REPORTING ON

2009 Mineral Resource Update
Renard Diamond Project
Northern Quebec, Canada

Prepared for:
Stornoway Diamond Corporation
Unit 116-980 W. 1st Street
North Vancouver, BC
V7P 3N4

Prepared by:
David Farrow, P.Geo
Golder Associates Ltd.
Burnaby, BC

Project Number: 09-1439-0001
Distribution:
1 Electronic Copy – Stornoway Diamond Corporation
2 Paper Copies - Stornoway Diamond Corporation
2 Paper Copies - Golder Associates Ltd
Table of Contents

1.0 SUMMARY.................................................................................................................................................. 1
  1.1 Introduction............................................................................................................................................... 1
  1.2 Property Tenure....................................................................................................................................... 1
  1.3 Property Location and Site Description................................................................................................. 2
  1.4 Geology and Mineralization.................................................................................................................... 2
  1.5 Exploration Concept............................................................................................................................... 3
  1.6 Status of Exploration............................................................................................................................... 3
  1.7 Author’s Conclusions and Recommendations....................................................................................... 3

2.0 INTRODUCTION.......................................................................................................................................... 6

3.0 RELIANCE ON OTHER EXPERTS ............................................................................................................ 8

4.0 PROPERTY DESCRIPTION AND LOCATION........................................................................................... 9
  4.1 Location................................................................................................................................................... 9
  4.2 Tenure History........................................................................................................................................ 9
  4.3 Mineral Tenure in Quebec....................................................................................................................... 12
  4.4 Mineral Exploration Licences and Claims............................................................................................ 12
  4.5 Agreements........................................................................................................................................... 13
  4.6 Royalties............................................................................................................................................... 13
  4.7 Permits.................................................................................................................................................. 14
  4.8 Surface Rights..................................................................................................................................... 14
  4.9 Environment......................................................................................................................................... 15
  4.10 Socio-Economics............................................................................................................................... 17

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY............ 19
  5.1 Accessibility.......................................................................................................................................... 19
    5.1.1 Air................................................................................................................................................... 19
    5.1.2 Road ............................................................................................................................................... 19
  5.2 Climate.................................................................................................................................................. 20
  5.3 Local Resources and Infrastructure....................................................................................................... 20
    5.3.1 Local Resources........................................................................................................................... 20
10.2 Heavy Mineral Sampling .......................................................................................................................... 52
10.3 Geophysical Surveys ................................................................................................................................. 53
10.4 Trenching ................................................................................................................................................... 54
10.4.1 Renard 4 ............................................................................................................................................... 55
10.4.2 Renard 65 .............................................................................................................................................. 55
10.4.3 Lynx Dyke ........................................................................................................................................... 55
10.4.4 Hibou Dyke ........................................................................................................................................... 55
10.4.5 North Anomaly Dyke ............................................................................................................................. 55
10.5 Drilling ....................................................................................................................................................... 55
10.6 Bulk Density ............................................................................................................................................. 56
10.7 RC Chip Sampling .................................................................................................................................... 56
10.8 Core Sampling .......................................................................................................................................... 56
10.9 Underground Bulk Sampling .................................................................................................................... 58
10.10 Petrography, Mineralogy and Other Research Studies ............................................................................ 61
10.11 Geotechnical and Hydrological Drilling ................................................................................................. 61
10.12 Further Exploration .................................................................................................................................. 61

11.0 DRILLING ................................................................................................................................................... 62
11.1 Drilling Methods ....................................................................................................................................... 63
11.1.1 Reverse Circulation Drilling .................................................................................................................. 63
11.1.2 Core Drilling ....................................................................................................................................... 64
11.1.3 Geotechnical and Hydrological Drilling ............................................................................................... 65
11.1.4 Collar Surveys and Down Hole Surveys ............................................................................................... 65
11.2 Drill Programs .......................................................................................................................................... 66
11.2.1 2009 Drilling ....................................................................................................................................... 67

12.0 SAMPLING METHOD AND APPROACH ............................................................................................... 71
12.1 Heavy Mineral Sampling ........................................................................................................................... 71
12.2 Caustic Fusion Sampling ............................................................................................................................ 71
12.3 Mini-Bulk Sampling .................................................................................................................................. 71
12.4 Bulk Sampling .......................................................................................................................................... 72
12.5 Bulk Density Determinations .................................................................................................................... 73
12.6 Moisture Content ..................................................................................................................................... 74
# 2009 MINERAL RESOURCE UPDATE

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY ............................................................... 75

13.1 Laboratories .......................................................................................................................... 75
13.2 Dense Media Separation (DMS) Facilities ........................................................................... 75
13.3 Caustic Fusion Sampling ........................................................................................................ 76
13.4 Database .................................................................................................................................. 77
13.5 Sample Security ...................................................................................................................... 77
13.6 Drill Core ............................................................................................................................... 77
13.7 RC Chips .............................................................................................................................. 78
13.8 Bulk Sampling ....................................................................................................................... 79
13.8.1 Underground Bulk Samples .......................................................................................... 79
13.8.2 Renard 4, Lynx and Hibou Trench Bulk Samples ......................................................... 80
13.9 Final Diamond Treatment and Recovery .......................................................................... 80

14.0 DATA VERIFICATION ........................................................................................................... 81

14.1 Stornoway Quality Assurance and Quality Control Programs ........................................... 81
14.1.1 Caustic Fusion and DMS Sampling .............................................................................. 81
14.2 Golder Verification ............................................................................................................... 82
14.2.1 Special Considerations for Diamond Resource Determination .................................. 82

15.0 ADJACENT PROPERTIES .................................................................................................. 84

15.1 Diamond Properties .............................................................................................................. 84
15.2 Other Commodities ................................................................................................................ 84

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING ........................................ 85

16.1 Introduction ........................................................................................................................ 85
16.2 DMS Processing - Lagopède .............................................................................................. 86
16.3 DMS Processing – Thunder Bay Mineral Processing Laboratory ..................................... 87
16.4 DMS Processing – North Vancouver Facility .................................................................. 88
16.5 QA/QC ............................................................................................................................... 88
16.6 Metallurgical Testing ........................................................................................................... 89

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES .................................... 90

17.1 Introduction ......................................................................................................................... 90
17.2 Previous Work .................................................................................................................... 90
TABLES
Table 1-1: December 8, 2009 Indicated Mineral Resources Renard Diamond Project .............................................................. 4
Table 1-2: December 8, 2009 Inferred Mineral Resources Renard Diamond Project .............................................................. 4
Table 1-3: December 8, 2009 Potential Mineral Deposit Renard Diamond Project .............................................................. 5
Table 2-1: List of Abbreviation ........................................................................................................................................ 7
Table 4-1: Environmental Reports and Studies ................................................................................................................ 16
Table 9-1: Renard Kimberlite Pipes and Significant Dyke Systems ..................................................................................... 34
Table 9-2: Major Geological Units ...................................................................................................................................... 37
Table 10-1: Heavy Mineral Sampling ................................................................................................................................ 53
Table 10-2: Geophysical Surveys ...................................................................................................................................... 54
Table 10-3: Trenching .......................................................................................................................................................... 54
Table 10-4: Summary of Macrodiamond Sampling Results ................................................................................................. 57
Table 11-1: Summary of Drill Programs ............................................................................................................................. 62
Table 16-1: DMS Facilities – Sample Processing Breakdown ............................................................................................ 85
Table 16-2: DMS Facilities – Allocation of Resource Sample Processing ................................................................................ 86
Table 17-1: Mineral Resources as of July 22, 2008 ............................................................................................................... 91
Table 17-2: Recovery Data Used in Diamond Size Frequency Analysis .................................................................................. 93
Table 17-3: Macrodiamond and Microdiamond Samples Used to Determine the Micro/macro Relationship Renard 2 and Renard 3 ................................................................................................................. 94
Table 17-4: Summary of Macrodiamond Data Modelling ..................................................................................................... 96
Table 17-5: Calculated Macrodiamond Grades .................................................................................................................. 97
Table 17-6: Line Scan and Modal Dilution Data .................................................................................................................. 98
Table 17-7: Summarised Density Data .............................................................................................................................. 99
Table 17-8: Kriging Parameters ........................................................................................................................................... 102
Table 17-9: Renard Kimberlite Pipe Diamond Valuations and Diamond Price Models1 : .................................................. 105
Table 17-10: Lynx and Hibou Dyke Diamond Valuations and Diamond Price Models1 : .................................................... 106
Table 17-11: December 8, 2009 Indicated Mineral Resources Renard Diamond Project ...................................................... 111
Table 17-12: December 8, 2009 Inferred Mineral Resources Renard Diamond Project ...................................................... 112
Table 17-13: December 8, 2009 Potential Mineral Deposit Renard Diamond Project ....................................................... 113
Table 19-1: December 8, 2009 Indicated Mineral Resources Renard Diamond Project ...................................................... 115
Table 19-2: December 8, 2009 Inferred Mineral Resources Renard Diamond Project ...................................................... 116
Table 19-3: December 8, 2009 Potential Mineral Deposit Renard Diamond Project .......................................................... 116
FIGURES
Figure 4.1: Location Map .............................................................................................................................................. 10
Figure 4.2: Landholdings, Mineralization and Local Infrastructure ................................................................................. 11
Figure 7.1: Regional Geology – Superior Craton ............................................................................................................ 26
Figure 7.2: Regional Geology – Foxtrot Area .................................................................................................................. 27
Figure 8.1: Idealized Model – South African Kimberlite Pipe ........................................................................................... 31
Figure 9.1: Kimberlite Location Map ......................................................................................................................... 33
Figure 9.2: Plan View - Renard 2, Renard 3, Renard 4 and Renard 9 .................................................................................. 39
Figure 9.3: Section View - Renard 2, Renard 3, Renard 4 and Renard 9 ............................................................................. 40
Figure 9.4: Plan & Section Views – Renard 65, Lynx and Hibou ..................................................................................... 47
Figure 10.1: Underground Plan and Infrastructure ........................................................................................................ 60
Figure 11.1: R2 and R3 Drill Hole Location Plans ........................................................................................................ 68
Figure 11.2: R4 and R9 Drill Hole Location Plans ........................................................................................................ 69
Figure 11.3: R65, Lynx and Hibou Drill Hole Location Plans ............................................................................................ 70
Figure 17.1: Kimb2a Microdiamond Sampling ............................................................................................................... 95
Figure 17.2: Kimb2b Microdiamond Sampling ............................................................................................................... 95
Figure 17.3: Density by Depth for Renard 2 ..................................................................................................................... 100
Figure 17.4: Density by Dilution for Renard 2 ................................................................................................................ 101
Figure 17.5: Estimated vs Actual Dilution for Kimb2a ................................................................................................. 103
Figure 17.6: Estimated vs Actual Dilution for Kimb2b ................................................................................................. 103
1.0 SUMMARY

1.1 Introduction

Stornoway Diamond Corporation (Stornoway) retained Golder Associates Ltd. (Golder) to provide an independent Mineral Resource Estimate Update for the Renard Diamond Project (Renard Project) located in the Otish Mountains area of north-central Quebec. The present Mineral Resource Estimate has been completed in accordance with the CIM Mineral Resource and Mineral Reserve definitions referred to in National Instrument 43-101, Standards of Disclosure for Mineral Projects and has been carried out to support the press release by Stornoway on December 8, 2009.

This report represents the second reporting of the Renard Project. Since the last disclosure, an additional 16,506 m of core drilling and 6.2 t of microdiamond sampling have been undertaken. The December 2009 Renard Mineral Resource Estimate Update was prepared by an independent Qualified Person, David Farrow, P.Geo., of Golder, and peer reviewed by Darrell Jane Farrow, Pr.Sci.Nat., of Golder. The methodology of the resource estimate and this report has been senior reviewed by Kevin Palmer, P.Geo., of Golder. External review of some aspects of microdiamond analysis has been undertaken by Mr. Johan Ferreira, Pr.Sci.Nat., of Johan Ferreira and Associates (Ltd.), an expert in microdiamond analysis and interpretation. Diamond breakage studies were undertaken by Dr. Paddy. J. Lawless, Pr.Sci.Nat., of Dr. Paddy Lawless and Associates (CC).

The Mineral Resource Estimate comprises the integration of kimberlite volumes, density, petrology and diamond content-data obtained from 81,894 m of diamond drilling, 6,151 m of reverse circulation (RC) drilling, 12.7 t of samples submitted for microdiamond analysis, 600.8 cts of diamonds (6,457 stones) recovered from RC drilling and 8,611.6 cts of diamonds (84,381 stones) recovered from surface trenching and underground bulk sampling.

Site visits to the Renard Project were conducted by David Farrow and Darrell Farrow between March 5 and March 9, 2009. Exploration drilling, core logging and sampling were in progress during the visit.

Unless indicated otherwise monetary units used in this report are in Canadian dollars.

1.2 Property Tenure

The Renard Diamond Project, referred to as the Renard Project in this document is situated on Mining Exploration Licence PEM 1555 which forms part of the Foxtrot Property.

Tenements in the Foxtrot Property area were initially staked in 1996 by a joint venture between Ashton Mining Canada Inc. (Ashton) and SOQUEM Inc. (SOQUEM), with Ashton as operator. Subsequently, the joint venture partnership was reassigned to Ashton Diamonds (Canada) Inc. and Diaquem Inc., a wholly owned subsidiary of SOQUEM. In January 2007, Ashton was acquired by Stornoway and title transferred to Stornoway.

The Foxtrot Property comprises Mining Exploration Licences PEM 1555 and PEM 1556. Mining Exploration Licences are registered in the names of Les Diamond Stornoway Canada Inc. and Diaquem Inc. in the proportions of 50:50. The Renard kimberlites, Lynx and Hibou dykes are situated on PEM 1555.

As at the effective date of this Report, Mining Exploration Licence PEM 1555 is in good standing.
1.3 Property Location and Site Description

The Foxtrot Property is located approximately 820 km north of the city of Montreal, 120 km south of the all-weather Trans-Taïga highway and 150 km south-southeast of Hydro-Québec’s LG-4 electricity generating station. Current access to the property is via air. The closest town is Témiscamie, on Lac Albanel. Stornoway currently sources material from the regional centres of Chibougamau and Mistissini, both of which act as staging posts for trans-shipment of samples and personnel.

Power is currently supplied to the exploration camp via diesel generators. There is potential for supply from LG-4, which would require installation of a high-voltage transmission line connecting to the Project site.

1.4 Geology and Mineralization

The Project area is located within the eastern portion of the Superior Craton. The Craton is considered to be an amalgamation of small continental fragments of Meso-Archean age and Neo-Archean oceanic plates, with a complex history of aggregation.

There are five episodes of kimberlitic volcanism in Quebec; from south to north, the kimberlite fields are Témiscamingue, Desmaraisville, Otish, Wemindji and Torngat. The Renard Cluster is considered to be part of the Otish kimberlitic volcanic event.

To date, nine kimberlite pipes have been identified over a 2 km² area in the Renard Cluster (Renard 1 to Renard 10; Renard 5 and Renard 6 being one kimberlite body, known as Renard 65). The kimberlites are typically spaced between 50 m and 500 m from each other. Whole-rock trace element compositions suggest a closer affinity to Group I kimberlite (olivine-rich, monticellite, serpentine, calcite kimberlites), with derivation from a garnet-bearing mantle. The Lynx and Hibou dyke systems are situated to the west of the Renard pipes.

Geophysical data and drill information from delineation and bulk sampling programs indicate the Renard pipes are irregular and elliptical in plan view. Surface areas of the kimberlite portion of the pipes range from 0.1 ha to 1.7 ha.

The pipes comprise root zone to diatreme facies rocks characterized by complex internal geology, with the dominant phase composed of massive volcaniclastic kimberlite classified as "tuffisitic" kimberlitic breccia (TKB). The TKB contains 15% - 90% by volume, fresh to moderately altered granitoid, country rock clasts in a matrix that is generally dominated by serpentinized olivine macrocrysts, carbonates and serpentine. A minor amount of coherent “hypabyssal” kimberlite (HK) with a small proportion of highly altered and digested country rock xenoliths is also present. These are considered to be later stage intrusions that occur throughout the bodies or on the periphery. This material is characterized by abundant, disseminated calcite, olivine macrocrysts and less than 15% by volume crustal xenoliths. Extensive sampling programs conducted between 2001 and 2009 have demonstrated that both the pipe and dykes are diamondiferous.
1.5 Exploration Concept

Approximately 618 drill holes (110,170 m) have been drilled on the Property since 2001, comprising 36 reverse circulation (RC) holes (6,151 m) and 582 core holes (104,019 m). In addition, eight holes (122.7 m) have been drilled for specifically for geotechnical and hydrological purposes.

Core drilling has occurred on the property each year since 2001. Large-diameter RC drilling undertaken during the 2004, 2006 and 2007 field seasons collected more than 900 t of material for diamond testing.

Since 2005, more than 3,400 t of kimberlite have been excavated from trenches on the Lynx, Hibou and North Anomaly dykes as well as from the Renard 4 and Renard 65 kimberlitic bodies.

Between August 2006 and February 2007, underground exploration at the Renard Property extracted 60 samples of kimberlite from Renard 2 and Renard 3 for a total of 10,000 t (calculated tonnes) of which some 4,700 t were processed to recover diamonds.

The last two drilling campaigns, winter and summer 2009, comprised 16,506 m of core drilling, from which 4.2 t of material was processed for microdiamonds.

1.6 Status of Exploration

Stornoway completed the summer 2009 drilling program and announced the results of a Mineral Resource Estimate Update on December 8, 2009. There has been no further exploration work on the property since that time.

1.7 Author’s Conclusions and Recommendations

The conclusions and recommendations that have been identified from the 2009 Mineral Resource Estimate Update are:

- Most geological aspects of the Renard Project are reasonably well understood.
- The Renard 2, Renard, 3, Renard 4, Renard 9 and Renard 65 pipes, as well as the Lynx and Hibou dyke systems contain diamond concentrations that have the potential to be economic.
- Drilling of the Renard 2 kimberlite has significantly increased the mineral resource of the project, primarily a function of identifying additional resource at depth, which is less diluted and higher grade.
- The project database was reviewed by Golder using statistical and geostatistical analyses and comparisons between paper sources and the digital database. This database is considered acceptable for mineral resource estimation.
- The results of the latest Mineral Resource Estimate are tabulated in Tables 1-1 and 1-2. The Mineral Resource Estimate is based on the continuity of geology between kimberlite at depth and kimberlite nearer surface, and the generally low variation in sample results for the different kimberlite phases with depth.
Table 1-1: December 8, 2009 Indicated Mineral Resources Renard Diamond Project

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Total Tonnes</th>
<th>Total Carats</th>
<th>Average cpht</th>
<th>Average Dilution %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>17,475,000</td>
<td>17,957,000</td>
<td>103</td>
<td>37</td>
</tr>
<tr>
<td>Renard 3</td>
<td>1,705,000</td>
<td>1,806,000</td>
<td>106</td>
<td>36</td>
</tr>
<tr>
<td>Renard 4</td>
<td>7,315,000</td>
<td>3,199,000</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>Renard 9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lynx</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hibou</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26,495,000</strong></td>
<td><strong>22,962,000</strong></td>
<td><strong>87</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Totals may not equal the sum of the individuals due to rounding.

Table 1-2: December 8, 2009 Inferred Mineral Resources Renard Diamond Project

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Total Tonnes</th>
<th>Total Carats</th>
<th>Average cpht</th>
<th>Average Dilution %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>5,365,000</td>
<td>6,415,000</td>
<td>120</td>
<td>29</td>
</tr>
<tr>
<td>Renard 3</td>
<td>154,000</td>
<td>189,000</td>
<td>122</td>
<td>37</td>
</tr>
<tr>
<td>Renard 4</td>
<td>4,572,000</td>
<td>1,874,000</td>
<td>41</td>
<td>55</td>
</tr>
<tr>
<td>Renard 9</td>
<td>5,747,000</td>
<td>2,634,000</td>
<td>46</td>
<td>66</td>
</tr>
<tr>
<td>Lynx</td>
<td>1,798,000</td>
<td>1,924,000</td>
<td>107</td>
<td>0</td>
</tr>
<tr>
<td>Hibou</td>
<td>178,000</td>
<td>256,000</td>
<td>144</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17,814,000</strong></td>
<td><strong>13,292,000</strong></td>
<td><strong>75</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Totals may not equal the sum of the individuals due to rounding.

There is additional potential for the Project, as the geological models for Renard 3, Renard 4, Renard 65, and Renard 9 are based on conservative shapes for the kimberlites at depth, and the evaluation models do not incorporate areas of limited drilling at depth. The potential mineral deposits (PMD) are detailed in Table 1-3. Total PMD was identified as representing between 27 and 46 million tonnes, containing between 12 and 26 million carats of diamonds, at an average grade of 46 to 58 cpht. These were defined on a basis of geological-modelling, outcrop mapping, limited delineation drilling and surface sampling. No PMD has been outlined for Renard 2 as there are no plans for additional exploration.
Complete an update of the 2008 Preliminary Assessment is recommended to investigate what percentage of the mineral resource could be converted to a mineral reserve (estimated cost of $250,000). The outcomes of this Preliminary Assessment would help to guide further work on the various kimberlite bodies.

Complete a simulation study on the current pipe shapes (Renard 2, Renard 3, Renard 4 and Renard 9) should be conducted to quantify the levels of uncertainty in the volumetric determination of the various pipes and their internal phases (estimated cost of $75,000).

All available core from the Renard 3, Renard 4 and Renard 9 kimberlites should be line scanned (minimal cost as this can be completed by geologists employed by Stornoway).
2.0 INTRODUCTION

Stornoway Diamond Corporation (Stornoway) retained Golder Associates Ltd. (Golder) to provide an independent Mineral Resource Estimate Update for the Renard Diamond Project (Renard Project) located in the Otish Mountains area of north-central Quebec.

The purpose of this report is to provide technical support for the December 8, 2009 Stornoway Press Release.

The present Mineral Resource Estimate incorporates the Renard 2, Renard 3, Renard 4, Renard 9 and Renard 65 kimberlite pipes as well as the Lynx and Hibou kimberlite dyke systems and has been completed in accordance with the CIM Mineral Resource and Mineral Reserve definitions referred to in National Instrument 43-101, Standards of Disclosure for Mineral Projects.

This Mineral Resource Estimate Update represents the second reporting of mineral resources from the Renard Project, with the original estimate provided in late December, 2008 (Lecuyer et al., 2008). Since the last disclosure, an additional 16,506 m of core drilling, 6.2 t of microdiamond sampling and 543.9 t of macrodiamond sampling has been undertaken. The December 2009 Renard Mineral Resource Estimate was prepared by an independent Qualified Person, David Farrow, P.Geo., of Golder, and peer reviewed by Darrell Jane Farrow, Pr.Sci.Nat., of Golder. Both this report and the methodology of the Resource Estimate have been reviewed by Kevin Palmer, P.Geo., of Golder. External review of some aspects of microdiamond analysis has been undertaken by Mr. Johan Ferreira, Pr.Sci.Nat., of Johan Ferreira and Associates (Ltd.), an expert in microdiamond analysis and interpretation. Diamond breakage studies were undertaken by Dr. P. J. Lawless, Pr.Sci.Nat., of Dr. Paddy Lawless and Associates (CC).

The Mineral Resource Estimate comprises the integration of kimberlite volumes, density, petrology and diamond content-data obtained from 81,894 m of diamond drilling, 6,151 m of reverse circulation (RC) drilling, 12.7 t of samples submitted for microdiamond analysis, 600.8 cts of diamonds (6,457 stones) recovered from RC drilling and 8,611.6 cts of diamonds (84,381 stones) recovered from surface trenching and underground bulk sampling.

Site visits to the Renard Project were conducted by David Farrow and Darrell Farrow between March 5 and March 9, 2009. Exploration drilling, core logging and sampling were in progress during the visit.

A general list of abbreviations is found in Table 2-1. The lithogical abbreviations are found in Table 9-2.
# Table 2-1: List of Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>Canadian Dollars</td>
</tr>
<tr>
<td>US$</td>
<td>United States Dollars</td>
</tr>
<tr>
<td>ca</td>
<td>circa</td>
</tr>
<tr>
<td>cm</td>
<td>Centimetre</td>
</tr>
<tr>
<td>cpt</td>
<td>Carats per Tonne</td>
</tr>
<tr>
<td>cph</td>
<td>Carats per Hundred Tonnes</td>
</tr>
<tr>
<td>cts</td>
<td>Carats</td>
</tr>
<tr>
<td>g</td>
<td>Gram</td>
</tr>
<tr>
<td>Ga</td>
<td>Giga Annun (Billion Years)</td>
</tr>
<tr>
<td>ha</td>
<td>Hectare</td>
</tr>
<tr>
<td>kg</td>
<td>Kilogram</td>
</tr>
<tr>
<td>km</td>
<td>Kilometre</td>
</tr>
<tr>
<td>km²</td>
<td>Square Kilometre</td>
</tr>
<tr>
<td>l</td>
<td>Litre</td>
</tr>
<tr>
<td>m</td>
<td>Metre</td>
</tr>
<tr>
<td>m²</td>
<td>Square Metre</td>
</tr>
<tr>
<td>m³</td>
<td>Cubic Metre</td>
</tr>
<tr>
<td>Ma</td>
<td>Mega Annun (Million Years)</td>
</tr>
<tr>
<td>msal</td>
<td>Metres Above Sea Level</td>
</tr>
<tr>
<td>mm</td>
<td>Millimetre</td>
</tr>
<tr>
<td>spt</td>
<td>Stones per Tonne</td>
</tr>
<tr>
<td>t</td>
<td>Metric Tonne</td>
</tr>
<tr>
<td>tpa</td>
<td>Metric Tonne per Annum</td>
</tr>
<tr>
<td>tpd</td>
<td>Metric Tonne per Day</td>
</tr>
<tr>
<td>tph</td>
<td>Metric Tonne per Hour</td>
</tr>
<tr>
<td>yr</td>
<td>Year</td>
</tr>
</tbody>
</table>
3.0 RELIANCE ON OTHER EXPERTS

Golder has relied upon other experts for information used in this Technical Report for the following items:

1) Mineral Tenure

The QP has not reviewed the mineral tenure, nor independently verified the legal status or ownership of the Foxtrot Property, the exploration licences surrounding it, or the underlying property agreements. In support of Section 4, Golder has relied upon Lavery, De Billy, LLP, of Montreal, a Stornoway-appointed law firm’s legal opinion for information on the Mining Exploration Licence which hosts the mineral resources referred to in this report through the following documents:

- Lavery, De Billy, LLP, Mining Exploration Licence no. 1555 (PEM 1555), Montreal, January 11, 2010.

This report, in letter form, confirms that PEM 1555 is registered in the Public Register in the name of Les Diamants Stornoway (Canada) Inc. (wholly owned by Stornoway) for an undivided interest of 50%, and in the name of Stornoway’s joint venture partner Diaquem Inc. for an undivided interest of 50%.

The Mining Exploration Licence will expire on August 28, 2010, unless renewed or converted prior to this expiration date.

2) Diamond Valuation

Golder has relied on WWW International Diamond Consultants (WWW) for diamond valuation in support of Sections 17 and 18.

- WWW, Valuation and Modelling of the Diamonds from the Renard Kimberlite Cluster, for Ashton Diamonds (Canada), October 18, 2007.
- WWW, Valuation, Re-Pricing and Modelling of the Diamonds from the Lynx-Hibou Kimberlite Dykes, for and on behalf of Stornoway Diamond Corporation, October 7, 2009.
- WWW, Valuation, Re-Pricing & Modelling of the Diamonds from the Renard Kimberlite Cluster, for and on behalf of Stornoway Diamond Corporation, October 7, 2009.
4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

Foxtrot Property is situated in the Monts Otish (Otish Mountains) region of the province of Quebec, Canada, 820 km north of the city of Montreal and 360 km north-northeast of the mining town of Chibougamau (Figure 4.1). The property lies some 120 km south of the all-weather Trans-Taiga highway and 150 km south-southeast of Hydro-Québec's LG-4 electricity generating station.

The closest locality is Témiscamie, on Lac Albanel some 210 km to the south, which is connected by all-weather provincial road #167 to the Cree community of Mistissini.

Much of the property is encompassed within National Topographic Sheet (NTS) 033A16, although there are also smaller portions in NTS 033A09 and 033H01 (Figure 4.2). Project centroids are at approximately 52°49'N and 72°12'W.

There are currently no active mining operations in the immediate vicinity of the Foxtrot Property, but there are numerous active exploration projects primarily to the south and west.

4.2 Tenure History

Stornoway Diamond Corporation was created in 2003 as a result of a plan of arrangement between Northern Empire Minerals Ltd. and Stornoway Ventures Ltd. Stornoway is actively involved in diamond exploration in Canada, with tenements currently held in Quebec, Nunavut, Ontario, Northwest Territories and Alberta.

Exploration leading to the acquisition of the Foxtrot Property commenced in 1996 under a 50:50 joint venture agreement dated March 14, 1996 (and subsequent amendments) between Ashton Mining Canada Inc. (Ashton) and SOQUEM Inc. (SOQUEM), with Ashton as operator. The purpose of the initial agreement was to explore for diamonds within an area of mutual interest (AMI) in the Ungava Region of Quebec. Although the AMI area has been changed from time to time since the agreement was signed, the Foxtrot Property lies within the current AMI.

Subsequently, the joint venture partnership was reassigned to Ashton Diamonds (Canada) Inc. and Diaquem Inc., a wholly-owned subsidiary of SOQUEM. Stornoway acquired Ashton in January 2007, and currently operates the project through its wholly-owned subsidiary Les Diamants Stornoway (Canada) Inc.

When initially granted through online staking activities in 2000 and 2001, the Property consisted of two Mining Exploration Licences, PEM 1555 and PEM 1556, and 2,121 mining claims. In 2007, 500 claims and, in 2009, 1,161 claims, from the northern portion of the Foxtrot property were allowed to lapse, as they were no longer of interest to the joint venture. The current landholdings (Figure 4.2) are registered in the names of Les Diamants Stornoway (Canada) Inc. and Diaquem Inc. in the proportions of 50:50. The Renard kimberlite pipes and the Lynx and Hibou dykes, subjects of this report, are all located well within the boundaries of PEM 1555.
Figure 4.1: Location Map
Figure 4.2: Landholdings, Mineralization and Local Infrastructure
Figure 4.2: Landholdings, Mineralization & Local Infrastructure
4.3 Mineral Tenure in Quebec

Mining Exploration Licences are issued in Quebec for a period of five years and may be renewed for one additional five-year period provided the conditions of renewal described in the Quebec Mining Act are met. These conditions include graduated work requirements and renewal fees at the rate of $120 per km². Prior to expiry of the Mining Exploration Licence (PEM), the entire area may be converted to mining claims in an online process, and the excess exploration expenditures (or credits) carried over from the PEM to the new claims. Claims are issued based on a two-year assessment period, with the work requirements increasing for each period. Renewal fees, paid earlier than 60 days prior to the anniversary date, are $107 per claim.

In Quebec, the claim holder has the exclusive right to search for all mineral substances in the public domain, with certain exceptions. In accordance with the Quebec Mining Act, a claim holder must comply with the obligation to carry out work on the claims in an amount based on the surface area of the claim and its location in relation to the 52nd parallel. When the work carried out is insufficient, or if the work was not carried out, the titleholder may pay an amount equivalent to the required amount in lieu of work. Alternately, excess exploration credits from other claims within a 4.5 km radius may be transferred to meet any shortfall. Claim renewal applications must be received, at the latest, prior to 15 days of a claim’s expiry.

4.4 Mineral Exploration Licences and Claims

The Foxtrot Property comprises three groups of separate but essentially contiguous landholdings known as the Foxtrot 1, Foxtrot 2 and Foxtrot 3 blocks, covering a total area of 68,158.39 ha (Figures 4.1 and 4.2). Foxtrot 1 encompasses PEM 1556 (12,930 ha), Foxtrot 2 encompasses PEM 1555 (32,570 ha), and Foxtrot 3 contains 460 individual mining claims (22,658.391 ha). Thirteen claims in two groups belonging to Foxtrot 3, and included in the totals above, lie north of the main block and are non-contiguous (Figure 4.1).

Mineral Exploration Licences are registered in the names of Les Diamants Stornoway (Canada) Inc. and Diaquem Inc. in the proportions on a 50:50 basis. As at the effective date of this report, all mining licences and claims are reported by Stornoway to be in good standing.

All known kimberlite mineralization, including the pipes and the dyke systems, as well as the existing infrastructure, including Camp Lagopède, diesel generators, underground infrastructure, the on-site dense media separation (DMS) facility, and processed kimberlite containment facility, that is associated with the Foxtrot Property (and referred to collectively as the Renard Core Area), are situated well within PEM 1555 (Foxtrot 2). The corners of PEM 1555 are defined by the following geographical coordinates in NAD 27 Zone 18:

- 677000 mE and 5850000 mN.
- 682000 mE and 5865000 mN.
- 700000 mE and 5859000 mN.
- 694142.9 mE and 5841428.6 mN.
PEM 1555 was registered on August 29, 2000, and is in good standing until August 28, 2010. In advance of this
date, the entire area currently covered by PEM 1555, or a portion thereof, may be converted to mining claims by
the joint venture.

PEM 1556, contiguous with PEM 1555 to the north, is defined by the following geographical coordinates in
NAD 27 Zone 18:

- 694142.9 mE and 5841428.6 mN.
- 679000 mE and 5849000 mN.
- 677000 mE and 5840000 mN.
- 692000 mE and 5835000 mN.

PEM 1556 was also registered on August 29, 2000, and is in good standing until August 28, 2010. In advance of
that date, it too may be converted to mining claims. No kimberlites are known within this mining exploration
licence and there is no infrastructure.

Camp Lac Emmanuel, an exploration camp that is currently on care and maintenance, is located immediately
northeast of PEM 1555, within the Foxtrot 3 block at 698849 mE and 5860499 mN (NAD 27 Zone 18), on mining
claim 1007021. A single, narrow (approximately 0.1 m thickness), north-trending kimberlite dyke with an
estimated strike length of 450 m straddles mining claims 1009366 and 1009385. No other kimberlites are known
within the Foxtrot 3 claims.

It is possible that potential future project infrastructure, such as a winter road, an all-season road or a power line,
could pass through the area covered by Foxtrot 1 or Foxtrot 3, but surface access of this nature is not dependent
upon holding mineral tenure.

4.5 Agreements

The 50:50 joint venture between Ashton Diamonds (Canada) Inc. and Diaquem Inc. is governed by an
agreement dated March 14, 1996, and subsequent amendments. The Foxtrot Project is managed by the joint
venture. Stornoway, through Les Diamants Stornoway (Canada) Inc., is the project operator.

4.6 Royalties

There are no other royalties, back-in rights, payments or other encumbrances applicable to the Property known
at the present time, except as discussed below.

Mineral production from an active metal mine within the province of Quebec is subject to taxation at a base rate
of 12% of the net profits. There are a variety of credits and allowances available (such as exploration, northern
mine, credit on duties refundable for losses and a processing allowance) that may serve to reduce that base rate
to a minimum of 4.2%, giving one of the lowest tax rates in Canada. At present, there are no diamond mines in
Quebec, and the Ministère des Ressources naturelles et de la Faune (MRNF) does not have a specific taxation
scheme in place for diamond mines. The government of Quebec, through the MRNF, has invited industry to provide input for Quebec’s future Mineral Strategy. In 2007, Stornoway met with the Direction de l’imposition minière of MRNF to explain the diamond industry, and has also provided written comments to the MRNF minister and the group responsible for developing Quebec’s Mineral Strategy. Stornoway has suggested that diamond production be considered equivalent to the production of any other metal commodity in Quebec, and that taxation of a diamond mine follow the existing standards. No decision has yet been made.

Following the release of the new Quebec Mineral Strategy in June 2009, the minister responsible for MRNF, M. Serge Simard, clearly indicated his intention to increase the base rate royalty, but without indicating which rate will ultimately be chosen. The Mining Duty Act, which defines the metal royalty, is expected to be revised in 2010.

Moreover, the government indicated in the Quebec Mineral Strategy document its intention to put in place various measures with the objective of promoting diamond mining in Quebec:

- The Government of Québec will continue implementing its Strategy for the Accelerated Development of Québec’s Diamond Potential.
- SOQUEM will continue to support the development of the diamond industry.
- The government will adapt the mining royalties regime to the special characteristics of the diamond industry.
- The government intends to pursue its objective of “10% local processing of rough diamonds mined in Québec” by proceeding with cutting, polishing, and jewellery-making activities.

### 4.7 Permits

Currently, work on the Project is conducted in accordance with the terms and conditions contained within the surface exploration permit and other permits that are required for the camp, fuel storage and exploration activities. The joint venture has received the permits and approvals it needs to operate and conduct the associated advanced exploration activities. These permits and authorizations are in good standing for the continuation of the Foxtrot Property assessment. Golder has not verified that the permits are in good standing.

### 4.8 Surface Rights

The Foxtrot Property, including the Renard kimberlite pipes and the Lynx and Hibou kimberlite dykes, is situated within the region of northern Quebec governed by the James Bay and Northern Québec Agreement 1975, as amended (JBNQA), a land claims agreement executed by the Government of Quebec, the Government of Canada, the Grand Council of the Cree of Quebec (GCC) and the Northern Quebec Inuit Association, amongst others.

The JBNQA provides for three categories of land, Categories I to III, each with specifically defined rights. The Foxtrot Property lies within Category III lands in an area in proximity to the community of Mistissini (the Cree Nation of Mistissini, or CNM). Category III lands are public lands where Cree communities have certain rights,
particularly in regard to trapping, hunting, fishing and the development of outfitter operations. Surface and mineral rights on Category III lands reside with the Government of Quebec and are governed by the applicable land use laws and regulations, implemented by the relevant regulatory authorities. Members of the CNM undertake hunting, fishing and trapping activities within the Foxtrot Property, with the Renard kimberlites occurring in an area known to them as “yuus-kanchiisu-saakahiiikan” (mild rock ptarmigan lake). More specifically, the Renard kimberlites lie within the CNM trapline area designated as M-11, used by Clarence and Abel Swallow (known as the ‘tallyman’).

Under the terms of the JBNQA, lawfully authorized persons have the right to develop Category III lands. However, developers are subject to an environmental and social protection regime, which provides for the protection of the hunting, fishing and trapping rights of the Cree.

Golder has not verified the above comments with respect to surface rights access.

### 4.9 Environment

The joint venture has undertaken, or contracted out, a series of environmental programs and studies since 2002, facilitating the acquisition of a significant amount of data. Three main environmental baseline studies have been completed, which include inventories of fish, fauna and flora, surface water analyses (natural and processed), groundwater sampling, rock and soil sampling, and acid rock drainage studies. Additional data have been included in requests for permits and certificates addressed to various government authorities. Commencing in 2003, Roche Ltée ingénieur-conseil, an engineering consultant based in Quebec City, was mandated to provide environmental advice and appropriate guidelines for the acquisition of environmental data. No areas of specific concern were identified; however, it was noted that due to acid rain over the previous 50 years and a lack of natural buffering material, the local lakes were relatively acidic (pH of 4.5 to 6.5) although they did host fish populations. A list of environmental studies completed on the Project to the effective date of the report is given in Table 4-1.
### Table 4-1: Environmental Reports and Studies

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-02</td>
<td>Programme de caractérisation Environnemental, préliminaire</td>
<td>Gail Amyot (G.E.A inc)</td>
</tr>
<tr>
<td>Dec-02</td>
<td>Caractérisation préliminaire à la propriété Renard 2</td>
<td>Gail Amyot (G.E.A inc)</td>
</tr>
<tr>
<td>Nov-03</td>
<td>Environmental Baseline Study—Foxtrot Property</td>
<td>M. Rood and A. Vachon (Roche Ltée)</td>
</tr>
<tr>
<td>Oct-03</td>
<td>Access strategy study, Future access to Foxtrot property, Final Report</td>
<td>A. Vachon, Guy Gilbert, Crew (Roche Ltée)</td>
</tr>
<tr>
<td>Apr-04</td>
<td>Searching and locating potential site for the development of an air strip, Foxtrot property</td>
<td>A. Vachon, J. Boily, M. Labelle, G. Roy (Roche Ltée)</td>
</tr>
<tr>
<td>Jan-05</td>
<td>Étude environnementale d'avant-projet, Propriété Otish</td>
<td>S. Vallée and A. Vachon (Roche Ltée)</td>
</tr>
<tr>
<td>Feb-05</td>
<td>Environmental baseline study (2004), Foxtrot property</td>
<td>S. Tourangeau and A. Vachon (Roche Ltée)</td>
</tr>
<tr>
<td>Sep-05</td>
<td>Baseline Study, Faune et flore, Propriété Otish</td>
<td>S. Vallée and A. Vachon (Roche Ltée)</td>
</tr>
<tr>
<td>Nov-05</td>
<td>Processus d’autorisation pour le programme d’exploration 2006–2007</td>
<td>A. Vachon, M. Rood (Roche Ltée)</td>
</tr>
<tr>
<td>Dec-05</td>
<td>Application for an attestation of exemption, program 2006–2007.</td>
<td>M. Rood and A. Vachon (Roche Ltée)</td>
</tr>
<tr>
<td>Apr-06</td>
<td>Demande de certificat d’autorisation, 2006–2007 (Bulk sample)</td>
<td>M. Rood and A. Vachon (Roche Ltée)</td>
</tr>
<tr>
<td>May-06</td>
<td>Étude sur la disposition et le traitement des eaux usées domestiques</td>
<td>A. Laporte, P. Jobin (Roche Ltée)</td>
</tr>
<tr>
<td>Jul-06</td>
<td>Requête d’extraction à des fins d’échantillonnage</td>
<td>M. Rood and A. Vachon (Roche Ltée)</td>
</tr>
<tr>
<td>Aug-06</td>
<td>Demande de c.a. - Parc à résidus miniers (Bulk sample)</td>
<td>A.Vachon (Roche Ltée)</td>
</tr>
<tr>
<td>Sep-06</td>
<td>Plan de restauration, programme 2006–2007</td>
<td>M. Rood (Roche Ltée)</td>
</tr>
<tr>
<td>Jul-07</td>
<td>Access strategy study to Foxtrot Property</td>
<td>G. Gilbert (Roche Ltée)</td>
</tr>
<tr>
<td>Aug-07</td>
<td>Requête d’extraction à des fins d’échantillonnage</td>
<td>M. Rood and A. Vachon (Roche Ltée)</td>
</tr>
</tbody>
</table>
Following the underground sampling program, any effluent discharge pertaining to the closed underground excavations was monitored by Stornoway and a monthly report provided to the Quebec Ministry of the Environment. In August 2008, as per the remediation plan provided to the MRNF, the surface mine water sump was rehabilitated and fully restored; therefore, effluent testing is no longer required. Stornoway has previously provided a remediation plan to MRNF to clean up infrastructure associated with the bulk sample and the DMS process facility. The remediation plan was accepted and, as required by regulation in Quebec, 70% of the estimated $138,000 cost (or $96,000) has been provided to the appropriate government authority.

During March to April of 2006, leaking fuel drums required clean-up activities that generated some 80 m$^3$ of contaminated soil. This contaminated soil was stored safely on site in a lined berm. To date, roughly 35% of the contaminated soil has been removed from the property and shipped south for disposal at an approved facility (total disposal cost for the 35% is about $4,000). The cost to clean up the site has already been incurred by Stornoway, and the cause of the leakage is the subject of an ongoing lawsuit between Stornoway and the fuel supplier.

### 4.10 Socio-Economics

The Stornoway–SOQUEM joint venture is committed to building long-term relationships with the Cree Nation of Mistissini and the GCC. The joint venture has taken a pro-active approach to community relations through information sessions, Band Council meetings, communications and site tours. The joint venture will continue to consult with the community and the GCC as the Renard Project develops. To this effect, a Renard–Mistissini Working Group has been established, and includes representatives of the joint venture and the Mistissini...
community. The mandate of this committee is to optimize the level of employment for Mistissini inhabitants. The joint venture works closely with the Cree Human Resources Development (CHRD) to develop training programs adapted to local workers, and is committed to buying local goods and services when it is feasible, as well as promoting the local economy.

Since 2001, Stornoway and its predecessors, on behalf of the joint venture, have engaged the CNM through community and band council presentations and other communications to provide information on the progress of the Project. Employment and training opportunities have been provided to members of the CNM and, during the six year period from 2004 to the end of the third quarter of 2009 (inclusive). Some 31,845 person-days of employment were generated by the Project (excluding specialized contractors) of which 23.7% of non-specialized employees or contractors at the Foxtrot Property were Cree from Mistissini (approximately 31 person-years of employment). The proportion of Cree workers ranged from a low of 12.7% in 2008 to a high of 30.9% in 2006. Since March 2007, this employment relationship has been formalized through the Renard-Mistissini Working Group, the main mandate of which is to coordinate and optimize the opportunities of employment for members of the CNM and to develop training programs adapted to local workers. Since 2007, Stornoway has been in discussions with the CNM towards the execution of a formal agreement designed to set out the nature of the relationship with the CNM, as a step towards the eventual negotiation of an Impact and Benefit Agreement. At the time of writing, discussions between Stornoway and CNM are ongoing.

In addition, these employment contracts are helping to develop a qualified local workforce. In 2007 and 2008, workers from Mistissini participated in operation of the DMS facility, drilling programs (both core and reverse circulation), exploration programs (heavy mineral sampling, geophysical surveying, prospecting and trenching), camp maintenance and housekeeping. In 2009, Mistissini personnel assisted with geochemical and geotechnical aspects of the core drilling program, as well as camp maintenance and housekeeping.
5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

5.1.1 Air

Fixed or rotary-wing aircraft are required to reach the Foxtrot Property. During summer months, float-equipped, fixed-wing aircraft and, during the winter months, ski-equipped aircraft can be leased from various hunting and fishing outfitters in the area or from small air service companies in Chibougamau, Mistissini, Témiscamie or Wemindji. The Chibougamau–Chapais airport has daily scheduled flights to Montreal. Flight time from Chibougamau to the Property is approximately one to two hours depending on the type of aircraft used.

During winter, an ice airstrip measuring up to 1,250 m in length is constructed immediately adjacent to Camp Lagopède to allow landing of large aircraft for mobilization of equipment and supplies. In the summer, fixed-wing access directly to the Property requires the use of float planes, which can land at a dock (or quay) at Camp Lagopède, within the Renard Core Area.

During fall freeze-up and spring break-up, access to the Property requires the use of helicopter support. The nearest permanent helicopter base is located in Chibougamau. Charter helicopters are frequently based on the Property.

5.1.2 Road

Highway 109, an all-weather paved road, originates in Matagami, Quebec, and terminates approximately 500 km north at the LG-2 hydroelectric generating station in Radisson. Two major, all-weather, gravel roads lead east from this highway into the interior of Quebec (Figure 4.1). The North Road connects Chibougamau with the James Bay Highway via Nemiscau. The Trans-Taïga Highway runs east from Radisson (LG-2) to Caniapiscau and provides gravel road access to the LG-3, LG-4, Lafarge 1, Lafarge 2 and Centrale Brisay hydro sites and several caribou hunting lodges in the Interior. LG-4 is roughly 150 km by air from the Renard Core Area. Pourvoirie Mirage (Mirage), a hunting/fishing lodge located approximately 50 km to the east of LG-4 along the Trans-Taïga Highway, owns and operates an all-weather airstrip. Mirage is about 120 km by air from the Project, and provides a staging point for the transfer of material from truck to either fixed-wing or rotary-wing aircraft.

In the south, an all-weather, gravel road links Chibougamau with Témiscamie and Albanel (150 km) via the village of Mistissini on Mistassini Lake. A winter road leads further north another 175 km from the northern end of this road to the now-closed Eastmain gold deposit. At its closest point, the winter road is roughly 58 km south of the Foxtrot Property. During winter months in recent years, fuel and supplies have been transported along this road to a point approximately 40 km south of the road’s northern terminus. This northernmost, 40 km section of the road is currently closed, and has not been assessed for operability.

Between 2004 and 2008, a system of unpaved local roads and trails was constructed between Camp Lagopède, the Renard Core Area, the Hibou and the Lynx dyke areas and various exploration drill sites. There is no road linking the Property to any outside roads.
Stornoway, along with some ten other mining companies, the towns of Chibougamau and Mistissini, and several provincial and federal government agencies have joined together to form the Otish Road Committee. The purpose of this committee is to bring a variety of stakeholders together to determine how to develop and promote the Otish all-season, multi-service road, designed ultimately to join the community of Témiscamie with the Trans-Taïga Highway. During 2007, these participants contributed almost $1,000,000 to fund a pre-feasibility study under the auspices of the Quebec Ministry of Transport. In March 2009, the Québec government included in its provincial budget for fiscal year 2009-2010 an allocation of $130 million dollars to be set aside for the 260 km long "Route des Monts Otish" from Chibougamau to the Otish Mountains area. This commitment from the provincial government corresponds to half the total projected cost of this infrastructure project. The Route des Monts Otish, now known as the Route 167 Extension, is the road development project designed to connect the communities of Chibougamau and Mistissini to the Renard Diamond Project by way of several other prospective mining projects and the proposed Albanel-Témiscamie-Otish Park. In November 2009, Transport Quebec granted the feasibility/ESIA contract for the Otish Road to the SNC-Lavalin/Roche consortium. Results from these studies are expected in the fall of 2010. These studies should also assess the feasibility to construct a winter road from the south as the first step of the permanent Otish Road. At present, funding options for the Otish Road have not been determined, but industry may elect to participate in building of the road. A winter road from the north is also being considered under Stornoway’s revision of the 2008 Preliminary Assessment.

5.2 Climate

Long winters and short summers characterize the climate. Temperature ranges are extreme, with summer maximums of +35°C and winter minimums of -45°C. Lakes freeze over in late October, thawing in late April–May. Abundant precipitation falls in the form of rain and snow. During the winter, snow accumulations of several metres are considered normal. Total annual precipitation averages around 80 cm. The Otish Mountains form a local topographic high that affects both precipitation and fog. Fog and low-lying clouds can be a challenge to aircraft moving north from Chibougamau and Mistissini to the Property. Operations can take place year round given the presence of well-equipped camps.

Forest fires are common in the area during the spring and summer months, but to date have not adversely affected the Project.

5.3 Local Resources and Infrastructure

5.3.1 Local Resources

The nearest communities to the Foxtrot Property are Chibougamau, the largest community in northern Quebec (population about 8,000), Mistissini (4,000), and Wemindji (1,300) (Figure 4.1). Chibougamau serves as the major supply centre for regional resource-based industries.

The joint venture constructed and maintains two field camps on the Foxtrot Property: Emmanuel and Lagopède. During the winter, a 15 km snowmobile trail connects the two camps. Camp Emmanuel has the capacity to lodge up to 35 personnel, but is currently on a care-and-maintenance status. Camp Lagopède, which can host 75 persons, is used to stage the exploration and advanced drilling and bulk sampling programs in the Renard
Core Area. The site has a satellite communications system, a secure logging facility, a fenced storage area for holding kimberlitic samples, a garage equipped with a welding shop, and a 10 tph DMS facility.

5.3.2 Power

Power is currently supplied to the exploration camps via diesel generators. All required fuel must be flown to the site. Development of an all-weather road to the Property, under auspices of the Otish Road Committee and Transport Quebec, would reduce the requirement for on-site storage of fuel for power generation. Construction of a winter road would have a significant impact on the provision of diesel-generated power for any future work. Both of these possibilities require evaluation prior to any production decision.

The large hydroelectric generating station at LG-4, located approximately 150 km to the north–northwest of the Foxtrot Property (Figure 4.1), could potentially supply power to any mine that might be developed on the Property. Stornoway has been in discussions with Hydro-Québec regarding development of a power line from the north, and has also investigated the option of bringing a power line from the south. Consideration of the potential for local small-scale hydroelectric development is also under way. Potential routes, timing and financing options for these power line developments are being evaluated.

5.3.3 Transport

The airport facilities at LG-4 and Chibougamau, and the fixed-wing float bases in Mistissini, Témiscamie and Mirage are typically used as staging areas for mobilization of equipment and personnel to the Project site.

5.3.4 Water

Depending on the immediate requirements and the relevant usage permits, process water may be sourced from local lakes or recirculated from surface facilities such as the processed kimberlite containment area or the underground exploration workings. During the 2007 underground bulk sampling program, three different types of processed water were managed on the Foxtrot Property:

- Used water from the Lagopède camp operation: A water treatment system was set up in 2006 and approved by the Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP). It consists of four series of Enviro–Septic system units connected to a cleaning field established behind the campsite.

- Used water from the underground exploration program: A water treatment system approved by the MDDEP was set up underground, together with an outside water-settling pond that was monitored by Stornoway and reported monthly to the appropriate government agency. This pond was decommissioned in August 2008 following MDDEP regulations.

- Used water for the DMS operation: This water was completely recirculated from the DMS facility into the adjacent settling pond as approved by the MDDEP. DMS process water did not require any specific water treatment.
At a future development stage, it is most likely that any required process water would be drawn from either surface or underground sources (the latter associated with natural inflows of groundwater into the potential open pit and/or underground workings), but more likely a combination of both. Current supplies are considered to be more than adequate. Recirculation of process water will continue to provide an important source of water and will be used to reduce requirements for fresh water.

The potable water system used for the Lagopède camp operation is a portable ozone water treatment system, Expio, which is manufactured by Aquagenex in Clermont, Quebec. There are two units available on site. The system can produce up to 100 gallons (378 L) per day, a sufficient quantity for the operations to date. The water is treated under the supervision of a nurse based on site, and a quality control sample is collected on a regular basis.

5.4 Physiography

Topographic relief within the Foxtrot Property consists of steep-sided hills with rounded tops separated by muskeg-covered valleys. Elevations range between 400 masl and 800 masl. Lakes, ponds and small rivers are common.

5.5 Flora and Fauna

The Foxtrot Property is located in the Taiga belt of Northern Quebec. Vegetation consists largely of immature to mature black spruce, poplar, alders and muskeg, with increasing proportions of muskeg and black spruce toward the north. Animals such as bear, fox, moose, marten and caribou, as well as various species of birds, are present in the vicinity of the Foxtrot Property.
6.0 HISTORY

Diamond exploration commenced in the Foxtrot Property area in 1996, with the formation of a 50:50 joint venture between Ashton and SOQUEM.

Prior to that time, regional exploration had been undertaken for gold and base metals by a number of parties using prospecting and geochemical techniques. These activities were limited in scope due to the location of the current property between two Archaean volcanic belts, an area that was considered to be non-prospective for traditional gold and base metal targets. Both BHP Billiton and De Beers Canada Exploration have conducted regional diamond exploration programs in the general area of the current Foxtrot Property, but results are not public. Although there had been scattered small-scale claim blocks throughout the area explored by the Ashton-SOQUEM joint venture, no large-scale land acquisition had occurred prior to the August 2000 grant of Mineral Exploration Licences PEM 1555 and 1556.

Initial stage exploration by the joint venture comprised heavy mineral sampling that defined a number of areas with anomalous indicator mineral counts. Geophysical surveys over the geochemical anomalies were completed, using fixed-wing airborne, magnetic surveys, and ground geophysical surveys.

Core drill testing of these targets led to the discovery of the Renard 1 and Renard 2 kimberlites in September 2001, the Renard 3, Renard 4, Renard 5 and Renard 6 kimberlites in March and April 2002, Renard 7 in August 2002, Renard 8 in September 2002, Renard 9, Renard 10 and the 4.2 km long Lynx kimberlitic dyke occurrences in 2003, and the 850 m long Hibou kimberlite dyke in 2005. The Renard 5 and Renard 6 kimberlites were subsequently determined to be one kimberlitic body, and the occurrence was renamed Renard 65.

Mini-bulk sampling using trenching and core drilling commenced in 2002 on the Renard 2, Renard 3 and Renard 4 kimberlites. Additional mini-bulk sampling since that date has been undertaken on the Renard 1, Renard 65, Renard 7, Renard 9, Renard 10, Lynx, Lynx South and Hibou kimberlites. Mini-bulk samples of kimberlite boulders collected down-ice of the Lynx and Hibou kimberlites have also been completed.

During 2004, a conceptual, order of magnitude, tonnage and grade estimate was prepared for the combined Renard 2, Renard 3, Renard 4 and Renard 65 kimberlites, by Wardrop Engineering Inc. of Vancouver, BC (Maunala, 2004). This estimate included valuation of Renard 2, Renard 3, Renard 4 and Renard 65 diamonds recovered through RC sampling.

Additional exploration resulted in the discovery of the North Anomaly kimberlite dyke in 2005 and the Southeast Anomaly and G04-296 kimberlite dykes in 2006. An occurrence of kimberlitic float material was also discovered north of the Renard pipe cluster.

Bulk sampling commenced in 2006, testing the Renard 2, Renard 3, Renard 4, Renard 65 and Renard 9 kimberlites. Samples were sourced from trench, drill core, RC drill chips and underground. The underground exploration workings comprised a portal and the excavation of an inclined ramp to a depth of approximately 55 m below surface. Horizontal drifts were driven to access the Renard 2 and Renard 3 kimberlites. A modular 10-tonne-per-hour dense media separation (DMS) test facility was erected on the Foxtrot Property close to Renard 2 and Renard 3, to treat the material from the bulk sampling.

Agnico-Eagle was responsible for mining, cost estimating and financial analysis. Elements of the Agnico-Eagle mining study, such as cost estimation, were completed to a pre-feasibility standard. Agnico-Eagle is a leading mine developer in the province of Quebec and Stornoway’s largest shareholder. AMEC designed the DMS facility, and prepared the Mineral Resource Estimate. Given the more conceptual nature of the mine plan, and inclusion of Inferred Resources from AMEC’s Mineral Resource Estimate used in the study, the two studies combined comprise a Preliminary Assessment under the definitions contained within NI 43-101. An audit of the Agnico-Eagle study and economic analysis was completed by Scott Wilson RPA, as independent Qualified Persons for the 2008 NI 43-101 report.

No production has been carried out on the property.
7.0 GEOLOGICAL SETTING

7.1 Regional Geology

The Project area is located within the eastern portion of the Superior Craton (Superior Structural Province) (Figure 7.1). The Superior Province forms the Archaean core of the Canadian Shield, and is the largest contiguous region of Archaean crust remaining on the globe. It is considered to be an amalgamation of small continental fragments of Meso-Archaean age and Neo-Archaean oceanic plates, with a complex history of aggregation between 2.72 Ga and 2.68 Ga. Since about 2.6 Ga, the Province has been tectonically stable (Percival, 2006).

The Superior Province is surrounded by provinces of Paleo-Proterozoic age on the west, north and east (Churchill Province), and Meso-Proterozoic age (Grenville Province) on the southeast. Margins of the Superior Province were affected during Paleo-Proterozoic and Meso-Proterozoic tectonism. Proterozoic and younger activity is limited to rifting of the margins, emplacement of numerous mafic dyke swarms, compressional reactivation and large-scale rotation at ca. 1.9 Ga, and failed rifting at ca. 1.1 Ga (Percival, 2006). Figure 7.2 shows the Archaean and Proterozoic rocks in the general region of the Foxtrot Property.

Quaternary glacial cover in the area was controlled by the New Quebec Ice Divide. From the divide, ice flowed north and northeast toward Ungava Bay and west to southwest toward Hudson Bay. Glacial lineaments are well developed and widespread. Eskers and hummocky to discontinuous, unmoulded, ground moraine deposits are also common.

There are five episodes of kimberlitic volcanism in Quebec (Moorhead et al., 2003); from south to north, the kimberlite fields are:

- Temiscamingue: six diatreme facies pipes intruding the Pontiac Subprovince. Two age dates, 125 Ma (Rb–Sr) and 142 Ma (U–Pb) have been obtained. Kimberlites are hosted in the northwest-trending Temiscaming structural zone.

- Desmaraisville: five hypabyssal pipes and numerous dykes located in the central portion of the Abitibi Subprovince. Age date of 1104 Ma (Rb–Sr phlogopite). Hosted in the Waswanipi–Saguenay Tectonic Zone; pipes are in close proximity to northeast-trending Proterozoic diabase dykes.

- Otish: at least 12 pipes intruding the northeast portion of Opatica and Opinaca Subprovinces. Age dates range from 550.0 ± 3.5 Ma at Beaver Lake to 640.5 ± 28 Ma at Renard. The kimberlite field is associated with the southern end of the Mistassini-Lemoyne structural zone, and near-northwest, and northeast-trending Proterozoic diabase dykes.

- Wemindji: kimberlitic sills intruding Archaean-age gneisses of La Grande Subprovince, located at the western end of the Wemindji–Caniapiscau structural zone where it intersects the northeasterly projection of the Kapuskasing zone.

- Torngat: diamond-bearing dykes recognized in the Paleo-Proterozoic Rae Province near the Archaean Nain Craton. These dykes were classified as carbonatized ultramafic lamprophyres and dated at 550 Ma.

The Renard Cluster is considered to be part of the Otish kimberlitic volcanic event.
Figure 7.1: Regional Geology Superior Craton
Figure 7.2: Regional Geology - Foxtrot Area
7.2 Project Geology

The description of Project geology below is based on O'Connor and Lépine (2006).

The Project area lies on the southeastern portion of the Superior Structural Province bordered by Proterozoic rocks of the Labrador Trough in the east and the Grenville Province in the south (Figure 7.1). This portion of the Superior Craton is sometimes referred to as the "Ungava Craton". Proterozoic rocks of the Labrador Fold Belt in the east, the Cape Smith Fold Belt in the north and the Grenville Province in the south surround the Project area. Northern portions of the Project area consist of north-northwest trending, plutonic and gneissic terranes. Based on metamorphic grade, mineralogy, lithology and aeromagnetics, the terranes appear to vary in width from 70 km to 150 km (Percival et al., 1994).

The Foxtrot Property is situated between the La Grande greenstone (volcanic) belt to the north and the Eastmain greenstone (volcanic) belt to the south. Granite-gneiss and retrograde granulite gneiss are the predominant lithologies, with lesser amounts of granite and granodiorite. Contained within the gneiss are relict metasedimentary and metavolcanic rock assemblages along with associated mafic and ultramafic intrusive rocks. The Otish Mountain and Mistassini groups of Proterozoic, clastic, metasedimentary rocks overlie the Archean lithologies, marginal to the Grenville Province. Mafic and ultramafic intrusive rocks of variable affinities are more common in the southeast than in the southwest.

Granite–gneiss and retrograde granulite gneisses of sedimentary origin are the predominant lithologies in the Property area; however, lesser granite and granodiorite may also be present. The gneisses may contain relict metasedimentary and metavolcanic rock assemblages, as well as associated mafic and ultramafic intrusive rocks. Minor linear belts of supracrustal metavolcanic rocks occur throughout the area, generally trending east-west or west-northwest. Northwest-trending, Proterozoic Mistassini Swarm diabase and gabbro dykes up to 30 m wide cross-cut all lithologies. Isolated outliers of Proterozoic clastic metasedimentary rocks are present in the area (O'Connor and Lépine, 2006).

Metamorphic grade within the Foxtrot area is primarily amphibolite facies with local granulite facies being reported near Lac Minto (Percival et al., 1994). Higher-grade lithologies in the north are interpreted as supracrustal relics dating to 3.1 Ga. Granite and granite gneiss are dated at 2.7 Ga and local felsic and intermediate intrusive rocks are dated at 2.5 Ga.

Glacial overburden within the Foxtrot Property can be up to 30 m thick, but is on average 12 m thick in the area of the Renard Cluster. Glacial deposits consist of till, eskers, moraine and post-glacial sediments, and their orientation reflects ice transport from the north-northeast.

In this report, reference is made to the Renard Core Area, which is defined as a 37-ha area that contains the Renard 2, Renard 3, Renard 4, Renard 65 and Renard 9 kimberlite pipes as well as the Lynx and Hibou dyke systems. Kimberlites are discussed individually in Section 9 of this report.
8.0 DEPOSIT TYPES
There are two types of diamond deposits: primary and secondary. Primary deposits are those in which the diamonds remain inside the original host rock (usually kimberlite) that conveyed them to the surface. Secondary deposits are formed when the diamonds are eroded from the host rock and concentrated by the action of water into alluvial deposits (in rivers) or marine deposits (in beaches). The Renard kimberlites are primary deposits.

8.1 Overview of Primary Diamond Deposits
Primary diamond deposits such as kimberlites and lamproites have produced over 50% of the world’s diamonds. The remainder was derived from recent to ancient placer deposits that originated from the erosion of kimberlite and/or lamproite. Although diamondiferous kimberlite and lamproite comprise most of the economic diamond deposits, other diamond-bearing rocks have also been discovered and are the subject of numerous academic papers. Such diamond-bearing rocks include ultramafic lamprophyres (aillikites) in Canada and volcaniclastic komatites in French Guiana (Capdevila et al., 1999). It has been established by the scientific community that diamonds are not genetically related to kimberlite or lamproite but that kimberlite and lamproite intrusives serve as a transport mechanism for bringing diamonds to surface (Kirkley et al. 1991) from the mantle.

Clifford (1966) and Janse (1991) stated that a majority of economic diamondiferous kimberlites occur in stable Archaean age cratonic material that has not undergone any thermal or deformational event since 2.5 Ga. Such Archaean age cratons include the Kaapvaal, Congo and West African cratons (Africa), Superior and Slave Provinces (Canada), East European Craton (Russia, Finland), and the West, North and South Australian cratons. The only exceptions to date are the Argyle and Ellendale mines of Australia, which occurred in Proterozoic-age, remobilized, cratonic material.

To date, over 6,000 known kimberlite and lamproite occurrences have been discovered, of which over 1,000 are diamondiferous. Some of the well-known diamondiferous kimberlites/lamproites currently being mined include Argyle (lamproite) in Australia; Orapa and Jwaneng (kimberlites) in Botswana; Jubilee, Udachnaya and Mir (kimberlites) in Russia; Venetia (kimberlite) in South Africa, and the Ekati and Diavik clusters (kimberlites) in Canada.

Economic diamond kimberlite and/or lamproite pipes generally range from less than 0.4 ha to 146 ha in surface area, with the maximum size being more than 200 ha (for example, Catoca, Angola). Economic diamond grades can range from 3.5 cpht to 600 cpht.

8.2 Kimberlite-Hosted Deposits
The following discussion of kimberlite types and deposits is taken directly from a publication on ore deposit models by Mitchell (1991).

Kimberlites remain the principal source of primary diamonds despite the discovery of high-grade deposits in lamproites. Recent mineralogical and Nd–Sr isotopic studies have shown that two varieties of kimberlite exist:

- Group 1, or olivine-rich monticellite serpentine calcite kimberlites; and
Group 2, or micaceous kimberlites (predominantly occur in southern Africa).

“Group 1” kimberlites are complex, hybrid rocks consisting of minerals that may be derived from:

- Fragmentation of upper mantle xenoliths (including diamond);
- Megacryst or discrete nodule suite; or
- Primary phenocrysts and groundmass minerals.

The contribution to the overall mineralogy from each source varies widely and significantly influences the petrographic character of the rocks. Consequently, Group 1 kimberlites comprise a petrological clan of rocks that exhibit wide differences in appearance and mineralogy as a consequence of the above variation, coupled with differentiation and diverse styles of emplacement of the magma.

Figure 8.1 illustrates an idealized South African kimberlite magmatic system, showing the relationships between effusive rocks, diatremes, and hypabyssal rocks. Currently, three textural–genetic groups of kimberlite are recognized, each being associated with a particular style of magmatic activity in such a system. These are:

- Crater facies;
- Diatreme facies; and
- Root Zone facies.

Rocks belonging to each facies differ in their petrology and primary mineralogy, but may contain similar xenocrystal and megacrystal assemblages.

With a few exceptions, such as the Finsch Kimberlite Mine in the Republic of South Africa and the Dokolwayo Kimberlite Mine in Swaziland, most of the well-known diamondiferous kimberlites in South Africa and elsewhere are Group 1 kimberlites. The Renard kimberlites are considered to be Group 1 kimberlites.

The Renard kimberlites are interpreted to be steep-sided, pipe-like structures with irregular to elongate shapes in plan view. Surface expressions vary between 0.1 ha and 1.7 ha. The Renard Cluster is mainly composed of diatreme-like kimberlitic breccia lithologies and hypabyssal kimberlitic material. No crater material is noted in the Renards.

The Lynx, Hibou, North Anomaly, Southeast Anomaly and G04-296 hypabyssal dykes are interpreted to be intrusions of kimberlitic material that did not vent to the earth’s surface at the time of emplacement.
Model of an idealized kimberlite magmatic system illustrating the relationships between crater, diatreme and hypabyssal facies rocks. The diatreme root zone is composed primarily of hypabyssal rocks. (After Mitchell, 1986)

Figure 8.1: Idealized Model – South African Kimberlite Pipe
9.0 MINERALIZATION

The Renard kimberlite pipes and Lynx and Hibou dykes were emplaced into granitic and gneissic host rocks, and contain diamonds of potential economic interest. The bodies comprise a late Neo-Proterozoic to Cambrian kimberlite field in Quebec (Girard, 2001; Moorhead et al, 2002; Letendre et al., 2003).

To date, nine kimberlite pipes have been identified over a 2 km² area in the Renard Cluster (Renard 1 to Renard 10; with Renard 5 and Renard 6 forming one body, referred to as Renard 65). The kimberlite pipes are typically spaced between 50 m and 500 m from each other (Figure 9.1). Geophysical data and drill information from delineation and bulk sampling programs indicate that, in general, most of the Renard kimberlites are irregular and elliptical in plan view. Surface areas of the kimberlite portion of the pipes range from 0.1 ha to 1.7 ha. A summary of each pipe is presented in Table 9-1. Renard 2, Renard 3, Renard 4, Renard 9 and Renard 65 are the subject of the Mineral Resource Estimate in Section 17 of this report. At the present time, the other kimberlite pipes are considered either too small, have low apparent diamond content, or are not sufficiently sampled or understood to support mineral resource estimation. Additional work on these other bodies may be undertaken at a later date; however, no work plan or budget has been prepared at this time.

Two laterally extensive kimberlite dyke systems, known as the Lynx and Hibou dykes, have been identified to the west and northwest of the pipe cluster, respectively (Figure 9.1). Portions of both dykes are included in the mineral resource estimation. Additional dyke-like kimberlites have been discovered elsewhere on the property. These are not included in mineral resource estimation but may warrant additional work at a later date. No work plan or budget has been prepared for this work at this time.

This section focuses on the internal geology of the pipes which is fundamental to the resource estimation process.
Figure 9.1: Kimberlite Location Map
Table 9-1: Renard Kimberlite Pipes and Significant Dyke Systems

<table>
<thead>
<tr>
<th>Pipe (year of discovery)</th>
<th>Surface Area of Kimberlite* (ha)</th>
<th>Dimensions of Kimberlite at Surface* (m)</th>
<th>Vertical Extent of Kimberlite Modelled (m)</th>
<th>Depth of Cover (m)</th>
<th>Major Kimberlite Units</th>
<th>Exploration Potential</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 1 (2001)</td>
<td>1.3</td>
<td>210 x 70</td>
<td>280</td>
<td>10</td>
<td>MVK, transitional CK and large HK intrusion</td>
<td>No additional work planned</td>
<td>Diatreme-zone kimberlite with overall regular shape. Slightly elongate north-south, sub-circular shape at surface.</td>
</tr>
<tr>
<td>Renard 2 (2001)</td>
<td>0.8</td>
<td>153 x 70</td>
<td>688</td>
<td>22</td>
<td>MVK and transitional CK</td>
<td>Remains open at depth</td>
<td>Diatreme-zone kimberlite with irregular shape near surface. Slightly elongate north-south at surface. Size of kimberlite portion of pipe increase with depth. Partly covered by lake.</td>
</tr>
<tr>
<td>Renard 3 (2002)</td>
<td>0.3</td>
<td>120 x 24</td>
<td>395</td>
<td>10</td>
<td>Transitional CK, MVK, large HK intrusions</td>
<td>Remains open at depth</td>
<td>Root-zone kimberlite with overall irregular shape.</td>
</tr>
<tr>
<td>Renard 4 (2002)</td>
<td>1.0</td>
<td>170 x 110</td>
<td>380</td>
<td>10</td>
<td>MVK, transitional CK</td>
<td>Remains open at depth</td>
<td>Partly covered by shallow lake (about 0.4 ha). Diatreme-zone kimberlite with overall regular shape. Slightly elongate, east-west trending sub-circular shape at surface.</td>
</tr>
<tr>
<td>Renard 65 (2002)</td>
<td>1.7</td>
<td>320 x 75</td>
<td>280</td>
<td>10</td>
<td>Transitional CK, MVK</td>
<td>Remains open at depth</td>
<td>Diatreme zone kimberlite. Slightly elongate, north-south trending irregular shape at surface.</td>
</tr>
<tr>
<td>Renard 7 (2002)</td>
<td>1.6</td>
<td>285 x 124</td>
<td>255</td>
<td>5</td>
<td>MVK</td>
<td>No additional work planned</td>
<td>Diatreme-zone kimberlite with overall regular shape and sub-circular shape at surface.</td>
</tr>
<tr>
<td>Renard 8 (2002)</td>
<td>0.4</td>
<td>80 x 50</td>
<td>245</td>
<td>8</td>
<td>MVK, large HK intrusion</td>
<td>No additional work planned</td>
<td>Diatreme-zone kimberlite with overall regular shape and sub-circular shape at surface.</td>
</tr>
<tr>
<td>Renard 9 (2003)</td>
<td>0.5</td>
<td>163 x 35</td>
<td>380</td>
<td>5</td>
<td>MVK, transitional CK</td>
<td>Remains open at depth</td>
<td>Lower diatreme to root-zone kimberlite. Elongate, north-south trending, elliptical shape at surface. Body shape dips to the east with depth. Entirely covered by 2–4 m deep lake.</td>
</tr>
<tr>
<td>Renard 10 (2003)</td>
<td>0.1</td>
<td>370 x 12</td>
<td>215</td>
<td>3</td>
<td>CK</td>
<td>No additional work planned</td>
<td>North-northwest trending dyke-like kimberlite. Possible blind intrusion. Almost entirely covered by 3 m deep lake.</td>
</tr>
<tr>
<td>Lynx (2003)</td>
<td>n/a</td>
<td>4230 (strike length only)</td>
<td>95</td>
<td>5</td>
<td>HK</td>
<td>Remains open along strike and down dip</td>
<td>North-northwest trending dyke, variable dip from 10° to 50° to the east.</td>
</tr>
<tr>
<td>Hibou (2005)</td>
<td>n/a</td>
<td>952 (strike length only)</td>
<td>92</td>
<td>8</td>
<td>HK</td>
<td>Remains open along strike and down dip</td>
<td>East-west trending dyke; shallow dip approximately 10° to the north-northeast.</td>
</tr>
</tbody>
</table>

*Based on 3D model; excludes CCR and CRB
9.1 Renard Kimberlite Pipes
9.1.1 General Geology

Kimberlite nomenclature has evolved several times throughout the work carried out on the Renard kimberlites. The terminology used at this time to describe the rock types in these kimberlites is in accordance with that used in the most recent scientific literature. Within this report the following terms and definitions are used:

- **Massive Volcaniclastic Kimberlite (MVK):** a general term that includes kimberlite classified texturally as tuffisitic kimberlite breccia.

- **Coherent Kimberlite (CK):** a general term that refers to kimberlite that has not been fragmented (i.e., the magma broken apart as a result of emplacement processes). In general, the term coherent kimberlite is used to refer to large, pipe-infilling events of this nature.

- **Hypabyssal Kimberlite (HK):** a more specific textural term for CK. Typically used here to describe the detailed texture of a CK rock and commonly used when referring to dykes or irregular intrusions.

- **Tuffisitic Kimberlite Breccia (TKB):** a more specific textural term for MVK. Characterized by microlitic clinopyroxene in the matrix of the rock.

- **Transitional Kimberlite:** this refers to kimberlite that shows textures of both volcaniclastic kimberlite and coherent kimberlite. A small “t” denotes a transitional textured HK or TK when describing rock-types (e.g., HKt or TKt).

The Renard kimberlite pipes comprise root zone to diatreme facies rocks characterized by a complex internal geology. These pipes can be classified as “typical” South-African-style kimberlites (Hawthorne, J.B., 1973, Clement and Skinner, 1979, Clement, 1982 and Field and Scott Smith, 1999). In most pipes, with the exception of Renard 3 and Renard 10, the dominant phase is a MVK that can be classified as “tuffisitic” kimberlitic breccia (TKB). In general, these TKBs are extensively altered and have a massive texture. They consist of varying amounts of olivine, juvenile clasts and country rock xenoliths that are poorly sorted, typically loosely packed and less commonly clast supported, all set within a highly altered interclast matrix. In many pipes a secondary pipe-filling phase is present that is typically a more coherent or transitional kimberlite characterized by lower country rock xenolith content and higher olivine content set within a dominantly crystalline groundmass. In all bodies, HK is present as both dykes and irregularly shape intrusions that are found within each pipe infilling phase, between contacts of phases and along pipe margins. These are typically considered later stage intrusions. The HK intrusions can vary in thickness from a few centimetres to several metres and, in the case of the Lynx and Hibou dyke system, for example, they are laterally extensive.

The Renard bodies are all associated with extensive cracked country rock (CCR) “halos” and with the exception of Renard 3, Renard 7 and Renard 8, have a significant marginal country rock breccia (CRB) peripheral to the main pipe infills. The CCR surrounding the pipes consist of both broken and solid country rock with minor amounts of HK dykes and veins throughout. Minor zones of extensively fractured to brecciated country rock are also present in this unit. The CRB typically lies between the main kimberlite units and the CCR and is characterized by dominantly broken and pulverized country rock, with an overall dilution of 95% or greater. CRB contains from 0% - 5% kimberlite, present as olivine in the pulverized country rock matrix. Locally, the CRB may
also contain more than 10% diamond-bearing kimberlitic material, in the form of late-stage, cross-cutting HK dykes.

Each Renard kimberlite contains a variety of phases that are distinguishable from one another by differing macroscopic and microscopic properties as well as diamond grades. A summary of the various kimberlite lithologies present in the Renard bodies is provided in Table 9-2.

Whole rock trace element compositions suggest that the Renards have a close affinity to Group I kimberlite (after Skinner, 1989), with some melnoitic overlap, likely due to contamination by country rock (Birkett et al., 2004). However, petrographic analyses of these rocks support Group I kimberlite classification.

Previous U-Pb dating of groundmass perovskite in HK dykes within Renard 1 suggested an emplacement age of 631.6 ± 3.5 Ma (Birkett et al., 2004). Recent data obtained for the main rock-types in Renards 2 and 3 using the same method suggest an emplacement age of 40.5 ± 2.8 Ma.
<table>
<thead>
<tr>
<th>Kimberlite</th>
<th>Major Geological Unit</th>
<th>Dominant Colour</th>
<th>Textural Classification</th>
<th>Textural Classification Codes</th>
<th>Distinguishing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>Kimb2a</td>
<td>blue to blue green</td>
<td>volcaniclastic kimberlite</td>
<td>TK</td>
<td>high abundance and size of country rock xenoliths (CRx), blue clay matrix.</td>
</tr>
<tr>
<td></td>
<td>Kimb2b</td>
<td>brown</td>
<td>magmatic &gt; volcaniclastic kimberlite</td>
<td>HK-HKT to TKt</td>
<td>coarse olivine sizes, lower CRx % and size, abundant perovskite.</td>
</tr>
<tr>
<td></td>
<td>Kimb2c</td>
<td>dark green to black</td>
<td>magmatic kimberlite</td>
<td>HK</td>
<td>uniform distribution of crystalline groundmass, low dilution.</td>
</tr>
<tr>
<td></td>
<td>CRB-2a</td>
<td>white with blue matrix</td>
<td>n/a</td>
<td>breccia</td>
<td>highly diluted Kimb2a characterized by very large, tightly packed country rock xenoliths with minor amounts of blue kimberlite matrix.</td>
</tr>
<tr>
<td>Renard 3</td>
<td>Kimb3b</td>
<td>blue to blue green</td>
<td>volcaniclastic kimberlite</td>
<td>TK-TKt</td>
<td>high abundance and size of CRx, abundant juvenile clasts.</td>
</tr>
<tr>
<td></td>
<td>Kimb3c</td>
<td>dark green to grey/black</td>
<td>magmatic kimberlite</td>
<td>HK</td>
<td>uniform distribution of crystalline groundmass, low dilution.</td>
</tr>
<tr>
<td></td>
<td>Kimb3d</td>
<td>black to dark brown</td>
<td>magmatic kimberlite</td>
<td>HK-HKT</td>
<td>strongly altered CRx with black to green alteration rims and bleached centres.</td>
</tr>
<tr>
<td></td>
<td>Kimb3g</td>
<td>mottled green-brown to dark brown</td>
<td>magmatic &gt; volcaniclastic kimberlite</td>
<td>HKI-TKt</td>
<td>texturally complex, similar to kimb3f but has lower abundance of HK autoliths and mantle nodules.</td>
</tr>
<tr>
<td></td>
<td>Kimb3f</td>
<td>light-dark brown with mottled blue-green zones</td>
<td>volcaniclastic &gt; magmatic kimberlite</td>
<td>TKI-HKt</td>
<td>higher abundance of HK autoliths and higher % of larger CRx than in 3d, mantle nodules present.</td>
</tr>
<tr>
<td></td>
<td>Kimb3h</td>
<td>black</td>
<td>magmatic kimberlite</td>
<td>HK</td>
<td>uniform distribution of crystalline groundmass, 15% - 25% commonly bleached CRx.</td>
</tr>
<tr>
<td></td>
<td>Kimb3i</td>
<td>black</td>
<td>magmatic kimberlite</td>
<td>HK</td>
<td>uniform distribution of coarse crystalline groundmass, indicator minerals more common.</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Kimb4a</td>
<td>blue grey to grey green</td>
<td>volcaniclastic kimberlite</td>
<td>TK</td>
<td>high abundance and size of white-pink CRx, common carbonatized olivines.</td>
</tr>
<tr>
<td></td>
<td>Kimb4b</td>
<td>brown</td>
<td>magmatic &gt; volcaniclastic kimberlite</td>
<td>HK-HKT to TKt</td>
<td>coarse olivine sizes, lower CRx % and size, common mantle nodules, abundant perovskite.</td>
</tr>
<tr>
<td></td>
<td>Kimb4c</td>
<td>black to dark green</td>
<td>magmatic kimberlite</td>
<td>HK (to HKt)</td>
<td>uniform distribution of crystalline groundmass, low dilution.</td>
</tr>
<tr>
<td></td>
<td>Kimb4d</td>
<td>dark blue</td>
<td>highly variable &gt; volcaniclastic</td>
<td>TK-TKt with HKI-HKt zones</td>
<td>dark blue clay matrix, common indicator minerals, higher abundance of HK autoliths and HK dykes.</td>
</tr>
<tr>
<td>Renard 65</td>
<td>Kimb65a</td>
<td>pale blue-grey to dark grey-green</td>
<td>volcaniclastic kimberlite</td>
<td>TK-TKt</td>
<td>high abundance and size of CRx, abundant juvenile clasts.</td>
</tr>
<tr>
<td></td>
<td>Kimb65b</td>
<td>black to brown</td>
<td>magmatic kimberlite</td>
<td>HK-HKT</td>
<td>strongly altered CRx dark green to partially bleached centres, common mantle nodules.</td>
</tr>
<tr>
<td></td>
<td>Kimb65c</td>
<td>dark green to grey/black</td>
<td>magmatic kimberlite</td>
<td>HK</td>
<td>uniform distribution of crystalline groundmass, low dilution, common flow banding of olivines.</td>
</tr>
<tr>
<td></td>
<td>Kimb65d</td>
<td>light-dark brown with mottled blue-green zones</td>
<td>volcaniclastic &gt; magmatic kimberlite</td>
<td>TKI-HKt</td>
<td>dirty brown appearance, creamy green and yellow rimmed CRx, common HK autoliths.</td>
</tr>
<tr>
<td></td>
<td>Kimb65e</td>
<td>dark brown</td>
<td>magmatic &gt; volcaniclastic kimberlite</td>
<td>HKI</td>
<td>complex magmatic transitional unit in the southern part of the body.</td>
</tr>
<tr>
<td>Renard 9</td>
<td>Kimb9a</td>
<td>greyish green</td>
<td>volcaniclastic kimberlite</td>
<td>TK</td>
<td>high abundance and size of CRx, abundant juvenile clasts, pyrite replaces olivines.</td>
</tr>
<tr>
<td></td>
<td>Kimb9b</td>
<td>black to brownish black</td>
<td>magmatic &gt; volcaniclastic kimberlite</td>
<td>HK-HKT (rare TKt)</td>
<td>varies in texture from east (HK) to west (TKt).</td>
</tr>
<tr>
<td></td>
<td>Kimb9c</td>
<td>dark green to grey/black</td>
<td>magmatic kimberlite</td>
<td>HK</td>
<td>uniform distribution of crystalline groundmass, two types -- non-magnetic carbonate rich and magnetic.</td>
</tr>
<tr>
<td>Lynx</td>
<td>CR</td>
<td>variable</td>
<td>n/a</td>
<td>n/a</td>
<td>country rock.</td>
</tr>
<tr>
<td></td>
<td>CCR</td>
<td>variable</td>
<td>n/a</td>
<td>n/a</td>
<td>large country rock blocks separated by thin kimberlite-filled fractures and HK dykes situated around the main kimberlite phases.</td>
</tr>
<tr>
<td></td>
<td>CRB</td>
<td>variable</td>
<td>n/a</td>
<td>breccia</td>
<td>brecciated country rock.</td>
</tr>
<tr>
<td></td>
<td>CRB+K</td>
<td>variable</td>
<td>n/a</td>
<td>breccia</td>
<td>brecciated country rock with up to 5% kimberlite material usually identified as olivine macrocrysts.</td>
</tr>
</tbody>
</table>

Note: HK = hypabyssal kimberlite; HKI = transitional hypabyssal kimberlite; HK-HKT = hypabyssal to transitional kimberlite; HKI-TKt = magmatic to tuffisitic kimberlite; TK = tuffisitic kimberlite; TKI-TKt = tuffisitic to transitional tuffisitic kimberlite.
9.1.2 Renard 2

The Renard 2 kimberlite is a mid-sized kimberlite pipe within the Renard Cluster. It is interpreted as a diatreme-zone kimberlite with irregularities in the external shape of the kimberlite near the surface, but an overall smooth and tapering shape when considering the emplacement envelope (the CRB and CCR). The shape of the kimberlite portion of the pipe expands with depth. The internal geology of Renard 2 was established using geological logs of both core and reverse circulation drill holes combined with detailed mapping of the underground drift and petrographic and geochemical studies (Figures 9.2 and 9.3). A detailed description of the geology and emplacement history of Renard 2 is described in Fitzgerald et al. (2009). Renard 2 consists of two main pipe-infills: an MVK referred to as Kimb2a and a transitional CK referred to as Kimb2b. The two main infills exhibit contrasting primary textures: olivine abundances and populations, country rock xenolith abundances and populations, and diamond contents. The kimberlite is surrounded by extensive marginal CRB and CCR. In addition to these, HK dykes and intrusions (referred to as Kimb2c) of varying thickness are found throughout the body, along the pipe contacts, within the marginal breccia and in the cracked country rock (Fitzgerald et al., 2009).

Each kimberlite unit can be described as follows:

Kimb2a is volumetrically the most significant kimberlite rock type infilling the pipe, accounting for 56% of total kimberlite by volume. It is extensively altered, massive and can be texturally classified as a TKB (Clement and Skinner, 1979; Clement, 1982; Clement and Reid, 1989; Field and Scott Smith, 1999; Hetman, 2008). This blue to blue-green rock consists of olivine, juvenile clasts and country rock xenoliths that are poorly sorted, typically loosely packed and less commonly clast supported and set within a highly altered interclast matrix. Olivine macrocrysts comprise 10% of the rock and are typically medium-grained to rarely coarse-grained. Juvenile clasts are common, have sharp margins and are of both cored and uncored varieties (Webb, 2006). Primary groundmass minerals in juvenile clasts include phlogopite, spinel and perovskite. This unit commonly contains 50% - 75% fresh to moderately altered granitoid and lesser gneissic country rock xenoliths (granitoid dominate). These are set within a non-crystalline matrix that comprise clays, serpentine and microlitic clinopyroxene. This rock can be classified mineralogically as a phlogopite kimberlite.

Kimb2b is the second most volumetrically significant kimberlite rock type, accounting for 44% of total kimberlite by volume. This rock is a moderately altered, massive and texturally variable CK that displays both coherent and rarer volcaniclastic (i.e. TKB) textures. This brown rock consists of olivine, country rock xenoliths and rare juvenile clasts that are poorly sorted and set within a dominantly crystalline groundmass. Olivine macrocrysts comprise 15% - 30% of the rock and are medium- to coarse-grained with common very coarse grains. Juvenile clasts are relatively rare and, where observed, typically have diffuse margins. Primary groundmass minerals include phlogopite, perovskite, spinel, carbonate and rare monticellite. Secondary minerals in the groundmass include serpentine, clays and microlitic clinopyroxene. This unit commonly contains 20% - 50% moderately to strongly altered granitoid and gneissic country rock xenoliths (gneissic appear to dominate). This rock can be classified mineralogically as a monticellite phlogopite kimberlite.
Figure 9.2: Plan View - Renard 2, Renard 3, Renard 4 and Renard 9
Figure 9.3: Section View - Renard 2, Renard 3, Renard 4 and Renard 9
Contacts between these two rock types are sharp and commonly highlighted by HK dyke intrusions, as well as changes in the proportion of country rock xenoliths in Kimb2a. The contrasting textural and component features described above and the sharp nature of the contacts, combined with the difference in diamond grade, supports interpretation of the two pipe infills as two distinct rock-types emplaced during two separate volcanic events. The emplacement of Kimb2b is thought to have preceded that of Kimb2a based on the contact relationships between these two phases and the relative distribution of these within the pipe, as it is often identified as remnant blocks within Kimb2a near surface and is present marginally to Kimb2a at depth.

Coherent kimberlite also occurs in Renard 2 in the form of late-stage HK dykes and irregular intrusions (referred to as Kimb2c), ranging in thickness from a few centimetres up to 15 m. Kimb2c is black to dark-green coloured with medium- to coarse-grained and, commonly, very coarse-grained macrocrystic olivine. The various HK intrusions include a spectrum of primary groundmass mineral assemblages, ranging from monticellite dominated to phlogopite dominated, each additionally consisting of common carbonate, spinel and perovskite. This unit does not commonly contain country rock xenoliths but, where present, comprises < 5% of the unit and are strongly altered.

Also modelled in Renard 2 is the CRB-2a unit. This internal country rock breccia was identified during mapping of the underground exposure and drill core logging, and consists of large fresh blocks of white granitoid and gneiss with a minor matrix component manifested as < 5 cm wide, blue coloured veins and Kimb2a intersections. Country rock xenolith content is 95% or greater. The presence of the Kimb2a intersections, overall blue colour of the matrix, and similarities in appearance, type and alteration state of the country rock xenoliths, suggest that this CRB represents a highly diluted zone of Kimb2a. Petrographic examination of matrix zones supports this interpretation.

The kimberlite in Renard 2 is surrounded entirely by extensive marginal CRB and CCR. The CRB has a maximum width of approximately 100 m near surface and extends the full depth of the body on the north side of the pipe. The CCR is present in the upper portion of the pipe and is spatially associated with the Kimb2a unit. More HK dykes are present within the CCR unit on the western side of the body as compared to the eastern side.

9.1.3 Renard 3

The Renard 3 kimberlite is one of the smallest kimberlite pipes within the Renard Cluster. It is interpreted as a complex, steep-sided, root-zone kimberlite, with several irregularities in the external shape. The geology of this kimberlite has been determined using detailed logging of drill core, mapping of the underground decline walls, and results of petrographic and geochemical studies (Figures 9.2 and 9.3).

The current 3D model of Renard 3 has two possible feeder zones and consists of six kimberlite rock types in order of volumetric significance: Kimb3d, Kimb3g, Kimb3i, Kimb3b, Kimb3h, and Kimb3f. Currently, the Kimb3d and Kimb3g units are modelled together as one 3D solid, based on their comparative mineralogy and abundances of groundmass minerals observed through thin section analysis, as well as similar grade and diamond counts (stones per tonne) obtained from underground sampling. A small CRB zone exists on the upper, southern portion of the pipe, in association with the Kimb3b phase. More extensive CCR discontinuously surrounds the majority of the kimberlite pipe margin. In addition to the six main kimberlite rock types infilling the
pipe, a number of HK dykes and intrusions (Kimb3c) occur throughout the body, along the pipe contacts, within the marginal breccia and in the cracked country rock.

Each kimberlite unit can be described as follows:

Kimb3d is a coherent (HK/HK(t)), black to dark brown kimberlite with medium- to coarse-grained and common very coarse-grained macrocrystic olivine. This unit commonly contains 20% - 40% strongly altered, dark green to black-rimmed granitoid and lesser gneissic country rock xenoliths with bleached centres. The matrix is crystalline and dominated by primary groundmass minerals consisting of phlogopite, carbonate, perovskite, spinel and rare monticellite. Texturally this rock is classified as a CK and mineralogically as a phlogopite kimberlite.

Kimb3g is a transitional volcaniclastic (HKt/TKt), dark brown to mottled-brown-green kimberlite with medium- to coarse-grained and rare very coarse-grained macrocrystic olivine. This unit contains approximately 30% - 50% granitoid and gneissic country rock xenoliths moderately altered with creamy green and yellow rims. Juvenile clast abundance is variable and exhibits common thick selvages. The matrix is non-crystalline to crystalline and contains both primary groundmass minerals and patchy zones of secondary alteration minerals. Texturally this rock is classified as an HKt/TKt and mineralogically as a phlogopite kimberlite. Kimb3d and Kimb3g are modelled as one unit in 3D and together account for 37% of the kimberlite by volume.

Kimb3i is a coherent (HK), black kimberlite with medium- to coarse-grained and common very coarse-grained macrocrystic olivine. This unit contains on average 10% - 20% strongly altered granitoid and gneissic country rock xenoliths, with alteration style varying from entirely bleached and dark-green colour to having black rims with bleached centres. The matrix is uniform, crystalline and dominated by primary groundmass minerals consisting of carbonate, phlogopite, perovskite, spinel and rare apatite. Texturally this rock is classified as a CK and mineralogically as a phlogopite carbonate kimberlite. Kimb3i represents 20% of total kimberlite by volume.

Kimb3b is a blue to blue-grey volcaniclastic (TK/TKt) kimberlite breccia with fine- to medium-grained, and less commonly coarse-grained macrocrystic olivine. This unit contains altered pink to patchy green granitoid xenoliths, with lesser gneissic xenoliths that are fresh to moderately altered green. Xenolith content varies from 55% - 75%. Juvenile clasts are common and are both cored and uncored. The matrix is dominated by clinopyroxene, serpentine and clay, contributing to its blue-grey colour. Texturally this rock can be classified as a TKB and mineralogically as a phlogopite kimberlite. Kimb3b represents 16% of total kimberlite by volume.

Kimb3h is a coherent (HK) black kimberlite with medium- to coarse-grained and rare, very coarse-grained macrocrystic olivine. This unit contains 15% - 25% strongly altered, dark green to black-rimmed granitoid and gneissic country rock xenoliths with bleached centres. The matrix is crystalline with primary groundmass minerals consisting of phlogopite, carbonate, spinel and perovskite. Texturally this rock is classified as a CK and mineralogically as a carbonate phlogopite kimberlite. Kimb3h represents 14% of total kimberlite by volume.

Kimb3f is a volcaniclastic (TKt/HKt) brown to mottled green-blue kimberlite with medium-grained and common coarse-grained macrocrystic olivine. This unit contains 35% - 50% gneissic and granitoid country rock xenoliths, moderately altered with creamy yellow to green rims. Juvenile clasts with thick selvages are abundant, however, are commonly diffuse and are not always easily observed, particularly in darker, more magmatic zones. Autoliths of HK are abundant and, in general, this unit contains the highest percentage of autoliths compared to other
units in the Renard 3 body. Texturally this rock is classified as a TKt/HKt and mineralogically as a phlogopite kimberlite. Kimb3f represents 13% of total kimberlite by volume.

Coherent kimberlite also occurs in Renard 3 in the form of late-stage HK dykes and irregular intrusions (Kimb3c). They range in thickness from a few centimetres up to 20 m. Kimb3c is a black to dark-green HK with medium- to coarse-grained, and commonly, very coarse-grained macrocrystic olivine. This unit does not commonly contain country rock xenoliths, but where present, they comprises < 5% of the unit.

CRB is found only in the southern, uppermost part of the pipe and therefore comprises only a minor portion of the entire kimberlite pipe. It has a maximum width of 45 m, wrapping around the southern end of the pipe, and extends vertically for almost 175 m. The kimberlite is surrounded from top to bottom by discontinuous CCR.

The emplacement history of Renard 3 is complex and not fully understood at this time. However, textural features of the rocks, contact relationships and distribution of the rock types in the pipe suggest that Kimb3b and Kimb3f were emplaced early during pipe development, and Kimb3d, Kimb3g and Kimb3i were emplaced later.

9.1.4 Renard 4

The Renard 4 kimberlite is one of the larger kimberlite pipes within the Renard Cluster. It is interpreted as a diatreme-zone kimberlite with minor irregularities in the external shape. The geology of this kimberlite has been determined using detailed logging of drill core and mapping of the surface trench (Figures 9.2 and 9.3).

The Renard 4 pipe contains three kimberlite geological units: an MVK, referred to as Kimb4a, a transitional CK, referred to as Kimb4b, and a texturally complex MVK, referred to as Kimb4d. In the current 3D model there is also a unit referred to as FWR (further work required) on the eastern edge of the body that is currently unclassified. It may represent a more highly diluted Kimb4a or Kimb4d. A significant marginal CRB and CCR surround the main kimberlite. The CCR adjoins at depth with that of Renard 9, along the southern margin of the pipe. In addition to the three main pipe infills, a number of HK dykes and irregular intrusions occur throughout the body, along the pipe contacts, within the marginal breccia and in the cracked country rock.

Each kimberlite unit can be described as follows:

Kimb4a is an MVK that can be further classified as a TKB. It is blue to green coloured with medium-grained and, less commonly, fine-grained macrocrystic olivine. A characteristic feature of this unit is that the olivine macrocrysts are commonly carbonatized, which is not typical of other Renard TKB’s. Juvenile clasts are common and are of both cored and uncored varieties. The unit contains 50% - 80% granitoid and gneiss country rock xenoliths that are fresh to moderately altered. The matrix is dominated by clay, serpentine carbonate and clinopyroxene, contributing to its blue-green colour. Kimb4a has been divided into two sub-types based on subtle differences in xenolith character and mineralogy: Kimb4a-1 is a blue-grey rock with fresh xenoliths and is mineralogically classified as a phlogopite monticellite kimberlite; Kimb4a-2 is a green rock with dark pink, hematized xenoliths that can be classified mineralogically as a phlogopite spinel monticellite kimberlite. Further work is required in order to determine if in fact these are two separate phases, or if the differences in the rock characteristics are due to variations within one phase. Kimb4a represents 70% of total kimberlite by volume.

Kimb4b is a transitional volcaniclastic (HK/HKt/TKt), mottled light to dark brown kimberlite with medium- to coarse-grained macrocrystic olivine. Juvenile clasts are present and typically appear as diffuse
magmatic domains within a more altered groundmass. Their abundance is variable and they exhibit thick selvages. Country rock xenoliths are fresh to more commonly, strongly altered granitoid and gneiss, with content ranging from 25% - 50%. The groundmass varies from crystalline to non-crystalline. Mantle nodules are very common and characterize this unit. Mineralogically this rock is classified as a perovskite monticellite phlogopite kimberlite. Kimb4b represents 21% of total kimberlite by volume.

Kimb4d is a volcaniclastic to transitional (TK/TKt), dark blue kimberlite with medium-grained and, less commonly, fine- and coarse-grained macrocrystic olivine. It is a highly variable kimberlite texturally that contains common coherent (HK) and transitional coherent (HKt) intervals within an overall MVK texture. These more coherent zones occur as both dykes and possible autoliths of undiluted Kimb4d. Juvenile clasts are both uncored and cored varieties, some with diffuse margins. Country rock xenoliths are fresh to moderately altered granitoid and gneiss and represent 40% - 75% of the rock. The matrix is dominated by serpentine, carbonate, clay minerals, clinopyroxene microlites and mica. Mantle indicator minerals are common and notably more abundant than in the other units. Mineralogically this rock can be classified as a phlogopite spinel monticellite kimberlite. Kimb4d represents 6% of total kimberlite by volume.

Contacts between these rock types are sharp and commonly highlighted by HK dyke intrusions. Contrasting textural and component features described above and the sharp nature of the contacts, combined with the difference in diamond grade, supports interpretation of the three pipe infills as distinct rock-types emplaced during three separate volcanic events. The emplacement of Kimb4d is thought to have preceded that of Kimb4a based on the contact relationships between these two phases and the fact that Kimb4d appears as a remnant block of kimberlite that does not extend to depth. A second pipe kimberlite emplacement event resulted in the removal of a significant volume of Kimb4d and infilling of the diatreme by Kimb4a. Finally, the Kimb4b unit removed a portion of the Kimb4a unit and infilled the south eastern portion of the pipe. Emplacement of Kimb4a is thought to have preceded formation of Kimb4b based on the presence of a remnant block of Kimb4a within the Kimb4b unit.

CK also occurs in Renard 4 in the form of late-stage HK dykes and irregular intrusions (Kimb4c). They range in thickness from a few centimetres up to 34 m. Kimb4c is a black to dark-green HK with medium- to coarse-grained and, commonly, very coarse-grained macrocrystic olivine. This unit does not commonly contain country rock xenoliths but, where present, they comprise < 5% of the unit and are strongly altered.

CRB is present dominantly in the north and west portion of the body, with smaller blocks in the south and east. The marginal breccia is both vertically and horizontally extensive, reaching a maximum width of 60 m adjacent to the body near surface and extending almost 380 m vertically. CCR surrounds the kimberlite from top to bottom discontinuously, however it is more extensive on the southern side of the body. The southern part of the Renard 4 CCR merges with the northern side of the Renard 9 CCR at approximately 225 m depth below surface and was modelled as one continuous unit.

9.1.5 Renard 9

The Renard 9 kimberlite is one of the smaller kimberlite pipes within the Renard Cluster. It is interpreted as a lower diatreme to root-zone kimberlite with an irregular external shape that dips to the east with depth. The internal geology of Renard 9 has been established using geological logs of both drill core and reverse circulation drill holes (Figures 9.2 and 9.3).
Renard 9 consists of two main pipe-infills: an MVK referred to as Kimb9a and a volumetrically minor (2%) transitional CK referred to as Kimb9b. In general, the texture of these kimberlite phases change from east to west across the body: Kimb9b changes from more HK-like in the east to more transitional TK-like to the west; and the dilution of Kimb9a changes significantly from east to west. An extensive CRB is present on the western side of the body, along the pipe contacts, within the marginal breccia and in the cracked country rock. There are two sub-types of HK in Renard 9: Kimb9c-1 is a black, strongly magnetic HK with dyke-like contacts, whereas Kimb9c-2 is a grey, very carbonate rich, non-magnetic HK with irregular contacts. Kimb9c-2 may in fact represent undiluted Kimb9a, occurring as autoliths throughout the TKB.

Each kimberlite unit can be described as follows:

Kimb9a is volumetrically the most significant kimberlite rock type infilling the pipe, accounting for 98% of total kimberlite by volume. It is extensively altered, generally massive and can be texturally classified as a TKB. This pale-green to grey-green rock consists of olivine, juvenile clasts and country rock xenoliths that are poorly sorted, typically loosely packed and less commonly clast, supported and set within a highly altered interclast matrix. Olivine macrocrysts are typically fine- to medium-grained with rare coarse grains and are commonly altered to serpentine, carbonate and rare pyrite. Two mineralogical types of juvenile clasts are observed in Kimb9a. Both have sharp margins and include both cored and uncored varieties. Type one is classified as a spinel phlogopite kimberlite and type two as a spinel phlogopite monticellite kimberlite. This unit contains on average 60% - 75% fresh to moderately altered granitoid and gneissic country rock xenoliths set within a non-crystalline matrix comprising clays, serpentine and microlitic clinopyroxene.

Kimb9b accounts for only 2% of total kimberlite by volume. The relative abundance of this rock type in the body, position and contact relationships suggest that Kimb9b is a remnant kimberlite phase emplaced before Kimb9a. This rock is a moderately altered, massive and texturally variable CK that displays both coherent and more rare volcaniclastic (i.e., TKB) textures. This brown kimberlite consists of olivine, country rock xenoliths and rare juvenile clasts that are poorly sorted and set within a dominantly crystalline groundmass. Olivine macrocrysts are medium- to coarse-grained. Juvenile clasts are relatively rare and, where observed, typically have diffuse margins. Groundmass minerals consist of perovskite, monticellite and phlogopite, set within an inhomogeneous, variably crystallized interclast matrix dominated by carbonate, clays and microlitic clinopyroxene. This unit contains 20% - 50% moderately to strongly altered granitoid and gneissic country rock xenoliths. This rock exhibits textures of both MVK and a CK and can be classified mineralogically as a perovskite monticellite phlogopite kimberlite. The abundance and character of perovskite and phlogopite are diagnostic for this unit.

Two types of HK occur in Renard 9; late-stage HK dykes (Kimb9c-1) and irregular intrusions or autoliths (Kimb9c-2). These are typically less than 1 m thick in drill core and range from black to dark green to grey coloured. Kimb9c-1 can be classified mineralogically as a phlogopite monticellite kimberlite and Kimb9c-2 can be classified as a phlogopite spinel monticellite kimberlite with extensive carbonate throughout. This unit does not commonly contain country rock xenoliths, but where present, they comprise < 5% of the unit and are strongly altered.

The Renard 9 kimberlite has an extensive marginal CRB on the western and southern sides of the body, spatially associated with Kimb9a. It has a surface width of approximately 30 m and extends the full depth of the
body. Contacts between this and the Kimb9a unit are typically gradational. Peripheral CCR with rare HK dykes discontinuously surrounds the kimberlite and joins with the CCR of Renard 4 at depth.

9.1.6 Renard 65

The Renard 65 kimberlite is the largest kimberlite in the Renard Cluster. It is interpreted as a diatreme-zone kimberlite with a slightly irregular shape at surface, and tapering gradually with depth. The geology of this kimberlite has been determined in a preliminary fashion using examination of field logs of drill core (Figure 9.4).

Renard 65 consists of four main pipe-infilling kimberlite units: Kimb65a, Kimb65b, Kimb65d and Kimb65e. In addition, CRB and CCR surround the main kimberlite pipe infills. The four kimberlitic units have been modelled in 3D as one kimberlite solid for the purposes of determining a potential mineral deposit so individual volumes are not available. In addition, a number of HK dykes and irregular intrusions (Kimb65c) occur throughout the body as late-stage intrusions along the pipe contacts and within the CRB and CCR.

Each kimberlite unit can be described as follows:

Kimb65a is a pale blue-grey to green-grey volcaniclastic (TK/TKt) kimberlite breccia with fine- to medium-grained and, less commonly, coarse-grained macrocrystic olivine. This unit contains 50% - 75% fresh to altered, pink to patchy-green-coloured granitoid xenoliths, with lesser amounts of gneiss. Juvenile clasts are common and are both cored and uncored. Mineralogically this rock can be classified as a phlogopite kimberlite.

Kimb65b is a coherent (HK/HKt) black to dark brown kimberlite with coarse to very coarse-grained macrocrystic olivine. This unit contains 5% - 35% strongly altered, dark-green to black-rimmed gneissic and lesser granitoid country rock xenoliths. Mantle nodules are abundant and include harzburgite, peridotite and possible minor dunite types. The matrix is crystalline with minor patches of alteration from the digestion of country rock xenoliths.

Kimb65d is a volcaniclastic (HKt/TKt) light to dark brown, occasionally mottled green kimberlite with medium- to coarse-grained and, rarely, very coarse-grained macrocrystic olivine. This unit contains 30% - 50% (may reach up to 70%) granitoid and gneissic country rock xenoliths. These are moderately altered with pale green and yellow rims. Juvenile clasts are present, are both cored and uncored, and are typically < 3 cm in size. HK autololiths are also present and are round with sharply defined margins. The matrix varies from crystalline to non-crystalline, with patchy zones of secondary alteration.

Kimb65e is a complex, volcaniclastic to coherent (HKI), dark-brown kimberlite with medium- to coarse-grained macrocrystic olivine. This unit contains 25% - 55% gneissic and granitoid country rock xenoliths (granite may dominate), fresh to moderately altered pale green, with stronger alteration in smaller xenocrysts. The matrix is crystalline to patchy crystalline with alteration minerals from xenolith digestion. Its primary groundmass mineralogy includes phlogopite, carbonate, spinel and perovskite.

The HK dykes (Kimb65c) that occur in Renard 65 drill core range in thickness from a few centimetres up to 35 m. Kimb65c is a coherent black to dark-green kimberlite with medium- to coarse-grained and, commonly, very coarse-grained macrocrystic olivine. This unit does not commonly contain country rock xenoliths, but where present, they comprise < 5% of the unit.

Renard 65 kimberlite is surrounded by extensive CRB and CCR units that extend to depth but are discontinuous around the pipe. CRB is dominant on the western side of the body whereas CCR dominates on the east.
Figure 9.4: Plan & Section Views – Renard 65, Lynx and Hibou
9.2 Other Renard Kimberlite Pipes

The remaining Renard kimberlite bodies (Renard 1, Renard 7, Renard 8 and Renard 10) are currently not part of the economic assessment but are included in the following summary as future work may be undertaken on these bodies, though none is planned at this time.

9.2.1 Renard 1

The Renard 1 kimberlite is the second largest kimberlite in the Renard Cluster. It is interpreted as a diatreme-zone kimberlite with a slightly irregular shape at surface, and tapering gradually with depth. The geology of this kimberlite has been determined in a preliminary fashion using 11 drill cores.

Renard 1 consists of three main pipe-infilling kimberlite units: an MVK referred to as Kimb1a (comprising 61% of total kimberlite); a transitional CK referred to as Kimb1b (comprising 27% of total kimberlite) and a large, irregular HK intrusion referred to as Kimb1c (comprising 11% of total kimberlite). It is unclear at this time how these kimberlites relate temporally, and whether or not they represent a textural change within one kimberlite phase or are three distinct phases. In addition to these main infills, a CRB and CCR almost completely surround the main kimberlite pipe infills. The CRB is much larger on the western side of the body and the CCR is much larger on the eastern side. These are extensive and extend to depth in the kimberlite, however are discontinuous around the pipe. A number of HK dykes and irregular intrusions occur throughout the main phases of kimberlite, along the pipe contacts and within the marginal CRB and CCR units. These are also referred to as Kimb1c because at this time they cannot be distinguished geologically from HK in the large intrusion when examining drill core.

9.2.2 Renard 7

The Renard 7 kimberlite is a moderate to large sized kimberlite in the Renard Cluster. It is interpreted as a diatreme-zone kimberlite with a slightly irregular shape at surface, and tapering gradually with depth. The geology of this kimberlite has been determined in a preliminary fashion using seven drill holes.

The current 3D model of Renard 7 consists of two main pipe-infilling kimberlite units: a highly diluted grey-green MVK that is referred to as Kimb7a and is classified as TKB; and an extensive amount of HK localized in the upper southern portion of the body referred to as Kimb7c. However it is unclear at this time if this HK represents a main pipe infilling event. In the current 3D model, separate phases of kimberlite were not modelled, therefore their relative abundances are unknown. CCR almost completely surrounds the main kimberlite pipe infills along with a CRB block located in the southeast. This CRB is more internal than marginal to the Kimb7a unit. Additional, smaller but significant zones of CRB are also noted within the Kimb7a unit. A number of HK dykes and irregular intrusions occur throughout the body, along the pipe contacts, within the marginal breccia and in the cracked country rock. These are also referred to as Kimb7c because at this time they cannot be distinguished geologically from HK in the large intrusion.
9.2.3 Renard 8

The Renard 8 kimberlite is one of the smallest kimberlite pipes within the Renard Cluster. It is interpreted, based on a limited number of drill holes, as a steep-sided diatreme-zone kimberlite with a regular external shape. The geology of this kimberlite has been determined in a preliminary fashion using 10 drill holes.

The current 3D model of Renard 8 consists of one main pipe infill kimberlite unit: a highly diluted grey-green MVK that is classified as TKB, referred to as Kimb8a. In addition, CCR completely surrounds the main kimberlite pipe infills along with a CRB block located in the south. The CRB is more internal than marginal to the kimberlite. In addition, a number of HK dykes and intrusions referred to as Kimb8c occur throughout the body, along the pipe contacts, within the marginal breccia and in the cracked country rock.

9.2.4 Renard 10

The Renard 10 kimberlite is the smallest “pipe” within the Renard Cluster. It cannot technically be classified as a pipe per se, as its morphology is more dyke-like. However, the kimberlite (17% of the body by volume) in this body is surrounded by a significant marginal CRB (83% of the body by volume). This is a feature that has not been noted to be associated with other large dykes on the Foxtrot property. Only five diamond drill holes have been completed to date on Renard 10 and it is on this data that these preliminary interpretations are based.

The kimberlite in Renard 10 is classified as HK and the morphology of this HK is dyke-like. Kimberlite represents 17% of the modelled body by volume and is typically undiluted. Contacts between this HK and the adjacent CRB are sharp. The CRB has an overall appearance and texture similar to that of the other Renard bodies. This, and the presence of the extensive CRB associated with the relatively small amount of kimberlite suggests that Renard 10 may actually represent a blind intrusion.

9.3 Foxtrot Kimberlite Dykes

9.3.1 Lynx Kimberlite Dyke

The Lynx dyke consists of CK that can be further classified as HK. Trenching and mapping of Lynx and the logging of 73 drill holes reveals that the dyke comprises semi-continuous thick intersections of kimberlite with many thin (from < 1 cm to 40 cm) discrete sheets adjacent to it. Lynx extends for a minimum of 4.2 km along strike and has a variable dip (10° to 50°) to the east. The dyke may reach cumulative thicknesses of up to 3 m, however the average thickness is 1.8 m. The main kimberlite intersection appears to pinch and swell and, where thin, is strongly altered and replaced by clays. Overall, Lynx displays varying levels of alteration, often showing zonation with portions of the main intersection being highly altered and friable on one half, but massive and relatively unaltered in the other. Fracturing is present throughout the dykes and varies in intensity (Figure 9.4).

Macroscopically, the Lynx HK is dark grey to green coloured, strongly magnetic and consists of two generations of olivine (macrocrysts and phenocrysts) set in a carbonate rich groundmass. Olivine macrocrysts are medium- to coarse-grained with common, very coarse grains and are completely serpentinized. Olivine comprises 40% - 50% of the rock, however local variations range from 10% - 90%. Olivine megacrysts and olivine dominated mantle nodules larger than 10 cm are present. Mantle indicator minerals are very common throughout this HK, representing up to 3% of the rock by volume and include coarse- to very coarse-grained
picroilmenite, chrome diopside and pyrope garnet. Country rock xenoliths are rare, representing less than 2% of the rock. Xenoliths are rounded to sub-rounded and are strongly altered granitoid or gneiss fragments. Contacts with the surrounding country rock are marked in the kimberlite by local minor fracturing and sometimes extensive carbonate veining. Chilled margins with flow aligned olivine macrocrysts are common and typically less than 5 mm in width. Fracturing parallel to the contact, and joints perpendicular to the contact, are present within the country rock and decrease in intensity away from the contact. The Lynx dyke typically cuts the foliation of the country rock.

Microscopically, the Lynx HK consists of olivine macrocrysts and phenocrysts and evenly distributed, crystalline groundmass dominated by carbonate, serpentine and phlogopite with an average modal for carbonate of 15% - 35%. Olivine are completely pseudomorphed to a pale-yellow green serpentine and more rarely carbonatized, and commonly show a preferred orientation with their long axes sub-parallel to the dyke margins. Groundmass minerals consist of carbonate, phlogopite, monticellite, serpentine and ilmenite with minor dolomite. Accessory minerals (5% modal) include perovskite, spinel and apatite. Distinctive magmatic textures are observed in Lynx, where calcite occurs as millimetre scale oikocrysts that enclose small olivine and other matrix minerals (Patterson et al., 2009).

9.3.2 Hibou Kimberlite Dyke

The Hibou dyke is a CK that can be further classified as an HK. Hibou consists of one main kimberlite intersection with thin HK veins and dykes (from 1 cm to 30 cm) adjacent to the main intersection. Trenching and mapping of Hibou and the logging of 35 drill holes reveals that the HK may reach up to 3.5 m thick, but is on average 2 m thick. The dyke has a west-northwest strike extent of at least 850 m with a shallow dip of approximately 10° to the north-northeast. It is open, down dip and along strike to the northwest. The HK pinches and swells and, where thin, is strongly altered to clays. Overall Hibou displays varying levels of alteration and/or weathering that is zoned. Fracturing is present throughout the dyke and varies in intensity (Figure 9.4).

Macroscopically, Hibou HK is grey-green to green coloured and strongly magnetic. Olivine macrocrysts are medium- to coarse-grained with very common coarse grains set in a carbonate rich groundmass. Olivine macrocrysts comprise approximately 50% - 60% of the rock but can vary from 25% - 70% locally. Olivine size frequently continues beyond the size range of macrocryst classification with individual olivine grains measuring more than 3 cm in length. Olivine dominated mantle nodules are also present and reach up to 10 cm in size. Olivines are typically completely serpentinized. Mantle indicator minerals such as pyrope garnet, chrome diopside and picroilmenite are readily observable, representing up to 3% of the rock by volume. Local calcite segregations are observed and calcite veining is present through the dyke and can reach up to 2 mm in thickness. Country rock xenoliths are relatively rare, representing < 2% of the rock by volume. Xenoliths are strongly altered, are sub-rounded to rounded and consist of gneiss or granitoid fragments that measure up to 7 cm in diameter. Contacts with the surrounding country rock are sharp and marked in the kimberlite by local minor fracturing and carbonate veining. Chilled margins with flow-aligned olivine macrocrysts are common and typically less than 5 mm in width. Fracturing parallel to the contacts, and joints perpendicular to the contacts, are present within the country rock. Hibou is cut by rare black hematite veins less than 5 mm thick that appear to follow the jointing in the dyke. Flow banding of groundmass minerals is evident and tends to be somewhat erratic in orientation. The dyke is variably weathered and in some areas alteration is intense.
Microscopically, Hibou HK consists of olivine macrocrysts and phenocrysts set within an evenly distributed, crystalline groundmass dominated by carbonate, serpentine and phlogopite with an average modal carbonate estimate of 15% - 35%. Olivine macrocrysts are fresh to completely pseudomorphed to a dark green to black serpentine and are rarely carbonatized. They commonly display a preferred orientation with their long axes sub-parallel to the dyke margins. Unlike Lynx, fresh olivine macrocrysts are more common in Hibou. Groundmass minerals consist of carbonate, phlogopite, monticellite, serpentine and ilmenite with minor dolomite. Accessory minerals (5% modal) include perovskite, spinel and apatite. Calcite oikocrysts (as in Lynx) and dolomite rhombs occur in fresh samples of Hibou (Patterson et al., 2009).
10.0 EXPLORATION
All exploration has been carried out by Stornoway Diamond Corporation.

10.1 Geological Mapping
Structural geological mapping was undertaken in the area of the Lynx dyke in 2004, and over the Renard bodies in 2006. The objective of the mapping program was to identify structural controls that could help locate more kimberlitic intrusions or dykes. The program results proved to be inconclusive. It was noted, however, that the rock fracturing intensity increased near the kimberlitic bodies.

Each trench excavated on Renard 4, Lynx, Hibou, and the North Anomaly was mapped in detail prior to sampling. Mapping was undertaken with grid control and reference points were surveyed by a registered surveyor. Mapping notes were made on the contacts and included the mineralogy, relationship of the dyke to the host rock, and structural measurements in the host rocks. Plan and section maps were completed for the majority of the trenches.

During the underground bulk sampling program at Renard 2 and Renard 3, geological mapping was completed on all workings. The face was mapped after each round during the development of the ramp and drifts and, after the underground excavation was completed, the ramp and drift walls were mapped in the kimberlites.

10.2 Heavy Mineral Sampling
Since the inception of the Foxtrot Project, approximately 12,000 heavy mineral samples have been collected over a 400,000 km² area of which some 8,140 lie within the current land holdings. Prior to staking in 2000, thirteen of these heavy mineral samples were collected within the area that became the Foxtrot Property. Follow-up sampling during 2000 identified several areas with anomalous concentrations of kimberlite indicator minerals on the Foxtrot property. Additional heavy mineral samples were collected during 2002 to 2008 within the Foxtrot Property boundaries, to further refine existing mineral trains and to increase the sample density within the property. This work has been reported in previous technical reports (Clements and O'Connor, 2001, 2002; Lucas et al., 2003; Lépine and O’Connor, 2004; O’Connor and Lepine, 2005, 2006).

Sample intervals within the Foxtrot Property vary between 25 m and 600 m along lines spaced between 50 m and 2,000 m. Heavy mineral samples collected to date are summarized by year in Table 10-1. The heavy mineral samples have defined a number of areas with anomalous concentrations of kimberlite indicator minerals on the Foxtrot Property. Some of these areas are still being investigated, and have the potential to host kimberlite pipes or dykes.
Table 10-1: Heavy Mineral Sampling

<table>
<thead>
<tr>
<th>Year</th>
<th>Foxtrot Property Number of Samples</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996–1999</td>
<td>13</td>
<td>Regional samples within the area that became the Foxtrot Property</td>
</tr>
<tr>
<td>2000</td>
<td>48</td>
<td>One sample collected during this program yielded a highly anomalous indicator mineral count</td>
</tr>
<tr>
<td>2001</td>
<td>252</td>
<td>Completed to further define mineral trains and to prioritize geophysical anomalies for drilling</td>
</tr>
<tr>
<td>2002</td>
<td>785</td>
<td>Collected to define existing mineral trains and to increase the sample density within the property</td>
</tr>
<tr>
<td>2003</td>
<td>914</td>
<td>Collected along detailed grids with dense sample spacing and as wider spaced, reconnaissance samples</td>
</tr>
<tr>
<td>2004</td>
<td>2,000</td>
<td>Collected along detailed grids with dense sample spacing and as wider spaced, reconnaissance samples</td>
</tr>
<tr>
<td>2005</td>
<td>1,412</td>
<td>Collected along detailed grids with dense sample spacing and as wider spaced, reconnaissance samples</td>
</tr>
<tr>
<td>2006</td>
<td>1,203</td>
<td>Collected along detailed grids with dense sample spacing and as follow up samples</td>
</tr>
<tr>
<td>2007</td>
<td>959</td>
<td>Collected along detailed grids with dense sample spacing and as follow up samples</td>
</tr>
<tr>
<td>2008</td>
<td>554</td>
<td>Collected along detailed grids with dense sample spacing and as follow up samples</td>
</tr>
<tr>
<td>Totals</td>
<td>8,140</td>
<td></td>
</tr>
</tbody>
</table>

10.3 Geophysical Surveys

Since 2000, several ground and airborne geophysical surveys were completed on the Foxtrot Property. This work has been reported in previous technical reports (Clements and O’Connor, 2001, 2002; Lucas et al., 2003; Lepine and O’Connor, 2004; O’Connor and Lepine, 2005, 2006). Geophysical surveys that have been completed to the effective date of this report are summarized in Table 10-2.
Table 10-2: Geophysical Surveys

<table>
<thead>
<tr>
<th>Year</th>
<th>Airborne Geophysical Surveys (total line km)</th>
<th>Number of Ground Magnetic Surveys (total line km)</th>
<th>Number of Electromagnetic Surveys (total line km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1,419</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2001</td>
<td>900</td>
<td>5 (38.4)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2002</td>
<td>8,900</td>
<td>21 (140.5)</td>
<td>14 (20.9)</td>
</tr>
<tr>
<td>2003</td>
<td>4,778</td>
<td>52 (452.3)</td>
<td>10 (19.4)</td>
</tr>
<tr>
<td>2004</td>
<td>19,491</td>
<td>25 (215.2)</td>
<td>41 (84.2)</td>
</tr>
<tr>
<td>2005</td>
<td>29 (308.0)</td>
<td>51 (81.6)</td>
<td>43 (41.9)</td>
</tr>
<tr>
<td>2006</td>
<td>1,969</td>
<td>32 (385.0)</td>
<td>12 (11.8)</td>
</tr>
<tr>
<td>Totals</td>
<td>37,457</td>
<td>274 (2,486.3)</td>
<td>204 (327.5)</td>
</tr>
</tbody>
</table>

10.4 Trenching

Since 2005, several thousand tonnes of kimberlitic material have been excavated from trenches on the Lynx, Hibou, and North Anomaly dykes as well as from the Renard 4 and Renard 65 kimberlitic bodies. Trench locations are shown in Figure 9.1. Trench details are summarized in Table 10-3.

Table 10-3: Trenching

<table>
<thead>
<tr>
<th>Area</th>
<th>Trench Name</th>
<th>Date of sampling</th>
<th>Dimension (m)</th>
<th>Sample Collected (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 4</td>
<td>Renard 4</td>
<td>2004</td>
<td>5 x 5</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>Renard 4</td>
<td>2005</td>
<td>25 x 25</td>
<td>9.8</td>
</tr>
<tr>
<td></td>
<td>Renard 4</td>
<td>2006</td>
<td>35 x 27</td>
<td>2,345.0</td>
</tr>
<tr>
<td>Renard 65</td>
<td>Renard 65</td>
<td>2007</td>
<td>20 x 16</td>
<td>266.0</td>
</tr>
<tr>
<td>Lynx Dyke</td>
<td>T-184-01</td>
<td>2005</td>
<td>8 x 35</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>T-221-01</td>
<td>2005</td>
<td>6 x 25</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td>T-221-01</td>
<td>2007</td>
<td>8 x 40</td>
<td>364.1</td>
</tr>
<tr>
<td></td>
<td>T-230-01</td>
<td>2005</td>
<td>12 x 10</td>
<td>12.7</td>
</tr>
<tr>
<td></td>
<td>T-230-02</td>
<td>2005</td>
<td>10 x 25</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>T-230-02</td>
<td>2007</td>
<td>10-15x 106</td>
<td>130.2</td>
</tr>
<tr>
<td>Hibou</td>
<td>T-271A-01</td>
<td>2005</td>
<td>10 x 6</td>
<td>19.8</td>
</tr>
<tr>
<td></td>
<td>T-271A-10</td>
<td>2006</td>
<td>31 x 10</td>
<td>31.4</td>
</tr>
<tr>
<td></td>
<td>T-271A-10</td>
<td>2008</td>
<td>40 x 40</td>
<td>543.9</td>
</tr>
<tr>
<td>North Anomaly</td>
<td>T-222-01</td>
<td>2006</td>
<td>1.5-3.5 x 13</td>
<td>46.4</td>
</tr>
</tbody>
</table>
10.4.1 Renard 4
The Renard 4 kimberlite was discovered by drilling early in 2002. Two outcrops of kimberlite were located during the summer of 2004 at the northern end of the known body, and these were subsequently demonstrated to coincide with the Renard 4 Northern Complex Zone (NCZ).

Small to moderate surface/outcrop samples were collected on three occasions: summer 2004 (1.8 t), summer 2005 (2.9 t), and summer 2005 (6.9 t). The initial 11.6 t of kimberlitic material were processed at the Stornoway (formerly Ashton) North Vancouver laboratory. Between June 29 and July 22, 2006, and again from September 27 to October 2, 2006, approximately 2,345 t were collected from a surface trench in six subsamples using an excavator.

The 2006 trench was developed over the smaller surface trench excavated in 2005 which, in turn, had been developed over the 2004 excavations. Material collected in 2006 was processed at the Lagopède DMS during 2007. Results are summarized in Table 10-4.

10.4.2 Renard 65
During 2007, a large-tonnage batch of kimberlite was collected from a trench excavated at the northern margin of Renard 65 and processed at the Lagopède DMS plant. Results are summarized in Table 10-4.

10.4.3 Lynx Dyke
The Lynx dyke was uncovered by backhoe at four separate locations during the 2005 summer program. The kimberlitic dykes at each site were mapped geologically, blasted and sampled.

In June 2007, trenches T-221-01 and T-230-02 were expanded to allow the collection of a bulk sample processed at the Lagopède DMS plant. Results are summarized in Table 10-4.

10.4.4 Hibou Dyke
The Hibou dyke was sampled in 2005, 2006, and 2008. The large tonnage sample from 2008 (Trench T-271A-10) was processed at the Lagopède DMS plant. Results are summarized in Table 10-4.

10.4.5 North Anomaly Dyke
The North Anomaly Dyke was sampled in 2006. Results are summarized in Table 10-4.

10.5 Drilling
Drilling is discussed in Section 11 of this report.
10.6 Bulk Density
Bulk density determinations are discussed in Section 12 of this report.

10.7 RC Chip Sampling
The RC chip sampling program on the Renard Project was undertaken with objectives that varied over time from simply collecting a large amount of kimberlite to create representative samples, to characterizing the grade over various depth intervals, to regular sampling intervals. Early work on the project also considered that some minimum quantity of kimberlite should comprise each sample to accommodate processing. The data set of sampling results represents:

- Sampling intervals from 10 m to more than 50 m;
- Combination of chips from adjacent holes over similar intervals in order to double the volume of kimberlite from that interval;
- In some areas, regular sampling at uniform downhole spacings; and
- Sampling governed by internal geological contacts, completed during the 2007 program.

Results are summarized in Table 10-4.

10.8 Core Sampling
Drill core collected during historical drill programs was composited and treated for macrodiamond recovery. Results are summarized in Table 10-4.
Table 10-4: Summary of Macrodiamond Sampling Results

<table>
<thead>
<tr>
<th>Kimberlite Body</th>
<th>Sample Type</th>
<th>Year Collected</th>
<th>Number of Samples</th>
<th>Total Weight (t)</th>
<th>Total Carats (+1 DTC/+1.18 Tyler)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 1</td>
<td>Drill Core</td>
<td>2002</td>
<td>1</td>
<td>0.3</td>
<td>0.00</td>
</tr>
<tr>
<td>Renard 1</td>
<td>Drill Core</td>
<td>2003</td>
<td>11</td>
<td>10.0</td>
<td>0.58</td>
</tr>
<tr>
<td>Renard 2</td>
<td>Drill Core</td>
<td>2002</td>
<td>7</td>
<td>4.9</td>
<td>2.89</td>
</tr>
<tr>
<td>Renard 2</td>
<td>Drill Core</td>
<td>2003</td>
<td>8</td>
<td>8.6</td>
<td>4.53</td>
</tr>
<tr>
<td>Renard 2</td>
<td>Drill Core</td>
<td>2004</td>
<td>9</td>
<td>11.5</td>
<td>13.30</td>
</tr>
<tr>
<td>Renard 2</td>
<td>Drill Core</td>
<td>2005</td>
<td>16</td>
<td>6.7</td>
<td>4.75</td>
</tr>
<tr>
<td>Renard 2</td>
<td>Drill Core</td>
<td>2006</td>
<td>7</td>
<td>2.8</td>
<td>2.47</td>
</tr>
<tr>
<td>Renard 2</td>
<td>RC Chips</td>
<td>2004</td>
<td>12</td>
<td>171.2</td>
<td>145.38</td>
</tr>
<tr>
<td>Renard 2</td>
<td>RC Chips</td>
<td>2007</td>
<td>15</td>
<td>86.8</td>
<td>70.95</td>
</tr>
<tr>
<td>Renard 2</td>
<td>Underground</td>
<td>2006/2007</td>
<td>15</td>
<td>2448.8</td>
<td>1601.94</td>
</tr>
<tr>
<td>Renard 3</td>
<td>Drill Core</td>
<td>2002</td>
<td>5</td>
<td>4.9</td>
<td>6.47</td>
</tr>
<tr>
<td>Renard 3</td>
<td>Drill Core</td>
<td>2004</td>
<td>13</td>
<td>13.7</td>
<td>13.70</td>
</tr>
<tr>
<td>Renard 3</td>
<td>RC Chips</td>
<td>2004</td>
<td>10</td>
<td>157.0</td>
<td>184.53</td>
</tr>
<tr>
<td>Renard 3</td>
<td>RC Chips</td>
<td>2007</td>
<td>13</td>
<td>59.4</td>
<td>34.86</td>
</tr>
<tr>
<td>Renard 3</td>
<td>Underground</td>
<td>2006/2007</td>
<td>13</td>
<td>2113.7</td>
<td>2799.85</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Drill Core</td>
<td>2002</td>
<td>6</td>
<td>4.8</td>
<td>2.94</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Drill Core</td>
<td>2003</td>
<td>15</td>
<td>12.4</td>
<td>5.32</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Drill Core</td>
<td>2004</td>
<td>36</td>
<td>32.3</td>
<td>13.62</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Drill Core</td>
<td>2005</td>
<td>1</td>
<td>0.5</td>
<td>0.48</td>
</tr>
<tr>
<td>Renard 4</td>
<td>RC Chips</td>
<td>2004</td>
<td>17</td>
<td>141.8</td>
<td>52.57</td>
</tr>
<tr>
<td>Renard 4</td>
<td>RC Chips</td>
<td>2006</td>
<td>14</td>
<td>41.4</td>
<td>34.67</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Surface Sample</td>
<td>2004</td>
<td>2</td>
<td>1.8</td>
<td>3.09</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Surface Sample</td>
<td>2005</td>
<td>6</td>
<td>9.8</td>
<td>17.27</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Surface Sample</td>
<td>2006/2007</td>
<td>7</td>
<td>2104.2</td>
<td>2721.88</td>
</tr>
<tr>
<td>Renard 65</td>
<td>Drill Core</td>
<td>2002</td>
<td>2</td>
<td>0.8</td>
<td>1.19</td>
</tr>
<tr>
<td>Renard 65</td>
<td>Drill Core</td>
<td>2003</td>
<td>23</td>
<td>19.8</td>
<td>8.29</td>
</tr>
<tr>
<td>Renard 65</td>
<td>Drill Core</td>
<td>2004</td>
<td>22</td>
<td>17.8</td>
<td>4.05</td>
</tr>
<tr>
<td>Renard 65</td>
<td>RC Chips</td>
<td>2004</td>
<td>18</td>
<td>147.2</td>
<td>32.49</td>
</tr>
<tr>
<td>Renard 65</td>
<td>Surface Sample</td>
<td>2007</td>
<td>2</td>
<td>266.0</td>
<td>51.77</td>
</tr>
<tr>
<td>Renard 7</td>
<td>Drill Core</td>
<td>2005</td>
<td>4</td>
<td>4.1</td>
<td>0.10</td>
</tr>
<tr>
<td>Renard 8</td>
<td>Drill Core</td>
<td>2005</td>
<td>4</td>
<td>6.1</td>
<td>0.47</td>
</tr>
<tr>
<td>Renard 9</td>
<td>Drill Core</td>
<td>2004</td>
<td>6</td>
<td>6.0</td>
<td>5.56</td>
</tr>
</tbody>
</table>
### Kimberlite Body Samples

<table>
<thead>
<tr>
<th>Kimberlite Body</th>
<th>Sample Type</th>
<th>Year Collected</th>
<th>Number of Samples</th>
<th>Total Weight (t)</th>
<th>Total Carats (+1 DTC/+1.18 Tyler)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 9</td>
<td>Drill Core</td>
<td>2005</td>
<td>4</td>
<td>6.2</td>
<td>6.24</td>
</tr>
<tr>
<td>Renard 9</td>
<td>RC Chips</td>
<td>2006</td>
<td>19</td>
<td>70.3</td>
<td>34.09</td>
</tr>
<tr>
<td>Renard 9</td>
<td>RC Chips</td>
<td>2007</td>
<td>5</td>
<td>27.3</td>
<td>11.97</td>
</tr>
<tr>
<td>Hibou</td>
<td>Surface Sample</td>
<td>2005</td>
<td>5</td>
<td>19.8</td>
<td>4.58</td>
</tr>
<tr>
<td>Hibou</td>
<td>Surface Sample</td>
<td>2006</td>
<td>2</td>
<td>31.4</td>
<td>38.52</td>
</tr>
<tr>
<td>Hibou</td>
<td>Surface Sample</td>
<td>2008</td>
<td>1</td>
<td>543.9</td>
<td>781.41</td>
</tr>
<tr>
<td>Lynx</td>
<td>Surface Sample</td>
<td>2003</td>
<td>3</td>
<td>3.9</td>
<td>3.67</td>
</tr>
<tr>
<td>Lynx</td>
<td>Surface Sample</td>
<td>2004</td>
<td>2</td>
<td>10.3</td>
<td>14.47</td>
</tr>
<tr>
<td>Lynx</td>
<td>Surface Sample</td>
<td>2005</td>
<td>6</td>
<td>34.7</td>
<td>40.40</td>
</tr>
<tr>
<td>Lynx</td>
<td>Surface Sample</td>
<td>2007</td>
<td>3</td>
<td>494.3</td>
<td>528.93</td>
</tr>
<tr>
<td>North Anomaly</td>
<td>Surface Sample</td>
<td>2006</td>
<td>3</td>
<td>46.4</td>
<td>43.00</td>
</tr>
</tbody>
</table>

### 10.9 Underground Bulk Sampling

The underground exploration program at the Renard Project was designed to extract a minimum of 2,000 t of kimberlite from each of Renard 2 and Renard 3 at a depth of approximately 55 m below the present surface. Supplies and equipment were mobilized from Chibougamau via Buffalo aircraft to the ice airstrip at Camp Lagopède in March and April 2006.

Preparatory work included establishing powder magazines, constructing office and dry facilities for the miners, erecting a maintenance shop and generator shed, constructing a mine water sump, installing a waterline, and assembling the equipment. Equipment consisted of a two-boom jumbo, one haul truck, two scoops, a scissorlift truck, and a crew transport vehicle. Genivar Inc. supervised all aspects of the operations, while mining contractor Monterie Expert Inc. was engaged to provide equipment and personnel to complete the work.

The portal was located on the southwest side of a hill immediately north of Renard 2. An 8 m, near-vertical outcrop face was present at the location, reducing the need for an extensive portal trench. Following mobilization and assembly of the equipment, cleaning of the portal area commenced at the end of June to expose the bedrock. A small airtrack drill was used to bore the portal blast holes. The first blast occurred on July 16, 2006. Four blasts were required to obtain a suitable face for the portal. To provide additional ground support for the brow of the portal, chain link fencing and strapping were bolted to the rock.

The first round in the ramp was taken on August 1, 2006, and work was completed on February 22, 2007. The ramp dimensions are 3.8 m by 4.2 m, with a maximum grade of 15%. The back was screened and bolted, generally using a 1.2 m by 1.2 m pattern with Swellex bolts or resin rebar and galvanized, welded wire mesh. A total of 749.1 m of underground workings was completed, comprising a portal, ramp, ore drifts, safety bays, sump pump stations, an electrical substation and a powder magazine. Excavations were completed to a depth of approximately 55 m below surface. The main ramp length totalled 435.6 m with lateral excavation in waste of...
111 m (from base of ramp to Renard bodies) and lateral excavation in ore of 202 m. Horizontal drifts to access the Renard 2 and Renard 3 kimberlites were each about 100 m in length. Ground conditions within the cross-cut leading into Renard 2 were challenging, but ground conditions within the kimberlites were excellent. Production rates averaged 3.59 m per day; but varied depending upon whether single or double faces were being advanced.

Underground, the faces were surveyed using a Leica total station instrument equipped with a reflectorless measuring device. Details of each side of the gallery and the front face were surveyed with a variable number of survey points depending on the regularity of the surface. Each survey was divided into five different surfaces: floor, back, left and right walls, and front face. These surveys were used to measure the rate of advance and to calculate the volume of material removed.

Sampling consisted of collecting the kimberlite material blasted from each round. After each blast, material was mucked from the face with scoops and collected in a remuck bay. From the remuck bay, the ore was loaded into a haul truck and transported to the secure ore stockpile area located adjacent to the DMS facility on the surface, some 200 m southeast of the portal (Figure 10.1). A typical round was three to five metres in length, or approximately 150 t. A total of 60 individual samples were collected: 29 from Renard 2 (5,010 calculated tonnes) and 31 from Renard 3 (5,161 calculated tonnes). A representative sub-sample from each of Renard 2 (15 round; 2,449 t) and Renard 3 (13 rounds; 2,114 t) were processed through the Lagopède DMS for macrodiamond recovery (Figure 10.2 and Table 10-4). The remaining unprocessed rounds are in the secure storage area if future work is required.

The underground workings were allowed to flood late in 2007.
Figure 10.1: Underground Plan and Infrastructure
Figure 10.1: Underground Plan and Infrastructure
10.10 Petrography, Mineralogy and Other Research Studies

Since 2001, several petrographical and mineralogical studies have been undertaken on the Renard kimberlitic bodies and the Lynx, Hibou and North Anomaly dykes. These studies include:

- Detailed trench mapping;
- Detailed core logging in the Renard Core Area, and the Lynx and Hibou dykes;
- Petrographical thin section descriptions;
- Indicator mineral and geochemical studies on the various kimberlite phases at Renard 2, Renard 3, Renard 4 and Renard 9;
- Age dating HK dykes from the Renard 1 kimberlite, on the main phases at Renard 2 and Renard 3 and the Lynx dyke; and
- Characterization of geophysical signatures on a unit by unit basis.

The macroscopic and petrographic studies were used to distinguish the different lithological units within the kimberlite pipes, and were essential for the construction of 3D geological models.

10.11 Geotechnical and Hydrological Drilling

No drilling specifically for geotechnical or hydrological purposes was undertaken in the exploration phase although standard geotechnical data was collected from drill core. Geotechnical and hydrological drilling completed as part of the bulk sampling program is discussed in Section 11.

10.12 Further Exploration

Several unexplained kimberlite indicator mineral trains and geophysical anomalies remain within the Foxtrot Property. To explore for additional kimberlite occurrences, the joint venture will collect additional heavy mineral samples, complete ground and airborne geophysical surveys, prospect areas of anomalous indicator mineral results and drill exploration targets generated from the heavy mineral sample, geophysical and prospecting work.
11.0 DRILLING

All drilling has been carried out under the control of the issuer. A total of 618 drill holes (110,170 m) have been drilled on the Property since 2001, comprising 36 RC holes (6,151 m) and 582 core holes (104,019 m). In addition, eight holes (123 m) have been drilled specifically for geotechnical and hydrological purposes. Total surface drilling on a year-to-year basis for exploration work is summarized in Table 11-1. During 2007, and as part of the underground bulk sample work, 22 holes were drilled from underground on Renard 2 (1,508 m) and 21 holes on Renard 3 (874 m).

Vertical and angled holes were drilled through the kimberlite bodies, from which three dimensional geological models were constructed for resource estimation. Drilling intersections are therefore not related to true thickness of mineralization.

Between 2001 and 2002, drilling was completed primarily for early-stage, exploration-focused programs for all the bodies except for Renard 9 and Renard 10, which were discovered in 2003 and 2005, respectively. From 2003, drilling was used to support advanced-stage project evaluation, and deposit delineation by providing bulk and mini-bulk samples. Additional target exploration drilling has been ongoing since 2001 on the Foxtrot Property.

Table 11-1: Summary of Drill Programs

<table>
<thead>
<tr>
<th>Program by Year</th>
<th>Number of Core Holes</th>
<th>Number of Extended Holes</th>
<th>Drilled Metres</th>
<th>Number of RC Holes</th>
<th>Drilled Metres</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>6</td>
<td>0</td>
<td>554</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2002</td>
<td>33</td>
<td>0</td>
<td>4,688</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2003</td>
<td>70</td>
<td>0</td>
<td>12,642</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2004</td>
<td>125</td>
<td>0</td>
<td>17,489</td>
<td>23</td>
<td>4,157</td>
</tr>
<tr>
<td>2005</td>
<td>138</td>
<td>3</td>
<td>26,099</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006</td>
<td>96</td>
<td>0</td>
<td>11,426</td>
<td>5</td>
<td>805</td>
</tr>
<tr>
<td>2007</td>
<td>105</td>
<td>2</td>
<td>12,455</td>
<td>8</td>
<td>1,189</td>
</tr>
<tr>
<td>2008</td>
<td>16</td>
<td>0</td>
<td>2,160</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>29</td>
<td>3</td>
<td>16,506</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>618</td>
<td>8</td>
<td>104,019</td>
<td>36</td>
<td>6,151</td>
</tr>
</tbody>
</table>

Note: The eight geotechnical and hydrological holes that were drilled in 2006 (122.7 m) are not included in this table.
11.1 Drilling Methods

11.1.1 Reverse Circulation Drilling

Since 2004, Foundex Exploration of Surrey, BC, has been the drilling contractor for all reverse circulation (RC) work on the Renard Project, employing an HT-2000 drilling system rig. RC holes ranged from 88 m to 211 m depth and measured 27.7 cm to 28.8 cm diameter. All RC boreholes were drilled vertically. In 2004, Stornoway completed a 23-hole, large-diameter RC drilling program on the Foxtrot Property, for 4,157 m of drilling. Another five and eight RC holes were drilled in 2006 and 2007, for a total of 805 m and 1,189 m, respectively. Due to the complex geology of the Renard bodies and the reduced geological information gathered by using RC drilling methods, all RC borehole locations were twinned with core holes that had previously been drilled into the Renard bodies.

The winter 2004 RC drilling program was undertaken using a mix of water and air to bring the kimberlitic chips to the surface, whereas the summer 2004 program used a “reverse flood” technique. Reverse flood drilling uses much larger volumes of water, which is thought to reduce diamond breakage by flushing the cuttings away from the drill head in a timely manner, and facilitating a more rapid, less aggressive transport to surface. In the 2006 and 2007 drill programs, the reverse flood technique was used for all RC drilling, with the exception of one hole on Renard 4, where the air and water method was required due to technical difficulties.

A downhole caliper survey was performed when each RC hole was completed. The goal of the RC caliper survey was to measure the diameter of the hole for the calculation of volume (in cubic metres) of material drilled along the length of the RC hole for diamond grade estimation.

The caliper system comprises a mechanical three-arm caliper with a winch and cable system. Each arm of the caliper can extend to a maximum distance of 0.2 m in length. The survey methodology consists of lowering the caliper to the bottom of the RC hole, extending the arms until they contact the RC hole wall, and then raising the instrument at a constant rate so that the caliper arms can measure the RC hole profile in real time. Each RC hole was surveyed twice so that the repeatability of the data is consistent and reliable. The information is recorded on a laptop computer and subsequently processed and interpreted. The data were presented as a graphic 3-D downhole log and a downhole Excel spreadsheet.

RC drilling recovers kimberlite as a continuous stream of rock chips ranging in size from a few millimetres to several centimetres depending on the characteristics of the rock being drilled and the type of bit being used. Since a certain percentage of rock material is discarded as under-sized material, or lost in fractures in an RC borehole, the weight of the sample is calculated rather than measured directly. The weight equals the volume of the hole multiplied by the bulk density of the kimberlitic material. Volumes were determined mathematically as a function of hole diameter and sample length. Tonnages were determined on a sample-by-sample basis using the proportion of each geological unit and the measured density as determined from the same interval in the twinned core hole (refer to Section 12).

Rock chips are collected at regular depth intervals, logged geologically, and archived for later use. Rock chip size, morphology, and granulometry are monitored constantly and recorded in drill logs. The RC data collected are used to compare with diamond recovery data and to determine the best bits for particular rock types. The Foundex drillers also recorded technical information during the drilling, including rotary pressure, bit pressure, revolutions per minute, air pressure and production rates.
The RC chip recovery is monitored on a sample-by-sample basis by estimating the theoretical tonnage (caliper volume times sample length times density) minus the approximate dry weight of the samples processed. RC recoveries typically vary from 51% - 78%. Recoveries are lower when the rock is strongly diluted by country rock xenoliths. Stornoway observed that certain RC bit types and drilling techniques did not give good recoveries.

11.1.2 Core Drilling

Chibougamau Diamond Drilling of Chibougamau, Quebec, has been the drill contractor for all core drilling (both surface and underground) on the Renard Project since 2001.

The diesel-powered surface drill rigs used for the majority of the work are unitized HC150’s (essentially equivalent to a Boyles 44), housed in metal shacks, skid-mounted and moved by bulldozer. Drill rods and ancillary equipment are transported by skid-mounted sloop (or sled). The rigs, as currently configured, are capable of drilling up to PQ diameter core (8.51 cm). Prior to the start of the 2009 summer drill program, the aluminum tower on one of the rigs was replaced with a stronger steel tower to allow deeper drilling. When required to test outlying exploration targets, the drill rig is configured for helicopter transport by removing it from the metal shack. Surface holes ranged from 12 m to 843.5 m in length, and were drilled at a variety of orientations with dips from -45º to -90º.

The underground drill is a lightweight rig manufactured by Chibougamau Diamond Drilling and driven by air pressure. It is mounted on a steel frame and drills ATW core. The shortest underground hole was 7.5 m in length, and the longest 118 m in length.

From 2001 to 2006, geologists provided by SOQUEM and Stornoway logged core using a method termed by Stornoway as “lithological” logging. During this period, all core logging was completed at the secure core shack at the Lagopède camp prior to being shipped to North Vancouver for diamond analysis. In 2006, the logging style changed to a more detailed procedure termed by Stornoway as “petrological” logging. This method involves laying out one (or more) drill hole(s) in its (or their) entirety to allow the logger to compare geology between sections within an individual drill hole or across several drill holes more efficiently and effectively. In addition, with the petrological logging method, more emphasis is placed on petrographic, thin, section work to identify and correlate geological units. Beginning in 2006, all drill cores containing or suspected to contain kimberlite were logged using the lithological technique in camp and then shipped from the project site to Stornoway’s North Vancouver facilities for petrological logging. In addition, core remaining from drill programs completed prior to 2006 was re-logged using the petrological logging technique. In 2009, the core was logged using the petrological method in the field. To allow core holes to be laid out in their entirety, core logging was completed in a larger facility adjacent to the core shack.

In addition to a traditional drill core log which noted rock type, mineralogy, colour, texture, structure, and alteration, an Excel modal analysis form was completed for holes drilled between the summer of 2003 and the end of 2008. Estimates of the country rock xenolith, kimberlitic matrix, olivine macrocryst, magnaclast, and autolith content, in percent, were noted for each 3 m core interval, and used to produce a visual representation of the estimated percent kimberlite content versus depth. Beginning in 2009, the percentage of country rock xenoliths within the kimberlite units was measured directly using a line scan method. Line scans are completed by measuring all country rock xenoliths greater than 0.5 cm along a line drawn on the core. The country rock
xenolith percentage is calculated by dividing the total of the country rock xenolith measurements by the length of the section measured, which is typically 1 m.

Core boxes were labelled with aluminium Demo tape and stacked on wooden pallets. A portion of the core was labelled “waste” and stored at the camp. Between 2001 and 2008, kimberlitic material was palletized, strapped, numbered, and shipped to Chibougamau or Mirage by air. For the core designated for diamond testing, pallets were immediately loaded onto a locked van provided by Fastfreight of Montreal. Once full, the van was sealed and shipped directly to the North Vancouver laboratory. If no tests were required on the core, the pallets were shipped across the country using regular commercial transport carriers. Since 2009, only core required for petrographic or diamond analysis and telescoped holes are shipped to Stornoway’s North Vancouver facility.

Core recovery and other geotechnical parameters are collected for all drill cores on the project kimberlites. Core recovery in the area of the Renard Cluster, Lynx, Hibou and North Anomaly dykes is typically greater than 90%. Each box of core is photographed with a digital camera at the looped core shack. The photographs are then identified with the drill hole and core box numbers and stored on Stornoway’s network in the North Vancouver office.

11.1.3 Geotechnical and Hydrological Drilling

To date, no geotechnical drilling has been undertaken in areas outside the Renard Core Area. However, while drilling for delineation or mini-bulk samples in the Core Area, detailed geotechnical observations are recorded. All holes are logged for geotechnical parameters such as total core recovery, rock quality designation (RQD), intact rock strength, weathering/alteration, joint condition rating, and fracture frequency classification, in order to obtain a rock mass number. A point load survey was completed on selected holes for Renard 2, Renard 3, Renard 4 and Renard 9. Beginning in 2009, several holes have been drilled to produce oriented core. Azimuth and inclination measurements for all fractures in the oriented drill core were recorded to aid in the development of a geotechnical model of Renard 2.

Eight holes (122.7 m) were drilled for hydrological studies in the vicinity of Renard 2 and Renard 3 before the beginning of the underground operations (Barbeau, 2006). Seven of these drill holes were subsequently converted to water wells. The holes were advanced through the overburden down to the bedrock. Soil sampling and soil identification were performed every 1.5 m. Two to three permeability tests were carried out in each borehole. A pumping test was performed to evaluate the hydraulic conductivity of the ground. This drilling was done using a regular diamond drill with PQ diameter drill rods, allowing the construction of observation wells with either 50 mm PVC pipes and screen, or 38 mm PVC pipes, a sand filter, and a bentonite plug.

11.1.4 Collar Surveys and Down Hole Surveys

All positional work on the Property is carried out using a transformed UTM 18 NAD 27 local coordinate system (Canada Mean).

Exploratory drill holes prior to 2004 were located relative to marked grids constructed using either Global Positioning System (GPS) units or chain and compass. In addition to using the marked grid, all exploratory borehole locations are verified by hand-held GPS units with no differential correction. Exploration drill hole
azimuths and inclinations are set using a compass and protractor, respectively. Final exploration borehole inclinations are surveyed using an “acid test” system.

To position delineation and mini-bulk hole collar location pickets and front sights for holes drilled within the Renard Cluster, a registered surveyor uses GPS equipment with sub-centimetre accuracy. Technicians use a theodolite to align the drill rig with the collar picket and front sight pickets to ensure the holes are started accurately. After the drill programs are completed, the surveyor returns to locate the drill collar positions accurately by surveying the casings for locations and orientations. During 2003 and 2004, Corriveau J.L. and Associates Inc. of Val d’Or, Quebec, surveyed all the delineation and mini-bulk (as well as several of the exploratory) borehole collars using a Leica System 500 RTK real-time, differentially corrected GPS system (DGPS) with ± one centimetre accuracy. In addition, cut-and-chained stations on the ground grids covering Renard 2, Renard 3, Renard 4, Renard 65 and Renard 8 were accurately located using the same survey equipment, and a series of control points were established on the Property.

From the winter of 2005 until present, Paul Roy Surveyor of Chibougamau, Quebec confirmed locations of all survey collars. The downhole track of core holes drilled at Renard 2, Renard 3, Renard 4, Renard 65, Renard 7, Renard 8, Renard 9, and Renard 10 and several exploratory holes drilled outside the Renard Cluster, were surveyed using the FlexIt borehole survey instrument to determine the azimuths and inclinations more accurately. The FlexIt instrument is an electronic downhole compass tool that measures several parameters, such as azimuth, dip, magnetic field, and dip of the magnetic field. Once the data are downloaded into a computer, a program corrects for magnetic declination and rejects readings above the average magnetic field (56,000 nanoTeslas) for the area of the Renard bodies. The readings above average generally correspond to areas of magnetic rock. In addition to the FlexIt system, a gyroscope system from Gyrosmart was used for the summer 2007 drilling campaign. This particular survey tool (IBG10), known as Imego’s digital Butterfly Gyroscope, uses a MEMS (Micro-Electro-Mechanical System) gyro sensor and allows the downhole orientation survey to be carried out inside the drill string. For the drill program completed during 2009, in addition to using the FlexIt tool, a DeviFlex system from Devico A.S. was used to determine borehole geometry. The DeviFlex is a non-magnetic, electronic, multishot tool that uses accelerometers and strain gauges to calculate changes in inclination and azimuth. It is not affected by magnetic fields and is used for surveying inside casings and drill strings.

All the core holes drilled on the Property are surveyed for magnetic susceptibility. From 2001 to 2006, an Exploranium KT-9 hand held instrument was used to manually measure the core at select intervals. Since 2006, magnetic susceptibility readings have been taken using a continuous reading, multi-parameter probe (MPP) from Instrumentation GDD.

11.2 Drill Programs

Between 2001 and 2002, drilling in the Renard Core Area was undertaken primarily as early-stage, exploration-focused programs. From 2003, most of the drilling was used to support delineation work and advanced-stage project evaluation through the collection of mini-bulk and bulk samples for all bodies except Renard 9 and Renard 10, which were discovered in 2003. Additional target exploration drilling has been ongoing since 2001 on the larger Foxtrot Property. These drilling programs have been discussed in detail in earlier technical reports (Clements and O’Connor, 2001, 2002; Lucas et al., 2003; Lépine and O’Connor, 2004;
O'Connor and Lépine, 2005, 2006). Location plans for the drilling that is not used to support mineral resource estimation can be found in these reports.

Table 11-1 summarizes the drilling on the Foxtrot Property. Drill hole collar locations and outlines of the kimberlite bodies contributing to the Mineral Resource Estimate discussed in Section 17 are shown in Figures 11.1 to 11.3. Details of the 2001 through 2008 programs can be found in the 2008 NI 43-101 Technical Report (Lecuyer et al, 2008).

11.2.1 2009 Drilling

Two drill campaigns were undertaken in 2009. The winter 2009 program, completed between February 16 and March 31, focused on further delineating the geology of Renard 2 and Renard 3 between the 400 m and 570 m levels. Five NQ and HQ diameter holes were completed at Renard 2 for 2,694 m and three NQ and HQ holes were drilled at Renard 3 for 1,094 m. The drilling confirmed a significantly expanded zone of kimberlite on the northern and eastern sides of Renard 2 at depths greater than 250 m below surface. Drill hole R2-57 ended in kimberlite at 729 m due to drilling difficulties, and did not determine the actual eastern contact of the pipe at depth. Winter drilling at Renard 3 modestly extended the dimensions of the kimberlite pipe at depth.

The purpose of the summer drill program was to convert kimberlite zones discovered on adjacent sides of Renard 2 during the winter 2009 drill program in an attempt to increase the confidence to the Indicated Mineral Resource category. During the summer drill program completed between June 11 and September 29, 2009, 24 holes were cored at Renard 2 (including three that extended existing older holes) and 12,718 m of new core was collected. Five of the 24 holes were terminated early due to excess deviation that would have prevented critical deep pierce points from being obtained, and one hole was lost at depth due to technical difficulties. Drill hole R2-73 was collared such that it passed through the southern portion of Renard 3 en-route to the deeper portion of Renard 2.
Figure 11.1: R2 and R3 Drill Hole Location Plans
Figure 11.2: R4 and R9 Drill Hole Location Plans
Figure 11.3: R65, Lynx and Hibou Drill Hole Location Plans
12.0 SAMPLING METHOD AND APPROACH

12.1 Heavy Mineral Sampling

Heavy mineral sampling of surficial sediments was undertaken as part of the initial exploration programs. Sampling is discussed in detail in earlier technical reports (Clements and O’Connor, 2001, 2002; Lucas et al., 2003; Lépine and O’Connor, 2004; O’Connor and Lépine 2005, 2006), and is not included in this report.

12.2 Caustic Fusion Sampling

The caustic fusion process is used to evaluate, characterize and correlate the diamond potential of individual kimberlite lithologies, and to provide data to facilitate the grade estimation process. The objective of this type of test is to extract all diamonds greater than 0.1 mm in size, through chemical dissolution of the host rock sample. Individual samples may vary in size from a few kilograms to hundreds of kilograms, depending on the available material and the specific purpose of the testing. Kimberlite may be collected from drill core, float boulders, subcrop, outcrop, underground exposures and subsamples of material in a process facility or a combination thereof. Individual sample results from comparable kimberlite units may be merged together to provide larger, statistically more representative, samples.

Kimberlite is collected, described and recorded by the site geologists following protocols in place at the time. Samples are individually numbered, weighted, sealed in a tamper-resistant container appropriate for the volume of material, and transported to the test facility by a combination of charter aircraft and commercial couriers.

12.3 Mini-Bulk Sampling

Although there is no formal industry-accepted definition of a ‘mini-bulk’ sample, many companies would agree that the term is generally used to refer to the processing of kimberlite material up to several tens of tonnes. This material may be derived from drill core, RC chips, boulders, subcrop, outcrop, trenches or underground workings. Mini-bulk samples are usually processed through Dense Media Separation (DMS) equipment that, depending on specifications and diamond recovery objectives of a particular program, may be configured to recover diamonds of greater than 0.5 mm, 0.85 mm or 1.18 mm on square-mesh screens. In some cases caustic dissolution or other extraction techniques may be utilized to recover the diamonds. All of Stornoway’s mini-bulk samples reported herein were processed through DMS equipment, and the reported diamond content is based upon stones retained on either 1.18 mm square-mesh screens or +1 DTC screens.

Stornoway’s mini-bulk sampling programs reported herein have used drill core, RC chips, boulders, and surface trenches to source kimberlite material. Drill core was collected, described and recorded by the site geologists following protocols in place at the time. Core boxes were sealed, weighted and secured to pallets for shipping, then forwarded to the North Vancouver laboratory facilities. Upon receipt samples were verified, then composited and processed through an onsite DMS plant. The mini-bulk sample data has not been used for mineral resource estimating.

During the various RC drill programs, screen openings of either 0.98 mm or 1.18 mm were used to dewater the RC kimberlite chip recovery flow and to remove the undersize fraction. Recovered kimberlite was separated at regular downhole intervals into individual samples and collected in either large 1.5 t bulk sample bags or
individually lined 205 l steel drums. Bulk bags and/or drums were clearly identified with a unique numbering system, fastened with tamper-proof seals and transported to secured Stornoway storage facilities. Charter aircraft and bonded freight services were organized as required to transport sample materials to the process facility. In 2004, RC mini-bulk samples were dispatched to the external Thunder Bay Mineral Processing Laboratory (TBMPL) in Ontario for DMS processing, whereas RC mini-bulk samples from 2006 were sent to Stornoway’s North Vancouver laboratory and those from 2007 were processed by the Lagopède-based DMS.

Kimberlite mini-bulk samples comprised of boulders or trench material were processed through either the North Vancouver or Lagopède DMS plants. Results are summarized in Table 10-4.

12.4 Bulk Sampling

Although there is no formal industry-accepted definition of a ‘bulk’ sample, many companies would agree that the term is generally used to refer to the processing of kimberlite material exceeding several tens of tonnes. This material may be derived from drill core, RC chips, boulders, subcrop, outcrop, trenches or underground workings. Bulk samples are usually processed through DMS equipment that, depending on specifications and diamond recovery objectives of a particular program, may be configured to recover diamonds of greater than 0.85 mm or 1.18 mm on square-mesh screens. In some cases larger screen sizes or other extraction techniques may be utilized for diamond recovery. All of Stornoway’s bulk samples reported herein comprise either surface trench or underground sample material, and were processed through DMS equipment. The reported diamond content is based upon stones retained on either 1.18 mm square mesh or +1 DTC screens.

To maintain the integrity of the bulk samples, a sampling protocol was established before the exploration work took place in order to ensure that the final diamond recovery data can be linked to the correct kimberlite, sample location within the body and rock type. Each surface or underground round was assigned a sample number and a colour code by the mine geologist. For surface samples, individual loads were directed to specific dump piles in a secure, access-controlled, storage area located near the DMS facility. The storage area was monitored 24 hours per day by an independent security force (Canaprobe, Montreal) and by CCTV surveillance.

For underground samples, a sample number placard was posted in the remuck bay and on the dump truck so the underground operators and DMS staff were constantly aware of which sample was being handled. On surface, a member of the DMS staff at the controlled access storage site directed the loads to the correct stockpile locations and kept a log of loads that were delivered from underground. Once all loads were hauled to surface, the mine geologist checked that the remuck bay was cleaned out in preparation for the next sample. Sample number placards were taken to the surface with the final dump truck load and placed on the appropriate stockpile. A location plan of the surface or underground samples was updated each time a new pile was initiated, in order to easily identify sample location.

Results of the bulk sampling programs are presented in Table 10-4.
12.5 Bulk Density Determinations

The dry bulk density database for the Foxtrot Property comprises 1,082 bulk density records, consisting of 652 measurements from drill core and 430 from bulk sampling. When multiple measurements from the same sample, and multiple subsamples from the same rock are averaged, and the laboratory Quality Control (QC) checks removed, there are 725 spatially discrete density samples.

Morris Magnetics Inc. performed the first density tests in 2004 on Renard 2, Renard 3 and Renard 4 using the water displacement method. Between 2004 and 2009, additional bulk density samples were measured by Morris Magnetic Inc. and SGS Canada Inc., primarily through the immersion/water displacement method, as follows:

- Dry the sample in the oven at 49ºC overnight.
- Weigh each sample in air.
- Weigh each sample suspended in water.
- Calculate the displaced volume of the dry rock in water.
- The difference between the dry rock weight and the water displaced gives the calculated bulk density.

Quality control checks comprising duplicate measurements with water and wax immersion techniques, repeat density determinations, blind checks between laboratories, and multiple subsamples of the same rock demonstrate small density variances on a sample-by-sample, measurement-by-measurement and process-by-process basis, but there does not appear to be a consistent shift from laboratory to laboratory. Variability is generally in the order of 0.00 g/cm³ to 0.05 g/cm³ (or from 0% - 2% assuming an average bulk density of 2.60 g/cm³), and should not be a concern for data interpretation. Density variations did not show a correlation with country rock dilution, nor was there a clearly demonstrable change of density with increasing depth in the kimberlite pipes.

Country rock (CR) consists of predominantly gneissic, lesser granitic and minor pegmatitic phases. The relationship between granitic and gneissic units is commonly cyclic, such that large intersections of drill core are best described as mixed granite-gneiss. Given the proportion of mixed country rock units, and the overlapping density ranges for granite and gneiss, a calculated average bulk density of 2.72 g/cm³ has been applied to the country rock of all bodies.

Bulk density ranges for both the fractured country rock (CRB) and fractured country rock with minor kimberlite as thin matrix/vein fillings (CRB+K) are a little lower than the country rock units, likely as a function of fracturing and alteration associated with brecciation, with overlapping ranges. An average bulk density of 2.61 g/cm³ for both CRB and CRB+K units has been applied.

Table 17-7 shows the average bulk density values for the various geological units within the Renard kimberlites.
12.6 Moisture Content

Determining the moisture content of each sample prior to processing through caustic fusion, DMS or bulk density is necessary to allow an accurate dry weight of the kimberlite to be calculated. The drying of bulk density samples is part of the standard routine used to measure density, as documented above.

Samples of drill core processed through the Stornoway North Vancouver laboratory as part of the historical mini-bulk programs were stored inside for extended periods of time prior to DMS processing (23 days to 598 days; average 141 days). As a result, the core had already dried out and no moisture content tests were performed.

Moisture content tests were performed on the RC chip samples to allow an estimate of percentage chip recovery during drilling. These moisture contents were not used in the determination of RC mini-bulk sample masses, or during RC diamond grade calculations, as tonnages were based upon theoretical sample volumes of each contributing geological unit and the appropriate density.

During bulk sampling programs, moisture content tests were completed on kimberlite from both the surface and underground samples. As each individual sample was being run through the DMS plant, between five and 15 aliquots of raw feed (one to two kilograms each) were taken from the feed conveyor. Each aliquot was weighed, then dried in the oven at 105°C for two hours and reweighed. Results for each aliquot were recorded and averaged to represent the assumed moisture content for the complete subsample. Average moisture values of 5.8% (range 3.0% - 8.5%) and 7.8% (range 3.9% - 15.4%) were obtained for the underground samples at Renard 2 and Renard 3, respectively. The large tonnage surface samples varied from an average of 7.1% (range 6.5% - 7.7%) at Lynx to an average of 10.8% (range 5.4% - 21.1%) at Renard 4. Renard 65 was 8.3% (range of 4.8% - 11.9%) and the Hibou sample was 9.8% (treated as one large sample).
13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

13.1 Laboratories

Three Dense Media Separation (DMS) process facilities have been used as primary macrodiamond extraction laboratories during the Renard exploration programs to date: an external unrelated 10 tph commercial facility at Thunder Bay, Ontario (owned and operated by Kennecott Canada Exploration Inc. and doing business as the Thunder Bay Mineral Processing Laboratory “TBMPL”); an internal 5 tph facility situated in North Vancouver, British Columbia (owned and operated by Stornoway); and, an internal 10 tph facility situated at Camp Lagopède, Quebec (owned by Stornoway and SOQUEM, and operated by Stornoway on behalf of the joint venture). The TBMPL is accredited by the Standards Council of Canada to the ISO/IEC 17025 standard as a testing laboratory for specific tests. Neither of the internal DMS facilities are accredited, but have been independently audited and are subjected to ongoing QA/QC testing. One non-accredited laboratory (Microlithics Laboratories Inc., Thunder Bay, ON) was used as a secondary facility for auditing tailings from mini-bulk and bulk samples. Kimberlite concentrate generated by the TBMPL and Lagopède DMS facilities was shipped to the North Vancouver laboratory for final treatment and recovery of diamonds.

During the Renard exploration programs, microdiamonds were recovered by one internal facility situated in North Vancouver, British Columbia (owned and operated by Stornoway) and four external unrelated commercial facilities: Microlithics Laboratories Inc. located in Thunder Bay, ON; Saskatchewan Research Council Geoanalytical Laboratories (SRC), Saskatoon, SK; TBMPL (owned and operated by Kennecott Canada Exploration Inc.), Thunder Bay; ON; and, SGS Lakefield Research Ltd. (Lakefield) in Lakefield, ON. Neither Stornoway’s internal facility nor Microlithics Laboratories are accredited, but have been independently audited and are subjected to ongoing QA/QC testing. Both Lakefield and SRC are accredited by the Standards Council of Canada under ISO/IEC 17025 “General Requirements for the Accreditation of Calibration and Testing Laboratories (CAN-P-4D)”. The TBMPL is accredited by the Standards Council of Canada to the ISO/IEC 17025 standard as a testing laboratory for specific tests. Microlithics, SRC and SGS Lakefield were further utilized as secondary laboratories to cross-check and verify recoveries from other microdiamond facilities.

13.2 Dense Media Separation (DMS) Facilities

Dense media separation is a standard industry process for the liberation and extraction of macrodiamonds from large volumes of sample material (commonly tens to thousands of tonnes). Rock samples are progressively crushed and the disaggregated material passed over a series of size sorting screens before being mixed with a slurry of ferrosilicon and water. A cyclone is used to split the heavy minerals, including diamonds, from the lighter waste rock. The heavy mineral concentrate is removed from the DMS plant and stored under secure conditions until the diamonds can be extracted. Waste material is recycled through the plant and recrushed to liberate finer and finer diamonds. The minimum and maximum diamond size that can be recovered by the process is determined by the plant configuration. For the Renard Project, all DMS plants targeted stones of +1 DTC screen size (essentially equivalent to a +1.18 mm square-mesh screen size).

The non-accredited, internal Stornoway laboratory in North Vancouver provides mineralogical and geochemical analyses for diamond exploration in support of Stornoway’s exploration projects. The laboratory includes a fully integrated heavy mineral processing and observing facility designed to recover and identify kimberlite indicator minerals from till samples, a caustic fusion dissolution circuit for diamond recovery from small kimberlite rock...
samples, and a 5 tph Bateman/Van Eck & Lurie DMS facility for the recovery of commercial-sized diamonds from core, mini-bulk and bulk samples. The diamond recovery circuit includes a sizing circuit, an X-ray flow-sorting machine and grease table equipment.

A 10 tph Bond Equipment DMS facility was mobilized, assembled and commissioned on site at Camp Lagopède in Quebec during 2006 and 2007. This internal facility was used in 2007 and 2008 to process material from mini-bulk and bulk sampling programs.

Kennecott’s TBMPL owns and operates a 10 tph Bateman/Van Eck & Lurie DMS facility, initially constructed in 1993 and rebuilt during 2003. This facility was used during 2004 to process RC chip samples collected from the Renard Project.

13.3 Caustic Fusion Sampling

The caustic fusion technique, also known as caustic dissolution, utilizes chemical processing to provide total liberation of all diamonds within a given sample in order that an accurate diamond distribution can be determined. Caustic dissolution processes are usually applied to recover microdiamonds from relatively small volume samples (tens to hundreds of kilograms). Rock samples are loaded into large steel pots and caustic soda is added to dissolve the mineral matrix hosting the diamonds. Dissolution takes place over an extended period of time in temperature-controlled kilns. Once the reaction is complete, the residue is cooled and poured through stainless steel wire mesh screens at the required size to avoid loss of small diamonds. Depending on the size of the residue, further standard dissolution may be required. In cases where abundant oxides remain in the residue, a variety of other chemicals may be used to reduce the size of the concentrate, without harming the diamonds. Residues are then observed under microscopes by trained personnel, and the diamonds recovered, counted and weighted.

To assure the integrity of the process, a chain of custody is established between the customer and the laboratory. Customer samples are processed in a controlled environment to ensure that confidentiality is maintained at all times. All samples are handled with due diligence during processing stages, according to previously defined protocols. Quality control grains are added to each aliquot undergoing the caustic dissolution process to monitor recovery. Similar caustic dissolution processes are used by all four external unrelated commercial facilities.

Historically, Stornoway’s internal laboratory facility applied a process of attrition milling, followed by heavy mineral separation and caustic fusion dissolution, as the initial method of testing kimberlite discoveries for microdiamonds. Initial processing was a complex process of controlled and iterative crushing followed by fractionation, magnetic separation techniques and heavy liquid separation to produce diamond-enriched concentrates. Caustic reagents are mixed with a portion of the concentrate and melted by heating in a muffle furnace at high temperature. Diamonds are then recovered from the resulting fusion residue.
13.4 Database

Data collected from the various exploration, mini-bulk, and sampling programs were collated into a SQL Server relational database. Data requests are processed through the database administrator. Access to the data in SQL Server is restricted to the database administrator only.

The database is stored on the server in the North Vancouver office, with backups being performed every day. One copy of the database is removed from site on a regular basis. Processing and diamond results hard copy data are stored in fire resistant filing cabinets in the North Vancouver office as are hard copy data of the Renard core field logging. In addition, these hardcopies have been scanned as digital PDF files which are stored on the server.

13.5 Sample Security

All sample processing is undertaken by qualified operators who conduct their work in secure laboratory areas with restricted access and following strict sample handling protocols. Diamonds recovered from the caustic dissolution process have limited commercial value and the focus is to extract and retain all available stones. Security, while present, does not form as large a component of process as it does for the DMS work which can recover hundreds of carats of diamonds, many of which may be potentially attractive for theft.

DMS operations, post-processing treatment of DMS concentrates, observing, and post-observation handling of concentrates and diamonds, from 2004 to the effective date of this report, were conducted under approved security protocols and procedures, which include but are not limited to:

- Chain of Custody documentation
- Dual locking containers
- Uniquely numbered, single use, tamper resistant seals
- Monitoring and control of sample weights
- Limited access or dual access to certain laboratory premises
- Closed-circuit TV surveillance
- External security guards

Comparative analysis of diamond size distribution is checked against historical and external laboratory results.

13.6 Drill Core

In the case of drill core collected for microdiamond analyses (i.e. caustic dissolution) during the 2009 drill program, once sample intervals had been established in the field, core was extracted from the core boxes and packed into 20 l, white, plastic pails lined with heavy polyethylene sample bags. Bar coded sample tags with unique identification numbers were inserted into each sample bag and the bags sealed. Pails were clearly
labeled inside and out with the same sample number, and then sealed with tamper resistant single use lids. Individual pail weights were recorded and this information forwarded to the company’s expeditor in Chibougamau and the office in North Vancouver. The expeditor was notified once the pails left camp on a charter aircraft, met the aircraft at the landing site and transferred the sample pails to a secure location. The pails were then consigned to a commercial courier service for delivery to either the contract caustic fusion laboratory or to North Vancouver. Upon receipt of the samples the caustic fusion facility would take possession of the samples, document the number and weight of the pails and notify both the camp and the North Vancouver office. In certain cases diamond spikes were added to the core samples to assist in the sample tracking and QA/QC verification procedures.

Historically, during drilling operations for mini-bulk sampling, specific security measures were instituted to minimize the potential for tampering and to maintain the integrity of the drill core from initial coring on site to delivery of the core to the North Vancouver laboratory.

Once a full core tray has been reviewed by a joint venture geologist at the drill rig, the core boxes are sealed for transport by helicopter or ground transport to the core logging facility located at the Lagopède base camp, approximately 500 m west of the Renard kimberlite cluster. The core boxes are opened in the core library for detailed inspection, photographing and logging. The core library is a secure, locked facility without windows. Only authorized personnel are allowed inside.

Once logging is complete, core boxes are resealed and sent by various types of charter aircraft to LG4 or Chibougamau where a quality control officer, employed by the joint venture, receives them. Core boxes are transferred by forklift truck from the aircraft to a semi-truck trailer and organized on palettes for delivery to Vancouver. The boxes are metal-strapped in a minimum of two locations to avoid movement during transport. Locks with hardened steel shackles secure the semi-trailer when the quality control officer is not present. The on-site quality control officer, the project manager located at the remote base camp, and the North Vancouver laboratory manager possess keys for the trailer locks. Once the semi-trailer is fully loaded, it is locked a final time and numbered security seals are placed on the lock hasp. The trailer is then dispatched to North Vancouver, where it is received by the laboratory manager. All the information such as seal number, trailer and container numbers, and date of departure is transmitted to the Vancouver office. Once the shipment arrives in Vancouver, the seal is verified and the van is off-loaded by a technician who verifies the contents against the chain of custody.

### 13.7 RC Chips

RC sample drilling operations occur under strict security measures to minimize potential tampering and to maintain the integrity of the samples while being shipped from the drill site to the North Vancouver or commercial laboratory. A fenced area with controlled access at the Lagopède camp and/or the LG4 site, was used for temporary storage of RC chip samples during the summer 2004 and 2006 drilling programs, prior to shipping the samples south. For the winter and fall 2007 RC drilling program, RC bags were stored in a restricted access area adjacent to the Lagopède DMS facility, before being processed on site.

Joint venture geologists supervised the sample collection. During drilling, access to kimberlitic chips was limited to authorized joint venture staff and drillers. Once filled, 1.5 t sample bags or 205 l steel drums were sealed immediately with cable ties and a security seal was applied to deter opening the bags or the drums. The bags
and the barrels were loaded on pallets and transported by forklift to the camp’s restricted loading area until loaded into aircraft.

During the 2004 and 2006 winter drilling program, large capacity aircraft were used to transport the material to Chibougamau or Mirage. Once at the destination, the bags were unloaded from the aircraft for storage at a secure location where only authorized personnel were permitted, before being shipped to the Thunder Bay DMS facility or the North Vancouver facilities. During the summer of 2004, float-equipped airplanes were used to carry secured 205 l barrels to Mirage, a tourist outfitter lodge near LG-4, before being shipped to the Thunder Bay DMS facility. Seal number, trailer and container numbers and date of departure were recorded on the chain of custody and were transmitted to the Vancouver office. Once the shipment was in Vancouver, the seal was verified and the van was off-loaded by a technician who verified the contents against the shipping papers and checked sample weights.

13.8 Bulk Sampling

13.8.1 Underground Bulk Samples

Access to the underground workings was restricted to ensure safety of personnel, as well as security and integrity of the samples. Only personnel involved in the underground program had access to the kimberlite, such as geologists, surveyors, equipment operators and drillers. On surface, the sample storage areas, treatment compound and DMS facility were considered as restricted areas and subject to access control, camera surveillance and security monitoring. An independent Quebec-based security firm, Canaprobe, was mandated to implement site security protocols and provided bonded security officers. During bulk sample processing, only authorized personnel had access to the restricted areas. Security personnel escorted all approved visitors. All personnel involved in the operations at the DMS facility were subject to criminal record checks and random daily searches. Surveillance by the security force included use of overlapping and task specific CCTV coverage, as well as a continuous physical presence within the DMS plant. Locked dual custody provisions were in force in the vicinity of the DMS concentrate.

The concentrate was discharged from the DMS into 205 l steel drums lined with a heavy polyethylene sample bag. Once sample processing was complete, or the drum was full, the sample bag was sealed with a numbered tamper-resistant security tag by both a processing representative and a security representative. Each drum was mechanically sealed, locked and secured with two additional numbered tags. Sealed concentrate drums were weighted, labelled and moved to a secure, access controlled, storage site under constant camera surveillance and chain of custody documentation. Once enough concentrate drums had been collected, they were removed from site on a charter aircraft and transported under chain of custody to Chibougamau or Mirage, where they were temporarily stored in locked containers or secure vans before being shipped to North Vancouver with a bonded trucking company. Concentrate was transported in a locked, sealed and documented tractor-trailer on a “non-stop, 24/7" continuous basis from Chibougamau or Mirage directly to North Vancouver. Concentrate reception in North Vancouver was under dual custody conditions and included monitoring by external security officers, drum/external security seal number verification, integrity inspections and weight control. Concentrate drums were then placed in a locked, access-controlled storage cage under CCTV surveillance until they could be processed. Paper records of access/transfer points were also maintained.
13.8.2 Renard 4, Lynx and Hibou Trench Bulk Samples
To ensure the security and integrity of the large tonnage surface samples, and the sample process itself, access to the trenches and the DMS stockpiles was limited to personnel specifically involved in the sampling, such as geologists, field assistants and heavy equipment operators. A log of personnel accessing the sites was recorded daily. Detailed records of the sample collection were kept including times of various activities and any incidents such as spillages. In addition, records were kept of all sample transfers from the trenching site to the DMS stockpile.

13.9 Final Diamond Treatment and Recovery
Diamond bearing concentrates generated by DMS processing of underground bulk samples, large tonnage trench samples and RC chip samples from the Renard Project were all subjected to final processing at Stornoway’s North Vancouver laboratory facilities. The diamond recovery circuit includes a sizing circuit, an X-ray flow-sorting machine and grease table equipment.

All processing of concentrates was undertaken in secured, controlled access, CCTV monitored areas of the North Vancouver facilities. An independent, external and bonded security force (FBIG Investigations) monitored CCTV equipment, provided a physical presence at critical points of the diamond extraction process and recorded both routine activities and any abnormal incidents (sample spillage, etc.). These security personnel also checked sample seals, sample weights and provided key control services for dual-locked storage areas, concentrate canisters and restricted areas. Processing personnel were subject to random searches at various times.
14.0 DATA VERIFICATION

As part of the independent expert review, Golder conducted the following verification checks on the Foxtrot Property:

- Site visit by Golder from March 5 to March 8, 2009.
- Review of the surface and underground geological and mineralization interpretations (Sections 7 and 9).
- Review of the historic and current exploration programs (Sections 6 and 10).
- Deposit model (Section 8).
- Review of data that are supporting mineral resource models (Sections 11, 12, and 13). The review covered drill core inspection, review of core logging, sampling and assay protocols and methods, and review of sample security measures and sample storage.
- Review of QA/QC data protocols and methods, data integrity and validation of RC, drill core and underground data (Sections 13 and 14).
- Review of diamond valuation methodologies.

Golder did not undertake a review of metallurgical test-work and establishment of processing parameters (Section 16).

14.1 Stornoway Quality Assurance and Quality Control Programs

The descriptions of the Stornoway QA/QC programs are taken from O’Connor and Lépine (2005; 2006) and Lecuyer et al. (2008). Golder did review the QA/QC procedures but did not independently verify the QA/QC procedures.

14.1.1 Caustic Fusion and DMS Sampling

QA/QC testing is conducted on 5% of all samples passing through the North Vancouver caustic fusion dissolution circuit and DMS circuit. Golder did review the QA/QC procedures but did not independently verify the QA/QC procedures for the caustic fusion and DMS samples.

QA/QC programs conducted by Stornoway include:

- Blind spiking of samples in processing, using “known” natural and synthetic diamonds prior to processing with recovery determined at the observation stage;
- Blind spiking of samples in observing, using “known” diamonds prior to observation;
- Regular testing of all machines and equipment;
- Calibration and verification procedures;
Routine audits of non-observable fractions and reject materials;

Use of internal standards reference materials which are calibrated to provide traceability and reproducibility;

A record-keeping system of documentation, which retains in archives all original records and data, with all amendments clearly marked, initialled and dated for reference;

Corrective actions which are implemented immediately when any aspect of laboratory analysis does not conform to procedural standards;

The investigation and verification of any result which appears to be a potential statistical anomaly, to ensure laboratory results fit within the geological context; and

Use of external laboratories for check samples. Up to 5% of all samples are routinely sent for external analysis.

The caustic fusion and DMS diamond recovery facilities are governed by a series of detailed procedures that are appropriate to ensure the security and integrity of samples and the final results. All samples received in the laboratory are accompanied by a chain of custody document and with security seals that must be verified prior to processing any sample. Upon receipt, the samples are stored in a secure facility with restricted access. The diamond recovery circuits are in restricted areas and all samples, concentrates, diamonds and data are locked in safes, cabinets, drying ovens, or secure rooms when not being handled.

14.2 Golder Verification

Golder has visited the Project site and the North Vancouver offices in order to audit procedures at Stornoway. Independent samples were not collected and treated by Golder since this is not practice for diamond sampling.

The audit process requires matching of raw data from field copies for the various data collection areas to final copies of data to be used in public reporting and resource estimation.

Golder has further reviewed documentation of procedures and verified that activities in the field conform to Stornoway’s published internal procedures for those activities.

Golder is of the opinion that Stornoway’s published and practiced procedures for collection of data in the field and transposition of these data into data ‘products’ to support resource evaluation work and initial costing exercises meet industry best practice guidelines.

14.2.1 Special Considerations for Diamond Resource Determination

Unlike commodities such as gold or base metals, diamonds do not have a standard value per unit weight that can be used to calculate value of a deposit. A one carat diamond can be worth anywhere from less than one dollar to tens of thousands of dollars, depending on the shape, colour and quality. A parcel of diamonds must be individually examined to establish an average value. Diamond values also change with the mix of diamonds over time; however, as a whole, diamond values have tended to increase with time. As this can be a somewhat
subjective exercise, multiple valuations from different professional diamond valuers, or diamantaires, are necessary, and are usually averaged to give an estimate of the probable true price of the goods in question. Diamond price estimates can differ between valuers by as much as ± 20%, especially on smaller parcels of diamonds. These differences are simply due to the fact that different diamantaires will perceive the value of a stone or parcel of stones differently. Their price guidelines will differ somewhat as well.

In a valuation exercise, it is necessary to involve a number of diamantaires to obtain a range of valuations that can be averaged to get an accurate price estimate and to use these data to model an average price. Often, in early stage evaluations of diamond projects, diamond price modelling is undertaken. In price modelling, the small sample size is compensated for by estimation of what the diamond population in a larger sample would be. By doing this, the valuer attempts to predict the likelihood of finding larger stones and what their effect on the overall value of the parcel would be, and, as such, estimate more closely what the run-of-mine (ROM) value would be. Modelling involves study of the diamond parcel on hand, including size distributions and valuations, to statistically estimate the upper and lower limits of a production parcel at certain confidence levels based upon the small parcel on hand. To accomplish this, Stornoway contracted WWW Diamond Consultants International (WWW) of London to obtain valuations and perform price modelling. WWW are recognized international leaders in this field.

Small parcels of diamonds are difficult and time consuming to value, so individual sample goods are generally combined on the basis of geology or some other parameter. Valuation parcels are generally sieved into DTC sieve classes (+1, +3, +5, +7, +9, +11) and grainer and caratage categories. A cumulative 7,496.97 carat diamond parcel acquired by bulk sampling underground, trench sampling and RC drilling completed by Stornoway between 2003 and 2007 was used for value modelling.
15.0 ADJACENT PROPERTIES

15.1 Diamond Properties

There are no advanced stage diamond exploration properties in proximity to the Foxtrot Property.

In 2004, Majescor Resources Inc. (Majescor) discovered two occurrences of diamond-bearing kimberlite float to the west of the Foxtrot Property claims. A sample of the float processed in 2004 indicated it was diamondiferous with a total of 32 diamonds greater than 0.075 mm recovered from 136 kg of kimberlite (Majescor Resources Inc., 2004). In 2005, Majescor drilled up-ice of the float and discovered the Remick dyke. Additional drilling delineated the dyke for a strike length of 900 m and the kimberlite dyke remains open to the northwest and down dip (Majescor Resources Inc., 2006).

During 2006, Forest Gate Resources, Majescor’s joint venture partner at the time, identified a new kimberlite boulder dispersal train located near the Remick dyke. A 54.15 kg coarse kimberlite float sample (U0341-110) collected from this train returned a total of 83 diamonds (Forest Gate Resources, 2006; Majescor Resources Inc., 2007).

Other kimberlite discoveries in the region include:

- Lac Beaver kimberlite, located approximately 90 km south of the Renard kimberlites on claims held by Ditem Explorations Inc (O’Hara, 2004);
- H1, H2, H3 and H4 kimberlites on the Tichegami property held by Ditem Explorations Inc. located approximately 75 km south of the Renard bodies (Robertson, 2003); and
- Hotish 1, 2 and 3 kimberlite dykes, within the Hotish Property held by Dios Exploration Inc., located about 100 km south of the Renard Kimberlites (Vaaldiam Resources Inc., 2006).

15.2 Other Commodities

A number of other commodities have been identified in the general region of the Renard kimberlites, primarily to the south (see Figure 5.1). These include (Houle, 2006):

- Gold and copper mineralization in the Eastmain River greenstone belt (e.g., the Eastmain gold deposit, held by Eastmain Resources Inc. through its wholly-owned subsidiary, Eastmain Mines Inc.);
- Porphyry copper–molybdenum mineralization in the Opatica Subprovince (e.g., the Macleod Lake/Windy 1 deposit, held by Western Troy Capital Resources Inc.); and
- Uranium in the Otish Basin (e.g., the AM-15 zone, held by Strateco Resources Inc.).

Future work at the specific mineral occurrences listed above could have implications to the Renard Project in that they could lead to cost sharing through power line and/or road (winter/all-weather) development activities.
16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The following section is based on information in the previous Technical Report (Lecuyer et al., 2008) and has not been verified by Golder.

16.1 Introduction

Dense media separation (DMS) is a standard industry process for the liberation and extraction of commercial sized macrodiamonds from large volumes of core, mini-bulk and bulk sample material. Rock samples are progressively crushed and the disaggregated material passed over a series of size-sorting screens before being mixed with a slurry of ferrosilicon and water. A cyclone is used to split the heavy minerals, including diamonds, from the lighter waste rock. The heavy mineral concentrate is removed from the DMS plant and the diamonds are extracted. Waste material is recycled through the plant and recrunched to liberate finer and finer diamonds. The minimum and maximum diamond size that can be recovered by the process is determined by the plant configuration. For the Renard Project, all DMS plants targeted stones of +1 DTC screen size (essentially equivalent to a +1.18 mm square-mesh screen size) or above, although smaller stones have been recovered.

Three DMS process facilities have been used as primary macrodiamond extraction laboratories during the Renard exploration programs to date: an internal 10 tph facility situated at Camp Lagopède, Quebec (owned by Stornoway and SOQUEM, and operated by Stornoway on behalf of the joint venture); an external unrelated 10 tph commercial facility at Thunder Bay, Ontario (owned and operated by Kennecott Canada Exploration Inc. and doing business as the Thunder Bay Mineral Processing Laboratory (TBMPL); and an internal 5 tph facility situated in North Vancouver, British Columbia (owned and operated by Stornoway). By far the largest proportion of DMS processing has been through the Lagopède plant, as shown by facility and sample type in Table 16-1. Table 16-2 shows the sample breakdown for the individual Renard kimberlite bodies comprising the current resource calculations.

Table 16-1: DMS Facilities – Sample Processing Breakdown

<table>
<thead>
<tr>
<th>Sample Type</th>
<th>Lagopède</th>
<th>TBMPL</th>
<th>North Van</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Samples</td>
<td>Weight (t)</td>
<td># Samples</td>
</tr>
<tr>
<td>RC</td>
<td>33</td>
<td>173.5</td>
<td>57</td>
</tr>
<tr>
<td>Surface</td>
<td>15</td>
<td>3457.4</td>
<td>0</td>
</tr>
<tr>
<td>Core</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Underground</td>
<td>28</td>
<td>4562.5</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>76</td>
<td>8193.4</td>
<td>57</td>
</tr>
</tbody>
</table>
Table 16-2: DMS Facilities – Allocation of Resource Sample Processing

<table>
<thead>
<tr>
<th>Resource Body</th>
<th>DMS Plant Total Weight Processed (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lagopède</td>
</tr>
<tr>
<td>Renard 2</td>
<td>2535.6</td>
</tr>
<tr>
<td>Renard 3</td>
<td>2173.1</td>
</tr>
<tr>
<td>Renard 4</td>
<td>2104.2</td>
</tr>
<tr>
<td>Renard 65</td>
<td>266.0</td>
</tr>
<tr>
<td>Renard 9</td>
<td>27.3</td>
</tr>
<tr>
<td>Lynx</td>
<td>494.3</td>
</tr>
<tr>
<td>Hibou</td>
<td>564.9</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>8165.4</strong></td>
</tr>
</tbody>
</table>

The basic flow sheet used for each of the three mineral processing facilities is described in the following subsections, as well as an outline of the QA/QC procedures. Golder has visited Stornoway’s processing facilities at Camp Lagopède and in North Vancouver, but not the independent DMS facility at Thunder Bay.

### 16.2 DMS Processing - Lagopède

A ten-tonne-per-hour Bond Equipment DMS facility was mobilized, assembled and commissioned on site at Camp Lagopède in Quebec during 2006 and 2007. Stornoway operated this facility in 2007 and 2008 to process material from mini-bulk and bulk sampling programs. Trained DMS process operators supervised each shift in a secure building. Sample processing followed procedures similar to those of the Thunder Bay and North Vancouver facilities, with some exceptions due to remote field operations, as noted below.

After excavation, kimberlite samples were stockpiled outside the facility in a secure compound with restricted access. Individual samples were prepared through a primary jaw crusher, and -50.0 mm crushed product fed directly into the DMS facility where a scrubber trommel unit removes the +20.0 mm oversize. The +20.0 mm oversize material was reduced using a secondary cone crusher set at 10.0 mm. Coarse rejects were recrushed to -6.0 mm and re-circulated through the facility. The first seven subsamples of the 2007 bulk sample program used a 1.2 mm by 13.0 mm slotted screen. Subsequent samples employed a 1.0 mm by 12.0 mm slotted screen to increase the recovery of smaller diamonds. Contract security services were provided on site by an independent third party (Groupe Canaprobe of Montreal, Quebec).

DMS concentrates generated by the Lagopède facility were sealed in drums and dispatched in a locked container under chain of custody protocols to Stornoway's internal laboratory in North Vancouver for final treatment and recovery of diamonds. The laboratory owns and operates integrated diamond recovery equipment including a sizing circuit, X-ray flow-sort machine and grease table. Upon arrival at the North Vancouver diamond recovery facility, concentrates are screened into four size fractions, passed through an X-ray sorter twice, and the tailings diverted to a grease table circuit to generate a final diamond concentrate.
Diamond-enriched concentrates are stored in sealed lock boxes within high security cages before being transferred to the observation laboratory for final diamond recovery and reporting.

A team of trained mineral observers and mineralogists undertakes final diamond recovery using a combination of hand-sorting and binocular microscopy techniques. All diamonds recovered are routinely verified, described, weighed, photographed and recorded by trained mineralogists and checked by the Chief Mineralogist. Results are reported as diamonds retained on a +1 DTC sieve class, or as stones greater than 1.18 mm using Tyler square mesh sieve classes when required. All diamond recovery is carried out with dual custody handling provisions under video surveillance in restricted areas. An independent external security team monitors and records all operations, transfers and seal control. FGIB Investigations (Vancouver, BC) has provided these contract services since 2004.

Neither the internal DMS facility nor the diamond recovery circuit are accredited, but both have been independently audited and are subjected to ongoing QA/QC testing.

### 16.3 DMS Processing – Thunder Bay Mineral Processing Laboratory

Kennecott’s TBMPL owns and operates a ten-tonne-per-hour Bateman/Van Eck & Lurie DMS facility, initially constructed in 1993 and rebuilt in Thunder Bay during 2002 and 2003. This facility was used on two occasions in 2004 to process RC chip samples collected from the Renard Project. Operators from Stornoway’s North Vancouver facility supervised contract DMS processing in Thunder Bay to verify the quality and continuity of work being performed. The TBMPL is accredited by the Standards Council of Canada to the ISO/IEC 17025 standard as a testing laboratory for specific tests.

RC chip samples were sent to the facility in sealed pails, drums, or bulk bags, each with an individual sample number and security seal. Security seals were verified as being intact upon arrival at the laboratory, recorded in a chain of custody document and isolated in a secure storage area with controlled access overseen by an external independent security service (Apex Security, Thunder Bay). The same security team also monitored DMS processing and maintained video surveillance in restricted areas.

Since the kimberlite material was already broken into chips from the RC drilling process, it was directly fed to the DMS scrubber unit, to remove the +16.0 mm oversize fraction which was sent to a secondary rolls crusher set at 8.0 mm. Kimberlite was processed through the facility then the tails screened at 6.0 mm. Tails greater than 6.0 mm were recrushed in a roll crusher set at 3.8 mm and repassed through the plant. Finer tails were discarded. A 0.85 mm by 14.0 mm slotted product screen was used within the Thunder Bay DMS facility.

DMS concentrates were dried, then screened into six size fractions before being sent to the North Vancouver laboratory in secure shipments for further processing by heavy liquid and magnetic separation techniques. Final diamond recovery, classification and reporting were also carried out in North Vancouver under secure, independently monitored conditions (FGIB Investigations, Vancouver, BC).
16.4 DMS Processing – North Vancouver Facility

Stornoway’s internal laboratory in North Vancouver provides mineralogical and geochemical analyses for diamond exploration in support of Stornoway’s exploration programs. The laboratory includes a five-tonne-per-hour Bateman/Van Eck & Lurie DMS facility and a diamond recovery circuit. Kimberlite samples are received at the laboratory as small diameter drill core in sealed core boxes, reverse circulation drill chips in sealed pails, bags or drums, or as surface material from outcrop or boulders packed in drums or bulk bags. Each box, pail, bag or drum is given an individual sample number and sealed in the field prior to shipment. Bags and drums are identified with security seals that are verified as being intact upon arrival at the laboratory in a locked and sealed shipment. Once the chain of custody documents, sample numbers, and security seals have been checked and verified, the sample is isolated in a secure storage area with restricted access.

Trained operators conduct DMS processing in a secure portion of the laboratory. Samples are initially reduced through a primary jaw crusher at a nominal gap of 20.0 mm to 25.0 mm. This material is then passed through a combination of jaw and roll crushing at a nominal gap of 10.0 mm to 14.0 mm. The crushed product is fed into the five-tonne-per-hour DMS facility where a scrubber trommel unit removes the +14.0 mm oversize for recrushing.

After primary feeding and sizing, all sample material is processed through the cyclone. DMS floats are screened at 4.0 mm with the undersize going to tails, and the oversize to iterative recrushing and repassing at 4.0 mm and 2.0 mm to minimize the potential for diamond breakage. On early samples, a 1.0 mm by 12.0 mm slotted screen was employed within the DMS facility. In 2006, this was changed to a 0.85 mm by 14.0 mm slotted screen to better recover small diamonds, ensure a bottom diamond cut-point of 1.18 mm using a Tyler square mesh screen, and produce a minimum stone size smaller than that generally retained on a +1 DTC screen.

Resultant DMS concentrates are screened into four or six size fractions, passed through an X-ray sorter twice, and the final tailings diverted to a grease table circuit for final recovery. Heavy liquid and magnetic separation recovery methods were employed on samples prior to 2006. Diamond-enriched concentrates are stored in sealed lock boxes within high security cages before being transferred to the observation laboratory for final diamond recovery and reporting.

Final diamond recovery, classification and reporting were also carried out in North Vancouver under secure, independently monitored conditions (FBIG Investigations, Vancouver, BC).

Neither the internal DMS facility nor the diamond recovery circuit are accredited, but both have been independently audited and are subjected to ongoing QA/QC testing.

16.5 QA/QC

Quality control testing was routinely conducted on drill core, RC chip, surface and underground samples processed through the three DMS facilities. Tailings and various processing residues are also subject to audit. QA/QC measures include but are not limited to:

- Adherence to established/documentated processing and handling protocols;
- Systematic density bead tracer testing prior to operating plant to ensure efficiency and diamond recovery;
Addition of luminescent density tracers prior to DMS to monitor processing and X-ray sorter efficiency. Recovery is measured after X-ray sorter recovery;

Addition of identifiable natural diamond spikes prior to any DMS processing; recovery is measured at the diamond sorting stage;

Addition of natural diamonds prior to observation to determine the efficiency of diamond sorting and for security control purposes;

Audit of representative coarse DMS tailings from select kimberlite subsamples;

Re-crush of DMS tailings and concentrate tailings to monitor processing efficiency, X-ray/grease recovery, and diamond liberation;

Regular DMS feed size analysis;

Testing of processing circuit clean-out residues;

Audits of processing rejects using secondary laboratories and DMS facilities;

Monitoring of diamond recovery statistics, including size frequency analyses;

Independent third party audit processes (spiking, process review, etc.); and

Review and audit of DMS and diamond data, operating procedures and QA/QC programs.

16.6 Metallurgical Testing

To date, metallurgical tests have been performed to obtain data in support of pre-feasibility level plant design. Lakefield performed seven scrubbing and high pressure grinding rolls (HPGR) tests on five samples obtained from Renard 2 and Renard 3. These tests were designed to provide the quantity of -1.0 mm material generated by the scrubbing process and to help establish basic operating and design parameters of any proposed diamond process plant. Processing records collected during operation of the Lagopède DMS facility also provide relevant design data for any proposed plant design.
17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

17.1 Introduction

An updated Mineral Resource Estimate for the Renard 2, Renard 3, Renard 4, Renard 65 and Renard 9 kimberlites and the Lynx and Hibou Dykes within the Renard core area (Figure 9.1) was disclosed in the December 8, 2009, Stornoway news release. This section documents the process by which the Mineral Resource Estimate was established.

The December 2009 Renard Mineral Resource Estimate Update was prepared by an independent Qualified Person, David Farrow, P.Geo., of Golder. The Mineral Resource Estimate comprises the integration of kimberlite volumes, bulk density, petrology and diamond content data obtained from 81,894 m of diamond drilling, 6,151 m of reverse circulation (RC) drilling, 12.7 t of samples submitted for microdiamond analysis, 600.8 cts of diamonds (6,457 stones) recovered from RC drilling and 8,611.6 cts of diamonds (84,381 stones) recovered from surface trenching and underground bulk sampling.

The methodology of the Mineral Resource Estimate has been reviewed by Kevin Palmer, P.Geo., of Golder.

The diamond sampling database is summarized in Table 10-4 and comprises of data derived from RC chip samples, core samples, trench samples and underground bulk samples. Large tonnage (trench and underground) samples were used to establish diamond grade frequency curves and average stone size for each body. RC samples and trench samples in the case of Renard 4, Lynx and Hibou, were used to estimate the in situ grades of the bodies.

17.2 Previous Work

A previous Mineral Resource Estimate was produced by AMEC in 2008. The results were detailed in the previous Preliminary Assessment (Lecuyer et al, 2009) and are summarized in Table 17-1.
Table 17-1: Mineral Resources as of July 22, 2008

<table>
<thead>
<tr>
<th>Mineralization Category</th>
<th>Renard 2</th>
<th>Renard 3</th>
<th>Renard 4</th>
<th>Renard 9</th>
<th>Lynx*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tonnage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicated</td>
<td>3,358,000</td>
<td>1,529,000</td>
<td>6,732,000</td>
<td>0</td>
<td>0</td>
<td>11,620,000</td>
</tr>
<tr>
<td>Total Stones</td>
<td>24,625,000</td>
<td>15,739,000</td>
<td>22,739,000</td>
<td></td>
<td></td>
<td>63,103,000</td>
</tr>
<tr>
<td>Total Carats</td>
<td>2,733,000</td>
<td>1,778,000</td>
<td>2,479,000</td>
<td></td>
<td></td>
<td>6,990,000</td>
</tr>
<tr>
<td>spt</td>
<td>7.33</td>
<td>10.29</td>
<td>3.38</td>
<td></td>
<td></td>
<td>5.43</td>
</tr>
<tr>
<td>cpht</td>
<td>81</td>
<td>116</td>
<td>37</td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inferred</td>
<td>1,799,000</td>
<td>50,000</td>
<td>1,175,000</td>
<td>2,810,000</td>
<td>1,332,000</td>
<td>7,166,000</td>
</tr>
<tr>
<td>Total Stones</td>
<td>13,986,000</td>
<td>534,000</td>
<td>3,359,000</td>
<td>10,550,000</td>
<td>14,254,000</td>
<td>42,683,000</td>
</tr>
<tr>
<td>Total Carats</td>
<td>1,555,000</td>
<td>60,000</td>
<td>366,000</td>
<td>1,129,000</td>
<td>1,397,000</td>
<td>4,507,000</td>
</tr>
<tr>
<td>spt</td>
<td>7.77</td>
<td>10.69</td>
<td>2.86</td>
<td>3.75</td>
<td>10.70</td>
<td>5.96</td>
</tr>
<tr>
<td>cpht</td>
<td>86.42</td>
<td>121.00</td>
<td>31.16</td>
<td>40.17</td>
<td>104.86</td>
<td>62.89</td>
</tr>
</tbody>
</table>

Note: In the case of Lynx, this is the resource above 100 m below surface. spt = stones per tonne, cpht = carats per hundred metric tonnes

17.3 Geological Models

Geological solid models were created by Stornoway for each of the Renard bodies included in this study: Renard 2; Renard 3; Renard 4; Renard 9; Renard 65; Lynx and Hibou. The solids were reviewed by Golder and accepted as suitable for mineral resource estimation purposes. The geological models are discussed in Section 9.
17.4 Sampling Analysis

Diamond sampling of the Renard Project kimberlites includes, core sampling, RC chip sampling, small tonnage trench sampling, and bulk sampling from both surface trenches and the underground exploration workings. These data have been collected, compiled and analyzed by a combination of methodologies in order to cater to the spatial distribution of sampling and the amount of information available for each kimberlite domain in each body.

The evaluation process comprised the following steps:

- Analyse the macrodiamond populations to ensure they are robust for mineral resource valuation.
- Develop the relationship between macrodiamond and microdiamond populations.
- Establish that the microdiamond population is stable with depth.
- Diamond size frequency analysis to establish undiluted grades for different lithofacies by:
  - using macrodiamonds and/or microdiamonds; and
  - establishing individual population grades for mixed samples.
- Determine a factor to account for the presence of highly discontinuous, unmodellable units (Kimb2c and Kimb4c);
- Establish distributions for the dilution in the various bodies and lithotypes;
- Bulk density analysis:
  - establish bulk density per lithotype; and
  - demonstrate that bulk density is constant with depth and dilution.
- Geostatistical analysis and estimation of the dilution per rock type, per kimberlite;
- Integration of calculated grade and density values with estimated dilution; and
- Summarizing of data per lithofacies per kimberlite.
17.4.1 Macrodiamond Sample Analysis

Table 17-2 summarizes diamond recoveries from bodies that were used for size frequency analysis and estimation of average stone size.

Table 17-2: Recovery Data Used in Diamond Size Frequency Analysis

<table>
<thead>
<tr>
<th>Kimberlite</th>
<th>Weight (t)</th>
<th>Total Stones (+3 DTC)</th>
<th>Carat Wt (+3 DTC)</th>
<th>Sieve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2 UG</td>
<td>2,448.8</td>
<td>13,246</td>
<td>1590.58</td>
<td>DTC (+3)</td>
</tr>
<tr>
<td>Renard 3 UG</td>
<td>2,113.7</td>
<td>24,407</td>
<td>2753.995</td>
<td>DTC (+3)</td>
</tr>
<tr>
<td>Renard 4 Trench</td>
<td>2104.2</td>
<td>25,480</td>
<td>2688.71</td>
<td>DTC (+3)</td>
</tr>
<tr>
<td>Lynx Trench</td>
<td>494.3</td>
<td>5,271</td>
<td>515.32</td>
<td>DTC (+3)</td>
</tr>
<tr>
<td>Hibou Trench</td>
<td>543.9</td>
<td>8,401</td>
<td>781.49</td>
<td>DTC (+3)</td>
</tr>
</tbody>
</table>

These data and results for size frequency and carats per stone are considered representative of each body for the purposes of resource estimation.

17.4.2 Microdiamond Sample Analysis

The relationship between microdiamonds and macrodiamonds can be used to establish diamond content for a kimberlite. Once established, that relationship can be applied to microdiamond sampling for grade determination. Representative samples weighing approximately 200 kg were collected from each underground bulk sample round and placed in sealed 205 l drums for storage. Archived material from specific underground rounds, representative of specific kimberlite facies, were submitted for standard caustic fusion microdiamond recovery. Dilution estimations were made for each caustic sample and were complimented by measured line scan data for each underground round. Dilution estimates were combined with microdiamond and mactrodiamond results to determine undiluted stones per 10 kg, undiluted stones greater than 0.6 mm per 10 kg, undiluted total stones and a model grade (Table 17-3). The model grade was adjusted to reflect non-recovery of small stones due to DMS plant inefficiencies (i.e. the adjusted model grade is lower than the unadjusted model grade).
To demonstrate continuity of mineralization and stability of the diamond population with depth in the Renard 2 body, sampling was undertaken on 50 m levels (horizontal slices) from beneath the previous RC and underground sampling to the base of the body at ~700 m (~200 masl) below the land surface. From each 50 m level, approximately 200 kg of Kimb2a and Kimb2b was collected from the 2009 drill core and treated for microdiamond recovery. A total of 2,046.93 kilograms of unit Kimb2a and 1,889.20 kilograms of unit Kimb2b were analyzed by standard caustic fusion processing. The results for Kimb2a and Kimb2b are presented in Figures 17.1 and 17.2 respectively, as stones per hundred tonnes per unit interval plots which demonstrate that grades remain consistent with depth.

Table 17-3: Macrodiamond and Microdiamond Samples Used to Determine the Micro/macro Relationship Renard 2 and Renard 3

<table>
<thead>
<tr>
<th></th>
<th>Kimb2a</th>
<th>Kimb2b</th>
<th>Kimb2c</th>
<th>Kimb3d/g</th>
<th>Kimb3f</th>
<th>Kimb3h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microdiamond Sample wt (kg)</td>
<td>207.9</td>
<td>486.8</td>
<td>579.7</td>
<td>419.6</td>
<td>222.6</td>
<td>102.1</td>
</tr>
<tr>
<td>Microdiamond Dilution %</td>
<td>50.0</td>
<td>32.0</td>
<td>11.4</td>
<td>14.0</td>
<td>24.7</td>
<td>2.9</td>
</tr>
<tr>
<td>Microdiamond Total Stones</td>
<td>107</td>
<td>503</td>
<td>566</td>
<td>249</td>
<td>80</td>
<td>156</td>
</tr>
<tr>
<td>Undilute Stones per 10kg</td>
<td>10.3</td>
<td>15.1</td>
<td>11.0</td>
<td>6.9</td>
<td>4.8</td>
<td>15.7</td>
</tr>
<tr>
<td>Undilute Stones &gt;0.600 mm per 10kg</td>
<td>0.58</td>
<td>1.14</td>
<td>0.99</td>
<td>0.58</td>
<td>0.12</td>
<td>1.31</td>
</tr>
<tr>
<td>Macrodiamond Sample wt (t)</td>
<td>140.4</td>
<td>515.7</td>
<td>-</td>
<td>384.2</td>
<td>317.9</td>
<td>143.4</td>
</tr>
<tr>
<td>Macrodiamond Dilution %</td>
<td>35</td>
<td>16</td>
<td>-</td>
<td>14</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Macrodiamond Total Carats</td>
<td>58.17</td>
<td>646.69</td>
<td>-</td>
<td>559.14</td>
<td>278.62</td>
<td>274.81</td>
</tr>
<tr>
<td>Macrodiamond Total Stones</td>
<td>512</td>
<td>5646</td>
<td>-</td>
<td>5207</td>
<td>2197</td>
<td>2931</td>
</tr>
<tr>
<td>Model Grade Adjusted (cpht)</td>
<td>83</td>
<td>181</td>
<td>261</td>
<td>168</td>
<td>119</td>
<td>214</td>
</tr>
</tbody>
</table>
Figure 17.1: Kimb2a Microdiamond Sampling

Figure 17.2: Kimb2b Microdiamond Sampling
17.4.3 Diamond Size Frequency Modelling

Diamond size frequency modelling was undertaken for all remaining kimberlite lithologies to determine undiluted grades for all units (Table 17-4). This was carried out primarily using the macrodiamond samples and fitting the curves to remain parallel to the microdiamond curves established for each pipe.

Table 17-4: Summary of Macrodiamond Data Modelling

<table>
<thead>
<tr>
<th></th>
<th>Kimb3i</th>
<th>Kimb4a/b</th>
<th>Kimb4c</th>
<th>Kimb4d</th>
<th>Kimb9a</th>
<th>Kimb9b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macrodiamond Sample wt (t)</td>
<td>28.5</td>
<td>158.6</td>
<td>600.2</td>
<td>1504.0</td>
<td>27.6</td>
<td>na</td>
</tr>
<tr>
<td>Macrodiamond Dilution %</td>
<td>42</td>
<td>50</td>
<td>2</td>
<td>56</td>
<td>59</td>
<td>na</td>
</tr>
<tr>
<td>Macrodiamond Total Carats</td>
<td>9.39</td>
<td>61.48</td>
<td>1049.78</td>
<td>1672.11</td>
<td>20.23</td>
<td>na</td>
</tr>
<tr>
<td>Macrodiamond Total Stones</td>
<td>77</td>
<td>927</td>
<td>10687</td>
<td>16376</td>
<td>150</td>
<td>na</td>
</tr>
<tr>
<td>Model Grade (cpht)</td>
<td>45</td>
<td>79</td>
<td>200</td>
<td>250</td>
<td>136</td>
<td>136</td>
</tr>
</tbody>
</table>

Note: Grades calculated on basis of RC and bulk sample material.

17.4.4 Mixed Sample Deconvolution

Deconvolution is the process of calculating individual lithofacies grades from mixed samples. Representative microdiamond and macrodiamond data for essentially pure Kimb3b and Kimb3c units were not available for grade modeling. Undiluted grades have been estimated through a back calculation methodology. Based on volume calculations from underground survey and mapping data, the proportion of undiluted Kimb3h, Kimb3d/g and Kimb3c have been calculated for underground rounds 3107, 3006, and 3008. The proportional contribution of total carats attributable to unit Kimb3d/g and Kimb3h was calculated based on pure grade calculations (see Table 17-4). This carat contribution was removed from the overall recovered carat total for each bulk sample round and the remainder attributed to the Kimb3c unit. The resulting weighted average grade for the Kimb3c unit is 230 cpht (Table 17-5). A similar exercise was conducted for the Kimb3b unit and involved bulk sample rounds 3104 and 3105 which are mixtures of Kimb3h, Kimb3d/g and Kimb3b. The undiluted proportion of carats was calculated for Kimb3h, and Kimb3d and removed from the total carats recovered from the bulk sample rounds. The remaining carats were assigned to unit Kimb3b and the weighted average grade for Kimb3b is 101 cpht. (Table 17-5).
Table 17-5: Calculated Macrodiamond Grades

<table>
<thead>
<tr>
<th></th>
<th>Kimb3b*</th>
<th>Kimb3c*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macrodiamond Sample wt (t)</td>
<td>348.3</td>
<td>521.7</td>
</tr>
<tr>
<td>Macrodiamond Dilution %</td>
<td>50.61</td>
<td>11.72</td>
</tr>
<tr>
<td>Macrodiamond Total Carats</td>
<td>244.98</td>
<td>938.19</td>
</tr>
<tr>
<td>Proportional Carat Contribution (3h, 3dg)</td>
<td>136.06</td>
<td>476.57</td>
</tr>
<tr>
<td>Proportional weight</td>
<td>108.2</td>
<td>201.1</td>
</tr>
<tr>
<td>Proportional Carat Contribution</td>
<td>108.92</td>
<td>461.62</td>
</tr>
<tr>
<td>Model Grade (cpht)</td>
<td>101</td>
<td>230</td>
</tr>
</tbody>
</table>

* Grades back calculated by stripping out contributions from Kimb3h and Kimb3d/g

17.4.5 Intrusions Kimb2c and Kimb4c

Individual Kimb2c or Kimb4c intersections are very difficult if not impossible to correlate between drill holes and, where encountered in the underground decline on Renard 2, tend to be irregular in shape, orientation and both lateral and vertical continuity. These hypabyssal intrusives are present throughout the Renard 2 and Renard 4 bodies, but are too fragmented to model independently. Analysis of drill core showed a consistent proportion of the Kimb2c and Kimb4c in the respective bodies. In Renard 2 the average contribution of Kimb2c into the Kimb2a unit is 15.7%, and in the Kimb2b unit it is 18.1%. For Renard 4, the percentage of Kimb4c present in the dominant Kimb4a was calculated at 9%.

17.4.6 Dilution Sampling Analysis

Table 17-6 lists the sampling undertaken to establish dilution models. Different methods of dilution determination were employed by Stornoway over time. The most recent method used being "Line Scans", where the amount of dilution in each metre of core was measured in a quantitative and consistent manner. For Renard 2, only the line scan data was utilized to establish the dilution models. The older method, known as "Modal", employed a visual estimate per geological unit. Whilst coarser in resolution, where sufficient data coverage exists, modal data yields similar overall dilution figures to the line scan data. Due to the paucity of line scan data in bodies other than Renard 2, modal data was used to develop the dilution models. It is recommended that all available core from the other bodies be line scanned.
### Table 17-6: Line Scan and Modal Dilution Data

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Line Scan Mean</th>
<th>Std Dev</th>
<th>Count</th>
<th>Modal Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kimb2a</td>
<td>3996</td>
<td>49.6</td>
<td>28.1</td>
<td>2249</td>
<td>49.5</td>
<td>29.9</td>
</tr>
<tr>
<td>Kimb2b</td>
<td>2560</td>
<td>27.4</td>
<td>20.5</td>
<td>437</td>
<td>35.1</td>
<td>23.5</td>
</tr>
<tr>
<td>Kimb3b</td>
<td>18</td>
<td>16.1</td>
<td>17.2</td>
<td>397</td>
<td>53.9</td>
<td>33.3</td>
</tr>
<tr>
<td>Kimb3d/g</td>
<td>157</td>
<td>34.2</td>
<td>18.1</td>
<td>501</td>
<td>39.7</td>
<td>26.8</td>
</tr>
<tr>
<td>Kimb3f</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>192</td>
<td>38.5</td>
<td>27.6</td>
</tr>
<tr>
<td>Kimb3h</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>108</td>
<td>26.0</td>
<td>24.1</td>
</tr>
<tr>
<td>Kimb3i</td>
<td>11</td>
<td>3.5</td>
<td>3.4</td>
<td>251</td>
<td>33.4</td>
<td>36.7</td>
</tr>
<tr>
<td>Kimb4a</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1348</td>
<td>48.8</td>
<td>28.9</td>
</tr>
<tr>
<td>Kimb4b</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>711</td>
<td>38.0</td>
<td>21.1</td>
</tr>
<tr>
<td>Kimb4d</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>342</td>
<td>48.7</td>
<td>36.5</td>
</tr>
<tr>
<td>Kimb9a</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1477</td>
<td>61.4</td>
<td>31.9</td>
</tr>
<tr>
<td>Kimb9b</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>65</td>
<td>31.0</td>
<td>28.0</td>
</tr>
</tbody>
</table>
### 17.4.7 Dry Bulk Density

Table 17-7 summarizes the bulk density results. A single bulk density per facies type is used in this resource evaluation.

**Table 17-7: Summarised Density Data**

<table>
<thead>
<tr>
<th>Body</th>
<th>Lithology</th>
<th>Number of Samples</th>
<th>Average Bulk Density</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>Kimb2a</td>
<td>110</td>
<td>2.61</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Kimb2b</td>
<td>50</td>
<td>2.73</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Kimb2c</td>
<td>38</td>
<td>2.67</td>
<td>0.07</td>
</tr>
<tr>
<td>Renard 3</td>
<td>Kimb3b</td>
<td>11</td>
<td>2.61</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Kimb3c</td>
<td>17</td>
<td>2.65</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Kimb3d+Kimb3g</td>
<td>61</td>
<td>2.74</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Kimb3f</td>
<td>10</td>
<td>2.68</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Kimb3h</td>
<td>2</td>
<td>2.58</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Kimb3i</td>
<td>9</td>
<td>2.75</td>
<td>0.07</td>
</tr>
<tr>
<td>Renard 4</td>
<td>Kimb4a</td>
<td>66</td>
<td>2.59</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Kimb4b</td>
<td>20</td>
<td>2.73</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Kimb4c</td>
<td>14</td>
<td>2.59</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Kimb4d</td>
<td>12</td>
<td>2.60</td>
<td>0.04</td>
</tr>
<tr>
<td>Renard 9</td>
<td>Kimb9a</td>
<td>59</td>
<td>2.56</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Kimb9b</td>
<td>2</td>
<td>2.60</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Kimb9c</td>
<td>9</td>
<td>2.60</td>
<td>0.03</td>
</tr>
<tr>
<td>Lynx</td>
<td>HK</td>
<td>20</td>
<td>2.54</td>
<td>0.05</td>
</tr>
<tr>
<td>Hibou</td>
<td>HK</td>
<td>20</td>
<td>2.53</td>
<td>0.08</td>
</tr>
<tr>
<td>CR all bodies</td>
<td>GN, GN-GR, GR-GN, GR, PEG, CCR</td>
<td>77</td>
<td>2.72</td>
<td>0.09</td>
</tr>
<tr>
<td>CRB all bodies</td>
<td>CRB</td>
<td>17</td>
<td>2.61</td>
<td>0.09</td>
</tr>
<tr>
<td>CRB+K all bodies</td>
<td>CRB+K, CRB+/-K, CRB-3, CRB-3+K, CRB-2a</td>
<td>33</td>
<td>2.61</td>
<td>0.07</td>
</tr>
</tbody>
</table>

In certain kimberlites, the average bulk density of kimberlite lithologies may change with increasing depth due to a variety of factors, including alteration, dilution, magmatic variation, etc. Some 205 bulk density measurements available from kimberlite units within the Renard 2 body are graphically displayed in Figure 17.3. The surface of the Renard 2 body is at 510 masl and the individual samples have been positioned at the center of the same 50 m level slices being used for ongoing microdiamond sampling (e.g., 450 masl to 500 masl). The second layer...
down, plotted at 445 m, represents the level of underground sampling. For the most part the samples for each of the three Renard 2 kimberlite lithologies tend to cluster in a narrow density range, and it is considered that, for this study, density is constant with depth.

![Figure 17.3: Density by Depth for Renard 2](image)

Much of the Renard kimberlite material contains a significant contribution of country rock xenoliths. These xenoliths could be expected to have an impact on the density of the samples, for example, if the density of country rock is greater than that of the host kimberlite. However, alteration of xenoliths in the kimberlite can be quite pronounced in some cases, which would tend to lower the overall bulk density of the kimberlite. A series of some 91 bulk density samples from recent core drilling in and around the Renard 2 kimberlite were line scanned prior to density determinations in an effort to establish a quantitative dilution estimate. The results are plotted in Figure 17.4. There is minimal correlation between the sample results as shown, suggesting that country rock dilution has a minimal effect on density.
17.4.8 Model Setup

A block model size of 5 m x 5 m x 5 m was selected as most appropriate to represent the small size of the kimberlite pipes, and as best suited to accommodate open pit mine planning, which is currently based on increments of 5 m bench heights (e.g., 10 m, 15 m). The block model is not rotated and incorporated each of Renard 2, Renard 3, Renard 4 and Renard 9.

17.4.9 Estimation Process

The Ordinary Kriging (OK) interpolation method was used to estimate the country rock dilution into the block model using variography parameters defined from the geostatistical analysis and summarized in Table 17-8. Inverse distance squared (ID2) and nearest neighbour (NN) models were run to validate the kriging interpolation.
Table 17-8: Kriging Parameters

<table>
<thead>
<tr>
<th></th>
<th>Nugget</th>
<th>x1</th>
<th>y1</th>
<th>y2</th>
<th>sill1</th>
<th>x2</th>
<th>y2</th>
<th>z2</th>
<th>sill2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kimb2a</td>
<td>180</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>130</td>
<td>30</td>
<td>30</td>
<td>50</td>
<td>104</td>
</tr>
<tr>
<td>Kimb2b</td>
<td>280</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>110</td>
<td>35</td>
<td>35</td>
<td>66</td>
<td>130</td>
</tr>
<tr>
<td>Kimb3b</td>
<td>650</td>
<td>0.1</td>
<td>0.1</td>
<td>10</td>
<td>100</td>
<td>10</td>
<td>10</td>
<td>42</td>
<td>340</td>
</tr>
<tr>
<td>Kimb3d/g</td>
<td>390</td>
<td>4.6</td>
<td>4.6</td>
<td>4.6</td>
<td>100</td>
<td>12</td>
<td>12</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>Kimb3f</td>
<td>260</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>200</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>300</td>
</tr>
<tr>
<td>Kimb3h</td>
<td>500</td>
<td>1.5</td>
<td>3</td>
<td>17</td>
<td>520</td>
<td>15</td>
<td>30</td>
<td>75</td>
<td>420</td>
</tr>
<tr>
<td>Kimb3l</td>
<td>500</td>
<td>1.5</td>
<td>3</td>
<td>17</td>
<td>520</td>
<td>15</td>
<td>30</td>
<td>75</td>
<td>420</td>
</tr>
<tr>
<td>Kimb4a</td>
<td>225</td>
<td>10</td>
<td>10</td>
<td>25</td>
<td>140</td>
<td>30</td>
<td>30</td>
<td>70</td>
<td>85</td>
</tr>
<tr>
<td>Kimb4b</td>
<td>125</td>
<td>6</td>
<td>6</td>
<td>15</td>
<td>40</td>
<td>30</td>
<td>30</td>
<td>75</td>
<td>110</td>
</tr>
<tr>
<td>Kimb4d</td>
<td>1330</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kimb9a</td>
<td>500</td>
<td>5</td>
<td>5</td>
<td>12</td>
<td>240</td>
<td>30</td>
<td>30</td>
<td>70</td>
<td>260</td>
</tr>
<tr>
<td>Kimb9b</td>
<td>1519</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

17.4.10 Integration Process

For each kimberlite lithology, the undiluted grade for the block was multiplied by the estimate of the dilution for the block. For each rock type, if a factor was required to account for the unmodelled Kimb2c/Kimb3c/Kimb4c component, this was applied. In the block model the resulting grade was multiplied by the proportion of the rock type in the block, the relevant density was applied to each rock type and the results summed to establish the total carats and tonnes in the block.

Available information for the Lynx and Hibou dykes was examined and average grades from the bulk samples assigned as appropriate grades for the bodies.

17.5 Validation

Amongst many issues checked, dilution is the crucial key to this estimation. In Figures 17.5 and 17.6 are the estimates of dilution shown against the measured dilution.
Figure 17.5: Estimated vs Actual Dilution for Kimb2a.

Figure 17.6: Estimated vs Actual Dilution for Kimb2b.
17.6 Diamond Price Estimates

Three separate valuation exercises have been undertaken on diamonds from the Foxtrot Property between September 2007 and September 2009, and diamond price models determined for the Renard 2, Renard 3 and Renard 4 kimberlite pipes and the Lynx and Hibou kimberlite dykes. In addition, reviews of the diamond size frequency distributions of certain samples have been undertaken to best assess the appropriate diamond price models to be applied to each kimberlite body for resource estimation purposes. Successive diamond price models, and the diamond prices assumed for the Mineral Resource Estimate, are summarized in Tables 17-9 and 17-10.
Table 17-9: Renard Kimberlite Pipe Diamond Valuations and Diamond Price Models\(^1\):

<table>
<thead>
<tr>
<th>Kimberlite Body</th>
<th>Weight of Valuation Sample (Carats)(^4)</th>
<th>September 2007 Valuation</th>
<th>March 2008 Re-Valuation</th>
<th>September 2009 Re-Valuation</th>
<th>Diamond Price Estimate for Resource Determination(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>1589.57</td>
<td>US$101</td>
<td>US$109 (with sensitivities of $105 to $122)</td>
<td>US$121 (with sensitivities of $108 to $136)</td>
<td>US$117 (with sensitivities of $103 to $131)</td>
</tr>
<tr>
<td>Renard 3</td>
<td>2,651.17</td>
<td>US$107</td>
<td></td>
<td></td>
<td>US$117</td>
</tr>
<tr>
<td>Renard 4</td>
<td>2,695.63 (^3)</td>
<td>US$63</td>
<td>US$69 (with sensitivities of $63 to $73)</td>
<td>US$79 (with sensitivities of $71 to $87)</td>
<td>US$75 (with sensitivities of $65 to $82)</td>
</tr>
<tr>
<td>Renard 9</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 As determined by WWW Diamond Consultants International Ltd. at a +1 DTC sieve size cut-off.

2 As recommended by Golder.

3 Comprised 2,191.73 cts at the September 2007 valuation.

4 Carats submitted for valuation represent large rolled samples derived from bulk sampling, and do not include stones available from the earlier smaller scale sampling.
Table 17-10: Lynx and Hibou Dyke Diamond Valuations and Diamond Price Models

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynx</td>
<td>519.62</td>
<td>US$53</td>
<td>US$66 (with sensitivities of US$56 to US$97)</td>
<td>US$57</td>
</tr>
<tr>
<td>Hibou</td>
<td>38.98³</td>
<td>US$42</td>
<td>US$57 (with sensitivities of US$48 to US$85)</td>
<td>US$57</td>
</tr>
</tbody>
</table>

1. As determined by WWW Diamond Consultants International Ltd. at a +1DTC sieve size cut-off in March 2008, not previously submitted.
2. As recommended by Golder.
3. 781 carat parcel recovered from Hibou in 2008 not valued.

17.6.1 Diamond Valuations and Price Modelling, September 2007 to September 2009

**September 2007 Valuation**

During the period September 24 to 28, 2007, three parcels of diamonds recovered during the 2007 bulk sample program from the Renard 2, Renard 3 and Renard 4 kimberlite pipes were presented for an initial valuation in Antwerp, Belgium, under the supervision of WWW International Diamond Consultants Ltd. (WWW), an internationally recognized diamond valuation and consulting company. WWW, with its aboriginal partners, Aboriginal Diamonds Group Limited, comprises Diamonds International Canada Ltd., and are the valuators to the Federal Government of Canada for the Canadian diamond mines in the Northwest Territories, and to the provincial government of Ontario for the Victor Diamond Mine.

In addition to performing its own valuation, WWW showed the diamond samples to three other experienced Antwerp-based rough diamond valuators in order to obtain additional market based valuations (an "open market" valuation). The results of this exercise were (1) an "observed" diamond price, which represents the average of the four valuations on the sample of diamonds presented, and (2) a "modelled" price estimate, with high and low sensitivities.

The modelled price estimate, as determined by WWW, incorporates separate models for diamond size frequency distribution and price per diamond size class. All prices cited were calculated using a +1 DTC sieve size cut-off. The "base case" model represents an average diamond price in the (then) current rough diamond market that might reasonably have been expected for each kimberlite body based on standard production-scale recoveries of all commercial sized diamonds. Diamond price models correct, principally, for an absence of large diamonds which are typically under-represented at this scale of sampling.

In this first diamond valuation exercise, WWW assessed the Renard 2 and Renard 3 samples to be representative of the same population of diamonds in terms of diamond qualities and size distribution, and recommended that a modelled base case diamond price estimate of US$109 per carat be adopted for both
bodies, with a “High” modelled price estimate of US$122 per carat and a “Low” modelled price estimate of US$105 per carat. WWW noted that both the Renard 2 and Renard 3 samples are characterized by the presence of large, high-value gems which have a strong influence on the resultant diamond price. For both of these kimberlite bodies, WWW felt that achieving a diamond price less than the ‘Low’ modelled diamond price was unlikely in a production setting, and that achieving the “High” modelled diamond price was a reasonable expectation given the continued recovery of these larger gems.

WWW further recommended a modelled base case diamond price estimate of US$69 per carat be adopted for the Renard 4 NCZ sample, with sensitivities of US$73 per carat and US$63 per carat. WWW noted that the Renard 4 diamond sample differs from the other samples in that it has an apparent relative absence of larger diamonds. Its lower modelled price estimate was principally a function of this finer diamond size distribution.

**March 2008 Valuation**

During the period March 26 to 28, 2008, the Renard 2, Renard 3 and Renard 4 diamond samples were re-valued by WWW against their current rough price book, and the diamond price models for each kimberlite body were updated. This exercise comprised restating the diamond assortments created during the September 2007 valuation exercise with March 2008 pricing, and applying an adjustment factor to the diamond price model accordingly. The Renard 4 price model also incorporated new valuation data from an additional 504 cts of diamonds from sample 4003, which was collected in 2006 as part of the bulk sample program and processed subsequent to the September 2007 valuation exercise. In addition, diamond parcels from the Lynx and Hibou kimberlite dykes were presented for valuation in Antwerp for the first time, again under the supervision of WWW, and utilizing two other Antwerp-based experienced rough diamond valuers.

Using their March 2008 price book, WWW recommended a revised modelled base case diamond price estimate for both the Renard 2 and 3 kimberlite pipes of US$121 per carat, with sensitivities of US$136 per carat and US$108 per carat. This was an 11% increase compared to the September 2007 diamond price model. WWW recommended a revised modelled base case diamond price estimate for the Renard 4 kimberlite pipe of US$79 per carat, with sensitivities of US$87 per carat and US$71 per carat. This was a 14% increase compared to the previous diamond price model.

WWW further recommended a modelled base case diamond price estimate for the Lynx kimberlite dyke of US$66 per carat, with sensitivities of US$97 per carat and US$56 per carat. The Lynx diamond valuation parcel comprises 520 cts of diamonds recovered during 2007 from two trenches located along the surface trace of the dyke. The parcel includes a 21 carat stone which was broken during sample processing and recovered in principally three fragments, the largest of which weighs 11.73 cts. The Lynx diamond parcel differs from those of Renard 2, Renard 3 and Renard 4 in that it contains a higher proportion of brown diamonds and has a finer diamond size distribution.

During the March 2008 valuation exercise, WWW also performed a valuation on a 39 carat parcel of diamonds recovered from trenching on the Hibou kimberlite dyke between 2005 and 2006. This small parcel of diamonds was valued by WWW alone, who determined an “observed” (un-modelled) price of US$42 per carat. Owing to the size of the parcel, no diamond price modelling exercise was possible. However WWW, in noting a similar assortment of diamond qualities and colours in Hibou as in Lynx, recommended that, for planning purposes, a
diamond price of US$66 per carat be adopted for the Hibou kimberlite dyke conditional upon the future collection of a bulk sample that demonstrated a diamond size distribution at Hibou similar to that seen at Lynx.

The results of the March 2008 valuation and diamond price modelling exercise were incorporated into the previous NI 43-101 (Lecuyer et al., 2008). In January 2009, subsequent to the initial publication of the Technical Report, an additional 781 cts of diamonds were recovered from a large scale trench sample extracted from the Hibou kimberlite dyke. An analysis of the diamond size distribution and quality assortment of this sample confirmed the similarity of the diamond populations of the Hibou and Lynx dykes, and the verified the adoption of a single diamond price estimate for both bodies.

September 2009 Valuation

In light of the volatility within the rough diamond market which was widely reported during the course of late 2008 and early 2009, WWW were re-engaged in late September 2009 to provide an updated re-valuation of the Renard 2, Renard 3, Renard 4 and Lynx diamond samples. As in the March 2008 exercise, WWW restated the diamond assortments created during the September 2007 valuation exercise with September 2009 pricing, and applied an adjustment factor to the diamond price model accordingly. The 781 cts Hibou diamond sample was not valued.

Using their most recent price book, WWW recommended a revised modelled base case diamond price estimate for both the Renard 2 and Renard 3 kimberlite pipes of US$117 per carat, with sensitivities of US$131 per carat and US$103 per carat. This was a 3% decrease compared to the previous diamond price model. WWW recommended a revised modelled base case diamond price estimate for the Renard 4 kimberlite pipe of US$75 per carat, with sensitivities of US$82 per carat and US$65 per carat. This was a 5% decrease compared to the March 2008 diamond price model. WWW recommended a revised modelled base case diamond price estimate for the Lynx kimberlite dyke of US$57 per carat, with sensitivities of US$85 per carat and US$48 per carat. This was a 14% decrease compared to the previous diamond price model.

17.6.2 Review of Diamond Size Frequency Distributions

In the diamond price modelling exercises of March 2008 and September 2009, WWW noted the similar diamond qualities within the complete Renard 4 diamond sample compared to those of Renard 2 and Renard 3, and a single diamond price per size class model was adopted for each kimberlite body. However, whereas the Renard 2 and Renard 3 samples also have a very similar diamond size frequency distribution, the Renard 4 sample has a lower incidence of large diamonds and produces an apparently “finer” diamond size distribution, and consequently has a lower assessed diamond price. A lower price for the Renard 4 body was adopted for resource declaration and economic assessment in the previous Preliminary Assessment (Lecuyer et al, 2009).

No bulk sample has been collected at the Renard 9 kimberlite, and consequently no stand-alone diamond valuation exists for this kimberlite body. However, based on size frequency distributions, Stornoway concluded that Renard 9 should be taken as showing the same diamond size frequency distribution as Renard 4, and that pending any future large-scale sampling, the same diamond valuation model should apply.
Since this time, a more thorough review of the nature of the Renard 4 diamond bulk sample has been undertaken so as to determine a single diamond price estimate for the Renard 4 kimberlite (and by association the Renard 9 kimberlite) in the current Technical Report and Mineral Resource Estimate. This review has addressed:

- Comparative size frequency distributions of the diamond sample data;
- Comparative diamond breakage analysis of the diamond sample data;
- Analysis of process plant performance for each sample and its potential impact on diamond sample recoveries; and
- Comparative diamond quality assortments of the Renard bulk samples.

This review has confirmed that the diamond bulk samples from Renard 2, Renard 3 and Renard 4 show a large degree of similarity in their size frequency distributions, particularly when using a cumulative stone probability or normalized grade per unit analysis. An additional, internal analysis of comparative quality assortment data confirmed no material difference in diamond assortment and value per size class between the Renard 2, Renard 3 and Renard 4 bulk samples. Deviations in the cumulative carat probability plot for the Renard 4 sample, from which a valuation model is derived, can be attributed to grade loss through diamond breakage or stone loss in the DTC sieve classes greater than 3 GR in size. An independent analysis of diamond breakage in each diamond bulk sample, conducted by Dr. Paddy Lawless for Golder between August and September 2009, confirmed that there is an anomalous level of diamond breakage that can be discerned in the Renard 4 bulk sample compared to the Renard 2 and Renard 3 bulk samples. The relative proportions of this breakage, when quantified in terms of grade loss, are consistent with that implied by the size frequency distribution analysis. The Renard bulk samples were processed at the 10 tph DMS plant at Lagopède, and process plant records confirm significant issues of concern with the processing of several Renard 4 bulk sample rounds that might have led to both diamond loss and diamond breakage. In addition, the fewer number of Renard 4 bulk sample rounds, and their larger size, made issues of stone recovery in individual rounds proportionally more impactful to the diamond size frequency distribution of the resulting Renard 4 diamond sample than was the case for Renard 2 or Renard 3.

Consequently, Golder has concluded that the size frequency distributions of Renard 2, Renard 3, Renard 4 and Renard 9 are similar, and that it is appropriate to use a single size frequency distribution to determine value on the basis that there exists a single diamond population within the four kimberlite pipes. Consistent with this approach, a modelled base case diamond price estimate of US$117 per carat has been adopted for each body in the current Technical Report and the Mineral Resource Estimate. Likewise, a modelled base case diamond price estimate of US$57 per carat has been adopted for both the Lynx and Hibou kimberlite dykes.
17.7 Comparative Historical Valuation Data

In April 2005, a total 459 carat sample of diamonds collected by RC drilling from four separate Renard kimberlites (Renard 2, Renard 3, Renard 4 and Renard 65) was valued by WWW with an observed (un-modelled) price of US$70 per carat. At this time, WWW concluded, based on the available data, that the four separate kimberlite subsamples were consistent with a single population of diamonds. WWW recommended a single modelled price estimate of US$88 per carat, with sensitivities of US$104 per carat and US$74 per carat. The subsequent diamond valuation results for the significantly larger parcels associated with the Renard 2 and Renard 3 bulk samples (September 2007, March 2008 and September 2009), and the diamond price model adopted for the Renard 2, Renard 3 and Renard 4 kimberlite bodies, all exceed this previous diamond price model.

17.8 Mineral Resource Classification

Canadian Institute of Mining and Metallurgy (CIM) standards and Securities Commission disclosure regulations require that a mineral resource can only be declared on a mineral deposit which has "reasonable prospects of economic extraction". Based on the March 2009 Preliminary Assessment, where a smaller overall tonnage and diamond content proved to be economically viable, the improvement in overall tonnage and diamond content should support that the new mineral resource has reasonable prospects of economic extraction.

The reported Mineral Resources for the Renard Project kimberlites that meet these criteria were constrained by Golder using drill density and sample distribution. Classification of the resources in diamonds is an inclusive process, looking at aspects of geology, grade, revenue, density, diamond size frequency and continuity.

For the Renard kimberlite pipes, the Indicated Resource classification incorporates areas where substantial sampling has been undertaken. For Renard 2 this includes the RC, underground bulk samples and microdiamond sampling to 600 m. For the other pipes it is limited to the RC hole depths which indicate grade continuity. These depths are supported by the more extensive core drilling which is sufficient to delineate the resources at an Indicated level from the geological/lithological/volumetric/density aspect.

Sufficient carats have been recovered for revenue analysis and support that the revenue is at the Indicated level of confidence.

17.8.1 Reasonable Prospects of Economic Extraction

The reasonable prospect of economic extraction was outlined in the previous Technical Report (reference) and preliminary assessment. The parameters used in the preliminary assessment have not changed significantly (except the resource is larger) and upon review Golder considers the resource has reasonable prospects for economic extraction.
17.9 Mineral Resource Statement

The Mineral Resource Estimate for the Renard Project, which has an effective date of December 8, 2009, is summarized in Tables 17-11 and 17-12. The Qualified Person for the estimate is David Farrow, P.Geo.

The Mineral Resource Estimate takes into account geological, mining, processing and economic constraints and are classified in accordance with the 2005 CIM Definition Standards for Mineral Resources and Mineral Reserves. Golder cautions that mineral resources are not mineral reserves until they have demonstrated economic viability.

The Mineral Resource Estimate is based on the continuity of geology between kimberlite at depth and kimberlite nearer surface and the generally low variation in sample results for the different kimberlite phases with depth. Golder notes that there is potential for additional volume at depth for the Renard Project, as the geological models have been constructed conservatively in areas of limited drilling.

The indicated tonnage reported in Table 17-11 and the inferred tonnage in Table 17-12 lie within the solid model shells. Tonnage and grade estimates include estimation of internal dilution (barren material) within each body. There is some potential for additional mineralization in the Lynx northern extension area, where the trace of the kimberlite dyke extends for at least 2 km beyond the Inferred Mineral Resource Estimate confines.

### Table 17-11: December 8, 2009 Indicated Mineral Resources Renard Diamond Project

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Total Tonnes</th>
<th>Total Carats</th>
<th>Average cpht</th>
<th>Average Dilution %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>17,475,000</td>
<td>17,957,000</td>
<td>103</td>
<td>37</td>
</tr>
<tr>
<td>Renard 3</td>
<td>1,705,000</td>
<td>1,806,000</td>
<td>106</td>
<td>36</td>
</tr>
<tr>
<td>Renard 4</td>
<td>7,315,000</td>
<td>3,199,000</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>Renard 9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lynx</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hibou</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26,495,000</strong></td>
<td><strong>22,962,000</strong></td>
<td><strong>87</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Totals may not equal the sum of the individuals due to rounding.
Table 17-12: December 8, 2009 Inferred Mineral Resources Renard Diamond Project

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Total Tonnes</th>
<th>Total Carats</th>
<th>Average cph</th>
<th>Average Dilution %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>5,365,000</td>
<td>6,415,000</td>
<td>120</td>
<td>29</td>
</tr>
<tr>
<td>Renard 3</td>
<td>154,000</td>
<td>189,000</td>
<td>122</td>
<td>37</td>
</tr>
<tr>
<td>Renard 4</td>
<td>4,572,000</td>
<td>1,874,000</td>
<td>41</td>
<td>55</td>
</tr>
<tr>
<td>Renard 9</td>
<td>5,747,000</td>
<td>2,634,000</td>
<td>46</td>
<td>66</td>
</tr>
<tr>
<td>Lynx</td>
<td>1,798,000</td>
<td>1,924,000</td>
<td>107</td>
<td>0</td>
</tr>
<tr>
<td>Hibou</td>
<td>178,000</td>
<td>256,000</td>
<td>144</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>17,814,000</td>
<td>13,292,000</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

Note: Totals may not equal the sum of the individuals due to rounding.

17.10 Potential Mineral Deposit

In addition, Potential Mineral Deposits (PMD) were identified on the various kimberlites. PMD are derived from geological volumes based on projection at a standard 85° of the pipe margin in pipes or to within 50 m of known borehole intersections in case of the dykes. These are detailed in Table 17-13 as low and high ranges, both of which are considered to be geologically realistic. Total PMD was identified as being between 27 and 46 million tonnes, containing between 12 and 26 million carats of diamonds, at an average grade of 46 cph to 58 cph. These were defined on a basis of outcrops, limited delineation drilling and surface sampling.
Table 17-13: December 8, 2009 Potential Mineral Deposit Renard Diamond Project

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Total Tonnes</th>
<th>Total Carats</th>
<th>Average cpht</th>
<th>Total Tonnes</th>
<th>Total Carats</th>
<th>Average cpht</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Renard 3</td>
<td>108,000</td>
<td>116,000</td>
<td>107</td>
<td>208,000</td>
<td>349,000</td>
<td>168</td>
</tr>
<tr>
<td>Renard 4</td>
<td>5,121,000</td>
<td>1,946,000</td>
<td>38</td>
<td>8,199,000</td>
<td>6,477,000</td>
<td>79</td>
</tr>
<tr>
<td>Renard 9</td>
<td>3,147,000</td>
<td>1,416,000</td>
<td>45</td>
<td>7,203,000</td>
<td>3,602,000</td>
<td>50</td>
</tr>
<tr>
<td>Renard 65</td>
<td>12,565,000</td>
<td>2,890,000</td>
<td>23</td>
<td>24,006,000</td>
<td>7,922,000</td>
<td>33</td>
</tr>
<tr>
<td>Lynx</td>
<td>3,089,000</td>
<td>2,966,000</td>
<td>96</td>
<td>3,199,000</td>
<td>3,839,000</td>
<td>120</td>
</tr>
<tr>
<td>Hibou</td>
<td>2,745,000</td>
<td>2,855,000</td>
<td>104</td>
<td>2,853,000</td>
<td>4,309,000</td>
<td>151</td>
</tr>
<tr>
<td>Total</td>
<td>26,775,000</td>
<td>12,189,000</td>
<td>46</td>
<td>45,608,000</td>
<td>26,498,000</td>
<td>58</td>
</tr>
</tbody>
</table>

Note: Totals may not equal the sum of the individuals due to rounding.

Substantial increases to the volumes of the Renard kimberlite bodies, due to additional drilling and subsequent modelling, are responsible for the major differences between the results of the previous Mineral Resource Estimate and the current estimate.
18.0 OTHER RELEVANT DATA

A preliminary economic assessment has been completed on the previous resources (Lecuyer et al., 2008) and no economic study has been completed on the December 8, 2009 estimate.
19.0 INTERPRETATIONS AND CONCLUSIONS

The interpretations and conclusions that have been identified from the 2009 Mineral Resource Estimate Update are:

- Most geological aspects of the Renard Project are reasonably well understood.
- The Renard 2, Renard, 3, Renard 4, Renard 9 and Renard 65 pipes, as well as the Lyne and Hibou dyke systems contain diamond concentrations that have the potential to be economic.
- Drilling of the Renard 2 kimberlite has significantly increased the mineral resource of the project, primarily a function of identifying additional resource at depth, which is less diluted and higher grade.
- The project database was reviewed by Golder using statistical and geostatistical analyses and comparisons between paper sources and the digital database. This database is considered acceptable for mineral resource estimation.
- The results of the latest Mineral Resource Estimate are tabulated in Tables 19-1 and 19-2. The Mineral Resource Estimate is based on the continuity of geology between kimberlite at depth and kimberlite nearer surface, and the generally low variation in sample results for the different kimberlite phases with depth.
- There is additional potential for the Renard Project, as the geological models for Renard 3, Renard 4, Renard 65, and Renard 9 are based on conservative shapes for the kimberlites at depth, and the evaluation models do not incorporate areas of limited drilling at depth. The PMD are detailed in Table 19-3. Total PMD was identified as representing between 27 and 46 million tonnes, containing between 12 and 26 million carats of diamonds, at an average grade of 46 to 58 cpht. These were defined on a basis of geological-modelling, outcrop mapping, limited delineation drilling and surface sampling.

The completed project has met the original objective of increasing the mineral resources for the Renard Project.

Table 19-1: December 8, 2009 Indicated Mineral Resources Renard Diamond Project

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Total Tonnes</th>
<th>Total Carats</th>
<th>Average cpht</th>
<th>Average Dilution %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>17,475,000</td>
<td>17,957,000</td>
<td>103</td>
<td>37</td>
</tr>
<tr>
<td>Renard 3</td>
<td>1,705,000</td>
<td>1,806,000</td>
<td>106</td>
<td>36</td>
</tr>
<tr>
<td>Renard 4</td>
<td>7,315,000</td>
<td>3,199,000</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>Renard 9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lynx</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hibou</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>26,495,000</strong></td>
<td><strong>22,962,000</strong></td>
<td><strong>87</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Totals may not equal the sum of the individuals due to rounding.
### Table 19-2: December 8, 2009 Inferred Mineral Resources Renard Diamond Project

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Total Tonnes</th>
<th>Total Carats</th>
<th>Average cpht</th>
<th>Average Dilution %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renard 2</td>
<td>5,365,000</td>
<td>6,415,000</td>
<td>120</td>
<td>29</td>
</tr>
<tr>
<td>Renard 3</td>
<td>154,000</td>
<td>189,000</td>
<td>122</td>
<td>37</td>
</tr>
<tr>
<td>Renard 4</td>
<td>4,572,000</td>
<td>1,874,000</td>
<td>41</td>
<td>55</td>
</tr>
<tr>
<td>Renard 9</td>
<td>5,747,000</td>
<td>2,634,000</td>
<td>46</td>
<td>66</td>
</tr>
<tr>
<td>Lynx</td>
<td>1,798,000</td>
<td>1,924,000</td>
<td>107</td>
<td>0</td>
</tr>
<tr>
<td>Hibou</td>
<td>178,000</td>
<td>256,000</td>
<td>144</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>17,814,000</strong></td>
<td><strong>13,292,000</strong></td>
<td><strong>75</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Totals may not equal the sum of the individuals due to rounding.

### Table 19-3: December 8, 2009 Potential Mineral Deposit Renard Diamond Project

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Low Range</th>
<th>High Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Tonnes</td>
<td>Total Carats</td>
</tr>
<tr>
<td>Renard 2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Renard 3</td>
<td>108,000</td>
<td>116,000</td>
</tr>
<tr>
<td>Renard 4</td>
<td>5,121,000</td>
<td>1,946,000</td>
</tr>
<tr>
<td>Renard 9</td>
<td>3,147,000</td>
<td>1,416,000</td>
</tr>
<tr>
<td>Renard 65</td>
<td>12,565,000</td>
<td>2,890,000</td>
</tr>
<tr>
<td>Lynx</td>
<td>3,089,000</td>
<td>2,966,000</td>
</tr>
<tr>
<td>Hibou</td>
<td>2,745,000</td>
<td>2,855,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26,776,000</strong></td>
<td><strong>12,189,000</strong></td>
</tr>
</tbody>
</table>

Note: Totals may not equal the sum of the individuals due to rounding.
20.0 RECOMMENDATIONS

The recommendations that have been identified from the 2009 Mineral Resource Estimate Update are:

- Complete an update of the 2008 Preliminary Assessment is recommended to investigate what percentage of the Mineral Resource Estimate described in this Technical Report could be converted to a Mineral Reserve (estimated cost of $250,000). The outcomes of this recommended revision to the Preliminary Assessment would help to guide further work on the various kimberlite bodies.

- Complete a simulation study on the current pipe shapes (Renard 2, Renard 3, Renard 4 and Renard 9) should be conducted to quantify the levels of uncertainty in the volumetric determination of the various pipes and their internal phases (estimated cost of $75,000).

- All available core from the Renard 3, Renard 4 and Renard 9 kimberlites should be line scanned (minimal cost as this can be completed by geologists employed by Stornoway).
21.0 SIGNATURE PAGE

This report was prepared and signed by David Farrow, P.Geo. (BC), a Qualified Person as outlined by NI 43-101, and peer reviewed by Kevin Palmer, P.Geo. (BC), and Darrell Farrow, Pr. Sci. Nat. This Technical Report is dated January 21, 2010.

GOLDER ASSOCIATES LTD.

ORIGINAL SIGNED

David Farrow, P.Geo.
Senior Geostatistician

Darrell Farrow, Pr.Sci.Nat.
Resource Specialist

ORIGINAL SIGNED

Kevin Palmer, P.Geo.
Associate, Senior Resource Geologist

DF/DJF/KJP/mrb/ja/mrb

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.
22.0 REFERENCES


23.0 CERTIFICATE OF QUALIFIED PERSON
23.1 Certificate of David Farrow

I, David Farrow, of Vancouver, British Columbia, Canada, do hereby certify that as the author of this “2009 Mineral Resource Update, Renard Diamond Project, Northern Quebec, Canada”, dated, January 21, 2010, make the following statements:

1) I am employed as a Senior Geostatistician with Golder Associates Ltd. with a business address at 4260 Still Creek Drive, Suite 500, Burnaby, British Columbia, V5C 6C6, Canada.

2) I am a graduate of the University of the Witwatersrand, Johannesburg, South Africa (GDE (Geostatistics) 1998) and the University of Cape Town, Cape Town, South Africa (B.Sc.(Hons) 1982).

3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (License # 33860). I am also a member in good standing of The South African Council for Natural Science Professions (License # 400074/87).

4) I have practiced my profession continuously since graduation.

5) I have read the definition of “qualified person” set out in National Instrument 43-101 (N.I. 43-101) and certify that, by reason of my education, affiliation with a professional association (as defined in N.I. 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purpose of N.I. 43-101.

6) My relevant experience with respect to Renard Deposits includes over 25 years in exploration, mining geology and grade estimation in Canada and southern Africa.

7) I am responsible for the preparation of all of the sections of this technical report titled “2009 Mineral Resource Update, Renard Project, Quebec, Canada”, dated, January 21, 2010. In addition, I visited the Property during the period, March 5 to March 9, 2009.

8) I have no prior involvement with the Property that is the subject of the Report.
9) As of the date of this Certificate, to my knowledge, information and belief, the sections of this Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

10) I am independent of the Issuer as defined by Section 1.4 of the Instrument. I have read National Instrument 43-101 and the sections for which I am responsible in this Technical Report have been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

Signed and dated this 21st day of January 2010 at Burnaby, British Columbia, Canada.

ORIGINAL SIGNED AND SEALED

David Farrow, P.Geo.
At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

Golder Associates Ltd.
500 - 4260 Still Creek Drive
Burnaby, British Columbia, V5C 6C6
Canada
T: +1 (604) 296 4200

Africa  + 27 11 254 4800
Asia    + 852 2562 3658
Australasia  + 61 3 8882 3500
Europe  + 356 21 42 30 20
North America  + 1 800 275 3281
South America  + 55 21 3095 9500

solutions@golder.com
www.golder.com