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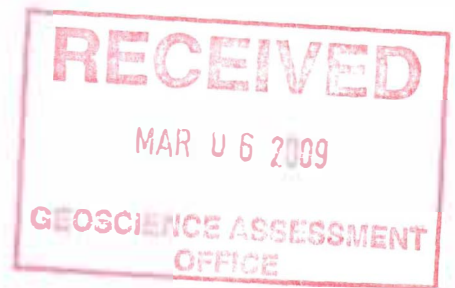
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**REPORT  
WINTER 2008 FIELD PROGRAM  
MARTISON PHOSPHATE PROJECT  
SOUTH OF RIDGE LAKE AREA  
NORTH OF HEARST ONTARIO  
PORCUPINE MINING DIVISION  
NTS: 42J 6W**

For:

PhosCan Chemical Corp  
2 Bloor Street W., Suite 2005  
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BY:

**JAMES S. SPALDING**  
REGISTERED PROFESSIONAL GEOLOGIST  
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Report Date: March 4, 2009

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## **1.0 INTRODUCTION**

The Martison Phosphate Project is wholly owned and operated by PhosCan Chemical Corp. (PhosCan) of Toronto, Ontario. The focus of the project is a carbonatite intrusive containing potentially-economic phosphate deposits with associated niobium. Pre-feasibility studies were completed and reported in 2008.

As part of the winter 2008 field program, PhosCan conducted a large-diameter drilling campaign on the Martison Phosphate Project site Figure 1. Drilling commenced on January 24<sup>th</sup> and was completed on March 15<sup>th</sup>. The objective was to provide confirmation of both assay values and lithology in selected areas of the main zone. The resulting drill core material, totalling approximately 50 tonnes was then sent to Jacobs Engineering in Lakeland, Florida for pilot plant processing and analysis which will be used in the bankable feasibility study. Pilot-plant processing and analysis will take more than 40 weeks to complete. The drilling contractor, Boart-Longyear, provided two sonic drill rigs with crews to complete the 2008 drilling program.

In support of the winter 2008 drill program a temporary winter camp was constructed in January 2008 and was removed from site following completion of the drill program on March 25, 2008. The camp was designed to accommodate fifty people and was located in the northeast portion of Claim P4202111.



## **2.0 LOCATION AND ACCESS**

The Martison Phosphate Project site is located about 70 kilometres northeast of the town of Hearst, Ontario, and 15 kilometres southwest of Martison Lake in the James Bay Lowlands. The project is located in the "South of Ridge Lake Area" township and centered about 50<sup>o</sup> 18' 52" N., 83<sup>o</sup> 24' 52" W.

The Fushimi Road, was used for access to the Martison Phosphate Project site during the 2008 drill program. The total length of this access route from Hearst to the Martison deposit is about 112 kilometres comprised of 26 kilometres on Highway 11, 48 kilometres on Fushimi Road, and 38 kilometres of "trail" which was enhanced to provide winter-only access to the deposit. (Figure 1).

During the life of the exploration program, a contractor provided the camp with groceries and fuel, removal of drill core from the site, and transport of the drill core to the Hearst warehouse storage facility.

### **3.0 CLAIMS DATA**

As of February 19, 2009, the property consists of one (1) mining lease 107415, reference ID, G6060124 (granted in September 2002) and 40 unpatented contiguous mineral claims, which total 507 units, together comprising approximately 8,338 hectares (Figure 2).

The mineral lease and all claims are located within the "South of Ridge Lake Area", Porcupine Mining Division, Cochrane Land Titles & Registry Division, Province of Ontario as shown on Claim Map G-1716 on record at the Provincial Recording Office, Sudbury, Ontario.

The claims are registered in the name of PhosCan Chemical Corp. and Baltic Resources, Inc. In early March 2008, the phosphate interests of Baltic Resources were merged with PhosCan Chemical Corp., which now controls 100% of the property and the Martison Phosphate Project.

The mining claim that is the subject of this report is as follows:

Mining Lease: 107415  
Reference ID: G6060124

## 4.0 PROPERTY GEOLOGY

### 4.1 Deposit Description

Differential weathering of the Martison Carbonatite Complex has resulted in an irregular surface of carbonatite the depth of which varies greatly over short distances. Depressions in this carbonatite surface are filled with the weathered carbonatite residuum that represents the bulk of the phosphatic material of economic interest.

The general lithology of the deposit is presented in Table 4.1 and characterized by three (3) main lithologic units which overlie three (3) separate but related carbonatite intrusions over an area of about 56 square kilometres (km<sup>2</sup>). These intrusions are identified as Anomaly A which, is the subject of this current development activities and covers approximately 12.5 km<sup>2</sup>; Anomaly B, which is located about five (5) kilometres to the SE and covers about 4 km<sup>2</sup>; and Anomaly C located about three (3) kilometres to the ESE of Anomaly A and is about 2 km<sup>2</sup> in size.

The **surficial material** in the project area, overlying the ubiquitous glacial till, is a muskeg deposit varying in thickness from one-half (0.5) metre to about four (4) metres and averaging about two (2) metres.

Within Anomaly A, the **overburden** is divided into two main sub-units: glacial till and Cretaceous sediments. The glacial till material ranges from coarse gravel size sediment to clay and is competent in a dry condition. The thickness of the glacial till ranges from 30 to 82 metres in thickness and averages about 47 metres. The Cretaceous sediments range in thickness from "absent" to 135 metres in thickness. The lithologies of the sediments range from lignitic peat to highly weathered lateritic material.

Within Anomaly A, the **residuum** material has been sub-divided into two main units based on lithology: Unit 2A which is unconsolidated (0.0 to 58.5 metres thick) and Unit 2B which is consolidated (re-cemented) residuum material (0.0 to 91.6 metres thick). A third and minor type of material, partially weathered carbonatite, occurs as "lenses" within the residuum.

Within Anomaly A, forming the base of the lithology of economic interest, is the **carbonatite**. The carbonatite is a massive, white, medium to coarse grained rock composed mainly of calcite and dolomite with a wide range of other minerals characteristic of carbonatite assemblages.

**Table 4.1 General Description of Lithology**

<b>LITHO UNIT</b>	<b>DESCRIPTION</b>
<b>5</b>	Muskeg and swamp deposits; not used for modeling; only rarely coded
<b>4</b>	Glacial Till
<b>3</b>	Cretaceous Sediments; low P <sub>2</sub> O <sub>5</sub> content & areas of very high Nb <sub>2</sub> O <sub>5</sub> content
<b>2A</b>	Residuum; unconsolidated; generally medium P <sub>2</sub> O <sub>5</sub> content & higher Nb <sub>2</sub> O <sub>5</sub>
<b>2B</b>	Residuum; consolidated; generally high P <sub>2</sub> O <sub>5</sub> content & lower Nb <sub>2</sub> O <sub>5</sub>
<b>2C</b>	Weathered carbonatite; generally very low P <sub>2</sub> O <sub>5</sub> & very low Nb <sub>2</sub> O <sub>5</sub> contents
<b>1</b>	Primary carbonatite; generally at least partially weathered

#### **4.2 Mineralization**

All drill holes that have intersected “bedrock” at the Martison site have recovered material that can be interpreted as being the product of the weathering of sovite or silicocarbonatite rocks. Minerals identified in the least weathered (“freshest”) sovite material are: phlogopite, magnetite, apatite, and pyrochlore all associated with a carbonate matrix.

Limited mineralogy studies have been completed with samples identified as derived from the Cretaceous sediments which occur between the glacial till and residuum. The chief minerals of economic interest in the sediments are pyrochlore and its daughter weathering products.

The minerals of the residuum fall into three classifications: primary, secondary and detrital. The chief primary minerals are apatite, magnetite, pyrochlore, calcite, dolomite, barite, columbite, and occasional quartz. The secondary minerals are the result of the breakdown of the primary minerals, replacements of the primary minerals or redeposition of elements after dissolution of the primary minerals. Chief secondary minerals include francolite, calcite, dolomite, ankerite, siderite, limonite, goethite, hematite, ilmenite, phlogopite, pyrite, and pyrochlore. The detrital minerals include clay (tentatively identified as kaolin and crandallite) feldspars and quartz.

### **4.3 Structural Features**

As currently defined by past drilling campaigns, the phosphatic residuum of Anomaly A (Litho Units 2A and 2B) strikes about N. 30° W. and is without a definable dip. The currently defined strike length is about 1,700 metres with a width varying between 300 and 600 metres. As postulated above, the NE and SW edges of this zone are sharp due to the effects of possible faults, or karstic topography, and the resulting intensive weathering of the carbonatite in the resulting fractured zone. At this time, the area of thickest residuum is open to the NW and to the SE as well as at depth in the central area.

## **5.0 WINTER 2008 FIELD PROGRAM**

### **5.1 General Statement of Purpose**

The primary goal of the 2008 drilling program was to collect data to use in the quantification of short-term variability (short distances) for use in geostatistical studies and future computer modeling. The geostatistical studies and computer modeling will be used to estimate resources and support those findings. The resulting computer model will be used as a basis of mine planning during the project's Bankable Feasibility Study (BFS). As in all mineral development projects, it is essential, at some stage, to confirm mineral values intersected in normal-diameter drill holes by some form of bulk sampling whether it be through large-diameter drilling (as in the present case) or underground, or open-pit sampling. This step is required before a deposit can be seriously considered for production.

The material resulting from the 2008 large-diameter drilling program also provided a large bulk sample which will be used as feed for pilot-plant scale testing of the beneficiation process selected for use at the Martison Phosphate Project. This pilot-plant scale beneficiation testing will provide gauges of the process efficiency and the engineering data necessary for beneficiation plant design as well as estimates of waste-disposal requirements all of which are necessary for estimating the capital and operating costs necessary for the completion of the BFS. The phosphate concentrate produced during the pilot-plant tests will be used in testing of the processes necessary to the manufacture of phosphate-based fertilizers and provide BFS quality capital and operating cost estimates, as well as the engineering data to support those estimates.

As previously mentioned, the taking of the large-diameter core utilized sonic coring techniques. The sonic coring techniques were deemed to offer the fastest drilling rates and a significant reduction in core loss compared to standard wireline coring techniques at Martison. In addition, the sonic coring costs, on a volume basis, were significantly less than wireline coring costs (based on proposals sonic was 60% less than HQ wireline).

All drill holes completed during the winter program were individually surveyed by a licensed (Ontario) surveying company for XYZ locations which are expressed as UTM coordinates on the NAD83 Zone 17 North basis. All locations referenced in this document are reported on this basis.

## 5.2 Sonic Drilling

Cores for the large-diameter drilling program and resultant bulk sample collection were acquired from seven (7) separate locations within Anomaly A. From two to seven borings were completed at each of these seven locations. The first hole cored at each location was designated the "A" hole, and was cored from land surface to bedrock. The "A" holes were reported in an assessment work report July 17, 2008 since only the analytical data for these holes was complete at the time of writing. This report is now providing the data for the remaining 27 boreholes completed as part of the 2008 drilling program. Figure 3 presents the locations of all 34 of the boreholes at each of the seven sites.

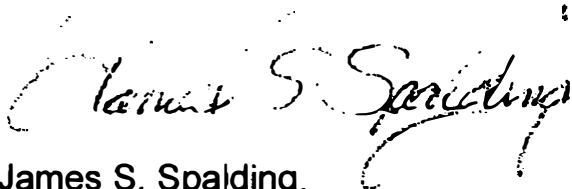
In the sonic drilling method, the rig has a "resonance generator" which produces a vertical oscillation that vibrates the drill stem. Cutting is achieved by tungsten-carbide buttons on the bit aided by the slow rotation of the drill string. No circulating medium (water or mud) was used for coring of unconsolidated and poorly consolidated materials. This method provided very good cores and high recoveries of these materials, including loose sand. Samples were taken as 10.6-cm diameter cores which are recovered by extracting the entire drill string; core was extruded out of the barrel into tubular plastic bags which were placed into a wooden core box.

After delivery to the warehouse, each hole core box was placed on the warehouse floor in order from top of hole to bottom. The box lid was then removed and the core was allowed to thaw. After thawing, digital photographs were taken of the entire core and a general descriptive log was prepared. Summary geologic logs for the sonic-drilled holes are presented in Appendix A with more detailed logs presented in Appendix B. A channel sample was taken from the entire length of each box and placed in a properly labeled plastic sample bag. These samples, representative of each sample box, were shipped to Jacobs Engineering (Lakeland, Florida) for analysis. The analytes were  $P_2O_5$ , CaO, MgO,  $Fe_2O_3$ ,  $Al_2O_3$ ,  $Nb_2O_5$ , La, and acid insolubles (% A.I.). Analytical results were used to verify field-predicted residuum top and bottom and to categorize residuum into the 2A and 2B Litho Units. Analytical results for the sonic-drilled holes are presented in Appendix C and core recoveries are presented in Appendix D. Appendix B, C and D are meant to be read in conjunction with Appendix A. Appendix E contains the cross sections through 27 of the holes drilled at the seven sonic sites.

## 6.0 CLOSURE

I trust this report meets the requirements of an assessment work report for the 2008 winter drill program at the Martison Phosphate Project site for the remaining 27 boreholes not previously reported on.

Yours very truly,



James S. Spalding,  
Registered Professional Geologist  
(Idaho # 59)





**APPENDIX A**  
**Geological Log Summaries**

# LEGEND

<i>Geologic Descriptors</i>	
Hardness (H)	1 2 3 4 5
Slimes (SL)	1 2 3 4 5
Moisture (M)	1 2 3 4 5
Cohesion (C)	1 2 3

Abundant	ab
Below Surface	bsf
Dominated	dm
Fragmented(frags)	fg
Friable	fr
Minor	mn
Moderate	mod
Occasional	oc
Same as above	SAA
Thickness	th
Trace	tr
Very	V

<i>Color</i>	
Black	blk
Blue	blu
Brick	bk
Brown	bn
Chocolate	ch
Dark	dk
Green	gn
Grey	gy
Golden	gd
Light	lt
Maroon	mr
Orange	og
Pale	pl
Pink	pk
Purple	pp
Red	rd
Rust	rt
Tan	tn
yellow	yl
grey Brown	gy bn
Grey to Brown	gy-bn

<i>Lithology</i>	
Very Fine 4 - 3 $\phi$	vf
Fine 3 - 2 $\phi$	f
Medium 2 - 1 $\phi$	m
Coarse 1 - 0 $\phi$	c
Very Coarse 0 - -1 $\phi$	vc
Pebble -1 - -6 $\phi$	pbl
Cobble -6 - -7 $\phi$	cbl
Boulder > -7 $\phi$	bld

Clay (slimes)	cl
Silt (vf-c)	si
Sand (vf-vc)	sa
Sandstone	ss
clayey silty Sand	css
clayey Sand	cs
silty Sand	ss
sandy Clay	sc
Saprolite	sp

<i>Minerology</i>	
Apatite	ap
Carbonate	ca
Chlorite	ct
Feldspar	fd
Garnet	g
Hematite	hm
Kaolin	k
Magnetite	mg
Mica	mi
Phlogopite	ph
Pyrochlore	py
Quartz	q

## *Percentages in bimodal distribution of sediments*

ex. 70% > -1 $\phi$ =mod-high vc-vf sa, low-Vlow si, low-Vhigh sl  
 30% < -1 $\phi$ =vf-vc pbl, cbl


css70

pbl-cbl30

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
**83348**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

Easting: 327799.38  
 Northing: 5576901.26  
 Elevation: 190.2 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 141.4m

Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 28-Jan-2008  
 Completed: 30-Jan-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 31-Mar-08  
 Logged By: JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	33.1	4	<b>Overburden</b> mixed grey glacial till		0.0	33.1	33.1	-
33.1	52.9	3	<b>Overburden</b> Cretaceous Sediments & Laterite mod-Vrich f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented sand and pebble mixed brown and mottled black mature laterite; granular f magnetite sands, blocky angular md-vc laterite sand and pebble f-vc magnetite/hematite/carbonate sands, m-vc laterite/ca cemented sand and pebble	Samples 1 - 11	33.1	52.9	19.8	2.08
52.9	83.6	2B	<b>Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented op pbl clusters;<50% blocky angular m-vc laterite sand/pebble	12 - 30	52.9	83.6	30.7	29.98
83.6	95.9	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod laterite sand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	31 - 39	83.6	95.9	12.3	14.10
95.9	127.4	2B	<b>Mixed Unconsolidated and Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented op pbl clusters;<50% blocky angular m-vc laterite sand/pebble	40 - 58	95.9	127.4	31.5	21.72
127.4	141.4	2C	<b>Weathered Carbonate Zone</b> mixed brown clayey sand/pbl-cbl ; trends to gray and gray white			141.4	59 - 65 14.0	127.4 8.03

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**

**8338C**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project

Project Number:

Lease Number: G6060124

Claim Map: South of Ridge Lake Area

General Anomaly A area

Signature:



Easting: 327820.64

Northing: 5576925.80

Elevation: 190.1 Metres

Azimuth: 0

Dip: 0

Length: 117.6m

Measure: Metres

Drilled By: Boart Longyear

Start: 12-Mar-2008

Completed: 13-Mar-2008

Core Size: 10.6cm core Dia

Date(s) Logged: 29-Mar-08


Logged By: JSS & TDA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	37.9	4	<b>Overburden</b> mixed grey glacial till		0.0	37.9	37.9	-
37.9	47.1	3	<b>Overburden</b> Cretaceous Sediments & Laterite mod-Vrich f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented sand and pebble mixed brown and mottled black mature laterite; granular f magnetite sands, blocky angular md-vc laterite sand and pebble f-vc magnetite/hematite/carbonate sands, m-vc laterite/ca cemented sand and pebble	Samples 1 - 4	37.9	47.1	9.2	4.31
47.1	66.2	2B	<b>Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained op xls; re-cemented op pbl clusters;&lt;50% blocky angular m-vc laterite sand/pebble</i>	5 - 18	47.1	66.2	19.1	33.88
66.2	101.6	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained op xls;&lt;50% blocky angular m-vc laterite sand/pebble</i> <i>m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble</i> <i>zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ob mica, soft platy texture(ob SL), pearly luster</i>	19 - 43	66.2	101.6	35.4	15.95
101.6	116.6	2B	<b>Mixed Unconsolidated and Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained op xls; re-cemented op pbl clusters;&lt;50% blocky angular m-vc laterite sand/pebble</i>	44 - 51	101.6	116.6	15.0	23.38
116.6	117.6	2C	<b>Weathered and Carbonatite Zone</b> mixed brown clayey sand/pbl-cbl ; trends to gray and gray white	52 - 53	116.6	117.6	1.0	6.72

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
**8334D**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 


Easting: 327808.00 Measure: Metres  
 Northing: 5576928.98 Drilled By: Boart Longyear  
 Elevation: 190.1 Metres Start: 13-Mar-2008  
 Azimuth: 0 Completed: 14-Mar-2008  
 Dip: 0 Core Size: 10.6cm core Dia  
 Length: 117.6m Date(s) Logged: 1-Apr-08  
 Logged By: JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P205
		Lith Unit	Description					
0.0	37.9	4	<b>Overburden</b> mixed grey glacial till		0.0	37.9	37.9	-
37.9	44.7	3	<b>Overburden</b> Cretaceous Sediments & Laterite mod-Vrich f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented sand and pebble mixed brown and mottled black mature laterite; granular f magnetite sands, blocky angular md-vc laterite sand and pebble f-vc magnetite/hematite/carbonate sands, m-vc laterite/ca cemented sand and pebble	Samples 1 - 4	37.9	44.7	6.8	2.11
44.7	75.9	2B	<b>Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	5 - 24	44.7	75.9	31.2	30.31
75.9	80.3	2C	<b>Weathered and Slightly Weathered Carbonate Zones</b> mixed brown clayey sand/pbl-cbl ; trends to gray and gray white	25 - 27	75.9	80.3	4.4	4.08
80.3	87.4	2B	<b>Mixed Unconsolidated and Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	28 - 32	80.3	87.4	7.1	21.36
87.4	93.0	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mad lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	33 - 36	87.4	93.0	5.6	14.73
93.0	114.2	2B	<b>Mixed Unconsolidated and Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	37 - 47	93.0	114.2	21.2	23.93
114.2	117.6	2C	<b>Weathered Carbonate Zone</b> mixed brown clayey sand/pbl-cbl ; trends to gray and gray white	48 - 49	114.2	117.6	3.4	4.24

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
**8338E**

**PRELIMINARY LOG**

**Project Name:** Martison Phosphate Project  
**Project Number:**  
**Lease Number:** G6060124  
**Claim Map:** South of Ridge Lake Area  
 General Anomaly A area  
**Signature:** 

**Easting:** 327820.53  
**Northing:** 5576882.61  
**Elevation:** 190.1 Metres  
**Azimuth:** 0  
**Dip:** 0  
**Length:** 120.4m  
**Measure:** Metres  
**Drilled By:** Boart Longyear  
**Start:** 14-Mar-2008  
**Completed:** 15-Mar-2008  
**Core Size:** 10.6cm core Dia  
**Date(s) Logged:** 2-Apr-08  
**Logged By:** JSS & TDA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P205
		Lith Unit	Description					
0.0	39.2	4	<u>Overburden</u> mixed grey glacial till		0.0	39.2	39.2	-
39.2	53.9	3	<u>Overburden</u> Cretaceous Sediments & Laterite mod-Vrich f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented sand and pebble mixed brown and mottled black mature laterite; granular f magnetite sands, blocky angular md-vc laterite sand and pebble f-vc magnetite/hematite/carbonate sands, m-vc laterite/ca cemented sand and pebble	Samples 1 - 9	39.2	53.9	14.7	2.95
53.9	62.7	2A	<u>Unconsolidated Residuum</u> Mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	10 - 15	53.9	62.7	8.8	22.80
62.7	90.6	28	<u>Recemented Residuum</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	16 - 33	62.7	90.6	27.9	27.02
90.6	96.6	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	34 - 37	90.6	96.6	6.0	26.34
96.6	105.8	2B	<u>Mixed Unconsolidated and Recemented Residuum</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	38 - 44	96.6	105.8	9.2	23.22
105.8	111.1	2C	<u>Weathered Carbonatite Zone</u> mixed brown clayey sand/pbl-cbl ; trends to gray and gray white	45 - 48	105.8	111.1	5.3	3.71
111.1	120.4	1D	<u>Slightly Weathered Carbonatite</u> Zones of carbonatite pbl-cbl and solid core	49 - 55	111.1	120.4	9.3	5.41

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:** 8349B

**PRELIMINARY LOG**

**Project Name:** Martison Phosphate Project

**Easting:** 327979.14

**Measure:** Metres

**Project Number:**

**Northing:** 5576492.85

**Drilled By:** Boart Longyear

**Lease Number:** G6060124

**Elevation:** 190.1 Metres

**Start:** 23-Feb-2008

**Claim Map:** South of Ridge Lake Area

**Azimuth:** 0

**Completed:** 25-Feb-2008

**General Anomaly A area**

**Dip:** 0

**Core Size:** 10.6cm core Dia

**Signature:**



**Length:** 154.2m

**Date(s) Logged:** 07-Apr-08

**Logged By:** JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample No.	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	45.1	4	<u>Overburden</u> mixed grey glacial till		0.0	45.1	45.1	-
45.1	61.1	2B	<u>Recemented Residuum</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	1 - 11	45.1	61.1	16.0	27.18
61.1	67.3	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble	12 - 14	61.1	67.3	6.2	11.49
67.3	71.9	2B	<u>Recemented Residuum w/some zones of Uncemented</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	15 - 18	67.3	71.9	4.6	29.62
71.9	88.3	2A	<u>Unconsolidated Residuum</u> Mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f; fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble	19 - 28	71.9	88.3	16.4	12.67
88.3	95.2	2C	<u>Weathered Carbonate Interburden</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments mn-tr cement; dk bn - og bn cs SAA Minor zones of ab mica, soft platy texture(ab SL), pearly luster	29 - 33	88.3	95.2	6.9	8.10
95.2	112.0	2B	<u>Recemented Residuum w/ some Zones of Uncemented</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	34 - 46	95.2	112.0	16.8	31.72
112.0	128.9	2A	<u>Unconsolidated Residuum</u> Mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble	47 - 60	112.0	128.9	16.9	13.92
128.9	134.7	2B	<u>Recemented Residuum w/ some Zones of Uncemented</u> Mixed brown clayey sand/pebble cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	61 - 64	128.9	134.7	5.8	29.82
134.7	143.8	2A	<u>Unconsolidated Residuum</u>	65 - 70	134.7	143.8	9.1	11.32
143.8	153.0	2B	<u>Recemented Residuum w/ some Zones of Uncemented</u>	71 - 77	143.8	153.0	9.2	34.25
153.0	154.2	1D	<u>Slightly Weather Carbonate</u> zone of carbonatite pbl-cbl and sand core		153.0	154.2	1.2	-

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number: 8349C**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area

Easting: 327987.81  
 Northing: 5576510.16  
 Elevation: 189.8 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 149.3m

Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 03-Mar-2008  
 Completed: 06-Mar-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 08-Apr-08  
 Logged By: JSS & TDA

Signature:  General Anomaly A area


From (m)	To (m)	Brief Geologic Description		Sample No.	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	44.3	4	<b>Overburden</b> mixed gray glacial till		0.0	44.3	44.3	-
44.3	60.5	2B	<b>Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;&lt;50% blocky angular m-vc laterite sand/pebble</i>	1 - 9	44.3	60.5	16.2	32.16
60.5	64.8	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble  <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;&lt;50% blocky angular m-vc laterite sand/pebble</i>  <i>m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble</i>	10 - 12	60.5	64.8	4.3	21.41
64.8	70.0	2B	<b>Recemented Residuum w/some zones of Uncemented</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;&lt;50% blocky angular m-vc laterite sand/pebble</i>	13 - 17	64.8	70.0	5.2	27.33
70.0	90.8	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;&lt;50% blocky angular m-vc laterite sand/pebble</i> <i>m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble</i>	18 - 31	70.0	90.8	20.8	16.15
90.8	99.0	2C	<b>Weathered Carbonate Interburden</b> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments mn-tr cement dk bn - og bn cs SAA	32 - 37	90.8	99.0	8.2	3.39
99.0	114.1	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;&lt;50% blocky angular m-vc laterite sand/pebble</i> <i>m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble</i>	38 - 48	99.0	114.1	15.1	14.35
114.1	143.7	2B	<b>Recemented Residuum w/some Zones of Uncemented</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;&lt;50% blocky angular m-vc laterite sand/pebble</i>	49 - 70	114.1	143.7	29.6	35.0
143.7	149.3	1D	<b>Slightly Weather Carbonate Zone</b> zone carbonatite pbl-cbl and solid core	-	143.7	149.3	5.6	-



**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number: 8349D**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

Easting: 327984.14  
 Northing: 5576487.92  
 Elevation: 190.0 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 129.8m


Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 04-Mar-2008  
 Completed: 06-Mar-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 09-April-08  
 Logged By: JSS & RFA

From (m)	To (m)	Lith Unit	BriefGeologic Description Description	Sample Number	From (m)	To (m)	Length (m)	%P2O5
0.0	42.7	4	<u>Overburden</u> mixed grey glacial till	-	0.0	42.7	42.7	-
42.7	63.8	2B	<u>Recemented Residuum</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrlich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrlich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	1 - 13	42.7	63.8	21.1	29.86
63.8	67.6	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrlich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrlich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mlca/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble	14 - 16	63.8	67.6	3.8	12.41
67.6	83.6	2B	<u>Recemented Residuum w/some zones of Uncemented</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrlich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrlich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	17 - 28	67.6	83.6	16.0	26.30
83.6	95.3	2C	<u>Weathered Carbonatite Interburden</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments mn-tr cement dk bn - og bn cs SAA	29 - 37	83.6	95.3	11.7	5.93
95.3	109.4	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrlich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrlich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mlca/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble	38 - 47	95.3	109.4	14.1	16.82
109.4	112.2	2C	<u>Weathered Carbonatite Interburden</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments mn-tr cement dk bn - og bn cs SAA	48 - 49	109.4	112.2	2.8	4.24
112.2	119.0	1D	<u>Slightly Weather Carbonatite Zone</u> zone carbonatite pbl-cbl and solid core	50 - 53	112.2	119.0	6.8	1.95
119.0	129.8	2C/1D	<u>Weathered and Slightly Weathered Carbonatite Zones</u> Mixed brown to gray pbl-cbl w/minor clay-fn sand mix Zones of carbonatite pbl-cbl and solid core	54 - 59	119.0	129.8	10.8	5.36

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number: 8349E**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

Easting: 328002.07  
 Northing: 5576497.93  
 Elevation: 189.9 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 136.2m

Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 06-Mar-2008  
 Completed: 08-Mar-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 10-April-08  
 Logged By: JSS & TDA

From	To	Brief Geologic Description		Sample Number	From	To	Length	%P2O5
(m)	(m)	Lith Unit	Description		(m)	(m)	(m)	
0.0	42.4	4	<b>Overburden</b> mixed grey glacial till		0.0	42.4	42.4	-
42.4	54.7	28	<b>Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;&lt;50% blocky angular m-vc laterite sand/pebble</i>	1 - 9	42.4	54.7	12.3	26.73
54.7	86.2	2A	<b>Unconsolidated Residuum</b> <i>mixed brown clayey sand/pebble</i>  <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;&lt;50% blocky angular m-vc laterite sand/pebble</i>  <i>m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble</i>	10 - 36	54.7	86.2	31.5	18.02
86.2	90.5	28	<b>Recemented Residuum w/some zones of Uncemented</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;&lt;50% blocky angular m-vc laterite sand/pebble</i>	37 - 39	86.2	90.5	4.3	31.88
90.5	97.1	2C	<b>Weathered Carbonatite Interburden</b> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments mn-tr cement dk bn - og bn cs SAA	40 - 44	90.5	97.1	6.6	6.90
97.1	136.2	28	<b>Recemented Residuum w/some zones of Uncemented</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments <i>mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;&lt;50% blocky angular m-vc laterite sand/pebble</i>	45 - 73	97.1	136.2	39.1	30.40

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**

**83508**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area

Signature:



Easting: 327987.37 Measure: Metres  
 Northing: 5576710.56 Drilled By: Boart Longyear  
 Elevation: 189.8 Metres Start: 28-Feb-2008  
 Azimuth: 0 Completed: 29-Feb-2008  
 Dip: 0 Core Size: 10.6cm core Dia  
 Length: 120.7m Date(s) Logged: 7-Mar-08  
 Logged By: JSS & RFA

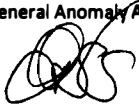
From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	71.9	4	<u>Overburden</u> mixed grey glacial till	1 - 8	0.0	71.9	71.9	3.79
71.9	91.2	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble  mod-Vrich f granular dm clear apatite sand, tr-50% f fractlan=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble  m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble  zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl  zones of ab mica, soft platy texture(ab SL), pearly luster	9 - 24	71.9	91.2	19.3	13.25
91.2	92.8	2C	<u>Weathered Carbonatite</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments	25	91.2	92.8	1.6	6.97
92.8	120.7	1D	<u>Slightly Weathered Carbonatite</u> zones of carbonatite pbl-cbl and solid core	-	92.8	120.7	27.9	-

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**

**8350C**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

Easting: 327999.55  
 Northing: 5576730.20  
 Elevation: 189.8 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 114.9m

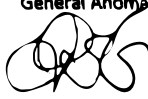
Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 29-Feb-2008  
 Completed: 02-Mar-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 11-April-08  
 Logged By: JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	60.0	4	<u>Overburden</u> mixed grey glacial till		0.0	60.0	60.0	-
60.0	87.9	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble  mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained op xls;<50% blocky angular m-vc laterite sand/pebble  m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented opatite-magnetite clusters; tr-mod lateritesand/pebble  zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl  zones of ob mica, soft platy texture (ob SL), pearly luster	1 - 22	60.0	87.9	27.9	19.99
87.9	90.5	2C	<u>Weathered Carbonatite</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments	23 - 24	87.9	90.5	2.6	5.37
90.5	114.9	1D	<u>Slightly Weathered Carbonatite</u> zones of carbonatite pbl-cbl and solid core	25 - 26	90.5	114.9	24.4	8.54

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
8350D

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

Easting: 328008.96  
 Northing: 5576707.59  
 Elevation: 189.8 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 114.9m

Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 01-Mar-2008  
 Completed: 03-Mar-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 11-April-08  
 Logged By: JSS & TDA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	59.7	4	<u>Overburden</u> mixed grey glacial till	-	0.0	59.7	59.7	-
59.7	68.9	2A	<u>Unconsolidated Residium</u> mixed brown clayey sand/pebble  mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained op xls;<50% blocky angular m-vc laterite sand/pebble  m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod laterite sand/pebble  zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl  zones of ab mica, soft platy texture(ab SL), pearly luster	1 - 6	59.7	68.9	9.2	27.86
68.9	110.2	2C	<u>Weathered Carbonatite</u>  mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments	7 - 23	68.9	110.2	41.3	5.70
110.2	123.7	1D	<u>Slightly Weathered Carbonatite</u>  zones of carbonatite pbl-cbl and solid core	-	110.2	123.7	13.5	-

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number: 83518**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number: G6060124  
 Lease Number: 6060124  
 Claim Map: South of Ridge Lake Area

Easting: 327969.15      Measure: Metres  
 Northing: 5576307.30      Drilled By: Boart Longyear  
 Elevation: 189.9 Metres      Start: 07-Mar-2008  
 Azimuth: 0      Completed: 09-Mar-2008  
 Dip: 0      Core Size: 10.6cm core Dia  
 Length: 139m      Date(s) Logged: 02-April-08  
 Logged By: JSS & RFA

General Anomaly A area

Signature: 

From (m)	To (m)	Lith Unit	Brief Geologic Description Description	Sample Number	From (m)	To (m)	Length (m)	%P2O5
0.6	31.7	4	<u>Overburden</u> mixed grey glacial till	-	0.6	31.7	31.1	-
31.7	50.2	3	<u>Overburden</u> <u>Lateritic Sediments</u> w/ transition zone, Cretaceous Sediments mod f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented clay, sand and pebble	1 - 13	31.7	50.2	18.5	6.36
50.2	54.2	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pbl-cbl  mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster cement occurs as disseminated pbl-cbl fragments	14 - 16	50.2	54.2	4.0	18.72
54.2	66.1	2C	<u>Weathered Carbonate Interburden</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments Minor zones of ab mica, soft platy texture(ab SL), pearly luster	17 - 26	54.2	66.1	11.9	5.06
66.1	109.9	2A	<u>Unconsolidated Residuum</u> mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble cement occurs as disseminated pbl-cbl fragments m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl	27 - 57	66.1	109.9	43.8	18.45
109.9	128.2	2C	<u>Weathered Carbonate Interburden</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments	58 - 71	109.9	128.2	18.3	1.47
128.2	137.0	2A	<u>Unconsolidated Residuum</u> mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble cement occurs as disseminated pbl-cbl fragments m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concentrations usually accompanied with cemented pbl-cbl	72 - 79	128.2	137.0	8.8	10.30
137.0	139.0	2C	<u>Weathered Carbonate</u> mixed brown to gray pbl-cbl w/clay-fn sand mix	80 - 81	137.0	139.0	2.0	6.32

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**

**8351C**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area

Easting: 327978.86      Measure: Metres  
 Northing: 5576279.12      Drilled By: Boart Longyear  
 Elevation: 190.3 Metres      Start: 09-Mar-2008  
 Azimuth: 0      Completed: 11-Mar-2008  
 Dip: 0      Core Size: 10.6cm core Dia  
 Date(s)  
 Length: 146.6m      Logged: 03-April-08  
 Logged By: JSS & TDA

General Anomaly A area

Signature: 

From (m)	To (m)	Lith Unit	Brief Geologic Description	Sample Number	From (m)	To (m)	Length (m)	%P2O5
			Description					
1.0	35.7	4	<u>Overburden</u> mixed grey glacial till	-	1.0	35.7	34.7	-
35.7	55.3	3	<u>Overburden</u> <u>Lateritic Sediments</u> w/ transition zone, Cretaceous Sediments mod f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented clay, sand and pebble	1 - 9	35.7	55.3	19.6	6.31
55.3	111.3	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pbl-cbl mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble  m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster cement occurs as disseminated pbl-cbl fragments	9 - 47	55.3	111.3	56.0	18.17
111.3	130.5	2C	<u>Weathered Carbonatite Interburden</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments Minor zones of ab mica, soft platy texture(ab SL), pearly luster	48 - 63	111.3	130.5	19.2	3.31
130.5	146.6	1D	<u>Slightly Weathered Carbonatite</u> Zones of carbonatite pbl-cbl and solid core	63 - 70	130.5	146.6	16.1	0.78

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**

**8351D**

**PRELIMINARY LOG**

Project Name: Martlson Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area

Easting: 327990.49  
 Northing: 5576303.47  
 Elevation: 190.0 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 106.4m

Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 10-Mar-2008  
 Completed: 13-Mar-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 06-April-08  
 Logged By: JSS & RFA

Signature:  General Anomaly A area

From (m)	To (m)	Lith Unit	Brief Geologic Description Description	Sample Number	From (m)	To (m)	Length (m)	%P205
1.0	35.6	4	<u>Overburden</u> mixed grey glacial till	1	1.0	35.6	34.6	1.26
35.6	60.6	3	<u>Overburden</u> <u>Lateritic Sediments</u> w/ transition zone, Cretaceous Sediments mod f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented clay, sand and pebble	2 - 21	35.6	60.6	25.0	7.23
60.6	69.6	2A	<u>Unconsolidated Residium</u> mixed brown clayey sand/pbl-cbl mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster cement occurs as disseminated pbl-cbl fragments	22 - 28	60.6	69.6	9.0	18.28
69.6	73.2	2C	<u>Weathered Carbonatite Interburden</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments Minor zones of ab mica, soft platy texture(ab SL), pearly luster	29 - 30	69.6	73.2	3.6	6.43
73.2	106.4	1D	<u>Slightly Weathered Carbonatite</u> Zones of carbonatite pbl-cbl and solid core	-	73.2	106.4	33.2	-



**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
**8351E**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area

Easting: 327970.71  
 Northing: 5576282.82  
 Elevation: 190.1 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 121.3m


Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 12-Mar-2008  
 Completed: 13-Mar-2008  
 Core Size: 10.6cm core Dia  
 Date(s)  
 Logged: 05-April-08  
 Logged By: JSS & TDA

Signature: 

From (m)	To (m)	Lith Unit	Brief Geologic Description Description	Sample Number	From (m)	To (m)	Length (m)	%P205
1.5	39.2	4	<u>Overburden</u> mixed grey glacial till	-	1.5	39.2	39.2	-
39.2	57.3	3	<u>Overburden</u> <u>Lateritic Sediments</u> w/ transition zone, Cretaceous Sediments mod f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented clay, sand and pebble	1 - 16	39.2	57.3	18.1	5.06
57.3	100.0	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pbl-cbl  mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble  m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster cement occurs as disseminated pbl-cbl fragments	17 - 49	57.3	100.0	42.7	17.52
100.0	107.0	2C	<u>Weathered Carbonate Interburden</u> mixed brown pbl-cbl w/clay-fn sand mix cement occurs as disseminated pbl-cbl fragments Minor zones of ab mica, soft platy texture(ab SL), pearly luster	50 - 54	100.0	107.0	7.0	5.65
107.0	113.4	2A	<u>Unconsolidated Residuum</u> Mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble cement occurs as disseminated pbl-cbl fragments m-vc sand+magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble	55 - 58	107.0	113.4	6.4	21.56
113.4	121.3	2C	<u>Weathered Carbonate</u>  Mixed brown to gray pbl-cbl w/clay-fn sand mix	-	113.4	121.3	7.9	-

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:** PRELIMINARY LOG  
**8356C**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Admaly A area  
 Signature: 


Easting: 327907.20 Measure: Metres  
 Northing: 5576688.14 Drilled By: Boart Longyear  
 Elevation: 190.2 Metres Start: 21-Feb-2008  
 Azimuth: 0 Completed: 23-Feb-2008  
 Dip: 0 Core Size: 10.6cm core Dia  
 Length: 145.0m Date(s) Logged: 27-Mar-08  
 Logged By: JSS & TDA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	86.8	4	<b>Overburden</b> mixed grey glacial till	-	0.0	86.8	86.8	-
86.8	101.3	3	<b>Overburden</b> Lateritic Sediments w/ transition zone, Cretaceous Sediments mod f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented clay, sand and pebble	-	86.8	101.3	14.5	-
101.3	117.4	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble  zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	1 - 12	101.3	117.4	16.1	21.05
117.4	127.6	2B	<b>Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	13 - 19	117.4	127.6	10.2	28.29
127.6	133.9	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble  zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	20 - 24	127.6	133.9	6.3	10.9
133.9	144.4	2B	<b>Recemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble zones of carbonatite pbl-cbl last 3 metres	25 - 32	133.9	144.4	10.5	16.76
144.4	145.0	1D	<b>Slightly Weathered Carbonatite</b> Zones of carbonatite pbl-cbl and solid core	33	144.4	145.0	0.6	5.70

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
**8334D**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

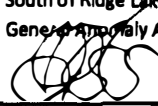
Eastings: 327912.07      Measure: Metres  
 Northings: 5576706.17      Drilled By: Boart Longyear  
 Elevation: 190.2 Metres      Start: 22-Feb-2008  
 Azimuth: 0      Completed: 24-Feb-2008  
 Dip: 0      Core Size: 10.6cm core Dia  
 Length: 162.2m      Date(s) Logged: 27-Mar-08  
 Logged By: JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	95.1	4	<u>Overburden</u> mixed grey glacial till	1 - 6	0.0	95.1	95.1	0.00
95.1	98.0	3	<u>Overburden</u> Lateritic Sediments w/ transition zone, Cretaceous Sediments mod f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented clay, sand and pebble	7 - 8	95.1	98.0	2.9	3.26
98.0	108.5	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble  mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xis;<50% blocky angular m-vc laterite sand/pebble  m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble  zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	9 - 16	98.0	108.5	10.5	27.18
108.5	162.2	2B	<u>Recemented Residuum</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xis; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	17 - 53	108.5	162.2	53.7	26.53

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
**8356F**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

Easting: 327912.60  
 Northing: 5576694.86  
 Elevation: 190.2 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 148.1m

Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 25-Feb-2008  
 Completed: 26-Feb-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 29-Mar-08  
 Logged By: JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	89.8	4	<u>Overburden</u> mixed grey glacial till	1 - 2	0.0	89.8	89.8	0.00
89.8	101.7	3	<u>Overburden</u> Lateritic Sediments w/ transition zone, Cretaceous Sediments mod f granular dm clear apatite sand and magnetite, ≥50% blocky angular m-vc laterite/ca cemented clay, sand and pebble	3 - 11	89.8	101.7	11.9	5.41
101.7	106.8	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; <50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	12 - 15	101.7	106.8	5.1	18.35
106.8	148.1	2B	<u>Re-cemented Residuum</u> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	16 - 41	106.8	148.1	41.3	22.21

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:** PRELIMINARY LOG  
**8356F**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area

Easting: 327890.30  
 Northing: 5576693.97  
 Elevation: 190.2 Metres  
 Azimuth: 0  
 Dip: 0  
 Length: 167.0m

Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 27-Feb-2008  
 Completed: 29-Feb-2008  
 Core Size: 10.6cm core Dia  
 Date(s) Logged: 29-Mar-08  
 Logged By: JSS & TDA


Signature: 

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	84.4	4	<b>Overburden</b> mixed grey glacial till	-	0.0	84.4	84.4	-
84.4	128.5	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl zones of ab mica, soft platy texture(ab SL), pearly luster	1 - 27	84.4	128.5	44.1	21.93
128.5	167.0	2B	<b>Cemented Residuum</b> mixed brown clayey sand/pbl-cbl cement occurs as disseminated pbl-cbl fragments mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	16 - 41	128.5	167.0	38.5	22.70

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
**83588**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake  
 General Anomaly A area  
 Signature: 

Easting: 327882.90      Measure: Metres  
 Northing: 5576783.82      Drilled By: Boart Longyear  
 Elevation: 190.1 Metres      Start: 17-Feb-2008  
 Azimuth: 0      Completed: 21-Feb-2008  
 Dip: 0      Core Size: 10.6cm core Dia  
 Length: 98.8m      Date(s) Logged: 12-April-08  
 Logged By: JSS & RFA

From (m)	To (m)	Lith Unit	Brief Geologic Description	Sample Number	From (m)	To (m)	Length (m)	%P2O5
			Description					
0.0	41.2	4	<b>Overburden</b> mixed grey glacial till	-	0.0	41.2	41.2	-
41.2	49.2	2B	<b>Recemented Residuum</b> Top 1 metre is transition zone mixed brown clayey sand/pbl-cbl mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	1 - 6	41.2	49.2	7.0	31.20
49.2	61.7	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble zones of ab mica, soft platy texture(ab SL), pearly luster mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod laterite sand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl	7 - 16	49.2	61.7	12.5	14.52
61.7	76.8	2B	<b>Mixed Unconsolidated and Recemented Residuum</b> Mixed brown clayey sand/pbl-cbl Cement occurs as disseminated pbl-cbl fragments  Mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls; re-cemented ap pbl clusters;<50% blocky angular m-vc laterite sand/pebble	17 - 27	61.7	76.8	15.1	22.70
76.8	98.8	1D	<b>Weathered and Slightly Weathered Carbonatite Zones</b> mixed brown to gray pbl-cbl w/minor clay-fn sand mix zones of carbonatite pbl-cbl and solid core	28 - 32	76.8	98.8	22	6.1

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**

**83618**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project

Project Number:

Lease Number: G6060124

Claim Map: South of Ridge Lake Area

General Anomaly A area

Signature:



Easting: 327451.47

Northing: 5577317.21

Elevation: 189.4 metres

Azimuth: 0

Dip: 0

Length: 182.0m

Measure: Metres

Drilled By: Boart Longyear

Start: 31-Jan-2008

Completed: 03-Feb-2008

Core Size: 10.6cm Core Dia

Date(s) Logged: 12-Mar-08

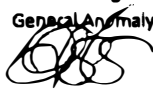
Logged By: JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	75.3	4	<b>Overburden</b> mixed grey glacial till	-	0.0	75.3	75.3	-
75.3	101.2	2B	<b>Cemented Residuum</b> transition zone in upper 2.5 metres mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite & magnetite/hematite; ≥50% blocky angular m-vc /ca cemented sand and pebble	1 - 15	75.3	101.2	25.9	29.98
101.2	150.1	2A	<b>Unconsolidated Residuum</b> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble zones of ab mica, soft platy texture(ab SL), pearly luster m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl	16 - 49	101.2	150.1	48.9	20.57
150.1	182.0	2C/1D	<b>Weathered and Slightly Weathered Carbonate Zones</b> mixed brown clayey sand/pbl-cbl ; trends to gray and gray white cement occurs as disseminated pbl-cbl fragments zones of carbonatite pbl-cbl and solid core	-	150.1	182.0	31.9	-

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number: 8361C**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

Easting: 327468.00  
 Northing: 5577290.00  
 Elevation: 189.5 metres  
 Azimuth: 0  
 Dip: 0  
 Length: 172.5m

Measure: Metres  
 Drilled By: Boart Longyear  
 Start: 04-Feb-2008  
 Completed: 06-Feb-2008  
 Core Size: 10.6cm Core Dia  
 Date(s) Logged: 09-Mar-08  
 Logged By: JSS & RFA


From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	75.0	4	<u>Overburden</u> mixed grey glacial till	-	0.0	75.0	75.0	-
75.0	91.3	3	<u>Overburden</u> Cretaceous Sediments; Lateritic mixed red & brown & black mature laterite; granular f magnetite/hematite sands, blocky angular m-vc laterite sand/pebble f-vc magnetite/hematite/carbonate sands, m-vc laterite/ca cemented sand/pebble	1 - 6	75.0	91.3	16.3	1.51
91.3	96.8	2A	<u>Unconsolidated Residuum</u> Mixed brown clayey sand/pebble; some transition zone material	6 - 8	91.3	96.8	5.5	15.43
96.8	116.8	2B	<u>Recemented Residuum</u> transition zone in upper 2.5 metres mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite & magnetite/hematite; ≥50% blocky angular m-vc /ca cemented sand and pebble	9 - 22	96.8	116.8	20.0	28.41
116.8	158.1	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble zones of ab mica, soft platy texture(ab SL), pearly luster m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod laterite sand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl	23 - 53	116.8	158.1	41.3	27.64
158.1	172.5	2C	<u>Weathered Carbonate Zones</u> mixed brown clayey sand/pbl-cbl; trends to gray and gray white cement occurs as disseminated pbl-cbl fragments	54 - 60	158.1	172.5	14.4	2.81



**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number: 8361D**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 


Eastings: 327453.00 Measure: Metres  
 Northings: 5577297.00 Drilled By: Boart Longyear  
 Elevation: 189.5 metres Start: 04-Feb-2008  
 Azimuth: 0 Completed: 08-Feb-2008  
 Dip: 0 Core Size: 10.6cm Core Dia  
 Length: 175.9m Date(s) Logged: 23-Mar-08  
 Logged By: JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	79.9	4	<u>Overburden</u> mixed grey glacial till	-	0.0	79.9	79.9	-
79.9	84.4	3	<u>Overburden</u> Cretaceous Sediments; lateritic mixed red & brown & black mature laterite; granular f magnetite/hematite sands, blocky angular m-vc laterite sand/pebble f-vc magnetite/hematite/carbonate sands, m-vc laterite/ca cemented sand/pebble	1 - 3	79.9	84.4	4.5	4.66
84.4	121.4	2B	<u>Resemented Residuum</u> transition zone in upper 2.5 metres mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite & magnetite/hematite; ≥50% blocky angular m-vc/ca cemented sand and pebble	4 - 22	84.4	121.4	37.0	31.34
121.4	136.8	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble zones of ab mica, soft platy texture(ab SL), pearly luster m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl	23 - 33	121.4	136.8	15.4	22.40
136.8	142.3	2C	<u>Weathered Carbonate Interburden</u> Mixed brown pbl-cbl w/clay-fn sand mix Cement occurs as disseminated pbl-cbl fragments	34 - 39	136.8	142.3	5.5	1.31
142.3	152.6	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble zones of ab mica, soft platy texture(ab SL), pearly luster m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod laterite sand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl	40 - 47	142.3	152.6	10.3	13.54
152.6	164.3	2C	<u>Weathered Carbonate Interburden</u> Mixed brown pbl-cbl w/clay-fn sand mix Cement occurs as disseminated pbl-cbl fragments	48 - 60	152.6	164.3	11.7	4.86
164.3	175.9	1D	<u>Slightly Weathered Carbonate Zone</u> Zones of carbonate pbl-cbl and solid core	61 - 68	164.3	175.9	11.6	4.76

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number: 8361E**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 


Easting: 327464.92      Measure: Metres  
 Northing: 5577269.34      Drilled By: Boart Longyear  
 Elevation: 189.6 metres      Start: 06-Feb-2008  
 Azimuth: 0      Completed: 09-Feb-2008  
 Dip: 0      Core Size: 10.6cm Core Dia  
 Length: 139.0m      Date(s) Logged: 08-Mar-08  
 Logged By: JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	75.0	4	<del>Overburden</del> mixed grey glacial till	-	0.0	75.0	75.0	-
75.0	139.0	3	<del>Overburden</del> Cretaceous Sediments; Lateritic mixed red & brown & black mature laterite; granular f magnetite/hematite sands, blocky angular m-vc laterite sand/pebble f-vc magnetite/hematite/carbonate sands, m-vc laterite/ca cemented sand/pebble	1 - 49	75.0	139.0	64.0	3.96

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number:**  
**8361E**

**PRELIMINARY LOG**

**Project Name:** Martison Phosphate Project  
**Project Number:**  
**Lease Number:** G6060124  
**Claim Map:** South of Ridge Lake Area  
 General Anomaly A area  
**Signature:** 


**Easting:** 327463.64      **Measure:** Metres  
**Northing:** 5577318.05      **Drilled By:** Boart Longyear  
**Elevation:** 189.2 metres      **Start:** 08-Feb-2008  
**Azimuth:** 0      **Completed:** 12-Feb-2008  
**Dip:** 0      **Core Size:** 10.6cm Core Dia  
**Length:** 157.6m      **Date(s) Logged:** 25-Mar-08  
**Logged By:** JSS & RFA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Uth Unit	Description					
0.0	75.3	4	<u>Overburden</u> mixed-grey glacial till	-	0.0	75.3	75.3	-
75.3	111.3	2B	<u>Recemented Residuum</u> transition-zone in upper 2.5 metres mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite & magnetite/hematite; ≥50% blocky angular m-vc /ca cemented sand and pebble	1 - 22	75.3	111.3	36	32.25
111.3	117.4	2C	<u>Weathered Carbonate Interburden</u> Mixed brown pbl-cbl w/clay-fn sand mix Cement occurs as disseminated pbl-cbl fragments	23 - 26	111.3	117.4	6.1	5.00
117.4	132.7	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble zones of ab mica, soft platy texture(ab SL), pearly luster m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod lateritesand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl	27 - 37	117.4	132.7	15.3	24.03
132.7	157.6	2C	<u>Weathered Carbonate Zone</u> mixed brown clayey sand/pbl-cbl; trends to gray and gray white cement occurs as disseminated pbl-cbl fragments	38 - 51	132.7	157.6	24.9	4.48

**PHOSCAN CHEMICAL CORPORATION**

**Drill Hole Number: R361G**

**PRELIMINARY LOG**

Project Name: Martison Phosphate Project  
 Project Number:  
 Lease Number: G6060124  
 Claim Map: South of Ridge Lake Area  
 General Anomaly A area  
 Signature: 

Easting: 327460.66      Measure: Metres  
 Northing: 5577297.04      Drilled By: Boart Longyear  
 Elevation: 189.3 metres      Start: 10-Feb-2008  
 Azimuth: 0      Completed: 13-Feb-2008  
 Dip: 0      Core Size: 10.6cm Core Dia  
 Length: 182.0m      Date(s) Logged: 25-Mar-08  
 Logged By: JSS & TDA

From (m)	To (m)	Brief Geologic Description		Sample Number	From (m)	To (m)	Length (m)	%P2O5
		Lith Unit	Description					
0.0	75.0	4	<u>Overburden</u> mixed grey glacial till	-	0.0	75.0	75.0	-
75.0	86.5	3	<u>Overburden</u> Cretaceous Sediments; Lateritic mixed red & brown & black mature laterite; granular f magnetite/hematite sands, blocky angular m-vc laterite sand/pebble f-vc magnetite/hematite/carbonate sands, m-vc laterite/ca cemented sand/pebble	1 - 3	75.0	86.5	11.5	5.98
86.5	99.9	2A	<u>Unconsolidated Residuum</u> Mixed brown clayey sand/pebble; some transition zone material	4 - 10	86.5	99.9	13.4	24.96
99.9	124.8	2B	<u>Residuum</u> transition zone in upper 2.5 metres mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite & magnetite/hematite; ≥50% blocky angular m-vc /ca cemented sand and pebble	11 - 25	99.9	124.8	24.9	31.25
124.8	182.0	2A	<u>Unconsolidated Residuum</u> mixed brown clayey sand/pebble mod-Vrich f granular dm clear apatite sand, tr-50% f fraction=magnetite; mod-Vrich f-m prismatic dm stained ap xls;<50% blocky angular m-vc laterite sand/pebble zones of ab mica, soft platy texture(ab SL), pearly luster m-vc sand=magnetite/pyrochlore/mica/carbonates pebbles=cemented apatite-magnetite clusters; tr-mod laterite sand/pebble zones of magnetite/hematite/carbonate concretions usually accompanied with cemented pbl-cbl	26 - 71	124.8	182.0	57.2	23.35

**APPENDIX B**  
**Detailed Geological Logs**

# LEGEND

Geologic Descriptors	Color	Lithology	Minerology
Hardness (H)      1 2 3 4 5	Black                blk	Very Fine 4 - 3 $\phi$ vf	Apatite            ap
Slimes (SL)        1 2 3 4 5	Blue                blu	Fine 3 - 2 $\phi$ f	Carbonate        ca
Moisture (M)      1 2 3 4 5	Brick                bk	Medium 2 - 1 $\phi$ m	Chlorite          ct
Cohesion (C)      1 2 3	Brown               bn	Coarse 1 - 0 $\phi$ c	Feldspar          fd
	Chocolate          ch	Very Coarse 0 - -1 $\phi$ vc	Garnet            g
	Dark                dk	Pebble -1 - -6 $\phi$ pbl	Hematite        hm
	Green                gn	Cobble -6 - -7 $\phi$ cbl	Kaolin            k
	Grey                gy	Boulder > -7 $\phi$ bld	Magnetite        mg
	Golden              gd		Mica              mi
	Light                lt	Clay (slimes)        cl	Phlogopite      ph
	Maroon              mr	Silt (vf-c)            si	Pyrochlore      py
	Orange              og	Sand (vf-vc)        sa	Quartz            q
	Pale                pl	Sandstone            ss	
	Pink                pk	clayey silty Sand    css	
	Purple              pp	clayey Sand        cs	
	Red                rd	silty Sand            ss	
	Rust                rt	sandy Clay          sc	
	Tan                tn	Saprolite            sp	
	yellow              yl		
	grey Brown        gy bn		
	Grey to Brown    gy-bn		

<i>Percentages in bimodal distribution of sediments</i>	
ex. 70% > -1 $\phi$ =mod-high vc-vf sa, low-Vlow si, low-Vhigh sl	css70
30% < -1 $\phi$ =vf-vc pbl, cbl	pbl-cbl30

Phoscan  
 Winter 2008 Drilling Program  
 Logged by RFA 31MAR08

HOLE: 8338B			
Box #	Core Run #	Brief Geologic Description	Comments
26	0.65m 10(35.7m) begin 11	0.65m gy cs pbl-cb(Till) H=3 SL=3 M=2 C=2 0.85m dk bn blk cs pbl H=3 SL=3 M=2 C=2	boxes 1-25 are glacial till and were not laid out for these descriptions tr ca sa, ab mg
27	11	1.5m mottled dk bn blk-dk rd bn cs pbl H=3 SL=3 M=2 C=2	
28	11	1.5m dk rd bn SAA	ca encrustations
29	1.35m 11(41.7m) begin 12	1.5m dk rd bn - og bn cs pbl H=3 SL=3 M=2 C=2	
30	12	1.5m bn - dk bn cs pbl H=2 SL=3 M=2 C=2	
31	12	1.5m mottled yl bn-dk bn-blk cs pbl H=2 SL=3 M=2 C=2	
32	12	1.5m SAA	ca encrustations
33	12	1.5m mottled dk rd bn-dk og bn-blk SAA	
34	0.93m 12(47.8m) begin 13	1.5m SAA	
35	13	1.5m mottled dk og bn-dk bn-dk bn blk SAA	
36	13	1.5m SAA	
37	13	1.5m SAA	
38	1.12m 13(53.9m) begin 14	1.5m SAA	
39	14	1.5m dk bn - yl bn cs ab pbl H=4 SL=1 M=2 C=3	Contact Residuum
40	14	1.5m yl bn cs ab pbl <del>H=4 SL=1 M=2 C=3</del>	2B
41	14	1.5m SAA	2B
42	0.19m 14(60.0m) begin 15	1.5m bn pbl cement H=4 SL=1 M=1 C=3	2B
43	15	1.5m mottled dk bn blk-og bn-bk rd ca pbl H=2&4 SL=2 M=2 C=2-3	
44	15	1.5m dk og bn - dk bn cs pbl H=2&4 SL=1 M=2 C=2	
45	end 15(66.1m)	1.5m yl bn cs ab pbl H=4 SL=1 M=2 C=2	
46	16	1.5m dk rd bn cs H=2 SL=2 M=2 C=2	
47	16	1.5m SAA	
48	16	1.5m dk og bn SAA	
49	16	1.5m SAA	
50	0.27m 16(72.2m) begin 17	1.5m SAA	
51	17	1.5m mottled dk og bn-bn blk-og bn cs pbl H=2 SL=2 M=2 C=2	

Phoscan  
 Winter 2008 Drilling Program  
 Logged by RFA 31MAR08

52	17	1.5m og bn cs pbl H=2 SL=2 M=2 C=2	
53	17	1.5m SAA	
54	0.89m 17(78.3m) begin 18	0.89m SAA <del>0.54m dk bn SAA</del>	
55	18	1.5m dk bn cs pbl H=2&4 SL=2 M=2 C=2	
56	18	1.5m dk bn - og bn SAA	
57	18	0.5m dk bn blk cs pbl H=3 SL=2 M=2 C=2 1.0m mottled dk rd bn-dk og bn cs H=3 SL=3 M=1 C=2	ca encrustations
58	0.57m 18(87.4m) begin 19	1.5m rd bn - dk og bn cs mn pbl H=3 SL=3 M=1 C=2	
59	19	1.5m mottled og bn-bk rd cs mn pbl H=3 SL=3 M=1 C=2	
60	19	1.5m SAA	
61	19	1.5m mottled bk rd-og bn cs H=3 SL=3 M=1 C=2	micaceous
62	19	1.5m SAA	ca encrustations
63	0.53m 19(93.6m) begin 20	0.53m SAA 0.97m bn - bk rd SAA	
64	20	1.5m mottled dk og bn-rd bn cs H=2 SL=3 M=2 C=2	micaceous
65	end 20(96.6m)	1.5m SAA	
66	begin 21	1.5m mottled dk bn-dk og bn-bk cs mn pbl H=2 SL=2 M=2 C=2	
67	21	1.5m SAA	
68	21	1.5m SAA	
69	21	1.5m SAA	micaceous
70	0.19m 21(102.7m) begin 22	1.5m dk bn-dk bn blk cs pbl H=2 SL=2 M=2 C=1	micaceous
71	22	1.5m SAA	
72	22	0.77m SAA 0.73m dk bn cs H=2 SL=3 M=1 C=1	micaceous
73	22	0.77m dk bn cs ab pbl H=4 SL=1 M=1 C=3 0.73m mottled dk bn-dk bn blk H=2 SL=2 M=1 C=1	micaceous
74	0.5m 22(108.8m) begin 23	0.5m dk bn cs ab pbl H=4 SL=2 M=1 C=2 1.0m dk bn blk cs pbl H=2 SL=1 M=2 C=1	
75	23	1.5m og bn cs H=2 SL=3 M=1 C=1	micaceous
76	end 23(111.9m)	0.75m SAA	



Phoscan  
 Winter 2008 Drilling Program  
 Logged by RFA 31MAR08

		0.75m og bn cs pbl H=2 SL=3 M=1 C=1
77	end 24(118.9m)	1.5m mottled dk bn-dk bn blk cs pbl H=3 SL=2 M=2 C=1
78	begin 25	1.5m dk rd og bn - og bn cs pbl H=4 SL=1 M=2 C=3
79	25	1.5m dk bn - yl bn cs ab pbl-cbl H=4 SL=1 M=1 C=1
80	25	1.5m mottled og bn-rd bn cs pbl-cbl H=4 SL=1 M=1 C=1
81	end 25(121.0m)	1.5m mottled og bn-rd bn-blk cs ab pbl H=4 SL=1 M=1 C=2
82	begin 26	1.5m rd og bn - blk - rd og bn H=4 SL=1 M=2 C=2
83	26	1.5m dk bn cs pbl H=4 SL=1 M=2 C=2
84	1.25m 26(127.1m) begin 27	1.5m mottled dk bn-gy cs pbl H=4 SL=2 M=1 C=2
85	0.47m 27(133.2m) begin 28	1.5m dk bn cs ab pbl H=4 SL=2 M=2 C=2
86	28	1.5m SAA
87	28	1.5m SAA
88	0.61m 28(134.7m) 0.66m 29(136.2m) begin 30	1.5m SAA
89	0.72m 30(136.8m) no recovery core run#31 begin 32	0.72m bn cs pbl H=4 SL=1 M=1 C=2 0.78m og bn cs pbl H=4 SL=1 M=1 C=3
90	end 32(140.8m)	1.5m bn cs pbl H=4 SL=2 M=2 C=3
91	0.77m 33(141.4m) TD	0.77m carbonatite

Box #	Core Run #	Brief Geologic Description	Comments
1	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
	Start @ 32.3 m		
2	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
3	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
4	0.35 m 1 (35.4 m)	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
	begin 2		
5	1.15 m 2 (37.5 m)	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
	begin 3		
6	2	glacial till, bn & gy, transition to Cret. Silt H=2 SL=3 M=1 C=2	Overburden
7	2	glacial till, bn & gy, transition to Cret. Silt H=2 SL=3 M=1 C=2	Overburden
8	1.5 m 2 (41.6M)	glacial till, bn & gy, transition to Cret. Silt H=2 SL=3 M=1 C=2	Overburden
9	Begin 3	silt, var. sdy, v. dk bn, w/ lt bn, yel and blk mottl. H=1 SL=3 M=1 C=1	Overburden
10	3	silt, var. sdy, v. dk bn, w/ lt bn, yel and blk mottl. H=1 SL=3 M=1 C=1	Overburden
11	3	silt, var. sdy, v. dk bn, w/ lt bn, yel and blk mottl. H=1 SL=3 M=1 C=1	Overburden
12	3	silt, var. sdy, v. dk bn, w/ lt bn, yel and blk mottl. H=1 SL=3 M=1 C=1	Overburden
13	3	sd, bn w/ or mottled silt loosely binding grains H=1 SL=2 M=1 C=1	Residuum 2A - tr - moderate apatite inc w/ depth
14	3	sand, vfg, w/ silty clay binder - dk bn w/ wht yel mottling H=2 & 5 SL=1 M=1 C=2	Residuum 2A/2B abundant pbl sized cemented frags - increased cementation w/ depth
15	0.86 m 3 (50.6 m)	as above w/ red brn mottling; 50.6 m color change to dk bn H=3-5 SL=1 M=1 C=2	Residuum 2B abundant pbl & cbl sized cemented frags
	begin 4		
16	4	as above, dk bn w/ no mottling H=3&5 SL=1 M=1 C=2	Residuum 2B abundant pbl & cbl sized cemented frags w/ up to 0.1 m cem cbl
17	4	as above, dk bn w/ no mottling H=3-5 SL=1 M=1 C=2	Residuum 2B abundant pbl & cbl sized cemented frags w/ up to 0.1 m cem cbl
18	4	as above H=3-5 SL=1 M=1 C=2	Residuum 2B as above
19	4	as above H=3-5 SL=1 M=1 C=2	Residuum 2B as above
20	4	as above H=2-5 SL=1 M=1 C=2	Residuum 2B, as above < cbl
21	4	as above H=2-5 SL=1 M=1 C=2	Residuum 2B, as above < cbl
22	1.2 m 4 (59.7 m)	as above, bn to yel bn H=2-5 SL=1 M=1 C=2	Residuum 2B
	begin 5		
23	5	as above, bn to yel bn w/ white blebs H= 2-5 SL=1 M=1 C=2	Residuum 2B
24	5	as above, bn to yel bn w/ white blebs H= 2-5 SL=1 M=1 C=2	Residuum 2B
25	5	as above, bn to yel bn w/ white blebs H= 2-5 SL=1 M=1 C=2	Residuum 2B
26	5	as above, bn to yel bn w/ white blebs H= 2-5 SL=1 M=1 C=2	Residuum 2B
27	5	Sand, loose to poorly indurated, change to red lateritic clay at 67.1m H=3 SL=2-3 M=1 C=2	Residuum 2A/2B, less cementation
28	1.1 m 5 (68.9 m)	Lateritic clay, red, firm, blocky, dry, sandy H=1-3 SL=1-3 M=1 C=1-2	Residuum 2A
	begin 6		
29	6	Lateritic clay, red, firm, blocky, dry, sandy H=3 SL=3 M=1 C=2	Residuum 2A
30	6	Lateritic clay, red, firm, blocky, dry, sandy H=3 SL=3 M=1 C=2	Residuum 2A
31	6	Lateritic clay, red, firm, blocky, dry, sandy H=3 SL=3 M=1 C=2	Residuum 2A
32	0.16 m 6 (75.0 m)	Lateritic clay, red bm, plastic, sticky, sandy H=1 SL=3 M=2 C=2	Residuum 2A
	begin 7		
33	7	Lateritic clay, red bm, plastic, sticky, sandy H=1 SL=3 M=2 C=2	Residuum 2A
34	7	Lateritic clay, red, firm, blocky, dry, sandy H=3 SL=3 M=1 C=2	Residuum 2A
35	7	Lateritic clay, red, firm, blocky, dry, sandy H=3 SL=3 M=1 C=2	Residuum 2A
36	0.62 m 7 (81.1 m)	Lateritic clay, red, firm, blocky, dry, sandy H=3 SL=3 M=1 C=2	Residuum 2A
	begin 8		
37	8	Lateritic clay, red, firm, blocky, dry, sandy H=3 SL=3 M=1 C=2	Residuum 2A
38	8	Lateritic clay, red, firm, blocky, dry w/ plastic sticky lens, sandy H=3 SL=3 M=1 C=2	Residuum 2A
	begin 9		
39	8	Lateritic clay, red, firm, blocky, dry w/ plastic sticky lens, sandy H=3 SL=3 M=1 C=2	Residuum 2A
40	1.18 m 8 (87.2 m)	Lateritic clay, red, firm, blocky, dry, sandy H=3 SL=3 M=1 C=2	Residuum 2A
	begin 9		
41	9	Lateritic clay, dk red bn, firm, plastic, sandy	Residuum 2A

		H=3 SL=3 M=1 C=2	
42	9	clay, dk bn w/ red & yel mottling, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A, trace of 2b cbl sized frag
43	9	clay, dk bn, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A
44	9	clay, dk bn - bn, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A
45	1.22 m 9 (93.3 m) begin 10	clay, dk bn - bn, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A; v. micaceous lens @ 92.1-92.7 m
46	10	clay, dk bn, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A
47	10	clay, dk bn - dk red bn, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A
48	10	clay, dk bn - dk red bn, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A
49	10	clay, dk bn, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A
50	1.01 m 10 (99.4 m) begin 11	clay, dk bn - dk red bn, firm, plastic, sandy H=3 SL=3 M=1 C=2	Residuum 2A
51	11	clay, bn, sandy, soft, sticky, v. moist H=1 SL=3 M=1 C=2	Residuum 2A
52	11	sand, vf-fig, w/ bn silt, poor to moderate cementation, H=2&5 SL=1-2 M=1 C=2	Residuum 2B, abundant cem pbl and cbl frags
53	11	sand, vf-fig, w/ bn silt H=2&5 SL=1- M=1 C=2	Residuum 2B, abundant cem pbl and cbl frags
54	0.53 m 11 (105.5 m) begin 12	sand, vf-fig, w/ bn silt H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl and cbl frags
55	12	as above w/ dk bn & blk mottling H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl and cbl frags
56	12	as above dk bn w/ lt bn & blk mottling H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl no cbl
57	1.08 m 12 (111.6 m) begin 13	as above, bn H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl no cbl
58	13	as above, bn H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl no cbl
59	13	as above, bn H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl no cbl
60	13	as above, bn H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl no cbl TD 117.6 m

Phoscan  
 Winter 2008 Drilling Program  
 Logged by RFA 01APR08

HOLE: 8338D			
Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @ 32.3m	1.5m gy cs pbl-cbl H=3 SL=3 M=1 C=2	Glacial Till
2	1	1.5m SAA	
3	0.88m 1(35.4m) begin 2	1.5m SAA	
4	2	1.5m SAA	
5	2	1.24m SAA 0.26m mottled dk bn-rd bn cs H=2 SL=2 M=1 C=2	
6	1.1m 2(38.4m) begin 3	1.5m dk bn cs pbl H=2 SL=2 M=1 C=2	
7	3	1.5m mottled rd bn-dk rd bn-blk cs pbl H=2 SL=2 M=1 C=2	
8	3	1.5m SAA	ca encrustations
9	3	1.5m mottled dk bn-rd bn cs pbl H=2 SL=2 M=1 C=2	ca encrustations
10	3	0.78m SAA 0.72m mottled og bn-rd bn-dk bn-blk cs pbl H=2 SL=2 M=1 C=2	Reworked Residual ca encrustations
11	0.43m 3(47.5m) begin 4	0.43m SAA 1.07m bn cs ab pbl	
12	4	1.3m SAA	
13	4	1.5m SAA	
14	4	1.5m SAA	
15	4	1.5m mottled dk bn-blk SAA	ca encrustations
16	4	1.5m mottled og bn-dk gy SAA	
17	1.24m 4(56.7m)	1.5m og bn SAA	

Phoscan  
 Winter 2008 Drilling Program  
 Logged by RFA 01APR08

	begin 5	
18	5	1.5m SAA
19	5	1.5m mottled dk bn-og bn SAA
20	5	1.42m SAA
21	5	1.5m og bn cs ab plb H=2 SL=2 M=1 C=2
22	5	1.5m SAA
23	0.52m 5(65.8m)	1.5m SAA
	begin 6	
24	6	1.5m og bn - yl bn SAA
25	6	1.5m mottled dk bn-dk og bn SAA
26	6	1.5m mottled dk bn-dk og bn-rd bn SAA
27	6	1.5m dk bn - og bn cs ab plb H=4 SL=1 M=2 C=3
28	6	1.5m mottled og bn-gn bn SAA
29	0.62m 6(75.0m)	0.62m og bn SAA
	begin 7	0.88m rd bn cs H=2 SL=3 M=1 C=2
30	7	1.5m rd bn cs H=2 SL=3 M=1 C=2
31	0.59m 7(78.0m)	1.5m SAA
	begin 8	
32	8	1.5m mottled rd bn-og bn SAA
33	8	1.5m mottled og bn-dk bn cs H=1 SL=1 M=1 C=1
34	8	1.5m SAA
35	8	1.5m mottled rd bn-og bn-dk bn cs plb

Phoscan  
 Winter 2008 Drilling Program  
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		H=1 SL=1 M=1 C=1	
36	8	1.5m SAA	
37	1.34m 8(87.2m)	0.78m mottled dk bn-dk rd cs H=2 SL=2 M=2 C=2 0.56m dk rd sc H=2 SL=2 M=3 C=2	
38	begin 9	1.5m mottled dk bn-rd bn-og bn cs H=2 SL=3 M=2 C=2	micaceous
39	9	1.5m bn cs H=2 SL=3 M=1 C=2	micaceous
40	9	1.38m bn - rd bn cs H=2 SL=3 M=1 C=2	
41	9	1.5m mottled bn-rd bn cs H=2 SL=3 M=1 C=2	
42	0.32m 9(93.3m) begin 10	0.32m SAA 1.18m og bn cs ab pbl H=4 SL=1 M=2 C=2	
43	10	1.5m og bn cs ab pbl H=4 SL=1 M=2 C=2	
<b>no box 44</b>			
45	10	1.5m mottled og bn-dk bn-blk SAA	
46	10	1.5m SAA	
47	10	1.5m SAA	
48	0.38m 10(102.4m) begin 11	1.5m SAA	
49	11	1.5m SAA	
50	11	1.5m mottled dk bn blk-og bn cs pbl H=4 SL=1 M=2 C=2	
51	11	1.5m og bn SAA	

Phoscan  
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52	0.6m 11(111.6m) begin 12	1.5m dk bn - og bn SAA
53	12	1.5m mottled og bn-dk bn cs pbl-cbl H=4 SL=1 M=2 C=2
54	12	1.5m dk bn cs pbl-cbl H=4 SL=2 M=1 C=2
55	end 12(117.7m) TD	1.5m SAA

Box #	Core Run #	Brief Geologic Description	Comments
1	1 Start @32.3m	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
2	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
3	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
4	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
5	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
6	1	glacial till, bn & gy, transition to Cret. Silt H=2 SL=3 M=1 C=2	Overburden
7	0.4 m 1 (41.6 m) begin 2	as above transitions to cretaceous silty clay v. dk bn plastic H=2 SL=2-3 M=1 C=2	Overburden
8	2	silty clay, bn w/yel stringers H=2 SL=3 M=1 C=2	Overburden
9	2	silty clay, bn w/ yel stringers, v. low moisture H=1 SL=3 M=1 C=2	Overburden
10	2	silty clay, bn w/ yel stringers, v. low moisture H=1 SL=3 M=1 C=2	Overburden
11	2	clay, var. sdy, v. dk bn, w/ lt bn, yel and blk mottl. H=1-2 SL=2-3 M=1 C=1	Overburden, transition from cretaceous to 3X
12	2	sandy clay, dk bn w/ red and yel mottling, transition w/ depth to clayey sd H=1-2 SL=2-3 M=1 C=1-2	Residuum 2A, tr. pbl sized cemented frag. throughout
13	2	clayey sd, dk red bn H=1-2 SL=2-3 M=1 C=1-2	Residuum 2A
14	1.4 m 2 (50.6 m) Begin 3	clayey sd as above color transitions from dk red bn to dk yel bn H=2 SL=1-2 M=1 C=1-2	Residuum 2A, tr. pbl sized cemented frag.
15	3	as above w/ dec in clay content w/ depth H=2 & 5 SL=1 M=1 C=2	Residuum 2A, tr. pbl sized cemented frag.
16	3	sand, silty w/ yel clay blebs and blk mottling H=1 SL=1-2 M=1 C=1	Residuum 2A, tr. pbl sized cemented frag.
17	3	sd, w/ bn silt, v. lt bn & black mottling H=1 SL=1-2 M=1 C=1	Residuum 2A
18	3	as above H=1 SL=1-2 M=1 C=1	Residuum 2A
19	3	as above H=1 SL=1-2 M=1 C=1	Residuum 2A
20	1.3 m 3 (59.7 m)	silty sand as above w/ inc cementation H=1-3 SL=1 M=1 C=1	Residuum 2A/2B, abundant cem frags
21	begin 4	clay, dk rd, firm, blocky, v. low moisture H=2-3 SL=3 M=1 C=2	Residuum 2A
22	4	clay as above, inc. moist and dec. clay w/ depth H=1-3 SL=2-3 M=1 C=2	Residuum 2A
23	4	clay as above, top 0.2 m transition to sd w/ brn silt H= 2-5 SL=1-2 M=1 C=2	Residuum 2A/2B, inc. cemented fragments
24	4	sd, vfg, bn - yel bn silt mtx, rich apatite H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
25	4	sd, vfg, bn - yel bn silt mtx, rich apatite H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
26	4	sd, vfg, bn - yel bn silt mtx, rich apatite H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
27	0.1 m 4 (68.9 m) Begin 5	sd, vfg, bn - yel bn silt mtx w/ black mottling H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
28	5	silty sd as above w/ red clay blebs H= 2-5 SL=1 M=1 C=2	Residuum 2A, cemented pbl and cbl sized fragments
29	5	sd, vfg, bn - yel bn silt mtx w/ black mottling HOLE 8338E	Residuum 2B, v. abundant cem fragments



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		H= 2-5 SL=1 M=1 C=2	
30	5	sd, vfg, bn - yel bn silty mtb H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
31	5	sd, vfg, red bn - yel bn silt mtb H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
32	5	sd, vfg, red bn - yel bn silt mtb H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
33	0.1 m 5 (78.0 m) begin 6	sd, vfg, red bn - yel bn silt mtb H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
34	6	sd, vfg, red bn - yel bn silt mtb H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
35	6	sd, vfg, red bn - yel bn silt mtb H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
36	6	sd, vfg, dk bn - yel bn silt mtb H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
37	6	sd, vfg, dk bn - yel bn silt mtb H= 2-5 SL=1 M=1 C=2	Residuum 2B, v. abundant cem fragments
38	1.1 m 6 (87.2 m) begin 7	silty sd as above and clay, dk bn, firm, blocky H=2&5 SL=1&3 M=1 C=2	Residuum 2A/2B, < apatite
39	7	clay as above about 0.2 m then sd, dk yel bn mtb H=2&5 SL=1&3 M=1 C=2	Residuum 2B > 2A, abundant apatite & cem pbl frags
40	7	sd, dk yel bn mtb H=2&5 SL=1&3 M=1 C=2	Residuum 2B
41	7	clay, lt bn transition to dk red, firm, blocky w/ mica H=2 SL=3 M=1 C=2	Residuum 2A
42	7	clay, dk red, firm, blocky w/ mica H=2 SL=3 M=1 C=2	Residuum 2A
43	7	clay, dk red, firm, blocky w/ mica H=2 SL=3 M=1 C=2	Residuum 2A
44	1.2 m 7 (96.3 m) begin B	clay, dk red, firm, blocky w/ mica H=2 SL=3 M=1 C=2	Residuum 2A
45	B	sd, vf-fg, bn silt mtb H=2-5 SL=1 M=1 C=2	Residuum 2B, abundant pbl and cbl sized cemented frags apatite apparent in hand sample
46	1.35 m B (99.4 m) begin 9	sd clay, dk bn - yel bn H=2 SL=2-3 M=1 C=2	Residuum 2A
47	9	sd, vf-fg, bn silt mtb and sd clay, dk bn - yel bn H=3 SL=3 M=1 C=2	Residuum 2A/2B
48	9	sd, vf-fg, abundant apatite H=2&4 SL=1 M=1 C=2	Residuum 2B, some cemented peb frags
49	9	sd, vf-fg, abundant apatite H=2&4 SL=1 M=1 C=2	Residuum 2B, abundant pbl and cbl cemented frags w/ cem rock core 5 cm long
50	9	sd, vf-fg, abundant apatite, tr. Mica H=2&4 SL=1 M=1 C=2	Residuum 2B
51	9	sd, vf-fg, abundant apatite, tr. Mica H=2&4 SL=1 M=1 C=2	Residuum 2B
52	9	sand, vf-fg, w/ lt. bn silt, v. low moisture H=2&4 SL=2 M=1 C=2	Residuum 2A/2B, mod cem pbl frags
53	1.5 m 9 (108.5 m)	sand, vf-fg, w/ lt. bn silt, v. low moisture H=2&4 SL=2 M=1 C=2	Residuum 2A/2B, mod cem pbl frags
54	Begin 10	sand, vf-fg, w/ lt. bn silt, v. low moisture grades to sd clay H=1-2 SL=1-3 M=1 C=1-2	Residuum 2A
55	10	clay, dk.bn, v. sd, plastic w/ interlayered cemented core up to 10 cm long H=1&S SL=1, 3 M=1 C=1, 2	Residuum 2A/2B
56	10	sd, vf-fg, abundant apatite H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl
57	10	sd, vf-fg, abundant apatite H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl
58	10	sd, vf-fg, abundant apatite H=2&5 SL=1 M=1 C=2	Residuum 2B, abundant cem pbl
59	10	sd, vf-fg, abundant apatite	Residuum 2B, abundant cem pbl

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		H=2&5 SL=1 M=1 C=2	
60	1.5 m 10 (117.6 m)	sd, vf-fg, abundant apatite	Residuum 2B/1, abundant cem pbl w/ core of weathered carbonatite at 117.4 m
		H=2&5 SL=1 M=1 C=2	
61	begin 11	sd, vf-fg, abundant apatite	Residuum 2B/1, abundant cem pbl w/ core of weathered carbonatite at 117.4 m
62	11	sd, vf-fg, abundant apatite	Residuum 2B/1, abundant cem pbl and weathered carbonatite <b>TD 120.4 m</b>

## HOLE: 8349B

Box #	Core Run #	Brief Geologic Description	Comments	
1	1	1.5m gy cs pbl H=3 SL=3 M=2 C=2	Glacial Till	
2	1	1.5m SAA		
3	1	1.5m SAA		
4	0.92m 1(44.5m) begin 2	0.92m SAA 0.58m mottled bn-dk gy cs pbl H=3 SL=2 M=2 C=2	Reworked Sediments tr ap sa	
5	2	1.5m bn cs pbl H=3 SL=2 M=2 C=2	mod ap sa	2B
6	2	1.5m SAA		2B
7	2	1.5m mottled dk bn-dk gn cs pbl H=3 SL=2 M=2 C=2	mn ap sa	2B
8	2	0.4m SAA 1.1m mottled dk bn-gn cs H=2 SL=2 M=2 C=2	micaceous	2B 2A
9	2	0.35m mottled dk bn-gn cs H=2 SL=2 M=2 C=2 1.15m dk bn - dk gn cs pbl-cbl H=2&4 SL=2 M=2 C=2		2A 2B
10	2	1.5m dk bn - dk gn cs pbl-cbl H=2&4 SL=2 M=2 C=2		2B
11	0.59m 2(53.6m) begin 3	1.5m SAA		2B
12	3	0.85m SAA 0.65m mottled dk bn-gn cs H=2 SL=2 M=2 C=2	micaceous	2B
13	3	1.5m dk bn - dk og bn cs pbl-cbl H=4 SL=1 M=2 C=3		2B
14	3	1.5m mottled dk bn-dk gn cs pbl-cbl H=2&4 SL=2 M=2 C=2		2B
15	3	1.5m mottled bn-og bn cs pbl H=2&4 SL=1 M=2 C=2		2B
16	end 3(62.8m)	1.5m mottled dk bn-og bn cs H=2 SL=2 M=1 C=2	micaceous	2A
17	begin 4	1.5m mottled dk bn-og bn cs H=2 SL=2 M=2 C=2	micaceous	2A

18	4	1.5m mottled dk bn-dk og bn cs pbl H=2 SL=3 M=1 C=2	micaceous	2A
19	4	0.78m SAA 0.72m mottled dk bn-dk og bn cs pbl H=3 SL=2 M=2 C=2		2A 2B
20	4	1.5m mottled dk bn-dk bn blk-dk og bn cs pbl H=3 SL=2 M=2 C=2		2B
21	4	1.5m yl og bn cs pbl H=4 SL=1 M=2 C=2		2B
22	end 4(71.9m)	1.5m SAA		2B
23	begin 5	0.66m mottled dk bn-gn cs pbl H=2 SL=2 M=2 C=2 0.84m mottled dk bn-gn cs H=2 SL=2 M=1 C=2	micaceous	2B 2A
24	5	1.5m mottled dk bn-og bn cs H=2 SL=2 M=1 C=2		2A
25	5	1.5m mottled dk bn-dk og bn cs H=2 SL=2 M=1 C=2	micaceous	2A
26	5	1.5m SAA	tr ap	IB
27	5	1.5m SAA	tr ap	IB
28	0.58m 5(81.1m) begin 6	1.5m SAA	mn ap	IB
29	6	1.5m SAA	mn ap	IB
30	6	1.5m SAA	mn ap	IB
31	6	1.5m SAA	mn-mod ap	IB
32	6	1.5m mottled dk bn-dk og bn cs pbl H=2 SL=2 M=1 C=2	mn-mod ap	IB
33	6	1.5m SAA	mn-mod ap	IB
34	0.29m 6(90.2m) begin 7	1.5m SAA	tr-mn ap	IB
35	7	1.5m SAA	mn-mod ap	IB
36	7	1.5m SAA	mn ap	
37	7	1.5m SAA	mn ap	
38	7	0.5m SAA 1.0m mottled dk og bn-dk bn-blk cs pbl	mn ap	IB 2B

H=3 SL=2 M=1 C=2

39	7	1.0m mottled dk bn-og bn cs H=2 SL=2 M=1 C=2		2A
		0.5m mottled og bn-bn cs pbl H=2&4 SL=1 M=1 C=2		2B
40	7	1.5m mottled bn-og bn cs pbl-cbl H=2&4 SL=1 M=1 C=2		2B
41	0.41m 7(99.4m) begin 8	1.5m og bn cs mn pbl H=1 SL=1 M=2 C=2		2B
42	8	1.5m og bn cs ab pbl H=4 SL=1 M=1 C=2		2B
43	8	1.5m SAA		2B
44	8	1.5m mottled og bn-bn cs ab pbl-cbl H=4 SL=1 M=1 C=2		2B
45	8	1.5m bn cs ab pbl-cbl H=4 SL=1 M=1 C=2		2B
46	8	1.5m SAA		2B
47	8	1.5m bn-blk cs ab pbl-cbl H=4 SL=1 M=1 C=2		2B
48	0.26m 8(108.5m) begin 9	1.5m dk bn - blk cs pbl-cbl H=4 SL=1 M=1 C=2		2B
49	9	1.5m SAA		2B
50	9	1.5m mottled dk bn-og bn cs pbl H=3 SL=2 M=2 C=2		2B
51	9	1.5m mottled og bn-bn cs H=2 SL=2 M=1 C=2		2A
52	9	1.5m SAA		2A
53	0.61m 9(114.6m) begin 10	1.5m mottled og bn-bn cs H=1 SL=1 M=2 C=2		
54	10	1.02m SAA		2A
		0.48m mottled og bn-bn cs pbl H=3 SL=1 M=1 C=2		2B
55	10	0.6m mottled og bn-bn cs pbl H=3 SL=1 M=1 C=2	micaceous	2B
		0.9m og bn cs mn pbl H=2 SL=1 M=1 C=1	micaceous	2A
56	10	1.5m og bn cs mn pbl	micaceous	2A

H=2 SL=1 M=1 C=1

57	10	1.5m mottled og bn-dk bn-blk cs H=2 SL=2 M=1 C=2	micaceous	2A
58	0.36m 10(102.7m) begin 11	1.5m SAA	micaceous	2A
59	11	1.5m mottled dk og bn-dk bn-blk cs H=2 SL=2 M=1 C=2	micaceous	2A
60	11	1.5m mottled og bn-bn cs H=2 SL=2 M=1 C=2	micaceous	2A
61	11	1.5m mottled og bn-bn cs H=3 SL=2 M=1 C=2		2A/B
62	11	1.5m SAA		2A/B
63	0.82m 11(126.8m) begin 12	0.82m mottled og bn-rd bn-bn cs mn pbl H=1 SL=2 M=1 C=2	micaceous	2A/B
64	12	1.5m mottled og bn-bn cs H=2 SL=2 M=1 C=2	micaceous	2A
65	12	1.5m mottled og bn-rd bn-bn cs pbl H=3 SL=2 M=1 C=2		2B
66	12	1.5m mottled og bn-bn cs pbl H=3&4 SL=1 M=1 C=2		2B
67	1.36m 12(132.9m) begin 13	1.36m SAA		2B
68	13	1.5m mottled og bn-bn-rd bn cs ab pbl H=3&4 SL=2 M=2 C=2		2B
69	13	1.5m mottled bn-og bn cs H=2 SL=2 M=2 C=2	micaceous	2A
70	13	1.5m SAA		2A
71	1.09m 13(139.0m) begin 14	1.5m mottled bn-og bn cs pbl H=2 SL=2 M=2 C=2		2A
72	14	1.5m SAA		2A
73	14	1.5m SAA		2A
74	14	1.5m SAA		2A
75	1.34m 14(145.1m)	1.34m mottled og bn-bn cs ab pbl-cbl H=4 SL=1 M=1 C=2		2B
76	begin 15	1.3m lt bn cs ab pbl-cbl H=2&4 SL=2 M=2 C=2		2B

77	15	1.3m SAA		2B
78	15	1.5m SAA		2B
79	15	1.5m bn - lt bn SAA		2B
80	0.93m 15(151.2m) begin 16	0.93m SAA 0.57m mottled og bn-dk bn cs pbl H=2&4 SL=2 M=2 C=2		2B
81	16	1.5m SAA	cored carbonatite @ end of box	2B
82	0.77m 16(154.2m) TD	0.77m carbonatite		1D

Box #	Core Run #	Brief Geologic Description	Comments
1	1 Start @38.7m	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
2	1.5 m 1 (40.5 m)	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
3	begin 2	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
4	2	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
5	0.5 m 2 (44.8m) 3 begin 4	44-3-344.8 glacial till 44.8-47.9 not recovered 47.9 - 48.9 sand, loose to moderate cementation, abundant pbl sized frags, w/ some bn plastic clay, apatite apparent in hand sample H=2-5 SL=1-4 M=1 C=2	till/2A/2B
6	4	sand, poor to moderate cementation w/ bn clay probably interlayered w/ crmt sand but mixed by sonic drlg, clay is plastic, moderate apatite content H=2&5 SL=1&4 M=1 C=2	Residuum 2B
7	4	as above, < clay H=2&5 SL=1 M=1 C=2	Residuum 2B
8	4	as above, < clay H=2&5 SL=1 M=1 C=2	Residuum 2B
9	0.7 m 4 (53.9 m)  begin 5	sand, poor to moderate cementation w/ yel bn clay probably interlayered w/ cemented sand but mixed by sonic drlg, clay is plastic, moderate apatite content  H=2&5 SL=1&4 M=1 C=2	Residuum 2B
10	5	as above, bn yel H=2&5 SL=1&4 M=1 C=2	Residuum 2B
11	5	as above H=2&5 SL=1&4 M=1 C=2	Residuum 2B
12	5	as above H=2&5 SL=1&4 M=1 C=2	Residuum 2B
13	5	as above w/ cem cbl frags w/ botryoidal crandallite coating and lining healed fractures H=2&5 SL=1&4 M=1 C=2	Residuum 2B
14	5	silt & clay, bn, low sand content, clay is plastic, phosphate lean in stringers H=2 SL=2-3 M=1 C=2	Residuum 2A
15	1.1 m 5 (63.1 m)  begin 6	clay, bn, soft, plastic, sticky, w/ silty non-plastic layer, 0.3 m layer of cem sd frags mid-box H=1&4 SL=2-3 M=1 C=1-2	Residuum 2A + 2B (0.3 m)
16	6	clay, bn , plastic, lean apatite H=1 SL=3-4 M=1 C=1	Residuum 2A
17	6	abundant pbl and cbl frags cem apatite w/ white crandallite coating and fracture healing, w/ bn plastic clay seams H=2 & 5 SL=1-2 M=1 C=1-2	Residuum 2B
18	1.5 m 6 (50.3 m)	as above H=2 & 5 SL=1-2 M=1 C=1-2	Residuum 2B
19	begin 7	as above, competent core and frags up to 10 cm length H=2 & 5 SL=1-2 M=1 C=1-2	Residuum 2B
20	7	as above, w/ 20 cm 2A clayey sd H=2 & 5 SL=2-3 M=1 C=1-2	Residuum 2B
21	4	as above, w/ 20 cm 2A clayey sd H=2 & 5 SL=2-3 M=1 C=1-2	Residuum 2B
22	7	70.0 - 70.3 m as above 70.3 - 70.7 silt, bn w/ yel mottling, sandy H=1&5 SL=2-3 M=1 C=1-2	Residuum 2A/2B moderate apatite
23	7	silt, lt bn, micaceous, lean apatite	Residuum 2A



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		H= 2-5 SL=3-4 M=1 C=1	
24	0.7 m 7 (72.2 m) begin 8	silt, bn, slayey, soft H= 2-5 SL=3-4 M=1 C=1-2	Residuum 2A lean apatite in stringers and blebs
25	8	apatite sand, vfg, loose w/ bn silt loosely binding xls H= 1 SL=1 M=1 C=1	Residuum 2A
26	8	clay, bn w/ yel mottling, silty, blocky, w/ sandy blebs w/ apatite xls (lean) H= 2-3 SL=2-3 M=1 C=2	Residuum 2A
27	8	77.0-78.2 apatite sd, vfg, w/bn silt loose binder H= 1 SL=1 M=1 C=1 78.2-79.0 apatite sand poor - moderate cementation w/ several well cmdtd cbl sized frags H= 1 SL=2&5 M=1 C=1	Residuum 2A Residuum 2B
28	8	79.0-79.1 2B con't from box 27 79.1-80.9 silt, bn, sandy, moderate apatite w/ several pbl sized frags of well cmdtd apatite at bottom of box (80.9 - 81.0 m) H=2&5 SL=2 M=1 C=2	Residuum 2A w/ 0.2 m 2B
29	0.4 m 8 (81.4 m) begin 9	apatite sand, vfg, w/ bn sticky silt binding grains H=1 SL=1-2 M=1 C=1-2	Residuum 2A
30	9	82.4 - 83.2 apatite sd as above H=1 SL=1-2 M=1 C=1-2 83.2-83.8 silt, bn w/ lt bn & yel mottling, mica, lean apatite H=1 SL=3 M=1 C=1	Residuum 2A
31	9	silt as above w/ plastic clay lens, lean apatite H=1 SL=3 M=1 C=1	Residuum 2A
32	9	silt as above H=1 SL=3 M=1 C=1	Residuum 2A
33	9	silt, bn, sandy, lean apatite in stringers and blebs H=1 SL=3 M=1 C=1	Residuum 2A
34	9	as above, dk bn H=1 SL=3 M=1 C=1	Residuum 2A frags w/ apatite xls and botryoidal encrustations (crandallite)
35	1.1 m 9 (90.5 m) begin 10	as above, dk bn H=1 SL=3 M=1 C=1	Residuum 2A
36	10	clay, bn, plastic, v low sd & silt content H=2 SL=5 M=1 C=2	interburden - apatite not apparent similar to 8349 A boxes 89 & 94
37	10	clay, bn, plastic, v low sd & silt content H=2 SL=5 M=1 C=2	interburden - apatite not apparent similar to 8349 A boxes 89 & 94
38	10	clay, bn, plastic, v low sd & silt content H=2 SL=5 M=1 C=2	interburden - apatite not apparent similar to 8349 A boxes 89 & 94
39	10	clay, bn, plastic, v low sd & silt content H=2 SL=5 M=1 C=2	interburden - apatite not apparent similar to 8349 A boxes 89 & 94
40	10	clay, bn, plastic, v low sd & silt content H=2 SL=5 M=1 C=2	interburden - apatite not apparent similar to 8349 A boxes 89 & 94
41	10	Silt, lt bn, micaceous H=1 SL=4 M=1 C=1	interburden - apatite not apparent similar to 8349 A box 91
42	0.67 m 10 (99.7 m) begin 11	99.0-99.7 silt as above H=1 SL=4 M=1 C=1 99.7-100.6 apatite sand, poorly to well cmdtd H=2&5 SL=1 M=1 C=1	interburden residuum 2B, abundant cmdtd frags
43	11	clay, bn, plastic, sl sdy, w/ tr apatite, abundant mica H=2 SL=4-5 M=1 C=2	interburden
44	11	clay, bn, plastic, sl sdy, w/ tr apatite, abundant mica H=2 SL=4-5 M=1 C=2	interburden
45	11	clay, bn, plastic, sl sdy, w/ tr apatite, abundant mica H=2 SL=4-5 M=1 C=2	interburden
46	11	clay, bn, plastic, sl sdy, w/ tr apatite, abundant mica H=2 SL=4-5 M=1 C=2	interburden
47	1.5 m 11 (108.8 m)	clay, bn, plastic, sl sdy, w/ tr apatite, abundant mica H=2 SL=4-5 M=1 C=2	interburden
48	begin 12	clay, bn w/ or & blk mottling, silty, sandy, w/ lean vfg apatite H=2 SL=3-4 M=1 C=2	Residuum 2A

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49	12	clay, bn w/ or & blk mottling, silty, sandy, w/ lean vfg apatite H=2 SL=3-4 M=1 C=2	Residuum 2A
50	1.5 m 12 (112.8 m)	clay, or yel, silty, sandy, w/ lean vfg apatite H=2 SL=3-4 M=1 C=2	Residuum 2A - limonitic
51	begin 13	clay, bn w/ or & blk mottling, silty, sandy, w/ lean vfg apatite H=2-4 SL=2-3 M=1 C=2	Residuum 2A/2B inc apatite and inc cmtd frags w/ depth
52	13	sandy silt to silty sand, or bn, moderate apatite H=2 SL=2-3 M=1 C=2	Residuum 2A
53	0.76 m 13 (114.9 m)	cmtd frags ranging from pbl to cbl, rich apatite, low clay content probably result of interbeds H=2&5 SL=1-2 M=1 C=1-2	Residuum 2B
	begin 14		
54	14	as above H=2&5 SL=1-2 M=1 C=1-2	Residuum 2B
55	14	as above H=2&5 SL=1-2 M=1 C=1-2	Residuum 2B
56	14	as above H=2&5 SL=1-2 M=1 C=1-2	Residuum 2B
57	14	as above H=2&5 SL=1-2 M=1 C=1-2	Residuum 2B
58	0.47 14 (121.0 m)	2B as above w/ clay layer from 120.7 to 120.9 - clay has lt gn and dk red mottling, soft, plastic and sticky H=2&5 SL=1&4 M=1 C=1-2	Residuum 2B + 2A (0.2 m)
	begin 15		
59	15	cmtd frags ranging from pbl to cbl, low clay content H=3,5 SL=1 M=1 C=1	Residuum 2B
60	15	as above H=3,5 SL=1 M=1 C=1	Residuum 2B
61	15	as above, gy bn H=3,5 SL=1 M=1 C=1	Residuum 2B
62	15	as above, bn H=3,5 SL=1 M=1 C=1	Residuum 2B
63	0.3 m 15 (127.1 m)	as above, dk bn H=3,5 SL=1 M=1 C=1	Residuum 2B
	begin 16		
64	16	as above, dk bn H=3,5 SL=1 M=1 C=1	Residuum 2B
65	16	as above, dk bn to bn H=3,5 SL=1 M=1 C=1	Residuum 2B
66	16	as above, gy bn H=3,5 SL=1 M=1 C=1	Residuum 2B
67	0.98 m 16 (133.2 m)	as above, gy bn - gy H=3,5 SL=1 M=1 C=1	Residuum 2B
	begin 17		
68	17	as above, gy bn - gy H=3,5 SL=1 M=1 C=1	Residuum 2B
69	17	as above, gy H=3,5 SL=1 M=1 C=1	Residuum 2B
70	17	as above, gy H=3,5 SL=1 M=1 C=1	Residuum 2B
71	1.5 m 17 (139.3 m)	as above, gy H=3,5 SL=1 M=1 C=1	Residuum 2B
72	begin 18	as above, ft bn H=3,5 SL=1 M=1 C=1	Residuum 2B
73	18	as above, lt bn H=3,5 SL=1 M=1 C=1	Residuum 2B
74	18	as above, lt bn grades to v. dk bn, interlayered w/ silty 2B H=3,5 SL=1 M=1 C=1	Residuum 2A/2B
75	18	carbonatite, mostly pulverized by sonic drig	1D
76	0.25m 18 (145.4 m)	carbonatite core	1D
	begin 19		
77	19	carbonatite core	1D TD 149.3 m

Hole 8349C

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## HOLE: 8349D

Box #	Core Run #	Brief Geologic Description	Comments
1	1	1.5m gy cs pbl H=3 SL=3 M=1 C=2	Glacial Till
2	1	1.5m SAA	
3	1	1.5m SAA	
4	1	1.5m SAA	
5	1	1.5m SAA	
6	1	1.5m SAA	
7	1	1.2m dk gy to mottled dk gy-dk bn cs pbl H=3 SL=3 M=1 C=2 0.3m dk bn cs pbl H=1 SL=1 M=1 C=1	Reworked Sediments
8	0.96m 1(44.5m) begin 2	0.96m mottled bn-cr cs pbl H=2 SL=2 M=2 C=2 0.54m og bn cs pbl H=2 SL=2 M=2 C=2	ca encrustations 2B ca encrustations 2B
9	2	1.5m og bn cs pbl H=2 SL=2 M=2 C=2	2B
10	2	1.5m SAA	2B
11	2	1.5m SAA	2B
12	2	1.5m mottled og bn-lt bn-cr cs pbl H=2 SL=2 M=2 C=2	2B
13	0.47m 2(53.6m) begin 3	0.47m mottled dk og bn-bn cs pbl H=2 SL=2 M=2 C=2 1.03m dk bn blk cs pbl H=3 SL=1 M=2 C=2	2B
14	3	1.5m dk bn blk cs pbl H=3 SL=2 M=2 C=2	2B
15	3	1.5m SAA	2B
16	3	1.5m SAA	2B
17	3	1.5m SAA	2B

18	3	1.5m SAA		2B
19	3	0.5m SAA 1.0m mottled dk bn-dk og bn-bn blk cs pbl H=3 SL=2 M=2 C=2		2B
20	0.32m 3(62.8m) begin 4	1.43m mottled dk bn-dk og bn-bn blk cs pbl H=3 SL=2 M=2 C=2		2B
21	4	0.6m SAA 0.9m mottled bn-og bn cs H=2 SL=2 M=1 C=2	micaceous	2B 2A
22	4	1.1m SAA 0.4m dk bn blk cs H=2 SL=1 M=2 C=2		2A
23	4	0.5m dk bn blk cs H=2 SL=1 M=2 C=2 1.0m mottled dk bn blk-dk bn-gn cs pbl H=2 SL=1 M=2 C=2	micaceous	2A 2B
24	4	1.5m mottled dk bn blk-dk bn-gn cs H=2 SL=1 M=2 C=2		2B
25	4	1.5m SAA		2B
26	4	1.5m mottled yl og bn-dk bn-og bn-gn cs pbl H=3 SL=1 M=2 C=2		2B
27	0.45m 4(71.9m) begin 5	1.5m mottled dk bn-gn cs pbl H=3 SL=2 M=2 C=2		2B
28	5	1.5m mottled dk bn-gn cs mn pbl H=3 SL=2 M=2 C=2		2A
29	5	1.5m mottled dk bn-dk og bn-yl og bn cs pbl H=3 SL=2 M=2 C=2		2B
30	5	1.5m SAA		2B
31	5	1.5m mottled dk bn-dk og bn-gn cs pbl H=3 SL=2 M=2 C=2	micaceous	2B
32	5	0.2m SAA 1.3m mottled bn-yl og bn cs pbl H=3 SL=1 M=2 C=2		2B
33	end 5(81.1m)	0.8m mottled og bn-ylog bn-gn cs pbl		2B

		H=3 SL=1 M=2 C=2 0.7m mottled dk og bn-gn cs pbl H=3 SL=1 M=2 C=2		
34	begin 6	1.5m mottled dk bn-gn-og bn cs pbl H=3 SL=1 M=2 C=2		2B
35	6	1.5m mottled dk bn-gn cs pbl H=3 SL=1 M=2 C=2		2B
36	6	1.5m mottled dk bn-gn cs mn pbl H=3 SL=1 M=2 C=2		2A
37	6	1.5m mottled dk bn-gn-og bn cs H=2 SL=2 M=2 C=2		2A
38	6	1.5m mottled dk bn-dk og bn cs H=2 SL=2 M=1 C=2		2A
39	6	1.5m SAA	mn ap	IB
40	6	1.5m SAA	tr ap	IB
41	0.16m 6(90.2m) begin 7	1.5m SAA	tr ap	IB
42	7	1.5m SAA	tr ap	IB
43	1.05m 7(93.3m) begin 8	1.5m SAA	tr ap	IB
44	8	1.5m SAA	tr ap	IB
45	8	1.5m mottled dk bn-dk og bn cs pbl H=2 SL=2 M=1 C=2	mod ap	2A
46	8	1.5m SAA	micaceous mod ap	2A
47	1.21m 8(99.4m)	1.21m SAA	micaceous mod ap	2A
48	begin 9	1.5m SAA		2A
49	9	1.5m SAA		2A
50	9	1.5m mottled dk bn-lt bn cs ab pbl-cbl H=4 SL=1 M=1 C=2		2B

51	9	1.5m og bn cs ab pbl-cbl		2B
52	0.47m 9(105.5m) begin 10	1.5m mottled bn-og bn cs H=2 SL=2 M=2 C=1	micaceous	2A
53	10	1.5m SAA		2A
54	10	1.5m SAA		2A
55	10	1.5m SAA	mn ap	1B
56	0.87m 10(111.6m) begin 11	0.87m mottled dk bn-blk-og bn cs H=2 SL=1 M=1 C=1 0.63m bn cs H=1 SL=2 M=2 C=1		2A
57	11	1.5m bn cs ab pbl-cbl H=4 SL=2 M=1 C=1		2B
58	11	1.5m SAA		2B
59	0.5m 11(117.6m) begin 12	1.5m SAA		2B
60	12	1.5m SAA		2B
61	12	1.5m bn cs ab mn pbl-cbl H=4 SL=2 M=1 C=1		2A/B
62	12	1.5m SAA		2A/B
63	0.98m 12(123.7m) begin 13	0.98m SAA 0.52m mottled dk bn-dk og bn cs pbl H=2 SL=2 M=1 C=2		2A/B
64	13	0.52m mottled dk bn-dk og bn cs pbl H=2 SL=2 M=1 C=2		2A/B
65	13	1.5m SAA	micaceous	2A
66	13	1.5m mottled bn-og bn cs pbl H=2 SL=2 M=1 C=2	micaceous	2A
67	1.29m 13(129.8m) TD	1.29m mottled bn-og bn cs H=2 SL=2 M=1 C=2		DNS

HOLE: 8349E

Box #	Core Run #	Brief Geologic Description	Comments
1	1 Start @38.7m	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
2	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
3	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
4	0.85 m 1 (41.8 m)	41.5 - 41.8 m - glacial till H=3 SL=3 M=1 C=2 41.8-42.4 - cmted residuum w/ yel bn clay probably interlayered w/ cmted rock but mixed by sonic drlg, clay is plastic, moderate apatite content H=2 & 5 SL=1-2 M=1 C=2	Overburden Residuum 2B - abundant pbl & cbl sized cmted frags
5	2	cmted residuum w/ yel bn clay probably interlayered w/ cmted rock but mixed by sonic drlg, clay is plastic, moderate apatite content H=2 & 5 SL=1-2 M=1 C=2	Residuum 2A/2B (bn clay lens w/ no cementation)
6	2	as above H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B
7	2	as above H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B
8	1.5 m 2 (47.9m)	as above - color change from yel bn to bn, inc clay H=2 & 5 SL=2-3 M=1 C=2	Residuum 2B
9	begin 3	as above H=2 & 5 SL=2-3 M=1 C=2	Residuum 2B
10	3	clay, bn, sandy, plastic, soft w/ visible apatite xls H=2 SL=4 M=1 C=2	Residuum 2A
11	3	cmted residuum w/ clay in top 1/2 of box, v sandy bn cl bottom 1/2 of box, rich apatite H=2&5 SL=2-4 M=1 C=1-2	Residuum 2A/2B (50:50)
12	3	cmted residuum w/ yel bn clay probably interlayered w/ cmted rock but mixed by sonic drlg, clay is plastic, moderate apatite content H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B
13	0.75 m 3 (54.0 m) begin 4	as above, abundant cmted frags-pbl to 5 cm long core H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B
14	4	silt, bn, sandy, varying clay content, moderate apatite primarily in stringers and blebs H=2 SL=3 M=1 C=1	Residuum 2A
15	4	as above H=2 SL=3 M=1 C=1	Residuum 2A
16	4	as above H=2 SL=3 M=1 C=1	Residuum 2A
17	4	silt, v dk bn w/ yel mottling, low clay, sandy, mica H=1 SL=2-3 M=1 C=1	Residuum 2A
18	0.6 m 4 (60.0 m) begin 5	silt as above - color change from dk bn to bn & b yel bn @ 60.0 m H=1 SL=2-3 M=1 C=2	Residuum 2A
19	5	as above H=1 SL=2-3 M=1 C=2	Residuum 2A
20	5	apatite sand, abundant cmted frags, blk grains not magnetic, rich apatite H=2 SL=3 M=1 C=1	Residuum 2B
21	5	silt, yel bn, sandy, lean to mod apatite H=2&5 SL=1-2 M=1 C=2	Residuum 2A
22	0.4 m 5 (66.1 m) begin 6	as above H=2&5 SL=1-2 M=1 C=2	Residuum 2A
23	6	as above H=2&5 SL=1-2 M=1 C=2	Residuum 2A
24	6	clay, bn, sandy, silty, lean H=1 SL=3-4 M=1 C=2	Residuum 2A

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25	6	clay, lt gy (dry) - dk bn gy (moist), silty, sandy H=1 SL=3-4 M=1 C=2	Residuum 2A
26	6	clay, v dk bn, plastic, contains vfg apatite (lean) and coarse mica flakes H= 1 SL=4 M=1 C=2	Residuum 2A
27	6	clay, bn w/ yel mottling, sandy - silty, firm, low plasticity, moderate apatite H= 2 SL=3-4 M=1 C=2	Residuum 2A
28	6	as above H= 2 SL=3-4 M=1 C=2	Residuum 2A
29	6	as above H= 2 SL=3-4 M=1 C=2	Residuum 2A
30	0.6 m 6 (75.3 m) begin 7	as above w/ rich, loose apatite sand layers about 0.2 m thick, contains some pbl sized cmtd frags H= 1 SL=2-3 M=1 C=1	Residuum 2A
31	7	as above H= 1 SL=2-3 M=1 C=1	Residuum 2A
32	7	as above H= 1 SL=2-3 M=1 C=1	Residuum 2A
33	7	silt, dk bn w/ abundant yel mottling, sandy, lean to moderate apatite H= 2 SL=3 M=1 C=1	Residuum 2A
34	7	clay, dk bn w/ lt bn & blk mottling, sandy, silty, some plastic, some sticky, lean to moderate apatite H= 2 SL=2-3 M=1 C=1	Residuum 2A
35	7	as above H= 2 SL=2-3 M=1 C=1	Residuum 2A
36	7	as above H= 2 SL=2-3 M=1 C=1	Residuum 2A
37	0.93 m 7 (82.4 m) begin 8	as above H= 2 SL=2-3 M=1 C=1	Residuum 2A
38	8	as above to 81.7 m then 2B loose- mod cmtd residuum rich apatite H= 2-4 SL=2-3 M=1 C=2	Residuum 2A/2B
39	8	2B as above to 84.1 m then 2A/2B - clay, bn, plastic w/ cmtd pbl and cbl sized frags, rich apatite 74.0 - 75.1 sand, bn, silty, rich apatite H=2&5 SL=1-3 M=1 C=1-2	Residuum 2A/2B
40	8	sandy silt - silty sand, bn, mica, lean to rich apatite H=1 SL=2-3 M=1 C=1	Residuum 2A
41	8	residuum, bn, broken frags ranging from pbl to cbl, w/ carnallite, some sandy clay probably as thin layer w/in cmtd section H=2&5 SL=1-2 M=1 C=2	Residuum 2B
42	8	cmtd residuum as above, gy H=2&5 SL=1-2 M=1 C=2	Residuum 2B
43	1.5 m 8 (90.5 m)	as above H=2&5 SL=1-2 M=1 C=2	Residuum 2B
44	begin 9	90.5-91.1 clay, dk bn, plastic, tr pbl, v lean 91.1-91.8 silt, lt bn, apatite not seen in panned sample, v. similar to hole 8349A boxes 90 & 91 H=1 SL=4 M=1 C=2	interburden similar to 8349 A boxes 90 & 91
45	9	as above H=1 SL=4 M=1 C=2	interburden similar to 8349 A boxes 90 & 91
46	9	as above H=1 SL=4 M=1 C=2	interburden similar to 8349 A boxes 90 & 91
47	9	as above H=1 SL=4 M=1 C=2	interburden similar to 8349 A boxes 90 & 91
48	1.03 m 9 (96.6 m) begin 10	as above to 96.6 m then residuum, bn, w/ cbl frags H=1&5 SL=1&4 M=1 C=2	interburden (69%) - 2B (31%) interburden similar to 8349 A boxes 90 & 91

TDA 4/9/08



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49	10	abundant broken frags of cmtd residuum in sandy clay mtx, appears rich in phos mineral including carnallite  H=2&5 SL=1 M=1 C=1	Residuum 2B
50	10	98.1-98.6 sand, w/ loose bn silt binder, rich apatite, tr small cmtd frags H=1 SL=2 M=1 C=1 98.6-99.0 cmtd resid as in box 49 H=2&5 SL=1 M=1 C=1 99.0-99.1 silty sand as above (98.1-98.6) H=1 SL=4 M=1 C=2	Residuum 2A/2B
51	0.76 m 10 (99.6 m)	99.1-99.2 silty sand as above H=1 SL=4 M=1 C=2 99.2-100.1 cmtd residuum as in box 49 H=2&5 SL=1 M=1 C=1	Residuum 2A/2B
	begin 11		
52	11	100.1-100.3 sandy silt, bn, soft, lean apatite H=1 SL=4 M=1 C=2 100.3-100.7 cmtd residuum as in box 49 H=2&5 SL=1 M=1 C=1 100.1-100.3 sandy silt, lt bn, soft, v lean apatite (IB?) H=1 SL=4 M=1 C=2	Residuum 2A/2B
53	11	silt, bn-lt bn, sandy w/ vfg apatite (lean) H=1 SL=4 M=1 C=1	Residuum 2A
54	0.56 m 11 (102.3 m)	102.2-102.7 sandy silt as above H=1 SL=4 M=1 C=1 102.7-103.2 cmtd residuum as in box 49 H=2&5 SL=1 M=1 C=1	Residuum 2A/2B
	begin 12		
55	12	103.2-103.8 sandy bn clay 103.8-104.6 abundant cmtd frags w/ bn clay H=1-5 SL=1&4 M=1 C=2	Residuum 2A/2B
56	12	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2&5 SL=1-2 M=1 C=1	Residuum 2B
57	12	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2&5 SL=1-2 M=1 C=1	Residuum 2B
58	1.5 m 12 (108.8 m)	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2&5 SL=1-2 M=1 C=1	Residuum 2B
59	begin 13	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2&5 SL=1-2 M=1 C=1	Residuum 2B
60	13	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2&5 SL=1-2 M=1 C=1	Residuum 2B
61	13	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2&5 SL=1-2 M=1 C=1	Residuum 2B
62	13	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2&5 SL=1-2 M=1 C=1	Residuum 2B
63	13	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2&5 SL=1-2 M=1 C=1	Residuum 2B
64	13	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=2 SL=4-5 M=1 C=2	Residuum 2B
65	1.5 m 13 (118.0 m)	as above (116.7-116.9 has gy color w/ 2 sections of 0.5 cm core) H=2 SL=4-5 M=1 C=2	Residuum 2B
66	begin 14	abundant cmtd pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn	Residuum 2B

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		H=1-5 SL=1-4 M=1 C=1-2	
67	14	abundant cmdt pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=1-2 SL=1-4 M=1 C=1-2	Residuum 2B
68	14	abundant cmdt pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=1 SL=3-4 M=1 C=2	Residuum 2B
69	14	abundant cmdt pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=1 SL=3-4 M=1 C=2	Residuum 2B
70	14	abundant cmdt pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=1&5 SL=4-5 M=1 C=2	Residuum 2B
71	14	abundant cmdt pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=1&5 SL=4-5 M=1 C=2	Residuum 2B
72	0.8 m 14 (127.1 m) begin 15	abundant cmdt pbl and cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=1&5 SL=1&4 M=1 C=2	Residuum 2B
72	15	abundant cmdt pbl and large cbl frags w/ varying amt of sand, silt & clay, lt bn-bn H=1&5 SL=1&4 M=1 C=2	Residuum 2B
74	0.7 m 15 (130.1) begin 16	abundant cmdt pbl and large cbl frags w/ varying amt of sand, silt & clay, lt bn gy and lt bn H=1&5 SL=1&4 M=1 C=2	Residuum 2B
75	16	abundant cmdt pbl and large cbl frags w/ varying amt of sand, silt & clay, lt bn gy and lt bn H=1&5 SL=1&4 M=1 C=2	Residuum 2B
76	16	abundant cmdt pbl and large cbl frags w/ varying amt of sand, silt & clay, lt bn gy and lt bn H=1&5 SL=1&4 M=1 C=2	Residuum 2B
77	16	abundant cmdt pbl and large cbl frags w/ varying amt of sand, silt & clay, lt bn gy and lt bn with carbonatite last 0.2 meters of box H=1&5 SL=1&4 M=1 C=2	Residuum 2B TD 138.7 m

HOLE: 835GB

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @59.7m bsf	0.41m dk bn cl pbl-cbl till H=5 SL=4 M=1 C=3 1.09m og bn - bn blk - og bn cs H=3 SL=3 M=1 C=2	Vrich ap sa, mn laterite, mn pbl, micaceous
2	1	1.5m og bn - bn blk cs SAA	
3	1	1.5m og -bn(SL=3) - bn blk(SL=2) H=3 SL=3-2 M=1 C=2	
4	1	1.5m og bn - bn blk cs H=3 SL=2 M=1 C=2	
5	0.35m 1(65.8m) begin 2	1.5m SAA	
6	2	1.5m og bn-tn bn-bn blk cs H=2 SL=2 M=1 C=1	micaceous
7	2	1.5m og bn-tn bn-bn blk cs H=2 SL=2-3 M=1 C=1	micaceous
8	2	1.5m og bn-tn bn-bn blk cs H=3 SL=2 M=1 C=1	
9	end 2(71.9m)	1.4m SAA	
10	begin 3	1.5m og bn - bn blk cs H=2 SL=2 M=2 C=1	ab mi
11	3	1.5m SAA	
12	3	1.5m SAA	ca concretions
13	3	1.5m SAA	
14	0.77m 3(78m) begin 4	1.5m og bn - bn blk cs pbl	
15	4	1.5m bn-blk - og bn-bn blk cs pbl H=2 SL=2 M=2 C=1	
16	4	1.5m bn blk-og bn - og bn-dk gn cs H=2 SL=2 M=2 C=1	
17	4	1.5m mottled og-tn bn-gn bn cs H=2 SL=2 M=1 C=1	
18	1.1m 4(84.1m) begin 5	1.1m SAA 0.4m dk bn - dk gn cs H=2 SL=2 M=2 C=1	
19	5	0.3m SAA(last 0.4m #18) 1.2m lt gn bn cs H=2 SL=2 M=1 C=1	
20	5	1.5m mottled dk bn-og bn- gn bn cs pbl H=2 SL=2 M=2 C=1	
21	5	1.5m SAA	
22	5	1.5m og bn cs pbl H=2 SL=2 M=2 C=1	
23	0.89m 5(90.6m) begin 6	1.5m dk og bn - bn blk cs pbl H=2 SL=2 M=2 C=1	carbonatite pbl clasts
24	6	1.5m SAA	

25	6	1.5m dk bn - lt blu gy cs pbl-cbl H=2+5 SL=3 M=2 C=3	carbonatite pbl-cbl clasts
26	0.37m 6(94.8m) begin 7	0.7m cored carbonatite 0.8m dk bn - lt blu gy cs pbl-cbl H=2+5 SL=3 M=2 C=3	cored carbonatite carbonatite pbl-cbl clasts
27	0.34m 7(96.3m) begin 8	1.5m dk ob bn - blu gy cs pbl-cbl H=2+5 SL=3 M=2 C=3	carbonatite pbl-cbl clasts
28	8	1.5m lt blu gy - tn cs pbl-cbl core H=2+5 SL=3 M=2 C=3	cored carbonatite & pbl-cbl clasts
29	end 8(99.4m)	1.2m lt tn cs pbl-cbl 0.3m dk og bn cs pbl-cbl H=2+5 SL=3 M=2 C=3	carbonatite pbl-cbl clasts carbonatite pbl-cbl clasts
30	begin 9	1.5m blu gy sc-cs pbl-cbl core H=2+5 SL=4-3 M=2 C=3	cored carbonatite & pbl-cbl clasts
31	9	1.5m SAA	
32	0.35m 9(101.5m) begin 10	1.32m blu gy cored carbonatite	cored carbonatite
33	10	1.5m SAA	cored carbonatite
34	end 10(105.5m)	1.5m SAA	cored carbonatite
35	begin 11	1.5m SAA	cored carbonatite
36	11	1.5m SAA	cored carbonatite
37	1.02m 11(110m)	1.02m SAA	cored carbonatite
38	begin 12	1.33m SAA	cored carbonatite
39	12	1.5m SAA	cored carbonatite
40	1.14m 12(113.1m) begin 13	1.5m SAA	cored carbonatite
41	13	1.5m SAA	cored carbonatite
42	13	1.5m SAA	cored carbonatite
43	13	1.5m bn og cs carbonatite core	cored carbonatite end of boxes, no depth recorded on box, core run 13 not recorded in field notes

## HOLE 8350C

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @ 60.0m	1.5m mottled dk bn-og bn cs mn pbl H=1 SL=2 M=2 C=1	2A
2	1	1.5m SAA	2A
3	1	1.5m mottled og bn-dk bn-rd bn cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
4	1	1.5m mottled blk-dk bn-og bn cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
5	0.89m 1(66.1m) begin 2	1.5m mottled dk bn-og bn cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
6	2	1.5m mottled og bn-dk bn-dk bn blk cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
7	2	1.5m mottled dk bn-dk bn blk-og bn cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
8	2	1.5m mottled dk bn-dk bn blk-rd bn cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
9	2	1.5m mottled og bn-dk bn-dk bn blk cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
10	0.32m 2(72.2m) begin 3	1.5m mottled dk bn-dk og bn-blk cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
11	3	1.5m SAA	micaceous 2A
12	3	1.5m mottled dk bn-dk og bn-blk cs mn pbl H=1 SL=2 M=2 C=1	micaceous 2A
13	3	1.5m SAA	micaceous 2A
14	3	1.5m SAA	micaceous 2A
15	0.23m 3(78.3m) begin 4	1.5m mottled dk bn-blk cs mn pbl	micaceous 2A
16	4	1.5m mottled dk bn-dk bn blk cs mn pbl	micaceous 2A
17	4	1.5m SAA	micaceous 2A
18	4	1.5m SAA	micaceous 2A
19	4	1.5m SAA	micaceous 2A

20	0.43m 4(84.4m) begin 5	1.5m mottled dk bn-dk og bn cs mn pbl H=1 SL=2 M=2 C=1	micaceous	2A
21	5	1.5m SAA	micaceous	2A
22	5	1.5m SAA	micaceous	2A
23	5	0.7m SAA 0.8m gn bn cs H=1 SL=2 M=2 C=1	micaceous micaceous	2A 2A
24	end 5(90.5m)	0.5m gn bn cs H=1 SL=2 M=2 C=1 1.0m mottled bn-dk og bn-gn cs H=1 SL=2 M=2 C=1	micaceous micaceous	2A 2A
25	begin 6	1.5m mottled gn bn-blk cs pbl-cbl H=1&5 SL=2 M=2 C=1	weathered carbonatite	2B
26	1.4m 6(93.6m)	1.4m mottled og bn-bn cs pbl-cbl H=1&5 SL=2 M=2 C=1	weathered carbonatite	2B
27	0.92m 7(94.5m) begin 8	0.92m gn bn cs pbl-cbl H=1&5 SL=2 M=2 C=1 0.57m weathed sovite carbonatite H=5 SL=1 M=1 C=3	weathered carbonatite weathered carbonatite	2B 1D
28	0.64m 8(99.7m) begin 9	1.5m weathered sovite carbonatite	weathered carbonatite	1D
29	0.66m 9(108.8m) begin 10	1.5m weathered Hi mg carbonatite	weathered carbonatite	
30	0.88m 10(114.9m) TD	0.88m weathered Hi mg carbonatite	weathered carbonatite	1D

Box #	Core Run #	Brief Geologic Description	Comments
1	1	sandy silt - silty sand, bn w/ yel mottling, v lean @ 59.7 m inc apatite w/ depth, abundant apatite sand w/ some cmted Start @59.7m H=1, 4 SL=1M=1 C=1	Residuum 2A/2B
2	1	rich apatite sand, dk bn silt loosely binds grains, some cmted, no mottling H=1, 4 SL=1,2 M=1 C=1	Residuum 2A (0.9 m)/2B (0.6 m)
3	1	as above, v. little cementation, yellow bleb @ 63.4 m H=1 SL=1 M=1 C=1	Residuum 2A
4	1.24 m 1 (65.8m) begin 2	as above mostly 2A w/ tr cmted frags H=1 SL=1 M=1 C=1	Residuum 2A
5	2	as above mostly 2A w/ inc cmted frags H=1 SL=1 M=1 C=1	Residuum 2A/2B
6	2	as above mostly 2A w/ inc cmted frags H=1 SL=1 M=1 C=1	Residuum 2A/2B
7	2	as above w/ yel mottling, and several highly competent rock cores up to 10 cm long H=1&5 SL=1 M=1 C=1	Residuum 2A
8	2	as above H=1&5 SL=1 M=1 C=1	Residuum 2A
9	0.2 m 2 (71.9 m)  begin 3	71.7 - 72.0 - apatite in cmted calcareous mtx H=5 SL=1 M=1 C=1 72.0 - 72.6 clay, bn, plastic H=2 SL=4 M=1 C=2 72.6 - 73.1 abundant cbl sized frags w/ clay infilling fractures H=5 SL=1 M=1 C=1	Residuum 2A/2B
10	3	carbonatite (boulder?), competent core fractured into 10 - 20 cm lengths, w/ plastic clay filling in fractures  H=2&5 SL=1&5 M=1 C=1&2	
11	3	74.4 - 74.9 cmted residuum, blk, abundant pbl sized frags, grades to yel or and becomes silty between 74.9 to 75.2 M=1 H=2,5 S=1 C=1 75.2-75.8 - sandy silt, yel or, moderate apatite M=1 H=1 S=3 C=1	Residuum 2A/2B
12	3	75.8 - 76.1 clay, lt. bn w/ or mottling, plastic, sandy, moderate apatite 76.1-77.1 cem residuum w/ pbl & cbl sized frags, with plastic clay mtx H=2&5 SL=1&4 M=1 C=1,2	Residuum 2A/2B
13	0.65 m 3 (78.0 m)  begin 4	77.1-78.0 cmted residuum in silty clay mtx - bn w/ yel mottling, loose to well cmted apatite sand 78.0 - 78.1 2A rich apatite sand w/ dk bn weak silty clay binder 78.1 - 79.3 cmted residuum w/ abundant pbl & cbl sized frags w/ dk bn clay infill H=2&5 SL=1&4 M=1 C=1-2	Residuum 2A/2B 2A 2B
14	4	cmted residuum w/ abundant pbl & cbl sized frags w/ dk bn clay infill H=2&5 SL=2-3 M=1 C=1-2	Residuum 2B
15	4	cmted residuum w/ abundant pbl & cbl sized frags w/ lt bn (dry) clay infill H=1&4 SL=2-3 M=1 C=1-2	Residuum 2B
16	0.4 m 4 (84.1 m) begin 5	cmted residuum w/ abundant pbl & cbl sized frags w/ dk bn (moist) clay infill H=1 SL=3-4 M=1 C=1	Residuum 2B
17	5	clay, dk bn, sandy, plastic, sticky, lean apatite H=1 SL=4-5- M=1 C=2	Residuum 2A
18	5	cmted residuum w/ abundant pbl & cbl sized frags w/ dk bn clay infill	Residuum 2B

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		H=2&5 SL=1&4 M=1 C=1-2	
19	5	as above H=2&5 SL=1&4 M=1 C=1-2	Residuum 2B
20	1.5 m 5 (90.2 m)	as above, w/ rich loose apatite sand top 0.2 m H=1 & 5 SL=2-3 M=1 C=1-2	Residuum 2B
21	begin 6	abundant pbl and cbl sized frags of cmtd residuum w/ lt bn clay infill, clay is plastic and cohesive H=2 & 5 SL=2-3 M=1 C=1-2	Residuum 2B
22	6	as above H=2 & 5 SL=2-3 M=1 C=1-2	Residuum 2B
23	6	carbonatite - pulverized by sonic drlg	interburden
24	1.5 m 6 (96.3 m)	carbonatite - pulverized by sonic drlg H= 2-5 SL=3-4 M=1 C=1-2	interburden
25	begin 7	carbonatite - pulverized by sonic drlg	interburden
26	0.5 m 7 (97.9 m)	as above to 97.9 m 97.9-98.2 carbonatite core 98.2-101.9 v. highly weathered carbonatite in bn, silty mtx	interburden
	begin 8	H= 2&5 SL=1-3 M=1 C=1	
27	0.92 m 8 (102.4 m)	very similar to above w/ carbonatite to 102.4 followed by v highly weathered carbonatite	interburden
	begin 9	H= 2&5 SL=1-3 M=1 C=1	
28	0.54 m 9 (108.5 m)	sand w/ v weak silt binder w/ abundant mica	Residuum 2A
	begin 10	H=1 SL=2 M=1 C=1	
29	1.3 m 10 (110.0 m)	sand w/ v weak silt binder w/ abundant mica	Residuum 2A
	begin 11	H=1 SL=2 M=1 C=1	
30	1.5 m 11 (114.6 m)	carbonatite	1D
31	begin 12	114.6-116.2 poor recovery, apatite sand, vf-fg, loose, clear apatite xls (quartz ?) H=1 SL=3 M=1 C=1 116.2 - 117.0 carbonatite	2A/1D
32	0.6 m 12 (117.6 m)	carbonatite lt gy w/ dk gy lens	1D what appear to be sand lenses in the carbonatite are probably material from up hole washed down around casing
	begin 13		
33	13	carbonatite	1D
34	13	carbonatite	1D TD 123.7 m



HOLE: 8351B

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @ 29.3m	1.5m gy cs pbl H=3 SL=3 M=1 C=2	Glacial Till
2	1	1.5m SAA	
3	0.89m 1(32.3m) begin 2	0.89m SAA 0.61m dk bn cs pbl H=2 SL=3 M=1 C=2	K-Sediments
4	2	1.5m SAA	
5	2	1.5m SAA	
6	2	1.5m SAA	
7	2	1.5m SAA	
8	0.32m 2(38.4m) begin 3	0.32m SAA 1.18m mottled bn-yl og bn sc H=2 SL=4 M=2 C=2	
9	3	1.5m mottled bn-yl og bn sc H=2 SL=4 M=2 C=2	
10	3	1.5m SAA	
11	3	1.5m SAA	
12	3	1.5m mottled dk bn-og bn-blk sc H=2 SL=4 M=2 C=2	ca encrustations
13	3	1.5m mottled og bn-bn blk sc H=2 SL=4 M=1 C=2	ca encrustations
14	3	1.5m mottled dk bn-og bn-blk sc H=2 SL=3 M=1 C=2	micaceous
15	0.2m 3(47.5m) begin 4	1.5m SAA	Contact Reworked Sediments tr ap
16	4	1.45m mottled dk bn-bn cs H=2 SL=3 M=1 C=2	micaceous mn ap
17	4	1.37m mottled bn-blk cs H=2 SL=3 M=1 C=2	mn-mod ap
18	4	1.5m mottled bn-blk cs pbl H=2 SL=3 M=1 C=2	mn ap ca encrustations

19	0.86m 4(53.6m) begin 5	1.5m mottled bn-og bn-bn blk cs pbl H=2 SL=3 M=1 C=2	Contact Residuum mod ap	2A
20	5	1.5m mottled bn-og bn-bn blk cs H=2 SL=3 M=1 C=2		2A
21	5	1.5m SAA		2A
22	5	1.5m SAA		2A
23	5	1.5m SAA		2A
24	0.62m 5(59.7m) begin 6	0.62m SAA 0.88m mottled bn-og bn-bn blk cs H=2 SL=3 M=3 C=2		2A
25	6	1.5m mottled dk bn-og bn-rd cs H=2 SL=3 M=3 C=2	ca encrustations	2A
26	6	1.5m mottled dk bn-og bn-rd cs H=2 SL=3 M=2 C=2		2A
27	6	1.5m mottled dk bn-og bn-blk cs H=2 SL=3 M=1 C=2		2A
28	6	1.5m mottled bn-og bn-rd-dk bn-blk cs H=2 SL=3 M=1 C=2		2A
29	1.22m 6(65.8m) begin 7	1.5m SAA		2A
30	7	1.5m mottled dk bn-og bn-bn blk cs H=2 SL=3 M=1 C=1		2A
31	7	1.4m mottled bn-gn-blk cs pbl H=2 SL=3 M=1 C=1	micaceous	2A
32	7	1.5m mottled bn-og bn cs H=2 SL=3 M=2 C=2	micaceous	2A
33	7	1.5m mottled bn-og bn cs H=2 SL=3 M=1 C=2	micaceous	2A/B
34	0.43m 7(71.9m) begin 8	1.5m og bn - bn cs H=2 SL=3 M=1 C=2	micaceous	2B
35	8	1.5m mottled bn-og bn cs H=2 SL=3 M=1 C=2	micaceous	2A
36	8	1.5m SAA		2A/B

37	1.06m 8(78.0m) begin 9	1.5m mottled bn-og bn-bn blk cs H=2 SL=3 M=1 C=2	2B
38	9	1.5m mottled dk bn blk-bn-rd bn cs pbl H=2 SL=3 M=1 C=2	2B
39	9	1.5m mottled dk bn blk-og bn-bn cs H=2 SL=3 M=2 C=2	2A/B
40	9	1.5m mottled og bn-bn-bn blk cs H=2 SL=3 M=1 C=2	2A
41	9	1.5m mottled dk bn-og bn-dk bn blk cs H=2 SL=3 M=1 C=2	2A/B
42	0.39m 9(84.1m) begin 10	1.5m mottled og bn-rd bn-dk bn-bn blk cs H=2 SL=3 M=2 C=2	2B
43	10	1.5m mottled dk og bn-blk-dk bn cs H=2 SL=3 M=2 C=2	2B
44	10	1.46m mottled dk og bn-dk bn-blk cs H=2 SL=2 M=2 C=2	2B
45	10	1.5m mottled dk og bn-og bn-dk bn-blk cs H=2 SL=3 M=1 C=2	2B
46	0.7m 10(90.2m) begin 11	1.5m mottled dk og bn-dk bn-blk cs H=2 SL=2 M=2 C=2	2B
47	11	1.5m SAA	2B
48	11	1.5m mottled dk og bn-dk bn cs H=2 SL=2 M=2 C=2	2B
49	11	1.0m SAA 0.5m mottled dk og bn-dk bn-blk-gy gn cs H=2 SL=3 M=1 C=2	2A 2B
50	0.88m 11(96.3m) begin 12	1.5m mottled og bn-dk bn-dk og bn-blk cs H=2 SL=2 M=2 C=2	2B
51	12	1.5m dk bn cs H=2 SL=2 M=2 C=2	2B
52	12	1.5m mottled dk bn-yl bn cs H=2 SL=3 M=1 C=2	2A/B
53	12	1.5m mottled dk bn-og bn-blk-gn cs H=2 SL=3 M=1 C=2	2A

54	12	1.5m SAA		2A
55	0.73m 12(102.4m) begin 13	0.73m SAA 0.77m dk bn cs H=2 SL=2 M=2 C=2		2A 2B
56	13	1.5m mottled og bn-dk bn cs H=2 SL=3 M=1 C=2		2A
57	13	1.5m mottled dk bn-dk og bn cs H=2 SL=2 M=2 C=2		2B
58	13	1.5m mottled dk bn-bn blk-og bn cs H=2 SL=2 M=2 C=2		2B
59	1.4m 13(108.5m) begin 14	1.4m motled og bn-dk bn-bn blk cs pbl H=2 SL=3 M=1 C=2		2A
60	begin 14	1.5m dk bn cs pbl H=2 SL=3 M=2 C=2		2A
61	14	1.5m yl bn cs H=2 SL=3 M=1 C=2	micaceous	IB
62	0.74m 14(111.6m) begin 15	0.74m SAA 0.76m mottled dk bn-rd bn cs H=2 SL=3 M=2 C=2		IB
63	15	1.5m mottled yl bn-dk og bn-rd bn cs H=2 SL=3 M=1 C=2		IB
64	15	1.5m mottled bn-rd bn-og bn cs pbl H=2 SL=3 M=1 C=2		IB
65	0.45m 15(114.6m) begin 16	1.5m mottled og bn-rd bn-dk bn cs H=2 SL=3 M=1 C=2		IB
66	16	1.5m yl bn - dk bn cs H=2 SL=3 M=1 C=2		IB
67	0.15m 16(117.6m) begin 17	1.5m mottled dk bn-yl bn-og bn cs pbl H=2 SL=3 M=1 C=2		IB
68	17	1.5m mottled dk bn-yl og bn-bn blk cs H=2 SL=3 M=1 C=2		IB
69	17	1.5m lt tn - bn cs pbl H=2 SL=2 M=1 C=2		IB
70	0.47m 17(120.7m) begin 18	1.5m gn - dk bn cs H=2 SL=3 M=1 C=2	micaceous	IB

71	end 18(123.7m)	1.5m mottled bn-yl bn-dk bn cs H=2 SL=3 M=1 C=2		IB
72	begin 19	1.5m dk bn cs pbl H=2&4 SL=3 M=1 C=2		IB
73	19	1.5m mottled yl bn-og bn-bn blk cs pbl-cbl H=2&4 SL=3 M=1 C=2		IB
74	0.61m 19(129.8m) begin 20	0.61m mottled dk bn-og bn cs pbl-cbl H=2&4 SL=3 M=1 C=2 0.89m dk bn cs H=2 SL=3 M=2 C=2		IB 2A
75	20	1.5m SAA		2A
76	20	1.5m SAA		2A
77	20	1.5m SAA		2A
78	end 20(132.9m)	1.5m SAA	micaceous	2A
79	begin 21	1.5m SAA		2A
80	21	1.5m SAA		2A
81	21	1.5m SAA		2A
83	21	1.5m SAA		2A
84	0.69m 21(139.0m) TD	0.69m SAA		2A

Box #	Core Run #	Brief Geologic Description	Comments
1	1 Start @32.1m	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
2	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
3	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
4	1	glacial till, dk bn gy clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
5	1	glacial till, dk gy clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
6	1.22 m 1 (38.4 m) begin 2	glacial till, bn & gy H=2 SL=3 M=1 C=2	Overburden
7	2	glacial till, bn & gy, transition to Cret silty clay bm, plastic H=2 SL=3 M=1 C=2	Overburden
8	2	silty clay bm, plastic H=2 SL=3 M=1 C=2	Overburden- Cretaceous sediments
9	2	silty clay trans to sdy silty clay w/ thin stringers w/ apatite and qz sand - sands are vfg and loose H=1 SL=3 M=1 C=1-2	Overburden -Cretaceous transition to 3X
10	2	clay, bn w/ white mottles, silty H=1 SL=3 M=1 C=2	Overburden 3X
11	2	clay as above w/ 0.2 m silty sand lens - or & dk bn w/ loosly bound grains H=1 SL=2 -3 M=1 C=1	Overburden 3X
12	0.3 m 2 (44.5 m) begin 3	clay, br w/ lt or motting, v. sandy H=1 SL=2-3 M=1-2 C=1	Overburden 3X
13	3	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite in panned samples not visible in hand sample
14	3	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite in panned samples not visible in hand sample
15	3	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite
16	3	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite
17	1.5 m 3 (50.6 m)	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite
18	begin 4	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite in panned samples
19	4	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite
20	4	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite in panned samples not visible in hand sample
21	4	clay, brn w/ or, red, wht, & blk motting, H=1 SL=3-4 M=1 C=1	Overburden 3X trace of apatite in panned samples not visible in hand sample
22	1.2 m 4 (56.7 m) begin 5	sand, vfg, brn silt binder H=2 SL=1-2 M=1 C=2	Residuum 2A moderate apatite
23	5	sand, vfg, lt bn grades to blk H= 2-5 SL=1 M=1 C=2	Residuum 2A - moderate apatite; cem sand frags (2B) from 57.7 to 58.2 m
24	5	sand, vf-fg, clay inc @ 58.8 m and apatite dec H= 2-5 SL=1-2 M=1 C=2	Residuum 2A/2B - rich apatite; cem sand frags 58.2 - 58.8 m
25	5	59.6 - 60.4 m - apatite sand, vf - fg, saturated, loose H=1 M=2 S=1 C=1 ..... 60.4 - 61.3 m - clayey sand w/ apatite H= 1 SL=1-2 M=1 C=1	Residuum 2A
26	5	sandy silt, bn, loose, v. low moist H= 1 SL=2 M=1 C=1	Residuum 2A- moderate apatite
27	5	sandy silt, bn, loose, v. low moist H= 1 SL=2 M=1 C=1	Residuum 2A- moderate apatite w/ trace of cemented frags
28	0.9 m 5 (65.8m)	64.9 - 65.8 m - sdy silt as above	Residuum 2A/2B

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		65.8-66.4 apatite sand H=2&5 SL=1-2 M=1 C=2	v. rich w/ poor to moderate cementation
29	begin 6 6	apatite sand H=2&5 SL=1 M=1 C=2	Residuum 2B - abundant fragments of moderately well cemented apatite sand
30	6	silty sand, dk gn to gy, chlorite H=1 SL=2-3 M=1 C=1	Residuum 2A lean to moderate apatite
31	6	68.8 - 69.0 silty sand, dk gn to gy, chlorite H=1 SL=2-3 M=1 C=1 69.0 - 69.4 apatite sand H=2&5 SL=1 M=1 C=2 69.4 - 70.0 silty sand, dk gn to gy, chlorite H=1 SL=2-3 M=1 C=1	Residuum 2A Residuum 2B - abundant fragments of moderately well cemented apatite sand Residuum 2A
32	6	70.0 - 70.8 silty sand, dk gn to gy, chlorite H=1 SL=2-3 M=1 C=1 70.8- 71.2 silty sand, moderate apatite H=2&5 SL=1 M=1 C=2	Residuum 2A Residuum 2B - moderately well cemented
33	6	sand, loose, w/dk gn gy to bn silt, H=2&5 SL=2 M=1 C=2	Residuum 2A/2B -loose sand has cemented pbl and cbl sized frags w/ apatite xls and botryoidal encrustations (crandallite)
34	6	sand, loose, w/dk gn gy to bn silt, H=2&5 SL=2 M=1 C=2	Residuum 2A/2B -loose sand has cemented pbl and cbl sized frags w/ apatite xls and botryoidal encrustations (crandallite)
35	1.3 m 6 (75.0 m)  Begin 7	73.7- 74.3 silty sand, moderate apatite H=1 SL=1-2 M=1 C=2 74.3-75.0 apatite sand, sub- to euhedral xls H=2 SL=2 M=1 C=2	Residuum 2A - not cemented Residuum 2B - moderately cementation broken by sonic drlg
36	7	cemented residuum w/ interbeds of dk gy gn silty sd H=2&5 SL=2 M=1 C=1-2	Residuum 2A/2B
37	7	sdly clay to clayey sd, bn, sd is vfg H=2 SL=2-3 M=1 C=2	Residuum 2A/2B trace of cemented frags
38	7	silt, bn, sandy H=1 SL=3 M=1 C=1	Residuum 2A - lean apatite
39	7	silt, bn, sandy H=1 SL=3 M=1 C=1	Residuum 2A - lean apatite
40	7	silt, bn, sandy H=1 SL=3 M=1 C=1	Residuum 2A - lean apatite
41	1.5 m 7 (84.1 m)	Silt, bn to tan, sandy H=1-2 SL=1-2 M=1 C=2	Residuum 2A - rich apatite layer about 0.2 m thick @ 83.7 m
42	Begin 8	silt, bn w/ lt bn mottling, sandy w/ abundant mica H=1-2 SL=2-3 M=1 C=2	Residuum 2A - lean apatite
43	8	85.5 - 85.6 sand (2B) vf-fg, poorly cmtd, dk bn, rich apatite; 85.6 - 86.9 clayey silt, dk bn w/ lt bn sd stringers, v. lean apatite H=1 SL=1-4 M=1 C=2 H=3 SL=3 M=1 C=2	Residuum 2A
44	8	clay, bn, plastic, sandy H=1 SL=3-4 M=1 C=2	Residuum 2A - lean apatite
45	8	silt, bn w/ or mottling, sandy H=1 SL=2-3 M=1 C=1	Residuum 2A - lean apatite
46	8	silt, bn w/ or & blk mottling, sandy, micaceous H=1 SL=2-3 M=1 C=1	Residuum 2A - lean apatite
47	8	silt, bn, very micaceous H=1 SL=2-3 M=1 C=1	Residuum 2A - lean apatite
48	1.1 m 8 (93.3m)  begin 9	92.2 - 92.3 apatite sand, moderate cem (2B) 92.3 - 93.3 sandy silt, brown, lean apatite 93.3 - 93.7 apatite sand, loose, rich H=1-2 SL=1-3 M=1 C=1	Residuum 2A
49	9	clay, dk bn, plastic, silty, sandy grades to apatite sand - loose, vf-fg, amber, sub- anhedral xls H=1 SL=1-2 M=1 C=1-2	Residuum 2A
50	1.5 m 9 (98.9 m)	apatite sand, loose to well cmtd, varying silt content H=1&5 SL=1 M=1 C=1	Residuum 2A/2B (loose apatite w/ abundant cmtd pbl and cbl sized frags)
51	Begin 10	silt, dk bn, sandy, lean to moderate apatite H=1-2 SL=2 M=1 C=1	Residuum 2A
52	10	sandy clay, dk bn, plastic, lean to moderate apatite w/ tr cem pbl sized frags,	Residuum 2A/interburden

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		H=1&4 SL=3 M=1 C=2	
53	10	clay, dk bn w/ or mottling, plastic w/ pbl, becomes more silty less sandy w/ depth, leaner apatite w/ depth	Residuum 2A/interburden
		H=1 SL=3 M=1 C=2	
54	10	clayey silt to silty clay, brn, tr sand, micaceous	interburden - apatite not apparent in hand specimens or panned samples
		H=1 SL=3-4 M=1 C=1	
55	10	silt, bn w/ or & blk mottling, micaceous	interburden - apatite not apparent in hand specimens
		H=1 SL=3-4 M=1 C=1	
56	10	silt bn w/ or, blk & dk gm mottling,	2A/interburden - v lean apatite in lt bn stringers
		H=1 SL=3 M=1 C=2	
57	10	silty sand - sandy silt, lean to moderate apatite, apatite is vfg xls, loose to lightly cmted	Residuum 2A
		H=2&5 SL=1 M=1 C=2	
58	0.7 m 10 (108.5 m) begin 11	108- 108.5 silty sand, brown, w/ moderate apatite 108.5 - 109.1 apatite sand w/ bn silt weak binder	Residuum 2A, rich ore w/ some weak cementation
		H=1 SL=1-2 M=1 C=1	
59	11	apatite sand, vf-fg, w/ bn silt weak binder	Residuum 2A, very rich ore
		H=1 SL=1 M=1 C=1	
60	11	as above, w/ change to dk gy sdy silt @ 111.1 m	Residuum 2A
		H=2&5 SL=1 M=1 C=2	
61	11	111.3- 111.8 sand w/ dk bn silt weak binder 111.8- 112.4 silt, bn, w/ abundant mica and broken fragments of highly weathered carbonatite	interburden - apatite not apparent
		H=1&5 SL=2-3 M=0-1 C=2	
62	11	micaceous silt w/ highly weathered carbonatite	interburden - apatite not apparent
		H=1&5 SL=2-3 M=0 C=2	
63	1.5 m 11 (114.6 m)	micaceous silt w/ highly weathered carbonatite	interburden - apatite not apparent
		H=1&5 SL=2-3 M=0 C=2	
64	begin 12	114.6- 114.8 weathered carbonatite 114.8-114.9 pulverized w/ moderate apatite (2B) 114.9 - 116.0 silty clay, dk bn w/ lt or mottling, plastic, tr sand, trace apatite in stringers	interburden
		H=2&5 SL=3 M=1 C=2	
65	12	116.0 - 116.4 silty clay, dk bn w/ lt or mottling, plastic, tr sand, trace apatite in stringers 116.4-116.9 clay, gray, plastic, barren 116.9- 117.4 weath carbonatite pulverized by drlg	interburden
		H=2&5 SL=2-4 M=1 C=1-2	
66	12	carbonatite, v. dk gy, some very competent core up to 0.2 m long, some highly fractured into cbl and pbl sized fragments, dk gy plastic clay layered w/in rock	interburden - apatite not apparent
		H=2&5 SL=2-4 M=1 C=1-2	
67	12	as above	interburden - apatite not apparent
68	1.2 m 12 (120.7 m) begin 13	as above to 120.7 then color change from dk gy to bn gy in sediments, rock fragments remain dark	interburden - apatite not apparent
		H=2&5 SL=2 M=1 C=1-2	
69	13	as above	interburden - apatite not apparent
70	13	as above	interburden - apatite not apparent
71	0.45 m 13 (123.7 m) begin 14	123.2-123.6 silt, bn, sandy, lean apatite 123.6-124.7 apatite sand, vf-fg, loose	Residuum 2A
		H=1 SL=1 M=1 C=1	
72	14	sand - silty sand, apatite rich dec w/ depth	Residuum 2A
		H=1 SL=1-2 M=1 C=1	
73	14	clay, brn, sandy, sticky, w/ lenses of highly weathered carbonatite broken into cbl sized frags (rock frags dec between 126.6 and 127.1 m)	Residuum 2A
		H=2&5 SL=2-3 M=1 C=2	
74	14	clay, brn w/ or, blk, and wht mottling, sandy, sticky,	Residuum 2A - lean to moderate apatite
		H=2 SL=2-3 M=1 C=2	



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75	14	clay, brn w/ or, blk, and wht mottling, sandy, sticky, H=2 SL=2-3 M=1 C=2	Residuum 2A - lean to moderate apatite
76	0.8 m 14 (129.8 m) begin 15	clay, brn w/ or, blk, and wht mottling, sandy, sticky, H=2 SL=2-3 M=1 C=2	Residuum 2A - lean to moderate apatite
77	15	clay, brn w/ or & blk mottling, silty H=2 SL=3 M=1 C=2	interburden - very lean apatite
78	15	clay, brn w/ or & blk mottling, silty H=2 SL=3 M=1 C=2	interburden - very lean apatite
79	15	clay, brn w/ or & blk mottling, silty H=2 SL=3 M=1 C=2	interburden similar to above but has apatite sand lenses making it 2A
80	0.9 m 15 (135.9 m)  begin 16	Sandy clay w/ lean to moderate apatite - barren gray clay lens and trace of broken cbl sized frags of carbonatite  H=1&5 SL=2&4 M=1 C=2	Residuum 2A + interburden
81	16	clay w/ abundant broken weathered carbonatite frags, v lean apatite H=1&5 SL=3-4 M=1 C=1-2	interburden/Residuum 2A
82	16	clay as above fewer carbonatite frags, no visible apatite  H=1&5 SL=3-4 M=1 C=1-2	interburden/Residuum 2A
83	0.6 m 16 (139.0 m)  begin 17	clay as above w/ thin lithified lenses, no visible apatite H=1&5 SL=3-4 M=1 C=1-2	interburden/Residuum 2A
84	17	clay as above w/ thin lithified lenses, no visible apatite H=1&5 SL=3-4 M=1 C=1-2	interburden/Residuum 2A
85	17	pulverized highly weathered apatite	basement - v. lean apatite
86	0.25 m 17 (142.0 m)  begin 18	clay, dk bn, plastic, numerous frags of weathered black carbonatite, no apatite apparent in hand samples  H=2&5 SL= 2&5 M= 1 C=2	basement - v. lean apatite
87	18	as above	as above
88	18	as above, very dry	as above
89	18	as above moisture inc bottom 1/2 of box H=2&5 SL= 2&5 M= 1&2 C=2	as above
90	18	as above	as above TD 146.6

HOLE: 8351D

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @ 32.3m	1.5m gy cs pbl H=3 SL=3 M=2 C=2	Glacial Till
2	1	1.5m SAA	
3	1.31m 1(35.4m) begin 2	1.31m SAA 0.19m mottled dk bn-dk gn cs H=2 SL=3 M=1 C=2	Contact Reworked Sediments tr f ap sa, micaceous
4	2	1.5m mottled dk bn-dk gn cs pbl H=2 SL=3 M=1 C=2	micaceous
5	2	0.8m SAA 0.7m mottled og bn-dk gn cs H=2 SL=3 M=1 C=2	micaceous
6	1.1m 2(38.4m) begin 3	1.5m mottled dk bn-og bn cs H=2 SL=3 M=1 C=2	micaceous
7	3	1.5m SAA	micaceous
8	3	1.5m mottled dk bn-og bn-cr-blk sc H=2 SL=3 M=1 C=2	
9	0.84m 3(41.5m) begin 4	0.84m mottled og bn-rd bn-blk-dk gn cs H=2 SL=3 M=1 C=2 0.76m mottled dk bn-og bn cs pbl H=2 SL=3 M=1 C=2	
10	4	0.55m mottled dk bn-bn blk cs pbl H=2 SL=3 M=1 C=2 0.95m yl og bn sc H=2 SL=4 M=1 C=2	micaceous micaceous
11	4	1.5m dk og bn-blk-og bn sc H=2 SL=4 M=1 C=2	micaceous
12	4	1.5m mottled dk og bn-dk bn sc H=2 SL=4 M=1 C=2	micaceous ca encrustations
13	1.15m 4(47.5m) begin 5	1.5m mottled dk bn-og bn-blk cs H=2 SL=3 M=1 C=2	micaceous ca encrustations
14	5	1.5m mottled dk bn-og bn-blk cs H=2 SL=3 M=1 C=2	micaceous
15	5	1.5m mottled dk bn-og bn-blk cs H=2 SL=3 M=1 C=2	micaceous
16	5	1.5m mottled bn-og bn-blk cs H=2 SL=3 M=1 C=2	micaceous ca encrustations
17	5	1.5m SAA	
18	1.14m 5(53.6m) begin 6	1.14m mottled bn-og bn cs H=2 SL=3 M=1 C=2 0.36m mottled dk bn blk-og bn-rd bn cs pbl H=2 SL=2 M=2 C=2	micaceous mn f ap sa
19	6	1.5m mottled og bn-dk bn-blk cs pbl H=2 SL=2 M=1 C=2	mn f ap sa
20	6	0.65m SAA 0.85m mottled bn-og bn cs	micaceous

		H=2 SL=3 M=1 C=2		
21	6	1.5m mottled bn-og bn-rd bn-blk cs H=2 SL=3 M=1 C=2	micaceous	
22	6	1.5m mottled dk bn-og bn-blk cs pbl H=2 SL=2 M=1 C=2	mn f ap sa	
23	0.3m 6(59.7m) begin 7	1.5m mottled dk bn-og bn-blk cs pbl H=2 SL=3 M=1 C=2	micaceous	
24	7	0.8m SAA 0.7m mottled dk bn-dk og bn cs H=2 SL=1 M=1 C=2	mn f ap sa Contact Residuum Vrich ap sa	2A
25	1.18m 7(62.8m) begin 8	1.18m mottled dk rd og bn-blk cs H=2 SL=1 M=1 C=2 0.32m mottled dk bn-dk og bn cs H=2 SL=1 M=1 C=2		2A
26	8	1.5m mottled dk bn blk-og bn cs H=2 SL=2 M=1 C=2		2A
27	8	1.5m SAA		2A
28	8	1.5m SAA	Vrich ore	2A
29	8	1.5m mottled dk bn blk-dk og bn-gn cs H=2 SL=3 M=1 C=2	mod rich ore	2A
30	0.84m 8(68.9m) begin 9	0.84m SAA 0.66m dk bn cs pbl H=2 SL=3 M=1 C=2	mod rich ore	2A
31	9	1.5m dk bn cs pbl H=2 SL=3 M=1 C=2	mod rich ore	2A
32	9	1.5m mottled dk bn blk-og bn cs pbl H=2 SL=3 M=2 C=2	mod rich ore	2A
33	9	1.5m mottled dk bn blk-og bn-gn cs pbl H=2 SL=3 M=2 C=2	mn ap sa	IB
34	9	1.5m SAA	ca encrustations	IB
35	1.06m 9(78.0m) begin 10	1.5m mottled dk bn blk-og bn-gn cs pbl H=2 SL=3 M=2 C=2	mn ap sa ca encrustations	IB
36	10	1.5m dk bn sc pbl-cbl H=2 SL=4 M=1 C=2	mn ap sa pbl-cbl cement	IB
37	10	0.6m SAA 0.9m mottled bn-og bn-gn sc H=1 SL=4 M=1 C=2	mn ap sa micaceous	IB
38	end 10(81.1m)	1.5m dk bn cs pbl H=2 SL=3 M=2 C=2	mn ap sa	IB
39	1.1m 11(84.1m) begin 12	0.4m mottled dk bn-og bn cs pbl H=2 SL=3 M=2 C=2 0.7m og bn cs pbl H=2 SL=1 M=1 C=2 0.4m mottled og bn-gn cs H=1 SL=1 M=1 C=1	mn ap sa rich ore rich ore	IB 2A 2A
40	12	0.7m dk blu gy cs and carbonatite clasts		1D

		H=2&5 SL=1 M=1 C=2 0.8m blu gy pulverized carbonatite with cbl clasts H=2&5 SL=1 M=1 C=2	1D
41	0.7m 12(87.2m) begin 13	1.5m blu gy pulverized carbonatite with cbl clasts H=2&5 SL=1 M=1 C=2	1D
42	13	1.5m SAA	1D
43	0.25m 13(89.3m) no recovery core run # 14 begin 15	0.25m SAA 1.16m bn sc and carbonatite clasts H=2&5 SL=4 M=1 C=2	1D 1D
44	0.88m 15(96.3m) begin 16	0.88m tn pulverized carbonatite with cbl clasts H=2&5 SL=1 M=1 C=2 0.62m dk blu gy SAA H=2&5 SL=1 M=1 C=2	1D 1D
45	16	1.5m dk blu gy - blu gy - tn pulverized carbonatite with cbl clasts H=2&5 SL=1 M=1 C=2	1D
46	16	1.5m bn - tn SAA	1D
47	0.46m 16(99.4m) begin 17	1.5m pulverized and cored carbonatite	1D
48	17	1.5m carbonatite	1D
49	17	1.5m carbonatite	1D
50	1.04m 17(105.5m) begin 18	1.5m carbonatite	1D
51	0.68m 18(106.5m) TD	0.68m carbonatite	1D

HOLE. 8351E

TDA 4/5/08

Box #	Core Run #	Brief Geologic Description	Comments
1	1 Start @32.3m	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
2	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
3	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
4	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
5	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
6	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
7	1	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
8	0.2 m 1 (38.4 m) begin 2	glacial till, gray clay with abundant pbl and cbl H=3 SL=3 M=1 C=2	Overburden
9	2	39.2 - 40.2 Glacial till transition to cretaceous silty clay, bn w. gy blebs H=1 SL=3-4 M=1 C=2	Overburden
10	2	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
11	2	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
12	2	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
13	2	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
14	0.2 m 2 (44.5 m) Begin 3	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
15	3	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
16	3	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
17	3	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
18	3	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
19	3	clay, bn w/ yel mottling, plastic, silty, has blebs of H=1 SL=4 M=1 C=2	Overburden
20	0.2 m 3 (50.6 m) begin 4	clay, bn w/ yel mottling, plastic, silty, has blebs of magnetite (blk) and stringers w/ quartz sand H=1 SL=4 M=1 C=2	Overburden
21	4	Reworked residuum (2X) sandy silt, yel bn, abundant mica (talc-like texture), tr apatite, tr magnetite H=1 SL=3-4 M=1 C=2	Overburden
22	4	Reworked residuum (3X) sandy silt, yel bn, abundant mica (talc-like texture), tr apatite, tr magnetite H=1 SL=3-4 M=1 C=2	Overburden
23	4	Reworked residuum (3X) sandy silt, yel bn, abundant mica (talc-like texture), tr apatite, tr magnetite	Overburden

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		H=1 SL=3-4 M=1 C=2	
24	4	Reworked residuum (3X) sandy silt, yel bn, abundant mica (talc-like texture), tr apatite, tr magnetite H=1 SL=3-4 M=1 C=2	Overburden
25	0.67 m 4 (56.7 m) begin 5	Reworked residuum (3X) sandy silt, yel bn, abundant mica (talc-like texture), tr apatite, tr magnetite H=1 SL=3-4 M=1 C=2	Overburden
26	5	reworked residuum - sandy silty clay, bn w/ or mottling, tr apatite assoc w/ magnetite @ 58.4 m H= 1 SL=3-4 M=1 C=2	Overburden
27	5	sand, bn to yel bn clay binder, lean to abundant apatite inc w/ depth H= 1 SL=2-3 M=1 C=1	Residuum 2A
28	5	sdv clay - clayey sand, yel bn and blk, moderately rich apatite, apatite xls vf-fg H= 1 SL=2-3 M=1 C=1	Residuum 2A
29	5	sdv clay - clayey sand, yel bn and blk, moderately rich apatite, apatite xls vf-fg H= 1 SL=2-3 M=1 C=1	Residuum 2A
30	5	sdv clay - clayey sand, yel bn and blk, moderately rich apatite, apatite xls vf-fg H= 1 SL=2-3 M=1 C=1	Residuum 2A
31	5	sdv clay - clayey sand, yel bn and blk, moderately rich apatite, apatite xls vf-fg H= 1 SL=2-3 M=1 C=1	Residuum 2A
32	0.73 m 5 (65.8 m) begin 6	65.1 - 65.8 apatite sand, vf-fg, poor to well cemented 66.4 sand w/ bn clay binder, moderate apatite H= 1-2 SL=1 M=1 C=1	Residuum 2A/2B
33	6	clay, bn, plastic, sticky, sandy, lean to moderate apatite, cemented cobble sized cluster of apatite @ 67.5 m - v. rich contains apatite grains from v. fine up to 1 cm in length.  H= 2-5 SL=3 M=1 C=2	Residuum 2A
34	6	apatite sand, vf-fg, poor to well cmted, low % bn clay H= 2-5 SL=1 M=1 C=2	Residuum 2B
35	6	clay, dk bn & dk gn, soft, plastic, lean apatite H= 2 SL=3-4 M=1 C=2	Residuum 2A
36	6	silt, dk bn - dk gn, micaceous, clayey, tr sand v. lean apatite, tr of cbl sized frags @ 71.2 m H= 2-5 SL=3-4 M=1 C=2	Residuum 2A
37	6	clay, dk bn - dk gn w/ or mottling, vfg apatite sand in stringers, v lean H= 2 SL=3-4 M=1 C=2	Residuum 2A
38	6	clay, dk bn - dk gn w/ or mottling, vfg apatite sand in stringers, v lean H= 2 SL=3-4 M=1 C=2	Residuum 2A
39	1.33 m 6 (75.0 m) begin 7	73.8 - 74.0 - clay as above 74.0 - 75.1 sand, bn, silty, rich apatite H=1 SL=1&3 M=1 C=1-2	Residuum 2A
40	7	75.1 - 75.7 sand, bn silt loose binder, v rich apatite, some moderate cementation 75.7 - 76.3 sandy silt, dk bn w/ dk gn and lt bn mottling, moderate apatite H=2&5 SL=1&3 M=1 C=1	Residuum 2A
41	7	clay, dk bn w/ dk gn mottling, silty, mica, lean apatite H=1 SL=3-4 M=1 C=2	Residuum 2A
42	7	clay, mostly bn w/ some gn mottling, plastic, sticky, lean- moderate apatite H=1 SL=3-4 M=1 C=2	Residuum 2A
43	7	clay, bn w/ or mottling, plastic, soft, sticky, lean apatite  H=1 SL=3-4 M=1 C=2	Residuum 2A

## HOLE: 8356B

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @ 75.3m	1.5m lt gy - gy cs pbl-cbl H=2 SL=4 M=2 C=2	Glacial Till
2	1	0.9m gy - og bn SAA 0.6m og bn cs pbl H=2 SL=2 M=2 C=1	Begin K-Laterite
3	1	1.5m og bn cs pbl H=2 SL=2 M=2 C=1	mn ap sa
4	end 1(81.4m)	1.5m og bn cs pbl H=1 SL=2 M=2 C=1	mn ap sa
5	begin 2	1.5m SAA	Vrich ap sa
6	2	1.5m SAA	
7	2	1.5m mottled or bn - cr cs H=2 SL=2 M=1 C=2	Vrich ap sa calcite
8	2	1.5m SAA	
9	0.45m 2(87.5m) begin 3	1.5m mottled or bn - cr cs pbl H=2 SL=2 M=1 C=2	
10	3	1.5m dk mottled dk og bn-cr-blk cs pbl H=2 SL=2 M=1 C=2	
11	3	1.5m mottled og bn-cr cs H=2 SL=2 M=1 C=2	
12	3	1.5m SAA	
13	0.25m 3(93.6m) begin 4	1.5m mottled dk og bn-blk SAA	
14	4	1.5m SAA	
15	4	1.5m og bn SAA	
16	4	1.5m mottled dk og bn-blk SAA	
17	0.6m 4(99.7m) begin 5	0.6m SAA 0.9m mottled og bn-blk-cr SAA	course calcite grains

18	5	1.5m SAA	
19	5	1.5m SAA	
20	5	1.5m mottled og bn-blk-cr SAA	
21	0.56m 5(105.8m) begin 6	1.5m mottled og bn-dk bn blk-cr cs pbl H=1 SL=2 M=2 C=1	pbl cement
22	6	1.5m mottled dk bn blk-og bn SAA	
23	6	1.5m SAA	
24	6	1.5m SAA	
25	1.0m 6(111.9m) begin 7	1.5m SAA	
26	7	1.5m mottled og bn-dk bn blk SAA	increase pbl cement
27	7	1.5m og bn cs pbl H=2 SL=2 M=2 C=2	micaceous
28	7	1.5m SAA	
29	1.25m 7(118.0m) begin 8	1.5m mottled dk og bn-rd bn-blk SAA	
30	8	1.5m mottled dk og bn-bn blk cs ab pbl H=3 SL=2 M=2 C=2	ab pbl cement
31	8	1.5m SAA	
32	8	1.5m SAA	
33	end 8(124.0m)	1.5m mottled dk bn-blk SAA	
34	begin 9	1.5m SAA	
35	9	1.5m mottled dk bn blk-dk bn SAA	
36	0.5m 9(130.1m) begin 10	1.5m dk bn SAA	
37	10	1.5m dk og bn - bn blk SAA	



38	10	1.5m dk og bn SAA	
39	0.37m 10(136.2m) begin 11	1.5m mottled dk bn-dl bn blk SAA	
40	11	1.5m mottled dk bn-rd SAA	
41	11	1.5m dk bn blk SAA	
42	11	1.5m SAA	
43	0.36m 11(142.3m) begin 12	1.5m SAA	
44	12	1.5m dk og bn - bn blk SAA	
45	12	1.5m dk bn SAA	
46	0.48m 12(148.4m) begin 13	1.5m SAA	
47	13	1.5m SAA	
48	13	1.5m SAA	
49	0.77m 13(154.5m) begin 14	1.5m SAA	
50	1.05m 14(157.2m) TD	1.05m dk bn cs pbl-cbl	pbl-cbl cement

HOLE: 8356C

TDA 3/25/08

Box #	Core Run #	Brief Geologic Description	Comments
1	1 Start @75m	Sand, light brown and white, loose, sl. clayey H=1 SL=1 M=1 C=1	Overburden
2	1	Sand, light brown and white, loose, sl. clayey H=1 SL=1 M=1 C=1	Overburden
3	1	Sand, light brown and white, loose, sl. clayey H=1 SL=1 M=1 C=1	Overburden
4	1	Sand, light brown and white, loose, sl. clayey H=1 SL=1 M=1 C=1	Overburden
5	0.4 m 1 (81.1m) begin 2	Sand, light brown and white, loose, sl. clayey H=1 SL=1 M=1 C=1	Overburden
6	2	Sand, light brown and white, loose, sl. clayey H=2 SL=3 M=1 C=2	Overburden
7	2	Sand, light brown and white, loose, sl. clayey H=1 SL=1 M=1 C=1	Overburden
8	2	Sand, light brown and white, loose, sl. clayey H=1 SL=1 M=1 C=1	Overburden
9	0.4 m 2 (87.2 m) Begin 3	Sand, light brown and white, loose, sl. clayey H=1 SL=1 M=1 C=1	Overburden
10	3	Sand as above to 88.3 m, then becomes very clayey H=2 SL=1-3 M=1 C=2	Overburden
11	3	<u>Clay, light brown and gray</u> H=2 SL=1-3 M=1 C=2	<u>Overburden</u>
12	3	sand, bn binder H=2 SL=2-3 M=1 C=2	Overburden
13	0.9m 3 (93.3m) begin 4	sandy clay - clayey sand, bn w/yel mottling last 0.4m H=2 SL=2 M=2 C=2	Overburden
14	4	sand w/bn clay binder and or, blk and yel mottling H=2 SL=2 M=1 C=2	Overburden
15	4	sand, silty, dk bn - blk, yel mottling top 1 m H=1 SL=1 M=1 C=1	Residuum 2A apatite inc. w/ depth
16	4	sand, sl. clayey, v. dk bn w/ yel mottling H=1 SL=1 M=1 C=1	Residuum 2A, apatite rich
17	4	sand as above, v. dk bn - blk w/ yel mottling H=1 SL=1 M=1 C=1	Residuum 2A, apatite rich
18	0.4 m 4 (105.5 m) begin 5	sand as above, v. dk bn - blk H=1 SL=1 M=1 C=1	Residuum 2A, apatite rich
19	5	sand as above, v. dk bn - blk w/ yel mottling H=1 SL=1 M=1 C=1	Residuum 2A, apatite rich
20	5	sand as above, blk H=1 SL=1 M=1 C=1	Residuum 2A, apatite rich
21	5	sand as above, dk bn, H=1 SL=1 M=1 C=1	Residuum 2A, apatite rich trace of peb. Sized cemented frag.
22	1.25 m 5 (111.6m) begin 6	sand, silty, bn, micaceous H=1 SL=1 M=1 C=1	Residuum 2A, moderate apatite
23	6	sand, silty, gy bn, mica H=1 SL=2 M=1 C=1	Residuum 2A, moderate apatite
24	6	sand as above, transition to v. dk bn H=1-2 SL=2 M=1-2 C=1	Residuum 2A/2B w/ some peb sized cem frags
25	6	sand as above, transition back to brn micaceous H=1-2 SL=2 M=1 C=1	Residuum 2A/2B w/ some peb sized cem frags
26	6	sand, silty, dk bn, mica H=1-2 SL=2 M=1 C=1	Residuum 2A/2B w/ some peb sized cem frags
27	0.2 m 6 (117.6 m) begin 7	Sand, dk bn to yel bn H=2 & 5 SL=1 M=1 C=2	Residuum 2B, abundant pebble sized frags, rich apatite
28	7	Sand, dk bn to yel bn H=2 & 5 SL=1 M=1 C=2	Residuum 2B, abundant pebble sized frags, rich apatite
29	7	sand, silty, blk H=2 & 5 SL=1 M=1 C=2	Residuum 2A/2B w/ some peb sized cem frags

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30	7	sand, silty, blk H=2 & 5 SL=1 M=1 C=2	Residuuum 2A/2B w/ some peb sized cem frags
31	7	sand, silty, blk H=2 & 5 SL=1 M=1 C=2	Residuuum 2A/2B w/ some peb sized cem frags
32	0.82 m 7 (125.6m) begin 8	sand, blk H=2 & 5 SL=1 M=1 C=2	Residuuum 2B, abundant pebble sized frags, rich apatite
33	0.75 m 8 (126.9m) begin 9	sand, silty, bn, w/ interbeds of plastic clay H=2 & 5 SL=1 & 4 M=1 C=2	Residuuum 2A/2B, sand has peb and cob sized cem. Frags.
34	9	sand, clayey, dk bn H=2 SL=2 M=1 C=1	Residuuum 2A
35	0.7 m 9 (129.8 m) begin 10	cly sd to sdy cl, bn to dk bn, inc. clay w/ depth H=2 SL=2-3 M=1 C=1-2	Residuuum 2A
36	10	silty sd, dk bn, non-plastic H=2 SL=3 M=1 C=1	Residuuum 2A
37	10	silty sand as above H=2 SL=3 M=1 C=1	Residuuum 2A
38	10	silty sand as above H=2 SL=3 M=1 C=1	Residuuum 2A
39	10	cem sand frags in micaceous silt mtx, v. dk bn H=2 & 5 SL=2 M=1 C=2	Residuuum 2B, w/ abun. pebble sized cemented frags
40	0.5 m 10 (135.9) begin 11	cem sand frags in silty mtx, bn H=2 & 5 SL=2 M=1 C=2	Residuuum 2B, w/ pebble/cobble sized cemented frags
41	11	cem sand frags in silty mtx, bn H=2 & 5 SL=2 M=1 C=2	Residuuum 2B, w/ pebble/cobble sized cemented frags
42	11	cem sand frags in silty mtx, dk bn to blk H=2 & 5 SL=2 M=1 C=2	Residuuum 2B, w/ abund. pebble/cobble sized cemented frags
43	11	cem sand frags in silty mtx, dk bn to blk H=2 & 5 SL=2 M=1 C=2	Residuuum 2B, w/ abund. pebble/cobble sized cemented frags
44	1.0 m 11 (142.0 m) begin 12	cem sand frags in silty mtx, dk bn to blk H=2 & 5 SL=2 M=1 C=2	Residuuum 2B, w/ abund. pebble/cobble sized cemented frags
45	12	cem sand frags in silty mtx, dk bn to blk H=2 & 5 SL=2 M=1 C=2	Residuuum 2B, w/ abund. pebble/cobble sized cemented frags
46	12	cem sand frags in silty mtx, dk bn to blk H=2 & 5 SL=2 M=1 C=2	Residuuum 2B, w/ abund. pebble/cobble sized cemented frags
47	12	Cem fragments in a brown clayey sand matrix	Residuuum 2B, w/ about 0.1 m of highly weathered carbonatite at base TD 145.0 m

HOLE: 8356D

Box #	Core Run #	Brief Geologic Description	Comments	
1	begin 1 @ 84.1m	1.5m mottled dk rd bn-og bn-gy cs H=2 SL=2 M=2 C=2	Glacial Till	
2	1	0.25m SAA 1.25m lt gy - lt bn sa H=1 SL=1 M=2 C=1	Begin K-Sediments micaceous well sorted f-c q sa	
3	1	1.5m SAA		
4	1	1.5m SAA		
5	0.34m 1(90.2m) begin 2	0.34m SAA 1.16m lt bn cs pbl H=2 SL=2 M=2 C=1		
6	2	1.5m mottled og bn-gy sc H=3 SL=3 M=1 C=2		
7	1.12m 2(96.3m) begin 3	1.12m SAA 0.38m og bn cs H=3 SL=3 M=1 C=2	>50%mg	
8	3	1.5m blk - og bn cs H=3 SL=3 M=1 C=2	<50%mg f ap sa at end of box	
9	3	1.5m mottled dk bn blk-dk og bn cs H=3 SL=3 M=1 C=2	top of box is reworked residuum bottom of box is Vrich ap sa	2A
10	3	1.5m mottled dk bn-og bn-cr cs H=2 SL=2 M=2 C=1	Vrich ap sa	2A
11	3	1.5m SAA		2A
12	0.33m 3(102.4m) begin 4	1.5m mottled og bn-dk bn-blk-cr cs H=2 SL=2 M=2 C=1		2A
13	4	1.5m mottled dk og bn-blk-rd bn cs H=2 SL=2 M=2 C=1		2A
14	4	1.5m mottled dk bn-bn blk cs H=1 SL=1 M=2 C=1	Vrich ap sa	2A
15	4	1.5m mottled dk og bn-cr-bn blk cs H=1 SL=1 M=1 C=1	Vrich ap sa ca encrustations	2A
16	end 4(108.5m)	1.5m SAA		2A
17	begin 5	1.5m mottled dk bn-dk og bn cs pbl-cbl H=1 SL=1 M=2 C=1	pbl-cbl cement	2B
18	5	1.5m mottled dk og bn-dk bn cs occ pbl H=1 SL=1 M=2 C=1		2B
19	5	1.5m og bn cs pbl		2B

H=1 SL=2 M=2 C=1

20	5	1.5m mottled dk og bn-dk bn-blk cs pbl H=1 SL=1 M=2 C=1		2B
21	0.85m 5(114.6m) begin 6	1.5m SAA		2B
22	6	1.5m SAA		2B
23	6	1.5m mottled dk og bn-blk cs H=2 SL=3 M=2 C=2	micaceous	2B
24	6	1.5m mottled dk og bn-bn blk cs pbl H=2 SL=2 M=2 C=1		2B
25	6	1.5m mottled dk og bn-dk bn-bn blk cs pbl H=3 SL=1 M=2 C=1		2B
26	0.45m 6(120.7m) begin 7	1.5m mottled dk og bn-bn blkcs ab pbl H=3 SL=1 M=2 C=1	micaceous	2B
27	7	1.5m mottled dk bn-bn blk cs cs ab pbl H=3 SL=1 M=2 C=1	micaceous	2B
28	7	1.5m dk og bn - bn blk cs ab pbl H=3 SL=1 M=2 C=1		2B
29	end 7(126.8m)	1.5m mottled dk og bn-dk rd bn-bn blk cs ab pbl H=3 SL=1 M=2 C=1		2B
30	begin 8	1.5m dk bn - bn blk cs pbl H=2 SL=1 M=2 C=1	anhedral ap xls	2B
31	8	1.5m mottled dk og bn-bn blk-dk rd cs ab pbl H=3 SL=2 M=2 C=2	micaceous	2B
32	8	1.5m mottled dk og bn-blk cs pbl H=3 SL=2 M=2 C=2		2B
33	0.99m 8(132.9m) begin 9	1.5m SAA		2B
34	9	1.5m mottled dk og bn-blk-rd bn cs pbl H=3 SL=2 M=2 C=2	micaceous	2B
35	9	1.5m dk bn-bn blk SAA		2B
36	9	1.5m SAA		2B
37	0.45m 9(139.0m) begin 10	1.5m SAA		2B
38	10	1.5m mottled dk og bn-bn blk-rd bn SAA		2B
39	10	1.5m mottled dk bn-bn blk-og bn SAA		2B

40	10	1.5m SAA		2B
41	1.16m 10(145.1m) begin 11	1.5m SAA		2B
42	11	1.5m mottled dk og bn-blk SAA		2B
43	11	1.5m mottled og bn-dk bn-blk SAA		2B
44	11	1.5m SAA		2B
45	0.54m 11(151.2m) begin 12	1.5m mottled dk og bn-dk bn cs pbl H=3 SL=2 M=2 C=2	ca encrustations	2B
46	12	1.5m mottled dk og bn-dk bn-blk cs mn pbl H=2 SL=2 M=2 C=1		2B
47	12	1.5m mottled rd bn-dk og bn-dk bn cs ab pbl H=3 SL=2 M=2 C=1	ca encrustations	2B
48	12	0.75m mottled rd bn-dk og bn-dk bn cs ab pbl H=3 SL=2 M=2 C=1 0.75m mottled rd bn-dk og bn-dk bn cs H=3 SL=2 M=2 C=1		2B
49	end 12(157.3m)	0.63m mottled dk og bn-dk bn-bn blk cs H=2 SL=2 M=2 C=1 0.87m mottled dk og bn-dk bn-bn blk cs pbl H=3 SL=2 M=2 C=1	ca encrustations	2B
50	begin 13	1.5m mottled dk og bn-dk bn-blk cs pbl H=3 SL=2 M=2 C=1	ca encrustations micaceous	2B
51	13	1.5m og bn cs ab pbl H=3 SL=2 M=2 C=1		2B
52	13	1.5m SAA		2B
53	0.42m 13(162.2m) TD	0.42m SAA		2B

	begin 5			
19	5	1.5m mottled dk og bn-blk-dk bn SAA		
20	5	1.5m SAA		
21	5	1.5m SAA		
22	5	1.5m SAA		
23	5	1.5m mottled dk bn-og bn cs ab pbl H=2 SL=2 M=2 C=1		
24	5	1.5m mottled og bn-blk SAA		
25	5	1.5m SAA		micaceous
26	5	1.5m mottled dk bn-og bn-blk cs pbl SAA		micaceous
27	0.98m 5(123.7m)	1.3m SAA		
	begin 6			
28	6	1.5m mottled dk bn-dk bn blk-dk og bn cs pbl H=2 SL=2 M=2 C=1		micaceous
29	6	1.5m SAA		
30	6	1.5m bn cs H=2 SL=3 M=1 C=1		micaceous
31	6	1.5m mottled dk og bn-dk bn cs pbl H=2 SL=3 M=1 C=1		micaceous
32	1.34m 6(135.9m)	1.34m mottled dk og bn-dk bn blk SAA		
33	begin 7	1.43m dk og bn cs pbl H=2 SL=3 M=1 C=1		micaceous
34	7	1.5m mottled dk bn-blk-og bn cs pbl H=2 SL=3 M=2 C=1		
35	7	1.4m SAA		micaceous
36	7	1.5m mottled dk og bn-blk cs pbl H=3 SL=2 M=2 C=1		
37	0.6m 7(142.0m)	1.5m mottled dk bn-dk og bn SAA		
	begin 8			
38	8	1.5m SAA		
39	8	1.5m SAA		
40	8	1.5m SAA		

42

0.78m 8(148.1m) 0.78m SAA  
TD



HOLE: 8356F

tda 3/27/08

Box #	Core Run #	Brief Geologic Description	Comments
1	1 Start @84.4m	clay, brownish gray, v. sandy, plastic H=2 SL=3 M=1 C=2	Overburden
2	1	sand, vfg, clayey, mostly qz w. some apatite blebs H=1 SL=2 M=1 C=1	Overburden 3X
3	1	sand, vfg, clayey, mostly qz w. tr. apatite H=1 SL=2 M=2 C=1	Overburden 3X
4	0.77 m 1 (90.5m) begin 2	silt and clay, sl sdy, lt. bn w/ yel & blk mottling H=1 SL=3 M=1 C=1	Overburden 3X
5	2	silt and clay, sl sdy, lt. bn w/ yel & blk mottling H=1 SL=3 M=1 C=1	Overburden 3X
6	2	silt and clay, sl sdy, lt. bn w/ yel & blk mottling H=1 SL=3 M=1 C=1	Overburden 3X
7	2	sd, vfg, mostly qz in br silty mtx H=1 SL=1 M=1 C=1	Overburden 3X Tr. Apatite
8	2	sand as above grading to bn plastic clay w/ large mica flakes and magnetite grains H=1 SL=1 M=1 C=1	Overburden 3X
9	0.67 m 2 (96.6 m) Begin 3	clayey sand w/ layers of plastic clay, bn H=1-2 SL=2-3 M=1-2 C=1-2	Residuum 2A
10	3	sd, vfg, lt. yel bn silt mtx H=1-2 SL=2 M=1 C=1	Residuum 2A, visible apatite xls
11	1.5 m 3 (102.7 m)	sd, vfg, lt. yel bn silt mtx H=1-2 SL=2 M=1 C=1	Residuum 2A, visible apatite xls
	4		102.7 - 108.8 not recovered
12	begin 5	sd, vfg, dk bn silt mtx w/ yel & blk mottling, mica H=1 SL=1 M=1 C=1	Residuum 2A
13	5	sd, vfg, v. dk bn silt mtx w/ less mottling, less mica H=1 SL=1 M=1 C=1	Residuum 2A, moderate apatite
14	5	sd, vfg, v. dk bn silt mtx H=1 SL=2 M=1 C=2	Residuum 2A, moderate apatite
15	5	sd, vfg, yel bn silt mtx H=1 SL=2 M=1 C=1	Residuum 2A
16	1.5 m 5 (114.9 m)	sand, vfg, v. dk bn silty mtx w/ yel mottling H=1 SL=2 M=1 C=1	Residuum 2A
17	Begin 6	sand, vfg, bn silty mtx w/ yel & blk mottling H=1 SL=2 M=1 C=1	Residuum 2A
18	6	sand as above, dk yel bn - blk H=1 SL=1 M=1 C=1	Residuum 2A, trace of pebble sized cemented frags
19	6	sand as above, dk yel bn - blk H=1 SL=1 M=1 C=1	Residuum 2A, trace of pebble sized cemented frags
20	6	sand as above, dk yel bn - blk H=1&5 SL=1 M=1 C=1	Residuum 2A/2B, increased pebble sized cemented frags
21	1.5 m 6 (121.0 m)	sand as above, dk yel bn - blk H=1 SL=1 M=1 C=1	Residuum 2A, trace of pebble sized cemented frags
22	Begin 7	sand as above, dk yel bn - blk H=1 SL=1 M=1 C=1	Residuum 2A, trace of pebble sized cemented frags
23	7	sand, vfg, v. dk brn - blk H=2-3 SL=1 M=1 C=1	Residuum 2A/2B, abundant apatite, trace of pebble sized cemented frags
24	7	sand, vfg, v. dk brn - blk H=2-3 SL=1 M=1 C=1	Residuum 2A/2B, abundant apatite, trace of pebble sized cemented frags
25	7	sand, vfg, v. silty, v. dk bn - blk, mica H=1 SL=2-3 M=1 C=1	Residuum 2A
26	7	sand, v. silty, dk bn - blk w/ or mottling H=1 SL=2-3 M=1 C=1	Residuum 2A
27	7	sand, v. silty, dk bn - blk w/ or mottling H=1 SL=2-3 M=1 C=1	Residuum 2A, w/ cemented pebble sized fragments
28	7	Sand, vf - fg, v dk bn to blk, H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, abundant pebble sized frags, rich apatite
29	0.48 m 7 (130.1m)	Sand, vf - fg, v dk bn to blk,	Residuum 2B, abundant pebble sized frags, rich apatite

Hole 8356F

## PHOSCAN WINTER 2008

	begin 8	H=2 & 5 SL=1-2 M=1 C=2	
30	8	Sand, vf - fg, v dk bn to blk, H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, abundant pebble sized frags, rich apatite
31	8	Sand, vf - fg, v dk bn to blk, H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, abundant pebble sized frags, rich apatite
32	8	Sand, vf - fg, v dk bn to blk, H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, abundant pebble sized frags, rich apatite
33	8	sand, vfg, dk bn, loose H=1 & 5 SL=2 M=1 C=1	Residuum 2A apatite sd
34	8	sand, vfg, dk bn, loose H=1 & 5 SL=2 M=1 C=1	Residuum 2A apatite sd
35	8	Sand, vf - fg, dk bn H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, abundant pebble sized frags, rich apatite
36	0.46 m 8 (139.3 m) begin 9	Sand, vf - fg, dk bn H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, abundant pebble sized frags, rich apatite
37	9	sd, vfg, dk bn silt mtx loosly binding sand grains H=1-2 SL=2 M=1 C=1	Residuum 2A, some poorly cem. Frags
38	9	sd, vfg, dk bn silt mtx loosly binding sand grains H=1-2 SL=2 M=1 C=1	Residuum 2A, some poorly cem. Frags
39	9	sd, vfg, dk bn silt mtx loosly binding sand grains H=1-2 SL=2 M=1 C=1	Residuum 2A, some poorly cem. Frags
40	9	sd, vfg, dk bn silty clay mtx H=2 & 5 SL=1 M=1 C=2	Residuum 2B, abundant pebble sized cemented frags
41	9	sd, vfg, dk bn silty clay mtx H=2 & 5 SL=2 M=1 C=2	Residuum 2B, pebble sized cemented frags
42	9	sd w/ brn clay lenses H=2 & 4 SL=2 M=1 C=2	Residuum 2A/2B, w/ tr. pebble sized cemented frags
43	1.5 m 9 (148.4 m)	sd w/ brn clay lenses H=2 & 4 SL=2 M=1 C=2	Residuum 2A/2B, w/ tr. pebble sized cemented frags
44	Begin 10	sd, vf-fg, bn silty clay mtx w/ or mottling H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, w/ abund. pebble sized cemented frags
45	10	sd, vf-fg, bn silty clay mtx w/ or mottling H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, w/ moderate pebble sized cemented frags
46	10	sd, vf-fg, bn silty clay mtx w/ or mottling H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, w/ abund. pbl& cbl sized cemented frags
47	1.5 m 10 (154.5 m)	sd, vf-fg, bn silty clay mtx w/ or mottling H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, w/ abund. pbl& cbl sized cemented frags
48	begin 11	sd, vf-fg, bn silty clay mtx w/ or mottling H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, w/ abund. pbl sized cemented frags, < cbl
49	11	sd, vf-fg, bn silty clay mtx w/ or mottling H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, w/ abund. pbl& cbl sized cemented frags
50	11	sd, vf-fg, bn silty clay mtx w/ or mottling H=3 & 5 SL=1 M=1 C=2	Residuum 2B, w/ abund. pbl& cbl sized cemented frags w/lenses of well indurated rock core about 5 cm long
51	11	sd, vf-fg, bn silty clay mtx w/ or mottling H=2 & 5 SL=1-2 M=1 C=2	Residuum 2B, w/ abund. pbl sized cemented frags, no cbl
52	1.5 m 11 (160.6 m)	clayey sd, dk bn, no mottling H=2 SL=2 M=1 C=2	2A/2B, some cemented pbl sized frags
53	begin 12	sd, bn silt mtx w/ v. silty layer w/ <cem mid of box H=1 & 4 SL=1 & 3 M=1 C=2	2A/2B, abundant cemented pbl and cbl sized frags
54	12	sd, dk bn silt mtx H= 4& 5 SL=1 M=1 C=2	Residuum 2B, w/ abund. pbl& cbl sized cemented frags
55	12	sd, v. silty bn mtx w/ abundant mica	Residuum 2A TD 167.0 m

## HOLE: 8358B

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @ 38.4m	1.5m gy cs pbl H=3 SL=3 M=1 C=2	Glacial Till
2	1	1.27m SAA 0.23m yl bn cs pbl H=3 SL=1 M=1 C=2	Contact Residuum 2B
3	0.36m 1(41.5m) begin 2	1.5m lt yl bn cs pbl-cbl H=4 SL=1 M=2 C=2	2B
4	2	1.5m SAA	2B
5	2	1.5m lt og bn SAA	2B
6	0.38m 2(46.0m) begin 3	1.5m lt bn SAA	2B
7	3	1.5m lt yl bn SAA	2B
8	3	1.5m mottled bn-dk gn SAA	micaceous 2B
9	3	1.5m mottled bn-og bn cs H=2 SL=2 M=1 C=2	micaceous mn ap 2A/IB
10	0.17m 3(50.6m) begin 4	0.17m SAA 1.33m mottled bn-dk bn cs pbl H=2 SL=2 M=1 C=2	2A
11	4	1.5m mottled bn-dk bn-dk bn blk cs pbl H=3 SL=2 M=1 C=2	2A
12	4	1.5m mottled dk bn-dk og bn cs pbl H=3 SL=2 M=1 C=2	tr ap 2A/IB
13	4	1.5m mottled dk bn-dk og bn cs H=3 SL=2 M=1 C=2	tr ap 2A/IB
14	end 4(56.7m)	1.5m mottled dk bn-dk og bn cs pbl H=3 SL=2 M=1 C=2	mod ap 2A
15	begin 5	1.5m SAA	mod ap 2A
16	5	1.5m mottled dk bn-dk og bn-dk bn blk cs pbl H=3 SL=2 M=1 C=2	2A
17	5	0.6m bn cs pbl	2A

		H=2 SL=2 M=1 C=2 0.9m mottled dk og bn-bn blk cs pbl H=2 SL=2 M=1 C=2	2B
18	5	1.5m mottled blk-dk og bn cs pbl H=2 SL=2 M=1 C=2	
19	1.37m 5(62.8m) begin 6	1.5m SAA	
20	6	1.5m SAA	
21	6	1.5m SAA	
22	6	1.5m SAA	
23	6	1.5m SAA	
24	0.25m 6(68.9m) begin 7	0.6m SAA 0.9m mottled bn-rd bn-og bn-gn cs H=2 SL=2 M=1 C=2	micaceous
25	7	1.5m mottled bn-bn blk-og bn cs pbl H=2 SL=2 M=1 C=2	
26	7	1.5m SAA	
27	7	1.5m SAA	
28	0.99m 7(75.0m) begin 8	1.5m dk bn cs pbl H=3 SL=2 M=2 C=2	
29	8	1.5m mottled dk og bn-blk-dk bn cs pbl H=2 SL=2 M=2 C=2	
30	8	1.5m mottled dk og bn-blk-dk bn cs pbl H=3&4 SL=2 M=2 C=2	
31	8	1.5m SAA	
32	8	0.7m pbl-cbl carbonatite 0.8m dk bn cs pbl-cbl carbonatite H=5 SL=1 M=1 C=2	carbonatite
33	0.47m 8(81.1m) begin 9	1.5m mottled dk bn blk-dk bn cs pbl-cbl H=3&5 SL=1 M=1 C=2	carbonatite
34	9	1.5m mottled bn-og bn cs pbl-cbl	carbonatite

H=3&5 SL=1 M=1 C=2

35	0.49m 9(84.1m) 0.94m 10(90.2m) begin 11	1.5m dk bn-bn cs pbl-cbl H=3&5 SL=1 M=1 C=2	
36	11	1.5m bn cs pbl-cbl H=3&5 SL=1 M=1 C=2	
37	0.43m 11(92.7m) begin 12	1.5m dk bn SAA	
38	1.27m 12(94.8m) begin 13	1.27m dk bn-lt bn SAA 0.23m dk bn sa H=1 SL=1 M=1 C=1	ap sa
39	13	1.5 dk bn cs pbl-cbl H=3&4 SL=2 M=1 C=2	
40	1.41m 13(97.8m) begin 14	1.5m dk bn-bn SAA	
41	14	1.5m bn-lt bn SAA	
42	1.3m 14(98.8m) TD	1.3m pulverized & pbl-cbl carbonatite	1D

## HOLE: 8361B

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1@75.3m	1.5m og bn cs pbl H=2 SL=3 M=3 C=2	Lateritic Residuum rich f ap sa
2	1	0.86m og bn - dk gn bn cs pbl H=3 SL=3 M=3 C=2 0.64m og bn cs pbl H=3 SL=3 M=1 C=2	cemented pbl
3	end 1(81.4m)	1.5m og bn cs ab pbl mn cbl H=4&5 SL=3 M=2 C=3	cemented pbl-cbl
4	2	1.5m bn - og bn cs ab pbl-cbl H=5 SL=3 M=2 C=3	cemented pbl-cbl
5	2	1.5m dk og bn cs pbl H=3&5 SL=3 M=2 C=3	rich f ap sa
6	2	1.5m og bn cs ab pbl H=5 SL=3 M=1 C=3	cemented pbl
7	0.28m 2(87.5m) begin 4 No recovery in core run #3	0.28m lt og bn cemented pbl H=5 SL=3 M=1 C=3 0.38m dk bn cs H=2 SL=2 M=2 C=1 0.74m og bn - lt bn cs ab pbl H=5 SL=3 M=1 C=3	cemented pbl mod rich ap sa cemented pbl
8	4	1.5m dk bn cs ab pbl H=5 SL=3 M=2 C=3	cemented pbl
9	end 4(93.6m)	0.7m SAA 0.8m og bn 5AA	
10	begin 5	1.5m og bn cs pbl H=3&5 SL=3 M=2 C=3	Vrich ap sa & cemented pbl tr mi
11	5	1.5m dk og bn cs pbl H=3&5 SL=3 M=2 C=3	micaceous
12	5	1.5m dk bn blk - og bn cs pbl H=3&5 SL=3 M=2 C=2	Vrich ap sa & cemented pbl micaceous
13	5	1.5m og bn - lt og bn - og bn cs ab pbl-cbl H=5 SL=3 M=1 C=3	cemented pbl-cbl
14	0.7m 5(99.7m) begin 6	0.7m og bn SAA 0.8m dk bn SAA	cemented pbl cemented pbl
15	6	1.5m dk bn SAA	cemented pbl
16	6	1.5m dk mottled og bn-bn blk - dk og bn cs pbl H=3&5 SL=2 M=2 C=2	cemented pbl
17	6	1.5m og bn cs pbl	cemented pbl

		H=3&5 SL=2 M=2 C=2	
18	0.51m 6(105.8m) begin 7	1.5m dk og bn cs pbl H=3 SL=2 M=2 C=2	Vrich ap sa & cemented pbl micaceous
19	7	1.5m og bn - dk og bn cs pbl H=3&5 SL=2 M=2 C=2	cemented pbl
20	7	1.5m dk og bn cs pbl H=3 SL=2 M=2 C=2	cemented pbl
21	7	1.5m dk bn - dk og bn cs ab pbl H=3&5 SL=2 M=2 C=3	cemented pbl
22	0.23m 7(111.9m) begin 8	1.5m dk og bn cs pbl H=3 SL=2 M=2 C=2	cemented pbl
23	8	1.5m mottled dk bn blk-dk og bn cs pbl H=3 SL=2 M=2 C=2	Vrich ap sa & cemented pbl
24	8	1.5m og bn - mottled dk og bn-bn blk cs pbl H=3 SL=2 M=2 C=2	cemented pbl
25	1.15m 8(118.0m) begin 9	1.15m mottled dk bn blk-dk og bn cs pbl H=3 SL=2 M=2 C=2 0.35m dk bn cs H=3 SL=3 M=2 C=2	cemented pbl
26	9	0.27m dk bn blk cs H=3 SL=2 M=2 C=2 1.19m bn - lt pp gy fg & pulverized carbonatite H=5	fg & pulverized carbonatite
27	9	1.5m lt tn fg & pulverized carbonatite H=5	fg & pulverized carbonatite
28	1.1m 9(121.0m) begin 10	1.5m dk og bn cs pbl H=3 SL=2 M=2 C=2	Vrich ap sa & cemented pbl ab mg
29	10	1.5m dk og bn cs ab pbl H=3&5 SL=2 M=2 C=3	
30	10	0.37m SAA 1.13m SAA H=3 SL=2 M=2 C=2	less cemented pbl than above
31	10	1.5m SAA(last 1.13m #30)	
32	1.02m 10(127.1m) begin 11	1.02m og bn - dk bn cs pbl-cbl H=3&5 SL=2 M=2 C=3 0.48m dk og bn cs pbl H=3&5 SL=2 M=1 C=3	cemented pbl-cbl Vrich ap sa & cemented pbl micaceous
33	11	1.5m og bn cs pbl H=3&5 SL=3 M=2 C=3	cemented pbl micaceous

34	11	1.5m og bn - dk og bn SAA	
35	11	1.5m dk og bn - mottled dk bn-dk og bn cs pbl H=3&5 SL=2 M=2 C=3	cemented pbl micaceous
36	11	1.5m dk og bn cs pbl H=3 SL=2 M=2 C=2	cemented pbl micaceous
37	0.15m 11(133.2m) begin 12	1.5m dk og bn cs pbl H=4 SL=3 M=3 C=2	cemented pbl micaceous
38	12	1.5m SAA	cemented pbl micaceous
39	12	1.5m SAA	cemented pbl micaceous
40	12	1.5m SAA	cemented pbl micaceous
41	end 12(139.3m)	0.95m SAA 0.55m dk bn cs pbl-cbl	cemented pbl micaceous pbl-cbl carbonatite
42	begin 13	1.5m og bn cs pbl H=3&5 SL=2 M=2 C=2	cemented pbl
43	13	1.5m SAA	cemented pbl
44	13	1.5m SAA	
45	13	1.5m lt bn cs H=2 SL=4 M=1 C=2	micaceous
46	1.27m 13(145.4m) begin 14	0.67m SAA 0.83m dk og bn cs pbl H=3 SL=2 M=2 C=2	micaceous cemented pbl micaceous
47	14	1.5m SAA	cemented pbl micaceous
48	14	1.5 dk og bn - dk bn SAA	cemented pbl micaceous
49	14	1.5 dk bn SAA	cemented pbl micaceous
50	0.5m 14(151.5m) begin 15	0.5m dk og bn - dk bn cs pbl H=3 SL=2 M=2 C=2 1.0m dk bn cs pbl-cbl H=4-5 SL=3 M=2 C=3	cemented pbl micaceous Highly weathered carbonatite pbl-cbl
51	15	1.5 H bn - bn cs pbl-cbl H=3&5 SL=3-4 M=1 C=3	Highly weathered carbonatite pbl-cbl V Rich ap sa
52	0.13m 15(154.5m)	1.5m SAA	



	begin 16		
53	1.27m 16(157.6m) begin 17	1.5m bn - dk bn cs pbl-cbl H=3&5 SL=3-4 M=1 C=3	Highly weathered carbonbatite pbl-cbl
54	17	1.5m SAA	
55	17	1.5m SAA	
56	17	1.5m lt bn SAA	
57	0.58m 17(163.7m) begin 18	0.58m cored carbonatite 0.92 dk bn cs pbl H=3&5 SL=2-3 M=1 C=2-3	cored carbonatite
58	18	1.5m dk bn sc pbl-cbl H=4&5 SL=4 M=2 C=3	Highly weathered carbonbatite pbl-cbl
59	18	0.98m SAA 0.52m lt bn cs pbl-cbl H=3&5 SL=3 M=1 C=3	Highly weathered carbonbatite pbl-cbl
60	1.26m 18(169.8m) begin 19	1.26m SAA(last 0.52m #59) 0.24m og bn cs H=3 SL=2 M=1 C=2	
61	19	1.5m bn cs pbl-cbl H=3&5 SL=2 M=1 C=3	Highly weathered carbonbatite pbl-cbl
62	19	1.2m SAA 0.3m lt tn cs pbl-cbl H=3&5 SL=2 M=1 C=3	Highly weathered carbonbatite pbl-cbl
63	19	1.5m bn - rd og bn - bn - lt bn cs pbl-cbl H=3&5 SL=2 M=1 C=3	Highly weathered carbonbatite pbl-cbl micaceous
64	0.23m 19(175.9m) begin 20	0.23m lt gn bn cs H=3 SL=3 M=1 C=2 1.27m dk og bn cs H=2 SL=2 M=1 C=1	micaceous micaceous pbl at end of box
65	20	1.5m dk rd bn - yl og bn cs H=3 SL=3 M=2 C=2	micaceous
66	20	1.5m yl og bn - rd bn cs H=3 SL=3 M=2 C=2	micaceous
67	20	1.5m dk bn - og bn cs H=3 SL=3 M=2 C=2	micaceous
68	end 20(182.0m) TD	0.92m lt bn - bn og bn cs H=3 SL=3 M=2 C=2	micaceous

## HOLE: 8361C

Box #	Core Run #	Brief Geologic Description	Comments
1	begin @ 75m	1.5m rd bn cs H=3 SL=4 M=2 C=2	Laterite @ 75m depth
2	1	1.5m dk rd bn cs H=3 SL=4 M=2 C=2	
3	0.94m 1 (78.0m) begin 2	1.5m SAA	
4	2	1.5m SAA	
5	2	1.5m SAA	
6	2	1.5m rd bn SAA	
7	2	1.5m rd bn - dk pp bn SAA	
8	0.93m 2 (84.1m) begin 3	0.93m rd bn cs pbl H=3 SL=4 M=2 C=2 0.57m og bn cs pbl H=3 SL=3 M=2 C=2	
9	3	1.5m og bn - yl og bn cs pbl H=3 SL=3 M=2 C=2	ca encrustations
10	3	1.5m og bn - dk og bn - yl og bn SAA	
11	3	1.5m yl og bn cs SAA	ca/hm encrustations
12	3	1.5m SAA	decreasing pbl laterite
13	0.4m 3 (90.2m) begin 4	0.4m og bn cs SAA 0.9m og bn cs H=3 SL=3 M=3 C=2 0.2m og bn cs H=3 SL=3 M=1 C=2	Begin laterite field at 90.2m. Dark brown pbl tr f ap sa
14	4	0.98m og bn cs H=3 SL=3 M=3 C=2 0.52m og bn cs H=3 SL=3 M=1 C=2	rich ap sa
15	4	1.5m og bn cs mn pbl H=2 SL=3 M=2 C=1	vrich mod well sorted f ap sa with mn pbl laterite
16	0.96m 4 (96.3m) begin 5	1.5m og bn - dk bn blk cs pbl H=3 SL=2 M=2 C=1	
17	5	0.82m SAA 0.68m SAA with pbl	pbl cement
18	5	1.5m bn blk cs ab pbl H=4 SL=2 M=2 C=3	ab pbl cement
19	5	1.15m SAA 0.35m cemented pbl-cbl clasts	pbl-cbl cement

20	5	1.5m og bn - bn blk cs ab pbl-cbl H=4 SL=2 M=2 C=3	ab pbl-cbl cement
21	5	1.5m bn blk cs ab pbl-cbl H=4 SL=2 M=2 C=3	ab pbl-cbl cement and laterite rich f ap sa
22	5	1.5m SAA	ab pbl-cbl cement and laterite rich f ap sa
23	0.29m 5 (108.5m) begin 6	1.5m SAA	
24	6	1.5m SAA	
25	6	1.5m SAA	
26	0.75m 6 (111.6m) begin 7	1.5m bn blk - og bn - bn blk SAA	
27	7	1.5m SAA	
28	7	1.5m SAA	
29	7	1.5m SAA	
30	7	1.5m og bn - bn blk SAA	
31	0.76m 7(117.6m) begin 8	0.76m og bn - bn blk SAA 0.74m og bn cs pbl H=3&4 SL=3 M=2 C=2	rich ap sa micaceous
32	8	1.5m og bn cs pbl H=3 SL=2 M=2 C=2	no cemented residuum, pbl laterite Vrich ap sa, no mica
33	8	1.5m og bn cs pbl SAA	pbl-cbl cemented residuum
34	end 8(123.7m)	1.5m SAA	no cbl cement
35	begin 9	1.5m og bn cs SAA	
36	9	1.5m og bn - bn blk cs SAA	
37	9	1.5m SAA	micaceous
38	9	1.5m SAA	micaceous
39	0.82m 9(129.8m) begin 10	1.5m SAA	
40	10	1.5m SAA	
41	10	1.5m SAA	
42	10	1.5m SAA	
43	1.15m 10(135.9m) begin 11	1.5m og bn - bn blk cs pbl H=3 SL=2 M=2 C=2	Vrich ap sa mn mica

44	11	1.5m dk bn - dk og bn cs pbl H=3 SL=2 M=2 C=2	Vrich ap sa
45	11	1.5m dk bn blk - mottled dk bn blk-og bn cs pbl H=3 SL=2 M=2 C=2	
46	11	1.5m SAA	
47	11	1.5m SAA	
48	0.75m 11(142.0m) begin 12	1.5m dk bn - blk - og bn cs pbl H=3 SL=2 M=2 C=2	Vrich ap sa micaceous
49	12	1.5m SAA	
50	12	1.0m dk og bn - bn blk cs pbl H=3 SL=2 M=2 C=2 0.5m og bn cs pbl H=3 SL=3 M=2 C=2	
51	12	1.5m mottled dk bn-og bn cs pbl H=3 SL=2 M=2 C=2	ab pbl cement
52	12	1.5m SAA	
53	0.96m 12 (148.1m) begin 13	1.5m mottled dk bn blk-og bn cs pbl H=3 SL=2 M=2 C=2	
54	13	1.5m mottled dk bn-og bn cs pbl H=3 SL=2 M=2 C=2	micaceous
55	13	1.5m SAA	
56	13	1.5m SAA	
57	13	1.5m mottled dk bn blk-og bn cs pbl H=3 SL=2 M=2 C=2	
58	end 13(154.2m)	1.44m SAA	
59	begin 14	1.5m yl og bn cs H=2 SL=3 M=2 C=2	micaceous
60	14	1.5m bn - mottled dk bn-og bn cs H=3 SL=3 M=2 C=2	
61	14	1.02m mottled dk bn - bn blk - og bn cs H=4 SL=3 M=1 C=3 0.48m lt bn cs H=3 SL=2 M=1 C=2	micaceous
62	14	1.5m SAA(last 0.48m #61)	
63	1.25m 14(160.3m) begin 15	1.05m SAA 0.45m og bn cs pbl H=2 SL=2 M=1 C=1	pbl carbonatite micaceous
64	15	1.47m bn cs pbl H=3 SL=3 M=2 C=2	micaceous

65	15	0.99m mottled bn-lt bn-og bn SAA 0.51m mottled og bn-blk-lt gn gy cs H=3 SL=3 M=1 C=2	
66	15	0.34m dk bn cs H=2 SL=2 M=2 C=1 1.16m dk bn cs H=2 SL=2 M=1 C=2	micaceous
67	15	1.5m SAA(last 1.16m #66)	
68	0.97m 15(166.4m) begin 16	1.5m dk bn cs H=3 SL=2 M=2 C=2	
69	16	1.5m lt bn - bn cs H=2 SL=2 M=1 C=2	
70	16	1.5m bn cs pbl H=3 SL=2 M=1 C=2	
71	16	1.5m dk bn cs pbl H=3 SL=2 M=2 C=2	ca/Fe encrustations
72	1.45m 16(172.5m) TD	1.45m dk bn - dk bn blk SAA	Vrich ap sa encrustations

## HOLE: 8361D

Box #	Core Run #	Brief Geologic Description	Comments
1	end 1(81.4m)	1.5m bn outer core gy inner core H=2 SL=4 M=1 C=2	Till
2	begin 2	1.5m og bn cs H=2 SL=2 M=1 C=1	laterite ca concretions
3	2	1.5m SAA	last 0.2m ab pbl
4	2	1.5m lt tn cemented pbl-cbl residuum H=5 SL=1 M=1 C=3	cemented pbl-cbl residuum
5	1.4m end 2(87.5m) begin 3	1.5m lt tn - dk og bn cs pbl H=2&5 SL=2 M=1 C=2	cemented pbl residuum
6	3	1.5m og bn - bn SAA H=2&5 SL=3 M=1 C=2	cemented pbl residuum
7	3	1.5m og bn SAA	cemented pbl residuum
8	3	1.5m SAA	cemented pbl residuum
9	1.5m end 3(93.6m)	1.5m SAA	cemented pbl residuum
10	4	1.5m dk og bn cs pbl H=2&5 SL=2 M=1 C=2	cemented pbl residuum
11	4	1.5m SAA	cemented pbl residuum
12	1.5m end 4(99.7m)	1.5m SAA	cemented pbl residuum
13	begin 5	1.5m og bn cs pbl-cbl H=3&5 SL=2 M=1 C=2	cemented pbl-cbl residuum
14	5	1.5m og bn SAA	cemented pbl-cbl residuum
15	1.5m end 5(102.7m)	1.5m SAA	cemented pbl-cbl residuum
16	begin 6	1.5m SAA	cemented pbl-cbl residuum
17	6	1.5m bn - dk bn cs pbl-cbl H=3&5 SL=3 M=1 C=2	cemented pbl-cbl residuum
18	1.5m end 6(108.8m)	1.5m bn SAA	cemented pbl-cbl residuum

19	begin 7	1.5m dk bn cs pbl-cbl H=3&5 SL=2 M=1 C=2	cemented pbl-cbl residuum
20	7	1.5m dk bn - blk pbl-cbl H=3&5 SL=3 M=1 C=2	cemented pbl-cbl residuum
21	7	1.5m SAA	cemented pbl-cbl residuum
22	1.5m end 7(114.9m)	1.5m dk bn - blk - og bn SAA	cemented pbl-cbl residuum
23	begin 8	1.5m dk bn cs pbl-cbl H=3&5 SL=2 M=1 C=2	cemented pbl-cbl residuum
24	8	1.5m SAA	cemented pbl-cbl residuum
25	0.6m end 8(121.0m) begin 9	1.5m SAA	cemented pbl-cbl residuum
26	9	1.5m dk bn - og bn cs pbl H=3 SL=1 M=1 C=2	cemented pbl residuum
27	9	1.5m SAA	cemented pbl residuum
28	9	1.5m dk bn - blk - og bn cs pbl H=3 SL=1 M=1 C=2	cemented pbl residuum
29	9	1.5m og bn cs ab pbl H=3&5 SL=1 M=1 C=2	cemented pbl residuum
30	0.22m end 9(127.1m) begin 10	1.5m SAA	cemented pbl residuum
31	10	1.5m dk bn blk - og bn SAA	cemented pbl residuum
32	10	1.5m og bn -mottled lt bn-og bn cs pbl H=3 SL=2-3 M=1 C=2	cemented pbl residuum micaceous
33	0.7m end 10(133.2m) begin 11	0.7m lt bn - og bn cs H=3 SL=3 M=1 C=2 0.8m bn cs pbl H=3 SL=3 M=1 C=2	micaceous cemented pbl residuum
34	11	1.5m mottled bn-bn blk cs H=3 SL=3 M=1 C=2	
35	11	1.5m mottled bn-bn blk-og bn cs H=3 SL=3 M=1 C=2	

36	0.96m end 11(136.2m) begin 12	1.5m mmottled bn-bn blk cs H=3 SL=3 M=1 C=2	ca concretions
37	12	1.5m SAA	
38	12	1.5m SAA	
39	1.34m end 12(139.3m) begin 13	1.5m SAA	
40	13	1.5m SAA	
41	13	1.5m dk bn - lt bn cs pbl H=3 SL=3 M=1 C=2	cemented pbl micaceous ca concretions
42	13	1.5m dk bn cs pbl H=3 SL=3 M=1 C=2	cemented pbl
43	0.41m end 13(142.3m) begin 14	1.5m SAA	cemented pbl
44	14	1.5m SAA	cemented pbl
45	14	1.5m SAA	cemented pbl
46	14	1.5m SAA	cemented pbl
47	14	1.5m dk bn - blk SAA	cemented pbl
48	0.58m end 14(148.4m) begin 15	1.5m bn - dk bn cs pbl H=3 SL=2 M=1 C=2	cemented pbl
49	15	1.5m SAA	cemented pbl
50	15	1.5m dk bn - bn - og bn cs pbl H=3 SL=3 M=1 C=2	cemented pbl micaceous
51	0.94m end 15(153.6m) begin 16	1.5m bn - dk bn cs H=3 SL=3 M=1 C=2	micaceous
52	16	1.5m SAA	micaceous
53	16	1.5m SAA	micaceous
54	1.23m end 16(154.5m)	1.23m SAA	



	begin 17	0.27m dk bn blk cs H=1 SL=1 M=1 C=1	well sorted sa
55	17	1.5m SAA(last 0.27m #54)	well sorted sa
56	17	1.5m bn - og bn cs pbl H=3 SL=3 M=1 C=2	cemented pbl micaceous
57	17	1.5m SAA	cemented pbl micaceous
58	0.72m end 17(157.6m) begin 18	0.72m bn SAA H=3 SL=3 M=1 C=2 0.78m dk bn - og bn cs pbl H=3 SL=3 M=1 C=2	cemented pbl micaceous cemented pbl micaceous
59	18	1.5m SAA(last 0.78m #58)	cemented pbl micaceous
60	18	1.5m SAA	cemented pbl micaceous
61	0.76m end 18(160.6m) begin 19	1.5m SAA	cemented pbl micaceous
62	19	1.5m bn - dk bn cs ab pbl H=3&5 SL=3 M=1 C=2	cemented pbl
63	0.9m end 19(163.7m) begin 20	1.5m SAA	cemented pbl
64	20	1.5m dk bn cs H=3 SL=3 M=1 C=2	micaceous
65	20	1.5m SAA	micaceous
66	20	1.5m SAA	micaceous
67	20	1.5m dk bn cs pbl	cemented pbl micaceous
68	0.36m end 20(169.8m) begin 21	1.5m bn - dk bn cs pbl	cemented pbl micaceous
69	21	1.5m SAA	cemented pbl micaceous

70	21	1.5m bn SAA	cemented pbl micaceous
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71	1.5m end 21(175.9m) TD	1.5m SAA	cemented pbl micaceous
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## HOLE: 8361E

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @75m bsf	1.5m dk bk rd mature laterite H=3 SL=4 M=2 C=2	<u>Laterite</u> tr f ap sa
2	1	1.5m SAA H=3 SL=4 M=2 C=2	
3	1	1.5m SAA	
4	1	1.5m SAA	
5	1	1.5m SAA	
6	1	1.5m SAA	
7	end 1(84.1m)	1.5m SAA	
8	begin 2	1.5m SAA	
9	2	1.5m SAA	
10	2	1.5m SAA	
11	2	1.5m dk bk rd-dk pp laterite pbl H=3 SL=4 M=2 C=2	laterite, no ap
12	2	1.5m SAA	
13	0.61m 2(90.2m) begin 3	0.61m SAA 0.89m bk rd laterite H=32SL=4 M=4 C=2	
14	3	1.5m dk bk rd laterite H=3 SL=4 M=2 C=2	
15	3	1.5m SAA	
16	3	1.5m SAA	
17	1.06m 3(96.3m) begin 4	1.5m SAA	
18	4	1.5m SAA	
19	4	1.5m SAA	

20	4	1.5m dk rd bn SAA
21	4	1.5m SAA
22	end 4(102.4m)	1.5m SAA
23	5	1.5m dk bn laterite
24	5	1.5m dk bn-blk laterite
25	5	1.5m SAA
26	5	1.5m SAA
27	0.53m 5(108.5m) begin 6	1.5m SAA
28	6	1.5m dk bn laterite
29	6	1.5m dk rd bn laterite
30	6	1.5m SAA
31	6	1.5m bk rd laterite
32	0.3m 6(114.6m) begin 7	1.5m SAA
33	7	1.5m SAA
34	7	1.5m SAA
35	7	1.5m SAA
36	7	1.5m SAA
37	0.16m 7(120.7m) begin 8	1.5m SAA
38	8	1.5m dk bk rd - dk bk rd-blk laterite
39	8	1.5m dk rd bn - blk laterite
40	8	1.5m SAA
41	1.35m 8(126.8m)	1.5m dk rd bn-blk - rd bn laterite

	begin 9		
42	9	1.5m bk rd laterite	
43	9	1.5m SAA	
44	9	1.5m SAA	
45	9	1.5m SAA	
46	0.88m 9(132.9m) begin 10	0.88m SAA 0.62m blk laterite	mg/py
47	10	1.5m blk laterite	mg/py
48	10	1.5m SAA	mg/py
49	10	1.5m blk-bn laterite	mg/py
50	1.2m end 10(139m) TD	1.2m blk-bn laterite	mg/py <u>End of Hole @139m bs*</u>

## HOLE: 8361F

Box #	Core Run #	Brief Geologic Description	Comments
1	begin 1 @ 75.3m	1.5m bn cs pbl H=4 SL=2 M=2 C=2	micaceous
2	1	1.5m og bn - yl og bn cs pbl H=4 SL=2 M=2 C=2	
3	0.57m 1(81.4m) begin 2	0.57m yl og bn SAA 0.93m dk bn cs ab pbl H=4 SL=2 M=2 C=2	
4	2	1.5m dk bn cs ab pbl H=4 SL=2-3 M=2 C=2	ca encrustations
5	end 2(84.4m)	1.5m dk og bn cs ab pbl H=4 SL=2 M=2 C=2	
6	begin 3	1.5m dk bn blk cs ab pbl H=4 SL=3 M=2 C=2	
7	1.34m 3(87.5m) begin 4	1.5m og bn - dk bn cs ab pbl H=4 SL=3 M=3 C=2	micaceous
8	4	1.0m dk bn blk - og bn cs ab pbl H=4 SL=2 M=2 C=2 0.5m lt tn cbl H=4 SL=2 M=2 C=2	cbl cement
9	1.03m 4(90.5m) begin 5	1.5m og bn cs ab pbl-cbl H=4 SL=2 M=2 C=2	micaceous
10	5	1.5m dk bn cs ab pbl H=4 SL=2 M=3 C=2	micaceous
11	5	1.5m SAA	
12	end 5(96.6m)	1.5m SAA	
13	begin 6	1.5m dk og bn - og bn cs occ pbl H=2 SL=2 M=2 C=1	micaceous
14	6	1.5m dk bn cs ab pbl-cbl H=4 SL=2 M=2 C=2	
15	6	1.5m og bn cs ab pbl-cbl	

H=4 SL=2 M=2 C=2

16	1.21m 6(102.7m) begin 7	1.5m dk bn cs ab pbl-cbl H=4 SL=2 M=2 C=2	
17	7	1.5m SAA	
18	7	1.5m SAA	
19	7	0.4m og bn cs H=2 SL=3 M=2 C=1 1.1m dk bn blk cs ab pbl-cbl H=4 SL=2 M=2 C=2	micaceous
20	7	1.5m SAA(last 1.1m #19)	
21	0.64m 7(108.8m) begin 8	1.5m dk bn cs ab pbl H=2&5 SL=2 M=3 C=2	
22	8	0.4m SAA 1.1m mottled og bn - dk bn cs occ pbl H=2 SL=1 M=2 C=1	
23	8	1.5m SAA(last 1.1m #22)	
24	8	1.5m SAA	ca encrustations increasing pbl content
25	0.38m 8(114.9m) begin 9	0.38m SAA 1.12m mottled dk bn - og bn cs ab pbl-cbl H=2&5 SL=2 M=2 C=2	
26	9	1.5m mottled dk bn blk-og bn cs occ pbl H=2 SL=2 M=2 C=1	
27	9	1.5m SAA	
28	9	1.5m SAA	micaceous
29	0.72m 9(121.0m) begin 10	1.5m dk og bn cs occ pbl H=2 SL=1 M=2 C=1	
30	10	1.5m mottled og bn - bn blk cs H=2 SL=1 M=2 C=1	
31	10	1.5m SAA	

32	10	1.5m og bn cs pbl H=3 SL=1 M=2 C=1	micaceous
33	end 10(127.1m)	1.5m og bn cs H=2 SL=3 M=2 C=2	micaceous
34	begin 11	1.5m SAA with occ pbl	
35	end 11(130.1m)	1.5m mottled dk bn-og bn SAA	
36	begin 12	1.5m og bn SAA	
37	12	1.5m SAA	
38	0.71m 12(133.2m) begin 13	1.5m SAA	
39	13	1.5m og bn cs pbl-cbl H=3 SL=3 M=2 C=2	
40	0.97m 13(139.3m) begin 14	1.5m SAA	
41	14	1.5m SAA	
42	end 14(142.3m)	1.5m dk bn cs pbl-cbl H=3 SL=3 M=2 C=2	
43	begin 15	1.5m ob bn SAA	
44	15	1.5m SAA	
45	15	1.5m SAA	
46	0.15m 15(148.4m) begin 16	1.5m dk bn SAA	
47	16	1.5m bn SAA	
48	0.13m 16(151.5m) begin 17	1.5m og bn SAA	ca encrustations
49	17	1.5m bn cs H=2 SL=3 M=2 C=2	micaceous
50	17	1.5m og bn - bn cs pbl H=2 SL=3 M=2 C=1	micaceous



51

end 17(157.6m 1.5m og bn SAA  
TD

Box #	Core Run #	Brief Geologic Description	Comments
1	1 Start @75.0m	lateritic clay (cretaceous) dk rd bn H=2 SL=4-5 M=1 C=2	Overburden
2	1	lateritic clay (cretaceous) dk rd bn H=2 SL=4-5 M=1 C=2	Overburden
3	1	lateritic clay (cretaceous) dk rd bn H=2 SL=4-5 M=1 C=2	Overburden
4	1.28 m 1 (81.1m) begin 2	lateritic clay (cretaceous) dk rd bn H=2 SL=4-5 M=1 C=2	Overburden
5	2	clay, bn w/ yel mottling, qz sd, tr apatite H=2 SL=4 M=1 C=2	Overburden 3X
6	2	clay, bn w/ yel mottling, qz sd, tr apatite H=2 SL=4 M=1 C=2	Overburden 3X
7	2	clay, bn w/ yel mottling, qz sd, tr apatite H=2 SL=4 M=1 C=2	Overburden 3X
8	2	clay, bn w/ yel mottling, qz sd, tr apatite H=2 SL=4 M=1 C=2	Overburden 3X
9	2	sand, bn, sl clayey, lean apatite H=2 SL=2-3 M=1 C=1	Residuum 2A
10	0.2 m 2 (93.3 m) begin 3	sand, bn, sl clayey, lean apatite, wet H=1 SL=1-2 M=2 C=1	Residuum 2A
11	3	sand, bn, sl clayey, lean apatite, wet H=1 SL=1-2 M=2 C=1	Residuum 2A
12	3	sand, bn, sl clayey, lean apatite H=1 SL=1-2 M=1 C=1	Residuum 2A
13	1.03 m 3 (99.4 m) begin 4	sand, bn, clayey, lean apatite, occasional pbl and cbl sized cmtd frags H=2&5 SL=2 M=1 C=1	Residuum 2A
14	4	sand, w/ bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
15	4	sand, w/ bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
16	0.48 m 4 (102.4 m) begin 5	sand, w/ bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
17	5	sand, w/ bn clay binder, tr pbl frac cmtd residuum H=2 SL=2 M=1 C=2	Residuum 2A
18	5	sand, w/ bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
19	1.5 m 5 (108.5 m)	sand, w/ bn clay binder, abundant pbl & cbl of frac cmtd H=2&5 SL=2 M=1 C=1-2	Residuum 2B note: 108.5-111.6 not recovered
20	begin 6 (111.6 m)	sand, w/ bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
21	6	sand, w/ dk bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
22	6	sand, w/ dk bn- red bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
23	0.2 m 6 (117.6 m) begin 7	sand, w/ red bn - dk bn clay binder, abundant pbl & cbl of H=2&5 SL=2 M=1 C=1-2	Residuum 2B
24	7	sand, w/ yel bn - bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
25	7	sand, w/ dk bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B

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26	0.35 m 7 (120.7 m) begin 8	sand, w/ dk bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
27	8	sand, w/ dk bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
28	8	sand, w/ bn clay binder, abundant pbl & cbl of frac cmtd residuum H=2&5 SL=2 M=1 C=1-2	Residuum 2B
29	8	sand, w/ bn silt/clay binder w/ red & yel mottling, tr pbl frac cmtd residuum H=2 SL=2 M=1 C=2	Residuum 2A
30	8	sand, w/ dk bn silt/clay binder w/ yel mottling H=2 SL=2 M=1 C=2	Residuum 2A
31	0.76 m 8 (126.8 m) begin 9	sand, w/ dk bn silt/clay binder w/ red & blk mottling H=2 SL=2 M=1 C=2	Residuum 2A
32	9	sand, w/ dk bn silt/clay binder w/ red & blk mottling H=2 SL=2 M=1 C=2	Residuum 2A
33	9	sand, w/ dk bn silt/clay binder w/ red & blk mottling w/ tr pbl sized frags H=2 SL=2 M=1 C=2	Residuum 2A
34	9	sand, w/ dk bn silt/clay binder w/ red & blk mottling H=2 SL=2 M=1 C=2	Residuum 2A
35	9	sand, w/ dk bn silt/clay binder w/ red & blk mottling H=2 SL=2 M=1 C=2	Residuum 2A
36	0.5m 9 (132.9 m) begin 10	sand, w/ red bn silt/clay binder H=2 SL=2 M=1 C=2	Residuum 2A
37	1.07 m 10 (132.9 m) begin 11	sand, w/ red bn silt/clay binder H=2 SL=2 M=1 C=2	Residuum 2A
38	11	sand, w/ dk bn silt/clay binder w/ tr pbl sized frags H=2 SL=2 M=1 C=2	Residuum 2A
39	11	sand, w/ bn silt/clay binder w/ tr pbl sized frags H=2 SL=2 M=1 C=2	Residuum 2A
40	11	sand, w/ bn silt/clay binder w/ tr cbl sized frags H=2 SL=2 M=1 C=2	Residuum 2A
41	11	sand, w/ rd bn- bn silt/clay binder w/ tr pbl sized frags H=2 SL=2 M=1 C=2	Residuum 2A
42	11	sand, w/ dk bn silt/clay binder w/ tr pbl & cbl sized frags H=2 SL=2 M=1 C=2	Residuum 2A
43	0.73 m 11 (142.0 m) begin 12	sand, w/ dk bn silt/clay binder w/ tr pbl sized frags H=2 SL=2 M=1 C=2	Residuum 2A
44	12	sand, w/ dk bn- blk silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
45	12	sand, w/ dk bn- blk silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
46	0.89 12 (145.1 m) begin 13	sand, w/ dk bn- blk silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
47	13	sand, w/ dk bn- blk silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
48	13	sand, w/ dk bn- blk silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
49	13	sand, w/ dk bn silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
50	0.56 m 13 (151.2 m) begin 14	sand, w/ dk bn silt/clay binder w/ tr pbl & cbl frags H=2 SL=2 M=1 C=2	Residuum 2A
51	14	sand, w/ dk bn silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
52	14	sand, w/ dk bn silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
53	14	sand, w/ dk bn silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
54	14	sand, w/ dk bn silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A

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55	14	sand, w/dk bn silt/clay binder minor yel mottling, tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
56	0.5 m 14 (157.3 m) begin 15	sand, w/dk bn silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
57	15	sand, w/dk bn silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
58	15	sand, w/dk bn silt/clay binder w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
59	15	sand, w/dk bn silt/clay binder w/ tr pbl & cbl frags H=2 SL=2 M=1 C=2	Residuum 2A
60	1.15 m 15 (163.4 m) begin 16	sand, w/dk bn silt/clay binder, micaceous, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
61	16	sand, w/dk bn silt/clay binder, micaceous, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
62	16	sand, w/dk bn silt/clay binder, micaceous, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
63	16	sand, w/dk bn silt/clay binder, micaceous, w/ tr pbl frags, cbl near bottom of box H=2 SL=2 M=1 C=2	Residuum 2A
64	16	sand, w/dk bn silt/clay binder, micaceous, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
65	1.06 m 16 (169.5 m) begin 17	sand, w/dk bn silt/clay binder, micaceous, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
66	17	sand, w/dk bn silt/clay binder, micaceous, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
67	17	sand, w/dk bn silt/clay binder, < mica, w/ tr pbl & cbl frags H=2 SL=2 M=1 C=2	Residuum 2A
68	17	sand, w/dk bn silt/clay binder, tr mica, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
69	17	sand, w/dk bn silt/clay binder, tr mica, w/ tr pbl & cbl frags H=2 SL=2 M=1 C=2	Residuum 2A
70	1.06 m 17 (175.6 m) begin 18	sand, w/dk bn silt/clay binder, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
71	18	sand, w/dk bn silt/clay binder, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
72	18	sand, w/dk bn silt/clay binder, w/ tr pbl & cbl frags H=2 SL=2 M=1 C=2	Residuum 2A
73	18	sand, w/dk bn silt/clay binder, w/ tr pbl frags H=2 SL=2 M=1 C=2	Residuum 2A
74	1.24 m 18 (181.7 m) begin 19	sand, w/dk bn silt/clay binder, w/ tr pbl & cbl frags H=2 SL=2 M=1 C=2	Residuum 2A
75	19	carbonatite	1D minimal recovery 181 to TD TD @ 187.8 m

**APPENDIX C**  
**Chemical Analysis**

PHOSCAN CHEMICAL CORPORATION

MARTISON PHOSPHATE PROJECT

September 5, 2008

Assembly of 2008 Sonic Drilling Data

Coordinates from 2008 Winter program Field Survey

Hole_No	NAD83 UTM		Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol
	Eastings	Northings														
8338-B	327799.38	557690.26	190.20	141.40	0.00	1.30	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	1.30	2.70	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	2.70	4.00	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	4.00	5.30	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	5.30	8.80	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	8.80	8.00	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	8.00	9.40	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	9.40	10.70	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	10.70	12.00	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	12.00	13.30	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	13.30	14.70	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	14.70	16.10	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	16.10	17.50	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	17.50	18.80	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	18.80	20.10	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	20.10	21.40	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	21.40	22.80	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	22.80	24.10	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	24.10	25.50	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	25.50	26.80	1.30	4								
8338-B	327799.38	557690.26	190.20	141.40	26.80	28.20	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	28.20	29.60	1.40	4								
8338-B	327799.38	557690.26	190.20	141.40	29.60	30.10	0.50	4								
8338-B	327799.38	557690.26	190.20	141.40	30.10	31.60	1.50	4								
8338-B	327799.38	557690.26	190.20	141.40	31.60	33.10	1.50	4								
8338-B	327799.38	557690.26	190.20	141.40	33.10	35.70	2.60	3	0.33	0.35	1280.0	18.53	6.10	10.94	2.51	40.66
8338-B	327799.38	557690.26	190.20	141.40	35.70	37.50	1.80	3	1.53	0.94	3360.0	41.18	8.54	3.47	0.54	31.72
8338-B	327799.38	557690.26	190.20	141.40	37.50	39.60	2.10	3	2.20	1.08	3760.0	44.32	10.08	2.59	0.42	26.55
8338-B	327799.38	557690.26	190.20	141.40	39.60	41.70	2.10	3	1.75	0.73	3520.0	51.11	6.50	2.54	0.39	20.60
8338-B	327799.38	557690.26	190.20	141.40	41.70	43.10	1.40	3	4.09	1.01	2670.0	29.34	12.29	3.93	0.38	30.53
8338-B	327799.38	557690.26	190.20	141.40	43.10	44.50	1.40	3	6.44	1.07	3340.0	28.09	16.69	4.63	0.41	22.78
8338-B	327799.38	557690.26	190.20	141.40	44.50	45.90	1.40	3	1.05	1.86	4410.0	31.10	6.96	2.50	0.55	29.71
8338-B	327799.38	557690.26	190.20	141.40	45.90	47.30	1.40	3	3.49	1.42	4420.0	31.37	11.36	3.64	0.52	24.19
8338-B	327799.38	557690.26	190.20	141.40	47.30	48.70	1.40	3	1.78	2.08	4820.0	32.32	8.25	2.92	0.49	25.49
8338-B	327799.38	557690.26	190.20	141.40	48.70	50.10	1.40	3	2.42	1.77	4890.0	30.81	8.69	3.41	0.65	27.55
8338-B	327799.38	557690.26	190.20	141.40	50.10	51.50	1.40	3	0.03	2.93	6480.0	31.55	4.34	2.43	0.74	25.20
8338-B	327799.38	557690.26	190.20	141.40	51.50	52.90	1.40	3	0.06	1.96	7580.0	37.61	4.60	2.18	0.78	28.09
8338-B	327799.38	557690.26	190.20	141.40	52.90	54.30	1.40	2B	12.83	0.80	2240.0	26.86	15.60	9.49	0.67	11.44
8338-B	327799.38	557690.26	190.20	141.40	54.30	56.00	1.70	2B	35.91	0.11	440.0	5.59	1.29	40.53	1.24	0.71
8338-B	327799.38	557690.26	190.20	141.40	56.00	57.80	1.80	2B	35.44	0.08	540.0	4.39	1.28	42.37	0.25	0.43
8338-B	327799.38	557690.26	190.20	141.40	57.80	59.60	1.80	2B	33.27	0.23	560.0	5.16	3.16	37.13	0.25	0.61
8338-B	327799.38	557690.26	190.20	141.40	59.60	61.30	1.70	2B	36.28	0.07	300.0	3.40	0.44	44.36	0.31	0.54
8338-B	327799.38	557690.26	190.20	141.40	61.30	62.90	1.60	2B	28.53	0.47	1690.0	13.17	1.87	27.35	0.57	5.69
8338-B	327799.38	557690.26	190.20	141.40	62.90	64.50	1.60	2B	33.13	0.26	800.0	10.66	0.80	33.57	0.64	2.04
8338-B	327799.38	557690.26	190.20	141.40	64.50	66.10	1.60	2B	31.17	0.56	1120.0	12.36	1.72	32.87	0.39	2.36

8338-B	327799.38	5576901.26	190.20	141.40	66.10	67.60	1.50	2B	25.31	0.96	1710.0	17.75	2.41	20.97	0.69	10.46
8338-B	327799.38	5576901.26	190.20	141.40	67.60	69.00	1.40	2B	23.75	1.03	1930.0	18.94	2.87	19.53	1.02	12.51
8338-B	327799.38	5576901.26	190.20	141.40	69.00	70.50	1.50	2B	26.28	0.70	1800.0	16.71	1.48	22.92	1.24	8.67
8338-B	327799.38	5576901.26	190.20	141.40	70.50	71.90	1.40	2B	31.21	0.26	1280.0	10.45	0.87	37.06	0.48	1.81
8336-B	327799.38	5576901.26	190.20	141.40	71.90	73.40	1.50	2B	31.11	0.42	1310.0	10.91	0.78	14.85	0.49	1.60
8338-B	327799.38	5576901.26	190.20	141.40	73.40	74.80	1.40	2B	26.11	1.66	2560.0	18.50	1.09	30.92	0.84	5.34
8338-B	327799.38	5578901.26	190.20	141.40	74.80	76.10	1.30	2B	29.18	0.85	2190.0	15.16	1.48	21.05	1.06	3.99
8338-B	327799.38	5578901.26	190.20	141.40	76.10	77.50	1.40	2B	31.99	0.19	830.0	5.57	0.98	36.78	0.45	1.37
8338-B	327799.38	5576901.26	190.20	141.40	77.50	78.90	1.40	2B	31.14	0.51	1490.0	9.07	0.73	17.79	0.44	1.27
8338-B	327799.38	5576901.26	190.20	141.40	78.90	81.20	2.30	2B	33.59	0.66	860.0	6.17	0.35	42.43	0.41	1.06
8338-B	327799.38	5578901.26	190.20	141.40	81.20	83.60	2.40	2B	33.35	0.40	1080.0	9.82	0.30	32.04	0.51	1.60
8338-B	327799.38	5576901.26	190.20	141.40	83.60	86.00	2.40	2A	22.07	0.61	1720.0	17.80	6.91	23.55	0.97	14.08
8338-B	327799.38	5576901.26	190.20	141.40	86.00	88.30	2.30	2A	8.87	0.88	2870.0	28.66	11.96	7.45	1.09	31.19
8338-B	327799.38	5576901.26	190.20	141.40	88.30	89.60	1.30	2A	9.80	0.80	2220.0	26.55	10.72	9.27	1.41	29.23
8338-B	327799.38	5576901.26	190.20	141.40	89.60	90.80	1.20	2A	9.57	0.83	2410.0	23.41	9.28	8.81	1.60	29.11
8338-B	327799.38	5578901.26	190.20	141.40	90.80	92.10	1.30	2A	16.01	0.51	1560.0	16.40	7.21	15.29	3.12	25.00
8338-B	327799.38	5576901.26	190.20	141.40	92.10	93.30	1.20	2A	14.25	1.24	3170.0	23.63	8.19	11.61	1.12	24.48
8338-B	327799.38	5578901.26	190.20	141.40	93.30	94.60	1.30	2A	10.94	0.67	2050.0	25.54	6.12	10.31	2.27	30.96
8338-B	327799.38	5578901.26	190.20	141.40	94.60	95.30	0.70	2A	17.73	0.75	2630.0	20.67	4.24	15.83	2.25	18.75
8336-B	327799.38	5578901.26	190.20	141.40	95.30	95.90	0.60	2A	17.70	0.54	1600.0	18.27	4.37	16.36	3.55	20.93
8338-B	327799.38	5578901.26	190.20	141.40	95.90	96.60	0.70	2B	19.83	0.77	840.0	16.78	1.38	30.21	4.07	18.67
8338-B	327799.38	5576901.26	190.20	141.40	96.60	98.40	1.80	2B	24.05	0.78	1100.0	12.74	0.89	39.20	2.98	11.70
8338-B	327799.38	5576901.26	190.20	141.40	98.40	100.30	1.90	2B	23.48	0.82	1580.0	14.65	2.31	42.74	3.54	10.79
8338-B	327799.38	5576901.26	190.20	141.40	100.30	102.20	1.90	2B	14.14	0.98	2950.0	18.36	5.54	14.65	8.53	21.90
8338-B	327799.38	5576901.28	190.20	141.40	102.20	104.00	1.80	2B	23.38	0.45	1390.0	14.20	1.59	30.92	4.02	9.17
8338-B	327799.38	5576901.26	190.20	141.40	104.00	105.40	1.40	2B	16.07	0.41	730.0	10.48	6.10	21.05	12.50	22.12
8338-B	327799.38	5578901.26	190.20	141.40	105.40	106.90	1.50	2B	24.14	0.17	960.0	7.26	1.76	36.78	5.90	8.98
8338-B	327799.38	5576901.26	190.20	141.40	106.90	108.40	1.50	2B	13.47	0.35	1140.0	10.19	9.03	17.79	15.54	23.15
8338-B	327799.38	5576901.26	190.20	141.40	108.40	109.80	1.40	2B	14.05	0.21	650.0	5.51	1.59	42.43	4.65	7.87
8338-B	327799.38	5576901.26	190.20	141.40	109.80	110.80	1.00	2B	5.20	0.12	320.0	5.46	4.11	32.04	11.00	16.36
8338-B	327799.38	5576901.26	190.20	141.40	110.80	111.90	1.10	2B	8.17	0.46	540.0	7.54	4.09	30.21	10.83	15.97
8338-B	327799.38	5578901.26	190.20	141.40	111.90	113.42	1.52	2B	28.65	1.08	1270.0	8.94	1.32	39.20	2.27	8.46
8338-B	327799.38	5576901.26	190.20	141.40	113.42	114.92	1.50	2B	30.95	0.53	970.0	7.17	1.36	42.74	1.88	5.51
8338-B	327799.38	5576901.26	190.20	141.40	114.92	116.42	1.50	2B	33.45	0.24	530.0	5.99	1.56	43.04	1.00	1.58
8338-B	327799.38	5576901.26	190.20	141.40	116.42	117.92	1.50	2B	32.09	0.46	860.0	6.22	1.87	41.43	1.58	3.17
8338-B	327799.38	5576901.26	190.20	141.40	117.92	119.42	1.50	2B	31.88	0.45	820.0	7.00	2.01	40.91	1.45	3.12
8338-B	327799.38	5576901.26	190.20	141.40	119.42	121.00	1.58	2B	30.89	0.80	760.0	10.64	2.12	35.67	0.85	5.32
8338-B	327799.38	5576901.26	190.20	141.40	121.00	124.20	3.20	2B	28.22	0.85	970.0	8.96	2.50	36.02	2.01	4.31
8338-B	327799.38	5576901.26	190.20	141.40	124.20	127.40	3.20	2B	10.53	0.46	650.0	5.37	2.81	36.23	7.72	3.55
8338-B	327799.38	5576901.26	190.20	141.40	127.40	134.20	8.80	2C	4.31	0.17	440.0	8.54	4.29	36.83	4.48	11.29
8338-B	327799.38	5576901.26	190.20	141.40	134.20	134.90	0.70	2C	4.90	0.13	270.0	5.75	5.21	31.19	7.77	14.51
8338-B	327799.38	5576901.26	190.20	141.40	134.90	135.60	0.70	2C	4.43	0.18	320.0	5.69	5.12	33.14	7.14	13.35
8338-B	327799.38	5576901.26	190.20	141.40	135.60	136.40	0.80	2C	5.86	0.31	360.0	6.46	4.62	35.97	4.26	11.29
8338-B	327799.38	5576901.26	190.20	141.40	136.40	137.60	1.20	2C	3.22	0.27	330.0	3.36	1.63	46.60	2.18	2.56

**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

NAD83 UTM			Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O8	%Nb2O6*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_incol	
Hole_No	Eastings	Northings															
8338-C	327820.84	5578925.80	190.10	117.80	0.00	32.30	1.30	4									
8338-C	327820.84	5578925.80	190.10	117.80	32.30	33.20	0.90	4									
8338-C	327820.84	5578925.80	190.10	117.80	33.20	34.00	0.80	4									
8338-C	327820.84	5578925.80	190.10	117.80	34.00	34.90	0.90	4									
8338-C	327820.84	5578925.80	190.10	117.80	34.90	38.40	1.50	4									
8338-C	327820.84	5578925.80	190.10	117.80	38.40	37.90	1.50	4									
8338-C	327820.84	5578925.80	190.10	117.80	37.90	39.50	1.80	3									
8338-C	327820.84	5578925.80	190.10	117.80	39.50	41.00	1.50	3									
8338-C	327820.84	5578925.80	190.10	117.80	41.00	42.20	1.20	3									
8338-C	327820.84	5578925.80	190.10	117.80	42.20	43.40	1.20	3	7.68	0.81	4720.0	28.81	15.12	5.34	0.49	18.92	
8338-C	327820.84	5578925.80	190.10	117.80	43.40	44.80	1.20	3	5.02	2.44	4890.0	30.82	11.03	4.50	0.81	19.51	
8338-C	327820.84	5578925.80	190.10	117.80	44.80	45.90	1.30	3	2.15	3.01	8030.0	34.63	5.78	3.24	0.69	16.78	
8338-C	327820.84	5578925.80	190.10	117.80	45.90	47.10	1.20	3	2.37	2.23	7080.0	33.36	4.35	4.25	0.75	14.31	
8338-C	327820.84	5578925.80	190.10	117.60	47.10	48.80	1.50	2B	17.85	1.36	4220.0	18.11	9.75	11.79	0.87	18.81	
8338-C	327820.84	5578925.80	190.10	117.80	48.80	50.10	1.50	2B	33.80	0.79	1310.0	6.63	2.57	37.32	0.47	2.90	
8338-C	327820.84	5578925.80	190.10	117.80	50.10	51.40	1.30	2B	35.85	0.80	920.0	8.42	2.50	37.79	0.45	3.54	
8338-C	327820.84	5578925.80	190.10	117.60	51.40	52.70	1.30	2B	38.90	0.98	1040.0	4.30	0.69	38.09	0.36	2.74	
8338-C	327820.84	5578925.80	190.10	117.60	52.70	54.00	1.30	2B	36.75	0.70	1060.0	4.49	0.66	48.14	0.32	1.81	
8338-C	327820.84	5578925.80	190.10	117.60	54.00	55.30	1.30	2B	37.91	0.45	940.0	4.24	0.81	48.17	0.20	1.42	
8338-C	327820.84	5578925.80	190.10	117.60	55.30	56.60	1.30	2B	37.77	0.53	520.0	3.35	0.28	45.68	0.21	1.39	
8338-C	327820.84	5578925.80	190.10	117.60	58.80	57.90	1.30	2B	36.54	0.60	1090.0	5.81	0.81	46.15	0.21	0.99	
8338-C	327820.84	5578925.80	190.10	117.80	57.90	59.20	1.30	2B	33.65	0.81	2740.0	8.73	1.00	40.90	0.26	2.12	
8338-C	327820.84	5578925.80	190.10	117.60	59.20	60.00	0.80	2B	31.79	0.51	1680.0	7.33	1.28	42.54	0.28	1.15	
8338-C	327820.84	5578925.80	190.10	117.60	80.00	61.60	1.60	2B	34.49	1.03	1060.0	4.09	0.86	46.70	0.27	2.05	
8338-C	327820.84	5578925.80	190.10	117.60	61.60	63.10	1.50	2B	32.90	0.70	1760.0	6.71	1.14	44.41	0.33	1.55	
8338-C	327820.84	5578925.80	190.10	117.80	83.10	64.60	1.50	2B	33.43	0.47	1320.0	6.96	1.19	44.35	0.27	1.15	
8338-C	327820.84	5578925.80	190.10	117.60	64.60	66.20	1.60	2B	35.02	0.46	890.0	5.34	0.94	46.86	0.28	1.28	
8338-C	327820.84	5578925.80	190.10	117.60	66.20	67.80	1.60	2A	21.48	0.47	1800.0	18.88	9.29	23.34	0.94	17.84	
8338-C	327820.84	5578925.80	190.10	117.60	67.80	69.30	1.50	2A	22.06	0.87	1560.0	13.57	8.69	23.93	0.97	16.34	
8338-C	327820.84	5578925.80	190.10	117.60	69.30	71.10	1.80	2A	22.98	1.02	1820.0	13.52	8.16	23.46	0.77	15.80	
8338-C	327820.84	5578925.80	190.10	117.60	71.10	73.00	1.90	2A	6.30	0.60	2850.0	24.59	13.92	5.58	0.83	41.61	
8338-C	327820.84	5578925.80	190.10	117.80	73.00	74.80	1.80	2A	4.28	0.57	3130.0	23.81	13.74	4.05	0.81	44.85	
8338-C	327820.84	5578925.80	190.10	117.80	74.80	78.20	1.40	2A	11.19	0.71	2420.0	16.94	12.67	10.48	1.30	32.73	
8338-C	327820.84	5578925.80	190.10	117.80	78.20	77.80	1.40	2A	18.92	0.78	1930.0	18.11	8.39	19.33	1.89	19.14	
8338-C	327820.84	5578925.80	190.10	117.80	77.80	79.00	1.40	2A	17.64	0.87	2280.0	17.19	11.85	15.08	1.11	19.87	
8338-C	327820.84	5578925.80	190.10	117.60	79.00	80.40	1.40	2A	10.95	0.92	3050.0	18.56	15.15	8.76	0.70	28.51	
8338-C	327820.84	5578925.80	190.10	117.60	80.40	82.00	1.60	2A	11.29	0.95	3100.0	22.58	16.27	8.55	0.50	24.91	
8338-C	327820.84	5578925.80	190.10	117.80	82.00	83.40	1.40	2A	9.43	0.94	3340.0	21.26	16.38	7.48	0.48	27.93	
8338-C	327820.84	5578925.80	190.10	117.60	83.40	84.80	1.40	2A	10.44	1.02	3440.0	20.82	17.72	7.68	0.42	25.25	
8338-C	327820.84	5578925.80	190.10	117.60	84.80	86.10	1.30	2A	8.82	0.96	3700.0	28.44	20.31	5.17	0.45	25.03	
8338-C	327820.84	5578925.80	190.10	117.80	88.10	87.50	1.40	2A	7.78	1.01	3780.0	21.72	14.18	5.81	0.44	33.52	
8338-C	327820.84	5578925.80	190.10	117.60	87.50	88.70	1.20	2A	15.79	0.82	2750.0	18.41	10.48	11.46	0.91	21.21	
8338-C	327820.84	5578925.80	190.10	117.60	88.70	89.90	1.20	2A	18.81	0.63	2380.0	16.04	5.59	13.39	2.19	23.13	
8338-C	327820.84	5578925.80	190.10	117.60	89.90	91.20	1.30	2A	20.11	0.44	2030.0	15.25	3.33	19.82	3.83	15.18	
8338-C	327820.84	5578925.80	190.10	117.60	91.20	92.40	1.20	2A	17.69	0.31	1700.0	10.75	2.54	22.18	3.32	13.45	



8338-C	327820.84	5578925.80	190.10	117.60	92.40	93.60	1.20	2A	12.67	0.41	2050.0	15.24	8.82	10.69	6.78	26.41
8338-C	327820.84	5578925.80	190.10	117.60	93.60	94.90	1.30	2A	21.32	0.73	1720.0	11.62	4.14	17.39	2.43	17.05
8338-C	327820.84	5578925.80	190.10	117.60	94.90	96.10	1.20	2A	25.18	0.73	1730.0	13.04	8.91	27.73	1.11	9.69
8338-C	327820.84	5578925.80	190.10	117.60	96.10	97.40	1.30	2A	21.29	1.00	2260.0	13.59	5.41	21.73	0.71	14.24
8338-C	327820.84	5578925.80	190.10	117.60	97.40	98.60	1.20	2A	32.41	0.86	1620.0	8.53	1.68	35.09	0.56	5.65
8338-C	327820.84	5578925.80	190.10	117.60	98.60	99.90	1.30	2A	15.90	0.78	2210.0	17.90	9.99	12.19	1.51	23.02
8338-C	327820.84	5578925.80	190.10	117.60	99.90	101.60	1.70	2A	16.10	0.51	1710.0	15.90	5.56	17.26	4.13	19.62
8338-C	327820.84	5578925.80	190.10	117.60	101.60	103.20	1.60	2B	18.18	0.50	840.0	6.13	1.08	37.91	1.97	6.22
8338-C	327820.84	5578925.80	190.10	117.60	103.20	104.90	1.70	2B	30.64	0.60	830.0	6.54	0.91	41.06	1.51	2.84
8338-C	327820.84	5578925.80	190.10	117.60	104.90	106.80	1.90	2B	28.55	0.53	1110.0	9.56	1.27	34.94	2.09	5.72
8338-C	327820.84	5578925.80	190.10	117.60	106.80	108.50	1.70	2B	26.21	0.40	1340.0	11.82	2.24	29.89	4.06	9.80
8338-C	327820.84	5578925.80	190.10	117.80	108.50	110.20	1.70	2B	18.54	0.48	2040.0	6.31	0.83	36.70	2.15	5.54
8338-C	327820.84	5578925.80	190.10	117.60	110.20	112.00	1.80	2B	23.51	0.39	1400.0	9.51	1.03	34.35	2.24	6.66
8338-C	327820.84	5578925.80	190.10	117.60	112.00	114.30	2.30	2B	24.04	0.32	1170.0	7.44	0.67	38.71	1.51	4.85
8338-C	327820.84	5578925.80	190.10	117.60	114.30	116.60	2.30	2B	17.38	0.35	770.0	5.02	0.59	39.55	2.73	2.60
8338-C	327820.84	5578925.80	190.10	117.60	116.60	117.60	1.00	2C	6.72	0.23	340.0	2.80	0.24	37.20	6.54	1.58

**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

NAD83 UTM			TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol	
Hole_No	Eastings	Northings														Elevation
8338-D	327808.00	5578928.98	190.10	117.80	0.00	32.30	32.30									
8338-D	327808.00	5578928.98	190.10	117.60	32.30	33.60	1.30	4								
8338-D	327808.00	5578928.98	190.10	117.60	33.80	34.90	1.30	4								
8338-D	327808.00	5578928.98	190.10	117.80	34.90	35.90	1.00	4								
8338-D	327808.00	5578928.98	190.10	117.80	35.90	36.90	1.00	4								
8338-D	327808.00	5578928.98	190.10	117.80	38.90	37.90	1.00	4								
8338-D	327808.00	5576928.98	190.10	117.80	37.90	38.80	0.90	3	1.30	4.00	5700.0	40.53	5.78	3.54	0.73	25.75
6338-D	327808.00	5576928.98	190.10	117.60	38.80	40.80	2.00	3	1.06	2.83	6930.0	36.96	5.66	3.04	1.00	22.84
8338-D	327808.00	5576928.98	190.10	117.60	40.80	42.70	1.90	3	2.94	3.23	5570.0	34.97	8.29	3.28	0.78	22.97
8338-D	327808.00	5576928.98	190.10	117.60	42.70	44.70	2.00	3	3.15	4.03	6710.0	36.71	6.37	3.00	0.95	23.78
8338-D	327808.00	5576928.98	190.10	117.60	44.70	46.60	1.90	2B	12.75	2.01	4650.0	24.75	5.94	10.87	0.79	12.67
8338-D	327808.00	5578928.98	190.10	117.80	46.80	48.60	2.00	2B	29.59	0.49	1400.0	9.16	1.94	37.35	0.52	3.09
8338-D	327808.00	5578928.98	190.10	117.80	48.60	50.00	1.40	2B	33.71	0.23	780.0	4.77	0.97	44.08	0.33	1.85
8338-D	327808.00	5576928.98	190.10	117.60	50.00	51.40	1.40	2B	31.93	0.23	790.0	5.79	1.89	42.14	0.34	4.03
8338-D	327808.00	5576928.98	190.10	117.60	51.40	52.80	1.40	2B	32.31	0.12	890.0	8.71	5.76	38.17	0.31	2.28
8338-D	327808.00	5578928.98	190.10	117.80	52.80	54.20	1.40	2B	31.50	0.14	1220.0	5.21	2.93	41.29	0.23	5.23
8338-D	327808.00	5578928.98	190.10	117.60	54.20	55.80	1.40	2B	32.36	0.24	800.0	5.98	2.42	41.84	0.21	3.28
8338-D	327808.00	5576928.98	190.10	117.60	55.60	57.00	1.40	2B	30.71	0.54	1190.0	8.53	3.13	38.90	0.24	3.18
8338-D	327808.00	5576928.98	190.10	117.60	57.00	58.60	1.60	2B	32.56	0.81	1270.0	8.95	1.42	39.24	0.28	2.10
8338-D	327808.00	5578928.98	190.10	117.60	58.60	60.20	1.60	2B	32.98	1.07	880.0	7.22	1.14	40.22	0.38	2.17
8338-D	327808.00	5576928.98	190.10	117.60	60.20	61.80	1.60	2B	33.78	1.35	900.0	7.41	0.66	38.04	0.49	3.78
8338-D	327808.00	5576928.98	190.10	117.60	61.80	63.40	1.80	2B	33.69	0.78	1310.0	8.25	0.87	41.14	0.31	1.38
8338-D	327808.00	5578928.98	190.10	117.60	63.40	65.00	1.60	2B	34.12	0.87	910.0	6.11	0.82	41.41	0.32	1.58
8338-D	327808.00	5578928.98	190.10	117.60	65.00	66.80	1.80	2B	33.58	0.43	1010.0	5.37	1.07	46.94	0.27	0.83
8338-D	327808.00	5578928.98	190.10	117.60	66.80	68.32	1.52	2B	32.38	0.19	830.0	4.38	1.32	45.77	0.29	0.92
8338-D	327808.00	5578928.98	190.10	117.60	68.32	69.82	1.50	2B	30.27	0.18	1890.0	9.19	1.31	40.97	0.37	2.21
8338-D	327808.00	5578928.98	190.10	117.60	69.82	71.32	1.50	2B	27.81	0.40	2420.0	13.23	1.82	34.12	0.42	3.91
8338-D	327808.00	5578928.98	190.10	117.60	71.32	72.82	1.50	2B	28.62	0.44	2310.0	11.43	1.84	35.22	0.58	3.11
8338-D	327808.00	5578928.98	190.10	117.60	72.82	74.40	1.58	2B	30.06	0.33	680.0	7.34	0.99	41.17	0.69	5.88
8338-D	327808.00	5578928.98	190.10	117.80	74.40	75.90	1.50	2B	21.72	0.33	1580.0	14.66	9.19	27.86	0.85	14.52
8338-D	327808.00	5576928.98	190.10	117.60	75.90	77.40	1.50	2C	2.21	0.39	2350.0	19.83	14.32	4.69	1.00	48.85
6338-D	327808.00	5578928.98	190.10	117.60	77.40	78.90	1.50	2C	2.70	0.48	2880.0	21.70	16.09	5.20	1.02	42.46
8338-D	327808.00	5576928.98	190.10	117.80	78.90	80.30	1.40	2C	7.33	0.33	2070.0	19.29	11.12	9.98	1.42	37.01
8338-D	327808.00	5578928.98	190.10	117.80	80.30	81.70	1.40	2B	21.05	0.11	730.0	15.33	1.59	25.41	1.73	20.96
8338-D	327808.00	5578928.98	190.10	117.80	81.70	83.10	1.40	2B	22.12	0.13	980.0	13.19	1.13	28.42	1.09	22.97
8338-D	327808.00	5578928.98	190.10	117.80	83.10	84.50	1.40	2B	24.89	0.14	1470.0	11.14	1.04	29.27	1.08	14.88
8338-D	327808.00	5578928.98	190.10	117.60	84.50	85.90	1.40	2B	23.41	0.21	1830.0	11.85	1.37	29.33	1.88	11.25
8338-D	327808.00	5578928.98	190.10	117.60	85.90	87.40	1.50	2B	15.52	0.32	1740.0	13.97	4.54	17.51	1.15	29.30
8338-D	327808.00	5578928.98	190.10	117.60	87.40	88.70	1.30	2A	18.51	0.37	1680.0	14.12	7.98	22.54	1.83	18.54
8338-D	327808.00	5578928.98	190.10	117.80	88.70	90.20	1.50	2A	12.27	0.30	1380.0	18.04	7.88	14.94	3.17	28.85
8338-D	327808.00	5578928.98	190.10	117.80	90.20	91.80	1.40	2A	13.28	0.42	1840.0	15.32	9.01	15.98	4.31	25.23
8338-D	327808.00	5578928.98	190.10	117.60	91.80	93.00	1.40	2A	14.64	0.58	2180.0	18.78	7.98	16.74	1.77	23.41
8338-D	327808.00	5578928.98	190.10	117.80	93.00	94.50	1.50	2B	28.15	0.38	970.0	8.28	1.42	35.55	0.91	5.72
8338-D	327808.00	5578928.98	190.10	117.60	94.50	96.30	1.80	2B	28.97	0.37	970.0	9.10	1.29	36.88	0.84	4.88
8338-D	327808.00	5578928.98	190.10	117.60	96.30	98.10	1.80	2B	27.33	0.41	920.0	9.75	1.35	31.86	2.18	7.54

8338-D	327808.00	5576928.98	190.10	117.60	98.10	99.90	1.80	2B	27.20	0.43	970.0	9.50	1.22	32.86	2.34	7.36
8338-D	327808.00	5576928.98	190.10	117.60	99.90	101.70	1.80	2B	29.78	0.43	1530.0	9.55	0.47	35.69	0.67	2.63
8338-D	327808.00	5576928.98	190.10	117.60	101.70	103.50	1.80	2B	23.22	0.61	940.0	6.06	0.33	35.96	1.20	2.69
8338-D	327808.00	5576928.98	190.10	117.60	103.50	105.75	2.25	2B	15.75	0.46	620.0	5.23	0.35	40.73	1.16	2.28
8338-D	327808.00	5576928.98	190.10	117.60	105.75	108.05	2.30	2B	27.94	0.38	990.0	8.04	0.49	35.91	0.93	3.16
8338-D	327808.00	5576928.98	190.10	117.60	108.05	110.35	2.30	2B	23.09	1.08	860.0	6.27	0.39	33.46	2.49	5.05
8338-D	327808.00	5576928.98	190.10	117.60	110.35	112.50	2.15	2B	17.05	0.43	870.0	5.44	0.46	35.46	2.60	2.96
8338-D	327808.00	5576928.98	190.10	117.60	112.50	114.20	1.70	2B	14.75	0.38	570.0	6.95	0.84	34.83	2.32	5.93
8338-D	327808.00	5576928.98	190.10	117.60	114.20	115.90	1.70	2C	3.28	0.22	240.0	4.58	0.39	36.97	3.39	2.19
8338-D	327808.00	5576928.98	190.10	117.60	115.90	117.60	1.70	2C	5.19	0.21	280.0	4.62	0.32	32.48	7.54	2.04

**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

NADES UTM													%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol
Hole_No	Eastings	Northings	Elevation	TOT Depth	From	To	Thick	Litho Unit												
8338-E	327820.53	5578882.81	190.10	120.40	0.00	32.30	32.30	4												
8338-E	327820.53	5578882.81	190.10	120.40	32.30	33.70	1.40	4												
8338-E	327820.53	5578882.81	190.10	120.40	33.70	35.10	1.40	4												
8338-E	327820.53	5578882.81	190.10	120.40	35.10	36.40	1.30	4												
8338-E	327820.53	5578882.81	190.10	120.40	36.40	37.80	1.40	4												
8338-E	327820.53	5578882.81	190.10	120.40	37.80	39.20	1.40	4												
8338-E	327820.53	5578882.81	190.10	120.40	39.20	40.50	1.30	3												
8338-E	327820.53	5578882.81	190.10	120.40	40.50	42.00	1.50	3												
8338-E	327820.53	5578882.61	190.10	120.40	42.00	43.20	1.20	3	2.22	0.70	1810.0	37.11	7.18	3.03	0.76	33.01				
8338-E	327820.53	5578882.61	190.10	120.40	43.20	44.40	1.20	3	1.10	0.68	2470.0	35.08	6.35	2.28	0.72	35.69				
8338-E	327820.53	5578882.81	190.10	120.40	44.40	45.50	1.10	3	0.37	0.78	2180.0	34.24	8.05	2.03	0.78	38.22				
8338-E	327820.53	5578882.81	190.10	120.40	45.50	46.70	1.20	3	0.02	0.94	2480.0	32.33	3.30	1.41	0.71	48.17				
8338-E	327820.53	5578882.81	190.10	120.40	46.70	47.90	1.20	3	1.97	1.99	3530.0	23.71	6.17	3.39	0.60	41.36				
8338-E	327820.53	5578882.61	190.10	120.40	47.90	49.40	1.50	3	4.98	0.89	2280.0	21.55	11.52	4.57	0.39	39.35				
8338-E	327820.53	5578882.81	190.10	120.40	49.40	50.90	1.50	3	5.83	1.27	2520.0	22.85	12.19	4.89	0.38	35.81				
8338-E	327820.53	5578882.81	190.10	120.40	50.90	52.40	1.50	3	5.52	1.00	2560.0	22.14	11.84	4.71	0.64	33.86				
8338-E	327820.53	5578882.81	190.10	120.40	52.40	53.90	1.50	3	4.73	0.93	2610.0	24.72	10.06	4.26	1.08	31.38				
8338-E	327820.53	5578882.61	190.10	120.40	53.90	55.40	1.50	2A	16.72	0.85	2030.0	20.91	10.62	15.89	0.66	17.59				
8338-E	327820.53	5578882.61	190.10	120.40	55.40	56.90	1.50	2A	20.41	0.43	1130.0	20.10	7.41	21.95	1.42	14.05				
8338-E	327820.53	5578882.81	190.10	120.40	56.90	58.40	1.50	2A	28.67	0.17	800.0	12.96	4.41	33.64	0.61	5.84				
8338-E	327820.53	5578882.61	190.10	120.40	58.40	59.70	1.30	2A	28.50	0.38	960.0	10.54	7.45	33.03	0.31	6.86				
8338-E	327820.53	5578882.61	190.10	120.40	59.70	61.20	1.50	2A	16.92	0.68	1800.0	19.61	7.95	17.45	0.77	20.27				
8338-E	327820.53	5578882.81	190.10	120.40	61.20	62.70	1.50	2A	25.58	0.44	1250.0	13.38	4.32	30.32	0.75	8.48				
8338-E	327820.53	5578882.61	190.10	120.40	62.70	64.30	1.60	2B	14.01	0.64	1930.0	17.42	7.65	15.37	1.36	20.84				
8338-E	327820.53	5578882.81	190.10	120.40	64.30	65.80	1.50	2B	18.99	0.77	2310.0	20.59	11.51	16.64	0.73	16.73				
8338-E	327820.53	5578882.61	190.10	120.40	65.80	67.30	1.50	2B	12.52	0.95	2450.0	22.14	12.22	11.81	0.73	22.80				
8338-E	327820.53	5578882.61	190.10	120.40	67.30	68.80	1.50	2B	31.10	0.55	1150.0	8.87	1.77	37.85	0.24	1.95				
8338-E	327820.53	5578882.81	190.10	120.40	68.80	70.30	1.50	2B	30.88	0.51	1270.0	7.49	2.00	40.29	0.24	1.53				
8338-E	327820.53	5578882.61	190.10	120.40	70.30	71.80	1.50	2B	29.91	0.59	1240.0	6.72	2.77	38.86	0.27	2.75				
8338-E	327820.53	5578882.81	190.10	120.40	71.80	73.30	1.50	2B	30.79	0.43	1640.0	8.41	2.50	39.48	0.30	2.25				
8338-E	327820.53	5578882.81	190.10	120.40	73.30	74.90	1.80	2B	31.30	0.35	1370.0	8.05	2.24	40.12	0.29	1.92				
8338-E	327820.53	5578882.81	190.10	120.40	74.90	78.40	1.50	2B	31.68	0.34	990.0	7.83	2.02	40.31	0.32	2.42				
8338-E	327820.53	5578882.61	190.10	120.40	78.40	77.90	1.50	2B	31.55	0.46	1760.0	9.81	1.54	37.42	0.40	2.88				
8338-E	327820.53	5578882.81	190.10	120.40	77.90	79.40	1.50	2B	31.88	0.26	780.0	6.53	1.18	42.83	0.33	1.32				
8338-E	327820.53	5578882.81	190.10	120.40	79.40	81.10	1.70	2B	30.49	0.41	3510.0	8.84	1.95	42.28	0.20	1.21				
8338-E	327820.53	5578882.81	190.10	120.40	81.10	82.80	1.70	2B	29.94	0.96	2110.0	9.96	1.07	40.30	0.30	2.87				
8338-E	327820.53	5578882.81	190.10	120.40	82.80	84.40	1.80	2B	27.20	1.62	1910.0	12.36	1.30	37.28	0.40	4.74				
8338-E	327820.53	5578882.81	190.10	120.40	84.40	86.10	1.70	2B	27.97	1.40	1980.0	12.90	1.84	35.28	0.57	5.59				
8338-E	327820.53	5578882.81	190.10	120.40	86.10	87.80	1.50	2B	22.31	0.49	1520.0	14.54	5.26	27.72	1.05	13.89				
8338-E	327820.53	5578882.81	190.10	120.40	87.80	89.10	1.50	2B	26.44	1.23	1590.0	11.88	1.48	34.58	0.50	6.52				
8338-E	327820.53	5578882.81	190.10	120.40	89.10	90.80	1.50	2B	29.37	0.68	1520.0	9.27	1.56	39.50	0.56	4.85				
8338-E	327820.53	5578882.81	190.10	120.40	90.80	92.10	1.50	2A	27.68	0.33	1080.0	12.07	4.17	33.36	0.72	8.29				
8338-E	327820.53	5578882.81	190.10	120.40	92.10	93.80	1.50	2A	29.32	0.45	1140.0	11.71	2.89	34.78	0.60	4.45				
8338-E	327820.53	5578882.81	190.10	120.40	93.80	95.10	1.50	2A	29.86	0.39	1480.0	11.80	2.44	34.74	0.47	3.18				
8338-E	327820.53	5578882.81	190.10	120.40	95.10	96.80	1.50	2A	18.73	0.88	1840.0	17.80	7.11	20.15	1.01	18.18				

8338-E	32782053	5578882.61	190.10	120.40	96.60	97.80	1.20	2B	32.98	0.27	560.0	5.54	1.13	46.80	1.05	1.66
8338-E	32782053	5576882.61	190.10	120.40	97.80	98.90	1.10	2B	21.82	0.46	1180.0	13.49	4.23	28.04	3.47	15.52
8338-E	32782053	5578882.61	190.10	120.40	98.90	100.30	1.40	2B	28.56	0.55	1490.0	6.86	1.20	40.42	2.40	4.38
8338-E	32782053	5576662.61	190.10	120.40	100.30	101.60	1.30	2B	24.60	0.40	800.0	4.33	0.84	46.23	1.59	2.46
8338-E	32782053	5576882.61	190.10	120.40	101.60	103.00	1.40	2B	28.08	0.40	410.0	3.16	0.33	47.51	1.94	0.65
8338-E	32782053	5576882.61	190.10	120.40	103.00	104.40	1.40	2B	15.19	0.53	600.0	4.20	1.16	41.31	4.51	5.88
8338-E	32782053	5576882.61	190.10	120.40	104.40	105.80	1.40	2B	11.32	0.56	710.0	5.09	2.28	34.98	6.82	11.28
8338-E	32782053	5576882.81	190.10	120.40	105.80	107.10	1.30	2C	3.09	0.17	480.0	6.24	5.56	24.82	10.51	17.41
8338-E	32782053	5576882.61	190.10	120.40	107.10	108.50	1.40	2C	3.84	0.66	590.0	7.29	6.00	21.58	12.25	20.96
8338-E	32782053	5576882.61	190.10	120.40	108.50	109.80	1.30	2C	4.11	0.24	660.0	6.89	1.84	35.58	5.26	8.98
8338-E	32782053	5576882.61	190.10	120.40	109.80	111.10	1.30	2C	3.98	0.16	390.0	3.81	0.89	37.73	7.24	3.60
8338-E	32782053	5576882.61	190.10	120.40	111.10	112.40	1.30	1D	6.00	0.12	550.0	3.28	0.69	46.98	3.03	2.36
8338-E	32782053	5576882.61	190.10	120.40	112.40	113.70	1.30	1D	4.35	0.07	710.0	3.58	0.85	47.70	1.79	2.44
8338-E	32782053	5576882.61	190.10	120.40	113.70	115.00	1.30	1D	5.63	0.10	670.0	4.33	1.21	42.91	3.49	8.19
8338-E	32782053	5576882.61	190.10	120.40	115.00	116.30	1.30	1D	6.35	0.11	1320.0	5.76	0.67	45.11	1.86	4.04
8338-E	32782053	5576882.61	190.10	120.40	116.30	117.60	1.30	1D	6.78	0.12	820.0	6.34	2.39	36.62	6.22	9.03
8338-E	32782053	5576882.61	190.10	120.40	117.60	119.00	1.40	1D	5.69	0.12	820.0	4.59	1.27	42.51	3.90	6.00
8338-E	32782053	5578882.61	190.10	120.40	119.00	120.40	1.40	1D	3.06	0.04	370.0	4.68	0.52	48.43	1.79	1.89

PHOSCAN CHEMICAL CORPORATION

MARTISON PHOSPHATE PROJECT  
September 5, 2008

Assembly of 2008 Sonic Drilling Data  
Coordinates from 2008 Winter program Field Survey

NAD83 UTM																
Hole_No	Eastings	Northings	Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol
8349-A	327986.29	5578494.55	190.00	151.20	0.00	2.00	2.00	4	0.05	0.00	400	2.34	1.42	13.00	3.74	45.51
8349-A	327986.29	5578494.55	190.00	151.20	2.00	4.10	2.10	4	0.04	ND	200	1.80	1.30	14.64	4.62	57.90
8349-A	327986.29	5578494.55	190.00	151.20	4.10	5.40	1.30	4	0.04	ND	200	1.88	1.24	14.49	4.58	59.66
8349-A	327986.29	5578494.55	190.00	151.20	5.40	6.70	1.30	4	0.03	ND	200	1.31	0.64	13.40	3.78	64.21
8349-A	327986.29	5578494.55	190.00	151.20	6.70	7.90	1.20	4	0.04	0.00	200	1.50	0.97	12.64	3.69	65.47
8349-A	327986.29	5578494.55	190.00	151.20	7.90	9.40	1.50	4	0.04	ND	200	1.39	0.91	13.01	3.66	64.66
8349-A	327986.29	5578494.55	190.00	151.20	9.40	10.80	1.40	4	0.05	ND	200	1.44	0.97	12.50	3.43	66.66
8349-A	327986.29	5578494.55	190.00	151.20	10.80	11.80	1.00	4	0.03	ND	200	1.47	0.94	12.66	3.51	66.16
8349-A	327986.29	5578494.55	190.00	151.20	11.80	12.90	1.10	4	0.02	ND	200	1.63	0.96	12.59	3.77	66.09
8349-A	327986.29	5578494.55	190.00	151.20	12.90	14.40	1.50	4	0.03	ND	200	1.55	0.91	12.49	3.81	65.74
8349-A	327986.29	5578494.55	190.00	151.20	14.40	15.50	1.10	4	0.03	ND	200	1.72	1.16	11.64	3.69	67.17
8349-A	327986.29	5578494.55	190.00	151.20	15.50	16.60	1.10	4	0.05	ND	200	1.66	1.09	12.42	3.56	66.25
8349-A	327986.29	5578494.55	190.00	151.20	16.60	17.80	1.20	4	0.01	ND	200	1.80	1.21	12.39	3.67	66.09
8349-A	327986.29	5578494.55	190.00	151.20	17.80	18.90	1.10	4	0.08	ND	200	1.70	1.18	12.69	3.76	65.33
8349-A	327986.29	5578494.55	190.00	151.20	18.90	20.40	1.50	4	0.06	ND	300	2.55	1.88	13.85	3.59	60.67
8349-A	327986.29	5578494.55	190.00	151.20	20.40	21.70	1.30	4	0.03	ND	200	1.51	0.80	18.05	4.04	55.00
8349-A	327986.29	5578494.55	190.00	151.20	21.70	23.00	1.30	4	0.03	ND	100	1.31	0.72	17.75	3.91	55.24
8349-A	327986.29	5578494.55	190.00	151.20	23.00	24.40	1.40	4	0.04	ND	200	1.38	0.76	17.36	4.49	54.55
8349-A	327986.29	5578494.55	190.00	151.20	24.40	25.70	1.30	4	0.05	ND	200	1.57	0.88	17.88	4.67	52.51
8349-A	327986.29	5578494.55	190.00	151.20	25.70	26.80	1.10	4	0.03	ND	100	1.62	0.81	17.64	3.92	54.32
8349-A	327986.29	5578494.55	190.00	151.20	26.80	27.90	1.10	4	0.04	ND	200	1.71	1.01	19.27	4.29	50.19
8349-A	327986.29	5578494.55	190.00	151.20	27.90	28.90	1.00	4	0.02	0.00	200	1.78	1.05	16.82	4.58	54.45
8349-A	327986.29	5578494.55	190.00	151.20	28.90	30.00	1.10	4	0.03	0.00	200	1.40	0.67	18.60	4.45	51.85
8349-A	327986.29	5578494.55	190.00	151.20	30.00	30.70	0.70	4	0.03	ND	200	1.87	1.17	17.97	4.65	51.41
8349-A	327986.29	5578494.55	190.00	151.20	30.70	31.40	0.70	4	0.04	ND	200	1.90	1.19	18.12	5.14	50.66
8349-A	327986.29	5578494.55	190.00	151.20	31.40	32.90	1.50	4	0.06	ND	200	1.65	0.99	17.19	4.02	55.32
8349-A	327986.29	5578494.55	190.00	151.20	32.90	33.70	0.80	4	0.10	ND	200	1.74	1.09	17.54	4.40	53.17
8349-A	327986.29	5578494.55	190.00	151.20	33.70	34.50	0.80	4	0.08	ND	200	2.71	1.68	16.18	4.28	54.64
8349-A	327986.29	5578494.55	190.00	151.20	34.50	35.30	0.80	4	0.09	ND	200	2.10	1.47	16.80	4.21	54.62
8349-A	327986.29	5578494.55	190.00	151.20	35.30	36.50	1.20	4	0.11	ND	200	1.46	1.19	15.14	4.49	53.45
8349-A	327986.29	5578494.55	190.00	151.20	36.50	37.70	1.20	4	0.29	ND	200	1.37	1.17	16.05	4.46	52.89
8349-A	327986.29	5578494.55	190.00	151.20	37.70	38.90	1.20	4	0.15	ND	200	1.84	1.27	15.27	4.57	54.38
8349-A	327986.29	5578494.55	190.00	151.20	38.90	40.10	1.20	4	0.22	0.00	300	1.64	1.36	14.90	4.26	55.22
8349-A	327986.29	5578494.55	190.00	151.20	40.10	41.30	1.20	4	0.23	0.01	300	1.87	1.32	13.63	3.97	58.03
8349-A	327986.29	5578494.55	190.00	151.20	41.30	42.80	1.50	2A	17.64	0.55	500.0	8.02	2.34	27.68	2.16	21.26
8349-A	327986.29	5578494.55	190.00	151.20	42.80	44.30	1.50	2A	24.26	0.65	1080.0	14.58	5.03	28.20	0.76	9.76
8349-A	327986.29	5578494.55	190.00	151.20	44.30	45.90	1.60	2A	18.30	0.41	1080.0	15.32	5.42	19.86	1.37	18.39
8349-A	327986.29	5578494.55	190.00	151.20	45.90	47.40	1.50	2A	22.61	0.48	1270.0	14.09	6.23	20.96	0.67	9.57
8349-A	327986.29	5578494.55	190.00	151.20	47.40	48.70	1.30	2A	26.26	0.33	890.0	15.30	5.88	28.53	0.62	5.74
8349-A	327986.29	5578494.55	190.00	151.20	48.70	50.00	1.30	2B	34.47	0.05	370.0	4.50	2.81	43.73	0.24	1.62
8349-A	327986.29	5578494.55	190.00	151.20	50.00	51.30	1.30	2B	35.12	0.11	430.0	3.39	2.03	47.04	0.41	1.59
8349-A	327986.29	5578494.55	190.00	151.20	51.30	52.60	1.30	2B	31.71	0.26	390.0	4.68	2.19	44.87	1.51	2.63
8349-A	327986.29	5578494.55	190.00	151.20	52.60	53.90	1.30	2B	15.97	0.48	1570.0	17.83	8.83	12.28	4.31	23.01
8349-A	327986.29	5578494.55	190.00	151.20	53.90	55.40	1.50	2B	26.35	0.29	1650.0	11.78	4.50	29.57	2.46	6.69
8349-A	327986.29	5578494.55	190.00	151.20	55.40	56.80	1.40	2B	26.86	0.25	1530.0	10.94	4.34	27.99	2.77	7.61
8349-A	327986.29	5578494.55	190.00	151.20	56.80	58.30	1.50	2B	17.96	0.24	1310.0	15.42	7.07	15.30	6.61	17.18
8349-A	327986.29	5578494.55	190.00	151.20	58.30	59.80	1.50	2B	24.66	0.38	1000.0	13.45	4.23	26.94	3.84	9.05
8349-A	327986.29	5578494.55	190.00	151.20	59.80	61.10	1.30	2B	33.74	0.75	640.0	6.61	1.33	42.42	0.68	3.28
8349-A	327986.29	5578494.55	190.00	151.20	61.10	62.50	1.40	2B	33.85	0.48	510.0	6.53	1.60	41.41	0.83	3.52
8349-A	327986.29	5578494.55	190.00	151.20	62.50	63.80	1.30	2A	14.73	0.23	820.0	16.70	6.50	13.65	7.69	24.59
8349-A	327986.29	5578494.55	190.00	151.20	63.80	65.20	1.40	2A	14.23	0.14	680.0	13.03	5.62	16.89	9.71	23.42
8349-A	327986.29	5578494.55	190.00	151.20	65.20	66.50	1.30	2A	13.50	0.08	560.0	11.60	6.02	14.82	12.01	26.26
8349-A	327986.29	5578494.55	190.00	151.20	66.50	67.70	1.20	2A	15.37	0.10	560.0	9.79	5.43	17.17	9.61	25.20

8349-A	327986	29	5576494	55	190.00	151.20	67.70	68.90	1.20	2A	12.61	0.21	790.0	11.72	8.69	12.56	10.86	29.75
8349-A	327986	29	5576494	55	190.00	151.20	68.90	70.20	1.30	2A	12.60	0.14	640.0	12.15	6.18	14.17	10.68	25.84
8349-A	327986	29	5576494	55	190.00	151.20	70.20	71.40	1.20	2A	12.73	0.13	800.0	12.83	6.10	13.71	10.71	26.67
8349-A	327986	29	5576494	55	190.00	151.20	71.40	72.60	1.20	2A	16.49	0.15	760.0	11.55	5.30	17.42	9.50	21.60
8349-A	327986	29	5576494	55	190.00	151.20	72.60	73.80	1.20	2A	15.50	0.14	730.0	9.07	5.72	15.47	10.85	23.70
8349-A	327986	29	5576494	55	190.00	151.20	73.80	75.00	1.20	2A	11.92	0.10	770.0	10.86	7.10	11.88	13.22	28.06
8349-A	327986	29	5576494	55	190.00	151.20	75.00	76.30	1.30	2A	12.24	0.14	890.0	13.94	7.41	11.77	12.75	28.01
8349-A	327986	29	5576494	55	190.00	151.20	76.30	77.50	1.20	2A	13.57	0.22	1170.0	14.32	6.98	13.93	9.97	22.25
8349-A	327986	29	5576494	55	190.00	151.20	77.50	78.70	1.20	2A	12.30	0.26	1190.0	16.03	6.44	12.42	10.19	25.09
8349-A	327986	29	5576494	55	190.00	151.20	78.70	79.90	1.20	2A	14.01	0.33	1760.0	16.02	5.53	13.36	7.96	23.35
8349-A	327986	29	5576494	55	190.00	151.20	79.90	81.10	1.20	2A	10.92	0.30	1340.0	14.62	6.12	13.29	9.94	22.71
8349-A	327986	29	5576494	55	190.00	151.20	81.10	82.40	1.30	2A	12.49	0.29	1300.0	14.54	6.46	11.68	10.91	23.86
8349-A	327986	29	5576494	55	190.00	151.20	82.40	83.60	1.20	2A	9.84	0.15	850.0	15.71	8.37	8.33	16.19	29.08
8349-A	327986	29	5576494	55	190.00	151.20	83.60	84.80	1.20	2A	13.65	0.21	1120.0	14.37	5.95	13.51	11.16	20.68
8349-A	327986	29	5576494	55	190.00	151.20	84.80	86.00	1.20	2A	19.51	0.31	1380.0	11.86	4.23	20.34	7.72	14.19
8349-A	327986	29	5576494	55	190.00	151.20	86.00	87.20	1.20	2A	12.49	0.30	1640.0	15.84	6.55	11.84	11.40	22.57
8349-A	327986	29	5576494	55	190.00	151.20	87.20	88.50	1.30	2A	10.98	0.32	1460.0	14.94	8.90	10.97	11.93	24.54
8349-A	327986	29	5576494	55	190.00	151.20	88.50	89.70	1.20	2A	10.08	0.25	980.0	15.85	8.07	10.31	12.13	27.10
8349-A	327986	29	5576494	55	190.00	151.20	89.70	90.90	1.20	2A	12.18	0.26	1520.0	15.11	5.77	18.15	9.34	18.22
8349-A	327986	29	5576494	55	190.00	151.20	90.90	92.20	1.30	2A	20.79	0.32	970.0	13.93	3.95	23.18	6.01	13.08
8349-A	327986	29	5576494	55	190.00	151.20	92.20	93.50	1.30	2A	11.23	0.33	1900.0	16.47	7.27	11.08	10.97	22.85
8349-A	327986	29	5576494	55	190.00	151.20	93.50	94.80	1.30	2A	16.08	0.35	1330.0	13.33	5.60	15.17	9.32	18.83
8349-A	327986	29	5576494	55	190.00	151.20	94.80	96.10	1.30	2A	13.22	0.24	960.0	12.63	6.50	12.13	10.78	23.06
8349-A	327986	29	5576494	55	190.00	151.20	96.10	97.30	1.20	2A	20.24	0.18	640.0	9.25	3.82	23.67	8.26	15.32
8349-A	327986	29	5576494	55	190.00	151.20	97.30	98.50	1.20	2A	25.40	0.21	650.0	6.78	2.96	31.71	4.89	9.25
8349-A	327986	29	5576494	55	190.00	151.20	98.50	99.80	1.10	2B	32.97	0.26	380.0	3.54	1.06	34.79	0.79	1.76
8349-A	327986	29	5576494	55	190.00	151.20	99.80	100.80	1.20	2B	35.10	0.23	690.0	1.70	0.59	48.17	0.35	0.50
8349-A	327986	29	5576494	55	190.00	151.20	100.80	102.00	1.20	2B	35.63	0.31	280.0	1.79	0.58	47.76	0.37	0.63
8349-A	327986	29	5576494	55	190.00	151.20	102.00	103.80	1.80	2B	30.51	0.79	1060.0	5.13	2.36	36.87	1.79	7.27
8349-A	327986	29	5576494	55	190.00	151.20	103.80	105.70	1.90	2B	31.12	0.18	450.0	4.14	1.56	37.92	2.23	3.80
8349-A	327986	29	5576494	55	190.00	151.20	105.70	107.60	1.90	2B	30.53	0.28	800.0	4.22	1.50	38.13	2.91	4.23
8349-A	327986	29	5576494	55	190.00	151.20	107.60	109.40	1.80	2B	25.54	0.31	670.0	7.10	1.88	30.13	5.18	11.03
8349-A	327986	29	5576494	55	190.00	151.20	109.40	110.20	0.80	2C	7.78	0.18	1740.0	14.61	6.04	8.97	13.95	31.63
8349-A	327986	29	5576494	55	190.00	151.20	110.20	111.00	0.80	2C	5.19	0.18	1730.0	7.96	2.73	16.12	9.08	17.93
8349-A	327986	29	5576494	55	190.00	151.20	111.00	111.90	0.90	2C	2.71	0.11	940.0	6.12	2.43	23.19	8.29	16.06
8349-A	327986	29	5576494	55	190.00	151.20	111.90	112.80	0.90	2C	2.75	0.09	430.0	5.56	2.27	25.35	7.76	14.25
8349-A	327986	29	5576494	55	190.00	151.20	112.80	113.70	0.90	2C	2.00	0.09	390.0	5.52	2.81	35.77	7.53	11.15
8349-A	327986	29	5576494	55	190.00	151.20	113.70	114.80	0.90	2C	2.09	0.05	300.0	6.50	3.64	30.69	9.26	14.69
8349-A	327986	29	5576494	55	190.00	151.20	114.80	115.60	1.00	2C	2.65	0.08	300.0	7.96	2.55	30.30	9.30	13.28
8349-A	327986	29	5576494	55	190.00	151.20	115.60	116.90	1.30	2C	2.60	0.12	350.0	6.03	3.60	35.91	7.19	10.58
8349-A	327986	29	5576494	55	190.00	151.20	116.90	118.20	1.30	2C	3.33	0.14	520.0	7.36	3.13	28.41	10.14	16.18
8349-A	327986	29	5576494	55	190.00	151.20	118.20	119.60	1.40	2B	22.24	0.24	990.0	8.53	3.10	31.64	7.02	12.11
8349-A	327986	29	5576494	55	190.00	151.20	119.60	120.90	1.30	2B	29.58	0.12	500.0	7.19	0.87	41.05	1.38	5.64
8349-A	327986	29	5576494	55	190.00	151.20	120.90	122.20	1.30	2B	33.93	0.04	240.0	2.85	1.67	47.02	0.60	0.33
8349-A	327986	29	5576494	55	190.00	151.20	122.20	124.00	1.80	2B	30.95	0.91	430.0	4.46	6.33	43.26	2.58	3.97
8349-A	327986	29	5576494	55	190.00	151.20	124.00	125.90	1.90	2B	15.38	0.55	700.0	12.69	6.38	20.40	11.79	17.95
8349-A	327986	29	5576494	55	190.00	151.20	125.90	127.70	1.80	2B	16.65	0.82	770.0	11.96	4.96	22.45	10.75	19.28
8349-A	327986	29	5576494	55	190.00	151.20	127.70	129.10	1.40	2B	26.65	0.59	620.0	5.16	2.27	41.00	2.63	5.82
8349-A	327986	29	5576494	55	190.00	151.20	129.10	130.50	1.40	2B	20.70	1.03	750.0	13.64	1.91	26.50	4.63	16.71
8349-A	327986	29	5576494	55	190.00	151.20	130.50	132.00	1.50	2B	26.67	0.70	480.0	6.43	1.33	40.94	2.08	4.88
8349-A	327986	29	5576494	55	190.00	151.20	132.00	133.40	1.40	2B	30.84	0.82	430.0	4.97	1.09	42.84	1.31	8.23
8349-A	327986	29	5576494	55	190.00	151.20	133.40	134.80	1.40	2B	34.08	0.41	300.0	3.17	0.73	44.87	1.09	1.35
8349-A	327986	29	5576494	55	190.00	151.20	134.80	136.30	1.50	2B	34.46	0.49	320.0	2.63	0.59	44.91	0.63	1.85
8349-A	327986	29	5576494	55	190.00	151.20	136.30	137.80	1.50	2B	32.82	0.19	340.0	3.36	0.98	42.97	1.96	1.61
8349-A	327986	29	5576494	55	190.00	151.20	137.80	139.20	1.40	2B	28.55	0.41	550.0	5.14	2.05	37.10	3.70	6.73
8349-A	327986	29	5576494	55	190.00	151.20	139.20	141.20	2.00	2B	36.38	0.60	510.0	1.87	0.66	45.27	0.65	2.81
8349-A	327986	29	5576494	55	190.00	151.20	141.20	143.10	1.90	2B	33.84	0.31	330.0	3.32	1.29	46.17	1.51	2.86
8349-A	327986	29	5576494	55	190.00	151.20	143.10	145.10	2.00	2B	35.09	0.10	430.0	2.31	0.43	49.41	0.42	0.37
8349-A	327986	29	5576494	55	190.00	151.20	145.10	146.80	1.50	2B	36.55	0.40	530.0	2.80	0.90	46.69	0.33	0.73
8349-A	327986	29	5576494	55	190.00	151.20	146.80	148.20	1.60	2B	31.35	0.53	790.0	5.09	1.83	41.68	1.17	4.71
8349-A	327986	29	5576494	55	190.00	151.20	148.20	149.70	1.50	2B	11.50	0.59	910.0	9.17	1.90	29.38	4.99	12.64
8349-A	327986	29	5576494	55	190.00	151.20	149.70	150.40	0.70	2B	11.45	0.27	430.0	4.94	1.37	34.75	5.96	8.61
8349-A	327986	29	5576494	55	190.00	151.20	150.40	151.20	0.60	1D	4.35	0.14	270.0	3.87	1.01	29.28	12.68	8.39

**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

NAD83 UTM			Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol
Hole_No	Eastings	Northings														
8349-B	327979.14	5578492.85	190.10	154.20	0.00	38.80	38.80	4								
8349-B	327979.14	5578492.85	190.10	154.20	38.80	40.40	1.80	4								
8349-B	327979.14	5578492.85	190.10	154.20	40.40	42.00	1.80	4								
8349-B	327979.14	5578492.85	190.10	154.20	42.00	43.50	1.50	4								
8349-B	327979.14	5578492.85	190.10	154.20	43.50	45.10	1.80	4								
8349-B	327979.14	5578492.85	190.10	154.20	45.10	48.40	1.30	2B	29.83	0.21	590.0	9.16	2.87	32.77	0.74	5.11
8349-B	327979.14	5578492.85	190.10	154.20	48.40	47.80	1.40	2B	32.50	0.18	450.0	5.79	1.40	22.87	0.52	1.26
8349-B	327979.14	5578492.85	190.10	154.20	47.80	49.10	1.30	2B	28.07	0.29	640.0	10.71	4.87	33.88	3.02	7.20
8349-B	327979.14	5578492.85	190.10	154.20	49.10	50.50	1.40	2B	18.42	0.28	930.0	18.98	7.81	46.17	6.05	17.91
8349-B	327979.14	5578492.85	190.10	154.20	50.50	51.80	1.30	2B	25.81	0.31	810.0	13.28	5.58	46.05	0.63	10.54
8349-B	327979.14	5578492.85	190.10	154.20	51.80	53.10	1.30	2B	28.22	0.23	820.0	11.38	5.62	26.86	0.35	8.30
8349-B	327979.14	5578492.85	190.10	154.20	53.10	54.50	1.40	2B	29.01	0.23	780.0	12.01	4.83	24.84	0.99	5.50
8349-B	327979.14	5578492.85	190.10	154.20	54.50	56.20	1.70	2B	23.32	0.19	710.0	14.05	5.70	49.36	3.16	12.07
8349-B	327979.14	5578492.85	190.10	154.20	56.20	57.60	1.60	2B	31.51	0.33	540.0	7.73	3.10	47.37	1.54	4.88
8349-B	327979.14	5578492.85	190.10	154.20	57.60	59.50	1.70	2B	25.85	0.52	970.0	13.84	5.92	44.87	2.53	9.36
8349-B	327979.14	5578492.85	190.10	154.20	59.50	61.10	1.60	2B	26.59	0.32	730.0	9.42	3.87	43.27	2.19	8.52
8349-B	327979.14	5578492.85	190.10	154.20	61.10	62.80	1.70	2A	10.44	0.14	890.0	19.77	7.30	30.43	8.50	27.52
8349-B	327979.14	5578492.85	190.10	154.20	62.80	64.30	1.50	2A	12.79	0.17	940.0	16.69	7.36	17.51	7.78	24.47
8349-B	327979.14	5578492.85	190.10	154.20	64.30	65.80	1.50	2A	11.23	0.27	1250.0	17.22	7.75	18.35	9.12	26.97
8349-B	327979.14	5578492.85	190.10	154.20	65.80	67.30	1.50	2B	19.83	0.53	1380.0	13.40	5.44	44.42	5.55	17.49
8349-B	327979.14	5578492.85	190.10	154.20	67.30	68.80	1.50	2B	27.44	0.55	1180.0	14.81	2.25	44.57	1.03	5.85
8349-B	327979.14	5578492.85	190.10	154.20	68.80	70.40	1.80	2B	35.70	0.15	280.0	2.18	0.59	44.52	0.11	0.41
8349-B	327979.14	5578492.85	190.10	154.20	70.40	71.90	1.50	2B	35.50	0.13	270.0	1.79	1.33	44.76	0.22	0.58
8349-B	327979.14	5578492.85	190.10	154.20	71.90	73.60	1.70	2A	18.77	0.39	1030.0	15.20	5.91	28.60	5.33	14.84
8349-B	327979.14	5578492.85	190.10	154.20	73.60	75.30	1.70	2A	23.12	0.64	1390.0	13.64	4.44	21.14	4.37	12.42
8349-B	327979.14	5578492.85	190.10	154.20	75.30	76.90	1.60	2A	22.13	0.52	1370.0	13.60	4.67	10.82	4.85	13.57
8349-B	327979.14	5578492.85	190.10	154.20	76.90	78.60	1.70	2A	7.76	0.12	760.0	16.33	12.65	11.39	13.47	26.56
8349-B	327979.14	5578492.85	190.10	154.20	78.60	80.30	1.70	2A	7.40	0.12	680.0	15.58	11.42	11.53	13.58	25.28
8349-B	327979.14	5578492.85	190.10	154.20	80.30	82.00	1.70	2A	8.58	0.23	740.0	14.65	10.05	12.97	12.89	24.57
8349-B	327979.14	5578492.85	190.10	154.20	82.00	83.60	1.60	2A	9.78	0.21	760.0	14.52	10.04	13.59	12.44	23.24
8349-B	327979.14	5578492.85	190.10	154.20	83.60	85.10	1.50	2A	10.84	0.18	740.0	13.12	8.47	15.33	11.65	22.74
8349-B	327979.14	5578492.85	190.10	154.20	85.10	86.70	1.60	2A	8.24	0.16	650.0	13.68	9.87	12.90	13.78	24.98
8349-B	327979.14	5578492.85	190.10	154.20	86.70	88.30	1.60	2A	10.04	0.19	670.0	12.55	8.55	15.18	12.36	23.69
8349-B	327979.14	5578492.85	190.10	154.20	88.30	89.80	1.50	2C	8.39	0.13	570.0	14.48	9.67	13.22	13.16	25.33
8349-B	327979.14	5578492.85	190.10	154.20	89.80	91.40	1.60	2C	8.13	0.11	550.0	15.49	9.40	13.06	12.67	24.08
8349-B	327979.14	5578492.85	190.10	154.20	91.40	92.70	1.30	2C	8.77	0.10	620.0	18.65	10.51	11.51	13.42	25.09
8349-B	327979.14	5578492.85	190.10	154.20	92.70	93.90	1.20	2C	7.89	0.11	580.0	15.80	9.57	13.14	12.66	23.93
8349-B	327979.14	5578492.85	190.10	154.20	93.90	95.20	1.30	2C	9.32	0.13	830.0	14.73	9.10	14.30	11.77	23.23
8349-B	327979.14	5578492.85	190.10	154.20	95.20	96.50	1.30	2B	21.57	0.45	1120.0	13.87	3.95	41.70	6.43	14.43
8349-B	327979.14	5578492.85	190.10	154.20	96.50	97.70	1.20	2B	18.78	0.24	780.0	11.70	5.30	40.70	8.04	16.72
8349-B	327979.14	5578492.85	190.10	154.20	97.70	99.00	1.30	2B	34.50	0.21	700.0	2.61	0.75	31.00	0.84	0.74
8349-B	327979.14	5578492.85	190.10	154.20	99.00	100.30	1.30	2B	35.97	0.76	1030.0	4.55	0.82	38.90	0.60	1.93
8349-B	327979.14	5578492.85	190.10	154.20	100.30	101.70	1.40	2B	36.16	0.17	610.0	2.12	0.76	38.83	0.60	0.44
8349-B	327979.14	5578492.85	190.10	154.20	101.70	103.00	1.30	2B	33.59	0.11	460.0	3.48	1.53	43.27	1.73	1.69
8349-B	327979.14	5578492.85	190.10	154.20	103.00	104.30	1.30	2B	33.81	0.15	260.0	2.57	0.98	44.42	1.21	0.71





PHOSCAN CHEMICAL CORPORATION

MARTISON PHOSPHATE PROJECT

September 5, 2008

Assembly of 2008 Sonic Drilling Data

Coordinates from 2008 Winter program Field Survey

Hole_No	NAD83 UTM			TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol
	Eastings	Northings	Elevation													
8349-C	327987.81	5578510.18	189.80	149.30	0.00	38.70	38.70	4								
8349-C	327987.81	5578510.18	189.80	149.30	38.70	40.20	1.50	4								
8349-C	327987.81	5578510.18	189.80	149.30	40.20	41.80	1.60	4								
8349-C	327987.81	5578510.18	189.80	149.30	41.80	43.00	1.20	4								
8349-C	327987.81	5578510.18	189.80	149.30	43.00	44.30	1.30	4								
8349-C	327987.81	5578510.18	189.80	149.30	44.30	48.50	2.20	2B	28.11	0.17	680.0	6.04	4.59	32.35	1.02	13.24
8349-C	327987.81	5578510.18	189.80	149.30	46.50	48.70	2.20	2B	34.20	0.19	800.0	4.77	2.81	42.39	0.29	1.52
8349-C	327987.81	5578510.18	189.80	149.30	48.70	50.90	2.20	2B	37.00	0.20	330.0	4.14	2.71	43.10	0.18	0.82
8349-C	327987.81	5578510.18	189.80	149.30	50.90	53.20	2.30	2B	36.31	0.27	250.0	2.92	0.89	43.92	0.19	0.85
8349-C	327987.81	5578510.18	189.80	149.30	53.20	54.70	1.50	2B	36.75	0.24	250.0	3.06	0.97	45.64	0.33	0.75
8349-C	327987.81	5578510.18	189.80	149.30	54.70	58.10	1.40	2B	34.48	0.21	240.0	4.50	2.21	43.10	0.45	1.22
8349-C	327987.81	5578510.18	189.80	149.30	58.10	57.80	1.50	2B	29.36	0.40	600.0	11.42	4.87	31.35	1.44	8.14
8349-C	327987.81	5578510.18	189.80	149.30	57.80	59.10	1.50	2B	28.88	0.17	450.0	9.83	3.98	32.11	1.02	4.32
8349-C	327987.81	5578510.18	189.80	149.30	59.10	60.50	1.40	2B	28.39	0.21	470.0	13.09	8.58	35.99	2.08	8.38
8349-C	327987.81	5578510.18	189.80	149.30	60.50	62.00	1.50	2A	19.81	0.28	730.0	14.51	10.81	22.44	5.31	14.48
8349-C	327987.81	5578510.18	189.80	149.30	62.00	63.40	1.40	2A	22.39	0.35	620.0	12.47	8.92	24.75	4.29	12.62
8349-C	327987.81	5578510.18	189.80	149.30	63.40	64.80	1.40	2A	22.23	0.30	720.0	12.38	8.92	26.13	5.38	12.03
8349-C	327987.81	5578510.18	189.80	149.30	64.80	66.30	1.50	2B	28.83	0.18	380.0	5.87	4.25	42.13	3.63	5.04
8349-C	327987.81	5578510.18	189.80	149.30	66.30	67.70	1.40	2B	27.04	0.19	320.0	6.16	3.83	43.06	3.70	4.92
8349-C	327987.81	5578510.18	189.80	149.30	67.70	68.50	0.80	2B	27.99	0.24	500.0	7.09	4.25	41.89	2.98	5.37
8349-C	327987.81	5578510.18	189.80	149.30	68.50	69.20	0.70	2B	25.04	0.18	440.0	4.88	7.03	32.99	5.58	10.54
8349-C	327987.81	5578510.18	189.80	149.30	69.20	70.00	0.80	2B	27.74	0.23	380.0	8.21	4.87	39.21	4.10	7.08
8349-C	327987.81	5578510.18	189.80	149.30	70.00	70.70	0.70	2A	22.18	0.48	830.0	10.28	8.74	28.20	5.98	12.78
8349-C	327987.81	5578510.18	189.80	149.30	70.70	71.50	0.80	2A	8.13	0.18	580.0	15.78	13.34	9.62	13.72	30.56
8349-C	327987.81	5578510.18	189.80	149.30	71.50	73.00	1.50	2A	13.88	0.24	670.0	12.62	10.05	14.37	10.21	22.98
8349-C	327987.81	5578510.18	189.80	149.30	73.00	75.00	2.00	2A	18.22	0.45	800.0	14.42	7.51	18.89	8.28	18.25
8349-C	327987.81	5578510.18	189.80	149.30	75.00	77.00	2.00	2A	11.42	0.28	970.0	15.77	10.29	11.41	10.98	25.93
8349-C	327987.81	5578510.18	189.80	149.30	77.00	79.00	2.00	2A	32.16	0.52	1040.0	7.37	1.78	33.78	1.91	4.78
8349-C	327987.81	5578510.18	189.80	149.30	79.00	81.00	2.00	2A	17.41	0.28	790.0	14.48	8.17	15.81	7.80	19.83
8349-C	327987.81	5578510.18	189.80	149.30	81.00	82.40	1.40	2A	23.60	0.48	840.0	11.58	4.73	27.04	4.94	13.71
8349-C	327987.81	5578510.18	189.80	149.30	82.40	83.80	1.40	2A	22.69	0.44	870.0	12.32	5.87	27.89	5.22	14.06
8349-C	327987.81	5578510.18	189.80	149.30	83.80	85.20	1.40	2A	12.98	0.21	710.0	17.71	8.99	15.31	10.47	23.12
8349-C	327987.81	5578510.18	189.80	149.30	85.20	86.60	1.40	2A	9.52	0.21	750.0	15.37	10.29	12.34	13.44	27.09
8349-C	327987.81	5578510.18	189.80	149.30	86.60	88.00	1.40	2A	14.80	0.35	1880.0	16.60	6.81	16.31	9.35	19.42
8349-C	327987.81	5578510.18	189.80	149.30	88.00	89.40	1.40	2A	12.19	0.59	2110.0	17.34	7.69	14.37	9.63	20.80
8349-C	327987.81	5578510.18	189.80	149.30	89.40	90.80	1.40	2A	7.19	0.38	1130.0	12.74	9.21	12.47	13.78	28.00
8349-C	327987.81	5578510.18	189.80	149.30	90.80	92.10	1.30	2C	4.43	0.21	780.0	10.92	7.49	17.41	12.85	21.38
8349-C	327987.81	5578510.18	189.80	149.30	92.10	93.50	1.40	2C	1.98	0.17	820.0	8.55	4.80	28.02	10.01	16.43
8349-C	327987.81	5578510.18	189.80	149.30	93.50	94.90	1.40	2C	1.00	0.11	430.0	7.83	3.88	31.78	8.26	13.18
8349-C	327987.81	5578510.18	189.80	149.30	94.90	96.30	1.40	2C	1.29	0.09	380.0	8.13	4.85	30.86	9.05	13.49
8349-C	327987.81	5578510.18	189.80	149.30	96.30	97.80	1.30	2C	8.25	0.08	400.0	10.73	7.55	20.83	12.31	20.20
8349-C	327987.81	5578510.18	189.80	149.30	97.80	99.00	1.40	2C	5.43	0.19	830.0	14.93	10.81	11.38	15.43	25.39
8349-C	327987.81	5578510.18	189.80	149.30	99.00	100.60	1.60	2A	13.74	0.28	760.0	12.32	5.83	21.62	10.33	17.14
8349-C	327987.81	5578510.18	189.80	149.30	100.60	102.30	1.70	2A	10.16	0.27	1690.0	15.74	9.08	15.01	10.98	20.10
8349-C	327987.81	5578510.18	189.80	149.30	102.30	103.90	1.60	2A	12.75	0.24	1540.0	13.87	7.31	18.78	9.38	18.34



**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

NAD83 UTM																
Hole_No	Eastings	Northings	Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fa2O3	%Al2O3	%CaO	%MgO	%A_inao1
8349-D	327984.14	5578487.92	190.00	129.80	0.00	35.40	35.40	4								
8349-D	327984.14	5578487.92	190.00	129.80	35.40	36.60	1.20	4								
8349-D	327984.14	5578487.92	190.00	129.80	36.60	37.80	1.20	4								
8349-D	327984.14	5578487.92	190.00	129.80	37.80	39.10	1.30	4								
8349-D	327984.14	5578487.92	190.00	129.80	39.10	40.30	1.20	4								
8349-D	327984.14	5578487.92	190.00	129.80	40.30	41.50	1.20	4								
8349-D	327984.14	5578487.92	190.00	129.80	41.50	42.70	1.20	4								
8349-D	327984.14	5578487.92	190.00	129.80	42.70	43.90	1.20									
8349-D	327984.14	5578487.92	190.00	129.80	43.90	45.10	1.20	2B	26.63	0.30	740.0	12.93	7.20	29.60	0.48	5.54
8349-D	327984.14	5578487.92	190.00	129.80	45.10	47.10	2.00	2B	28.58	0.40	880.0	14.41	5.28	28.42	0.52	5.83
8349-D	327984.14	5578487.92	190.00	129.80	47.10	49.10	2.00	2B	27.98	0.35	900.0	10.95	5.39	31.92	0.42	4.21
8349-D	327984.14	5578487.92	190.00	129.80	49.10	51.10	2.00	2B	30.29	0.17	670.0	9.25	4.84	35.96	0.49	3.15
8349-D	327984.14	5578487.92	190.00	129.80	51.10	53.10	2.00	2B	33.81	0.05	360.0	5.05	1.37	44.05	0.58	0.92
8349-D	327984.14	5578487.92	190.00	129.80	53.10	54.40	1.30	2B	31.16	0.24	350.0	5.03	2.55	40.53	0.59	1.53
8349-D	327984.14	5578487.92	190.00	129.80	54.40	55.80	1.40	2B	32.17	0.22	360.0	4.01	2.02	42.61	0.55	1.23
8349-D	327984.14	5578487.92	190.00	129.80	55.80	57.10	1.30	2B	32.08	0.11	220.0	2.91	0.65	40.04	0.55	0.59
8349-D	327984.14	5578487.92	190.00	129.80	57.10	58.50	1.40	2B	31.46	0.02	390.0	2.23	0.80	44.08	0.40	0.30
8349-D	327984.14	5578487.92	190.00	129.80	58.50	59.80	1.30	2B	32.67	0.01	360.0	1.95	0.23	41.61	0.39	0.44
8349-D	327984.14	5578487.92	190.00	129.80	59.80	61.10	1.30	2B	33.25	0.03	310.0	2.08	0.72	44.10	0.47	0.34
8349-D	327984.14	5578487.92	190.00	129.80	61.10	62.50	1.40	2B	30.49	0.11	790.0	5.07	2.56	38.01	1.23	2.58
8349-D	327984.14	5578487.92	190.00	129.80	62.50	63.80	1.30	2B	19.63	0.29	880.0	11.18	11.38	20.00	4.92	14.55
8349-D	327984.14	5578487.92	190.00	129.80	63.80	65.00	1.20	2A	10.75	0.20	840.0	14.61	22.01	11.62	10.94	28.53
8349-D	327984.14	5578487.92	190.00	129.80	65.00	66.30	1.30	2A	9.17	0.27	1210.0	19.59	18.09	10.51	9.30	28.89
8349-D	327984.14	5578487.92	190.00	129.80	66.30	67.80	1.30	2A	17.32	0.44	1400.0	25.57	6.27	16.19	2.79	12.09
8349-D	327984.14	5578487.92	190.00	129.80	67.80	68.80	1.20	2B	20.98	0.39	670.0	15.03	9.92	20.33	3.41	10.50
8349-D	327984.14	5578487.92	190.00	129.80	68.80	70.10	1.30	2B	22.98	0.44	720.0	13.75	9.01	22.11	2.62	9.95
8349-D	327984.14	5578487.92	190.00	129.80	70.10	71.40	1.30	2B	28.31	0.36	360.0	6.32	10.29	30.20	4.10	7.54
8349-D	327984.14	5578487.92	190.00	129.80	71.40	72.80	1.40	2B	29.23	0.58	980.0	5.69	4.06	40.04	1.53	5.29
8349-D	327984.14	5578487.92	190.00	129.80	72.80	74.20	1.40	2B	29.27	0.63	1310.0	7.16	4.23	39.81	1.52	5.07
8349-D	327984.14	5578487.92	190.00	129.80	74.20	75.60	1.40	2B	32.39	0.36	670.0	4.41	1.88	45.49	1.00	1.51
8349-D	327984.14	5578487.92	190.00	129.80	75.60	77.00	1.40	2B	31.28	0.44	770.0	5.58	2.35	40.10	1.17	2.83
8349-D	327984.14	5578487.92	190.00	129.80	77.00	78.30	1.30	2B	24.79	0.26	450.0	6.80	6.92	31.88	5.42	9.08
8349-D	327984.14	5578487.92	190.00	129.80	78.30	79.70	1.40	2B	31.58	0.39	500.0	4.83	3.13	43.83	1.44	2.05
8349-D	327984.14	5578487.92	190.00	129.80	79.70	81.10	1.40	2B	24.44	0.57	880.0	9.88	5.54	28.16	4.02	11.14
8349-D	327984.14	5578487.92	190.00	129.80	81.10	82.40	1.30	2B	25.01	0.61	1230.0	8.81	7.19	31.14	5.46	10.03
8349-D	327984.14	5578487.92	190.00	129.80	82.40	83.80	1.20	2B	17.38	0.52	1110.0	11.68	10.50	19.26	7.50	19.31
8349-D	327984.14	5578487.92	190.00	129.80	83.80	84.90	1.30	2C	9.01	0.20	1070.0	15.58	21.20	10.52	13.90	30.07
8349-D	327984.14	5578487.92	190.00	129.80	84.90	86.20	1.30	2C	5.52	0.14	810.0	19.22	19.23	8.92	14.30	34.11
8349-D	327984.14	5578487.92	190.00	129.80	86.20	87.50	1.30	2C	5.36	0.15	1060.0	20.49	19.64	9.51	12.85	33.25
8349-D	327984.14	5578487.92	190.00	129.80	87.50	88.70	1.20	2C	2.58	0.11	690.0	11.85	24.43	8.95	15.69	34.68
8349-D	327984.14	5578487.92	190.00	129.80	88.70	90.00	1.30	2C	6.23	0.12	790.0	12.71	19.46	10.16	14.34	29.27
8349-D	327984.14	5578487.92	190.00	129.80	90.00	91.30	1.30	2C	6.10	0.22	1050.0	11.46	17.59	10.02	13.18	32.33
8349-D	327984.14	5578487.92	190.00	129.80	91.30	92.50	1.20	2C	5.06	0.15	990.0	12.72	20.65	8.86	16.07	31.94
8349-D	327984.14	5578487.92	190.00	129.80	92.50	93.80	1.30	2C	5.51	0.20	1020.0	13.80	17.05	9.03	15.30	31.05
8349-D	327984.14	5578487.92	190.00	129.80	93.80	95.30	1.50	2C	6.04	0.30	1250.0	12.38	15.29	10.60	12.48	29.25



**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

NAD83 UTM			Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol
Hole_No	Eastings	Northings														
8349-E	328002.07	5578497.93	189.90	138.20	0.00	38.70	38.70	4								
8349-E	328002.07	5578497.93	189.90	138.20	38.70	39.80	0.90	4								
8349-E	328002.07	5578497.93	189.90	138.20	39.80	40.50	0.90	4								
8349-E	328002.07	5578497.93	189.90	138.20	40.50	41.50	1.00	4								
8349-E	328002.07	5578497.93	189.90	138.20	41.50	42.40	0.90	4								
8349-E	328002.07	5578497.93	189.90	138.20	42.40	43.80	1.40	2B	24.17	0.31	1100.0	12.75	8.05	27.84	0.48	9.75
8349-E	328002.07	5578497.93	189.90	138.20	43.80	45.10	1.30	2B	28.38	0.24	890.0	10.82	8.19	31.41	0.38	5.97
8349-E	328002.07	5578497.93	189.90	138.20	45.10	48.50	1.40	2B	27.82	0.21	880.0	8.52	4.38	37.34	0.54	3.89
8349-E	328002.07	5578497.93	189.90	138.20	48.50	47.90	1.40	2B	28.99	0.20	510.0	7.42	5.35	36.34	0.68	5.10
8349-E	328002.07	5578497.93	189.90	136.20	47.90	49.30	1.40	2B	27.00	0.18	580.0	9.74	5.01	30.34	2.11	8.83
8349-E	328002.07	5578497.93	189.90	136.20	49.30	50.80	1.30	2B	23.96	0.23	730.0	14.07	8.83	24.95	2.33	8.88
8349-E	328002.07	5578497.93	189.90	138.20	50.80	52.00	1.40	2B	22.58	0.25	850.0	15.58	7.10	23.17	2.77	9.32
8349-E	328002.07	5578497.93	189.90	136.20	52.00	53.30	1.30	2B	28.58	0.09	200.0	8.07	1.90	35.80	2.88	4.33
8349-E	328002.07	5578497.93	189.90	138.20	53.30	54.70	1.40	2B	31.18	0.11	250.0	4.79	2.34	39.88	1.43	2.91
8349-E	328002.07	5578497.93	189.90	138.20	54.70	55.90	1.20	2A	18.90	0.27	1500.0	12.93	9.21	17.78	8.30	18.90
8349-E	328002.07	5578497.93	189.90	138.20	55.90	57.20	1.30	2A	17.42	0.42	1720.0	15.79	8.18	19.40	4.88	18.88
8349-E	328002.07	5578497.93	189.90	138.20	57.20	58.40	1.20	2A	12.58	0.32	900.0	14.23	11.25	13.90	7.17	24.87
8349-E	328002.07	5578497.93	189.90	136.20	58.40	59.70	1.30	2A	9.11	0.30	1340.0	18.84	8.87	11.39	7.78	29.81
8349-E	328002.07	5578497.93	189.90	138.20	59.70	60.90	1.20	2A	9.13	0.31	1240.0	18.87	7.78	11.80	7.33	30.82
8349-E	328002.07	5578497.93	189.90	136.20	60.90	62.50	1.80	2A	9.14	0.18	850.0	17.50	10.42	11.83	7.87	27.96
8349-E	328002.07	5578497.93	189.90	138.20	62.50	64.10	1.60	2A	29.24	0.28	330.0	5.12	2.11	38.73	1.47	3.19
8349-E	328002.07	5578497.93	189.90	138.20	64.10	65.70	1.80	2A	19.59	0.44	1030.0	18.18	7.53	21.24	4.48	15.27
8349-E	328002.07	5578497.93	189.90	136.20	65.70	66.80	1.10	2A	18.64	0.58	1110.0	14.59	8.25	18.91	5.68	18.89
8349-E	328002.07	5578497.93	189.90	136.20	66.80	68.00	1.20	2A	25.65	0.82	810.0	9.99	5.39	29.42	3.79	11.85
8349-E	328002.07	5578497.93	189.90	136.20	68.00	69.10	1.10	2A	18.46	0.55	940.0	12.61	7.14	20.90	6.15	18.63
8349-E	328002.07	5578497.93	189.90	136.20	69.10	70.20	1.10	2A	11.47	0.45	1380.0	14.83	10.11	13.98	9.35	25.20
8349-E	328002.07	5578497.93	189.90	138.20	70.20	71.30	1.10	2A	11.73	0.48	1290.0	13.78	8.18	14.19	8.58	26.74
8349-E	328002.07	5578497.93	189.90	136.20	71.30	72.50	1.20	2A	13.71	0.48	1480.0	13.05	7.37	18.25	7.70	24.01
8349-E	328002.07	5578497.93	189.90	136.20	72.50	73.60	1.10	2A	12.90	0.39	1370.0	13.21	8.44	15.72	8.70	23.59
8349-E	328002.07	5578497.93	189.90	138.20	73.60	74.70	1.10	2A	11.93	0.27	920.0	13.05	8.88	15.04	9.15	24.91
8349-E	328002.07	5578497.93	189.90	136.20	74.70	75.80	0.90	2A	20.34	0.43	790.0	10.51	5.22	23.37	5.61	16.91
8349-E	328002.07	5578497.93	189.90	138.20	75.80	78.50	0.90	2A	27.28	0.89	950.0	10.13	2.60	30.73	3.09	9.15
8349-E	328002.07	5578497.93	189.90	136.20	76.50	77.40	0.90	2A	23.24	0.60	1040.0	10.45	3.78	26.45	4.27	13.71
8349-E	328002.07	5578497.93	189.90	136.20	77.40	78.30	0.90	2A	16.55	0.58	1640.0	13.97	5.96	17.62	5.42	20.56
8349-E	328002.07	5578497.93	189.90	138.20	78.30	79.20	0.90	2A	18.55	0.57	1540.0	14.41	5.28	20.65	5.18	15.72
8349-E	328002.07	5578497.93	189.90	136.20	79.20	80.20	1.00	2A	17.84	0.81	1480.0	12.11	5.85	19.66	6.80	19.84
8349-E	328002.07	5578497.93	189.90	136.20	80.20	81.10	0.90	2A	16.78	0.53	1590.0	13.50	6.04	18.21	6.19	19.83
8349-E	328002.07	5578497.93	189.90	136.20	81.10	82.00	0.90	2A	16.82	0.40	1300.0	12.38	6.81	19.60	7.98	18.60
8349-E	328002.07	5578497.93	189.90	136.20	82.00	83.40	1.40	2A	15.49	0.15	820.0	12.71	6.89	19.14	8.68	20.15
8349-E	328002.07	5578497.93	189.90	136.20	83.40	84.80	1.40	2A	29.25	0.17	680.0	7.37	1.35	36.88	1.99	5.57
8349-E	328002.07	5578497.93	189.90	136.20	84.80	86.20	1.40	2A	18.66	0.40	970.0	12.06	4.92	22.80	7.14	17.23
8349-E	328002.07	5578497.93	189.90	136.20	86.20	87.80	1.40	2B	30.95	0.40	410.0	3.56	1.78	39.33	2.40	3.93
8349-E	328002.07	5578497.93	189.90	136.20	87.80	89.00	1.40	2B	33.32	0.40	340.0	2.76	1.18	42.72	1.13	1.54
8349-E	328002.07	5578497.93	189.90	136.20	89.00	90.50	1.50	2B	31.36	0.41	350.0	3.01	1.29	44.21	1.78	1.77
8349-E	328002.07	5578497.93	189.90	136.20	90.50	91.80	1.30	2C	6.66	0.23	760.0	13.49	10.67	11.73	12.24	26.57

8349-E	328002.07	5576497.93	189.90	136.20	91.80	93.10	1.30	2C	8.87	0.16	680.0	12.75	9.00	14.53	10.77	24.67
8349-E	328002.07	5576497.93	189.90	136.20	93.10	94.50	1.40	2C	5.85	0.16	530.0	13.42	10.83	11.29	12.57	27.81
8349-E	328002.07	5576497.93	189.90	136.20	94.50	95.80	1.30	2C	3.74	0.20	710.0	16.00	12.08	9.94	14.24	28.38
8349-E	328002.07	5576497.93	189.90	136.20	95.80	97.10	1.30	2C	9.40	0.22	580.0	13.12	9.01	14.94	11.39	22.45
8349-E	328002.07	5576497.93	189.90	136.20	97.10	98.10	1.00	2B	27.95	0.26	320.0	4.19	2.01	38.59	3.34	5.12
8349-E	328002.07	5576497.93	189.90	136.20	98.10	99.10	1.00	2B	22.68	0.90	1210.0	10.50	4.19	25.72	6.52	12.37
8349-E	328002.07	5576497.93	189.90	136.20	99.10	100.10	1.00	2B	24.86	0.26	680.0	6.88	4.04	31.86	5.36	8.75
8349-E	328002.07	5576497.93	189.90	136.20	100.10	101.10	1.00	2B	13.49	0.20	840.0	10.73	10.35	16.87	11.96	21.87
8349-E	328002.07	5576497.93	189.90	136.20	101.10	102.20	1.10	2B	4.86	0.18	700.0	13.60	14.46	6.70	15.84	32.89
8349-E	328002.07	5576497.93	189.90	136.20	102.20	103.20	1.00	2B	21.32	0.26	830.0	7.23	5.15	26.86	7.95	13.42
8349-E	328002.07	5576497.93	189.90	136.20	103.20	104.60	1.40	2B	25.93	0.19	520.0	6.00	3.81	33.70	5.12	8.18
8349-E	328002.07	5576497.93	189.90	136.20	104.60	106.00	1.40	2B	33.95	0.26	310.0	1.71	1.23	47.67	0.61	0.77
8349-E	328002.07	5576497.93	189.90	136.20	106.00	107.40	1.40	2B	29.17	0.20	550.0	3.40	3.10	40.71	4.05	5.53
8349-E	328002.07	5576497.93	189.90	136.20	107.40	108.80	1.40	2B	29.55	0.31	630.0	4.01	2.19	42.20	2.29	4.05
8349-E	328002.07	5576497.93	189.90	136.20	108.80	110.10	1.30	2B	29.70	0.11	200.0	4.10	2.57	41.75	1.45	4.10
8349-E	328002.07	5576497.93	189.90	136.20	110.10	111.40	1.30	2B	30.01	0.08	210.0	4.22	2.24	41.05	2.14	3.66
8349-E	328002.07	5576497.93	189.90	136.20	111.40	112.70	1.30	2B	31.23	0.10	210.0	3.67	2.59	40.82	2.27	3.39
8349-E	328002.07	5576497.93	189.90	138.20	112.70	114.00	1.30	2B	25.16	0.19	550.0	7.86	3.82	28.51	5.26	9.63
8349-E	328002.07	5576497.93	189.90	136.20	114.00	115.40	1.40	2B	29.66	0.16	410.0	4.64	3.10	37.07	3.97	5.55
8349-E	328002.07	5576497.93	189.90	136.20	115.40	116.70	1.30	2B	35.21	0.08	260.0	3.57	0.93	46.05	0.36	0.57
8349-E	328002.07	5576497.93	189.90	136.20	116.70	118.00	1.30	2B	32.94	0.11	230.0	3.23	1.76	40.90	2.31	2.48
8349-E	328002.07	5576497.93	189.90	136.20	118.00	119.40	1.40	2B	32.94	0.16	260.0	2.76	1.27	41.91	0.87	1.32
8349-E	328002.07	5576497.93	189.90	136.20	119.40	120.80	1.40	2B	32.42	0.22	300.0	4.03	1.70	40.60	1.04	3.49
8349-E	328002.07	5576497.93	189.90	136.20	120.80	122.10	1.30	2B	33.71	0.14	310.0	2.60	0.92	42.09	0.90	1.01
8349-E	328002.07	5576497.93	189.90	136.20	122.10	123.50	1.40	2B	34.42	0.13	460.0	2.38	1.24	43.65	0.72	0.70
8349-E	328002.07	5576497.93	189.90	136.20	123.50	124.90	1.40	2B	31.63	0.40	380.0	3.27	1.43	41.13	1.30	2.01
8349-E	328002.07	5576497.93	189.90	136.20	124.90	126.30	1.40	2B	30.80	0.25	440.0	3.58	1.98	37.27	2.58	3.74
8349-E	328002.07	5576497.93	189.90	136.20	126.30	127.80	1.50	2B	34.34	0.31	300.0	2.39	1.05	40.31	0.67	1.01
8349-E	328002.07	5576497.93	189.90	136.20	127.80	129.40	1.60	2B	35.87	0.31	270.0	1.78	0.80	41.82	0.26	0.80
8349-E	328002.07	5576497.93	189.90	136.20	129.40	130.90	1.50	2B	34.37	0.29	320.0	2.33	0.95	40.87	0.70	0.99
8349-E	328002.07	5576497.93	189.90	136.20	130.90	132.70	1.80	2B	35.61	0.47	350.0	1.70	0.67	41.51	0.28	0.83
8349-E	328002.07	5576497.93	189.90	136.20	132.70	134.40	1.70	2B	35.65	0.59	290.0	1.54	0.58	40.01	0.23	1.23
8349-E	328002.07	5576497.93	189.90	136.20	134.40	136.20	1.80	2B	31.76	0.37	320.0	1.72	0.57	39.55	0.69	0.92









**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

Hole_No	NAD83 UTM			TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol
	Eastings	Northings	Elevation													
8351-B	327969.15	5576307.30	189.90	139.00	0.60	29.30	29.30	4								
8351-B	327969.15	5576307.30	189.90	139.00	29.30	30.50	1.20	4								
8351-B	327969.15	5576307.30	189.90	139.00	30.50	31.70	1.20	4								
8351-B	327969.15	5576307.30	189.90	139.00	31.70	32.90	1.20	3								
8351-B	327969.15	5576307.30	189.90	139.00	33.00	34.30	1.30	3	11.81	0.32	1590.0	24.51	29.52	6.07	0.26	23.15
8351-B	327969.15	5576307.30	189.90	139.00	34.30	35.60	1.30	3	7.76	0.42	2460.0	34.40	20.13	4.74	0.44	24.44
8351-B	327969.15	5576307.30	189.90	139.00	35.60	37.00	1.40	3	10.76	0.46	1970.0	30.01	27.16	5.91	0.23	22.22
8351-B	327969.15	5576307.30	189.90	139.00	37.00	38.30	1.30	3	11.74	0.32	1480.0	30.43	28.52	6.17	0.31	18.85
8351-B	327969.15	5576307.30	189.90	139.00	38.30	39.60	1.30	3	6.12	1.04	1860.0	19.60	17.76	4.46	0.84	39.11
8351-B	327969.15	5576307.30	189.90	139.00	39.60	40.90	1.30	3	4.39	0.46	1700.0	21.90	13.88	3.32	0.31	42.46
8351-B	327969.15	5576307.30	169.90	139.00	40.90	42.20	1.30	3	3.23	0.41	1810.0	20.09	10.55	2.81	0.25	44.09
8351-B	327969.15	5576307.30	189.90	139.00	42.20	43.50	1.30	3	3.45	0.27	1890.0	23.01	13.11	2.87	0.35	41.27
8351-B	327969.15	5576307.30	189.90	139.00	43.50	44.80	1.30	3	4.24	0.22	2070.0	21.64	15.47	3.06	0.56	39.16
8351-B	327969.15	5576307.30	189.90	139.00	44.80	46.20	1.40	3	3.67	0.24	2360.0	19.92	21.30	3.12	3.73	37.43
8351-B	327969.15	5576307.30	189.90	139.00	46.20	47.50	1.30	3	3.44	0.15	1020.0	17.86	24.43	4.75	6.61	35.28
8351-B	327969.15	5576307.30	189.90	139.00	47.50	48.80	1.30	3	6.92	0.18	920.0	13.99	15.89	10.49	9.80	29.76
8351-B	327969.15	5576307.30	189.90	139.00	48.80	50.20	1.40	3	5.08	0.17	1310.0	15.53	17.97	8.74	9.85	34.78
8351-B	327969.15	5576307.30	189.90	139.00	50.20	51.50	1.30	2A	17.25	0.18	1640.0	20.24	11.58	18.25	5.12	16.35
6351-B	327969.15	5576307.30	189.90	139.00	51.50	52.80	1.30	2A	18.70	0.21	2200.0	16.35	8.66	20.66	3.22	15.04
6351-B	327969.15	5576307.30	189.90	139.00	52.80	54.20	1.40	2A	20.22	0.36	1060.0	14.15	7.44	24.62	4.00	18.99
6351-B	327969.15	5576307.30	189.90	139.00	54.20	55.50	1.30	2C	7.65	0.19	930.0	16.74	9.32	11.16	10.61	34.65
8351-B	327969.15	5576307.30	189.90	139.00	55.50	56.60	1.30	2C	5.71	0.23	1150.0	17.64	10.67	9.67	10.18	34.88
8351-B	327969.15	5576307.30	189.90	139.00	56.60	56.00	1.20	2C	4.64	0.19	1120.0	19.60	10.59	8.57	9.24	36.61
8351-B	327969.15	5576307.30	189.90	139.00	58.00	59.30	1.30	2C	5.73	0.16	990.0	13.10	11.93	8.80	7.69	43.08
8351-B	327969.15	5576307.30	189.90	139.00	59.30	60.60	1.30	2C	3.39	0.13	810.0	12.96	17.11	5.96	10.03	43.25
8351-B	327969.15	5576307.30	189.90	139.00	60.60	61.70	1.10	2C	3.75	0.12	1010.0	12.52	15.24	6.41	9.35	44.29
8351-B	327969.15	5576307.30	189.90	139.00	61.70	62.80	1.10	2C	4.34	0.11	1190.0	10.82	11.89	8.21	8.38	47.18
8351-B	327969.15	5576307.30	189.90	139.00	62.80	63.90	1.10	2C	2.41	0.13	1430.0	11.85	12.16	8.97	9.96	40.86
8351-B	327969.15	5576307.30	189.90	139.00	63.90	65.00	1.10	2C	4.73	0.09	1620.0	10.70	13.98	8.16	8.88	44.85
8351-B	327969.15	5576307.30	189.90	139.00	65.00	66.10	1.10	2C	8.27	0.15	1220.0	16.02	10.08	11.13	7.23	34.28
8351-B	327969.15	5576307.30	189.90	139.00	66.10	67.40	1.30	2A	22.64	0.13	1040.0	9.63	5.32	28.71	4.51	15.00
6351-B	327969.15	5576307.30	189.90	139.00	67.40	68.80	1.40	2A	21.53	0.11	750.0	9.24	6.88	27.98	6.36	15.32
6351-B	327969.15	5576307.30	189.90	139.00	68.80	70.10	1.30	2A	13.78	0.13	690.0	9.10	9.27	16.65	10.63	26.02
8351-B	327969.15	5576307.30	189.90	139.00	70.10	71.50	1.40	2A	13.85	0.12	700.0	10.27	9.48	16.09	11.05	26.05
6351-B	327969.15	5576307.30	189.90	139.00	71.50	73.20	1.70	2A	11.42	0.23	940.0	19.24	6.71	12.79	7.10	24.84
8351-B	327969.15	5576307.30	189.90	139.00	73.20	75.00	1.80	2A	9.56	0.18	790.0	17.36	9.15	11.12	9.00	30.90
8351-B	327969.15	5576307.30	189.90	139.00	75.00	76.80	1.80	2A	8.79	0.12	690.0	10.08	9.70	11.67	11.85	34.29
8351-B	327969.15	5576307.30	189.90	139.00	76.80	78.50	1.70	2A	15.18	0.12	660.0	10.48	7.34	20.94	6.91	27.26
8351-B	327969.15	5576307.30	189.90	139.00	76.50	79.60	1.30	2A	25.02	0.10	780.0	10.40	2.67	33.44	2.02	13.15
8351-B	327969.15	5576307.30	189.90	139.00	79.80	81.10	1.30	2A	21.90	0.09	1210.0	9.56	4.41	28.28	4.67	17.06
8351-B	327969.15	5576307.30	189.90	139.00	81.10	82.40	1.30	2A	15.00	0.13	1410.0	9.15	5.91	20.33	4.89	28.40
8351-B	327969.15	5576307.30	189.90	139.00	82.40	83.70	1.30	2A	12.98	0.10	1630.0	9.34	2.83	29.25	3.10	20.20
8351-B	327969.15	5576307.30	189.90	139.00	83.70	84.70	1.00	2A	23.46	0.09	690.0	9.78	1.37	29.29	2.50	20.10
8351-B	327969.15	5576307.30	189.90	139.00	84.70	85.80	1.10	2A	20.05	0.11	760.0	12.48	1.96	26.05	3.63	23.40
8351-B	327969.15	5576307.30	189.90	139.00	85.80	86.80	1.00	2A	14.54	0.11	790.0	15.68	2.87	19.02	3.94	29.44

8351-B	327969.15	5578307.30	189.90	139.00	88.80	87.90	1.10	2A	15.40	0.11	1060.0	8.13	1.70	22.72	2.58	34.82
8351-B	327969.15	5578307.30	189.90	139.00	87.90	91.00	3.10	2A	24.81	0.13	1910.0	9.23	1.06	31.51	2.15	18.48
8351-B	327969.15	5578307.30	189.90	139.00	91.00	92.50	1.50	2A	28.21	0.08	830.0	7.84	1.24	33.44	2.26	12.85
8351-B	327969.15	5578307.30	189.90	139.00	92.50	93.90	1.40	2A	29.12	0.08	930.0	8.88	1.00	33.43	1.53	10.98
8351-B	327969.15	5578307.30	189.90	139.00	93.90	95.40	1.50	2A	18.19	0.13	710.0	10.88	1.88	18.30	3.56	30.25
8351-B	327969.15	5578307.30	189.90	139.00	95.40	96.90	1.50	2A	19.94	0.14	880.0	10.93	2.28	21.54	3.98	23.82
8351-B	327969.15	5578307.30	189.90	139.00	96.90	98.20	1.30	2A	22.83	0.17	880.0	7.92	1.72	22.28	3.37	24.14
8351-B	327969.15	5578307.30	189.90	139.00	98.20	99.40	1.20	2A	12.18	0.13	730.0	13.51	8.19	12.74	11.09	29.85
8351-B	327969.15	5578307.30	189.90	139.00	99.40	100.70	1.30	2A	15.12	0.13	970.0	11.85	4.26	14.82	8.25	31.10
8351-B	327969.15	5578307.30	189.90	139.00	100.70	101.90	1.20	2A	11.78	0.17	780.0	8.33	8.15	11.75	8.00	39.47
8351-B	327969.15	5578307.30	189.90	139.00	101.90	103.20	1.30	2A	13.81	0.15	880.0	9.14	5.94	14.20	8.05	35.54
8351-B	327969.15	5578307.30	189.90	139.00	103.20	104.30	1.10	2A	14.42	0.08	890.0	12.45	5.89	15.29	7.55	23.82
8351-B	327969.15	5578307.30	189.90	139.00	104.30	105.40	1.10	2A	28.89	0.07	1140.0	7.77	1.12	34.87	1.71	8.72
8351-B	327969.15	5578307.30	189.90	139.00	105.40	106.40	1.00	2A	25.57	0.12	960.0	9.38	1.17	28.54	2.74	19.23
8351-B	327969.15	5578307.30	189.90	139.00	106.40	108.80	2.20	2A	18.29	0.18	960.0	12.87	3.12	21.80	7.28	20.51
8351-B	327969.15	5578307.30	189.90	139.00	108.80	109.90	1.30	2A	7.95	0.08	830.0	8.80	2.96	28.85	8.98	17.89
8351-B	327969.15	5578307.30	189.90	139.00	109.90	111.10	1.20	2C	1.73	0.05	420.0	11.68	7.70	22.08	10.82	19.59
8351-B	327969.15	5578307.30	189.90	139.00	111.10	112.40	1.30	2C	0.77	0.05	400.0	8.39	5.76	28.73	8.41	18.87
8351-B	327969.15	5578307.30	189.90	139.00	112.40	113.50	1.10	2C	2.34	0.17	560.0	11.30	8.55	19.56	11.44	22.87
8351-B	327969.15	5578307.30	189.90	139.00	113.50	114.80	1.10	2C	1.26	0.09	550.0	9.49	9.39	21.19	10.57	21.83
8351-B	327969.15	5578307.30	189.90	139.00	114.80	115.70	1.10	2C	1.27	0.13	340.0	8.83	4.81	28.54	7.42	18.23
8351-B	327969.15	5578307.30	189.90	139.00	115.70	116.80	1.10	2C	2.52	0.12	550.0	8.96	7.62	25.84	8.01	19.73
8351-B	327969.15	5578307.30	189.90	139.00	116.80	117.80	1.00	2C	0.58	0.06	410.0	8.18	4.94	33.08	8.73	14.82
8351-B	327969.15	5578307.30	189.90	139.00	117.80	119.10	1.30	2C	1.72	0.13	570.0	4.48	3.35	36.17	8.88	10.60
8351-B	327969.15	5578307.30	189.90	139.00	119.10	120.40	1.30	2C	2.27	0.22	420.0	5.66	4.69	31.14	6.29	14.51
8351-B	327969.15	5578307.30	189.90	139.00	120.40	121.70	1.30	2C	0.22	0.08	380.0	6.53	6.06	23.83	9.84	22.70
8351-B	327969.15	5578307.30	169.90	139.00	121.70	123.20	1.50	2C	0.04	0.05	400.0	8.92	3.06	32.25	10.20	8.80
8351-B	327969.15	5578307.30	189.90	139.00	123.20	125.70	2.50	2C	1.38	0.02	310.0	3.02	0.57	46.89	1.10	2.88
8351-B	327969.15	5578307.30	189.90	139.00	125.70	128.20	2.50	2C	3.02	0.10	770.0	7.49	4.94	31.84	5.81	13.49
8351-B	327969.15	5578307.30	189.90	139.00	128.20	130.70	2.50	2A	13.97	0.14	900.0	9.74	11.41	14.96	12.17	25.09
8351-B	327969.15	5578307.30	189.90	139.00	130.70	131.25	0.55	2A	11.43	0.16	780.0	10.32	11.92	11.67	12.53	30.41
8351-B	327969.15	5578307.30	189.90	139.00	131.25	131.80	0.55	2A	13.11	0.32	830.0	6.79	13.36	12.75	11.77	29.15
8351-B	327969.15	5578307.30	169.90	139.00	131.80	132.40	0.60	2A	5.82	0.12	840.0	7.75	17.31	7.73	13.03	40.80
8351-B	327969.15	5578307.30	189.90	139.00	132.40	132.90	0.50	2A	5.19	0.11	650.0	7.74	18.84	7.15	16.42	38.89
8351-B	327969.15	5578307.30	189.90	139.00	132.90	134.30	1.40	2A	9.60	0.23	890.0	9.07	12.86	10.92	11.18	31.73
8351-B	327969.15	5578307.30	189.90	139.00	134.30	135.80	1.30	2A	11.67	0.23	690.0	8.42	12.20	11.82	12.83	28.37
8351-B	327969.15	5578307.30	189.90	139.00	135.80	137.00	1.40	2A	11.59	0.35	680.0	8.06	11.91	11.41	12.95	29.12
8351-B	327969.15	5578307.30	189.90	139.00	137.00	138.30	1.30	2C	8.82	0.48	520.0	9.15	9.23	19.93	10.10	23.35
8351-B	327969.15	5578307.30	189.90	139.00	138.30	139.00	0.70	2C	3.82	0.20	390.0	8.18	10.94	18.79	14.38	22.91

**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

Hole_No	NAD83 UTM		Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol
	Eastings	Northings														
8351-C	327978.86	5576279.12	190.30	146.60	1.00	32.30	31.30	4								
8351-C	327978.86	5576279.12	190.30	146.60	32.30	33.40	1.10	4								
8351-C	327978.86	5576279.12	190.30	146.60	33.40	34.50	1.10	4								
8351-C	327978.86	5576279.12	190.30	146.60	34.50	35.70	1.20	4								
8351-C	327978.86	5576279.12	190.30	146.60	35.70	36.80	1.10	3								
8351-C	327978.86	5576279.12	190.30	146.60	36.80	37.90	1.10	3								
8351-C	327978.86	5576279.12	190.30	146.60	37.90	39.10	1.20	3								
8351-C	327978.86	5576279.12	190.30	146.60	39.10	40.30	1.20	3								
8351-C	327978.86	5576279.12	190.30	146.60	40.30	41.50	1.20	3	6.32	0.29	1240.0	14.40	13.35	10.17	4.76	39.24
8351-C	327978.86	5576279.12	190.30	146.60	41.50	42.70	1.20	3	12.00	0.33	790.0	10.16	11.87	15.89	5.35	31.11
8351-C	327978.86	5576279.12	190.30	148.80	42.70	44.00	1.30	3	7.25	0.21	820.0	11.21	14.15	10.91	8.24	39.88
8351-C	327978.86	5576279.12	190.30	146.60	44.00	44.90	0.90	3	6.11	0.17	880.0	10.71	18.33	10.16	6.16	39.42
8351-C	327978.86	5576279.12	190.30	146.60	44.90	45.60	0.90	3	6.09	0.25	1950.0	16.85	11.06	10.15	7.96	32.93
8351-C	327978.86	5576279.12	190.30	146.60	45.60	46.80	1.00	3	4.31	0.10	550.0	12.81	14.45	9.87	10.49	38.18
8351-C	327978.86	5576279.12	190.30	146.60	46.80	47.70	0.90	3	4.99	0.23	890.0	14.30	14.25	9.32	11.14	36.23
8351-C	327978.86	5576279.12	190.30	146.60	47.70	48.70	1.00	3	6.36	0.25	740.0	14.61	13.92	10.59	8.34	34.03
8351-C	327978.86	5576279.12	190.30	146.60	48.70	49.60	0.90	3	3.36	0.08	480.0	13.14	17.14	9.14	8.53	40.81
8351-C	327978.86	5576279.12	190.30	146.60	49.60	50.60	1.00	3								
8351-C	327978.86	5576279.12	190.30	146.60	50.60	51.80	1.20	3								
8351-C	327978.86	5576279.12	190.30	146.60	51.80	53.00	1.20	3								
8351-C	327978.86	5576279.12	190.30	146.60	53.00	54.10	1.10	3								
8351-C	327978.86	5576279.12	190.30	146.60	54.10	55.30	1.20	3								
8351-C	327978.86	5576279.12	190.30	146.60	55.30	56.70	1.40	2A	20.57	0.23	920.0	11.30	6.30	23.02	5.38	18.38
8351-C	327978.86	5576279.12	190.30	146.60	56.70	58.20	1.50	2A	26.09	0.11	1300.0	9.77	5.33	30.48	2.01	12.24
8351-C	327978.86	5576279.12	190.30	146.60	58.20	59.60	1.40	2A	22.26	0.11	1030.0	9.86	6.14	25.91	3.95	17.15
8351-C	327978.86	5576279.12	190.30	146.60	59.60	61.30	1.70	2A	19.39	0.16	1100.0	11.88	5.45	21.12	4.06	22.20
8351-C	327978.86	5576279.12	190.30	146.60	61.30	63.10	1.60	2A	15.57	0.14	860.0	10.36	6.27	17.70	5.18	31.02
8351-C	327978.86	5576279.12	190.30	146.60	63.10	64.90	1.80	2A	18.48	0.12	1130.0	12.79	6.15	22.36	3.89	22.63
8351-C	327978.86	5576279.12	190.30	146.60	64.90	66.40	1.50	2A	24.57	0.12	1420.0	8.96	2.87	28.18	2.29	15.49
8351-C	327978.86	5576279.12	190.30	146.60	66.40	67.60	1.20	2A	31.57	0.04	1260.0	6.64	1.31	41.18	1.44	2.88
8351-C	327978.86	5576279.12	190.30	146.60	67.60	68.80	1.20	2A	14.86	0.12	830.0	13.89	8.71	16.96	12.60	23.35
8351-C	327978.86	5576279.12	190.30	146.80	68.80	70.00	1.20	2A	19.31	0.12	1420.0	12.29	5.33	23.39	7.33	14.78
8351-C	327978.86	5576279.12	190.30	146.60	70.00	71.20	1.20	2A	15.71	0.13	1190.0	13.44	6.23	17.93	8.01	20.88
8351-C	327978.86	5576279.12	190.30	146.60	71.20	72.50	1.30	2A	20.72	0.10	1090.0	12.34	6.25	25.10	3.89	14.83
8351-C	327978.86	5576279.12	190.30	146.60	72.50	73.70	1.20	2A	17.03	0.12	1360.0	13.14	8.26	19.31	7.85	18.67
8351-C	327978.86	5576279.12	190.30	146.60	73.70	75.00	1.30	2A	27.89	0.08	750.0	7.09	1.93	34.81	3.07	7.67
8351-C	327978.86	5576279.12	190.30	146.60	75.00	76.50	1.50	2A	22.34	0.10	790.0	9.71	2.54	29.92	4.94	14.00
8351-C	327978.86	5576279.12	190.30	146.60	76.50	78.00	1.50	2A	15.98	0.12	900.0	11.06	5.69	19.52	9.65	21.69
8351-C	327978.86	5576279.12	190.30	146.60	78.00	79.50	1.50	2A	9.29	0.13	770.0	10.46	7.83	17.82	12.20	23.94
8351-C	327978.86	5576279.12	190.30	146.60	79.50	81.00	1.50	2A	5.87	0.13	720.0	12.40	10.09	13.25	13.75	27.77
8351-C	327978.86	5576279.12	190.30	146.60	81.00	82.50	1.50	2A	8.52	0.14	680.0	11.54	9.51	13.89	14.48	26.00
8351-C	327978.86	5576279.12	190.30	146.60	82.50	84.10	1.60	2A	18.45	0.13	720.0	13.24	7.44	15.98	11.38	24.31
8351-C	327978.86	5576279.12	190.30	148.80	84.10	85.50	1.40	2A	12.35	0.10	700.0	13.22	6.95	16.00	10.10	25.89
8351-C	327978.86	5576279.12	190.30	146.60	85.50	88.90	1.40	2A	8.34	0.14	860.0	13.18	7.37	14.93	12.58	26.14
8351-C	327978.86	5576279.12	190.30	146.60	88.90	88.20	1.30	2A	3.86	0.11	560.0	10.68	9.56	14.64	13.72	27.90





8351-D	327990.49	5576303.47	190.00	106.40	96.60	98.00	1.20	1D
8351-D	327990.49	5576303.47	190.00	106.40	98.00	99.20	1.20	1D
8351-D	327990.49	5576303.47	190.00	106.40	99.20	100.40	1.20	1D
8351-D	327990.49	5576303.47	190.00	106.40	100.40	102.30	1.90	1D
8351-D	327990.49	5576303.47	190.00	106.40	102.30	104.30	2.00	1D
8351-D	327990.49	5576303.47	190.00	106.40	104.30	106.20	1.90	1D
8351-D	327990.49	5576303.47	190.00	106.40	106.20	106.40	0.20	1D



**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

NAD83 UTM				TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol
Hole_No	Eastings	Northings	Elevation													
8351-E	327970.71	5576282.82	190.10	121.30	1.50	32.30	30.80	4								
8351-E	327970.71	5576282.82	190.10	121.30	32.30	33.10	0.80	4								
8351-E	327970.71	5578282.82	190.10	121.30	33.10	34.00	0.90	4								
8351-E	327970.71	5578282.82	190.10	121.30	34.00	34.80	0.80	4								
8351-E	327970.71	5576282.82	190.10	121.30	34.80	35.70	0.90	4								
8351-E	327970.71	5576282.82	190.10	121.30	35.70	36.50	0.80	4								
8351-E	327970.71	5576282.82	190.10	121.30	36.50	37.30	0.80	4								
8351-E	327970.71	5576282.82	190.10	121.30	37.30	38.20	0.90	4								
8351-E	327970.71	5576282.82	190.10	121.30	38.20	39.20	1.00	4								
8351-E	327970.71	5576282.82	190.10	121.30	39.20	40.20	1.00	3								
8351-E	327970.71	5576282.82	190.10	121.30	40.20	41.30	1.10	3	4.10	0.26	3170.0	20.36	11.43	5.22	1.30	44.26
8351-E	327970.71	5576282.62	190.10	121.30	41.30	42.30	1.00	3	4.35	0.29	2730.0	20.35	11.48	5.59	0.85	41.18
8351-E	327970.71	5576282.82	190.10	121.30	42.30	43.30	1.00	3	1.96	0.15	1450.0	16.10	23.21	2.13	4.71	44.66
8351-E	327970.71	5576282.82	190.10	121.30	43.30	44.30	1.00	3	1.61	0.19	1600.0	15.37	22.29	3.81	9.15	40.25
8351-E	327970.71	5576282.82	190.10	121.30	44.30	45.30	1.00	3	2.95	0.12	1110.0	12.00	22.57	6.74	9.11	41.49
8351-E	327970.71	5576282.82	190.10	121.30	45.30	46.30	1.00	3	3.79	0.12	750.0	10.91	22.40	7.57	8.80	40.76
8351-E	327970.71	5576282.82	190.10	121.30	46.30	47.40	1.10	3	3.93	0.11	700.0	15.43	18.05	8.31	6.42	38.90
8351-E	327970.71	5576282.82	190.10	121.30	47.40	48.40	1.00	3	5.60	0.14	880.0	15.89	17.76	9.69	8.66	33.48
8351-E	327970.71	5576282.82	190.10	121.30	48.40	49.40	1.00	3	4.71	0.22	570.0	12.72	20.15	8.26	14.13	33.02
8351-E	327970.71	5576282.82	190.10	121.30	49.40	50.40	1.00	3	3.23	0.14	1030.0	16.02	20.29	5.99	15.02	31.58
8351-E	327970.71	5576282.82	190.10	121.30	50.40	51.50	1.10	3	3.47	0.21	1080.0	16.29	17.88	7.82	10.86	35.88
8351-E	327970.71	5576282.82	190.10	121.30	51.50	52.60	1.10	3	7.83	0.24	1250.0	16.76	17.08	10.49	8.51	28.57
8351-E	327970.71	5576282.82	190.10	121.30	52.60	53.80	1.20	3	4.42	0.19	690.0	19.11	17.36	8.34	9.02	32.69
8351-E	327970.71	5576282.82	190.10	121.30	53.80	54.90	1.10	3	5.34	0.19	530.0	15.90	17.22	8.87	10.62	33.34
8351-E	327970.71	5576282.82	190.10	121.30	54.90	56.00	1.10	3	9.44	0.22	680.0	16.08	15.84	10.74	9.96	27.10
8351-E	327970.71	5576282.82	190.10	121.30	56.00	57.30	1.30	3	9.14	0.35	760.0	18.98	9.67	11.14	8.78	31.52
8351-E	327970.71	5576282.82	190.10	121.30	57.30	58.60	1.30	2A	13.61	0.31	850.0	19.46	6.13	14.95	3.56	24.30
8351-E	327970.71	5576282.82	190.10	121.30	58.60	59.90	1.30	2A	27.13	0.15	1000.0	8.82	3.33	32.53	1.02	10.22
8351-E	327970.71	5576282.82	190.10	121.30	59.90	61.20	1.30	2A	24.06	0.11	940.0	11.12	2.22	29.63	1.01	8.75
8351-E	327970.71	5576282.82	190.10	121.30	61.20	62.50	1.30	2A	24.22	0.12	1030.0	9.57	2.96	29.90	1.05	15.42
8351-E	327970.71	5576282.82	190.10	121.30	62.50	63.80	1.30	2A	14.80	0.11	700.0	14.29	6.52	18.16	2.16	28.14
8351-E	327970.71	5576282.82	190.10	121.30	63.80	65.10	1.30	2A	23.96	0.13	2060.0	10.71	3.20	30.46	1.37	12.91
8351-E	327970.71	5576282.82	190.10	121.30	65.10	66.40	1.30	2A	28.29	0.10	890.0	8.35	1.29	38.53	1.45	9.01
8351-E	327970.71	5576282.82	190.10	121.30	66.40	67.60	1.20	2A	19.57	0.19	1260.0	13.75	3.70	26.58	2.05	17.74
8351-E	327970.71	5578282.82	190.10	121.30	67.60	68.80	1.20	2A	31.40	0.08	1820.0	7.83	0.74	43.33	0.69	1.82
8351-E	327970.71	5576282.82	190.10	121.30	68.80	70.10	1.30	2A	17.55	0.13	1110.0	10.10	6.13	24.23	3.98	21.58
8351-E	327970.71	5576282.82	190.10	121.30	70.10	71.40	1.30	2A	15.46	0.16	810.0	10.38	6.94	22.38	5.53	25.15
8351-E	327970.71	5576282.82	190.10	121.30	71.40	72.60	1.20	2A	16.50	0.20	550.0	10.31	5.34	24.68	6.71	22.29
8351-E	327970.71	5576282.82	190.10	121.30	72.60	73.80	1.20	2A	9.82	0.23	720.0	13.46	9.58	15.44	10.48	28.37
8351-E	327970.71	5576282.82	190.10	121.30	73.80	75.10	1.30	2A	20.46	0.18	850.0	11.29	2.47	28.54	3.46	19.29
8351-E	327970.71	5576282.82	190.10	121.30	75.10	76.30	1.20	2A	24.79	0.18	880.0	10.27	1.69	34.37	3.03	12.52
8351-E	327970.71	5576282.82	190.10	121.30	76.30	77.50	1.20	2A	13.81	0.17	550.0	12.48	6.68	20.69	8.58	23.52
8351-E	327970.71	5576282.82	190.10	121.30	77.50	78.70	1.20	2A	15.20	0.14	490.0	10.96	7.00	22.58	10.59	19.92
8351-E	327970.71	5576282.82	190.10	121.30	78.70	79.90	1.20	2A	10.21	0.11	530.0	10.39	10.71	15.33	13.21	28.83
8351-E	327970.71	5576282.82	190.10	121.30	79.90	81.20	1.30	2A	9.39	0.13	490.0	10.78	11.14	14.58	13.99	26.89



PHOSCAN CHEMICAL CORPORATION

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September 5, 2008

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NAD83 UTM																
Hole_No	Eastings	Northings	Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol
8358-B	327895.58	5578706.89	190.30	157.20	0.00	75.30	75.30	4								
8358-B	327895.58	5578706.89	190.30	157.20	75.30	78.80	1.50	4								
8358-B	327895.58	5578706.89	190.30	157.20	78.80	78.30	1.50	3								
8358-B	327895.58	5578706.89	190.30	157.20	78.30	79.90	1.60	3	7.17	0.78	8310.0	44.25	8.80	3.58	0.49	20.81
8358-B	327895.58	5578706.89	190.30	157.20	79.90	81.40	1.50	2A	19.10	0.57	4270.0	34.26	6.37	18.78	0.52	10.83
8358-B	327895.58	5578706.89	190.30	157.20	81.40	82.90	1.50	2A	21.32	0.21	1900.0	35.19	4.35	24.44	1.02	7.33
8358-B	327895.58	5578706.89	190.30	157.20	82.90	84.40	1.50	2A	24.16	0.19	1890.0	31.15	4.22	29.03	0.88	5.07
8358-B	327895.58	5578706.89	190.30	157.20	84.40	85.90	1.50	2A	29.59	0.55	1920.0	13.66	5.39	38.84	0.29	2.59
8358-B	327895.58	5578706.89	190.30	157.20	85.90	87.50	1.60	2A	27.71	0.41	2240.0	21.14	8.51	33.31	0.29	3.23
8358-B	327895.58	5578706.89	190.30	157.20	87.50	88.80	1.10	2A	30.99	0.23	1280.0	12.54	1.98	44.49	0.30	2.19
8358-B	327895.58	5578706.89	190.30	157.20	88.80	90.20	1.80	2A	29.06	0.19	1370.0	16.80	3.97	40.64	0.26	1.81
8358-B	327895.58	5578706.89	190.30	157.20	90.20	91.70	1.50	2A	28.93	0.24	1480.0	21.42	4.25	34.45	0.34	3.58
8358-B	327895.58	5578706.89	190.30	157.20	91.70	93.30	1.80	2A	26.58	0.31	1830.0	15.00	3.89	38.42	0.31	3.13
8358-B	327895.58	5578706.89	190.30	157.20	93.30	95.10	1.80	2A	26.28	0.86	2530.0	16.89	3.90	35.24	0.41	5.20
8358-B	327895.58	5578706.89	190.30	157.20	95.10	96.40	1.30	2A	31.05	0.72	2040.0	11.84	2.59	41.11	0.39	4.13
8358-B	327895.58	5578706.89	190.30	157.20	96.40	97.80	1.40	2A	27.08	0.66	2030.0	14.16	2.22	36.37	0.47	7.87
8358-B	327895.58	5578706.89	190.30	157.20	97.80	99.10	1.30	2A	28.79	0.79	1900.0	13.91	2.38	39.18	0.52	4.71
8358-B	327895.58	5578706.89	190.30	157.20	99.10	100.80	1.50	2A	27.94	0.72	1900.0	17.73	3.69	35.97	0.58	5.93
8358-B	327895.58	5578706.89	190.30	157.20	100.80	102.10	1.50	2A	29.31	1.22	1710.0	13.70	0.87	37.26	0.61	5.87
8358-B	327895.58	5578706.89	190.30	157.20	102.10	103.70	1.60	2A	29.97	1.93	1890.0	11.34	0.81	40.51	0.53	8.79
8358-B	327895.58	5578706.89	190.30	157.20	103.70	105.30	1.60	2A	29.90	1.00	1950.0	13.42	0.51	38.94	0.80	4.74
8358-B	327895.58	5578706.89	190.30	157.20	105.30	106.70	1.40	2A	28.48	1.26	1600.0	15.99	1.36	34.29	0.98	5.17
8358-B	327895.58	5578706.89	190.30	157.20	106.70	108.10	1.40	2A	30.45	1.13	3140.0	15.94	0.73	30.96	0.61	4.20
8358-B	327895.58	5578706.89	190.30	157.20	108.10	109.50	1.40	2A	30.30	0.44	1650.0	12.52	0.40	36.86	0.84	4.16
8358-B	327895.58	5578706.89	190.30	157.20	109.50	110.90	1.40	2A	28.45	0.87	1590.0	13.64	0.75	32.79	0.82	4.47
8358-B	327895.58	5578706.89	190.30	157.20	110.90	112.40	1.50	2A	25.70	1.12	3490.0	20.06	1.11	29.45	0.78	4.85
8358-B	327895.58	5578706.89	190.30	157.20	112.40	113.90	1.50	2A	23.77	1.20	2760.0	20.80	2.88	28.48	1.38	7.39
8358-B	327895.58	5578706.89	190.30	157.20	113.90	115.30	1.40	2B	30.58	0.99	1350.0	8.15	4.48	38.63	1.73	4.75
8358-B	327895.58	5578706.89	190.30	157.20	115.30	116.80	1.50	2B	29.87	0.88	1580.0	10.16	3.59	31.50	1.55	4.96
8358-B	327895.58	5578706.89	190.30	157.20	116.80	118.20	1.40	2B	26.50	1.08	2210.0	15.21	3.44	30.80	0.64	5.00
8358-B	327895.58	5578706.89	190.30	157.20	118.20	119.70	1.50	2B	34.17	0.42	900.0	7.50	0.94	41.87	0.49	2.00
8358-B	327895.58	5578706.89	190.30	157.20	119.70	121.10	1.40	2B	26.70	0.36	1000.0	7.79	1.25	39.59	0.54	1.86
8358-B	327895.58	5578706.89	190.30	157.20	121.10	122.80	1.50	2B	33.57	0.31	1520.0	8.97	0.83	41.22	0.29	0.97
8358-B	327895.58	5578706.89	190.30	157.20	122.80	124.00	1.40	2B	24.22	0.45	4640.0	18.37	1.08	25.14	0.51	1.75
8358-B	327895.58	5578706.89	190.30	157.20	124.00	126.80	2.80	2B	27.31	1.31	1360.0	11.44	1.28	28.00	1.47	8.36
8358-B	327895.58	5578706.89	190.30	157.20	126.80	129.80	2.80	2B	29.81	0.86	1200.0	10.38	2.11	30.08	1.32	4.87
8358-B	327895.58	5578706.89	190.30	157.20	129.80	131.70	2.10	2B	34.38	0.30	810.0	8.00	1.82	35.80	1.87	3.99
8358-B	327895.58	5578706.89	190.30	157.20	131.70	133.70	2.00	2B	28.61	0.33	950.0	11.45	2.50	37.11	2.45	8.78
8358-B	327895.58	5578706.89	190.30	157.20	133.70	135.80	2.10	2B	19.96	0.20	980.0	12.02	8.00	20.23	6.33	15.42
8358-B	327895.58	5578706.89	190.30	157.20	135.80	137.30	1.50	2B	32.05	0.54	970.0	7.78	0.97	34.11	1.11	2.41
8358-B	327895.58	5578706.89	190.30	157.20	137.30	138.90	1.60	2B	25.45	0.43	1360.0	15.23	2.81	23.03	2.13	7.27
8358-B	327895.58	5578706.89	190.30	157.20	138.90	140.40	1.50	2B	31.88	0.22	900.0	7.06	0.94	33.89	0.73	1.58
8358-B	327895.58	5578706.89	190.30	157.20	140.40	142.00	1.60	2B	29.28	0.42	760.0	9.12	1.52	27.95	1.98	5.78
8358-B	327895.58	5578706.89	190.30	157.20	142.00	143.40	1.40	2B	27.15	0.37	790.0	9.90	1.73	34.19	2.42	8.02
8358-B	327895.58	5578706.89	190.30	157.20	143.40	145.60	2.20	2B	27.28	0.27	700.0	10.28	1.32	32.94	2.03	8.03

8356-B	327895.56	5576706.69	190.30	157.20	145.60	147.90	2.30	2B	29.97	0.33	630.0	7.45	0.87	36.47	1.91	5.59
8356-B	327895.56	5576706.69	190.30	157.20	147.90	149.80	1.90	2B	23.41	0.36	880.0	10.97	1.19	27.62	3.89	13.91
8356-B	327895.56	5576706.69	190.30	157.20	149.80	151.70	1.90	2B	20.84	0.29	740.0	11.50	1.82	26.82	6.03	16.15
8356-B	327895.56	5576706.69	190.30	157.20	151.70	153.70	2.00	2B	16.85	0.32	780.0	10.80	1.13	27.30	5.22	14.47
8358-B	327895.56	5576706.89	190.30	157.20	153.70	155.40	1.70	2B	16.84	0.31	690.0	6.27	0.50	36.00	2.87	8.50
8356-B	327895.56	5576706.69	190.30	157.20	155.40	157.20	1.80	2B	19.38	0.24	400.0	6.02	0.41	36.96	1.97	8.21

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		NAD83 UTM															
Hole_No	Eastings	Northings	Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol	
8356-C	327907.20	5576688.14	190.20	145.00	0.00	75.00	75.00	4									
8356-C	327907.20	5576688.14	190.20	145.00	75.00	76.40	1.40	4									
8356-C	327907.20	5576688.14	190.20	145.00	76.40	78.00	1.60	4									
8356-C	327907.20	5576688.14	190.20	145.00	78.00	79.40	1.40	4									
8356-C	327907.20	5576688.14	190.20	145.00	79.40	80.70	1.30	4									
8356-C	327907.20	5576688.14	190.20	145.00	80.70	82.20	1.50	4									
8356-C	327907.20	5576688.14	190.20	145.00	82.20	83.70	1.50	4									
8356-C	327907.20	5576688.14	190.20	145.00	83.70	85.30	1.60	4									
8356-C	327907.20	5576688.14	190.20	145.00	85.30	86.80	1.50	4									
8356-C	327907.20	5576688.14	190.20	145.00	86.80	88.40	1.60	3									
8356-C	327907.20	5576688.14	190.20	145.00	88.40	89.80	1.40	3									
8356-C	327907.20	5576688.14	190.20	145.00	89.80	91.10	1.30	3									
8356-C	327907.20	5576688.14	190.20	145.00	91.10	92.40	1.30	3									
8356-C	327907.20	5576688.14	190.20	145.00	92.40	98.40	6.00	3									
8356-C	327907.20	5576688.14	190.20	145.00	98.40	99.80	1.40	3									
8356-C	327907.20	5576688.14	190.20	145.00	99.80	101.30	1.50	3									
8356-C	327907.20	5576688.14	190.20	145.00	101.30	102.60	1.30	2A	24.34	2.03	2590.0	13.83	7.66	21.22	0.91	8.92	
8356-C	327907.20	5576688.14	190.20	145.00	102.60	104.00	1.40	2A	23.97	1.89	2090.0	15.31	4.43	21.32	0.63	6.57	
8356-C	327907.20	5576688.14	190.20	145.00	104.00	105.30	1.30	2A	24.37	1.86	2530.0	14.98	3.08	20.80	0.57	8.58	
8356-C	327907.20	5576688.14	190.20	145.00	105.30	106.60	1.30	2A	25.61	2.48	4970.0	12.75	4.32	22.61	1.07	6.95	
8356-C	327907.20	5576688.14	190.20	145.00	106.60	108.00	1.40	2A	21.14	0.79	3270.0	13.11	7.14	21.63	2.80	16.87	
8356-C	327907.20	5576688.14	190.20	145.00	108.00	109.30	1.30	2A	20.59	0.68	2530.0	16.14	2.35	26.47	0.67	6.27	
8356-C	327907.20	5576688.14	190.20	145.00	109.30	110.60	1.30	2A	30.70	0.19	1240.0	9.87	1.10	41.94	0.46	4.01	
8356-C	327907.20	5576688.14	190.20	145.00	110.60	111.90	1.30	2A	11.99	0.81	1370.0	10.54	6.83	12.86	6.91	32.84	
8356-C	327907.20	5576688.14	190.20	145.00	111.90	113.30	1.40	2A	10.99	0.93	1580.0	11.37	9.05	13.44	9.42	35.18	
8356-C	327907.20	5576688.14	190.20	145.00	113.30	114.70	1.40	2A	20.28	0.78	1230.0	11.14	5.11	25.90	5.21	15.20	
8356-C	327907.20	5576688.14	190.20	145.00	114.70	116.00	1.30	2A	20.42	0.88	1550.0	13.51	4.35	24.81	4.25	15.84	
8356-C	327907.20	5576688.14	190.20	145.00	116.00	117.40	1.40	2A	18.24	0.72	2500.0	21.07	3.63	20.04	2.13	9.44	
8356-C	327907.20	5576688.14	190.20	145.00	117.40	118.90	1.50	2B	29.41	0.29	1170.0	12.17	0.72	40.30	0.94	4.33	
8356-C	327907.20	5576688.14	190.20	145.00	118.90	120.10	1.20	2B	27.92	0.70	1890.0	11.25	0.77	36.36	0.45	3.21	
8356-C	327907.20	5576688.14	190.20	145.00	120.10	121.40	1.30	2B	29.75	1.12	1340.0	9.03	0.51	42.23	0.29	2.37	
8356-C	327907.20	5576688.14	190.20	145.00	121.40	122.60	1.20	2B	30.53	0.78	1030.0	7.09	0.32	46.35	0.25	1.77	
8356-C	327907.20	5576688.14	190.20	145.00	122.60	124.80	2.20	2B	28.11	0.56	1370.0	8.06	0.92	37.99	0.88	4.91	
8356-C	327907.20	5576688.14	190.20	145.00	124.80	126.30	1.50	2B	29.25	0.98	760.0	7.43	1.01	42.53	1.14	6.63	
8356-C	327907.20	5576688.14	190.20	145.00	126.30	127.80	1.30	2B	23.09	0.58	820.0	6.62	4.46	29.92	4.75	15.06	
8356-C	327907.20	5576688.14	190.20	145.00	127.80	129.10	1.50	2A	13.75	0.22	1670.0	11.48	7.44	16.44	7.44	28.40	
8356-C	327907.20	5576688.14	190.20	145.00	129.10	130.80	1.50	2A	12.71	0.16	1380.0	6.73	3.86	28.48	7.89	17.91	
8356-C	327907.20	5576688.14	190.20	145.00	130.80	131.70	1.10	2A	11.07	0.22	1180.0	9.62	8.72	16.68	12.63	27.38	
8356-C	327907.20	5576688.14	190.20	145.00	131.70	132.60	1.10	2A	5.30	0.19	990.0	8.11	7.44	21.09	12.65	24.29	
8356-C	327907.20	5576688.14	190.20	145.00	132.60	133.90	1.10	2A	11.67	0.29	1240.0	9.55	8.80	16.61	12.30	26.68	
8356-C	327907.20	5576688.14	190.20	145.00	133.90	135.00	1.10	2B	12.85	0.38	1370.0	10.90	6.18	18.00	9.44	27.55	
8356-C	327907.20	5576688.14	190.20	145.00	135.00	135.90	0.90	2B	4.63	0.22	640.0	6.04	3.19	33.95	6.33	15.98	
8356-C	327907.20	5576688.14	190.20	145.00	135.90	137.70	1.80	2B	7.07	0.27	700.0	5.72	2.49	32.69	8.01	16.74	
8356-C	327907.20	5576688.14	190.20	145.00	137.70	139.70	2.00	2B	11.23	0.42	1420.0	11.16	7.15	18.26	9.74	24.23	
8356-C	327907.20	5576688.14	190.20	145.00	139.70	141.20	1.50	2B	25.21	0.40	870.0	8.77	1.36	34.14	2.92	10.22	

8356-C	327907.20	5576888.14	190.20	145.00	141.20	142.50	1.30	2B	33.93	0.23	1040.0	3.94	0.23	47.68	0.33	0.82
8356-C	327907.20	5576888.14	190.20	145.00	142.50	143.50	1.00	2B	29.37	0.33	1680.0	4.80	0.22	46.88	0.96	1.50
8356-C	327907.20	5576888.14	190.20	145.00	143.50	144.40	0.90	2B	9.77	0.19	530.0	2.76	0.11	45.82	7.42	0.77
8356-C	327907.20	5576888.14	190.20	145.00	144.40	145.00	0.60	1D	5.70	0.05	340.0	1.31	0.09	45.76	8.51	0.21

PHOSCAN CHEMICAL CORPORATION

MARTISON PHOSPHATE PROJECT  
September 5, 2008

Assembly of 2008 Sonic Drilling Data  
Coordinates from 2008 Winter program Field Survey

NAD83 UTM				TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol	
Hole_No	Eastings	Northings	Elevation														
8356-D	327912.07	5578706.17	190.20	182.20	0.00	81.40	81.40	4									
8356-D	327912.07	5578706.17	190.20	182.20	81.40	83.60	2.20	4	0.00	0.01	30.0	1.58	3.66	0.95	0.01		91.42
8356-D	327912.07	5578708.17	190.20	162.20	83.80	85.70	2.10	4	0.00	0.00	10.0	0.52	1.34	0.35	0.00		98.29
8356-D	327912.07	5578706.17	190.20	182.20	85.70	88.40	2.70	4	0.00	ND	10.0	0.38	0.99	0.29	0.00		97.45
8356-D	327912.07	5578706.17	190.20	162.20	88.40	89.90	1.50	4	0.00	0.00	10.0	0.40	0.84	0.38	0.00		97.73
8356-D	327912.07	5578706.17	190.20	182.20	89.90	91.30	1.40	4	0.00	0.03	150.0	0.76	1.15	0.94	0.00		95.90
8356-D	327912.07	5578708.17	190.20	162.20	91.30	95.10	3.80	4	0.01	0.31	1170.0	5.31	7.94	0.89	0.00		77.48
8356-D	327912.07	5578706.17	190.20	162.20	95.10	96.60	1.50	3	3.51	1.05	4020.0	17.31	11.64	2.41	0.26		50.25
8356-D	327912.07	5578706.17	190.20	162.20	96.60	98.00	1.40	3	3.00	3.40	4870.0	31.31	5.73	3.29	0.79		28.34
8356-D	327912.07	5578708.17	190.20	162.20	98.00	99.40	1.40	2A	11.49	3.53	5420.0	26.87	4.71	12.57	0.33		15.00
8356-D	327912.07	5578706.17	190.20	162.20	99.40	100.80	1.40	2A	26.28	1.13	2820.0	16.35	4.70	32.28	0.40		7.18
8356-D	327912.07	5578706.17	190.20	162.20	100.80	102.10	1.30	2A	31.49	1.42	2430.0	10.50	1.30	41.19	0.32		5.22
8356-D	327912.07	5578706.17	190.20	162.20	102.10	103.60	1.50	2A	29.68	1.07	1960.0	11.90	1.50	40.39	0.46		4.79
8356-D	327912.07	5578706.17	190.20	162.20	103.60	104.80	1.20	2A	28.85	0.52	1940.0	12.80	2.31	38.34	0.88		5.31
8356-D	327912.07	5578708.17	190.20	162.20	104.80	108.00	1.20	2A	30.49	0.49	1830.0	10.28	1.00	40.80	0.88		4.73
8356-D	327912.07	5578706.17	190.20	162.20	108.00	107.20	1.20	2A	27.98	0.63	1630.0	11.63	1.24	40.39	0.52		3.85
8356-D	327912.07	5578708.17	190.20	162.20	107.20	108.50	1.30	2A	31.16	0.97	1950.0	9.92	1.00	41.74	0.38		3.25
8356-D	327912.07	5578706.17	190.20	162.20	108.50	109.80	1.30	2B	33.90	0.28	890.0	8.73	1.25	44.27	0.79		1.98
8356-D	327912.07	5578708.17	190.20	182.20	109.80	111.10	1.30	2B	33.98	0.33	1490.0	8.50	0.59	43.60	0.59		2.83
8356-D	327912.07	5578706.17	190.20	182.20	111.10	112.40	1.30	2B	32.81	0.40	2340.0	10.93	0.99	41.41	0.44		1.87
8356-D	327912.07	5578706.17	190.20	182.20	112.40	113.80	1.40	2B	31.22	0.78	1770.0	11.14	1.25	38.19	0.62		2.88
8356-D	327912.07	5578706.17	190.20	182.20	113.80	115.10	1.30	2B	30.18	0.50	2140.0	12.34	1.15	37.54	0.80		3.03
8356-D	327912.07	5578706.17	190.20	162.20	115.10	118.40	1.30	2B	24.31	0.85	2200.0	15.18	2.15	29.11	1.44		8.88
8356-D	327912.07	5578706.17	190.20	182.20	118.40	117.70	1.30	2B	19.84	0.45	3130.0	19.39	5.64	21.58	1.29		10.42
8356-D	327912.07	5578708.17	190.20	182.20	117.70	119.00	1.30	2B	32.11	0.70	1800.0	11.19	1.20	41.74	0.52		2.51
8356-D	327912.07	5578706.17	190.20	182.20	119.00	120.30	1.30	2B	29.08	0.77	2820.0	13.70	1.13	36.68	0.42		2.97
8356-D	327912.07	5578706.17	190.20	182.20	120.30	121.80	1.50	2B	29.58	0.61	1870.0	11.70	1.47	39.53	1.45		4.37
8356-D	327912.07	5578706.17	190.20	182.20	121.80	123.50	1.70	2B	31.18	0.51	1830.0	9.50	0.88	43.21	0.38		1.22
8356-D	327912.07	5578706.17	190.20	162.20	123.50	125.10	1.80	2B	19.56	0.91	1430.0	25.46	1.20	28.21	0.60		8.38
8356-D	327912.07	5578706.17	190.20	182.20	125.10	128.80	1.70	2B	20.80	1.20	1790.0	24.09	1.32	25.81	0.57		8.11
8356-D	327912.07	5578706.17	190.20	162.20	128.80	128.50	1.70	2B	29.77	0.41	990.0	11.14	2.03	37.92	0.81		4.27
8356-D	327912.07	5578706.17	190.20	162.20	128.50	130.20	1.70	2B	27.23	0.32	860.0	10.54	2.87	33.63	3.04		7.94
8356-D	327912.07	5578708.17	190.20	162.20	130.20	131.90	1.70	2B	30.04	0.61	910.0	10.05	2.15	39.28	1.08		5.05
8356-D	327912.07	5578706.17	190.20	162.20	131.90	133.40	1.50	2B	32.08	0.28	730.0	8.27	1.51	43.78	0.53		2.09
8356-D	327912.07	5578708.17	190.20	162.20	133.40	135.10	1.70	2B	30.57	0.32	830.0	10.84	2.19	39.46	1.48		4.54
8356-D	327912.07	5578708.17	190.20	162.20	135.10	136.90	1.80	2B	30.83	0.61	830.0	7.93	1.28	42.55	0.84		3.83
8356-D	327912.07	5578706.17	190.20	162.20	136.90	138.60	1.70	2B	30.13	0.36	870.0	9.23	2.45	37.72	2.82		8.16
8356-D	327912.07	5578708.17	190.20	162.20	138.60	140.10	1.50	2B	29.43	0.40	840.0	10.03	1.38	37.88	1.12		3.88
8356-D	327912.07	5578706.17	190.20	182.20	140.10	141.80	1.50	2B	26.78	0.42	980.0	11.45	2.73	34.21	2.45		7.18
8356-D	327912.07	5578708.17	190.20	162.20	141.80	143.10	1.50	2B	26.11	0.35	1030.0	12.30	2.73	32.88	2.61		7.12
8356-D	327912.07	5578706.17	190.20	162.20	143.10	144.60	1.50	2B	26.92	0.34	860.0	11.80	2.19	31.75	1.64		8.83
8356-D	327912.07	5578706.17	190.20	162.20	144.60	145.40	0.80	2B	25.85	0.49	830.0	11.26	1.85	33.65	2.10		9.24
8356-D	327912.07	5578708.17	190.20	162.20	145.40	147.20	1.80	2B	26.60	0.37	690.0	9.35	0.88	34.76	1.29		9.55
8356-D	327912.07	5578706.17	190.20	162.20	147.20	148.90	1.70	2B	23.03	0.43	1000.0	11.71	1.15	29.11	1.92		15.96
8356-D	327912.07	5578706.17	190.20	162.20	148.90	150.70	1.80	2B	24.04	0.39	780.0	9.99	1.00	31.61	2.16		12.81

8356-D	327912.07	5576706.17	190.20	162.20	150.70	152.20	1.50	2B	21.14	0.35	540.0	7.56	0.91	33.38	2.80	11.60
8356-D	327912.07	5576706.17	190.20	162.20	152.20	153.50	1.30	2B	13.03	0.54	1350.0	12.70	2.92	19.90	7.25	21.23
8356-D	327912.07	5576706.17	190.20	182.20	153.50	154.70	1.20	2B	6.60	0.30	470.0	6.59	1.05	35.69	4.11	10.08
8356-D	327912.07	5576706.17	190.20	162.20	154.70	156.10	1.40	2B	7.62	0.36	1060.0	6.68	2.00	30.04	5.32	14.05
8356-D	327912.07	5576706.17	190.20	162.20	156.10	157.30	1.20	2B	16.07	0.48	1690.0	14.50	3.42	20.79	5.91	19.42
8356-D	327912.07	5576706.17	190.20	162.20	157.30	158.80	1.50	2B	21.39	0.25	500.0	8.42	1.11	34.85	2.30	11.11
8356-D	327912.07	5576706.17	190.20	162.20	158.80	160.30	1.50	2B	29.07	0.20	400.0	6.29	1.11	41.07	1.06	6.68
8356-D	327912.07	5576706.17	190.20	162.20	160.30	161.70	1.40	2B	25.43	0.34	640.0	10.39	1.35	31.83	2.08	13.66
8356-D	327912.07	5576706.17	190.20	182.20	161.70	162.20	0.50	2B	27.18	0.19	340.0	8.67	1.09	36.09	1.28	9.97



**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**  
September 5, 2008

**Assembly of 2008 Sonic Drilling Data**  
Coordinates from 2008 Winter program Field Survey

NADES UTM																
Hole_No	Easting	Northings	Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol
8356-E	327912.80	5578694.86	190.20	148.10	0.00	87.20	87.20	4								
8356-E	327912.80	5578694.86	190.20	148.10	87.20	88.50	1.30	4	0.00	0.01	50.0	2.38	1.17	0.97	0.04	93.90
8356-E	327912.80	5578694.86	190.20	148.10	88.50	89.80	1.30	4	0.00	0.01	50.0	2.81	1.27	0.41	0.00	89.84
8356-E	327912.80	5578694.86	190.20	148.10	89.80	91.10	1.30	3	0.00	0.15	350.0	30.39	23.63	0.66	0.07	74.52
8356-E	327912.80	5578694.86	190.20	148.10	91.10	92.40	1.30	3	4.32	1.05	1380.0	32.03	10.07	2.39	0.40	46.62
8356-E	327912.80	5578694.86	190.20	148.10	92.40	93.90	1.50	3	7.64	4.31	3740.0	34.26	14.67	2.91	0.30	17.79
8356-E	327912.80	5578694.86	190.20	148.10	93.90	95.20	1.30	3	5.81	1.35	4710.0	22.22	5.21	2.24	0.19	24.72
8356-E	327912.80	5578694.86	190.20	148.10	95.20	96.40	1.20	3	7.56	2.48	4900.0	18.86	14.69	2.64	0.15	17.81
8356-E	327912.80	5578694.86	190.20	148.10	96.40	97.70	1.30	3	4.40	2.65	4930.0	34.04	6.81	2.10	0.66	17.17
8356-E	327912.80	5578694.86	190.20	148.10	97.70	99.00	1.30	3	4.86	1.04	3020.0	26.49	14.05	2.95	1.51	30.57
8356-E	327912.80	5578694.86	190.20	148.10	99.00	100.50	1.50	3	6.53	0.88	2450.0	19.31	14.56	4.83	1.39	37.56
8356-E	327912.80	5578694.86	190.20	148.10	100.50	101.70	1.20	3	7.53	0.83	1440.0	17.07	13.44	6.10	5.70	32.94
8356-E	327912.80	5578694.86	190.20	148.10	101.70	102.90	1.20	2A	10.03	0.85	2520.0	18.36	9.75	9.74	5.53	25.83
8356-E	327912.80	5578694.86	190.20	148.10	102.90	104.10	1.20	2A	23.83	1.88	2530.0	21.13	1.87	25.35	0.47	4.81
8356-E	327912.80	5578694.86	190.20	148.10	104.10	105.30	1.20	2A	17.99	1.01	3310.0	21.99	7.45	15.02	1.11	6.78
8356-E	327912.80	5578694.86	190.20	148.10	105.30	106.80	1.50	2A	21.54	0.65	1450.0	17.73	1.86	22.60	0.30	3.10
8356-E	327912.80	5578694.86	190.20	148.10	106.80	108.80	2.00	2B	25.64	0.94	1830.0	14.90	8.22	24.51	1.18	6.78
8356-E	327912.80	5578694.86	190.20	148.10	108.80	110.80	2.00	2B	29.85	0.55	1190.0	11.81	1.40	33.37	0.79	5.12
8356-E	327912.80	5578694.86	190.20	148.10	110.80	112.30	1.50	2B	24.51	0.75	1800.0	16.41	2.67	25.57	0.95	9.02
8356-E	327912.80	5578694.86	190.20	148.10	112.30	113.60	1.30	2B	26.61	0.82	2230.0	13.79	2.25	27.49	1.01	4.46
8356-E	327912.80	5578694.86	190.20	148.10	113.60	114.90	1.30	2B	28.19	0.85	1800.0	16.03	1.06	28.07	0.70	3.57
8356-E	327912.80	5578694.86	190.20	148.10	114.90	116.20	1.30	2B	25.57	0.90	3410.0	15.43	1.18	25.93	0.66	3.14
8356-E	327912.80	5578694.86	190.20	148.10	116.20	117.50	1.30	2B	28.71	0.92	1610.0	11.02	1.86	30.93	0.85	2.73
8356-E	327912.80	5578694.86	190.20	148.10	117.50	118.80	1.30	2B	28.86	0.63	2350.0	12.18	1.99	29.92	0.75	2.41
8356-E	327912.80	5578694.86	190.20	148.10	118.80	120.10	1.30	2B	27.44	0.88	1700.0	13.14	2.91	27.16	0.89	4.13
8356-E	327912.80	5578694.86	190.20	148.10	120.10	121.40	1.30	2B	22.58	0.69	1690.0	14.60	5.14	22.16	3.20	9.48
8356-E	327912.80	5578694.86	190.20	148.10	121.40	122.70	1.30	2B	26.28	0.19	620.0	7.62	4.27	29.40	3.26	6.04
8356-E	327912.80	5578694.86	190.20	148.10	122.70	123.90	1.20	2B	17.22	0.20	1280.0	9.30	9.78	16.26	7.78	23.55
8356-E	327912.80	5578694.86	190.20	148.10	123.90	126.60	2.70	2B	14.45	0.27	990.0	11.23	6.84	15.41	8.82	24.42
8356-E	327912.80	5578694.86	190.20	148.10	126.60	129.20	2.60	2B	7.95	0.16	800.0	10.30	10.78	13.73	11.72	26.07
8356-E	327912.80	5578694.86	190.20	148.10	129.20	131.90	2.70	2B	3.96	0.16	570.0	8.59	10.93	14.92	12.31	27.63
8356-E	327912.80	5578694.86	190.20	148.10	131.90	134.60	2.70	2B	12.39	0.12	810.0	10.42	8.95	13.17	9.60	26.57
8356-E	327912.80	5578694.86	190.20	148.10	134.60	135.90	1.30	2B	16.07	0.95	840.0	18.27	4.19	16.36	5.31	15.30
8356-E	327912.80	5578694.86	190.20	148.10	135.90	137.40	1.50	2B	20.14	0.39	720.0	10.02	1.50	24.53	3.22	12.36
8356-E	327912.80	5578694.86	190.20	148.10	137.40	138.70	1.30	2B	14.86	0.38	880.0	12.81	4.19	16.76	5.65	22.74
8356-E	327912.80	5578694.86	190.20	148.10	138.70	140.10	1.40	2B	19.71	0.31	830.0	9.31	3.29	20.35	5.70	17.80
8356-E	327912.80	5578694.86	190.20	146.10	140.10	141.40	1.30	2B	23.33	0.41	560.0	8.39	1.22	29.76	2.56	13.53
8356-E	327912.80	5578694.86	190.20	148.10	141.40	142.70	1.30	2B	23.73	0.38	730.0	10.36	1.13	31.06	1.68	13.48
8356-E	327912.80	5578694.86	190.20	148.10	142.70	144.10	1.40	2B	23.32	0.41	1000.0	10.99	1.15	29.40	1.61	16.21
8356-E	327912.80	5578694.86	190.20	148.10	144.10	145.40	1.30	2B	20.93	0.29	790.0	11.04	1.46	25.54	3.11	20.07
8356-E	327912.80	5578694.86	190.20	148.10	145.40	146.80	1.40	2B	21.35	0.54	1110.0	10.59	1.25	26.20	2.55	16.26
8356-E	327912.80	5578694.86	190.20	148.10	146.80	148.10	1.30	2B	23.69	0.27	610.0	10.03	1.17	28.84	1.96	15.33

**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

NADES UTM																	
Hole_No	Eastings	Northings	Elevation	TOT	Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_Insol
8356-F	327890.30	5576693.97	190.20	187.00	0.00	84.40	84.40	84.40	4								
8358-F	327890.30	5578893.97	190.20	187.00	84.40	86.20	1.80	2A		12.10	1.15	2950.0	24.08	22.28	8.05	0.21	24.55
8358-F	327890.30	5578893.97	190.20	187.00	88.20	87.90	1.70	2A		17.10	2.47	3340.0	30.28	5.07	14.43	0.52	9.24
8356-F	327890.30	5576693.97	190.20	187.00	87.90	89.70	1.80	2A		30.95	1.07	1240.0	13.95	1.39	35.15	0.27	3.40
8358-F	327890.30	5576693.97	190.20	187.00	89.70	91.20	1.50	2A		32.75	0.78	1080.0	9.82	2.10	38.72	0.24	1.72
8358-F	327890.30	5578893.97	190.20	187.00	91.20	92.40	1.20	2A		29.72	1.17	2110.0	11.82	5.34	34.30	0.17	3.10
8358-F	327890.30	5576693.97	190.20	187.00	92.40	93.80	1.20	2A		24.17	1.41	2410.0	17.70	5.71	23.30	0.41	7.18
8356-F	327890.30	5576693.97	190.20	187.00	93.80	94.80	1.20	2A		18.90	1.87	1910.0	25.00	3.55	19.10	0.84	12.29
8356-F	327890.30	5576693.97	190.20	187.00	94.80	96.00	1.20	2A		9.77	0.19	820.0	32.50	5.18	12.72	1.94	17.38
8358-F	327890.30	5576693.97	190.20	187.00	98.00	98.20	2.20	2A		18.31	0.21	820.0	25.30	4.52	19.13	1.24	12.71
8356-F	327890.30	5578893.97	190.20	167.00	98.20	100.40	2.20	2A		19.10	0.40	1920.0	22.44	5.38	19.48	1.24	11.71
8358-F	327890.30	5576693.97	190.20	187.00	100.40	102.70	2.30	2A		27.71	0.51	1420.0	12.35	2.99	33.36	0.89	4.31
8358-F	327890.30	5576693.97	190.20	187.00	102.70	108.80	8.10	2A									
8356-F	327890.30	5576693.97	190.20	167.00	108.80	110.20	1.40	2A		20.49	1.15	2930.0	17.38	5.48	19.86	1.81	8.80
8358-F	327890.30	5576693.97	190.20	167.00	110.20	111.80	1.40	2A		22.56	1.15	4470.0	16.74	2.58	23.82	0.91	2.82
8358-F	327890.30	5576693.97	190.20	187.00	111.80	113.00	1.40	2A		19.78	0.63	7370.0	18.58	2.18	20.64	1.03	1.81
8358-F	327890.30	5576693.97	190.20	167.00	113.00	114.40	1.40	2A		19.14	1.14	7850.0	23.93	2.80	17.77	1.00	4.34
8358-F	327890.30	5576693.97	190.20	167.00	114.40	115.80	1.20	2A		22.68	1.37	3820.0	17.28	3.26	22.32	1.07	4.53
8358-F	327890.30	5576693.97	190.20	167.00	115.80	116.80	1.20	2A		19.89	0.80	2380.0	26.33	1.45	22.43	1.27	2.82
8358-F	327890.30	5576693.97	190.20	167.00	116.80	118.10	1.30	2A		19.47	0.83	5810.0	21.38	1.59	21.48	1.45	3.40
8358-F	327890.30	5576693.97	190.20	187.00	118.10	119.30	1.20	2A		19.13	1.56	3800.0	21.50	2.09	20.47	1.45	5.19
8358-F	327890.30	5576693.97	190.20	187.00	119.30	120.50	1.20	2A		22.48	0.78	4260.0	18.92	1.12	28.41	0.39	1.82
8358-F	327890.30	5576693.97	190.20	167.00	120.50	121.60	1.10	2A		24.41	1.34	2020.0	14.71	2.05	27.87	1.02	8.03
8358-F	327890.30	5578893.97	190.20	187.00	121.60	122.80	1.20	2A		18.86	0.83	1790.0	18.35	4.26	18.65	2.19	12.12
8358-F	327890.30	5576693.97	190.20	167.00	122.80	123.90	1.10	2A		24.17	0.43	1880.0	10.67	3.44	26.74	2.26	10.00
8358-F	327890.30	5576693.97	190.20	167.00	123.90	125.10	1.20	2A		18.95	0.48	1930.0	14.83	4.42	20.48	2.98	14.34
8358-F	327890.30	5576693.97	190.20	167.00	125.10	126.20	1.10	2A		18.43	0.39	8280.0	19.76	3.02	16.96	2.81	11.33
8358-F	327890.30	5576693.97	190.20	187.00	126.20	127.30	1.10	2A		21.88	0.38	2980.0	17.22	1.80	25.14	1.82	10.72
8358-F	327890.30	5576693.97	190.20	187.00	127.30	128.50	1.20	2A		19.50	0.37	1310.0	18.48	3.86	21.22	1.99	18.23
8358-F	327890.30	5576693.97	190.20	187.00	128.50	129.80	1.10	2B		27.48	0.48	1100.0	11.44	1.30	32.89	0.76	8.35
8358-F	327890.30	5578893.97	190.20	187.00	129.80	130.90	1.30	2B		30.76	0.22	860.0	8.17	1.11	38.45	0.63	3.48
8358-F	327890.30	5576693.97	190.20	187.00	130.90	132.20	1.30	2B		30.09	0.12	450.0	8.55	1.28	40.04	0.69	3.42
8358-F	327890.30	5576693.97	190.20	167.00	132.20	133.50	1.30	2B		29.77	0.14	950.0	9.30	1.11	36.98	0.52	3.03
8358-F	327890.30	5576693.97	190.20	167.00	133.50	134.80	1.30	2B		25.16	0.27	1280.0	15.60	2.00	26.43	1.08	9.48
8358-F	327890.30	5576693.97	190.20	167.00	134.80	136.10	1.30	2B		26.67	0.31	1190.0	14.87	2.03	27.77	0.87	6.91
8358-F	327890.30	5576693.97	190.20	167.00	136.10	137.40	1.30	2B		18.67	0.18	840.0	12.92	8.02	17.94	4.78	18.34
8356-F	327890.30	5576693.97	190.20	187.00	137.40	138.80	1.40	2B		22.11	0.12	950.0	13.78	3.75	23.54	3.57	13.07
8356-F	327890.30	5576693.97	190.20	187.00	138.80	140.00	1.20	2B		25.94	0.18	1410.0	14.68	1.12	28.95	0.84	8.27
8356-F	327890.30	5578893.97	190.20	167.00	140.00	141.20	1.20	2B		26.25	0.28	1300.0	11.36	1.45	31.04	1.13	5.25
8358-F	327890.30	5576693.97	190.20	167.00	141.20	142.40	1.20	2B		18.27	0.45	1400.0	16.39	2.09	21.08	2.58	18.05
8358-F	327890.30	5576693.97	190.20	187.00	142.40	143.50	1.10	2B		15.98	0.41	1410.0	13.30	4.39	19.09	6.24	18.87
8358-F	327890.30	5576693.97	190.20	167.00	143.50	144.70	1.20	2B		24.38	0.42	1050.0	10.45	2.12	28.89	3.13	10.38
8356-F	327890.30	5578893.97	190.20	167.00	144.70	145.90	1.20	2B		24.05	0.25	1510.0	10.90	1.91	27.95	3.22	9.53
8358-F	327890.30	5576693.97	190.20	167.00	145.90	147.10	1.20	2B		16.20	0.37	1440.0	14.90	4.11	19.54	8.82	19.11
8358-F	327890.30	5576693.97	190.20	167.00	147.10	148.40	1.30	2B		22.20	0.31	1140.0	10.00	1.55	29.75	2.50	9.82

8356-F	327890.30	5576693.97	190.20	167.00	148.40	149.90	1.50	2B	23.75	0.33	940.0	11.86	2.49	26.62	1.86	9.73
8356-F	327890.30	5576693.97	190.20	167.00	149.90	151.40	1.50	2B	22.15	0.42	1110.0	13.03	1.20	27.47	1.65	14.69
8356-F	327890.30	5576693.97	190.20	167.00	151.40	153.00	1.60	2B	12.74	0.25	660.0	10.49	1.65	26.89	4.36	16.36
8356-F	327890.30	5576693.97	190.20	167.00	153.00	154.50	1.50	2B	23.67	0.35	950.0	13.02	1.13	28.49	1.58	13.12
8356-F	327890.30	5576693.97	190.20	167.00	154.50	155.60	1.10	2B	24.13	0.43	880.0	12.21	1.12	28.66	1.72	14.22
8356-F	327890.30	5576693.97	190.20	167.00	155.60	156.80	1.20	2B	21.54	0.26	790.0	11.67	1.61	26.60	3.86	14.22
8356-F	327890.30	5576693.97	190.20	167.00	156.80	158.10	1.30	2B	14.61	0.20	530.0	8.80	0.87	38.08	2.06	5.68
8356-F	327890.30	5576693.97	190.20	167.00	158.10	159.30	1.20	2B	22.73	0.23	620.0	8.24	3.30	27.85	5.99	13.02
8356-F	327890.30	5576693.97	190.20	187.00	159.30	160.60	1.30	2B	7.69	0.11	550.0	8.01	4.69	23.24	8.11	19.52
8356-F	327890.30	5576693.97	190.20	167.00	160.60	162.70	2.10	2B	13.15	0.13	760.0	6.40	2.63	27.88	6.16	14.43
8356-F	327890.30	5576693.97	190.20	167.00	162.70	164.90	2.20	2B	32.90	0.22	480.0	4.38	0.95	42.20	0.88	1.73
8356-F	327890.30	5576693.97	190.20	187.00	164.90	167.00	2.10	2B	9.97	0.12	890.0	11.31	12.88	13.13	14.00	27.02





**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

Hole_No	NAD83 UTM		Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol	
	Eastings	Northings															
8381-D	327453.00	5577297.00	189.50	175.90	0.00	79.90	79.90	4									
8381-D	327453.00	5577297.00	189.50	175.90	79.90	81.40	1.50	3	0.10	0.85	1830.0	13.31	2.35	11.08	1.83	52.89	
8381-D	327453.00	5577297.00	189.50	175.90	81.40	82.90	1.50	3	5.94	1.43	3980.0	34.84	7.50	7.38	0.24	22.12	
8381-D	327453.00	5577297.00	189.50	175.90	82.90	84.40	1.50	3	7.95	1.69	4750.0	26.88	4.82	9.77	0.29	19.88	
8361-D	327453.00	5577297.00	189.50	175.90	84.40	86.00	1.60	2B	38.67	0.23	2200.0	2.99	0.61	49.82	0.10	0.80	
8381-D	327453.00	5577297.00	189.50	175.90	86.00	87.50	1.50	2B	35.66	0.24	360.0	5.69	0.91	48.97	0.16	0.92	
8381-D	327453.00	5577297.00	189.50	175.90	87.50	89.00	1.50	2B	34.62	0.23	240.0	5.97	0.80	47.85	0.18	1.61	
8361-D	327453.00	5577297.00	189.50	175.90	89.00	90.50	1.50	2B	35.51	0.32	250.0	4.58	1.05	49.77	0.17	0.89	
8381-D	327453.00	5577297.00	189.50	175.90	90.50	92.00	1.50	2B	35.19	0.31	180.0	4.13	0.95	49.99	0.13	0.59	
8381-D	327453.00	5577297.00	189.50	175.90	92.00	93.60	1.60	2B	34.93	0.18	300.0	4.35	1.54	48.15	0.12	0.95	
8381-D	327453.00	5577297.00	189.50	175.90	93.60	95.60	2.00	2B	37.07	0.41	360.0	5.89	1.21	47.17	0.22	0.96	
8361-D	327453.00	5577297.00	189.50	175.90	95.60	97.70	2.10	2B	33.92	0.48	420.0	7.13	1.24	46.29	0.21	1.05	
8381-D	327453.00	5577297.00	189.50	175.90	97.70	99.70	2.00	2B	34.58	0.56	550.0	6.07	1.29	49.59	0.27	0.86	
8361-D	327453.00	5577297.00	189.50	175.90	99.70	100.70	1.00	2B	31.20	0.39	530.0	12.68	1.51	41.03	0.24	1.05	
8381-D	327453.00	5577297.00	189.50	175.90	100.70	101.70	1.00	2B	25.53	1.11	1330.0	14.14	5.19	31.24	3.03	6.20	
8381-D	327453.00	5577297.00	189.50	175.90	101.70	102.70	1.00	2B	14.95	0.43	590.0	12.16	7.09	18.81	10.28	22.82	
8381-D	327453.00	5577297.00	189.50	175.90	102.70	104.70	2.00	2B	31.54	0.42	510.0	9.34	0.60	42.55	0.48	1.93	
8361-D	327453.00	5577297.00	189.50	175.90	104.70	106.80	2.10	2B	35.04	0.32	310.0	5.57	0.19	49.82	0.22	0.74	
8361-D	327453.00	5577297.00	189.50	175.90	106.80	108.80	2.00	2B	35.96	0.21	170.0	3.88	0.12	48.72	0.23	0.39	
8381-D	327453.00	5577297.00	189.50	175.90	108.80	110.30	1.50	2B	33.06	0.27	410.0	7.24	0.14	43.11	0.28	1.15	
8381-D	327453.00	5577297.00	189.50	175.90	110.30	111.80	1.50	2B	30.73	0.30	380.0	8.64	0.17	39.20	0.27	0.78	
8381-D	327453.00	5577297.00	189.50	175.90	111.80	113.40	1.80	2B	32.92	0.33	410.0	6.59	0.12	40.86	0.25	0.74	
8361-D	327453.00	5577297.00	189.50	175.90	113.40	114.90	1.50	2B	31.60	0.38	500.0	10.52	0.12	39.28	0.30	0.76	
8381-D	327453.00	5577297.00	189.50	175.90	114.90	117.70	2.80	2B	22.91	0.57	320.0	18.38	0.28	28.87	0.33	2.91	
8381-D	327453.00	5577297.00	189.50	175.90	117.70	120.50	2.80	2B	19.17	0.19	680.0	32.87	0.24	21.12	0.20	3.73	
8361-D	327453.00	5577297.00	189.50	175.90	120.50	121.40	0.90	2B	24.60	0.17	400.0	15.52	0.33	31.30	0.19	1.51	
8361-D	327453.00	5577297.00	189.50	175.90	121.40	122.80	1.40	2A	29.53	0.31	1000.0	10.88	0.86	33.37	0.28	4.18	
8381-D	327453.00	5577297.00	189.50	175.90	122.80	124.20	1.40	2A	26.97	0.31	1580.0	12.83	1.65	30.20	0.38	8.91	
8381-D	327453.00	5577297.00	189.50	175.90	124.20	125.80	1.40	2A	27.09	0.19	1130.0	10.82	1.07	33.99	0.62	9.28	
8381-D	327453.00	5577297.00	189.50	175.90	125.80	127.00	1.40	2A	34.20	0.11	520.0	4.39	0.42	46.68	0.32	1.09	
8361-D	327453.00	5577297.00	189.50	175.90	127.00	128.40	1.40	2A	32.39	0.16	680.0	6.61	0.47	40.71	0.43	3.59	
8381-D	327453.00	5577297.00	189.50	175.90	128.40	130.20	1.80	2A	30.57	0.19	540.0	6.47	0.80	39.84	0.80	7.79	
8381-D	327453.00	5577297.00	189.50	175.90	130.20	132.10	1.90	2A	21.47	0.35	680.0	9.78	8.42	28.08	7.31	14.00	
8361-D	327453.00	5577297.00	189.50	175.90	132.10	134.00	1.90	2A	4.08	0.07	610.0	12.59	12.80	13.40	14.29	27.10	
8381-D	327453.00	5577297.00	189.50	175.90	134.00	134.90	0.90	2A	10.28	0.23	1030.0	13.66	9.52	18.93	12.59	21.89	
8381-D	327453.00	5577297.00	189.50	175.90	134.90	135.90	1.00	2A	20.26	0.62	1780.0	11.07	4.31	26.39	6.79	13.03	
8361-D	327453.00	5577297.00	189.50	175.90	135.90	138.80	0.90	2A	9.60	0.27	930.0	12.18	11.86	13.79	14.39	25.30	
8381-D	327453.00	5577297.00	189.50	175.90	138.80	137.70	0.90	2C	1.42	0.05	530.0	10.05	9.47	17.82	12.51	24.87	
8381-D	327453.00	5577297.00	189.50	175.90	137.70	138.80	0.90	2C	1.43	0.06	620.0	8.32	7.62	22.58	11.41	19.97	
8381-D	327453.00	5577297.00	189.50	175.90	138.80	139.50	0.90	2C	0.72	0.07	580.0	9.09	8.84	20.16	12.46	20.85	
8381-D	327453.00	5577297.00	189.50	175.90	139.50	140.40	0.90	2C	1.58	0.13	1850.0	10.45	6.62	23.50	9.29	18.84	
8381-D	327453.00	5577297.00	189.50	175.90	140.40	141.40	1.00	2C	1.45	0.06	1750.0	10.30	7.92	20.56	10.38	20.82	
8381-D	327453.00	5577297.00	189.50	175.90	141.40	142.30	0.90	2C	1.23	0.10	380.0	5.74	3.64	34.98	7.00	12.23	
8381-D	327453.00	5577297.00	189.50	175.90	142.30	143.40	1.10	2A	9.09	0.34	640.0	8.79	3.67	27.63	7.57	12.96	
8361-D	327453.00	5577297.00	189.50	175.90	143.40	144.50	1.10	2A	13.12	0.44	840.0	11.83	5.73	21.21	9.73	19.80	

8361-D	327453.00	5577297.00	189.50	175.90	144.50	145.60	1.10	2A	11.56	0.41	720.0	11.23	7.44	17.28	11.96	23.78
8361-D	327453.00	5577297.00	189.50	175.90	145.60	146.70	1.10	2A	16.10	0.56	860.0	11.88	4.92	22.46	9.41	17.24
8361-D	327453.00	5577297.00	189.50	175.90	146.70	147.80	1.10	2A	23.09	0.75	1180.0	8.49	1.42	30.30	4.49	11.06
8361-D	327453.00	5577297.00	189.50	175.90	147.80	149.30	1.50	2A	14.39	0.73	750.0	4.81	0.93	36.85	3.37	9.33
8361-D	327453.00	5577297.00	189.50	175.90	149.30	150.90	1.60	2A	11.33	0.74	530.0	3.74	0.32	44.29	1.05	3.32
8361-D	327453.00	5577297.00	189.50	175.90	150.90	152.60	1.70	2A	9.67	0.63	440.0	4.11	0.58	42.58	1.89	4.59
8381-D	327453.00	5577297.00	189.50	175.90	152.60	154.10	1.50	2C	7.13	0.30	390.0	6.01	1.56	36.00	5.49	10.57
8361-D	327453.00	5577297.00	189.50	175.90	154.10	154.30	0.20	2C	3.00	0.19	360.0	5.61	2.27	34.85	6.81	13.28
8381-D	327453.00	5577297.00	189.50	175.90	154.30	154.60	0.30	2C	3.77	0.21	420.0	5.93	3.07	31.14	8.26	15.42
8361-D	327453.00	5577297.00	189.50	175.90	154.60	154.80	0.20	2C	5.46	0.25	450.0	5.67	1.52	32.59	5.28	15.14
8361-D	327453.00	5577297.00	189.50	175.90	154.80	155.50	0.70	2C	12.27	0.20	450.0	6.75	0.93	26.41	2.39	28.18
8361-D	327453.00	5577297.00	189.50	175.90	155.50	156.20	0.70	2C	4.40	0.30	330.0	5.31	8.32	28.61	10.51	19.09
8361-D	327453.00	5577297.00	189.50	175.90	156.20	156.90	0.70	2C	4.06	0.16	340.0	6.27	6.46	27.78	10.03	19.15
8361-D	327453.00	5577297.00	189.50	175.90	156.90	158.40	1.50	2C	4.13	0.31	420.0	5.41	4.29	35.67	6.75	13.62
8361-D	327453.00	5577297.00	189.50	175.90	158.40	159.40	1.00	2C	4.10	0.17	370.0	5.41	5.03	33.15	7.30	17.90
8361-D	327453.00	5577297.00	189.50	175.90	159.40	160.30	0.90	2C	3.27	0.14	360.0	4.78	2.90	33.67	8.21	17.09
8361-D	327453.00	5577297.00	189.50	175.90	160.30	161.30	1.00	2C	3.88	0.12	360.0	4.51	2.00	39.56	5.86	10.47
8361-D	327453.00	5577297.00	189.50	175.90	161.30	162.90	1.60	2C	3.07	0.06	330.0	2.16	1.97	49.47	1.05	1.29
8361-D	327453.00	5577297.00	189.50	175.90	162.90	164.30	1.40	2C	4.86	0.26	380.0	3.46	1.67	43.56	5.27	8.82
8361-D	327453.00	5577297.00	189.50	175.90	164.30	165.60	1.30	1D	7.54	0.47	540.0	4.60	1.75	43.16	4.55	8.50
8361-D	327453.00	5577297.00	189.50	175.90	165.60	166.90	1.30	1D	7.86	0.55	640.0	4.31	1.77	43.26	4.06	7.94
8361-D	327453.00	5577297.00	189.50	175.90	166.90	168.20	1.30	1D	6.48	0.44	480.0	4.44	2.64	40.68	5.22	9.16
8361-D	327453.00	5577297.00	189.50	175.90	168.20	169.50	1.30	1D	2.91	0.13	350.0	3.36	1.65	46.35	3.34	5.44
8361-D	327453.00	5577297.00	189.50	175.90	169.50	170.90	1.40	1D	3.92	0.22	370.0	5.72	4.97	36.81	6.75	11.25
8361-D	327453.00	5577297.00	189.50	175.90	170.90	172.50	1.60	1D	3.32	0.16	330.0	6.40	8.89	29.27	9.62	16.93
8361-D	327453.00	5577297.00	189.50	175.90	172.50	174.20	1.70	1D	3.14	0.17	350.0	7.32	13.76	22.18	12.39	23.33
8361-D	327453.00	5577297.00	189.50	175.90	174.20	175.90	1.70	1D	2.91	0.25	600.0	7.03	5.61	35.07	8.86	12.90

PHOSCAN CHEMICAL CORPORATION

MARTISON PHOSPHATE PROJECT

September 5, 2008

Assembly of 2008 Sonic Drilling Data

Coordinates from 2008 Winter program Field Survey

NAD83 UTM			Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol	
Hole_No	Eastings	Northings															
8361-E	327464.92	5577269.34	189.60	139.00	0.00	75.00	75.00	4									
8361-E	327464.92	5577269.34	189.80	139.00	75.00	76.30	1.30	3	1.18	0.35	2490.0	24.35	23.98	1.88	0.38	33.34	
8361-E	327464.92	5577269.34	189.80	139.00	76.30	77.60	1.30	3	1.29	0.35	2740.0	23.24	23.33	1.03	0.33	34.18	
8381-E	327464.92	5577269.34	189.60	139.00	77.60	78.90	1.30	3	1.27	0.36	2840.0	21.85	14.82	0.69	0.34	37.04	
8361-E	327464.92	5577269.34	189.60	139.00	78.90	80.30	1.40	3	1.36	0.37	2640.0	25.79	17.90	0.94	0.31	37.76	
8361-E	327464.92	5577269.34	189.60	139.00	80.30	81.60	1.30	3	1.27	0.38	2780.0	23.90	17.89	1.13	0.41	37.57	
8361-E	327464.92	5577269.34	189.60	139.00	81.60	82.90	1.30	3	1.44	0.41	2990.0	26.54	19.40	0.97	0.36	33.92	
8361-E	327464.92	5577269.34	189.60	139.00	82.90	84.10	1.20	3	1.46	0.39	2860.0	19.21	18.64	0.89	0.37	35.55	
8361-E	327464.92	5577269.34	189.60	139.00	84.10	85.30	1.20	3	1.32	0.47	3220.0	24.97	20.48	0.88	0.37	34.33	
8361-E	327464.92	5577269.34	189.60	139.00	85.30	86.50	1.20	3	1.28	0.55	3430.0	25.92	26.26	0.71	0.38	28.59	
8381-E	327464.92	5577269.34	189.80	139.00	86.50	87.70	1.20	3	0.79	0.56	3280.0	28.50	21.86	0.49	0.39	24.62	
8361-E	327464.92	5577269.34	189.80	139.00	87.70	89.00	1.30	3	0.52	0.57	3230.0	25.38	30.80	0.48	0.12	24.86	
8361-E	327464.92	5577269.34	189.60	139.00	89.00	90.20	1.20	3	0.97	0.69	3830.0	29.03	31.02	0.60	0.14	19.79	
8381-E	327464.92	5577269.34	189.80	139.00	90.20	91.40	1.20	3	2.16	0.70	3890.0	30.03	28.96	1.27	0.18	17.76	
8361-E	327464.92	5577269.34	189.60	139.00	91.40	92.60	1.20	3	2.59	0.98	4260.0	29.54	25.71	1.45	0.23	21.15	
8381-E	327464.92	5577269.34	189.80	139.00	92.60	93.90	1.30	3	2.72	1.12	4580.0	34.12	24.45	1.63	0.31	22.24	
8361-E	327464.92	5577269.34	189.60	139.00	93.90	95.10	1.20	3	3.39	1.19	4700.0	29.38	21.69	1.96	0.10	22.41	
8381-E	327464.92	5577269.34	189.60	139.00	95.10	96.30	1.20	3	3.28	1.31	5030.0	29.71	16.98	2.18	0.15	27.35	
8361-E	327464.92	5577269.34	189.80	139.00	96.30	97.50	1.20	3	2.90	1.56	5550.0	38.48	13.83	2.10	0.21	29.00	
8361-E	327464.92	5577269.34	189.60	139.00	97.50	98.70	1.20	3	2.52	1.77	6550.0	28.59	16.49	2.04	0.18	29.04	
8361-E	327464.92	5577269.34	189.80	139.00	98.70	100.00	1.30	3	2.20	1.76	7110.0	33.16	15.99	1.85	0.18	29.09	
8361-E	327464.92	5577269.34	189.60	139.00	100.00	101.20	1.20	3	2.25	1.79	7730.0	37.57	12.12	1.98	0.26	30.17	
8361-E	327464.92	5577269.34	189.80	139.00	101.20	102.40	1.20	3	1.11	1.52	6570.0	37.27	9.99	1.06	0.25	34.83	
8361-E	327464.92	5577269.34	189.60	139.00	102.40	103.60	1.20	3	4.19	2.60	7540.0	28.10	14.66	2.82	0.22	26.51	
8361-E	327464.92	5577269.34	189.60	139.00	103.60	104.80	1.20	3	5.73	2.50	6980.0	36.71	15.34	3.27	0.21	22.30	
8381-E	327464.92	5577269.34	189.60	139.00	104.80	106.10	1.30	3	5.82	2.03	6160.0	28.80	13.93	3.30	0.22	28.08	
8381-E	327464.92	5577269.34	189.60	139.00	106.10	107.30	1.20	3	6.00	2.35	7720.0	28.83	16.07	3.51	0.43	20.62	
8381-E	327464.92	5577269.34	189.60	139.00	107.30	108.50	1.20	3	3.86	1.78	7590.0	44.87	10.89	2.70	0.47	24.11	
8361-E	327464.92	5577269.34	189.80	139.00	108.50	109.70	1.20	3	2.51	1.47	8880.0	42.82	7.89	2.27	0.48	32.99	
8381-E	327464.92	5577269.34	189.60	139.00	109.70	110.90	1.20	3	2.14	1.33	5390.0	37.60	6.91	1.89	0.50	33.31	
8381-E	327464.92	5577269.34	189.80	139.00	110.90	112.20	1.30	3	2.05	1.49	5460.0	42.13	5.80	1.93	0.53	36.79	
8381-E	327464.92	5577269.34	189.80	139.00	112.20	113.10	0.90	3	2.16	1.36	5160.0	37.41	6.05	2.34	0.53	39.97	
8381-E	327464.92	5577269.34	189.60	139.00	113.10	114.30	1.20	3	4.68	1.30	5540.0	36.39	10.50	3.49	0.51	29.40	
8381-E	327464.92	5577269.34	189.80	139.00	114.30	115.80	1.30	3	6.75	1.48	6020.0	24.29	12.33	3.97	0.53	23.70	
8381-E	327464.92	5577269.34	189.80	139.00	115.80	116.90	1.30	3	9.35	1.83	7070.0	30.93	16.77	4.95	0.50	18.13	
8381-E	327464.92	5577269.34	189.80	139.00	116.90	118.10	1.20	3	9.93	1.62	7170.0	35.32	17.85	5.29	0.49	16.18	
8361-E	327464.92	5577269.34	189.80	139.00	118.10	119.30	1.20	3	11.42	1.88	7410.0	37.09	14.59	5.56	0.52	13.98	
8361-E	327464.92	5577269.34	189.60	139.00	119.30	120.60	1.30	3	10.58	1.67	7080.0	27.88	17.04	5.09	0.54	18.18	
8361-E	327464.92	5577269.34	189.80	139.00	120.60	122.20	1.60	3	10.53	1.87	6640.0	22.04	16.41	5.20	0.57	17.33	
8361-E	327464.92	5577269.34	189.80	139.00	122.20	123.80	1.60	3	9.48	1.88	7010.0	25.28	15.99	5.03	0.54	18.01	
8361-E	327464.92	5577269.34	189.80	139.00	123.80	125.50	1.70	3	8.63	2.25	7620.0	29.83	13.38	4.88	0.55	20.34	
8361-E	327464.92	5577269.34	189.80	139.00	125.50	126.90	1.40	3	7.06	2.29	9020.0	31.30	11.91	4.34	0.57	22.24	
8361-E	327464.92	5577269.34	189.80	139.00	126.90	128.20	1.30	3	4.32	1.37	6170.0	22.20	6.21	3.39	0.60	29.27	
8361-E	327464.92	5577269.34	189.80	139.00	128.20	129.40	1.20	3	4.46	1.36	5970.0	45.71	8.00	3.40	0.63	28.82	
8381-E	327464.92	5577269.34	189.60	139.00	129.40	130.80	1.40	3	4.92	1.39	5810.0	44.73	6.29	3.64	0.66	25.64	



8361-E	327464.92	5577269.34	189.60	139.00	130.80	132.20	1.40	3	4.56	1.40	6350.0	45.99	6.43	3.10	0.63	25.82
8361-E	327464.92	5577269.34	189.60	139.00	132.20	133.60	1.40	3	4.49	1.74	5460.0	40.18	6.28	3.49	0.72	26.93
8361-E	327464.92	5577269.34	189.60	139.00	133.60	135.00	1.40	3	4.63	3.24	6140.0	29.31	5.90	4.53	0.69	23.04
8361-E	327464.92	5577269.34	189.60	139.00	135.00	136.40	1.40	3	1.51	5.69	8700.0	29.42	5.95	2.96	0.78	26.23
8361-E	327464.92	5577269.34	189.60	139.00	136.40	137.80	1.40	3	1.15	6.24	9190.0	27.81	1.97	2.85	0.85	29.52
8361-E	327464.92	5577269.34	189.60	139.00	137.80	139.00	1.20	3	1.73	3.94	10940.0	40.48	1.51	2.70	0.90	23.02

PHOSCAN CHEMICAL CORPORATION

MARTISON PHOSPHATE PROJECT

September 5, 2008

Assembly of 2008 Sonic Drilling Data

Coordinates from 2008 Winter program Field Survey

NADES UTM																
Hole_No	Eastings	Northings	Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol
8361-F	327463.64	5577318.05	189.20	157.80	0.00	75.30	75.30	4								
8361-F	327463.64	5577318.05	189.20	157.80	75.30	77.60	2.30	2B	33.84	0.19	580.0	8.86	1.49	43.89	0.10	0.93
8361-F	327463.84	5577316.05	189.20	157.60	77.80	79.90	2.30	2B	33.38	0.14	730.0	9.67	1.47	42.53	0.06	0.94
8361-F	327463.84	5577318.05	189.20	157.60	79.90	82.30	2.40	2B	32.78	0.18	1020.0	10.33	1.15	39.40	0.06	1.26
8361-F	327463.84	5577318.05	189.20	157.60	82.30	83.30	1.00	2B	30.56	0.28	570.0	10.19	2.63	39.69	0.09	2.87
8361-F	327463.84	5577318.05	189.20	157.60	83.30	84.40	1.10	2B	32.36	0.54	500.0	8.42	0.85	39.52	0.12	1.25
8361-F	327463.84	5577318.05	189.20	157.60	84.40	86.10	1.70	2B	31.45	0.55	730.0	7.27	0.81	39.46	0.13	1.76
8361-F	327463.64	5577318.05	189.20	157.60	86.10	87.70	1.60	2B	23.90	0.60	2390.0	13.68	3.21	28.38	1.20	7.83
8361-F	327463.84	5577318.05	189.20	157.60	87.70	89.30	1.60	2B	32.74	0.20	390.0	5.84	0.80	44.88	0.26	1.25
8361-F	327463.64	5577318.05	189.20	157.60	89.30	90.90	1.60	2B	33.74	0.19	410.0	6.02	0.93	45.05	0.58	2.82
8361-F	327463.84	5577318.05	189.20	157.60	90.90	92.20	1.30	2B	29.72	0.27	520.0	7.90	1.54	40.48	1.43	4.76
8361-F	327463.64	5577318.05	189.20	157.60	92.20	94.20	2.00	2B	24.23	0.34	420.0	11.03	5.17	31.21	3.45	11.58
8361-F	327463.84	5577318.05	189.20	157.60	94.20	96.80	2.40	2B	32.82	0.23	380.0	5.21	2.20	45.00	1.30	2.29
8361-F	327463.84	5577318.05	189.20	157.80	96.80	98.20	1.60	2B	28.40	0.32	680.0	9.86	1.91	35.72	1.91	8.59
8361-F	327463.64	5577318.05	189.20	157.60	98.20	99.90	1.70	2B	33.71	0.29	250.0	4.82	0.93	46.85	0.76	1.35
8361-F	327463.84	5577318.05	189.20	157.60	99.90	101.50	1.80	2B	35.91	0.37	180.0	2.73	0.52	48.40	0.20	0.50
8361-F	327463.84	5577318.05	189.20	157.60	101.50	103.00	1.50	2B	33.94	0.46	280.0	3.28	1.29	49.68	0.99	0.97
8361-F	327463.64	5577318.05	189.20	157.60	103.00	104.30	1.30	2B	38.42	0.43	550.0	3.65	0.78	47.62	0.48	0.95
8381-F	327463.84	5577318.05	189.20	157.60	104.30	105.60	1.30	2B	32.74	0.58	430.0	5.52	1.26	42.83	1.34	2.96
8381-F	327463.84	5577318.05	189.20	157.60	105.60	106.90	1.30	2B	29.70	0.35	290.0	5.02	2.54	40.91	2.73	4.43
8361-F	327463.84	5577318.05	189.20	157.60	106.90	108.20	1.30	2B	34.31	0.50	330.0	4.56	0.59	47.96	0.37	1.45
8361-F	327463.84	5577318.05	189.20	157.60	108.20	109.70	1.50	2B	25.60	0.62	540.0	11.73	0.96	33.79	1.71	3.14
8361-F	327463.64	5577318.05	189.20	157.60	109.70	111.30	1.60	2B	13.16	0.54	850.0	13.17	0.34	27.78	7.03	1.93
8361-F	327463.64	5577316.05	189.20	157.60	111.30	112.90	1.60	2C	3.68	0.30	280.0	2.78	0.19	33.19	13.54	0.87
8361-F	327463.64	5577318.05	189.20	157.60	112.90	114.50	1.60	2C	4.76	0.29	250.0	2.86	0.20	33.05	13.40	1.06
8361-F	327463.84	5577318.05	189.20	157.60	114.50	116.00	1.50	2C	4.65	0.24	470.0	2.89	0.13	33.62	12.25	0.82
8361-F	327463.84	5577318.05	189.20	157.60	116.00	117.40	1.40	2C	6.89	0.44	680.0	5.12	0.28	32.05	14.38	2.06
8361-F	327463.84	5577318.05	189.20	157.60	117.40	118.80	1.40	2A	18.54	0.56	1160.0	15.53	1.18	26.39	4.21	18.82
8361-F	327463.84	5577318.05	189.20	157.60	118.80	120.30	1.50	2A	27.73	0.31	1150.0	13.13	1.17	36.32	1.73	6.17
8361-F	327463.84	5577318.05	189.20	157.60	120.30	121.80	1.50	2A	26.99	0.56	2070.0	14.50	1.06	33.29	1.47	9.67
8361-F	327463.64	5577318.05	189.20	157.60	121.80	123.10	1.30	2A	28.16	1.51	540.0	11.32	0.58	36.73	0.78	4.53
8361-F	327463.64	5577318.05	189.20	157.60	123.10	124.40	1.30	2A	23.68	1.10	450.0	11.88	0.99	30.38	1.65	4.99
8361-F	327463.64	5577318.05	189.20	157.60	124.40	125.70	1.30	2A	26.49	0.73	570.0	9.86	1.84	33.66	3.53	9.96
8361-F	327463.64	5577318.05	189.20	157.60	125.70	127.10	1.40	2A	19.05	0.77	730.0	11.65	5.63	23.37	7.27	19.50
8361-F	327463.64	5577318.05	189.20	157.60	127.10	128.60	1.50	2A	27.82	0.33	350.0	5.94	5.15	39.43	3.47	6.97
8361-F	327463.84	5577318.05	189.20	157.60	128.60	130.10	1.50	2A	17.08	0.80	920.0	14.62	5.86	20.01	7.12	18.16
8361-F	327463.64	5577318.05	189.20	157.60	130.10	131.40	1.30	2A	12.04	0.84	630.0	14.32	9.82	15.20	12.79	24.74
8361-F	327463.64	5577318.05	189.20	157.60	131.40	132.70	1.30	2A	12.68	0.60	860.0	15.08	8.66	15.16	12.19	23.51
8381-F	327483.64	5577318.05	189.20	157.60	132.70	134.00	1.30	2C	4.39	0.21	380.0	6.42	2.43	35.59	6.03	10.80
8361-F	327463.64	5577318.05	189.20	157.60	134.00	136.90	2.90	2C	3.36	0.26	350.0	5.50	1.59	40.24	4.98	8.86
8361-F	327463.84	5577318.05	189.20	157.60	136.90	139.80	2.90	2C	2.18	0.33	350.0	3.34	1.01	44.59	3.01	5.17
8381-F	327463.64	5577318.05	189.20	157.60	139.80	141.10	1.30	2C	2.94	0.22	190.0	3.57	0.73	36.95	7.81	4.80
8361-F	327463.64	5577318.05	189.20	157.60	141.10	142.30	1.20	2C	3.18	0.29	220.0	3.25	0.86	39.42	4.82	8.87
8361-F	327463.64	5577318.05	189.20	157.60	142.30	144.30	2.00	2C	3.90	0.29	330.0	3.75	0.73	41.73	2.23	5.02
8361-F	327463.64	5577318.05	189.20	157.60	144.30	146.30	2.00	2C	2.57	0.31	320.0	3.06	0.59	43.55	2.75	2.26

8361-F	327463.64	5577318.05	189.20	157.60	146.30	148.30	2.00	2C	3.22	0.14	240.0	3.81	1.31	40.08	3.21	6.15
8381-F	327463.84	5577318.05	189.20	157.60	148.30	149.70	1.40	2C	2.53	0.21	260.0	2.34	0.19	42.46	9.94	1.60
8361-F	327463.84	5577318.05	189.20	157.60	149.70	151.30	1.60	2C	3.73	0.16	210.0	2.25	0.15	35.92	15.57	1.06
8361-F	327463.64	5577318.05	189.20	157.60	151.30	152.90	1.60	2C	7.67	0.61	170.0	3.59	0.57	38.08	10.50	3.74
8361-F	327463.64	5577318.05	189.20	157.60	152.90	154.50	1.60	2C	5.68	0.38	290.0	7.03	2.57	37.14	6.19	12.44
8361-F	327463.64	5577318.05	189.20	157.60	154.50	156.00	1.50	2C	6.55	0.36	390.0	5.83	2.09	39.35	5.26	11.45
8361-F	327463.64	5577318.05	189.20	157.60	156.00	157.60	1.60	2C	6.30	0.43	380.0	3.52	0.67	48.68	1.65	3.38

**PHOSCAN CHEMICAL CORPORATION**

**MARTISON PHOSPHATE PROJECT**

September 5, 2008

**Assembly of 2008 Sonic Drilling Data**

Coordinates from 2008 Winter program Field Survey

Hole_No	NAD83 UTM		Elevation	TOT Depth	From	To	Thick	Litho Unit	%P2O5	%Nb2O5*	La ppm	%Fe2O3	%Al2O3	%CaO	%MgO	%A_insol
	Eastings	Northings														
8381-G	327480.88	5577297.04	189.30	182.00	0.00	75.00	75.00	4								
8381-G	327460.86	5577297.04	189.30	182.00	75.00	76.50	1.50	3								
8361-G	327460.86	5577297.04	189.30	182.00	76.50	78.10	1.60	3								
8361-G	327460.86	5577297.04	189.30	182.00	78.10	79.70	1.60	3								
8361-G	327460.86	5577297.04	189.30	182.00	79.70	81.30	1.60	3	5.11	1.81	5110.0	30.39	23.63	3.07	0.07	26.07
8361-G	327460.86	5577297.04	189.30	182.00	81.30	83.90	2.60	3	4.23	1.91	4730.0	32.03	10.07	3.15	0.40	28.53
8361-G	327460.86	5577297.04	189.30	182.00	83.90	86.50	2.60	3	8.61	2.19	4050.0	34.26	14.67	6.46	0.30	15.99
8361-G	327460.86	5577297.04	189.30	182.00	86.50	88.50	2.00	2A	22.46	1.08	3170.0	22.22	5.21	21.87	0.19	7.90
8361-G	327460.86	5577297.04	189.30	182.00	88.50	91.80	3.30	2A	22.88	0.53	3200.0	18.86	14.69	19.46	0.15	8.54
8361-G	327460.86	5577297.04	189.30	182.00	91.80	93.30	1.50	2A	25.11	0.46	2500.0	17.41	12.83	26.31	0.32	9.35
8361-G	327460.86	5577297.04	189.30	182.00	93.30	94.60	1.30	2A	23.06	0.38	2550.0	21.07	12.75	25.21	0.31	7.96
8361-G	327460.86	5577297.04	189.30	182.00	94.60	96.40	1.80	2A	26.20	0.59	1960.0	16.20	7.51	33.28	0.30	6.64
8361-G	327460.86	5577297.04	189.30	182.00	96.40	98.20	1.80	2A	25.07	0.50	1030.0	15.29	6.07	34.25	0.33	10.23
8361-G	327460.86	5577297.04	189.30	182.00	98.20	99.90	1.70	2A	29.97	0.36	560.0	11.20	3.25	42.52	0.33	3.79
8381-G	327460.86	5577297.04	189.30	182.00	99.90	101.00	1.10	2B	29.70	0.21	530.0	14.46	0.81	32.56	0.40	3.29
8381-G	327460.86	5577297.04	189.30	182.00	101.00	102.10	1.10	2B	28.90	0.18	500.0	18.83	0.61	31.32	0.25	0.92
8361-G	327460.86	5577297.04	189.30	182.00	102.10	103.40	1.30	2B	32.89	0.15	540.0	10.06	0.76	37.12	0.24	1.83
8361-G	327460.86	5577297.04	189.30	182.00	103.40	105.10	1.70	2B	28.63	0.23	790.0	13.91	0.83	32.49	0.32	3.10
8361-G	327460.86	5577297.04	189.30	182.00	105.10	106.80	1.70	2B	32.10	0.23	510.0	11.95	0.73	35.92	0.33	1.32
8361-G	327460.86	5577297.04	189.30	182.00	106.80	108.50	1.70	2B	30.77	0.38	610.0	13.69	0.73	32.71	0.38	1.83
8361-G	327460.86	5577297.04	189.30	182.00	108.50	111.60	3.10	2B								
8361-G	327460.86	5577297.04	189.30	182.00	111.60	113.40	1.80	2B	32.59	0.39	710.0	9.58	0.99	34.73	0.30	2.21
8361-G	327460.86	5577297.04	189.30	182.00	113.40	115.10	1.70	2B	33.15	0.68	560.0	7.35	0.83	37.85	0.30	1.68
8361-G	327460.86	5577297.04	189.30	182.00	115.10	116.80	1.70	2B	33.83	0.55	560.0	7.24	0.84	37.56	0.32	2.34
8361-G	327460.86	5577297.04	189.30	182.00	116.80	118.50	1.70	2B	30.63	0.33	810.0	7.09	1.14	31.77	0.29	2.38
8361-G	327460.86	5577297.04	189.30	182.00	118.50	119.50	1.00	2B	31.63	0.20	980.0	7.70	1.13	32.61	0.31	1.33
8381-G	327460.86	5577297.04	189.30	182.00	119.50	120.40	0.90	2B	31.00	0.18	1070.0	9.72	1.01	34.22	0.33	0.77
8381-G	327460.86	5577297.04	189.30	182.00	120.40	121.80	1.40	2B	31.82	0.25	920.0	7.79	0.97	32.76	0.29	0.91
8361-G	327460.86	5577297.04	189.30	182.00	121.80	123.30	1.50	2B	31.88	0.32	1040.0	8.93	1.11	35.10	0.37	1.96
8361-G	327460.86	5577297.04	189.30	182.00	123.30	124.80	1.50	2B	29.50	0.69	2130.0	10.69	1.30	29.11	0.49	3.94
8361-G	327460.86	5577297.04	189.30	182.00	124.80	125.70	0.90	2A	29.69	0.92	2240.0	19.77	8.56	25.63	1.12	12.78
8381-G	327460.86	5577297.04	189.30	182.00	125.70	126.60	0.90	2A	18.86	0.92	2670.0	17.50	8.18	24.41	1.26	12.79
8361-G	327460.86	5577297.04	189.30	182.00	126.60	127.50	0.90	2A	19.78	0.92	2690.0	18.66	10.04	23.97	0.91	13.26
8381-G	327460.86	5577297.04	189.30	182.00	127.50	128.80	1.30	2A	17.68	1.00	3350.0	18.46	10.72	20.36	0.65	14.25
8361-G	327460.86	5577297.04	189.30	182.00	128.80	130.10	1.30	2A	15.61	1.15	3390.0	20.29	12.83	16.74	0.66	17.46
8361-G	327460.86	5577297.04	189.30	182.00	130.10	131.20	1.10	2A	14.46	0.92	3310.0	20.24	14.74	15.50	0.89	19.11
8361-G	327460.86	5577297.04	189.30	182.00	131.20	132.40	1.20	2A	6.65	0.97	4760.0	21.90	21.11	6.91	0.45	24.08
8361-G	327460.86	5577297.04	189.30	182.00	132.40	133.90	1.50	2A	7.71	1.01	4450.0	22.96	18.74	8.90	0.54	25.84
8361-G	327460.86	5577297.04	189.30	182.00	133.90	136.30	2.40	2A	8.29	1.03	4230.0	21.36	16.98	10.05	0.68	25.10
8361-G	327460.86	5577297.04	189.30	182.00	136.30	137.40	1.10	2A	16.92	0.85	2870.0	18.22	12.24	21.94	1.31	15.84
8361-G	327460.86	5577297.04	189.30	182.00	137.40	138.50	1.10	2A	15.86	0.84	2850.0	18.63	12.47	20.71	1.45	17.44
8361-G	327460.86	5577297.04	189.30	182.00	138.50	139.50	1.00	2A	23.02	0.63	2010.0	13.99	7.47	33.39	1.27	10.51
8361-G	327460.86	5577297.04	189.30	182.00	139.50	140.60	1.10	2A	17.92	0.88	2690.0	16.53	9.52	23.14	1.57	16.59
8361-G	327460.86	5577297.04	189.30	182.00	140.60	141.70	1.10	2A	20.96	0.75	2190.0	14.18	5.18	30.24	1.78	13.22
8381-G	327460.86	5577297.04	189.30	182.00	141.70	142.80	1.10	2A	21.39	0.81	2190.0	14.71	4.72	29.77	1.93	13.29

8361-G	327460.66	5577297.04	169.30	162.00	142.80	143.60	1.00	2A	20.62	0.71	1910.0	14.63	3.86	25.18	4.11	12.75
8361-G	327460.66	5577297.04	189.30	182.00	143.80	144.80	1.00	2A	15.81	0.67	1770.0	14.85	4.68	22.08	5.72	15.10
8361-G	327480.66	5577297.04	189.30	182.00	144.80	145.70	0.90	2A	23.41	0.65	1520.0	10.67	2.86	27.97	3.65	11.88
8361-G	327460.66	5577297.04	189.30	182.00	145.70	147.30	1.60	2A	25.79	0.56	1900.0	9.23	1.94	30.62	2.80	9.70
8361-G	327460.66	5577297.04	189.30	182.00	147.30	148.90	1.60	2A	27.39	0.45	1390.0	8.80	1.47	35.89	2.15	6.59
8361-G	327460.66	5577297.04	189.30	182.00	148.90	150.50	1.60	2A	26.84	0.48	1270.0	10.10	2.32	32.43	1.49	8.18
8361-G	327460.66	5577297.04	189.30	182.00	150.50	152.10	1.60	2A	27.13	0.53	1250.0	13.46	2.98	29.69	1.15	9.23
8361-G	327460.66	5577297.04	189.30	182.00	152.10	153.10	1.00	2A	25.86	0.55	1270.0	14.90	2.91	28.72	1.10	9.90
8361-G	327460.66	5577297.04	189.30	182.00	153.10	154.10	1.00	2A	24.83	0.55	1270.0	14.35	2.96	27.20	1.20	11.90
8361-G	327460.66	5577297.04	189.30	182.00	154.10	155.20	1.10	2A	25.34	0.52	1220.0	15.15	2.87	30.10	1.03	10.09
8361-G	327460.66	5577297.04	189.30	182.00	155.20	156.20	1.00	2A	28.15	0.45	990.0	9.35	1.73	34.56	0.89	8.49
8361-G	327460.66	5577297.04	189.30	182.00	156.20	157.20	1.00	2A	27.54	0.46	1140.0	10.52	1.80	33.68	0.82	7.76
8361-G	327460.66	5577297.04	189.30	182.00	157.20	158.30	1.10	2A	25.34	0.47	1080.0	12.22	1.84	31.96	1.19	10.08
8361-G	327460.66	5577297.04	189.30	182.00	158.30	159.70	1.40	2A	27.00	0.47	1100.0	10.82	1.85	32.41	1.88	8.25
8361-G	327460.66	5577297.04	189.30	182.00	159.70	161.10	1.40	2A	26.42	0.40	1010.0	9.71	1.46	32.90	1.58	9.30
8361-G	327460.66	5577297.04	189.30	182.00	161.10	162.40	1.30	2A	28.38	0.41	1110.0	9.60	2.05	31.20	2.87	8.77
8361-G	327460.66	5577297.04	189.30	182.00	162.40	163.80	1.40	2A	21.82	0.56	1890.0	11.83	2.30	28.08	4.15	10.63
8361-G	327460.66	5577297.04	189.30	182.00	163.80	165.00	1.20	2A	22.35	0.53	1590.0	12.34	2.36	25.34	4.81	13.35
8381-G	327460.66	5577297.04	189.30	182.00	165.00	166.20	1.20	2A	22.77	0.44	1590.0	12.12	2.51	25.55	5.21	12.17
8361-G	327460.66	5577297.04	189.30	182.00	166.20	167.50	1.30	2A	27.00	0.38	1380.0	9.28	1.53	31.29	3.47	7.97
8361-G	327460.66	5577297.04	189.30	182.00	167.50	168.70	1.20	2A	23.22	0.43	1430.0	10.46	2.50	27.05	5.33	12.11
8361-G	327460.66	5577297.04	189.30	182.00	168.70	169.90	1.20	2A	29.30	0.44	1310.0	8.78	1.19	34.32	1.62	6.41
8361-G	327460.66	5577297.04	189.30	182.00	169.90	171.10	1.20	2A	31.89	0.47	1420.0	7.49	1.02	35.19	1.28	5.59
8361-G	327460.66	5577297.04	189.30	182.00	171.10	172.30	1.20	2A	30.92	0.39	1470.0	9.62	0.98	35.37	1.23	6.24
8361-G	327460.66	5577297.04	189.30	182.00	172.30	173.50	1.20	2A	30.27	0.40	1460.0	10.01	1.12	34.48	1.49	5.20
8361-G	327460.66	5577297.04	189.30	182.00	173.50	174.70	1.20	2A	29.28	0.44	1460.0	9.90	1.16	32.26	1.84	7.47
8361-G	327460.66	5577297.04	189.30	182.00	174.70	176.10	1.40	2A	25.24	0.57	2040.0	11.83	1.69	26.94	3.23	10.13
8361-G	327460.66	5577297.04	189.30	182.00	176.10	177.60	1.50	2A	26.73	0.50	1710.0	11.30	1.39	29.57	2.36	8.45
8361-G	327480.66	5577297.04	189.30	182.00	177.60	179.10	1.50	2A	24.95	0.53	1810.0	12.54	1.46	27.31	2.86	9.15
6361-G	327460.66	5577297.04	189.30	182.00	179.10	180.60	1.50	2A	22.86	0.70	1960.0	12.94	1.78	24.57	4.11	12.12
6361-G	327460.66	5577297.04	189.30	182.00	180.60	182.00	1.40	2A	23.52	0.67	2370.0	12.67	1.91	26.80	4.19	10.07

**APPENDIX D**  
**Core Recoveries**

Residuum Weight  
SITE 83-38 A

kg/m  
m  
1,407.0  
20.8  
67.7

Core  
Run  
#

Drilling Data  
From To Thickness  
(metres) (metres) (metres)

Recovery  
(metres)  
Recovery  
%

Litho  
Unit

Date Time

minutes m/hr

Core Run #	From (metres)	To (metres)	Thickness (metres)	Recovery (metres)	Recovery %	Litho Unit	Date	Time	minutes	m/hr	
1	0.0	5.2	5.2	5	94.2%		1/26/08	1245			
2	5.2	11.3	6.1	7	113.1%			1315			
3	11.3	14.3	3.0	4	133.3%			1350			
4	14.3	20.4	6.1	7	109.8%			1430			
5	20.4	23.5	3.1	3	96.8%			1722			
6	23.5	26.5	3.0	3	100.0%			1900			
7	26.5	29.6	3.1	4	129.0%			2017			
8	29.6	32.8	3.0	3	96.7%			2125			
9	32.6	37.2	4.6	6	132.6%			2236			
10	37.2	38.7	1.5	2	120.0%			2316	831	3.7	
11	38.7	41.8	3.1	3	96.8%		1/27/08	0016			
12	41.8	44.8	3.0	3	90.0%			0116			
13	44.8	51.0	6.2	4	69.4%			0159	795	3.8	All OVBDN
14	51.0	57.0	6.0	8	100.0%	2B		0300			
15	57.0	60.0	3.0	4	133.3%	2B		0409			
16	60.0	63.1	3.1	3	103.2%	2B		0450			
17	63.1	69.2	6.1	8	104.9%	2B		0535			
18	69.2	75.3	6.1	5	85.2%	2B		0628			
19	75.3	81.4	6.1	5	85.2%	2B		0822			
20	81.4	87.5	6.1	7	114.8%	2B		0939			
21	87.5	93.6	6.1	8	129.5%	2A		1035			
22	93.6	99.7	6.1	7	118.0%	2A		1239			
23	99.7	105.8	6.1	6	100.0%	2A		1346			
24	105.8	111.9	6.1	6	100.0%	2B		1510			
25	111.9	118.0	6.1	7	109.8%	2B		1615			
26	118.0	124.1	6.1	7	109.8%	2B		1830			
27	124.1	127.1	3.0	3	93.3%			2008			
28	127.1	130.1	3.0	1	20.3%			2133			
29	130.1	133.2	3.1	4	138.7%			2252	1432	4.0	
30	133.2	138.2	3.0	2	50.0%		1/28/08	0120			
31	138.2	139.3	3.1	3	87.1%			0245			
32	139.3	142.3	3.0	3	106.7%			0439			
33	142.3	144.5	2.2	2	95.5%			0657	485	1.4	
residuum recovery			73.1	78	106.3%				3343	2.6	

Forecast 2973 2.92

88.93%





Residuum Weight  
SITE 83-38 C

kg/m  
m  
1,291.9  
18.3  
70.5

Core  
Run  
#

Drilling Data  
From To Thickness  
(metres) (metres) (metres)

Recovery  
(metrea)  
Recovery  
%

Litho  
Unit

Date Time

minutes m/hr

Core Run #	From (metres)	To (metres)	Thickness (metres)	Recovery (metrea)	Recovery %	Litho Unit	Date	Time	minutes	m/hr
	0.0	32.3	32.3				3/12/08	1945		
							3/13/08	0130	345	5.6
1	32.3	35.4	3.1	3.7	119.4%		3/13/08	0210		
2	35.4	41.5	6.1	5.5	90.2%			0330		
3	41.5	50.6	9.1	10.4	114.3%	2B		0410		
4	50.6	59.7	9.1	9.2	101.1%	2B		0500		
5	59.7	68.9	9.2	9.8	106.5%	2B		0545		
6	68.9	75.0	6.1	5.2	85.2%	2A		0833		
7	75.0	81.1	6.1	6.6	108.2%	2A		1015		
8	81.1	87.2	6.1	6.6	108.2%	2A		1147		
9	87.2	93.3	6.1	9.1	149.2%	2A		1318		
10	93.3	99.4	6.1	7.4	121.3%	2A		1412		
11	99.4	105.5	6.1	5.6	91.8%	2B		1525		
12	105.5	111.6	6.1	5.1	83.6%	2B		1616		
13	111.6	117.6	6.0	4.3	71.7%	2B	3/13/08	1758	988	5.2
residuum recovery			76.1	79.3	104.2%			Coring	988	5.2
								Total	1333	5.3
								Forecast	2419	2.92

181.47%

Residuum Weight  
SITE 83-38 D

kg/m 1,311.1  
m 19.0  
89.0

Core Run #	Drilling Data			Recovery (metres)	Recovery %	Litho Unit	Date	Time	minutes	m/hr
	From (metres)	To (metres)	Thickness (metres)							
	0.0	32.3	32.3				3/13/08	2115		
1	32.3	35.4	3.1	3.7	119.4%		3/14/08	0115	240	8.1
2	35.4	38.4	3.0	3.7	123.3%		3/14/08	0210		
3	38.4	47.5	9.1	7.6	83.5%			0335		
4	47.5	56.7	9.2	9.8	106.5%	2B		0425		
5	56.7	85.8	9.1	9.2	101.1%	2B		0620		
6	85.8	75.0	9.2	9.2	100.0%	2B		0936		
7	75.0	78.0	3.0	3.0	100.0%	2A		1131		
8	78.0	87.2	9.2	9.3	101.1%	2B		1424		
9	87.2	93.3	6.1	8.4	104.9%	2A		1538		
10	93.3	102.4	9.1	7.7	84.6%	2B		1854		
11	102.4	111.6	9.2	6.3	66.5%	2B		1821		
12	111.8	117.8	6.0	5.2	86.7%	2B		2040	1185	4.4
residuum recovery			70.1	68.1	94.3%			Coring	1185	4.4
								Total	1405	5.0
							Forecast	2419	2.92	
										172.17%

Residuum Weight  
SITE 83-38 E

kg/m  
m

1,456.1  
19.8  
73.7

Core Run #	Drilling Data			Recovery (metres)	Recovery %	Litho Unit	Date	Time	minutes	m/hr
	From (metres)	To (metres)	Thickness (metres)							
	0.0	32.3	32.3				3/14/08	0001		
							3/14/08	0900	539	3.6
1	32.3	41.5	9.2	10.0	108.7%		3/14/08	0935		
2	41.5	50.6	9.1	10.7	117.6%	2A		1050		
3	50.6	59.7	9.1	8.9	97.8%	2A		1135		
4	59.7	66.9	9.2	9.1	98.9%	2B		1305		
5	66.9	78.0	9.1	9.0	98.9%	2B		1430		
6	78.0	87.2	9.2	8.5	92.4%	2B		1545		
7	87.2	96.3	9.1	9.1	100.0%	2A		1705		
8	96.3	99.4	3.1	3.3	106.5%	2B		1905		
9	99.4	106.5	9.1	9.4	103.3%	2A		2130		
10	106.5	117.6	9.1	9.8	107.7%	2B		2335		
11	117.6	120.4	2.8	2.1	75.0%	2B	3/15/08	0040	940	5.6
residuum recovery			78.9	79.9	101.3%			Coring	940	5.6
								Total	1479	4.9
								Forecast	2477	2.92
										167.46%









































Residuum Weight  
SITE 83-81 C

Core Run #	kg/m m	1,744.1 23.1 75.6	Drilling Data			Recovery (metres)	Recovery %	Litho Unit	Date	Time	minutes	m/hr
			From (metres)	To (metres)	Thickness (metres)							
			0.0	74.0	74.0				2/4/08	0745		
1			75.0	78.0	3.0	3.0	100.0%		2/4/08	1430	405	11.0
2			78.0	84.1	6.1	6.1	100.0%		2/4/08	1530		
3			84.1	90.2	6.1	6.1	100.0%			1605		
4			90.2	96.3	6.1	5.7	93.4%	2A		1952		
5			96.3	109.4	13.1	9.4	71.6%	2B		2336	606	1.6
6			109.4	114.9	5.5	5.5	100.0%	2B	2/5/08	0345		
7			111.6	117.6	6.0	6.1	101.7%	2B		0621		
8			117.6	123.7	6.1	6.1	100.0%	2A		1015		
9			123.7	129.8	6.1	6.1	100.0%	2A		1315		
10			129.6	135.9	6.1	6.1	100.0%	2A		1455		
11			135.9	142.0	6.1	6.1	100.0%	2A		1615		
12			142.0	148.1	6.1	6.1	100.0%	2A		1600	1104	2.5
13			148.1	154.2	6.1	6.7	109.8%	2A				
14			154.2	160.3	6.1	6.1	100.0%	2A	2/6/08	0135		
15			160.3	166.4	6.1	6.1	100.0%	2A		0615	735	1.0
16			166.4	172.5	6.1	5.5	90.2%	2C		1900	765	0.5
residuum recovery					73.4	70.0	95.4%			Coring	3410	1.7
										Total	3815	2.7
										Forecast	3549	2.92
												93.03%



Residuum Weight  
SITE 83-81 E

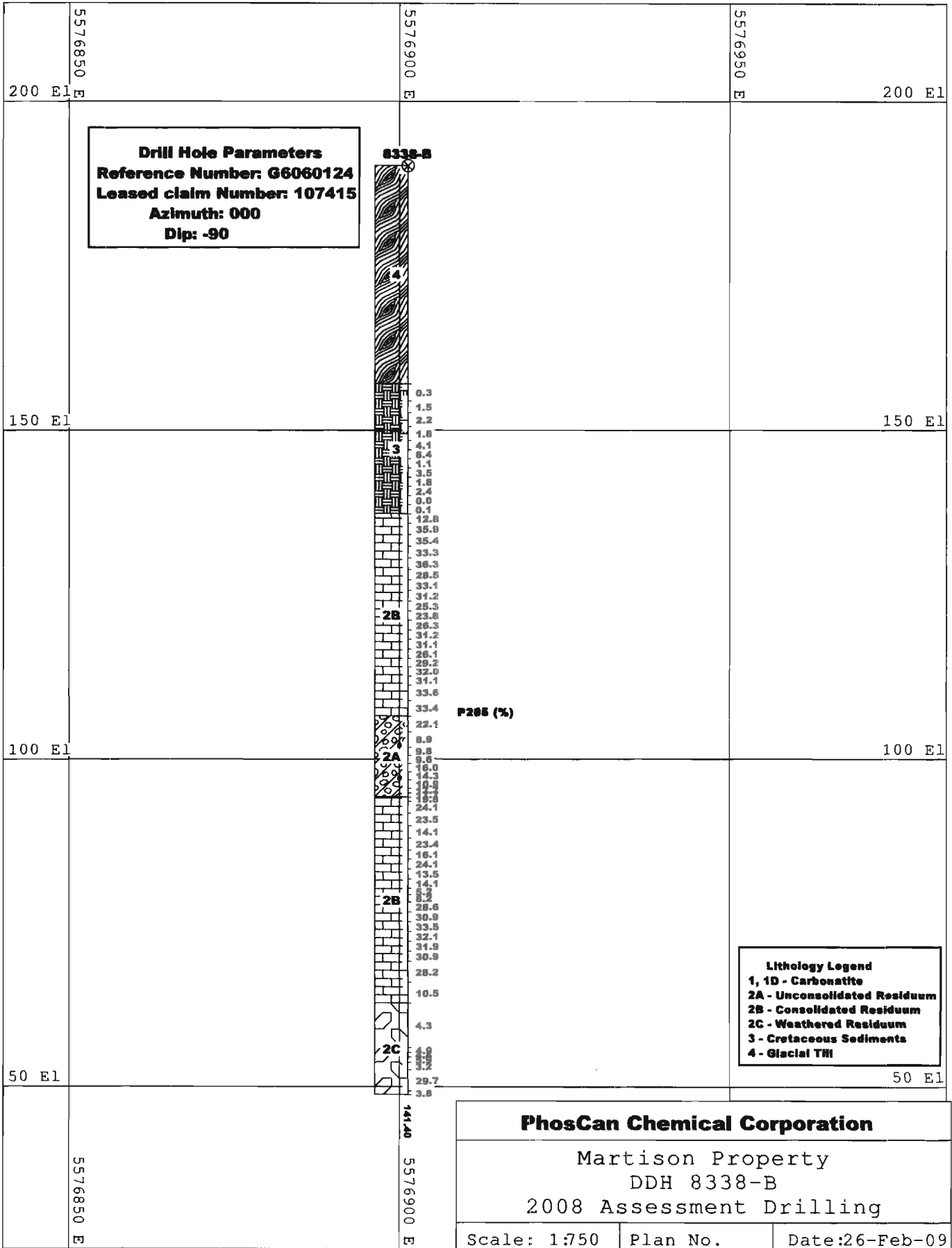
kg/m m	0.0 0.0 0.0	Core Run #	From  (metres)	Drilling Data To  (metres)	Thickness  (metres)	Recovery (metres)	Recovery %	Litho Unit	Date	Time	minutes	m/hr	
			0.0	75.0	75.0				2/7/08	0400			
		1	75.0	84.1	9.1	9.1	100.0%		2/7/08	1800	840	5.4	
		2	84.1	90.2	6.1	5.5	90.2%		2/7/08	1900			
		3	90.2	96.3	6.1	6.7	109.8%			2202			
		4	96.3	102.4	6.1	8.2	134.4%			2301			
		5	102.4	108.5	6.1	6.7	109.8%		2/8/08	0024	324	6.2	
		6	108.5	114.6	6.1	6.7	109.8%			0131			
		7	114.6	120.7	6.1	7.5	122.1%			2103			
		8	120.7	126.8	6.1	7.3	119.7%			2250	1346	0.8	
		9	126.8	132.9	6.1	6.1	100.0%		2/9/08	1000			
		10	132.9	139.0	6.1	6.1	100.0%			1115	651	1.1	
		<b>Hole called --no residuum</b>									Coring	2321	1.7
										Total	3161	2.6	
										<b>Forecast</b>	<b>2859</b>	<b>-0.10</b>	
												<b>-2565.71%</b>	







**Appendix E**  
**Borehole Cross Sections**



dh\_section\_8338-b\_03

5576900 E

5576950 E

**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

200 El

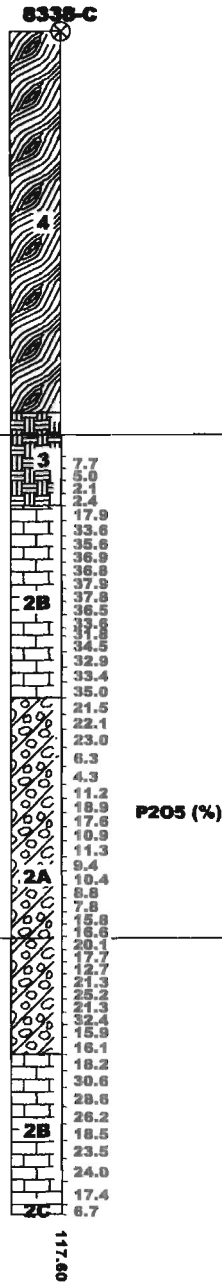
200 El

150 El

150 El

100 El

100 El



**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residium**  
**2B - Consolidated Residium**  
**2C - Weathered Residium**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**  
 Martison Property  
 DDH 8338-C  
 2008 Assessment Drilling

Scale: 1:750	Plan No.	Date: 26-Feb-09
--------------	----------	-----------------

5576900 E

50 El

5576850

5576900

5576950

200 El

**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

8338-D



P205 (%)

150 El

150 El

100 El

100 El

50 El

50 El

**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residuum**  
**2B - Consolidated Residuum**  
**2C - Weathered Residuum**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**

Martison Property  
 DDH 8338-D  
 2008 Assessment Drilling

Scale: 1:750	Plan No.	Date: 25-Feb-09
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dh\_section\_8338-d

5576850

5576900

**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

200 El

200 El

150 El

150 El

100 El

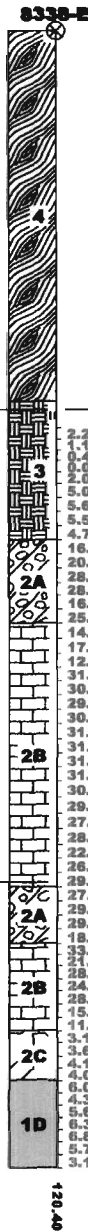
100 El

50 El

5576850 E

5576900 E

5576850 E



200 N

150 N

100 N

50 N

5576450 E

5576500 E

5576550 E

5576450 E

5576500 E

**Drill Hole Parameters**  
 Reference Number: G6060124  
 Leased Claim Number: 107415  
 Azimuth: 000  
 Dip: -90

8349-B



184.20

P205 (%)

**Lithology Legend**  
 1, 1D - Carbonatite  
 2A - Unconsolidated Residuum  
 2B - Consolidated Residuum  
 2C - Weathered Residuum  
 3 - Cretaceous Sediments  
 4 - Glacial Till

**PhosCan Chemical Corporation**

Martison Property  
 DDH 8349-B  
 2008 Assessment Drilling

Scale: 1:750

Plan No.

Date:27-Feb-09

dh\_section\_8349-b\_10



5576450 E

5576500 E

5576550 E

200 N

**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased Claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

150 N

150 N

100 N

100 N

50 N

50 N

5576450 E

5576500 E

8349-C



P205 (%)

**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residium**  
**2B - Consolidated Residium**  
**2C - Weathered Residium**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**

Martison Property  
 DDH 8349-C  
 2008 Assessment Drilling

Scale: 1:750

Plan No.

Date:27-Feb-09

dh\_section\_8349-c\_01

**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased Claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

200 N

200 N

150 N

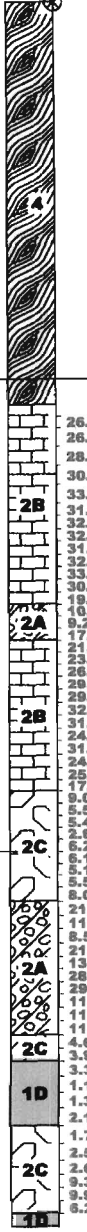
150 N

100 N

100 N

50 N

8349-D



P205 (%)

**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residuum**  
**2B - Consolidated Residuum**  
**2C - Weathered Residuum**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**

Martison Property  
 DDH 8349-D  
 2008 Assessment Drilling

Scale: 1:750	Plan No.	Date: 27-Feb-09
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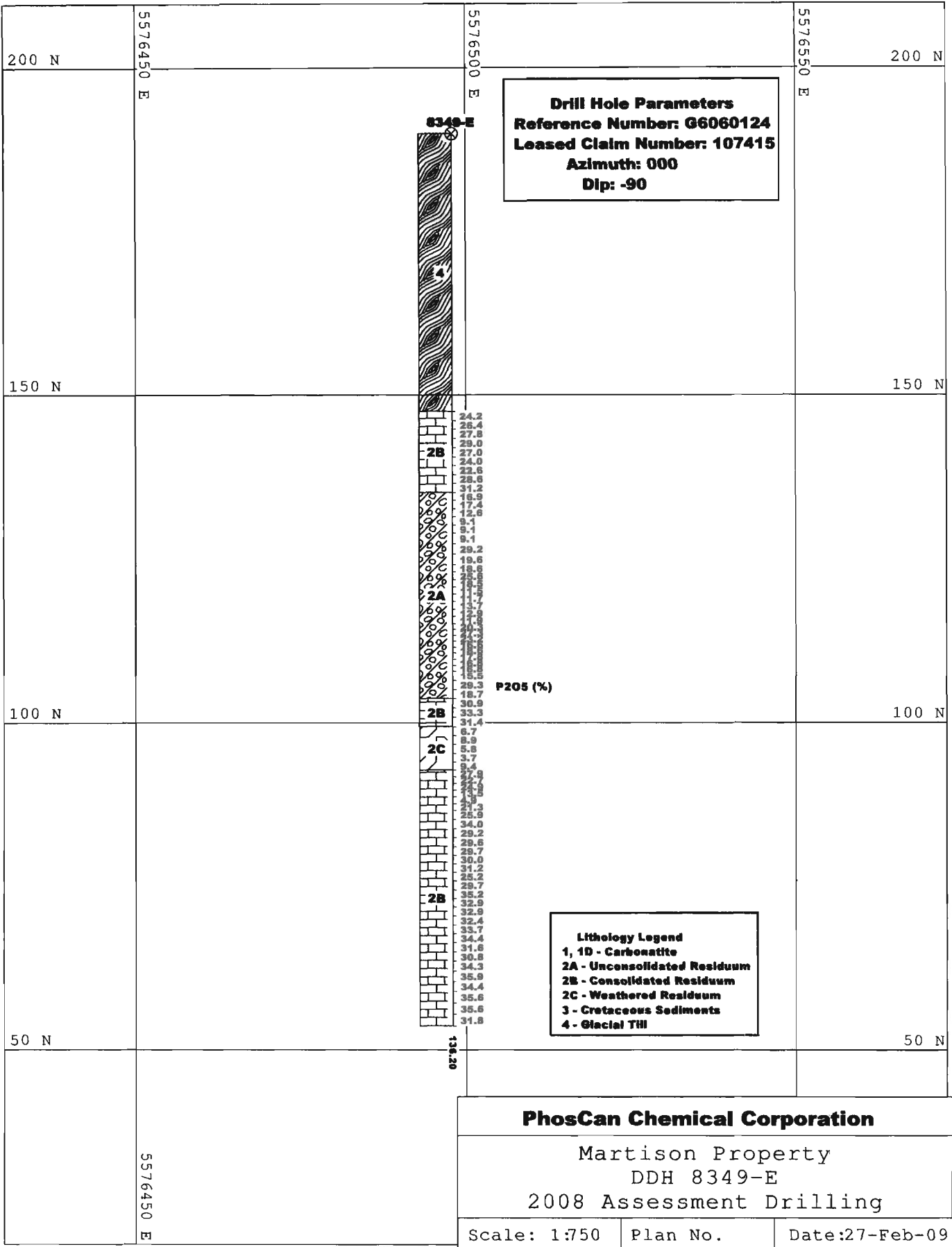
5576450 E

5576500 E

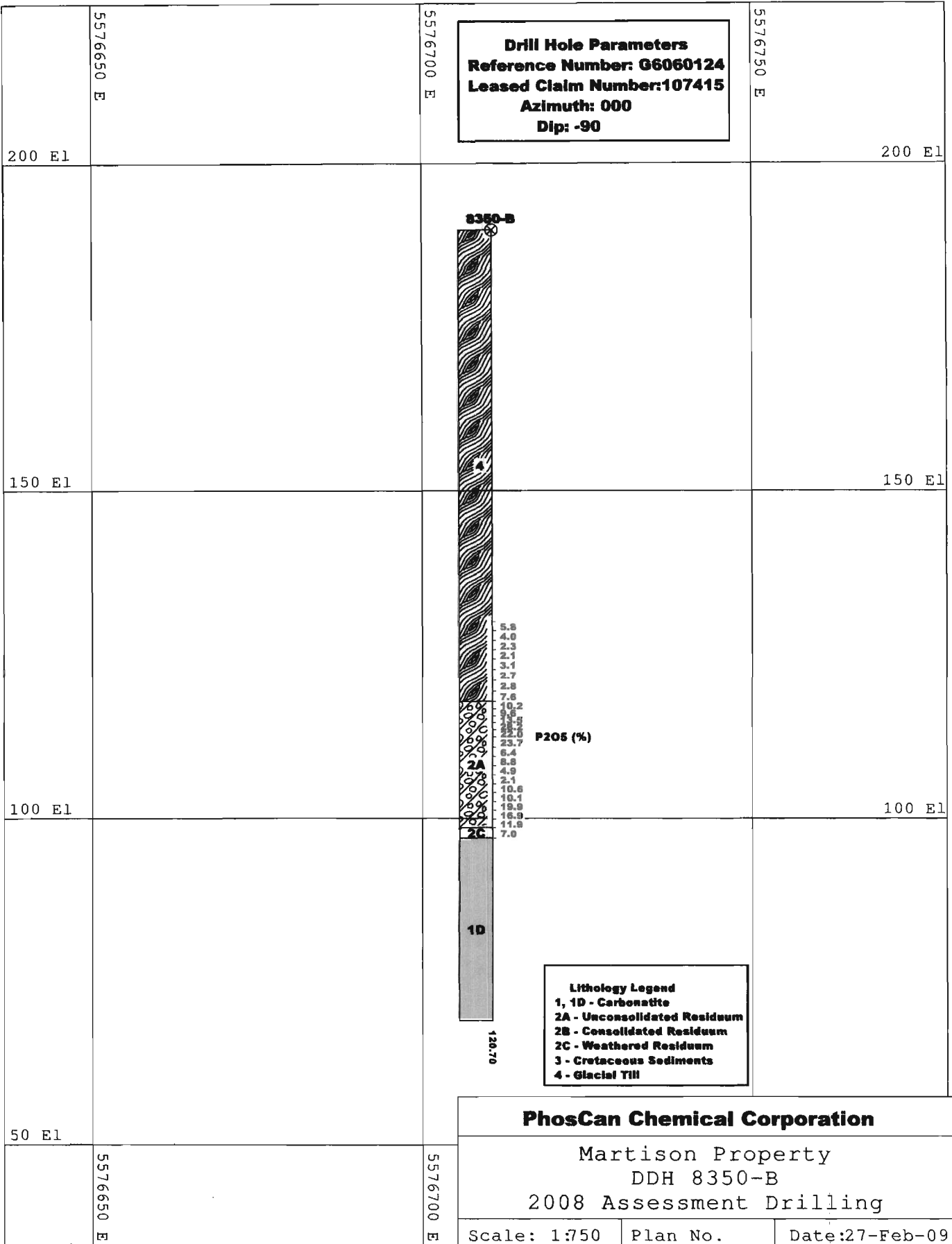
5576550 E

5576450 E

dh\_section\_8349-d

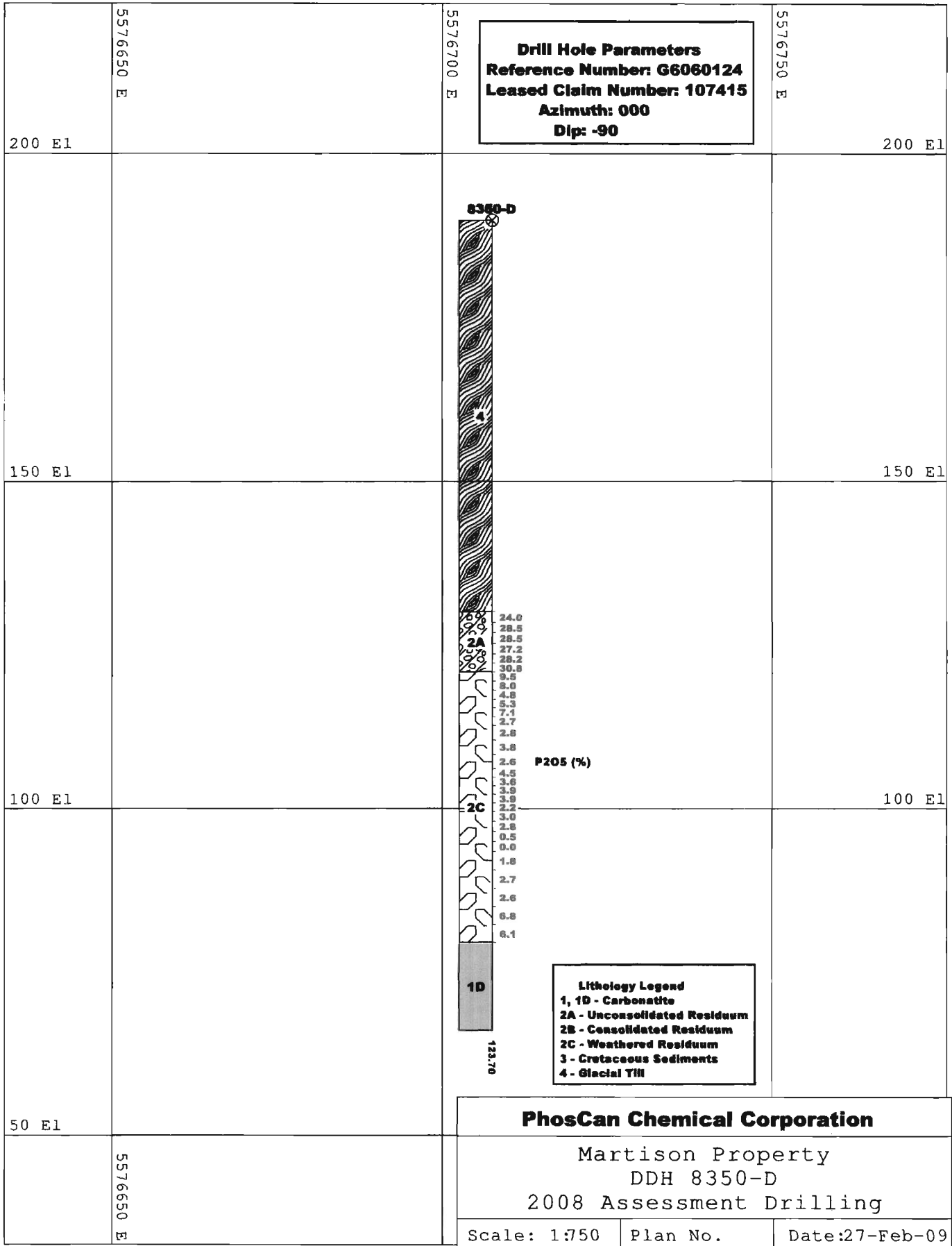


dh\_section\_8349-e\_03



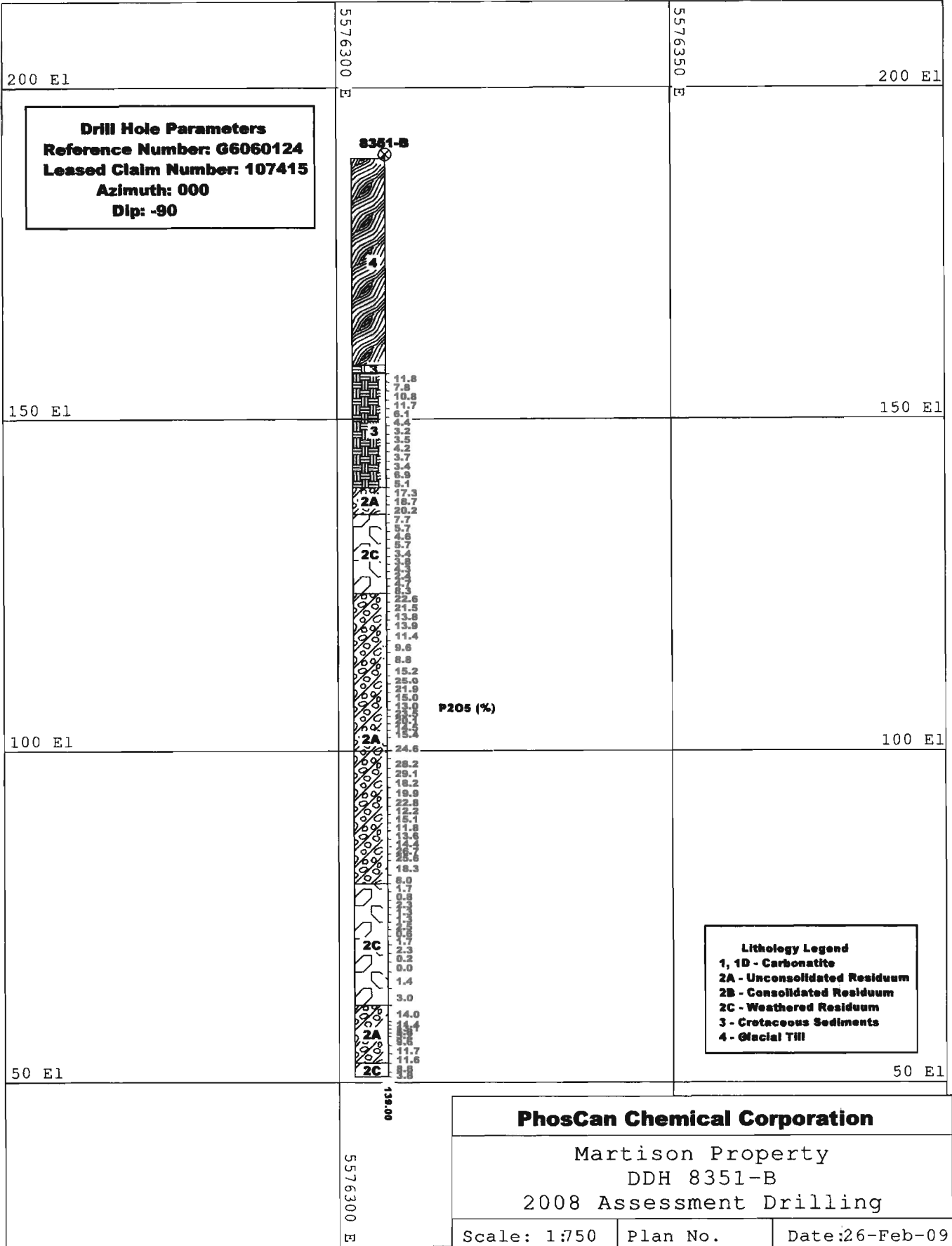
dh\_section\_8350-b\_02



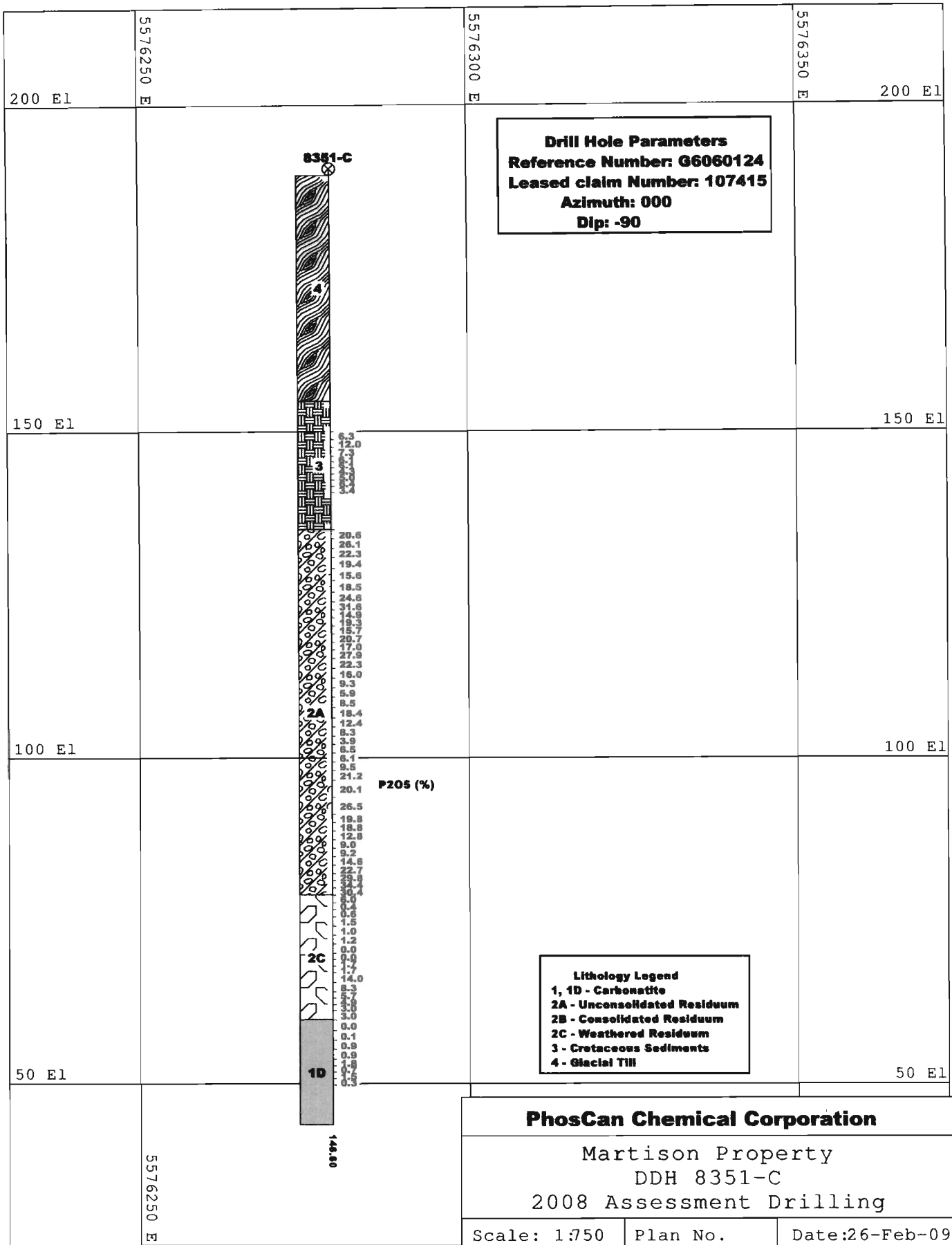


dh\_section\_8350-d

dh\_section\_8351-b\_02

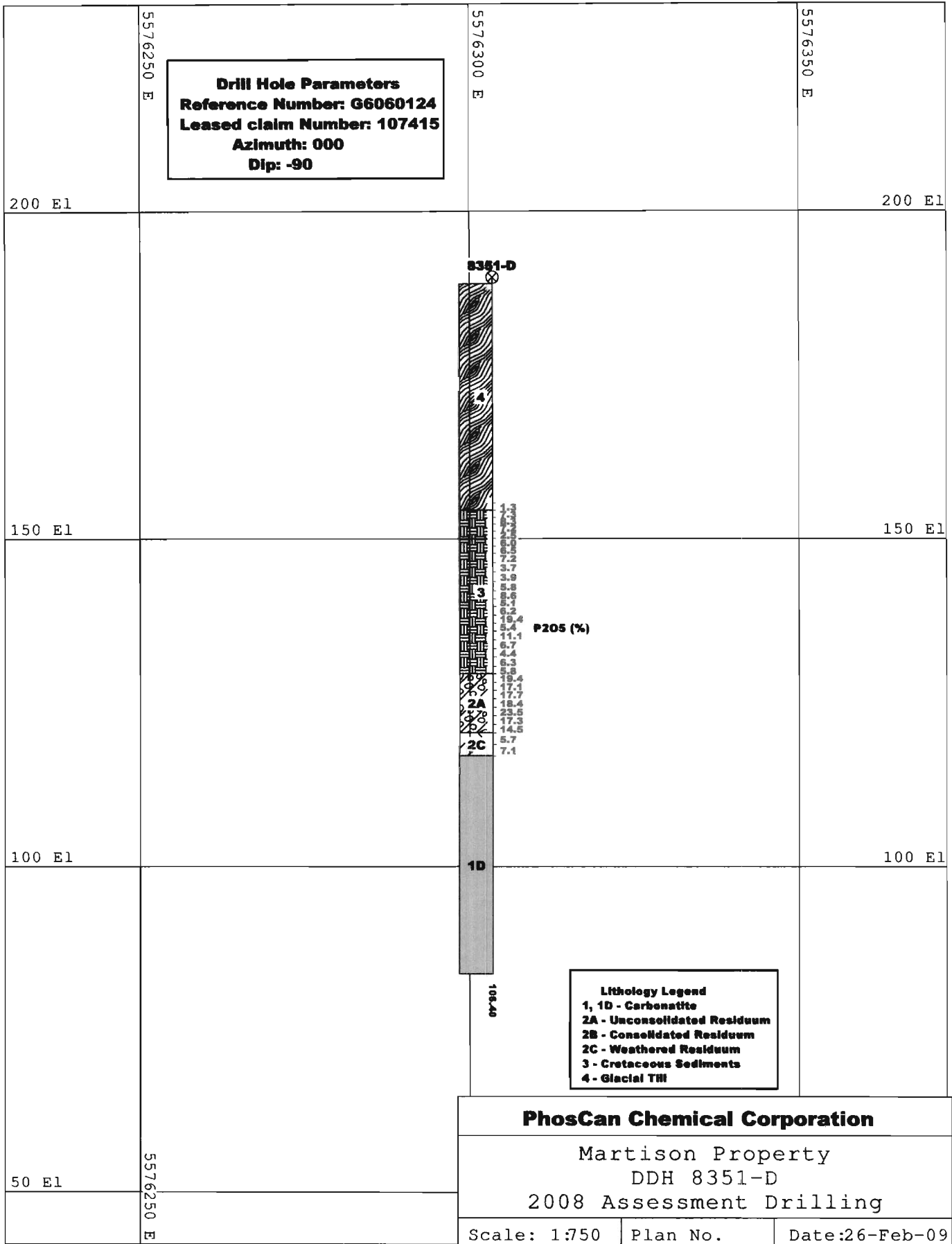


dh\_section\_8351-c\_04





dh\_section\_8351-d



**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

200 El

200 El

150 El

150 El

100 El

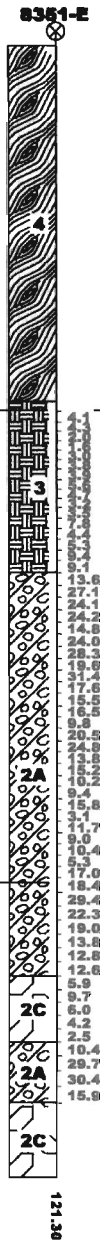
100 El

50 El

5576250 E

5576300 E

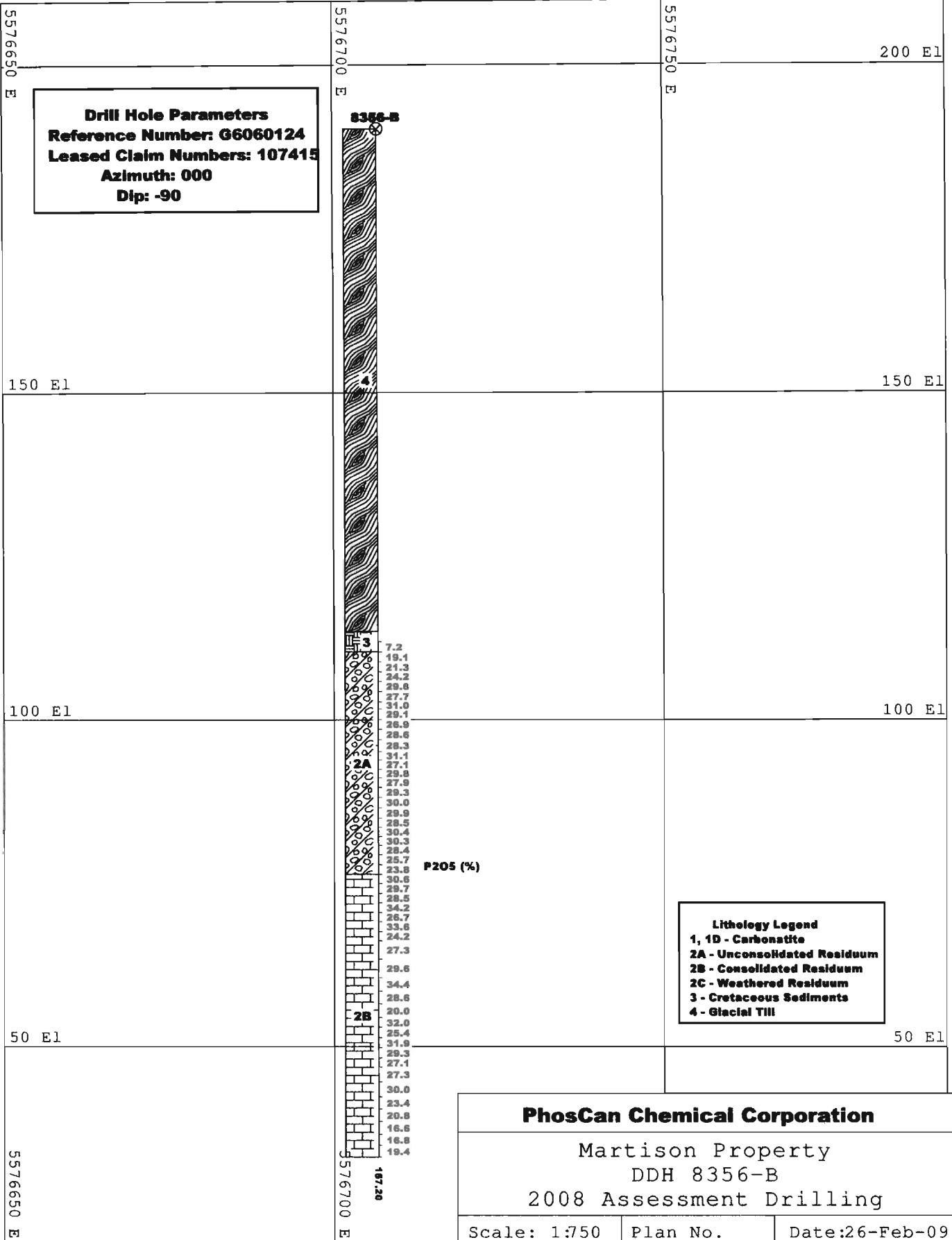
5576250 E



**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residium**  
**2B - Consolidated Residium**  
**2C - Weathered Residium**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**  
 Martison Property  
 DDH 8351-E  
 2008 Assessment Drilling  
 Scale: 1:750 | Plan No. | Date:26-Feb-09

dh\_section\_8351-e

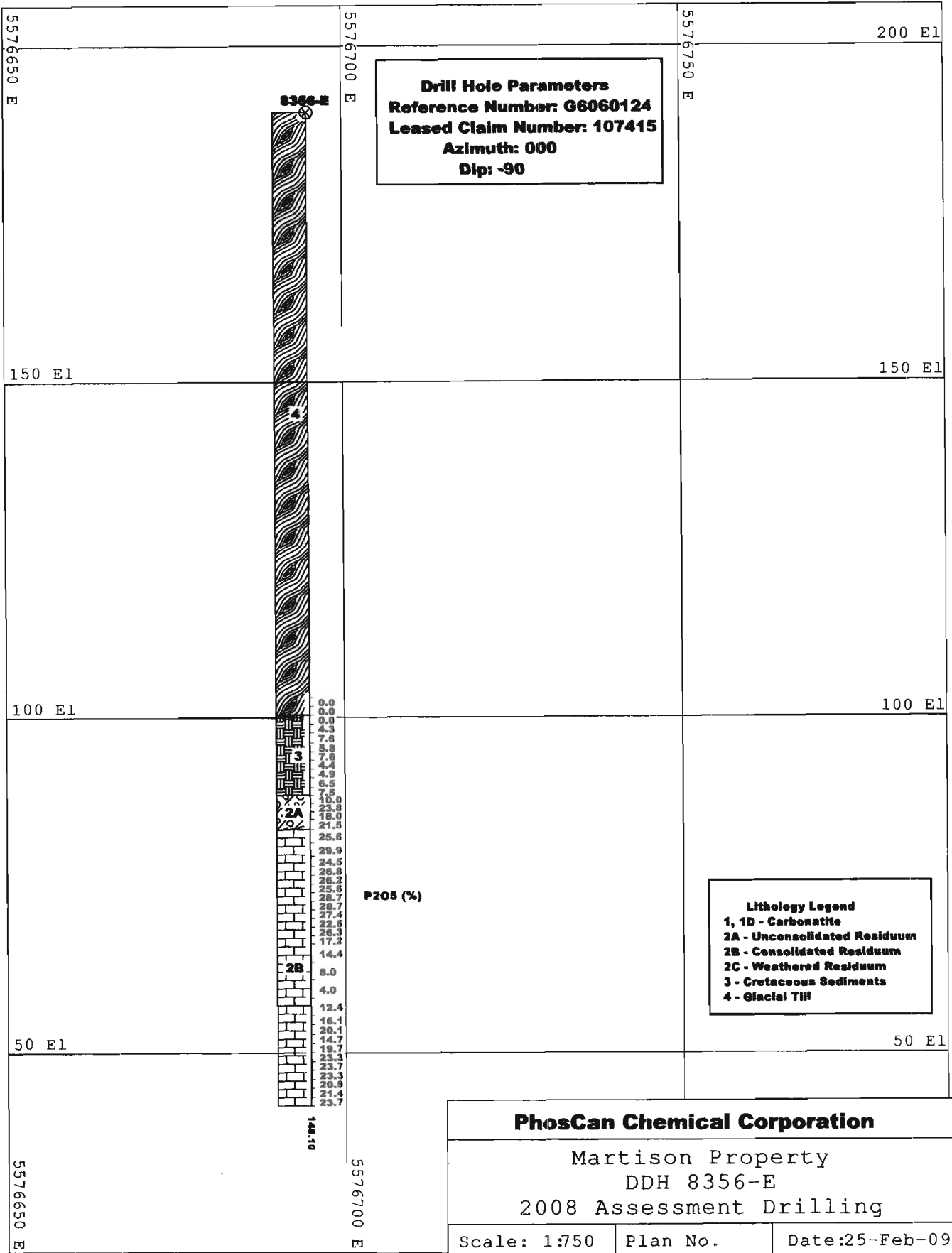


dh\_section\_8356-b\_02

<b>PhosCan Chemical Corporation</b>		
Martison Property DDH 8356-B 2008 Assessment Drilling		
Scale: 1:750	Plan No.	Date: 26-Feb-09



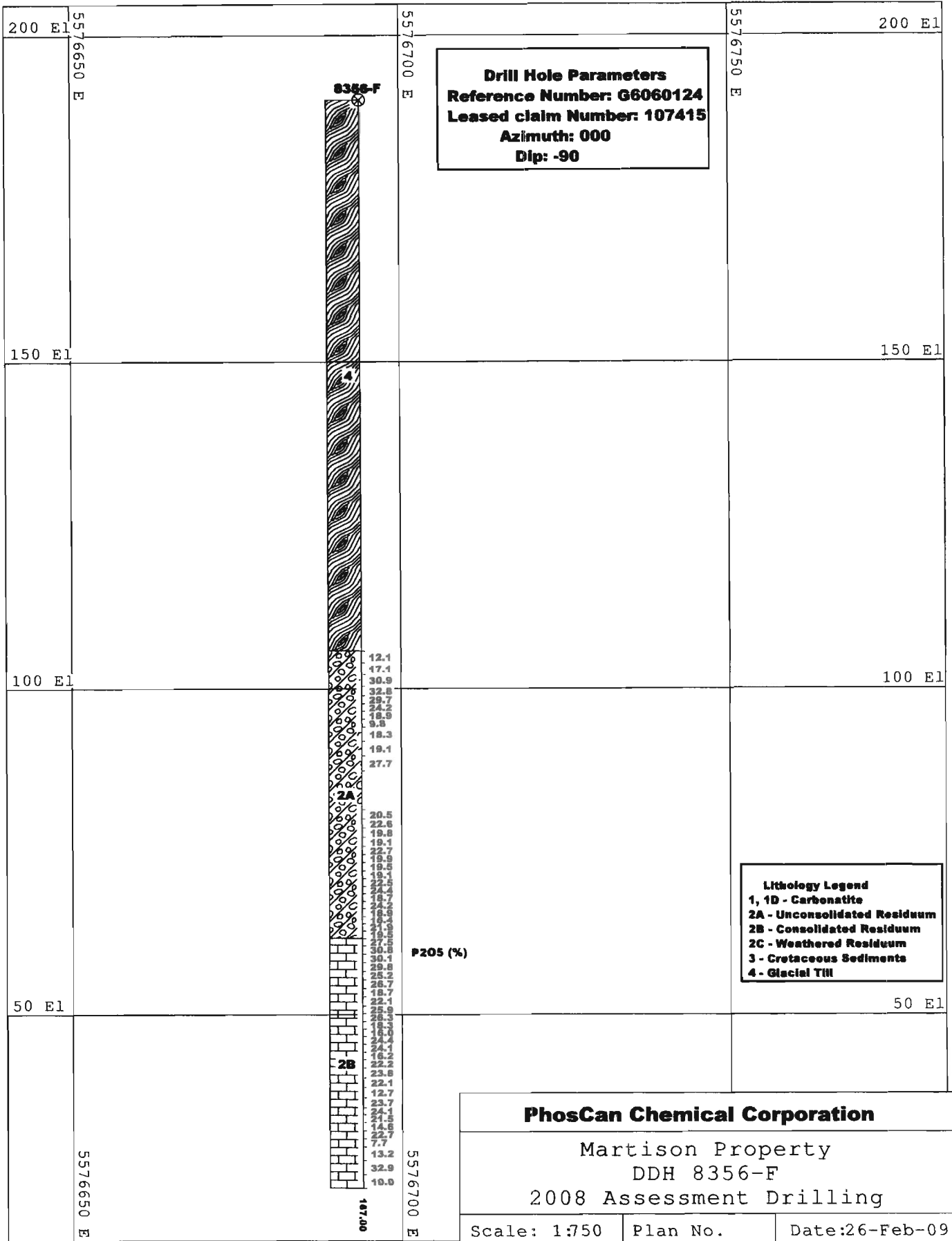




**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased Claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residuum**  
**2B - Consolidated Residuum**  
**2C - Weathered Residuum**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**  
 Martison Property  
 DDH 8356-E  
 2008 Assessment Drilling  
 Scale: 1:750 | Plan No. | Date: 25-Feb-09



dh\_section\_8356-f\_02

5576750 E

5576800 E

**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased Claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

200 E1

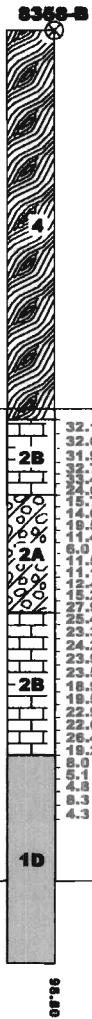
200 E1

150 E1

150 E1

100 E1

100 E1



**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residium**  
**2B - Consolidated Residium**  
**2C - Weathered Residium**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**

Martison Property  
 DDH 8358-B  
 2008 Assessment Drilling

Scale: 1:750	Plan No.	Date:24-Feb-09
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5576750 E

50 E1

dh\_section\_8358-b\_02



8361-B

**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased Claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

5577300 E

5577350 E

150 El

150 El

100 El

100 El

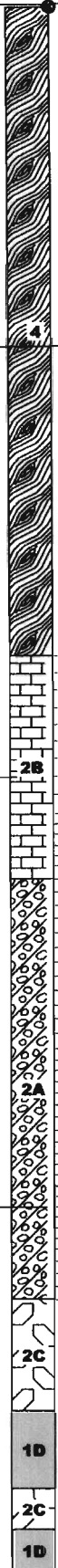
50 El

50 El

0 El

5577300 E

182.00



P205 (%)

**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residuum**  
**2B - Consolidated Residuum**  
**2C - Weathered Residuum**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**

Martison Property  
 DDH 8361-B  
 2008 Assessment Drilling

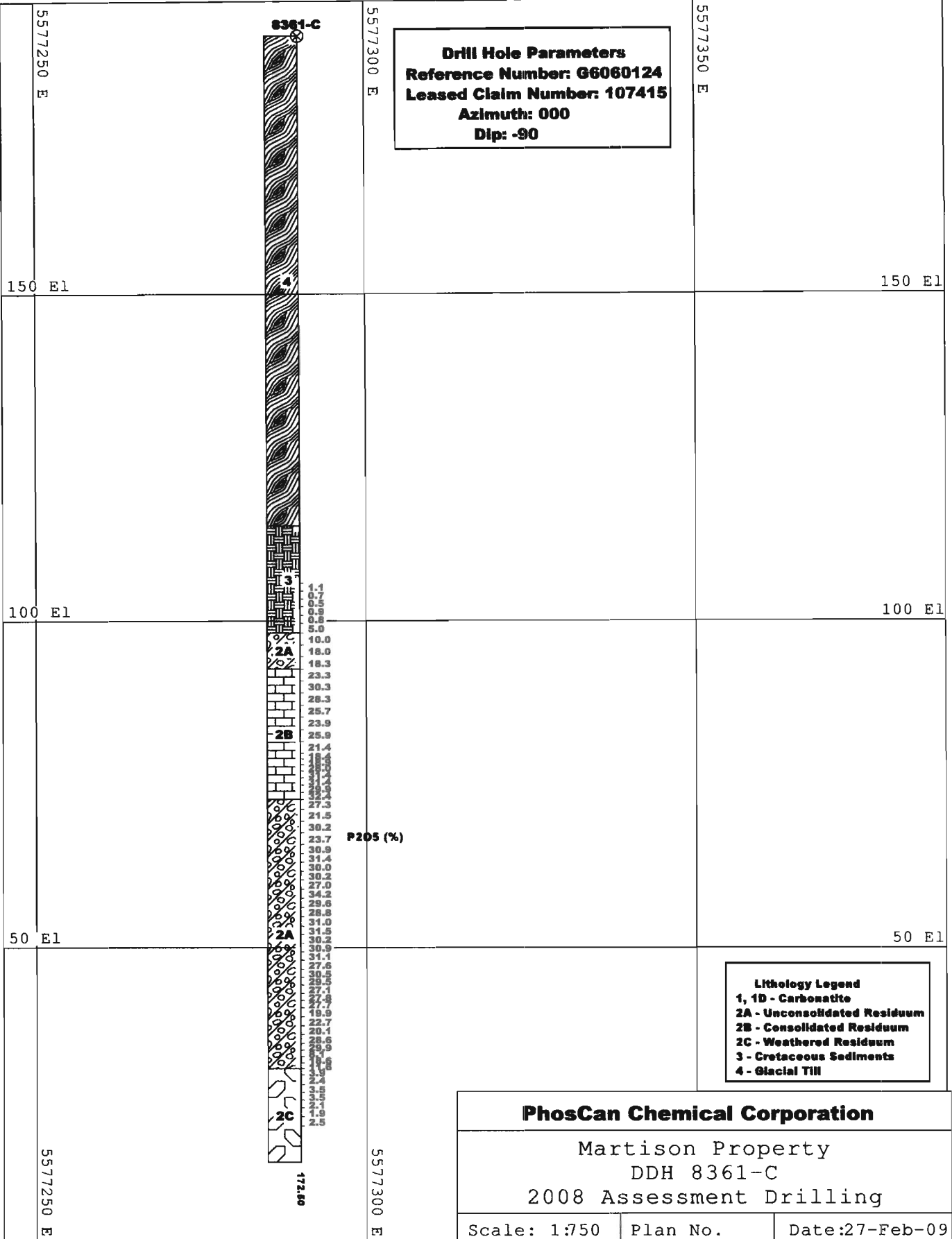
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Plan No.

Date:27-Feb-09

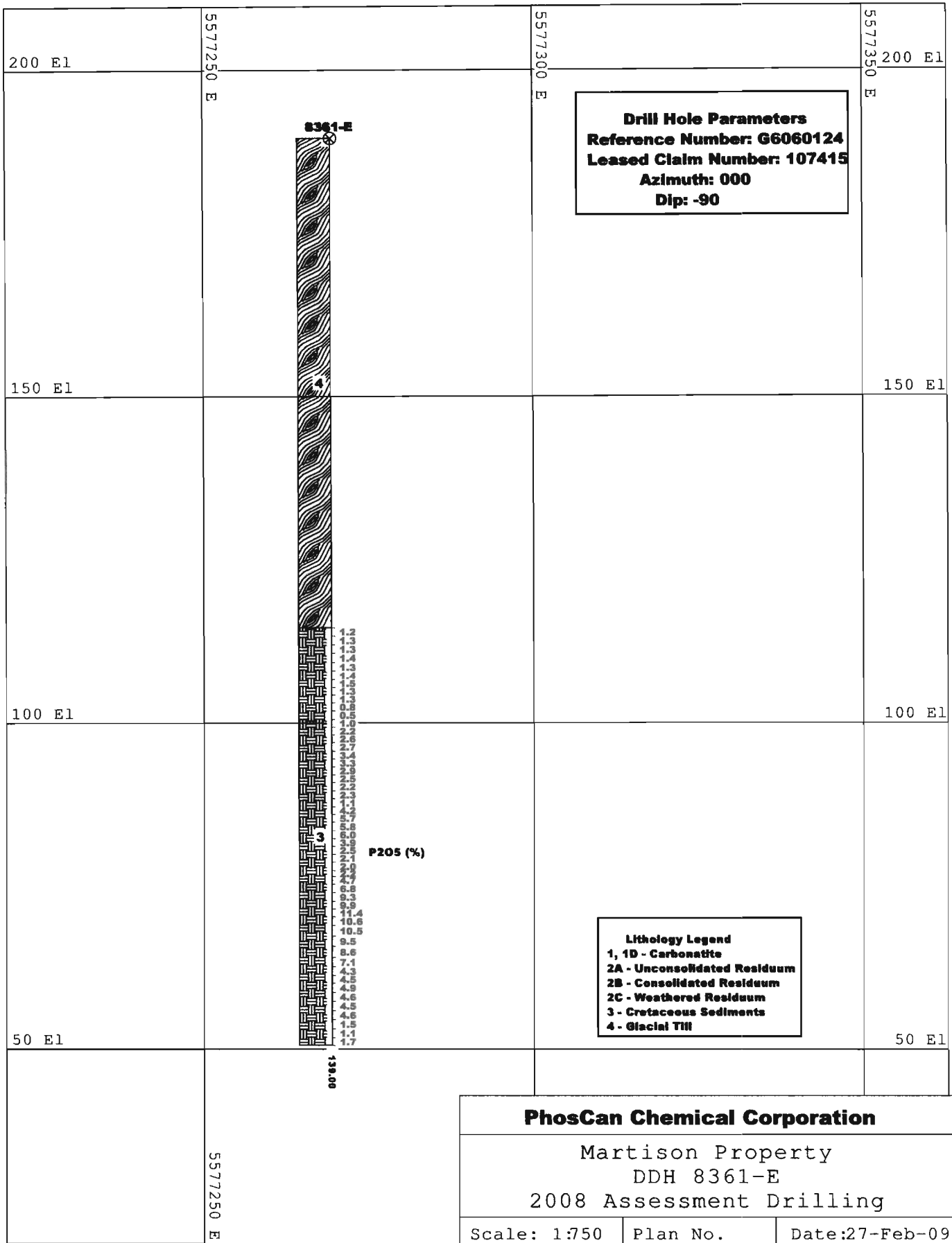
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dh\_section\_8361-c\_01

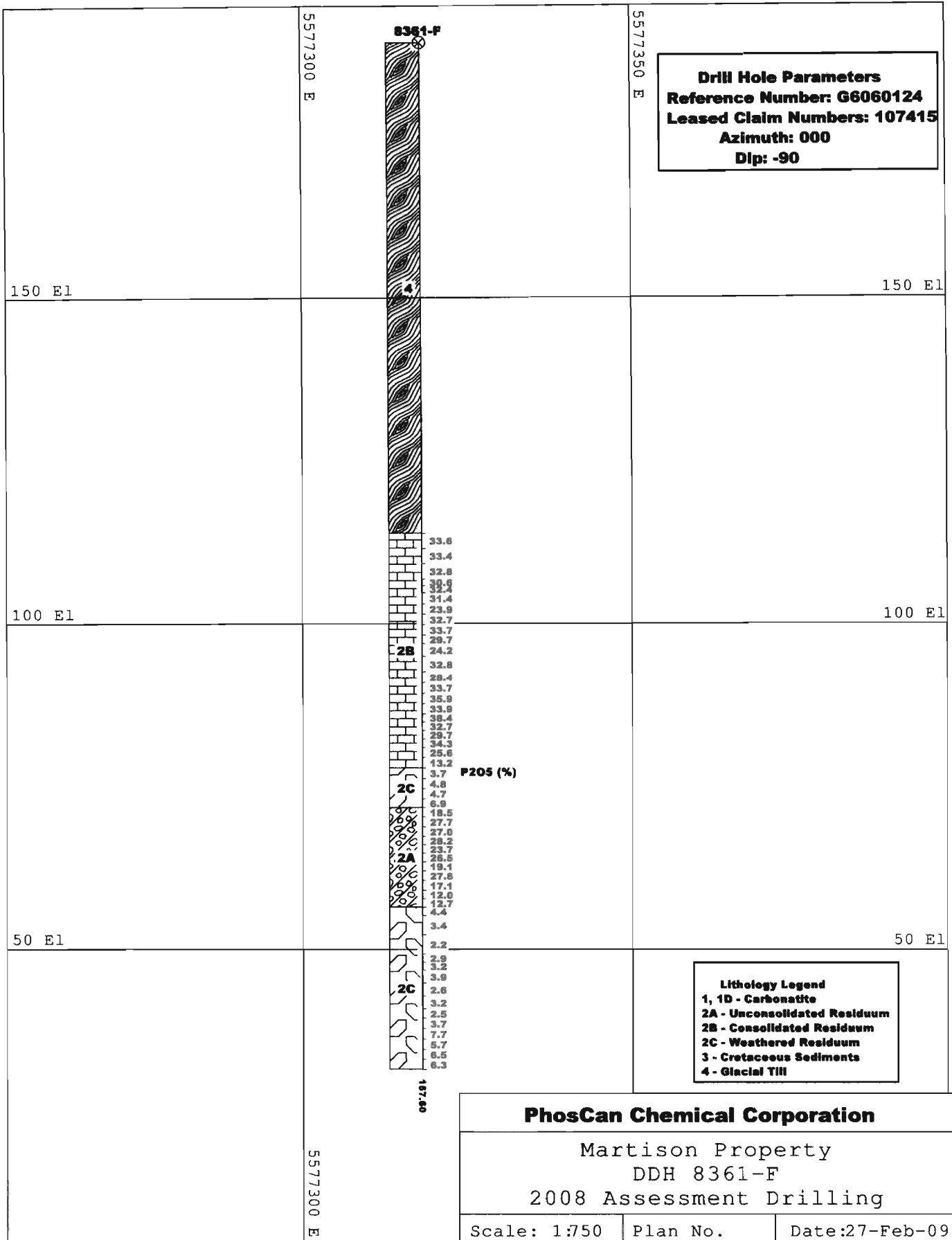




dh\_section\_8361-e\_02



dh\_section\_8361-f\_03



8361-G

5577250 E

5577300 E

5577350 E

**Drill Hole Parameters**  
**Reference Number: G6060124**  
**Leased Claim Number: 107415**  
**Azimuth: 000**  
**Dip: -90**

150 El

150 El

100 El

100 El

50 El

50 El

0 El

5577250 E

182.00



P205 (%)

**Lithology Legend**  
**1, 1D - Carbonatite**  
**2A - Unconsolidated Residuum**  
**2B - Consolidated Residuum**  
**2C - Weathered Residuum**  
**3 - Cretaceous Sediments**  
**4 - Glacial Till**

**PhosCan Chemical Corporation**

Martison Property  
 DDH 8361-G  
 2008 Assessment Drilling

Scale: 1:750    Plan No.    Date: 27-Feb-09

dh\_section\_8361-g\_03