

**SUMMARY REPORT ON  
FIELD ACTIVITIES**

April, 2004  
**SPIDER #1 PROJECT,  
JAMES BAY LOWLANDS,  
ONTARIO**

**NTS 43B/13**

**LOGS, SECTIONS AND RESULTS FOR HOLES**

SPQ-04-01  
SPQ-04-02  
SPQ-04-03  
SPQ-04-04  
SPQ-04-05  
SPQ-04-06 (Part)

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## SUMMARY

The following report presents a review of the field activities completed on the Spider #1 Project between April 5 and April 30, 2004. This involved diamond drilling of targets identified by a previously executed ground magnetometer survey. The drill hole logs, location maps, sections and diamond analysis results for holes SPQ-04-01 to SPQ-04-06 are included in the appendices.

The line cutting and ground geophysical survey was completed in August 2003 by Hussey Geophysics Inc. of Timmins. The results were interpreted by Scott Hogg and Associates, Ltd. who also selected some targets worthy of drilling (Munro, 2003). The drilling of these targets as well as other targets selected by Neil Novak and Roger Thomas were completed during April, 2004. During this time five complete holes and part of hole six were drilled for a total of 704 m. The field operations were under the supervision of Roger D. Thomas.

The results of the program are:

- Three new, distinct kimberlite bodies were discovered near the existing MacFadyen kimberlites and within eight kilometres of the De Beers Canada Inc. Victor Kimberlite Project.
- A new age of kimberlite was discovered. The exact age of this kimberlite is being determined by radiometric dating techniques.
- All of the new kimberlites were found to be diamondiferous. There are now five diamondiferous kimberlites known to exist on the MacFadyen claims.

There are several more geophysical anomalies on the MacFadyen claims that are similar to those drilled and found to be kimberlites. These warrant investigation.

## **1 INTRODUCTION**

The winter 2004 program for the Spider #1 project focussed on drilling some newly identified magnetic anomalies in the vicinity of the MacFadyen #1 and MacFadyen #2 kimberlite bodies within the Attawapiskat kimberlite swarm. The Spider/KWG Resources Inc. claims (1189377 to 1189381 inclusive) had been staked as part of the initial Spider/KWG land acquisition in the area and were recorded on August 22, 1992. At that time, it was discovered that Monopros Ltd (now De Beers Canada Exploration Inc.) had staked some claims and had found sixteen kimberlites. Spider Resources Inc. drilling began in 1993, but both holes (DR 93-01 and DR 93-03) were abandoned in overburden and the hole locate over the future MacFadyen # 1 (DR 94-5) pipe was not drilled. However, the first hole of the next winter's program discovered the MacFadyen # 1 kimberlite and, later in that same season, the MacFadyen # 2 kimberlite was discovered by drilling.

The original drilling was based on a detailed high resolution helicopter magnetic survey. In 1995, a detailed ground geophysical survey was completed in the vicinity of the known pipes. During the 1995 season, Ashton Mining of Canad Inc. drilled one hole (A15-95-1) into the MacFadyen # 2 kimberlite under a joint venture agreement that they had signed with Spider Resources Inc. and KWG Resources Inc. A reinterpretation of the Ashton ground geophysical survey by Scott Hogg & Associates Ltd., using new proprietary techniques, resulted in the identification of three new targets worthy of drilling (Scott Hogg & Associates, 2001). In August 2003, Hussey Geophysics Inc. of Timmins was contracted to extend the grid and geophysical survey to cover the entire property. This data was interpreted by Scott Hogg & Associates Ltd. with the recommendations to drill two well defined targets (Munro, 2003). In addition, several other interesting features were discussed verbally and were considered of significantly interesting to warrant drilling.

Field activities commenced on April 5 under the supervision of Roger Thomas. The camp had recently been vacated by Pele Mountain Resources Inc. and had been loaned to Billiken Management Services Inc. in return for back hauling some equipment. Denis Michon, Jean-Luc Barril and Terry Waite had moved to the camp a few days earlier and had renovated the heating systems and the kitchen to accommodate the drilling crew. The logging of the drill core was completed by Roger Thomas. This report describes the results of this drilling program.

## **2 LOCATION AND ACCESS**

The area of investigation for the April 2004 phase of field activities included the area between longitudes 83° 55'W and 84° 00'W and latitudes 52° 52'N and 52° 54'N (Figure 1). This area is covered by NTS map sheet 43B/13. The area lies within the Porcupine Mining District and is within township areas BMA 527 834 and BMA 528 834.

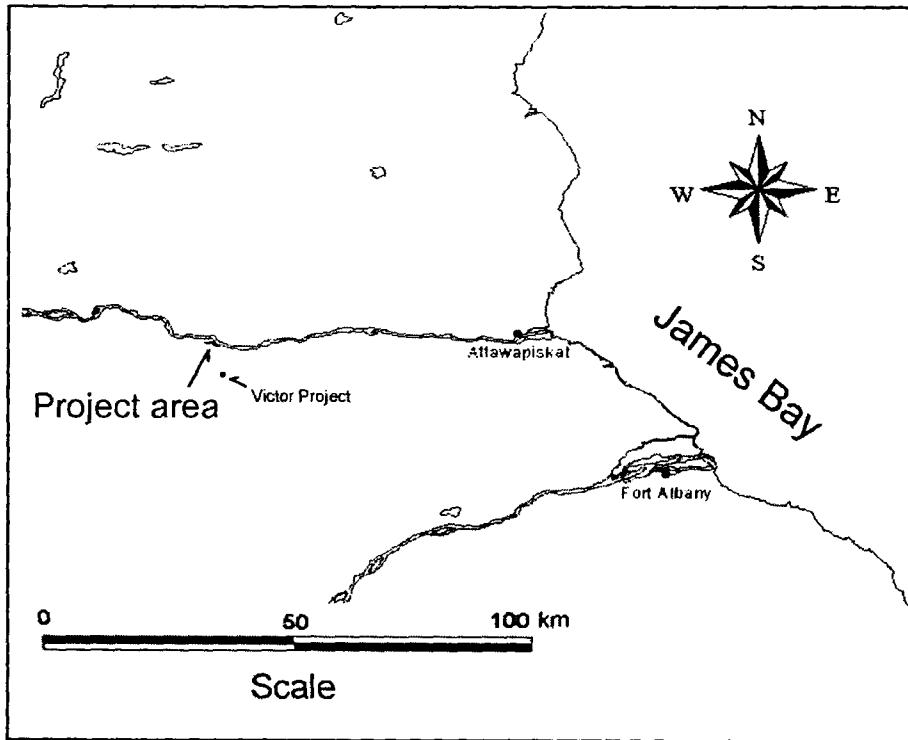


Figure 1. Location of project area.

The closest town is Attawapiskat, an Indian Reserve located some 100 km due east from the centre of the claim group (Figure 1). Attawapiskat is accessible by scheduled air service throughout the year, by winter road in the winter and by barge in the summer. De Beers Canada Inc. operates a private, seasonal airstrip during the winter at the Victor Project, 8 km to the south southeast. They also operate a winter road from the winter road to Attawapiskat some years. The food, personnel and supplies for the field operations were delivered to the Spider Lake camp by the Nakina Outpost Camps and Airservices Ltd. Turbo-Otter from Nakina, some 350 km to the southwest. Fifty drums of turbine fuel for the helicopter were shipped to Attawapiskat on the winter road and were flown into the camp by Turbo-Otter. Empty drums and garbage were removed on back hauls. Transport within the area was by helicopter or on foot.

### 3 TOPOGRAPHY AND DRAINAGE

The area has very low relief, with a regional slope toward the north. The altitude of the claim property is approximately 82 m ASL. Local relief is generally less than 2 m except along the major streams which are incised up to 2 m below the regional plain.

Drainage is poor throughout the area with most of the ground being covered with muskeg and small ponds. Lakes are generally shallow (<3 m deep) and small. Most of the property is covered by muskeg and swamp with numerous shallow ponds (Figure 2). Small streams flow generally northeasterly across the property into the Attawapiskat River. The only major river in the vicinity is the Attawapiskat River, which flows from west to east just north of the claims and enters into James Bay at the town of Attawapiskat.



Figure 2. Satellite image showing location of claims and terrain.

#### 4 GEOLOGY

The property lies in the northern part of the Moose River Basin, which is to the south of the Cape Henrietta Maria Arch. The thick sequence of Paleozoic rocks which underlies the property is capped by the Middle Silurian Attawapiskat Formation. Norris and Sandford (1969) describe the Attawapiskat Formation as a reef complex composed of small bioherms of massive yellowish tan and brown, vuggy limestone. Flanking the bioherms are thick beds of coarse bioclastic limestone dipping steeply away from the cores. The Attawapiskat formation overlies the Ekwani Formation, also Middle Silurian in age. Norris and Sandford (1969) describe this unit as consisting of grey, cream and brown, fine to medium crystalline, thin to thickly bedded limestone and dolomite which locally form massive biostromal lenses. The lowermost unit of the Middle Silurian sequence is the Severn River Formation which is described by Norris and Sandford (1969) as brown to tan, fine textured limestone and dolomites.

The Middle Silurian rocks lie disconformably on Ordovician rocks. The uppermost Ordovician rocks are of the Churchill River Group, described by Norris and Sandford (1969) as primarily composed of mottled, light yellowish grey and brown fragmental limestones. The Churchill Groups lies disconformably on the Bad Cache Rapids Group, composed of a dolomitic limestone overlying a transgressive orthoquartzite

sandstone. The Bad Cache Rapids Group lies directly on the Precambrian basement of which nothing is known in the area of the claims.

The bedrock is overlain by 30 - 40 m of Quaternary deposits consisting of a 5 - 10 m thick till overlain by glaciomarine and glaciolacustrine sands and silts grading upwards into clays. Peat deposits blanket the surface at most locations. This abnormal thickness of Quaternary deposits indicates the bedrock surface is well below the level of the Attawapiskat River. The islands in the Attawapiskat River, 2 km to the east and to the northeast of the claims (Figure 2), are formed of bioherms. It is probable that the claims overlie a pre-glacial valley or pre-glacial course of the Attawapiskat River.

## 5 PREVIOUS WORK

The earliest work in the area was completed by Bell (1872) of the Geological Survey of Canada who did a "track" survey down the lower Attawapiskat River. Later work involved regional mapping of the Paleozoic rocks (Norris and Sandford, 1969), various paleontological surveys related to the carbonate rocks of the Moose River Basin (Flower, 1966) and the airborne magnetic survey of the Geological Survey of Canada (1969). Oil exploration in the early 1960's by Elf Oil saw a number of seismic surveys run in the Hudson Bay Lowlands. Hobson (1965) incorporated some of this data, along with his own to produce an isopach map of the thickness of the Paleozoic rocks of the James Bay Lowlands (Hobson, 1964). Unfortunately, although the original seismic data from Elf Oil is still in existence, it is unreadable (Neil Novak, personal communication).

Prior to 1992, the only mineral exploration which had been undertaken in the area was by Monopros Limited. Monopros conducted a stream sediment survey sampling all of the rivers entering into James Bay. The Attawapiskat River was found to be particularly anomalous, and on following the anomaly up river, Monopros discovered the Attawapiskat kimberlite swarm. In doing so, they drilled at least 29 drill holes and identified 16 kimberlites. Starting in 1994, they resampled many of the kimberlites and have determined that the Victor Pipe is worthy of mining.

Since 1997, several other companies have been searching for kimberlites in the vicinity of the Attawapiskat kimberlite swarm. Notable amongst these has been Navigator Exploration Corp., who in a 50% joint venture with Canabrava Diamond Corporation discovered the AT-56 kimberlite on February 8, 2001. Also Metallex Ventures Ltd., in joint venture with Oasis Diamond Exploration Inc., Dumont Nickel Inc., Arctic Star Diamond Corp., Kel-Ex and 1387197 Ontario, in a press release dated April 1, 2004 announced that they had encountered "field identified green kimberlitic clays in 6 power auger holes drilled over a distance of 210 m on an east-west line." They also report that a "gem quality macrodiamond was recently discovered" nearby. Other companies active in the area, but who so far have not had any success in finding kimberlites, include Pele Mountain Resources Inc., Leeward Capital Corp., and Vault Minerals Inc.

The Spider/KWG Resources Inc. property was staked in 1992 as part of a much larger land package. Initial work involved a helicopter magnetic survey which resulted in the selection of six priority drill targets. A drill was mobilized to the area, and

holes DR-93-1 and DR-93-3 were drilled to depths of 137.1 m and 197.5 m respectively and intersected only carbonate rocks. Neither hole intersected kimberlite or any other rock that could explain the magnetic anomaly. The reason for missing the targets was determined to be the inaccuracies in locating airborne anomalies on the ground using only a global positioning system (GPS) which at the time had 100 m resolution at best. The remaining holes were therefore not drilled.

In order to better locate the geophysical anomalies on the ground, a grid was cut and a ground geophysical survey was completed covering the area of the anomalies in 1994. The anomalies from this survey were then selected for drilling and kimberlite was intersected on the first hole. This kimberlite has since been named the MacFadyen # 1 kimberlite after Don MacFadyen who instigated the Spider Resources Inc search for diamonds in this area. Several weeks later, the MacFadyen #2 kimberlite was discovered some 550 m to the southeast. As part of their joint venture agreement with Spider/KWG Resources Inc., Ashton Mining Canada Ltd. drilled one hole into the MacFadyen #2 kimberlite for initial evaluation of the pipe. In order to locate their hole, they cut a small grid and completed a ground magnetic survey over the pipe.

In 2001, in light of recent developments in the area, and in order to maintain the claims in good standing, Spider/KWG Resources Inc. agreed to do additional work. A review of the Ashton geophysical data was initiated and contracted to Scott Hogg and Associates Inc. of Toronto. The review identified three new targets but also recommended that the survey coverage should be extended across the whole property (Scott Hogg & Associates Inc., 2001). The line cutting and magnetic surveying was contracted to Hussey Geophysics Inc. of Timmins and the data was interpreted by Scott Hogg & Associates Inc. The results were that two of the targets identified in the previous analysis were highly recommended for drilling (Munro, 2003).

## 6 DRILLING

The drill targets were all selected based on the 2001 geophysical survey (Munro, 2003). The two highly recommended holes were selected along with the third target identified in the 2001 re-analysis of the Ashton data. A fourth hole was selected by R. Thomas and Neil Novak in the field and a fifth hole was selected by Steve Munro of Scott Hogg & Associates Inc. designed to intersect a deep magnetic feature. The holes were spotted in the field by R. Thomas.

The drilling was contracted to Heath and Sherwood Drilling (1986) Inc. of Kirkland Lake, Ontario who supplied a hydraulic drill and crew. The drill foreman, in charge of camp maintenance, was Jim Hoag and the drillers included Denis Michon and Murray Tulman with helpers J.-L. Baril and Wayne Desjardins. The cook, Terry Waite, was also supplied by Heath and Sherwood. The MD520D Notar helicopter was supplied by HeliMax Ltd. of Trois Rivières along with the pilot Léger Thibeault and engineer Marc Deroy.

To comply with the "Work Permit", plugs were installed at the top of the Paleozoic sections. Cement was poured down the hole on top of the plug.

Logging was completed at the base camp at Pele Camp by R. D. Thomas. Approximately 20 cm long representative samples of kimberlite were taken every 6 m along the core. These were shipped to Neil Novak in Toronto for reference. The remaining kimberlite was sampled in approximately six metre sections breaking the samples at obvious changes in lithology. The samples were then shipped under bonded courier to Thunder Bay Diamond Services in Thunder Bay for diamond analysis. The remaining core, the Paleozoic sections, is stored on the former rod racks at hole SPQ-04-05. The log for each hole along with the driller's log is presented in the relevant appendices.

## 7 RESULTS

### 7.1 SPQ-04-01

The geophysical data with the location of the drill hole is presented in Figure 3. The magnetic survey outlined a slightly elliptical 400 nT anomaly approximately 125 x 100 m in size. It is well defined and separated from the MacFadyen #1 anomaly (Figure 3). The hole was sited at the centre of this anomaly on L112E at 0+25N. The drill hole log, location map, diamond analyses, section and driller's log are presented in Appendix I.

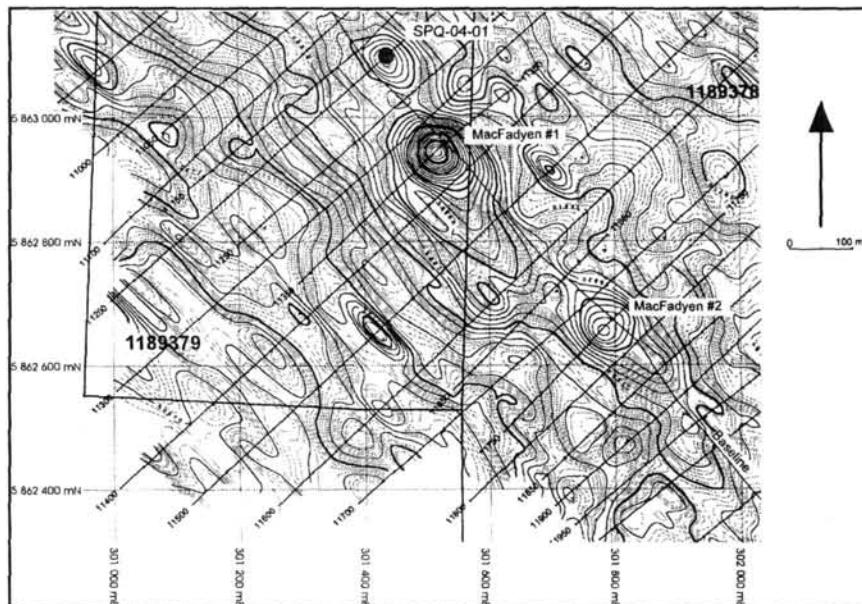


Figure 3. Magnetic map showing the location of hole SPQ-04-01.

The drill hole intersected kimberlite directly under 47.5 m of Quaternary overburden. The uppermost part of the kimberlite was found to be weathered to a depth of 3.5 m. Below this, the kimberlite was of a hypabyssal facies and contained two sizes of olivine as well as phlogopite, and xenoliths of limestone and a few of sandstone and shale. Chrome diopside, pyrope and orange garnets were quite rare. The kimberlite was described as weakly to moderately magnetic and could explain the anomaly. A total of

139 m of kimberlite was intersected before the hole exited the body and continued in the Paleozoic dolomite and limestone. At a depth of 192 m, the hole encountered over 1 m of loose, uncemented sand and the drill lost its return. At this point it was decided to stop the hole.

A total of 121 diamonds were recovered from the 23 samples of kimberlite submitted for analysis from this hole. The richest was sample 00015 which contained 15 diamonds followed by samples 00009, 00010 and 00022 which contained 11, 10 and 10 diamonds respectively. All of the samples contained at least one diamond. The largest diamond (1.45 x 0.96 x 0.77 mm, 1886438.4 oct) was found in sample 00018, followed by one found in sample 00019 (0.96 x 0.46 x 0.20 mm, 155443.2 oct) and two in sample 13 (0.76 x 0.55 x 0.63 mm, 463478.4 oct; 0.65 x 0.24 x 0.12 mm, 32947.2 oct). The details of these and the other diamonds that were recovered are in Appendix II.

#### 7.2 SPQ-04-02

The ground magnetometer survey showed a deep (350 m deep), linear feature, After the removal of the effects of the known kimberlite bodies, that could be a feeder mechanism for the kimberlites (Figure 4) (Scott Hogg & Associates Ltd., 2001). Steve Munro, of Scott Hogg and Associates Ltd. selected the drill site based on his geophysical interpretation. The geophysical data with the location of the drill hole is presented in Figure 4. The drill hole log, location map, section and driller's log are presented in Appendix II.

SPQ-04-02 intersected 34.75 m of overburden overlying 35.65 m of Paleozoic rocks at which point the hole encountered 1.6 m of loose sand. The hole was abandoned at this depth because the sand flowed into the hole faster than it could be removed. In addition, the casing was too far back to ream it down to the sand layer without risking having worse problems. It was decided to await the arrival of special drilling muds and cement before proceeding with this hole (See SPQ-04-06 below).

#### 7.3 SPQ-04-03

The ground magnetic survey outlined an elliptical protrusion on the southeast side of the magnetic anomaly associated with the MacFadyen #2 anomaly (Figure 6). This protrusion is 50 - 75 m in length and 50 - 75 m wide. This feature was interpreted to be either a protrusion on the side of the MacFadyen #2 kimberlite, called the MacFadyen #2 South by Scott Hogg and Associates (2001), or a second smaller kimberlite just beside the MacFadyen #2 kimberlite. A drill hole was spotted on the baseline at 11,850 E and was drilled northwesterly ( $315^{\circ}\text{T}$ ) at an inclination of  $-60^{\circ}$ . The drill hole log, location map, diamond analyses, section and driller's log are presented in Appendix III.

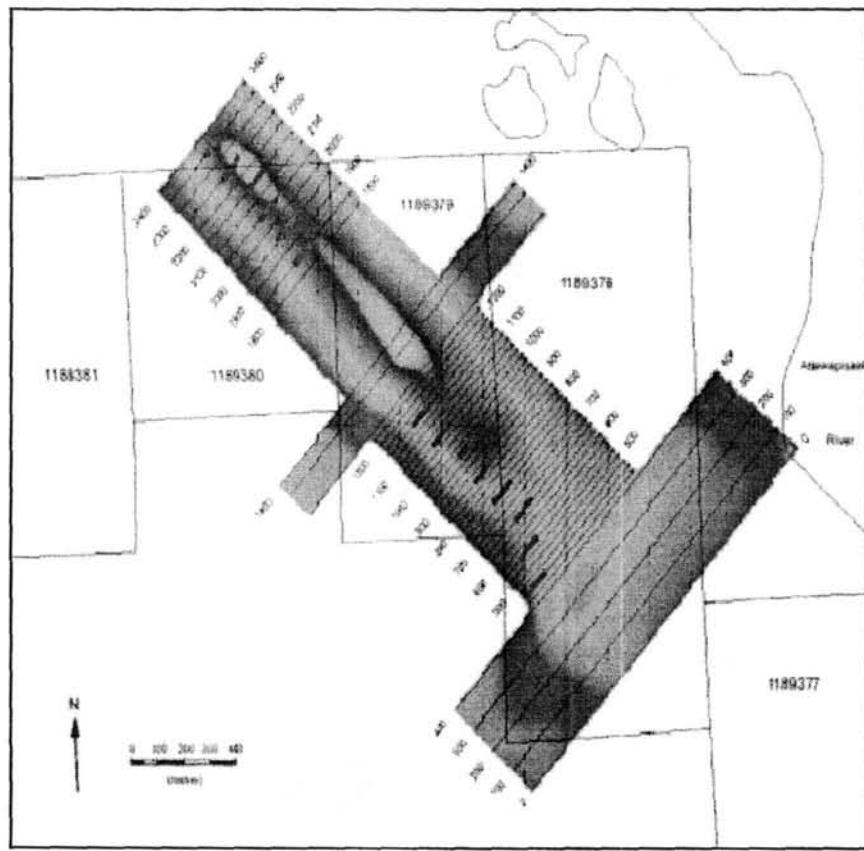


Figure 4. Deep seated linear magnetic feature.

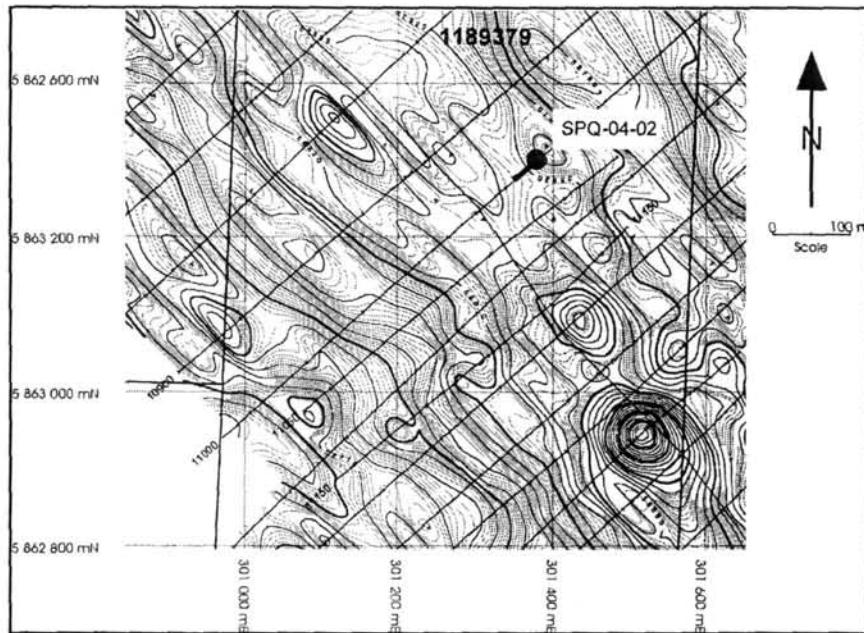


Figure 5. Map of the magnetic survey showing the location of hole SPQ-04-02.

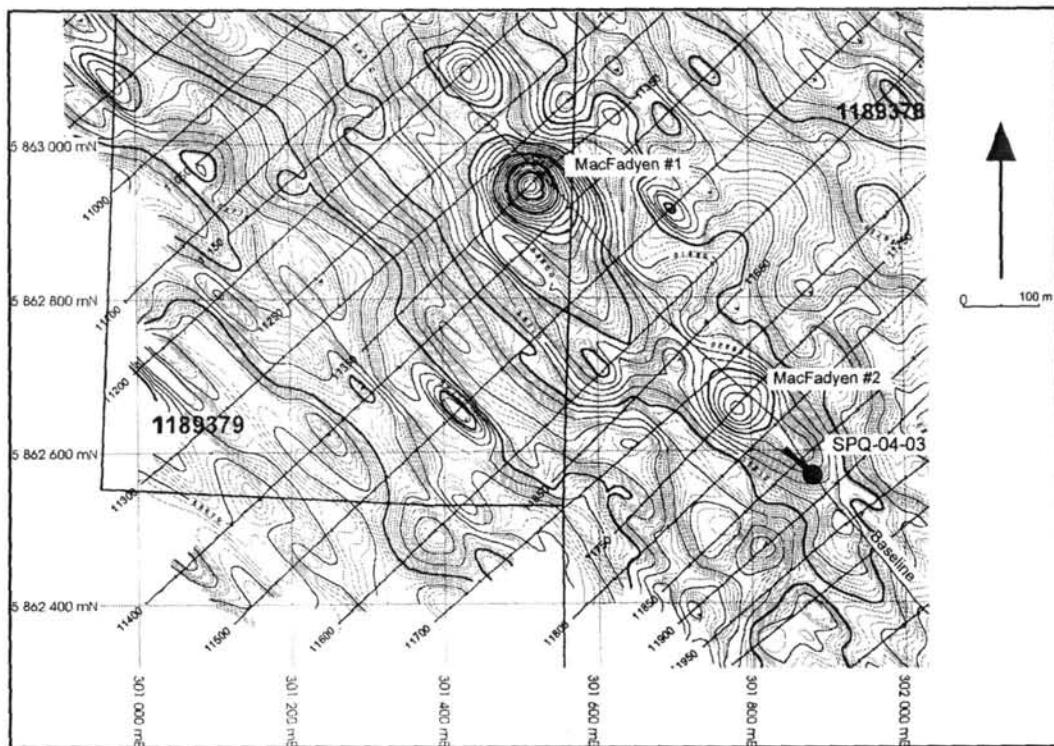


Figure 6. Map of the magnetic survey showing the location of hole SPQ-04-03.

The drill hole entered kimberlite after intersecting 62.7 m of overburden. The kimberlite was weathered or highly oxidized to a depth of 83.5 m (72.3 m vertically), and the core was broken and recovery was poor. The rock was easily identifiable as a hypabyssal phase kimberlite and chrome diopsides and a pink and a pyrope garnet were observed. Below 72.5 m, the core was more competent, was less oxidized and was seen to contain traces of pyrite. At 92.05 m depth, the kimberlite changed from dark greenish grey to light grey in colour and was observed to contain very little olivine. It is believed that the lower kimberlite is either a diatreme or a contact phase. At 96.70 m the hole exited the kimberlite into lithographic limestone and then arenaceous limestone. At 105.0 m the hole encountered sand and was stopped because of drilling problems.

Fifteen diamonds were recovered from the six samples collected from this hole. Although one sample did not contain any diamonds, one sample did contain six. None of the diamonds exceeded 0.5 mm in any dimension, the largest stone measuring 0.37 x 0.27 x 0.16 mm.

#### 7.4 SPQ-04-04

The ground magnetic survey (Figure 7) defined a 50 x 75 m irregular shaped anomaly elongated in the northwest-southeast orientation. The 26 nT anomaly has a steep northeastern side and a gentle southern side indicating a body dipping toward the south or southwest. The feature was interpreted to be a small kimberlite at the side of the MacFadyen #2 South pipe. The geophysical data with the location of the drill hole is

presented in Figure 7. The drill hole log, location map, section and driller's log are presented in Appendix IV.

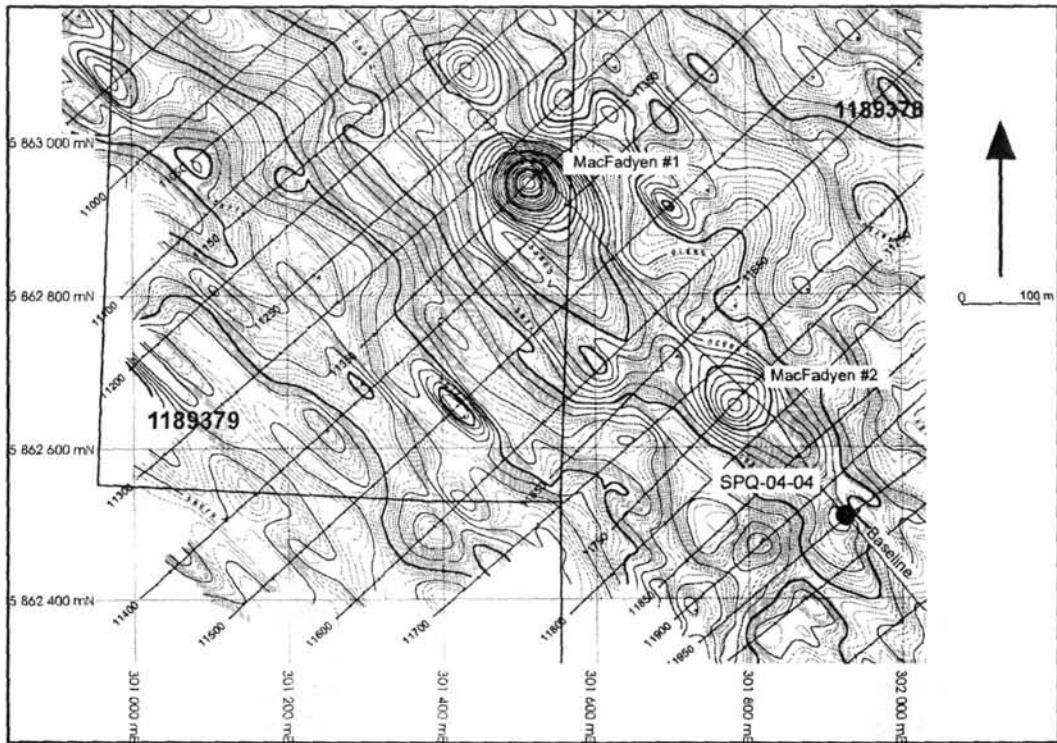


Figure 7. Map of the magnetic survey showing the location of hole SPQ-04-04.

The drill hole intersected 37.75 m of overburden overlying 25.75 m of Paleozoic rocks. The hole was abandoned in loose sand because of drilling problems. Nothing of economic significance was noted in the hole.

#### 7.5 SPQ-04-05

The ground magnetic survey outlined an elongated protrusion on the southeast side of the MacFadyen #1 kimberlite (Figure 8). This 40 nT anomaly was initially found by Scott Hogg & Associates Ltd. (2001) and was called the MacFadyen #1 South anomaly. It was unclear to whether the anomaly represented a separate kimberlite or whether it was part of the MacFadyen #1 body. A hole was spotted at 11,410E 0+50S and was drilled vertically, on the recommendation of Steve Munro of Scott Hogg & Associates Ltd. The geophysical data with the location of the drill hole is presented in Figure 8. The drill hole log, location map, diamond analyses, section and driller's log are presented in Appendix V.

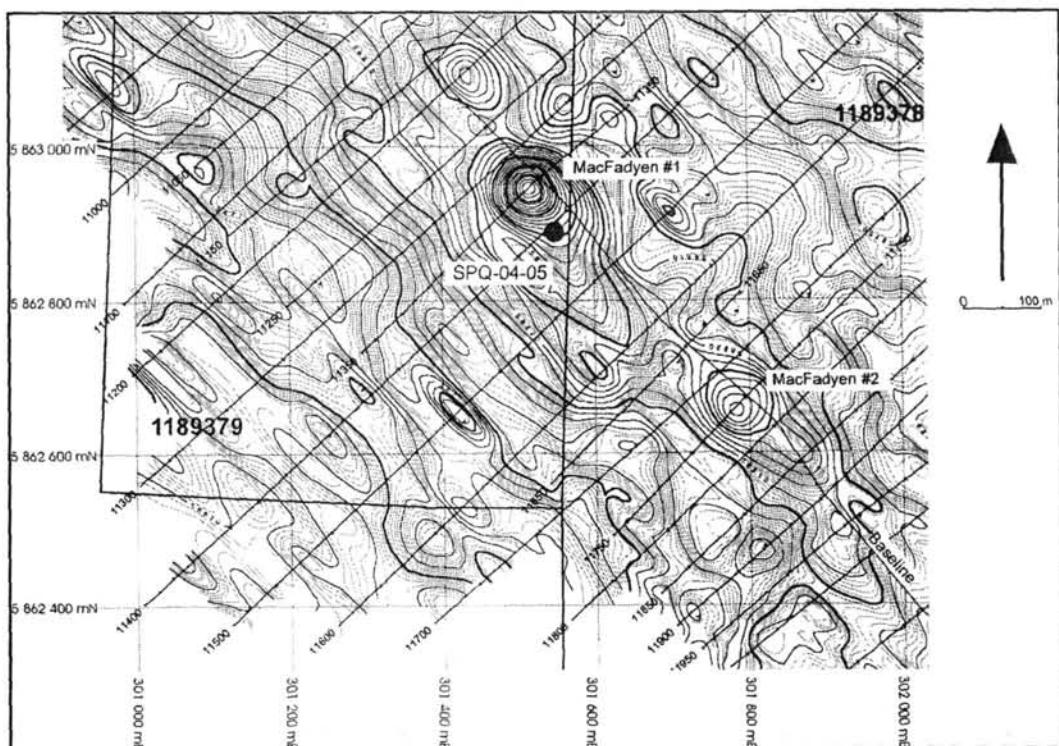


Figure 8. Magnetic map showing the location of hole SPQ-04-05.

The hole intersected 67.58 m of Paleozoic rocks under 37.5 m of Quaternary overburden. A 0.74 m wide kimberlite dyke was intersected at 82.00-82.74 m depth. The central part of the dyke was fresh, however, the surrounding limestones and the lowermost 0.03 m of the dyke were highly oxidized. Below the Paleozoic rocks, at the depth of 105.08 m, the hole intersected 26.3 m of hypabyssal kimberlite. The upper 0.69 m of kimberlite were very highly oxidized and graded downwards into 0.58 m of light grey kimberlite. Below this, the kimberlite was quite variable but was dark coloured, contained some chrome diopsides, orange and pyrope garnets, and was not oxidized. Below 131.38 m the hole intersected Paleozoic mudstone, limestone and sandstone, finishing at a total depth of 142.50 in a brecciated sandstone and limestone unit.

Diamonds were not recovered from the upper kimberlite dyke. The lower, older, pipe was found to contain a total of 5 diamonds with the largest being 0.51 x 0.40 x 0.19 mm in size.

#### 7.6 SPQ-04-06

This hole is a redrilling of hole SPQ-04-02 and is based on the same geophysical data and model. It is located 7 m behind hole SPQ-04-02 and therefore is being drilled slightly underneath that hole. Its location is shown in Figure 9. The drill hole log, location map, section and driller's log are presented in Appendix VI.

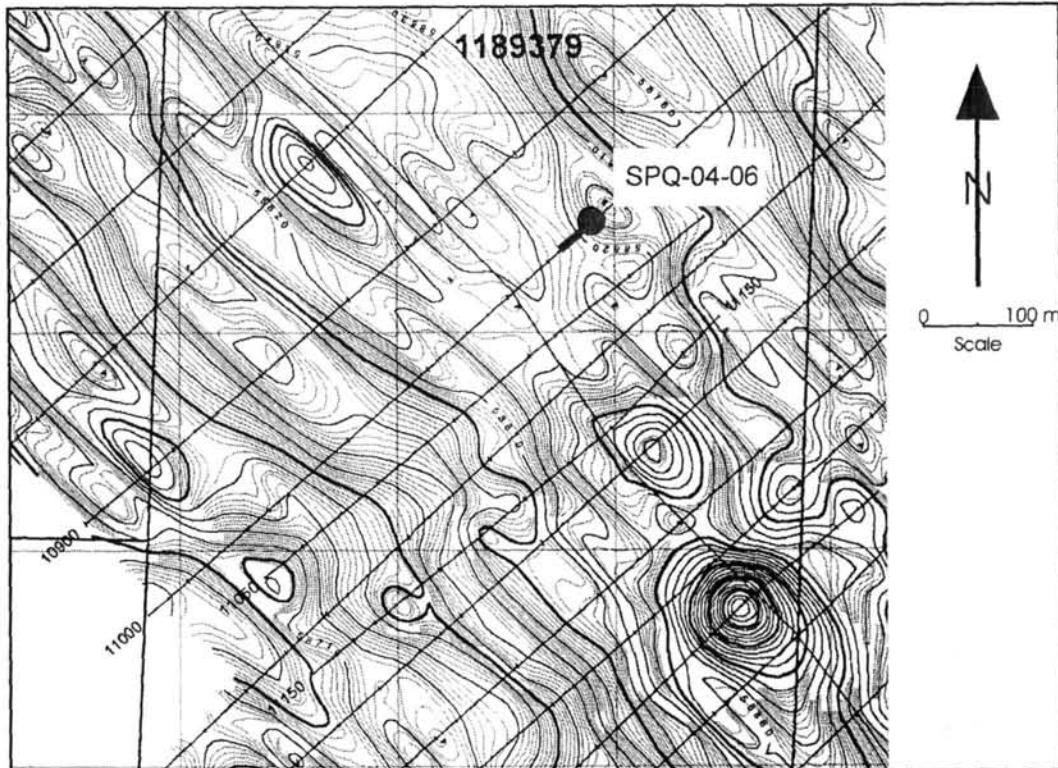


Figure 9. Magnetic map showing the location of hole SPQ-04-06.

The drill hole intersected 34.95 m of unconsolidated Quaternary deposits before reaching the Paleozoic limestones. By using NW casing to keep the BW casing free, and by reaming the BW casing right behind the core barrel, it was possible to sink the hole through the sand layers that stopped the earlier hole. However, the drill was not powerful enough to keep turning the casing all the way, and the casing was stopped at a depth of 75.5 m. At 127.8 m depth, the hole encountered more sandstone beds and large cavities in the rock. An attempt was made to seal the hole using mud fondu and quick setting cement, however it was unsuccessful. Because it was getting late in the season, a decision was made to stop the hole until after break-up at which time, AQ rods could be brought in to continue the hole.

## 8 DISCUSSION

The drilling program was very successful in discovering three new, diamondiferous, kimberlites within the Attawapiskat swarm. The relationships of these kimberlites to the previously known kimberlites is shown in Figures 10 and 11. Although some of these kimberlites are small, their proximity to other, larger, kimberlites may yield a sufficiently large body to be of economic interest. It is therefore imperative that all of the diamonds recovered to date be evaluated as to their grade and value. If the results of this evaluation are favourable, then further sampling would be required. Note that the abundance of diamonds is not necessarily an indication of value. It should also be noted that the section of kimberlite sampled by hole SPQ-04-05 was quite soft and broken, the

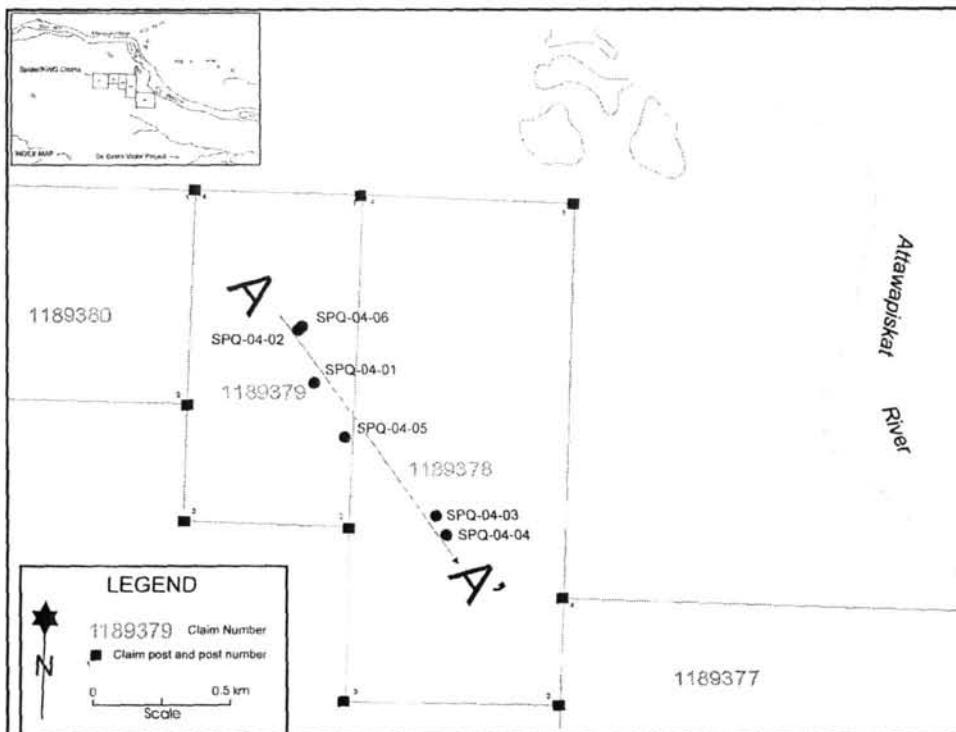


Figure 10. Map of part of the claims showing the locations of the drill holes and the line of section A-A' in figure 11.

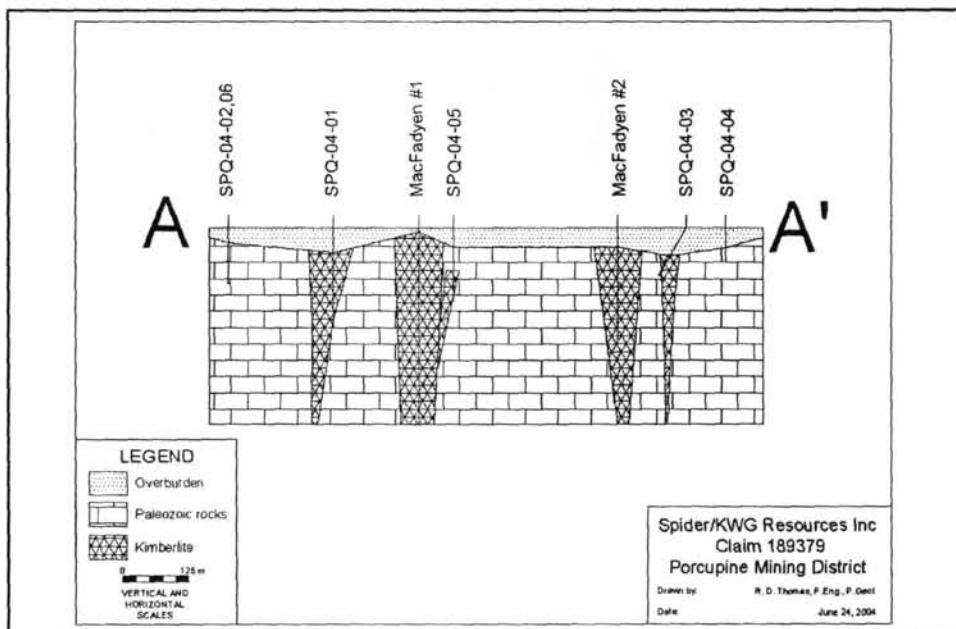


Figure 11. Hypothetical section along line A-A' shown in Figure 10, illustrating the relative positions of the kimberlites.

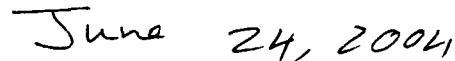
core recovery was poor, and the resulting samples were small. A larger diameter core, or reverse circulation drilling may be required to obtain a representative sample from this body. A vertical hole, which would sample deeper parts of the body may also be beneficial.

One of the three kimberlites, intersected in hole SPQ-04-05, appears to be older than the others. It does not occur below the Quaternary cover but is beneath a significant thickness of Paleozoic rocks. In addition, the uppermost part of the kimberlite is much more deeply weathered than the later (Cretaceous) kimberlites in the region. It does however, penetrate the lower Paleozoic rocks and therefore is younger than the Precambrian Kyle kimberlites. The youngest unconformity in the Paleozoic sequence is between the Ordovician and Middle Silurian rocks. The deep weathering on the top of the kimberlite may be of this age. This would make this kimberlite either Late Ordovician or early Silurian in age. The upper kimberlite dyke is probably related to the MacFadyen kimberlite events and is therefore Carboniferous in age. Thus it appears to be a new age of kimberlite in the Attawapiskat area. A sample has been submitted for radiometric dating as indicated in the log (Appendix V) to confirm that this is a new age of kimberlite emplacement in the Attawapiskat area. The significance of this discovery is that there is now the possibility of finding kimberlites that do not come through to surface. There are many such features to be seen in the magnetic surveys of the regions, some being located on the Spider/KWG claim block. All of these require testing.

This report is respectfully submitted,



Roger D. Thomas, MSC., P.Eng., P.Geo.



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## CERTIFICATE

I, Roger D. Thomas, of the Township of West Carleton, Province of Ontario certify that:

1. I reside at 1373 Corkery Rd, RR # 2, Carp, Ontario.
2. I have worked as a geologist since 1965.
3. I have worked for the Geological Survey of Canada for five years, for Terrain Analysis and Mapping Services Ltd. for 12 years and have been president of R. D. Thomas and Associates since 1993. I have been a consulting geologist for 23 years.
4. I am a graduate of McGill University with a B. Sc. and M.Sc., both in geology.
5. I am a Professional Engineer of Ontario.
6. I am a Professional Geologist of Ontario.
7. I supervised the general field operations of the Spider #1 and #3 field operations from April 5 to April 30, 2004, spotted the holes and logged the core.
8. I do not have any financial interest in the Spider #1 and #3 properties nor in either KWG Resources Inc. or Spider Resources Inc.



Dated at Carp, Ontario  
This 24<sup>th</sup> day of June, 2004

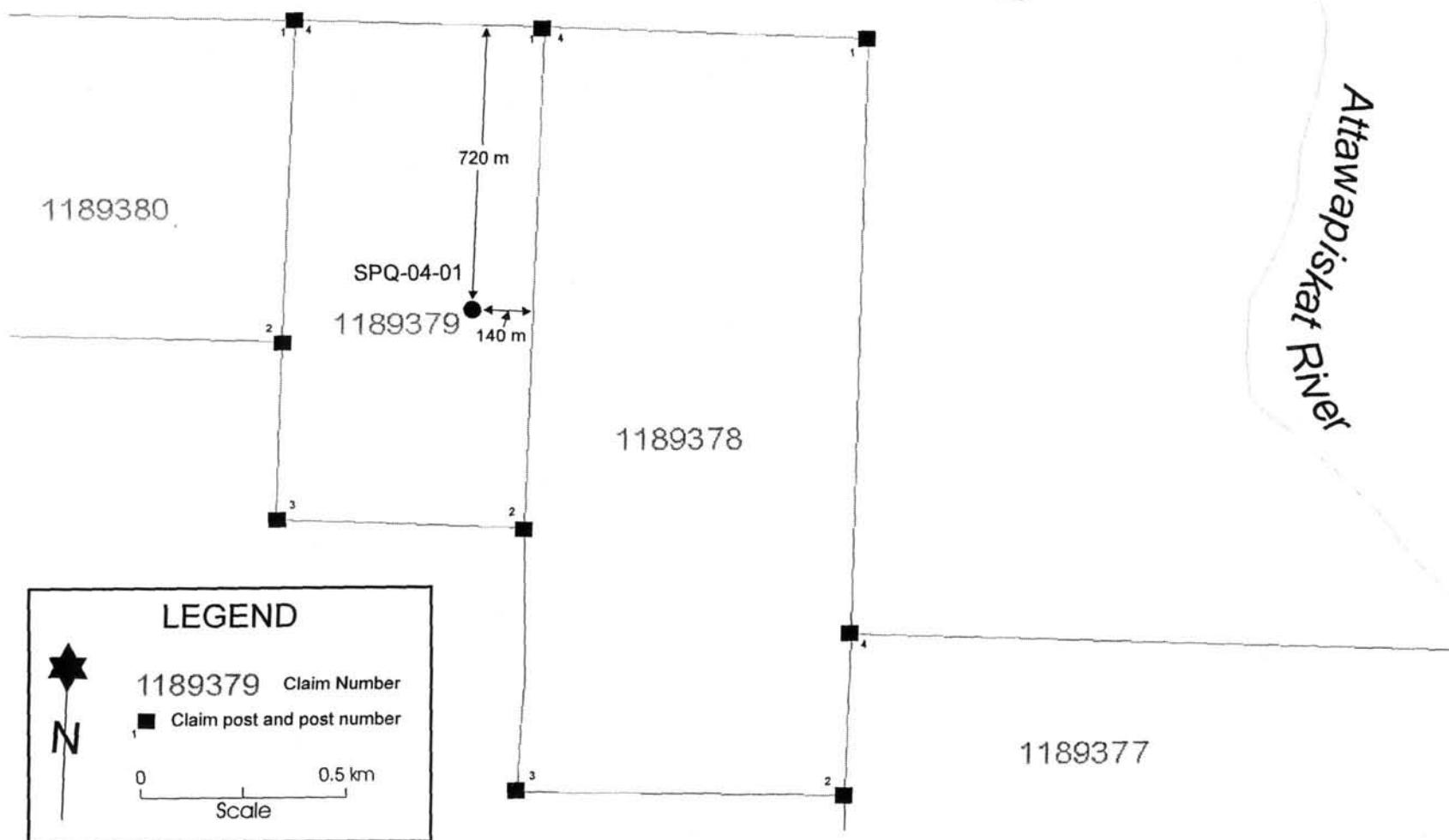
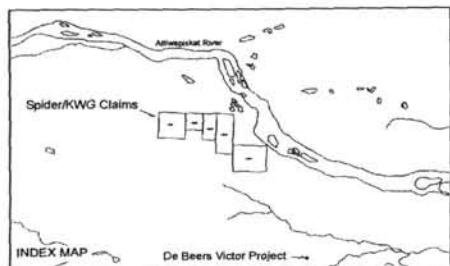
Roger D. Thomas, MSc., P.Eng., P. Geol.



## **APPENDIX I**

**DRILL HOLE LOG, DIAMOND RESULTS,  
LOCATION MAP, SECTION AND DRILLER'S LOG**

**SPQ-04-01**



## Billiken Management

<b>Project:</b>	<u>Attawapiskat Project</u>	
<b>Hole Number:</b>		<u>SPQ-04-01</u>
<b>Units of Measurement:</b>		<u>Metres</u>
<b>Location</b>	<b>NTS Sheet:</b>	<u>43B/13</u>
	<b>Township:</b>	<u>BMA 528 834 AREA</u>
	<b>Claim No:</b>	<u>1189379</u>
	<b>Grid:</b>	<u>August 1, 2003</u>
	<b>Easting:</b>	<u>112+00E</u>
	<b>Northing:</b>	<u>0+25N</u>
	<b>Elevation:</b>	<u>85</u>
<b>GPS Co-ordinates:</b> <b>(if applicable)</b>	<b>Zone:</b>	<u>17U</u>
	<b>Datum:</b>	<u>NAD83</u>
	<b>Easting:</b>	<u>301428</u>
	<b>Northing:</b>	<u>5863090</u>
<b>Collar Dip:</b>		<u>90°</u>
<b>Collar Azimuth:</b>		<u>000°</u>
<b>Hole Length:</b>		<u>193</u>
<b>Core Size:</b>		<u>BIT</u>
<b>Recovery:</b>		<u>99%</u>
<b>Logged By:</b>	<u>Roger D. Thomas</u>	
<b>Date:</b>	<b>Start:</b>	<u>April 9, 2004</u>
	<b>Finish:</b>	<u>April 14, 2004</u>
<b>Drilled by:</b>	<u>Denis Michon, Heath &amp; Sheppard</u>	
<b>Date:</b>	<b>Start:</b>	<u>07-Apr-04</u>

## Comments

The hole was designed to test the "bull's-eye" magnetic anomaly, 300 m northeast of the MacFadyen 1 kimberlite pipe. The anomaly is 100 m in diameter and is a 400 nT high.



Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-01		PAGE: 3 of 12			
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
47.50	51.00	KIMBERLITE weathered (Continued) 47.5-48.0: predominantly fragments of limestone, church and tuff (left in the box, not sampled) and 20 cm of kimberlite.									
51.00		CONTACT, compositional change from diatreme with abundant limestone clasts to hypabyssal with fewer limestone clasts.									
51.00	180.00	KIMBERLITE, hypabyssal  Olive gray (5Y4/1), hard, competent, weakly to moderately magnetic, composed of: 2% 20-30 mm rectangular, subrounded clasts of predominantly limestone with some dolostone, rare shale and sandstone; some with 1-2 mm thick reaction rims; less than 1% 10-12 mm mantel xenoliths composed mainly of gray olivine and mica; 5% 5-10 mm subrounded clasts of limestone, rarely dolostone and shale; 5% 10 mm rounded to subrounded slightly embayed yellow olivine; 30% 2-4 mm subrounded yellow olivine, 2% fine grained phlogopite, trace 2 x 5 mm crystals of phlogopite; trace chrome diopside, 57% fine grained matrix, trace orange garnet. Magnetite present as very fine grains and as 1 mm widely disseminated masses. The rock is highly calcareous but is also highly fractured at various angles and the fractures are filled with 1-2 mm seams of calcite.  52.40-52.80: 60% of limestone fragments, 5-20 cm in diameter, some highly corroded.  53.60-54.05: 10% mantle xenoliths, composed mainly of gray olivine.  @54.24: highly weathered adjacent to a fracture.  @55.70: 30 mm diameter mantle xenolith, mainly gray olivine.  @56.65: 70 mm diameter limestone fragment.  @59.00: 1-2 mm olivine is quite euhedral.  @57.50: decrease in abundance and size (5-10 mm diameter) of mantle xenoliths; limestone fragments are more highly corroded.	00002	51.00	57.00	5.81	3	22.50	53.35	53.54	0.19
			00003	57.00	63.00	5.74	3	19.00	61.51	61.77	0.26

Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-01			PAGE: 4 of 12		
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
51.00	180.00	<p><b>KIMBERLITE</b>, Hypabyssal (Continued)</p> <p>@59.80: 5 mm mass of garnet, orange-purple in color, 1 mm reactive rim (greenish gray) on one side. Garnet is corroded.</p> <p>@60.80: becomes lighter in color (light olive gray, 5Y6/1) as course olivine becomes more abundant and did make tricks and some clasts become more serpentinized. Garnets are possibly slightly more abundant.</p> <p>@61.74: 3 mm orange-purple garnet.</p> <p>@61.90: 30 mm highly serpentinized fragment.</p> <p>62.80-62.90: highly weathered adjacent to a fracture; rock has reddish tint for 0.5 m either side of fracture.</p> <p>63.05-65.50: xenoliths have been highly altered, some are totally converted to serpentine.</p> <p>62.00-63.00: 1% mantle xenoliths: 10 mm in diameter, rounded, composed of olivine and phlogopite.</p> <p>@63.61: 5 mm diameter pyrope garnet with 1 mm black reaction rim.</p> <p>64.00-64.10: 40% 2-3 cm xenoliths, highly serpentinized.</p> <p>@64.17: very rotten; oxidized 2 cm either side of fracture.</p> <p>@64.50: core becomes yellowish from oxidation.</p> <p>@66.10: 60 mm limestone xenolith.</p> <p>66.35-67.50: 10% 15-30 mm, highly corroded, highly altered xenoliths of limestone with a few of gneiss.</p> <p>@66.50: core becomes reddish in colour from oxidation.</p> <p>@66.68: 15 mm limestone xenolith with 3 mm reaction rim.</p>	00004	63.00	69.00	5.73	3	20	63.49 66.43	63.63 66.56	0.14 0.13

Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-01		PAGE: 5 of 12			
FROM	TO	DESCRIPTION	Analytical Sample					Representative Sample			
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
51.00	180.00	KIMBERLITE, Hypabyssal (Continued) @67.00: 5-10 mm xenolith content increases to 10%.  @67.90: oxidation of olivines is quite extensive.  68.27-68.65: one large limestone xenolith comprises 60% of the core; edges are moderately corroded.  @69.20: decrease in abundance of limestone xenoliths to 2%; xenoliths of gneiss are proportionally more abundant.  @69.20: three 10-15 mm diameter mantle xenoliths containing olivine and pyroxene.  @71.30: one chrome diopside and two purple-orange garnets present; very few diopsides occur below this point.  @71.95: 20 mm diameter, moderately corroded, feldspar-biotite gneiss xenolith.  @72.40: 10 mm xenolith content decreases to 5%.  @72.55: 20 mm diameter megacryst of olivine, very weathered.  73.80-73.95; 10% 10 mm mantle xenoliths.  @75.23: 40 mm limestone xenolith, slightly corroded.  @75.80: two reddish purple garnets.  @77.46: 60 mm limestone xenolith, highly corroded.  75.00-79.65: abundant micro fractures filled with calcite.  @79.38: 3 mm purple garnet with 1 mm brown reaction rim.  @81.86: 2 mm pyrope garnet with well developed brown reaction rim.	00005	69.00	75.00	5.78	3	23	73.9	74.12	0.22
			00006	75.00	81.00	5.73	3	21.25	79.28	79.55	0.27
			00007	81.00	87.00	5.81	5	21.75	81.3	81.49	0.19

Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-01		PAGE: 6 of 12			
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
51.00	180.00	KIMBERLITE, Hypabyssal (Continued) 83.70-84.00: very broken core because of fine fractures along core axis.  @83.90: 40-60 mm diameter xenoliths become moderately abundant.  @84.00: 70 mm diameter xenolith of limestone.  @84.25: three 1-3 mm diameter pyrope garnets.  @84.38: 60 mm xenolith of feldspar-biotite gneiss; quite fresh looking.  84.68-84.87: limestone xenolith.  @84.35: matrix becomes more granular.  87.35-87.50: limestone xenolith.  @87.64: 60 mm limestone xenolith with upper half altered to serpentine (?).  @87.90: abundance of xenoliths, >10 cm in diameter, declines to nil.  @88.17: 1 mm diameter pyrope garnet.  @89.20: 6 cm diameter limestone xenolith.  @90.46: three 3 mm diameter pyrope garnets; few <1 mm chrome diopsides.  @91.00: 7 cm diameter limestone xenolith, highly altered.  @91.36: 2 mm diameter orange garnet.  @91.50: 4 mm pyrope garnet.  @91.76: two 3 mm pyrope garnets.	00008	sample tag destroyed by RDT							
			00009	87.00	93.00	5.81	4	21.5	91.69	91.88	0.19

Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-01		PAGE: 7 of 12			
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
51.00	180.00	KIMBERLITE, Hypabyssal (Continued) @91.83: one 4 mm pyrope garnet with <1 mm diopside core and 1 mm exterior reaction rim.  @93.20: olivine begins to have a definite orange colour probably from oxidation.  93.30-93.60: several 10-20 x 10 mm mantle xenoliths composed of phlogopite and olivine are present.  @96.80: abundance of olivine and phlogopite mantle xenoliths, up to 10 mm diameter, increases to 1%.  @98.00: olivine becomes much greener, losing the reddish-orange colour.  99.58-100.33: olivines are lime green in colour.  @101.90: one 3 mm pyrope garnet.  @104.20: groundmass becomes aphanitic and dark grey (N3) in colour. Xenoliths are more serpentinized or otherwise altered; olivines become very green.  @105.20: >30 mm xenoliths comprise 5% of core.  105.61-105.85: limestone xenoliths - removed from sample.  106.54-106.80: 90% limestone xenoliths.  @106.80: ground core.  @110.82: kimberlite turns brown and olivine looks weathered.  @111.10: groundmass becomes granular.  @113.34: groundmass becomes aphanitic and rock turns dark grey in colour; olivine is fairly dark green.	00010	93.00	99.00	5.76	3	21.50	94.11	94.34	0.23
			00011	99.00	105.00	5.80	4	21.75	103.1	103.3	0.2
			00012	105.00	111.00	5.60	6	20.75	105.62	106.02	0.4
			00013	111.00	117.00	5.78	5	22.00	113.19	113.41	0.22

**Billiken Management**

PROJECT: Attawapiskat

HOLE NO: SPQ-04-01

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FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
51.00	180.00	<p><b>KIMBERLITE, Hypabyssal (Continued)</b></p> <p>@114.55: highly altered limestone xenolith, 30 mm in diameter with 5 mm cavity filled with drusy calcite.</p> <p>@115.32: sharp colour change from brown to greyish black (N2). Core becomes moderately pitted around the olivines.</p> <p>@116.21: 20 mm diameter mantle xenoliths containing olivine and phlogopite.</p> <p>@116.37: 15 mm diameter mantle xenoliths containing olivine and phlogopite.</p> <p>@116.74: 10x15 mm mass of coarse-grained phlogopite..</p> <p>@116.90: small (&lt;10 mm diameter) xenoliths are totally altered to serpentine.</p> <p>@117.15: increase in &gt;10 mm xenoliths to 5%; many are 20-40 mm in size, embayed with &lt;1 mm reaction rims.</p> <p>@118.18: 35 mm diameter limestone xenolith containing 25 mm diameter cavity coated with drusy calcite and euhedral magnetite.</p> <p>@118.49: trace pyrite as 1 mm diameter fine-grained masses.</p> <p>@118.88: trace pyrite as &lt;1 mm diameter fine-grained masses.</p> <p>@120.33: 1 cm seam of serpentine; CA=90°.</p> <p>@120.33: 2 cm xenolith, very highly altered to serpentine.</p> <p>120.39-120.52: xenolith originally sandstone (?), now totally converted to serpentine and 80% adsorbed into the kimberlite.</p> <p>@123.39: 25 mm xenolith of feldspar-biotite gneiss.</p> <p>@123.16: 15 mm xenolith of feldspar-biotite gneiss.</p>	00014	117.00	123.00	5.68	6	21.25	118.15 122.38	118.3 122.55	} 0.32
			00015	123.00	129.00	5.77	7	22.00	124.54 124.77	124.77	0.23

## Billiken Management

PROJECT: Attawapiskat

HOLE NO: SPQ-04-01

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FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
51.00	180.00	KIMBERLITE, Hypabyssal (Continued) 123.38-123.43: core is highly pitted.  124.87-126.25: very highly pitted, either because of olivine or mantle xenoliths being plucked.  127.36-127.55: highly altered feldspar-biotite gneiss xenoliths.  128.00-129.00: gneiss and non-Paleozoic xenoliths are more common.  129.00-129.60: broken and ground core, 0.40 cm of core are missing; some fragments recovered are very rusty.  @131.85: trace pyrite on fracture; pyrite is very fine-grained and botryoidal in habit.  @132.75: trace very fine-grained pyrite on micro fractures.  133.00-133.65: several cavities or fractures, 10-20 x 3-5 cm, coated with drusy calcite.  133.95-134.38: 10% 10-20 mm diameter mantle xenoliths.  @135.40: 5-20 mm xenoliths (mainly of limestone) become more abundant.  @136.95: few chrome diopsides and one orange garnet; some coarse-grained phlogopite nearby.  @137.68: 20 mm mantle xenolith with abundant chrome diopside and olivine.  @138.84: 3x6 mm mass of orange garnet.  @140.98: one chrome diopside, 2 mm diameter.  142.00-144.00: several 1-2 mm masses of chrome diopside, deep green in colour; and one or two masses of magnetite.	00016	129.00	135.00	5.32	4	20.5	131.10	131.38	0.28
			00017	tag destroyed by RDT							
			00018	135.00	141.00	5.75	8	22.25	137.65	137.90	0.25
			00019	141.00	147.00	5.78	5	22.5	145.28	145.50	0.22

Billiken Management			PROJECT: Attawapiskat				HOLE NO: SPQ-04-01		PAGE: 10 of 12		
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
51.00	180.00	KIMBERLITE, Hypabyssal (Continued) @145.40: 5x3 mm diameter mass of orange garnet.  147.00-147.13: limestone xenoliths comprise 80% of core.  148.84-148.90: very broken, rusty core.  149.98-150.08: limestone xenolith.  @151.12: trace pyrite as 1 mm grain adjacent to micro fracture.  151.28-151.38: limestone xenolith.  151.45-152.56: core is quite soft and highly pitted. The kimberlite is more granular and has a fine-grained matrix with 15% aphanitic serpentine.  155.75-156.45: very pitted core, soft.  157.28-158.31: very pitted core, soft.  @160.00: 4x10 mm range garnet.  @160.00: begins to contain trace-1% well rounded, megacrystic olivine up to 15x25 mm in size.  @162.18: 1-10 mm wide fracture filled with breccia composed of 50% 1-3 mm diameter, angular, fragments of kimberlite in a fine-grained calcite groundmass.  @163.74: cavity, 10 mm diameter, filled with drusy calcite.  164.42-165.25: core is moderately pitted.  @165.00: 40 mm cavity coated with drusy calcite.  165.05-165.15: 20% megacrystic olivine and mantle xenoliths.	00020	147.00	153.00	5.82	8	22.25	151.69	151.87	0.18
			00021	153.00	159.00	5.73	4	21.8	158.41	158.68	0.27
			00022	159.00	165.00	5.75	3	22.25	160.35	160.6	0.25
			00023	165.00	171.00	5.73	5	22.00	165.28	165.55	0.2

## Billiken Management

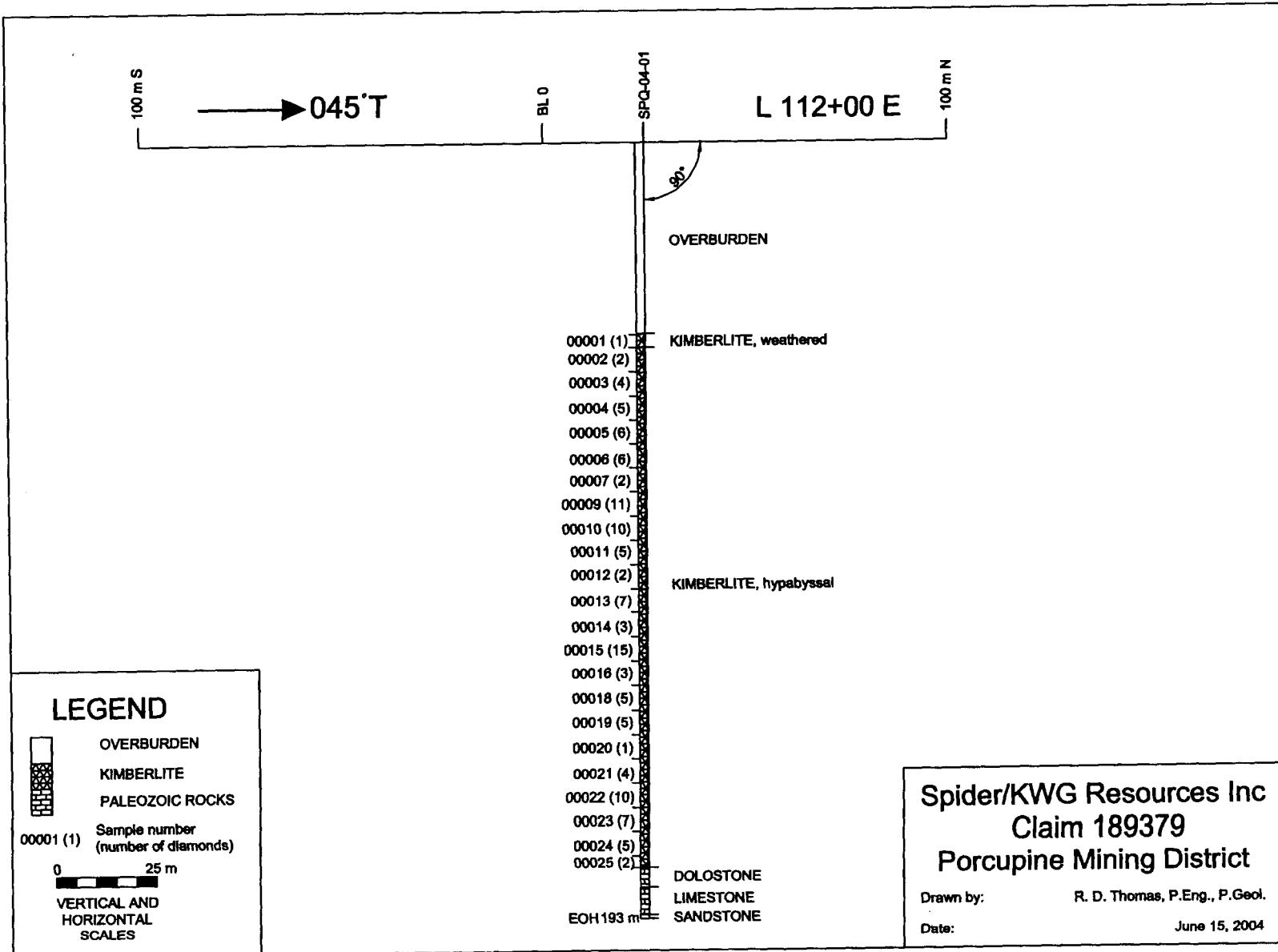
PROJECT: Attawapiskat

HOLE NO: SPQ-04-01

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		DESCRIPTION	Analytical Sample						Representative Sample		
FROM	TO		SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
51.00	180.00	KIMBERLITE, Hypabyssal (Continued) @165.25: 1-2 mm calcite filled fractures become very common, causing the core to be recovered only in small lengths.  167.60-168.12: 30% 10 mm xenoliths, some moderately altered.  @168.24: 50 mm xenolith, totally altered to serpentine.  @168.35: 10 mm diameter olivine become abundant (~3%).  @170.00: core begins to have 0.1-0.5 m brownish sections resulting from oxidation adjacent to fractures.  @170.81: trace chalcopyrite - one grain 2 mm in diameter.  @171.60: one 2 mm diameter orange garnet.  172.15-173.52: trace-1% coarse-grained phlogopite.  172.37-172.75: abundant mantle xenoliths, 5-10 mm in diameter.  174.30-174.80: several 1 mm chrome diopsides.  175.34-175.43: limestone xenolith, moderately altered to serpentine, highly fractured.  @175.40: 10 mm diameter mass of orange garnet.  175.95-177.08: 20% xenoliths, limestone, 20 mm diameter.  176.35-176.68: limestone xenolith.  176.95-177.05: limestone xenolith.  @177.05: becomes intensely fractured; fracture filled with <1 mm seams of calcite. Olivine megacrysts, 5-10 mm diameter, become very abundant. Limestone xenolith abundance decreases.  @177.43: 2 mm diameter orange garnet.	00024	171.00	177.00	5.71	7	22.25	172.02	172.31	0.29
			00025	177.00	180.00	2.85	2	11.00	179.61	179.76	0.15





## DIAMOND ANALYSES

Client Reference	Work Order Name	Client Sample Ref	Proc Date Started	Proc Total Primary Burn Weight	Proc No Primary Burns	Proc No Re Burns		Proc Date Completed	Obs No Stones	Obs No Synthetics	
						Proc No	Proc No Micro Burns				
Billiken Submittal	04MD013	00001	20-Apr-04	8.27	1			1	29-Apr-04	1	0
Billiken Submittal	04MD013	00002	20-Apr-04	21.45	3	2		1	03-May-04	2	0
Billiken Submittal	04MD013	00003	20-Apr-04	21.65	3	1		1	06-May-04	4	0
Billiken Submittal	04MD013	00004	21-Apr-04	19.65	2	1		1	03-May-04	5	0
Billiken Submittal	04MD013	00005	21-Apr-04	22	3	1		1	03-May-04	6	0
Billiken Submittal	04MD013	00006	21-Apr-04	20.34	2	1		1	03-May-04	6	0
Billiken Submittal	04MD013	00007	21-Apr-04	20.8	2	1		1	07-May-04	2	0
Billiken Submittal	04MD013	00009	22-Apr-04	20.41	2	1	2	11-May-04	11	0	
Billiken Submittal	04MD013	00010	22-Apr-04	20.71	2	1		1	07-May-04	10	0
Billiken Submittal	04MD013	00011	22-Apr-04	20.7	2	1		1	07-May-04	5	0
Billiken Submittal	04MD013	00012	26-Apr-04	19.67	2	1		1	11-May-04	2	0
Billiken Submittal	04MD013	00013	26-Apr-04	20.89	3	1		1	11-May-04	7	0
Billiken Submittal	04MD013	00014	26-Apr-04	20.1	2	1		1	11-May-04	3	2
Billiken Submittal	04MD013	00015	27-Apr-04	21.02	3	1		1	14-May-04	15	2
Billiken Submittal	04MD013	00016	27-Apr-04	19.42	2	1		1	11-May-04	3	1
Billiken Submittal	04MD013	00018	27-Apr-04	21.05	3	1		1	11-May-04	5	0
Billiken Submittal	04MD013	00019	30-Apr-04	21.58	3	1		1	13-May-04	5	3
Billiken Submittal	04MD013	00020	03-May-04	21.09	3	1		1	14-May-07	1	1
Billiken Submittal	04MD013	00021	03-May-04	20.84	2	1		1	14-May-04	4	1
Billiken Submittal	04MD013	00022	03-May-04	21.28	3	1		1	14-May-04	10	1
Billiken Submittal	04MD013	00023	04-May-04	20.97	3	2			17-May-04	7	0
Billiken Submittal	04MD013	00024	04-May-04	21.22	3	1		1	17-May-07	5	2
Billiken Submittal	04MD013	00025	04-May-04	10.09	1	1		1	17-May-04	2	0

## DIAMOND ANALYSES

Work Order Name	Client Sample Ref	Stone No	Test Sieve	Stock Ex								Fragmentation	Form
				Sieve	X	Y	Z	Wt Meas	Terrac				
04MD013	00001		1 0.150	<0.500	0.3	0.26	0.16	21964.8	CE21	Fragment		OCTAHEDRAL AGGREGATE	
04MD013	00002		1 0.150	<0.500	0.23	0.21	0.21	17851.68	BE10	Intact		OCTAHEDROID	
04MD013	00002		2 0.150	<0.500	0.23	0.22	0.2	17811.2	AB31	Intact		CUBE	
04MD013	00003		1 0.212	<0.500	0.34	0.28	0.26	43563.52	BE22	Intact		OCTAHEDRAL AGGREGATE	
04MD013	00003		2 0.150	<0.500	0.24	0.22	0.16	14868.48	BW00	Intact		OCTAHEDROID	
04MD013	00003		3 0.150	<0.500	0.22	0.18	0.18	12545.28	BW01	Intact		MACLE	
04MD013	00003		4 0.150	<0.500	0.32	0.27	0.19	28892.16	AW02	Intact		OCTAHEDROID	
04MD013	00004		1 0.300	<0.500	0.6	0.46	0.37	179731.2	BB10	Intact		OCTAHEDROID	
04MD013	00004		2 0.212	<0.500	0.35	0.33	0.3	60984	BE33	Intact		OCTAHEDRAL AGGREGATE	
04MD013	00004		3 0.150	<0.500	0.26	0.25	0.21	24024	BE11	Intact		MACLE	
04MD013	00004		4 0.150	<0.500	0.19	0.19	0.17	10801.12	AE11	Intact		CUBE	
04MD013	00004		5 0.150	<0.500	0.31	0.23	0.21	26352.48	BW01	Intact		MACLE	
04MD013	00005		1 0.212	<0.500	0.32	0.3	0.2	33792	BE11	Intact		MACLE	
04MD013	00005		2 0.150	<0.500	0.3	0.24	0.22	27878.4	BE22	Intact		OCTAHEDRAL AGGREGATE	
04MD013	00005		3 0.150	<0.500	0.31	0.26	0.18	25534.08	BE23	Intact		TETRAHEXAHEDROID	
04MD013	00005		4 0.150	<0.500	0.28	0.18	0.17	15079.68	CW01	Fragment		IRREGULAR WITH OCTAHEDRAL FEATURES	
04MD013	00005		5 0.150	<0.500	0.26	0.22	0.15	15100.8	BW00	Intact		MACLE	
04MD013	00005		6 0.150	<0.500	0.24	0.19	0.15	12038.4	BE11	Intact		MACLE	
04MD013	00006		1 0.300	<0.500	0.46	0.4	0.35	113344	AB21	Intact		OCTAHEDROID	
04MD013	00006		2 0.212	<0.500	0.33	0.28	0.26	42282.24	BE23	Intact		OCTAHEDRAL AGGREGATE	
04MD013	00006		3 0.150	<0.500	0.4	0.28	0.17	33510.4	CW01	Fragment		IRREGULAR	
04MD013	00006		4 0.150	<0.500	0.21	0.2	0.18	13305.6	BW00	Intact		MACLE	
04MD013	00006		5 0.150	<0.500	0.27	0.25	0.17	20196	CW00	Fragment		IRREGULAR	
04MD013	00006		6 0.150	<0.500	0.28	0.24	0.1	11827.2	BE10	Intact		MACLE	
04MD013	00007		1 0.150	<0.500	0.26	0.24	0.2	21964.8	BE11	Intact		OCTAHEDROID	
04MD013	00007		2 0.150	<0.500	0.2	0.2	0.17	11968	BW01	Intact		CUBE	
04MD013	00009		1 0.212	<0.500	0.38	0.28	0.23	43070.72	BW00	Intact		OCTAHEDRAL AGGREGATE	
04MD013	00009		2 0.212	<0.500	0.38	0.37	0.28	69287.68	CE11	Fragment		OCTAHEDROID	
04MD013	00009		3 0.212	<0.500	0.34	0.3	0.22	39494.4	AE10	Intact		OCTAHEDROID	
04MD013	00009		4 0.212	<0.500	0.36	0.3	0.19	36115.2	BB21	Intact		CUBE	
04MD013	00009		5 0.212	<0.500	0.32	0.29	0.15	24499.2	BE11	Intact		OCTAHEDRAL AGGREGATE	
04MD013	00009		6 0.212	<0.500	0.36	0.27	0.16	27371.52	BE31	Intact		OCTAHEDRAL AGGREGATE	
04MD013	00009		7 0.150	<0.500	0.22	0.2	0.15	11616	BE31	Intact		OCTAHEDRAL AGGREGATE	
04MD013	00009		8 0.150	<0.500	0.28	0.19	0.18	16853.76	BE10	Intact		TWIN OCTAHEDROID	
04MD013	00009		9 0.150	<0.500	0.27	0.2	0.19	18057.6	BE11	Intact		MACLE	

DIAMOND ANALYSES

Client Ref	Sample No	Stone Colour	Clarity	Intensity	Internal Defects Factor	Resorption	Surface Features	Obs Date	Observer
00001	1	Grey	Transparent	2	1	5		20-May-04	JB
00002	1	Grey	Transparent	1	0	3-4		20-May-04	JB
00002	2	Brown	Transparent	3	1	4	QUADRONS	20-May-04	JB
00003	1	Grey	Transparent	2	2	4		20-May-04	JB
00003	2	White	Transparent	0	0	5-6	STEPPED	20-May-04	JB
00003	3	White	Transparent	0	1	4		20-May-04	JB
00003	4	White	Transparent	0	2	5		20-May-04	JB
00004	1	Brown	Transparent	1	0	5		20-May-04	JB
00004	2	Grey	Transparent	3	3	4	STEPPED	20-May-04	JB
00004	3	Grey	Transparent	1	1	5		20-May-04	JB
00004	4	Grey	Transparent	1	1	4		20-May-04	JB
00004	5	White	Transparent	0	1	4-5		20-May-04	JB
00005	1	Grey	Transparent	1	1	6	STEPPED	20-May-04	JB
00005	2	Grey	Transparent	2	2	4		20-May-04	JB
00005	3	Grey	Transparent	2	3	3		20-May-04	JB
00005	4	White	Transparent	0	1	5		20-May-04	JB
00005	5	White	Transparent	0	0	5		20-May-04	JB
00005	6	Grey	Transparent	1	1	5	STEPPED	20-May-04	JB
00006	1	Brown	Transparent	2	1	4		20-May-04	JB
00006	2	Grey	Transparent	2	3	5-6	STEPPED	20-May-04	JB
00006	3	White	Transparent	0	1	-		20-May-04	JB
00006	4	White	Transparent	0	0	5		20-May-04	JB
00006	5	White	Transparent	0	0	-		20-May-04	JB
00006	6	Grey	Transparent	1	0	6		20-May-04	JB
00007	1	Grey	Transparent	1	1	4	STEPPED	20-May-04	JB
00007	2	White	Transparent	0	1	4	QUADRONS	20-May-04	JB
00009	1	White	Transparent	0	0	4-5		19-May-04	JB
00009	2	Grey	Transparent	1	1	6	STEPPED, CAVITY	19-May-04	JB
00009	3	Grey	Transparent	1	0	5	STEPPED	19-May-04	JB
00009	4	Brown	Transparent	2	1	4	QUADRONS	19-May-04	JB
00009	5	Grey	Transparent	1	1	4		19-May-04	JB
00009	6	Grey	Transparent	3	1	5	STEPPED, FROST	19-May-04	JB
00009	7	Grey	Transparent	3	1	4	STEPPED	19-May-04	JB
00009	8	Grey	Transparent	1	0	4		19-May-04	JB
00009	9	Grey	Transparent	1	1	4		19-May-04	JB

## DIAMOND ANALYSES

Work Order Name	Client Sample Ref	Stone No	Test Sieve	Stock Ex Sieve	X	Y	Z	Wt Meas	Terrac	Fragmentation	Form
04MD013	00009	10	0.150	<0.500	0.3	0.24	0.14	17740.8	BE11	Fragment	OCTAHEDRAL AGGREGATE
04MD013	00009	11	0.150	<0.500	0.28	0.21	0.18	18627.84	BE10	Intact	TWIN OCTAHEDROID
04MD013	00010	1	0.212	<0.500	0.45	0.35	0.23	63756	BE11	Intact	OCTAHEDROID
04MD013	00010	2	0.212	<0.500	0.45	0.37	0.22	64468.8	CE33	Fragment	IRREGULAR
04MD013	00010	3	0.212	<0.500	0.4	0.3	0.25	52800	BE21	Intact	OCTAHEDROID
04MD013	00010	4	0.212	<0.500	0.36	0.29	0.22	40423.88	BW00	Intact	MACLE
04MD013	00010	5	0.212	<0.500	0.51	0.43	0.21	81053.28	CE21	Fragment	IRREGULAR
04MD013	00010	6	0.150	<0.500	0.33	0.22	0.19	24277.44	BE24	Intact	OCTAHEDROID
04MD013	00010	7	0.150	<0.500	0.3	0.23	0.2	24288	AE11	Intact	OCTAHEDROID
04MD013	00010	8	0.150	<0.500	0.26	0.2	0.21	19219.2	AE11	Intact	OCTAHEDROID
04MD013	00010	9	0.150	<0.500	0.32	0.22	0.24	29736.96	BW01	Intact	MACLE
04MD013	00010	10	0.150	<0.500	0.22	0.19	0.19	13977.92	BW00	Intact	MACLE
04MD013	00011	1	0.300	<0.500	0.43	0.38	0.37	106406.08	AB20	Intact	OCTAHEDROID
04MD013	00011	2	0.212	<0.500	0.47	0.31	0.24	61543.88	BE21	Intact	OCTAHEDRAL AGGREGATE
04MD013	00011	3	0.212	<0.500	0.4	0.31	0.23	50195.2	BE11	Intact	OCTAHEDROID
04MD013	00011	4	0.150	<0.500	0.27	0.26	0.19	23474.88	BW00	Intact	OCTAHEDRAL AGGREGATE
04MD013	00011	5	0.150	<0.500	0.35	0.21	0.24	31046.4	CB31	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES
04MD013	00012	1	0.212	<0.500	0.43	0.3	0.17	38596.8	CB11	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES
04MD013	00012	2	0.150	<0.500	0.26	0.23	0.18	18944.64	BW01	Intact	OCTAHEDROID
04MD013	00013	1	0.425	<0.500	0.76	0.55	0.63	463478.4	BE31	Intact	OCTAHEDROID
04MD013	00013	2	0.150	<0.500	0.23	0.2	0.14	11334.4	AE20	Intact	OCTAHEDROID
04MD013	00013	3	0.150	<0.500	0.65	0.24	0.12	32947.2	CB10	Fragment	IRREGULAR
04MD013	00013	4	0.150	<0.500	0.23	0.23	0.21	19551.84	BE22	Intact	OCTAHEDRAL AGGREGATE
04MD013	00013	5	0.150	<0.500	0.24	0.22	0.22	20444.16	AE10	Intact	OCTAHEDROID
04MD013	00013	6	0.150	<0.500	0.27	0.16	0.16	12165.12	CE23	Fragment	IRREGULAR
04MD013	00013	7	0.150	<0.500	0.21	0.19	0.15	10533.6	BE11	Intact	MACLE
04MD013	00014	1	0.212	<0.500	0.34	0.26	0.32	49786.88	BB20	Intact	OCTAHEDRAL AGGREGATE
04MD013	00014	2	0.150	<0.500	0.21	0.18	0.17	11309.76	CE11	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES
04MD013	00014	3	0.150	<0.500	0.27	0.22	0.19	19863.36	BB10	Intact	OCTAHEDROID
04MD013	00015	1	0.212	<0.500	0.29	0.28	0.21	3011.52	BE31	Intact	MACLE
04MD013	00015	2	0.212	<0.500	0.38	0.32	0.3	64204.8	CE21	Fragment	OCTAHEDRAL AGGREGATE
04MD013	00015	3	0.212	<0.500	0.51	0.35	0.3	94248	BE22	Intact	OCTAHEDRAL AGGREGATE
04MD013	00015	4	0.212	<0.500	0.41	0.26	0.32	60037.12	CE23	Fragment	OCTAHEDROID
04MD013	00015	5	0.150	<0.500	0.2	0.2	0.15	10560	BE11	Intact	MACLE
04MD013	00015	6	0.150	<0.500	0.22	0.21	0.14	11383.68	CE23	Fragment	IRREGULAR

## DIAMOND ANALYSES

Client Sample Ref	Stone No	Colour	Clarity	Intensity	Internal Defects Factor	Resorption	Surface Features	Obs Date	Observer
00009	10	Grey	Transparent	1	1	5	STEPPED	19-May-04	JB
00009	11	Grey	Transparent	1	0	5		19-May-04	JB
00010	1	Grey	Transparent	1	1	5	STEPPED	20-May-04	JB
00010	2	Grey	Transparent	3	3	-		20-May-04	JB
00010	3	Grey	Transparent	2	1	5	STEPPED	20-May-04	JB
00010	4	White	Transparent	0	0	5	STEPPED	20-May-04	JB
00010	5	Grey	Transparent	2	1	-		20-May-04	JB
00010	6	Grey	Transparent	2	4	5		20-May-04	JB
00010	7	Grey	Transparent	1	1	4-5		20-May-04	JB
00010	8	Grey	Transparent	1	1	5	STEPPED	20-May-04	JB
00010	9	White	Transparent	0	1	5	STEPPED	20-May-04	JB
00010	10	White	Transparent	0	0	5	STEPPED	20-May-04	JB
00011	1	Brown	Transparent	2	0	5		20-May-04	JB
00011	2	Grey	Transparent	2	1	4		20-May-04	JB
00011	3	Grey	Transparent	1	1	4-5		20-May-04	JB
00011	4	White	Transparent	0	0	6		20-May-04	JB
00011	5	Brown	Transparent	3	1	5		20-May-04	JB
00012	1	Brown	Transparent	1	1	5		19-May-04	JB
00012	2	White	Transparent	0	1	5-6	STEPPED	19-May-04	JB
00013	1	Grey	Transparent	3	1	5	STEPPED	19-May-04	JB
00013	2	Grey	Transparent	2	0	4		19-May-04	JB
00013	3	Brown	Transparent	1	0	-		19-May-04	JB
00013	4	Grey	Transparent	2	2	4		19-May-04	JB
00013	5	Grey	Transparent	1	0	5	STEPPED	19-May-04	JB
00013	6	Grey	Transparent	2	3	-		19-May-04	JB
00013	7	Grey	Transparent	1	1	6	STEPPED	19-May-04	JB
00014	1	Brown	Transparent	2	0	4		19-May-04	JB
00014	2	Grey	Transparent	1	1	4-5		19-May-04	JB
00014	3	Brown	Transparent	1	0	5	STEPPED	19-May-04	JB
00015	1	Grey	Transparent	3	1	5	STEPPED	19-May-04	JB
00015	2	Grey	Transparent	2	1	5	STEPPED	19-May-04	JB
00015	3	Grey	Transparent	2	2	5	STEPPED	19-May-04	JB
00015	4	Grey	Transparent	2	3	5	STEPPED	19-May-04	JB
00015	5	Grey	Transparent	1	1	5		19-May-04	JB
00015	6	Grey	Transparent	2	3	-		19-May-04	JB

## DIAMOND ANALYSES

Work Order Name	Client Sample Ref	Stone No	Test Sieve	Stock Ex Sieve	X	Y	Z	Wt Meas	Terrac	Fragmentation	Form
04MD013	00015	7	0.150	<0.500	0.32	0.17	0.18	17233.92	BE12	Intact	OCTAHEDRAL AGGREGATE
04MD013	00015	8	0.150	<0.500	0.27	0.23	0.21	22952.16	AE10	Intact	OCTAHEDROID
04MD013	00015	9	0.150	<0.500	0.26	0.18	0.17	14002.56	BE10	Intact	OCTAHEDRAL AGGREGATE
04MD013	00015	10	0.150	<0.500	0.29	0.23	0.22	25826.24	AE12	Intact	OCTAHEDROID
04MD013	00015	11	0.150	<0.500	0.23	0.21	0.17	14451.36	BE21	Intact	OCTAHEDRAL AGGREGATE
04MD013	00015	12	0.150	<0.500	0.25	0.22	0.17	16456	BE21	Intact	MACLE
04MD013	00015	13	0.150	<0.500	0.2	0.2	0.15	10560	CE10	Fragment	OCTAHEDROID
04MD013	00015	14	0.150	<0.500	0.27	0.2	0.19	18057.6	BE31	Intact	MACLE
04MD013	00015	15	0.150	<0.500	0.25	0.19	0.18	15048	BE31	Intact	MACLE
04MD013	00016	1	0.212	<0.500	0.41	0.39	0.23	64727.52	BE11	Intact	MACLE
04MD013	00016	2	0.212	<0.500	0.43	0.32	0.22	53278.72	BW02	Intact	MACLE
04MD013	00016	3	0.150	<0.500	0.26	0.19	0.18	15849.92	AW00	Intact	OCTAHEDROID
04MD013	00018	1	0.600	0.500	1.45	0.96	0.77	1886438.4	CB33	Fragment	IRREGULAR
04MD013	00018	2	0.212	<0.500	0.43	0.3	0.27	61300.8	BE23	Intact	OCTAHEDROID
04MD013	00018	3	0.212	<0.500	0.31	0.28	0.2	30553.6	BW00	Intact	MACLE
04MD013	00018	4	0.150	<0.500	0.19	0.17	0.16	9095.68	BE21	Intact	CUBE
04MD013	00018	5	0.150	<0.500	0.28	0.19	0.16	14981.12	BW01	Intact	OCTAHEDRAL AGGREGATE
04MD013	00019	1	0.300	<0.500	0.96	0.46	0.2	155443.2	CW00	Fragment	IRREGULAR
04MD013	00019	2	0.212	<0.500	0.32	0.2	0.26	29286.4	BB21	Intact	OCTAHEDROID
04MD013	00019	3	0.212	<0.500	0.32	0.29	0.28	45731.84	BE23	Intact	IRREGULAR WITH TETRAHEXAHEDRAL FEATURES
04MD013	00019	4	0.212	<0.500	0.27	0.24	0.21	23950.08	CB33	Fragment	OCTAHEDRAL AGGREGATE
04MD013	00019	5	0.212	<0.500	0.38	0.33	0.3	66211.2	BW01	Intact	OCTAHEDROID
04MD013	00020	1	0.212	<0.500	0.38	0.21	0.26	36516.48	BW01	Intact	MACLE
04MD013	00021	1	0.150	<0.500	0.22	0.19	0.19	13977.92	BE11	Intact	OCTAHEDROID
04MD013	00021	2	0.150	<0.500	0.32	0.21	0.16	18923.52	BE11	Intact	OCTAHEDRAL AGGREGATE
04MD013	00021	3	0.150	<0.500	0.25	0.24	0.2	21120	BW01	Intact	OCTAHEDRAL AGGREGATE
04MD013	00021	4	0.150	<0.500	0.32	0.23	0.17	22021.12	CE11	Fragment	IRREGULAR
04MD013	00022	1	0.300	<0.500	0.42	0.36	0.22	58544.64	CB32	Fragment	IRREGULAR
04MD013	00022	2	0.300	<0.500	0.47	0.4	0.27	89337.6	BE12	Intact	OCTAHEDROID
04MD013	00022	3	0.300	<0.500	0.44	0.34	0.23	60558.08	CB32	Fragment	IRREGULAR
04MD013	00022	4	0.300	<0.500	0.46	0.38	0.34	104600.32	BB21	Intact	OCTAHEDRAL AGGREGATE
04MD013	00022	5	0.150	<0.500	0.49	0.22	0.15	28459.2	CB22	Fragment	IRREGULAR
04MD013	00022	6	0.212	<0.500	0.3	0.28	0.24	35481.6	BW02	Intact	MACLE
04MD013	00022	7	0.212	<0.500	0.31	0.3	0.19	31099.2	CE11	Fragment	IRREGULAR
04MD013	00022	8	0.212	<0.500	0.36	0.27	0.23	39346.58	BE13	Intact	MACLE

## DIAMOND ANALYSES

Client Ref	Sample No	Stone Colour	Internal Defects				Obs Date	Observer
			Clarity	Intensity	Factor	Resorption		
00015	7	Grey	Transparent	1	2	5	STEPPED	19-May-04 JB
00015	8	Grey	Transparent	1	0	4		19-May-04 JB
00015	9	Grey	Transparent	1	0	5	STEPPED	19-May-04 JB
00015	10	Grey	Transparent	1	2	5	STEPPED	19-May-04 JB
00015	11	Grey	Transparent	2	1	5	STEPPED	19-May-04 JB
00015	12	Grey	Transparent	2	1	5	STEPPED	19-May-04 JB
00015	13	Grey	Transparent	1	0	5	STEPPED	19-May-04 JB
00015	14	Grey	Transparent	3	1	4-5	STEPPED	19-May-04 JB
00015	15	Grey	Transparent	3	1	5	STEPPED	19-May-04 JB
00016	1	Grey	Transparent	1	1	4		19-May-04 JB
00016	2	White	Transparent	0	2	6	STEPPED	19-May-04 JB
00016	3	White	Transparent	0	0	5-6	STEPPED	19-May-04 JB
00018	1	Green/Brow	Transparent	3	3	-		20-May-04 JB
00018	2	Grey	Transparent	2	3	5		20-May-04 JB
00018	3	White	Transparent	0	0	5		20-May-04 JB
00018	4	Grey	Transparent	2	1	4	QUADRONS	20-May-04 JB
00018	5	White	Transparent	0	1	5		20-May-04 JB
00019	1	White	Transparent	0	0	-		20-May-04 JB
00019	2	Brown	Transparent	2	1	5	STEPPED	20-May-04 JB
00019	3	Grey	Transparent	2	3	2	QUADRONS	20-May-04 JB
00019	4	Brown	Transparent	3	3	5	STEPPED	20-May-04 JB
00019	5	White	Transparent	0	1	5	STEPPED	20-May-04 JB
00020	1	White	Transparent	0	1	5	STEPPED	20-May-04 JB
00021	1	Grey	Transparent	1	1	5	STEPPED	20-May-04 JB
00021	2	Grey	Transparent	1	1	4-5	STEPPED	20-May-04 JB
00021	3	White	Transparent	0	1	5		20-May-04 JB
00021	4	Grey	Transparent	1	1	-		20-May-04 JB
00022	1	Brown	Transparent	3	2	-		20-May-04 JB
00022	2	Grey	Transparent	1	2	5	STEPPED	20-May-04 JB
00022	3	Brown	Transparent	3	2	-		20-May-04 JB
00022	4	Brown	Transparent	2	1	4-5		20-May-04 JB
00022	5	Brown	Transparent	2	2	-		20-May-04 JB
00022	6	White	Transparent	0	2	5		20-May-04 JB
00022	7	Grey	Transparent	1	1	-		20-May-04 JB
00022	8	Grey	Transparent	1	3	4		20-May-04 JB

## DIAMOND ANALYSES

Work Order Name	Client Sample Ref	Stone No	Test Sieve	Stock Ex Sieve							Terrac	Fragmentation	Form
				X	Y	Z	Wt Meas						
04MD013	00022	9	0.150	<0.500	0.28	0.21	0.18	18627.84	AE11	Intact	OCTAHEDROID		
04MD013	00022	10	0.150	<0.500	0.3	0.21	0.14	15523.2	CE12	Fragment	IRREGULAR		
04MD013	00023	1	0.425	0.500	0.61	0.61	0.6	392937.6	CE22	Fragment	OCTAHEDROID		
04MD013	00023	2	0.106	<0.500	0.28	0.26	0.24	30750.72	AB21	Intact	CUBE		
04MD013	00023	3	0.150	<0.500	0.26	0.18	0.19	15649.92	CE11	Fragment	OCTAHEDROID		
04MD013	00023	4	0.150	<0.500	0.22	0.2	0.2	15488	BW01	Intact	OCTAHEDRAL AGGREGATE		
04MD013	00023	5	0.150	<0.500	0.18	0.18	0.17	9694.08	AE31	Intact	CUBE		
04MD013	00023	6	0.150	<0.500	0.24	0.21	0.15	13305.6	BE10	Intact	MACLE		
04MD013	00023	7	0.150	<0.500	0.24	0.16	0.19	12840.96	BE22	Intact	OCTAHEDRAL AGGREGATE		
04MD013	00024	1	0.212	<0.500	0.53	0.37	0.25	86284	BE12	Intact	OCTAHEDROID		
04MD013	00024	2	0.212	<0.500	0.54	0.28	0.24	63866.88	BE23	Intact	OCTAHEDRAL AGGREGATE		
04MD013	00024	3	0.212	<0.500	0.48	0.37	0.25	78144	CB31	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES		
04MD013	00024	4	0.150	<0.500	0.29	0.22	0.18	20211.84	BE12	Intact	CUBOID		
04MD013	00024	5	0.150	<0.500	0.23	0.2	0.21	17001.6	BE11	Intact	OCTAHEDRAL AGGREGATE		
04MD013	00025	1	0.212	<0.500	0.31	0.25	0.26	35464	BE11	Intact	MACLE		
04MD013	00025	2	0.150	<0.500	0.27	0.2	0.24	22809.6	BE11	Intact	CUBE		

## DIAMOND ANALYSES

Client Sample Ref	Stone No	Colour	Clarity	Intensity	Internal Defects Factor	Resorption	Surface Features	Obs Date	Observer
00022	9	Grey	Transparent	1	1	5	STEPPED	20-May-04	JB
00022	10	Grey	Transparent	1	2	-	STEPPED	20-May-04	JB
00023	1	Grey	Transparent	2	2	4	STEPPED	20-May-04	JB
00023	2	Brown	Transparent	2	1	4-5	STEPPED	20-May-04	JB
00023	3	Grey	Transparent	1	1	5	STEPPED	20-May-04	JB
00023	4	White	Transparent	0	1	4-5	STEPPED	20-May-04	JB
00023	5	Grey	Transparent	3	1	4	QUADRONS	20-May-04	JB
00023	6	Grey	Transparent	1	0	4	STEPPED	20-May-04	JB
00023	7	Grey	Transparent	2	2	4	STEPPED	20-May-04	JB
00024	1	Grey	Transparent	1	2	5-6	STEPPED	20-May-04	JB
00024	2	Grey	Transparent	2	3	4	STEPPED	20-May-04	JB
00024	3	Brown	Transparent	3	1	5	CAVITY	20-May-04	JB
00024	4	Grey	Transparent	1	2	3-4	CAVITY	20-May-04	JB
00024	5	Grey	Transparent	1	1	4-5	CAVITY	20-May-04	JB
00025	1	Grey	Transparent	1	1	5	STEPPED	20-May-04	JB
00025	2	Grey	Transparent	1	1	4	STEPPED	20-May-04	JB

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps		
Date <u>7/04/04</u>	Shift <u>N.Y.C.H.T.</u>	Machine No. <u>360</u>	Heure de travail	Drilling/Forage	Hrs.	Mhr
Drilling at <u>BZ LLEKEN</u>	Lieu de forage	# de la machine <u>90</u>	Hole Angle	Drilling From/Forage de	.TO/à...	
Overburden:	Angle du trou	Total ft/m Total de pd/m		Overburden/Mortterrain	Hrs.	Mhr
Hole No. #du trou	From De	To A		Overburden From/Mort terrain de	.TO/à...	
<u>SPQ-04-01</u>	<u>0</u>	<u>18m</u>	<u>18m</u>	Bit No. # de mèche	Type... Sorte	ft/m... pd/m
Drilling: Hole No.	From	To	Total ft/m	Shoe No.	Type...	ft/m...
				Shell No. # de la cartouche	Type... Sorte	ft/m... pd/m
Bit No. <u>XH9210-2502</u>	Type # de mèche	ft/m... pd/m	<u>18m</u>	Moving/Déplacement	.2 Rhr.	<u>4</u> Mhr
Shoe No. <u>3F0183</u>	Type <u>BW S/S</u>	ft/m... pd/m	<u>60</u>	From/de#	.TO/à#	Distance
Shell No. # de la cartouche	Type... Sorte	ft/m... pd/m		Pulling Casing/Retirer tubage	Rhr.	Mhr
TIME DISTRIBUTION/ Distribution de temps						
Drilling/Forage	<u>2</u>	Rhr.	<u>2</u>	Moving/Déplacement	.Rhr.	Mhr
Overburden/Mortterrain	<u>10</u>	Rhr.	<u>20</u>	Walking Time/Temps de marche	.Rhr.	Mhr
Moving/Déplacement				Repairing/Réparation	.Rhr.	Mhr
Walking Time/Temps de marche				(What?)/(Quoi?)		
Repairing/Réparation				Other/Autre		Mhr
(What?)/(Quoi?)				(What?)/(Quoi?)		
Other/Autre				Other/Autre		Mhr
(What?)/(Quoi?)				(What?)/(Quoi?)		
Casing Placed in Hole/ Tubage placer dans le trou:						
AW	BW	NW	HW			
2'				<u>Materials Used, Lost or Damaged</u>		
5'	<u>12</u>			<u>Matériels utilisé, perdu ou endommagé:</u>		
10'				<u>F.I.N.T.S.H BERRY WATER LINE</u>		
Casing Recovered/Tubage récupéré:	AW	BW	NW	<u>REB. CAST. C.H.D. IN</u>		
2'				<u>TO CLEAR 13OCKS OUT</u>		
5'				<u>CASING</u>		
10'				<u>finish setting up.</u>		
R. Foreman/Contremaitre opérateur						
Runner/Opérateur <u>MURRAY Talmann</u>						
Runner/Opérateur						
Helper/Assistant <u>WAGNE BES JARDINS</u>						
Helper/Assistant						
Other/Autre						

GENERAL REMARKS/Observations général:

*Drill with rods to 21m  
on hard rock.*

APPROVED BY: Roger ThomasApprouver par:  
White-Office/BureauCO. REP. Denis MillerCo. Rep.  
Yellow-Co. Rep./Jaune-Co -Rep.

FOREMAN

Contremaitre

Pink-Foreman/Rose Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date <u>8/04/04</u>	Shift <u>Day</u>	Machine No. <u>300</u>		Drilling/Forage.....	Hrs.....	Mhr.....	
Drilling at <u>B.I.T. XEN</u>	Hole # de travail	# de machine <u>90</u>		Drilling From/Forage de.....	TO/à.....		
Lieu de forage		Hole Angle.....		Overburden/Mort terrain.....	Hrs.....	Mhr.....	
Overburden:		Angle du trou		Overburden From/Mort terrain de.....	TO/à.....		
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m	Bit No.....	Type.....	ft/m.....	
<u>SPQ04.01</u>	<u>18</u>	<u>40m</u>	<u>22m</u>	# de mèche	Sorte	pd/m	
Drilling: Hole No.	From	To	Total ft/m	Shoe No.....	Type.....	ft/m.....	
				Shell No.....	Type.....	ft/m.....	
Bit No. # de mèche		Type..... Sorte	.ft/m. pd/m	# de la cartouche	Sorte	pd/m	
Shoe No. <u>3E0183</u>	Type. <u>3W</u>	.ft/m. <u>22m</u>		Moving/Déplacement.....	1 Rhr. <u>2</u>	Mhr.....	
Shell No.....	Type..... Sorte	.ft/m..... pd/m		From/de#.....	TO/à#.....	Distance.....	
TIME DISTRIBUTION/ Distribution de temps							
Drilling/Forage.....	<u>10</u>	Rhr. <u>20</u>		Pulling Casing/Retirer tubage.....	Rhr.....	Mhr.....	
Overburden/Mort terrain.....		Rhr.....		Cemented At/Cimenter à.....	ft/m.....	Rhr.....	
Moving/Déplacement.....		Rhr.....		Cement to set/Durcir le ciment.....		Rhr.....	
Walking Time/Temps de marche.....		Rhr.....		Drilling Cement/Forage du ciment.....		Rhr.....	
Repairing/Réparation.....	<u>1</u>	Rhr. <u>2</u>	Mhr	From/de.....	TO/à.....		
(What?)/(Quoi?) <u>Hydrollick ticks</u>				Reaming (Hole Conditions)/l'état du trou.....	Rhr.....	Mhr.....	
Other/Autre.....		Rhr.....		Waterline At/Ligne d'eau à.....	ft/m.....	Rhr.....	
(What?)/(Quoi?).....				Survey Testing At/Assessment à.....	ft/m.....	Rhr.....	
Casing Placed in Hole/ Tubage placer dans le trou:							
	AW	BW	NW	HW	(What?)/(Quoi?).....		
2'					Materials Used, Lost or Damaged		
5'					Matériaux utilisés, perdu ou endommagé:		
10'					<u>Finish setting up in Drill</u>		
Casing Recovered/Tubage récupéré: AW	% BW	NW	HW		<u>Had to move supply pump</u>		
2'					<u>ONE PAILE OF DD. 2000</u>		
5'							
10'							
R.Foreman/Contremaitre opérat.	<u>Denis Michaud</u>						
Runner/Opérateur.....							
Runner/Opérateur.....							
Helper/Assistant.....	<u>J. Bari</u>			12	Hrs		
Helper/Assistant.....							
Other/Autre.....							

GENERAL REMARKS/Observations générales: Notcher should be bend rock.

APPROVED BY: Roger Thomas

Approuver par:  
White-Office/Blanc-Bureau

CO. REP.

Co. Rep.

Yellow-Co. Rep./Jaune-Co.-Rep.

Dan Weller

FOREMAN

Contremaire

Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																																														
<p>Date <u>8/04/04</u>. Shift <u>Night</u>. Machine No. <u>300</u>.</p> <p>Heure de travail # de la machine.</p> <p>Drilling at <u>B.I.L.K.E.U.</u> Hole Angle <u>90</u>.</p> <p>Lieu de forage Angle du trou</p> <p>Overburden:</p> <table border="1"> <tr> <td>Hole No. # du trou</td> <td>From De</td> <td>To A</td> <td>Total ft/m Total de pd/m</td> </tr> <tr> <td><u>SPQ 04-01</u></td> <td></td> <td><u>65</u></td> <td><u>25</u></td> </tr> </table> <p>SPQ 04-01 40 65 25</p> <p>Drilling: Hole No. From To Total ft/m</p> <p>SPQ 04-01 40 65 25</p> <p>Bit No. <u>38967.02</u> Type <u>BTW</u> ft/m <u>25</u>. # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m.</p> <p>Shell No. Type ft/m. # de la cartouche Sorte pd/m</p>				Hole No. # du trou	From De	To A	Total ft/m Total de pd/m	<u>SPQ 04-01</u>		<u>65</u>	<u>25</u>	<p>Drilling/Forage..... Hrs. Mhr</p> <p>Drilling From/Forage de..... TO/à</p> <p>Overburden/Mort terrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... TO/à</p> <p>Bit No. Type ft/m. # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m.</p> <p>Shell No. Type ft/m. # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... Rhr. Mhr</p> <p>From/de#..... TO/à#..... Distance</p> <p>Pulling Casing/Retirer tubage..... Rhr. Mhr</p> <p>Cemented At/Cimentier à..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de..... TO/à</p> <p>Rearming (Hole Conditions)/l'état du trou..... Rhr. Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr</p> <p>Delays/Retard (.....). Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Wedging At/Cincer le trou à..... ft/m. Rhr. Mhr</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p><u>Casing Placed in Hole/ Tubage placer dans le trou:</u></p> <table border="1"> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> </table> <p><u>Casing Recovered/Tubage récupéré:</u> AW BW NW HW</p> <table border="1"> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> </table> <p>R. Foreman/Contremaitre opérateur..... Hrs <u>Murray Tulman</u> 12 Hrs</p> <p>Runner/Opérateur..... Hrs</p> <p>Helper/Assistant..... Hrs <u>Wayne Béjardins</u> 12 Hrs</p> <p>Helper/Assistant..... Hrs</p> <p>Other/Autre..... Hrs</p>					AW	BW	NW	HW	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....
Hole No. # du trou	From De	To A	Total ft/m Total de pd/m																																															
<u>SPQ 04-01</u>		<u>65</u>	<u>25</u>																																															
	AW	BW	NW	HW																																														
2'	....	....	....	....																																														
5'	....	....	....	....																																														
10'	....	....	....	....																																														
2'	....	....	....	....																																														
5'	....	....	....	....																																														
10'	....	....	....	....																																														

GENERAL REMARKS/Observations général:

APPROVED BY: Roger D. Ross  
Approuver par:  
White-Office/BureauCO. REP. David J. Ross  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co -RepFOREMAN  
Contremaitre  
Pink-Foreman/Rose-Contremaitre

## HEATH &amp; SHERWOOD DRILLING (1986) INC.

FORAGE HEATH &amp; SHERWOOD (1986) INC.

## DAILY REPORT - Rapport journalier

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date: 9/04/04 Shift: Day	Machine No.: 300			Drilling/Forage.....	Hrs.....		Mhr
Drilling at: B.H.R.W.	# de la machine: 90			Drilling From/Forage de.....	TO/à.....		
Lieu de forage:	Angle du trou			Overburden/Mortterrain.....	Hrs.....		Mhr
Overburden:				Overburden From/Mort terrain de.....	TO/à.....		
Hole No. #du trou	From De	To À	Total ft/m Total de pd/m	Bit No. # de mèche	Type Sorte	ft/m pd/m	
Drilling: Hole No. 500.01	From 65	To 132	Total ft/m 67	Shoe No.	Type	ft/m	
				Shell No. # de la cartouche	Type Sorte	ft/m pd/m	
Bit No. 38967.02	Type: BTW	ft/m: 67	pd/m	Moving/Déplacement.....	Rhr.....		Mhr
# de mèche	Sorte			From/de#	TO/à#	Distance	
Shoe No.	Type	ft/m		Pulling Casing/Retirer tubage.....	Rhr.....		Mhr
Shell No. # de la cartouche	Type Sorte	ft/m pd/m		Cemented At/Cimenter à.....	ft/m.....	Rhr.....	Mhr
TIME DISTRIBUTION/ Distribution de temps							
Drilling/Forage.....	11.5 Rhr.....			Cement to set/Durcir le ciment.....	Rhr.....		Mhr
Overburden/Mortterrain.....	Rhr.....			Drilling Cement/Forage du ciment.....	Rhr.....		Mhr
Moving/Déplacement.....	Rhr.....			From/de.....	TO/à.....		
Walking Time/Tempsdemarche.....	Rhr.....			Reaming (Hole Conditions)/l'état du trou.....	Rhr.....		Mhr
Repairing/Réparation.....	2 Rhr.....			Waterline At/Ligne d'eau à.....	ft/m.....	Rhr.....	Mhr
(What?)/(Quoi?) Cut. Hole in tower.....				Survey Testing At/Assessment à.....	ft/m.....	Rhr.....	Mhr
Other/Autre.....	Rhr.....			Acid Testing At/Analyse (acide).....	ft/m.....	Rhr.....	Mhr
(What?)/(Quoi?)				Delays/Retard (.....)	Rhr.....		Mhr
Casing Placed in Hole/ Tubage placer dans le trou:							
	AW	BW	NW	HW			
2'	....	....	....	....	(What?)/(Quoi?).....		
5'	....	....	....	....	<u>Materials Used, Lost or Damaged</u>		
10'	....	....	....	....	Matériaux utilisé, perdu ou endommager:		
Casing Recovered/Tubage récupérer: AW	BW	NW	HW				
2'	....	....	....	....			
5'	....	....	....	....			
10'	....	....	....	....			
R. Foreman/Contremaitre opérat.	Denis Michael 12 Hrs						
Runner/Opérateur.....							
Runner/Opérateur.....							
Helper/Assistant J.L. B.A.ri	12 Hrs						
Helper/Assistant.....							
Other/Autre.....							

GENERAL REMARKS/Observations général:

APPROVED BY: *Roger Thomas*Approuver par:  
White-Office/Banc-Bureau

CO. REP.

Co. Rep.

Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN

Contremaire

Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps		
Date <u>9/04/04</u>	Shift <u>3 PM</u>	Machine No. <u>300</u>		Drilling/Forage.....	Hrs.....	Mhr
Drilling at <u>3111 X 12.5</u>	Lieu de forage	# de la machine <u>90</u>	Hole Angle <u>90</u>	Drilling From/Forage de.....	TO/à.....	
Overburden:			Angle du trou	Overburden/Mortterrain.....	Hrs.....	Mhr
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m	Overburden From/Mort terrain de.....	TO/à.....	
				Bit No.....	Type.....	ft/m.....
				# de mèche	Sorte	pd/m
Drilling: Hole No.	From	To	Total ft/m	Shoe No.....	Type.....	ft/m.....
<u>SPQ 04.01.132</u>			<u>153.20</u>	Shell No.....	Type.....	ft/m.....
Bit No. <u>38967.02</u>	Type <u>BTW</u>	ft/m. <u>9</u>	# de cartouche	Sorte	pd/m	
# de mèche <u>H38967.01</u>	Sorte <u>11</u>	12	Moving/Déplacement.....	Rhr.....	Mhr	
Shoe No.....	Type.....	ft/m.....	From/de#.....	TO/à#.....	Distance.....	
Shell No.....	Type.....	ft/m.....	Pulling Casing/Retirer tubage.....	Rhr.....	Mhr	
# de la cartouche	Sorte	pd/m	Cemented At/Cimenter à.....	ft/m.....	Rhr.....	
TIME DISTRIBUTION/ Distribution de temps						
Drilling/Forage.....	12	Rhr.....	24	Mhr		
Overburden/Mortterrain.....		Rhr.....				
Moving/Déplacement.....		Rhr.....				
Walking Time/Tempsdemarche.....		Rhr.....				
Repairing/Réparation.....		Rhr.....				
(What?)/(Quoi?).....						
Other/Autre.....		Rhr.....				
(What?)/(Quoi?).....						
Casing Placed in Hole/ Tubage placer dans le trou:						
	AW	BW	NW	HW		
2'						
5'						
10'						
Casing Recovered/Tubage récupérer:	AW	BW	NW	HW		
2'						
5'						
10'						
R. Foreman/Contremaitre opérateur.....						
Runner/Opérateur.....	<u>Murray Tulman</u>					
Runner/Opérateur.....						
Helper/Assistant.....	<u>Wayne Bajardins</u>					
Helper/Assistant.....						
Other/Autre.....						
<u>GENERAL REMARKS/Observations général: # pull for BIT</u>						
APPROVED BY: <u>Roger D Thomas</u>	CO. REP. <u>David Michel</u>	FOREMAN Contremaire				
Approuver par: White-Office/Blanc-Bureau	Co. Rep. Yellow-Co. Rep./Jaune-Co -Rep					
		Pink-Foreman/Rose-Contremaire				

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date <u>10/04/04</u>	Shift <u>Day</u>	Machine No. <u>300</u>		Drilling/Forage.....	Hrs.....	Mhr	
Drilling at... <u>B. 11. R.m.</u>	Heure de travail # de machine	# de machine <u>90</u>		Drilling From/Forage de.....	TO/à.....		
Lieu de forage		Hole Angle.....		Overburden/Mortterrain.....	Hrs.....	Mhr	
Overburden:		Angle du trou		Overburden From/Mort terrain de.....	TO/à.....		
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m	Bit No. # de mèche	Type. Sorte	ft/m. pd/m	
				Shoe No. ....	Type. ....	ft/m. ....	
Drilling: Hole No.	From	To	Total ft/m	Shell No. # de la cartouche	Type. Sorte	ft/m. pd/m	
<u>S.P.Q. 04. 01</u>	<u>15.3</u>	<u>18.9</u>	<u>3.6</u>	Moving/Déplacement.....	Rhr.....	Mhr	
Bit No. <u>38967. 01</u>	Type. <u>BTG</u>	ft/m. pd/m	From/de#.....	TO/à#.....	Distance.....		
# de mèche	Sorte		Pulling Casing/Retirer tubage.....	Rhr.....	Mhr		
Shoe No. ....	Type. ....	ft/m. ....	Cemented At/Cimenter à.....	ft/m. ....	Rhr..... Mhr		
Shell No. ....	Type. ....	ft/m. ....	Cement to set/Durcir le ciment.....	Rhr.....	Mhr		
# de la cartouche	Sorte	pd/m	Drilling Cement/Forage du ciment.....	Rhr.....	Mhr		
TIME DISTRIBUTION/ Distribution de temps							
Drilling/Forage.....	<u>11 1/2</u>	Rhr.....	<u>2 3</u>	Mhr			
Overburden/Mortterrain.....		Rhr.....					
Moving/Déplacement.....		Rhr.....					
Walking Time/Tempsdémarche.....		Rhr.....					
Repairing/Réparation.....		Rhr.....					
(What?)/(Quoi?).....							
Other/Autre.....	<u>2</u>	Rhr.....	<u>2</u>	Mhr			
(What?)/(Quoi?).....	<u>Fuel up TENT. NO</u>		<u>FUEL IN.</u>				
Casing Placed in Hole/ Tubage placer dans le trou:							
AW	BW	NW	HW				
2'							
5'							
10'							
Casing Recovered/Tubage récupérer: AW	BW	NW	HW				
2'							
5'							
10'							
R/Foreman/Contremaitre opérateur <u>Denis Michaud</u>	12	Hrs					
Runner/Opérateur.....		Hrs					
Runner/Opérateur.....		Hrs					
Helper/Assistant <u>J.L. Baril</u>	12	X Hrs					
Helper/Assistant.....		Hrs					
Other/Autre.....		Hrs					
GENERAL REMARKS/Observations général: <u>Start pulling rod's 144m out of hole</u>							
APPROVED BY: <u>Roger D Thomas</u>	CO. REP. <u>David J. Miller</u>						FOREMAN Contremaitre
Approver par: White-Office/Blanc-Bureau	Co. Rep. Yellow-Co. Rep./Jaune-Co -Rep						Pink-Foreman/Rose-Contremaitre

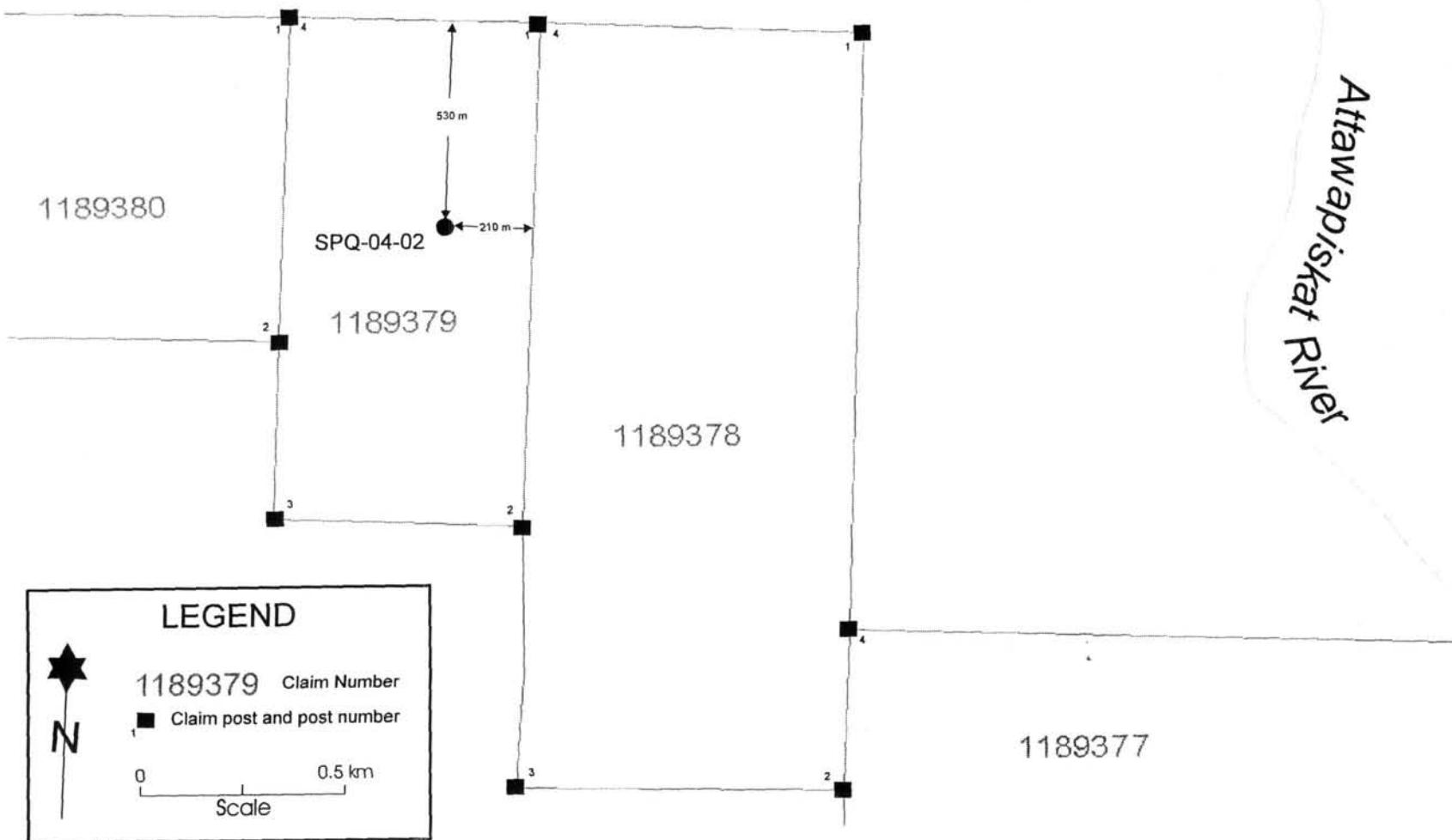
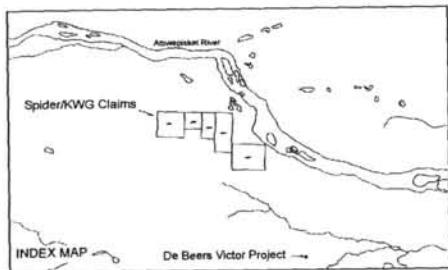
**HEATH & SHERWOOD DRILLING (1986) INC.**  
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CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																																					
<p>Date <u>10/04/04</u> Shift <u>Day night</u> Machine No. <u>300</u></p> <p>Drilling at <u>B. H. REN.</u> Hole Angle <u>90</u></p> <p>Lieu de forage Overburden: Hole No. #du trou From De To A Total ft/m Total de pd/m</p> <p>Drilling: Hole No. From To Total ft/m</p> <p>Bit No. # de mèche Type Sorte ft/m pd/m</p> <p>Shoe No. Type ft/m</p> <p>Shell No. # de la cartouche Type Sorte ft/m pd/m</p>				<p>Drilling/Forage..... Hrs. Mhr</p> <p>Drilling From/Forage de..... TO/à</p> <p>Overburden/Mortterrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... TO/à</p> <p>Bit No. # de mèche Type Sorte ft/m pd/m</p> <p>Shoe No. Type ft/m</p> <p>Shell No. # de la cartouche Type Sorte ft/m pd/m</p> <p>Moving/Déplacement..... Rhr. Mhr</p> <p>From/de# ..... TO/à# ..... Distance</p> <p>Pulling Casing/Retirer tubage..... Rhr. Mhr</p> <p>Cemented At/Cimenter à ..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de..... TO/à</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr</p> <p>Delays/Retard (.....). Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Wedging At/Cincer le trou à..... ft/m. Rhr. Mhr</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?)..... Rhr. Mhr</p> <p>Casing Placed in Hole/ Tùbage placer dans le trou:</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <th></th> <th style="text-align: center;">AW</th> <th style="text-align: center;">BW</th> <th style="text-align: center;">NW</th> <th style="text-align: center;">HW</th> </tr> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> </table> <p>Casing Recovered/Tubage récupérer: AW BW NW HW</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> </table> <p>R. Foreman/Contremaitre opérateur..... Hrs.      Runner/Opérateur..... <u>Harry Tulman</u> 12 Hrs      Runner/Opérateur.....      Helper/Assistant..... <u>Wayne Desjardins</u> 12 Hrs      Helper/Assistant.....      Other/Autre..... Hrs</p>				AW	BW	NW	HW	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....
	AW	BW	NW	HW																																					
2'	.....	.....	.....	.....																																					
5'	.....	.....	.....	.....																																					
10'	.....	.....	.....	.....																																					
2'	.....	.....	.....	.....																																					
5'	.....	.....	.....	.....																																					
10'	.....	.....	.....	.....																																					
GENERAL REMARKS/Observations général:				<u>Pold rod's hand cassing out</u> <u>recovered hole casing</u> <u>Pulling casings 3 hrs</u> <u>Pulling rod's t.</u>																																					
APPROVED BY: <u>Roger D Thomas</u> Approuver par: White-Office/Bureau		CO. REP. Co. Rep. Yellow-Co. Rep./Jaune-Co -Rep		FOREMAN Contremaitre Pink-Foreman/Rose-Contremaitre																																					

## **APPENDIX II**

**DRILL HOLE LOG, LOCATION MAP, SECTION AND DRILLER'S LOG**

**SPQ-04-02**



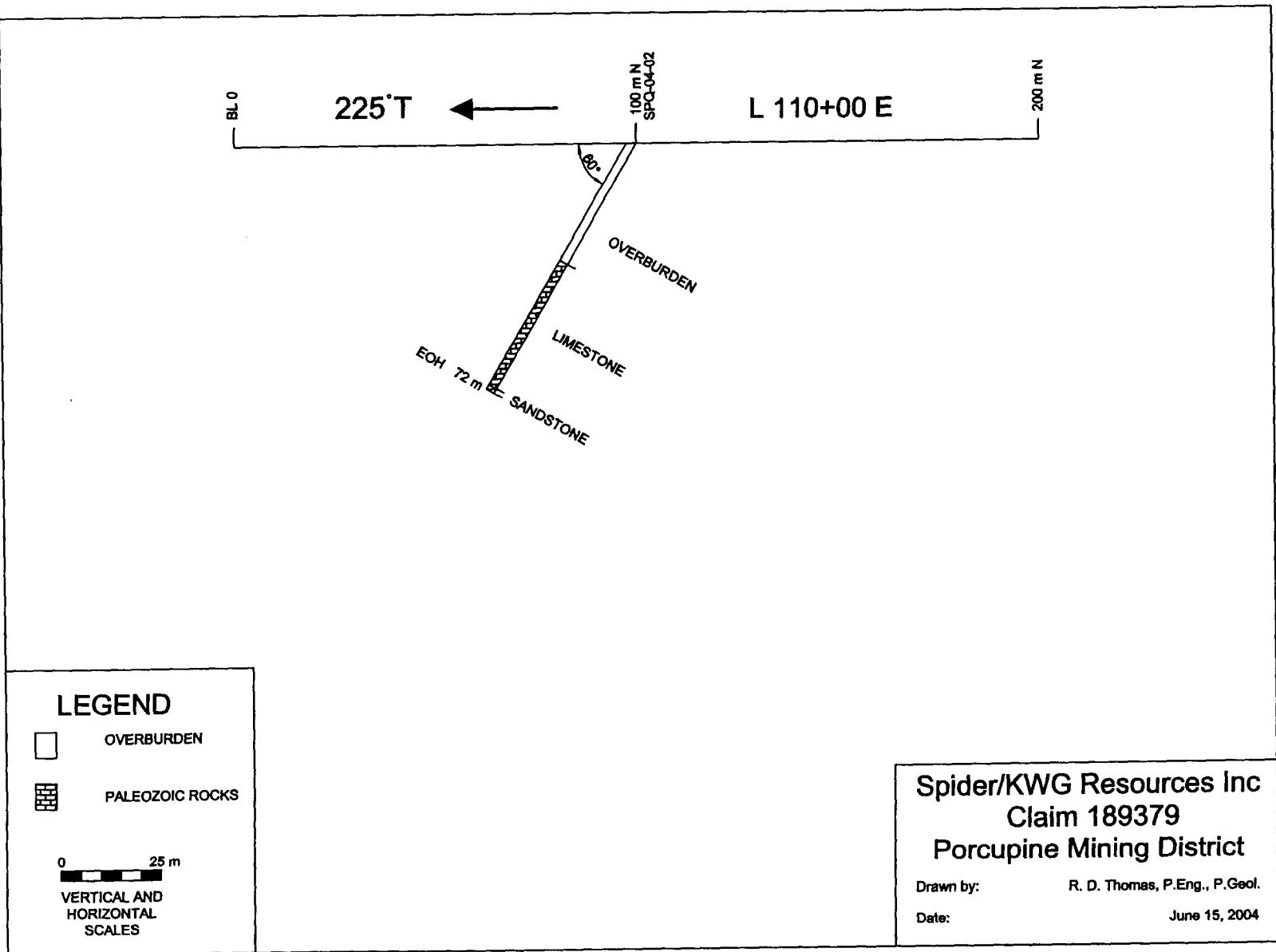
# **Billiken Management**

<b>Project:</b>	<u>Attawapiskat Project</u>	
<b>Hole Number:</b>	<u>SPQ-04-02</u>	
<b>Units of Measurement:</b>	<u>Metres</u>	
<b>Location</b>	<b>NTS Sheet:</b>	<u>43B/13</u>
	<b>Township:</b>	<u>BMA 528 834 AREA</u>
	<b>Claim No.:</b>	<u>1189379</u>
	<b>Grid:</b>	<u>August 1, 2003</u>
	<b>Easting:</b>	<u>110+00</u>
	<b>Northing:</b>	<u>1+00</u>
	<b>Elevation:</b>	<u>85</u>
<b>GPS Co-ordinates:</b> <b>(if applicable)</b>	<b>Zone:</b>	<u>17U</u>
	<b>Datum:</b>	<u>NAD83</u>
	<b>Easting:</b>	<u>301375</u>
	<b>Northing:</b>	<u>5863295</u>
<b>Collar Dip:</b>	<u>60°</u>	
<b>Collar Azimuth:</b>	<u>225°</u>	
<b>Hole Length:</b>	<u>72</u>	
<b>Core Size:</b>	<u>BTT</u>	
<b>Recovery:</b>	<u>Estimated 75%</u>	
<b>Logged By:</b>	<u>Roger D. Thomas</u>	
<b>Date:</b>	<b>Start:</b>	<u>April 15, 2004</u>
	<b>Finish:</b>	<u>April 15, 2004</u>
<b>Drilled by:</b>	<u>Denis Michon, Heath &amp; Sheppard</u>	
<b>Date:</b>	<u>April 11, 2004</u>	

## Comments







**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps										
<p>Date <u>11.10.86</u>. Shift <u>Day</u>. Machine No. <u>300</u>.</p> <p>Drilling at <u>311 REN</u>. Hole # de travail <u>311</u>. Hole Angle <u>60°</u>.</p> <p>Lieu de forage <u></u>. Angle du trou <u></u>.</p> <p>Overburden: <u></u></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Hole No. # du trou</th> <th>From De</th> <th>To A</th> <th>Total ft/m Total de pd/m</th> </tr> </thead> <tbody> <tr> <td><u>SPD.04.02</u></td> <td><u>0</u></td> <td><u>30.5</u></td> <td><u>30.5</u></td> </tr> </tbody> </table>				Hole No. # du trou	From De	To A	Total ft/m Total de pd/m	<u>SPD.04.02</u>	<u>0</u>	<u>30.5</u>	<u>30.5</u>	<p>Drilling/Forage..... Hrs. Mhr</p> <p>Drilling From/Forage de..... TO/à</p> <p>Overburden/Mortterrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... TO/à</p> <p>Bit No. .... Type. ft/m. Mhr</p> <p># de mèche Sorte pd/m</p> <p>Shoe No. .... Type. ft/m. Mhr</p> <p>Shell No. .... Type. ft/m. Mhr</p> <p># de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... 7 Rhr. 14 Mhr</p> <p>From/de <u>04.01</u> To/à <u>04.02</u> Distance <u>600 ft</u></p> <p>Pulling Casing/Retirer tubage..... Rhr. Mhr</p> <p>Cemented At/Cimenter à..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de..... To/à</p>		
Hole No. # du trou	From De	To A	Total ft/m Total de pd/m											
<u>SPD.04.02</u>	<u>0</u>	<u>30.5</u>	<u>30.5</u>											
<p>Drilling: <u></u></p> <p>Shoe No. <u>3E0183</u>. Type <u>2W1</u>. ft/m. <u>30.5</u>.</p> <p>Shell No. .... Type. ft/m. Mhr</p> <p># de la cartouche Sorte pd/m</p> <p><b>TIME DISTRIBUTION/ Distribution de temps</b></p> <p>Drilling/Forage..... Rhr. Mhr</p> <p>Overburden/Mortterrain..... 5 Rhr. 10 Mhr</p> <p>Moving/Déplacement..... Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Repairing/Réparation..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Other/Autre..... 2 Rhr. 2 Mhr</p> <p>(What?)/(Quoi?). <u>Walked back to Drill. Broke more</u> <u>casing. Walked back. Drill at</u> <u>Casing Placed in Hole/ Tubage placé dans le trou:</u> <u>SAME time.</u></p>				<p>Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr</p> <p>Waterline At/Ligne d'eau à ... 1200 ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr</p> <p>Delays/Retard (.....)..... Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p>										
<p><u>AW BW NW HW</u></p> <p>2'.....</p> <p>5'.....</p> <p>10'.....</p> <p>Casing Recovered/Tubage récupéré: <u>AW BW NW HW</u></p> <p>2'.....</p> <p>5'.....</p> <p>10'.....</p> <p>R. Foreman/Contremaire opérateur <u>Denis Michal</u> 12 Hrs</p> <p>Ruhner/Opérateur..... Hrs</p> <p>Ruhner/Opérateur..... Hrs</p> <p>Helper/Assistant <u>J.L. Baril</u> 12 Hrs</p> <p>Helper/Assistant..... Hrs</p> <p>Other/Autre..... Hrs</p>				<p><u>Materials Used, Lost or Damaged</u></p> <p><u>Matériels utilisé, perdu ou endommagé:</u></p>										

## GENERAL REMARKS/Observations générales:

? Hand Drill, out 600ft of house  
line in. Finish Breckinridge Drill up?  
Drill is sicking.

APPROVED BY: Roger D. Thomas  
 Approver par:  
 White-Office/Bureau

CO. REP.  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co.-Rep

FOREMAN  
 Contremaire  
 Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
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<p>Date <u>11/04/04</u> Shift: <u>Night</u> Machine No. <u>300</u>            Drilling at: <u>3.11. Rm 2</u> # de machine <u>60</u>            Lieu de forage            Overburden:            Hole No. From To Total ft/m Total de pd/m  <u>SPQ 04 01</u> <u>30.5</u> <u>36.0</u> <u>34.5</u></p> <p>Drilling: Hole No. From To Total ft/m  <u>SPQ 04 02</u> <u>36.8</u> <u>54</u> <u>1.8</u></p> <p>Shoe No. <u>38967.02</u> Type <u>BTW</u> ft/m <u>1.8</u>            Bit No. <u>3E14465-0</u> Type <u>BTW</u> ft/m <u>1.8</u>            # de mèche Sorte pd/m</p> <p>Shoe No. <u>3E0183</u> Type <u>BW</u> ft/m <u>3</u>            Shell No. Type ft/m            # de la cartouche Sorte pd/m</p>	<p>Drilling/Forage..... Hrs. Mhr</p> <p>Drilling From/Forage de..... TO/à..... Mhr</p> <p>Overburden/Mortterrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... TO/à..... Mhr</p> <p>Bit No. Type ft/m            # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m</p> <p>Shell No. Type ft/m            # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... 1. Rhr. 2. Mhr</p> <p>From/de#..... TO/à#..... Distance</p> <p>Pulling Casing/Retirer tubage..... Rhr. Mhr</p> <p>Cemented At/Cimenter à..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de..... TO/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr</p> <p>Delays/Retard I..... 1. Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Materials Used, Lost or Damaged</p> <p>Matériaux utilisés, perdu ou endommagé</p> <p>finish setting up</p>																																					
<p>TIME DISTRIBUTION/ Distribution de temps</p> <p>Drilling/Forage..... <u>5.6</u> Hr. Mhr</p> <p>Overburden/Mortterrain..... <u>1.6</u> Hr. <u>3</u> Mhr</p> <p>Moving/Déplacement..... Rhr. Mhr</p> <p>Walking Time/Tempsdemarche..... Rhr. Mhr</p> <p>Repairing/Réparation..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Other/Autre..... <u>4</u> Rhr. <u>8</u> Mhr</p> <p>(What?)/(Quoi?)..... <u>HAD TROUBLE WITH WATER FREEZING</u></p> <p>Casing Placed in Hole/ Tubage placer dans le trou:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> <tr> <td>2'</td> <td>...</td> <td>...</td> <td>...</td> <td>...</td> </tr> <tr> <td>5'</td> <td>2</td> <td>...</td> <td>...</td> <td>...</td> </tr> <tr> <td>10'</td> <td>...</td> <td>...</td> <td>...</td> <td>...</td> </tr> </table> <p>Casing Recovered/Tubage récupérée: AW BW NW HW</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>2'</td> <td>...</td> <td>...</td> <td>...</td> <td>...</td> </tr> <tr> <td>5'</td> <td>...</td> <td>...</td> <td>...</td> <td>...</td> </tr> <tr> <td>10'</td> <td>...</td> <td>...</td> <td>...</td> <td>...</td> </tr> </table> <p>R. Foreman/Contremaitre opérateur..... Hrs.            Runner/Opérateur <u>Hurry Tulman</u> <u>12</u> Hrs</p> <p>Runner/Opérateur..... Hrs            Helper/Assistant <u>Wayne Besjardins</u> <u>12</u> Hrs</p> <p>Helper/Assistant..... Hrs</p> <p>Other/Autre..... Hrs</p>		AW	BW	NW	HW	2'	...	...	...	...	5'	2	...	...	...	10'	...	...	...	...	2'	...	...	...	...	5'	...	...	...	...	10'	...	...	...	...			
	AW	BW	NW	HW																																		
2'	...	...	...	...																																		
5'	2	...	...	...																																		
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5'	...	...	...	...																																		
10'	...	...	...	...																																		

GENERAL REMARKS/Observations général:

APPROVED BY: Roger Thivierge  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP. Daniel Yelle  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
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<p>Date <u>12/04/04</u>. Shift <u>Day</u>. Machine No. <u>300</u>.</p> <p>Drilling at <u>BILL KEN</u>. Heure de travail # de la machine <u>60</u>.</p> <p>Lieu de forage <u>SPQ 04.02</u>. Hole Angle Angle du trou <u>60</u>.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Hole No. #du trou</th> <th>From De</th> <th>To A</th> <th>Total ft/m Total de pd/m</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table> <p>Drilling: Hole No. From To Total ft/m</p> <p><u>SPQ 04.02</u> <u>54</u> <u>22 m</u> <u>18</u></p> <p><u>3896702</u></p> <p>Bit No. <u>3E14465</u>. Type <u>BTW</u>. ft/m. <u>15</u>. # de mèche Sorte pd/m</p> <p><u>38967.01</u> " " <u>3</u></p> <p>Shoe No. Type ft/m.</p> <p>Shell No. Type ft/m. # de la cartouche Sorte pd/m</p> <p style="text-align: center;">TIME DISTRIBUTION/ Distribution de temps</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Drilling/Forage</th> <th>Rhr.</th> <th>15</th> <th>Mhr</th> </tr> </thead> <tbody> <tr><td>Overburden/Mortterrain</td><td>Rhr.</td><td>.....</td><td>Mhr</td></tr> <tr><td>Moving/Déplacement</td><td>Rhr.</td><td>.....</td><td>Mhr</td></tr> <tr><td>Walking Time/Tempsdemarche</td><td>Rhr.</td><td>.....</td><td>Mhr</td></tr> <tr><td>Repairing/Réparation</td><td>Rhr.</td><td>.....</td><td>Mhr</td></tr> <tr><td>(What?)/(Quoi?)</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>Other/Autre</td><td>Rhr.</td><td><u>1/2</u></td><td>Mhr</td></tr> <tr><td>(What?)/(Quoi?)</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td colspan="4"><u>Whent BACK to Dr. 11</u></td></tr> <tr><td colspan="4"><u>STONE HOLE AND said more CASSING</u></td></tr> <tr><td colspan="4">Casing/Placed in Hole/ Tubage placer dans le trou:</td></tr> <tr> <td>AW</td> <td>BW</td> <td>NW</td> <td>HW</td> </tr> <tr><td>2'</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>5'</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>10'</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>Casing Recovered/Tubage récupérer:</td><td>AW</td><td>BW</td><td>NW</td></tr> <tr><td>2'</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>5'</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>10'</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>R. 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Other/Autre	Rhr.	<u>1/2</u>	Mhr	(What?)/(Quoi?)	.....	.....	.....	<u>Whent BACK to Dr. 11</u>				<u>STONE HOLE AND said more CASSING</u>				Casing/Placed in Hole/ Tubage placer dans le trou:				AW	BW	NW	HW	2'	.....	.....	.....	5'	.....	.....	.....	10'	.....	.....	.....	Casing Recovered/Tubage récupérer:	AW	BW	NW	2'	.....	.....	.....	5'	.....	.....	.....	10'	.....	.....	.....	R. Foreman/Contremaitre opérateur	<u>Denis McChau</u> <u>12 1/2 Hrs</u>			Runner/Opérateur	..... Hrs			Runner/Opérateur	..... Hrs			Helper/Assistant	<u>J.L. Baril</u> <u>12 1/2 Hrs</u>			Helper/Assistant	..... Hrs			Other/Autre	..... Hrs			<p>Drilling/Forage..... Hrs. Mhr</p> <p>Drilling From/Forage de..... TO/à.....</p> <p>Overburden/Mortterrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... TO/à.....</p> <p>Bit No. .... Type. ft/m. # de mèche Sorte pd/m</p> <p>Shoe No. .... Type. ft/m.</p> <p>Shell No. .... Type. ft/m. # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... Rhr. 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Mhr</p> <p>(What?)/(Quoi?).....</p> <p><u>Materials Used, Lost or Damaged</u></p> <p><u>Matériels utilisé, perdu ou endommagé:</u></p> <p><u>REAMMING SAN AND BAD SIME,</u>  <u>59m to 60m Had Hard time</u>  <u>to pass it used D.D. 2000</u>  <u>and Bad Gave.</u>  <u>Whent on Dr. 11 ins Brook</u>  <u>front SAN stone 70m</u>  <u>whent to 22m no rock</u>  <u>lost SAND</u></p>			
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GENERAL REMARKS/Observations général:

APPROVED BY: Roger D'Amour  
Approuver par:  
White-Office/Blanc-BureauCO. REP. Dick Wilson  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-Rep

FOREMAN

Contremaitre

Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

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<p>Date 12/10/86 Shift NIGHT..... Machine No. 300.....</p> <p>Heure de travail # de la machine</p> <p>Drilling at 300 ft..... Hole Angle 40°.....</p> <p>Lieu de forage Angle du trou</p> <p>Overburden:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Hole No. #du trou</th> <th>From De</th> <th>To À</th> <th>Total ft/m Total de pd/m</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table> <p>Drilling: Hole No. From To Total ft/m</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Hole No.</th> <th>From</th> <th>To</th> <th>Total ft/m</th> </tr> </thead> <tbody> <tr><td>300 ft</td><td>.....</td><td>.....</td><td>17.2 m</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table> <p>Bit No. 3800702 Type BTW ft/m. # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m.</p> <p>Shell No. Type ft/m. # de la cartouche Sorte pd/m</p> <p><b>TIME DISTRIBUTION/ Distribution de temps</b></p> <p>Drilling/Forage..... 1 Rhr. Mhr</p> <p>Overburden/Mortterrain..... Rhr. Mhr</p> <p>Moving/Déplacement..... Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Repairing/Réparation..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Other/Autre..... 15 Mhr</p> <p>(What?)/(Quoi?) <del>THE BLOW-OUT DRILL IS ALL DETERIORATED</del></p> <p>Casing Placed in Hole/ Tubage placer dans le trou:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> </thead> <tbody> <tr><td>2'</td><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>5'</td><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>10'</td><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>Casing Recovered/Tubage récupéré:</td><td>AW</td><td>BW</td><td>NW</td><td>HW</td></tr> <tr><td>2'</td><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>5'</td><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>10'</td><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table> <p>R. Foreman/Contremaitre opérateur..... Hrs</p> <p>Runner/Opérateur..... 12 Hrs</p> <p>Runner/Opérateur..... Hrs</p> <p>Helper/Assistant..... 12 Hrs</p> <p>Helper/Assistant..... Hrs</p> <p>Other/Autre..... Hrs</p>				Hole No. #du trou	From De	To À	Total ft/m Total de pd/m	.....	.....	.....	.....	.....	.....	.....	.....	Hole No.	From	To	Total ft/m	300 ft	.....	.....	17.2 m	.....	.....	.....	.....		AW	BW	NW	HW	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....	Casing Recovered/Tubage récupéré:	AW	BW	NW	HW	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....	<p>Drilling/Forage..... Hrs. Mhr</p> <p>Drilling From/Forage de..... TO/à.....</p> <p>Overburden/Mortterrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... TO/à.....</p> <p>Bit No. .... Type ft/m. # de mèche Sorte pd/m</p> <p>Shoe No. .... Type ft/m.</p> <p>Shell No. .... Type ft/m. # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... 92 Rhr. Mhr</p> <p>From/de# ..... TO/à# ..... Distance.....</p> <p>Pulling Casing/Retirer tubage..... 3 Rhr. 6 Mhr</p> <p>Cemented At/Cimentner à..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de..... TO/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr</p> <p>Delays/Retard (.....). Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Wedging At/Cincer le trou à..... ft/m. Rhr. Mhr</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p><b>Materials Used, Lost or Damaged</b></p> <p>Matériels utilisés, perdu ou endommagés:</p> <p><i>Paid CASSINGS, Drain waterline</i></p>		
Hole No. #du trou	From De	To À	Total ft/m Total de pd/m																																																																			
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GENERAL REMARKS/Observations générales: *hole stopped at 17.2 m, team ready to get ready to resume*  
*Paid rod's. 3 hrs*

APPROVED BY: *Roger D Thomas*  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP. *Co. Rep.*  
 Yellow-Co. Rep./Jaune-Co-Rep.

*Pink* *Roger D Thomas*

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/inclus dans le tarif de forage					COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps		
Date: <u>13/04/84</u>	Shift: <u>Day</u>	Machine No.: <u>300</u>			Drilling/Forage.....	Hrs.....	Mhr
Drilling at: <u>B. H. FEN</u>	Heure de travail # de la machine	# de la machine			Drilling From/Forage de.....	TO/à.....	
Lieu de forage		Hole Angle.....	Angle du trou		Overburden/Mortterrain.....	Hrs.....	Mhr
Overburden:					Overburden From/Mort terrain de.....	TO/à.....	
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m		Bit No. # de mèche	Type Sorte	ft/m pd/m
<u>SPQ.04.03</u>	<u>0</u>	<u>30m</u>	<u>30</u>				
Drilling: Hole No.	From	To	Total ft/m		Shoe No. ....	Type .....	ft/m.....
<u>5</u>					Shell No. ....	Type .....	ft/m.....
Bit No. # de mèche	Type Sorte	ft/m pd/m		# de la cartouche	Sorte	pd/m	
<u>3E0183</u>	<u>BW</u>	<u>ft/m. 30</u>			Moving/Déplacement.....	Rhr.....	Mhr
Shoe No. ....	Type .....	ft/m.....		From/de#.....	TO/à# <u>04.03</u> Distance.....		
Shell No. ....	Type .....	ft/m.....		Pulling Casing/Retirer tubage.....	Rhr.....	Mhr	
# de la cartouche	Sorte	pd/m		Cemented At/Cimenter à.....	Rhr.....	Mhr	
TIME DISTRIBUTION/ Distribution de temps					Cement to set/Durcir le ciment.....	Rhr.....	Mhr
Drilling/Forage.....	5 Rhr.....	10		Drilling Cement/Forage du ciment .....	Rhr.....	Mhr	
Overburden/Mortterrain.....				From/de.....	TO/à.....		
Moving/Déplacement.....				Reaming (Hole Conditions)/l'état du trou.....	Rhr.....	Mhr	
Walking Time/Tempsd'marche.....				Waterline At/Ligne d'eau à.....	ft/m.....	Rhr.....	
Repairing/Réparation.....				Survey Testing At/Assessment à.....	ft/m.....	Rhr.....	
(What?)/(Quoi?).....				Acid Testing At/Analyse (acide).....	ft/m.....	Rhr.....	
Other/Autre.....				Delays/Retard (.....)	Rhr.....	Mhr	
(What?)/(Quoi?).....				Walking Time/Temps de marche.....	Rhr.....	Mhr	
Casing Placed in Hole/ Tubage placer dans le trou:					Wedging At/Cincer le trou à.....	ft/m.....	Rhr.....
	AW	BW	NW	HW	Other/Autre.....		Mhr
2'					(What?)/(Quoi?).....		
5'					Materials Used, Lost or Damaged		
10'					Matériaux utilisés perdu ou endommagé:		
Casing Recovered/Tubage récupérer: AW	BW	NW	HW		<u>MOVED Drill setup Drill Start waterlin</u>		
2'							
5'							
10'							
R. Foreman/Contremaire, opérat. <u>Denis Michon 12</u>							
Runner/Opérateur.....							
Runner/Opérateur.....							
Helper/Assistant.....	<u>T. L. Baril</u>		12				
Helper/Assistant.....							
Other/Autre.....							

## GENERAL REMARKS/Observations générales:

Had went down 9m had to go back cassing off. Stop cassing back. Drill stuck. Sonck.

APPROVED BY: Roger D'Amours

Approuver par:

White-Office/Bureau

CO. REP.

Co. Rep.

Yellow-Co. Rep./Jaune-Co -Rep

FOREMAN

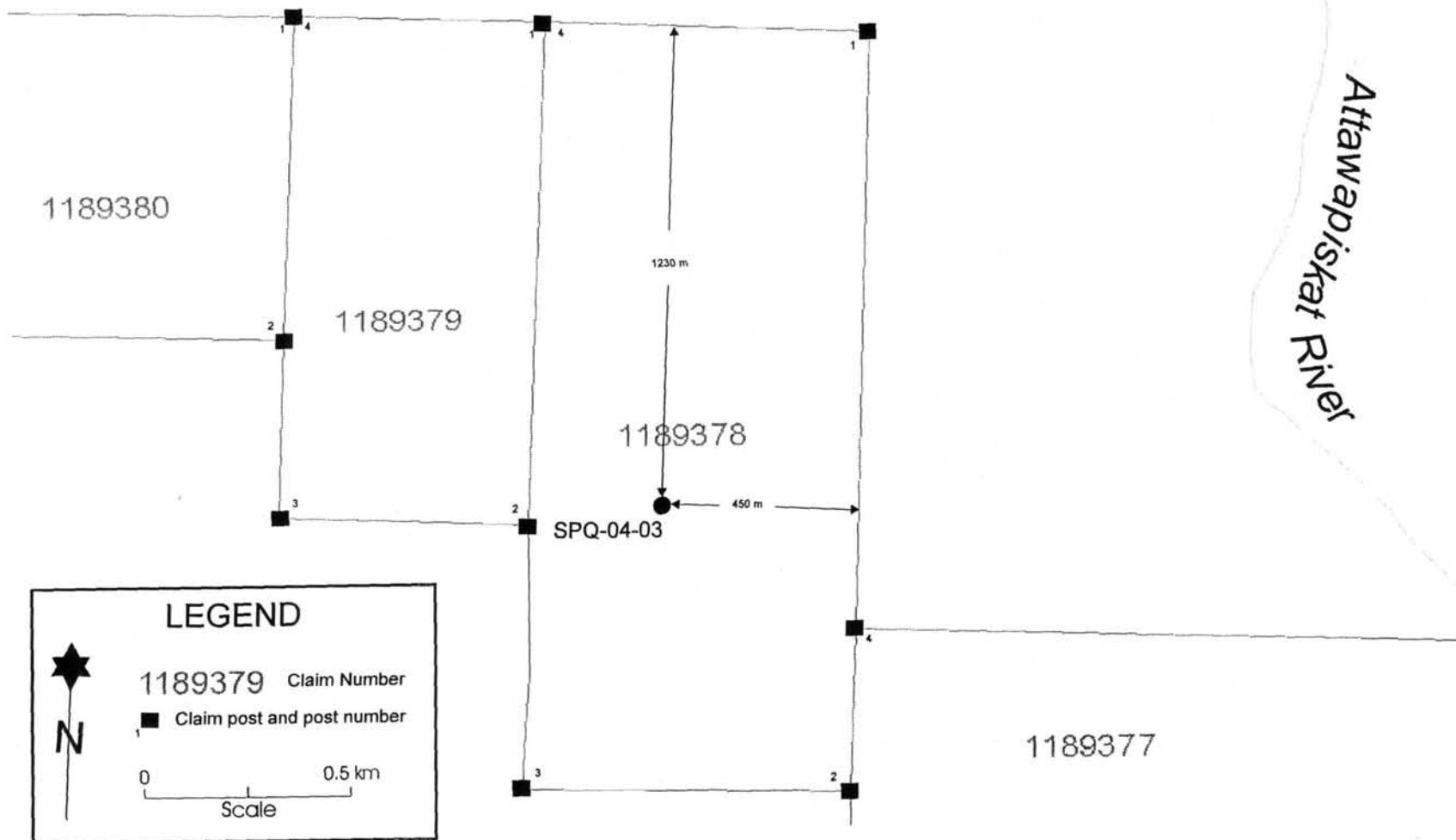
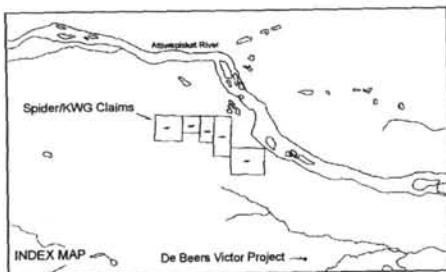
Contremaire

Pink-Foreman/Rose-Contremaire

### **APPENDIX III**

**DRILL HOLE LOG, DIAMOND RESULTS,  
LOCATION MAP, SECTION AND DRILLER'S LOG**

**SPQ-04-03**



# **Billiken Management**

**Project:** Attawapiskat Project

## Attawapiskat Project

**Hole Number:** SPQ-04-03

SPQ-04-03

## **Units of Measurement:**

### Metres

Location	NTS Sheet:	<u>43B/13</u>
	Township:	<u>BMA 528 834 AREA</u>
	Claim No:	<u>1189378</u>
	Grid:	<u>August 1, 2003</u>
	Easting:	<u>118+75E</u>
	Northing:	<u>0+00N</u>
	Elevation:	<u>85</u>

**NTS Sheet:** 43B/13  
**Township:** BMA 528 834 AREA  
**Claim No:** 1189378  
**Grid:** August 1, 2003  
**Easting:** 118+75E  
**Northing:** 0+00N  
**Elevation:** 85

**GPS Co-ordinates:**      **Zone:**  
**(if applicable)**      **Datum:**

**Zone:** 17U  
**Datum:** NAD83  
**Easting:** 301880  
**Northing:** 5862567

**Collar Dip:** 60°

**Collar Azimuth:**

**Hole Length:**

**Core Size:**

### **Recovery:**

**Logged By:**

Roger D. Thomas

**Start:** April 16, 2004

**Finish:** April 17, 2004

**Drilled by:** Denis Michon, Heath & Sherwood  
**Date:** April 13, 2004      **Start:**

Denis Michon, Heath & Sherwood

## Comments

Hole designed to test protrusion of magnetic anomaly on the southeast side of the MacFadyen No. 2 kimberlite.

A small kimberlite was found and it is separate from the MacFadyen No. 2.

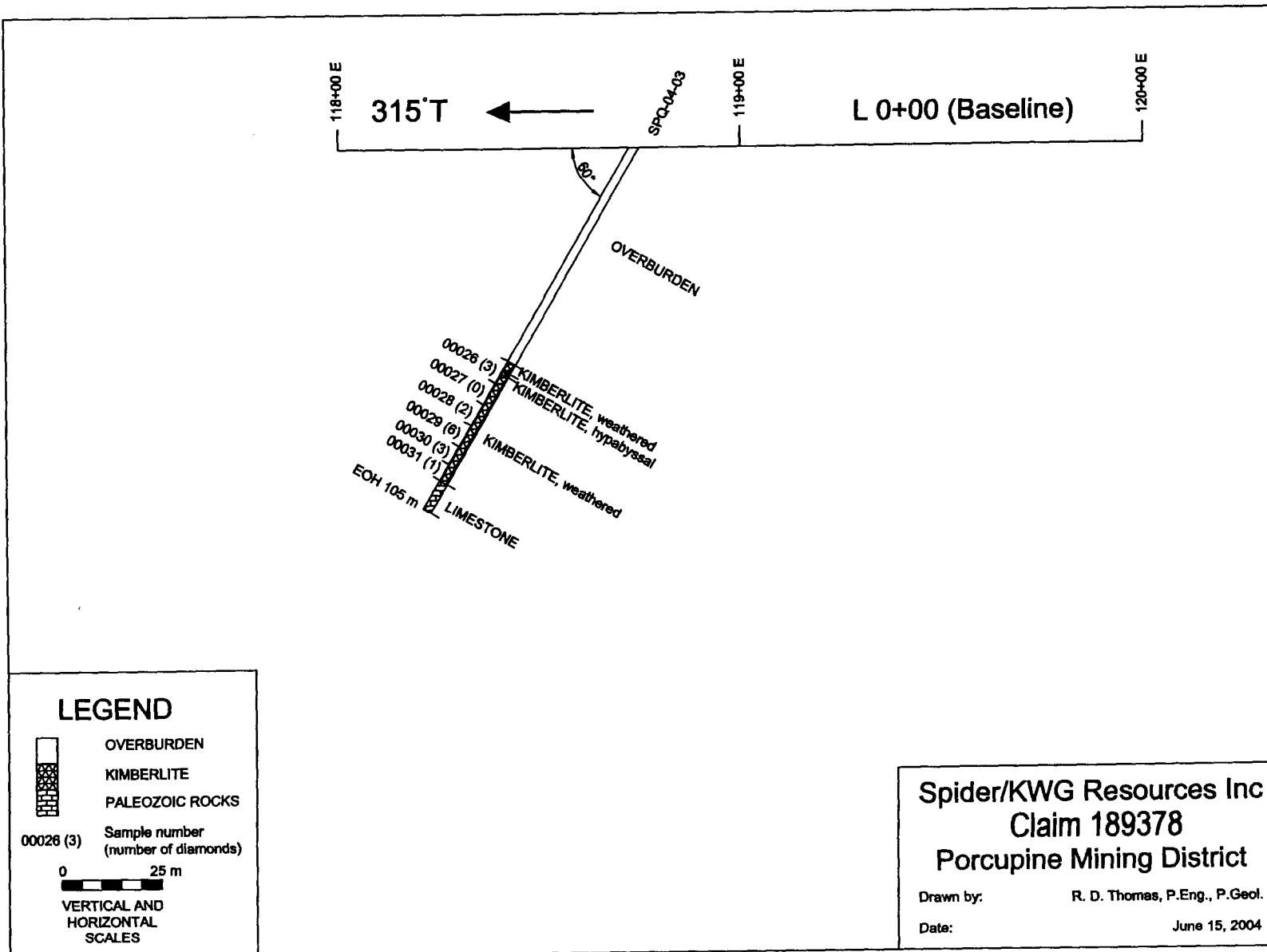
According to the drillers, the hole stopped in boulders and clay with very little sand. The presence of clay suggests that it is at the margin of the MacFadyen No. 2 kimberlite.



Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-03		PAGE: 3 of 5			
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	LENGTH	% Xenoliths	Weight	From	To	Length
65.36	66.26	KIMBERLITE, hypabyssal (Continued) @65.37: 2 cm diameter xenolith of gabbro.  @66.09: 20 mm diameter mantle xenolith (?).  @66.14: 3 mm mass of chrome diopside.									
66.26		CONTACT, start of highly weathered core.									
66.26	96.70	KIMBERLITE, weathered, as above. 66.26-71.00: poor core recovery although probably no lost core; two pieces 0.1 m in length, the rest is <2 cm long.  @71.00: core recovery improves with most pieces being > 0.1 m in length. Core is still very soft and crumbles easily.  @72.56: 10 mm xenolith composed of 100% chlorite.  @73.20: one 1 mm pink garnet.  @74.40: one 1 mm chrome diopside.  @74.96: one 1 mm pyrope garnet  75.58-77.88: core very broken and crumbled.  78.23-78.39: core crumbled.  78.67-78.80: core crumbled.  @80.55: core becomes very soft and most of it is crumbled on recovery. There does not appear to be much lost core.  @82.00: 5-15 mm in diameter limestone xenolith content increases to 20%. They are subangular-subrounded and moderately corroded.  @ 83.50: core becomes quite competent and recovery improves.  @86.47: trace chrome diopside, 2 mm in diameter.	00027	69.00	75.00	5.81	5	16.5	74.18	74.37	0.19
			00028	75.00	81.00	5.84	4	14.75	77.62	77.75	0.13
									78.20	78.23	0.03
			00029	81.00	87.00	5.78	15	13.75	84.38	84.6	0.22

Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-03			PAGE: 4 of 5				
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample				
			SAMPLE	FROM	TO	LENGTH	% Xenoliths	Weight	From	To	Length		
66.26	96.70	KIMBERLITE, weathered (Continued) @87.46: trace actinolite (?).  @ 87.67: core becomes very broken.  88.10-88.47: xenoliths of interbedded red and green shale.  @89.40: 1 mm diameter chrome diopside.  @91.50: 1 x 30 mm seam of pyrite.  91.50-92.70: trace-1% pyrite as disseminated fine grains, as thin seams, as coatings inside cavities, and as 10 x 20 mm irregular masses. Most pyrite is fine-very fine grained, however some is medium grained.  @92.05: sharp color change from dark greenish gray to light gray (N7). The light gray material may be a different phase of kimberlite (crater facies) as it resembles coarse sandstone with 40% angular clasts; moreover olivine is not apparent in this very fine grained rock. The rock is very soft, nonmagnetic, poor core recovery, fairly homogeneous, massive, 40% subangular-angular xenoliths of limestone, 5-20 mm in diameter; 5% xenoliths 20-40 mm in diameter; trace-1% fine grained olivine and other mafic minerals; 55% very fine grained to, granular matrix; trace-1% pyrite. All xenoliths are fresh and do not exhibit any evidence of reaction with the matrix.  92.70-92.88: limestone xenolith.  96.02-96.13: limestone xenolith.  CONTACT, in broken and ground core.	00030	87.00	92.05	4.94	20	14.3	87.21	87.32	0.11		
96.70	97.18	LIMESTONE, lithographic Very pale orange (10YR8/2), microcrystalline to very fine grained, homogeneous, massive, composed of 100% calcite.  CONTACT, in broken core	00031	92.05	96.70	4.42	40	12.5	92.20	92.31	0.11 95.00	95.12	0.12
97.18									96.72	96.79	0.27		





## DIAMOND ANALYSES

Client Reference	Work Order Name	Client Sample Ref	Proc Date Started	Proc Total	Proc No Primary Burns	Proc No Re Burns	Proc No Micro Burns	Proc Date Completed	Obs No Stones	Obs No Synthetics	
				Primary Burn Weight							
Billiken Submittal	04MD016	00026	10-May-04	4.86	1			1	20-May-04	3	0
Billiken Submittal	04MD016	00027	10-May-04	15.05	2			2	26-May-04	0	0
Billiken Submittal	04MD016	00028	10-May-04	13.36	2			2	25-May-04	2	0
Billiken Submittal	04MD016	00029	11-May-04	12.97	2			2	26-May-04	6	0
Billiken Submittal	04MD016	00030	11-May-04	13.17	2			2	25-May-04	3	1
Billiken Submittal	04MD016	00031	11-May-04	11.5	1			1	25-May-04	1	0

## DIAMOND ANALYSES

Work Order Name	Client Sample Ref	Stone No	Test Sieve	Stock Ex Sieve	X	Y	Z	Wt Meas	Terrac	Fragmentation	Form
04MD016	00026	1	0.150	<0.500	0.32	0.21	0.18		BE23	Intact	OCTAHEDRAL AGGREGATE
04MD016	00026	2	0.150	<0.500	0.32	0.31	0.16		CE11	Fragment	IRREGULAR WITH CUBE FEATURES
04MD016	00026	3	0.150	<0.500	0.24	0.21	0.14		BE22	Intact	MACLE
04MD016	00028	1	0.150	<0.500	0.37	0.23	0.23		BB11	Intact	OCTAHEDROID
04MD016	00028	2	0.212	<0.500	0.33	0.26	0.23		CE11	Fragment	OCTAHEDROID
04MD016	00029	1	0.212	<0.500	0.35	0.26	0.19		BE11	Intact	OCTAHEDROID
04MD016	00029	2	0.150	<0.500	0.23	0.22	0.16		BE22	Intact	MACLE
04MD016	00029	3	0.150	<0.500	0.24	0.18	0.2		BE11	Intact	OCTAHEDROID
04MD016	00029	4	0.150	<0.500	0.27	0.26	0.12		BE22	Intact	MACLE
04MD016	00029	5	0.150	<0.500	0.29	0.18	0.18		BE10	Intact	MACLE
04MD016	00029	6	0.150	<0.500	0.37	0.27	0.16		CE11	Fragment	IRREGULAR
04MD016	00030	1	0.212	<0.500	0.36	0.28	0.21		BE23	Intact	OCTAHEDROID
04MD016	00030	2	0.150	<0.500	0.35	0.22	0.2		CE32	Fragment	IRREGULAR
04MD016	00030	3	0.150	<0.500	0.25	0.2	0.17		BE10	Intact	OCTAHEDROID
04MD016	00031	1	0.150	<0.500	0.3	0.24	0.18		BE11	Intact	OCTAHEDROID

## DIAMOND ANALYSES

Client Sample Ref	Stone No	Colour	Clarity	Intensity	Internal Defects Factor	Resorption	Surface Features	Obs Date	Observer
00026	1	Grey	Transparent	2	3	5		27-May-04	JB
00026	2	Grey	Transparent	1	1	4		27-May-04	JB
00026	3	Grey	Transparent	2	2	5	STEPPED	27-May-04	JB
00028	1	Brown	Transparent	1	1	5	STEPPED	27-May-04	JB
00028	2	Grey	Transparent	1	1	4		27-May-04	JB
00029	1	Grey	Transparent	1	1	5	TRIGONS	31-May-04	JB
00029	2	Grey	Transparent	2	2	5	STEPPED	31-May-04	JB
00029	3	Grey	Transparent	1	1	5		31-May-04	JB
00029	4	Grey	Transparent	2	2	4-5	STEPPED	31-May-04	JB
00029	5	Grey	Transparent	1	0	4		31-May-04	JB
00029	6	Grey	Transparent	1	1	-		31-May-04	JB
00030	1	Grey	Transparent	2	3	4	STEPPED	31-May-04	JB
00030	2	Grey	Transparent	3	2	-		31-May-04	JB
00030	3	Grey	Transparent	1	0	5	TRIGONS	31-May-04	JB
00031	1	Grey	Transparent	1	1	4		27-May-04	JB

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date <u>13/04/04</u>	Shift <u>Night</u>	Machine No. <u>300</u>		Drilling/Forage.....	Hrs.....	Mhr.....	
Drilling at <u>B. H. R. G. N.</u>	Hour de travail	# de la machine		Drilling From/Forage de.....	TO/à.....		
Lieu de forage		Hole Angle.....	<u>60°</u>	Overburden/Mort terrain.....	Hrs.....	Mhr.....	
Overburden:		Angle du trou		Overburden From/Mort terrain de.....	TO/à.....		
Hole No. #du trou	From De	To	Total ft/m Total de pd/m	Bit No.. # de mèche	Type..... Sorte.....	ft/m..... pd/m.....	
<u>SPQ.04.03</u>	<u>30</u>	<u>13.5</u>	<u>13.5</u>				
Drilling: Hole No.	From	To	Total ft/m	Shoe No.....	Type.....	ft/m.....	
<u>SPQ.04.03</u>				Shell No.....	Type.....	ft/m.....	
Bit No. <u>3896702</u>	Type <u>BTW</u>	ft/m.....	# de la cartouche	Sorte	pd/m.....		
# de mèche		pd/m	Moving/Déplacement.....	Rhr.....	Mhr.....		
Shoe No. <u>3.E.0.183</u>	Type <u>BW</u>	ft/m. <u>13.5</u>	From/de#.....	TO/à#.....	Distance.....		
Shell No.....	Type.....	ft/m.....	Pulling Casing/Retirer tubage.....	Rhr.....	Mhr.....		
# de la cartouche	Sorte	pd/m	Cemented At/Cimentier à.....	ft/m.....	Rhr.....		
TIME DISTRIBUTION/ Distribution de temps				Cement to set/Durcir le ciment.....	Rhr.....		
Drilling/Forage.....	Rhr.....	Mhr.....	Drilling Cement/Forage du ciment.....	Rhr.....	Mhr.....		
Overburden/Mort terrain.....	<u>10.5</u> Rhr.....	<u>2.1</u> Mhr.....	From/de.....	TO/à.....			
Moving/Déplacement.....	<u>5</u> Rhr.....	<u>3</u> Mhr.....	Reaming (Hole Conditions)/l'état du trou.....	Rhr.....	Mhr.....		
Walking Time/Temps demarche.....	Rhr.....	Mhr.....	Waterline At/Ligne d'eau à.....	ft/m.....	Rhr.....		
Repairing/Réparation.....	Rhr.....	Mhr.....	Survey Testing At/Assessment à.....	ft/m.....	Rhr.....		
(What?)/(Quoi?).....			Acid Testing At/Analyse (acide).....	ft/m.....	Rhr.....		
Other/Autre.....	Rhr.....	Mhr.....	Delays/Retard (.....).Rhr.....	Mhr.....			
(What?)/(Quoi?).....			Walking Time/Temps de marche.....	Rhr.....	Mhr.....		
Casing Placed in Hole/ Tubage placer dans le trou:				Wedging At/Coincer le trou à.....	ft/m.....		
	AW	BW	NW	Other/Autre.....	Rhr.....		
2'				(What?)/(Quoi?).....			
5'				<u>Materials Used, Lost or Damaged</u>			
10'				<u>Matiériaux utilisés, perdu ou endommagé:</u>			
Casing Recovered/Tubage récupéré:	AW	BW	NW	<u>finish setting up</u>			
2'							
5'							
10'							
R. Foreman/Contremaitre opérateur.....	Hrs.....						
Runner/Opérateur.....	<u>Murry Tulman</u> <u>12</u> Hrs						
Runner/Opérateur.....							
Helper/Assistant.....	<u>Wayne Desjardins</u> <u>12</u> Hrs						
Helper/Assistant.....							
Other/Autre.....							

GENERAL REMARKS/Observations général: Hard time w/ t. crossings going down. Some trouble w/ t. waterline.  
Drill song and of set Drill. of line

APPROVED BY: Roger D Thomas CO. REP. Dave Miller  
 Approuver par: Co. Rep.: Contremaitre  
 White-Offic./Bianc-Bureau Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date 14/04/84 Shift Day	Machine No. 300	Drilling/Hor. .... Hrs. .... Mhr					
Drilling at Bit No. 311 K 63	Hole Angle 60°	Drilling From/Forage de ... TO/à ...					
Lieu de forage Overburden:	Angle du trou	Overburden/Mort terrain ... 10 Hrs. 20 Mhr					
Hole No. #du trou	From De	Total ft/m Total de pd/m	Overburden From/Mort terrain de ... 45 m. TO/à ... 60 m				
SPQ 04.03	43.5	60 m 16.5	Bit No. 3E0183 Type BW ft/m 15 m				
Drilling: Hole No.	From	To	# de mèche Sorte pd/m				
Bit No. # de mèche	Type Sorte	ft/m pd/m	Shoe No. .... Type ..... ft/m				
Shoe No. 3E0183	Type BW	ft/m. 16.5	Shell No. .... Type ..... ft/m # de la cartouche Sorte pd/m				
Shell No. # de la cartouche	Type Sorte	ft/m pd/m	Moving/Déplacement ..... Rhr. .... Mhr				
TIME DISTRIBUTION/ Distribution de temps				From/de ... TO/à ... Distance			
Drilling/Forage	Rhr. .... Mhr	Pulling Casing/Retirer tubage ..... Rhr. .... Mhr					
Overburden/Mort terrain	2 Rhr. 1	Cemented At/Cimentier à ..... ft/m. Rhr. .... Mhr					
Moving/Déplacement	Rhr. .... Mhr	Cement to set/Durcir le ciment ..... Rhr. .... Mhr					
Walking Time/Temps de marche	Rhr. .... Mhr	Drilling Cement/Forage du ciment ..... Rhr. .... Mhr					
Repairing/Réparation	Rhr. .... Mhr	From/de ..... TO/à ..... Distance					
(What?)/(Quoi?)	1/2 Rhr. 3	Reaming (Hole Conditions)/l'état du trou ..... Rhr. .... Mhr					
Other/Autre	Part Drill BACK in LINE	Waterline At/Ligne d'eau à ..... ft/m. Rhr. .... Mhr					
(What?)/(Quoi?)	Wk. + Hdk.	Survey Testing At/Assessment à ..... ft/m. Rhr. .... Mhr					
Casing Placed in Hole/ Tubage placé dans le trou:				Acid Testing At/Analyse (acide) ..... ft/m. Rhr. .... Mhr			
AW	BW	NW	HW	Delays/Retard ..... Rhr. .... Mhr			
2'	....	....	....	Walking Time/Temps de marche ..... Rhr. .... Mhr			
5'	....	....	....	Wedging At/Coincer le trou à ..... ft/m. Rhr. .... Mhr			
10'	....	....	....	Other/Autre ..... Rhr. .... Mhr			
Casing Recovered/Tubage récupéré: AW BW NW HW				(What?)/(Quoi?) ..... Rhr. .... Mhr			
2'	....	....	....	Materials Used, Lost or Damaged			
5'	....	....	....	Matériaux utilisés, perdu ou endommagé			
10'	....	....	....	Slow going with casing shod be in hard rock			
R.Foreman/Contremaitre opérateur: DENIS Michaud P2 Hrs							
Runner/Opérateur: Hrs							
Runner/Opérateur: Hrs							
Helper/Assistant: J.L. Bari 12 Hrs							
Helper/Assistant: Hrs							
Other/Autre: Hrs							

GENERAL REMARKS/Observations général: rod's are out of hole going down to shack (night shift)

APPROVED BY: Roger Thomas  
Approuver par:  
White-Office/Blanc-Bureau

CO. REP. Co. Rep.  
Yellow-Co. Rep./Jaune-Co. Rep.

FOREMAN Contremaitre  
Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																																																																																																																																						
<p>Date <u>14/04/84</u> Shift <u>NIGHT</u> Machine No. <u>300</u>  <u>B</u> Hr. de travail # de la machine <u>60'</u>  Drilling at <u>H.L.W.</u> Hole Angle <u>60'</u>  Lieu de forage Angle du trou  Overburden:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Hole No. #du trou</th> <th>From De</th> <th>To A</th> <th>Total ft/m Total de pd/m</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table> <p>Drilling:  Hole No. From To Total ft/m  <u>SPO.04.03</u> <u>60</u> <u>87</u> <u>27</u></p> <p>Bit No. <u>3896.202</u> Type <u>BTW</u> ft/m. <u>27</u>  # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m  Shell No. Type ft/m  # de la cartouche Sorte pd/m</p> <p><b>TIME DISTRIBUTION/ Distribution de temps</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Drilling/Forage</th> <th>12</th> <th>Rhr</th> <th>24</th> <th>Mhr</th> </tr> </thead> <tbody> <tr><td>Overburden/Mortterrain</td><td></td><td></td><td></td><td>Mhr</td></tr> <tr><td>Moving/Déplacement</td><td></td><td></td><td></td><td>Mhr</td></tr> <tr><td>Walking Time/Tempsdemarche</td><td></td><td></td><td></td><td>Mhr</td></tr> <tr><td>Repairing/Réparation</td><td></td><td></td><td></td><td>Mhr</td></tr> <tr><td>(What?)/(Quoi?)</td><td></td><td></td><td></td><td>Mhr</td></tr> <tr><td>Other/Autre</td><td></td><td></td><td></td><td>Mhr</td></tr> <tr><td>(What?)/(Quoi?)</td><td></td><td></td><td></td><td>Mhr</td></tr> <tr><td>Casing Placed in Hole/ Tubage placer dans le trou:</td><td></td><td></td><td></td><td></td></tr> <tr> <td></td> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> <tr><td>2'</td><td></td><td></td><td></td><td></td></tr> <tr><td>5'</td><td></td><td></td><td></td><td></td></tr> <tr><td>10'</td><td></td><td></td><td></td><td></td></tr> <tr><td>Casing Recovered/Tubage récupérer:</td><th>AW</th><th>BW</th><th>NW</th><th>HW</th></tr> <tr><td>2'</td><td></td><td></td><td></td><td></td></tr> <tr><td>5'</td><td></td><td></td><td></td><td></td></tr> <tr><td>10'</td><td></td><td></td><td></td><td></td></tr> <tr><td>R.Freeman/Contremaitre opérateur</td><td></td><td></td><td></td><td>Hrs</td></tr> <tr><td>Runner/Opérateur</td><td><u>Murry Talmaw</u></td><td></td><td></td><td>12 Hrs</td></tr> <tr><td>Runner/Opérateur</td><td></td><td></td><td></td><td>Hrs</td></tr> <tr><td>Helper/Assistan</td><td><u>Wayne Desjardins</u></td><td></td><td></td><td>12 Hrs</td></tr> <tr><td>Helper/Assistant</td><td></td><td></td><td></td><td>Hrs</td></tr> <tr><td>Other/Autre</td><td></td><td></td><td></td><td>Hrs</td></tr> </tbody></table>				Hole No. #du trou	From De	To A	Total ft/m Total de pd/m	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Drilling/Forage	12	Rhr	24	Mhr	Overburden/Mortterrain				Mhr	Moving/Déplacement				Mhr	Walking Time/Tempsdemarche				Mhr	Repairing/Réparation				Mhr	(What?)/(Quoi?)				Mhr	Other/Autre				Mhr	(What?)/(Quoi?)				Mhr	Casing Placed in Hole/ Tubage placer dans le trou:						AW	BW	NW	HW	2'					5'					10'					Casing Recovered/Tubage récupérer:	AW	BW	NW	HW	2'					5'					10'					R.Freeman/Contremaitre opérateur				Hrs	Runner/Opérateur	<u>Murry Talmaw</u>			12 Hrs	Runner/Opérateur				Hrs	Helper/Assistan	<u>Wayne Desjardins</u>			12 Hrs	Helper/Assistant				Hrs	Other/Autre				Hrs	<p>Drilling/Forage..... Hrs..... Mhr</p> <p>Drilling From/Forage de..... TO/à.....</p> <p>Overburden/Mortterrain..... Hrs..... Mhr</p> <p>Overburden From/Mort terrain de..... TO/à.....</p> <p>Bit No. .... Type. ft/m. .... ft/m.  # de mèche Sorte pd/m</p> <p>Shoe No. .... Type. ft/m. .... ft/m.</p> <p>Shell No. .... Type. ft/m. .... ft/m.  # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... Rhr..... Mhr</p> <p>From/de# ..... TO/à# ..... Distance.....</p> <p>Pulling Casing/Retirer tubage..... Rhr..... Mhr</p> <p>Cemented At/Cimentier à..... ft/m. .... Rhr..... Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr..... Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr..... Mhr</p> <p>From/de..... TO/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr..... Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. .... Rhr..... Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. .... Rhr..... Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m. .... Rhr..... Mhr</p> <p>Delays/Retard (.....)..... Rhr..... Mhr</p> <p>Walking Time/Temps de marche..... Rhr..... Mhr</p> <p>Wedging At/Coincer le trou à..... ft/m. .... Rhr..... Mhr</p> <p>Other/Autre..... Rhr..... Mhr</p> <p>(What?)/(Quoi?).....</p> <p><b>Materials Used, Lost or Damaged</b></p> <p>Matériaux utilisés, perdu ou endommagé:</p> <p><u>BAD BROWN D</u></p>			
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m																																																																																																																																							
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Runner/Opérateur				Hrs																																																																																																																																						
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Helper/Assistant				Hrs																																																																																																																																						
Other/Autre				Hrs																																																																																																																																						

GENERAL REMARKS/Observations général:

Set Pold rod's 3 rod's to go.APPROVED BY: Rage D Thomas  
Approuver par:  
White-Office/Blanc-BureauCO. REP. Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-RepDave McPhailFOREMAN  
Contraintre  
Pink-Foreman/Rose-Contraintre

## HEATH &amp; SHERWOOD DRILLING (1986) INC.

FORAGE HEATH &amp; SHERWOOD (1986) INC.

## DAILY REPORT - Rapport journalier

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date 15/04/04	Shift Day	Machine No. 300		Drilling/Forage.....	Hrs.....	Mhr	
Drilling at BTR	Heure de travail # de la machine	Hole Angle 60°		Drilling From/Forage de.....	TD/à.....		
Lieu de forage Overburden:		Angle du trou		Overburden/Mortterrain.....	Hrs.....	Mhr	
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m	Overburden From/Mort terrain de.....	TO/à.....		
Drilling: Hole No. SPQ.04.03	From 87	To 104	Total ft/m 17m	Bit No. # de mèche	Type. ft/m. Sorte pd/m		
Bit No. 38978	Type. Sorte	BTW	ft/m. pd/m 17m	Shoe No. ....	Type. ft/m. ....		
Shoe No. ....	Type. ....	ft/m. ....	Shell No. # de la cartouche	Type. ft/m. Sorte pd/m			
Shell No. # de la cartouche	Type. Sorte	ft/m. pd/m	Moving/Déplacement.....	Rhr.....	Mhr		
TIME DISTRIBUTION/ Distribution de temps				From/de#.....	TO/à#.....	Distance.....	
Drilling/Forage.....	52	Rhr. 11	Reaming (Hole Conditions)/l'état du trou.....	32	Rhr. 7	Mhr	
Overburden/Mortterrain.....			Waterline At/Ligne d'eau à.....	ft/m. ....	Rhr.	Mhr	
Moving/Déplacement.....			Survey Testing At/Assessment à.....	ft/m. ....	Rhr.	Mhr	
Walking Time/Tempsdemarche.....			Acid Testing At/Analyse (acide).....	ft/m. ....	Rhr.	Mhr	
Repairing/Réparation.....			Delays/Retard (.....)	Rhr.....	Mhr		
(What?)/(Quoi?).....			Walking Time/Temps de marche.....	Rhr.....	Mhr		
Other/Autre.....			Wedging At/Coincer le trou à.....	ft/m. ....	Rhr.	Mhr	
(What?)/(Quoi?).....			Other/Autre.....	Rhr.....	Mhr		
Casing Placed in Hole/ Tubage placer dans le trou:				(What?)/(Quoi?).....			
AW	BW	NW	HW	Materials Used, Lost or Damaged			
2'				Matériaux utilisés, perdu ou endommagé:			
5'				Two bag's of fandow			
10'				97 out of Kimballlyt 1ft			
Casing Recovered/Tubage récupérer: AW	BW	NW	HW	SAN ston, boulders, & KLAY,			
2'				AND SOME P.SAN' NOT mush			
5'				SAN lat's fo CAVE			
10'				rod' work getting hard			
R. Foreman/Contremaitre opérateur: Denis Michaud	12			to turn in hole this is from			
Runner/Opérateur.....				9.7m to 10.4m			
Runner/Opérateur.....							
Helper/Assistant: JL Baril	12						
Helper/Assistant.....							
Other/Autre.....							

GENERAL REMARKS/Observations général: Had to rime bring rod's down.

APPROVED BY: Roger Thomas

Approuver par:  
White-Office/Blanc-BureauCO. REP. CO. Rep.  
Yellow-Co. Rep./Jaune-Co.-Rep.

Deeb Michel

FOREMAN

Contremaire

Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériaux de la compagnie Time Distribution/Distribution de temps			
<p>Date <u>15/04/04</u> Shift <u>Night</u> Machine No. <u>300</u>            Drilling at <u>Bittern</u> Height of work <u>60°</u> # of the machine <u>60°</u>            Lieu de forage <u>Bittern</u> Hole Angle <u>60°</u>            Overburden: Angle of the hole            Hole No. From To Total ft/m Total de pd/m</p>							
				Drilling/Forage..... Hrs. Mhr Drilling From/Forage de..... TO/à Overburden/Mortterrain..... Hrs. Mhr Overburden From/Mort terrain de..... TO/à Bit No. Type ft/m # de mèche Sorte pd/m			
Drilling: Hole No. From To Total ft/m <u>SPQ. 04.03 10.4</u>							
				Shoe No. Type ft/m Shell No. Type ft/m # de la cartouche Sorte pd/m			
				Moving/Déplacement..... Rhr. Mhr From/de#..... TO/à#..... Distance Pulling Casing/Retirer tubage..... Rhr. Mhr Cemented At/Cimenter à..... ft/m. Rhr. Mhr			
				Cement to set/Durcir le ciment..... 8 Rhr. 16 Mhr Drilling Cement/Forage du ciment..... 4 Rhr. 8 Mhr From/de..... TO/à Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr Survey Testing At/Assessment à..... ft/m. Rhr. Mhr Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr Delays/Retard (.....). Rhr. Mhr Walking Time/Temps de marche..... Rhr. Mhr Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr Other/Autre..... Rhr. Mhr			
Casing Placed in Hole/ Tubage placer dans le trou: AW BW NW HW 2' ..... 5' ..... 10' ..... Casing Recovered/Tubage récupéré: AW BW NW HW 2' ..... 5' ..... 10' ..... R. Foreman/Contremaitre opérateur..... Hrs Runner/Opérateur..... <u>Harry Tulman</u> 12 Hrs Runner/Opérateur..... Hrs Helper/Assistant..... <u>WAGNE Desjardins</u> 12 Hrs Helper/Assistant..... Hrs Other/Autre..... Hrs				<u>Materials Used, Lost or Damaged</u> <u>Matériaux utilisés, perdu ou endommagé:</u> <u>Trid to go pass cement rod were getting stuck cold Back when back down cause in hole.</u>			

GENERAL REMARKS/Observations général:

APPROVED BY: Roger D'Amore  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP.  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co. Rep.

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériaux de la compagnie Time Distribution/Distribution de temps			
<p>Date <u>16/04/84</u>, Shift <u>Day</u>, Machine No. <u>300</u>  Lieu de forage <u>B. 11. REA</u>, Hole Angle <u>60</u>  Overburden:  Hole No. #du trou      From De      To A      Total ft/m, Total de pd/m</p>				Drilling/Forage..... Hrs. Mhr Drilling From/Forage de..... TO/à..... Overburden/Mortterrain..... Hrs. Mhr Overburden From/Mort terrain de..... TO/à..... Bit No. # de mèche      Type Sorte ft/m. pd/m Shoe No. .... Type ft/m. Shell No. # de la cartouche      Type Sorte ft/m. pd/m Moving/Déplacement..... ? Rhr. 14 Mhr From/de#..... TO/à..... Distance..... Pulling Casing/Retirer tubage..... 3 Rhr. 6 Mhr Cemented At/Cimenté à..... ft/m. Rhr. Mhr Cement to set/Durcir le ciment..... Rhr. Mhr Drilling Cement/Forage du ciment..... Rhr. Mhr From/de..... TO/à..... Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr Survey Testing At/Assessment à..... ft/m. Rhr. Mhr Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr Delay/Retard ..... Rhr. Mhr Walking Time/Temps de marche..... Rhr. Mhr Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr Other/Autre..... Rhr. Mhr (What?)/(Quoi?)..... Rhr. Mhr Casing Placed in Hole/ Tubage placer dans le trou: AW BW NW HW 2' .....      .....      ..... 5' .....      .....      ..... 10' .....      .....      ..... Casing Recovered/Tubage récupéré: AW BW NW HW 2' .....      .....      ..... 5' .....      .....      ..... 10' .....      .....      ..... R.Fareman/Contremaitre opérat... <u>DENIS Michaud</u> 12 Hrs Runner/Opérateur..... Hrs Runner/Opérateur..... Hrs Helper/Assistant <u>J.L. Boutil</u> 12 Hrs Helper/Assistant..... Hrs Other/Autre..... Hrs			
<u>GENERAL REMARKS/Observations général:</u> <u>Casing did not want to come out. Block of first casing. Tied Down Drill to move. Went out some holes for set up.</u>							

APPROVED BY: Roger D Thomas  
Approuver par:  
White-Office/Blanc-Bureau

CO. REP. Denis Michaud  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co. Rep.

FOREMAN  
Contremaitre  
Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																																																																									
<p>Date <u>16/04/04</u>, Shift <u>Night</u>, Machine No. <u>300</u>,</p> <p>Heure de travail # de la machine</p> <p>Drilling at..... Hole Angle.....</p> <p>Lieu de forage Angle du trou</p> <p>Overburden:</p> <p>Hole No. From To Total ft/m Total de pd/m</p> <p>#du trou De A</p>				<p>Drilling/Forage..... Hrs. Mhr</p> <p>Drilling From/Forage de..... TO/à</p> <p>Overburden/Mortterrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... TO/à</p> <p>Bit No. Type ft/m # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m</p> <p>Shell No. Type ft/m # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... Rhr. Mhr</p> <p>From/de#..... TO/à#..... Distance</p> <p>Pulling Casing/Retirer tubage..... Rhr. Mhr</p> <p>Cemented At/Cimentier à..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de..... TO/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide). ft/m. Rhr. Mhr</p> <p>Delays/Retard (.....). Rhr. Mhr</p> <p>Walking Time/Tempsdemarche..... Rhr. Mhr</p> <p>Repairing/Réparation..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Casing Placed in Hole/ Tubage placer dans le trou:</p> <table> <thead> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> </thead> <tbody> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>Casing Recovered/Tubage récupérer:</td> <td>AW</td> <td>BW</td> <td>NW</td> <td>HW</td> </tr> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>R.Foreman/Contremaitre opérateur.....</td> <td>Hrs</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Runner/Opérateur.....</td> <td><u>Merry Talmant</u> 8</td> <td>Hrs</td> <td></td> <td></td> </tr> <tr> <td>Runner/Opérateur.....</td> <td>.....</td> <td>Hrs</td> <td></td> <td></td> </tr> <tr> <td>Helper/Assistant.....</td> <td><u>Wayne Desjardins</u> 8</td> <td>Hrs</td> <td></td> <td></td> </tr> <tr> <td>Helper/Assistant.....</td> <td>.....</td> <td>Hrs</td> <td></td> <td></td> </tr> <tr> <td>Other/Autre.....</td> <td>.....</td> <td>Hrs</td> <td></td> <td></td> </tr> </tbody> </table>					AW	BW	NW	HW	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....	Casing Recovered/Tubage récupérer:	AW	BW	NW	HW	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....	R.Foreman/Contremaitre opérateur.....	Hrs				Runner/Opérateur.....	<u>Merry Talmant</u> 8	Hrs			Runner/Opérateur.....	.....	Hrs			Helper/Assistant.....	<u>Wayne Desjardins</u> 8	Hrs			Helper/Assistant.....	.....	Hrs			Other/Autre.....	.....	Hrs		
	AW	BW	NW	HW																																																																									
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Helper/Assistant.....	.....	Hrs																																																																											
Other/Autre.....	.....	Hrs																																																																											
<p><u>GENERAL REMARKS/Observations général:</u></p> <p><u>No night shift ON MOVED</u></p> <p><u>Materials Used, Lost or Damaged</u></p> <p><u>Matériaux utilisé, perdu ou endommagé:</u></p>																																																																													

APPROVED BY:  
Appravuer par:  
White-Office/Blanc-Bureau

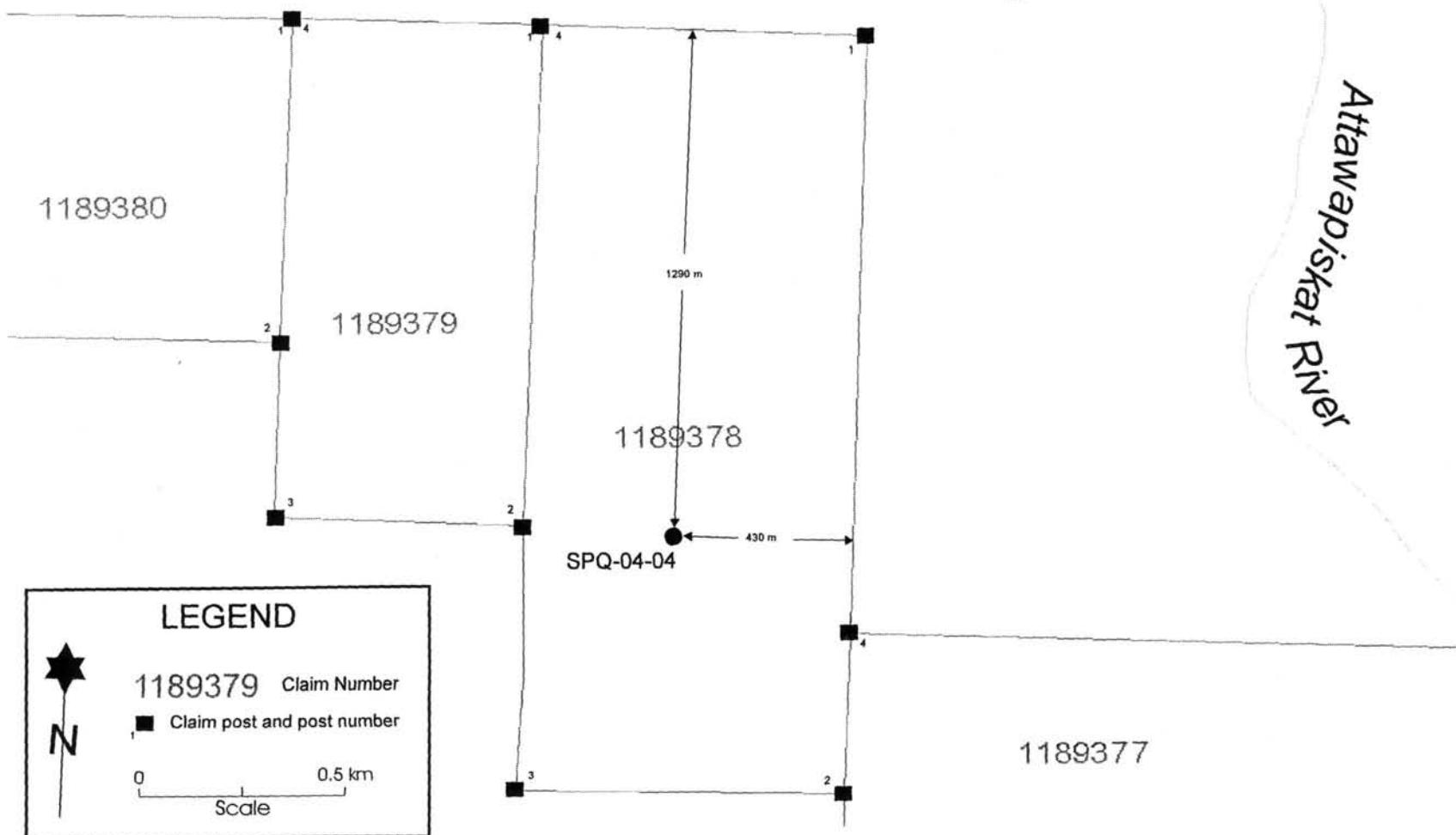
CO. REP. CO. Rep.  
Yellow-Co. Rep./Jaune-Co -Rep

FOREMAN Contremaitre  
Pink-Foreman/Rose-Contremaitre

## **APPENDIX IV**

**DRILL HOLE LOG, LOCATION MAP, SECTION AND DRILLER'S LOG**

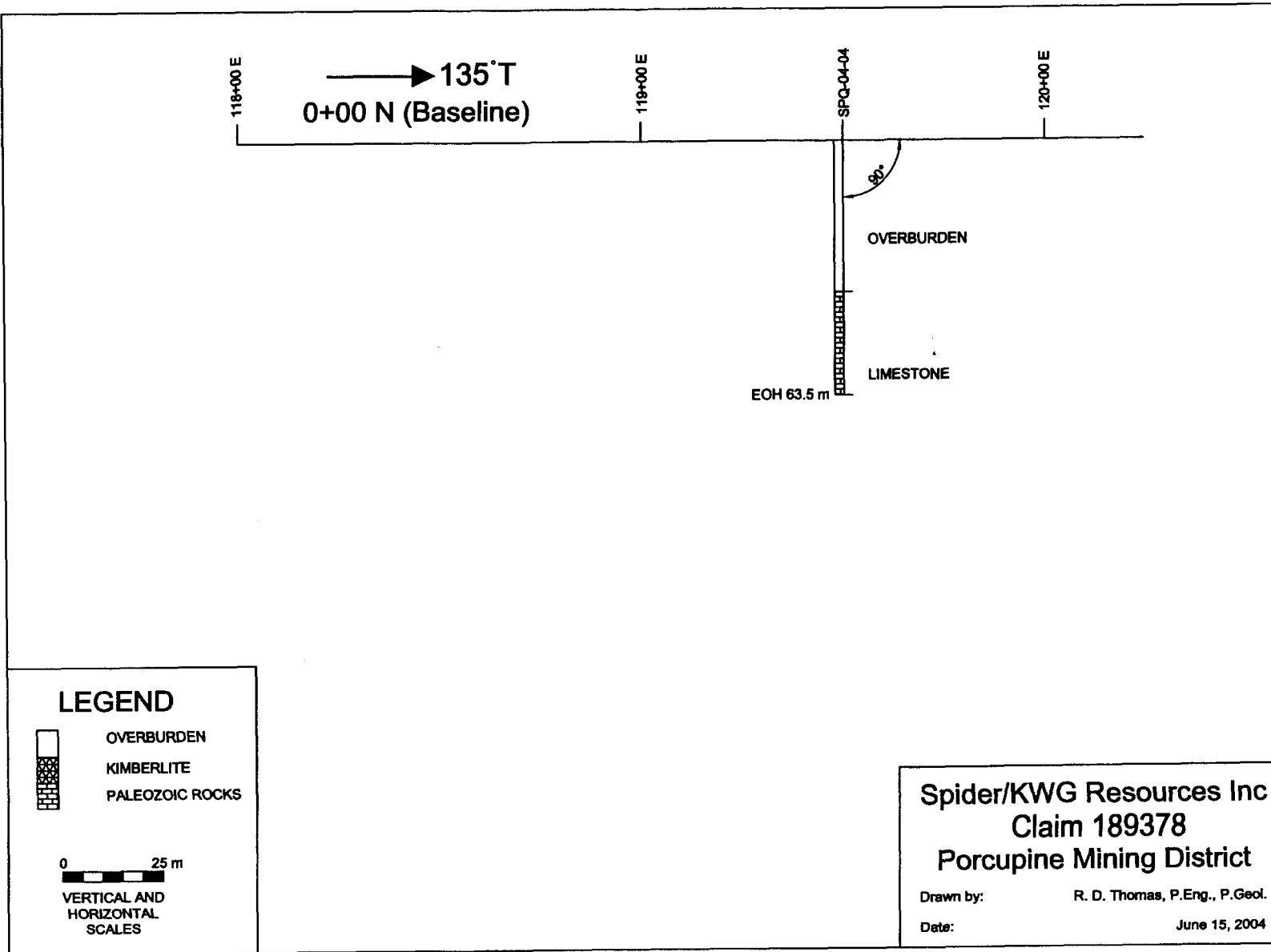
**SPQ-04-04**





Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-04		PAGE: 2 of 3			
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	LENGTH	% Xenoliths	Weight	From	To	Length
0.00	37.75	<p><b>OVERBURDEN</b> Peat and organic material overlying marine clay overlying glacial deposits. Only one pebble of limestone was retained. Below this, 0.65 m of regosol (?), highly weathered limestone, or till were recovered. This material is olive yellow (2.5Y6/6), moderately soft, sticky, composed of 10% fine pebbles, mainly of limestone, 60% fine sand, 30% silt and clay. Below this unit is a 60 mm piece of brown chert.</p> <p><b>CONTACT</b>, first piece of limestone similar to the unit below.</p>	SPQ-04-04-01	37.25	37.75	0.50	For grainsize analysis and mineralogy				
37.75	63.50	<p><b>PALEOZOIC LIMESTONE</b> Mottled grayish yellow (5Y8/4), dusky yellow (5Y6/4), and pale red (5R6/2), poorly and irregularly bedded, fairly hard but breaks easily along some bedding planes (the common piece of core is 0.05-0.10 m long with a few pieces up to 0.2 m in length); composed of 0-20% fine grained quartz sand, 10-20% fossil material and 60-90% very fine to medium crystalline calcite.</p> <p>42.85-44.40: very broken core; some probably lost.</p> <p>@50.37: sharp bedding plane, CA=90°.</p> <p>@50.95: 2 cm sand rich bed, slightly greenish; core very broken.</p> <p>51.06-51.35: several, irregular, 5 mm sand rich beds with calcite cement.</p> <p>51.60-52.35: some very clay rich seams (beds or ground core) containing 20% 1-2 mm, sub-angular - angular fragments of limestone. Core is quite broken in this section.</p> <p>52.45-52.73: very broken core; most pieces are fragments of a large coral.</p> <p>52.90-55.80: very broken core; several pieces (2-5 cm in diameter) brown chert were recovered as well as fragments of coral.</p>									





## HEATH &amp; SHERWOOD DRILLING (1986) INC.

FORAGE HEATH &amp; SHERWOOD (1986) INC.

DAILY REPORT - Rapport journalier

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériaux de la compagnie Time Distribution/Distribution de temps			
<p>Date: <u>17/04/04</u> Shift: <u>Day</u> Machine No. <u>300</u>            Drilling at: <u>B. H. R. E. N.</u> # de la machine <u>906</u>            Lieu de forage Hole Angle: <u>90°</u>            Overburden: Angle du trou            Hole No. From To Total ft/m Total de pd/m  <u>SPQ 0404</u> <u>0</u> <u>15</u> <u>15</u>            ....            Drilling: Hole No. From To Total ft/m            ....            Bit: No. Type ft/m # de mèche Sorte pd/m            ....            Shoe No. <u>3E0214</u> Type <u>2W</u> ft/m. <u>15</u>            Shell No. Type ft/m # de la cartouche Sorte pd/m            ....            TIME DISTRIBUTION/ Distribution de temps            Drilling/Forage..... Rhr. Mhr            Overburden/Mortterrain..... <u>2</u> Rhr. <u>4</u> Mhr            Moving/Déplacement..... Rhr. Mhr            Walking Time/Tempsdemarche..... Rhr. Mhr            Repairing/Réparation..... Rhr. Mhr            (What?)/(Quoi?).....            Other/Autre..... Rhr. Mhr            (What?)/(Quoi?).....            Casing Placed in Hole/ Tubage placer dans le trou:            AW BW NW HW            2' ..... .... .... ....            5' ..... .... .... ....            10' ..... .... .... ....            Casing Recovered/Tubage récupéré: AW BW NW HW            2' ..... .... .... ....            5' ..... .... .... ....            10' ..... .... .... ....            R.Foreman/Contremaitre opérateur: <u>DENIS Michal</u> <u>12</u> Hrs            Runner/Opérateur..... Hrs            Runner/Opérateur..... Hrs            Helper/Assistant <u>J.L. Baril</u> <u>12</u> Hrs            Helper/Assistant..... Hrs            Other/Autre..... Hrs         </p>				Drilling/Forage..... Hrs. Mhr Drilling From/Forage de..... TO/à..... Overburden/Mortterrain..... Hrs. Mhr Overburden From/Mort terrain de..... TO/à..... Bit No. Type ft/m. # de mèche Sorte pd/m .... Shoe No. Type ft/m. .... Shell No. Type ft/m. # de la cartouche Sorte pd/m .... Moving/Déplacement..... <u>10</u> Rhr. <u>20</u> Mhr From/de#..... TO/à#..... Distance..... Pulling Casing/Retirer tubage..... Rhr. Mhr Cemented At/Cimentier à..... ft/m. Rhr. Mhr Cement to set/Durcir le ciment..... Rhr. Mhr Drilling Cement/Forage du ciment..... Rhr. Mhr From/de..... TO/à..... Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr Waterline At/Ligne d'eau à..... <u>1300</u> ft/m. Rhr. Mhr Survey Testing At/Assessment à..... ft/m. Rhr. Mhr Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr Delays/Retard (.....). Rhr. Mhr Walking Time/Temps de marche..... Rhr. Mhr Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr Other/Autre..... Rhr. Mhr (What?)/(Quoi?)..... Materials Used, Lost or Damaged Matériels utilisés, perdu ou endommagés: <u>Wreck on setup. Moved Drill SET Drill up.</u> <u>ONE p.a. of D.D. 2000</u>			

GENERAL REMARKS/Observations général:

APPROVED BY: Roger D Thomas  
Approuver par:  
White-Office/Blanc-BureauCO. REP. CO. REP.  
Co. Rep. CO. REP.  
Yellow-Co. Rep./Jaune-Co. Rep.FOREMAN  
Contremaitre  
Pink-Foreman/Rose- Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date <b>17/04/04</b>	Shift <b>Night</b>	Machine No. <b>300</b>		Drilling/Forage.....	Hrs.....	Mhr	
Drilling at <b>8:11 P.M.</b>	Heure de travail # de la machine	Hole Angle <b>90°</b>		Drilling From/Forage de.....	TO/à.....		
Lieu de forage		Angle du trou		Overburden/Mortterrain.....	Hrs.....	Mhr	
Overburden:				Overburden From/Mort terrain de.....	TO/à.....		
Hole No. # du trou	From De	To À	Total ft/m Total de pd/m	Bit No. # de mèche	Type. Sorte	ft/m. pd/m	
<b>SPQ 04.04</b>	<b>15</b>	<b>37.5</b>	<b>22.5</b>				
Drilling:				Shoe No. ....	Type. ....	ft/m. ....	
Hole No. #	From	To	Total ft/m	Shell No. # de la cartouche	Type. Sorte	ft/m. pd/m	
<b>SPQ 04.04</b>	<b>37.5</b>	<b>56</b>	<b>18.5</b>				
Bit No. # de mèche	Type. Sorte	ft/m. pd/m	Moving/Déplacement.....	Rhr.....	Mhr		
<b>38978</b>	<b>BTW</b>	<b>18.5</b>	From/de#.....	TO/à#.....	Distance.....		
Shoe No. <b>3F0214</b>	Type. <b>BW</b>	ft/m. <b>22.5</b>	Pulling Casing/Retirer tubage.....	Rhr.....	Mhr		
Shell No. # de la cartouche	Type. Sorte	ft/m. pd/m	Cemented At/Cimenter à.....	ft/m.....	Rhr..... Mhr		
			Cement to set/Durcir le ciment.....	Rhr.....	Mhr		
TIME DISTRIBUTION/ Distribution de temps				Drilling Cement/Forage du ciment.....	Rhr.....	Mhr	
Drilling/Forage.....	<b>5</b>	<b>10</b>		From/de.....	TO/à.....		
Overburden/Mortterrain.....	<b>4½</b>	<b>9</b>		Reaming (Hole Conditions)/l'état du trou.....	<b>2½</b>	<b>5</b>	Mhr
Moving/Déplacement.....			Waterline At/Ligne d'eau à.....	ft/m.....	Rhr..... Mhr		
Walking Time/Temps demarche.....			Survey Testing At/Assessment à.....	ft/m.....	Rhr..... Mhr		
Repairing/Réparation.....			Acid Testing At/Analyse (acide).....	ft/m.....	Rhr..... Mhr		
(What?)/(Quoi?).....			Delays/Retard (.....)	.....	Rhr..... Mhr		
Other/Autre.....			Walking Time/Temps de marche.....	.....	Rhr..... Mhr		
(What?)/(Quoi?).....			Wedging At/Coincer le trou à.....	ft/m.....	Rhr..... Mhr		
Casing Placed in Hole/ Tubage placer dans le trou:				Other/Autre.....	.....	Rhr..... Mhr	
	AW	BW	NW	HW			
2'	....	....	....	....	(What?)/(Quoi?).....		
5'	....	....	....	....	<u>Materials Used, Lost or Damaged</u>		
10'	....	....	....	....	<u>Matériaux utilisés, perdu ou endommagé:</u>		
Casing Recovered/Tubage récupérer: AW	BW	NW	HW		<i>Had to reline 50m + 56 in. And cut lots of CAVE in hole.</i>		
2'	....	....	....	....			
5'	....	....	....	....			
10'	....	....	....	....			
R. Foreman/Contremaitre opérateur.....	Hrs						
Runner/Opérateur.....	<b>Harry TALMANT</b>	<b>12</b>	Hrs				
Runner/Opérateur.....							
Helper/Assistant.....	<b>Wayne Desjardins</b>	<b>12</b>	Hrs				
Helper/Assistant.....							
Other/Autre.....							

GENERAL REMARKS/Observations général:

APPROVED BY: *Roger Thomas*  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP. *David McLean*  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co.-Rep

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

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<p>Date <u>18/04/04</u> Shift <u>Day</u> Machine No. <u>300</u>            Drilling at <u>BTW</u> Hole # <u>90°</u>            Lieu de forage <u>311 RKS</u> Angle du trou <u>90°</u>            Overburden:            Hole No. From To Total ft/m Total de pd/m  <u>SP004.04</u> <u>32.5</u> <u>40.5</u> <u>3</u>              Drilling:            Hole No. From To Total ft/m  <u>SP004.04</u> <u>56</u> <u>60.5</u> <u>4.5</u>              Bit No. <u>38978</u> Type <u>BTW</u> ft/m <u>4.5</u>            # de mèche Sorte pd/m    <u>3E0214</u> <u>BTW</u> <u>4.5</u>            Shoe No. Type ft/m Sorte pd/m            Shell No. Type ft/m Sorte pd/m         </p>				Drilling/Forage..... Hrs. Mhr Drilling From/Forage de..... TO/à..... Overburden/Mortterrain..... Hrs. Mhr Overburden From/Mort terrain de..... <u>37.5</u> TO/à. <u>40.5</u> Bit No. <u>3E0214</u> Type <u>BTW</u> ft/m <u>3</u> # de mèche Sorte pd/m  Shoe No. Type ft/m Shell No. Type ft/m Sorte pd/m Moving/Déplacement..... Rhr. Mhr From/de#..... TO/à#..... Distance..... Pulling Casing/Retirer tubage..... <u>2.5</u> Rhr. <u>5</u> Mhr Cemented At/Cimentner à..... ft/m Rhr. Mhr Cement to set/Durcir le ciment..... Rhr. Mhr Drilling Cement/Forage du ciment..... Rhr. Mhr From/de..... TO/à..... Reaming (Hole Conditions)/l'état du trou..... <u>9</u> Rhr. <u>18</u> Mhr Waterline At/Ligne d'eau à..... ft/m Rhr. Mhr Survey Testing At/Assessment à..... ft/m Rhr. Mhr Acid Testing At/Analyse (acide)..... ft/m Rhr. Mhr Delays/Retard (.....)..... Rhr. Mhr Walking Time/Temps demarche..... Rhr. Mhr Repairing/Réparation..... Rhr. Mhr (What?)/(Quoi?)..... Other/Autre..... Rhr. Mhr (What?)/(Quoi?).....  Casing Placed in Hole/ Tubage placer dans le trou: AW BW NW HW 2' ..... ..... ..... ..... 5' ..... ..... ..... ..... 10' ..... ..... ..... ..... Casing Recovered/Tubage récupéré: AW BW NW HW 2' ..... ..... ..... ..... 5' ..... ..... ..... ..... 10' ..... ..... ..... ..... R. Foreman/Contremaitre opérateur: <u>Dennis Michon</u> 12 Hrs Runner/Opérateur..... Hrs Runner/Opérateur..... Hrs Helper/Assistant..... Hrs Helper/Assistant..... Hrs Other/Autre..... Hrs			
<b>MATERIALS USED, LOST OR DAMAGED</b> <i>Matiériaux utilisés, perdu ou endommagés:</i> <i>Paid rod's out when back in hole. Had to rime from 32.5 to 56m. Drill 3m. Break tool. Hat 58m when to 60.5m tried to rime cassine down when 3m short. Bit finished. Paid rod's when down with open rod's. paid cassins out 3m to go. HAVE to rime cassins to 60.5 @ A.R.E. move.</i>							

GENERAL REMARKS/Observations général: rod's are getting stuck in hole

APPROVED BY: Roger Thomas  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP. Dean  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

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<p>Date <u>18/04/86</u> Shift <u>Night</u> Machine No. <u>300</u>  Drilling at <u>B.W.E.A.</u> Heure de travail # de la machine <u>90°</u>  Lieu de forage Hole Angle.....  Overburden: Angle du trou</p> <table border="1"> <thead> <tr> <th>Hole No. #du trou</th> <th>From De</th> <th>To A</th> <th>Total ft/m Total de pd/m</th> </tr> </thead> <tbody> <tr> <td><u>SPQ 04.04</u></td> <td><u>40.5</u></td> <td><u>53m</u></td> <td><u>12.5m</u></td> </tr> </tbody> </table>				Hole No. #du trou	From De	To A	Total ft/m Total de pd/m	<u>SPQ 04.04</u>	<u>40.5</u>	<u>53m</u>	<u>12.5m</u>	<p>Drilling/Forage..... Hrs. Mhr  Drilling From/Forage de..... TO/à.....  Overburden/Mortterrain..... <u>12 1/2</u> Hrs. <u>2.5</u> Mhr  Overburden From/Mort terrain de. <u>40.5</u> TO/à. <u>53m</u>  Bit No. .... Type. <u>Blk</u> ft/m. <u>12.5</u>  # de mèche Sorte pd/m</p>															
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m																								
<u>SPQ 04.04</u>	<u>40.5</u>	<u>53m</u>	<u>12.5m</u>																								
<p>Drilling: Hole No. From To Total ft/m</p>				<p>Shoe No. <u>3E.0215</u> Type. <u>BW</u> ft/m. <u>12.5</u>  Shell No. .... Type. ft/m. ....  # de la cartouche Sorte pd/m</p>																							
<p>Bit No. .... Type. ft/m. ....  # de mèche Sorte pd/m</p>				<p>Moving/Déplacement..... Rhr. .... Mhr  From/de# ..... TO/à# ..... Distance.....  Pulling Casing/Retirer tubage..... Rhr. .... Mhr  Cemented At/Cimenter à..... ft/m. .... Rhr. .... Mhr  Cement to set/Durcir le ciment..... Rhr. .... Mhr  Drilling Cement/Forage du ciment..... Rhr. .... Mhr  From/de..... TO/à.....</p>																							
<p>Shoe No. .... Type. <u>BW</u> ft/m. <u>12.5</u>  Shell No. .... Type. ft/m. ....  # de la cartouche Sorte pd/m</p>				<p>Reaming (Hole Conditions)/l'état du trou..... Rhr. .... Mhr  Waterline At/Ligne d'eau à..... ft/m. .... Rhr. .... Mhr  Survey Testing At/Assessment à..... ft/m. .... Rhr. .... Mhr  Acid Testing At/Analyse (acide)..... ft/m. .... Rhr. .... Mhr  Delays/Retard (.....). Rhr. .... Mhr  Walking Time/Tempsdemarche..... Rhr. .... Mhr  Repairing/Réparation..... Rhr. .... Mhr  (What?)/(Quoi?).....  Other/Autre..... Rhr. .... Mhr  (What?)/(Quoi?).....</p>																							
<p>Casing Placed in Hole/ Tubage placer dans le trou:</p> <table border="1"> <thead> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> </thead> <tbody> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> </tbody> </table>					AW	BW	NW	HW	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....	<p>(What?)/(Quoi?).....  Materials Used, Lost or Damaged  Matériaux utilisés, perdu ou endommagés:  <u>REMMING CASSING IN BAD ROCK. TRY TO GO TO 60.5M CASSING, DOESN'T WHANT TO GO. NO MARK. START GOING DOWN WITH ROD'S. USED G. STOPPER ON A PAILE TO GET IT UP.</u></p>			
	AW	BW	NW	HW																							
2'	....	....	....	....																							
5'	....	....	....	....																							
10'	....	....	....	....																							
<p>R. Foreman/Contremaitre opérateur..... Hrs  Runner/Opérateur..... <u>Murry Tu Lam</u> <u>12 1/2</u> Hrs  Runner/Opérateur..... Hrs  Helper/Assistant..... <u>Wayne Dujardin</u> <u>12 1/2</u> Hrs  Helper/Assistant..... Hrs  Other/Autre..... Hrs</p>																											

GENERAL REMARKS/Observations général:

APPROVED BY: Roger Thomas  
Approuver par:  
White-Office/Bureau

CO. REP. Co. Rep.  
Yellow-Co. Rep./Jaune-Co. Rep.

FOREMAN  
Contremaitre  
Pink-Forman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
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<p>Date: <u>19/10/86</u> Shift: <u>Day</u> Machine No. <u>300</u></p> <p>Drilling at: <u>BIRKEN</u> Hour de travail # de la machine <u>90°</u></p> <p>Lieu de forage Hole Angle Angle du trou</p> <p>Overburden: Hole No. From To Total ft/m Total de pd/m</p> <p># du trou De A ..... SPQ, 04, 04. ....</p>				<p>Drilling/Forage..... Hrs. 1 Mhr</p> <p>Drilling From/Forage de..... TO/à 60.5 63.5</p> <p>Overburden/Mortterrain..... Hrs. 10 Mhr</p> <p>Overburden From/Mort terrain de..... TO/à 53 53</p> <p>Bit No. <u>38728</u> Type <u>BTB</u> ft/m # de mèche Sorte <u>BTB</u> pd/m</p> <p>Shoe No. <u>3E0215</u>, Type <u>BW</u> ft/m</p> <p>Shell No. .... Type ..... ft/m. # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... Rhr. Mhr</p> <p>From/de# ..... TO/à# ..... Distance</p> <p>Pulling Casing/Retirer tubage..... Rhr. Mhr</p> <p>Cemented At/Cimentner à..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de ..... TO/à .....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr. 13 Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr</p> <p>Delays/Retard (.....)..... Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?)..... Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?)..... Rhr. Mhr</p> <p><u>Casing Placed in Hole/ Tubage placer dans le trou:</u></p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <th></th> <th style="text-align: center;">AW</th> <th style="text-align: center;">BW</th> <th style="text-align: center;">NW</th> <th style="text-align: center;">HW</th> </tr> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>Casing Recovered/Tubage récupérer:</td> <td style="text-align: center;">AW</td> <td style="text-align: center;">BW</td> <td style="text-align: center;">NW</td> <td style="text-align: center;">HW</td> </tr> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> </table> <p>R. Foreman/Contremaitre opérateur <u>Denis Michon</u> 11 1/2 Hrs</p> <p>Runner/Opérateur..... Hrs</p> <p>Runner/Opérateur..... Hrs</p> <p>Helper/Assistant <u>T.L. Baril</u> 11 1/2 Hrs</p> <p>Helper/Assistant..... Hrs</p> <p>Helper/Assistant..... Hrs</p> <p>Other/Autre..... Hrs</p> <p><u>Materials Used; Lost or Damaged</u></p> <p>Matériaux utilisés, perdu ou endommagés:</p> <p><u>Whent down wht rod's A.R.</u>  <u>finish going down wht rod's</u>  <u>Had to come from 53. 60.5 m</u>  <u>Whent down 3 m, more wht rod's just S.A.W.</u></p> <p><u>So from 5.8 m to 63.5</u>  <u>S.A.W. and Boldrugs and a</u>  <u>Klay</u>  <u>Had to pull rod's back out</u>  <u>to mush S.A.W. in rod's</u></p>					AW	BW	NW	HW	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....	Casing Recovered/Tubage récupérer:	AW	BW	NW	HW	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....
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**GENERAL REMARKS/Observations général:** Whent back down Home maid rim ev. pop G. stop in hole didn't have either can't turn cassing to rimk pull some 2 in cassing cassing bout no go.

APPROVED BY: Roger Thomas  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP.  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co. Rep.

Denis Michon

FOREMAN  
 Contremaire  
 Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
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<p>Date <u>19/04/04</u> Shift <u>Night</u> Machine No. <u>300</u>  Drilling at <u>3:00 AM</u> Heure de travail # de la machine <u>90</u>  Lieu de forage Angle du trou  Overburden:  Hole No. From To Total ft/m  # du trou De À Total de pd/m </p> <p>Drilling: Hole No. From To Total ft/m</p> <p>Bit No. Type ft/m  # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m</p> <p>Shell No. Type ft/m  # de la cartouche Sorte pd/m</p> <p><b>TIME DISTRIBUTION/ Distribution de temps</b></p> <p>Drilling/Forage <u>Paid rods</u> <u>2</u> Rhr. <u>1</u> Mhr  Overburden/Mortterrain. Rhr. Mhr  Moving/Déplacement. Rhr. Mhr  Walking Time/Tempsdemarche. Rhr. Mhr  Repairing/Réparation. Rhr. Mhr  (What?)/(Quoi?)  Other/Autre. Rhr. Mhr  (What?)/(Quoi?)  Casing Placed in Hole/ Tubage placer dans le trou:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">AW</th> <th style="text-align: center;">BW</th> <th style="text-align: center;">NW</th> <th style="text-align: center;">HW</th> </tr> </thead> <tbody> <tr> <td>2'</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> </tr> <tr> <td>5'</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> </tr> <tr> <td>10'</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> </tr> <tr> <td>Casing Recovered/Tubage récupérer:</td> <td style="text-align: center;">AW</td> <td style="text-align: center;">BW</td> <td style="text-align: center;">NW</td> <td style="text-align: center;">HW</td> </tr> <tr> <td>2'</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> </tr> <tr> <td>5'</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> </tr> <tr> <td>10'</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> <td style="text-align: center;">...</td> </tr> </tbody> </table> <p>R. Foreman/Contremaitre opérateur. Hrs  Runner/Opérateur. <u>Harry Tulam</u> 12 Hrs  Runner/Opérateur. <u>Wayne Dujardin</u> 12 Hrs  Helper/Assistant. Hrs  Helper/Assistant. Hrs  Other/Autre. Hrs</p>					AW	BW	NW	HW	2'	...	...	...	...	5'	...	...	...	...	10'	...	...	...	...	Casing Recovered/Tubage récupérer:	AW	BW	NW	HW	2'	...	...	...	...	5'	...	...	...	...	10'	...	...	...	...	<p>Drilling/Forage..... Hrs. Mhr</p> <p>Drilling From/Forage de..... To/à.....</p> <p>Overburden/Mortterrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... To/à.....</p> <p>Bit No. Type ft/m.  # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m.</p> <p>Shell No. Type ft/m.  # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement. <u>7</u> Rhr. <u>14</u> Mhr</p> <p>From/de#..... To/à#..... Distance.....</p> <p>Pulling Casing/Retirer tubage. <u>5 1/2</u> Rhr. <u>9</u> Mhr</p> <p>Cemented At/Cimententer à..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de..... To/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide). ft/m. Rhr. Mhr</p> <p>Delays/Retard (.....). Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr</p> <p>Other/Autre..... Rhr. Mhr</p> <p>(What?)/(Quoi?)</p> <p><u>Materials Used, Lost or Damaged</u></p> <p>Matériels utilisé, perdu ou endommagé:</p> <p><u>RE COVRED ALL CASSIUS.</u>  <u>DRIN UP WATERLINE.</u>  <u>TERING DOWN FOR MOUND.</u></p>			
	AW	BW	NW	HW																																											
2'	...	...	...	...																																											
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GENERAL REMARKS/Observations général:

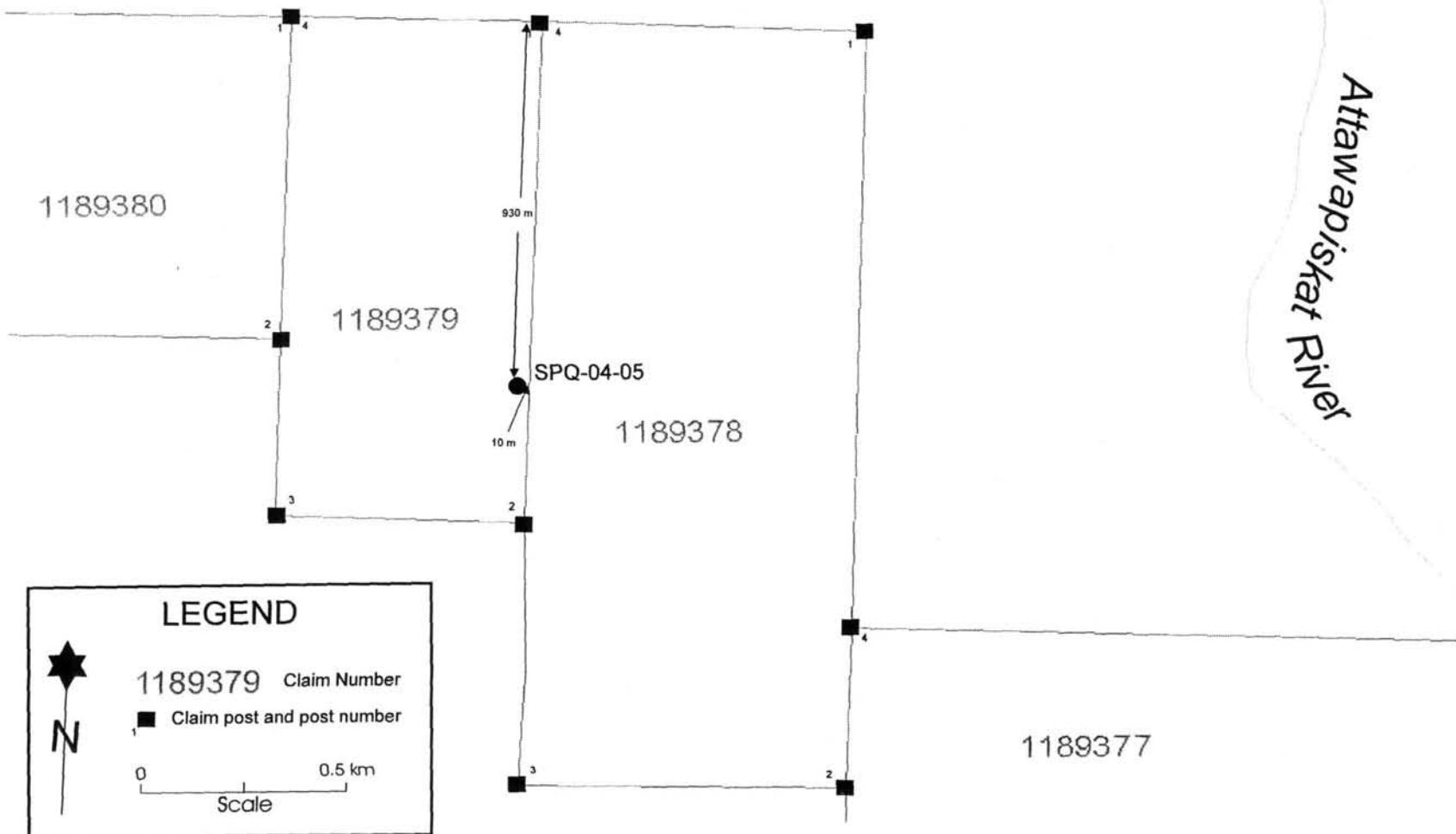
APPROVED BY: Roger Thorne  
Approuver par:  
White-Office/Blanc-BureauCO. REP. Deb Weller  
Co. Rep.,  
Yellow-Co. Rep./Jaune-Co.-Rep.FOREMAN  
Contremaitre

Pink-Foreman/Rose-Contremaitre

## **APPENDIX V**

**DRILL HOLE LOG, DIAMOND RESULTS,  
LOCATION MAP, SECTION AND DRILLER'S LOG**

**SPQ-04-05**



# Billiken Management

Project:	Attawapiskat Project				
Hole Number:	<u>SPQ-04-05</u>				
Units of Measurement:	<u>Metres</u>				
Location	NTS Sheet: <u>43B/13</u> Township: <u>BMA 528 834 AREA</u> Claim No: <u>1189379</u> Grid: <u>August 1, 2003</u> Easting: <u>114+10E</u> Northing: <u>0+40S</u> Elevation: <u>82</u>	INCLINATION TESTS	Comments		
GPS Co-ordinates: (if applicable)	Zone: <u>17U</u> Datum: <u>NAD83</u> Easting: <u>301540</u> Northing: <u>5862880</u>	DEPTH <u>COLLAR</u>	DIP <u>90°</u>	AZIMUTH <u>000°</u>	
Collar Dip:					There is a north-south claim line, 10 m to the east of the hole.
Collar Azimuth:					
Hole Length:					The hole was designed to test a 60 nT anomaly to the southeast of the MacFadyen No 1 pipe first identified in the Ashton magnetic survey.
Core Size:					
Recovery:					
Logged By:	<u>Roger D. Thomas</u>				
Date:	Start: <u>April 23, 2004</u>				
	Finish: <u>April 25, 2004</u>				
Drilled by:	<u>Denis Michon, Heath &amp; Sherwood</u>				
Date:	Start: <u>April 20, 2004</u>				





Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-05		PAGE: 4 of 10			
FROM	TO	DESCRIPTION	Analytical Sample					Representative Sample			
			SAMPLE	FROM	TO	LENGTH	% Xenoliths	Weight	From	To	Length
60.00	77.93	<b>PALEOZOIC LIMESTONE (Continued)</b> @62.60: sand beds become more irregular, eventually becoming lenses and irregular masses. They have calcite cement.  @66.00: becomes increasingly mottled with light grey (N7) sections over the next few metres until the grey sections comprise 80% of the core. Fossil content also decreases to trace and is confined to specific fossiliferous beds.  69.50-71.00: core is quite broken; unit is very monotonous.  74.90-75.00: sandy, medium grained limestone bed with sharp contacts, CA=90°.  77.79-77.93: yellow clayey layer, no calcite (volcanic ash?).  @78.42: turns yellow and clay content increases to 50%.  <b>CONTACT</b> , sharp, CA=90°									
77.93	82.00	<b>PALEOZOIC LIMESTONE</b> Medium light grey (N6), soft, poor core recovery (very broken), fine grained, poorly bedded; composed of 80-95% calcite, and 5-20% quartz sand. Sand occurs mainly as discrete lenses and irregular masses.  81.50-81.80: Highly oxidized with oxidation decreasing downwards (soil profile); core is very broken; uppermost 5 cm is very soft and earthy.  <b>CONTACT</b> , in broken core  <b>KIMBERLITE</b> , hypabyssal dyke									
82.00	82.74	Black (N0), soft, competent (good core recovery), homogeneous, moderately magnetic, composed of 10% 10-20 mm well rounded olivine, 15% 3-8 mm well rounded olivine, 75% aphanitic groundmass, trace limestone xenoliths up to 3 mm in diameter along the margins. Rock is highly fractured and fractures are filled with <1 mm of calcite.	00032	82.00	82.74	0.65	5	2.75	82.45	82.54	0.09



## Billiken Management

PROJECT: Attawapiskat

HOLE NO: SPQ-04-05

PAGE: 6 of 10

FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample			
			SAMPLE	FROM	TO	LENGTH	% Xenoliths	Weight	From	To	Length	
82.87	105.08	<b>PALEOZOIC LIMESTONE (Continued)</b> 92.20-96.34: quartz sandstone bed with calcite cement.  96.39-96.67: sandstone, 20% quartz, 80% calcite (limestone fragments), trace rounded limestone pebbles.  96.80-96.96: several 5-20 mm thick lenses of white quartz sand.  @97.20: lens of white quartz sand, 40 mm thick.  98.05-98.26: quartz sandstone bed with a few pebbles of limestone to 20 mm in diameter.  100.40-100.61: quartz sandstone with 30% granules and fine pebbles up to 5 mm in diameter. Many of the clasts are not of local limestone.  101.35-101.98: sand content is 10-30%.  103.21-103.86: fine grained quartz sandstone with calcite cement. Some chert nodules.  <b>CONTACT</b> , in broken core; start of highly weathered material.								100.4	100.61	0.21
105.08	131.38	<b>KIMBERLITE</b> , hypabyssal Highly variable with respect to color, physical properties and composition.  105.00-105.69: Weathered kimberlite (Paleosol): highly oxidized (10YR6/6 - brownish yellow) at top to slightly oxidized (10YR7/4 - very pale brown) at the bottom of the section.  105.69-106.27: light grey (N7), fine grained (leached zone in soil profile). Overall texture resembles that of the kimberlite below, but individual primary minerals are not identifiable because they are all highly altered by weathering.  106.17-106.27: 40% 8-10 mm, well rounded olivine; 40% 1-2 mm well rounded olivine; 20% calcite.	00033 dating	105.00	108.11	2.46	2	8.80	106.96 107.26	107.26 107.61	0.3 0.35	

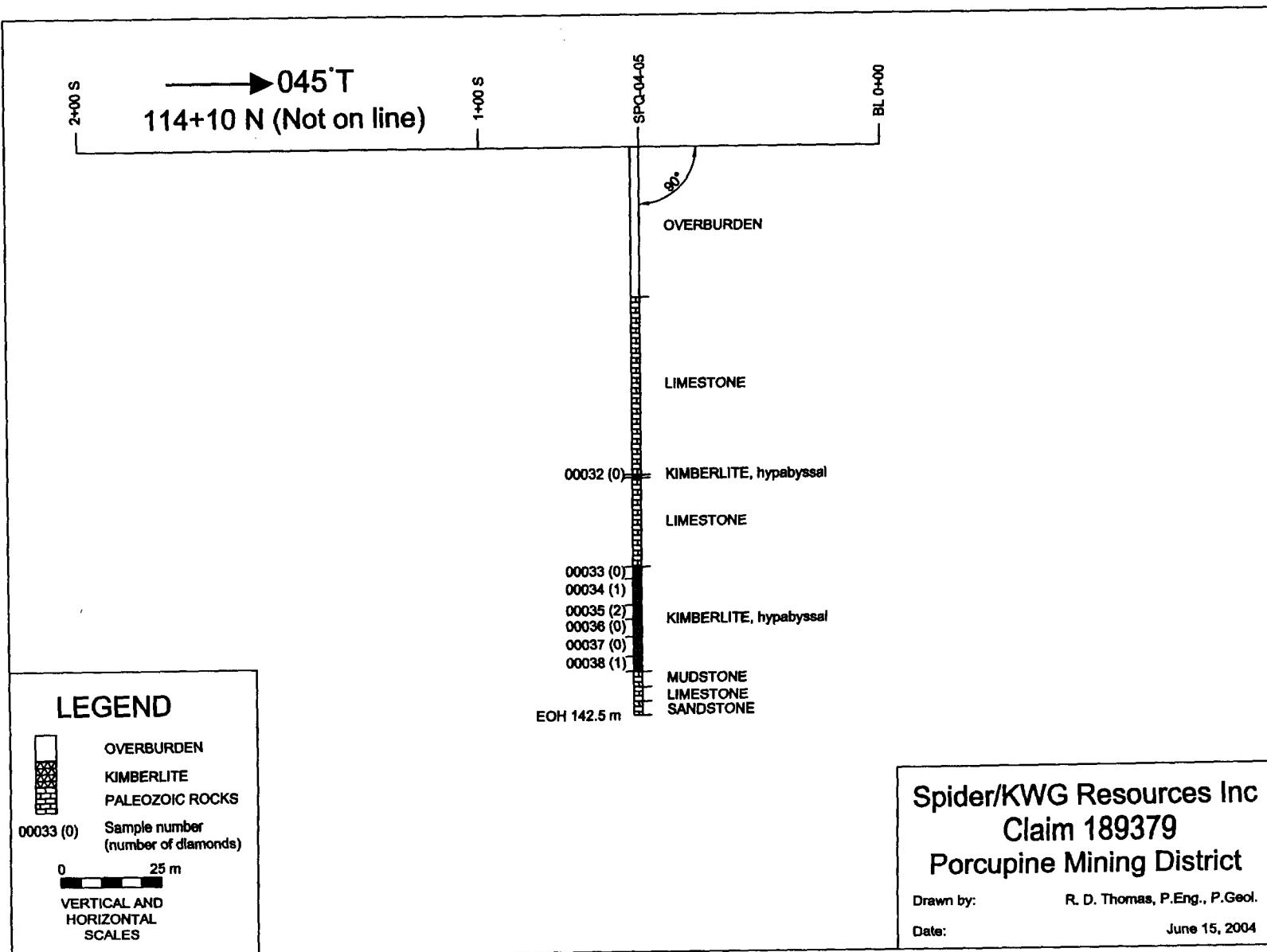
## Billiken Management

			PROJECT: Attawapiskat			HOLE NO: SPQ-04-05		PAGE: 7 of 10			
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	LENGTH	% Xenoliths	Weight	From	To	Length
105.08	131.38	<b>KIMBERLITE, hypabyssal (Continued)</b> 106.27-108.11: greenish black (5G2/1), moderately hard, moderately competent with good core recovery in 0.2-0.4 m lengths, moderately homogeneous, slightly magnetic; composed of 2% limestone xenoliths, 10 x 20 mm in average size; 5-10% well rounded, 5-10 mm diameter, dark green olivine; 10% 1-2 mm well rounded olivine; in a very fine grained matrix of serpentine and calcite. 5% fine-grained pyrite is disseminated throughout, commonly associated with the olivine.  @107.07: two pyrope garnets, 2-4 mm in diameter.  @107.27: one 3 mm diameter orange garnet.  @107.43: one 3 mm diameter orange garnet.  @107.74: begins to turn medium grey (N5) in color.  108.11-114.83: kimberlite with 45% limestone xenoliths. The kimberlite occurs as 0.1-0.3 m thick dykes separates by 0.1-1.0 m thick sections of limestone. The kimberlite is in a few places as above, but is mainly as ground or broken core. The limestone is a grey variety, highly fractured with no apparent bedding planes.  @114.20: two 1 mm chrome diopsides.  114.83-118.29: kimberlite, hypabyssal, black (N1), fairly homogeneous, slightly magnetic, soft, competent with good core recovery (02-0.4 m lengths); composed of 10% rounded to well rounded, embayed, corroded, 10-90 mm in diameter, limestone xenoliths; 10% feldspar-biotite gneiss xenoliths up to 15 cm in diameter, commonly broken into several pieces, embayed with sharp contacts; 5% 3-8 mm diameter, well rounded olivine, 10% 1-2 mm well rounded olivine; in very fine grained to aphanitic groundmass of serpentine and calcite. Abundant fine, irregular fractures filled with 1-5 mm of calcite.  114.83-115.30: reddish in colour.	00034	108.11	114.83	6.48	45	20.60	114	114.24	0.24
			00035	114.83	118.29	3.18	20	12.25	117	117.28	0.28

Billiken Management			PROJECT: Attawapiskat			HOLE NO: SPQ-04-05			PAGE: 8 of 10		
FROM	TO	DESCRIPTION	Analytical Sample						Representative Sample		
			SAMPLE	FROM	TO	Length	% Xenoliths	Weight	From	To	Length
105.08	131.38	KIMBERLITE, hypabyssal (Continued) @116.27: one 6 mm diameter mantle xenolith containing one 1 mm pyrope garnet.  116.70-116.83: kimberlite is highly pitted.  118.29-127.60: kimberlite with abundant (50%) large xenoliths. The kimberlite is fairly uniform, competent, with good core recovery except asd noted below. The xenoliths are 0.1-0.4 m in length, but are commonly broken into smaller pieces. Most xenoliths are of limestone, bur a few, up to 0.25 m in size are of feldspar-biotite gneiss. Kimberlite is composed of 2% 10-20 mm well rounded limestone xenoliths; 2% 5-8 mm diamter, well rounded olivine, 5% 1-2 mm well rounded olivine in very fine grained to aphanitic groundmass of calcite and serpentine. Trace of disseminated pyrite.  119.00-120.00: kimberlite turns reddish.  123.62-123.94: highly oxidized adjacent to fracture.  123.94-124.50: very broken core.  127.60-131.38: kimberlite, hypabyssal, black (N1), moderately soft, competent with core recovered in 0.08 - 0.20 m lengths, moderately magnetic; composed of 5% limestone xenoliths, some partially or totally altered to serpentine; 10% 8-15 mm well rounded olivine; 5% 0.1-1.0 mm well rounded olivine; in a fine grained groundmass of calcite and serpentine; trace disseminated pyrite. Kimberlite is fractures and fractures are filled with <1 - 1 mm of calcite.  @128.73: 60 mm limestone xenolith with 6 mm reaction rim.  129.75-129.86: biotite-feldspar gneiss xenolith.  @130.67: 1 mm mass of chrome diopside.  @131.08: < 1 mm mass of pyrope garnet.131.25-131.35: highly foliated parallel tp contact below.	00036	118.29	122.60	4.15	50	15.60	120	120.16	0.16
			00037	122.60	127.60	4.82	50	14.50	122.82	123	0.18
			00038	127.60	131.38	3.59	5	13.25	131	131.19	0.19







DIAMOND ANALYSES

Client Reference	Work Order Name	Client Sample Ref	Proc Date Started	Proc Total	Proc No Primary Burns	Proc No Re Burns	Proc No Micro Burns	Proc Date Completed	Obs No Stones	Obs No Synthetics
				Primary Burn Weight						
Billiken Submittal	04MD016	00032	11-May-04	2.07	1			17-May-04	0	0
Billiken Submittal	04MD016	00033	11-May-04	7.91	1	1		26-May-04	0	0
Billiken Submittal	04MD016	00034	11-May-04	19.11	2		2	26-May-04	1	1
Billiken Submittal	04MD016	00035	12-May-04	11.15	1	1		25-May-04	2	1
Billiken Submittal	04MD016	00036	12-May-04	14.46	2	1		26-May-04	0	2
Billiken Submittal	04MD016	00037	12-May-04	13.27	2	1		26-May-04	0	1
Billiken Submittal	04MD016	00038	12-May-04	12.31	2	1	1	26-May-04	1	0

## DIAMOND ANALYSES

Work Order Name	Client Sample Ref	Stone No	Test Sieve	Stock					Terrac	Fragmentation	Form
				Ex Sieve	X	Y	Z	Wt Meas			
04MD016	00034	1	0.150	<0.500	0.24	0.18	0.17		BE31	Intact	OCTAHEDRAL AGGREGATE
04MD016	00035	1	0.212	<0.500	0.51	0.4	0.19		CB31	Fragment	MACLE
04MD016	00035	2	0.150	<0.500	0.37	0.24	0.18		BW01	Intact	OCTAHEDRAL AGGREGATE
04MD016	00038	1	0.150	<0.500	0.26	0.19	0.18		AE11	Intact	OCTAHEDROID

## DIAMOND ANALYSES

Client Sample Ref	Stone No	Colour	Internal Defects				Obs Date	Observer	
			Clarity	Intensity	Factor	Resorption			
00034	1	Grey	Transparent	3	1	5	STEPPED	31-May-04	JB
00035	1	Brown	Transparent	3	1	4		27-May-04	JB
00035	2	White	Transparent	0	1	5	STEPPED	27-May-04	JB
00038	1	Grey	Transparent	1	1	5	STEPPED	31-May-04	JB

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

<b>CONTRACTOR'S TIME/temps de l'entrepreneur</b> Included in the Drilling Rate/Inclus dans le tarif de forage				<b>COMPANY TIME AND MATERIALS</b> Temps et matériels de la compagnie Time Distribution/Distribution de temps		
Date <u>20/04/01</u>	Shift <u>Day</u>	Machine No. <u>300</u>		Drilling/Forage.....	Hrs.....	Mhr
Drilling at <u>311 K.m</u>	Hour de travail	# de la machine <u>90</u>	Hole Angle.....	Drilling From/Forage de.....	TO/à.....	
Lieu de forage			Angle du trou	Overburden/Mortterrain.....	Hrs.....	Mhr
Overburden:				Overburden From/Mort terrain de.....	TO/à.....	
Hole No. #du trou	From De .....	To A .....	Total ft/m Total de pd/m	Bit No. ....	Type ..... ft/m .....	
				# de mèche	Sorte pd/m .....	
Drilling:				Shoe No. ....	Type ..... ft/m .....	
Hole No.	From	To	Total ft/m	Shell No. ....	Type ..... ft/m .....	
				# de la cartouche	Sorte pd/m .....	
Bit No. ....	Type ..... ft/m .....			Moving/Déplacement.....	12 Rhr 24 Mhr	
# de mèche	Sorte pd/m .....			SPQ.04.04	From/de# TO/à# 04.05 Distance. 1 Km	
Shoe No. ....	Type ..... ft/m .....			Pulling Casing/Retirer tubage.....	Rhr.....	Mhr
Shell No. ....	Type ..... ft/m .....			Cemented At/Cimenter à.....	ft/m..... Rhr.....	Mhr
# de la cartouche	Sorte pd/m .....			Cement to set/Durcir le ciment.....	Rhr.....	Mhr
<b>TIME DISTRIBUTION/ Distribution de temps</b>				Drilling Cement/Forage du ciment.....	Rhr.....	Mhr
Drilling/Forage.....	Rhr.....	Mhr	From/de.....	TO/à.....		
Overburden/Mortterrain.....	Rhr.....	Mhr	Reaming (Hole Conditions)/l'état du trou.....	Rhr.....	Mhr	
Moving/Déplacement.....	Rhr.....	Mhr	Waterline At/Ligne d'eau à.....	600 ft/m.....	Rhr..... Mhr	
Walking Time/Temps de marche.....	Rhr.....	Mhr	Survey Testing At/Assessment à.....	ft/m.....	Rhr..... Mhr	
Repairing/Réparation.....	Rhr.....	Mhr	Acid Testing At/Analyse (acide).....	ft/m.....	Rhr..... Mhr	
(What?)/(Quoi?).....			Delays/Retard (.....)	.....	Rhr..... Mhr	
Other/Autre.....	Rhr.....	Mhr	Walking Time/Temps de marche.....	.....	Rhr..... Mhr	
(What?)/(Quoi?).....			Wedging At/Coincer le trou à.....	ft/m.....	Rhr..... Mhr	
<b>Casing Placed in Hole/ Tubage placer dans le trou:</b>				Other/Autre.....	.....	Rhr..... Mhr
	AW	BW	NW	HW	(What?)/(Quoi?).....	
2'	.....	.....	.....	.....	Materials Used, Lost or Damaged	
5'	.....	.....	.....	.....	Matériaux utilisés, perdu ou endommagé	
10'	.....	.....	.....	.....	Cut set up area finish cutting	
Casing Recovered/Tubage récupéré: AW	BW	NW	HW	.....	Hold gribings for Drill	
2'	.....	.....	.....	.....	Move & Drill to set up	
5'	.....	.....	.....	.....	Ready to Drill Casing	
10'	.....	.....	.....	.....		
R. Foreman/Contremaitre opérateur <u>Denis Michaud 12</u>						
Runner/Opérateur.....						
Runner/Opérateur.....						
Helper/Assistant <u>J.L. Baril 12</u>						
Helper/Assistant.....						
Other/Autre.....						

GENERAL REMARKS/Observations général: \_\_\_\_\_

APPROVED BY: Roger D. Thomas  
Approuver par:  
White-Office/BureauCO. REP. Deek Miller  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-Rep.FOREMAN  
Contremaire  
Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
<p>Dated <u>20/04/04</u> Shift: <u>Night</u> Machine No. <u>300</u>  Drilling at <u>BTW</u> Hole Angle <u>90°</u>  Lieu de forage Angle du trou  Overburden:  Hole No. #du trou <u>SPQ 04.02</u> From <u>05</u> To <u>A</u> Total ft/m Total pd/m  " " <u>36.5</u> <u>50</u> <u>36.5</u> <u>36.5</u></p>				Drilling/Forage ..... <u>35</u> Hrs. <u>7</u> Mhr Drilling From/Forage de ..... <u>36.5</u> TO/à <u>50</u> Overburden/Morterrain ..... Hrs. Mhr Overburden From/Mort terrain de ..... TO/à Bit No. <u>3897802</u> Type <u>BTW</u> ft/m <u>13.5</u> # de mèche Sorte pd/m Shoe No. ..... Type ft/m. Shell No. ..... Type ft/m. # de la cartouche Sorte pd/m Moving/Déplacement ..... Rhr. Mhr From/de# ..... TO/à# ..... Distance ..... Pulling Casing/Retirer tubage ..... Rhr. Mhr Cemented At/Cimenter à ..... ft/m. Rhr. Mhr Cement to set/Durcir le ciment ..... Rhr. Mhr Drilling Cement/Forage du ciment ..... Rhr. Mhr From/de ..... TO/à ..... Breaming (Hole Conditions)/l'état du trou ..... 1 Rhr. 2 Mhr Waterline At/Ligne d'eau à ..... ft/m. Rhr. Mhr Survey Testing At/Assessment à ..... ft/m. Rhr. Mhr Acid Testing At/Analyse (acide) ..... ft/m. Rhr. Mhr Delays/Retard ..... Rhr. Mhr Walking Time/Temps de marche ..... Rhr. Mhr Wedging At/Coincer le trou à ..... ft/m. Rhr. Mhr Other/Autre ..... Rhr. Mhr (What?)/(Quoi?) ..... (What?)/(Quoi?) ..... Casing Placed in Hole/ Tubage placé dans le trou: AW BW NW HW 2' ..... ..... ..... ..... 5' ..... ..... ..... ..... 10' ..... ..... ..... ..... Casing Recovered/Tubage récupéré: AW BW NW HW 2' ..... ..... ..... ..... 5' ..... ..... ..... ..... 10' ..... ..... ..... ..... R.Foreman/Contremaitre opérateur ..... Hrs Runner/Opérateur <u>Merry Tolson</u> 12 Hrs Runner/Opérateur ..... Hrs Helper/Assistant <u>Wayne Dejardin</u> 12 Hrs Helper/Assistant ..... Hrs Other/Autre ..... Hrs			
<u>CASSINGS 15</u> GENERAL REMARKS/Observations générales: <u>IN Bed and rock</u>							

APPROVED BY: Roger D. Brown  
Approuver par:  
White-Office/Bureau

CO. REP. Co. Rep.  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
Contremaire  
Pink-Foreman/Rose Contremaire

Dent White

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																							
<p>Date <u>21/04/04</u> Shift <u>Day</u> Machine No. <u>300</u>            Drilling at <u>B. T. K. R. A.</u> Hole Angle <u>90°</u>            Lieu de forage Angle du trou            Overburden:            Hole No. #du trou From De To À Total ft/m Total de pd/m  <u>SPA.04.05</u> <u>36.5</u> <u>54.5</u> <u>18</u></p>				<p>Drilling/Forage..... 1 <u>1</u> Hrs. <u>12</u> Mhr            Drilling From/Forage de..... <u>50</u> TO/à <u>55</u>            Overburden/Mortterrain..... <u>11</u> Hrs. <u>22</u> Mhr            Overburden From/Mort terrain de..... <u>36.5</u> TO/à <u>54.5</u>            Bit No. <u>3B978.02</u> Type <u>BTW</u> ft/m <u>.85</u>            # de mèche Sorte pd/m</p>																							
<p>Drilling:            Hole No. From To Total ft/m</p>				<p>Shoe No. <u>3E02.15</u> Type <u>BU</u> ft/m <u>18</u>            Shell No. # de la cartouche Type Sorte ft/m pd/m</p>																							
<p>Bit            No. # de mèche Type ft/m            Sorte pd/m</p>				<p>Moving/Déplacement..... Rhr. Mhr            From/de# ..... TO/à# ..... Distance.....</p>																							
<p>Shoe No. Type ft/m</p>				<p>Pulling Casing/Retirer tubage..... Rhr. Mhr            Cemented At/Cimenter à..... ft/m. Rhr. Mhr            Cement to set/Durcir le ciment..... Rhr. Mhr</p>																							
<p>Shell No. Type ft/m            # de la cartouche Sorte pd/m</p>				<p>Drilling Cement/Forage du ciment..... Rhr. Mhr            From/de ..... TO/à.....</p>																							
TIME DISTRIBUTION/ Distribution de temps																											
<p>Drilling/Forage..... Rhr. Mhr            Overburden/Mortterrain..... Rhr. Mhr            Moving/Déplacement..... Rhr. Mhr            Walking Time/Temps demarche..... Rhr. Mhr            Repairing/Réparation..... Rhr. Mhr            (What?)/(Quoi?).....            Other/Autre..... Rhr. Mhr            (What?)/(Quoi?).....</p>																											
<p>Walking Time/Temps de marche..... Rhr. Mhr            Wedging At/Cincer le trou à..... ft/m. Rhr. Mhr            Other/Autre..... Rhr. Mhr            (What?)/(Quoi?).....</p>																											
<p>Casing Placed in Hole/ Tubage placer dans le trou:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> </table>									AW	BW	NW	HW	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....
	AW	BW	NW	HW																							
2'	....	....	....	....																							
5'	....	....	....	....																							
10'	....	....	....	....																							
<p>Casing Recovered/Tubage récupérer: AW BW NW HW</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> </table>								2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....					
2'	....	....	....	....																							
5'	....	....	....	....																							
10'	....	....	....	....																							
<p>R. Foreman/Contremaitre opérateur <u>DENIS Michal 12</u> Hrs            Runner/Opérateur..... Hrs            Runner/Opérateur..... Hrs            Helper/Assistant <u>J.L. Baril</u> <u>12</u> Hrs            Helper/Assistant..... Hrs            Other/Autre..... Hrs</p>																											
<p><u>Materials Used, Lost or Damaged</u>  <u>Matériels utilisés, perdu ou endommagés:</u>  <u>Plad rod's too change Bit</u>  <u>Bit finish insid</u>  <u>REMED CASSING in SAN ston</u>  <u>ARK Bend rock is hat 36.5m</u>  <u>Brock trou hat 31m in SAN</u>  <u>ONE pail of D.D. 2000</u></p>																											

GENERAL REMARKS/Observations général:

APPROVED BY: Roger Thomas  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP. David Miller  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date 21/04/04 Shift Night	Machine No. 300	Drilling/Forage.....	1 Hrs. 2 Mhr				
Drilling at Bill Kew	Hole Angle 90°	Drilling From/Forage de.....	.TO/à.....				
Lieu de forage	Angle du trou	Overburden/Mort terrain.....	4 Hrs. 08 Mhr				
Overburden:		Overburden From/Mort terrain de.....	54.5 TO/à 56 m				
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m				
Drilling:							
Hole No. SPQ 04.05	From 36	To 72	Total ft/m 16				
Bit No. 38967.03	Type BW	ft/m. 16					
# de mèche	Sorte pd/m						
Shoe No.	Type ft/m.						
Shell No. # de la cartouche	Type ft/m. Sorte pd/m						
TIME DISTRIBUTION/ Distribution de temps							
Drilling/Forage.....	6 Rhr.	12	Mhr				
Overburden/Mort terrain.....	Rhr.		Mhr				
Moving/Déplacement.....	Rhr.		Mhr				
Walking Time/Temps de marche.....	Rhr.		Mhr				
Repairing/Réparation.....	Rhr.		Mhr				
(What?)/(Quoi?).....							
Other/Autre.....	Rhr.		Mhr				
(What?)/(Quoi?).....							
Casing Placed in Hole/ Tubage placer dans le trou:							
	AW	BW	NW HW				
2'							
5'							
10'							
Casing Recovered/Tubage récupérer: AW BW NW HW							
2'							
5'							
10'							
R. Foreman/Contremaitre opérateur.....	Hrs						
Runner/Opérateur.....	Wayne Tu Nam 12	Hrs					
Runner/Opérateur.....		Hrs					
Helper/Assistant.....	Wayne Dejardins 12	Hrs					
Helper/Assistant.....		Hrs					
Other/Autre.....		Hrs					
GENERAL REMARKS/Observations général:				Hard time to finish cassing.			
APPROVED BY: Roger Thomas CO. REP. CO. Rep. CO. REP. Jaune-Blanc-Bureau	Deva Miller	FOREMAN Contremaitre Rose-Contremaitre					
Approuver par: White-Office/Blanc-Bureau	Yellow-Co. Rep./Jaune-Co.-Rep.	Pink-Foreman/Rose-Contremaitre					

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																																																																																																																																																	
<p>Date <u>22/04/04</u> Shift <u>DAY</u> Machine No. <u>300</u></p> <p>Drilling at <u>B. Hill (B.G.A.)</u>, Hole Angle <u>90</u></p> <p>Lieu de forage # de la machine Overburden: Angle du trou</p> <table border="1"> <thead> <tr> <th>Hole No. #du trou</th> <th>From De</th> <th>To A</th> <th>Total ft/m Total de pd/m</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table> <p>Drilling: Hole No. From To Total ft/m</p> <p><u>SPG 04.05</u> <u>7.2</u> <u>11</u> <u>39m</u></p> <p>Bit No. <u>38967.03</u> Type <u>BTW</u> ft/m. <u>39m</u> # de mèche Sorte pd/m</p> <p>Shoe No. .... Type. .... ft/m. ....</p> <p>Shell No. .... 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Casing Recovered/Tubage récupéré:	AW	BW	NW	HW	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....	R.Foreman/Contremaire opérat. <u>Dennis Michael 13</u>					Runner/Opérateur.....					Runner/Opérateur.....					Helper/Assistant. <u>J.L. Boutil 13</u>					Helper/Assistant.....					Other/Autre.....					<u>What cut logs for NEXT Hole.</u>					<u>Materials Used, Lost or Damaged</u>					<u>Matériaux utilisés, perdu ou endommagés</u>					<p>Drilling/Forage..... <u>Pump G stop in</u> <u>1</u> Hrs. <u>2</u> Mhr <u>16 1/2</u></p> <p>Drilling From/Forage de..... TO/à.....</p> <p>Overburden/Mortterrain..... Hrs. Mhr</p> <p>Overburden From/Mort terrain de..... TO/à.....</p> <p>Bit No. .... Type. .... ft/m. .... # de mèche Sorte pd/m</p> <p>Shoe No. .... Type. .... ft/m. ....</p> <p>Shell No. .... Type. .... ft/m. .... # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... Rhr. Mhr</p> <p>From/de# ..... TO/à# ..... Distance.....</p> <p>Pulling Casing/Retirer tubage..... Rhr. Mhr</p> <p>Cemented At/Cimentier à..... ft/m. Rhr. Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr. Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr. Mhr</p> <p>From/de..... TO/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr. Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr</p> <p>Survey Testing At/Assessment à..... ft/m. Rhr. Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr</p> <p>Delays/Retard (.....). Rhr. Mhr</p> <p>Walking Time/Temps de marche..... Rhr. Mhr</p> <p>Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr</p> <p>Other/Autre..... <u>1</u> Rhr. <u>2</u> Mhr</p>			
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GENERAL REMARKS/Observations général: Very bad ground Brockend up.

APPROVED BY: Roger J. Thomas CO. REP. Dennis Michael  
 Approuver par: Co. Rep. Contremaire  
 White-Office/Blanc-Bureau Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
 Contremaire  
 Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date <u>22/04/04</u>	Shift <u>Night</u>	Machine No. <u>300</u>		Drilling/Forage.....	.Hrs.....	Mhr	
Drilling at <u>BILLIKEN</u>	Neige de travail	# de la machine		Drilling From/Forage de.....	.TO/à.....		
Lieu de forage		Hole Angle.....	<u>90°</u>	Overburden/Mort terrain.....	.Hrs.....	Mhr	
Overburden:		Angle du trou		Overburden From/Mort terrain de.....	.TO/à.....		
Hole No. #du trou	From De	To À	Total ft/m Total de pd/m	Bit No. # de mèche	Type.....	ft/m.....	
				# de mèche	Sorte	pd/m	
Drilling: Hole No.	From	To	Total ft/m	Shoe No.....	Type.....	ft/m.....	
<u>SPQ.04.05</u>	<u>111</u>	<u>112</u>	<u>1</u>	Shell No.....	Type.....	ft/m.....	
Bit No. # de mèche	Type Sorte	ft/m pd/m	# de la cartouche	Sorte	pd/m		
<u>38967.03</u>	<u>BTW</u>	<u>1</u>	Moving/Déplacement.....	Rhr.....	Mhr		
Shoe No.....	Type.....	ft/m.....	From/de#.....	.TO/à#.....	Distance.....		
Shell No.....	Type.....	ft/m.....	Pulling Casing/Retirer tubage.....	Rhr.....	Mhr		
# de la cartouche	Sorte	pd/m	Cemented At/Cimenter à.....	ft/m.....	Rhr.....		
TIME DISTRIBUTION/ Distribution de temps				Cement to set/Durcir le ciment.....	Rhr.....	Mhr	
Drilling/Forage.....	<u>1</u>	Rhr.....	Drilling Cement/Forage du ciment .....	Rhr.....	Mhr		
Overburden/Mort terrain.....		Rhr.....	From/de.....	.TO/à.....			
Moving/Déplacement.....		Rhr.....	Reaming (Hole Conditions)/l'état du trou.....	Rhr.....	Mhr		
Walking Time/Temps demarche.....		Rhr.....	Waterline At/Ligne d'eau à.....	ft/m.....	Rhr.....		
Repairing/Réparation.....	<u>11 1/2</u>	Rhr.....	Survey Testing At/Assessment à.....	ft/m.....	Rhr.....		
(What?)/(Quoi?) <u>Gear Box</u> <u>Brock</u> , <u>tack</u> couverts de,			Acid Testing At/Analyse (acide).....	ft/m.....	Rhr.....		
Other/Autre.....		Rhr.....	Delays/Retard (.....)	Rhr.....	Mhr		
(What?)/(Quoi?).....			Walking Time/Temps de marche.....	Rhr.....	Mhr		
Casing Placed in Hole/ Tubage placé dans le trou:				Wedging At/Coincer le trou à.....	ft/m.....	Rhr.....	
	AW	BW	NW	Other/Autre.....	Rhr.....	Mhr	
2'				(What?)/(Quoi?).....			
5'				Materials Used, Lost or Damaged			
10'				Matériaux utilisés, perdu ou endommagé:			
Casing Recovered/Tubage récupéré: AW	BW	NW	HW				
2'							
5'							
10'							
R.Foreman/Contremaitre opérateur.....							
Runner/Opérateur.....	<u>Harry Tufts</u>						
Runner/Opérateur.....							
Helper/Assistant.....	<u>Wayne Dejardin</u>						
Helper/Assistant.....							
Other/Autre.....							

GENERAL REMARKS/Observations général: \_\_\_\_\_

APPROVED BY: Roger D Thomas  
Approuver par:  
White-Office/Blanc-BureauCO. REP. David M. McLean  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-Rep.FOREMAN  
Contremaitre  
Pink-Foreman/Rose-Contremaitre

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<p>Date: <u>23/04/09</u> Shift: <u>DAY</u> Machine No. <u>300</u>            Drilling at: <u>B. 11, R.R.</u> # de la machine <u>90°</u>            Lieu de forage Hole Angle <u>90°</u>            Overburden: Angle du trou</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Hole No. #du trou</td> <td>From De</td> <td>To A</td> <td>Total ft/m Total de pd/m</td> </tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </table> <p>Drilling: Hole No. From To Total ft/m</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><u>SPQ.04.05</u></td> <td><u>112</u></td> <td><u>141</u></td> <td><u>29</u></td> </tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </table> <p>Bit No. <u>38967.03</u> Type <u>BTW</u> ft/m <u>29</u>            # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m</p> <p>Shell No. Type ft/m            # de la cartouche Sorte pd/m</p> <p style="text-align: center;">TIME DISTRIBUTION/ Distribution de temps</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Drilling/Forage</td> <td><u>10</u></td> <td>Rhr.</td> <td><u>20</u></td> <td>Mhr</td> </tr> <tr> <td>Overburden/Mortterrain</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>Mhr</td> </tr> <tr> <td>Moving/Déplacement</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>Mhr</td> </tr> <tr> <td>Walking Time/Temps démarche</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>Mhr</td> </tr> <tr> <td>Repairing/Réparation</td> <td><u>1</u></td> <td>Rhr.</td> <td><u>2</u></td> <td>Mhr</td> </tr> <tr> <td>(What?)/(Quoi?)</td> <td><u>flick's gear box.</u></td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>Other/Autre</td> <td>.....</td> <td>Rhr.</td> <td>.....</td> <td>Mhr</td> </tr> <tr> <td>(What?)/(Quoi?)</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>Casing Placed in Hole/ Tubage placer dans le trou:</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td></td> <td>AW</td> <td>BW</td> <td>NW</td> <td>HW</td> </tr> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>Casing Recovered/Tubage récupéré:</td> <td>AW</td> <td>BW</td> <td>NW</td> <td>HW</td> </tr> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>R. 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Mhr</p> <p>(What?)/(Quoi?)</p> <p><u>Reaming CAVs in hole.</u></p> <p><u>Materials Used, Lost or Damaged</u></p> <p><u>Matériaux utilisés, perdu ou endommagés:</u></p>			
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Moving/Déplacement	.....	.....	.....	Mhr																																																																																																																																														
Walking Time/Temps démarche	.....	.....	.....	Mhr																																																																																																																																														
Repairing/Réparation	<u>1</u>	Rhr.	<u>2</u>	Mhr																																																																																																																																														
(What?)/(Quoi?)	<u>flick's gear box.</u>	.....	.....	.....																																																																																																																																														
Other/Autre	.....	Rhr.	.....	Mhr																																																																																																																																														
(What?)/(Quoi?)	.....	.....	.....	.....																																																																																																																																														
Casing Placed in Hole/ Tubage placer dans le trou:	.....	.....	.....	.....																																																																																																																																														
	AW	BW	NW	HW																																																																																																																																														
2'	.....	.....	.....	.....																																																																																																																																														
5'	.....	.....	.....	.....																																																																																																																																														
10'	.....	.....	.....	.....																																																																																																																																														
Casing Recovered/Tubage récupéré:	AW	BW	NW	HW																																																																																																																																														
2'	.....	.....	.....	.....																																																																																																																																														
5'	.....	.....	.....	.....																																																																																																																																														
10'	.....	.....	.....	.....																																																																																																																																														
R. Foreman/Contremâitre opérat.	<u>Dennis Michael 12 Hrs</u>																																																																																																																																																	
Runner/Opérateur	..... Hrs																																																																																																																																																	
Runner/Opérateur	..... Hrs																																																																																																																																																	
Helper/Assistant	<u>J. L. Baril</u>	<u>12 Hrs</u>																																																																																																																																																
Helper/Assistant	.....	.....	.....	.....																																																																																																																																														
Other/Autre	.....	.....	.....	.....																																																																																																																																														

GENERAL REMARKS/Observations général: One fifth messsing out gear.

APPROVED BY: Roger D. Thomas  
 Approuver par:  
 White-Office/Banc-Bureau

CO. REP. Derek Miller  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
 Contremâitre  
 Pink-Foreman/Rose-Contremâitre

## HEATH &amp; SHERWOOD DRILLING (1986) INC.

FORAGE HEATH &amp; SHERWOOD (1986) INC.

## DAILY REPORT - Rapport journalier

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date, 23/04/04 Shift, N.C.H.T.....	Machine No. 300	Drilling/Forage.....	Hrs. .... Mhr				
Heure de travail	# de la machine	Drilling From/Forage de.....	TO/à.....				
Drilling at... BILLIKEN	Hole Angle..... 9.0°	Overburden/Mortterrain.....	Hrs. .... Mhr				
Lieu de forage	Angle du trou	Overburden From/Mort terrain de.....	TO/à.....				
Overburden:		Bit No. ....	Type ..... ft/m. ....				
Hole No. #du trou	From De	To A	# de mèche Sorte pd/m				
Drilling:							
Hole No. 5020405	From	To	Total ft/m				
Bit							
No. ....	Type ..... ft/m. ....	# de mèche Sorte pd/m					
Shoe No.	Type ..... ft/m. ....						
Shell No. ....	Type ..... ft/m. ....	# de la cartouche Sorte pd/m					
TIME DISTRIBUTION/ Distribution de temps							
Drilling/Forage, Pold rod's	1 Rhr. 2	Moving/Déplacement	5 Rhr. 10 Mhr				
Overburden/Mortterrain	Rhr. .... Mhr	Cemented At/Cimenter à..... 110 ft/m. 1 Rhr. 2 Mhr					
Moving/Déplacement	2 Rhr. 20 Mhr	Cement to set/Durcir le ciment..... Rhr. .... Mhr					
Walking Time/Tempsdemarche..... Rhr. .... Mhr		Drilling Cement/Forage du ciment..... Rhr. .... Mhr					
Repairing/Réparation..... Rhr. .... Mhr		From/de..... TO/à.....					
(What?)/(Quoi?).....		Reaming (Hole Conditions)/l'état du trou..... Rhr. .... Mhr					
Other/Autre..... 2 Rhr. 4 Mhr		Waterline At/Ligne d'eau à..... ft/m. 2 Rhr. .... Mhr					
(What?)/(Quoi?) Tearing down get ready to move		Survey Testing At/Assessment à..... ft/m. .... Rhr. .... Mhr					
Casing Placed in Hole/ Tubage placer dans le trou:		Acid Testing At/Analyse (acide)..... ft/m. .... Rhr. .... Mhr					
AW BW NW HW		Delays/Retard (.....) Rhr. .... Mhr					
2'		Walking Time/Temps de marche..... Rhr. .... Mhr					
5'		Wedging At/Cincer le trou à..... ft/m. .... Rhr. .... Mhr					
10'		Other/Autre..... 2 Rhr. 2 Mhr					
Casing Recovered/Tubage récupérer: AW BW NW HW		(What?)/(Quoi?) Pold rod's					
2'		Materials Used, Lost or Damaged					
5'	ALL	Matériaux utilisés, perdu ou endommagé:					
10'		1 BAG CEMENT					
R.Foxman/Contremaitre opérateur..... Hrs		TEAR down get ready to MOVE					
Runner/Opérateur..... MURRAY TURMAN		BAL. CASSING is 1011 foot of					
Runner/Opérateur.....		HOLE. 56m of CASSING out					
Helper/Assistant..... WAYNE DESTARDINS		SHOE Bit is finish,					
Helper/Assistant.....		# 3E0215.					
Other/Autre.....							

GENERAL REMARKS/Observations général:

APPROVED BY: Roger D Thomas  
Approuver par:  
White-Office/Blanc-BureauCO. REP.  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-RepCO. REP.  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-RepFOREMAN  
Contremaitre  
Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date/Date	Shift/Day	Machine No./No. de machine	300	Drilling/Forage.....	Hrs.....	Mhr	
Drilling at/Bit/R.P.M.	Hour of travel/Heure de travail	# de machine/Hole Angle.....	60°	Drilling From/Forage de.....	TO/à.....		
Lieu de forage/Overburden:		Angle du trou		Overburden/Mortterrain.....	Hrs.....	Mhr	
Hole No./#du trou	From De	To A	Total ft/m/Total de pd/m	Overburden From/Mort terrain de.....	TO/à.....		
Drilling: Hole No.	From	To	Total ft/m	Bit No./# de mèche	Type/Sorte	ft/m/pd/m	
Bit No./# de mèche				Shoe No.	Type	ft/m	
Shoe No.		Type	ft/m	Shell No./# de la cartouche	Type/Sorte	ft/m/pd/m	
Shell No./# de la cartouche		Type/Sorte	ft/m/pd/m	Moving/Déplacement	12 Rhr. 24	Mhr	
TIME DISTRIBUTION/ Distribution de temps				From/de/	TO/à.....		
Drilling/Forage.....	Rhr.....	Mhr	Reaming (Hole Conditions)/l'état du trou.....	Rhr.....	Mhr		
Overburden/Mortterrain.....	Rhr.....	Mhr	Waterline At/Ligne d'eau à.....	1300 ft/m.....	Rhr.....		
Moving/Déplacement.....	Rhr.....	Mhr	Survey Testing At/Assessment à.....	ft/m.....	Rhr.....		
Walking Time/Temps de marche.....	Rhr.....	Mhr	Acid Testing At/Analyse (acide).....	ft/m.....	Rhr.....		
Repairing/Réparation.....	Rhr.....	Mhr	Delays/Retard (.....)	Rhr.....	Mhr		
(What?)/(Quoi?).....			Walking Time/Temps de marche.....	Rhr.....	Mhr		
Other/Autre.....	Rhr.....	Mhr	Wedging At/Coincer le trou à.....	ft/m.....	Rhr.....		
(What?)/(Quoi?).....			Other/Autre.....	Rhr.....	Mhr		
Casing Placed in Hole/ Tubage placer dans le trou:				(What?)/(Quoi?).....			
	AW	BW	NW	HW			
2'					<u>Materials Used, Lost or Damaged</u>		
5'					Matériaux utilisés, perdu ou endommagé:		
10'					Finish tearing down drill.		
Casing Recovered/Tubage récupéré: AW	BW	NW	HW		Held set up #		
2'					House & Drill ready to		
5'					Drill.		
10'					Tearing down drill.		
R. Foreman/Contrôleur opérateur	Dennis Michael 12 Hrs						
Runner/Opérateur.....							
Runner/Opérateur.....							
Helper/Assistant.....	SL Baril 12 Hrs						
Helper/Assistant.....							
Other/Autre.....							

**GENERAL REMARKS/Observations générales:**

APPROVED BY: Roger D Thomas  
Approuver par:  
White-Office/Blanc-Bureau

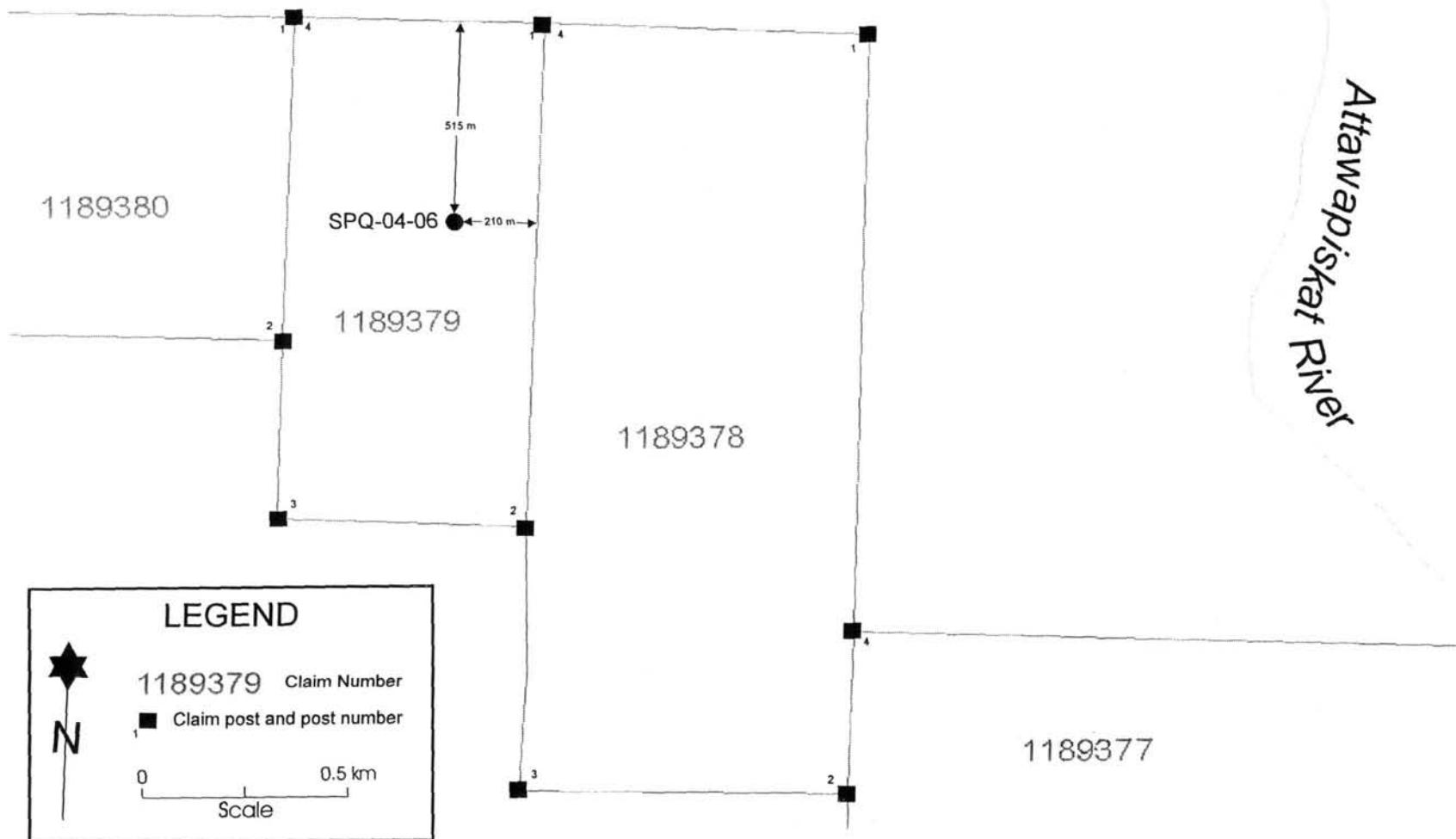
CO. REP. D  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-Rep.

**FOREMAN**  
Contremaitre  
Pink-**Foreman**/Rose-Contremaitre

**APPENDIX VI**

**DRILL HOLE LOG, LOCATION MAP, SECTION AND DRILLER'S LOG**

**SPQ-04-06**



# **Billiken Management**

<b>Project:</b>	<u>Attawapiskat Project</u>	
<b>Hole Number:</b>	<u>SPQ-04-06</u>	
<b>Units of Measurement:</b>	<u>Metres</u>	
<b>Location</b>	<b>NTS Sheet:</b>	<u>43B/13</u>
	<b>Township:</b>	<u>1189379</u>
	<b>Claim No:</b>	<u>August 1, 2003</u>
	<b>Grid:</b>	<u>110+00</u>
	<b>Easting:</b>	<u>1+07</u>
	<b>Northing:</b>	<u>85</u>
<b>GPS Co-ordinates: (if applicable)</b>	<b>Zone:</b>	<u>17U</u>
	<b>Datum:</b>	<u>NAD83</u>
	<b>Easting:</b>	<u>301385</u>
	<b>Northing:</b>	<u>5863305</u>
<b>Collar Dip:</b>	<u>60°</u>	
<b>Collar Azimuth:</b>	<u>225°</u>	
<b>Hole Length:</b>	<u>BTT</u>	
<b>Core Size:</b>	<u>BT</u>	
<b>Recovery:</b>	<u>BT</u>	
<b>Logged By:</b>	<u>Roger D. Thomas</u>	
<b>Date:</b>	<b>Start:</b>	<u>April 26, 2004</u>
	<b>Finish:</b>	<u>April 30, 2004</u>
<b>Drilled by:</b>	<u>Denis Michon, Heath &amp; Sh</u>	
<b>Date:</b>	<u>April 24, 2004</u>	

## Comments

Redrill of hole SPQ-04-02 which was abandoned in a thick sand bed at 72 m. This hole had 24.2 m of NW casing below which the BW casing was kept just below the core barrel down to 75.5 m so that the return would not be lost.

At 127.80, the return was lost in another sand bed. Enough G-stop; cement fondue and Portland cement were added to the hole to fill it to within 10 m of the bottom of the casing. However on drilling out the mixture, it was found to be very soft and would not contain the return. The hole was stopped pending the arrival of AQ rods after spring break up.

## Billiken Management

PROJECT: Attawapiskat

HOLE NO: SPQ-04-06

PAGE: 2 of 6

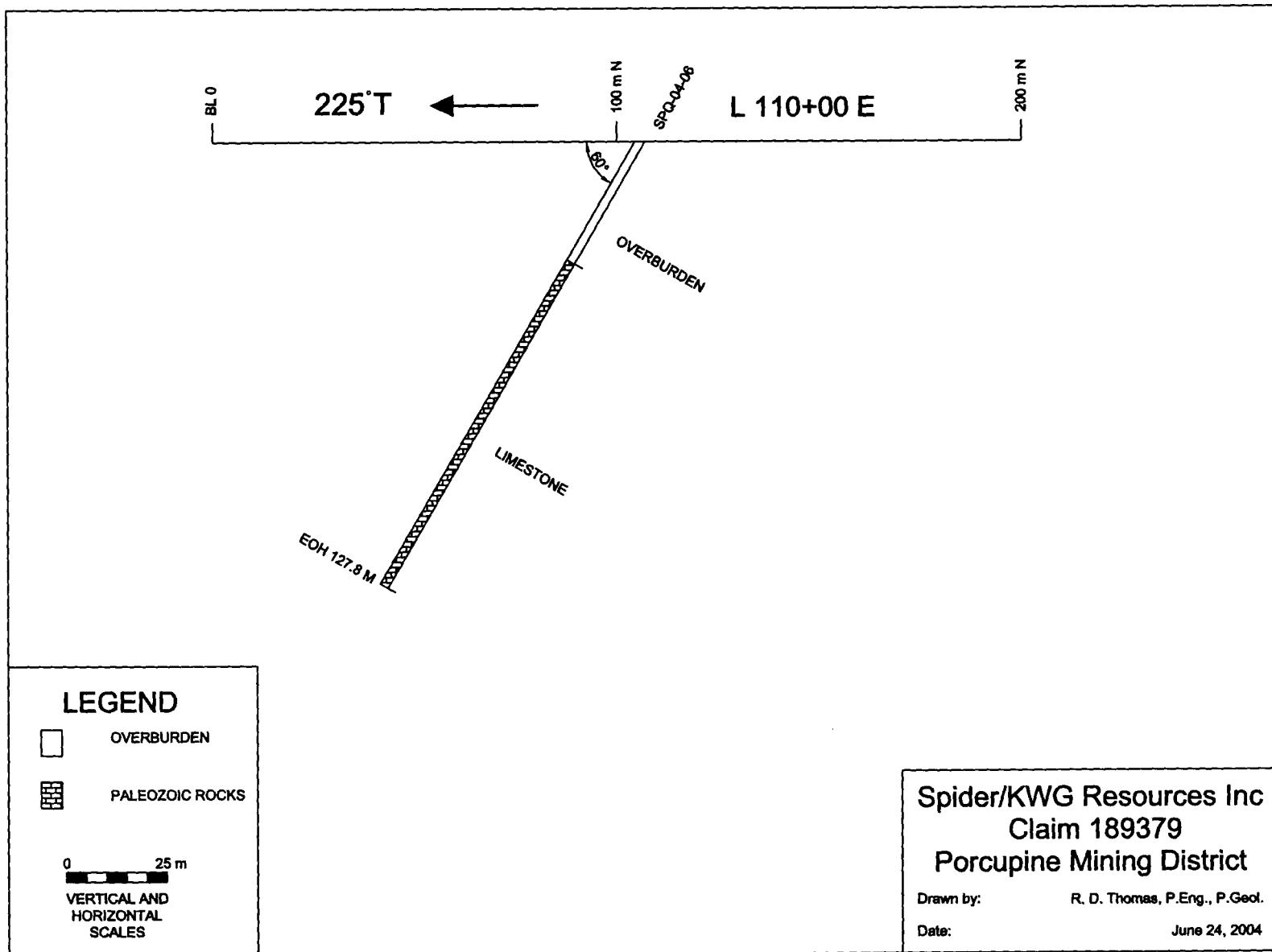
FROM	TO	DESCRIPTION	ANALYTICAL RESULTS						
			SAMPLE	FROM	TO	LENGTH			
0.00	34.95	<b>OVERBURDEN</b> Peat and organic material overlying marine clay overlying glacial deposits. Pebbles and cobbles recovered are mainly of the local limestone but also include one gabbro (40 mm in diameter) and one small piece of chert.							
34.95		CONTACT, start of continuous core.							
34.95	(127.8)	<b>PALEOZOIC LIMESTONE</b> Mottled yellowish grey (5Y7/2) and pale brown (5YR6/2), fairly homogeneous, poorly bedded, fairly competent (0.1-0.4 m core lengths), fairly soft, abundant vugs or other solution cavities, non-magnetic; composed of 90% very finely crystalline calcite and 10% very fine grained quartz sand (restricted to specific horizons). Few fossil fragments.  @36.20: 5 cm sandstone bed, fine- to medium-grained.  @44.92: fossils begin to be concentrated in specific beds, 10-30 mm thick.  @46.50: poorly bedded, CA=60°.  @48.50: intensity of mottling decreases as colour becomes more uniform.  @50.95: rock is fairly uniform yellowish grey (5Y7/2) in colour. Bedding is also not very apparent.  51.72-54.68: interbedded pale olive (10Y6/2) limestone and soft, calcareous, light olive (10Y5/4), shale in 15-30 mm beds.  54.68-54.95: 40% fine- to medium-grained quartz sand beds up to 30 mm thick. Bedding CA=62°.  @54.94: mottled (as above, at start of unit).  @57.99: 5x10 mm grey granite pebble.							

Billiken Management			PROJECT: Attawapiskat		HOLE NO: SPQ-04-06		PAGE: 3 of 6	
FROM	TO	DESCRIPTION	ANALYTICAL RESULTS					
			SAMPLE	FROM	TO	LENGTH		
34.95	(127.8)	<p><b>PALEOZOIC LIMESTONE</b></p> <p>@58.62: chert, medium light grey (N6) to brownish grey (5YR4/1) begins to occur in 2-8 cm thick beds.</p> <p>@59.00: sandstone beds begin to occur; they are 12-40 cm thick, greyish orange (10YR7/4), fine-grained quartz sand with calcite cement.</p> <p>@60.40: large corals, up to 30 mm diameter, become common.</p> <p>@61.20: chert begins to occur as nodules as well as beds; limestone beds are quite arenaceous.</p> <p>@65.00: reduction in chert, sandstone bed and large coral content to nil.</p> <p>68.05-68.12: medium-grained calcareous sandstone with bivalve fossils.</p> <p>@71.15: ground core; sand-rich bed.</p> <p>@74.50: sand seam, 0.3 m thick; ground core.</p> <p>74.70-76.90: arenaceous limestone, uniform colour and texture.</p> <p>75.26-75.55: sand seam, core recovered.</p> <p>@76.90: light coloured mottled areas become larger, more irregular, highly pitted, very sandy and constitute 50% of the core. The darker coloured areas are not pitted and contain a few bivalve fossils.</p> <p>85.57-86.10: predominantly dark toned facies; core slightly broken.</p> <p>87.00-90.00: abundant sand layers; 1.8 m of lost core.</p> <p>92.00-94.00: predominantly darker facies.</p> <p>96.35-97.00: light coloured facies, few small fossils.</p>						

Billiken Management			PROJECT: Attawapiskat		HOLE NO: SPQ-04-06		PAGE: 4 of 6	
FROM	TO	DESCRIPTION	ANALYTICAL RESULTS					
			SAMPLE	FROM	TO	LENGTH		
34.95	(127.8)	<p><b>PALAEZOIC LIMESTONE</b></p> <p>@97.81: sharp, straight bedding plane; CA=58°.</p> <p>99.34-99.41: turbidite bed with fossils and 3-5 mm diameter well rounded autoliths.</p> <p>99.80-100.10: some large (20-30 mm), thin (&lt;1 mm) fossil fragments.</p> <p>104.00-104.50: contains "worm burrows".</p> <p>@104.80: begins to contain fairly abundant thin fossil fragments.</p> <p>@113.28: 20 mm thick bed of chert and fossils (10 mm diameter corals and bivalves).</p> <p>@114.04: becomes sandier (first indication).</p> <p>114.04-114.12: sand lens containing 60% fine- to medium-grained quartz sand.</p> <p>114.13-114.18: coral filled with fine- to medium-grained sand.</p> <p>114.22-117.02: predominantly sand beds, fine- to medium-grained; composed of quartz and calcite (limestone fragments) with calcite cement; abundant Coelenterata, Gastropoda nd other fossils. Well bedded, CA=60□.</p> <p>@115.66: 15 mm thick bed of chert nodules.</p> <p>@115.88: 20-30 mm chert bed, dark brown.</p> <p>115.88-116.00: broken core, some chert fragments.</p> <p>@116.12: 50 mm chert bed.</p> <p>116.56-116.95: very broken core; 0.15 m lost.</p> <p>@117.04: 30 mm thick chert bed, dark brown.</p>						

Billiken Management			PROJECT: Attawapiskat		HOLE NO: SPQ-04-06		PAGE: 5 of 6	
FROM	TO	DESCRIPTION	ANALYTICAL RESULTS					
			SAMPLE	FROM	TO	LENGTH		
34.95	(127.8)	<b>PALEOZOIC LIMESTONE</b> 117.40-117.50: broken core.  @117.60: begins to contain 10-20% quartz sand.  @118.40: broken core; 30 mm chert bed.  @118.70: 10 mm brown chert nodules surrounded by 10 mm thick layer of white quartz.  @119.30: 30 mm chert nodule with 3 mm rim as above.  @119.45: bedding CA=60°.  120.00-120.05: fragmental bed of 50% 10 mm fragments of limestone with coral fragments and sand matrix.  120.55-120.61: fragmental bed as above.  @121.18: 10x40 dark brown chert nodule with 3 mm white rim.  121.30-121.44: fragmental bed as above.  121.62-121.90: highly broken core.  122.08-122.36: sand-rich bed; core at bottom of bed is ground; 40% quartz sand, fine-grained, 40% calcite grains, 20% calcite cement.  122.48-122.53: fragmental bed as above.  @122.61: becomes enriched in sand; generally contains 20-30% quartz sand as lenses and irregular masses.  123.83-123.90: 5% 5-10 mm well rounded pebbles.  @124.22: 10x40 mm dark brown chert nodule; no rim.  @124.28: 20 mm diameter chert nodule with 2-5 mm white quartz sand rim.						

Billiken Management			PROJECT: Attawapiskat		HOLE NO: SPQ-04-06		PAGE: 6 of 6	
FROM	TO	DESCRIPTION	ANALYTICAL RESULTS					
			SAMPLE	FROM	TO	LENGTH		
34.95	(127.8)	<b>PALEOZOIC LIMESTONE</b> 123.0-125.0: 2.3 m of core recovered, the last part very broken.  @123.0: broke through into a void (karst cave?); rods dropped down the hole and were stopped from being lost by the water swivel.  @125.5: encountered solid rock and continued drilling in same unit as above.  @126.20: 10x60 mm diameter chert nodule, no rim.  126.80-126.90: broken core (rods jammed).  127.00-127.20: broken core (rods jammed).  @127.80: stopped drilling and tried cementing the hole to seal the voids because of loss of return.						



**HEATH & SHERWOOD DRILLING (1986) INC.  
FORAGE HEATH & SHERWOOD (1986) INC.  
DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
<b>Date:</b> 24.04.04 Shift: NIGHT Machine No... 300				Drilling/Forage..... Hrs. Mhr			
Heure de travail # de la machine <b>Drilling at:</b> DILLIKEN Hole Angle... 60°				Drilling From/Forage de... TO/à...			
Lieu de forage Angle du trou <b>Overburden:</b>				Overburden/Mort terrain... Hrs. Mhr			
Hole No. From To Total ft/m. #du trou De A Total de pd/m				Overburden From/Mort terrain de... 0 TO/à... 8.35 65 13 0 8.35 26.5			
<b>SPQ. 04.06.</b> 24 35 11				Bit No. Type. ft/m. # de mèche Sorte pd/m			
Drilling: Hole No. From To Total ft/m				Shoe No. 3E0148 Type. NW ft/m. 24.5			
<b>SPQ</b>				Shell No. Type. ft/m. # de la cartouche Sorte pd/m			
Bit No. Type. ft/m. # de mèche Sorte pd/m				Moving/Déplacement. Rhr. Mhr			
<b>Shoe No.</b> 3W0181 Type. BW ft/m. 11				From/de# TO/à# Distance			
Shell No. Type. ft/m. # de la cartouche Sorte pd/m				Pulling Casing/Retirer tubage. Rhr. Mhr			
TIME DISTRIBUTION/ Distribution de temps				Cemented At/Cimentier à. ft/m. Rhr. Mhr			
Drilling/Forage. Rhr. Mhr				Cement to set/Durcir le ciment. Rhr. Mhr			
Overburden/Mort terrain. 52 Rhr. 11 Mhr				Drilling Cement/Forage du ciment. Rhr. Mhr			
Moving/Déplacement. Rhr. Mhr				From/de... TO/à...			
Walking Time/Temps de marche. Rhr. Mhr				reaming (Hole Conditions)/l'état du trou. Rhr. Mhr			
Repairing/Réparation. Rhr. Mhr				Waterline At/Ligne d'eau à. ft/m. Rhr. Mhr			
(What?)/(Quoi?).				Survey Testing At/Assessment à. ft/m. Rhr. Mhr			
Other/Autre. Rhr. Mhr				Acid Testing At/Analyse (acide). ft/m. Rhr. Mhr			
(What?)/(Quoi?).				Delay/Retard (.....). Rhr. Mhr			
Walking Time/Temps de marche. Rhr. Mhr				Wedging At/Coincer le trou à. ft/m. Rhr. Mhr			
Casing Placed in Hole/ Tubage placer dans le trou:				Other/Autre. Rhr. Mhr			
AW BW NW HW				(What?)/(Quoi?).			
2'				Materials Used, Lost or Damaged			
5'				Materials utiliser, perdu ou endommager:			
10'				Put now in hole to help BW CASSING WHEN REAMING IN SAW STAN			
Casing Recovered/Tubage récupérer: AW BW NW HW							
2'							
5'							
10'							
R. Foreman/Contremaitre opérateur. Hrs							
Runner/Opérateur. MURRAY TULMAN 12 Hrs							
Helper/Assistant. JAYDE DESJARDINS 12 Hrs							
Helper/Assistant. 12 Hrs							
Other/Autre. Hrs							

**GENERAL REMARKS/Observations générales:**

al: Rod's are half 35m. in sand  
stone. (Bend rock)

APPROVED BY: Roger D. Thomas  
Approuver par:  
White-Office/Bianc-Bureau

CO. REP. Das  
Co. Rep.  
yellow-Co. Rep./Jaune-Co.-Rep

CO. REP. *Danbyville* FOREMAN  
Co. Rep. Contremaire  
Yellow-Co. Rep./Jaune-Co -Rep Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date <u>25/04/04</u>	Shift <u>Day</u>	Machine No. <u>300</u>		Drilling/Forage.....	<u>33</u>	Hrs. <u>7</u>	Mhr
Drilling at <u>PINKEN</u>	Hole No. <u>500</u>	Hole Angle <u>60°</u>		Drilling From/Forage de.....	<u>35</u>	TO/à.....	<u>52.5</u>
Lieu de forage		Angle du trou		Overburden/Mort terrain de.....	<u>82</u>	Hrs. <u>17</u>	Mhr
Overburden:				Overburden From/Mort terrain de.....	<u>35</u>	TO/à.....	<u>52.5</u>
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m	Bit No. <u>38967.03</u>	Type <u>BTW</u>	ft/m. <u>17.5</u>	
<u>SPA, 07.06</u>				# de mèche	Sorte	pd/m	
Drilling:				Shoe No. <u>3W0181</u>	Type <u>BW</u>	ft/m. <u>18.5</u>	
Hole No.	From	To	Total ft/m	Shell No. # de la cartouche	Type Sorte	ft/m. pd/m	
Bit No. # de mèche	Type Sorte	ft/m. pd/m	Moving/Déplacement.....	Rhr. ....	Mhr		
Shoe No. ....	Type .....	ft/m. ....	From/de# ..... TO/à..... Distance.....	....	....		
Shell No. # de la cartouche	Type Sorte	ft/m. pd/m	Pulling Casing/Retirer tubage.....	Rhr. ....	Mhr		
TIME DISTRIBUTION/ Distribution de temps				Cemented At/Cimentner à.....	ft/m. ....	Rhr. ....	
Drilling/Forage.....	Rhr. ....	Mhr	Cement to set/Durcir le ciment.....	Rhr. ....	Mhr		
Overburden/Mort terrain.....	Rhr. ....	Mhr	Drilling Cement/Forage du ciment.....	Rhr. ....	Mhr		
Moving/Déplacement.....	Rhr. ....	Mhr	From/de..... TO/à.....	....	....		
Walking Time/Temps de marche.....	Rhr. ....	Mhr	Rreaming (Hole Conditions)/l'état du trou.....	Rhr. ....	Mhr		
Repairing/Réparation.....	Rhr. ....	Mhr	Waterline At/Ligne d'eau à..... ft/m. ....	Rhr. ....	Mhr		
(What?)/(Quoi?).....	....	....	Survey Testing At/Assessment à..... ft/m. ....	Rhr. ....	Mhr		
Other/Autre.....	Rhr. ....	Mhr	Acid Testing At/Analyse (acide)..... ft/m. ....	Rhr. ....	Mhr		
(What?)/(Quoi?).....	....	....	Delays/Retard (.....). ....	Rhr. ....	Mhr		
Casing Placed in Hole/ Tubage placer dans le trou:				Walking Time/Temps de marche.....	Rhr. ....	Mhr	
	AW	BW	NW	Wedging At/Coincer le trou à..... ft/m. ....	Rhr. ....	Mhr	
2'	....	....	HW	Other/Autre.....	Rhr. ....	Mhr	
5'	....	....		(What?)/(Quoi?).....	....	....	
10'	....	....		Materials Used, Lost or Damaged	....	....	
Casing Recovered/Tubage récupéré: AW	BW	NW	HW	Matériaux utilisés, perdu ou endommagés:	....	....	
2'	....	....	....	<u>Drill SAN STON 3m reaming</u>	....	....	
5'	....	....	....	<u>casing 3m ... try to pass</u>	....	....	
10'	....	....	....	<u>7.2m</u>	....	....	
R.Foreman/Contremaire opérat...	<u>Dennis Michal 12</u>			<u>Still going good.</u>	....	....	
Runner/Opérateur.....	Hrs			<u>BEAD rock was hat 34.5m</u>	....	....	
Runner/Opérateur.....	Hrs			....	....	....	
Helper/Assistant.....	<u>J.L. Baril 12</u>			....	....	....	
Helper/Assistant.....	Hrs			....	....	....	
Other/Autre.....	Hrs			....	....	....	

GENERAL REMARKS/Observations général:

APPROVED BY:  
Approuvé par:  
White-Office/Blanc-Bureau

Roger Thorne

CO. REP.  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co. Rep.

Dennis Michal

FOREMAN  
Contremaire  
Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
<p>Date <u>25/04/04</u> Shift <u>Night</u> Machine No. <u>300</u>            Heure de travail # de machine            Drilling at <u>Bit 11.1 REN</u> Hole Angle <u>60°</u>            Lieu de forage Angle du trou            Overburden:            Hole No. From To Total ft/m            #du trou De A Total de pd/m    <b>SPQ 04.06</b></p>				Drilling/Forage ..... <u>3</u> Hrs <u>6</u> Mhr Drilling From/Forage de ..... <u>52.5</u> TO/à <u>69</u> Overburden/Mortterrain ..... <u>9</u> Hrs <u>18</u> Mhr Overburden From/Mort terrain de ..... <u>51.5</u> TO/à <u>69</u> Bit No. <u>38.967.03</u> Type <u>BTW</u> ft/m ..... <u>16.5</u> # de mèche Sorte pd/m  Shoe No. <u>3W018.1</u> Type <u>BW</u> ft/m ..... <u>17.5</u> Shell No. ..... Type ..... ft/m ..... # de la cartouche ..... Sorte ..... pd/m .....  Moving/Déplacement ..... Rhr ..... Mhr From/de# ..... TO/à# ..... Distance ..... Pulling Casing/Retirer tubage ..... Rhr ..... Mhr Cemented At/Cimenter à ..... ft/m ..... Rhr ..... Mhr Cement to set/Durcir le ciment ..... Rhr ..... Mhr Drilling Cement/Forage du ciment ..... Rhr ..... Mhr From/de ..... TO/à ..... Reaming (Hole Conditions)/l'état du trou ..... Rhr ..... Mhr Waterline At/Ligne d'eau à ..... ft/m ..... Rhr ..... Mhr Survey Testing At/Assessment à ..... ft/m ..... Rhr ..... Mhr Acid Testing At/Analyse (acide) ..... ft/m ..... Rhr ..... Mhr Delays/Retard (.....) ..... Rhr ..... Mhr Walking Time/Temps de marche ..... Rhr ..... Mhr Wedging At/Coincer le trou à ..... ft/m ..... Rhr ..... Mhr Other/Autre ..... Rhr ..... Mhr  <u>(What?)/(Quoi?)</u> .....  <u>Casing Placed in Hole/ Tubage placer dans le trou:</u> AW BW NW HW 2' ..... ..... ..... ..... 5' ..... ..... ..... ..... 10' ..... ..... ..... .....  <u>Casing Recovered/Tubage récupérer:</u> AW BW NW HW 2' ..... ..... ..... ..... 5' ..... ..... ..... ..... 10' ..... ..... ..... .....  <u>R. Foreman/Contremaitre opérateur:</u> Hrs Runner/Opérateur <u>Murray Tu/ man</u> <u>12</u> Hrs Runner/Opérateur ..... Hrs Helper/Assistant <u>Wayne Besjardins</u> <u>12</u> Hrs Helper/Assistant ..... Hrs Other/Autre ..... Hrs			

**GENERAL REMARKS/Observations général:**

APPROVED BY: Roger D Thomas  
Approuver par:  
White-Office/Bianc-Bureau

Approuver par:  
White-Office/Blanc-Bureau

CO. REP. Dan  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-Rep.

**FOREMAN**  
Contremaitre  
*Pink-Foreman/Rose-Contremaitre*

**FOREMAN**

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps			
Date <u>26/04/86</u>	Shift <u>Day</u>	Machine No. <u>300</u>		Drilling/Forage.....	1 Hrs. <u>2</u>	Mhr	
Drilling at <u>B. T. W. E. N.</u>	Hour de travail # de la machine	Hole Angle <u>60°</u>		Drilling From/Forage de.....	<u>69</u> TO/a. <u>76m</u>		
Lieu de forage		Angle du trou		Overburden/Mort terrain.....	<u>65</u> Hrs. <u>13</u>	Mhr	
Overburden:				Overburden From/Mort terrain de.....	<u>69</u> TO/a. <u>76m</u>		
Hole No. #du trou	From De	To À	Total ft/m Total de pd/m	Bit No. <u>38967.03</u>	Type <u>BTW</u> ft/m. <u>7m</u>		
Drilling:				Shoe No. <u>3.W.0.18.1</u>	Type <u>BTW</u> ft/m. <u>7m</u>		
Hole No. <u>SPQ.04.06</u>	From <u>76m</u>	To <u>90</u>	Total ft/m <u>96m</u>	Shell No. # de la cartouche	Type Sorte ft/m. pd/m		
			<u>14m</u>	Moving/Déplacement	Rhr. Mhr		
Bit No. <u>38967.03</u>	Type <u>BTW</u>	ft/m. <u>14m</u>	# de mèche	From/de#..... TO/a#..... Distance			
	Sorte	pd/m		Pulling Casing/Retirer tubage.....	Rhr. Mhr		
Shoe No.	Type	ft/m.		Cemented At/Cimentier à.....	Rhr. Mhr		
Shell No. # de la cartouche	Type Sorte	ft/m. pd/m		Cement to set/Durcir le ciment.....	Rhr. Mhr		
TIME DISTRIBUTION/ Distribution de temps							
Drilling/Forage.....	<u>4</u> Rhr. <u>8</u>	Mhr		Drilling Cement/Forage du ciment.....	Rhr. Mhr		
Overburden/Mort terrain.....	Rhr.	Mhr		From/de..... TO/a.....			
Moving/Déplacement.....	Rhr.	Mhr		Reaming (Hole Conditions)/l'état du trou.....	Rhr. Mhr		
Walking Time/Temps demarche.....	Rhr.	Mhr		Waterline At/Ligne d'eau à..... ft/m. Rhr. Mhr			
Repairing/Réparation.....	<u>1</u> Rhr. <u>1/2</u>	Mhr		Survey Testing At/Assessment à..... ft/m. Rhr. Mhr			
(What?)/(Quoi?) <u>NEVER WAS BLOCK ON FUT KIAM</u>	<u>WHEN BACK TO DRILL TO FIX</u>			Acid Testing At/Analyse (acide)..... ft/m. Rhr. Mhr			
Other/Autre.....	Rhr.	Mhr		Delays/Retard (.....). Rhr. Mhr			
(What?)/(Quoi?).....				Walking Time/Temps de marche..... Rhr. Mhr			
Casing Placed in Hole/ Tubage placer dans le trou:							
	AW	BW	NW	HW			
2'					Wedging At/Coincer le trou à..... ft/m. Rhr. Mhr		
5'					Other/Autre..... Rhr. Mhr		
10'					(What?)/(Quoi?).....		
Casing Recovered/Tubage récupéré: AW	BW	NW	HW		<u>Materials Used, Lost or Damaged</u>		
2'					<u>Matériaux utilisés, perdu ou endommagé:</u>		
5'					<u>Block front hat 74m when back in rock hat 75.5</u>		
10'					<u>R.E.M.MED C.S.I.N.G PASS SAN</u>		
10'					<u>SINE TO 76m.</u>		
R.Foreman/Contremaitre opérateur <u>DENIS MICHAEL 12</u>	2 Hrs				<u>Hole is going good.</u>		
Runner/Opérateur.....	Hrs						
Runner/Opérateur.....	Hrs						
Helper/Assistant <u>J.L. Baril 12</u>	.Hrs						
Helper/Assistant.....	Hrs						
Other/Autre.....	Hrs						

GENERAL REMARKS/Observations général: sight of Miss Hatch in hole  
END OF SHIFT CHANGE

APPROVED BY: Regis D. Thomas  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP. Dark Miller  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co. Rep.

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur (Included in the Drilling Rate)/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																							
<p>Date: <u>26/04/04</u> Shift: <u>N.G.W.</u> Machine No. <u>300</u>            Heure de travail # de la machine            Drilling at <u>BILLINGS</u> Hole Angle <u>60°</u>            Lieu de forage Angle du trou            Overburden:            Hole No. From To Total ft/m            # du trou De À Total de pd/m</p> <p>Drilling: Hole No. From To Total ft/m  <u>SPQ-04-06</u> <u>90</u> <u>116</u> <u>26</u></p> <p>Bit No. <u>38967.03</u> Type <u>BTW</u> ft/m <u>26</u>  # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m.  Shell No. Type ft/m.  # de la cartouche Sorte pd/m</p> <p><b>TIME DISTRIBUTION/ Distribution de temps</b></p> <p>Drilling/Forage <u>10½</u> Rhr <u>21</u> Mhr  Overburden/Mortterrain ..... Rhr ..... Mhr  Moving/Déplacement ..... Rhr ..... Mhr  Walking Time/Temps de marche ..... Rhr ..... Mhr  Repairing/Réparation ..... Rhr ..... Mhr  (What?)/(Quoi?) ..... Rhr ..... Mhr  Other/Autre ..... Rhr ..... Mhr  (What?)/(Quoi?) ..... Rhr ..... Mhr  Casing Placed in Hole/ Tubage placer dans le trou:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> <tr> <td>2'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>5'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>10'</td> <td>.....</td> <td>.....</td> <td>.....</td> <td>.....</td> </tr> </table> <p>Casing Recovered/Tubage récupérer: AW BW NW HW</p> <p>2' .....  5' .....  10' .....</p> <p>R. Foreman/Contremaitre opérateur ..... Hrs  Runner/Opérateur <u>MURRAY TULLMAN</u> <u>12</u> Hrs  Runner/Opérateur ..... Hrs  Helper/Assistant <u>WALTER DESPARINIS</u> <u>12</u> Hrs  Helper/Assistant ..... Hrs  Other/Autre ..... Hrs</p>					AW	BW	NW	HW	2'	.....	.....	.....	.....	5'	.....	.....	.....	.....	10'	.....	.....	.....	.....	<p>Drilling/Forage ..... Hrs ..... Mhr  Drilling From/Forage de ..... TO/à .....  Overburden/Mortterrain ..... Hrs ..... Mhr  Overburden From/Mort terrain de ..... TO/à .....  Bit No. ..... Type ft/m.  # de mèche Sorte pd/m</p> <p>Shoe No. ..... Type ft/m.  Shell No. ..... Type ft/m.  # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement ..... Rhr ..... Mhr  From/de# ..... TO/à# ..... Distance ..... Rhr ..... Mhr  Pulling Casing/Retirer tubage ..... Rhr ..... Mhr  Cemented At/Cimenter à ..... ft/m ..... Rhr ..... Mhr  Cement to set/Durcir le ciment ..... Rhr ..... Mhr  Drilling Cement/Forage du ciment ..... Rhr ..... Mhr  From/de ..... TO/à .....  Rearing (Hole Conditions)/l'état du trou ..... <u>1½</u> Rhr <u>3</u> Mhr  Waterline At/Ligne d'eau à ..... ft/m ..... Rhr ..... Mhr  Survey Testing At/Assessment à ..... ft/m ..... Rhr ..... Mhr  Acid Testing At/Analyse (acide) ..... ft/m ..... Rhr ..... Mhr  Delays/Retard (.....) ..... Rhr ..... Mhr  Walking Time/Temps de marche ..... Rhr ..... Mhr  Wedging At/Coincer le trou à ..... ft/m ..... Rhr ..... Mhr  Other/Autre ..... Rhr ..... Mhr  (What?)/(Quoi?) .....  <b>Materials Used, Lost or Damaged</b>  Matériels utilisés, perdu ou endommagés:  <u>REARINGS in Hole, SAN</u>  <u>ONE pail of D.D. 2000.</u></p>			
	AW	BW	NW	HW																							
2'	.....	.....	.....	.....																							
5'	.....	.....	.....	.....																							
10'	.....	.....	.....	.....																							

GENERAL REMARKS/Observations général:

APPROVED BY: Roger Thomas  
Approuver par:  
White-Office/Blanc-Bureau

CO. REP. Co. Rep. Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
Contremaitre  
Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériaux de la compagnie Time Distribution/Distribution de temps			
Date 27/04/04 Shift DAY	Machine No. 300	Pumping G-stop in Hole 52 Hrs. 11 Mhr					
Drilling at B. TIRE NO.	Hole Angle 60°	AND WASHING Hole,					
Lieu de forage	Angle du trou	Drilling From/Forage de..... TO/à.....					
Overburden:		Overburden/Mort terrain..... Hrs. Mhr					
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m				
Drilling:							
Hole No. SPQ04.06	From 116	To 122.5	Total ft/m 11.5				
Bit No. 38967.03	Type BTW	ft/m. 11.5					
# de mèche	Sorte	pd/m					
Shoe No.	Type	ft/m.					
Shell No. # de la cartouche	Type Sorte	ft/m. pd/m					
TIME DISTRIBUTION/ Distribution de temps							
Drilling/Forage.....	32 Rhr.	7	Mhr				
Overburden/Mort terrain.....	Rhr.		Mhr				
Moving/Déplacement.....	Rhr.		Mhr				
Walking Time/Temps de marche.....	Rhr.		Mhr				
Repairing/Réparation.....	Rhr.		Mhr				
(What?)/(Quoi?).....							
Other/Autre.....	Rhr.		Mhr				
(What?)/(Quoi?).....							
Casing Placed in Hole/ Tubage placer dans le trou:							
	AW	BW	NW HW				
2'							
5'							
10'							
Casing Recovered/Tubage récupéré: AW BW NW HW							
2'							
5'							
10'							
R. Foreman/Contremaitre opérateur DENIS Michaud 12 Hrs							
Runner/Opérateur.....							
Runner/Opérateur.....							
Helper/Assistant J. L. Baril 12 Hrs							
Helper/Assistant.....							
Other/Autre.....							
GENERAL REMARKS/Observations général:							
<p align="center">Pumping G-stop in Hole AND WASHING Hole, Drilling From/Forage de..... TO/à..... Overburden/Mort terrain..... Hrs. Mhr Overburden From/Mort terrain de..... TO/à..... Bit No. # de mèche Type ft/m. Sorte pd/m Shoe No. Type ft/m. Shell No. # de la cartouche Type Sorte ft/m. pd/m Moving/Déplacement..... Rhr. .... Mhr From/de#..... TO/à#..... Distance..... Pulling Casing/Retirer tubage..... Rhr. .... Mhr Cemented At/Cimentier à..... ft/m. Rhr. .... Mhr Cement to set/Durcir le ciment..... Rhr. .... Mhr Drilling Cement/Forage du ciment ..... Rhr. .... Mhr From/de..... TO/à..... Reaming (Hole Conditions)/l'état du trou..... 3 Rhr. 6 Mhr Waterline At/Ligne d'eau à..... ft/m. Rhr. .... Mhr Survey Testing At/Assessment à..... ft/m. Rhr. .... Mhr Acid Testing At/Analyse (acide)..... ft/m. Rhr. .... Mhr Delays/Retard (.....)..... Rhr. .... Mhr Walking Time/Temps de marche..... Rhr. .... Mhr Wedging At/Coincer le trou à..... ft/m. Rhr. .... Mhr Other/Autre..... Rhr. .... Mhr (What?)/(Quoi?).....</p> <p align="center">Materials Used, Lost or Damaged</p> <p align="center">Matériels utilisés, perdu ou endommagés:</p> <p align="center">Pumping G. Stop in Hole AND WASHING hole REAMMING, 5.00 in Hole.</p> <p align="center">ONE pail of G-stop</p> <p align="center">Brock Trow 12.3m went BACK IN DEAD rock hat 125.5 m Drill in solid rock to 127.5.</p>							

APPROVED BY: *Roger D. Thomas*  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP. *Denis Michaud*  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co. Rep.

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
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CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériaux de la compagnie Time Distribution/Distribution de temps			
Date <u>28/10/86</u>	Shift <u>Night</u>	Machine No. <u>300</u>		Drilling/Forage.....	Hrs.....	Mhr.....	
Drilling at <u>B. NIKKAN</u>	Heure de travail	# de la machine		Drilling From/Forage de.....	TO/à.....		
Lieu de forage		Hole Angle.....	<u>60°</u>	Overburden/Mortterrain.....	Hrs.....	Mhr.....	
Overburden:		Angle du trou		Overburden From/Mort terrain de.....	TO/à.....		
Hole No. #du trou	From De	To À	Total ft/m Total de pd/m	Bit No. # de mèche	Type... Sorte	ft/m. pd/m	
Drilling: Hole No. <u>SPQ.04.06</u>	From	To	Total ft/m	Shoe No. ....	Type....	ft/m.....	
				Shell No. # de la cartouche	Type.... Sorte	ft/m. pd/m	
Bit No. # de mèche	.....	.....	.....	Moving/Déplacement.....	Rhr.....	Mhr.....	
Shoe No. ....	.....	.....	.....	From/de#.....	TO/à#.....	Distance.....	
Shell No. # de la cartouche	.....	.....	.....	Pulling Casing/Retirer tubage.....	Rhr.....	Mhr.....	
TIME DISTRIBUTION/ Distribution de temps				Cemented At/Cimenter à.....	ft/m. 5	Rhr. 10 Mhr.....	
Drilling/Forage.....	Rhr.....	Mhr.....	Cement to set/Durcir le ciment.....	2	Rhr. 14 Mhr.....		
Overburden/Mortterrain.....	Rhr.....	Mhr.....	Drilling Cement/Forage du ciment.....	.....	Rhr..... Mhr.....		
Moving/Déplacement.....	Rhr.....	Mhr.....	From/de.....	.....	TO/à.....		
Walking Time/Tempsdernière.....	Rhr.....	Mhr.....	Reaming (Hole Conditions)/l'état du trou.....	.....	Rhr..... Mhr.....		
Repairing/Réparation.....	Rhr.....	Mhr.....	Waterline At/Ligne d'eau à.....	.....	Rhr..... Mhr.....		
(What?)/(Quoi?).....	.....	.....	Survey Testing At/Assessment à.....	ft/m. ....	Rhr..... Mhr.....		
Other/Autre.....	.....	Mtr.....	Acid Testing At/Analyse (acide).....	ft/m. ....	Rhr..... Mhr.....		
(What?)/(Quoi?).....	.....	.....	Delays/Retard (.....),	.....	Rhr..... Mhr.....		
Casing Placed in Hole/ Tubage placer dans le trou:				Walking Time/Temps de marche.....	.....	Rhr..... Mhr.....	
	AW	BW	NW	Wedging At/Coincer le trou à.....	ft/m. ....	Rhr..... Mhr.....	
2'	.....	.....	Other/Autre.....	.....	Rhr..... Mhr.....		
5'	.....	.....	(What?)/(Quoi?).....	.....	.....		
10'	.....	.....	<u>Materials Used, Lost or Damaged</u>				
Casing Recovered/Tubage récupérer: AW	BW	NW	HW	<u>Matériels utilisé, perdu ou endommagé:</u>			
2'	.....	.....	.....	<u>7 Bag's of fondow</u>			
5'	.....	.....	.....	<u>pump in Hole SPQ.04.06</u>			
10'	.....	.....	.....	<u>to CEMENTED Sime.</u>			
Helper/Assistant.....	.....	.....	.....	<u>Pump rest of G. stop in</u>			
Helper/Assistant.....	.....	.....	.....	<u>HOLE.</u>			
Helper/Assistant.....	.....	.....	.....	<u>Wait for CEMENT to</u>			
Other/Autre.....	.....	.....	.....	<u>set.</u>			

GENERAL REMARKS/Observations général:

APPROVED BY: Roger D ThomasApprouver par:  
White-Office/Blanc-BureauCO. REP. Denis Vézina  
Co. Rep.

Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN

Contremaitre

Pink-Foreman/Rose-Contremaire

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																																											
<p>Date <u>29/04/84</u> Shift <u>Day</u> Machine No. <u>300</u>  Drilling at <u>B. 11 REN</u> Hole Angle <u>60°</u>  Lieu de forage Angle du trou  Overburden:  Hole No. From To Total ft/m  #du trou De A Total de pd/m </p> <p>Drilling: Hole No. From To Total ft/m  <u>SPQ. 04.06 12.7.5</u> — —</p> <p>Bit No. Type ft/m  # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m  Shell No. Type ft/m  # de la cartouche Sorte pd/m</p> <p><b>TIME DISTRIBUTION/ Distribution de temps</b></p> <p>Drilling/Forage..... Rhr. .... Mhr  Overburden/Mortterrain..... Rhr. .... Mhr  Moving/Déplacement..... Rhr. .... Mhr  Walking Time/Temps de marche..... Rhr. .... Mhr  Repairing/Réparation..... Rhr. .... Mhr  (What?)/(Quoi?).....  Other/Autre..... Rhr. .... Mhr  (What?)/(Quoi?).....</p> <p>Casing Placed in Hole/ Tubage placé dans le trou:</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <th></th> <th style="text-align: center;">AW</th> <th style="text-align: center;">BW</th> <th style="text-align: center;">NW</th> <th style="text-align: center;">HW</th> </tr> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>Casing Recovered/Tubage récupéré:</td> <td style="text-align: center;">AW</td> <td style="text-align: center;">BW</td> <td style="text-align: center;">NW</td> <td style="text-align: center;">HW</td> </tr> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> </table> <p>R. Foreman/Contremaitre opérateur <u>Denis Michel 13</u> Hrs  Runner/Opérateur..... Hrs  Runner/Opérateur..... Hrs  Helper/Assistant <u>J.L. Baril 13</u> Hrs  Helper/Assistant..... Hrs  Other/Autre..... Hrs</p>					AW	BW	NW	HW	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....	Casing Recovered/Tubage récupéré:	AW	BW	NW	HW	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....	<p>Drilling/Forage..... Hrs. .... Mhr  Drilling From/Forage de..... TO/à.....  Overburden/Mortterrain..... Hrs. .... Mhr  Overburden From/Mort terrain de..... TO/à.....  Bit No. Type ft/m  # de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m  Shell No. Type ft/m  # de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... Rhr. .... Mhr  From/de#..... TO/à#..... Distance..... Rhr. .... Mhr  Pulling Casing/Retirer tubage..... Rhr. .... Mhr  Cemented At/Cimentier à..... ft/m. .... Rhr. .... Mhr  Cement to set/Durcir le ciment..... <u>12</u> Hr. <u>24</u> Mhr  Drilling Cement/Forage du ciment..... <u>1</u> Rhr. <u>2</u> Mhr</p> <p>From/de..... TO/à.....</p> <p>Rearming (Hole Conditions)/l'état du trou..... Rhr. .... Mhr  Waterline At/Ligne d'eau à..... ft/m. .... Rhr. .... Mhr  Survey Testing At/Assessment à..... ft/m. .... Rhr. .... Mhr  Acid Testing At/Analyse (acide)..... ft/m. .... Rhr. .... Mhr  Delays/Retard (.....)..... Rhr. .... Mhr  Walking Time/Temps de marche..... Rhr. .... Mhr  Wedging At/Coincer le trou à..... ft/m. .... Rhr. .... Mhr  Other/Autre..... Rhr. .... Mhr  (What?)/(Quoi?).....</p> <p><b>Materials Used, Lost or Damaged</b></p> <p>Matériels utilisés, perdu ou endommagés:</p> <p><u>WENT down whit rod's</u>  <u>TO 97 THEN 102 CEMENT</u>  <u>IS NOT SET</u></p> <p><u>HAVE to wait longer.</u></p>			
	AW	BW	NW	HW																																											
2'	....	....	....	....																																											
5'	....	....	....	....																																											
10'	....	....	....	....																																											
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10'	....	....	....	....																																											

GENERAL REMARKS/Observations général:

APPROVED BY: Roger D Thomas  
Approuver par:  
White-Office/Blanc-Bureau

CO. REP. Dee Mida  
Co. Rep.  
Yellow-Co. Rep./Jaune-Co.-Rep

FOREMAN

Contremaitre

Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

CONTRACTOR'S TIME/temps de l'entrepreneur Included in the Drilling Rate/Inclus dans le tarif de forage				COMPANY TIME AND MATERIALS Temps et matériels de la compagnie Time Distribution/Distribution de temps																																											
<p>Date <u>29/07/04</u> Shift <u>1</u> Shift..... Machine No. <u>300</u>            Heure de travail # de la machine            Drilling at <u>83°</u> from <u>N.E.</u> Hole Angle..... <u>83°</u>            Lieu de forage Angle du trou            Overburden:            Hole No. From To Total ft/m            #du trou De À Total de pd/m         </p> <p>Drilling: Hole No. From To Total ft/m  <u>SPQ, NH, 016</u></p> <p>Bit No. From To Total ft/m  # de mèche Sorte ft/m  pd/m</p> <p>Shoe No. Type ft/m  # de la cartouche Sorte ft/m  pd/m</p> <p>Moving/Déplacement  From/de#..... TO/à#..... Distance..... Rhr..... Mhr</p> <p>Pulling Casing/Retirer tubage..... Rhr..... Mhr</p> <p>Cemented At/Cimentier à..... ft/m..... Rhr..... Mhr</p> <p>Cement to set/Durcir le ciment..... <u>8 1/2</u> Rhr. <u>2 1/2</u> Mhr</p> <p>Drilling Cement/Forage du ciment..... <u>2</u> Rhr. <u>4</u> Mhr</p> <p>From/de..... TO/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr..... Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m..... Rhr..... Mhr</p> <p>Survey Testing At/Assessment à..... ft/m..... Rhr..... Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m..... Rhr..... Mhr</p> <p>Delays/Retard (.....)..... Rhr..... Mhr</p> <p>Walking Time/Temps de marche..... Rhr..... Mhr</p> <p>Wedging At/Coincer le trou à..... ft/m..... Rhr..... Mhr</p> <p>Other/Autre..... Rhr..... Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Casing Placed in Hole/ Tubage placer dans le trou:</p> <table border="1"> <thead> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> </thead> <tbody> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> </tbody> </table> <p>Casing Recovered/Tubage récupérer: AW BW NW HW</p> <table border="1"> <thead> <tr> <th></th> <th>AW</th> <th>BW</th> <th>NW</th> <th>HW</th> </tr> </thead> <tbody> <tr> <td>2'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>5'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> <tr> <td>10'</td> <td>....</td> <td>....</td> <td>....</td> <td>....</td> </tr> </tbody> </table> <p>R. Foreman/Contremaitre opérateur..... Hrs</p> <p>Runner/Opérateur, <u>Maurice Stulman</u> <u>11</u> Hrs</p> <p>Runner/Opérateur..... Hrs</p> <p>Helper/Assistant, <u>Wayne G. Desjardins</u> <u>11</u> Hrs</p> <p>Helper/Assistant..... Hrs</p> <p>Other/Autre..... Hrs</p>					AW	BW	NW	HW	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....		AW	BW	NW	HW	2'	....	....	....	....	5'	....	....	....	....	10'	....	....	....	....	<p>Drilling/Forage..... Hrs..... Mhr</p> <p>Overburden/Mort terrain..... Hrs..... Mhr</p> <p>Overburden From/Mort terrain de..... TO/à.....</p> <p>Bit No. # de mèche Type ft/m..... Mhr</p> <p>Shoe No. Type ft/m.....</p> <p>Shell No. # de la cartouche Type ft/m..... Mhr</p> <p>Moving/Déplacement..... Rhr..... Mhr</p> <p>Pulling Casing/Retirer tubage..... Rhr..... Mhr</p> <p>Cemented At/Cimentier à..... ft/m..... Rhr..... Mhr</p> <p>Cement to set/Durcir le ciment..... <u>8 1/2</u> Rhr. <u>2 1/2</u> Mhr</p> <p>Drilling Cement/Forage du ciment..... <u>2</u> Rhr. <u>4</u> Mhr</p> <p>From/de..... TO/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr..... Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m..... Rhr..... Mhr</p> <p>Survey Testing At/Assessment à..... ft/m..... Rhr..... Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m..... Rhr..... Mhr</p> <p>Delays/Retard (.....)..... Rhr..... Mhr</p> <p>Walking Time/Temps de marche..... Rhr..... Mhr</p> <p>Wedging At/Coincer le trou à..... ft/m..... Rhr..... Mhr</p> <p>Other/Autre..... Rhr..... Mhr</p> <p>(What?)/(Quoi?).....</p> <p><u>Materials Used, Lost or Damaged</u></p> <p>Matériaux utilisés, perdu ou endommagé:</p> <p><u>Went down chain</u>  <u>CEMENT. 3 time</u>  <u>4 time Drill it was</u>  <u>Hard.</u></p>			
	AW	BW	NW	HW																																											
2'	....	....	....	....																																											
5'	....	....	....	....																																											
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10'	....	....	....	....																																											

GENERAL REMARKS/Observations général: finish bracking rod's  
By Hand. Because Gear box was  
brock.

APPROVED BY: Roger D Thomas  
 Approuver par:  
 White-Office/Blanc-Bureau

CO. REP. CO. REP.  
 Co. Rep.  
 Yellow-Co. Rep./Jaune-Co -Rep

Dan McNeil

FOREMAN  
 Contremaitre  
 Pink-Foreman/Rose-Contremaitre

**HEATH & SHERWOOD DRILLING (1986) INC.**  
**FORAGE HEATH & SHERWOOD (1986) INC.**  
**DAILY REPORT - Rapport journalier**

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<p>Date <u>30/04/04</u>, Shift <u>DAY</u>, Machine No. <u>300</u></p> <p>Drilling at <u>BILLIKEN</u>, Lieu de forage # de la machine <u>60°</u></p> <p>Overburden: Angle du trou</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Hole No. #du trou</th> <th>From De</th> <th>To A</th> <th>Total ft/m Total de pd/m</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table> <p>Drilling: Hole No. From To Total ft/m</p> <p><u>3PQ. 04.06</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Bit No. # de mèche</th> <th>Type Sorte</th> <th>ft/m pd/m</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table> <p>Shoe No. Type ft/m</p> <p>Shell No. Type ft/m</p> <p># de la cartouche Sorte pd/m</p>				Hole No. #du trou	From De	To A	Total ft/m Total de pd/m	.....	.....	.....	.....	.....	.....	.....	.....	Bit No. # de mèche	Type Sorte	ft/m pd/m	.....	.....	.....	.....	.....	.....	<p>Drilling/Forage..... Hrs..... Mhr</p> <p>Drilling From/Forage de..... TO/à.....</p> <p>Overburden/Mortterrain..... Hrs..... Mhr</p> <p>Overburden From/Mort terrain de..... TO/à.....</p> <p>Bit No. Type ft/m</p> <p># de mèche Sorte pd/m</p> <p>Shoe No. Type ft/m</p> <p>Shell No. Type ft/m</p> <p># de la cartouche Sorte pd/m</p> <p>Moving/Déplacement..... 12 Rhr. 24 Mhr</p> <p>From/de#..... TO/à#..... Distance.....</p> <p>Pulling Casing/Retirer tubage..... Rhr..... Mhr</p> <p>Cemented At/Cimenter à..... ft/m..... Rhr..... Mhr</p> <p>Cement to set/Durcir le ciment..... Rhr..... Mhr</p> <p>Drilling Cement/Forage du ciment..... Rhr..... Mhr</p> <p>From/de..... TO/à.....</p> <p>Reaming (Hole Conditions)/l'état du trou..... Rhr..... Mhr</p> <p>Waterline At/Ligne d'eau à..... ft/m..... Rhr..... Mhr</p> <p>Survey Testing At/Assessment à..... ft/m..... Rhr..... Mhr</p> <p>Acid Testing At/Analyse (acide)..... ft/m..... Rhr..... Mhr</p> <p>Delays/Retard (.....)..... Rhr..... Mhr</p> <p>Walking Time/Temps de marche..... Rhr..... Mhr</p> <p>Repairing/Réparation..... Rhr..... Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Other/Autre..... Rhr..... Mhr</p> <p>(What?)/(Quoi?).....</p> <p>Other/Autre..... Rhr..... Mhr</p> <p>(What?)/(Quoi?) NO NIGHT SHIFT</p>																						
Hole No. #du trou	From De	To A	Total ft/m Total de pd/m																																												
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	AW	BW	NW	HW																																											
2'	.....	.....	.....	.....																																											
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GENERAL REMARKS/Observations général: Casing Job, Drill. And camp.

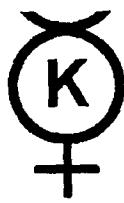
APPROVED BY:  
Approuver par:  
White-Office/Blanc-Bureau

Roger D Thomas CO. REP. Dark Mike  
Co. Rep.

Yellow-Co. Rep./Jaune-Co.-Rep.

FOREMAN  
Contremaitre

Pink-Foreman/Rose-Contremaire



**KENNECOTT CANADA EXPLORATION INC.**

**MICRODIAMOND ANALYSIS  
TEST REPORT**

**04MD013**

**Billiken Submittal**

**Prepared for:**  
Billiken Management Services Inc.  
53 Yonge Street, Second Floor  
Toronto, Ont M5E 1J3

Jim Crawford  
Laboratory Manager  
May 25, 2004

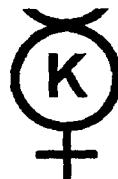


**Accredited to ISO/IEC 17025 for specific registered tests.**

**Mineral Processing Laboratory**

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4  
Telephone (807) 473-5558 Facsimile (807) 473-5660

This report refers to samples processed as-received.  
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Mineral Processing Laboratory



# KENNECOTT CANADA EXPLORATION INC.

## Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660



### METHOD DESCRIPTION

#### Accredited to ISO/IEC 17025 for specific registered tests.

23 samples were submitted for caustic fusion processing and microdiamond recovery. The as-received samples were processed according to registered methods and standard operating procedures. The results are summarized in the Certificates of Analysis. Standard operating procedures are listed below, sample abnormalities and possible damage caused during shipping are noted on the Certificate.

#### MICRO DIAMOND SAMPLE PROCESSING

Sample processing at Kennecott Canada Exploration Inc. Mineral Processing Laboratory in Thunder Bay, ON consists of wet chemical processes including fusion with NaOH, dissolving in KNO<sub>3</sub>, neutralization with HCl, sieving and classifying (see Figure 1 for a summary flow sheet). This procedure reduces the sample size from 10 kilograms to a concentrate of approximately 15 grams.

After samples are received, they are logged in and stored outdoors before processing. Processing commences with samples being placed into stainless steel pots with NaOH and heated for several hours in a process called Caustic Fusion. The sample material is then dissolved using KNO<sub>3</sub> and more heat. Depending on client requests, the slurry of sample and dissolved reagents is poured through a sieve of .075mm, .125mm or 0.15mm square aperture screen. Material retained on the screen is neutralized with HCl. Further sieving, with a 1mm square aperture screen, results in the removal of any larger micro diamonds from the sample. These stones are placed in a drop safe for security reasons and described (following the flow sheet in Figure 2) as soon as possible.

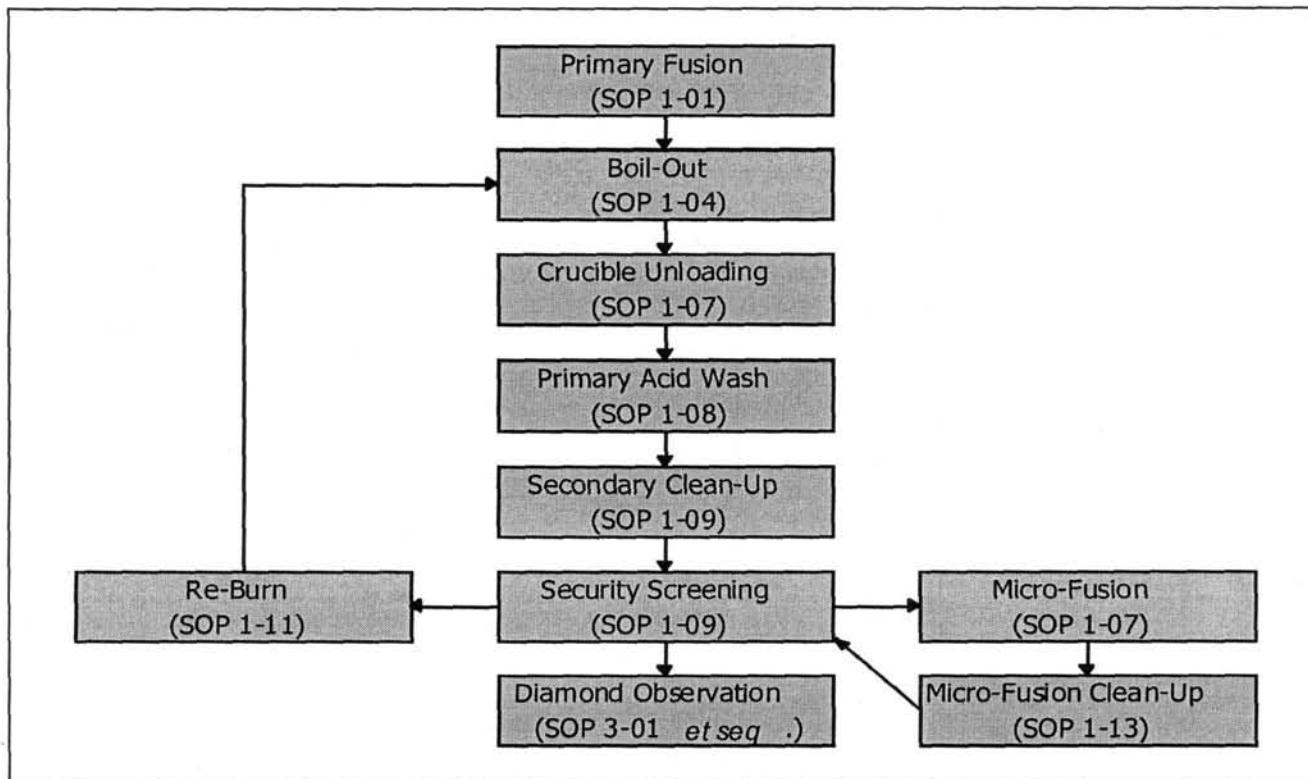
The remaining sample material moves through subsequent cycles of Caustic Fusion, dissolution and neutralization until all potentially diamondiferous rock fragments are digested. The resulting resistate mineral concentrate is sent to the microscopy laboratory for observation.

This report refers to samples processed as-received.

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(\*) Denotes deviations from standard operating procedures.

**FIG. 1: MICRO-DIAMOND FLOW SHEET**



This report refers to samples processed as-received.

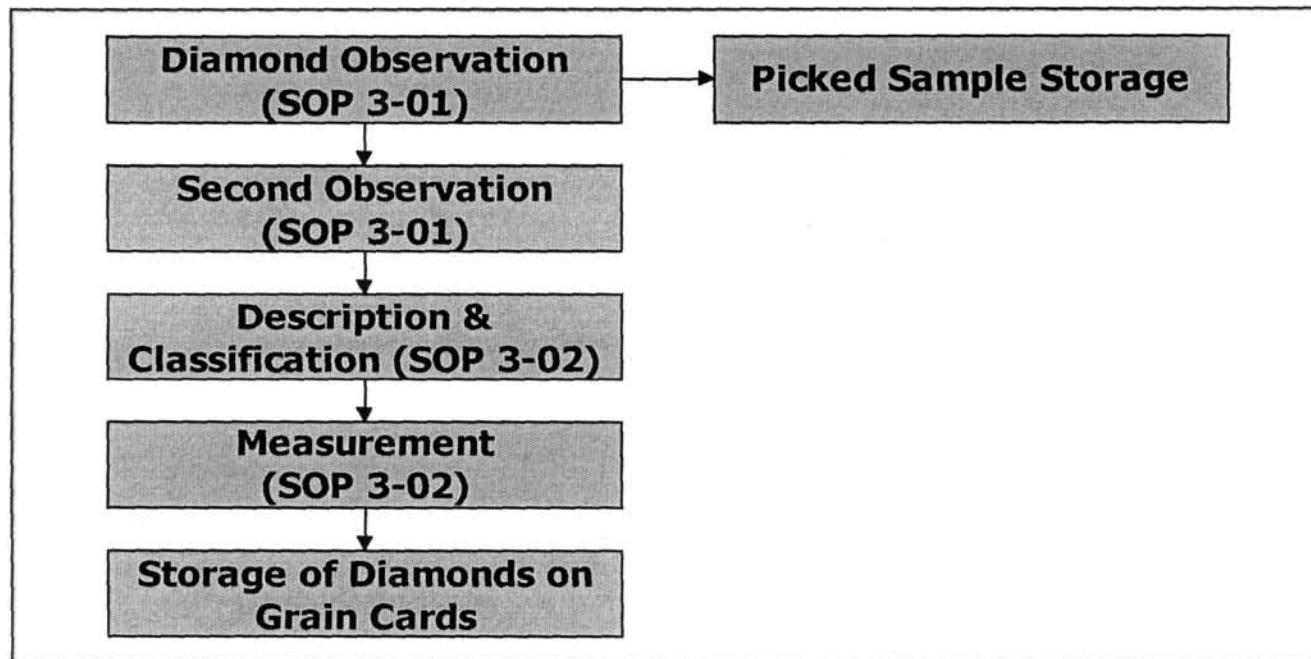
26/05/2004 12:46 PM This report may not be reproduced except in full, without written permission of the Mineral Processing Laboratory.

## MICRO DIAMOND CONCENTRATE MICROSCOPE EXAMINATION

Observation of micro diamond concentrates was performed in Kennecott Canada Exploration Inc. Mineral Processing Laboratory in Thunder Bay (see Figure 2). Trained Mineral Technicians examined each grain using binocular microscopes equipped with fibre-optic lights. Mineral Technicians removed all suspected micro diamonds, recorded stone counts on an observation log sheet, and later transfer the data to the Laboratory Information Management System. Following observation, suspected micro diamonds are examined by a mineralogist who confirms the grain identifications. All stones are then described and classified.

(\*) Denotes deviations from standard operating procedures.

FIG. 2: OBSERVATION & CLASSIFICATION FLOW SHEET.



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## **MD Method 1 and 3 Quality Control Measures**

Samples received are divided into sets or batches of one to twenty-five samples. One in fifteen samples within the batch are randomly selected for spiking with laser etched diamonds. At least one sample per batch is selected for spiking. A random number between 1 and 5 diamond spikes are added to each sample selected for spiking. Samples selected for spiking are spiked after the sample has been loaded into a crucible and placed in a kiln ready to begin processing. Once the sample has been reduced to an observable concentrate, it is submitted to the observation lab. Identified spikes are returned to the QA/QC specialist and recovery is calculated as a percentage. Lab recovery is calculated as a 12-month rolling average, with lower limit being 3 standard deviations below the average. If recovery of one or more samples falls below the lower limit, the batch is deemed non-conforming.

## **Data Verification**

For every batch, once all mineral processing is complete, all relevant data is compiled and a final report or Certificate of Analysis is generated. At minimum, 10 percent of all reports are verified in their entirety and all other reports are spot-checked. Verification involves tracing data back to original handwritten test results recorded in process flow sheets, logs or tables. The reports are then signed by Team Leaders, Laboratory Manager and the QA/QC Specialist and issued to the client.



# KENNECOTT CANADA EXPLORATION INC.

## Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660



## CERTIFICATE OF ANALYSIS METHOD 1: MICRODIAMOND PROCESSING

Date Received: 15-Apr-04

Waybill: BillikenAPR15

Work Order #: 04MD013

Project: Billiken Submittal

Lab Billing Code: 113100-RE260

Company: Billiken Management Services Inc

53 Yonge Street, Second Floor  
Toronto, Ont M5E 1J3

Attention: Neil Novak

Telephone: (416) 815-8666

Facsimile: (416) 815-1355

Client Sample Reference	DATE STARTED	SAMPLE WT (kg.)	CONC. WT (gm)	PRIMARY FUSION	SECONDARY FUSION	MICRO FUSIONS	DATE COMPLETED
1	00001	20-Apr-04	8.27	2.9	1	0	29-Apr-04
2	00002	20-Apr-04	21.45	10.2	3	2	3-May-04
3	00003	20-Apr-04	21.65	12.1	3	1	4-May-04
4	00004	21-Apr-04	19.65	8.1	2	1	3-May-04
5	00005	21-Apr-04	22.00	9.3	3	1	3-May-04
6	00006	21-Apr-04	20.34	8.5	2	1	3-May-04
7	00007	21-Apr-04	20.80	7.3	2	1	7-May-04
8	00009	22-Apr-04	20.41	5.8	2	1	11-May-04
9	00010	22-Apr-04	20.71	9.4	2	1	10-May-04
10	00011	22-Apr-04	20.70	14.6	2	1	7-May-04
11	00012	26-Apr-04	19.67	11.1	2	1	11-May-04
12	00013	26-Apr-04	20.89	12.2	3	1	11-May-04
13	00014	26-Apr-04	20.10	8.6	2	1	11-May-04
14	00015	27-Apr-04	21.02	13.6	3	1	14-May-04
15	00016	27-Apr-04	19.42	7.2	2	1	13-May-04
16	00018	27-Apr-04	21.05	9	3	1	11-May-04
17	00019	30-Apr-04	21.58	8.8	3	1	13-May-04
18	00020	3-May-04	21.09	6.6	3	1	14-May-04
19	00021	3-May-04	20.84	7.3	2	1	14-May-04
20	00022	3-May-04	21.28	25.9	3	1	14-May-04
21	00023	4-May-04	20.97	8.4	3	2	0
22	00024	4-May-04	21.22	7.7	3	1	17-May-04
23	00025	4-May-04	10.09	1.7	1	1	17-May-04
		455.20	216.3	55	24	23	

Accredited to ISO/IEC 17025 for specific registered tests.

Dan Dysievick  
MD Processing Team Leader

Jim Crawford  
Laboratory Manager

Ian Hamilton  
QA/QC Specialist

The quality of microdiamond extraction and selection from rock samples (Methods 1 and 3) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Microdiamond recovery is calculated for one sample in every batch. One batch consists of up to ten samples, depending on individual sample weights. Therefore, at least 10% of samples are quality control samples.

Continual QA/QC monitoring involves comparison of microdiamond from each batch to statistically acceptable internal performance standards. Processing and selection at the laboratory extracts, on average, 99.67% (0.65% expanded uncertainty at the 95% confidence limit) of all contained microdiamonds.



# KENNECOTT CANADA EXPLORATION INC.

## Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660



## CERTIFICATE OF ANALYSIS

### METHOD 3: MICRODIAMOND OBSERVATION

Date Received: 15-Apr-04

Waybill: BillikenAPR15

Work Order #: 04MD013

Project: Billiken Submittal

Lab Billing Code: 113100-RE260

Company: Billiken Management Services Inc.

53 Yonge Street, Second Floor

Toronto, Ont M5E 1J3

Attention: Neil Novak

Telephone: (416) 815-8666

Facsimile: (416) 815-1355

	Client Sample Reference	+0.5 mm SIEVE DIAMOND COUNT	-0.5 mm SIEVE DIAMOND COUNT	TOTAL DIAMOND COUNT	SYNTHETICS	DATE
1	00001	0	1	1	0	30-Apr-04
2	00002	0	2	2	0	10-May-04
3	00003	0	4	4	0	7-May-04
4	00004	0	5	5	0	7-May-04
5	00005	0	6	6	0	7-May-04
6	00006	0	6	6	0	7-May-04
7	00007	0	2	2	0	10-May-04
8	00009	0	11	11	0	18-May-04
9	00010	0	10	10	0	13-May-04
10	00011	0	5	5	0	10-May-04
11	00012	0	2	2	0	19-May-04
12	00013	0	7	7	0	19-May-04
13	00014	0	3	3	2	20-May-04
14	00015	0	15	15	2	19-May-04
15	00016	0	3	3	1	19-May-04
16	00018	1	4	5	0	20-May-04
17	00019	0	5	5	3	20-May-04
18	00020	0	1	1	1	20-May-04
19	00021	0	4	4	1	20-May-04
20	00022	0	10	10	1	20-May-04
21	00023	1	6	7	0	21-May-04
22	00024	0	5	5	2	20-May-04
23	00025	0	2	2	0	20-May-04
		2	119	121	13	

Accredited to ISO/IEC 17025 for specific registered tests.

Chris Berner  
Observation Team Leader

Jim Crawford  
Laboratory Manager

Ian Hamilton  
QA/QC Specialist

The quality of microdiamond extraction and selection from rock samples (Methods 1 and 3) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Microdiamond recovery is calculated for one sample in every batch. One batch consists of up to ten samples, depending on individual sample weights. Therefore, at least 10% of samples are quality control samples.

Continual QA/QC monitoring involves comparison of microdiamond from each batch to statistically acceptable internal performance standards. Processing and selection at the laboratory extracts, on average, 99.67% (0.65% expanded uncertainty at the 95% confidence limit) of all contained microdiamonds.



# KENNECOTT CANADA EXPLORATION INC.

## Mineral Processing Laboratory

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Conseil canadien des normes  
Laboratoire accrédité  
Portée d'accréditation 335

TM

## CERTIFICATE OF ANALYSIS METHOD 3: MICRODIAMOND CLASSIFICATION

Date Received: 15-Apr-04

Waybill: BillikenAPR15

Work Order #: 04MD013

Project: Billiken Submittal

Lab Billing Code: 113100-RE260

Company: Billiken Management Services Inc.

53 Yonge Street, Second Floor

Toronto, Ont M5E 1J3

Attention: Neil Novak

Telephone: (416) 815-8666

Facsimile: (416) 815-1355

CLARE SAMPLE REFERENCE	STONE	SIEVE SIZE (mm)	STOCK EX SIEVE (mm)	X mm	Y mm	Z mm	WEIGHT IN OCTACARATS	FRAGMENT/INTACT	MORPHOLOGY	COLOUR	CLARITY	COLOUR INTENSITY	INCLUSIONS/CLEAVAGES	RESORPTION	SURFACE FEATURES	COMMENTS	DATE
00001	1	0.150	<0.500	0.30	0.26	0.16	21964.8	Fragment	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	1	5			20-May-04
00002	1	0.150	<0.500	0.23	0.21	0.21	17851.68	Intact	OCTAHEDROID	Grey	Transparent	1	0	3-4			20-May-04
00002	2	0.150	<0.500	0.23	0.22	0.2	17811.2	Intact	CUBE	Brown	Transparent	3	1	4	QUADRONS		20-May-04
00003	1	0.212	<0.500	0.34	0.28	0.26	43563.52	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	2	4			20-May-04
00003	2	0.150	<0.500	0.24	0.22	0.16	14868.48	Intact	OCTAHEDROID	White	Transparent	0	0	5-6	STEPPED		20-May-04
00003	3	0.150	<0.500	0.22	0.18	0.18	12545.28	Intact	MACLE	White	Transparent	0	0	1	4		20-May-04
00003	4	0.150	<0.500	0.32	0.27	0.19	28892.16	Intact	OCTAHEDROID	White	Transparent	0	2	5			20-May-04
00004	1	0.300	<0.500	0.80	0.46	0.37	179731.2	Intact	OCTAHEDROID	Brown	Transparent	1	0	5			20-May-04
00004	2	0.212	<0.500	0.35	0.33	0.3	60884	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	3	3	4	STEPPED		20-May-04
00004	3	0.150	<0.500	0.26	0.25	0.21	24024	Intact	MACLE	Grey	Transparent	1	1	5			20-May-04
00004	4	0.150	<0.500	0.19	0.19	0.17	10801.12	Intact	CUBE	Grey	Transparent	1	1	4			20-May-04
00004	5	0.150	<0.500	0.31	0.23	0.21	26352.48	Intact	MACLE	White	Transparent	0	1	4-5			20-May-04
00005	1	0.212	<0.500	0.32	0.3	0.2	33792	Intact	MACLE	Grey	Transparent	1	1	6	STEPPED		20-May-04
00005	2	0.150	<0.500	0.30	0.24	0.22	27978.4	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	2	4			20-May-04
00005	3	0.150	<0.500	0.31	0.26	0.18	25534.08	Intact	TETRAHEXAHEDROID	Grey	Transparent	2	3	3			20-May-04
00005	4	0.150	<0.500	0.28	0.18	0.17	15079.68	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES	White	Transparent	0	1	5			20-May-04
00005	5	0.150	<0.500	0.26	0.22	0.15	15100.8	Intact	MACLE	White	Transparent	0	0	5			20-May-04
00005	6	0.150	<0.500	0.24	0.19	0.15	12038.4	Intact	MACLE	Grey	Transparent	1	1	5	STEPPED		20-May-04
00006	1	0.300	<0.500	0.48	0.4	0.35	113344	Intact	OCTAHEDROID	Brown	Transparent	2	1	4			20-May-04
00006	2	0.212	<0.500	0.33	0.28	0.26	42282.24	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	3	5-6	STEPPED		20-May-04
00006	3	0.150	<0.500	0.40	0.28	0.17	33510.4	Fragment	IRREGULAR	White	Transparent	0	1	-			20-May-04
00006	4	0.150	<0.500	0.21	0.2	0.18	13305.8	Intact	MACLE	White	Transparent	0	0	5			20-May-04
00006	5	0.150	<0.500	0.27	0.25	0.17	20198	Fragment	IRREGULAR	White	Transparent	0	0	-			20-May-04
00006	6	0.150	<0.500	0.28	0.24	0.1	11827.2	Intact	MACLE	Grey	Transparent	1	0	6			20-May-04
00007	1	0.150	<0.500	0.26	0.24	0.2	21964.8	Intact	OCTAHEDROID	Grey	Transparent	1	1	4	STEPPED		20-May-04
00007	2	0.150	<0.500	0.20	0.2	0.17	11968	Intact	CUBE	White	Transparent	0	1	4	QUADRONS		20-May-04
00009	1	0.212	<0.500	0.38	0.28	0.23	43070.72	Intact	OCTAHEDRAL AGGREGATE	White	Transparent	0	0	4-5			19-May-04
00009	2	0.212	<0.500	0.38	0.37	0.28	69287.68	Fragment	OCTAHEDROID	Grey	Transparent	1	1	6	STEPPED, CAVITY		19-May-04
00009	3	0.212	<0.500	0.34	0.3	0.22	39494.4	Intact	OCTAHEDROID	Grey	Transparent	1	0	5	STEPPED		19-May-04
00009	4	0.212	<0.500	0.38	0.3	0.19	38115.2	Intact	CUBE	Brown	Transparent	2	1	4	QUADRONS		19-May-04
00009	5	0.212	<0.500	0.32	0.29	0.15	24499.2	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	1	1	4			19-May-04
00009	6	0.212	<0.500	0.38	0.27	0.16	27371.52	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	3	1	5	STEPPED, FROST		19-May-04
00009	7	0.150	<0.500	0.22	0.2	0.15	11616	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	3	1	4	STEPPED		19-May-04
00009	8	0.150	<0.500	0.28	0.19	0.18	18853.78	Intact	TWIN OCTAHEDROID	Grey	Transparent	1	0	4			19-May-04
00009	9	0.150	<0.500	0.27	0.2	0.19	18057.8	Intact	MACLE	Grey	Transparent	1	1	4			19-May-04
00009	10	0.150	<0.500	0.30	0.24	0.14	17740.8	Fragment	OCTAHEDRAL AGGREGATE	Grey	Transparent	1	1	5	STEPPED		19-May-04
00009	11	0.150	<0.500	0.28	0.21	0.18	18627.84	Intact	TWIN OCTAHEDROID	Grey	Transparent	1	0	5			19-May-04
00010	1	0.212	<0.500	0.45	0.35	0.23	63756	Intact	OCTAHEDROID	Grey	Transparent	1	1	5	STEPPED		20-May-04
00010	2	0.212	<0.500	0.45	0.37	0.22	64468.9	Fragment	IRREGULAR	Grey	Transparent	3	3	-			20-May-04
00010	3	0.212	<0.500	0.40	0.3	0.25	52800	Intact	OCTAHEDROID	Grey	Transparent	2	1	5	STEPPED		20-May-04
00010	4	0.212	<0.500	0.38	0.29	0.22	40423.68	Intact	MACLE	White	Transparent	0	0	5	STEPPED		20-May-04
00010	5	0.212	<0.500	0.51	0.43	0.21	81053.28	Fragment	IRREGULAR	Grey	Transparent	2	1	-			20-May-04
00010	6	0.150	<0.500	0.33	0.22	0.19	24277.44	Intact	OCTAHEDROID	Grey	Transparent	2	4	5			20-May-04
00010	7	0.150	<0.500	0.30	0.23	0.2	24288	Intact	OCTAHEDROID	Grey	Transparent	1	1	4-5			20-May-04
00010	8	0.150	<0.500	0.26	0.2	0.21	19219.2	Intact	OCTAHEDROID	Grey	Transparent	1	1	5	STEPPED		20-May-04
00010	9	0.150	<0.500	0.32	0.22	0.24	29736.98	Intact	MACLE	White	Transparent	0	1	5	STEPPED		20-May-04
00010	10	0.150	<0.500	0.22	0.19	0.19	13977.92	Intact	MACLE	White	Transparent	0	0	5	STEPPED		20-May-04
00011	1	0.300	<0.500	0.43	0.38	0.37	106406.08	Intact	OCTAHEDROID	Brown	Transparent	2	0	5			20-May-04
00011	2	0.212	<0.500	0.47	0.31	0.24	61543.68	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	1	4			20-May-04
00011	3	0.212	<0.500	0.40	0.31	0.23	50195.2	Intact	OCTAHEDROID	Grey	Transparent	1	1	4-5			20-May-04
00011	4	0.150	<0.500	0.27	0.26	0.19	23474.88	Intact	OCTAHEDRAL AGGREGATE	White	Transparent	0	0	6			20-May-04
00011	5	0.150	<0.500	0.35	0.21	0.24	31048.4	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES	Brown	Transparent	3	1	5			20-May-04
00012	1	0.212	<0.500	0.43	0.3	0.17	38596.8	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES	Brown	Transparent	1	1	5			19-May-04

Client Sample Reference	STONE	SIEVE SIZE (mm)	STOCK EX SIEVE (mm)	X mm	Y mm	Z mm	WEIGHT IN OCTACARATS	FRAGMENT/INTACT	MORPHOLOGY	COLOUR	CLARITY	COLOUR INTENSITY	INCLUSIONS/ CLEAVAGES	RESORPTION	SURFACE FEATURES	COMMENTS	DATE
00012	2	0.150	<0.500	0.26	0.23	0.18	18944.84	Intact	OCTAHEDROID	White	Transparent	0	1	5-6	STEPPED		19-May-04
00013	1	0.425	<0.500	0.78	0.55	0.83	463478.4	Intact	OCTAHEDROID	Grey	Transparent	3	1	5	STEPPED		19-May-04
00013	2	0.150	<0.500	0.23	0.2	0.14	11334.4	Intact	OCTAHEDROID	Grey	Transparent	2	0	4			19-May-04
00013	3	0.150	<0.500	0.65	0.24	0.12	32947.2	Fragment	IRREGULAR	Brown	Transparent	1	0	-			19-May-04
00013	4	0.150	<0.500	0.23	0.23	0.21	19551.84	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	2	4			19-May-04
00013	5	0.150	<0.500	0.24	0.22	0.22	20444.16	Intact	OCTAHEDROID	Grey	Transparent	1	0	5	STEPPED		19-May-04
00013	6	0.150	<0.500	0.27	0.18	0.18	12165.12	Fragment	IRREGULAR	Grey	Transparent	2	3	-			19-May-04
00013	7	0.150	<0.500	0.21	0.19	0.15	10533.6	Intact	MACLE	Grey	Transparent	1	1	6	STEPPED		19-May-04
00014	1	0.212	<0.500	0.34	0.28	0.32	49788.88	Intact	OCTAHEDRAL AGGREGATE	Brown	Transparent	2	0	4			19-May-04
00014	2	0.150	<0.500	0.21	0.18	0.17	11309.78	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES	Grey	Transparent	1	1	4-5			19-May-04
00014	3	0.150	<0.500	0.27	0.22	0.19	19883.36	Intact	OCTAHEDROID	Brown	Transparent	1	0	5			19-May-04
00015	1	0.212	<0.500	0.29	0.28	0.21	30011.52	Intact	MACLE	Grey	Transparent	3	1	5	STEPPED		19-May-04
00015	2	0.212	<0.500	0.38	0.32	0.3	64204.8	Fragment	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	1	5	STEPPED		19-May-04
00015	3	0.212	<0.500	0.51	0.35	0.3	94248	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	2	5	STEPPED		19-May-04
00015	4	0.212	<0.500	0.41	0.26	0.32	60037.12	Fragment	OCTAHEDROID	Grey	Transparent	2	3	5	STEPPED		19-May-04
00015	5	0.150	<0.500	0.20	0.2	0.15	10580	Intact	MACLE	Grey	Transparent	1	1	5			19-May-04
00015	6	0.150	<0.500	0.22	0.21	0.14	11383.68	Fragment	IRREGULAR	Grey	Transparent	2	3	-			19-May-04
00015	7	0.150	<0.500	0.32	0.17	0.18	17233.92	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	1	2	5	STEPPED		19-May-04
00015	8	0.150	<0.500	0.27	0.23	0.21	22952.16	Intact	OCTAHEDROID	Grey	Transparent	1	0	4			19-May-04
00015	9	0.150	<0.500	0.28	0.18	0.17	14002.58	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	1	0	5	STEPPED		19-May-04
00015	10	0.150	<0.500	0.29	0.23	0.22	25826.24	Intact	OCTAHEDROID	Grey	Transparent	1	2	5	STEPPED		19-May-04
00015	11	0.150	<0.500	0.23	0.21	0.17	14451.36	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	1	5	STEPPED		19-May-04
00015	12	0.150	<0.500	0.25	0.22	0.17	16458	Intact	MACLE	Grey	Transparent	2	1	5	STEPPED		19-May-04
00015	13	0.150	<0.500	0.20	0.2	0.15	10560	Fragment	OCTAHEDROID	Grey	Transparent	1	0	5	STEPPED		19-May-04
00015	14	0.150	<0.500	0.27	0.2	0.19	16957.6	Intact	MACLE	Grey	Transparent	3	1	4-5	STEPPED		19-May-04
00015	15	0.150	<0.500	0.25	0.19	0.18	15048	Intact	MACLE	Grey	Transparent	3	1	5	STEPPED		19-May-04
00016	1	0.212	<0.500	0.41	0.39	0.23	64727.52	Intact	MACLE	Grey	Transparent	1	1	4			19-May-04
00016	2	0.212	<0.500	0.43	0.32	0.22	53278.72	Intact	MACLE	White	Transparent	0	2	6	STEPPED		19-May-04
00016	3	0.150	<0.500	0.26	0.19	0.18	15849.92	Intact	OCTAHEDROID	White	Transparent	0	0	5-6	STEPPED		19-May-04
00018	1	0.800	0.500	1.45	0.98	0.77	1988438.4	Fragment	IRREGULAR	Green/Brown	Transparent	3	3	-			20-May-04
00018	2	0.212	<0.500	0.43	0.3	0.27	61300.8	Intact	OCTAHEDROID	Grey	Transparent	2	3	5			20-May-04
00018	3	0.212	<0.500	0.31	0.28	0.2	30553.6	Intact	MACLE	White	Transparent	0	0	5			20-May-04
00018	4	0.150	<0.500	0.19	0.17	0.16	9095.68	Intact	CUBE	Grey	Transparent	2	1	4	QUADRONS		20-May-04
00018	5	0.150	<0.500	0.28	0.19	0.16	14981.12	Intact	OCTAHEDRAL AGGREGATE	White	Transparent	0	1	5			20-May-04
00019	1	0.300	<0.500	0.98	0.46	0.2	155443.2	Fragment	IRREGULAR	White	Transparent	0	0	-			20-May-04
00019	2	0.212	<0.500	0.32	0.2	0.28	29286.4	Intact	OCTAHEDROID	Brown	Transparent	2	1	5	STEPPED		20-May-04
00019	3	0.212	<0.500	0.32	0.29	0.28	45731.84	Intact	IRREGULAR WITH TETRAHEDRAL FEATURES	Grey	Transparent	2	3	2	QUADRONS		20-May-04
00019	4	0.212	<0.500	0.27	0.24	0.21	23950.08	Fragment	OCTAHEDRAL AGGREGATE	Brown	Transparent	3	3	5	STEPPED		20-May-04
00019	5	0.212	<0.500	0.38	0.33	0.3	66211.2	Intact	OCTAHEDROID	White	Transparent	0	1	5	STEPPED		20-May-04
00020	1	0.212	<0.500	0.38	0.21	0.28	38518.48	Intact	MACLE	White	Transparent	0	1	5	STEPPED		20-May-04
00021	1	0.150	<0.500	0.22	0.19	0.19	13977.92	Intact	OCTAHEDROID	Grey	Transparent	1	1	5	STEPPED		20-May-04
00021	2	0.150	<0.500	0.32	0.21	0.18	18923.52	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	1	1	4-5			20-May-04
00021	3	0.150	<0.500	0.25	0.24	0.2	21120	Intact	OCTAHEDRAL AGGREGATE	White	Transparent	0	1	5			20-May-04
00021	4	0.150	<0.500	0.32	0.23	0.17	22021.12	Fragment	IRREGULAR	Grey	Transparent	1	1	-			20-May-04
00022	1	0.300	<0.500	0.42	0.38	0.22	58544.64	Fragment	IRREGULAR	Brown	Transparent	3	2	-			20-May-04
00022	2	0.300	<0.500	0.47	0.4	0.27	89337.6	Intact	OCTAHEDROID	Grey	Transparent	1	2	5	STEPPED		20-May-04
00022	3	0.300	<0.500	0.44	0.34	0.23	60558.08	Fragment	IRREGULAR	Brown	Transparent	3	2	-			20-May-04
00022	4	0.300	<0.500	0.48	0.38	0.34	104800.32	Intact	OCTAHEDRAL AGGREGATE	Brown	Transparent	2	1	4-5			20-May-04
00022	5	0.150	<0.500	0.49	0.22	0.15	28459.2	Fragment	IRREGULAR	Brown	Transparent	2	2	-			20-May-04
00022	6	0.212	<0.500	0.30	0.28	0.24	35481.6	Intact	MACLE	White	Transparent	0	2	5			20-May-04
00022	7	0.212	<0.500	0.31	0.3	0.19	31098.2	Fragment	IRREGULAR	Grey	Transparent	1	1	-			20-May-04
00022	8	0.212	<0.500	0.38	0.27	0.23	39346.58	Intact	MACLE	Grey	Transparent	1	3	4			20-May-04
00022	9	0.150	<0.500	0.28	0.21	0.18	18627.84	Intact	OCTAHEDROID	Grey	Transparent	1	1	5	STEPPED		20-May-04
00022	10	0.150	<0.500	0.30	0.21	0.14	15523.2	Fragment	IRREGULAR	Grey	Transparent	1	2	-			20-May-04
00023	1	0.425	0.500	0.81	0.81	0.6	302837.8	Fragment	OCTAHEDROID	Brown	Transparent	2	1	4-5	STEPPED		20-May-04
00023	2	0.212	<0.500	0.28	0.28	0.24	30750.72	Intact	CUBE	White	Transparent	1	1	5	STEPPED		20-May-04
00023	3	0.150	<0.500	0.28	0.18	0.19	15849.92	Fragment	OCTAHEDROID	Grey	Transparent	0	1	4-5	STEPPED		20-May-04
00023	4	0.150	<0.500	0.22	0.2	0.2	15488	Intact	OCTAHEDRAL AGGREGATE	White	Transparent	0	1	4	QUADRONS		20-May-04
00023	5	0.150	<0.500	0.18	0.18	0.17	9894.08	Intact	CUBE	Grey	Transparent	3	1	4			20-May-04
00023	6	0.150	<0.500	0.24	0.21	0.15	13305.6	Intact	MACLE	Grey	Transparent	1	0	4			20-May-04
00023	7	0.150	<0.500	0.24	0.18	0.19	12840.96	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	2	4	STEPPED		20-May-04
00024	1	0.212	<0.500	0.53	0.37	0.25	86284	Intact	OCTAHEDROID	Grey	Transparent	1	2	5-6	STEPPED		20-May-04

Client Sample Reference	STONE	SIEVE SIZE (mm)	STOCK EX SIEVE (mm)	X mm	Y mm	Z mm	WEIGHT IN OCTACARATS	FRAGMENT/INTACT	MORPHOLOGY	COLOUR	CLARITY	COLOUR INTENSITY	INCLUSIONS/CLEAVAGES	RESORPTION	SURFACE FEATURES	COMMENTS	DATE
00024	2	0.212	<0.500	0.54	0.28	0.24	63866.88	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	3	4		20-May-04	
00024	3	0.212	<0.500	0.48	0.37	0.25	70144	Fragment	IRREGULAR WITH OCTAHEDRAL FEATURES	Brown	Transparent	3	1	5		20-May-04	
00024	4	0.150	<0.500	0.29	0.22	0.18	20211.84	Intact	CUBOID	Grey	Transparent	1	2	3-4	CAVITY	20-May-04	
00024	5	0.150	<0.500	0.23	0.2	0.21	17001.6	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	1	1	4-5		20-May-04	
00025	1	0.212	<0.500	0.31	0.25	0.26	35484	Intact	MACLE	Grey	Transparent	1	1	5	STEPPED	20-May-04	
00025	2	0.150	<0.500	0.27	0.2	0.24	22809.6	Intact	CUBE	Grey	Transparent	1	1	4		20-May-04	

Accredited to ISO/IEC 17025 for specific registered tests.

Weight in carats was calculated using the following formula:  $X(\text{mm}) \times Y(\text{mm}) \times Z(\text{mm}) \times \text{Specific Gravity of } 3.52 / 200 \text{ mg}$

1 carat =  $1 \times 10^{-3}$  octacarats

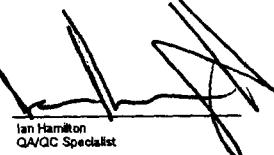
Intensity of Colour - scale of 0 - 5 with 5 being the most intense

Cleavages and Inclusions - scale of 0 - 5 with 5 having the most cleavage and inclusions

Resorption - scale of 1 - 6 with 1 having most resorption

Chris Barnes  
Observation Team Leader

  
Ian Crawford  
Laboratory Manager

  
Ian Hamilton  
QA/QC Specialist

The quality of microdiamond extraction and selection from rock samples (Methods 1 and 3) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Microdiamond recovery is calculated for one sample in every batch. One batch consists of up to ten samples, depending on individual sample weights. Therefore, at least 10% of samples are quality control samples.

Continual QA/QC monitoring involves comparison of microdiamond from each batch to statistically acceptable internal performance standards. Processing and selection at the laboratory extracts, on average, 95.67% (0.65% expanded uncertainty at the 95% confidence limit) of all contained microdiamonds.

## CLIENT COMMENT FORM

Year:  
Number:

Comment by (Name, Title):

Organization:

Tel:

E-mail:

Date:

### SUMMARY OF COMMENT

Follow-up Required?

Yes  No

Received by:

Responsible Manager:

Date:

### FOLLOW-UP

Approved:

Yes  No

Client Notification:

Yes  No

Approval (Date, Sign):

Client Comment Form Rev. 4

Please fill out any comments or complaints and return by fax to the laboratory 807-473-5660 attn: Ian Hamilton

# CLIENT COMPLAINT FORM

Year:  
Number:

Complaint by (Name, Title):

Organization:

Tel:

E-mail:

Date:

Received by:

Responsible Manager:

Operation:

Operating Procedure Reference:

## SUMMARY OF COMPLAINT

NON-CONFORMITY

MAJOR

MINOR

Date:

## CORRECTIVE ACTION

Date:

## POST ASSESSMENT

Client Notification: Yes  No  Date:

Approval (Date, Sign):

# KENNECOTT CANADA EXPLORATION INC.



## MICRODIAMOND ANALYSIS TEST REPORT

04MD016

### Billiken Submittal

Prepared for:  
Billiken Management Services Inc.  
53 Yonge Street, Second Floor  
Toronto, Ont M5E 1J3

Jim Crawford  
Laboratory Manager  
June 9, 2004



**Accredited to ISO/IEC 17025 for specific registered tests.**

### Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4  
Telephone (807) 473-5558 Facsimile (807) 473-5660

This report refers to samples processed as-received.  
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Mineral Processing Laboratory



# KENNECOTT CANADA EXPLORATION INC.

## Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660



### METHOD DESCRIPTION

#### Accredited to ISO/IEC 17025 for specific registered tests.

13 samples were submitted for caustic fusion processing and microdiamond recovery. The as-received samples were processed according to registered methods and standard operating procedures. The results are summarized in the Certificates of Analysis. Standard operating procedures are listed below, sample abnormalities and possible damage caused during shipping are noted on the Certificate.

#### MICRO DIAMOND SAMPLE PROCESSING

Sample processing at Kennecott Canada Exploration Inc. Mineral Processing Laboratory in Thunder Bay, ON consists of wet chemical processes including fusion with NaOH, dissolving in KNO<sub>3</sub>, neutralization with HCl, sieving and classifying (see Figure 1 for a summary flow sheet). This procedure reduces the sample size from 10 kilograms to a concentrate of approximately 15 grams.

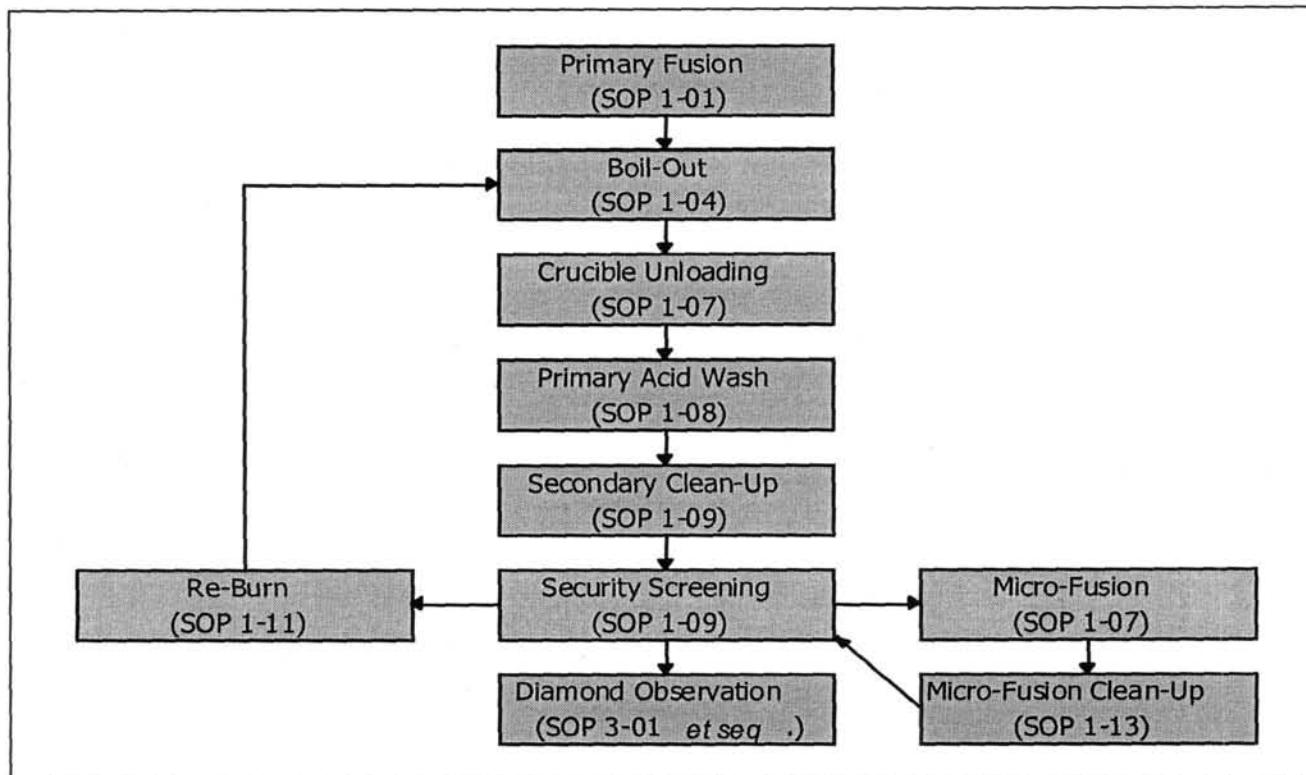
After samples are received, they are logged in and stored outdoors before processing. Processing commences with samples being placed into stainless steel pots with NaOH and heated for several hours in a process called Caustic Fusion. The sample material is then dissolved using KNO<sub>3</sub> and more heat. Depending on client requests, the slurry of sample and dissolved reagents is poured through a sieve of .075mm, .125mm or 0.15mm square aperture screen. Material retained on the screen is neutralized with HCl. Further sieving, with a 1mm square aperture screen, results in the removal of any larger micro diamonds from the sample. These stones are placed in a drop safe for security reasons and described (following the flow sheet in Figure 2) as soon as possible.

The remaining sample material moves through subsequent cycles of Caustic Fusion, dissolution and neutralization until all potentially diamondiferous rock fragments are digested. The resulting resistate mineral concentrate is sent to the microscopy laboratory for observation.

This report refers to samples processed as-received.

(\*) Denotes deviations from standard operating procedures.

**FIG. 1: MICRO-DIAMOND FLOW SHEET**



This report refers to samples processed as-received.

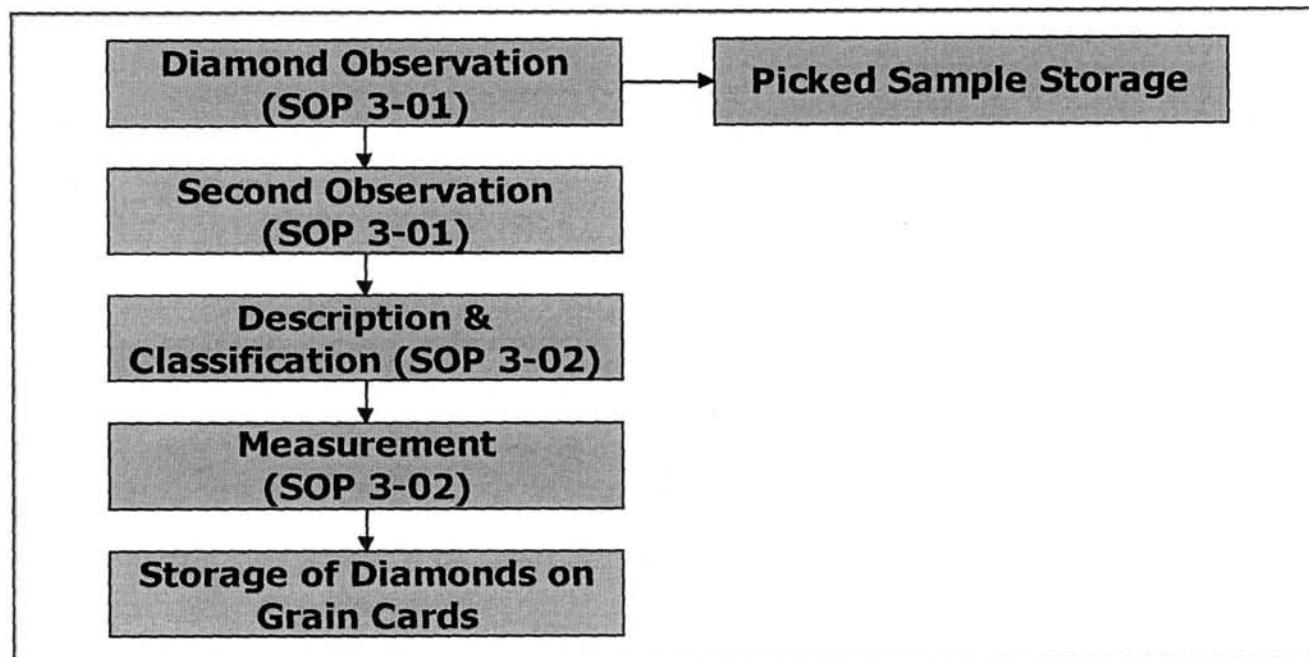
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## MICRO DIAMOND CONCENTRATE MICROSCOPE EXAMINATION

Observation of micro diamond concentrates was performed in Kennecott Canada Exploration Inc. Mineral Processing Laboratory in Thunder Bay (see Figure 2). Trained Mineral Technicians examined each grain using binocular microscopes equipped with fibre-optic lights. Mineral Technicians removed all suspected micro diamonds, recorded stone counts on an observation log sheet, and later transfer the data to the Laboratory Information Management System. Following observation, suspected micro diamonds are examined by a mineralogist who confirms the grain identifications. All stones are then described and classified.

(\*) Denotes deviations from standard operating procedures.

FIG. 2: OBSERVATION & CLASSIFICATION FLOW SHEET.



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## **MD Method 1and 3 Quality Control Measures**

Samples received are divided into sets or batches of one to twenty-five samples. One in fifteen samples within the batch are randomly selected for spiking with laser etched diamonds. At least one sample per batch is selected for spiking. A random number between 1 and 5 diamond spikes are added to each sample selected for spiking. Samples selected for spiking are spiked after the sample has been loaded into a crucible and placed in a kiln ready to begin processing. Once the sample has been reduced to an observable concentrate, it is submitted to the observation lab. Identified spikes are returned to the QA/QC specialist and recovery is calculated as a percentage. Lab recovery is calculated as a 12-month rolling average, with lower limit being 3 standard deviations below the average. If recovery of one or more samples falls below the lower limit, the batch is deemed non-conforming.

## **Data Verification**

For every batch, once all mineral processing is complete, all relevant data is compiled and a final report or Certificate of Analysis is generated. At minimum, 10 percent of all reports are verified in their entirety and all other reports are spot-checked. Verification involves tracing data back to original handwritten test results recorded in process flow sheets, logs or tables. The reports are then signed by Team Leaders, Laboratory Manager and the QA/QC Specialist and issued to the client.

This report refers to samples processed as-received.

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# KENNECOTT CANADA EXPLORATION INC.

## Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660



## CERTIFICATE OF ANALYSIS METHOD 1: MICRODIAMOND PROCESSING

Date Received: **06-May-04**

Waybill: **BillikenMay6**

Work Order #: **04MD016**

Project: **Billiken Submittal**

Lab Billing Code: **113100-RE260**

Company: Billiken Management Services Inc.

53 Yonge Street, Second Floor

Toronto, Ont M5E 1J3

Attention: Neil Novak

Telephone: (416) 815-8666

Faxsimile: (416) 815-1355

	Client Sample Reference	DATE STARTED	SAMPLE WT (kg.)	CONC. WT (gm)	PRIMARY FUSION	SECONDARY FUSION	MICRO FUSIONS	DATE COMPLETED
1	00026	10-May-04	4.86	1.3	1	0	1	20-May-04
2	00027	10-May-04	15.05	2.7	2	0	2	26-May-04
3	00028	10-May-04	13.36	2.2	2	0	2	25-May-04
4	00029	11-May-04	12.97	2.3	2	0	2	26-May-04
5	00030	11-May-04	13.17	1.9	2	0	2	26-May-04
6	00031	11-May-04	11.50	0.8	1	0	1	25-May-04
7	00032	11-May-04	2.07	10.3	1	0	0	17-May-04
8	00033	11-May-04	7.91	1.6	1	1	0	26-May-04
9	00034	11-May-04	19.11	0.3	2	0	2	26-May-04
10	00035	12-May-04	11.15	4.8	1	1	0	26-May-04
11	00036	12-May-04	14.46	2.2	2	1	0	26-May-04
12	00037	12-May-04	13.27	1.2	2	1	0	26-May-04
13	00038	12-May-04	12.31	4.8	2	1	1	26-May-04
			151.19	36.4	21	5	13	

Accredited to ISO/IEC 17025 for specific registered tests.

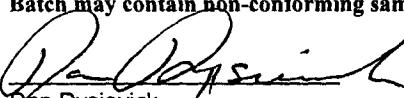
The liquid portion of another sample was poured through used, but cleaned, screen assembly of 00028.

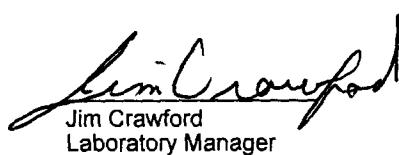
No part of sample 00028 was contaminated by the screen mix-up.

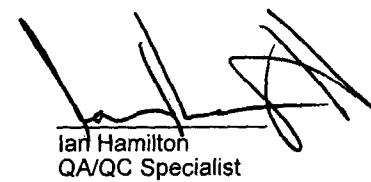
Minor loss may have occurred due to any grains trapped in the screen.

All of the spikes were recovered from this batch.

Batch may contain non-conforming samples.

  
Dan Dysievick  
MD Processing Team Leader

  
Jim Crawford  
Laboratory Manager

  
Ian Hamilton  
QA/QC Specialist

The quality of microdiamond extraction and selection from rock samples (Methods 1 and 3) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Microdiamond recovery is calculated for one sample in every batch. One batch consists of up to ten samples, depending on individual sample weights. Therefore, at least 10% of samples are quality control samples.

Continual QA/QC monitoring involves comparison of microdiamond from each batch to statistically acceptable internal performance standards. Processing and selection at the laboratory extracts, on average, 99.67% (0.65% expanded uncertainty at the 95% confidence limit) of all contained microdiamonds.



# KENNECOTT CANADA EXPLORATION INC.

## Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5660



## CERTIFICATE OF ANALYSIS METHOD 3: MICRODIAMOND OBSERVATION

Date Received: 06-May-04

Waybill: BillikenMay6

Work Order #: 04MD016

Project: Billiken Submittal

Lab Billing Code: 113100-RE260

Company: Billiken Management Services Inc.

53 Yonge Street, Second Floor

Toronto, Ont M5E 1J3

Attention: Neil Novak

Telephone: (416) 815-8666

Facsimile: (416) 815-1355

	Client Sample Reference	+0.5 mm SIEVE DIAMOND COUNT	-0.5 mm SIEVE DIAMOND COUNT	TOTAL DIAMOND COUNT	SYNTHETICS	DATE
1	00026	0	3	3	0	27-May-04
2	00027	0	0	0	0	30-May-04
3	00028	0	2	2	0	28-May-04
4	00029	0	6	6	0	31-May-04
5	00030	0	3	3	1	28-May-04
6	00031	0	1	1	0	28-May-04
7	00032	0	0	0	0	28-May-04
8	00033	0	0	0	0	28-May-04
9	00034	0	1	1	1	31-May-04
10	00035	0	2	2	1	31-May-04
11	00036	0	0	0	2	31-May-04
12	00037	0	0	0	1	30-May-04
13	00038	0	1	1	0	28-May-04
		0	19	19	6	

Accredited to ISO/IEC 17025 for specific registered tests.

The liquid portion of another sample was poured through used, but cleaned, screen assembly of 00028.

No part of sample 00028 was contaminated by the screen mix-up.

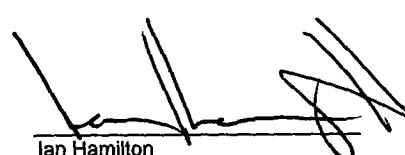
Minor loss may have occurred due to any grains trapped in the screen.

All of the spikes were recovered from this batch.

Batch may contain non-conforming samples.

Chris Berner  
Observation Team Leader

  
Jim Crawford  
Laboratory Manager

  
Ian Hamilton  
QA/QC Specialist

The quality of microdiamond extraction and selection from rock samples (Methods 1 and 3) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Microdiamond recovery is calculated for one sample in every batch. One batch consists of up to ten samples, depending on individual sample weights. Therefore, at least 10% of samples are quality control samples.

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# KENNECOTT CANADA EXPLORATION INC.

## Mineral Processing Laboratory

1300 West Walsh St. Thunder Bay, Ontario, Canada P7E 4X4 Telephone (807) 473-5558 Facsimile (807) 473-5680

### CERTIFICATE OF ANALYSIS METHOD 3: MICRODIAMOND CLASSIFICATION



Date Received: 06-May-04

Waybill: BillikenMay6

Work Order #: 04MD016

Project: Billiken Submittal

Lab Billing Code: 113100-RE260

Company: Billiken Management Services Inc.

53 Yonge Street, Second Floor

Toronto, Ont MSE 1J3

Attention: Neil Novak

Telephone: (416) 815-8666

Facsimile: (416) 815-1355

Client Sample Reference	STONE	SIEVE SIZE (mm)	STOCK EX SIEVE (mm)	X mm	Y mm	Z mm	WEIGHT IN OCTACARATS	FRAGMENT/INT ACT	MORPHOLOGY	COLOUR	CLARITY	COLOUR INTENSITY	INCLUSIONS/CLEAVAGES	RESORPTION	SURFACE FEATURES	COMMENTS	DATE
00026	1	0.150	<0.500	0.32	0.21	0.18	21288.98	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	2	3	5			27-May-04
00028	2	0.150	<0.500	0.32	0.31	0.16	27934.72	Fragment	IRREGULAR WITH CUBE FEATURES	Grey	Transparent	1	1	4			27-May-04
00028	3	0.150	<0.500	0.24	0.21	0.14	12418.58	Intact	MACLE	Grey	Transparent	2	2	5			27-May-04
00028	1	0.150	<0.500	0.37	0.23	0.23	34448.48	Intact	OCTAHEDROID	Brown	Transparent	1	1	5			27-May-04
00028	2	0.212	<0.500	0.33	0.26	0.23	34731.84	Fragment	OCTAHEDROID	Grey	Transparent	1	1	4			27-May-04
00028	1	0.212	<0.500	0.35	0.26	0.19	30430.4	Intact	OCTAHEDROID	Grey	Transparent	1	1	5			31-May-04
00028	2	0.150	<0.500	0.23	0.22	0.16	14248.98	Intact	MACLE	Grey	Transparent	2	2	5			31-May-04
00029	3	0.150	<0.500	0.24	0.18	0.2	15208.4	Intact	OCTAHEDROID	Grey	Transparent	1	1	5			31-May-04
00029	4	0.150	<0.500	0.27	0.26	0.12	14628.24	Intact	MACLE	Grey	Transparent	2	2	4-5			31-May-04
00029	5	0.150	<0.500	0.29	0.18	0.18	16538.98	Intact	MACLE	Grey	Transparent	1	0	4			31-May-04
00029	6	0.150	<0.500	0.37	0.27	0.16	28131.84	Fragment	IRREGULAR	Grey	Transparent	1	1	-			31-May-04
00030	1	0.212	<0.500	0.38	0.28	0.21	37255.68	Intact	OCTAHEDROID	Grey	Transparent	2	3	4			31-May-04
00030	2	0.150	<0.500	0.35	0.22	0.2	27104	Fragment	IRREGULAR	Grey	Transparent	3	2	-			31-May-04
00030	3	0.150	<0.500	0.25	0.2	0.17	14980	Intact	OCTAHEDROID	Grey	Transparent	1	0	5			31-May-04
00031	1	0.150	<0.500	0.30	0.24	0.18	22808.6	Intact	OCTAHEDROID	Grey	Transparent	1	1	4			27-May-04
00034	1	0.150	<0.500	0.24	0.18	0.17	12925.44	Intact	OCTAHEDRAL AGGREGATE	Grey	Transparent	3	1	5			31-May-04
00035	1	0.212	<0.500	0.51	0.4	0.19	68217.8	Fragment	MACLE	Brown	Transparent	3	1	4			27-May-04
00035	2	0.150	<0.500	0.37	0.24	0.18	28131.84	Intact	OCTAHEDRAL AGGREGATE	White	Transparent	0	1	5			27-May-04
00038	1	0.150	<0.500	0.28	0.19	0.18	15849.92	Intact	OCTAHEDROID	Grey	Transparent	1	1	5			31-May-04

Accredited to ISO/IEC 17026 for specific registered tests.

The liquid portion of another sample was poured through used, but cleaned, screen assembly of 00028.

No part of sample 00028 was contaminated by the screen make-up.

Minor loss may have occurred due to any grains trapped in the screen.

All of the spikes were recovered from this batch.

Batch may contain non-conforming samples.

Weight in carats was calculated using the following formula:  $(X\text{mm}) \times (Y\text{mm}) \times (Z\text{mm}) \times \text{Specific Gravity of } 3.52 / 200 \text{ mg}$

1 carat =  $1 \times 10^{-6}$  octacarats

Intensity of Colour - scale of 0 - 5 with 5 being the most intense

Cleavages and Inclusions - scale of 0 - 5 with 5 having the most cleavages and inclusions

Resorption - scale of 1 - 6 with 1 having most resorption

Chris Beemer  
Observation Team Leader

Jim Crawford  
Laboratory Manager

Ian Hamilton  
QA/QC Specialist

The quality of microdiamond extraction and selection from rock samples (Methods 1 and 3) is subject to monitoring through a rigorous internal quality assurance/quality control (QA/QC) scheme. Microdiamond recovery is calculated for one sample in every batch. One batch consists of up to ten samples, depending on individual sample weights. Therefore, at least 10% of samples are quality control samples.

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## CLIENT COMMENT FORM

Year:  
Number:

Comment by (Name, Title):

Organization:

Tel:

Email:

Date:

### SUMMARY OF COMMENT

Follow-up Required?

Yes  No

Received by:

Responsible Manager:

Date:

### FOLLOW-UP

Approved:

Yes

No

Client Notification:

Yes

No

Approval (Date, Sign):

Client Comment Form Rev. 4

Please fill out any comments or complaints and return by fax to the laboratory 807-473-5660 attn: Ian Hamilton

# CLIENT COMPLAINT FORM

Year:  
Number:

Complaint by (Name, Title):

Organization:

Tel:

E-mail:

Date:

Received by:

Responsible Manager:

Operation:

Operating Procedure Reference:

## SUMMARY OF COMPLAINT

NON-CONFORMITY

MAJOR

MINOR

Date:

## CORRECTIVE ACTION

Date:

## POST ASSESSMENT

Client Notification: Yes  No  Date:

Approval (Date, Sign):