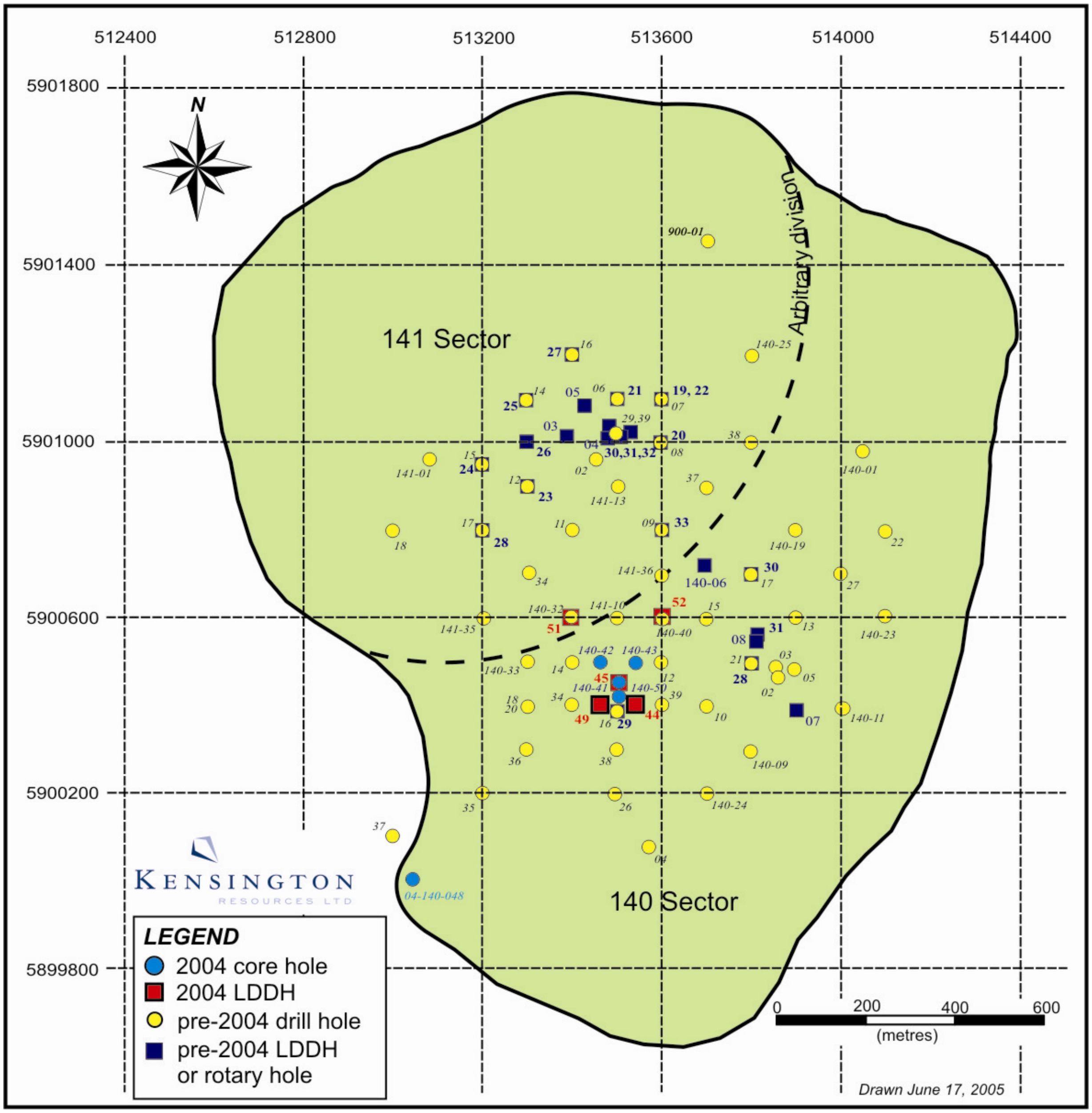


Figure 25: Location of 2004 Coreholes on Body 140/141

Investigation of the southern part of the extensive body during 2002 and 2003 by core drilling and limited numbers of 24-inch reverse circulation drillholes showed the presence of several new kimberlite phases, although the dominant kimberlite types are medium to very coarse grain xenolith-rich breccias and matrix-supported kimberlites ("speckled" kimberlites) considered to be older than the overlying, relatively thin veneer of graded olivine-rich pyroclastic beds.

Preliminary geological modeling of the southern part of the body, in part from the new core intersections, revealed four main phases of kimberlite including: repeated graded beds similar to the graded fine to coarse-grained olivine pyroclastic kimberlite beds located to the north and east, a moderately thick interval of older breccia beds having a closer textural affinity to the speckled beds below, variably thick intervals of underlying "speckled", matrix-supported kimberlite containing thin areally limited, interbedded coarse-olivine pyroclastic beds and breccias (speckled beds), and several stratigraphically diverse "other" kimberlites that currently are grouped together until better differentiation of the phases can be made.

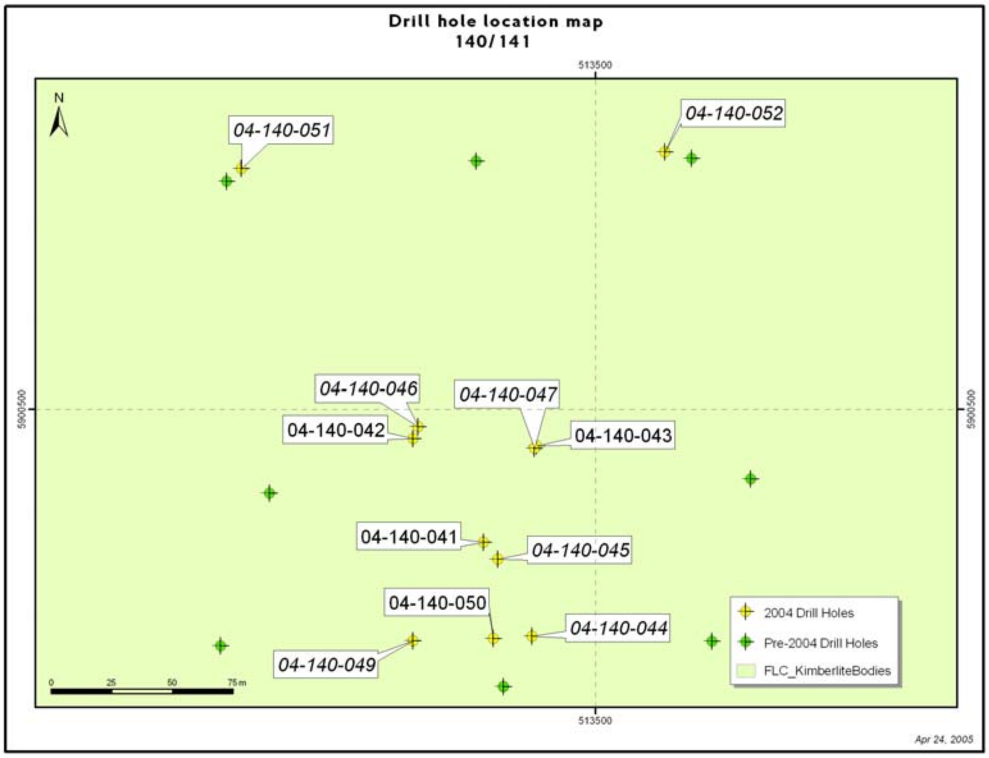


Figure 26: Detailed View of 2004 Drillhole Locations for Kimberlite 140/141

Review of Geological Model in 2004/2005

The results of the four drillholes completed in 2004 were used in conjunction with the geological model to determine the locations of large diameter drillholes. Intersections of the high interest oscillating breccias group were thinner than expected in the drillholes as compared with the existing model. As indicated by previous drilling, the intersections of the Breccias Group are complex.

The three dimensional geological model (GEMCOM) for the 140/141 kimberlite was subsequently modified to reflect the new information for the body. The outline of the Breccias Group was decreased at depth but remains relatively unchanged near surface. Intersections termed Repeated Graded Beds and OPK have been included within Breccias Group, as before. All the intersections of the Oscillating Breccias were shorter than that predicted by the model, with maximum thicknesses of about 81 m, 74 m, 62 m and 68 m in holes 04-140-041, 042, 043 and 050 respectively. At greater depth, all the coreholes intersected the so-called “Speckled” Kimberlite (SPK) which is forecast as having a low macrodiamond grade.

In two of the holes completed in 2004 (140-041 and 050), the uppermost intersections in the drillhole (about 46 m) consist of repeated graded beds of olivine tuffs containing minor breccias. Based on criteria developed for GEMCOM volumes in previous holes, these intersections are termed Repeated Graded Beds Group (RGBPK). A similar breccia-poor, 25 m intersection at the top of drillhole 140-043 displays only ill-defined grain size variations and is thus included in the Breccias group and not the Repeated Graded Beds group. All intersections previously termed Repeated Graded Beds Group have been included in the appropriate nearby major kimberlite type (either the Mega graded bed or the Breccias). Examining the present distribution of Repeated Graded Beds indicates a coherent, elongate volume of material distributed along the western part of the 140 body which may indicate this rock type may represent a single phase of kimberlite that might possibly be separated from already modeled volumes.

9.2.17.7.4.4 Density Measurements

In 2001, nearly 400 density readings were calculated from corehole material to obtain an average value of 2.21 g/cm^3 for the 141 kimberlite. In 2002, additional density readings were collected in order to determine whether density values remained reasonably consistent in the southern portion of the 140/141 body where drilling was concentrated. The 2002 density data (139 samples) was found to have a mean value of 2.24 g/cm^3, a median of 2.20 g/cm^3, and a standard deviation of ± 0.2 g/cm^3. The median value of 2.21 g/cm^3 obtained in 2001 was confirmed by the 2002 testing and was used in theoretical mass calculations for the body. In 2003, seventy kimberlite samples were measured for density with a mean value of 2. 29 g/cm^3 obtained for an in-situ density.

The 2004 density data (60 samples) was found to have a mean value of 2.25 g/cm^3, a median of 2.22 g/cm^3, and a standard deviation of ± 0.13 g/cm^3 which is in close agreement with density values from previous years for the 140/141 body. The results of the 2004 density measurements are shown graphically in Figures 27 and 28. The 2004 data for drillholes 140-04-41 and 140-04-050 indicate relatively high densities at the end of either hole (about 230 m in kimberlite) which appear to correlate with the presence of mudstone/mudstone xenoliths.

9.2.17.7.4.5 Magnetic Susceptibility

Magnetic susceptibility for each of the 140/141 coreholes completed in the 2004 program is shown graphically in Figure 29. Drillholes 140-04-041 (max. value: 85x10^{-3} SI units) and 140-04-050 were seen to display higher magnetic susceptibility responses which are due to the presence of magnetite in various sections of the kimberlite.

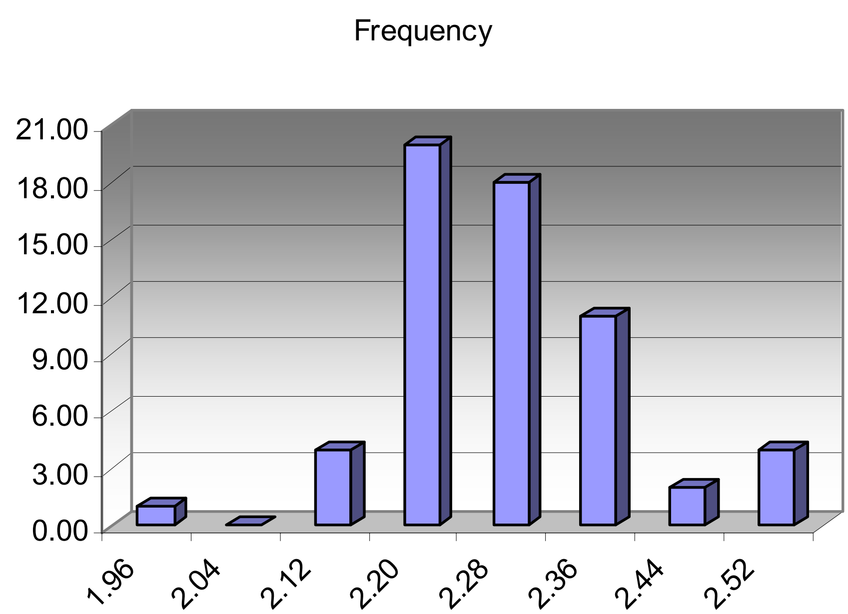


Figure 27: Frequency Histogram of 2004 Density Measurements for the 140/141 Kimberlite (Kimberlite Samples Only)

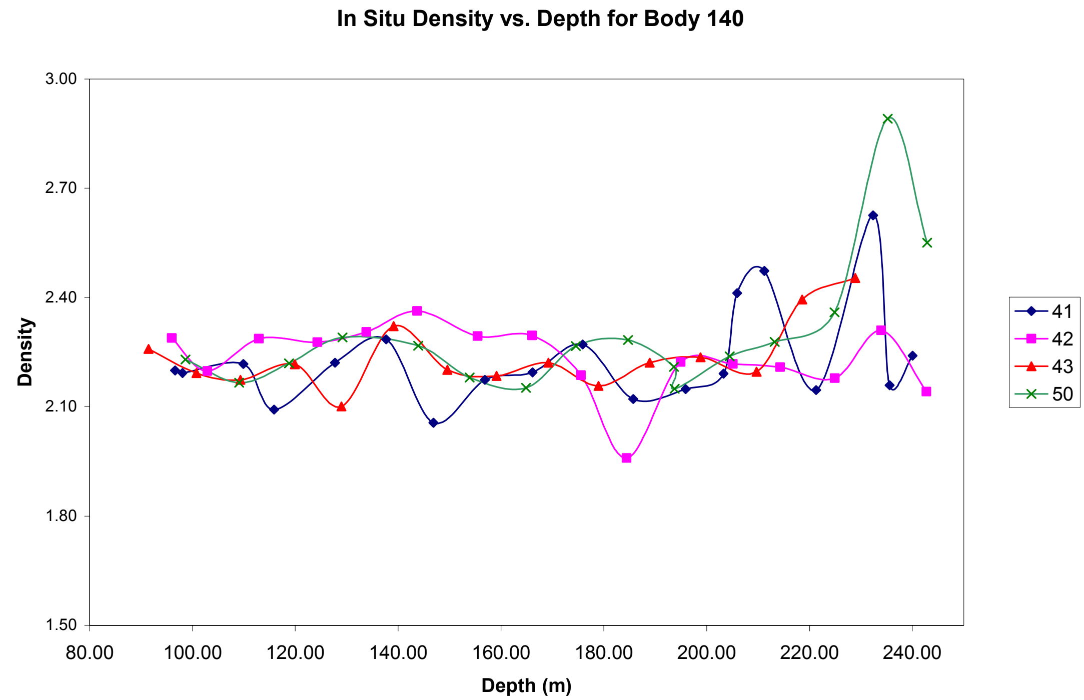


Figure 28: **2004 In-situ Density Measurements for the 140/141 Kimberlite Drillholes** (Kimberlite, Overburden and Countryrock Samples)

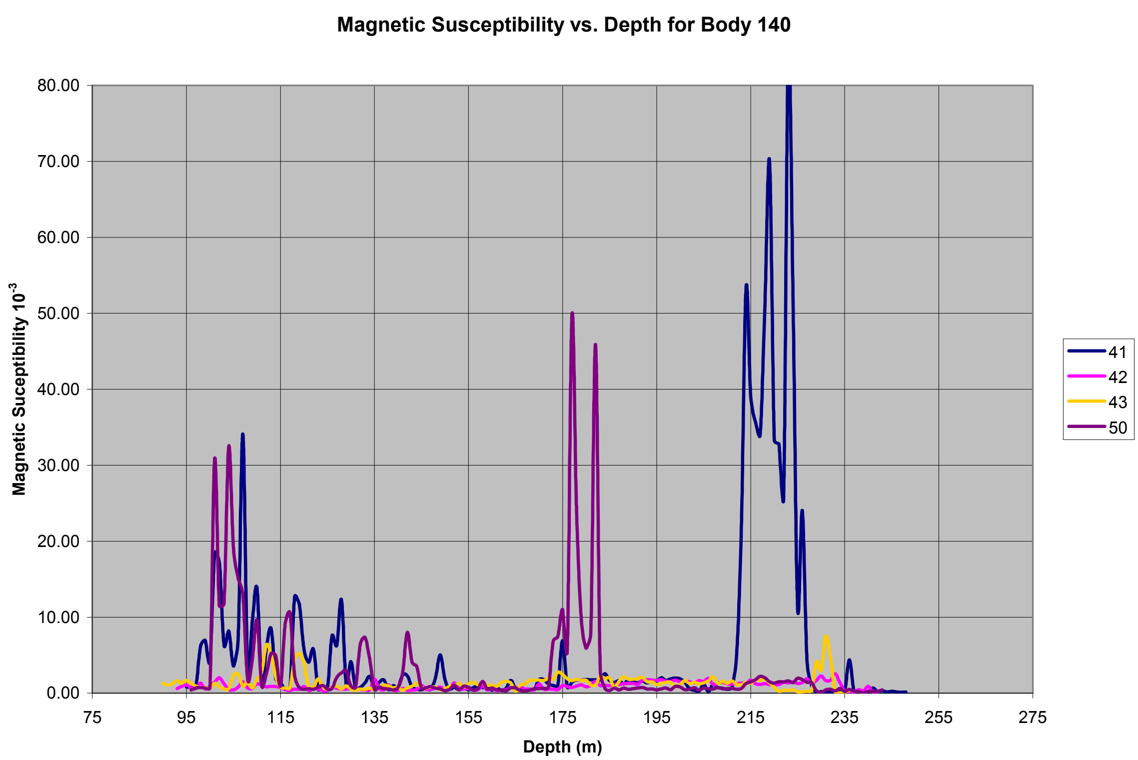


Figure 29: **Magnetic Susceptibility Chart for the 140/141 Kimberlite Drillholes**

9.2.17.7.4.6 Archeological and Flora/Fauna Surveys

Golder Associates Ltd. of Saskatoon, Saskatchewan was contracted to undertake a flora and fauna survey of the 140/141 kimberlite body as well a heritage resource review of drill site areas in accordance with the provincial *Heritage Property Act.* Once reports of the findings of the various surveys were submitted and reviewed by the Cultural and Heritage Branch (Heritage Resource Review) and Saskatchewan Environment (Flora and Fauna Survey) approval was granted by the various regulatory bodies for drilling activity. Drill pads for three coreholes were surveyed by the archaeological crew covering a surface of 3 hectares; the fourth drillhole was placed adjacent to a previously surveyed cluster of core and large diameter drillholes holes and required therefore no investigation.

9.2.17.7.4.7 140/141 Sampling and Diamond Recovery

Samples were obtained from three different HQ (2.5 inches or 63.5 mm diameter) drillholes that intersected the "breccia beds" and underlying "speckled beds" located in the southern part of the 140/141 kimberlite body. Similar to 2003 results, the "breccia beds" yielded the better stone abundances, although both kimberlite units yielded a single macrodiamond larger than 0.5 mm. The average microdiamond abundance for all 140/141 samples from 2004 is 13.3 stones per 10 kg while the breccia beds give average microdiamond abundances of 17 stones per 10 kg. While the average 2004 stone abundance for the breccia beds is slightly lower than the 21.6 stones per 10 kg recorded in 2003, the latter were taken from a much broader area and variation in local diamond distribution is thought to account for the lower values seen in these three closely spaced drillholes.

A total of 658 microdiamonds were recovered from 496 kg of kimberlite core utilizing caustic dissolution methods at the SRC. Microdiamond recoveries were audited and individual stone sizes calculated by experts at the De Beers Kimberley Microdiamond Laboratory (KMDL) in South Africa. All recoveries reported here include stones with modeled sizes less than 74 microns in size in order to be directly comparable to 2003 results from the SRC that were reported for this zone. Summaries of diamond recovery by kimberlite phase, drillhole, and by sieve category are shown in Tables 44, 45, and 46.

Kimberlite Type By Year Tested	Sample Mass (kg)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm
2003 Breccia Beds	274.9	593	21.6	4
2004 Breccia Beds	312.0	531	17.0	1
2003 Speckled Beds	109.7	134	12.2	0
2004 Speckled Beds	184.0	127	6.9	1
2004 Total:	**595.15**	**1159**	**19.5**	**2**

Table 44: 140/141 Microdiamond Results by Kimberlite Type and Year Tested

Drillhole	Sample Mass (kg)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm
140-41	160	245	15.3	1
140-42	176	266	15.1	2
140-43	160	147	9.2	0
Total:	**496**	**658**	**13.3**	**3**

Table 45: Summary of 140/141 Microdiamond Results by Drillhole

Kimberlite Type	-0.074mm Sieve	+0.074mm Sieve	+0.104mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.500mm Sieve	+1.00mm Sieve
Breccia Beds	130	221	111	46	15	6	1	1
Speckled Beds	25	52	36	12	1	0	0	1
Total:	**155**	**273**	**147**	**58**	**16**	**6**	**1**	**2**

Table 46: 140/141 Microdiamond Recoveries by Sieve Category and Kimberlite Type

9.2.15.7.4.8 Large Diameter Drilling on Kimberlite 140/141

Five large diameter minibulk sampling holes were targeted on the oscillating breccia beds unit located in the south part of Kimberlite 140/141 in order to expand the parcel of diamonds from this body so that confidence levels in grade and revenue estimates could be increased.

9.2.17.7.4.9 Minibulk Sampling and Macrodiamond Recovery from 140/141

The total estimated mass of kimberlite excavated from body 140/141 in 2004 was 792.216 tonnes of which 494.066 tonnes of material greater than 1.5 mm in size was retained for macrodiamond recoveries. All five drillholes primarily sampled the oscillating pyroclastic breccia group (OPKBGP). Minibulk samples were shipped to the De Beers' dense media separation plant located in Grande Prairie, Alberta for the first stage of diamond recovery procedures, followed by final diamond recovery in an ultra-high security facility in Johannesburg, RSA.

Total macrodiamond recovery from the five LDDH on 140/141 was 553 stones with a combined weight of 83.200 carats. Individual sample grades range from 1.68 cpht to 69.15 cpht, the latter grade being markedly influenced by recovery of the 10.23 carat stone. Drillhole grades range from 7.05 to 12.20 cpht. Two large macrodiamonds weighing 10.53 carats and a 4.09 carats and 58 other stones larger than 0.25 carats were added to the inventory of large macrodiamonds recovered from the 140/141 breccia beds during the 2004 program. These recent larger stones and historical recoveries including diamonds weighing: 1.0, 1.16, 1.18, 1.26, 1.32, 1.39, 1.48, 1.5, 1.8, 2.57, 2.59, and 3.61 carats contribute significantly to the evidence supporting a large stone distribution in the oscillating breccia unit.

LDDH 04-140-044

The total estimated mass of kimberlite excavated from Large Diameter drillhole (LDDH) 04-140-044 was 198.903 tonnes of which 94.362 tonnes of material greater than 1.5 mm in size were retained for macrodiamond recoveries. The pilot hole for this LDDH is corehole 04-140-041. A summary of sampling information and diamond recovery results for this drillhole is shown in Table 47.

Drillhole	Kimberlite Unit	Sample Interval (m)	Theoretical Excavated Mass (tonnes)[1]	Total Carats	Drillhole Grade (cpht)	Total Stones	Drillhole stones/ tonne	Est. # of Diamonds > 0.25 cts. (largest stone)[2]
04-140-044	140 Breccia Beds	128.36	186.29	21.06	11.30	160	0.86	14 stones (4.09 cts.)

[1] The calculation of theoretical mass was based on the volume of a vertical cylinder and a kimberlite rock density of 2.21.

[2] Diamond weights were provided in terms of total carats per sieve class. The reader is cautioned that for interval samples (12 m) with multiple stone recoveries, the number of stones >0.25 carats was estimated by dividing carat weight by the number of stones in the +9 sieve class for selected samples and all of the +11 and larger sieve classes.

Table 47: Summary of Macrodiamond Recovery for Minibulk Samples from Drillhole 04-140-044

A total of 160 macrodiamonds weighing 21.06 carats, including a 4.09 carat stone, were recovered from large diameter drillhole 04-140-044. Large stone recoveries in drillhole 04-140-044 included an estimated 14 diamonds greater than 0.25 carat in size with a combined weight of 9.58 carats. These 14 diamonds, or some 8.8% of the total number of stones, account for 45.5% of the carat weight of the parcel. The 4.09 carat stone was recovered from the 118 to 130 metre interval within the upper part of the kimberlite body. The size distribution of the recovered diamonds from this drillhole is shown in Table 48.

Drillhole	+1 Sieve >1.09 mm	+2 Sieve >1.32 mm	+3 Sieve >1.48 mm	+5 Sieve >1.83 mm	+6 Sieve >2.16 mm	+7 Sieve >2.46 mm	+9 Sieve >2.85 mm	+11 Sieve >3.45 mm	+13 Sieve >4.52 mm	+15 Sieve >5.41 mm	+21 Sieve >7.93 mm
04-140-044 Carats	0.01	0.145	1.025	3.035	1.96	3.37	2.77	3.13	0.65	0.86	4.09
04-140-044 Stones	1	3	29	54	22	26	12	8	1	1	1

*An additional 2 stones weighing a cumulative 0.015 carats were recovered in the -1 sieve category (<1.09 mm).

Table 48: Summary of Macrodiamond Recovery by Sieve Size Category for Drillhole 04-140-044

LDDH 04-140-045

The total estimated mass of kimberlite excavated from Large Diameter drillhole (LDDH) 04-140-045 was 143.128 tonnes of which 102.877 tonnes of material greater than 1.5 mm in size were retained for macrodiamond recoveries. A total of 135 macrodiamonds weighing 15.445 carats were recovered from LDDH 04-140-045. The pilot hole for this LDDH is corehole 04-140-050. A summary of sampling information and diamond recovery results for this drillhole is shown in Table 49.

Drillhole	Kimberlite Unit	Sample Interval (m)	Theoretical Excavated Mass (tonnes)[1]	Total Carats	Drillhole Grade (cpht)	Total Stones	Drillhole stones/ tonne	Est. # of Diamonds > 0.25 cts. (largest stone)[2]
04-140-045	140 Breccia Beds	96.7	140.34	15.455	11.1	135	1	16 stones (0.46)

[1] The calculation of theoretical mass was based on the volume of a vertical cylinder and a kimberlite rock density of 2.21.
[2] Diamond weights were provided in terms of total carats per sieve class. The reader is cautioned that for interval samples (12 m) with multiple stone recoveries, the number of stones >0.25 carats was estimated by dividing total carat weight by the number of stones in the +11 and larger sieve classes.

Table 49: Summary of Macrodiamond Recovery for Minibulk Samples from Drillhole 04-140-045

Large stone recoveries in drillhole 04-140-045 included an estimated sixteen diamonds greater than 0.25 carat in size with a combined weight of 6.845 carats. These 16 stones, or some 11% of the total number, account for 44% of the carat weight of the parcel. The size distribution of the recovered diamonds from this drillhole is shown in Table 50.

Drillhole	-1 Sieve <1.09 mm	+1 Sieve >1.09 mm	+2 Sieve >1.32 mm	+3 Sieve >1.48 mm	+5 Sieve >1.83 mm	+6 Sieve >2.16 mm	+7 Sieve >2.46 mm	+9 Sieve >2.85 mm	+11 Sieve >3.45 mm	+12 Sieve >4.089 mm	+13 Sieve >4.52 mm
04-140-045 Carats	0.020	0.040	0	0.740	2.090	1.560	2.585	1.575	4.320	2.065	0.460
04-140-045 Stones	6	4	0	22	39	17	21	10	11	4	1

Table 50: Summary of Macrodiamond Recovery by Sieve Size Category

LDDH 04-140-049

The total estimated mass of kimberlite excavated from Large Diameter drillhole (LDDH) 04-140-049 was 150.591 tonnes of which 74.545 tonnes of material greater than 1.5 mm in size were retained for recovery of commercial-sized diamonds. A total of 100 macrodiamonds weighing 10.615 carats were recovered from LDDH 04-140-049. The pilot hole for this LDDH is corehole 04-140-051. A summary of sampling information and diamond recovery results for this drillhole is shown in Table 51.

Large stone recoveries in drillhole 04-140-049 included 6 diamonds greater than 0.25 carat in size with a combined weight of 2.78 carats. These 6 stones, or some 6% of the total number, account for 39% of the carat weight of the parcel. The size distribution of the recovered diamonds from this drillhole is shown in Table 52.

Drillhole	Kimberlite Unit	Sample Interval (m)	Theoretical Excavated Mass (tonnes)[1]	Total Carats	Drillhole Grade (cpht)	Total Stones	Drillhole stones/ tonne	Est. # of Diamonds > 0.25 cts. (largest stone)
04-140-049	140 Breccia Beds	102.56	148.84	10.615	7.132	100	0.7	6 stones (1.005 cts)

[1] The calculation of theoretical mass was based on the volume of a vertical cylinder and a kimberlite rock density of 2.21.

Table 51: Summary of Macrodiamond Recovery for Minibulk Samples from Drillhole 04-140-049

Drillhole	+3 Sieve >1.48 mm	+5 Sieve >1.83 mm	+6 Sieve >2.16 mm	+7 Sieve >2.46 mm	+9 Sieve >2.85 mm	+11 Sieve >3.45 mm	+12 Sieve >4.089 mm	+13 Sieve >4.52 mm
04-140-049 Carats	0.765	2.105	1.705	1.115	1.715	1.595	0.24	1.375
04-140-049 Stones	19	37	19	8	9	5	1	2

Table 52: Summary of Macrodiamond Recovery by Sieve Size Category

LDDH 04-140-051

The total estimated mass of kimberlite excavated from LDDH 04-140-051 was 156.026 tonnes of which 117.045 tonnes of material greater than 1.5 mm in size were retained for recovery of commercial-sized diamonds. A total of 68 macrodiamonds weighing 18.560 carats including a 10.53 carat stone were recovered from large diameter drillhole 04-140-051. The large, clear, yellow, macrodiamond measures approximately 1.4

x 1.0 x 0.75 cm was recovered during diamond recovery procedures at the De Beers Group Exploration Diamond Laboratory in Johannesburg, RSA and is classed as a higher-value Fancy stone. The pilot hole for this LDDH is corehole 04-140-032. A summary of sampling information and diamond recovery results for this drillhole is shown in Table 53.

Drillhole	Kimberlite Unit	Sample Interval (m)	Theoretical Excavated Mass (tonnes)[1]	Total Carats	Drillhole Grade (cpht)	Total Stones	Drillhole stones/ tonne	Est. # of Diamonds > 0.25 cts. (largest stone)[2]
04-140-051	140 Breccia Beds	101.93	147.93	18.56	12.545	68	0.46	7 stones (1.32 cts. and 10.53 cts)

[1] The calculation of theoretical mass was based on the volume of a vertical cylinder and a kimberlite rock density of 2.21.

[2] Diamond weights were provided in terms of total carats per sieve class. The reader is cautioned that for interval samples (12 m) with multiple stone recoveries, the number of stones >0.25 carats was estimated by dividing carat weight by the number of stones in the +9 sieve class for selected samples and all of the +11 and larger sieve classes.

Table 53: Summary of Macrodiamond Recovery for Minibulk Samples from Drillhole 04-140-051

Large stone recoveries in drillhole 04-140-051 included an estimated 7 diamonds greater than 0.25 carat in size with a combined weight of 13.665 carats. These larger diamonds account for 73.6% of the total carat weight, but represent only 10.3% of the total stones in the parcel. Four of the seven larger diamonds, including the 10.53 carat stone, were recovered from samples taken from the upper 30 m of the kimberlite body within the oscillating breccia beds. The size distribution of the recovered diamonds from this drillhole is shown in Table 54.

Drillhole	+2 Sieve >1.32 mm	+3 Sieve >1.48 mm	+5 Sieve >1.83 mm	+6 Sieve >2.16 mm	+7 Sieve >2.46 mm	+9 Sieve >2.85 mm	+11 Sieve >3.45 mm	+12 Sieve >4.09 mm	+15 Sieve >5.41 mm	+23 Sieve >10.312 mm
04-140-051 Carats	0.075	0.455	1.045	0.815	0.700	1.84	0.885	0.895	1.32	10.53
04-140-051 Stones	4	13	18	10	6	10	3	2	1	1

*No stones were recovered in the -1 (<1.09 mm) and +1 (>1.09 mm) sieve categories.

Table 54: Summary of Macrodiamond Recovery from LDDH 04-140-051 by Sieve Size Category

LDDH 04-140-052

The total estimated mass of kimberlite excavated from LDDH 04-140-052 was 143.567 tonnes of which 105.567 tonnes of material greater than 1.5 mm in size were retained for recovery of commercial-sized diamonds. A total of 90 macrodiamonds weighing 17.51 carats, including a 1.39 carat stone, were recovered from LDDH 04-140-052. The nearest corehole to this LDDH is 04-140-032. A summary of sampling information and diamond recovery results for this drillhole is shown in Table 55.

Drillhole	Kimberlite Unit	Sample Interval (m)	Theoretical Excavated Mass (tonnes)[1]	Total Carats	Drillhole Grade (cpht)	Total Stones	Drillhole stones/ tonne	Est. # of Diamonds > 0.25 cts. (largest stone)[2]
04-140-052	140 Breccia Beds	91.05	132.14	17.51	13.25	90	0.68	17 stones (1.39 cts.)

[1] The calculation of theoretical mass was based on the volume of a vertical cylinder and a kimberlite rock density of 2.21.
[2] Diamond weights were provided in terms of total carats per sieve class. The reader is cautioned that for interval samples (12 m) with multiple stone recoveries, the number of stones >0.25 carats was estimated by dividing carat weight by the number of stones in the +9 sieve class for selected samples and all of the +11 and larger sieve classes.

Table 55: Summary of Macrodiamond Recovery for Minibulk Samples from Drillhole 04-140-052

Large stone recoveries in drillhole 04-140-052 included an estimated 17 diamonds greater than 0.25 carat in size with a combined weight of 11.13 carats. These larger diamonds account for 63.6% of the total carat weight, but represent only 18.9% of the total stones in the parcel. Eleven of the 17 larger diamonds were recovered from samples taken from the upper 50 m of the kimberlite body. The size distribution of the recovered diamonds from this drillhole is shown in Table 56.

Drillhole	+2 Sieve >1.32 mm	+3 Sieve >1.48 mm	+5 Sieve >1.83 mm	+6 Sieve >2.16 mm	+7 Sieve >2.46 mm	+9 Sieve >2.85 mm	+11 Sieve >3.45 mm	+12 Sieve >4.09 mm	+13 Sieve >4.52 mm	+15 Sieve >5.41 mm	+17 Sieve >5.74 mm
04-140-052 Carats	0.07	0.3	1.23	1.325	1.6	2.29	2.29	0.435	4.14	2.57	1.26
04-140-052 Stones	3	8	23	14	16	10	7	1	5	2	1

*No stones were recovered in the -1 (<1.09 mm) and +1 (>1.09 mm) sieve categories.

Table 56: Summary of Macrodiamond Recovery by Sieve Size Category

9.2.17.7.5 Kimberlite 122

Five HQ coreholes (04-122-012, 012A, 013, 014, 019) were completed during September and October 2004 in order to provide geological control for five large diameter drillholes completed in the south central portion of the 122 kimberlite body. The purpose of the drilling was to generate additional information in the southern portion of the 122 kimberlite and enhance geological modeling for the body. Drillhole 04-122-012 had to be abandoned due to technical problems. The primary object of the LDDH drilling was to obtain sufficient diamonds in order to obtain a preliminary revenue estimate of the MPK unit. A total metreage of 1,316 m of core was obtained having a combined kimberlite intersection of 673.46 m. The kimberlite thicknesses varied between 86.37 and 207.41 m. The average total core recovery for the 122 drillholes was 95.8%.

9.2.17.7.5.1 Previous Drilling

As seen in Table 57, twenty-two drillholes totalling 4,855 m of drilling were completed between 1989 and 2003 on the 122 kimberlite body. Of this total, 2,139.2 m of kimberlite material was cored. The first reconnaissance drillholes testing the body were completed in 1989 with one rotary drillhole collared in the centre of the body. An airborne magnetic survey over the entire Fort à la Corne claims in 2003 followed by ground gravity surveys more clearly defined the shape and internal complexities of the 122 body. The results of the survey showed intense positive gravity anomalies that extended beyond the boundaries of the magnetic anomaly for the target.

Drillhole	Year Drilled	Type[1]	TOK	BOK	Kimberlite Thickness	EOH	Sample Mass (t)	Recovered Stones	Recovered Carats
122-01	1989	Rotary	108.2	164.6	56.4	164.6	0	0	0
122-02	1991	RCA/UR	109.0	199.0	85.7	237.0	12.26	8	0.210
122-03	1991	RCA/UR	111.0	183.0	69.5	197.0	10.39	4	0.100
122-04	1991	RCA/UR	116.0	191.5	72.5	210.0	10.85	6	0.850
122-05	1992	Core	108.5	185.2	72.0	222.7	0	0	0
122-06	1993	Core	105.0	302.2	188.0	305.0	1.13	0	0
122-07	1994	RCA	109.0	331.0	222.0	331.0	38.31	56	4.525
122-08	1995	RCA	105.8	180.0	74.2	181.0	13.01	3	0.135
122-09	2000	RCA	105.9	261.0	155.1	261.5	128.78	63	4.235
122-10	2000	RCA	110.0	255.5	145.5	255.5	117.57	57	5.105
122-11	2000	RCA	112.9	213.4	100.5	215.7	80.87	92	7.97
03-122-01	2003	Core	140.4	204.3	63.9	213.0			
03-122-02	2003	Core	118.7	230.3	111.6	249.0			
03-122-03	2003	Core	119.9	195.0	75.1	204.0			
03-122-04	2003	Core	107.2	225.0	117.8	231.0			
03-122-05	2003	Core	115.9	183.2	67.3	195.0			
03-122-06	2003	Core	115.2	178.2	63.0	186.0			
03-122-07	2003	Core	106.8	195.3	88.5	204.0			
03-122-08	2003	Core	114.0	193.9	79.9	204.0			
03-122-09	2003	Core	111.6	268.3	156.7	279.0			
03-122-10	2003	Core	112.0	140.6	28.6	144.0			
03-122-11	2003	Core	108.0	153.4	45.4	165.0			
Total:		**22 Holes**			**2139.2**	**4855.0**	**413.17**	**289**	**23.13**

[1] RCA= 152-914 mm reverse circulation airblast; UR= under-ream; Rotary= conventional circulation tricone

Note: This table does not include microdiamonds and macrodiamonds that may have been recovered from caustic dissolution or jigging recovery methods.

Table 57: Summary of Historic Drillholes and Minibulk Macrodiamond Recovery for 122

Prior to 2003, drilling consisted primarily of reverse circulation drillholes of various sizes. In 2003, eleven HQ coreholes were drilled in various parts of the body in order to provide a better understanding of the geology of the kimberlite. Past drilling of the body had indicated a relatively deep intersection of kimberlite exists in the vicinity of holes 122-06, 07, 09 which may correspond to the location of a vent in the 122 body.

9.2.17.7.5.2 Preliminary Geology of the 122 Kimberlite

Initial geological modeling of distinct kimberlite phases in 122 was conducted by De Beers in 2003. The model was based on drill core from Kimberlite 122 and shows the body is divisible into two main craters, and a subordinate third area based on relatively sparse information. Figure 30 shows the estimated areal extent of the craters in Kimberlite 122 and Figure 31 shows a more detailed view of the distribution of holes in the south-central part of the body. Also shown are kimberlite intersection thicknesses for the all drillholes (blue italicized text). The northern half of the body is dominated by massive to graded beds of olivine/lapilli pyroclastic kimberlite (MPK-N) with common indicator minerals to a thickness of some 74 m in recent drillholes. This is overlain by up to 43 m of interbedded sediments, resedimented kimberlite, and kimberlite (UCSK-N).

Similarly, the south crater is dominated by variably massive to bedded, fine-grained to coarse-grained, olivine/lapilli pyroclastic kimberlite (MPK-S) to a thickness of some 103 m in the 2003 drillholes. The thicker, more massive intersections occur proximal to drillhole 03-122-09 with more obvious bedding intervals increasing in abundance and thickness towards the north and west, and being more pronounced in the upper part of the MPK intersections of the closer drillholes. The northern fringe of the southern crater has a partial cap of interbedded sediments and resedimented kimberlite ranging from 0 to 12 m thick (UCSK-S). In general, the pyroclastic kimberlite within the north crater is finer grained than the pyroclastic kimberlite within the south.

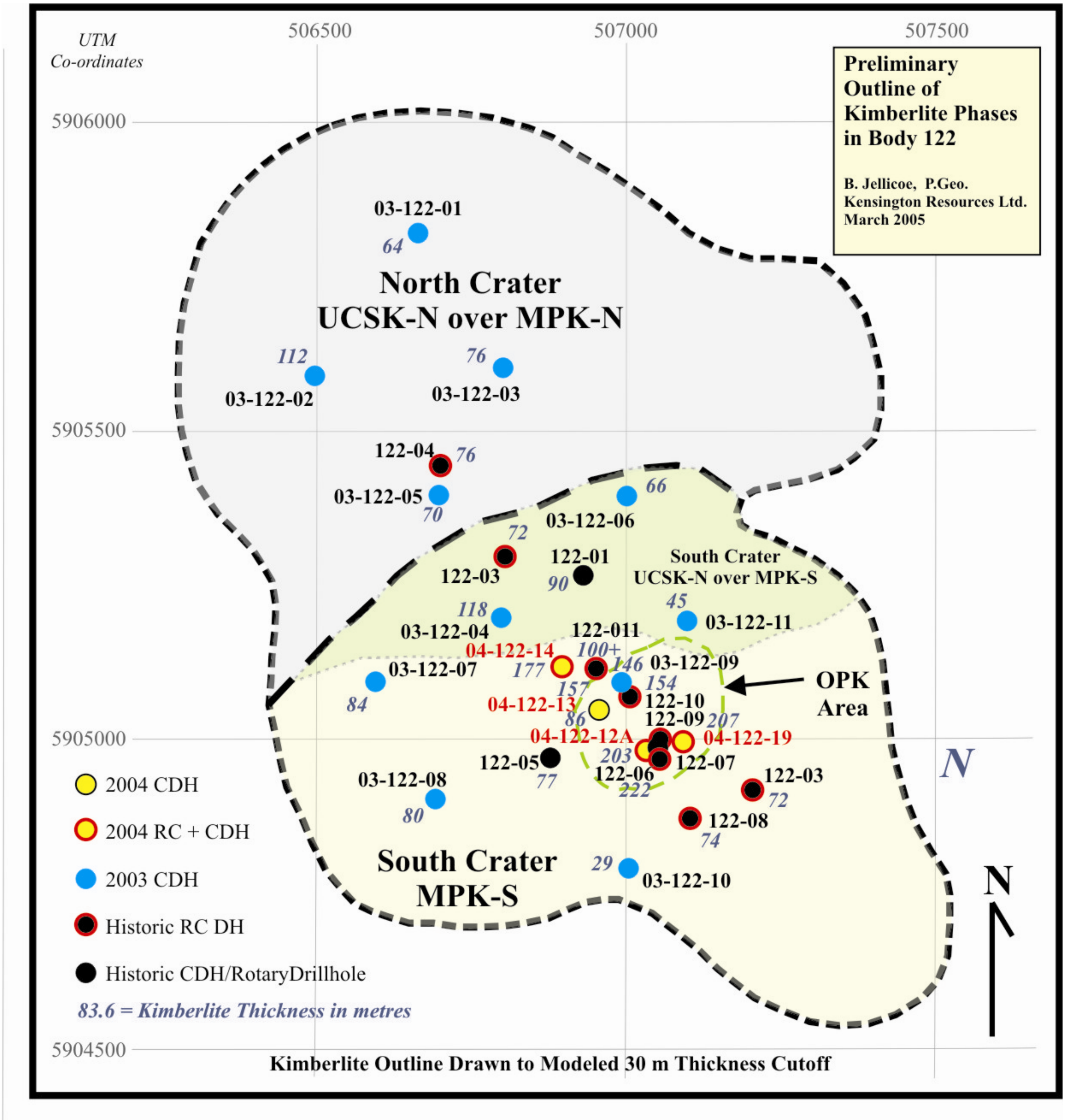


Figure 30: Preliminary Geology and Kimberlite Thicknesses in Plan View for Body 122 (pre-2004)

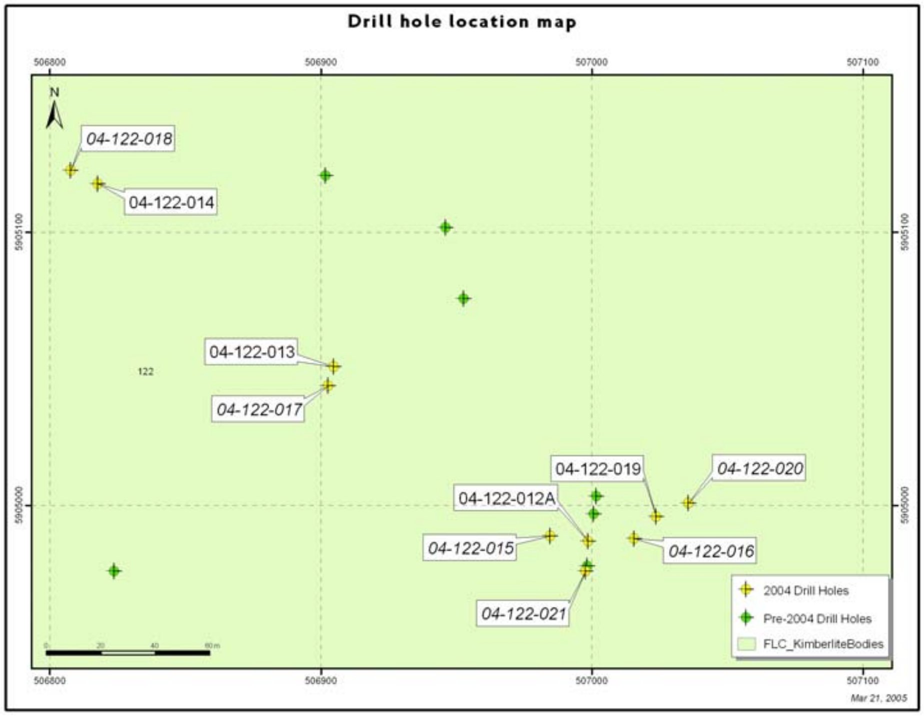


Figure 31: Detailed View of the 2004 Drillhole Locations for Kimberlite 122

Towards the southeast and southern-most part of the body, at least three distinct intervals of other pyroclastic kimberlite (OPK) were noted. OPK dominates the kimberlite intersection at drillhole 03-122-10, but the overall kimberlite intersection here has attenuated to 28.9 m from a thicker interval of 53.4 m in drillhole 03-122-09. The distribution of OPK beds are not shown in detail in Figure 30 with the exception of OPK-S1 which forms a small pod near the centre of the southern crater. The OPK (and limited occurrence of other volcaniclastic kimberlite (OVK) phases will be better understood as more drillholes provide data that allows the geological model to be further refined.

In general, average grain size of the kimberlites and thickness of kimberlite intersection decreases towards the margins of the body. The order of emplacement for the individual kimberlites and their contact relationships within, and between, the two main parts of body 122 are not fully understood at this time. Revisions to the geological model are underway and may require additional drilling in future programs to finalize a preliminary model. The results of the four drillholes completed in 2004 were used in conjunction with the geological model to determine the locations of large diameter drillholes.

9.2.17.7.5.3 Density Measurements

In-situ density data from 103 kimberlite samples recovered from the 122 kimberlite body in 2003 was found to have a mean value of 2.47 g/cm^3. The 2004 density determinations were found to have a very similar mean value of 2.50 g/cm^3, a median of 2.49 g/cm^3, and a standard deviation of ± 0.11 g/cm^3. The slightly higher density values in 2004 might be due to the higher proportion of limestone and carbonate xenoliths in the southern part of the 122 kimberlite body tested by drilling.

As summarized in Figures 32 and 33, density values in the 122 kimberlites are seen to increase slightly at depth. The grain size of the kimberlite does not vary, although field logs indicate an increase in the maximum size of xenoliths (limestone and mudstone) at depth in the kimberlite.

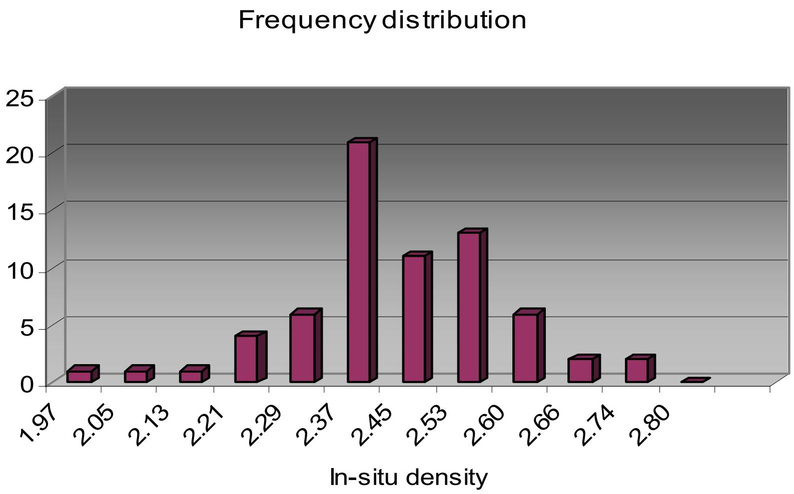


Figure 32: Frequency Histogram of 2004 Density Measurements for the 2004 Coreholes

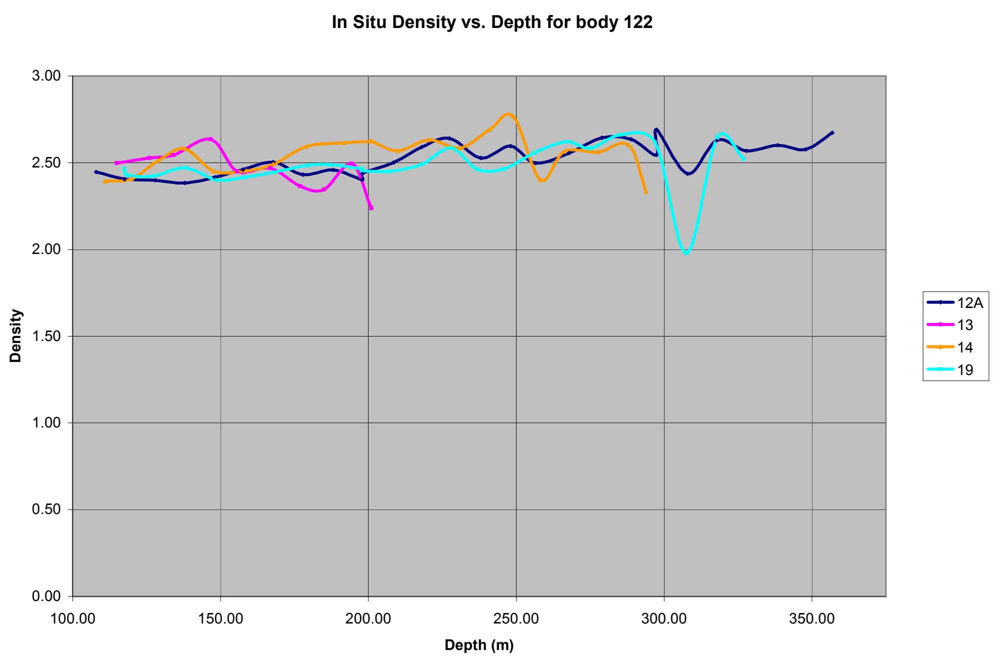


Figure 33: 2004 In-situ Density Measurements for 2004 Coreholes from Kimberlite 122 (Kimberlite, Overburden and Country Rocks)

9.2.17.7.5.4 Magnetic Susceptibility

Magnetic susceptibility for each of the holes completed is shown graphically in Figure 34. Drillholes 04-122-019 (max. value: $224x10^{-3}$ SI units) and 04-122-012A (max. value: $202x10^{-3}$ SI units) were seen to have the highest magnetic responses which were due to the presence of magnetite in various sections of the kimberlite in either drillhole. As seen in Figure 33, magnetic susceptibility values in the core demonstrated a variety of magnetic responses. Intervals of limestone at the bottom of some holes were seen to have consistently low susceptibility values.

9.2.17.7.5.5 Archeological and Flora/Fauna Surveys

Golder Associates Ltd. of Saskatoon, Saskatchewan was contracted to undertake a flora and fauna survey of the 122 kimberlite as well a heritage resource review of drillsite areas in accordance with the provincial Heritage Property Act. Once reports of the findings of the various surveys were submitted and reviewed by the Cultural and Heritage Branch (Heritage Resource Review) and Saskatchewan Environment (Flora and Fauna Survey) approval was granted by the various regulatory bodies for drilling activity. As large diameter and core holes were located in the same area, no specific sites had to be surveyed by the archaeological team specifically for core drilling. A total of approximately 3 hectares was surveyed.

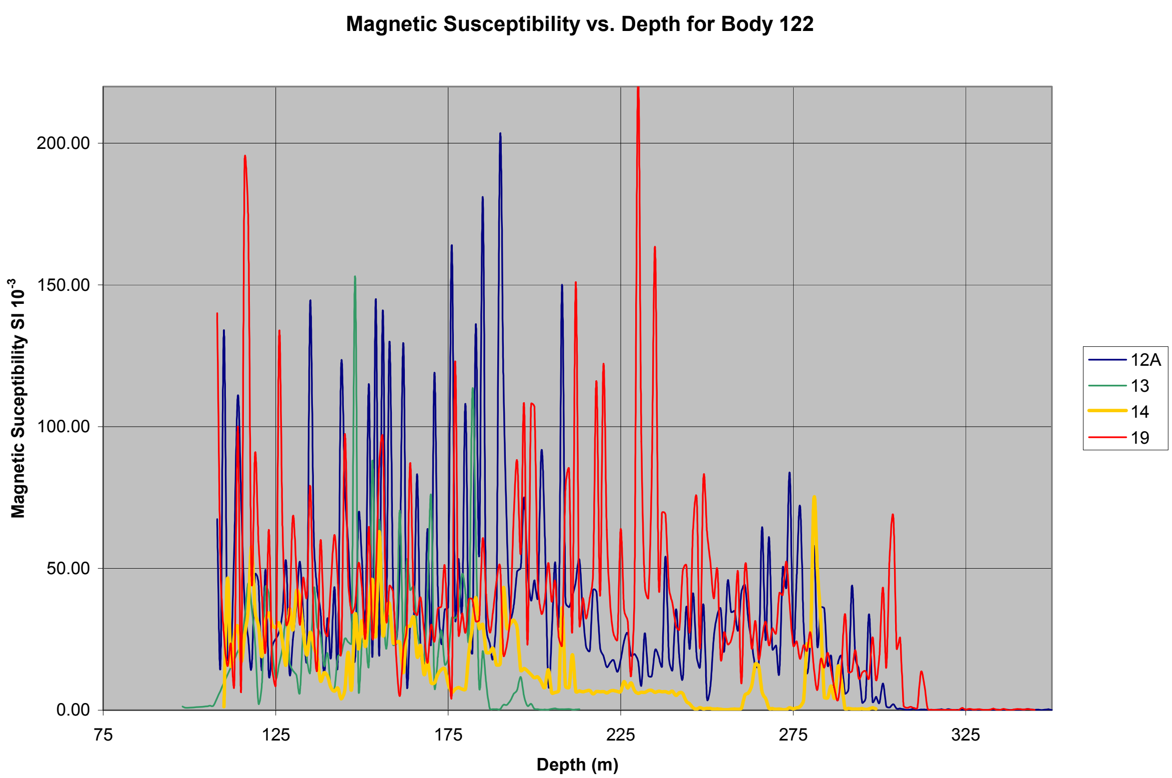


Figure 34: Chart of 2004 Magnetic Susceptibility Measurements for the 122 Kimberlite Drillholes

9.2.17.7.5.6 Re-sampling Core and Microdiamond Recovery for Kimberlite 122

Selected 2003 coreholes were re-sampled to provide additional material for diamond recoveries utilizing caustic dissolution methods. Additional kimberlite samples totaling 464 kg from eight 2003 coreholes located across the body were submitted for diamond recovery utilizing caustic dissolution methods at the SRC in Saskatoon. The SRC recovered and reported diamonds down to a lower cutoff of 0.075 millimetres in size. A total of 269 additional microdiamonds were recovered for use in grade forecasting of specific kimberlite zones. Microdiamond recoveries were audited and individual stone sizes calculated by experts at the De Beers Kimberley Microdiamond Laboratory (KMDL) in South Africa. All recoveries reported here include stones with modeled sizes less than 74 microns in size in order to be directly comparable to 2003 results from the SRC that were reported for several kimberlite units (Table 58).

Initial geological modeling of distinct kimberlite phases by De Beers, based on drill core from Kimberlite 122 shows the body is divisible into two main craters, and a subordinate third area based on relatively sparse information. Both craters are dominated by massive to graded beds of olivine/lapilli pyroclastic kimberlite (MPK-N and MPK-S) overlain by interbedded sediments, resedimented kimberlite, and kimberlite (UCSK-N and UCSK-S). The order of emplacement for the individual kimberlites and their contact relationships within, and between, the two main parts of body 122 are not fully understood at this time.

The average microdiamond abundance for all 122 samples from 2004 is 5.8 stones per 10 kg while the upper 122 North beds (UCSK-N) gave the best results with average microdiamond abundances of 8.3 stones per 10 kg. In general, the results for the North crater are comparable between 2003 and 2004, but a significant decrease in recovery was noted for both units in the South crater (Table 59). There is no obvious reason for the difference in results between years for the same core, except that which is expected from the "nugget-effect", whereby there is irregular recovery of diamonds within small sample masses. Both 2003 and 2004 results will be combined by kimberlite unit to produce higher confidence grade forecasts. A summary of diamond recovery by kimberlite phase is shown in the Table 60.

The SRC reported 97% recovery of internal tracers during diamond recovery and stone picking was routinely audited by a supervisor. Recovered diamonds and selected caustic residues will be sent to the De Beers' Kimberley Microdiamond Laboratory (KMDL) for further auditing and verification of individual stone size, shape, and sieve category using proprietary techniques. The microdiamond results from these drillholes will be integrated with the 122 dataset including results from similar kimberlite types intersected in earlier drillholes (122-01, 122-05, 122-06, 122-07, 122-08) followed by modeling of grade forecasts for the southern and northern parts of the body, as well as by major kimberlite unit.

Audited and modeled microdiamond results from the 2004 coreholes have not yet been received in their entirety from KMDL. These results will be disclosed to the public as soon as they are added to the database and properly interpreted.

Drillhole	Sample Mass (kg)	# of Stones	Average Stones/10kg	Stones larger than 0.500 mm
122-01	72	39	5.4	0
122-02	96	110	11.5	0
122-03	56	20	3.6	1
122-04	32	11	3.4	1
122-05	64	24	3.8	0
122-06	24	3	1.3	1
122-07	80	41	5.1	0
122-08	40	21	5.3	0
Total:	**464**	**269**	**5.8**	**3**

Table 58: Summary of 122 Microdiamond Results by Drillhole

Kimberlite Type	Range of Sampled Phase Thickness (m)	Sample Mass (kg)	# of Stones	Average Stones/10kg	Stones larger than 0.5 mm
2003 MPK-N	56 - 74	117.55	115	9.8	1
2003 UCSK-N	11 – 43	23.95	18	7.5	1
2004 MPK-N	56 - 74	240.0	153	6.4	1
2004 UCSK-N	11 – 43	48.0	40	8.3	0
Total 122 North Crater:		**429.5**	**326**	**7.6**	**3**
2003 MPK-S	36 – 103	222.55	163	7.3	4
2003 UCSK-S	3 – 12	7.75	3	3.9	0
2004 MPK-S	20 – 68	168.0	74	4.4	2
2004 UCSK-S	6.2	8.0	2	4.3	0
Total 122 South Crater:		**406.3**	**242**	**6.0**	**6**
Total 122:		**835.8**	**568**	**6.8**	**9**

Table 59: Summary of 2004 Microdiamond Results for 122 by Type and Year Sampled

Kimberlite Type	-0.075mm Sieve	+0.075mm Sieve	+0.106mm Sieve	+0.150mm Sieve	+0.212mm Sieve	+0.300mm Sieve	+0.500mm Sieve	+2.000mm Sieve
MPK-N	11	68	39	24	6	4	1	0
UCSK-N	8	13	10	8	1	0	0	0
North Crater:	**19**	**81**	**49**	**32**	**7**	**4**	**1**	**0**
% from North:	***63***	***68***	***72***	***89***	***100***	***80***	***50***	***0***
MPK-SB	10	39	18	4	0	1	1	1
UCSK-S	1	0	1	0	0	0	0	0
South Crater:	**11**	**39**	**19**	**4**	**23**	**1**	**1**	**1**
% from South:	***37***	***32***	***28***	***11***	***0***	***20***	***50***	***100***
Total 122:	**30**	**120**	**68**	**36**	**7**	**5**	**2**	**1**
% of 122:	***11***	***45***	***25***	***13***	***3***	***2***	***1***	***0.3***

Table 60: 2003-2004 Microdiamond Recoveries by Sieve Class and Kimberlite Type for 122

9.2.17.7.5.7 Large Diameter Drilling on Kimberlite 122

Four large diameter minibulk sampling holes were targeted on the south part of Kimberlite 122 (MPK - South Kimberlite Unit) in order to expand the parcel of diamonds from this body so that confidence levels in grade and revenue estimates could be increased. The total estimated mass of kimberlite excavated from body 122 in 2004 was 739.2 tonnes of which 318.1 tonnes of material greater than 1.5 mm in size was retained for macrodiamond recoveries. All four drillholes primarily sampled the main, massive to bedded pyroclastic kimberlite unit (MPK). One of the four drillholes was lost within the top 2 m of kimberlite due to drilling problems, but is listed in the results. An additional two drillholes did not reach the top of kimberlite due to downhole difficulties and there are no results to report. Minibulk samples were shipped to the De Beers' dense media separation plant located in Grande Prairie, Alberta for the first stage of diamond recovery procedures, followed by final diamond recovery in an ultra-high security facility in Johannesburg, RSA.

9.2.17.7.5.8 Minibulk Sampling and Macrodiamond Recovery for Kimberlite 122

A total of 248 macrodiamonds weighing 28.81 carats, including 23 stones larger than 0.25 carats, were recovered from three 36-inch (914 mm) diameter drillholes located on Kimberlite 122 during the 2004 minibulk sampling program (Table 61).

The recovery of many stones larger than 0.25 carats and two larger than one carat supports the model of a larger stone population in Kimberlite 122. Diamond recoveries and actual sample grades for stones in the +5 and higher sieve categories from 2004 are comparable to those seen in 2000, although the total carats recovered last year fell short of program expectations.

Drillhole	Main Kimberlite Unit	Sample Interval (m)	Actual Excavated Mass (tonnes)[1]	Total Carats	Drillhole Grade (cpht)	Total Stones	Drillhole stones/ tonne	Est. # of Diamonds > 0.25 cts. (largest stone)[2]
04-122-016	122 South MPK	98.57	166.82	5.565	3.34	43	0.26	4 stones (1.01 cts.)
04-122-018	122 South MPK	178.56	312.68	11.990	3.84	90	0.29	12 stones (1.11 cts.)
04-122-021	122 South MPK	151.45	257.89	11.255	4.36	115	0.45	7 stones (0.73 cts.)
04-122-015	122 South MPK	1.20	1.81	0	n/a	0	n/a	0
Total/Avg.		**429.78**	**739.20**	**28.810**	**3.90**	**248**	**0.33**	**23 stones**

[1] The calculation of actual mass was based on interval borehole volume measured by a 3-arm caliper tool and a kimberlite rock density of 2.5.

[2] Diamond weights were provided in terms of total carats per sieve class. The reader is cautioned that for interval samples (12 m) with multiple stone recoveries, the number of stones >0.25 carats was estimated by dividing carat weight by the number of stones in the sieve class.

Table 61: Actual 2004 Macrodiamond Recoveries from Kimberlite 122

Macrodiamond recoveries for the three main drillhole intersections are reported by sieve size category in Table 62. Drillhole 04-122-015 was lost at a depth of 106.6 m after cutting only 1.2 m of kimberlite due to loss of steel downhole.

	+5 Sieve		+6 Sieve		+7 Sieve	
Drillhole	stones	carats	stones	carats	stones	carats
04-122-016	8	0.440	12	1.065	4	0.440
04-122-018	22	1.110	17	1.340	15	1.945
04-122-021	33	1.570	19	1.505	13	1.805
Total:	**63**	**3.120**	**48**	**3.910**	**32**	**4.190**

	+9 Sieve		+11 Sieve		+12 Sieve	
Drillhole	stones	carats	stones	carats	stones	carats
04-122-016	3	0.765	4	1.035	1	0.550
04-122-018	16	3.405	6	2.165	0	0
04-122-021	13	2.230	4	1.375	1	0.560
Total:	**32**	**6.400**	**14**	**4.575**	**2**	**1.110**

	+13 Sieve		+15 Sieve		+17 Sieve	
Drillhole	stones	carats	stones	carats	stones	carats
04-122-016	0	0	1	1.015	0	0
04-122-018	1	0.630	0	0	1	1.110
04-122-021	2	1.395	0	0	0	0
Total:	**3**	**2.025**	**1**	**1.015**	**1**	**1.110**

Table 62: Summary of 2004 Macrodiamond Recovery from Kimberlite 122 by Sieve Size Category

The pilot holes for these LDDH are as follows: LDDH 04-122-015 with corehole 04-122-012A, LDDH 04-122-016 with corehole 04-122-012A, LDDH 04-122-018 with corehole 04-122-014, and LDDH 04-122-021 with corehole 04-122-019.

Minibulk sampling programs in 2000 and 2004 differed in the bottom cut-off size for macrodiamonds utilizing a 1.0 mm screen in 2000 versus a 1.5 mm screen in 2004. In order to compare macrodiamond results from these two programs, all diamonds passing through a +5 round diamond sieve screen (equivalent to 1.47 mm square sieve size) were subtracted from the program totals. These results are shown in Table 63. While normalizing the data reduces the total stone counts and to a lesser extent grades, a more accurate comparison of diamond recoveries can be made for the two programs.

Drillhole	Main Kimberlite Unit	Sample Interval (m)	Actual Excavated Mass (tonnes)[1]	Total Carats	Drillhole Grade (cpht)	Total Stones	Drillhole stones/ tonne	Est. # of Diamonds > 0.25 cts. (largest stone)[2]
122-009[3] (2000)	122 South MPK	155.70	129.15	3.270	2.53	20	0.15	5 stones (0.61 cts.)
122-010[3] (2000)	122 South MPK	146.04	118.09	4.565	3.87	33	0.28	5 stones (0.72 cts.)
122-011[3] (2000)	122 South MPK	102.82	81.08	6.875	8.48	42	0.52	6 stones (0.76 cts.)
Total/Avg. (2000 only)		**404.56**	**328.32**	**14.710**	**4.48**	**95**	**0.29**	**16 stones**
04-122-016 (2004)	122 South MPK	98.57	166.82	5.310	3.18	33	0.20	4 stones (1.01 cts.)
04-122-018 (2004)	122 South MPK	178.56	312.68	11.705	3.74	78	0.25	12 stones (1.11 cts.)
04-122-021 (2004)	122 South MPK	151.45	257.89	10.440	4.05	85	0.33	7 stones (0.73 cts.)
04-122-015 (2004)	122 South MPK	1.20	1.81	0	n/a	0	n/a	0
Total/Avg. (2004 only)		**429.78**	**739.20**	**27.455**	**3.71**	**196**	**0.27**	**23 stones**

[1] The calculation of actual mass was based on interval borehole volume measured by a 3-arm caliper tool and a kimberlite rock density of 2.5.

[2] Diamond weights were provided in terms of total carats per sieve class. The reader is cautioned that for interval samples (12 m) with multiple stone recoveries, the number of stones >0.25 carats was estimated by dividing carat weight by the number of stones in the sieve class.

[3] Results for the 2000 and the 2004 drillholes were adjusted to make them comparable to 2004 values; the lower cutoff for minibulk samples was 1.0mm in 2000 compared to 1.5mm in 2004, therefore all diamond recoveries in the sieve categories less than +5 were excluded in order to simulate a 1.5mm cutoff.

Table 63: Comparison of Adjusted 2000 and 2004 Macrodiamond Recoveries from Kimberlite 122

Comparison of diamond recovery between the two programs shows that the overall grade was higher in 2000 with a significant contribution from the higher sample grade in drillhole 122-011 as well as recovery of more stones larger than 0.25 carats in size per tonne, but with occurrence of larger stones in the 2004 samples. Macrodiamond recoveries in 2004 will be added to the existing stone inventory in order to determine the change in grade forecast for Kimberlite 122. As macrodiamonds from the 2004 program are added to the 122 diamond inventory, confidence levels in both the forecast grade and estimated average value are expected to increase. An updated grade forecast for Kimberlite 122 is in preparation by the MRM of De Beers.

The combined units of economic interest in body 122 contain 79 million tonnes at an average grade of 13 carats per hundred tonnes. Grade forecasts were based on the statistical treatment of 693 microdiamonds and 289 macrodiamonds weighing 23.13 carats. Grade and value modeling for the “Main South Pyroclastic Unit – upper” and “Main South Pyroclastic Unit – lower” units was based on 513 microdiamonds and 269 macrodiamonds (19.885 carats). The tonnage estimate for this unit was based on kimberlite core descriptions and determinations of unit contacts from eight HQ coreholes and three large diameter drillholes within an area measuring 600 by 500 m. Drillhole spacing is primarily on mixed 200 and 300 metre intervals with total depth of holes ranging from 144 to 279 m.

The reader is cautioned that the grade estimates are conceptual in nature. The grade of kimberlite above a 1.5 mm bottom cutoff is estimated from a combination of microdiamond and macrodiamond data. Confidence levels for these figures are low and additional testing of macrodiamond content is required to increase confidence levels in the grade forecasts. The reader also should be aware that insufficient geological control and quantity of sampling has been obtained to permit rigorous application of economic considerations and that there is no certainty that these preliminary assessments will be realized.

Volumes for each of the high interest zones are early estimates derived from computer-generated 3-dimensional models of kimberlite units within areas defined by a limited number of drillhole intersections. Volume to tonnage estimates were calculated using a specific gravity 2.4 g/cm^3 for all kimberlite units. The tonnage estimates require further delineation drilling to better ascertain lateral and vertical extents of the geological units. The surface area of the kimberlites of interest were based on estimated 30 metre thickness cut-offs applied to integrated and modeled geophysical data for the body.

9.2.17.7.6 Drilling of Geophysical Anomalies

Five HQ coreholes were completed during September and November 2004 in order to test for the presence of kimberlite in five different geophysical anomalies and to determine whether subtle magnetic features and resistivity anomalies represented buried kimberlites not having an obvious magnetic character.

Coreholes were targeted on two magnetic anomalies (284 and 285), one gravity anomaly (150 east extension), and two GeoTEM resistivity anomalies (292 and 300). Figure 35 shows the locations of the anomalies.

Kimberlite was intersected in only two of the coreholes and these provided material for petrographic logging and microdiamond sampling. The large gravity anomaly located east of the known 150 body was targeted with an HQ corehole during the last week of September, 2004. No substantial kimberlite interval was intersected, although a three metre thick kimberlitic ash bed was encountered within mudstone of the Lower Colorado Group at a depth of 142.6 m. The corehole was terminated at a depth of 195 m. The source of the gravity anomaly remains unknown.

Those coreholes without kimberlite intersections provided uninterrupted intervals of host rock that could be incorporated into regional stratigraphic studies. A total of 874.0 m was drilled with a combined kimberlite intersection of 31.82 m. A sixth test corehole was completed on the southern-most part of the 140/141 magnetic anomy and is briefly described in the previous section on Kimberlite 140/141. This corehole is listed in Table 64 separately for comparison to the other targets.

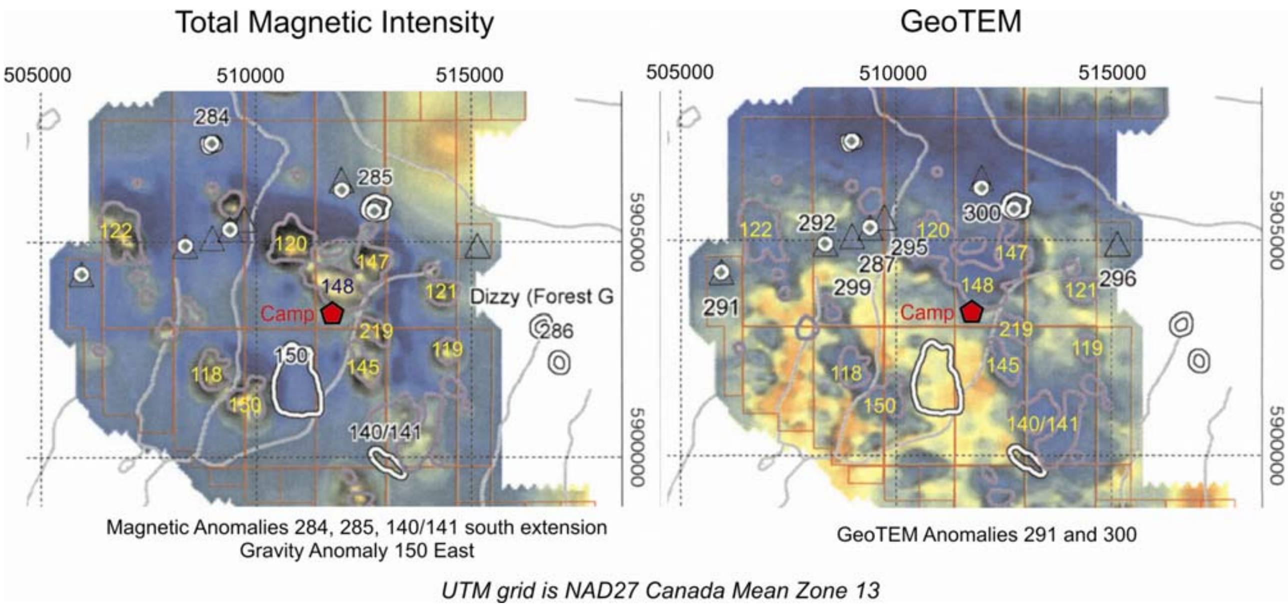


Figure 35: Location of 2004 Coreholes on Geophysical Anomalies around the Central Cluster

Drill hole #	Anomaly Type	Core Size[1]	Top of Kimberlite (m)	Base of Kimberlite (m)	Total Kimberlite Intersection[2]	End of Hole (m)
04-150-013	Gravity	HQ	142.6	147.0	4.4	195.0
04-284-001	subtle Magnetic	HQ				162.0
04-285-001	subtle Magnetic	HQ	141.3	183.8	27.4	195.0
04-291-001	GeoTEM	HQ				160.0
04-300-001	GeoTEM	HQ				162.0
Total					**31.82**	**874.0**
04-140-048	Magnetic	HQ	104.9	173.2	58.7	180.0

[1] = HQ core has a diameter of 2.5 inches or 63.5 mm
[2] = *These values may not be equal to* Base of Kimberlite *minus* Top of Kimberlite *due to intervening layers of country rock*

Table 64: Summary of Core Drilling on Geophysical Anomalies

9.2.17.7.6.1 Archeological and Flora/Fauna Surveys

Golder Associates Ltd. of Saskatoon, Saskatchewan was contracted to undertake a flora and fauna survey of the area around each anomaly as well a heritage resource review of drill site areas in accordance with the provincial *Heritage Property Act.* Once reports of the findings of the various surveys were submitted and reviewed by the Cultural and Heritage Branch (Heritage Resource Review) and Saskatchewan Environment (Flora and Fauna Survey) approval was granted by the various regulatory bodies for drilling activity. Drill pads for four coreholes were surveyed by the archaeological crew covering a surface of 3 hectares.

9.2.17.7.6.2 2004 Venmyn Rand Audit of Macrodiamond Recovery

Venmyn Rand (Pty) Ltd. was hired by the Company to evaluate efficiency and suitability of final diamond recovery procedures and equipment at the newly renovated GEMDL facility. The end-product of the evaluation was an independent Qualified Person's report documenting the new configuration of the laboratory and recommendations for future analytical work. This report remains as an internal reference document for the company and is not considered material. The audit was successful in that only two very minor potential security issues were identified. Overall, the independent Qualified Person was satisfied with the configuration, procedures, and efficiency of the plant.

In addition to monitoring diamond recovery, Mr. Jellicoe (Kensington's Qualified Person) visited a highly successful small, low grade, and high average value open pit mine in Lesotho and a large-scale diamond recovery operation from historic mine tailings operated by de beers in Kimberley, South Africa. During these visits, he familiarized himself with scales of mining and ore processing that may one day be applied to high priority Fort à la Corne Joint Venture kimberlite bodies.

9.2.17.7.6.3 2004 Development of the Advanced Exploration and Evaluation Plan (AE&E)

Consideration of the longer term view for the Fort à la Corne Project has provided the Joint Venture Partners with a clear perspective on the way forward. Predicted supply, demand, and price trends for rough diamonds into the next decade provide a rationale for accelerating the present rate of work on the project in order to be well positioned with respect to the favourable forecasts.

Management and technical staff from each of the Joint Venture partners met for strategic planning sessions held in Saskatoon and Vancouver in 2004. The meetings used a facilitated process (run by AMEC) known as Enhanced Systematic Planning (ESP). An overview perspective of the Fort à la Corne Project, from present day to an assumed eventual mining operation was examined and a time-line developed (Figure 36). The current phase of the project was denoted as the Advanced Exploration and Evaluation Study (AE&E) and was estimated to require 3 years in order to complete. The overall time-line for the Fort à la Corne Project is considered to be aggressive, being driven by the need to favourably position the commencement of mining operations in terms of long term rough diamond supply and demand predictions.

The objective of the ESP session, as developed by the JV partners was: " to develop an aggressive Action Plan for the AE&E leading to a go/no-go decision for the Pre-feasibility Study by mid 2008, with a conscious forward looking perspective to be time- and cost-efficient over the global project development period". Furthermore, the project objective was defined as the intent: "to develop and operate the Fort à la Corne Project in a financially, environmentally and socially responsible manner".

Recent results from the 2000-2003 programs have shown that FalC kimberlites do contain higher grade zones. It is possible that higher-grade units from a number of kimberlites, when considered collectively, may form a resource which can be profitably mined. At present some 33 million carats distributed over 369 tonnes and 3 different kimberlites have been identified at a deposit level of confidence. The project strategy has now been revised to focus on the higher grade units within proximally-located priority kimberlite bodies and to consider them in combination. This approach has the advantage of considerably increasing the size of the potential resource and may permit significant economy of scale to be achieved for a large scale mining operation.

The Plan seeks to delineate at least 70 million carats in the ground from the higher grade units within the larger (greater than 20 hectares) kimberlites in the south-central cluster.Twenty primary kimberlite targets have been identified to date, most within a radius of five kilometres in the southern cluster of kimberlites. Four of the twenty targets were investigated by evaluation and delineation drilling programs during 2000, 2001, 2002 and 2003, namely kimberlites 122, 140/141, 148 and 150. One of the four, kimberlite 150, was determined to be of no further interest. Two kimberlites, 122 and 140/141, were determined to be of significant interest, and mini-bulk sampling was conducted on them as part of the 2004 Exploration Program. Kimberlite 148 remains to be minibulk tested and first stage results will be compared to those obtained from other kimberlites investigated in 2005. Three more bodies including 120, 147 and 121/221 were drilled in the 2004 work program. The remaining bodies of interest will be tested with up to 10 coreholes each to determine the existence of higher-grade units. The Plan assumes nine of these will produce strong results for further corehole sampling of the higher-grade units. Of these, it is believed six bodies will graduate to mini-bulk sampling.

The program is considered to be aggressive and will require careful management of project activities in order to achieve the objectives within the allotted time. Only funding for the 2005 program is presently approved and funding for the 2006 program and beyond will depend on a responsible and step-wise approach based on results from preceding program. Should remarkable results be encountered as better potential kimberlites are investigated initially, then these targets may be preferentially accelerated through the stages of evaluation.

Phases of the AE&E Study

The AE&E Study's key planning parameter is that there are five distinct exploration drilling phases, with strategic objectives for each phase. During the ESP Session, the basis for each phase of the global AE&E drilling program was established by a number of consensus-based assumptions; the assumptions are documented below.

The main phases in the AE&E study are as follows:

2004 Geological Drilling and Mini-bulk Sampling
Essentially, this was the first phase of the geological drilling. Following the 2000 to 2003 exploration programs that focused on kimberlites 140/141, 150, 122, and 150, the three bodies considered to represent the next highest level of opportunity of the original twenty became the targets for the 2004 Exploration Program - namely kimberlites 120, 121/221, and 147. Core drilling on these three bodies was completed in November 2004. Follow-up activities such as logging, analysis, and interpretation are expected to be completed by the end of September 2005. The 2004 Exploration Program results are anticipated during the initial months of the AE&E Study and may impact the direction of the new work. For that reason, it is included in the overall action plan for the AE&E Study.

Geological Drilling
Determine through core drilling and other methods, the basic geological internal model of each kimberlite, microdiamond sampling based on the interpreted model, and identification of higher interest sub-zones, including grade estimates, if any, within each kimberlite. This work continues the geological drilling programme commenced in 2004. The thirteen remaining kimberlites from the twenty kimberlites greater than 25 ha in size within the southern cluster represent the maximum number of kimberlites remaining to be tested during the Geological Drilling Program. A process of prioritisation was undertaken by the Joint Venture partners to determine the actual scope of the geological drilling program. It was assumed for the purposes of planning and estimating costs that the all thirteen kimberlites may be targeted during this phase of the AE&E study.

Delineation Drilling
Define, through additional core drilling and microdiamond sampling, the volume extent and estimate of grade of higher interest sub-zones to the extent that the next phase of work can be undertaken, results permitting. The three kimberlites investigated during the 2004 drilling program together with the remaining 13 kimberlites to be considered for the Geological drilling program, provide up to 16 targets from which to select targets for the delineation drilling program. It was assumed for the ESP plan and cost estimates that a maximum of nine kimberlites would be selected for this phase of work.

Mini-Bulk Sampling
Obtain mini-bulk samples sufficient to confirm the abundance of macrodiamonds and provide an improved grade estimate. From the maximum of nine bodies which might be investigated during the delineation drilling phase together with those bodies investigated during the 2000-2003 programs, it was assumed for planning and cost estimating purposes that a maximum of 6 bodies would be selected for mini-bulk sampling.

Supplemental Mini-bulk Sampling
Obtain additional mini-bulk sample sufficient to provide a robust grade estimate for the higher interest sub-unit and to provide a small parcel of diamonds sufficient for a preliminary estimate of diamond revenue. It is assumed that all six of the bodies investigated during the mini-bulk sample program will be included in the supplemental bulk sample.

"Best-Bodies First" Assumption
During the ESP Session, there was consistent intent within the planning team to pursue the most promising bodies on a prioritized basis at every stage of the AE&E program as a means of consciously attempting to develop an early measure of the opportunity presented by the global program.

Scope of Additional Work
In addition to the primary focus on resource exploration and evaluation work over the three year period, it was recognised that in order to achieve the time objective of the AE&E study, additional studies are required to run in parallel with the resource exploration and evaluation. It was also considered essential that an updated conceptual study, incorporating the current options available, would be required in order to provide a basis for go/no-go decisions on the project phases. These additional studies, together with the resource work and project administration constitute ten work areas:

1) Project Administration (updated Conceptual Study)
2) Resource
3) Geotechnical and Hydrogeological Studies
4) Mining
5) Waste Management
6) Metallurgy
7) Infrastructure
8) Socio-Economic
9) Environmental
10) Government Liaison

A high level plan was then developed for each of these work packages, the plan consisting of a series of high level task or work packages.

9.2.18 2005 Advanced Exploration and Evaluation Program

The present Fort à la Corne Joint Venture work program for 2005 encompasses the completion of the first phase of the AE&E Action Plan, which consists primarily of geological drilling to establish the presence of potential higher grade units within the kimberlites located in the southern part of the JV claims. However, in order to take advantage of the results from the 2004 program (which, in part, retroactively formed the initial thrust of the first phase through investigation of four additional high-interest bodies within the central cluster), a provision has been made in the 2005 budget for some delineation work should the results of the 2004 program be sufficiently encouraging.

The current program budget estimate of $25.6M will be applied to the first stage geological drilling of up to thirteen kimberlites in the southern cluster of the Joint Venture claims, which is scheduled to be completed by February 2006.

The AE&E budget for 2005 makes specific provision for the following additional work:

- Update conceptual study to include mining of multiple pits.
- Core drilling of up to 13 kimberlites, assuming on average 10 holes will be required per body.
- Delineation drilling of up to three kimberlites
- Microdiamond sampling involving treatment of up to 10000 kg of core
- Minibulk sampling of one kimberlite, to obtain approximately 580 tonnes of kimberlite for treatment.
- Geotechnical and hydrogeological testing of up to 3 selected drill holes, including cone tests and hydraulic pump tests.
- Develop a preliminary geotechnical mine design model
- Develop preliminary groundwater chemistry model and preliminary hydrological mine design criteria
- Geophysical borehole logging
- Whole rock geochemical analyses
- Commence investigation and develop possible alternative mining strategies
- Investigate waste management concepts
- Commence development of future infrastructure requirements
- Investigate short term infrastructure needs.
- Develop metallurgical process concepts, develop BSP operational strategy and upgrade BSP
- Develop future Ore Dressing Study Requirements
- Continue consultation with First Nations and government. Develop agreements with FN and government on relevant issues.
- Develop environmental baseline plan
- Vegetation, wildlife and heritage surveys to support exploration permit applications.

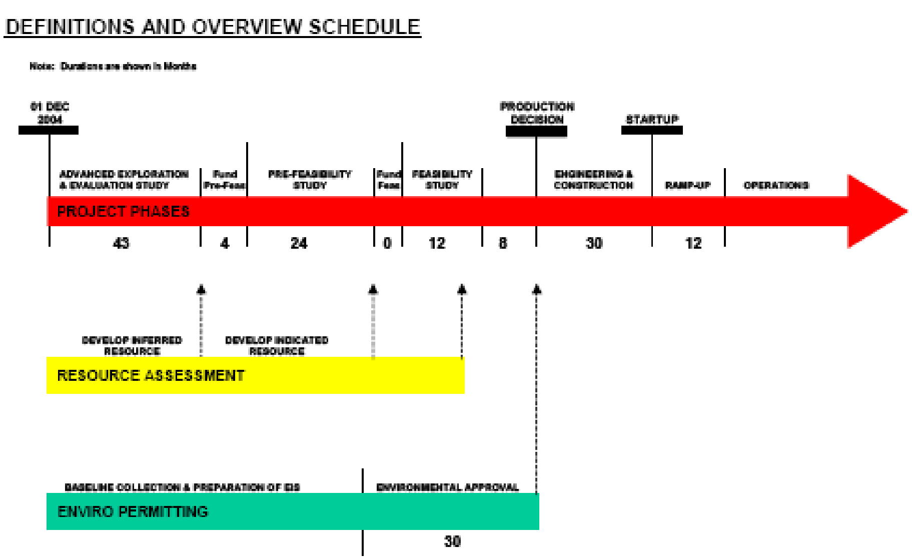


Figure 36: Overview Timeline and Definitions of Possible Future Project

In conjunction with the resource exploration and evaluation work, there are potential opportunities to foreshorten the overall project time-line with minimal cost by undertaking studies of potential mining, processing, waste management and infrastructure strategies. In addition to basic environmental permitting requirements, limited baseline data will be obtained which will be valuable in reducing project permitting time lines in the future. Consultations with key stakeholders, including the local First Nations bands, will continue.

9.2.18.1 Update on the 2005 Drilling Program Currently in Progress

The current budgeted project activity represents work toward the first phase of the Advanced Exploration and Evaluation (AE&E) Plan. This phase will consist mainly of geological drilling and microdiamond analysis to determine the internal geology and grades of the targeted kimberlites. These results will be used by De Beers to develop a model to help predict the grades that could be seen in a commercial production scenario and to assist in modeling average diamond values once a sufficient parcel of macrodiamonds is obtained. A budget of CDN $25.6 million was planned for a minimum of 130 HQ coreholes during the 2005 program that will be distributed over seventeen prioritized kimberlite bodies on individual grids of approximately 150-200 m. A map showing the central cluster of kimberlites and the seventeen 2005 prioritized bodies of interest is presented in Figure 37, however, the following kimberlite bodies are grouped together on this map; 123 and 223, 134 and Star, and 116 and 216. Field activities will include downhole geophysical surveys on most or all of the drillholes. This type of survey provides information on the physical characteristics of the kimberlites as well as providing supplemental data to refine the placement of boundaries between significant kimberlite units. First pass logging was completed on suitable holes remaining from the 2004 program while all 2005 holes have had full downhole surveys where possible.

Other areas of investigation traditionally viewed as being pre-feasibility levels of work, but are embodied within the current AE&E Plan, are progressing under joint management of De Beers Canada Inc. and their alliance partner, AMEC under the 2005 budget. Several of these investigations include: environmental baseline studies and heritage resource impact assessments, metallurgical studies based on geotechnical data, updating of conceptual studies and mining plans, ongoing development of waste management and infrastructure concepts, development of government liaison strategies and fiscal regimes. Kensington staff members lead several of these efforts and contribute substantially to the latter three points of this list.

A total of 103 HQ coreholes (diameter of 2.5 inches or 63.5 mm) with kimberlite intersections totaling 9,179.01 m have been completed on thirteen high interest, prioritized kimberlite bodies including the western part of the Star Kimberlite. Additionally, two coreholes intersected 151.63 m of kimberlite drilled for hydrogeological testing on Kimberlites 140/141 and 150. A total of 134 HQ coreholes are planned as part of the 2005 program, which is budgeted at CDN $25.6 million. Table 65 summarizes drilling results to August 31, 2005. The expected final meterage for the current phase of drilling will be reached near the end of September.

Drilling continues with three Boart-Longyear LF-70 core rigs operating on 24 hour schedules. Two of the LF-70 rigs have been converted to helicopter-portable configurations in order to drill on wet surface areas within Kimberlites 123, 223, 152, and the west extension of the Star. The drill program remains on schedule and is 80% complete.

Corehole STR-05-003C, located 70 m west of the Star shaft, intersected 612.0 m of kimberlite in a hole that was terminated at a total depth of 699 m while still in kimberlite. The corehole was centred on a deep-going part of the body that is interpreted to be a major feeder vent for the volcanic complex. Two main phases of kimberlite were encountered with a thicker unit extending from 108.15 m to a depth of at least 395 m, the base of core examined to date. Preliminary description of the core indicates the unit is generally medium-grained with common indicator minerals. It appears that this hole is quite different from other coreholes drilled by the Joint Venture on the Star Kimberlite and the dominant rock unit appears to have characteristics represented in both the Early Joli Fou and Late Joli Fou kimberlite phases. Further geological logging of this core and comparison to other drillholes will be conducted by the operator once all of the holes targeted on the Star Kimberlite are completed.

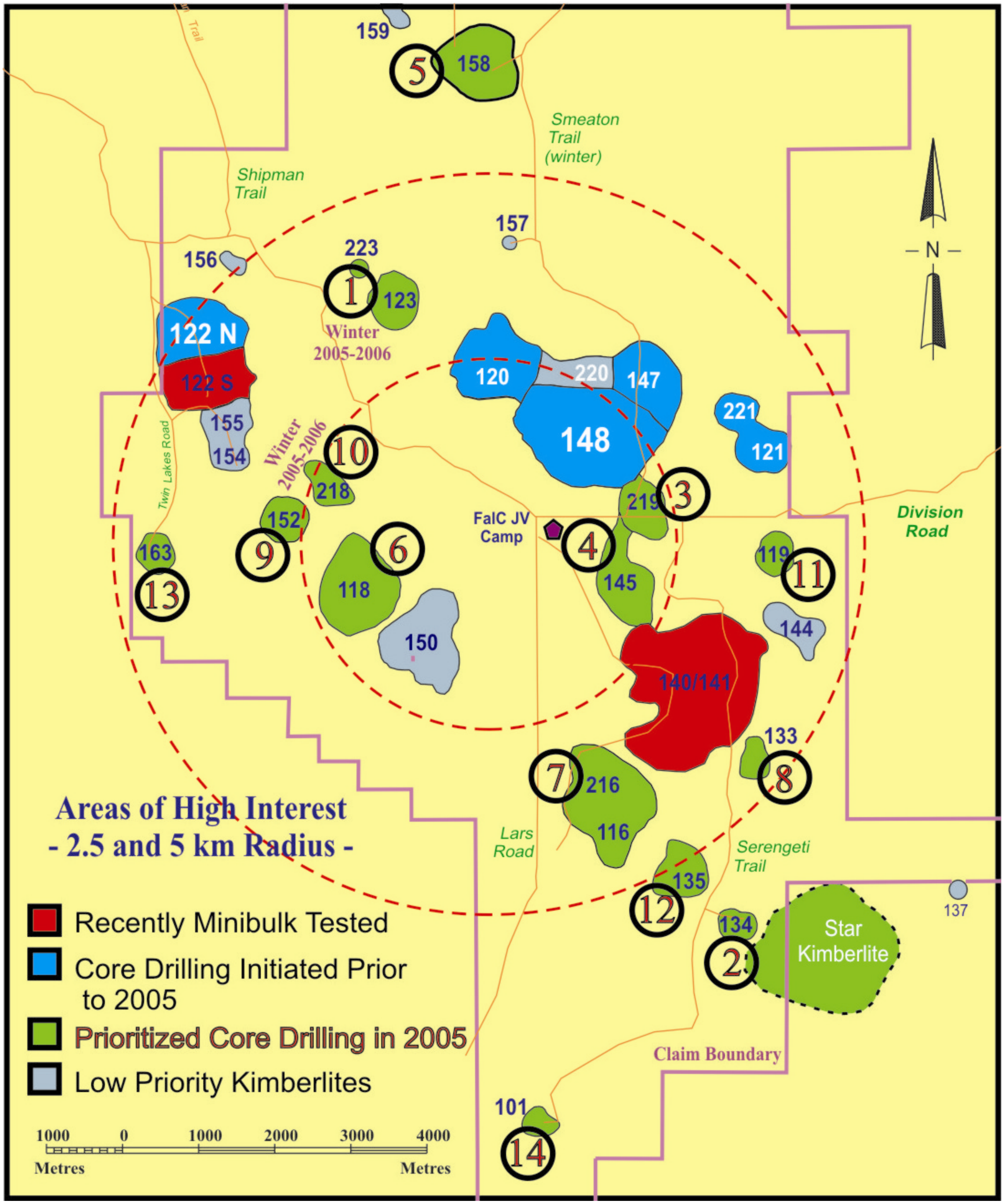


Figure 37: Fort à la Corne South Cluster with 2005 Prioritized Kimberlite Bodies of Interest

Kimberlite Body	Number of Coreholes Planned	Number of Coreholes Completed	Number of Coreholes In Progress	Total Drilled Interval (m)	Total Kimberlite Thickness (m)	Thickest Kimberlite Interval (m)
Star	13	10	1	2,609.0	1,117.86	612.00
101	5	0	0	0.0	0.00	0.00
116[1]	5	5	0	1,167.0	475.87	218.30
118	11	11	0	2,526.0	1,044.24	192.95
119	6	6	0	1,324.0	414.80	202.34
123	6	2	2	405.0	149.05	88.50
133	6	6	0	1,362.0	309.66	90.36
134	5	5	0	1,134.0	474.35	145.10
135	6	5	1	1,260.4	473.82	141.90
145	11	11	0	2,503.0	1,027.47	176.50
152	6	0	0	0.0	0.00	0.00
158	11	11	0	2,642.5	950.32	190.25
163	9	0	0	0.0	0.00	0.00
216[2]	13	13	0	2,910.0	1,054.82	186.00
218	6	6	0	1,605.0	643.22	142.4
219	12	12	0	2,723.6	1,043.53	199.13
223	3	0	0	0.0	0.00	0.00
Total Priority Drilling	**134**	**103**	**4**	**24,171.5**	**9,179.01**	
140[3]	1	1	1	249.0	148.50	148.50
150[3]	1	1	1	249.0	3.13	2.81
Geotechnical Drilling	**2**	**2**	**2**	**498.0**	**151.63**	
Grand Total:	**136**	**105**	**4**	**24,669.5**	**9,330.64**	

[1] = Corehole 116-05-006C was inclined at -60 degrees to investigate the wet, eastern part of Kimberlite 116
[2] = Coreholes 216-05-014C and 04-216-010C were inclined at -60 degrees to investigate the wet, eastern part of Kimberlite 216; lithological contacts and thicknesses have not yet been corrected for the dip of the hole; Corehole 216-05-009C was lost at a depth of 105 m above kimberlite due to drilling difficulties
[3] = Geohydrological holes to test ground water flows.

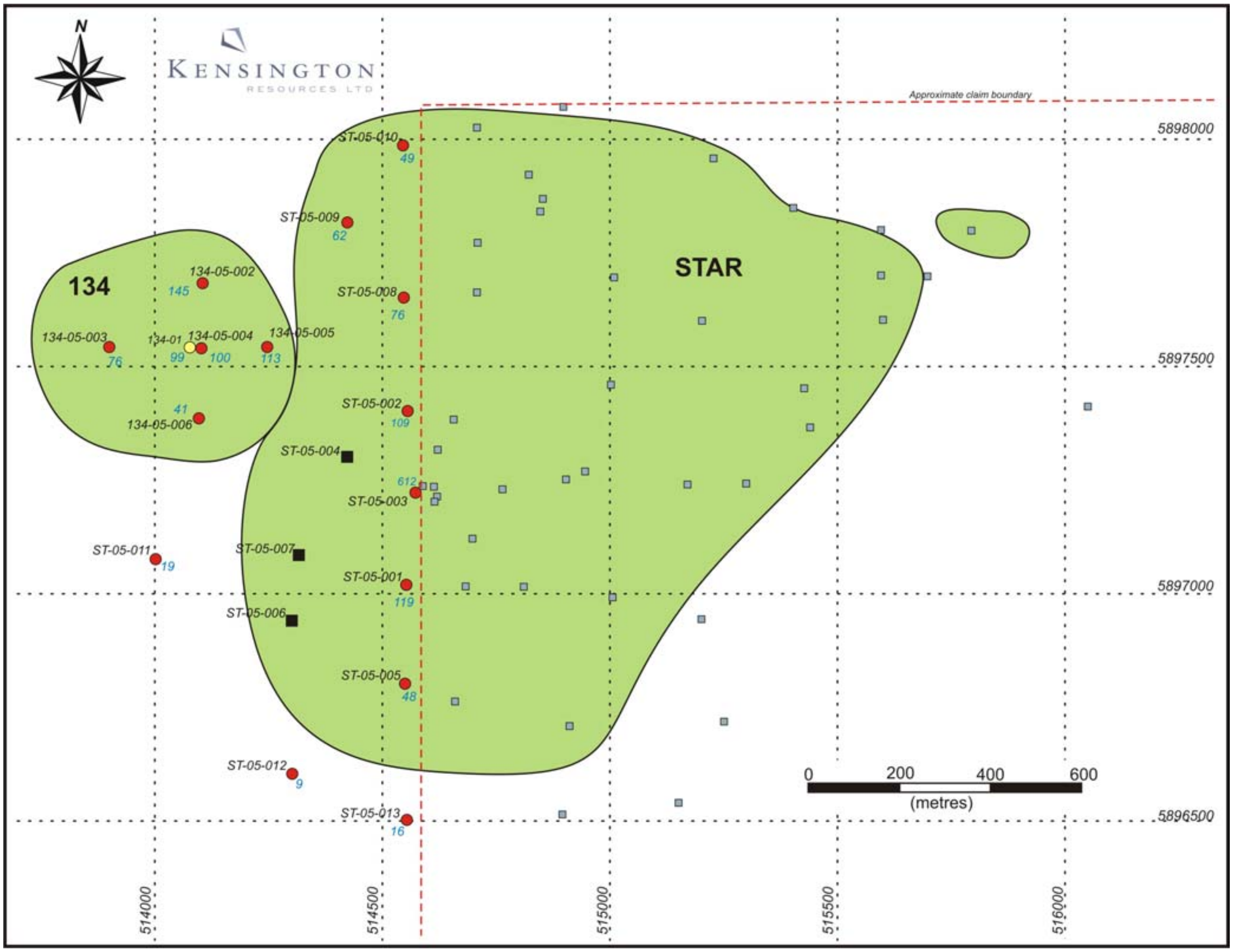
Table 65: Fort à la Corne Joint Venture Core Drilling Summary to August 31, 2005

Methodical geotechnical measurements are conducted on each core including magnetic susceptibility, rock competence, core quality, and density of natural fractures. Detailed core logging is in progress by De Beers experts and preparations for slabbing the core and sampling for diamond recovery are underway in the Joint Venture warehouse located in Saskatoon. The objective of this approach is to identify sufficient higher-grade kimberlite to move forward with delineation drilling and minibulk sampling in the subsequent phases of the AE&E Plan.

9.2.18.1.1 Star Kimberlite

The Star Kimberlite is located at the south-eastern terminus of the south cluster. The body has an estimated size of ~250 ha and ~240 million tonnes of kimberlite on the Shore Gold side of the claim boundary. The area and mass of kimberlite on the Joint Venture side of the boundary has not been estimated at this point due to a lack of relevant data. The Joint Venture side of the Star Kimberlite was drilled first in the 2005 Program despite being second priority because of wet conditions on Kimberlite 123, which had the highest priority. Fifteen coreholes were planned to investigate the westward extent of prospective high-grade kimberlite that was recently the subject of a successful 25,000-tonne bulk sampling program by Shore Gold Inc. Ten coreholes have been completed with a combined intersection of 1,117.86 m of kimberlite from 2,609.0 m of drilling. Individual intersections of kimberlite range from 8.8 to 612.0 m. Table 66 shows a summary of drilling results to August 31, 2005 and Figure 38 shows the location of completed and proposed drillholes on this body.

Thicker intervals of the prospective Early Joli Fou (EJF) kimberlite unit were identified in three of the drillholes. These were identified based on comparison of core to detailed kimberlite descriptions available in public domain assessment reports (Saskatchewan Industry and Resources) and to data from Shore Gold Inc.'s technical reports on SEDAR. The greatest interval of this unit recovered thus far is some 77 m thick.



Map Key:
Green Shapes = Interpreted kimberlite body outline to a ~30 metre thickness cut-off; Blue Numbers = Total kimberlite thickness (metres) in that drillhole; Red Dots = Drillhole locations drilled in the 2005 Program; Black Squares = Planned coreholes remaining to be drilled; Yellow Dots = Historical drillholes on Joint Venture kimberlites; Dotted Red Line = Approximate claim boundary between the FalC Joint Venture on the left and top and Shore Gold on the right; Blue Squares = Drillholes by Shore Gold on the Star Kimberlite

Figure 38: Drillhole Map for the Star Kimberlite

Corehole STR-05-003C, located some 70 m west of Shore Gold's shaft into the Star Kimberlite, intersected 612.0 m of kimberlite in a hole that was terminated at a total depth of 699 m while still in kimberlite. The corehole was centred on a deep-going part of the body that is interpreted to be a major feeder vent for the volcanic complex. There are two phases of kimberlite recognized in the drill hole. The first is a thin, shallow phase which is present from 90.3 to 108.15 m. This unit is very fine grained, matrix supported, shale-clast rich and likely associated with the Late Joli Fou kimberlite (LJF) as identified by Shore Gold Inc. on their side of the property boundary. A second, deeper phase was intersected from 108.15 to 395 m (base of examined core). This unit is generally medium grained with common to very common indicator minerals including garnet and ilmenite as well as trace to 10% shale xenoliths, varying from the mm size up to 20 centimetres. It is apparent that this hole is quite different from other coreholes drilled by the Joint Venture on the Star Kimberlite and that no kimberlite directly comparable to the EJF was intersected nor were there any breccia units noted within the 395 metres of core examined. A preliminary evaluation of the lower unit is that it is either a coarser-grained, proximal version of the LJF kimberlite, or a new unit that has aspects of both the EJF and the LJF. This unit may correspond to an intermediate kimberlite layer situated between the EJF and the LJF.

This kimberlite phase is considered to have moderate prospectivity by the Kensington geologist in charge of core logging. Encouraging points include the relatively high abundance of mantle indicator minerals including garnets, ilmenite, and clinopyroxene and, although not highly abundant, the presence of mantle xenoliths. In addition, the presence of medium- to coarse-grained olivine macocrysts is positive. Discouraging points include the high groundmass and shale xenolith content, both of which tend to indicate potential dilution, and abundance of olivine phenocrysts, which may reduce the relative proportion of olivine macrocrysts and reliability of this component as an indicator of diamond content.

In comparison with work completed during the underground bulk sample program by Shore Gold Inc., this unit may be similar to MK (macrocrystic kimberlite) Type 5, which has been described as a distinct grey green matrix rich MK that is probably the youngest unit of the EJF or is a transition phase to basal LJF (ACA Howe Report dated March 16, 2005). This unit has been intersected in the west-southwestern portion of the lateral drifts (see Map 15 in the ACA Howe report on the Star kimberlite dated March 16, 2005 for details). The unit was sampled by Batch 62 and 72, both of which are located about 50 m southeast of STAR-05-003. The grades in batches 62 and 72 were 14.9 and 5.5 cpht respectively.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
STR-05-001C	not cored	104.35	235.90	85.75	3	118.95	258.0
STR-05-002C	not cored	99.36	218.65	104.05	2	108.94	231.0
STR-05-003C	not cored	87.00	699.00	612.00	1	612.00	699.0
STR-05-005C	90.69	133.90	181.60	47.70	1	47.7	210.0
STR-05-008C	not cored	107.70	230.90	74.85	3	76.41	252.0
STR-05-009C	105.85	150.10	213.14	38.70	4	61.59	237.0
STR-05-0010C	111.0	139.10	190.20	42.91	2	49.11	201.0
STR-05-0011C	88.20	114.80	156.00	17.50	3	19.10	180.0
STR-05-0012C	92.80	138.00	146.80	8.80	1	8.80	174.0
STR-05-0013C	not cored	129.23	142.45	13.22	2	15.26	167.0
Star Total:						**1,117.86**	**2,609.0**

Table 66: Preliminary Core Drilling Summary on for the Star Kimberlite (drilling in progress)

9.2.18.1.2 Kimberlite 134

Kimberlite 134 is located on the south-eastern limb of the south cluster and is adjacent to the west side of the Star Kimberlite. The body has an estimated size of 31 ha and 53 million tonnes of kimberlite. Five coreholes were completed on Kimberlite 134 as part of the westward extending pattern of holes to map the relationship of the Star Kimberlite to the geology and diamond content of Kimberlite 134. A total of 474.35 m of kimberlite was intersected in 1,134.0 m of drilling with individual kimberlite intervals ranging from 40.7 to 145.1 m. Finer grained kimberlite was encountered in four of the boreholes while a coarser, more prospective unit was logged in the northern vent-proximal hole. Table 67 shows a summary of drilling results to July 21, 2005 and Figure 38 shows the location of completed drillholes on Kimberlite 134.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
134-05-002C	102.50	102.80	145.10	145.10	1	145.10	264.0
134-05-003C	105.00	114.80	75.95	75.95	1	75.95	198.0
134-05-004C	103.10	106.40	100.00	100.00	1	100.00	240.0
134-05-005C	not cored	102.00	112.60	112.60	1	112.60	243.0
134-05-006C	not cored	119.70	40.70	40.70	1	40.70	189.0
134 Total:						**474.35**	**1,134.0**

Table 67: Preliminary Core Drilling Summary for Kimberlite Body 134

9.2.18.1.3 Kimberlites 145 and 219

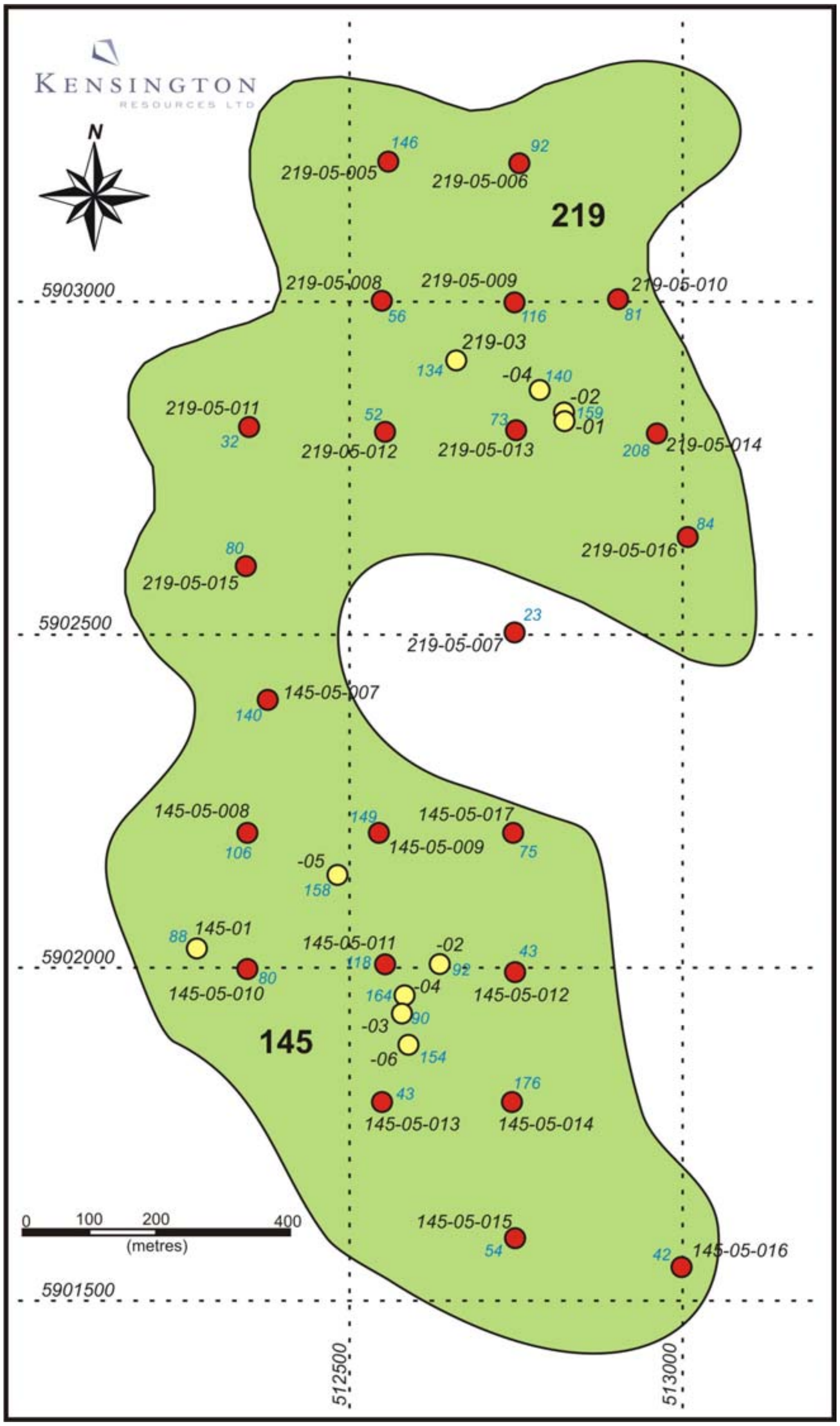
Kimberlites 145 and 219 are located between Kimberlites 140/141 to the south and Kimberlite 148 to the north, all very close to the centre of the south cluster. The body has an estimated size of 103 ha and 178 million tonnes of kimberlite. Drilling on adjoined high-priority kimberlites targets 219 and 145 is complete. Eleven coreholes were completed on Kimberlite 145 with a combined kimberlite intersection of 1,027.47 m from 2,503.0 m drilled. Twelve coreholes were completed on Kimberlite 219 with a combined kimberlite intersection of 1,043.53 m from 2,723.6 m drilled. Kimberlite intersections ranged from 22.85 to 208.09 m in thickness although the 22.85 metre interval of kimberlite was encountered in a drillhole targeted between the two bodies, but east of a narrow ridge of kimberlite that bridges the kimberlites with thicknesses ranging from ~70 to 140 m. Both bodies show oblong areas of thickness oriented to the northwest and mimicking the primary linear trends throughout the main kimberlite field. These oblong areas tend to have thicker kimberlite units that are coarser grained and generally more prospective from a core logging point of view. All discrete kimberlite units in these two bodies will be tested as well as the thicker bridge of kimberlite joining then on the western side. Much of the bridge of kimberlite appears more similar to units in 145. Tables 68 and 69 show summaries of drilling results to July 21, 2005 for Kimberlites 145 and 219, respectively. Figure 39 shows the location of completed drillholes on both of these bodies.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
145-05-007C	105.00	134.90	140.50	140.50	1	140.50	279.0
145-05-008C	105.60	105.60	214.80	74.50	2	105.70	249.0
145-05-009C	103.30	103.30	279.00	147.50	3	149.40	279.0
145-05-010C	103.57	103.57	197.26	35.48	4	80.50	216.0
145-05-011C	106.30	106.30	232.00	111.75	3	117.95	237.0
145-05-012C	110.50	110.50	153.30	42.80	1	42.80	159.0
145-05-013C	106.64	106.64	150.00	43.36	1	43.36	180.0
145-05-014C	111.50	111.50	176.50	176.50	1	176.50	312.0
145-05-015C	102.75	102.75	53.58	53.58	1	53.58	189.0
145-05-016C	99.00	99.00	159.30	33.25	2	41.68	183.0
145-05-017C	105.00	105.00	193.75	72.65	2	75.50	220.0
145 Total:						**1,027.47**	**2,503.0**

Table 68: Preliminary Core Drilling Summary for Kimberlite Body 145

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
219-05-005C	104.00	104.00	285.35	128.40	3	146.35	291.0
219-05-006C	108.23	108.23	195.88	33.25	4	91.50	222.0
219-05-007C	120.85	120.85	152.30	17.15	2	22.85	180.0
219-05-008C	109.10	109.10	167.10	51.30	2	56.20	198.0
219-05-009C	106.90	106.90	223.80	116.90	1	116.90	249.0
219-05-010C	105.40	105.40	192.69	77.38	3	80.96	231.0
219-05-011C	not cored	102.87	135.00	32.13	1	32.13	165.0
219-05-012C	103.67	105.32	189.24	36.08	3	51.73	201.0
219-05-013C	102.90	102.90	188.94	71.00	2	72.77	205.6
219-05-014C	105.33	105.33	316.31	199.13	2	208.09	324.0
219-05-015C	96.30	120.80	221.65	71.00	3	79.75	244.0
219-05-016C	105.70	110.40	194.70	84.30	1	84.30	213.0
219 Total:						**1,043.53**	**2,723.6**

Table 69: Preliminary Core Drilling Summary for Kimberlite Body 219



Map Key:
Green Shapes = Interpreted kimberlite body outline to a ~30 metre thickness cut-off based on integrated geophysics and kimberlite intervals in drillhole
Red Dots = Drillhole locations drilled or planned for the 2005 Program
Yellow Dots = Historical drillholes on Joint Venture kimberlites
Blue Numbers = Total kimberlite thickness (m) in that drillhole.

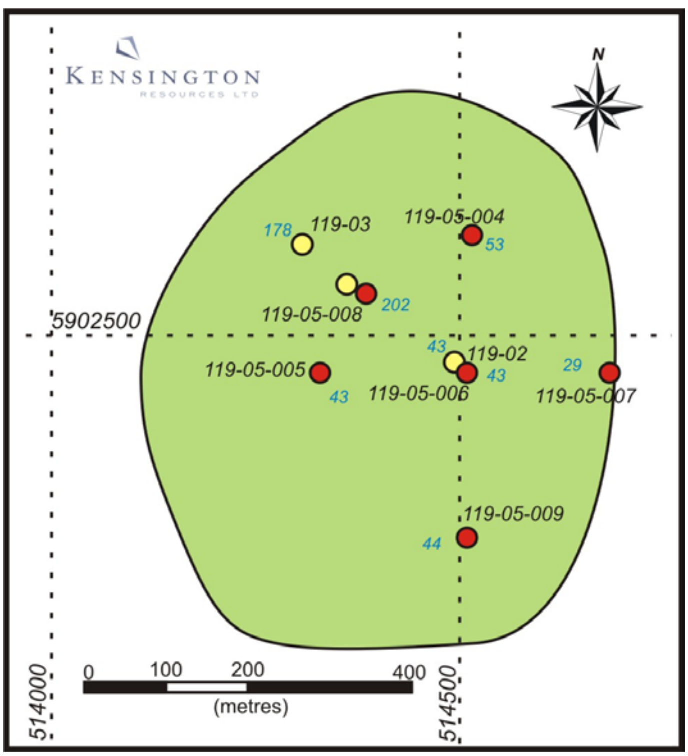
Figure 39: Drillhole Map for Kimberlite Bodies 145 and 219

9.2.18.1.4 Kimberlite 119

Kimberlite 119 is located on the eastern side of the south cluster. The body has an estimated size of 34 ha and 59 million tonnes of kimberlite. The 2005 drillholes intersected 2 main kimberlite units. The older and deeper unit is typically medium-grained and weakly bedded to massive. This unit thickens towards the south of the body. A shallower and younger unit is generally massive and fine- to medium-grained, but becomes medium- to coarse-grained near to the postulated vent around corehole 119-05-008C. The two units are separated by a thin shaly mudstone horizon and/or a mudstone rich kimberlite breccia. Neither of the main kimberlite units are thought to be highly prospective at this time. Table 70 shows a summary of drilling results to July 21, 2005 for Kimberlite 119. Figure 40 shows the location of completed drillholes on this body.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
119-05-004C	107.04	107.04	186.29	52.25	2	52.79	195.0
119-05-005C	not cored	111.00	158.60	39.00	2	43.20	189.0
119-05-006C	119.70	119.93	162.50	42.57	1	42.57	192.0
119-05-007C	119.30	126.40	192.80	17.60	3	29.30	219.0
119-05-008C	not cored	111.0	313.34	202.34	1	202.34	316.0
119-05-009C	not cored	111.0	185.20	34.50	4	44.60	213.0
119 Total:						**414.80**	**1,324.0**

Table 70: Preliminary Core Drilling Summary for Kimberlite 119

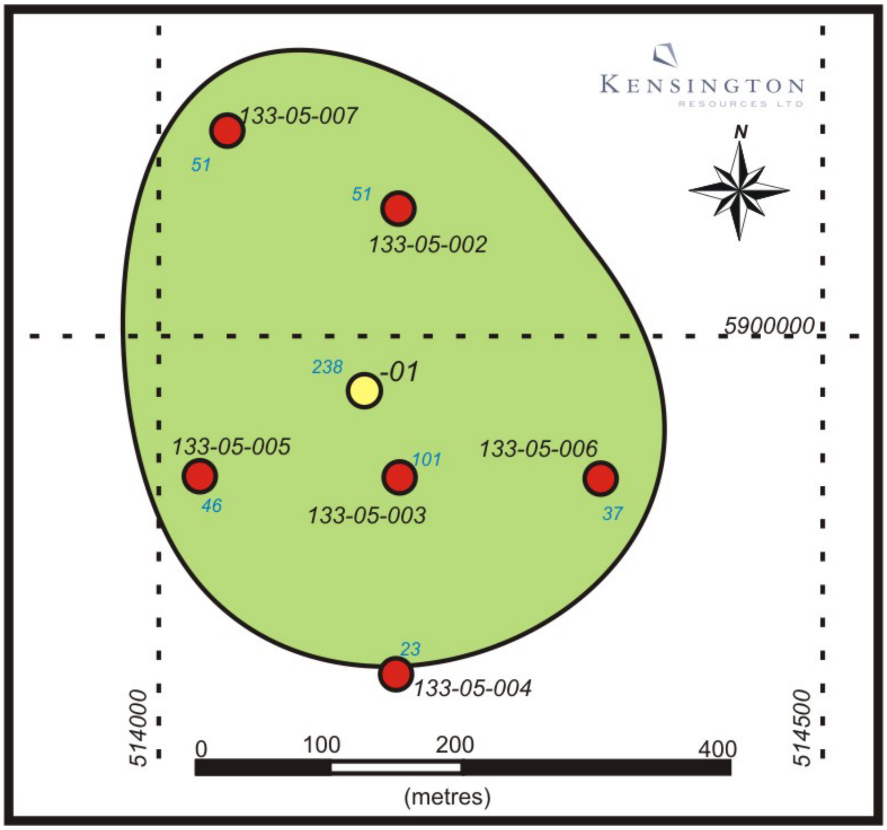


Map Key:
Green Shapes = Interpreted kimberlite body outline to a ~30 metre thickness cut-off based on integrated geophysics and kimberlite intervals in drillhole
Red Dots = Drillhole locations drilled or planned for the 2005 Program
Yellow Dots = Historical drillholes on Joint Venture kimberlites
Blue Numbers = Total kimberlite thickness (m) in that drillhole.

Figure 40: Drillhole Map for Kimberlite Body 119

9.2.18.1.5 Kimberlite 133

Kimberlite 133 is located near the eastern end of the south cluster and is adjacent to the east side of Kimberlite 140/141. The body has an estimated size of 25 ha and 43 million tonnes of kimberlite. Kimberlite 133 consists of at least three discrete kimberlite units. An older medium- to coarse-grained unit up to seven metres thick, and located at depth, is separated from the main, younger kimberlite by a substantial thickness of in-situ mudstone. The main kimberlite is dominantly fine-grained, but has some medium- to coarse-grained beds below a depth of 155 m. The upper part of two drillholes in the north part of the body, close to the eastern edge of Kimberlite 140/141, show a more prospective medium- to coarse-grained unit with thin breccia horizons that appear similar to the potentially economic Joli Fou beds of 140/141. Table 71 shows a summary of drilling results to July 21, 2005 for Kimberlite 133. Figure 41 shows the location of completed drillholes on this body.



Map Key:
Green Shapes = Interpreted kimberlite body outline to a ~30 metre thickness cut-off based on integrated geophysics and kimberlite intervals in drillhole
Red Dots = Drillhole locations drilled or planned for the 2005 Program
Yellow Dots = Historical drillholes on Joint Venture kimberlites
Blue Numbers = Total kimberlite thickness (m) in that drillhole.

Figure 41: Drillhole Map for Kimberlite Body 133

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
133-05-002C	115.98	115.98	194.45	45.02	2	51.43	219.0
133-05-003C	not cored	113.28	231.80	90.36	4	100.74	261.0
133-05-004C	115.45	143.70	200.17	11.60	3	23.44	228.0
133-05-005C	125.51	125.51	195.16	34.81	2	46.25	213.0
133-05-006C	not cored	136	199.70	31.90	2	36.90	228.0
133-05-007C	not cored	117	194.70	33.40	4	50.90	213.0
133 Total:						**309.66**	**1,362.0**

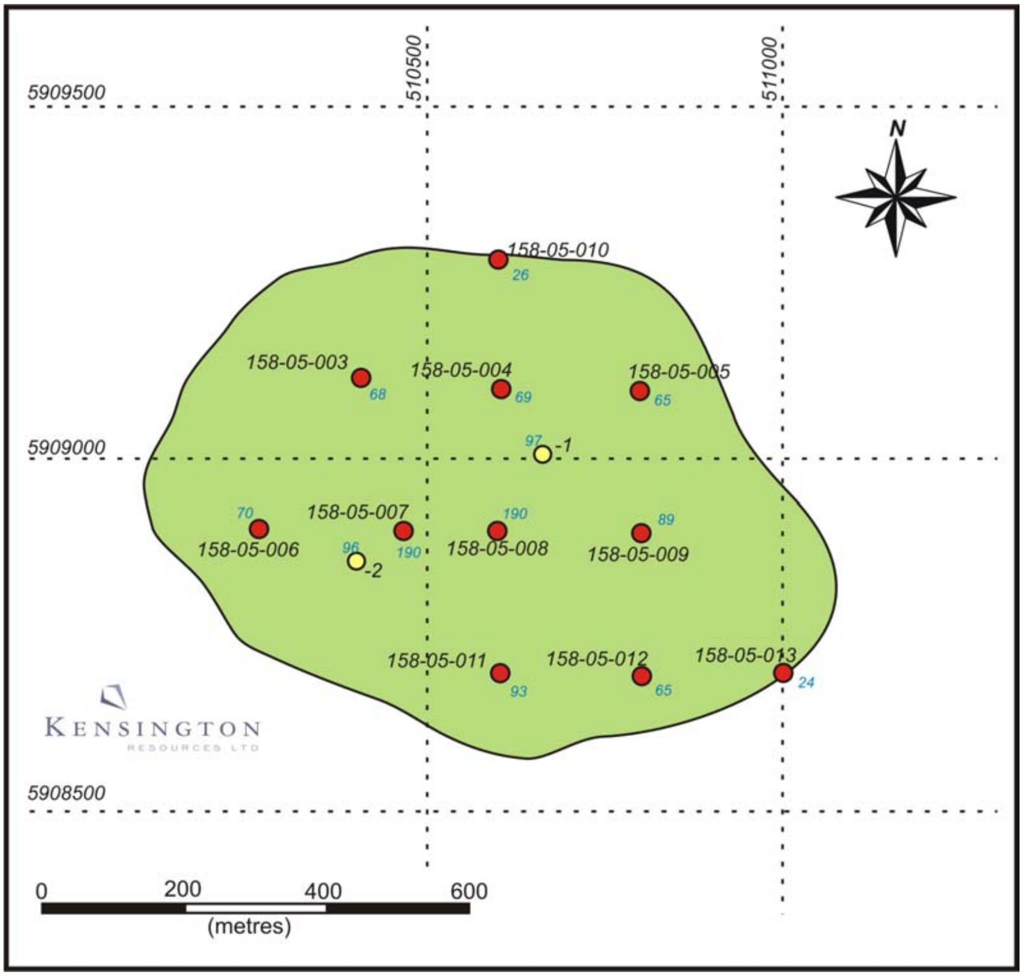
Table 71: Preliminary Core Drilling Summary for Kimberlite 133

9.2.18.1.6 Kimberlite 158

Kimberlite 158 is located approximately 13 kilometres north of the centre of the south cluster. The body has an estimated size of 58 ha and 100 million tonnes of kimberlite. Eleven coreholes were completed in 2005 in a rough 200 metre grid. Two historical holes were drilled, neither of them core holes. Two of the central 2005 coreholes intersected over 190 m of coarser grained, more prospective kimberlite with common indicator minerals such as ilmenite and garnet, and the occurrence of rare mantle xenoliths. Kimberlite intersections in surrounding holes thin outwards and become finer grained towards the margins of the body. The eastern flank remains moderately coarser grained over a broader distance to an approximate thickness of 60 m compared to rapid thinning to <40 m in all other directions. Table 72 shows a summary of drilling results to July 21, 2005 for Kimberlite 158. Figure 42 shows the location of completed and planned drillholes on this body.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
158-05-003C	113.41	113.41	213.92	31.07	4	68.47	234.0
158-05-004C	114.68	114.68	197.40	36.22	3	68.82	222.0
158-05-005C	120.17	120.17	203.46	32.75	4	65.04	240.0
158-05-006C	114.50	114.50	210.70	41.50	3	70.10	246.0
158-05-007C	113.85	114.15	304.40	190.25	1	190.25	312.0
158-05-008C	113.50	113.50	303.60	190.10	1	190.10	313.0
158-05-009C	115.62	115.62	217.88	63.98	2	89.06	249.0
158-05-010C	118.73	118.73	145.26	26.53	1	26.53	186.0
158-05-011C	116.60	116.50	209.60	93.10	1	93.10	232.5
158-05-012C	not cored	120.00	206.90	60.45	2	64.55	222.0
158-05-013C	124.87	124.87	154.50	23.50	2	24.30	186.0
158 Total:						**950.32**	**2,642.5**

Table 72: Preliminary Core Drilling Summary for Kimberlite 158



Map Key:
Green Shapes = Interpreted kimberlite body outline to a ~30 metre thickness cut-off based on integrated geophysics and kimberlite intervals in drillhole
Red Dots = Drillhole locations drilled or planned for the 2005 Program
Yellow Dots = Historical drillholes on Joint Venture kimberlites
Blue Numbers = Total kimberlite thickness (m) in that drillhole.

Figure 42: Drillhole Map for Kimberlite Body 158

9.2.18.1.7 Kimberlite 216

Kimberlite 216 is located in the eastern limb of the south cluster and adjacent to the southwest margin of Kimberlite 140/141. Together 216 and the contiguous Kimberlite 116 have an estimated size of 99 ha and 171 million tonnes of kimberlite. Twelve drillholes were completed plus a thirteenth which was terminated above kimberlite due to drilling difficulties. Two coreholes were inclined at -60 degrees and oriented at azimuth 090 degrees in order to test the eastern margin of the 216 kimberlite, which resides beneath wet surficial conditions. Corehole 216-05-013C intersected 138.7 m of dominantly very fine- to fine-grained kimberlite and minor abundance of indicator minerals, garnet and ilmenite. Other kimberlite intervals to the west, south, and east of this are considerably thinner and also show common very fine- to fine-grained kimberlite. Table 73 shows a summary of drilling results to August 31, 2005 for Kimberlite 216. Figure 43 shows the location of completed drillholes on this body and Kimberlite 116.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
216-05-004C	not cored	114.00	187.10	42.10	3	51.90	204.0
216-05-005C	not cored	108.00	294.00	186.00	1	186.00	309.0
216-05-006C	not cored	118.10	180.90	57.60	2	61.10	210.0
216-05-007C	120.10	120.10	162.45	42.35	1	42.35	201.0
216-05-008C	not cored	123.00	209.13	181.93	3	54.57	225.0
216-05-009C[2]	not cored	n/a	n/a	n/a	n/a	n/a	105.0
216-05-010C[1]	not cored	126.00	237.85	111.85	1	111.85	243.0
216-05-011C	114.50	142.20	184.95	42.75	1	42.75	219.0
216-05-012C	118.80	118.80	158.30	39.50	1	39.50	192.0
216-05-013C	111.00	112.44	251.13	138.69	1	138.69	264.0
216-05-014C[1]	120.60	120.60	228.00	96.58	2	103.31	228.0
216-05-015C	not cored	120.00	162.80	42.80	1	42.80	198.0
216-05-016C[3]	not cored	120.00	312.00	177.00	2	180.00	312.0
216 Total:						**1,054.82**	**2,910.0**

[1] = Coreholes 216-05-014C and 04-216-010C were inclined at -60 degrees to investigate the wet, eastern part of Kimberlite 216; lithological contacts and thicknesses have not yet been corrected for the dip of the hole;
[2] = Corehole 216-05-009C was lost at a depth of 105 m above kimberlite due to drilling difficulties;
[3] = Corehole 216-05-016C was terminated at a depth of 312 m in kimberlite due to drilling difficulties.

Table 73: Preliminary Core Drilling Summary for Kimberlite 216

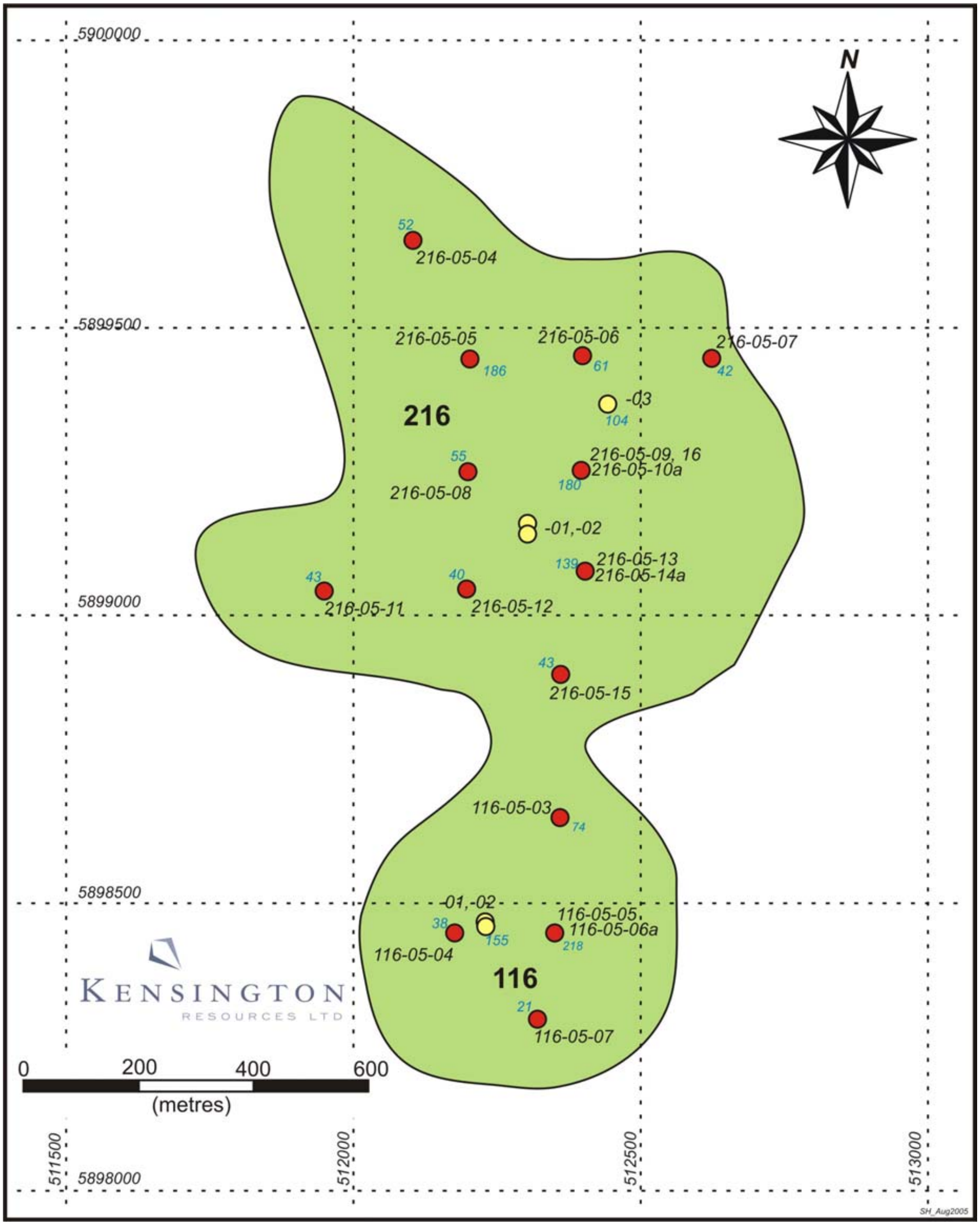
9.2.18.1.8 Kimberlite 116

Kimberlite 116 is located in the eastern limb of the south cluster and adjacent to the southwest margin of Kimberlite 140/141. Five drillholes were completed. One corehole was inclined at -60 degrees and oriented at azimuth 090 degrees in order to test the eastern margin of the 116 kimberlite, which resides beneath wet surficial conditions. Table 74 shows a summary of drilling results to August 31, 2005 for Kimberlite 116. Figure 43 shows the location of completed drillholes on Kimberlite 116.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
116-05-003C	not cored	108.00	181.60	73.60	1	73.60	213.0
116-05-004C	not cored	125.85	163.90	38.05	1	38.05	192.0
116-05-005C	not cored	105.00	323.30	218.30	1	218.30	330.0
116-05-006C[1]	not cored	114.00	239.40	125.40	1	125.40	246.0
116-05-007C	not cored	136.40	159.50	17.98	2	20.52	186.0
116 Total:	not cored					**475.87**	**1,167.0**

[1] = Coreholes 116-05-006C was inclined at -60 degrees to investigate the wet, eastern part of Kimberlite 116, depths and thicknesses are apparent and have not been converted to true at this time.

Table 74: Preliminary Core Drilling Summary for Kimberlite 116



Map Key:
Green Shapes = Interpreted kimberlite body outline to a ~30 metre thickness cut-off; Blue Numbers = Total kimberlite thickness (m) in that drillhole; Red Dots = Drillhole locations drilled in the 2005 Program; Yellow Dots = Historical drillholes on Joint Venture kimberlites

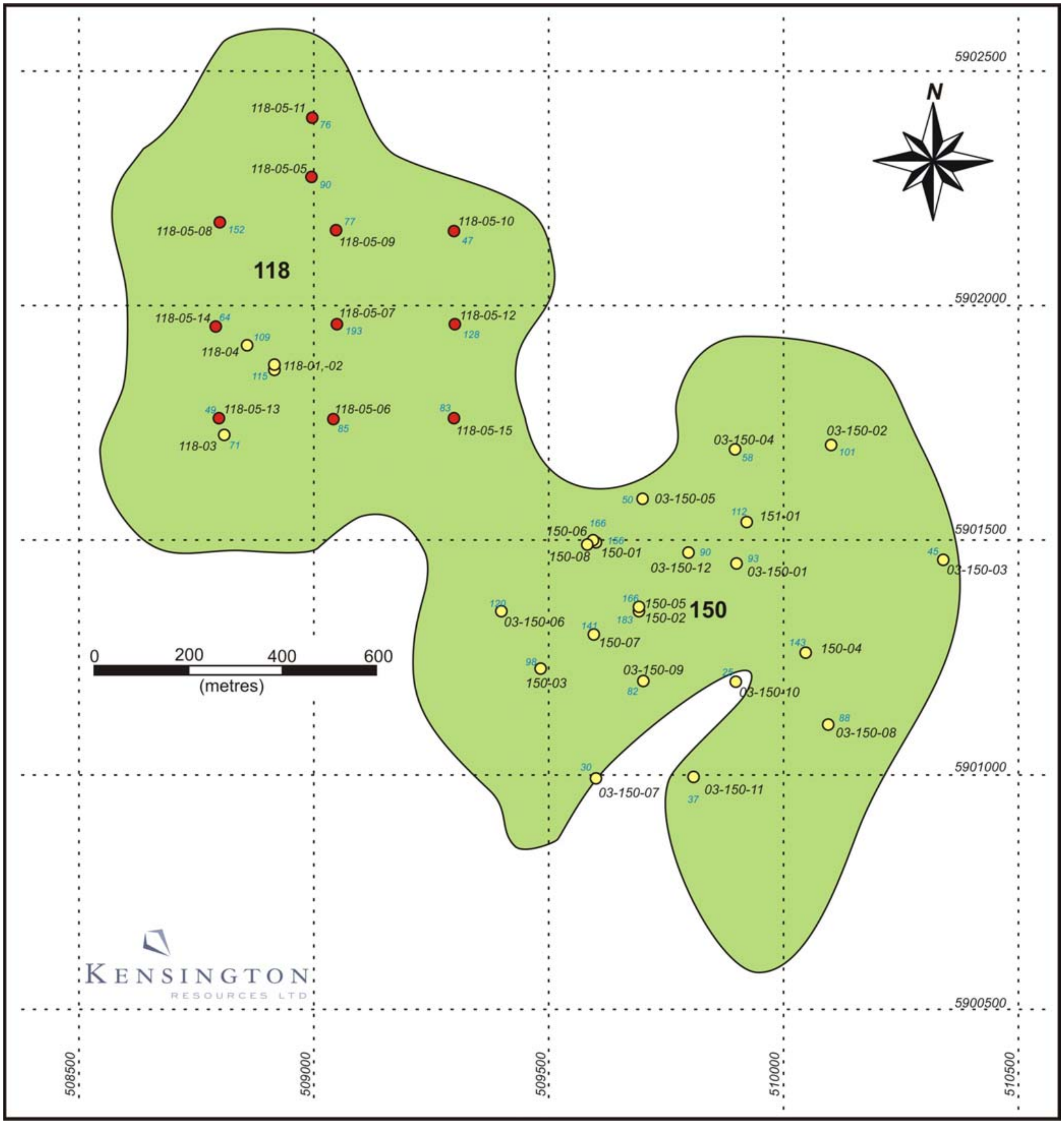
Figure 43: Drillhole Map for Kimberlite Bodies 216 and 116

9.2.18.1.9 Kimberlite 118

Kimberlite 118 is located near the centre of the south cluster. The body has an estimated size of 77 ha and 133 million tonnes of kimberlite. Eleven coreholes have been completed in a rough 200 – 300 metre grid. Four historical drillholes were drilled, two of them coreholes, one a reverse circulation hole, and one prematurely terminated in overburden. Five of the holes (three in 2005, and 2 historical) intersected >100 m of kimberlite that together form an elongate deeper-going trend oriented to the northwest. While many of the kimberlite intersections show medium-grained character, the central four holes have significant intervals of medium- to coarse-grained kimberlite and appear to be more prospective. Table 75 shows a summary of drilling results to August 31, 2005 for Kimberlite 118. Figure 44 shows the location of completed drillholes on this body.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
118-05-005C	not cored	not cored, < 105	194.96	89.96	1	89.96	225.0
118-05-006C	not cored	114.00	211.19	65.95	4	85.49	237.0
118-05-007C	not cored	102.00	294.95	192.95	1	192.95	300.0
118-05-008C	122.20	127.80	280.17	152.37	1	152.37	291.0
118-05-009C	not cored	108.20	185.10	76.90	1	76.90	201.0
118-05-010C	not cored	114.53	161.95	47.42	1	47.42	189.0
118-05-011C	106.10	106.10	181.80	75.70	1	75.70	210.0
118-05-012C	not cored	102.0	229.70	127.70	1	127.70	240.0
118-05-013C	not cored	114.00	162.60	48.60	1	48.60	192.0
118-05-014C	not cored	120.00	184.10	64.10	1	64.10	213.0
118-05-015C	108.80	108.80	191.85	83.05	1	83.05	222.0
118 Total:						**1,044.24**	**2,526.0**

Table 75: Preliminary Core Drilling Summary for Kimberlite 118



Map Key:
Green Shapes = Interpreted kimberlite body outline to a ~30 metre thickness cut-off based on integrated geophysics and kimberlite intervals in drillhole
Red Dots = Drillhole locations drilled or planned for the 2005 Program
Yellow Dots = Historical drillholes on Joint Venture kimberlites
Blue Numbers = Total kimberlite thickness (m) in that drillhole.

Figure 44: Drillhole Map for Kimberlite Body 118 and Kimberlite Body 150

9.2.18.1.10 Kimberlite 218

Kimberlite 218 is located in the western limb of the south cluster 3 kilometres southeast of Kimberlite 122. The body has an estimated size of 26 ha and 45 million tonnes of kimberlite. Six coreholes have been completed. There is only one historical drillhole; this was a reverse circulation hole drilled in 1994. Corehole 218-05-002C intersected predominantly fine- to medium-grained kimberlite units of low interest. Corehole 218-05-003C intersected 236.25 m of kimberlite with two minor intervals of possibly slumped, kimberlite-infused host rock blocks. The upper 48 m of this interval is very very fine- to fine-grained and of low prospectivity. Kimberlite units below this are typically fine- to medium-grained and are considered more prospective. Given the very thick interval of kimberlite, this drillhole is possibly located within the margin of a feeder vent for the body. Interestingly, a relatively thin, 56 metre interval of kimberlite in corehole 218-05-04C located in the centre of the body separates two kimberlite core intersections of >100m to the northwest and to the southwest and may indicate the presence of two separate eruptive vents.

Table 76 shows a summary of drilling results to August 31, 2005 for Kimberlite 218. Figure 45 shows the location of completed and planned drillholes on this body and for Kimberlite 152. Core drilling will begin on Kimberlite 152 in the near future.

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
218-05-002C	133.30	133.30	175.96	42.66	1	42.66	207.0
218-05-003C	not cored	144.00	395.95	142.40	3	236.25	423.0
218-05-004C	123.30	123.80	180.00	56.20	1	56.20	216.0
218-05-005C	126.80	141.00	210.00	69.00	1	69.00	237.0
218-05-006C	123.35	130.55	248.70	101.77	2	112.01	264.0
218-05-007C	127.40	127.40	254.50	127.10	1	127.10	258.0
218 Total:						**643.22**	**1,605.0**

Table 76: Preliminary Core Drilling Summary for Kimberlite 218

Map Key:
Green Shapes = Interpreted kimberlite body outline to a ~30 metre thickness cut-off based on integrated geophysics and kimberlite intervals in drillhole
Red Dots = Drillhole locations drilled or planned for the 2005 Program
Yellow Dots = Historical drillholes on Joint Venture kimberlites
Blue Numbers = Total kimberlite thickness (m) in that drillhole.

Figure 45: Drillhole Map for Kimberlite Body 218 and 152

9.2.18.1.11 Kimberlite 123

Kimberlite 123 is located 3.5 kilometres northwest of the drilling camp. The body has an estimated size of 45 ha and 53 million tonnes of kimberlite. Two of six planned coreholes have been completed to date. Three historical holes were drilled including one corehole, one rotary, and one large diameter reverse circulation drillhole. All three drillholes intersected between 84 and 90 m of kimberlite with total recovery of 7 macrodiamonds weighing cumulative 0.132 carats and 15 microdiamonds. The two 2005 coreholes completed to date intersected 60 and 89 m of prospective medium to coarse-grained kimberlite. Table 77 shows a summary of drilling results to August 31, 2005 for Kimberlite 123. Figure 46 shows the location of planned drillholes on this body and for Kimberlites 123 and 223.

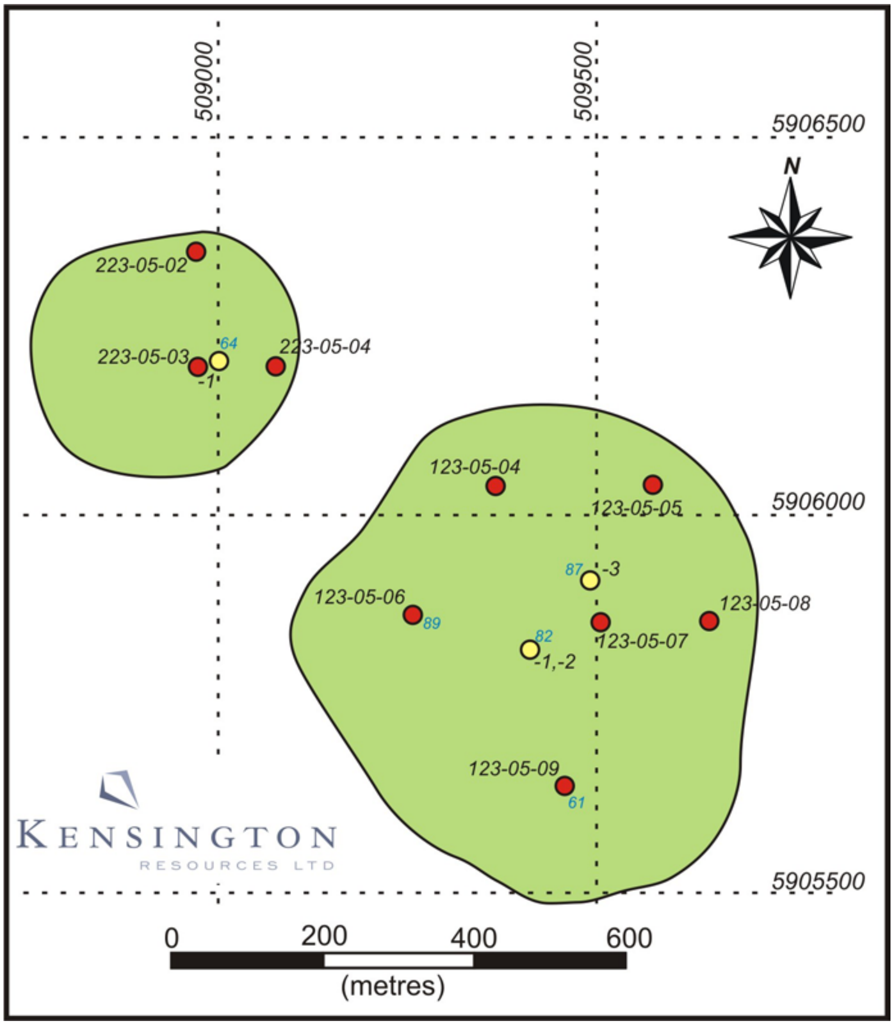


Figure 46: Drillhole Map for Kimberlite Body 123 and 223

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
123-05-006C	not cored	105.00	193.50	88.50	1	88.50	222.0
123-05-009C	103.30	103.30	163.85	60.55	1	60.55	183.0
123 Total:						**149.05**	**405.0**

Table 77: Preliminary Core Drilling Summary for Kimberlite 123 (drilling in progress)

9.2.18.1.12 Kimberlite 135

Kimberlite 135 is located 5 kilometres southeast of the drilling camp. The body has an estimated size of 35 ha and 60 million tonnes of kimberlite. Five of six planned coreholes have been completed to date. Only one historical rotary drillhole was completed 1996. Eleven samples were tested for diamond content with only one microdiamond recovered from 52.8 kg of kimberlite. The 2005 drillholes intersected between 29 and 142 m of kimberlite. Core logging for this body is underway and will be reported once all drillholes are completed. Table 78 shows a summary of drilling results to August 31, 2005 for Kimberlite 135. Figure 47 shows the location of completed and planned drillholes on this body.

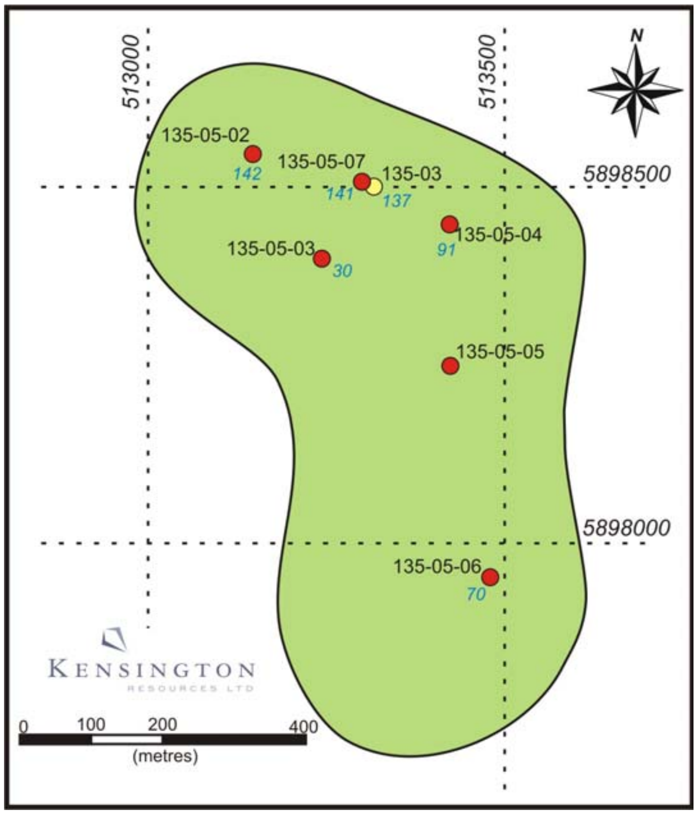


Figure 47: Drillhole Map for Kimberlite Body 135

Drillhole Name	Base of Till (m)	Top of First Kimberlite (m)	Base of Last Kimberlite (m)	Thickness of Main Kimberlite (m)	Number of Kimberlite Units	Total Thickness of Kimberlite Intervals (m)	End of Hole (m)
135-05-002C	not cored	137.10	279.00	141.90	1	141.90	279.00
135-05-003C	120.40	139.53	169.40	29.87	1	29.87	198.35
135-05-004C	not cored	141.00	242.80	54.10	2	91.20	258.00
135-05-006C	not cored	128.72	198.23	69.51	1	69.51	213.00
135-05-007C	not cored	120.00	289.17	134.40	3	141.34	312.00
135 Total:						**473.82**	**1,260.35**

Table 78: Preliminary Core Drilling Summary for Kimberlite 135 (drilling in progress)

10.0 Drilling

Drilling has been conducted at Fort à la Corne since 1989 and has totaled some 349 holes up to 2004 into 69 proven kimberlite bodies using a wide range of drilling techniques. Early drilling utilized conventional rotary or small diameter reverse circulation methods. Core drilling was done extensively in 1993 and 1994, and larger diameter reverse circulation drilling has been used since 1994. Underreaming was used to enlarge drillholes in 1993 and 1997. Reverse flood drilling at 610 mm diameter has been conducted since 2000 and a 914 mm version in 2002 and 2004. Methodologies for conducting reverse circulation drilling have evolved significantly since the early 1990's primarily in attempts to optimize drilling chip product and to minimize potential for diamond damage.

Drill product has been used for all geochemical, mineralogical, and diamond recovery. Extensive indicator mineral chemistry data are available for many kimberlites, and microdiamond samples have been analyzed for most kimberlites. Macrodiamond sampling has been done on roughly half of the kimberlites in the field, particularly those with microdiamond contents.

Due to the changing nature of drilling programs over a long period of time (1989-2004), a description of drilling and sampling programs for each year is included in the Exploration section. The reader specifically is directed to the section concerning prioritization of kimberlites and an evaluation of all data and information from 1989 to 1999 investigated during a desktop study in 2000.

11.0 Sampling Method and Approach

Diamond recovery information and results for each drillhole and kimberlite are recorded in tabular form. De Beers (Mineral Resource Management) and independent consultants/experts use this data for grade calculation exercises and prediction of stone sizes. For some bodies, microdiamond data are relatively sparse, sometimes being derived from a single drillhole, and represent the only diamond data (macro or micro) available for a given body. Due to the changing nature of drilling programs over a long period of time (1989-2002), a description of drilling and sampling programs for each year is included in the *Exploration* section.

11.1 Grab Samples for Recovery of Microdiamonds and Indicator Minerals

More than 18,000 kg of kimberlite comprising over 1,200 samples have been analyzed for microdiamonds on a project-wide basis, and some 9,000 stones have been recovered. Samples have been treated in four main facilities: Kimberley Microdiamond Lab (KMDL), Anglo American Research Lab (AARL), SRC, and Lakefield Research. In general, all labs except AARL utilized similar bottom screen cut-points (74 or 75 microns) and results were reported and compiled in standard sieve size ranges. Typically, microdiamonds were recovered utilizing caustic fusion/caustic dissolution methods, although, rarely microdiamonds (to 150 microns bottom cut-off) were recovered along with indicator minerals using jigging methods.

Kimberlite samples derived from chip material were methodically collected as representative grab samples from the stream of kimberlite over the shaker table. Samples collected from core material were assembled by collecting representative whole core pieces over set intervals. Only one corehole was first slabbed and then sampled; this was PQ corehole 141-39 which was drilled and sampled during 2002-2003. Choice of sample interval for the microdiamond and indicator mineral recovery changed over the course of the project. During the first three years of the project, sample intervals ranged from a few metres to covering the entire thickness of kimberlite intersected in the drillhole. From 1993 to 1999, sample intervals were variable and primarily based on lithological contacts. After 1999, samples for microdiamond recovery were selected from representative intervals of core only.

In 2003, the Joint Venture partners constructed a core slabbing facility in Saskatoon to accommodate the larger number of core drilled. Samples were first logged, then the selected or entire kimberlite intervals slabbed longitudinally. In this way, a permanent record of the kimberlite interval is maintained for future comparison, thin-sectioning, and geochemical sampling.

Diamond recovery information and results for each drillhole and kimberlite are recorded in tabular form. De Beers (Mineral Resource Management Department or MRM) and independent consultants/experts use this data for grade calculation exercises and prediction of stone sizes. For some bodies, microdiamond data are relatively sparse, sometimes being derived from a single drillhole, and represent the only diamond data (macro or micro) available for a given body.

11.2 Samples for Recovery of Macrodiamond

Macrodiamond samples have been collected within the project area since 1989. Bottom screen processing cutoffs have generally varied between 0.85 mm and 1.5 mm. Samples have been taken from a range of drill products including core, rotary drill chips, and reverse circulation drill chips.

Kimberlite samples derived from chip material were methodically collected in plastic mesh bags after sizing on shaker tables to remove undersize material. Samples collected from core material were crushed prior to diamond recovery. Choice of sample interval for the microdiamond and indicator mineral recovery changed over the course of the project. During 1993 and 1994, several variably thick samples were taken from each drillhole intersection of interest with some samples covering over 100 m of kimberlite. From 1995 – 1999, sample intervals were tied to interpreted lithofacies boundaries, and then from 2000 onwards to more consistent, 6 or 12 metre intervals that were either keyed to drill rod use or a uniform datum within the kimberlite.

11.3 Representative Samples from Core

Prior to 2003, core was only selectively slabbed for collection of archive or petrographic samples. Most samples for diamond recoveries were collected as broken or whole sections of core. Also, sample intervals were defined by depth (keyed to a datum) and may have crossed lithological contacts. Some samples were taken as grabs from intervals covering 10's of metres.

In 2003, core was methodically slabbed longitudinally prior to sampling. At present, the sampling strategy for diamond recovery utilizing caustic dissolution methods is based on collection of representative material from within boundaries marking lithological contacts. Samples are made up to a maximum of 8 kg each and closed with numbered seals that cannot be tampered with. In addition, during 2003, samples of slabbed core measuring up to 40 cm long were collected for archiving and future petrographic studies. The number of samples collected per drillhole is a function of several factors including:

-budgetary considerations for the diamond recovery program
-number of discrete phases present in the drillhole and in the kimberlite as a whole (complexity of geology)
-thickness of intersection and discrete kimberlite phases
-estimate of diamonds required for further evaluation

12.0 Sample Preparation, Analyses and Security

Sample preparation in advance of the lab was minimal and typically consisted only of drying the material. Samples were collected and prepared by contract and permanent employees of the project field management or operators.

Detailed descriptions of analytical work for a wide range of diamond and indicator mineral recovery procedures are not included in this document, but are available upon request or in a much summarized form in Lehnert-Thiel *et. al.* (1992) and Jellicoe *et. al.* (1998).

Security on-site during collection of samples was minimal during 1998 to 1999. Security protocols were implemented during 2000 and have been expanded since to minimize any probability of diamond theft or salting. These measures typically involve restricting or minimizing access to the shaker table during sample collection. In addition, security tags and visual inspections of bag security were standardized and documented in chain of custody documents.

All diamond recovery was conducted in secure facilities with varying degrees of anti-theft or anti-contamination measures. Facilities located in Canada that were utilized for the 1989, 1990, 1991, and 1996 programs had minimal to moderate levels of security. Diamond recoveries conducted by De Beers invariably involved moderate to very high levels of security designed to minimize human contact with diamond-bearing concentrates and diamonds. De Beers' lab facilities are now in compliance with ISO 17025 accreditation standards.

A wide variety of microdiamond recovery facilities have been used over the course of the project since 1989. The primary verification for microdiamond recovery is to monitor the stones for loss due to dissolution in the caustic medium and by running additional aliquots from the sample interval. These measures were employed throughout the project.

A number of verification routines for assessing drilling damage and processing integrity have been utilized during macrodiamond recovery procedures. The main types of audits and quality control measures are listed below including the program years in which they apply:

- Downhole tracer studies to monitor recovery and diamond damage; 1997 and 1999 reverse circulation drilling programs
- Density tests during DMS concentration; all macrodiamond recoveries by De Beers
- Re-run of DMS tailings; all macrodiamond recoveries by De Beers
- Re-run of x-ray sortex tailings; 1990 and 1991, 1997 onwards for all macrodiamond recoveries by De Beers
- Jigging tracers; macrodiamond recovery by the SRC in 1996
- Grease table diamond tracers; De Beers recovery from 1992-1997
- X-ray sorter tracers; 1990 and 1991, 1997 onwards for all macrodiamond recoveries by De Beers
- Hand-picking of tails from x-ray sorting; primarily 1999 onwards by De Beers facilities
- Hand-picking of separated magnetic fraction; primarily 1999 onwards by De Beers facilities
- Full independent audit of diamond recovery facilities and procedures utilized in South Africa and Alberta, Canada during 2001 by MPH, an engineering firm located in South Africa
- Inspection and monitoring of DMS and final diamond recovery facilities in South Africa and Alberta, Canada by personnel of Kensington Resources Ltd. during processing of 2001, 2002, and 2004 samples. Independent audits of the De Beers' macrodiamond recovery facilities in Johannesburg, South Africa were completed during processing of samples from the 2002 and 2004 programs.

13.0 Data Verification

Quality assessment and quality control of the diamond recovery procedures for microdiamond and macrodiamond recoveries were the responsibility of the individual labs utilized, as described in the preceding section. Monitoring of the QA and QC programs by the operator (De Beers Canada Inc., in particular), field program management teams, and project managers was inherent in the news release process and vetting procedures developed within the FalC-Joint Venture. There have not been any significant failures in data verification.

14.0 Adjacent Properties

No information is reported from work conducted on adjacent properties.

15.0 Mineral Processing and Metallurgical Testing

A preliminary Ore Dressing Study recently was completed, but due to the general nature of the study and lack of depth, is not considered material at this time. A suite of pre-feasibility style engineering, geotechnical, and early metallurgical work has begun since the inception of the AE&E program. These lines of investigation are described in the AE&E sections of the 2004 and 2005 descriptions of activities. Any work conducted in these investigations is currently in progress and is not considered material at this time.

16.0 Mineral Resource and Mineral Reserve Estimates

Most of the kimberlite bodies identified on the FalC-JV property are considered as early to advanced exploration stage targets. Only kimberlite 140/141is in the advanced exploration/evaluation stage and as such, it remains a diamond *deposit* until sufficient grid drilling and minibulk sampling allows determination of a reasonable, low to medium confidence estimate of grade and average diamond value. Furthermore, grid drilling must be completed on the body with sufficient coverage and density so that continuity of geology and diamond distribution patterns can be resolved with a reasonable amount of assurance. Additional drilling and sampling is required on 140/141 to acquire sufficient geological representivity of the body and statistically significant quantities of diamond.

17.0 Other Relevant Data and Information

No other data and information is considered necessary at this time.

18.0 Interpretations and Conclusions

- 49 of the 69 tested (71%) bodies are diamondiferous (microdiamonds or macrodiamonds).
- 34 of the 69 (49%) kimberlites tested contain macrodiamonds. This frequency is exceptional compared to other kimberlite fields.
- A total of 2,774 macrodiamonds (minimum size of 0.85 mm in one dimension) with a cumulative weight of 347.45 carats were recovered during exploration programs conducted from 1989 to 2004; over 10,000 microdiamonds have been recovered from all kimberlites to mid 2005.
- Kimberlite body grades based on macrodiamond recovery alone range up to 7.7 cpht; these values are considered to be significantly understated due to the limited amount of minibulk sample from each body.

- Grade estimates for individual bulk samples range up to 114.44 cpht; sample intervals range from 12 to 194 m.

- Grades forecasts for commercial size stones modeled by De Beers range up to 16 cpht based on size distributions of combined microdiamonds and macrodiamonds. A total of 17 kimberlite bodies with sufficient diamond recoveries were prioritized in 2000. The best five of these bodies have been the target of various stages of advanced exploration efforts during the last 5 years, and 17 bodies within the south central cluster are currently under investigation in the first phase of the AE&E program.

- Ongoing acquisition of large minibulk samples from prioritized bodies permits preliminary revenue modeling and evaluation of the economic potential of select Fort à la Corne diamondiferous kimberlites.

- Modeled average macrodiamond values determined by De Beers for kimberlite ore from Kimberlite 122 range from $US 133 to 147 per carat; best fit to optimistic modeled revenue values range from $US 11 to 18 per tonne. These grades, values, and revenue figures are based on recovery of approximately 23.3 carats from the 122 body to date.

- Based on 2000 data only, modeled average macrodiamond values determined by De Beers for kimberlite ore from body 141 ranged from $US 148 to 179 per carat; best fit to optimistic modeled revenue values range from $US 28 to 33 per tonne. Modeled stone values and projected revenue ranges for Kimberlites 122 and 141 have low confidence levels because of low numbers of diamonds included in the evaluation.

- The largest stone recovered to date is a high value, yellow, stone weighing 10.53 carats; another high value diamond weighs 3.34 carats and has a value of $US 580/carat as determined by De Beers and WWW International Diamond Consultants; other largest stones include stones weighing 10.23, 4.09, and 3.61 carats in size.

- Interpretation of 2001 to 2002 data indicates that grades for specific parts of the 141 body are variable depending on diamond distribution and continuity of lithological facies, and that a greater degree of testing is required to substantiate grade forecasts over the entire body, and to permit higher levels of confidence in calculation of average of diamond value; evaluation of small parcels of commercial-size stones shows preliminary indications (considered low confidence until larger parcels are evaluated) that the average value of diamonds from Kimberlite140/141 range from $US 67 to 97 per carat and *Modeled Revenue* figures range up to $US 14.65 per tonne depending on the phase (or type) of kimberlite. Further work is ongoing to delineate all discrete kimberlite phases in this body and to model estimated stone distributions and revenue per tonne.

- Kimberlite body areas range from 2.7 to 250 hectares, typically based on a 30 metre thickness cut-off.

- The estimated mass of individual kimberlite bodies, based on geophysical modeling, ranges from 3 million to 675 million tonnes. The integration of 140 and 141 indicates a combined mass of 500+ million tones as derived from GEMCOM modeling, based on core drilling in 2001 and 2002 with a minimum thickness threshold of 50 m.

- Age of emplacement of the various kimberlites occurred within the interval from approximately 90-112 Ma, during Cretaceous time. The kimberlites range from simple mono-eruptive bodies to multi-eruptive, multi-vent bodies characterized by complex stacking and interlayering of multi-temporal kimberlite units. Ongoing studies of larger bodies indicate discernible vertical and areal zonation of kimberlite units and diamond distribution.

- Two of four high priority, potentially economic kimberlites (bodies 140/141, and 148,) are located within a two mile radius in the central portion of the Fort à la Corne trend; the total macro-diamondiferous kimberlite mass in this same radius (12 bodies), is some 3.6 billion tonnes. The other prioritized kimberlite, body 122, is located approximately 5 km to the west.

- The Fort à la Corne Kimberlite Field has the largest concentration of diamondiferous kimberlite in the world; the total modeled mass for the entire field is estimated at upwards of 9 billion tonnes. Kimberlite 140/141, with an estimated mass of >500 million tonnes, is the largest macrodiamond-bearing kimberlite in the world. The main objective for Kensington in this project is to delineate an economic diamond resource at Fort à la Corne using a methodical stepwise approach.

- Fort à la Corne kimberlites are best categorized as very large tonnage, lower grade diamond deposits overall, but with zones of higher grade potential.

- Overall, the kimberlites remain insufficiently tested in consideration of their large size. Only three bodies have minibulk testing for macrodiamonds to a level greater than 100 tonnes. Considerable effort and money was expended simply in order to reconnoiter the majority of kimberlite bodies in this field. Since most of the minibulk sampling efforts in the past were directed to testing to some degree, each of the 69 targets, many of the larger bodies have very limited coverage in an areal sense. Furthermore, vertical zonation has not been adequately tested in most of the existing drillholes due to large sampling intervals. Due to the prevalence of the "nugget effect" in kimberlites, average macrodiamond grades are expected to closely approach forecasted grade levels as sample tonnage increases.

- Evaluation work continues on Kimberlites 140/141, 122, and other high interest bodies in order to better understand the location, extent and, continuity of high grade zones, to determine an understanding of diamond distribution and diamond grade for mineable resources, to upgrade confidence in determination of the average value of diamonds (in $/carat) and, to determine the economic value of the body as represented by potential revenue calculations for a diamond deposit given as an in-situ diamond value in $ per tonne (as per CIM recommendations) compared to best initial estimates of capital and operating expenses.

- The first two stages involve core drilling programs on the main part of the bodies to increase the understanding of the geology (geometry and architecture) of the body and to identify higher potential zones. Higher grade zones are then delineated in order to calculate a potentially mineable tonnage. This is then followed by identifying a subset of coreholes that are suitable targets for minibulk sampling in order to test diamond distribution and to provide a representative sample of kimberlites from all prospective phases and across the vertical and areal extent of the kimberlite bodies. A final inventory of some 100 to 300 carats will enable dcetermination of a high confidence grade forecast and a moderate level of confidence in the average value of commercial sized stones. The bulk sample information coupled with the grid drilling and sampling information should be adequate for at least a determination of inferred resource over a significant part of the bodies. All lines of investigation from the AE&E will then be integrated and evaluated in order to prioritize the potentially economic targets and to reach a *go - no go* decision to proceed with a full pre-feasibility study.

- Additional work is required to satisfy two main goals for each of the priority kimberlite bodies. The AE&E encompasses a planned 43 months schedule of work to advance the project to a major decision on pre-feasibility stage work. The plan is results driven and incorporates a methodical, step-wise, 4-stage approach in the evaluation of 17 candidate kimberlite bodies for higher-grade units that have potential to be economically mined. The overall goal of the plan is to identify at least 70 million carats of commercial-sized stones in-ground in order to reach a critical decision based on delineation of Inferred

Resources on several kimberlite bodies by 2008. The AE&E plan identified firm objectives and schedules to reach this goal.

- The main objective for Kensington in this project is to delineate an economic diamond resource at Fort à la Corne using a methodical stepwise approach.

Dated and Sealed at Saskatoon, Saskatchewan this 8th day of September, 2005.

PROFESSIONAL SEAL

(signed) "Brent C. Jellicoe"

Brent C. Jellicoe, B.Sc. P.Geo.
Project Manager
Kensington Resources Ltd.

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Statement of Certification by Qualified Person

I, Brent C. Jellicoe of the city of Saskatoon, in the province of Saskatchewan do certify the following:

- I am a consulting geologist and principal of *Jellicoe Resource Associates* with an office located in Suite 220 – 728 Spadina Crescent East, Saskatoon, Saskatchewan, Canada S7K 4H7

- I am a member in good standing of the Association of Professional Engineers and Geoscientists of Saskatchewan registered as "Professional Geoscientist" number 10319.

- I have practiced my profession since 1992.

- I practiced as a Geological Consultant primarily for diamond exploration projects from December 1998 until September 2004.

- I am a graduate of the Faculty of Arts and Science at the University of Saskatchewan and earned a Bachelor of Science (Honours) Degree in Geology in 1987. This was followed by five years of post-graduate work in the College of Graduate Studies concerned with a variety of geological and geochemical investigations of strata deposited within the Cretaceous Western Canada Sedimentary Basin located within Manitoba, Saskatchewan, and Alberta.

- I am a member of the Saskatoon Section of the Canadian Institute of Mining (CIM), a constituent society of the Canadian Institute of Mining, Metallurgy, and Petroleum.

- I have been involved with all aspects of diamond exploration and drilling/sampling project management in the Fort à la Corne area of Saskatchewan, since 1992. This experience is summarized in the following:

    - I worked as a contract geologist for North Rim Exploration Ltd. from December 1992 to October 1993 and was tasked with logging and interpretation of Cretaceous bedrock and kimberlite drillcore from a 15-hole program in, and proximal to, the Fort à la Corne kimberlite Field.

    - I was employed as a long-term, contract geologist by Rhonda Mining Corporation as a drillsite geologist (1993-1994) and then Kensington Resources Ltd. (1994 to 1997) as a senior geologist and field program manager for reverse circulation, reverse circulation - underream, and rotary drillhole programs conducted by the Fort à la Corne Joint Venture in Saskatchewan. I also logged all kimberlite chip samples, prepared sampling strategies, evaluated results for heavy mineral abundance/indicator mineral chemistry studies and diamond results, and wrote all reports for the exploration programs conducted during 1995 and 1996. In addition, I investigated bedrock stratigraphic relationships in conjunction with intra-body correlation of Fort à la Corne kimberlites towards delineation of zonation and continuity of petrographic character and diamond content. Also, during employment with Kensington, I was a team member involved in summarizing the known and potential diamond and copper-gold resources of selected areas of Shandong Province, China.

    - I was employed as a Project Geologist by Uranerz Exploration and Mining Limited from 1997 to November 1998 (including a three month extension of employment during acquisition of Uranerz by Cameco) and continued managing drilling/sampling programs and with reporting responsibilities for the Fort à la Corne Joint Venture diamond project.

    - From December 1998 to October 1999, I was Project Geologist under contract with De Beers Canada Inc. and acting in a similar capacity as at Uranerz, again for the Fort à la Corne Joint

Venture. Along with reporting responsibilities, an internal study outlining new models for the geometry, architecture, and emplacement of Fort à la Corne kimberlites was completed. During this time period, I spent a two-week term as shift supervisor for geologists at the Kennady Lake Diamond Project in the NWT. In addition, I was contracted as a drilling specialist responsible for drilling optimization and data acquisition for a large diameter ODEX (hammer) and reverse circulation (RC) waterflood drillhole program at the Lomonosov Diamond Project in Russia. In this program, I supervised drilling and sampling procedures as well as continued database management and processing of data from: digital drilling parameter recorder, volume and mass calculations from caliper logs, and drilling chip geology. This contract culminated in a suite of detailed drillhole resumes and an extensive final Drilling and Sampling report.

- From December 1999 to Sept 2004, I acted as the Project Manager and Chief Geologist for Kensington Resources Ltd. as a consultant. From September 2004 until present, I have been employed as the Exploration Manager for Kensington Resources Ltd. My primary responsibilities include:
  - review of all technical information and results from the operator of the Fort à la Corne Joint Venture (De Beers Canada Inc.)
  - petrographic description and interpretation of all core and drillhole intersections
  - composing all technical news releases for Kensington; including reporting of Joint Venture project results
  - observation of field program activities for Kensington
  - observation and informal audit of diamond recovery procedures
  - creation and composition of all technical presentations, public talks, and internal summaries for Kensington
  - oral and graphic presentation of all public, scientific, and investor talks

- I have acted as the onsite Drilling Manager for the Fort à la Corne Joint Venture field programs during 2000, 2001, 2002, and 2004 reporting primarily to the operator (De Beers Canada Inc.). Duties for this position includes day to day oversight of the drilling operations with optimization of product quality (core and reverse-circulation chips), compliance with sampling procedures, liaison with the drilling supervisors, and supervision of other onsite contractors.

- During 2000, 2001, 2002, 2003, 2004, and 2005 I completed extended monitoring visits to dense media separation and final diamond recovery facilities operated by De Beers both in Canada and South Africa.. I visited the Lakefield diamond recovery facility in 2001 and 2002 to conduct due diligence on their procedures and security measures. In 2003 and 2004, I visited the SRC diamond recovery facility in Saskatoon to conduct due diligence on their procedures and security measures. In all cases, lab and site visit were conducted while samples from Forte à la Corne were in some stage of diamond recovery.

- I have consulted for drilling projects mounted by Skeena Resources and Shore Gold Inc. as Project Manager/Geologist in the Fort à la Corne area during 2000, 2001, and 2002. Responsibilities have included assessment report writing, core-logging, and project management.

- I have authored diamond exploration program reports for Uranerz Exploration and Mining (now UEM Inc. a subsidiary of Cameco Corp.), De Beers Canada Inc. and Kensington Resources Ltd. I have also authored numerous in-house studies on the status of exploration as well as detailed kimberlite studies for the companies listed above. Also, I have prepared detailed kimberlite petrography and logging reports for the companies listed. The sum objective of these studies and programs was to elucidate the character of kimberlites in Saskatchewan and to determine the resource potential of the diamondiferous kimberlites. I continue to undertake independent and contracted studies on kimberlites in Saskatchewan for Saskatchewan Industry and Resources (Diamonds in Saskatchewan 2002) and for several of the companies listed above.

- o I have been lead author in diamond exploration-related scientific papers for the Saskatchewan Geological Survey (1998 Summary of Investigations) and a CIM volume on Industrial Minerals In Canada (2002).

- o I was third author for a peer-reviewed scientific paper published in the Proceedings of the Eighth International Kimberlite Conference (2004). The paper was written on the geology and diamond recovery of the 140/141 Kimberlite Body of the Forte à la Corne Diamond Field.

- o I have provided numerous free information sessions to the general public in the form of digital slide presentations that summarize current diamond exploration and historical results in the province of Saskatchewan. These presentations contained a very subordinate element of promotion for the diamond exploration efforts of Kensington Resources Ltd..

- o As a result of my experience and qualifications, I am a *Qualified Person* as defined in National Instrument 43-101.

- o As a matter of record, I do hold shares and option for warrants, as well as stock options in Kensington Resources Ltd.

- o Opinions and geological interpretations expressed herein are based on the information provided and on my general experience and expertise. These opinions are offered up as further information for the consideration of the general public and are subject to change as new data is acquired and digested.

- o I am not aware of any material fact or material change with respect to the subject matter of this technical report, which is not reflected in this report, the omission to disclose that would make this report misleading in any way.

- o I have read National Instrument 43-101 and Form 43-101 F1. In addition, I have completed a two-day seminar focused on reviewing and discussing these regulations that was prepared by *The National Conference Board of Canada* during December of 2002. I have also attended two single day seminars sponsored by B.C. Securities during 2003 and 2004. This report has been prepared in compliance with these documents to the best of the author's understanding.

Dated and Sealed at Saskatoon, Saskatchewan this 8th day of September, 2005.

PROFESSIONAL SEAL

(signed) "Brent C. Jellicoe"

Brent C. Jellicoe, B.Sc. P.Geo.

CONSENT of AUTHOR

TO: TSX Venture Exchange
B.C. Securities Commission
Alberta Securities Commission
Saskatchewan Financial Services Commission

I, Brent C. Jellicoe, do hereby consent to the filing, with the regulatory authorities referred to above, of the technical report titled *Summary of Exploration and Evaluation of the Fort à la Corne Kimberlite Field, East-central Saskatchewan* and dated September 8, 2005 (the "Technical Report") which is incorporated by reference into the Management Proxy Circular of Kensington Resources Ltd. dated September 22, 2005 (the "Circular") and to the summary of the Technical Report contained in the Circular.

I confirm that I have read the Circular and I do not have any reason to believe that there are any misrepresentations in the information contained in the Circular derived from the Technical Report or that the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated this 27th day of September, 2005.

(signed) "Brent C. Jellicoe"
____
Signature of Qualified Person

Brent C. Jellicoe, P.Geo.
Member No. 10319
Association of Professional Engineers & Geoscientists
of Saskatchewan
____
Print name of Qualified Person

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

KENSINGTON RESOURCES LTD.
(Registrant)

October 19, 2005	By: /s/ Robert A. McCallum
Date	Robert A. McCallum
	President, CEO and Director