

DEBUTS DIAMONDS INC

2.40156



**2008 REPORT ON DIAMOND DRILLING, OVERBURDEN DRILLING TILL SAMPLING
AND HAND PICKED TILL SAMPLING**

**MACFADYEN PROPERTY AND PELE MOUNTAIN CLAIMS
JAMES BAY LOWLANDS, ONTARIO**

Gestion Aline Leclerc inc.

November 19, 2008

SUMMARY

The MacFadyen property is located in nts 43B/13 in James Bay Lowlands, Ontario at height kilometres north of the Victor diamond mine of De Beers Canada Exploration inc. This property is owned by Debuts Diamonds inc. KWG has incorporated Debuts Diamonds inc as a wholly subsidiary to hold the company's interest in its diamond assets.

Five kimberlitic bodies (Good Friday, MacFadyen #1, MacFadyen #1b, MacFadyen #2 and MacFadyen #2 South) are enclosed in Paleozoic units composed by conglomeratic and calcareous to dolomitic sandstone, by platform carbonate and by limestone and dolomites.

From previous drilling in 1994, 2004 and 2007, few diamonds larger than 0.5 mm was found in those kimberlites. Thus, three diamonds were found in MacFadyen #1 (one of 1.25 x 0.83 x 0.65mm), two diamonds in MacFadyen #2 (2.1 x 1.9 x 1.3mm and from 2007: one in size fraction 1.18 to 1.70 mm and has 0.053 ct) and six diamonds in Good Friday (1.45 x 0.96 x 0.77mm; 0.96 x 0.46 x 0.2 mm; 0.89 x 0.59 x 0.41mm and from 2007: one in size fraction 2.36 to 3.35mm and has 0.23 ct; one weighing 0.425 carat; one weighing 0.115 carat).

Two main goals are followed in 2008 diamond drilling campaign. The first one is to drill the last two exploration targets left undrilled in 2007, and to define direction and width of MacFadyen #2 dyke. The second one is to do till sampling by overburden drilling and by hand picked sampling on claims obtained from Pele. Four holes have been drilled between July 10 and July 26. No kimberlite have been cut on the two targets MacFadyen #1NE (08-MF1NE-01) and MacFadyen #1 S (08-MF1S-01). The third hole 08-MF2-01 has cut MacFadyen #2 kimberlite between 118.4m and 133.25m and between 140.8m and 177.4m and the fourth hole 08-MF2-02 has missed MacFadyen #2 kimberlite. 19 overburden drill holes have been drilled for till samples on three lines claims located south of Attawapiskat River and 42 hand picked samples have been taken along Attawapiskat River.

We recommend a budget 50 000\$ to process overburden drilling till samples and hand-picked till samples for indicator minerals recovery. We recommend for next drilling campaign, a budget of

250 000\$ to finish undrilled overburden holes on two lines North to Attawapiskat River and according to result from summer 2008 till samples, another 250 000\$ for overburden drilling on a smaller grid near anomalous results. Finally, we recommend another 1 500 000\$ to make a bulk sampling of 100 tons total of net sample on three drill sites (Good Friday, MacFadyen #2 and MacFadyen 2 South) and another 1 000 000\$ to process the sample through a normal diamond recovery plan.

TABLE OF CONTENTS

1. INTRODUCTION.....	1
2. PROPERTY, LOCATION AND ACCESS.....	1
3. REGIONAL GEOLOGY	6
3.1. General Information	6
3.2. Quaternary Deposits	7
3.3. Paleozoic Sediments	8
3.4. Phanerozoic Igneous Events.....	8
3.5. Precambrian Basement.....	9
4. PROPERTY GEOLOGY	10
5. DESCRIPTION OF MINERALIZATION.....	12
5.1. 1994 Sampling Results	12
5.2. 2004-2005 Sampling Results.....	13
5.3. 2007 Sampling Results	16
6. PREVIOUS WORK	18
7. RECENT WORK	20
8. DRILLING SUMMER 2008	21
8.1. Objective of campaign	21
8.2. Technical data	21
8.3. Diamond drilling results.....	25
8.3.1. MacFadyen #1NE	25
8.3.2. MacFadyen #1S	25

8.3.3. MacFadyen #2.....	26
8.4. Overburden drilling results.....	30
8.5. Hand picked till sampling results	30
9. CONCLUSIONS, RECOMMENDATIONS AND BUDGET.....	34
10. BIBLIOGRAPHY	36

Figures list

Figure 1: Claims map – MacFadyen Property, Pele Claims, Uniform Surrounds Claims and 100% owned KWG Claims	2
Figure 2: Drilling holes 1994, 2004, 2007 and 2008	23
Figure 3: Overburden drilling holes and hand picked till samples 2008	24
Figure 4: MacFadyen #2 photographs.....	27
Figure 5: Overburden till samples photographs	31
Figure 6: Hand picked till samples photographs	32

Tables list

Table 1: List of MacFadyen property claim blocks	3
Table 2: List of claims 100% hold by KWG Ressources inc.	3
Table 3: List of Uniform Surround claims	3
Table 4: List of claims acquired from Pele Mountain.....	4
Table 5: Diamond data <i>as reported</i> by Ashton and KWG/Spider (1994).....	13
Table 6: Caustic fusion data by kimberlite (2004-2005).....	14
Table 7: Caustic Fusion data broken down by drill hole and diamond dimensions (2004-2005). 15	
Table 8: Kennecott Caustic Fusion data, description of 5 diamonds (2004-2005)	15
Table 9: DMS data by kimberlite (2007)	16

Table 10: DMS data broken down by drill hole and diamond dimensions (2007)	17
Table 11: Caustic fusion data (2007)	17
Table 12: Attrition milling and jigging data (2007).....	18
Table 13: Technical data of 2008 diamond drill holes.....	22
Table 14: Technical data of 2008 overburden drill holes.....	22
Table 15: Description of drilling holes 2008	25

Annexes list:

- Annexe 1: 4 drill logs
 MacFadyen #1NE
 08-MF1NE-01

 MacFadyen #1S
 08-MF1S-01

 MacFadyen #2
 08-MF2-01
 08-MF2-02
- Annexe 2: Overburden till samples descriptions
 Hand picked till samples descriptions
- Annexe 3: Surface plan and sections
 1 surface plan
 6 sections
- Annexe 4: Surface plan with ground and helimag data and localisation of overburden drilling and
 hand picked till sampling

1. Introduction

This report presents the results from summer drilling campaign 2008 on MacFadyen property in North-East of Ontario on behalf of Debut Diamond inc. On October 18, 2007, KWG Resources Inc. incorporated Debut Diamonds Inc. as a wholly subsidiary to hold the company's interest in its diamond assets. These include the MacFadyen Kimberlites and adjoining Pele and Uniform Surround claims, the Wawa JV, the Kyle JV and the Geraldton claims. The rollover transaction, valued at approximately \$9 million, was completed with effect on April 29th, 2008.

In winter 2007, four kimberlites in the MacFadyen field were extensively drilled to extract a ton or more of rock of each for testing the recovery of diamond. The sampling results have dictated that 200-ton bulk samples should next be recovered from Good Friday, MacFadyen 2 and MacFadyen 2 South pipes. Contracts are being negotiated for the completion of such a program early in 2008, at a total cost of some \$1.5 million. All permits from government and Attawapiskat First Nation were obtained rapidly at the beginning of January and the winter road contractor chosen but unfortunately the negotiations between DeBeers-the Diamond drilling cie -and Debut Diamonds made the delay to short to be sure of the completion of the entire program before the spring melt. We postpone this work to the winter of 2009.

The present summer drilling program was planned to continue the drilling of winter 2007. All the goals of this campaign were not completed before the spring. At that time, they remained two magnetic targets never drilled before in the MacFadyen kimberlites trend and one magnetic target near the Attawapiskat River.

The present program includes also some till sampling all over the property, by drilling where the till is under a thick sequence of marine deposits and also along the Attawapiskat River.

2. Property, location and access

The MacFadyen property is localised in nts 43B/13 is composed of nine contiguous claims block (Table 1; Figure 1). These claim blocks are elongate in E-W orientation. Seven of the nine claim blocks are on the south bank of Attawapiskat River.

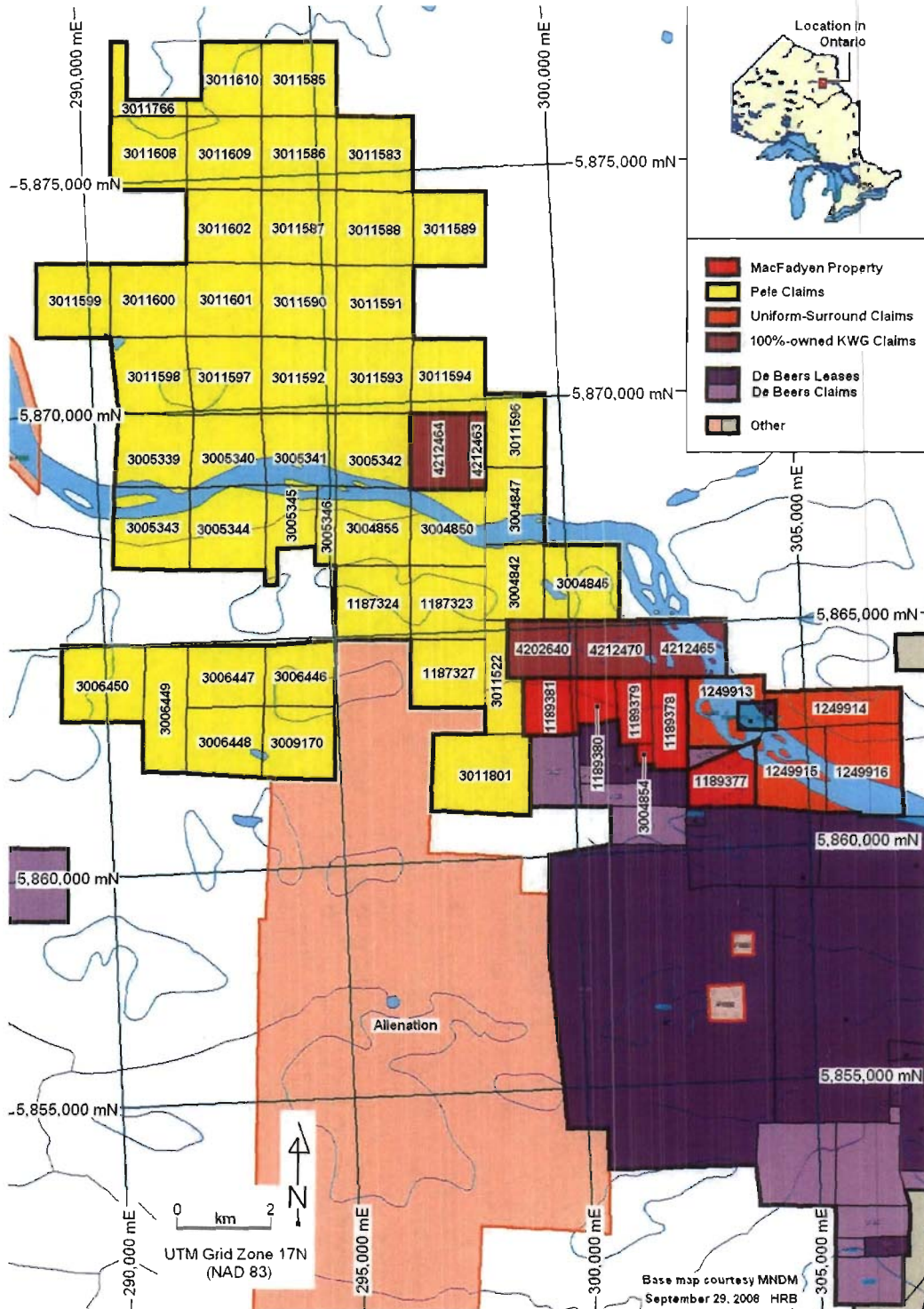


Figure 1: Claims map – MacFadyen Property, Pele Claims, Uniform Surrounds Claims and 100% owned KWG Claims (H.R. Butler, 2008, personal communication)

Table 1: List of MacFadyen property claim blocks.

Township/Area	Claim Number	Recording Date	Claim Due Date	Work Required	Total Applied	Total Reserve	Claim Bank	Recorded Holder(s) Percentage
BMA 527834	1125227	1992-Aug-24	2012-Aug-24	\$ 4,800	\$ 86,400	\$ 61,506	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (70.00 %) 224701 SPIDER RESOURCES INC. (30.00 %) 295855
BMA 528834	1189378	1992-Aug-24	2012-Aug-24	\$ 3,600	\$ 64,800	\$ 599,876	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (70.00 %) 224701 SPIDER RESOURCES INC. (30.00 %) 295855
BMA 528834	1189379	1992-Aug-24	2012-Aug-24	\$ 2,000	\$ 36,000	\$ 589,712	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (70.00 %) 224701 SPIDER RESOURCES INC. (30.00 %) 295855
BMA 528834	1189380	1992-Aug-24	2012-Aug-24	\$ 1,600	\$ 28,800	\$ 81,261	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (70.00 %) 224701 SPIDER RESOURCES INC. (30.00 %) 295855
BMA 528834	1189381	1992-Aug-24	2012-Aug-24	\$ 4,800	\$ 86,400	\$ 61,507	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (70.00 %) 224701 SPIDER RESOURCES INC. (30.00 %) 295855
BMA 528834	3004854	2003-Apr-03	2011-Apr-03	\$ 400	\$ 2,400	\$ 106,670	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (70.00 %) 224701 SPIDER RESOURCES INC. (30.00 %) 295855

Table 2: List of claims 100% hold by KWG Ressources inc.

BMA 528834	4202040	2006-Oct-05	2008-Oct-05	\$ 4,800	\$ 0	\$ 0	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (100.00 %) 224701
BMA 528834	4212463	2007-Apr-12	2009-Apr-12	\$ 1,600	\$ 0	\$ 0	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (100.00 %) 224701
BMA 528834	4212464	2007-Apr-12	2009-Apr-12	\$ 6,400	\$ 0	\$ 0	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (100.00 %) 224701
BMA 528834	4212465	2007-Apr-12	2009-Apr-12	\$ 4,800	\$ 0	\$ 0	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (100.00 %) 224701
BMA 528834	4212470	2007-Apr-12	2009-Apr-12	\$ 4,800	\$ 0	\$ 0	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (100.00 %) 224701

Table 3: List of Uniform Surround claims in joint venture with Greenstone Exploration Company Ltd and Condor Diamond Corp.

Township/Area	Claim Number	Recording Date	Claim Due Date	Work Required	Total Applied	Total Reserve	Claim Bank	Recorded Holder(s) Percentage
BMA 528834	1249913	2001-Feb-26	2009-Feb-26	\$ 6,000	\$ 36,000	\$ 0	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (33.12 %) 224701 GREENSTONE EXPLORATION COMPANY LTD. (10.00 %) 393378 CONDOR DIAMOND CORP. (56.88 %) 400122
BMA 528834	1249914	2001-Feb-26	2009-Feb-26	\$ 6,000	\$ 36,000	\$ 0	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (33.12 %) 224701 GREENSTONE EXPLORATION COMPANY LTD. (10.00 %) 393378 CONDOR DIAMOND CORP. (56.88 %) 400122
BMA 528834	1249915	2001-Feb-26	2009-Feb-26	\$ 6,000	\$ 36,000	\$ 0	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (33.12 %) 224701 GREENSTONE EXPLORATION COMPANY LTD. (10.00 %) 393378 CONDOR DIAMOND CORP. (56.88 %) 400122
BMA 528834	217703	2001-Feb-26	2009-Feb-26	\$ 6,400	\$ 38,400	\$ 7,656	\$ 0	RESSOURCES KWG INC./KWG RESOURCES INC. (33.12 %) 224701 GREENSTONE EXPLORATION COMPANY LTD. (10.00 %) 393378 CONDOR DIAMOND CORP. (56.88 %) 400122

The ownership information is taken from Tremblay and Butler (2006):

« KWG and Spider share “a current parity ownership” based on the total percentage spent by each partner on the property calculated at year’s end. According to a Spider *News Release* dated December 19, 2005, and signed by Neil Novak (President and CEO of that company) *edited quote*,

“Spider Resources Inc. (TSXV-SPQ) and KWG Resources Inc. (TSXV-KWG) have achieved parity in their joint venture and have agreed to amend and revise their Ontario Joint Venture as previously constituted in 1992, and amended in April 2003. [...] The companies now intend to treat each of [their] six projects as [...] separate joint ventures, independent of the others. Spider and KWG have agreed to each select projects from these six new joint ventures to enable each company to either increase or decrease [their] pro rata interest based upon their own strategic objectives. [...] KWG will continue with the exploration for diamonds at the MacFadyen kimberlite property, located 8 kilometers north of the advanced Victor diamond mine development project of De Beers Canada Exploration Inc., where the Joint Venture [KWG & SPQ] has identified 5 diamondiferous kimberlites. Additional exploration targets exist on the property. Both parties are now deemed to have a 50% interest in each of the joint venture projects and will be immediately vested with an equal capital interest based on accumulated expenditures in each project. All future expenditures on the individual projects by the operator will be added to these historical expenditures to determine either party’s then current interest level. The non-contributing party in each case will suffer dilution down to 33.33%, then be entitled to contribute at its pro rata interest level or suffer further dilution down to 10% working interest. Once 10% interest level is reached, the interest will be automatically converted into a 1% net proceeds from production in the case of diamonds, or a 1% net smelter royalty in the case of precious metals (for primary precious metal deposits), or a 0.5% net smelter royalty in the case of base metals. This amendment to the joint venture is subject to formal documentation and regulatory approval.”

In an agreement covering the period July 1993 and March 1996, Ashton Mining of Canada Inc. (“Ashton”) became involved in the “Spider # 1 joint venture area” on “an individual kimberlite earn-in basis.” On April 18, 1996, Spider and KWG announced that Ashton had relinquished a 51%

entitlement to any diamondiferous discovery in the Spider #1 joint venture area subject as follows, KWG financial *edited* quote (see also Hurburgh, 1996):

“Ashton Mining Canada Ltd. holds a 25% clawback entitlement to any kimberlite property found or developed by KWG/Spider within the geographic limits of the Spider No. 1 project area... [an area that encompasses the MacFadyen Property]... with the exception of Kyle Lake No. 1 where Ashton Mining Canada Ltd. [has] relinquished its rights. [The clawback] can be executed by paying KWG/Spider an amount equal to 300% of all exploration expenditures on said property.”»

In 2007, KWG has acquired an interest of 33.12% on Uniform Surrounds claims (Table 3). The other holders are Condor Diamond corp (56.88%) and Greenstone Exploration Company ltd (10%). Uniform Surrounds claims are located at the East of MacFadyen property.

KWG has also acquired 46 claims from Pele Mountain (Table 4). These claims are contiguous with claims of MacFadyen property and located at the West.

3. Regional geology

Geological setting is taken from Tremblay and Butler (2006):

3.1 General Information

Outcrops are quite sparse in the James Bay Lowlands, and none occur on the MacFadyen Property *per se*. However, McBride (1994), detailed mapped Paleozoic outcrops in the Attawapiskat River bottom immediately NE of the claim group. Government geological surveys have examined Paleozoic outcrops along the Attawapiskat River. “Operation Winisk” examined areas to the NW, and paleontological studies in the Moose River Basin to the SE have also been conducted (Johnson *et al*, 1992). Information has been published on the Attawapiskat kimberlite swarm (e.g., Kong *et al*, 1998; Sage, 2000a; and Fowler *et al.*, 2001).

The MacFadyen property lies on the south side of the Paleozoic Cape Henrietta Maria Arch (an interpreted continent-scale warp) on the Hudson Platform - a thin shallow marine shelf sequence

between the Hudson Bay Basin to the NNW and the Moose River Basin to the SE (e.g., Norris, 1986). It may be significant that the regional NW-striking downwarp joining these two Paleozoic basins passes through the area – a strike that is crudely parallel to the faults of the Lake Timiskaming Graben farther SE on the Quebec border (see *Figure 20.2* in *Geology of Ontario*, Special Volume 4, Part 2, 1992, p.909; see also Sage, 2000b). There are four main geological elements to the property – unconsolidated Quaternary sediments underlain by variable karstic Paleozoic marine shelf sediments which are, in turn, unconformably overlying an Archean crystalline basement, with both the Paleozoic and Archean cut by the Attawapiskat kimberlite swarm.

3.2 Quaternary Deposits

In the late Pleistocene, Ontario was completely covered by the Laurentide icesheet (Würm - Wisconsin glacial stage). The province is sculptured by Pleistocene-icesheet events that have created the lake-covered landscape, immature river drainages, fresh rock exposures and dynamic isostatic adjustments – the latter caused by elevation of the land after deglaciation, most recently starting ~14,700 years BP during the Bolling-Allerod climate-warming excursion. Due to the depression of the region caused by the weight of former icesheets, the claim block area was subsequently covered by the Tyrrell Sea which deposited and redistributed unsorted till formed at the base of icesheets, as well as ice-marginal lacustrine sediments. These activities reworked the unconsolidated material now below the muskeg swamps, and flattened the landscape (Skinner, 1973).

Compounding this surficial complexity, Paleozoic limestones underneath can be filled with karst dissolution structures, and unconsolidated sands can penetrate from above into any open-space fillings and collapse features available to them. These circumstances can play havoc with small-diameter drilling programs, and may lead to holes being abandoned (e.g., the rod string of drill hole SPQ-04-06 dropped spontaneously into a karst cavity). During recent drilling campaigns, the peat and its associated organic material was found to be underlain by marine clays, and the till sheets underneath these contain common Paleozoic limestone pebbles, coralline limestone and chert pebbles, as well as Precambrian acid-intrusive blocks, gabbros, gneiss, and greywacke fragments.

Thomas (2004) interprets the till sequence as a mixture containing a 1-2 m sandy till overlain with sand (possibly proximal varves) grading upwards into clays (possible distal varves), and marine

clays. The section thickness is generally 10 to 40 m. It is quite probable that some of the deeper till sheets are pre-Wisconsin in age, and general Laurentide icesheet retreat was also subject to ice advances as late as 8,400 years BP (the Cochrane glacial advances).

3.3 Paleozoic Sediments

Below the peat and unconsolidated material, the claims are underlain by Paleozoic units that comprise, at their base, the poorly consolidated Middle to Upper Ordovician Bad Cache Rapids Group (conglomeratic and calcareous to dolomitic sandstones, and an aquifer). This unit may be overlain by the Upper Ordovician Churchill River Group comprising platform carbonates overlain, in turn, by the Red Head Rapids formation limestones and dolomites.

The lower Silurian is probably absent in the Cape Henrietta Marie Arch portion of the Hudson Platform, but is followed disconformably by the Middle Silurian Ekwon River and Attawapiskat formations consisting of bioclastic limestones and dolomites including both bioherms (reefs) and biostromes (reef flanks). These units provide some of the karst knobs exposed in the Lawashi Hills south of the MacFadyen Property. It is also notable that evaporites can occur in late Silurian units along with red beds suggesting a quiet dry near-littoral environment.

Based on the distribution of Paleozoic units exposed along the Attawapiskat River, Suchy and Stearn (1993) postulated a continent-wide conjugate fault set striking at 060° and 280° E of N. They suggest that these faults commenced activity in the Early Silurian. Interestingly, detailed mapping by McBride (1994) claimed no evidence for these putative features.

3.4 Phanerozoic Igneous Events

In common with all shields worldwide, kimberlite ages in any given region are likely to be variable. Evidence suggests that the “Kyle” kimberlites to the SW and west of MacFadyen were overlain by Paleozoic sedimentary sequences and are therefore, of pre-Ordovician age. These bodies contain both “diatreme” and “hypabyssal-facies” units. Perovskite from the MacFadyen #1 kimberlite was age-dated at the University of Alberta using U/Pb methods, with a result of 256.3± Ma. This is a Carboniferous age, in keeping with the penetration of the Attawapiskat kimberlite swarm through the Hudson Platform Paleozoic cover. Kimberlite float at Kirkland Lake, just north of the Timiskaming

graben, contains middle Ordovician to Devonian conodonts suggesting ages similar, perhaps, to the Attawapiskat kimberlite swarm. Mesozoic olivine melilites have also been found at Coral Rapids, indicating sporadic mantle-derived melts cutting the Superior Province from time to time (Sage, 1992).

3.5 Precambrian Basement

At least a dozen mafic dyke swarms criss-cross the Archean-aged Superior Province in Ontario ranging in age from earliest Proterozoic ($2,454 \pm 2$ Ma for the Matachewan and Hearst dykes) to the Keweenawan dyke swarms around $1086 \pm 1.3/3.0$ Ma. (Osmani, 1992). Most are tholeiitic basalt and its evolved correlatives, and can be expressed on regional magnetic maps as long linear magnetic highs or remanently magnetized long linear magnetic lows. Exposures of the Archean basement occur about 100 km to the west of MacFadyen and comprise greenstone belt elements (part of the Sachigo subprovince of the Superior Province), as well as a variety of gregarious granite-gneiss batholith outcrops. These units are well expressed on regional magnetic maps and are seen quite clearly as magnetic complexes under the thin Paleozoic cover of the James Bay Lowlands. The Superior Province can be divided into large magnetic subprovinces with internal commonalities corresponding, in large measure, to the subprovinces derived from geological mapping. At a more local scale, total field magnetic maps of Ontario (*Geology of Ontario*, OGS Special Volume 4, map box, 1992; Gupta, 1991) can be interpreted and show the following regional features:

- a) The MacFadyen Property lies close to a major Archean magnetic terrane boundary marked by extensive and broad megashears (broad linear magnetic lows showing metamorphic magnetite-destruction reactions) – zones probably formed just below the brittle-ductile transition zone in the late Archean crust.
- b) Long linear magnetic anomalies, almost certainly caused by Proterozoic diabase dykes, commonly show changes in the intensity of the regional magnetic background across their flanks, a clear indication that many of them acted as steep normal faults.
- c) Other alignments without obvious dykes along them also show changes in the intensity of the regional magnetic background across their flanks, a further indication that post-Archean faulting patterns exposed discontinuities and different crustal levels across a web of steep

fractures. With its lack of obvious topographic trends, the peneplained shield landscape may give the illusion that there are few patterns of vertical movement.

- d) Most of these faults are long and straight, so are unlikely to go listric at intermediate crustal depths. Many of them must penetrate the subcontinental mantle, and may cause strain-deflection patterns associated with the temporary brittle fracture sets that allow (or are caused by) kimberlite dyke tips that rapidly ascend to the surface.

The subcontinental-mantle understructure of Archean continental blocks is interpreted to be complex. Based on xenolith populations O'Neil and Stevenson (2003) imply that there may be some Proterozoic reworking of the Archean crust beneath the Attawapiskat kimberlite swarm. It has also been suggested that economic kimberlites are less likely to occur in Archean greenstone terranes and are more likely to occur in "granitoid" hosts. It may be speculated that the more "ductile behavior" of large greenstone units might slow down or even prevent the brittle fracture propagation process at kimberlite dyke tips. Such processes may cause either dyke-tip deflection or eruption delay - the latter likely to cause the dissolution of diamonds. Kimberlite surface degassing eruption rates are believed to be very high (>500 m per second), and initial shallow level processes at the dyke tip are gas-driven (e.g., see Head and Wilson, 2003).

4. Property geology

Description of Attawapiskat kimberlite found on the MacFadyen Property comes from Butler and Tremblay (2006):

The Attawapiskat kimberlite swarm includes three known bodies and separate intersections on the MacFadyen Property found by the KWG/Spider Joint Venture; another, designated AT-56, found by Navigator/Canabrava; and *circa* eighteen found by Monopros Ltd (De Beers).

Scott-Smith Consulting (1995) provided a visual textural classification of MacFadyen kimberlite drill core as logged in an Ashton drill hole, *edited* quote:

“The kimberlite below 126 m appears to be very uniform hypabyssal kimberlite. The kimberlite between 57-126 m has an unusual globular texture. This kimberlite is not typical crater-facies kimberlite, not a typical pelletal tuffasitic diatreme facies kimberlite nor is it a typical globular segregatory hypabyssal kimberlite. All the kimberlite is macrocrystic [...] Olivines are up to 10 mm [in size] ... frequent garnets have varied colours and some have kelyphitic rims. Much less common black macrocrysts or ‘indicator’ minerals were observed. Rare chrome diopsides were observed. Mica appears to be present throughout as phenocrysts and/or macrocrysts up to 8 mm in size. Fine groundmass mica was not observed. Xenoliths occur throughout the drill core but only minor local areas could be termed breccia.”

As described in drill logs, the xenolith population in the MacFadyen kimberlites includes Archean metavolcanic and metasedimentary fragments, granite-gneiss, granites and limestone. In MacFadyen #1 and #2 drill holes, limestone fragments predominate near the top. Rounded olivine, garnets (including orange and ruby red varieties), ilmenite, and chrome diopside have been described. The top of the Good Friday kimberlite was encountered at an overburden depth of 47.5 m and is described as a hypabyssal intrusion containing two sizes of olivine, as well as phlogopite and a population of Paleozoic xenoliths. Rare chrome diopside, pyrope and “orange” garnets were visible in that drill core.

Microprobe analyses of garnets from MacFadyen #1 (Sage, 1996) show that most of the garnet population occurs in the G-9 range (weight % CaO-Cr₂O₃ diagram), and can be compared directly with data from Victor and AT-56 (Armstrong *et al.*, 2003) which plot essentially in identical fields. A Min Scan Consultants memorandum describes a garnet websterite ultramafic nodule consisting of equigranular aggregations of red pyrope, dark green clinopyroxene and pale green orthopyroxene, with nodule garnets forming a population with <2 wt% Cr₂O₃, and with matrix garnets well above that range, both within the G9 field. MacFadyen (1994) described a clear octahedral diamond from the Good Friday kimberlite.

From previous drilling results, it can be stated that all discovered kimberlites have material logged as “hypabyssal-facies.” The bodies found can be summarized as follows:

- a) MacFadyen #1 lies about 1 km NE of the De Beers Tango-Extension pipe and is defined by an ovoid (220 m by 160m) discrete 200 nT positive magnetic feature (above model background). The body is estimated to be *circa* 75 m in diameter at the bedrock surface, and a drill hole by Ashton penetrated kimberlite to a vertical depth of 249 m.
- b) The MacFadyen #2 body is marked by a 150 nT positive magnetic feature (above model background). The geometry of this body is unknown. DR 94-17 intersected 88 m of kimberlite, but no shape extrapolation from this is possible.
- c) The Good Friday kimberlite is marked by a slightly elliptical (125 m by 100 m) 400 nT positive magnetic anomaly (above model background) separated in model space from the MacFadyen #1 anomaly to its SE. This body contained the largest number of small (<0.5 mm) diamonds found by drilling to date.
- d) A small magnetic protrusion (MacFadyen #2b) occurs to the SE of MacFadyen #2 with a “magnetic” size in the order of 50 to 75 m across (a weak 26 nT high above model background). It is either a separate kimberlite or an extension of MacFadyen #2, or part of a dyke set – the target has not been adequately drilled to determine shape.
- e) An elongate protrusion (MacFadyen #1b) has been drill-intersected beside the MacFadyen #1 body. It consists of a 40 nT target anomaly (above model background).

The results to date suggest that the magnetic component of the kimberlites is not necessarily distributed uniformly, and there is magnetic 10 nT noise in the boulder-strewn till overburden, giving some chop to ground magnetic surveys (Scott Hogg personal communication). Magnetics, therefore, cannot be used to *precisely outline* target shape – that requires drilling

5. Description of mineralization

Mineralization description for 1994 and 2004 is taken from Butler and Tremblay (2006):

5.1. 1994 Sampling Results

In 1994, Ashton Mining of Canada Inc. collaborated with KWG/Spider in two drill core diamond-sampling campaigns on the MacFadyen Property – one with core supplied from three kimberlitic drill holes cored by KWG/Spider, and reported in Table 5 below. Ashton then drilled the MacFadyen #1

body with another vertical hole (NQ-core), and crushed *circa* 1 metric tonne of kimberlitic material, submitting the >0.5 mm fraction to dense-media separation (DMS) at a laboratory in Michigan (laboratory procedural compliance unknown). Using this procedure, no “macro-diamonds” were reported. The DMS technique did not sample the <0.5 mm diamond content, as did the procedure used in Table 5.

Table 5 – Diamond data *as reported* by Ashton and KWG/Spider (samples supplied by KWG, see also Ashton *News Release* dated May 5, 1994). Lakefield Research is ISO/IEC 17025 accredited.¹

Sample No	Kimberlite name	Sample Wt (kg)	Laboratory	Diamonds -0.5 mm sieve	Diamonds +0.5 mm sieve
94-1 A	MacFadyen #1	33.4	Lakefield Research	2	2**
94-2 A	MacFadyen #1	27.6	Lakefield Research	0	0
94-4 A	MacFadyen #1	25.6	Lakefield Research	2	0
94-4 B	MacFadyen #1	23	Lakefield Research	1	0
94 AML 1	MacFadyen #2	54	AML, Perth*	2	0
Totals		163.6		7	2

Note: *AML is Ashton Mining of Canada Inc.’s parent company in Perth, Western Australia. ** reported as largest dimensions of 1.8 mm and 1.2 mm (other dimensions were not given).

5.2 2004-2005 Sampling Results

During the 2004-2005 drill campaign, small diamonds were found, and are tabulated below (Table 6, 7 and 8). Because of small sample size, whole core was submitted to the Kennecott Canada Exploration Inc. laboratory in Thunder Bay, Ontario, except for small representative core samples

¹ For Lakefield Research compliance see website @ www.lakefield.com/sgs_lakefield_quality.html

retained in core boxes for future studies. Kennecott laboratory information is tabulated below, based on data from the signed certificates of analysis issued by the laboratory.

Early reports by KWG/Spider and Ashton referred to “microdiamond” and “macrodiamond” populations. To conform to the final guidelines issued by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) for reporting diamond exploration results, the tables above emphasize sieve size only (see Anonymous, 2005).

Table 6 – Caustic fusion data by kimberlite target (data as reported on certificates of analysis by Kennecott Canada Exploration Inc.’s laboratory in Thunder Bay, Ontario (ISO/IEC 17025 accredited).²

Kimberlite name	Hole No SPQ-	Weight (kg) of all samples	Diamonds -0.5 mm sieve	Diamonds +0.5 mm sieve
MacFadyen #1	04-11	240.62	31	1
MacFadyen #1b	04-05	80.28	4	0
MacFadyen #2	-	-	-	-
MacFadyen #2b	04-03	70.91	15	0
MacFadyen #2b	04-12	4.94	1	1
Good Friday	04-01	455.20	119	2
Good Friday	04-09	155.10	16*	0
Totals		1007.05	186	4

Note: * 2 diamonds were discounted from this total by Kennecott to avoid possibly contaminating the result (described as 2 small transparent diamonds).

The table below allows some measure of diamond dimensions. As per CIM guidelines, caustic fusion results cannot be used to specify diamond grade (carats per metric ton, or carats per 100 metric tonnes). These stones would not normally be recovered in an operating mine, and would not be classed as part of the commercial carat population.

² For Kennecott compliance see website @ www.kennecottexploration.com/s/DiamondsLab.asp

Table 7: Caustic Fusion data broken down by drill hole and diamond dimensions (dim), based on measurements supplied by Kennecott certificates of analysis. Please note that reporting a diamond's dimensions are *not* measures of its quality or its potential value.

Kimberlite name	Hole No SPQ-	Diamonds <0.5 mm (all dim)	Diamonds >0.5 mm, 1 dim	Diamonds >0.5mm, 2 dim	Diamonds >0.8 mm, at least in 1 dim
Good Friday	04-01	111	6	2	2, (1.45 x 0.96 x 0.77mm) & (0.96 x 0.46 x 0.2) *
MacFadyen #2b	04-03	15	0	0	0
MacFadyen #1b	04-05	3	1	0	0
Good Friday	04-09	13	2	0	1, (0.89 x 0.59 x 0.41mm)
MacFadyen #1	04-11	25	5	1	1, (1.25 x 0.83 x 0.65mm)
MacFadyen #2b	04-12	1	0	0	1, (2.1 x 1.9 x 1.3mm) **
Totals		168	14	3	5

Note: * This stone can pass a 0.5 mm sieve; ** largest diamond found; dim = dimension.

Table 8: Kennecott Caustic Fusion data, description of 5 diamonds in the last column of Table 7.

Kimberlite name	Hole No SPQ-	Fragment or Intact	Weight (carats)	Morphology	Color	Clarity
Good Friday	04-01	fragment	0.019	irregular	green-brown	transparent
Good Friday	04-01	fragment	0.012	irregular	White	transparent
Good Friday	04-09	fragment		octahedroid	Brown	transparent
MacFadyen #1	04-11	fragment		irregular	Grey	transparent
MacFadyen #2b	04-12	intact	0.0765	octahedroid	Brown	transparent

5.3 2007 Sampling Results

In 2007, main goal of the drilling campaign is to make a mini-bulk sample for Good Friday, MacFadyen #1, MacFadyen #2 and MacFadyen #2 South. All kimberlitic rocks from all drill holes from one site are analysed together and composed one sample. Half of core was crushed and passed through a normal diamond recovery plan at SGS Lakefield Research limited. A representative 32 kg split from each samples were processed by caustic fusion also at SGS Lakefield Research limited. SGS Lakefield Research limited information is tabulated below based on data from the signed certificates of analysis issued by the laboratory (Table 9, 10 and 11). The other half is presently in process through an attrition milling and jigging at Mousseau Tremblay Laboratory. Good Friday kimberlite processing is completed and Table 12 report the result.

Table 9 – DMS data by kimberlite (data as reported on certificates of analysis by SGS Lakefield Research Limited. Lakefield Research is ISO/IEC 17025 accredited).

Kimberlite Name	Sample Wt (kg)	Laboratory	Diamonds -0.85 mm sieve	Diamonds +0.85 mm sieve
Good Friday	1210.3	Lakefield Research	0	1
MacFadyen #1	1188.1	Lakefield Research	0	0
MacFadyen #2	473.8	Lakefield Research	0	1
MacFadyen #2 S	833.6	Lakefield Research	0	0
	3605.8		0	2

Table 10 – DMS data by kimberlite, description of 2 diamonds in the last column of Table 6.

Kimberlite Name	Size fraction	Fragment or Intact	Weight (carats)	Morphology	Color	Clarity
Good Friday	2.36 to 3.35 mm	Fragment with crystal faces	0.23		White	Translucent
MacFadyen #2	1.18 to 1.70 mm	fragment	0.053	Dodecahedral	White	Translucent

Table 11 – Caustic fusion data by kimberlite (data as reported on certificates of analysis by SGS Lakefield Research Limited). Lakefield Research is ISO/IEC 17025 accredited.

Kimberlite Name	Sample Wt (kg)	Laboratory	Diamonds -0.6 mm sieve	Diamonds +0.6 mm sieve
Good Friday	32.00	Lakefield Research	14	0
MacFadyen #1	31.38	Lakefield Research	26	0
MacFadyen #2	31.70	Lakefield Research	7	0
MacFadyen #2 S	31.70	Lakefield Research	12	0
	125.78		59	0

Table 12 – Attrition milling and jigging data by kimberlite, description of 2 diamonds (data as reported in internal report by Mousseau Tremblay, 2008)

Kimberlite Name	Size fraction	Fragment or Intact	Weight (carats)	Morphology	Color	Clarity
Good Friday			0.425		White	Transparent clear
Good Friday			0.115		White	Partly Translucid

6. Previous works

The previous works are taken from Tremblay and Butler (2006):

« In 1991, a diamond exploration project was developed by KWG/Spider, and identified the area west of James Bay as having potential for kimberlites (Novak and Brewster, 2002). At that time, Monopros Ltd., the Canadian exploration division of Anglo-American De Beers, now called De Beers Canada Exploration Inc., had mining claims in the area covering parts of their already discovered Attawapiskat kimberlite swarm. During the summer of 1992 KWG/Spider, utilizing public-domain aeromagnetic maps, staked property in this new kimberlite field. By using known kimberlites in the vicinity as geophysical test models, KWG/Spider and UDL (a geophysical contractor) tested a new helicopter-borne magnetic system with GPS positioning during the summer and fall of that same year. The surveys were completed with 100 m and 50 m flight-line spacing, and at various altitudes (30, 50 and 100 m). The results indicated that optimum survey parameters were accomplished with 100 m flight-line spacing and 30 m altitude (Novak and Brewster, 2002). In February 1994, drill testing confirmed that Monopros Ltd had not identified the MacFadyen #1 and #2 kimberlite targets, located *circa* 8 km NW of the Victor kimberlite, and a mere ~1 km NE of the Tango-1 and Tango Extension kimberlites. A joint-venture agreement covering the period July 1993 and March 1996 was made with Ashton Mining of Canada Inc.

The MacFadyen kimberlites are aligned along a fairly strong NW-trending magnetic basement lineament - a feature that might be interpreted as a possible feeder for kimberlites or, more likely, the margins of Proterozoic diabase dykes acting as preferred fracture controls for kimberlite

emplacement. Five of the De Beers kimberlites are positioned close to this alignment; five others on a somewhat displaced southerly continuation; four kimberlites are located within 1 km of this alignment; and two kimberlites are within 10 km.

In 1994, Spider/KWG initiated airborne magnetic surveys regionally in an effort to find “spot magnetic anomalies” as signatures of kimberlite bodies within the varying Precambrian magnetic background of the region (Hogg and Munro, 2000). Shallow cover in the form of glacial deposits and Paleozoic sediments show no significant magnetic signature, so it was felt that discrete magnetic targets would be apparent in the airborne data.

In 1997, adjacent to the MacFadyen Property, Monopros Ltd (De Beers) obtained bulk samples from kimberlites on their properties. In the spring of 1998, the Monopros program expanded into a large-scale bulk sampling program (>10,000 tons) obtained with large-diameter drills. This activity led to a staking rush around the Monopros and KWG’s MacFadyen claim blocks. The Navigator/Canabrava joint venture succeeded in finding the AT-56 kimberlite in April, 2001. A joint venture among Kel-Ex Development Ltd, 1387197 Ontario Ltd., Arctic Star Diamond Corp., and Metalex has also claimed kimberlite in the general vicinity.

Geophysical field work on the MacFadyen Property comprises airborne magnetic surveys, as well as two grid-controlled ground magnetic surveys both covering the identified NW-striking elongate magnetic high briefly discussed above. In 1994, six drill holes were collared on the property using a light-weight hydraulic diamond drill that could be lifted by a Hughes helicopter. Three of these holes encountered kimberlite (drill logs by Derek McBride and Neil Novak, 1994). Another 264 m vertical hole (NQ core) was then drilled by Ashton Mining of Canada Inc. into the MacFadyen #1 body. Sampling procedures yielded small diamonds.

In 2004-2005, fourteen drill holes were collared on the property. Of these, eight holes encountered kimberlite. Many holes did not achieve target due to ground conditions (drill logs by Roger Thomas, Howard Lahti, Neil Willoughby and James Burns, 2004-2005), and the drill used was underpowered for its assigned task. In particular, the 2004-2005 drilling program led to the discovery of new kimberlite bodies, here labeled Good Friday, MacFadyen #1b and MacFadyen #2b. Sampling of

whole drill core using caustic fusion at the Kennecott laboratory in Thunder Bay yielded 190 small diamonds, 4 of which could not pass the 0.5 mm sieve. Their dimensions were 1.45 x 0.96 x 0.77 mm, 0.89 x 0.59 x 0.41 mm, 1.25 x 0.83 x 0.65 mm, and 2.1 x 1.9 x 1.3 mm. The largest stone weighed 0.0765 carat and was found in a sample associated with another small stone (<0.5 mm), but the kimberlite core sample size was very small (4.94 kg) so this discovery cannot be treated statistically in any manner. »

In 2006, Scott Hogg & Associates Ltd. has prepared a drill plan sites for 2007 winter drilling campaign. They have used the magnetic modelling of the Ashton data in 2001 to interpret an outline of the pipes and proposed a drill plan in order to consolidate the present knowledge of the pipes and to help to define the number, size and geometry of the MacFadyen kimberlites as well as collect representative samples of kimberlite for diamond evaluation.

In 2007, Good Friday, MacFadyen #1, MacFadyen #2 and MacFadyen #2S were drilled by eleven holes and one to three wedges among four of these holes. The main goals of this campaign is to determine the geometry of the main kimberlites (Good Friday, MacFadyen #1, MacFadyen #2 and MacFadyen #2S), to make a systematic caustic fusion analysis to infer size distribution statistics, and to make a min-bulk-sampling and samples (Good Friday: 1210.3 kg; MacFadyen #1: 1188.1 kg; MacFadyen #2: 473.8 kg and MacFadyen #2S: 833.6 kg) were passed through a normal diamond recovery plant, in an effort to determine the statistical probability of larger stones that will not pass the >0.85 mm sieve. One diamonds in MacFadyen #2 (size fraction 1.18 to 1.70 mm and has 0.053 carat) and two diamonds in Good Friday (one in size fraction 2.36 to 3.35mm and has 0.23 carat; and one of 0.66 x 0.6 x 0.51 mm). From these results, it will be determined that a bulk sampling program is warranted.

7. Recent work

On MacFadyen property, perimeter surveys was made on CLM 463, CLM 468 and Mining Claims 1189377 by Sutcliffe Rody Quesnel Inc. CLM 463 is comprised of claims 1189380 and 119381, and CLM 468 is comprised of claims 1189379 and 3004854.

8. Drilling winter 2007

8.1 Objective of campaign

The main goals of this campaign determined by Mousseau Tremblay are:

Phase A: Diamond drilling

- a. To determine the orientation and width of MacFadyen #2 dyke
- b. To drill the two last targets left undrilled in 2007. It is magnetic anomalies interpreted to be possibly kimberlites.

Phase B: Till sampling

- a. Overburden drilling on four lines spaced by 2.5 to 3 kilometers and each samples spaced by 1 kilometer on claims acquired from Pele Mountain and on MacFadyen property.
- b. Hand picked till sampling along Attawapiskat River on claims acquired from Pele Mountain, on claims from Macfadyen property and on Uniform Surround claims hold by Condor diamond/KWG Ressources inc/Greenstone exploration.

8.2 Technical data

The summer drilling campaign 2008 took place from June 30 to August 22. All drilling gear was carried from Val-d'Or to Victor mine via Cochrane and Moosonee and buildings materials for the camp was carried from Cochrane to Victor mine via Moosonee between June 30 to July 4. Debut Diamonds Camp was built between July 4 and July 9. The drilling gear arrived near Debut Diamonds Camp on July 4 and all the gear was carried by helicopter to the first drill site on July 10. Diamond drilling took place between July 10 to July 26 and 834 meters of NQ core size have been drilled in four holes (Figure 2; Table 13). 19 overburden drill holes have been drilled for till sampling on claims acquired from Pele Mountain. Holes have been drilled on two lines separate by 2.5 to 3 kilometers and on each line, holes are approximately separated by 1 kilometer (Figure 3; Table 14). Two lines, north of Attawapiskat River, stay undrilled. Overburden drilling took place between July 27 to August 15. Drill was carried from last drill site to Victor mine between August 15 and 16. Hand picked sampling took place between August 9 to August 20.

All cores were logged at drill sites and only ones with kimberlite were brought to Debut Diamonds Camp. Then, core boxes were sealed and sent to a core shack at Val-d'Or by plane to Hearst, then by road to Val-d'Or.

Table 13: Technical data of 2008 diamond drill holes

Hole	UTM (nad 83)		grid		elevation	direction	dip
	easting	northing	easting	northing			
08-MF1NE-01	301750	5863030	14+50E	2+20N		0	-90
08-MF1S-01	301533	5862798	14+72E	1+02S	84	45	-81
08-MF2-01	301434	5863104	17+92E	0+50S	83	45	-67
08-MF2-02	301854	5862658	17+92E	0+50N	85	0	-90

Table 14: Technical data of 2008 overburden drill holes

Hole	zone	UTM (nad 83)		elevation
		easting	northing	
08-01	17	299179	5861177	85
08-02	17	298346	5861119	84
08-03	16	701505	5861119	87
08-04	16	698519	5862010	90
08-05	16	697325	5862007	91
08-06	16	696355	5861862	93
08-07	16	695431	5861799	93
08-08	16	694604	5861705	95
08-09	16	694454	5864284	92
08-10	16	696205	5864382	95
08-11	16	697584	5864468	91
08-12	Hole not drilled			
08-13	16	698634	5864821	92
08-14	16	699732	5864918	95
08-15	16	700617	5865062	92
08-16	16	701591	5864981	90
08-17	17	298979	5865133	84
08-18	17	300067	5865017	82
08-19	16	699142	5864845	89
08-20	16	700837	5866488	82

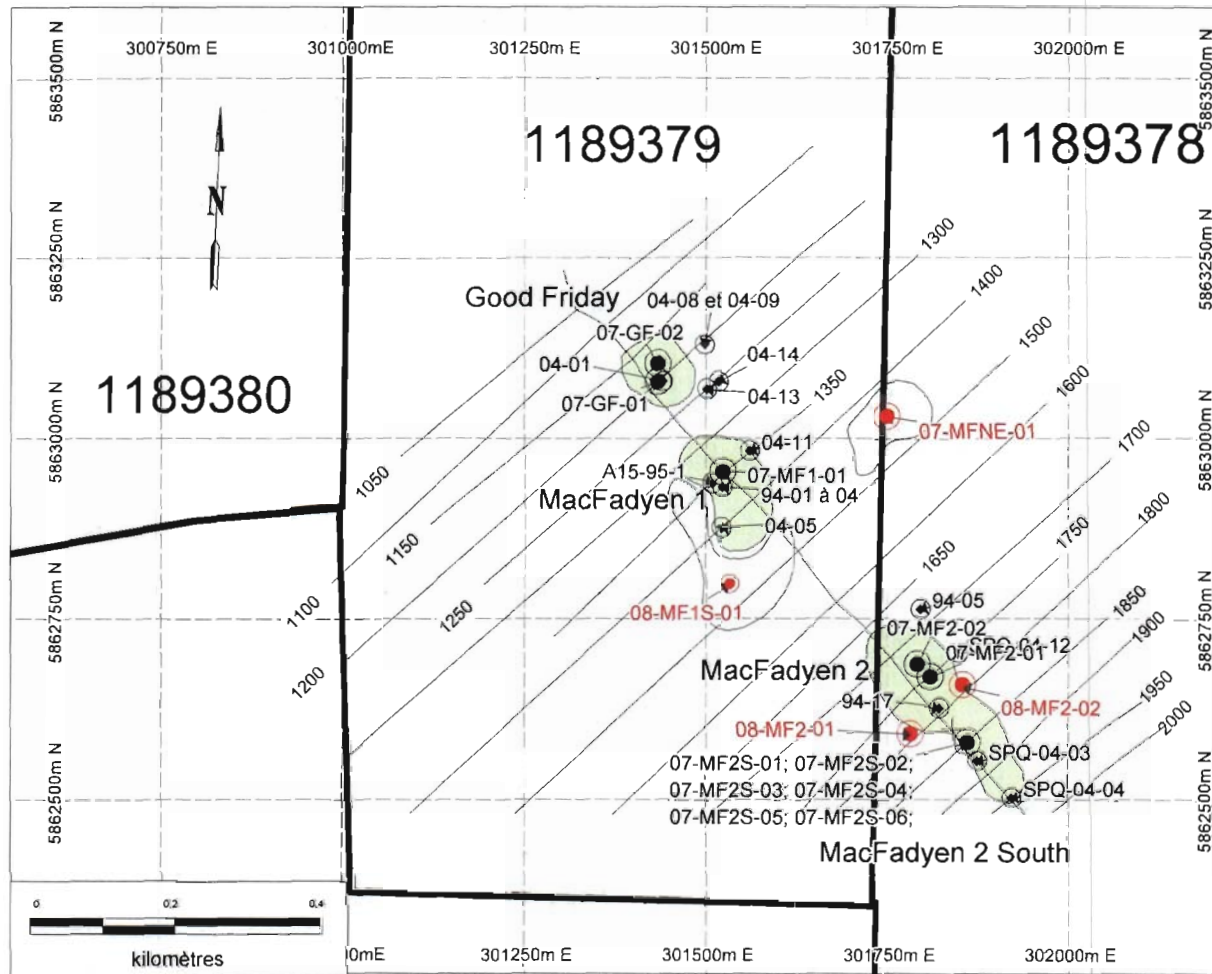


Figure 2: Drilling holes of 1994, 2004, 2007 and 2008. Holes drilled during summer 2008 are in red

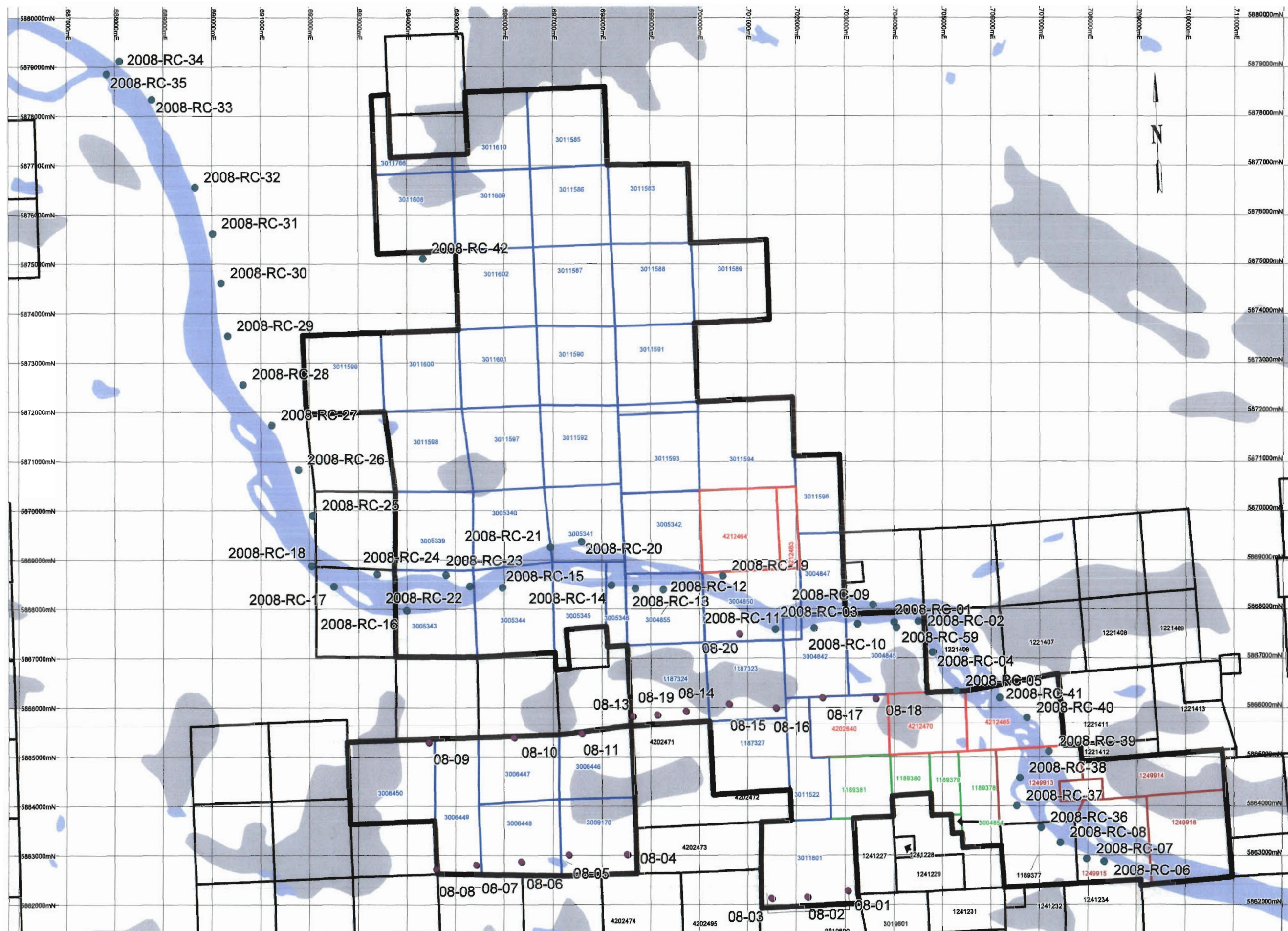
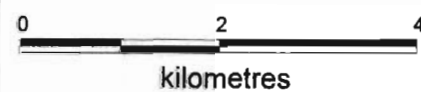


Figure 3: Overburden drilling holes and hand picked till samples 2008 (UTM grid zone 16, NAD 83)

- KWG - Debuts Diamonds inc claims from Pele Mountain
- KWG - Debuts Diamonds inc Claims stake in 2006 and 2007
- KWG - Debuts Diamonds inc / Spider Claims
- Condor diamond / KWG - Debuts Diamonds inc / Greenstone exploration Claims
- KWG - Debuts Diamonds property
- Till sample by overburden drilling
- Till sample by hand picked sampling



8.3 Diamond drilling results

8.3.1 MacFadyen #1 Northeast

One hole (08-MF1NE-01) has been completed on MacFadyen #1 Northeast target. According to Scott Hogg (2006), the target corresponds to an area of elevated magnetic response and may represent a sill or some other form of kimberlite.

The hole 08-MF1NE-01 oriented to N000° with a dip of 90° and located at 14+50E and 2+20N. The hole cut 34.1 meters of overburden, and then a sequence of Paleozoic sediments is found between 34.1m and 270.4m. Paleozoic sediments sequence is composed by limestone more or less fossiliferous, siltstone, shale and sandstone. Between 123.5 and 125.5m, an unconsolidated rocks, dark grey, non magnetic and rich in clay with limestone fragments is cut. It is probably a cave filled by clay. Between 270.4 and 282m, granitic gneiss is cut. Round fragments of quartz and feldspar grains are found in sandstone near contact with gneiss. In the three first meters, gneiss is strongly hematized and chloritized, then alteration decreased gradually. Unaltered granitic gneiss is medium grey, non magnetic, 5% biotite and has a well developed gneissosity.

Table 15: Description of drilling holes 2008

Hole	overburden	kimberlite		paleozoic	
		from	to	from	to
08-MF1NE-01	34.1	0	0	34.1	282
08-MF1S-01	65.8	0	0	65.8	219
08-MF2-01	45			45	118.4
		118.4	133.25	133.25	140.80
		140.80	177.4	177.4	183
08-MF2-02	45	0	0	45	150

8.3.2 MacFadyen #1 South

One hole (08-MF1S-01) has been completed on MacFadyen #1 South target. According to Scott Hogg (2006), the target corresponds to an area of elevated magnetic response and may represent a sill or some other form of kimberlite.

The hole 08-MF1S-01 oriented to N045° with a dip of 81° and located at 14+72E and 1+02N. The hole cut 65.8 meters of overburden, and then a sequence of Paleozoic sediments is found between 65.8 m and 219 m. Paleozoic sediment is composed by an homogeneous limestone between 65.8 m and 206.63 m, then by alternating layer of grey shale, red shale and limestone. Finally, it has cut a light to medium yellow sandstone. The hole has finished in a sand seam at 219 m.

8.3.3 MacFadyen #2

Two holes (08-MF2-01 and 08-MF2-02) have been drilled through MacFadyen #2. In 1994, 2004 and 2007, this kimberlite has been drilled with holes DR-94-17, SPQ-04-12, 07-MF2-01 and 07-MF2-02. 08-MF2-01 is located at 17+92E and 0+50S with the intent to cut hole DR-94-17 and in that way to know the dip and width of MacFadyen #2 dyke. Hole 08-MF2-02 is located at 17+92E and 0+50N was made to confirm dip obtained from hole 08-MF2-01 and to recover more kimberlitic rocks.

Hole 08-MF2-01 oriented to N045° with a dip of 67°. It has cut 49.30m of overburden. Between 49.5m and 110.4m, it has cut a limestone with some small intersection composed by chert. Between 110.4m and 118.4m, alternating layers of limestone and sandstone is cut. Then, kimberlite is found between 118.4m and 133.25m and between 140.8m and 177.4m. Between 118.4m and 132.7m, kimberlite contains limestone, gneiss and mantle xenoliths. Mantle xenoliths contain serpentinized and carbonatized olivine, purple garnet and chrome diopside. Kimberlite has purple garnet and red garnet macrocrysts with kelyphitic rim and phlogopite macrocrysts. Between 132.7m and 133.25m, kimberlite becomes more rich in mantle xenoliths and phlogopite. Limestone is cut between 133.25m and 140.8m. Between 140.8m and 159.05m, same kimberlite than above is found, but has more than 50% limestone xenoliths between 146.8m and 159.05m. Between 145.73 and 146.80m, kimberlite is intruded by a kimberlite with few mantle, eclogitic (purple garnet and chrome diopside), gneiss and limestone xenoliths. Contact with older kimberlite is sharp. Between 159.05m and 177.4m, kimberlite has 5% limestone and mafic xenoliths, and 25% mantle xenoliths (olivine ±chrome diopside and ±purple garnet). 1% of purple garnet and red garnet with kelyphitic rim are found between 166.5 and 171.7m. Finally, same limestone found at the beginning of hole is cut between 177.4m and 183m.

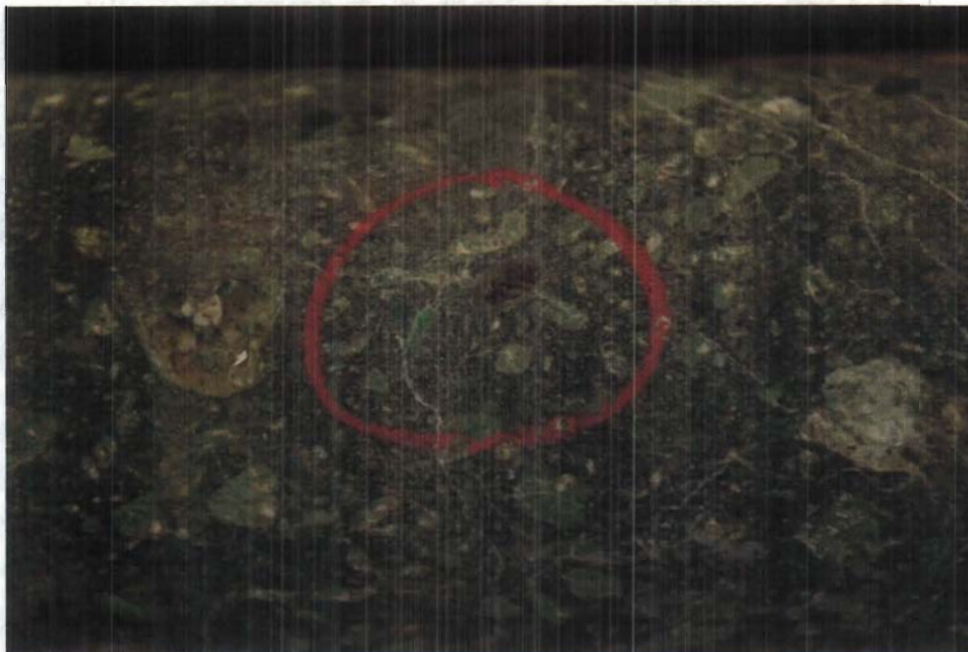


Figure 4a: Cr-diopside and purple garnet with kelyphitic rim in hole 08-MF2-01



Figure 4b: Xenolith composed with purple garnet and \pm Cr-diopside with kelyphitic rim in hole 08-MF2-01



Figure 4c: Young kimberlite (dark grey brown) cutting older kimberlite (medium grey, rich in limestone xenoliths) with sharp contact at 146.8m in hole 08-MF2-01



Figure 4d: Two purple garnets with keliphitic rim in hole 08-MF2-01



Figure 4e: Dark grey autholith and dark pink garnet with kelyphitic rim in hole 08-MF2-01



Figure 4f: Mantle xenolith composed by olivine and \pm Cr-diopside in hole 08-MF2-01

Hole 08-MF2-02 oriented to N000° with a dip of 90°. It has cut 46m of overburden, then limestone with chert fragments between 46m and 121m and alternating layers of limestone, sandstone and shale between 121m and 150m.

These two holes and hole DR-94-17 seem indicate a variable dip from 70° to 78° for kimberlitic dyke and a general orientation North-West – South-East.

8.4 Overburden drilling results

From 19 overburden drill holes, 32 samples have been collected (figure 4). These samples have not been processed. Overburden drill logs are included in Annexe 2.

8.5 Hand picked till sampling results

42 samples have been hand picked on Attawapiskat River (figure 4). These samples have not been processed. Hand picked samples descriptions are included in Annexe 2.



Figure 5a: Overburden drilling sample from hole 08-14

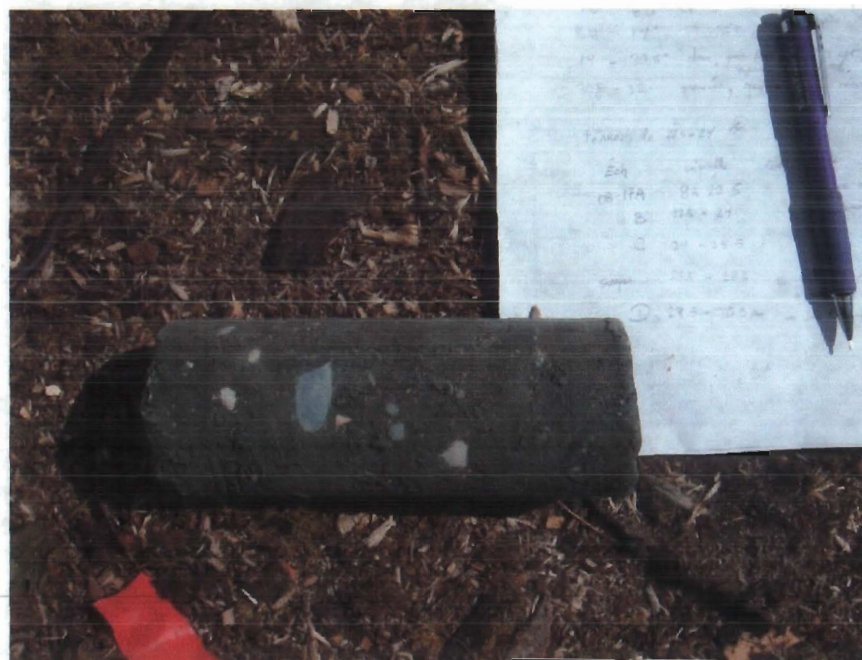


Figure 5b: Overburden drilling sample from hole 08-17



Figure 6a: Hand picked sample 2008-RC-08



Figure 6b: Hand picked sample 2008-RC-13



Figure 6c: Hand picked sample 2008-RC-18



Figure 6d: Hand picked sample 2008-RC-32

9. Conclusions, recommendations and budget

During summer drilling campaign 2008, four diamond drill holes have been drilled through two targets and through MacFadyen #2. No kimberlite has been cut on target MacFadyen #1NE and target MacFadyen #1S. Two holes have been drilled on MacFadyen #2. Hole 08-MF2-01 has cut MacFadyen #2 kimberlite, but hole 08-MF2-02 has missed his goal. These holes and DR-94-17 seem indicate a variable dip from 70 to 78° for MacFadyen #2 and a general orientation North-West – South-East.

On claims acquired from Pele Mountain, several magnetic anomalies are present (plan in annexe 4). These anomalies follow the same trend than magnetic anomalies of MacFadyen kimberlites. Till samples take by overburden drilling and by hand picked sampling define three lines, 32 till samples have been taken from 19 overburden drill holes on two lines South of Attawapiskat River and 42 till samples by hand picked sampling on one line defines by Attawapiskat River. It will be important to process till samples took on these claims to show if some of these samples have indicator minerals and show dispersion trend toward some of these magnetic anomalies. We recommend a budget 50 000\$ to process overburden drilling till samples and hand-picked till samples for indicator minerals recovery. According to these results, if some samples have indicator minerals, we will need to make overburden drilling on smaller grid to define dispersion trend. A budget of 250 000\$ is recommend for definition of dispersion trends. We recommend a budget of 250 000\$ to finish undrilled overburden holes on two lines North to Attawapiskat River. Also, it will be appropriate to extend hand picked sampling toward the North-West on Attawapiskat River to find new territories between the Kyle pipes to the West and the Attawapiskat Victor – MacFadyen trend. A budget of 100 000\$ is recommended to find new territories toward the West.

From mini-bulk sampling results of 2007, it appears that a program to make a 10 tons bulk sampling on Good Friday, MacFadyen #2 and MacFadyen #2 South is warranted. A budget of 1 500 000\$ is recommended for the bulk sampling and another 1 000 000\$ to process the sample through a normal diamond recovery plan.



Emmanuelle Giguère, géo (OGQ no 660), M. Sc.

Produced at Val-d'Or, november 19, 2008

10. Bibliography

Anonymous (2005): Guidelines for the Reporting of Diamond Exploration Results; A report (without authorship) issued by the *Canadian Institute of Mining, Metallurgy and Petroleum* in file and PDF format @ www.cim.org/committees/diamond_exploration/Final.cfm.

Armstrong, K., Nowicki, T. and Read, G. (2003): Kimberlite AT-56: A mantle sample from the north central Superior craton, Canada; in, long abstracts of *8th International Kimberlite Conference*, Victoria, British Columbia.

Brendon, J. and de Souza, H. (2007): An investigation into the recovery of diamonds from the MacFadyen property kimberlites, James Bay Lowlands, Ontario, prepared for KWG Resources inc., dated August 13, 2007.

Fowler, J.A., Grutter, H.S. and Wood, B.D. (2001): Diamond exploration in northern Ontario with reference to the Victor kimberlite, near Attawapiskat; *Exploration and Mining Geology*, v. 10, No's 1 & 2, pp. 67-75.

Giguère, E. (2007): 2007 report on diamond drilling – MacFadyen Property, KWG Resources Inc.; dated August 8, 2007.

Gupta, V.K. (1991): Shaded image of the total magnetic field of Ontario, east-central sheet, Ontario Geological Survey, Map 2586, scale 1:1,000,000.

Head, J.W. and Wilson, L. (2003): Diatremes and kimberlites 1: definition, geological characteristics and associations (part 1): and following, Wilson, L. and Head, J.W. (2003): Diatremes and kimberlites 2: An integrated model of the ascent and eruption of kimberlitic magmas and the production of crater, diatreme, and hypabyssal facies; in, abstracts of *8th Kimberlite Conference*, Victoria, British Columbia.

Hogg, R.L.S. (2006): 2006 Drill Plan for the MacFadyen Kimberlite Pipes Attawapiskat Area Ontario on behalf of KWG Resources Limited

Hogg R.L.S, and Munro, S.S. (2000): The aeromagnetic discovery of kimberlites and sulphides at depths up to 200m; *Society of Exploration Geophysicists*, Calgary meeting presentation.

Hurburgh, D. M. (1996): Ashton receives \$1 million for James Bay interest and maintains 25% entitlement in joint venture; *Ashton Mining of Canada News Release*, April 16, 1996.

Johnson, M.D, Armstrong, D.K., Sanford, B.V., Telford, P.G. and Rutka, M.A. (1992): Paleozoic and Mesozoic geology of Ontario; in, *Geology of Ontario, Ontario Geological Survey*, Special Volume 4, Part 2, pp. 907-1008.

Kong, J.M., Boucher, D.R., and Scott-Smith, B.H. (1998): Exploration and geology of the Attawapiskat kimberlites, James Bay Lowland, northern Ontario; in, long abstracts *7th International Kimberlite Conference*, Cape Town, South Africa.

MacFadyen, D.A. (1994): Internal KWG/Spider memorandum and photomicrographs of diamonds, report dated August 31, 1994.

McBride, D.E. (1994): Report on the Geological Observations and their Economic Significance, Spider Lake Project, Attawapiskat River, James Bay Lowlands; in internal KWG/Spider report with detailed geological map.

Min Scan Consultants (1994): Petrology and Mineralogy of an Ultramafic Xenolith from NDN -94-05, report dated October, 1994.

Norris, A.W. (1986): Review of the Hudson Platform, Paleozoic stratigraphy and biostratigraphy; in, *Canadian Inland Seas*, I.P. Martini (Ed.); Elsevier, New York, 404p.

Novak, N. and Brewster, N. (2002): Gremlins, promoters, financiers, diamonds, kimberlites and other beasts; a tale of diamond exploration in the Ontario lowlands, a junior's perspective, *Prospectors and Developers Association of Canada Annual Meeting* talk, Toronto, 2002.

Novak, N. (2005): Spider and KWG agree to amend joint venture, parties select individual projects for advancement, *News Release* out of Toronto, dated December 19, 2005, from Spider Resources Inc.

O'Neil, J.E. and Stevenson, R.K. (2003): Implications for the composition and evolution of the lower crust of the Superior Province from lower crustal xenoliths; in a published abstract at a Vancouver technical session, dated May 27, 2003.

Osmani, I.A. (1992): Proterozoic Mafic Dike Swarms in the Superior Province of Ontario; in, *Geology of Ontario*, Ontario Geological Survey, Special Volume 4, Part 1, pp.661-681.

Sage, R.P. (1992): Alkalic Rock, Carbonatite and Kimberlite Complexes of Ontario, Superior Province; in, *Geology of Ontario*, Ontario Geological Survey, Special Volume 4, Part 1, pp. 683-709.

Sage, R.P. (1996): Report to KWG Resources on KIM's from the MacFadyen property; from MNDM office, report dated December, 5, 1996.

Sage, R.P. (2000a): Kimberlites of the Attawapiskat area, James Bay Lowlands, northern Ontario; *Ontario Geological Survey*, Open File Report 6019, 341p.

Sage, R.P. (2000b): Kimberlites of the Lake Timiskaming structural zone, supplement; Ontario geological Survey, Open File Report 6018, 123p.

Scott-Smith Consulting (1995): Geology of body A15 in the Attawapiskat area of Ontario; prepared for Ashton Mining of Canada Inc., report dated May, 9, 1995.

Skinner, R.G. (1973): Quaternary stratigraphy of the Moose River Basin, Ontario; *Geological Survey of Canada*, Bulletin 225, 77p.

Suchy D.R. and Stearn C.W. (1993): Evidence for a continent-wide fault system on the Attawapiskat River, Hudson Bay Platform, northern Ontario; *Canadian Journal of Earth Sciences*, v. 30, No. 8, pp.1668-1673.

Thomas, R.D. (2004): Technical Report Spider #1 and #3 projects (James Bay Joint Venture), James Bay, Ontario, Spider Resources Inc. and KWG Resources Inc.; dated July 20, 2004.

Tremblay, M. and Butler, H.R. (2006): Technical (geological) report on the MacFadyen, James Bay Lowlands, Porcupine Mining Division, Ontario, Canada prepared for Ressources KWG inc. / KWG Resources inc.; dated April 10, 2006.

Tremblay, M. (2008): Results from the processing of about 1 ton of Good Friday kimberlite pipe rock at the Mousseau Tremblay Inc. laboratory, in internal Ressources KWG inc. / KWG Resources inc. report.

ANNEXE 1

Drill logs:

**MacFadyen #1NE
08-MF1NE-01**

**MacFadyen #1SE
08-MF1S-01**

**MacFadyen #2
08-MF2-01
08-MF2-02**

Debutis Diamonds inc

DDH : 08-MF1NE-01

Claims title : 1189378
 Township :
 Range :
 Lot :

Section :
 Level :
 Work place : Drill site

Drilled by : Forage Performax Drilling
 Described by : Emmanuelle Giguère

From : 2008-07-10 To : 2008-07-12
 Description date : 2008-07-12

Collar

Azimuth : 0.00°
 Plunge : -90.00°
 Length : 282.00 m

Longitude (East)
 Latitude (North)
 Elevation

UTM		grille	
301750.0	1450.0	5863030.0	220.0
76.0	76.0		

Down hole survey

Type	Depth	Azimuth	Plunge	Invalid

Remarks

Core size : NQ

Cemented : No

Stored : No

Debuts Diamonds inc

DESCRIPTION

0.00	34.10	OB Overburden Overburden
34.10	44.90	S7; Lam Limestone 90°; Laminates Limestone, grey-beige, very fine sand, good lamination (90°ca), some crinoids and bryozoa. Several dissolution zones.
44.90	47.13	S3S; S1C90 Siltstone 90°; Conglomerate More terrigenous sediment (siltstone), grey, with limestone fragments, well developed lamination (90°ac). Sharp contact with limestone.
47.13	63.40	S7; Lam Limestone 90°; Laminates Same as above. Highly fracture zone between 50.8 and 54.3m, probably a cave.
63.40	64.90	S7 Limestone Very fine grained limestone with silt or clay granulometry. It has a yellow-beige color, no fossils and no lamination.
64.90	117.95	S7; Lam Limestone 90°; Laminates Same as 47.13 to 63.4m. After 64.9m, several beige veins similar to altered zone (63.4m to 64.9m). Some core not recovered between 81 and 84m. At 99m, limestone becomes medium grained. More brachiopods are found in the last meter.
117.95	123.00	S7 Limestone 90° Same as 63.4 to 64.9m, beige, clay granulometry, and weakly laminated (90°ca).
123.00	123.50	S7; Lam Limestone 90°; Laminates Same as 64.9 to 117.95m
123.50	125.50	SA Sand Unconsolidated, dark grey, non magnetic and limestone fragments.
125.50	140.93	S7; S3S90; Lam Limestone 90°; Siltstone; Laminates Limestone with short siltstone interval. Generally beige to orange-beige to medium grey, weakly to well laminated on short interval, clay to silt granulometry. A load cast is present in siltstone layer.
140.93	188.94	S3S; S790; Lam Siltstone 90°; Limestone; Laminates Alternating layers of medium grey and well laminated siltstone, beige and weakly laminated limestone, light grey and well laminated siltstone. Between 144 to 144.37m and between 144.7 and 144.97m, debris flows are present with siltstone and limestone fragments and with limestone fragments, respectively. Well laminated layer is found under debris flow (3 cm thick and 70 cm thick, respectively). A thin conglomerate layer with limestone fragments is found around 185m. Some intervals in grey siltstone are unconsolidated, but seems to be black argillite layers.
188.94	199.50	S7 foss; Mas Fossiferous Limestone; Massive Limestone very rich in fossils (brachiopods, gasteropods? and corals), beige and massive. Sharp contact with laminated limestone.
199.50	206.07	S7; S7 foss; Lam Limestone; Fossiferous Limestone; Laminates Very fine grained limestone with some thin layers of fossiferous limestone. Limestone is weakly laminated. Near the bottom contact with grey shale, limestone has a greenish color.
206.07	212.90	S6; S2S90; Mas; Lam Shale 90°; Sandstone; Massive; Laminates Alternating layers of grey shale, red shale and red sandstone. They are massive to weakly laminated (90°ca). Some layers are unconsolidated.
212.90	215.80	S7; Lam Limestone 90°; Laminates Same limestone as above, beige, weakly laminated and some thin layers with small limestone fragments in detritic matrix.
215.80	216.60	S7; Lam Limestone 90°; Laminates

Debuts Diamonds inc

DESCRIPTION

216.60	238.33	<p>Light grey limestone, laminate with darker thin layer with some brachiopods. S2S; S7; S6 Sandstone; Limestone; Shale Alternating layers of sandstone, limestone, red sandstone, red shale and grey shale. The last layer of that unit is a limestone ending with 1m thick debris flow. Shale is well laminate. Sandstone is medium grey, medium grained (~1mm) and has some brachiopods.</p>
238.33	248.95	<p>S6; Lam Shale 90°; Laminates Shale is medium grey to light grey to medium grey-brown, soft and moderately to well laminate. Cut by several carbonate vein (5 mm to 12 cm).</p>
248.95	253.36	<p>S2S Sandstone Sandstone is medium grey to dark grey brown, hard, non magnetic and has medium grained brown calcite clusters. Cut by 10% carbonate veins. Interlayered with a beige limestone layer, soft, massive and has some shale fragments.</p>
253.36	266.47	<p>S7 Limestone Limestone is beige with grey spots probably caused by bioturbation, soft and non magnetic. Some geods with well cristallized quartz.</p>
266.47	267.44	<p>S3S Siltstone Siltone is medium grey, soft, non magnetic and weakly laminate.</p>
267.44	270.40	<p>S2S Sandstone First 65cm, sandstone is dark grey with light grey sandstone fragments. Then, sandstone becomes light grey with 20% of round fragments or grains of quartz and feldspath. These fragments probably come from gneiss found below.</p>
270.40	282.00	<p>M3 Granitic Gneiss 25° In the first 3 meters, gneiss is strongly hematized and chlortized. Alteration decreased gradually and color change from red to medium grey. It is non magnetic, hard, 5% biotite and good gneissosity (25°ca). Gneissosity is marked by biotite rich layer.</p>
282.00		<p>DDH end Number of samples : 0 Number of samples QAQC : 0 Total sampled length : 0.00</p>

Debutis Diamonds inc

DDH : 08-MF1S-01

Claims title : 1189379
Township :
Range :
Lot :

Section :
Level :
Work place : Drill site

Drilled by : Forage Performax Drilling
Described by : Emmanuelle Giguère

From : 2008-10-14
Description date : 2008-07-18

To : 2008-10-18

Collar

Azimuth : 45.00°
Plunge : -81.00°
Length : 219.00 m

Longitude (East)
Latitude (North)
Elevation

UTM		grille	
301533.0	1472.0		
5862798.0	-102.0		
84.0	84.0		

Down hole survey

Type	Depth	Azimuth	Plunge	Invalid

Remarks

Core size : NQ

Cemented : No

Stored : No

Debuts Diamonds inc

DESCRIPTION

0.00	65.80	<p>OB Overburden</p>
65.80	179.65	<p>S7 Limestone Limestone is light beige, weakly laminate and severals area have very low RQD. It is cut by several sand seam with a width between 5 to 20 cm. Between 126 to 129m and between 140.5 to 141 m, several limestone intervals are weakly consolidated with well developped laminations. Some intersections with few brachiopods.</p>
179.65	180.00	<p>S6 Shale 70° Shale is medium grey and moderately laminated (70°ca). Lower contact is sharp at 60°ac.</p>
180.00	206.62	<p>S7; Lam Limestone 75°; Laminates Same limestone as above. It is moderately laminate (75°ca) and alternate with fossiliferous limestone (mostly corals).</p>
206.62	219.00	<p>S6; S7; S2S Shale; Limestone; Sandstone Alternating layer of grey shale, red shale, limestone and, finally, sandstone. All these lithologies are massive to weakly laminate. Sandstone is light yellow to medium grey. Limestone is calcitic to dolomitic. End of hole finish in a sand seam.</p>
219.00		<p>DDH end Number of samples : 0 Number of samples QAQC : 0 Total sampled length : 0.00</p>

Debuts Diamonds inc

DDH : 08-MF2-01

Claims title : 1189378
 Township :
 Range :
 Lot :

Section :
 Level :
 Work place : Drill site and Debut Diamond camp

Drilled by : Forage Performax Drilling
 Described by : Emmanuelle Giguère

From : 2008-07-19
 Description date : 2008-07-22

To : 2008-07-22

Collar

Azimuth : 45.00°
 Plunge : -67.00°
 Length : 183.00 m

Longitude (East)
 Latitude (North)
 Elevation

UTM		grille	
301782.0	1792.0	586290.0	-50.0
83.0	83.0		

Down hole survey

Type	Depth	Azimuth	Plunge	Invalid
Flex-it	90.00 m	36.40°	-66.30°	No
Flex-it	120.00 m	36.70°	-66.50°	No
Flex-it	150.00 m	40.80°	-66.40°	No
Flex-it	180.00 m	38.80°	-66.50°	No

Remarks

Kimberlitic cores are stored at Gestion Aline Leclerc inc. coreshack in Val-d'Or

Core size : NQ

Cemented : No

Stored : Yes

Debutis Diamonds inc

DDH : 08-MF2-02

Claims title : 1189378
 Township :
 Range :
 Lot :

Section :
 Level :
 Work place : Drill site

Drilled by : Forage Performax Drilling
 Described by : Emmanuelle Giguère

From : 2008-07-23
 Description date : 2008-08-08

To : 2008-07-26

Collar

Azimuth : 0.00°
 Plunge : -90.00°
 Length : 150.00 m

Longitude (East)
 Latitude (North)
 Elevation

UTM		grille	
301854.0	1792.0	5862658.0	50.0
85.0	85.0		

Down hole survey

Type	Depth	Azimuth	Plunge	Invalid
Flex-it	60.00 m	57.90°	-87.70°	No
Flex-it	90.00 m	41.60°	-87.90°	No
Flex-it	120.00 m	69.30°	-87.90°	No
Flex-it	150.00 m	44.90°	-87.90°	No

Remarks

Core size : NQ

Cemented : No

Stored : No

ANNEXE 2

Overburden till samples descriptions

Hand picked till samples descriptions

Overburden drilling till samples descriptions by Rémi Charbonneau and Emmanuelle Giguère (2008)

Till-08-01					
	profondeur		description	interprétation	échantillon
	de	à			
	1.5	3	argile silteuse grise, massive	marin	
	3.5	6	argile brunâtre avec 3% cailloux et granules (0.1-5.6cm; arrondies ou angulaires) Passé de sable		
			sable gris ± argile (0-10%) avec 90% sable et 10% cailloux et granules (<5mm)	diamicton	08-01
			roche : calcaire		
Nad 83 17 U					
estant	299179				
nordant	5861177				

Till-08-02

	profondeur		description	interprétation	échantillon
	de	à			
08-02	3	13.5	silt sans fragment gris brunâtre; 9 à 10.5m : cailloux en trace <2cm et granules < 2mm; 12 à 13.5m : cailloux en trace <2cm	marin	
	13.5	15	argile toujours sans fragments		
	15	16.5	silt avec un fort pourcentage de cailloux et granules <1mm jusqu'à <5cm	diamicton	08-02
	16.5	18	calcaire		
08-02A	10.5	16.5	silt gris brunâtre	marin	
	16.5	17	70% silt et 30% cailloux et granules (1mm à 2 cm)	diamicton	08-02
08-02B	7.5	9	silt, <1% à 1% de cailloux et granules (<5mm)	marin	
	9	10.5	silt, <1% granules (<2mm)		
	10.5	12	argile et silt brunâtre		
	12	13.5	silt > argile, «1% à 1% cailloux et granules (<5mm)		
	13.5	15	argile (brun moyen) et silt (gris moyen, 0 à 20%), «1% granule (<1mm)		
	15	15.5	silt, sable, granule et cailloux (<5cm) 30% cailloux, gris pâle, peu compact, argileux	diamicton	08-02
Nad 83 17 U estant 298345 nordant 5861119					

Till-08-03					
	profondeur		description	interprétation	échantillon
	de	à			
08-03	4.5	6	argile, silt, MO, <1% granules et 2% cailloux (<5mm)	marin	
	6	7.5	argile, MO, granules et 5% cailloux (<2cm)		
	7.5	9	silt > argile, 1% granules et 3% cailloux (<5cm)		
	9	10.5	silt, sable, 5% granule et cailloux (<1cm)	diamicton	08-03A
	10.5	12	calcaire		
08-03A	3	4.5	argile, silt, MO, 5 à 10% granules et cailloux (<5cm)	marin	
	4.5	6			
	6	7.5	argile, MO carbonisé et 1-2% granule		
	7.5	10.5	silt > argile, 2% granules et cailloux (<1cm)		
	10.5	13.5	silt et 1% granule <2mm; en contact avec le calcaire	diamicton	08-03A
08-03B	10.5	12.5	silt et 3% granule et cailloux (<1cm)	diamicton	08-03A
08-03C	0	3	silt < sable, 7-10% granules et graviers; silt gris et silt brun, argile augmente avec la profondeur	marin	
	3	4.5	silt et argile, 1% granules, traces cailloux		
	4.5	6	silt et argile, 1% granules, 1% cailloux		
	6	7.5	surtout silt, sable, ±coquillage, 1% granules et 1% cailloux (<5cm)		
	7.5	9	silt < argile, 1% granule		
	9	10.5	silt et argile, 1% granules, <1% cailloux (<5cm)		
	10.5	11.25	silt et argile, 1% granules, <1% cailloux (<1cm), très compact, gris passé à argile		
	11.25	12.5	silt (brunâtre) > argile (grise), 1% granule, 1-5% cailloux (<5cm)	diamicton	08-03B
Nad 83 16 U estant 701505 nordant 5861119					

Till-08-04					
	profondeur		description	interprétation	échantillon
	de	à			
08-04	2.5	3.5	sable, granule et cailloux; silt ou sable très fin, diamicton marin	diamicton marin	
	3.5	4.5	silt ou sable très fin ± argile	marin	
	4.5	6	silt ou sable très fin et 10% argile		
	6	7.5	silt ou sable très fin et 30% argile		
	7.5	9	silt ou sable très fin, puis argile		
	3	10.5	silt ou sable très fin		
	10.5	13	silt, 10% argile, ±sable, 10% cailloux et granules <4 cm		glacio-fluvial
	13.5	15	silt et argile, 30% granules et 2% cailloux <2 cm		
	15	16.5	silt >argile, 5% granules et 5% cailloux <3 cm		
	16.5	18	silt, 5% granules et 5% cailloux <3 cm		
	18	19.5	silt, 5% granules et 5% cailloux <4 cm		
	19.5	21	30% silt, 50% granules et 20% cailloux (<10 cm)		
	21	22.5	±silt, 10% granules et 90% cailloux <15 cm		
	22.5	24	80% à 30% silt, 10% à 50% granules, 10 à 20% cailloux <5 cm		
	24	25.5	±silt, 30% granules et 70% cailloux <10 cm		
25.5	28.5	±silt, 90% granules et sable, et 10% cailloux <10 cm		08-04C : Dominé par sable anguleux	
28.5	30.3	±silt, 10% granules et 90% cailloux <10 cm		08-04B	
Nad 83 16 U estant 698519 nordant 5862010					

Till-08-05

	profondeur		description	interprétation	échantillon
	de	à			
08-05 (tube ouvert)	0	6	tourbe; sable, granule et cailloux(<5mm); argile		
	6	9	tourbe; 60% sable, 20% granule et 20% cailloux(<2cm)		
	9	12	tourbe; 60% sable, 20% granule et 20%-0% cailloux(<5 cm) et amas de silt par endroit		
	12	15	A: ~0à12m; silt, argile, 10% granule et sable, 2% cailloux (<1cm); B: ~0-12m, sans silt ou argile		
	15	18	~0-12m et coquillage		
	18	27	~0-12m; silt, 10% granules, 20% sable et 3% cailloux (<2cm)	diamicton silteux sableux, gris foncé, peu compact, 25% clastes	08-05
08-05A (tube-carottier)	2.5	4.5	tourbe; 90% sable et granule, et 10% cailloux ± coquillage	diamicton littoral	
	4.5	6	75% sable, 20% granules et 5% cailloux ± coquillage		
	6	7.5	75% sable, 20% granules et 5% cailloux ± coquillage		
	7.5	9	sable très fin ou silt, sable, 10% à 15% cailloux (<4cm) ±granule	marin	
	19.5	21	silt, sable, 10% granules (dont grenat rouge et olivine) et 5% cailloux (<5cm)		
	21	22.5	silt « sable, 10% granules et 10% cailloux (<15cm)	diamicton	08-05
	22.5	24	98% cailloux (<10cm) et 2% silt et sable		
Nad 83 16 U estant 697325 nordant 5862007					

Till-08-06

	profondeur		description	interprétation	échantillon
	de	à			
08-06	0	6	tourbe; silt ou sable très fin et sable, 1% cailloux (<1cm) et granule		
	6	7.5	silt ou sable très fin avec amas d'argile et <1% cailloux (<5mm)	estuarien	
	7.5	9	silt ou sable très fin avec amas d'argile et <1% cailloux (<5mm)		
	9	10.5	silt et argile	marin	
	10.5	12	silt et argile		
	12	13.5	silt et argile		
	13.5	15	silt » argile		
	15	16.5	silt » argile		
	16.5	18	silt » argile		
	18	21.5	silt; argile, 5% cailloux (<1cm) et 5% granules	diamicton gris pâle, très silteux, 1% granule (calcaire blanc surtout), A, peu compact	08-06-A
	21.5	24	argile, 10% granule et 10% cailloux; silt		
	24	27			
	27	30	argile et silt, 5% granule et 3% cailloux (<2cm)		
	30	33	silt gris foncé, 3% granules et 2% cailloux (<5cm)		
	33	34.5	silt gris foncé, 1% granules et 1% cailloux (<5mm)		
	34.5	36	silt gris foncé, 1% granules et 1% cailloux (<5mm)		
	36	37.5	silt gris foncé, 1% granules et 1% cailloux (<5mm)		
	37.5	39	silt gris foncé, 1% granules et 1% cailloux (<6cm)		
	39	40.5	silt gris foncé, 1% granules et 1% cailloux (<5mm)		
	40.5	42	silt gris foncé, 1% granules et 1% cailloux (<1cm)		
	42	43.5	silt gris foncé, 1% granules et 1% cailloux (<2cm)		
	43.5	45	silt gris foncé, 1-2% granules et 1-2% cailloux (<2cm)		
	45	46.5	silt gris foncé, 1% granules et 1% cailloux (<2cm)		
46.5	48	silt ou argile, fissile, trace de cailloux (<5cm)			
48	49.5	silt ou argile, fissile, 1% cailloux (<5mm) et granules			
49.5	51	Argile à granules et cailloux (~2% clast), très compact. Clastes dominés à 90% par craie, fissile (plan luisant) jointé subvertical	base du till récent		
51	52.5				
52.5	54	silt ou argile, fissile, 1% cailloux (<5mm) et granules	argile gris foncé, homogène, peu compact		
54	55.5	silt, fissile, 2% cailloux <1cm et granules, gris foncé à gris brunâtre			
55.5	57	silt gris foncé, fissile par endroit, mais généralement massif			

	57	58.5	50% silt, 20% granules et 30% cailloux <3cm; silt gris foncé, fissile par endroit, mais généralement massif	till ancien, diamicton argileux, gris foncé, peu compact, 20% clastes A de craie blanche et carottes du roc	08-06-B
	58.5	60	silt brun foncé, 50% cailloux (<15cm) et 10% granule		
	60	61.5	90% calcaire, 10% silt gris foncé, cailloux et granules		
Nad 83 16 U estant 696355 nordant 5861862					

Till-08-07					
	profondeur		description	interprétation	échantillon
	de	à			
08-07	0	6	mousse, silt, 0-2% cailloux <2cm, 0-2% granules	faciès littoral	
	6	7.5	silt ou sable très fin, 1% cailloux <2cm, 1% granules		
	7.5	9			
	9	10.5	silt ou sable très fin, <1% granules, gris moyen foncé		
	10.5	12	silt ou sable très fin, gris moyen foncé		
	12	13.5	silt argileux marin, gris foncé, homogène	marin	
	13.5	15			
	15	18	silt sableux, sable très fin		
	18	19.5			
	19.5	21			
	21	22.5			
	22.5	24	silt argileux gris foncé, massif, marin		
	24	25.5			
	25.5	28.5	diamicton, gris pâle, silteux, 10% clastes, ca-ga, A, compact	diamicton	
28.5	30	roc, calcaire blan, fragments de coquille blanc		08-07	
30	31.5				
Nad 83 16 U estant 695431 nordant 5861799					

Till-08-08					
	profondeur		description	interprétation	échantillon
	de	à			
08-08	3	7.5	sable fin et silt, gris, 1% cailloux	marin	
	7.5	10.5	diamicton sableux (majorité du sable), 10% cailloux anguleux, peu compact, plastique par endroit	diamicton	08-08-A
	10.5	12	calcaire blanc poreux		
08-08A	10.5	13.5	sable à cailloux		08-08-A
Nad 83 16 U estant 694604 nordant 5861705					

Till-08-09					
	profondeur		description	interprétation	échantillon
	de	à			
08-09	10.5	13.5	silt et sable, gris, 1 cailloux (dropstone)	marin	
	13.5	21	diamicton silteux-argileux, gris foncé, 20% cailloux anguleux	diamicton	08-09-A
	21	22.5	diamicton argileux	diamicton	
	22.5	25.5	diamicton argileux, gris foncé, 20% cailloux de calcaire blanc	diamicton	08-09-B
	25.5	28.6	diamicton brun rougeâtre, 20% cailloux anguleux, à subarrondies, dominé par les calcaires blanc ±claste noire passant de argileux à sableux et diminution du % de cailloux, très compact	diamicton	08-09-C
	28.6	30	calcaire blanc beige, fracture avec injection de till brun ou contact till-roc		
Nad 83 16 U estant 694454 nordant 5864284					

Till-08-10					
	profondeur		description	interprétation	échantillon
	de	à			
08-10	5	7.5	sable		
	7.5	10.4	argile gris pâle, laminé	marin	
	10.4	10.5	diamicton gris, argileux, compacte, plastique, 25% clastes sub anguleux, calcaire blanc	diamicton	
	10.5	19.5	gap		
	19.5	21	gravier gris foncé, fragment jaspe, sable moyen à grossier, 5% cailloux		08-10-A
	21	25	diamicton argilo-silteux, lithologies variées, 70% calcaire-30% claste noir, fissile, très compacte, clastes très anguleux	diamicton	08-10-B
	25	27.5	diamicton gris, sableux, 70% cailloux, peu compacte	till de déformation	08-10-C
Nad 83 16 U estant 696205 nordant 5864382					

Till-08-11					
	profondeur		description	interprétation	échantillon
	de	à			
08-11	0	7.5	sable silteux, gris 1% cailloux, unité littoral	diamicton littoral	
	7.5	11	diamicton gris pâle, très silteux, plastique, 30% clastes, surtout calcaire blanc	diamicton	08-11
	11	12	roc, calcaire blanc poreux		
Nad 83 16 U estant 697565 nordant 5864699					

Till-08-13					
	profondeur		description	interprétation	échantillon
	de	à			
08-13	2	4	sable silteux, gris 1% cailloux, unité littoral, gris	diamicton littoral	
	4	10.5	silt marin, homogène, argileux	marin	
	10.5	17	diamicton argileux, 2-3% cailloux anguleux, lâche	diamicton	08-13
	17	17.5	roc, calcaire blanc poreux		
Nad 83 16 U estant 698634 nordant 5864821					

Till-08-14					
	profondeur		description	interprétation	échantillon
	de	à			
08-14	0	3.5	tourbe		
	3.5	4	unité littoral, sable-silt, 1% granule anguleuse	diamicton littoral	
	4	7.5	unité marine, sable très fin, gris homogène	marin	
	7.5	13	silt argileux, unité marine, homogène, passée de cailloux à 10.3m	marin	
	13	14	diamicton gris pâle, très silteux, très compacte, plastique, 10% cailloux anguleux, calste noire>calcaire	diamicton	08-14
Nad 83 16 U estant 699732 nordant 5864918					

Till-08-15					
	profondeur		description	interprétation	échantillon
	de	à			
08-15	0	2	tourbe		
	2	4.5	sable silteux, gris, 1-4% cailloux, 1 précambrien avec souche de coquillage (balanus? + valve de Hiatelle dans argile collé dessus	diamicton littoral	
	4.5	7	silt et argile, gris pâle, homogène, compacte (carotté)	marin	
	7	10	diamicton gris pâle, sablo-silteux, compacte, carottes fluées, plq, 20% clastes cailloux A (50% calcaires blanc, 10% calcaires gris et 40% roches noires	diamicton	08-15 : contamination par unité littorale glacielle complété avec bout de till dans les sacs de l'intervalle 4.5-7.5m impliquant contamination
	10	11	Roc calcaire blanc à gris poreuse avec druses		
Nad 83 16 U estant 700617 nordant 5865062					

Till-08-16					
	profondeur		description	interprétation	échantillon
	de	à			
08-16	0	3	tourbe		
	3	4	sablo-silteux avec fragments de coquillages, littoral	diamicton littoral	
	4	11.5	silto-argileux, massif, gris pâle, carottes fluées	marin	
	11.5	13.5	diamicton argilo-sableux, 25% clastes angulaires, gris, peu compact, récupération faible, sableux	diamicton	08-16
	13.5	14	roc, calcaire blanc à beige, poreux		
Nad 83 16 U estant 701591 nordant 5864981					

Till-08-17

	profondeur		description	interprétation	échantillon
	de	à			
08-17	0	4	tourbe		
	4	8	silt sableux, 1% cailloux, 1% granule, gris pâle, littoral	diamicton littoral	
	8	14	silt argileux, massif, gris moyen beige, plastique, carotte molle	marin	
	14	30.5	diamicton gris foncé dont le premier 30 cm est gris pâle fissile, très compact, carottes solides, silteux, 2-10% granule et cailloux, 1 galet scié, calcaire blanc 80%, roche noire 20%, ±shale rouge, ± BA	diamicton	08-17-A : 8-22.5m, 8kg, 3 sacs combinés, implique perte importante; 08-17-B : 22.5-24m, 8kg, pris témoin 15 cm, 10% cailloux; 08-17-C : 24-25.5m; 9 kg 08-17-D : 28.5-30m, 13 kg, diamicton très compact, 10% cailloux témoin 22.5 à 24
	30.5	32	gravier, cailloux récupérés : calcaire blanc et calcaire gris.		

Nad 83 17 U
estant 298979
nordant 5865133

Till-08-18					
	profondeur		description	interprétation	échantillon
	de	à			
08-18	0	1	tourbe		
	1	4.5	argile silteuse et argile silteuse avec 10% cailloux et granules, majoritairement calcaire blanc et beige, et ±roche noire, gris brunâtre moyen et compact	diamicton littoral	
	4.5	7.5	faible récupération, silteux, beige brunâtre et compact.	marin	
	7.5	10.5	faible récupération, silt argileux avec 10% cailloux et granules, majoritairement roche noire <5cm, subarrondies à angulaires, beige brunâtre		08-18
	10.5	12	silt argileux semblable à l'intervalle 7.5 à 10.5m avec passées argileuses qui contiennent 1% granules dont du jaspe, gris beige moyen, compact et plastique; roc (calcaire) avec silt-granule-cailloux.		
08-18A	0	4.5	silt sableux, beige brunâtre moyen, cailloux angulaires (5cm) et compacte	marin	
	4.5	7.5	non récupéré		
	7.5	12	majoritairement un silt marin, puis de 9 à 12m, silt à silt argileux avec 5% cailloux angulaires à subarrondies, majoritairement calcaires et ± roches noires, compact et plastique	marin, puis diamicton	08-18 : 9 à 12m
08-18B	0	7.5	silt sableux, beige brunâtre moyen, cailloux angulaires (5cm) et compacte	marin	
	7.5	10.5	silt sableux à silt argileux, compact et plastique	marin	
	10.5	13.5	10.5 à 12m, silt argileux marin, gris foncé, 3% granules de calcaires ±roche noire, compact et plastique avec 1 cailloux angulaire de calcaire. 12 à 13.5m, roc, fragments de calcaire avec silt à cailloux et granules (majoritairement du calcaire) gris foncé	marin, puis diamicton	08-18 : 12 à 13.5m
Nad 83 17 U estant 300067 nordant 5865017					

Till-08-19

	profondeur		description	interprétation	échantillon
	de	à			
08-19	0	4.5	sable avec 5% cailloux et granules majoritairement calcaire. Il est laminé avec niveaux riche en cailloux sub-arrondis à angulaires et granules et des niveaux homogènes à sable fin et compact.	diamicton supérieur littoral	
	4.5	7.5	sable avec passée argileuse, homogène et compact.	marin	
	7.5	9	silt sableux, brun moyen, très compact et caroté.	marin	
	9	10.5	argile silteuse à cailloux (10%) angulaire (calcaire et roche noire; <10cm), compact et plastique.	diamicton	08-19
	10.5	13	argile silteuse à cailloux (10cm), angulaire (calcaire); roc calcaire		
08-19A	0	4.5	tourbe; sable et silt à cailloux calcaires et granules sub-arrondies, gris et compact; sable homogène, compact et laminé.	diamicton littoral	
	4.5	7.5	sable avec cailloux (tr)avec passées d'argile avec granules (10%), calcaire et riche noire, compact.	marin	
	7.5	10.5	silt argileux, très compact et plastique, une zone plus argileuse, ±compact, 2% granules et plastique.		08-19 : zone avec cailloux
	10.5	13.5	roc calcaire		
08-19B	0	7.5	sable avec cailloux anguleux et granules (calcaire et roche noire; 5%; <5mm)	diamicton littoral	
	7.5	10.5	sable et silt argileux compact, gris foncé, quelques cailloux sub-angulaire (calcaire et roche noire, <5cm)	marin	
	10.5	13.5	silt sableux avec 1% granules, compact et gris moyen foncé.		08-19
	13.5	15	roc, calcaire blanc poreux avec druses et coraux.		
Nad 83 16 U					
estant		699 142			
nordant		5864845			

Till-08-20

	profondeur		description	interprétation	échantillon
	de	à			
08-20	0	4.5	silt marin avec horizon de cailloux (dropstone, jaspe), gris moyen	marin	
	4.5	7.5	diamicton silteux sub-anguleux à anguleux, gris, 10% cailloux et sable, plastique et compact (calcaire beige et calcaire gris)	diamicton	08-20A
	7.5	10.5	argile avec dropstone et plastique	marin	
	10.5	13.5	argile marine, beige	marin	
	13.5	16.5	argile marine	marin	
	16.5	28.5	sable très fin		
	28.5	31.5	till gris foncé, silt à cailloux (très silteux), compacte et fissile avec 1% cailloux	diamicton	08-20B
Nad 83 16 U estant 700 837 nordant 5866488					

Hand picked till samples descriptions by Rémi Charbonneau (2008)

Wpt	long	latN83	Deposit	Matrix	%Clast	Roundness
2008-RC-01	-83.96602	52.911481	diamict	clay silt	80	angular
2008-RC-02	-83.95868	52.911448	diamict	silt sand	40	very angular to sub-rounded
2008-RC-03	-83.977183	52.911418	diamict	silt (clay)	10	angular to sub-angular
2008-RC-04	-83.95473	52.905693	diamict	silt	2	angular to sub-rounded
2008-RC-05	-83.947987	52.898439	diamict	silt sand	10	angular to sub-rounded
2008-RC-06	-83.904854	52.866211	diamict	silt	20	angular to sub-angular
2008-RC-07	-83.910079	52.866822	diamict	silt	25	sub-angular to sub-rounded
2008-RC-08	-83.917955	52.869994	diamict	silt	10	sub-angular to sub-rounded
2008-RC-09	-83.972205	52.914801	diamict	silt	20	very angular to sub-rounded
2008-RC-10	-83.990415	52.911014	diamict	clay silt	20	sub-angular to sub-rounded
2008-RC-11	-84.00219	52.91109	diamict	clay silt	25	angular to sub-angular
2008-RC-12	-84.036049	52.919197	diamict	silt	25	sub-angular
2008-RC-13	-84.04456	52.919607	diamict	silt	10	angular to sub-angular
2008-RC-14	-84.051855	52.920353	diamict	silt	5	angular
2008-RC-15	-84.084978	52.92076	diamict	silt	2	angular
2008-RC-16	-84.11456	52.91728	diamict	silt	15	sub-angular to sub-rounded
2008-RC-17	-84.13647	52.92221	diamict	silt	15	sub-angular
2008-RC-18	-84.142848	52.926148	diamict	silt	30	very angular to sub-angular
2008-RC-19	-84.017697	52.921222	diamict	silt	5	angular to sub-angular
2008-RC-20	-84.060419	52.928515	diamict	silt	35	very angular to rounded
2008-RC-21	-84.069928	52.92775	diamict	silt clay	10	angular
2008-RC-22	-84.094966	52.921217	diamict	silt clay	8	angular to sub-rounded
2008-RC-23	-84.102072	52.923483	diamict	silt	35	sub-angular to sub-rounded
2008-RC-24	-84.123104	52.92414	diamict	silt clay	10	very angular to sub-angular
2008-RC-25	-84.141944	52.935328	diamict	clay	5	angular to sub-rounded
2008-RC-26	-84.145831	52.943819	diamict	clay silt	5	sub-angular
2008-RC-27	-84.15336	52.952116	diamict	silt	5	very angular to sub-angular
2008-RC-28	-84.161639	52.959724	diamict	clay silt	5	sub-angular
2008-RC-29	-84.165769	52.968654	diamict	clay silt	5	angular to sub-angular
2008-RC-30	-84.167092	52.978301	diamict	clay silt	10	very angular to sub-rounded
2008-RC-31	-84.169139	52.987412	diamict	silt	20	sub-angular
2008-RC-32	-84.173973	52.995941	diamict	silt	40	angular to sub-angular
2008-RC-33	-84.186094	53.012231	diamict	silt	10	angular to sub-angular
2008-RC-34	-84.195615	53.019468	diamict	clay silt	10	angular
2008-RC-35	-84.199781	53.017218	gravel	coarse sand	70	angular to sub-angular
2008-RC-36	-83.923578	52.872892	diamict	silt	30	indetermined
2008-RC-37	-83.930812	52.877703	diamict	clay silt	40	angular to sub-rounded
2008-RC-38	-83.929516	52.882094	diamict	clay silt	40	indetermined
2008-RC-39	-83.920262	52.886702	diamict	clay silt	60	very angular
2008-RC-40	-83.926561	52.893035	rubble	silt	80	very angular
2008-RC-41	-83.934689	52.89689	diamict and gravel	silt	80	very angular
2008-RC-42	-84.105276	52.981298	fine gravel	coarse sand	20	indetermined

ANNEXE 3

Surface plan and sections

1 surface plan

2 sections 135 -- 315°

1450mE

1800mE

4 sections 45 - 225°

75mS

25mS

25mN

75mN

ANNEXE 4

Surface plan with ground and helimag data and localisation of overburden drilling and hand picked till sampling