

AVALON VENTURES LTD.

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**ASSESSMENT FILE REPORT**

**Report on a Bulk Sampling and Mineral Processing Test Program for  
Calcium Feldspar in a Specialty Glass Application**

**Warren Township Anorthosite Project  
Foleyet, Ontario**

**NTS 42B02W**

**48<sup>0</sup>7'94" N 82<sup>0</sup>47'20" W**

**Claim Numbers P3003642, P3003643, P3003644  
Claim Map G1228**

**Porcupine Mining District**

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October 5, 2007**



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### Table of Contents

Executive Summary	1	
Introduction	3	
Mineral Tenure	4	
Property Location and Access	4	
Topography and Vegetation	7	
Previous Exploration and Development Work	7	
Geology of the Shawmere Anorthosite Complex	8	
Property Geology	11	
Ore Petrology	12	
Resources	12	
Metallurgy	14	
2007 Bulk Sample Program	17	
Site Preparation/Drilling and Blasting	17	
Crushing/haulage>Loading/Unloading	18	
Crude Ore Sampling	24	
Preliminary Process Development Work	25	
Flow Sheet Development	25	
Target Product Specifications	28	
Magnetic Separation Parameters	28	
Air Classifier Settings	30	
Productivity	30	
Quality Control	31	
Process Operations	31	
Results	33	
Conclusions and Recommendations	38	
References	39	
Certificate	40	
<b>Appendix 1 – SGS Lakefield Assay Results</b>	<b>41</b>	
List of Figures and Photos		
Figure 1	Location Map	6
Figure 2	Regional Geology	9
Figure 3	Areas of High Grade Calcium Feldspar	12
Figure 4	General Geology and Site Plan	13
Photo 1	Prepared Site	18
Photo 2	Covered Pile at Site	18

Photo 3	Recovery of Ore from Stockpile	21
Photo 4	Crushing of Ore	21
Photo 5	Loading of Ore into Rail Car	22
Photo 6	Rail Car Unloading	22
Photo 7	Discharge of Ore from Rail Car	23
Photo 8	Unloading First Load of Ore at Plant	23
Figure 5	Fe Assay vs Particle Size – Raw Ore	25
Figure 6	Process Flow Sheet	26
Figure 7	Magnetic Separator	28
Figure 8	Coning & Piling	29
Figure 9	Correlation Curve: Niton XRF vs SGS Results	30
Figure 10	Niton Unground vs SGS Unground	34
Figure 11	Niton Unground vs SGS Ground	34
Figure 12	Niton Ground vs SGS Ground	35
Figure 13	SGS vs Customer Assay Results	35
Figure 14	% +200 Mesh by Car # & Bag Process Order	36

### **List of Tables**

Table 1	Measured and Indicated Resources	14
Table 2	Expected Whole Rock Chemical Analysis	15
Table 3	Raw Ore Particle Size Analysis	24
Table 4	Whole Rock Head Assays	24

## **Executive Summary**

The Warren Township Anorthosite Project is an advanced stage industrial minerals development opportunity located near the village of Foleyet, 100 km west of Timmins, Ontario. The project consists of three mining claims totaling approximately 720 ha that are 100% owned by Avalon Ventures Ltd. Anorthosite is an unusual mafic igneous intrusive rock consisting of greater than 90% plagioclase feldspar. The three claims cover an area of anorthosite hosting a large resource (in excess of 800,000 tonnes) of a high quality calcium feldspar.

Previous work has demonstrated that the calcium feldspar can be readily extracted and processed by dry milling to produce a high quality raw material for the manufacture of reinforcing glass fibre and other industrial products. The location of the property near both road and rail transportation infrastructure and its proximity to markets in southern Ontario and the central Mid-west (Ohio valley region) and northeastern U.S. offers the potential for development of a low-cost, profitable industrial minerals operation.

The current bulk sampling program was designed to produce an approximately 800 tonne test sample of calcium feldspar for evaluation in a commercial-size reinforcing glass fibre production furnace. Due to delays in processing the bulk sample material and changes in the customer's plant trial schedule, the trial quantity was reduced to 475 tons. The objective of the plant trial is to provide full scale operating data regarding melting rates, energy savings and environmental benefits, materials handling characteristics and other factors prior to a customer decision to enter into a long-term supply agreement with Avalon Ventures Ltd. The plant trial is scheduled to commence October 25 and to last 24 days. Assuming a successful trial, commercial product deliveries are anticipated to begin in late 2008. Avalon Ventures has initiated the planning process for permitting of the quarry operation under the Aggregate Resources Act and for design and construction of the processing plant to be located at Foleyet, Ont. Commercial deliveries of finished product are anticipated to begin in late 2008 at an initial annual production rate of approximately 45,000 tonnes.

## **INTRODUCTION**

The Warren Township Anorthosite Project is an advanced stage industrial minerals development opportunity located near Foleyet, Ontario. The anticipated mineral product is a high purity calcium feldspar with potential applications in glass, ceramics, refractories and specialty fillers.

In 2003, Avalon completed a prefeasibility study based on a similar study conducted in 2000 by Hains Technology Associates (“Hains”) for a private company that previously held title to the claims. The study contemplates developing the property as a producer of a calcium feldspar mineral product, primarily as a raw material for reinforcing glass fibre by Owns Corning Canada Limited at its Guelph, Ontario manufacturing plant. This opportunity was explored in considerable detail in relation to a bulk trial, but ultimately did not proceed. Subsequently, a new potential market for the material in a specialty filler application was identified by Amalgamet Canada (“Amalgamet”), a firm specializing in marketing industrial minerals. Following a positive laboratory evaluation of a small (3 kg) sample of the material prepared in April, 2004 at SGS Lakefield Research Limited (“Lakefield”), a purchase order for a minimum 2 tonne production trial sample of the product was received from the customer through Amalgamet. Avalon filed an assessment work report dated September 30, 2004 on this trial.

In early 2006, Avalon received expressions of interest in its Warren Township property from a major U.S. manufacturer of reinforcing glass fibre. Technical personnel visited the property in April, 2006 and after preliminary test work of sample material, requested Avalon prepare a large bulk sample sufficient for a full scale production plant trial.

This report documents the work done and the results obtained to date from the bulk sampling program initiated in December, 2006 to produce the trial sample requested by the customer. Initial crushing of the anorthosite was conducted at the project site using a portable road crusher. Raw crushed ore was trucked to Chapleau, Ontario for rail transport to the process plant in Alberta. The process work was carried out at Aerosion Ltd. in Alderysde, Alberta. This facility is a toll processor of zeolites and cement

additives and was the only facility identified in Canada that had the capability of processing the anorthosite using a process reasonably approximating the planned production process for the full scale plant to be constructed at Foleyet. Avalon installed a rare earth roll magnetic separator at Aerosion for dry magnetic separation to remove iron-bearing amphiboles and pyroxenes from the anorthosite. The final product, which was ground to -200 mesh (74 microns) was shipped to the customer by rail in pressure differential rail cars. Quality control of the magnetic separation process was conducted by Avalon staff using a portable Niton X-ray fluorescence (XRF) analyzer. Representative composite samples of semi-finished and finished ground product were assayed by SGS Lakefield using XRF techniques. A good correlation between the Niton XRF result sand the Lakefield XRF results was obtained.

The full scale trial at the customer's premises is scheduled to take place starting October 25 and to run for 24 days. Assuming a successful result, Avalon anticipates it will enter into a long term supply contract with the customer to supply approximately 45,000 tonnes per year of fully beneficiated and ground anorthosite, with commercial deliveries beginning in late 2008.

## **MINERAL TENURE**

The Warren Township Anorthosite Project consists of three mining claim blocks of 15 units each recorded as Claim Nos. P3003642, P3003643 and P3003644 on Claim Map G1228 of the Porcupine Mining District of the Ontario Ministry of Northern Development and Mines. Full title to these claims is recorded to Avalon Ventures Ltd. The claims cover a total of approximately 720 ha are renewable by October 24, 2007. The principal area of interest for potential future development is located on Claim No. P3003643.

## **PROPERTY LOCATION AND ACCESS**

The property is located near Foleyet, Ontario in the southwest portion of the unsurveyed of Warren, Porcupine Mining District. The centre of the property is more particularly located at NTS 42B02W, Latitude  $48^{\circ} 7' 94''$ N and Longitude  $82^{\circ} 47' 20''$ W (Figure 1).

The centre of the property is located at approximately kilometre 13 on the Carty-Warren Road, an all-weather logging road maintained by Domtar Inc. The road crosses the central part of the property, providing excellent access for exploration and development work. There is no other industrial development activity within the logging concession held by Domtar, and the nearest community infrastructure is at least 20 km from the property. Access to the Carty-Warren Road is from Highway 101 at a point approximately 20 km southwest of Foleyet, Ont. Timmins is located 100 km east of this point and Chapleau is located 67 km west.

Foleyet is a small community of approximately 300 persons. Foleyet is a major maintenance point on the CN Rail main line and is the site of loading operations for the Luzenac Talc operation and several logging companies. Rail siding facilities and land are available at the Foleyet rail yard for construction of a process plant and load out facility. A construction contracting firm (C D'Amours Contracting Ltd.) maintains a large camp and maintenance facility on Highway 101 at Foleyet.

The village has an elementary school, post office, OPP station, general store and service station, and restaurant. Most local residents are employed by CN Rail at the Foleyet yard, in logging operations, or by Luzenac Talc. The adjacent area includes several tourist lodge operations and Ivanhoe Lake Provincial Park.

The nearest aboriginal communities are on the Brunswick House, Chapleau Cree and Chapleau Ojibway First Nations located approximately 60 km east of the property near Chapleau. Contact with these First Nations by Avalon indicates that the project would not significantly impact on any of their traditional land use activities. The First Nations are potential providers of services and labour to the project.

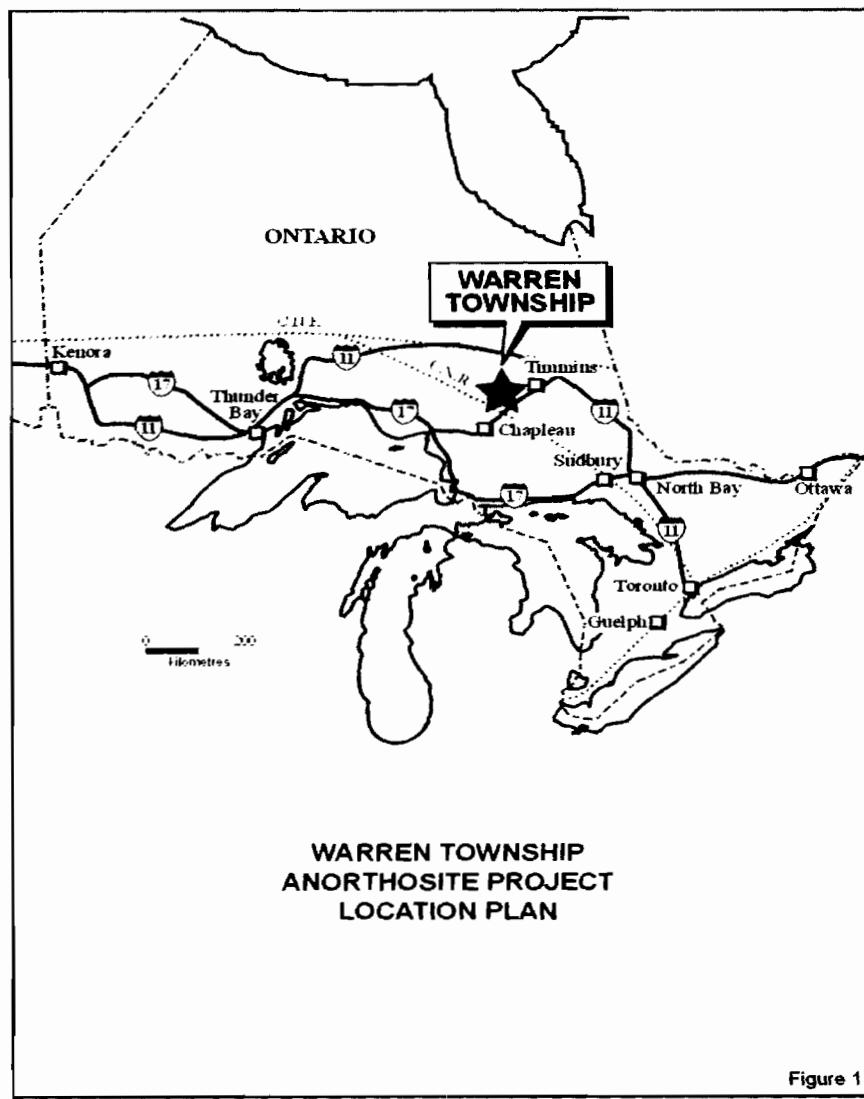


Figure 1

## **TOPOGRAPHY AND VEGETATION**

The project site is typical of much of northeastern Ontario and the Canadian Shield. The property is relatively flat, with the anorthosite outcrops on the property forming local topographic highs. The average elevation on the property is approximately 390 metres asl. Local topographic relief is in the order of 20 – 30 metres. Within the claim boundary, outcrop exposure is approximately 40%, with the area of immediate mining potential (Area B) being approximately 80% exposed. The Carty-Warren road overlies the centre of the deposit area known as Area A from Km 14 to Km 15. Thin glacial deposits and soils, with some swampy areas, cover the remainder of the property.

## **PREVIOUS EXPLORATION AND DEVELOPMENT WORK**

There is no record of any mineral development work other than government-sponsored surveys on the warren Township property prior to the staking of the original claims by Purechem Limited in 1993. In 1994, Purechem conducted an exploration program consisting of 33 km of grid lines, surface mapping and sampling; approximately 350 m of trenching and 150 m of percussion drilling; XRF and ICP chemical analysis of over 300 samples; and extraction of a 15 tonne bulk sample from two locations. This work was followed by preparation of ore reserve estimates and development of a preliminary quarry operation plan. In total approximately \$100,000 was spent on geological exploration and development in 1994. An additional \$100,000 was spent in 1995 on the completion of a feasibility study for the production of aluminum chemicals from the calcium feldspars, which, unlike other feldspars, are acid-soluble. Although the study was positive the concept was subsequently abandoned after a development partner abruptly withdrew from the project.

In 2000 – 2001, Purechem re-evaluated the project as a potential supplier of calcium feldspar to Owens Corning Canada as a raw material for reinforcing glass fibre production at its Guelph, Ontario facility. Approximately \$20,000 was spent on laboratory test work at Lakefield research Ltd. and on a pre-feasibility study prepared by Hains Technology Associates. Approximately 500 tonnes of ore from Site B was blasted in preparation for processing for delivery of a 320 tonne bulk product sample to Owens Corning. The processing was not carried out due to lack of financing.

In 2002 the claims were re-staked by Avalon Ventures Ltd. The re-staking involved three 15 unit claim blocks, resulting in a somewhat different property configuration than the original Purechem claims, but covering substantially the same mineralized area. Avalon

conducted a small bulk sampling program in 2004 for the production of a specialty mineral filler product. This sampling program used previously blasted material from the proposed 2001 bulk sample. Sample processing was conducted at Polymet Resources in Cobalt (primary crushing), with final processing and analysis being undertaken at Lakefield Research Ltd. During this same period, Avalon continued discussions with Owens Corning for the production of a large bulk sample, but was unable to reach final agreement.

Previous government sponsored geological investigations of the claims and the immediate area consisted of regional geological mapping and 1:100,000 scale mapping of the Shawmere Anorthosite Complex, (Thurston et al, 1977; Percival, 1981; Dolan, 1991) and an evaluation of the high-calcium/aluminum plagioclase feldspar as a source of aluminum chemicals and other industrial mineral products (Veldhuyzen, 1995).

### **GEOLOGY OF THE SHAWMERE ANORTHOSITE COMPLEX**

Anorthosites are mafic igneous intrusive rocks containing greater than 90% plagioclase feldspar, 5-10% ferro-magnesian minerals, accessory iron or titanium oxide minerals and garnet, but little or no quartz. Plagioclase feldspar is a solid solution between two end member compositions, albite (sodic, low alumina,  $\text{NaAlSi}_3\text{O}_8$ ) and anorthite (calcic, high alumina,  $\text{CaAl}_2\text{Si}_2\text{O}_8$ ). Calcic anorthosites are geological rarities, being restricted to the oldest Precambrian rocks. The Shawmere Complex is one of only two such occurrences presently known in the Precambrian Shield of Ontario: the other being the Bad Vermillion complex located near Fort Frances, Ontario. The Shawmere Anorthosite Complex covers an area of approximately 800 square kilometres, centered 15 km west of the village of Foleyet (Figure 2).

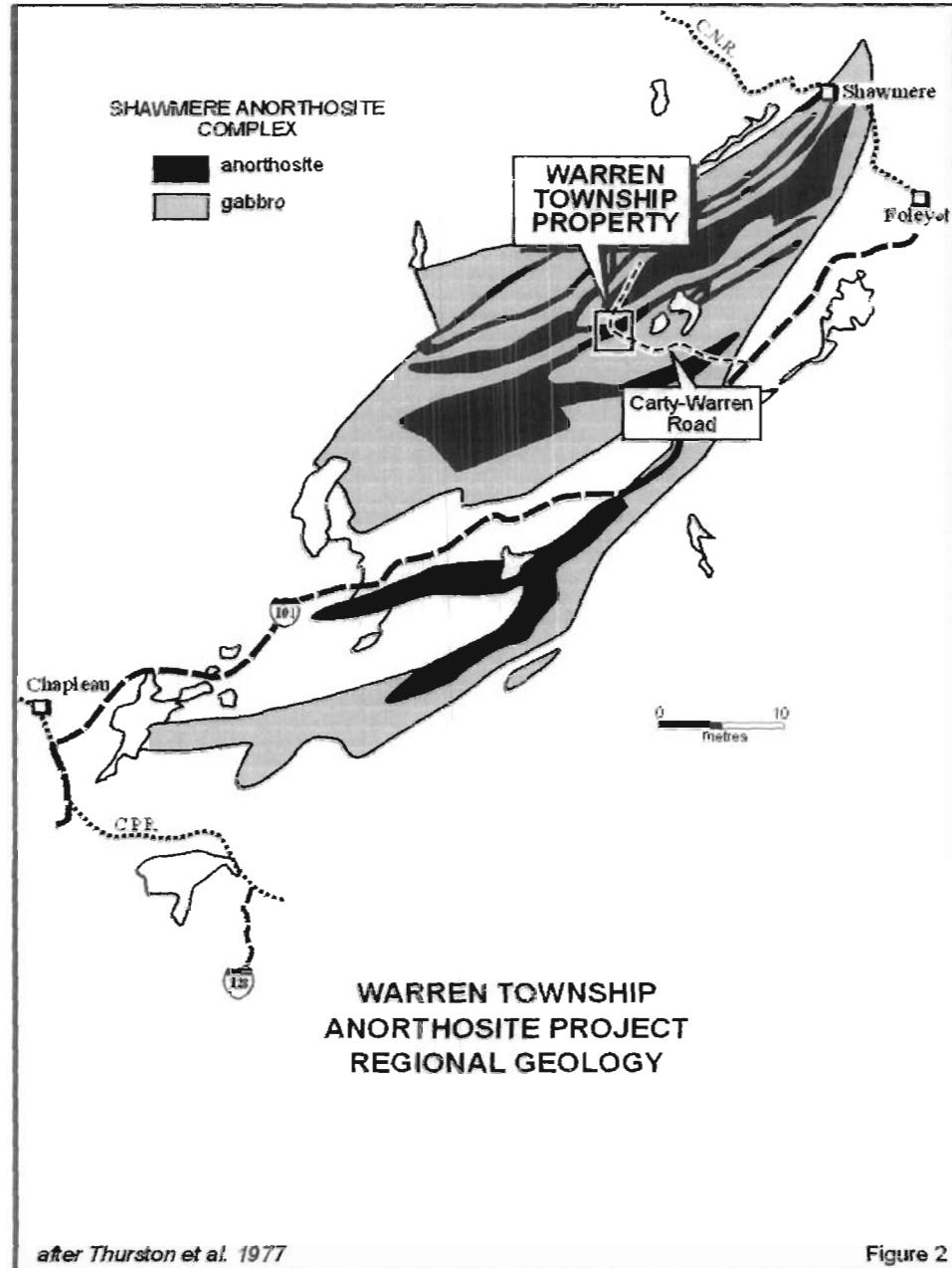


Figure 2

The intrusion is of economic interest due to its unique chemical composition, especially the ratio of Al:Si:Ca, in the plagioclase, and its unusually consistent composition within individual layers. In addition, the intrusion is highly accessible, being located within a few kilometres of major road and rail transportation routes, and is not excessively remote from potential industrial minerals markets.

The geology of the Shawmere Complex is described by Dolan (1991) as follows:

*The Shawmere Complex is of Archean age and is situated at the southern end of the Kapuskasing Structural Zone, in the Superior Province. The complex trends northeasterly, with a length of 84 km and a maximum width of 24 km. Strong regional metamorphism and deformation are imprinted on the surrounding rocks. The complex exhibits wide compositional variability. There is an anorthosite core which contains leuco to mela-gabbroic zones. Gabbro and troctolite are concentrated to the north and south of the core units and garnetiferous amphibolite occurs around the margins (Riccio, 1979). It is the anorthositic core that represents the highest  $Al_2O_3$  and alkali potential.*

*Anorthosite occurs in layers, often gradational to gabbro. Thicknesses of actual anorthosite units are estimated at 300 m and comprise approximately 50% of the complex (Thurston et al, 1977). Lithological layering is often accompanied by textural variations. The plagioclase textures in the anorthosite range from recrystallized granoblastic (1 to 5 cm diameter), to cataclastic, to relict megacrystic (i.e. crystals up to 8 to 13 cm by 45 cm) (Thurston et al, 1977). Plagioclase compositions are bytownite to labradorite, An60-85 (Thurston et al, 1977). Garnet, pyroxene and amphibole coronas occur around the plagioclase (Thurston et al, 1977). Matrix material varies in texture, composition and proportion (5 to 50%). Plagioclase, hornblende, cummingtonite, anthophyllite, hypersthene, augite, and garnet with accessory sphene, rutile and epidote occur as fine-grained interstitial material and as coarse patches (Thurston et al, 1977). Less common accessory minerals include sapphirine and Al-spinel (Phinney et al, 1988). Primary olivine, orthopyroxene and clinopyroxene occur in the least deformed parts of the complex (Phinney et al, 1988). Minor crosscutting shears are composed of scapolite, epidote (clinozoisite), carbonate, quartz and minor hematite along with crushed feldspar (Thurston et al, 1977). Other crosscutting features include semiconcordant sheets of quartzofeldspathic gneisses (Thurston*

*et al., 1977), quartz-hornblende pegmatites and olivine diabase dikes (Riccio, 1979).*

## **PROPERTY GEOLOGY**

In September, 1994, Veldhuyzen (Veldhuyzen, 1994) carried out a detailed geological mapping program on the Purechem claim. Resource estimates and a preliminary plan and costs for development of the quarry were prepared by Mr. Peter A. Bevan, P. Eng., mining geologist. Veldhuyzen identified four areas (A,B,C, and D) of massive anorthosite on the property as having the purity and extent to be considered for development. Generally, these fall within two northeast-striking 60 – 90 m thick layers within a 1200 m wide band of anorthositic rocks ranging from gabbroic anorthosite (80 – 90% plagioclase) to high purity anorthosite (>95% pure) (Figure 3). The layering dips to the northwest at a moderate to steep angle. Minor folds are observed in the anorthositic gabbro layers and small-scale faults appear to cause occasional minor offsets in the anorthositic layers. These are often recognized as thin clinzoisite or scapolite-filled seams. The rock is generally massive with a few widely-spaced joints.

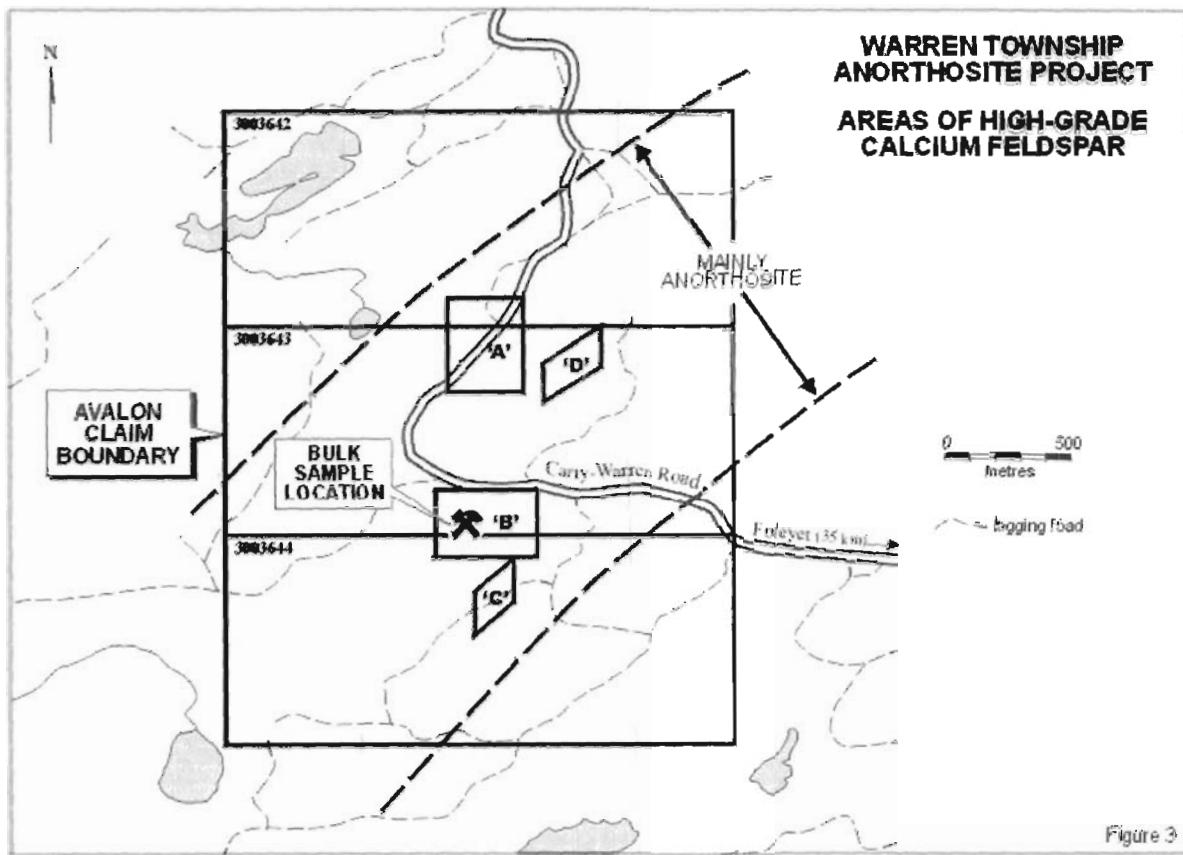


Figure 3

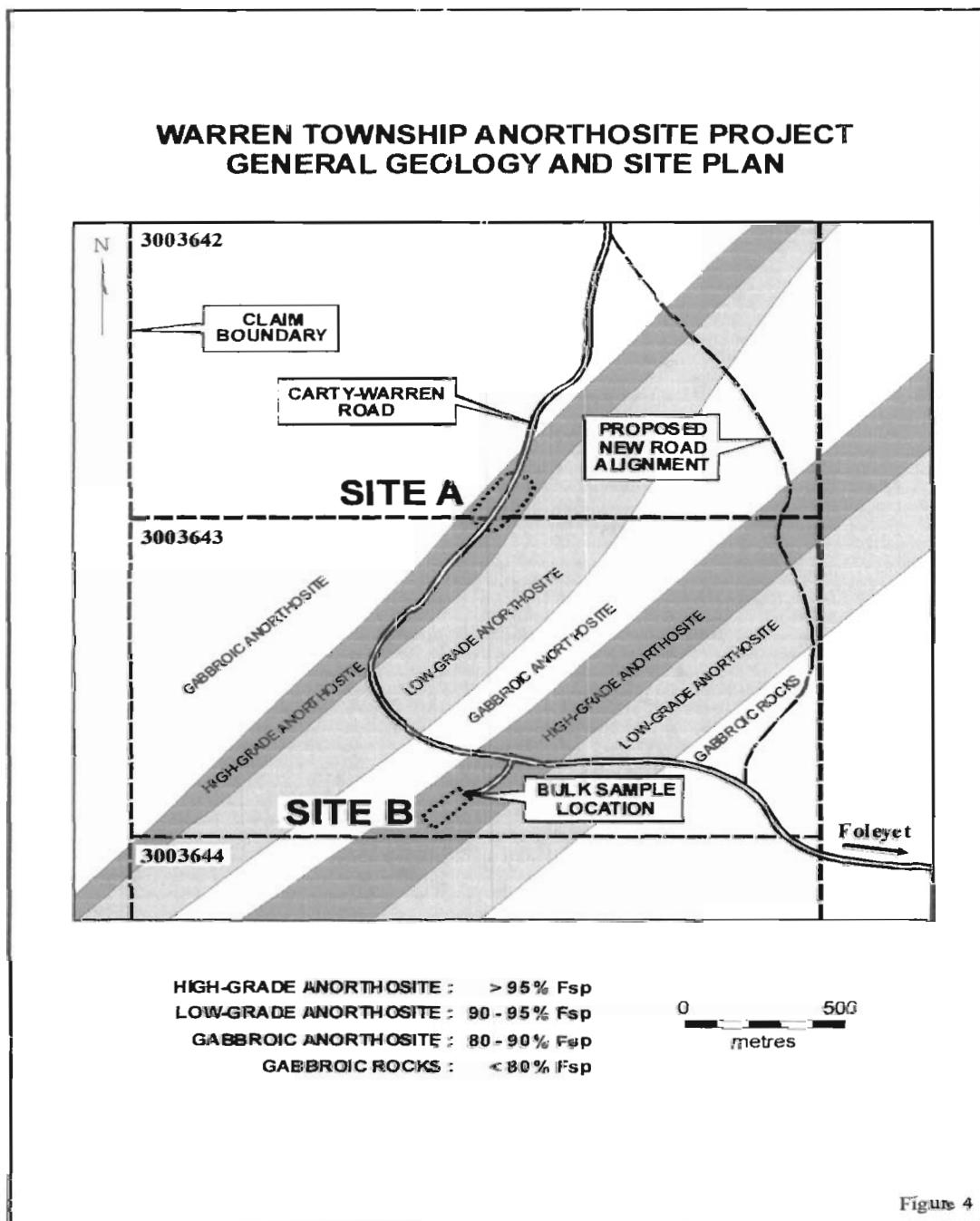
## ORE PETROLOGY

Petrographic analysis of the high-purity anorthosite from Sites 'A' and 'B' by Lakefield Research determined that it consists of 95% - 98% plagioclase as bytownite.(An<sub>75-80</sub>) The grain size ranges from 0.5 to 3 mm. The major contaminant minerals are amphibole (hornblende) as disseminated interstitial grains of approximately 1 mm, pyroxene (augite) as interstitial grains up to 800 microns, and Fe oxyhydroxides associated with the interstitial amphibole. The hornblende and pyroxene are also present in very minor amounts as delicate acicular inclusions in the plagioclase. Rutile is present as a minor accessory mineral. Overall, the massive anorthosite is described as very clean material with few deleterious mineral constituents.

## RESOURCES

Peter A. Bevan, P. Eng, prepared resource estimates for Purechem in 1994. Area A contains Measured Resources of 380,440 tonnes of anorthosite based on a single bench of 10 metre height, pit length of 273 metres and pit width of 63 metres and an allowance for 20% dilution. An additional 280,725 tonnes of Indicated Resources are estimated to be

available if a second 10 metre bench was constructed, again with a 20% dilution factor. Total resources for Area A are therefore 661,665 tonnes. Area A lies adjacent and under the Carty-Warren Main Haul Road and is therefore not accessible for large-scale sampling and production until a bypass is constructed. Domtar has indicated it will be reconstructing the road within the next five years. The reconstruction will result in a bypass of Area A, rendering it open for development.



Resource estimates for Area B were prepared assuming a single bench of 10 metre height, pit length of 133 metres and pit width of 24 metres. Measured Resources are 125,768 tonnes allowing for 10% dilution. An additional 71,071 tonnes of anorthosite are classified as Indicated Resources if a second 10 metre bench was constructed. Total estimated resources for Area B are therefore 196,840 tonnes. (Figure 4).

In summary, measured and indicated resources are detailed in Table 1:

**Table 1**  
**Measured and Indicated Resources**  
(tonnes)

<b><u>Area</u></b>	<b><u>Measured</u></b>	<b><u>Indicated</u></b>	<b><u>Total</u></b>
Area A	380,440	280,725	661,665
Area B	125,768	71,071	196,840
<b>Total</b>	<b>506,208</b>	<b>351,796</b>	<b>858,505</b>

## METALLURGY

In February, 2000, Watts, Griffis & McQuat (WGM) conducted a geostatistical analysis of the results of the percussion drill program for Area B. WGM reported that the best representation of the anticipated chemical analysis of the rock is the mean value of each compound. Furthermore, as the size of the mining unit increases, the coefficient of variation decreases to approach the mean. Overall, WGM concluded that the best approximation of the expected chemical analysis of the rock from Area B is as detailed in Table 2:

**Table 2**  
**Expected Whole Rock Chemical Analysis**  
**Area B**  
**(10,000 tonne mining unit)**

Statistics	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	MnO	P <sub>2</sub> O <sub>5</sub>
Number of Samples	11	11	11	11	11	11	11	11	11	11
Max. Sample Value	49.50	31.94	1.52	14.79	0.95	2.52	0.04	0.08	0.020	0.11
Min. Sample Value	47.70	30.23	0.81	15.69	0.27	2.33	0.13	0.04	0.010	0.08
Sample Mean	48.69	30.98	1.11	15.26	0.48	2.43	0.07	0.05	0.014	0.10
Sample Log Mean	3.89	3.43	0.08	2.73	n/a	0.89	n/a	n/a	n/a	n/a
Std. Deviation	0.50	0.52	0.23	0.27	0.26	0.06	0.03	0.01	0.003	0.01
Variance	0.32	0.27	0.05	0.07	0.07	0.00	0.00	0.00	0.000	0.00
Log Variance	0.00	0.00	0.03	0.00	0.22	0.00	0.14	0.05	0.048	0.00
Coefficient of Variance	0.01	0.02	0.21	0.02	0.53	0.02	0.38	0.23	0.229	0.09

Tests on the crushing, magnetic separation and grinding characteristics of the anorthosite were completed for Purechem at Lakefield Research Ltd. and several equipment vendors. Nordberg Inc. conducted a ball mill grindability test (Bond Work Index test) on the material for a feed material initially crushed to a nominal 20/30 mesh (55.3% >30 mesh, 100% passing 6 mesh) and ground to 100% passing 200 mesh. The reported Bond Work Index value is 21.59 kWh/s. ton.

In 2001, Lakefield Research conducted chemical analysis and beneficiation test work on samples of rock from Area B. Chemical analysis (XRF) of the samples from the northeast B block reported the following values:

#### Whole Rock Chemical Analysis (XRF), wt%

SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	CaO	MnO	LOI	Sum
47.0	32.5	1.05	0.27	2.36	0.05	0.05	16.3	<0.01	0.53	100.1

The anorthosite was ground to -65 mesh and screened to remove the -200 mesh fraction. Magnetic separation using an Inprosys induced roll magnetic separator at 5000 gauss (ferromagnetic fraction) and 14,000 gauss (paramagnetic fraction) resulted in losses of 28.8wt%. The non-magnetic fraction was then ground to -270 mesh in a pebble mill with ceramic liners

and and flint media. After magnetic separation and final grinding, the anorthosite had the following chemical and sieve analysis:

**Chemical Analysis (XRF), wt%**

**-270 mesh non-mag fraction**

<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>MgO</b>	<b>Na<sub>2</sub>O</b>	<b>K<sub>2</sub>O</b>	<b>TiO<sub>2</sub></b>	<b>CaO</b>	<b>MnO</b>	<b>LOI</b>	<b>Sum</b>
47.9	33.1	0.32	<0.05	2.12	0.03	<0.01	16.1	<0.01	0.3	100.1

**Sieve Analysis**

**-270 mesh non-magnetic product**

<b>Mesh Size</b>	<b>wt% Passing</b>	<b>wt% Retained</b>
100	0.0	0.0
150	0.0	0.0
200	99.9%	0.1%
270	99.0%	0.9%
400	80.1%	18.9%
Pan	0.0%	80.1%

Magnetic separation tests on a nominal 20/30 mesh feed material were conducted by INPROSYS, Carpco and Eriez. INPROSYS conducted a fractionation test on the material using various magnetic field strengths, belt speeds and belt thicknesses. The maximum removal rate was approximately 40% with a Fe<sub>2</sub>O<sub>3</sub> content of 0.32wt%.

Subsequent test work at Lakefield Research Ltd. in 2001 involved jaw crushing and rolls crushing of the anorthosite to a nominal 30 mesh product, dry screening to remove the -200 mesh residue, and magnetic separation of the +200 mesh product. The results of this work showed the following:

Initial sample size:	<u>26.000</u> kg
-200 mesh fines:	4.208 kg
Losses on magnetic separation:	<u>1.697</u> kg
Final product weight:	20.095 kg
Product Recovery wt%:	77.29%

The magnetically separated product had an Fe<sub>2</sub>O<sub>3</sub> content of 0.48 wt%.

## **2007 BULK SAMPLING PROGRAM**

Following detailed review and analysis of samples submitted in 2006, Avalon Ventures received an order in October, 2007 for a large scale bulk sample of processed anorthosite from a major U.S.-based specialty manufacturer for up to 1,000 tonnes of anorthosite. The purpose of the bulk sample is to conduct a full scale production trial of the anorthosite as a replacement for one of the main ingredients in the batch design. Anticipated benefits of using anorthosite include reduced energy costs (anticipated 16% energy reduction), reduced dust emissions, better refractory life, and reduced CO<sub>2</sub> emissions. Upon receiving the order, Avalon initiated steps to undertake the bulk sample program, including site preparation. Permission to bulk sample was received January 5, 2007.

### **Site Preparation/Drilling and Blasting**

Site B, the location of a large outcrop and the site of previous bulk sampling activity, was selected as the location for the bulk sample (UTM coordinates 17U 366672 E, 5332383 N, NAD 83 datum). Larchex Exploration of Timmins was contracted to undertake site preparation and to drill and blast a suitable area. Site preparation included high pressure air blasting to remove residual soil from the outcrop and expose a wider area in order to ensure minimal organic contamination of blasted rock. A lay down pad for blasted material was cleared and an area of the outcrop drilled for blasting using a 1.5 m x 1.5 m pattern. Sufficient area was drilled to ensure that freshly blasted material would be available to provide a base for the blast pile, as well as rock for the bulk sample. Blast material was recovered by excavator and piled under protective tarp for later retrieval and crushing. Extreme care was taken to ensure blasted material remained as dry as possible as the selected location for sample processing lacked drying facilities. Site preparation, drilling and blasting was conducted under the supervision of Don Hains, P. Geo., with day-to-day quality control provided by B.H. Martin Engineering of Timmins under contract to Avalon Ventures. Photos 1 and 2 illustrate the site preparation and stockpiling process.

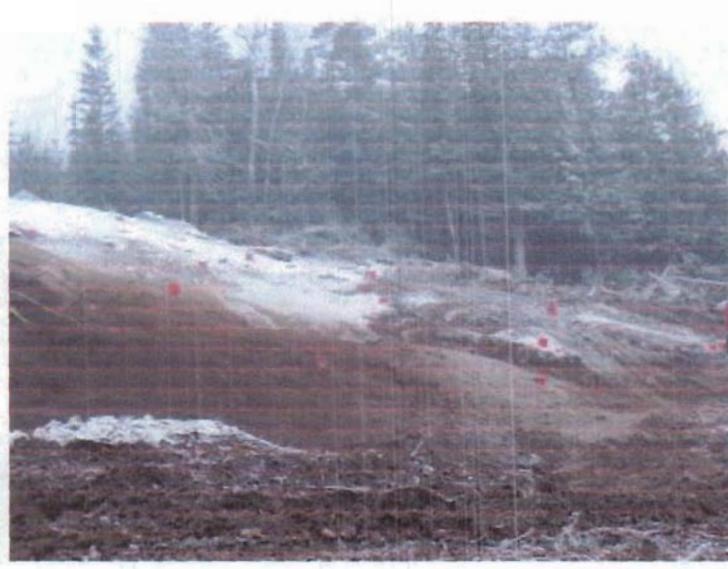


Photo 1



Photo 2

#### **Crushing/Haulage/Loading/Unloading**

Following stockpiling, rock was recovered and crushed on site using a portable road crusher equipped with a grizzly (13" x 13" opening) and jaw crusher. Crushing, loading

and haulage was contracted to Alex McIntyre & Associates of Kirkland Lake, Ont. This company also undertook stockpiling and loading of the ore into rail cars at Chapleau. Crushing and loading operations were conducted under severe winter weather operations with daytime temperatures generally not exceeding -25<sup>0</sup>C. These conditions presented significant operating problems, especially related maintaining product cleanliness and low moisture content. Quality control supervision of the crushing, loading and haulage operation both at site and at Chapleau was conducted by B.H. Martin Engineering under the supervision of Don Hains, P. Geo.

Rock was recovered from the stockpile by excavator and/or front end loader and crushed to -2". Crushed rock was stockpiled on site in preparation for haulage to Chapleau for loading into covered hopper cars. Material not loaded during the day was covered with tarpaulins to protect it from snow cover.

Crushed rock was recovered from the stockpile at the site by front end loader and loaded into trucks equipped with tarpaulins and plastic sheeting to maintain rock cleanliness and dryness. At Chapleau trucks were unloaded and material stockpiled by front end loader at the CP Rail yard. Again, stockpiles were covered by tarpaulins for snow protection.

Covered hopper cars were loaded using a front end loader equipped with a load cell to establish individual bucket load weights. Crushed rock was fed onto an apron feeder/conveyor arrangement and loaded into individual compartments in each rail car. The weight loaded into each compartment was recorded and the total weight loaded for each car was also recorded to ensure the cars were evenly loaded and cars were not overloaded. Each rail car compartment was sealed and the seal numbers recorded. Loaded rail cars were released for delivery to Brant, Alberta, the closest rail siding to the Aeration Ltd. process plant at Aldersyde, Alberta. The rail car loading process was time consuming as CP rail could not provide constant availability of locomotive power to position the rail cars. As a consequence, considerable costs were incurred in loading the cars.

At each stage of stockpiling and loading great care was taken to ensure that product contamination was minimized and the rock was protected from moisture. Samples of each bucket load were taken using a scoop and pail run across the face of the bucket load. These samples were composited in barrels and sealed. The barrels were shipped to Polymet Resources in Cobalt where the sample material was crushed to -6 mesh and split into representative samples for particle size and chemical analysis by SGS Mineral Services in Lakefield, Ont. Photos 3 through 5 illustrate the crushing, stockpiling and loading process.

Rail cars were unloaded at Brant, Alberta using a portable conveyor discharging into trucks. Trucks were tarped for the journey to the Aerosion plant, where the rock was unloaded and recovered by Bobcat front end loader for storage inside a tent structure. Photos 6, 7 and 8 illustrate the rail car unloading process.

The rail car unloading process was limited by the ore storage capacity at the Aerosion plant. As a consequence, car unloading took place over a period exceeding two months, resulting in considerable demurrage charges. Rail cars also had to be returned to Chapleau for reloading of the remaining material to ensure sufficient ore was available for processing. Again, extra costs for remobilization of the McIntyre equipment and for supervision of the loading operation were incurred. The final shipment of ore was received in Brant in late July, 2007 and was unloaded at Aerosion in late July, 2007.

**Photo 3 – Recovery of Raw Ore from Stockpile**



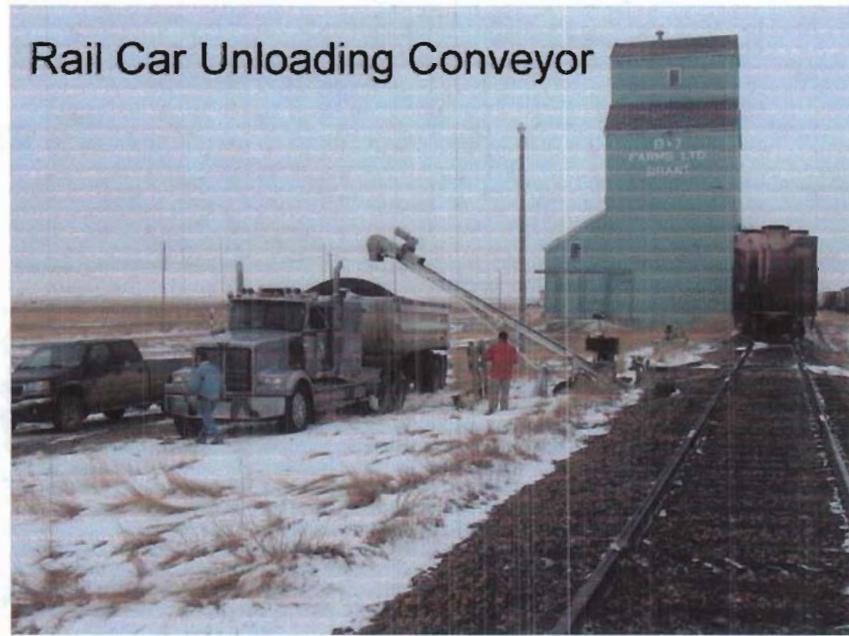
**Photo 4 – Crushing of Ore**



**Photo 5 – Loading of Ore into Rail Car**



**Photo 6**



**Photo 7**  
**Discharge of Ore from Rail Car**



**Photo 8**



**Unloading first load of ore at plant**

### Crude Ore Sampling

As previously described, individual front end loader bucket loads of ore were sampled across the face of each load. These samples were composited into barrels, each barrel representing approximately 3 rail cars of ore. Polymet Resources of Cobalt, Ont. was contracted to crush material to -6 mesh and screen the material at 40 mesh and split the barrel samples into representative samples for particle size analysis and chemical assay by SGS Mineral Services. Duplicate samples were sent to A erosion Ltd. for analysis by Avalon staff, and held by Avalon Ventures as check samples. The results of the SGS sample analysis for the first 11 rail car loads are summarized in Table 3:

**Table 3**  
**Raw Ore Particle Size Analysis**

Mesh	% Retained Individual			
	Barrel 1	Barrel 2	Barrel 3	Barrel 4
6	0.0	0.00	0.0	0.0
42	78.3	76.0	81.2	75.8
100	11.4	12.0	10.0	12.0
200	5.4	5.9	4.8	6.1
325	2.0	2.2	1.9	2.6
Pan	2.9	3.8	2.2	3.5
Total	100.0	100.0	100.0	100.0

Source: SGS Lakefield Minerals

These results are consistent with the projected value of less than 7% -200 mesh fines.

XRF (X-ray fluorescence) whole rock assays of the raw ore provided the following head assay data (Table 4):

**Table 4**  
**Whole Rock Head Assays**

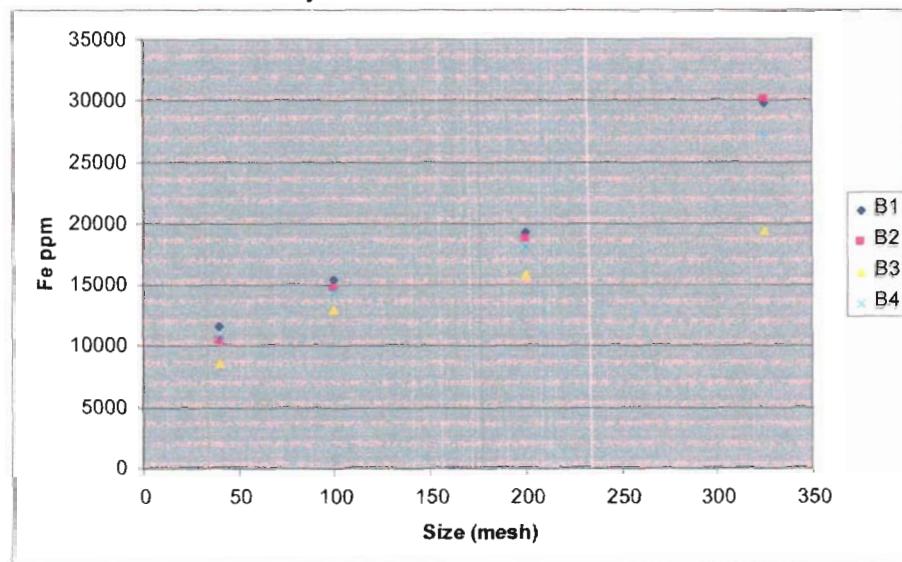
Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	H <sub>2</sub> O %	Part Size	---
1: Barrel #1	47.5	31.6	1.06	0.25	15.9	2.35	0.04	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.76	99.4	0.18	***
2: Barrel #2	47.6	31.7	1.07	0.27	15.9	2.36	0.04	0.06	< 0.01	< 0.01	0.01	< 0.01	0.78	99.8	0.15	**	
3: Barrel #3	47.7	31.7	1.04	0.24	15.9	2.36	0.05	0.06	< 0.01	0.01	< 0.01	< 0.01	0.75	99.9	0.28	**	
4: Barrel #4	47.8	31.9	1.12	0.29	15.9	2.37	0.04	0.06	< 0.01	0.01	0.02	< 0.01	0.86	100.4	0.08	***	

Source: SGS Lakefield Minerals

These data illustrate the consistency of the chemical analysis of the ore. The reported assay values are also consistent with the prior geostatistical work respecting the uniformity of the deposit.

Assay analysis of individual size fractions by Avalon staff indicated that the iron contaminants in the ore were primarily resident in the finer size fractions. XRF assays using a portable Niton XRF analyzer (Model Xlp 100) gave the following result (Figure 5):

**Figure 5**  
**Fe Assay versus Particle Size - Raw Ore**



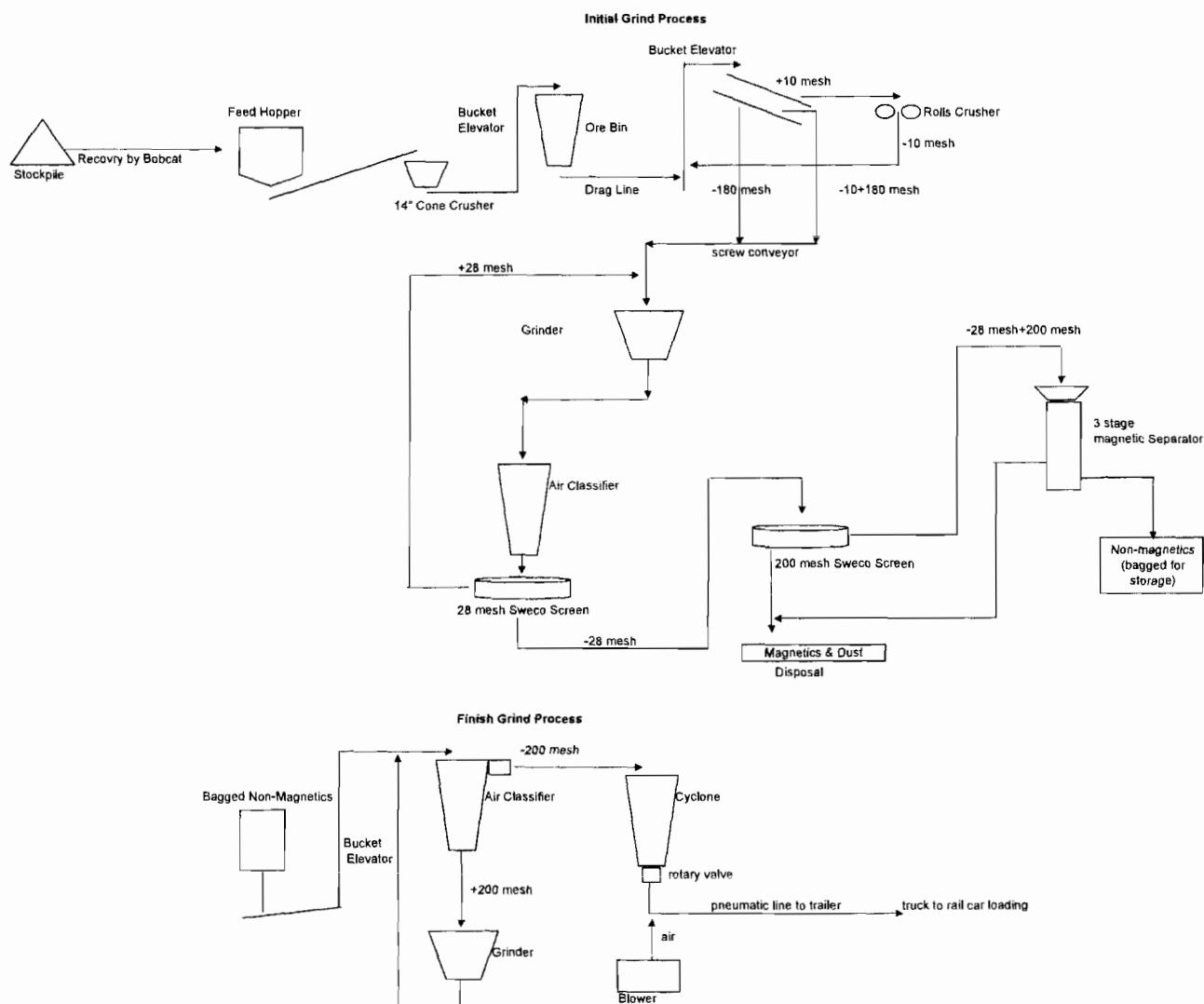
These data indicate that as particle size decreases, iron content increases and that iron increases rapidly below 200 mesh. These data were used to establish the lower particle size limit for subsequent dry magnetic separation, which was set at 200 mesh.

## **PRELIMINARY PROCESS DEVELOPMENT WORK**

### **Flow Sheet Development**

Processing of the ore typically follows a simple dry process of crushing ---> screening---> magnetic separation ----> grinding to size. The originally contemplated flow sheet for ore processing at the Aerosion plant required considerable modification due to equipment deficiencies. It was found in initial testing that the equipment could not handle the originally projected hourly volume of ore and was subject to significant abrasive wear. After substantial equipment modification, the flow sheet illustrated in Figure 6 was adopted. This flow sheet necessitated a significant amount of double handling during processing and has resulted in lower production rates and higher production costs than

**Figure 6**  
**Bulk Sample Plant Process Flow Sheet**



originally contemplated. In addition, materials losses due to multiple handling and fugitive dust generation have been higher than originally anticipated.

A 10 tonne test quantity of material was shipped to Aerosion in October, 2006 for preliminary evaluation of the crushing and screening capacity of the plant. This material was sourced from the existing stockpile of blasted material from the 2001 bulk sample blast. Rock was crushed in Timmins at Leo Allaire & Sons Ltd. to -2" (50 mm) and shipped in bulk bags. At Aerosion the rock was crushed in a 14" short head cone crusher, followed by screening and crushing in closed circuit using a double deck screen at 28 mesh and 200 mesh, and rolls crusher set to -30 mesh. The information obtained from this test work indicated production rates would be significantly slower than originally estimated.

Substantial modifications to the crushing and screening circuit were made during the initial phase of ore processing. It was found that moisture in the raw ore was sufficiently high that blinding of screens readily occurred. It was also found that the capacity of the screens and rolls crusher was insufficient to meet production requirements. Furthermore, it was found that the crushing process resulted in excessive fines production and that abrasive wear on equipment was quite high. To alleviate these problems, the following equipment modifications were made:

- Cone crusher closed side was reduced to 3 mesh (reduced load on top screen),
- Top screen changed to 10 mesh from 28 mesh,
- Rolls crusher set at 6 mesh
- -10+200 mesh feed passed to grinder
- Grinder set to produce -30 mesh feed for magnetic separator
- Grinder oversize screened at 28 mesh on Sweco screen
- Sweco screen installed to remove -200 mesh fraction prior to magnetic separation

Further plant modifications were made during the course of processing the bulk sample in efforts to improve productivity and magnetic separator feed quality. These included changes to the non-magnetic and magnetic fraction recovery system, changes to feed systems and improvements in materials handling.

### **Target Product Specifications**

The potential end use customer provided initial product target specifications for chemical analysis and particle size. The key chemistry targets for control were alumina ( $\text{Al}_2\text{O}_3$ ), silica ( $\text{SiO}_2$ ), iron ( $\text{Fe}_2\text{O}_3$ ), and calcium ( $\text{CaO}$ ). Targets for alkalis such as  $\text{Na}_2\text{O}$  and  $\text{K}_2\text{O}$  were set as monitoring oxides. Given the chemical composition of the rock, it is only possible to control the iron content in the finished product during processing. The target iron specification (as  $\text{Fe}_2\text{O}_3$ ) was set at 0.35% with a maximum of 0.50%.

The target particle size specification was established as 99.5% passing 200 mesh, with less than 0.01% retained on 100 mesh and 0 percent on 60 mesh.

### **Magnetic Separation Parameters**

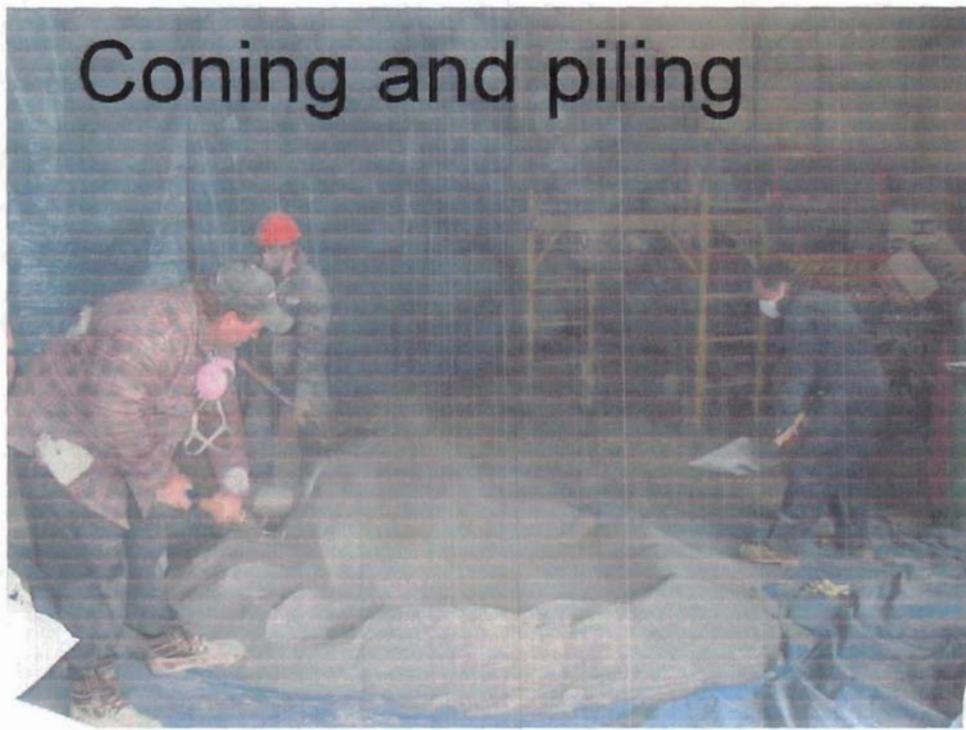
Avalon leased an HS10-150 three roll rare earth roll magnetic separator from Outotec Inc. and installed the unit at Aerosion. This unit was selected as prior work had indicated it had the desired magnetic properties to provide good separation between the non-magnetic and magnetic fraction sin the anorthosite, and had sufficient production capacity. Figure 7 illustrates the magnetic separator installation.

**Figure 7**  
**Magnetic Separator**

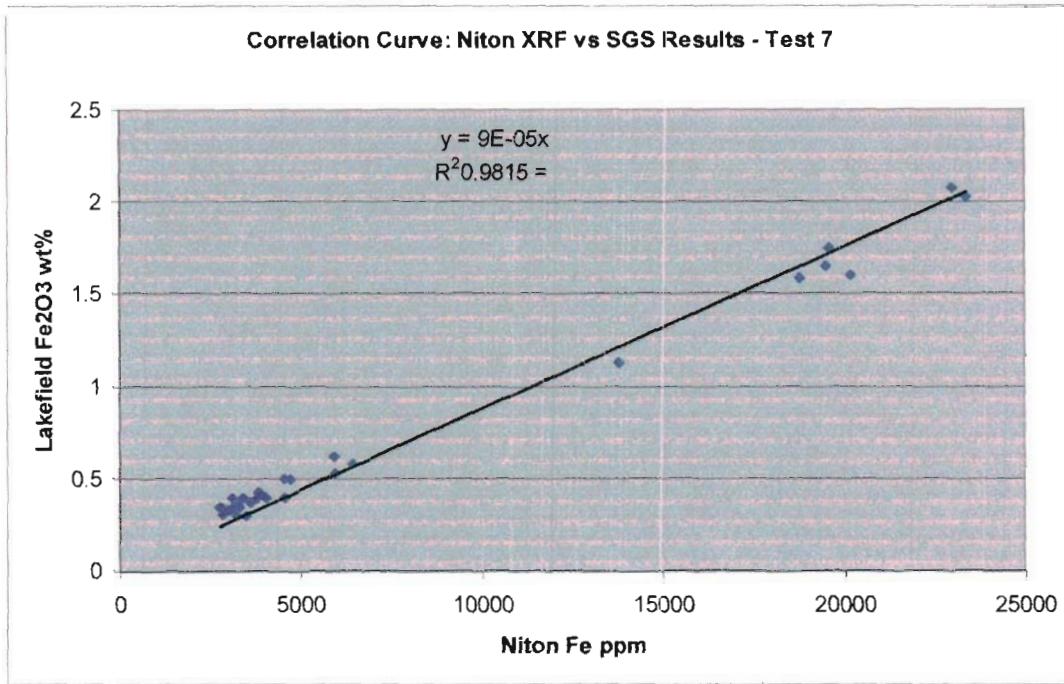


Establishment of the parameters for operation of the rare earth roll dry magnetic separator was accomplished in several steps. Test crushed and ground material was used as feed. A systematic program of test runs was established to determine the effect of variations in roll feed speed, belt speeds and splitter settings. During each run, samples of both non-magnetic and magnetic fractions were taken. These samples were split using a Jones splitter to obtain a sample for analysis by Niton XRF and a sample for assay by XRF using borate fusion at SGS Lakefield Research. After each test run, the magnetic and non-magnetic fractions were recombined by coning and piling several times, as illustrated in Figure 8. Approximately 300 kg was used for each test run. The assay results for the Niton samples were compared with the SGS Lakefield results to develop a correlation curve and to determine the most suitable magnetic separator settings to optimize product recovery and product quality. The results of the test work are illustrated in Figure 9, which shows a high degree of correlation between the Niton results and the SGS Lakefield results when determining the iron assays for the unground (-30 mesh) feed material to the magnetic separator.

**Figure 8**



**Figure 9**



### Air Classifier Settings

Initial test material was ground in the Aerosion system and tested for particle size by dry screening using a Rotap sieve shaker and 8" diameter US Standard mesh sieves. Samples were taken at various grinder and air classifier motor speed and amperage settings. These data enabled the operators to select the settings which would result in production of material meeting the target particle size specification.

### Productivity

The split between the non-magnetic and magnetic fractions, and thus product recovery, was measured by sampling the non-magnetic and magnetic discharge for the same time period (1 minute) and weighing each fraction. The percent non-magnetics was then determined. This procedure was followed for each bag processed. Product yields in the 50% to 60% range were initially obtained. As experience was gained in managing the process, yield increased to approximately 60%. In an effort to improve product yields and production rates, Avalon and the customer agreed to increase the allowable iron content

in the final product from a target level of 0.35% to a maximum level of 0.50% Fe<sub>2</sub>O<sub>3</sub>. Product yields increased to approximately 65% as a result, but at the expense of reduced stability of the iron content in the non-magnetic fraction. The most significant factor contributing to the lower than anticipated product yields was the high percentage of -200 mesh fines generated during initial grinding, estimated at > 15% of input feed. This material had to be screened out of the magnetic separator feed and thus was not available for recovery.

### **Quality Control**

Quality control during ore processing was monitored by extensive sampling and assaying using the Niton portable XRF unit, complemented by sample assaying at SGS Lakefield and by the customer. The sampling procedures employed were as follows:

#### **Initial Grind:**

- 1) grab sample assay of non-magnetic fraction using Niton portable XRF
  - frequency every 15 minutes
- 2) composite sample for each bag produced. Assay using Niton. Split composite into 3 samples – Niton, reference, and SGS Lakefield
- 3) monitor results against target settings. Adjust magnetic separator settings as required to remain within target specification
- 4) assay SGS Lakefield sample using XRF borate fusion
- 5) compare Niton xrf result to SGS Lakefield result. Develop correlation curve.

#### **Final Grind:**

- 1) take grab sample every 15 minutes and assay using Niton
- 2) composite samples for each bag processed and assay using Niton. Split composite into 4 samples – Niton, reference, SGS Lakefield and customer
- 3) do particle size analysis using Rotap sieve shaker and test sieves. Adjust air classifier and grinder settings as required to maintain specification
- 4) assay SGS Lakefield sample using XRF borate fusion on each bag
- 5) do particle size analysis at SGS Lakefield on randomly selected samples
- 6) compare Niton, SGS Lakefield and customer XRF results
- 7) compare Avalon, SGS Lakefield and customer particle size analysis

All Niton and particle size data were entered into an Excel spreadsheet as developed and downloaded for further analysis on completion of the morning and evening shifts.

## **PROCESSING OPERATIONS**

Processing operations involved the following steps:

- 1) recovery of ore from rail cars and transport from Brant to Aerosion plant site at Aldersyde,
- 2) Unloading and stockpiling of ore at Aerosion plant site. To the extent possible, ore was stored inside a tent structure,
- 3) Recovery of ore from stockpile and processing to initial grind stage for recovery of non-magnetic intermediate product. Storage of non-magnetic intermediate product in bulk bags,
- 4) Final grinding to size of non-magnetic intermediate product. Final product pneumatically conveyed to bulk trailer,
- 5) Transport of final product back to Brant for pneumatic loading into pressure differential rail cars supplied by end user,
- 6) Shipment of rail cars to end user plant.

Operational difficulties related to the Aerosion equipment created difficulties in maintaining product quality in terms of chemistry and particle size and in production rates. Excessive dust generation and insufficient dust collection capability limited the efficiency of the magnetic separator. The grinder and air classification circuit experienced numerous clogs in material flow, resulting in surges of material through the air classification system and oversize material in the final product. It was also found not possible to increase production rates without encountering significant process difficulties. As a result, production rates were limited to approximately 2 tonnes per hour of raw ore feed and 1 tonne per hour of finished ground product.

As of the date of this report, 4 rail cars with a total of approximately 377 tons of finished product have been delivered to the end user. Customer analysis of particle size indicates some oversize material, as anticipated. Despite this, the customer has agreed to receive all of the material for the purposes of the plant trial. It is anticipated that delivery of the remaining product to be supplied will be completed by October 30, 2007. The plant trial is scheduled to start October 25, 2007 and to run for 24 days. Results of the customer plant trial will be provided when available.

Operational issues and observations raised during the course of the bulk sample processing included the following:

- 1) Abrasive wear on grinder parts, screens, drag conveyor lines, etc. was very significant. This knowledge has resulted in a redesign of the flow sheet and the equipment specification for the full scale production plant.

- 2) The lack of an ore dyer at the Aerösion plant resulted in considerable extra processing costs, processing delays and equipment failures.
- 3) The crushing and grinding system at Aerösion generated excessive amounts of - 200 mesh fines, resulting in significantly reduced product recoveries than demonstrated in laboratory tests.
- 4) The Niton portable XRF unit can be effectively employed for process quality control monitoring.
- 5) Effective dust control is required to enable efficient and effective operation of the magnetic separator. Additional dust control measures have been provided in the design of the full scale plant.
- 6) A more robust grinding and air classification technology than that available at the bulk sample process facility is required to minimize process upsets and maintain production levels.

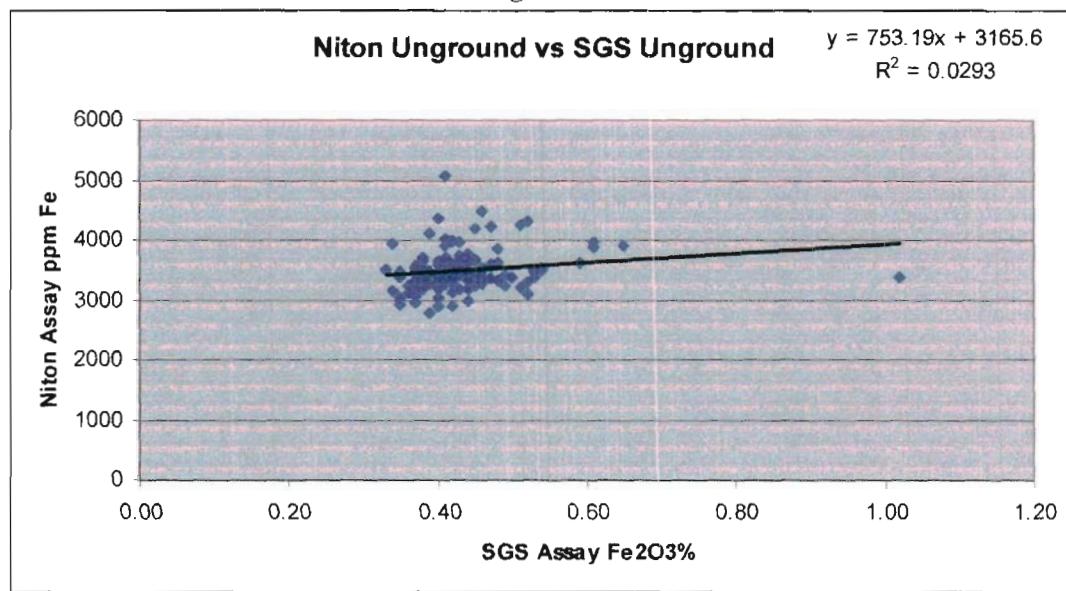
## RESULTS

The results of the work to date show the following:

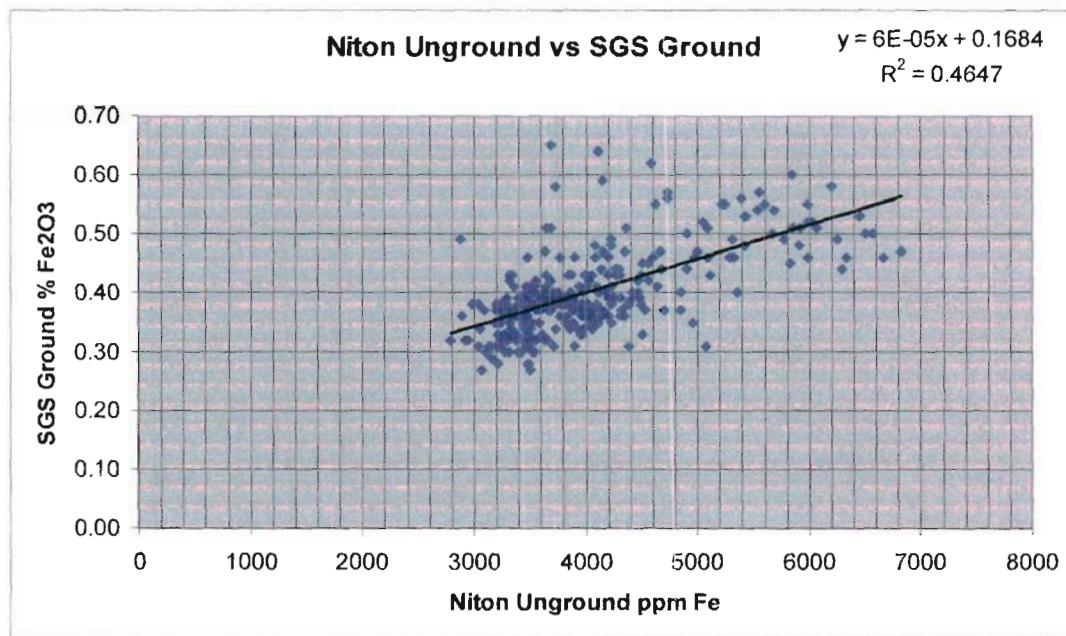
- Average  $\text{Fe}_2\text{O}_3$  assay of 0.41% based on results from SGS Lakefield
- $\text{Al}_2\text{O}_3$ ,  $\text{SiO}_2$  and  $\text{CaO}$  assays within requested customer specification
- There is a reasonable correlation between the Niton XRF result and the SGS Lakefield XRF result for finished product. The correlations between the Niton XRF assay for unground semi-finished material and the SGS Lakefield XRF assay results for either the unground or ground material is much weaker. See Figures 10, 11 and 12
- There is a very good correlation between the finished product assay results reported by SGS Lakefield and the finished product assay results reported by the customer. See Figure 13
- Finished product particle size distribution shows occasional process upsets. See Figure 14.

SGS Lakefield assay certificates for samples assays received as of October 4, 2007 are provided as Appendix 11.

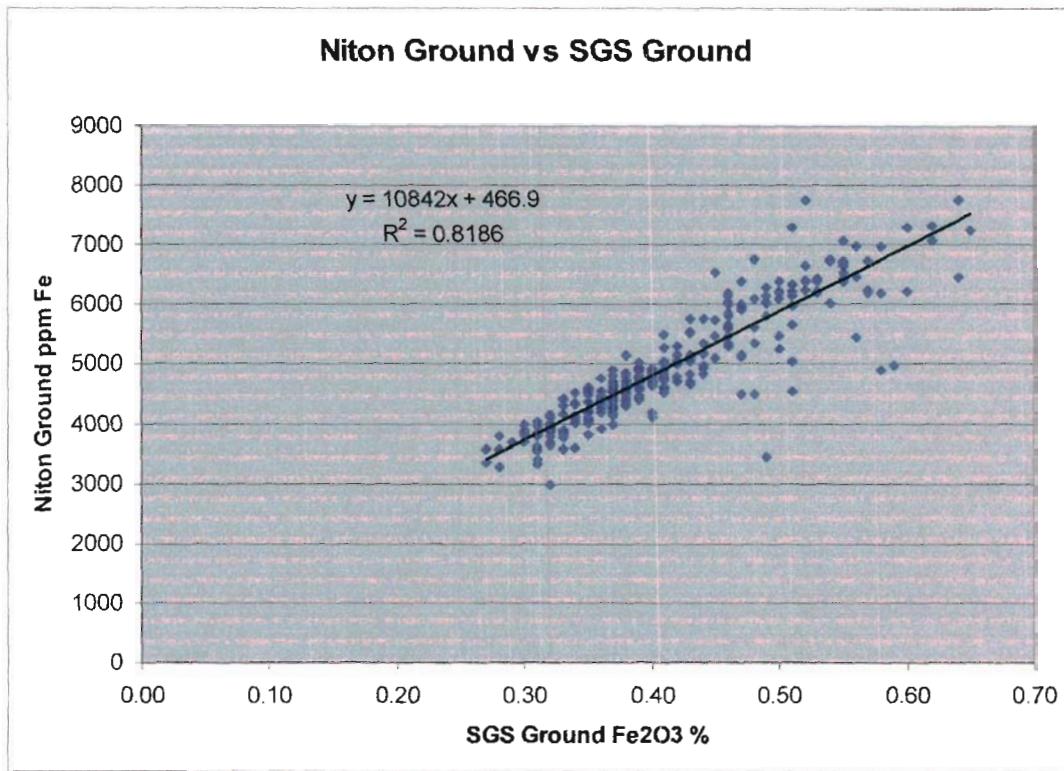
**Figure 10**



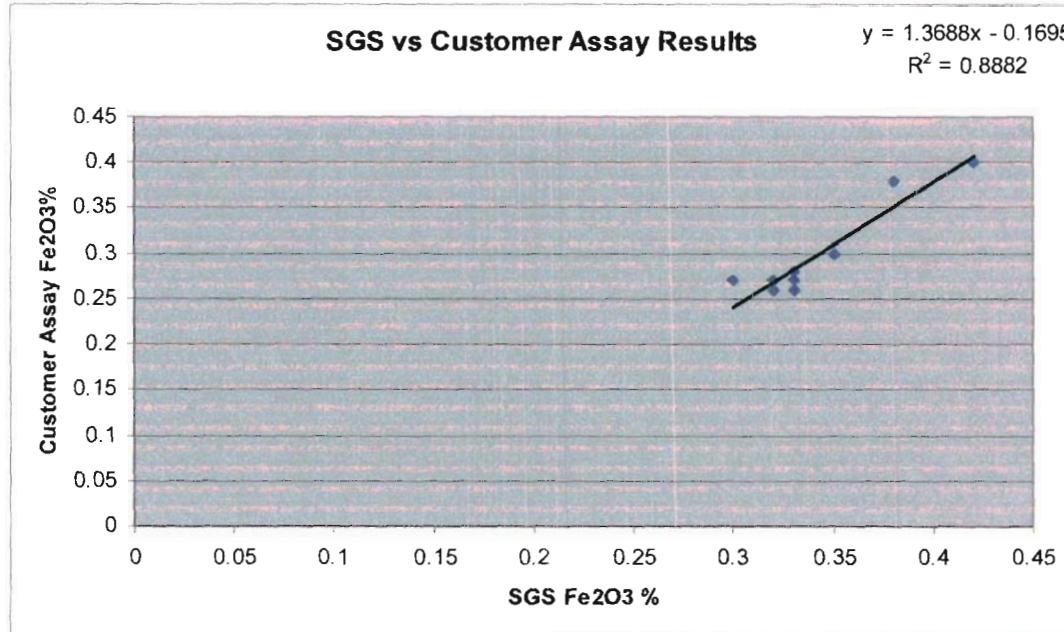
**Figure 11**



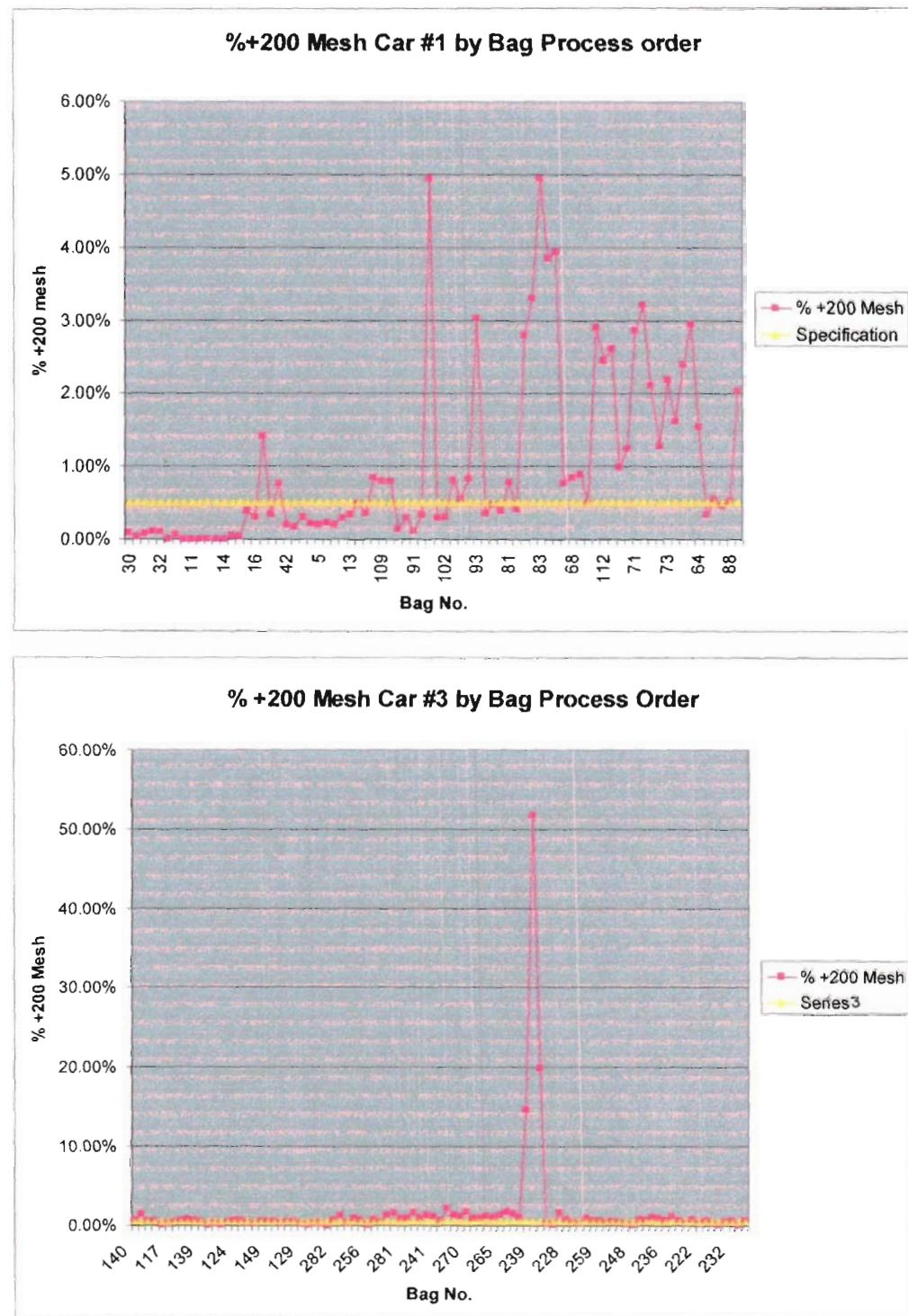
**Figure 12**

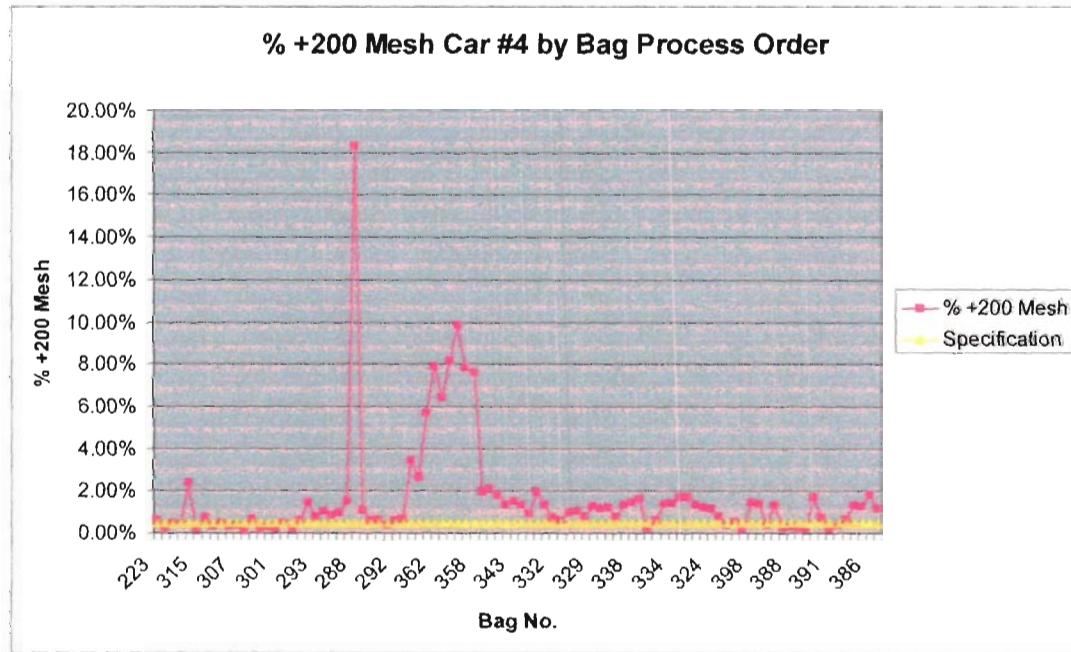
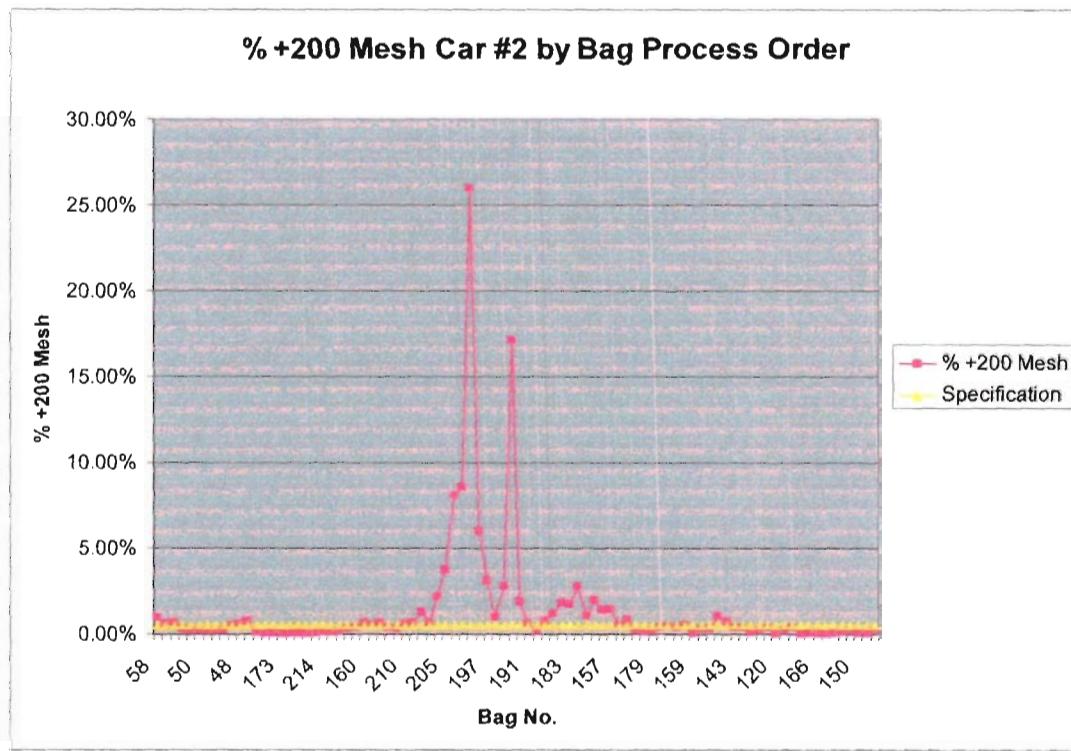


**Figure 13**



**Figure 14**





## **CONCLUSIONS AND RECOMMENDATIONS**

The following conclusions and recommendations are made:

- 1) The Warren Township anorthosite deposit exhibits a very high degree of uniformity in terms of whole rock geochemistry.
- 2) It is technically possible to produce a product meeting the chemical and physical specifications of the specialty glass end use customer.
- 3) The bulk sample process test provided valuable information respecting the behaviour of the anorthosite under semi-commercial process conditions. Based on analysis of the information provided, it is possible to design a technically robust and commercially viable process to produce anorthosite meeting the required specifications.
- 4) It is essential to have an ore dryer installed at the production plant to provide dry ore for the secondary and tertiary crushing operations.
- 5) The anorthosite is quite abrasive and equipment must be designed and specified for high abrasive service.
- 6) Anorthosite can be readily crushed to minimize production of -200 mesh fines.
- 7) Dust covers must be provided for all equipment. The process plant equipment should operate under negative pressure to minimize fugitive dust.
- 8) Standard bucket elevators and screw conveyors are not suitable equipment for handling anorthosite. To the extent possible, pneumatic conveying using air slides or other appropriate equipment, including enclosed gravity feed systems, should be employed for materials handling.
- 9) It is essential to provide a clean, evenly sized feed material to the magnetic separator for optimum performance.
- 10) The Niton XLp100 is an effective instrument for quality control monitoring; however, XRF using fused beads is required for quality assurance for finished product.
- 11) The Outotec HS10 3-stage rare earth roll magnetic separator performed well and is recommended equipment for the full scale production plant.
- 12) The Aerision grinding technology is not suitable technology for large scale processing of anorthosite. More robust equipment is required for full scale production.
- 13) Air classification is a suitable technology for final particle size control, but careful monitoring of process conditions is required to maintain product quality.

It is recommended that the currently proposed process plant flow sheet be carefully reviewed with respect to materials of construction and materials handling to minimize abrasive wear and dust generation.

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## Certificate

To accompany the Report entitled  
**"Report on a bulk sampling and mineral processing test program for calcium feldspar in a specialty glass application"**  
dated October 5, 2007

I, **Donald H. Hains**, do hereby certify that:

1. I reside at E1/2 Lot 6, Conc. 1 EHS, Mulmur Twp., Ont. L0N 1S8.
2. I am a graduate of Queen's University, Kingston, Ontario with a B.A. (Hons) degree in Chemistry (1974).
3. I am a graduate of Dalhousie University, Halifax, Nova Scotia with a Master of Business Administration in Finance and Marketing (1976).
4. I am a registered Professional Geoscientist (Practising Member No. 0494) in Ontario and am registered with the Association of Professional Geoscientists of Ontario.
5. I am a consultant specializing in evaluation of industrial minerals properties and markets and have practiced my profession continuously since 1986.
6. I have specific knowledge of the Warren Township anorthosite property through prior work on the subject property during the period 1993 – 2006.
7. I have no personal knowledge as of the date of this certificate of any material fact or change, which is not reflected in this report.
8. Neither I, nor any affiliated entity of mine, is at present, or under agreement, arrangements or understanding expects to become, an insider, associate, affiliated entity or employee of Avalon Ventures Ltd. or any associated or affiliated entities.
9. Neither I, nor any affiliated entity of mine, own, directly or indirectly, nor expect to receive, any interest in the properties or securities of Avalon Ventures Ltd. or any associated or affiliated companies.
10. Neither I, nor an affiliated entity of mine, have earned the majority of our income during the preceding three years from Avalon Ventures Ltd. or any associated or affiliated companies.

Donald H. Hains, P. Geo., B.A. (Hons), MBA  
October 5, 2007



**APPENDIX 1**  
**SGS Lakefield Research Assay Reports**



SGS Lakefield Research Limited  
P.O. Box 4300 - 185 Concession St.  
Lakefield - Ontario - K0L 2H0  
Phone: 705-652-2038 FAX: 705-652-6441

Avalon Ventures Ltd

Attn : Don Hains

605 Royal York Rd, Suite 206  
Toronto, Ontario  
M8Y 4G5, Canada

Phone: (416) 971-9783  
Fax:(416) 971-9812

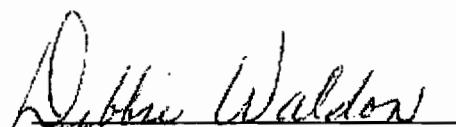
Wednesday, March 21, 2007

Date Rec. : 19 March 2007  
LR Report : CA03178-MAR07

## CERTIFICATE OF ANALYSIS

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	H <sub>2</sub> O %	Part Size
1: Barrel #1	47.5	31.6	1.06	0.25	15.9	2.35	0.04	0.05	< 0.01	< 0.01	< 0.01	< 0.01	0.76	99.4	0.18	***
2: Barrel #2	47.6	31.7	1.07	0.27	15.9	2.36	0.04	0.06	< 0.01	< 0.01	0.01	< 0.01	0.78	99.8	0.15	***
3: Barrel #3	47.7	31.7	1.04	0.24	15.9	2.36	0.05	0.06	< 0.01	0.01	< 0.01	< 0.01	0.75	99.9	0.28	***
4: Barrel #4	47.8	31.9	1.12	0.28	15.9	2.37	0.04	0.06	< 0.01	0.01	0.02	< 0.01	0.86	100.4	0.08	***

XRF - WRA data on head sample as received



Debbie Waldon  
Project Coordinator,  
Minerals Services, Analytical

Email: hainstech@on.aibn.com



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**Avalon Ventures Ltd**

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 M8Y 4G5, Canada

Phone: (416) 971-9783  
 Fax:(416) 971-9812

Wednesday, March 28, 2007

Date Rec. : 23 March 2007  
 LR Report : CA03223-MAR07  
 Client Ref : Size Fractions

## CERTIFICATE OF ANALYSIS

### Final Report - Revised

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: Barrel #1 +42	47.8	32.1	0.91	0.19	16.0	2.36	0.03	0.04	< 0.01	0.01	0.01	< 0.01	0.54	100.0
2: Barrel #1 +100	47.5	31.8	1.06	0.23	15.9	2.38	0.03	0.04	< 0.01	0.02	0.01	< 0.01	0.74	99.7
3: Barrel #1 +200	46.6	31.1	1.34	0.37	15.5	2.34	0.05	0.05	< 0.01	0.02	0.02	< 0.01	1.06	98.5
4: Barrel #1 +325	46.7	30.5	1.55	0.54	15.7	2.38	0.06	0.07	0.01	0.01	< 0.01	< 0.01	1.55	99.0
5: Barrel #1 -325	44.5	28.8	2.11	1.40	15.2	2.43	0.10	0.09	0.02	0.03	0.02	< 0.01	3.07	97.8
6: Barrel #2 +42	47.5	32.0	0.99	0.18	15.9	2.33	0.03	0.05	< 0.01	< 0.01	< 0.01	< 0.01	0.63	99.7
7: Barrel #2 +100	47.0	31.4	1.07	0.24	15.7	2.31	0.04	0.04	< 0.01	0.01	< 0.01	< 0.01	0.85	98.7
8: Barrel #2 +200	47.1	31.3	1.28	0.35	15.7	2.38	0.05	0.06	< 0.01	0.01	< 0.01	< 0.01	1.08	99.3
9: Barrel #2 +325	47.1	30.9	1.48	0.52	15.8	2.43	0.06	0.07	< 0.01	0.02	0.01	< 0.01	1.37	99.7
10: Barrel #2 -325	44.7	28.8	2.12	1.74	15.2	2.55	0.10	0.09	0.03	0.03	0.03	< 0.01	2.80	98.2
11: Barrel #3 +42	47.6	32.0	0.91	0.21	15.9	2.34	0.03	0.06	< 0.01	0.01	< 0.01	< 0.01	0.61	99.7
12: Barrel #3 +100	47.5	31.6	1.01	0.24	15.7	2.35	0.04	0.05	< 0.01	0.01	< 0.01	< 0.01	0.71	99.3
13: Barrel #3 +200	47.0	31.2	1.22	0.32	15.6	2.33	0.05	0.06	< 0.01	0.01	0.01	< 0.01	1.07	98.9
14: Barrel #3 +325	46.8	31.0	1.37	0.45	15.5	2.32	0.06	0.05	< 0.01	0.02	< 0.01	< 0.01	1.36	99.0
15: Barrel #3 -325	45.9	30.0	1.70	0.82	15.6	2.34	0.07	0.07	0.01	0.02	0.02	< 0.01	2.28	98.8
16: Barrel #4 +42	47.8	32.0	0.92	0.20	16.0	2.38	0.03	0.05	< 0.01	0.01	0.02	< 0.01	0.66	100.0



SGS Lakefield Research Limited  
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Phone: 705-652-2038 FAX: 705-652-6441

LR Report : CA03223-MAR07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
17: Barrel #4 +100	47.7	31.9	1.03	0.23	15.9	2.40	0.03	0.05	< 0.01	0.01	< 0.01	< 0.01	0.76	99.9
18: Barrel #4 +200	47.6	31.5	1.22	0.32	15.8	2.39	0.04	0.06	< 0.01	0.02	0.01	< 0.01	1.09	100.0
19: Barrel #4 +325	47.0	30.9	1.44	0.49	15.7	2.45	0.06	0.06	0.01	0.01	0.01	< 0.01	1.45	99.6
20: Barrel #4 -325	44.9	29.2	1.94	1.57	15.2	2.47	0.08	0.08	0.03	0.04	0.02	< 0.01	2.40	97.9

Debbie Waldon  
Project Coordinator,  
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SGS Minerals Services  
Size Distribution Analysis

Project No.  
**CA03178MAR07**

Sample:

Barrel #1

Test No.:

As received

Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
6	3,350	0.0	0.0	0.0	100.0
42	355	159.4	78.3	78.3	21.7
100	150	23.3	11.4	89.8	10.2
200	75	11.0	5.4	95.2	4.8
325	45	4.0	2.0	97.1	2.9
Pan	-45	5.8	2.9	100.0	0.0
Total	-	203.5	100.0	-	-

Sample:

Barrel #2

Test No.:

As received

Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
6	3,350	0.0	0.0	0.0	100.0
42	355	169.5	76.0	76.0	24.0
100	150	26.8	12.0	88.0	12.0
200	75	13.2	5.9	93.9	6.1
325	45	5.0	2.2	96.2	3.8
Pan	-45	8.5	3.8	100.0	0.0
Total	-	223.0	100.0	-	-

Sample:

Barrel #3

Test No.:

As received

Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
6	3,350	0.0	0.0	0.0	100.0
42	355	165.9	81.2	81.2	18.8
100	150	20.4	10.0	91.1	8.9
200	75	9.9	4.8	96.0	4.0
325	45	3.8	1.9	97.8	2.2
Pan	-45	4.4	2.2	100.0	0.0
Total	-	204.4	100.0	-	-

Sample:

Barrel #4

Test No.:

As received

Mesh	Size µm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
6	3,350	0.0	0.0	0.0	100.0
42	355	171.2	75.8	75.8	24.2
100	150	27.2	12.0	87.8	12.2
200	75	13.7	6.1	93.8	6.2
325	45	5.9	2.6	96.5	3.5
Pan	-45	8.0	3.5	100.0	0.0
Total	-	226.0	100.0	-	-

Lakefield Research

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Member of the SGS SA Group

# SGS

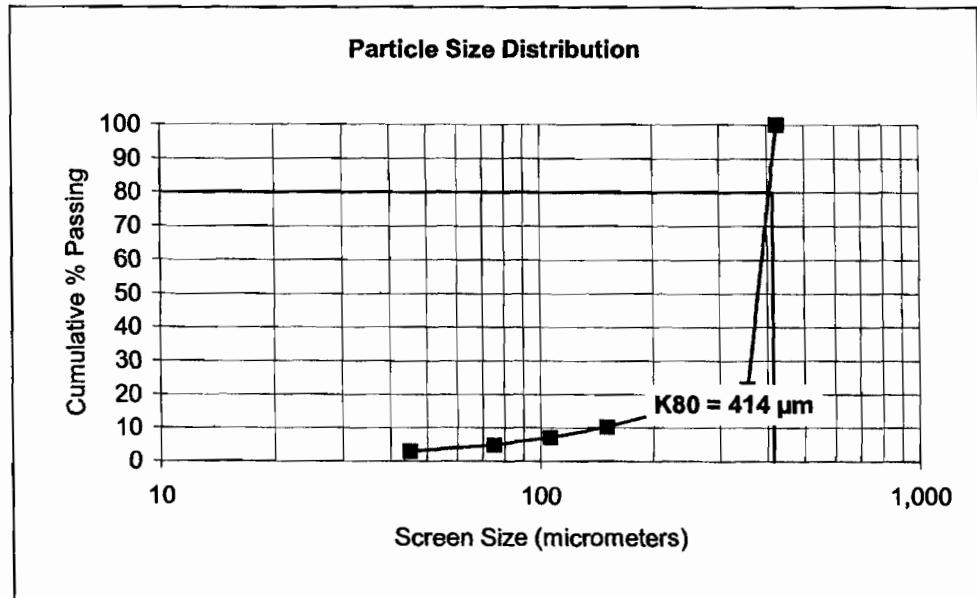
SGS Minerals Services  
Size Distribution Analysis

Project No.  
CA03178MAR0

Sample: **Barrel #1**

Test No.:

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
35	425	0.0	0.0	0.0	100.0
42	355	159.4	78.3	78.3	21.7
100	150	23.3	11.4	89.8	10.2
150	106	6.6	3.2	93.0	7.0
200	75	4.4	2.2	95.2	4.8
325	45	4.0	2.0	97.1	2.9
Pan	-45	5.8	2.9	100.0	0.0
Total	-	203.5	100.0	-	-
K80	414				



**Lakefield Research**

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# SGS

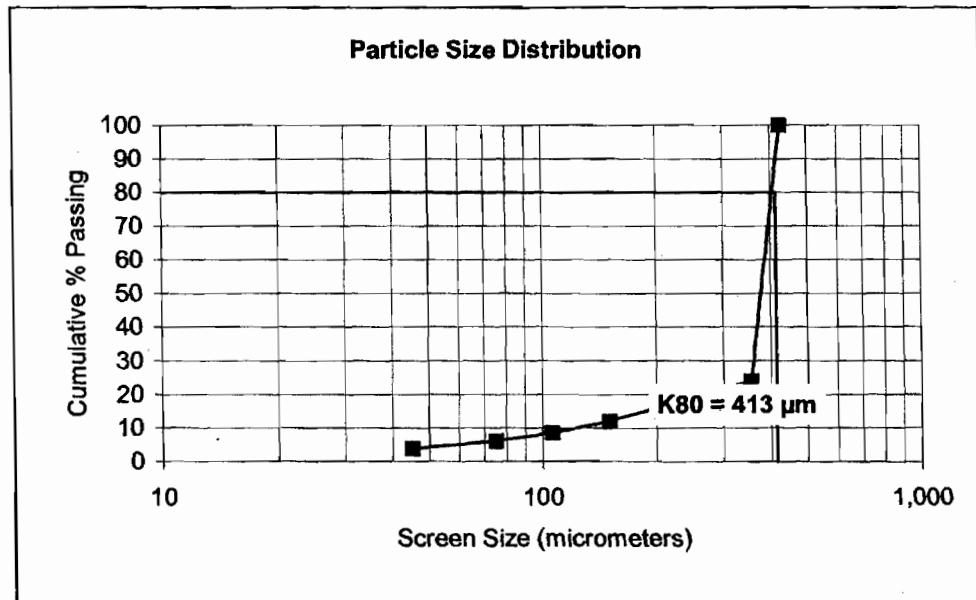
**SGS Minerals Services**  
**Size Distribution Analysis**

Project No.  
**CA03178MAR0**

Sample: **Barrel #2**

Test No.:

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	Mesh	µm		Individual	Cumulative	
35	425	0.0	0.0	0.0	0.0	100.0
42	355	169.5	76.0	76.0	76.0	24.0
100	150	26.8	12.0	88.0	88.0	12.0
150	106	7.8	3.5	91.5	91.5	8.5
200	75	5.4	2.4	93.9	93.9	6.1
325	45	5.0	2.2	96.2	96.2	3.8
Pan	-45	8.5	3.8	100.0	100.0	0.0
Total	-	223.0	100.0	-	-	-
K80	413					



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# SGS

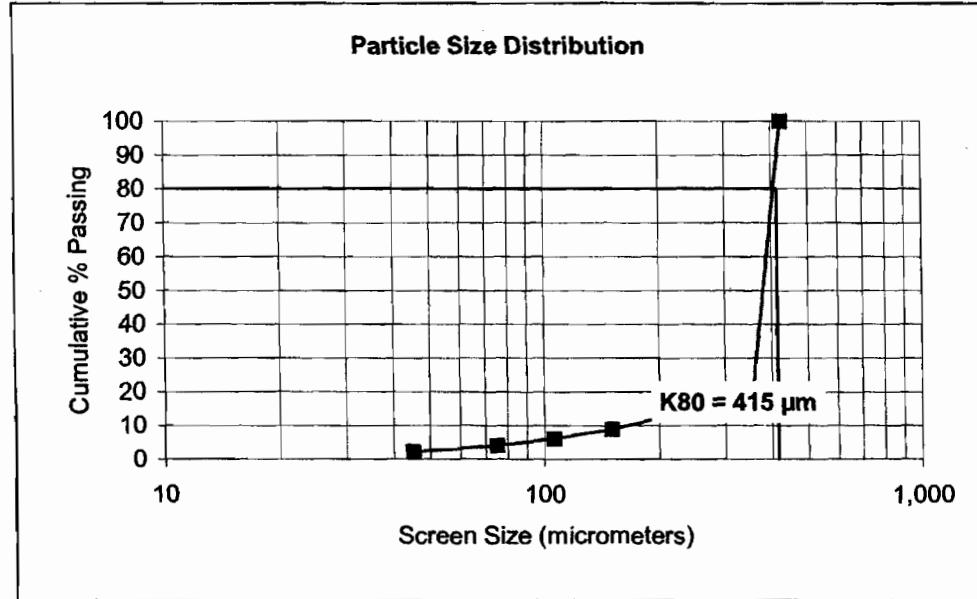
SGS Minerals Services  
Size Distribution Analysis

Project No.  
CA03178MAR0

Sample: **Barrel #3**

Test No.:

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
35	425	0.0	0.0	0.0	100.0
42	355	165.9	81.2	81.2	18.8
100	150	20.4	10.0	91.1	8.9
150	106	5.7	2.8	93.9	6.1
200	75	4.2	2.1	96.0	4.0
325	45	3.8	1.9	97.8	2.2
Pan	-45	4.4	2.2	100.0	0.0
Total	-	<b>204.4</b>	100.0	-	-
K80	<b>415</b>				



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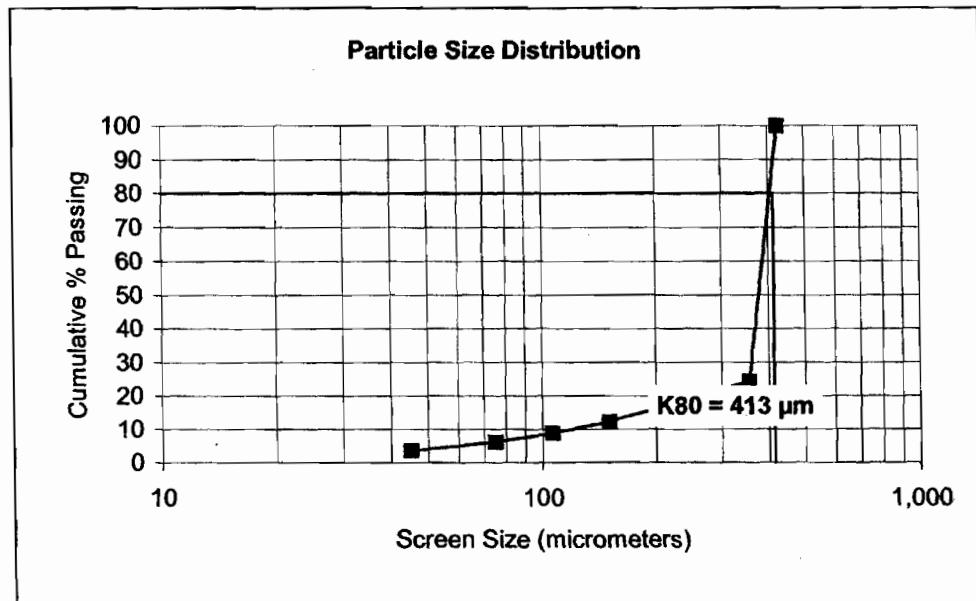
SGS Minerals Services  
Size Distribution Analysis

Project No.  
CA03178MAR0

Sample: **Barrel #4**

Test No.:

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
35	425	0.0	0.0	0.0	100.0
42	355	171.2	75.8	75.8	24.2
100	150	27.2	12.0	87.8	12.2
150	106	7.8	3.5	91.2	8.8
200	75	5.9	2.6	93.8	6.2
325	45	5.9	2.6	96.5	3.5
Pan	-45	8.0	3.5	100.0	0.0
<b>Total</b>	-	<b>226.0</b>	100.0	-	-
<b>K80</b>	<b>413</b>				



**Lakefield Research**

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Avalon Ventures Ltd

Attn : Don Hains

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M8Y 4G5, Canada

Phone: (416) 971-9783  
Fax:(416) 971-9812

Wednesday, March 21, 2007

Date Rec. : 19 March 2007  
LR Report : CA03178-MAR07

## CERTIFICATE OF ANALYSIS

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	H <sub>2</sub> O %	Part Size
1: Barrel #1	47.5	31.6	1.06	0.25	15.9	2.35	0.04	0.05	< 0.01	< 0.01	< 0.01	< 0.01	0.76	99.4	0.18	***
2: Barrel #2	47.6	31.7	1.07	0.27	15.9	2.36	0.04	0.06	< 0.01	< 0.01	0.01	< 0.01	0.78	99.8	0.15	***
3: Barrel #3	47.7	31.7	1.04	0.24	15.9	2.36	0.05	0.06	< 0.01	0.01	< 0.01	< 0.01	0.75	99.9	0.28	***
4: Barrel #4	47.8	31.9	1.12	0.28	15.9	2.37	0.04	0.06	< 0.01	0.01	0.02	< 0.01	0.86	100.4	0.08	***

XRF - WRA data on head sample as received

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Minerals Services, Analytical

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**Avalon Ventures Ltd**

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605 Royal York Rd, Suite 206  
 Toronto, Ontario  
 M8Y 4G5, Canada

Phone: (416) 971-9783  
 Fax:(416) 971-9812

Wednesday, April 04, 2007

Date Rec. : 03 April 2007  
 LR Report : CA03025-APR07  
 Client Ref : Tests Mar31-Apr1

## CERTIFICATE OF ANALYSIS

### Final Report

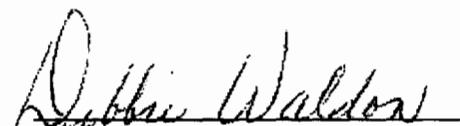
Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: Pre T-7 after homogenization	48.3	31.9	1.13	0.28	15.8	2.35	0.08	0.06	< 0.01	0.01	< 0.01	< 0.01	0.93	100.9	
2: T7 P3 1312 non mags	48.5	32.3	0.40	0.07	15.8	2.44	0.07	0.01	< 0.01	< 0.01	0.01	< 0.01	0.87	100.4	
3: T7 P3 1316 New setting	48.6	32.3	0.41	0.04	15.8	2.43	0.06	0.01	< 0.01	< 0.01	0.01	< 0.01	0.87	100.6	
4: T8 P3 1502	48.3	32.0	0.39	0.01	15.7	2.40	0.07	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.73	99.7
5: T8 1503	47.8	31.8	0.35	0.03	15.6	2.37	0.07	0.01	< 0.01	< 0.01	0.01	< 0.01	0.76	98.7	
6: T9 1505	49.0	32.4	0.40	0.01	15.9	2.46	0.08	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.84	101.1	
7: T9 1507	48.0	31.8	0.34	0.05	15.5	2.42	0.07	< 0.01	< 0.01	< 0.01	0.03	< 0.01	0.91	99.1	
8: T10 950	48.7	31.9	0.31	0.02	15.6	2.45	0.07	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	1.02	100.0
9: T11 1020	48.5	32.2	0.35	0.03	15.8	2.45	0.06	0.16	< 0.01	< 0.01	0.01	< 0.01	0.80	100.3	
10: T12 1122	48.1	32.0	0.36	0.03	15.6	2.40	0.06	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.88	99.5	
11: T12b 1132	48.7	32.4	0.40	0.02	15.9	2.43	0.06	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.71	100.6
12: T12b 1139	47.2	30.6	2.03	0.56	15.6	2.20	0.08	0.10	< 0.01	0.02	0.01	< 0.01	0.95	99.4	
13: T13 non mags 1226	48.5	32.3	0.40	0.05	15.9	2.43	0.08	0.01	< 0.01	< 0.01	0.01	< 0.01	0.78	100.6	
14: T14 1242	48.0	31.9	0.34	0.01	15.6	2.39	0.06	0.01	< 0.01	< 0.01	0.01	< 0.01	0.73	99.0	
15: T14 non mags 1247	48.1	31.5	1.59	0.40	15.9	2.28	0.08	0.07	< 0.01	0.02	0.02	< 0.01	0.80	100.6	
16: T15 1522 non mags	48.5	32.4	0.33	0.02	15.8	2.42	0.07	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.69	100.3	



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Phone: 705-652-2038 FAX: 705-652-6441

LR Report : CA03025-APR07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
17: T16 non mags 1536	48.5	32.3	0.35	0.02	15.8	2.43	0.06	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.74	100.3
18: T12 mags 1125	47.8	31.4	1.60	0.40	15.9	2.27	0.07	0.09	< 0.01	0.02	0.01	< 0.01	0.82	100.4
19: T12b mags 1139	47.6	31.0	2.02	0.54	15.8	2.23	0.09	0.10	0.01	0.02	0.02	< 0.01	0.87	100.3
20: T13 mags 1232	47.9	30.9	2.08	0.56	15.9	2.21	0.08	0.11	< 0.01	0.02	0.01	< 0.01	0.91	100.7
21: T14 mags 1247	47.6	31.2	1.57	0.41	15.7	2.25	0.07	0.07	< 0.01	0.02	< 0.01	< 0.01	0.70	99.6
22: T15 mags 1526	47.9	31.3	1.75	0.44	15.8	2.25	0.08	0.09	< 0.01	0.02	0.02	< 0.01	0.74	100.4
23: T16 mags 1541	47.8	31.3	1.65	0.43	15.8	2.24	0.07	0.08	< 0.01	0.02	0.01	< 0.01	0.75	100.1
24-DUP: T13 mags 1232	47.6	31.0	2.11	0.58	15.8	2.17	0.08	0.10	< 0.01	0.03	0.01	< 0.01	0.87	100.4



Debbie Waldon  
Project Coordinator,  
Minerals Services, Analytical

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REP No. CA03012-MAY07  
Customer Avalon Ventures Ltd  
Attention Don Hains  
Reference B24G/B25G/B26G  
Project  
ChargeId OTHER  
Batch 0017-May07  
Samples 12  
Chemist debbie

Title Final Report  
Date 02-May-07 11:16

Type	Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
SMP	4281336 B	48.4	32.7	0.46	0.06	16.2	2.49	0.03	0.01 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.79	101.1
SMP	4281415 B	47.9	32.3	0.48	0.08	16	2.47	0.03	0.02 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.87	100.2
SMP	4281445 B	48.1	32.8	0.35	0.03	16.1	2.48	0.03	0.01 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.71	100.6
SMP	4281500 B	48.4	32.9	0.32	0.01	16.2	2.5	0.02 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.64	101
SMP	4281515 B	48.5	32.9	0.32 < 0.01		16.3	2.5	0.02	0.01 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	101.1
SMP	4281535 B	47.9	32.5	0.36	0.04	16.1	2.45	0.02	0.02 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.71	100.1
SMP	4300620 B	48.1	32.7	0.45	0.05	16.1	2.45	0.03	0.02 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	1.02	100.9
SMP	4300640 B	48.3	32.9	0.35	0.03	16.2	2.5	0.03	0.01 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.77	101.1
SMP	4300700 B	48.4	32.8	0.38	0.05	16.2	2.48	0.03	0.02 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.77	101.2
SMP	4300715 B	47.9	32.5	0.4	0.05	16.1	2.46	0.03	0.02 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.86	100.3
SMP	4300755 B	47.8	32.6	0.35	0.03	16.1	2.46	0.02	0.01 < 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.68	100
SMP	4300815 B	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample 12 not received as confirmed by client

REP No. CA03057-MAY07  
Customer Avalon Ventures Ltd  
Attention Ian London  
Reference G-Series  
Project  
ChargeId OTHER  
Batch 0068-MAY07  
Samples 16  
Chemist debbie

Title Final Report  
Date 07-May-07 14:38

REP No. CA03058-MAY07  
Customer Avalon Ventures Ltd  
Attention Ian London  
Reference  
Project  
ChargeId OTHER  
Batch 0068-MAY07  
Samples 11  
Chemist debbie

Title Final Report  
Date 07-May-07 14:47

Type	Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI %	Sum %
SMP	503 B48	48	32.7	0.42	0.03	16.1	2.52	0.04	0.02	< 0.01	< 0.01	0.02	< 0.01	0.44	100.3
SMP	503 B49	47.7	32.6	0.41	0.04	16.1	2.48	0.04	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100
SMP	503 B50	47.4	32.7	0.37	0.04	15.8	2.51	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.56	99.4
SMP	503 B51	47.4	32.5	0.43	0.06	15.9	2.48	0.05	0.01	< 0.01	< 0.01	0.01	< 0.01	0.8	99.6
SMP	503 B52	47.6	32.8	0.35	0.02	16	2.52	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.68	99.9
SMP	503 B53	47.5	32.6	0.34	0.02	16	2.49	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.6	99.7
SMP	504 B54	47.5	32.5	0.42	0.02	16.1	2.46	0.02	0.01	< 0.01	< 0.01	0.01	< 0.01	0.63	99.7
SMP	504 B55	48	32.8	0.4	< 0.01	16.3	2.51	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.5	100.6
SMP	504 B56	47.6	32.7	0.52	0.06	16.1	2.48	0.02	0.01	< 0.01	< 0.01	0.02	< 0.01	0.65	100.1
SMP	504 B57	47.4	32.5	0.42	0.04	15.9	2.51	0.06	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.57	99.5
SMP	504 B58	47.7	32.7	0.38	0.06	16.1	2.5	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.53	100.1

REP No. CA03059-MAY07  
 Customer Avalon Ventures Ltd  
 Attention Ian London  
 Reference  
 Project  
 Charged OTHER  
 Batch 0071-MAY07  
 Samples 25  
 Chemist debbie

Title Final Report  
 Date 07-May-07 15:02

Type	Sample ID	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	V2O5	LOI	Sum
		%	%	%	%	%	%	%	%	%	%	%	%	%	%
SMP	430B30G	47.8	32.8	0.34	0.03	16.2	2.5	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100.2
SMP	430B31G	47.8	32.7	0.34	0.04	16.1	2.5	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.47	100.1
SMP	430B35G	48	33	0.31	< 0.01	16.3	2.5	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100.7
SMP	430B36G	47.7	32.7	0.33	0.02	16.2	2.47	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.42	99.8
SMP	430B37G	48.2	32.8	0.34	0.02	16.3	2.51	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.64	100.9
SMP	501B17G	47.7	32.7	0.29	0.03	16.1	2.5	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.65	100.1
SMP	501B18G	47.9	32.6	0.34	0.02	16.2	2.5	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.1
SMP	501B20G	47.9	32.8	0.32	0.03	16.2	2.52	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.3
SMP	501B19G	47.2	32.5	0.32	0.05	15.9	2.47	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	99
SMP	501B27G	47.6	32.7	0.3	0.03	16	2.5	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	99.7
SMP	501B28G	47.7	32.8	0.33	0.03	16.1	2.46	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.44	99.9
SMP	501B29G	47.9	32.7	0.37	0.04	16.2	2.53	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.2
SMP	501B32G	47.8	32.8	0.35	0.04	16.2	2.49	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.42	100.1
SMP	501B33G	47.7	32.8	0.36	0.03	16.1	2.49	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100
SMP	501B34G	47.9	32.9	0.31	0.02	16.2	2.52	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.58	100.4
SMP	502B21G	47.6	32.5	0.32	0.03	16.1	2.49	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	99.6
SMP	502B22G	47.3	32.4	0.32	0.03	15.9	2.49	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.49	99.1
SMP	502G45G	47.4	32.6	0.45	0.07	16.1	2.45	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.5	99.6
SMP	502G46G	48	32.9	0.49	0.08	16.2	2.53	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.6
SMP	501B11G	47.3	32.6	0.3	0.02	15.9	2.49	0.02	0.01	< 0.01	0.01	< 0.01	< 0.01	0.52	99.3
SMP	502B4G	47.7	32.8	0.34	0.03	16.1	2.5	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.46	100
SMP	501B9G	47.4	32.6	0.33	0.03	16.1	2.5	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.45	99.4
SMP	502B7G	47.8	32.8	0.33	0.04	16.2	2.5	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.38	100.1
SMP	502B14G	47.9	32.8	0.34	0.03	16.2	2.53	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.38	100.2
SMP	502B43G	47.7	32.7	0.38	0.04	16.1	2.5	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.3	99.8
DUP	501B11G	47	32.3	0.29	0.03	15.8	2.47	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.67	98.6
DUP	501B27G	47.6	32.9	0.3	0.04	16	2.48	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.8	100.1

REP No. CA03072-MAY07

Customer Avalon Ventures Ltd

Attention Ian London

Reference

Project

ChargeId OTHER

Batch 0106-MAY07

Samples 16

Chemist debbie

Title Final Report

Date 09-May-07 10:37

Type	Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI %	Sum
SMP	504-B59	47.6	32.8	0.46	0.05	16.1	2.48	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.53	100.1
SMP	504-B62	47.4	32.6	1.02	0.04	16	2.47	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.1
SMP	504-B63	48	32.7	0.46	0.01	16.2	2.5	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.46	100.4
SMP	505-B64	47.9	32.8	0.35	0.02	16.3	2.5	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.4
SMP	505-B65	47.8	32.7	0.37	0.02	16.1	2.51	0.02	0.01	< 0.01	< 0.01	0.01	< 0.01	0.48	100.1
SMP	505-B66	47.7	32.4	0.37	0.02	16.1	2.48	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.5	99.6
SMP	506-B67	47.8	32.6	0.38	0.04	16.2	2.49	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.52	100
SMP	506-B68	47.6	32.4	0.35	0.01	16.1	2.48	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.59	99.6
SMP	506-B69	47.9	32.5	0.36	0.03	16.2	2.5	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100
SMP	507-B70	47.9	32.6	0.37	0.02	16.1	2.49	0.03	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.64	100.3
SMP	507-B71	47.5	32.5	0.38	0.03	16	2.49	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	99.5
SMP	507-B72	47.3	32.4	0.41	0.03	15.9	2.48	0.02	0.01	< 0.01	0.01	0.02	< 0.01	0.58	99.2
SMP	507-B73	47.8	32.8	0.38	0.03	16.1	2.5	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.53	100.2
SMP	507-B74	47.3	32.4	0.39	0.02	15.9	2.47	0.02	0.01	< 0.01	< 0.01	0.03	< 0.01	0.5	99.1
SMP	507-B75	47.5	32.5	0.4	0.02	16	2.51	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.58	99.5
SMP	507-B76	47.5	32.5	0.36	0.02	16	2.51	0.04	0.01	< 0.01	< 0.01	0.01	< 0.01	0.54	99.4

REP No. CA03081-MAY07  
 Customer Avalon Ventures Ltd  
 Attention Ian London  
 Reference 5007-B77-79/B508-B80-83/B509-B84/85/87-93  
 Project  
 ChargeId OTHER  
 Batch 0133-MAY07  
 Samples 17  
 Chemist debbie

Title Final Report  
 Date 10-May-07 08:50

Type	Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI %	Sum
SMP	507-B77	47.2	32.2	0.46	0.05	16	2.48	0.03	0.02	< 0.01	< 0.01	0.02	< 0.01	0.57	99
SMP	507-B78	47.6	32.5	0.37	0.03	16.1	2.52	0.03	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.7	99.8
SMP	507-B79	47.7	32.7	0.39	0.02	16.1	2.51	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.69	100.2
SMP	508-B80	47.7	32.6	0.44	0.04	16.1	2.52	0.03	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.7	100.2
SMP	508-B81	47.6	32.7	0.37	0.02	16.1	2.49	0.02	0.01	< 0.01	< 0.01	0.01	< 0.01	0.57	99.9
SMP	508-B82	47.7	32.8	0.48	0.05	16.2	2.51	0.03	0.01	< 0.01	< 0.01	0.02	< 0.01	0.57	100.3
SMP	508-B83	47.6	32.7	0.46	0.02	16.2	2.52	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.65	100.2
SMP	509-B84	47.7	32.6	0.46	0.03	16.2	2.49	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.75	100.3
SMP	509-B85	47.9	32.6	0.41	0.03	16.2	2.48	0.03	0.02	< 0.01	< 0.01	0.02	< 0.01	0.61	100.3
SMP	509-B86	47.6	32.7	0.37	0.03	16.1	2.52	0.03	< 0.01	< 0.01	< 0.01	0.03	< 0.01	0.62	99.9
SMP	509-B87	47.4	32.5	0.52	0.03	16	2.51	0.03	< 0.01	< 0.01	< 0.01	0.03	< 0.01	0.59	99.7
SMP	509-B88	47	32.2	0.33	0.02	15.9	2.48	0.02	0.03	< 0.01	< 0.01	< 0.01	< 0.01	0.57	98.5
SMP	509-B89	47.8	32.8	0.45	0.02	16.2	2.52	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.59	100.5
SMP	509-B90	47.8	32.7	0.65	0.04	16.1	2.53	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.4
SMP	509-B91	47.3	32.5	0.59	0.05	16	2.48	0.04	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.6	99.6
SMP	509-B92	47.8	32.6	0.49	0.06	16	2.52	0.04	0.01	< 0.01	< 0.01	0.03	< 0.01	0.68	100.2
SMP	509-B93	48	32.8	0.41	0.03	16.2	2.54	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.64	100.7



**SGS**  
**SGS Lakefield Research Limited**  
 P.O. Box 4300 - 185 Concession St.  
 Lakefield - Ontario - K0L 2H0  
 Phone: 705-652-2038 FAX: 705-652-6441

**Avalon Ventures Ltd**

Attn : Don Hains

605 Royal York Rd, Suite 206  
 Toronto, Ontario  
 M8Y 4G5, Canada

Phone: (416) 971-9783  
 Fax:(416) 971-9812

Friday, May 18, 2007

Date Rec. : 17 May 2007  
 LR Report : CA03141-MAY07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: 504 B62	48.0	32.2	0.51	0.14	16.2	2.48	0.05	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.81	100.4
2: 509 B94	48.2	32.9	0.43	0.05	16.2	2.52	0.07	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.67	101.0
3: 509 B95	47.8	32.8	0.41	0.04	16.2	2.53	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.69	100.5
4: 509 B96	47.6	32.7	0.43	0.05	16.1	2.51	0.02	0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.62	100.1
5: 509 B97	47.3	32.5	0.42	0.06	16.0	2.52	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.61	99.4
6: 509 B98	47.5	32.6	0.45	0.06	16.0	2.49	0.03	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.61	99.8
7: 509 B99	47.9	32.9	0.37	0.04	16.2	2.55	0.03	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.59	100.7
8: 509 B100	48.1	32.9	0.47	0.06	16.3	2.52	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	101.0
9: 510 B101	47.9	32.7	0.45	0.06	16.2	2.51	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100.3
10: 510 B102	48.0	32.8	0.54	0.09	16.3	2.53	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.58	100.9	
11: 510 B103	48.0	32.9	0.41	0.06	16.2	2.53	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.7
12: 510 B104	48.0	32.9	0.43	0.04	16.2	2.54	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100.7
13: 510 B105	47.9	32.9	0.37	0.04	16.2	2.53	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.58	100.7	
14: 510 B106	47.6	32.8	0.41	0.05	16.1	2.53	0.05	0.01	< 0.01	0.01	0.01	< 0.01	0.62	100.1	
15: 510 B107	47.2	32.4	0.51	0.07	16.0	2.48	0.04	0.01	< 0.01	< 0.01	0.01	< 0.01	0.59	99.3	
16: 510 B108	47.2	32.4	0.42	0.06	15.9	2.51	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	99.2
17: 511 B109	47.9	32.8	0.40	0.05	16.1	2.51	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.52	100.4	



SGS Lakefield Research Limited

P.O. Box 4300 - 185 Concession St.

Lakefield - Ontario - K0L 2H0

Phone: 705-652-2038 FAX: 705-652-6441

LR Report : CA03141-MAY07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
18: 511 B110	47.6	32.7	0.41	0.05	16.1	2.51	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	99.9
19: 511 B111	48.0	33.1	0.38	0.04	16.3	2.54	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	100.8
20: 511 B112	47.9	32.8	0.35	0.03	16.2	2.52	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.3
21-DUP: 511 B112	48.0	33.0	0.36	0.02	16.2	2.53	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.7

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Friday, May 18, 2007

Date Rec. : 17 May 2007  
 LR Report : CA03142-MAY07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: 514 B82G	47.6	32.6	0.37	0.06	16.1	2.51	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	99.8
2: 514 B83G	47.9	32.9	0.30	0.04	16.2	2.55	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.57	100.5
3: 514 B90G	48.1	33.0	0.34	0.05	16.2	2.56	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	100.9
4: 514 B91G	48.0	32.8	0.33	0.03	16.2	2.52	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.39	100.3
5: 514 B92G A	48.0	33.0	0.37	0.04	16.2	2.54	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.8
6: 514 B93G	48.0	32.9	0.36	0.05	16.2	2.55	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.63	100.7
7: 514 B101G	48.1	32.8	0.39	0.06	16.3	2.53	0.05	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.8
8: 514 B102G	48.0	32.8	0.38	0.06	16.2	2.50	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100.6
9: 514 B98G	47.9	32.9	0.37	0.08	16.2	2.56	0.04	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.76	100.8
10: 514 B99G	47.8	32.8	0.37	0.07	16.1	2.53	0.04	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.68	100.4
11: 514 B100G	47.6	32.6	0.37	0.06	16.0	2.50	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	99.7
12: 514 B103G	47.5	32.7	0.34	0.05	16.0	2.51	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	99.6
13: 511 B105G	47.7	32.7	0.43	0.09	16.1	2.50	0.05	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.70	100.3
14: 511 B106G	47.6	32.7	0.40	0.07	16.1	2.52	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.66	100.1
15: 511 B107G	48.1	32.9	0.39	0.07	16.2	2.55	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.60	100.9
16: 511 B108G	48.1	32.9	0.39	0.07	16.3	2.55	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.9
17: 511 B109G	47.9	32.9	0.38	0.08	16.2	2.54	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.64	100.7



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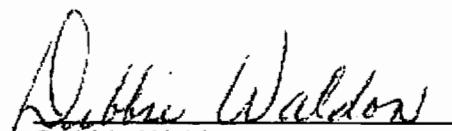
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LR Report : CA03142-MAY07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
18: 511 B110G	48.0	32.5	0.65	0.16	16.2	2.51	0.07	0.03	< 0.01	0.01	< 0.01	< 0.01	0.65	100.8
19: 511 B111G	47.9	32.9	0.40	0.07	16.1	2.54	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.69	100.7



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## CERTIFICATE OF ANALYSIS

### Final Report

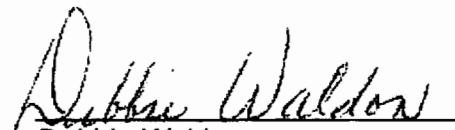
Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: 515 B79G	47.6	32.5	0.32	0.04	16.0	2.51	0.04	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	99.5
2: 515 B80G	47.8	32.8	0.31	0.04	16.1	2.53	0.05	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.45	100.0
3: 515 B81G	48.0	32.9	0.27	0.04	16.1	2.55	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	100.4
4: 515 B86G	48.1	32.8	0.33	0.06	16.2	2.54	0.03	0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	0.58	100.7
5: 515 B87G	47.8	32.7	0.30	0.04	16.1	2.51	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.0
6: 515 B78G	48.1	33.0	0.31	0.03	16.3	2.52	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.60	100.9
7: 515 B69G	48.0	32.7	0.31	0.03	16.2	2.53	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.4
8: 514 B92G B	48.1	33.0	0.34	0.05	16.2	2.54	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	101.0
9: 515 B75G	47.9	32.8	0.36	0.06	16.1	2.54	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.68	100.5
10: 515 B76G	48.0	32.7	0.31	0.03	16.2	2.54	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.57	100.4
11: 515 B112G	47.8	32.7	0.30	0.03	16.1	2.52	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.50	99.9
12: 515 B83G	47.5	32.5	0.32	0.03	16.0	2.49	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.55	99.4
13: 515 B67G	47.8	32.6	0.35	0.05	16.1	2.53	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.1
14: 515 B77G	48.0	32.9	0.32	0.05	16.2	2.52	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.6
15: 515 B72G	48.3	32.9	0.33	0.04	16.3	2.51	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.9
16: 515 B68G	47.9	32.7	0.31	0.04	16.2	2.52	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100.2
17: 515 B84G	48.2	32.9	0.33	0.04	16.3	2.54	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.44	100.8



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LR Report : CA03143-MAY07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
18: 515 B85G	48.2	33.0	0.31	0.04	16.3	2.54	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.42	100.8



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Thursday, May 24, 2007

Date Rec. : 23 May 2007  
LR Report : CA03193-MAY 7

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: 518B114	47.8	32.8	0.45	0.06	16.2	2.53	0.03	0.02	< 0.01	< 0.01	0.01	< .01	0.56	100.4	
2: 518B115	47.7	32.8	0.61	0.06	16.2	2.55	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.6
3: 518B116	47.8	32.8	0.49	0.04	16.2	2.52	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.5
4: 522B123	48.0	33.0	0.54	0.06	16.3	2.55	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	101.1
5: 522B120	47.6	32.9	0.41	0.05	16.2	2.53	0.02	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.63	100.3	
6: 522B119	48.0	33.0	0.53	0.03	16.2	2.55	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	101.0
7: 522B121	47.9	32.8	0.38	0.03	16.2	2.54	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.5
8: 522B124	48.1	33.0	0.40	0.03	16.3	2.55	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.54	100.9	
9: 522B122	47.9	32.9	0.51	0.02	16.3	2.54	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.7
10: 522B118	48.0	32.9	0.38	0.03	16.3	2.55	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.6
11: 522B117	47.5	32.7	0.52	0.05	16.1	2.51	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.1
12: 517B113	47.8	32.8	0.61	0.05	16.2	2.51	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.5

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### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: 516B66G	48.0	32.8	0.32	0.04	16.3	2.52	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.32	100.4
2: 517B56G	47.5	32.6	0.42	0.07	16.2	2.48	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.43	99.7
3: B88G	47.7	32.9	0.28	0.05	16.2	2.52	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.0
4: 517B57G	47.7	32.8	0.34	0.05	16.1	2.50	0.03	0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	99.9
5: 516B64G	48.3	33.0	0.32	0.02	16.4	2.55	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.39	101.1
6: 516B65G	47.8	32.8	0.30	0.04	16.2	2.54	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.35	100.0
7: B60G	47.6	32.7	0.33	0.05	16.1	2.52	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.41	99.7
8: 517B59G	47.5	32.7	0.33	0.06	16.2	2.52	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	99.8
9: 517B62G	48.0	33.0	0.32	0.05	16.3	2.56	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.41	100.7
10: 516B74G	47.8	32.6	0.30	0.03	16.2	2.49	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.58	100.0
11: 517B58G	47.7	32.8	0.37	0.04	16.3	2.53	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.40	100.2
12: 516B71G	47.9	32.7	0.33	0.04	16.3	2.53	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.40	100.2
13: 516B73G-A	47.8	32.7	0.32	0.04	16.3	2.52	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.42	100.2
14: 516B104G	47.9	32.9	0.30	0.04	16.2	2.54	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.4
15: 515B93G	47.1	32.3	0.30	0.05	15.9	2.48	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.35	98.5
16: 516B95G	47.9	32.9	0.31	0.04	16.2	2.54	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.38	100.3
17: 516B96G	47.4	32.5	0.30	0.05	16.1	2.51	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.35	99.2
18: 516B73G-B	47.6	32.6	0.31	0.04	16.1	2.50	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.40	99.5
19: 517B54G	47.9	33.1	0.32	0.04	16.3	2.55	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.5
20: 517B48G	47.6	32.8	0.25	0.05	16.1	2.52	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.38	99.7



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Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
21: 517B52G	47.9	33.0	0.28	0.04	16.3	2.55	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.4
22: 517B49G	47.8	32.9	0.31	0.03	16.2	2.55	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.36	100.2
23: 517B53G	48.0	33.0	0.29	0.04	16.3	2.53	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.58	100.8
24: 517B516	47.8	32.8	0.32	0.04	16.2	2.53	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.57	100.4
25: 517B50G	47.9	32.9	0.32	0.03	16.2	2.55	0.02	0.01	0.01	< 0.01	< 0.01	< 0.01	0.63	100.6
26: 516B63G	47.9	32.7	0.27	0.03	16.2	2.53	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.2
27: 516B70G	47.7	32.8	0.28	0.05	16.2	2.53	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	100.2
28: 517B55G	47.5	32.8	0.34	0.05	16.1	2.50	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	99.7
29-DUP: 517B48G	47.9	32.9	0.28	0.03	16.3	2.53	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.39	100.4

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Friday, June 08, 2007

Date Rec. : 28 May 2007  
 LR Report : CA03233-MAY07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: 522 B 125	48.4	32.5	0.39	0.03	16.1	2.41	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.56	100.4	
2: 522 B 126	48.3	32.4	0.44	0.04	16.1	2.40	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.54	100.2	
3: 522 B 127	48.7	32.8	0.40	0.05	16.2	2.45	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.50	101.1	
4: 522 B 128	48.6	32.6	0.48	0.07	16.2	2.44	0.04	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.41	100.9
5: 522 B 129	48.8	32.9	0.36	0.02	16.2	2.43	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.36	101.1	
6: 522 B 130	47.9	32.4	0.43	0.06	15.9	2.38	0.03	< 0.01	< 0.01	0.01	0.01	< 0.01	0.55	99.7	
7: 522 B 131	48.7	32.8	0.44	0.02	16.2	2.42	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	101.1
8: 522 B 132	48.6	32.7	0.40	0.04	16.2	2.44	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.52	101.0	
9: 523 B 133	48.0	32.3	0.40	0.04	16.0	2.36	0.02	0.02	< 0.01	< 0.01	0.02	< 0.01	0.48	99.6	
10: 523 B 134	48.5	32.6	0.34	0.04	16.1	2.41	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.48	100.6	
11: 523 B 135	48.3	32.6	0.42	0.05	16.1	2.40	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.56	100.5	
12: 523 B 136	48.4	32.6	0.48	0.06	16.0	2.41	0.04	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.5	
13: 523 B 137	48.1	32.5	0.45	0.04	16.0	2.39	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.1	
14: 523 B 138	48.7	32.6	0.43	0.04	16.1	2.43	0.03	0.01	< 0.01	0.01	0.01	< 0.01	0.55	101.0	
15: 523 B 139	48.3	32.6	0.53	0.06	16.0	2.40	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.62	100.6	



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LR Report : CA03233-MAY07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
16: 523 B 140	48.6	32.6	0.46	0.04	16.3	2.40	0.03	0.02	< 0.01	< 0.01	0.02	< 0.01	0.57	101.1
17: 523 B 141	48.5	32.7	0.40	0.06	16.1	2.44	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.8
18: 523 B 142	48.4	32.5	0.44	0.04	16.1	2.39	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.65	100.5
19: 523 B 143	48.2	32.4	0.50	0.04	16.0	2.40	0.02	< 0.01	< 0.01	0.01	< 0.01	< 0.01	0.60	100.1
20: 523 B 144	48.4	32.4	0.38	0.03	16.1	2.40	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100.2
21: 523 B 145	48.8	32.7	0.45	0.04	16.3	2.41	0.02	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.43	101.1
22: 524 B 146	48.5	32.7	0.40	0.05	16.2	2.42	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.8
23: 524 B 147	48.4	32.6	0.53	0.05	16.0	2.41	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100.6
24: 524 B 148	48.6	32.9	0.44	0.05	16.2	2.42	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.41	101.1
25: 524 B 149	48.7	32.6	0.44	0.05	16.2	2.39	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.61	101.1
26: 524 B 150	48.7	32.7	0.45	0.06	16.2	2.40	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.55	101.1
27: 524 B 151	48.2	32.6	0.47	0.06	16.1	2.39	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.55	100.4
28: 524 B 152	48.2	32.5	0.40	0.05	16.0	2.42	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.62	100.3
29: 524 B 153	48.4	32.6	0.47	0.03	16.1	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.64	100.7
30: 524 B 154	48.6	32.8	0.37	0.05	16.2	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	101.1
31: 524 B 155	48.7	32.7	0.39	0.04	16.1	2.41	0.02	0.01	< 0.01	< 0.01	0.01	< 0.01	0.48	100.9
32: 525 B 156	48.7	32.8	0.44	0.04	16.1	2.43	0.02	0.02	< 0.01	< 0.01	0.02	< 0.01	0.38	101.0
33: 525 B 157	48.5	32.5	0.46	0.04	16.1	2.41	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.6
34: 525 B 158	48.3	32.6	0.37	0.05	15.9	2.43	0.02	0.02	< 0.01	< 0.01	0.02	< 0.01	0.48	100.3
35: 525 B 159	48.2	32.6	0.41	0.05	16.0	2.39	0.03	0.02	< 0.01	< 0.01	0.02	< 0.01	0.56	100.3
36: 525 B 160	48.4	32.8	0.42	0.06	16.0	2.41	0.02	0.01	< 0.01	0.01	< 0.01	< 0.01	0.38	100.6
37: 525 B 161	48.5	32.8	0.43	0.07	16.1	2.45	0.03	0.01	< 0.01	< 0.01	0.02	< 0.01	0.53	101.0
38: 525 B 162	48.6	32.6	0.40	0.03	16.2	2.40	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.70	101.0
39: 525 B 163	48.6	32.7	0.39	0.05	16.2	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.57	100.9
40: 525 B 164	48.4	32.9	0.46	0.06	16.0	2.42	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.8
41: 525 B 165	48.6	32.6	0.47	0.06	16.2	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.64	101.1
42-DUP: 523 B 144	48.5	32.6	0.40	0.03	16.2	2.39	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.46	100.5
43-DUP: 525 B 164	48.2	32.6	0.49	0.07	16.0	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.4



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Wednesday, June 13, 2007

Date Rec. : 31 May 2007  
 LR Report : CA03261-MAY07  
 Client Ref : 525B166-167, 527B168-169,  
 528B170-183, 529B184-193

## CERTIFICATE OF ANALYSIS

### Final Report

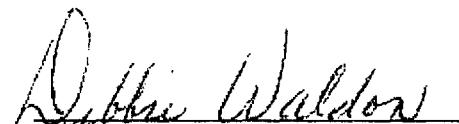
Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: 525B166	48.2	32.6	0.44	0.07	16.0	2.42	0.03	0.01	< 0.01	< 0.01	0.02	< 0.01	0.68	100.4
2: 525B167	48.2	32.8	0.43	0.03	16.0	2.41	0.03	0.02	< 0.01	< 0.01	0.02	< 0.01	0.64	100.6
3: 527B168	47.4	32.2	0.46	0.05	15.9	2.35	0.02	0.02	< 0.01	0.01	0.02	< 0.01	0.72	99.1
4: 527B169	48.4	33.0	0.39	0.04	16.2	2.43	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.61	101.0
5: 528B170	48.4	32.8	0.47	0.05	16.1	2.41	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.66	100.9
6: 528B171	48.4	32.9	0.44	0.02	16.1	2.44	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.70	101.1
7: 528B172	48.3	32.6	0.47	0.04	16.0	2.43	0.02	0.02	< 0.01	0.01	0.01	< 0.01	0.69	100.6
8: 528B173	48.6	32.9	0.45	0.04	16.1	2.44	0.03	0.01	< 0.01	< 0.01	0.02	< 0.01	0.65	101.3
9: 528B174	48.6	32.9	0.45	0.04	16.1	2.44	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.64	101.2
10: 528B175	48.4	32.9	0.45	0.04	16.1	2.40	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.69	101.1
11: 528B176	48.2	33.0	0.42	0.05	16.0	2.43	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	100.8
12: 528B177	48.6	32.8	0.44	0.05	16.2	2.43	0.03	< 0.01	0.01	< 0.01	0.04	< 0.01	0.70	101.3
13: 528B178	48.4	32.9	0.42	0.04	16.1	2.43	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.72	101.1
14: 528B179	48.2	32.7	0.42	0.05	16.0	2.44	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.68	100.5
15: 528B180	48.0	32.5	0.48	0.04	16.0	2.42	0.02	0.01	< 0.01	< 0.01	0.01	< 0.01	0.70	100.1



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LR Report : CA03261-MAY07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
16: 528B181	48.5	33.0	0.47	0.06	16.2	2.43	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.69	101.4	
17: 528B182	48.4	32.8	0.47	0.05	16.1	2.43	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.66	101.0	
18: 528B183	48.4	32.8	0.45	0.05	16.2	2.44	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.67	101.1	
19: 529B184	48.4	32.9	0.42	0.05	16.2	2.45	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.68	101.1
20: 529B185	48.1	32.7	0.43	0.07	16.0	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.71	100.5
21: 529B186	48.0	32.5	0.42	0.07	16.0	2.40	0.02	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.68	100.2
22: 529B187	48.2	32.9	0.48	0.07	16.0	2.42	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.77	100.9
23: 529B188	47.8	32.5	0.56	0.09	16.0	2.40	0.03	0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.82	100.2
24: 529B189	48.3	32.8	0.45	0.06	16.1	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.70	101.0
25: 529B190	48.0	32.7	0.51	0.07	16.0	2.40	0.03	0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.82	100.6
26: 529B191	48.0	32.6	0.49	0.06	16.0	2.41	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.71	100.3	
27: 529B192	48.1	32.9	0.39	0.05	16.0	2.42	0.03	0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.80	100.8
28: 529B193	48.4	32.9	0.39	0.06	16.1	2.44	0.02	0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.83	101.2
29-DUP: 529B185	47.8	32.5	0.44	0.06	16.0	2.41	0.02	0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.69	100.0



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Friday, July 06, 2007

Date Rec. : 15 June 2007  
 LR Report : CA03137-JUN07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: 607 B181G	48.0	32.5	0.38	0.19	15.8	2.59	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.56	100.1
2: 607 B178G	48.0	32.3	0.37	0.08	15.8	2.58	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.57	99.8
3: 607 B193G	48.2	32.4	0.35	0.08	15.9	2.67	0.03	0.01	0.01	< 0.01	0.01	< 0.01	< 0.01	0.48	100.1
4: 607 B194G	48.2	32.6	0.35	0.10	15.8	2.55	0.03	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.2
5: 607 B189G	47.9	32.5	0.41	0.11	15.8	2.56	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	99.9
6: 607 B179G	47.7	32.4	0.36	0.08	15.8	2.69	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	99.6
7: 607 B180G	47.7	32.6	0.39	0.08	15.7	2.60	0.02	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.56	99.6
8: 607 B200G	47.9	32.4	0.36	0.13	15.9	2.63	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.57	100.0
9: 607 B199G	48.3	32.6	0.36	0.12	16.0	2.59	0.02	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.5
10: 607 B176G	48.0	32.8	0.37	0.18	15.9	2.60	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.4
11: 607 B159G	48.2	32.6	0.39	0.09	16.0	2.64	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.5
12: 607 B152G	48.2	32.6	0.31	0.08	15.9	2.62	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.59	100.3
13: 607 B147G	47.5	32.4	0.41	0.14	15.6	2.55	0.03	0.01	0.01	< 0.01	0.02	< 0.01	0.68	99.3	
14: 608 B146G	48.0	32.4	0.38	0.11	16.0	2.62	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.1
15: 608 B145G	48.3	32.5	0.37	0.11	15.9	2.53	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100.2
16: 608 B143G	47.8	32.5	0.38	0.10	15.7	2.58	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	99.6
17: 608 B136G	47.8	32.5	0.34	0.10	15.9	2.57	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	99.7



**SGS**  
**SGS Lakefield Research Limited**  
 P.O. Box 4300 - 185 Concession St.  
 Lakefield - Ontario - K0L 2H0  
 Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA03137-JUN07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
18: 608 B125G	48.1	32.6	0.32	0.10	15.9	2.64	0.02	0.01	< 0.01	0.01	< 0.01	< 0.01	0.44	100.1
19: 608 B122G	48.2	32.6	0.31	0.12	16.0	2.64	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.3
20: 608 B120G	48.0	32.5	0.32	0.08	15.9	2.59	0.02	0.02	0.01	< 0.01	< 0.01	< 0.01	0.49	100.0
21: 609 B119G	48.2	32.6	0.31	0.09	16.0	2.59	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	100.3
22: 608 B169G	48.2	32.7	0.33	0.13	16.0	2.66	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.51	100.6
23: 608 B168G	48.2	32.8	0.33	0.13	16.0	2.55	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.6
24: 610 B167G	48.3	32.7	0.34	0.10	15.9	2.64	0.02	< 0.01	< 0.01	0.02	< 0.01	0.01	0.52	100.6
25: 610 B166G	48.3	32.6	0.35	0.10	15.9	2.55	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	100.4
26: 611 B165G	48.1	32.6	0.37	0.12	15.9	2.64	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.3
27: 611 B164G	47.9	32.4	0.36	0.09	15.9	2.60	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.51	99.8
28: 611 B154G	48.0	32.6	0.35	0.12	15.9	2.57	0.02	< 0.01	0.01	< 0.01	< 0.01	< 0.01	0.52	100.1
29: 611 B151G	47.8	32.5	0.38	0.12	15.9	2.50	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	99.9
30: 611 B150G	48.3	32.7	0.39	0.16	16.0	2.59	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.60	100.8
31: 611 B144G	48.2	32.4	0.40	0.10	16.0	2.56	0.03	0.02	0.01	< 0.01	< 0.01	< 0.01	0.48	100.3
32: 611 B141G	47.8	32.4	0.36	0.10	15.8	2.58	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.44	99.5
33: 611 B140G	48.1	32.3	0.37	0.12	16.0	2.64	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100.1
34: 611 B135G	48.3	32.5	0.37	0.06	15.9	2.56	0.02	0.02	< 0.01	0.01	0.01	< 0.01	0.56	100.4
35: 611 B131G	47.6	32.4	0.37	0.12	15.8	2.61	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	99.4
36: 611 B126G	48.2	32.4	0.39	0.08	15.9	2.55	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.1
37: 611 B121G	48.1	32.6	0.37	0.08	15.9	2.61	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100.3
38: 611 B117G	48.3	32.7	0.37	0.11	16.0	2.56	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.43	100.5
39: 611 B155G	48.5	32.5	0.35	0.09	15.9	2.66	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.43	100.6
40: 611 B153G	47.9	32.8	0.37	0.06	16.0	2.61	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.53	100.3
41: 612 B139G	48.3	32.7	0.39	0.10	16.1	2.53	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.52	100.7
42: 612 B137G	48.2	32.5	0.38	0.12	15.9	2.59	0.03	< 0.01	< 0.01	0.01	< 0.01	< 0.01	0.56	100.2
43: 612 B138G	48.5	32.5	0.39	0.09	16.0	2.61	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.8
44: 612 B134G	48.0	32.6	0.33	0.11	16.0	2.64	0.03	0.02	0.02	< 0.01	< 0.01	< 0.01	0.51	100.3
45: 612 B127G	48.4	32.6	0.35	0.08	16.0	2.57	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.6
46: 612 B124G	48.5	32.5	0.33	0.10	16.0	2.65	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.45	100.6
47: 612 B118G	48.5	32.7	0.34	0.08	16.0	2.57	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.7



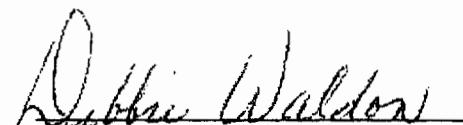
SGS Lakefield Research Limited  
P.O. Box 4300 - 185 Concession St.  
Lakefield - Ontario - K0L 2H0  
Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA03137-JUN07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
48: 612 B115G	48.6	32.5	0.33	0.10	16.0	2.58	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.6
49: 612 B114G	48.4	32.8	0.36	0.09	16.1	2.61	0.03	0.02	< 0.01	0.02	< 0.01	< 0.01	0.47	101.0
50: 612 B161G	48.0	32.7	0.37	0.18	15.9	2.58	0.03	0.02	0.01	< 0.01	< 0.01	< 0.01	0.46	100.2
51: 612 B149G	48.5	32.6	0.34	0.09	16.0	2.56	0.02	< 0.01	0.02	< 0.01	0.01	< 0.01	0.51	100.7
52: 612 B148G	48.1	32.5	0.38	0.09	15.9	2.57	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.53	100.1
53: 612 B130G	48.2	32.3	0.36	0.09	15.9	2.59	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.45	100.1
54: 611 B116G	48.4	32.5	0.37	0.13	15.9	2.65	0.02	0.01	< 0.01	0.01	< 0.01	< 0.01	0.46	100.5
55: 611 B156G	48.1	32.5	0.34	0.08	16.0	2.52	0.02	0.01	< 0.01	< 0.01	0.01	< 0.01	0.49	100.0
56-DUP: 608 B120G	47.7	32.6	0.33	0.12	16.0	2.65	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.53	99.9
57-DUP: 611 B153G	48.5	32.8	0.39	0.10	15.9	2.60	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.9

Please note:

For sample #21 paperwork reads 608 B119G and sample bag reads 609 B119G and we have reported as per sample bag  
We also received samples 611 B116G and 611 B156G not listed on paperwork



Debbie Waldon  
Project Coordinator,  
Minerals Services, Analytical

Email: hainstech@on.aibn.com; ianlondon@rogers.com'

REP No. CA03065-JUN07  
Customer Avalon Ventures Ltd  
Attention Ian London  
Reference  
Project  
ChargeId OTHER  
Batch 0087-JUN07  
Samples 16  
Chemist debbie

Title Final Report  
Date 07-Jun-07 11:53

Type	Sample ID	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	V2O5	LOI	Sum
SMP	604 B219G	48.2	32.8	0.46	0.08	15.9	2.36	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	100.4
SMP	604 B175G	48	32.9	0.4	0.08	16	2.33	0.02	0.02	< 0.01	0.01	0.01	< 0.01	1.14	100.9
SMP	604 B174G	48.2	32.9	0.38	0.09	15.9	2.34	0.02	0.02	0.01	< 0.01	< 0.01	0.01	0.5	100.3
SMP	604 B173G	48.6	32.9	0.37	0.08	16	2.49	0.02	0.02	0.02	0.01	< 0.01	< 0.01	0.47	100.9
SMP	604 B220G	48.4	33.1	0.41	0.06	16	2.41	0.02	0.02	0.02	< 0.01	< 0.01	< 0.01	0.35	100.8
SMP	604 B217G	47.8	32.9	0.39	0.09	15.8	2.38	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100
SMP	604 B218G	48.3	33	0.41	0.1	15.9	2.37	0.02	0.02	0.02	< 0.01	< 0.01	< 0.01	0.48	100.7
SMP	604 B215G	47.7	32.9	0.39	0.1	15.9	2.3	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.4	99.8
SMP	604 B214G	48.6	33.1	0.37	0.11	15.9	2.41	0.02	0.01	0.01	< 0.01	< 0.01	< 0.01	0.42	101
SMP	604 B172G	48.2	33.2	0.38	0.06	16	2.35	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.5
SMP	605 B171G	48	33.2	0.38	0.1	15.9	2.39	0.02	0.02	0.02	< 0.01	< 0.01	< 0.01	0.44	100.5
SMP	605 B170G	48.2	32.9	0.38	0.08	16	2.32	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.34	100.3
SMP	605 B163G	48.2	33.3	0.35	0.07	15.9	2.35	0.02	0.02	0.01	0.01	< 0.01	< 0.01	0.32	100.6
SMP	605 B162G	48.6	33	0.37	0.09	16	2.34	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.36	100.9
SMP	605 B160G	48.4	33.1	0.34	0.05	16	2.34	0.02	0.01	< 0.01	< 0.01	0.01	< 0.01	0.34	100.6
SMP	605 B213G	48.5	33.1	0.36	0.08	16	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.32	100.8

REP No. CA03081-JUN07  
 Customer Avalon Ventures Ltd  
 Attention Ian London  
 Reference  
 Project  
 ChargeId OTHER  
 Batch 0113-JUN07  
 Samples 38  
 Chemist debbie

Title  
 Date 08-Jun-07 13:08

Type	Sample ID	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	V2O5	LOI	Sum
		%	%	%	%	%	%	%	%	%	%	%	%	%	%
SMP	605 B212G	48.4	32.7	0.46	0.12	16	2.39	0.03	0.02	0.01	0.01	< 0.01	< 0.01	0.67	100.9
SMP	605 B216G	48.6	32.6	0.4	0.09	16	2.37	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.68	100.8
SMP	605 B211G	48	32.7	0.42	0.14	15.8	2.47	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.69	100.3
SMP	605 B210G	48.6	32.8	0.38	0.1	16	2.47	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100.9
SMP	501 B28G	48.2	32.6	0.33	0.06	15.9	2.42	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	100.1
SMP	501 B32G	48.2	32.8	0.34	0.1	15.9	2.47	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.58	100.4
SMP	430 B31G	48	32.6	0.33	0.09	15.9	2.46	0.03	0.01	< 0.01	< 0.01	0.02	< 0.01	0.44	99.9
SMP	501 B34G	48.2	32.6	0.32	0.07	15.9	2.39	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.71	100.1
SMP	430 B30G	48.3	33	0.35	0.11	16	2.38	0.03	0.01	0.01	< 0.01	< 0.01	< 0.01	0.66	100.8
SMP	430 B36G	47.8	32.8	0.33	0.09	15.8	2.41	0.03	0.01	0.01	< 0.01	< 0.01	< 0.01	0.59	99.8
SMP	501 B279G	48.2	32.8	0.29	0.09	15.8	2.46	0.02	0.02	< 0.01	< 0.01	0.04	< 0.01	0.35	100.1
SMP	501 B20G	48.3	32.8	0.32	0.08	15.9	2.37	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	100.4
SMP	501 B29G	48.1	32.5	0.37	0.14	15.9	2.45	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.65	100.2
SMP	605 B206G	48	32.6	0.39	0.12	15.9	2.39	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.58	100
SMP	605 B209G	48.3	32.6	0.36	0.12	15.9	2.46	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.61	100.4
SMP	605 B208G	48.1	32.8	0.37	0.08	15.9	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.5	100.2
SMP	605 B207G	47.9	32.6	0.39	0.1	15.8	2.4	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	99.7
SMP	605 B205G	47.7	32.6	0.42	0.08	15.8	2.38	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.48	99.4
SMP	605 B204G	47.6	32.6	0.48	0.14	15.7	2.46	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.52	99.5
SMP	606 B203G	48.1	32.6	0.46	0.11	15.9	2.45	0.03	0.02	0.01	0.01	< 0.01	< 0.01	0.45	100.2
SMP	606 B202G	48.3	32.8	0.45	0.12	16	2.42	0.02	0.02	0.01	0.01	< 0.01	< 0.01	0.55	100.7
SMP	606 B201G	48.7	32.7	0.44	0.1	16.1	2.4	0.03	0.02	0.01	0.01	< 0.01	< 0.01	0.42	100.9
SMP	606 B197G	48.4	32.7	0.4	0.09	16.1	2.48	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.7
SMP	606 B196G	47.9	32.6	0.38	0.08	15.8	2.39	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.63	99.9
SMP	606 B195G	48.3	32.9	0.34	0.08	15.9	2.49	0.02	0.01	0.02	< 0.01	< 0.01	< 0.01	0.5	100.5
SMP	606 B158G	48.3	32.8	0.32	0.04	15.9	2.45	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	100.3
SMP	606 B198G	47.9	32.6	0.38	0.09	15.9	2.43	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	99.9
SMP	606 B191G	48.2	32.7	0.4	0.11	15.9	2.36	0.03	0.02	0.01	< 0.01	< 0.01	< 0.01	0.57	100.3
SMP	606 B192G	47.9	32.6	0.36	0.11	15.9	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.55	99.9
SMP	606 B190G	48.4	32.7	0.37	0.1	15.9	2.44	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.5
SMP	606 B187G	48.6	32.7	0.4	0.09	16	2.3	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.33	100.5
SMP	606 B184G	48	32.6	0.41	0.12	15.8	2.46	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.5	100
SMP	606 B183G	47.9	32.7	0.37	0.1	15.8	2.45	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.57	99.9
SMP	606 B182G	47.9	32.8	0.39	0.11	15.9	2.4	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.71	100.3
SMP	607 B188G	48.1	32.7	0.46	0.14	16	2.44	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.78	100.7
SMP	607 B186G	48	32.8	0.4	0.1	15.9	2.45	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.62	100.5
SMP	607 B185G	48	32.8	0.38	0.12	16	2.43	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.72	100.4
SMP	607 B157G	48	32.5	0.36	0.06	15.8	2.41	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.73	100
DUP	606 B203G	48	32.7	0.44	0.1	16	2.33	0.03	0.03	0.01	< 0.01	< 0.01	< 0.01	0.49	100.1



**SGS Lakefield Research Limited**  
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Phone: 705-652-2000 FAX: 705-652-6365

**Avalon Ventures Ltd**

Attn : Ian London

605 Royal York Rd, Suite 206, Toronto  
Canada, M8Y 4G5  
Phone: (416) 971-9783, Fax:(416) 971-9812

Friday, June 22, 2007

Date Rec. : 08 June 2007  
LR Report : CA03081-JUN07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %
1: 605 B212G	48.4	32.7	0.46	0.12	16.0	2.39	0.03
2: 605 B216G	48.6	32.6	0.40	0.09	16.0	2.37	0.02
3: 605 B211G	48.0	32.7	0.42	0.14	15.8	2.47	0.03
4: 605 B210G	48.6	32.8	0.38	0.10	16.0	2.47	0.02
5: 501 B28G	48.2	32.6	0.33	0.06	15.9	2.42	0.03
6: 501 B32G	48.2	32.8	0.34	0.10	15.9	2.47	0.03
7: 430 B31G	48.0	32.6	0.33	0.09	15.9	2.46	0.03
8: 501 B34G	48.2	32.6	0.32	0.07	15.9	2.39	0.03
9: 430 B30G	48.3	33.0	0.35	0.11	16.0	2.38	0.03
10: 430 B36G	47.8	32.8	0.33	0.09	15.8	2.41	0.03
11: 501 B279G	48.2	32.8	0.29	0.09	15.8	2.46	0.02
12: 501 B20G	48.3	32.8	0.32	0.08	15.9	2.37	0.02

Sample ID	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: 605 B212G	0.02	0.01	0.01	< 0.01	< 0.01	0.67	100.9
2: 605 B216G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.68	100.8
3: 605 B211G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.69	100.3
4: 605 B210G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100.9
5: 501 B28G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	100.1
6: 501 B32G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.58	100.4
7: 430 B31G	0.01	< 0.01	< 0.01	0.02	< 0.01	0.44	99.9
8: 501 B34G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.71	100.1
9: 430 B30G	0.01	0.01	< 0.01	< 0.01	< 0.01	0.66	100.8
10: 430 B36G	0.01	0.01	< 0.01	< 0.01	< 0.01	0.59	99.8
11: 501 B279G	0.02	< 0.01	< 0.01	0.04	< 0.01	0.35	100.1
12: 501 B20G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	100.4

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LR Report : CA03081-JUN07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %
13: 501 B29G	48.1	32.5	0.37	0.14	15.9	2.45	0.03
14: 605 B206G	48.0	32.6	0.39	0.12	15.9	2.39	0.02
15: 605 B209G	48.3	32.6	0.36	0.12	15.9	2.46	0.02
16: 605 B208G	48.1	32.8	0.37	0.08	15.9	2.43	0.02
17: 605 B207G	47.9	32.6	0.39	0.10	15.8	2.40	0.02
18: 605 B205G	47.7	32.6	0.42	0.08	15.8	2.38	0.03
19: 605 B204G	47.6	32.6	0.48	0.14	15.7	2.46	0.02
20: 606 B203G	48.1	32.6	0.46	0.11	15.9	2.45	0.03
21: 606 B202G	48.3	32.8	0.45	0.12	16.0	2.42	0.02
22: 606 B201G	48.7	32.7	0.44	0.10	16.1	2.40	0.03
23: 606 B197G	48.4	32.7	0.40	0.09	16.1	2.48	0.02
24: 606 B196G	47.9	32.6	0.38	0.08	15.8	2.39	0.03
25: 606 B195G	48.3	32.9	0.34	0.08	15.9	2.49	0.02
26: 606 B158G	48.3	32.8	0.32	0.04	15.9	2.45	0.02
27: 606 B198G	47.9	32.6	0.38	0.09	15.9	2.43	0.03
28: 606 B191G	48.2	32.7	0.40	0.11	15.9	2.36	0.03
29: 606 B192G	47.9	32.6	0.36	0.11	15.9	2.42	0.02
30: 606 B190G	48.4	32.7	0.37	0.10	15.9	2.44	0.02
31: 606 B187G	48.6	32.7	0.40	0.09	16.0	2.30	0.02
32: 606 B184G	48.0	32.6	0.41	0.12	15.8	2.46	0.02

Sample ID	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
13: 501 B29G	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.65	100.2
14: 605 B206G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.58	100.0
15: 605 B209G	0.02	< 0.01	< 0.01	0.01	< 0.01	0.61	100.4
16: 605 B208G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.50	100.2
17: 605 B207G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.48	99.7
18: 605 B205G	0.01	< 0.01	< 0.01	0.01	< 0.01	0.48	99.4
19: 605 B204G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.52	99.5
20: 606 B203G	0.02	0.01	0.01	< 0.01	< 0.01	0.45	100.2
21: 606 B202G	0.02	0.01	0.01	< 0.01	< 0.01	0.55	100.7
22: 606 B201G	0.02	0.01	0.01	< 0.01	< 0.01	0.42	100.9
23: 606 B197G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.7
24: 606 B196G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.63	99.9
25: 606 B195G	0.01	0.02	< 0.01	< 0.01	< 0.01	0.50	100.5
26: 606 B158G	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	100.3
27: 606 B198G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	99.9
28: 606 B191G	0.02	0.01	< 0.01	< 0.01	< 0.01	0.57	100.3
29: 606 B192G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.55	99.9
30: 606 B190G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.5
31: 606 B187G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.33	100.5
32: 606 B184G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.50	100.0

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LR Report : CA03081-JUN07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %
33: 606 B183G	47.9	32.7	0.37	0.10	15.8	2.45	0.02
34: 606 B182G	47.9	32.8	0.39	0.11	15.9	2.40	0.02
35: 607 B188G	48.1	32.7	0.46	0.14	16.0	2.44	0.02
36: 607 B186G	48.0	32.8	0.40	0.10	15.9	2.45	0.02
37: 607 B185G	48.0	32.8	0.38	0.12	16.0	2.43	0.03
38: 607 B157G	48.0	32.5	0.36	0.06	15.8	2.41	0.02
39-DUP: 606 B203G	48.0	32.7	0.44	0.10	16.0	2.33	0.03

Sample ID	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
33: 606 B183G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.57	99.9
34: 606 B182G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.71	100.3
35: 607 B188G	0.02	< 0.01	< 0.01	0.01	< 0.01	0.78	100.7
36: 607 B186G	0.02	< 0.01	< 0.01	0.01	< 0.01	0.62	100.5
37: 607 B185G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.72	100.4
38: 607 B157G	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.73	100.0
39-DUP: 606 B203G	0.03	0.01	< 0.01	< 0.01	< 0.01	0.49	100.1



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**Avalon Ventures Ltd**

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Wednesday, July 25, 2007

Date Rec. : 09 July 2007  
LR Report : CA03060-JUL07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %
1: 612 B133G	48.7	32.7	0.34	0.02	15.9	2.51	0.02
2: 613 B129G	48.6	32.5	0.34	< 0.01	15.9	2.53	0.02
3: 613 B128G	48.8	32.7	0.34	< 0.01	16.0	2.55	0.02
4: 613 B123G	48.3	32.4	0.34	0.02	15.7	2.53	0.02
5: 613 B113G	48.8	32.7	0.36	< 0.01	15.9	2.52	0.02
6: 614 B221	48.7	32.7	0.52	0.04	15.9	2.54	0.03
7: 614 B222	48.4	32.3	0.44	0.01	15.8	2.49	0.02
8: 614 B223	48.6	32.4	0.44	< 0.01	15.9	2.52	0.02
9: 614 B225	48.5	32.6	0.42	< 0.01	15.9	2.54	0.03
10: 614 B226	48.4	32.4	0.45	< 0.01	15.8	2.52	0.02
11: 614 B227	48.3	32.3	0.44	< 0.01	15.9	2.50	0.03
12: 614 B228	48.2	32.2	0.42	< 0.01	15.7	2.51	0.02

Sample ID	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: 612 B133G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.7
2: 613 B129G	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.44	100.3
3: 613 B128G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.9
4: 613 B123G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.42	99.8
5: 613 B113G	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.9
6: 614 B221	0.01	< 0.01	< 0.01	0.01	< 0.01	0.58	101.0
7: 614 B222	0.01	< 0.01	< 0.01	0.01	< 0.01	0.57	100.1
8: 614 B223	0.01	< 0.01	< 0.01	0.01	< 0.01	0.55	100.5
9: 614 B225	0.01	< 0.01	< 0.01	0.01	< 0.01	0.48	100.6
10: 614 B226	0.01	< 0.01	< 0.01	0.02	< 0.01	0.55	100.2
11: 614 B227	0.02	< 0.01	< 0.01	0.02	< 0.01	0.60	100.0
12: 614 B228	0.01	< 0.01	< 0.01	0.02	< 0.01	0.80	99.9

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LR Report : CA03060-JUL07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %
13: 614 B229	48.7	32.4	0.44	0.02	15.9	2.52	0.02
14: 615 B230	48.6	32.5	0.41	< 0.01	15.8	2.50	0.02
15: 615 B231	48.6	32.4	0.41	< 0.01	15.9	2.52	0.03
16: 615 B232	48.4	32.3	0.44	0.01	15.9	2.49	0.02
17: 615 B233	48.7	32.5	0.49	0.04	15.9	2.52	0.04
18: 615 B234	48.7	32.7	0.52	0.02	15.9	2.51	0.02
19: 615 B235	48.6	32.4	0.50	0.02	15.9	2.49	0.02
20: 615 B236	48.4	32.3	0.50	0.03	15.8	2.51	0.02
21: 615 B237	48.7	32.7	0.39	< 0.01	15.9	2.54	0.02
22: 618 B238	47.3	31.7	0.45	< 0.01	15.4	2.47	0.02
23: 618 B239	48.1	32.2	0.43	< 0.01	15.7	2.51	0.02
24: 618 B240	48.7	32.6	0.43	< 0.01	15.9	2.52	0.02
25: 618 B241	48.8	32.4	0.42	0.01	15.9	2.54	0.02
26: 618 B242	48.3	32.4	0.40	< 0.01	15.8	2.52	0.03
27: 618 B243	48.6	32.5	0.41	0.01	15.9	2.54	0.02
28: 618 B244	48.4	32.5	0.41	0.01	15.8	2.53	0.03
29: 618 B245	48.5	32.6	0.42	0.01	15.9	2.52	0.02
30: 619 B246	47.9	32.1	0.41	0.03	15.6	2.51	0.02
31: 619 B247	48.6	32.4	0.51	< 0.01	15.9	2.54	0.02
32: 619 B248	48.6	32.5	0.43	0.02	15.9	2.51	0.02

Sample ID	TiO <sub>2</sub> %	P2O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V2O <sub>5</sub> %	LOI %	Sum %
13: 614 B229	0.01	< 0.01	< 0.01	0.01	< 0.01	0.58	100.6
14: 615 B230	0.01	< 0.01	< 0.01	0.01	< 0.01	0.59	100.5
15: 615 B231	0.02	< 0.01	< 0.01	0.02	< 0.01	0.63	100.6
16: 615 B232	0.01	< 0.01	< 0.01	0.02	< 0.01	0.58	100.2
17: 615 B233	0.02	< 0.01	< 0.01	0.01	< 0.01	0.77	101.0
18: 615 B234	0.02	< 0.01	< 0.01	0.01	< 0.01	0.78	101.2
19: 615 B235	0.01	< 0.01	< 0.01	0.01	< 0.01	0.59	100.7
20: 615 B236	0.02	< 0.01	< 0.01	0.02	< 0.01	0.66	100.3
21: 615 B237	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.63	100.9
22: 618 B238	0.01	< 0.01	< 0.01	0.02	< 0.01	0.70	98.1
23: 618 B239	0.01	< 0.01	< 0.01	0.01	< 0.01	0.66	99.7
24: 618 B240	0.02	< 0.01	< 0.01	0.02	< 0.01	0.75	101.0
25: 618 B241	0.01	< 0.01	< 0.01	0.02	< 0.01	0.65	100.8
26: 618 B242	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.69	100.2
27: 618 B243	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.70	100.7
28: 618 B244	0.01	< 0.01	< 0.01	0.01	< 0.01	0.75	100.4
29: 618 B245	0.01	< 0.01	< 0.01	0.02	< 0.01	0.63	100.6
30: 619 B246	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.60	99.1
31: 619 B247	< 0.01	< 0.01	< 0.01	0.03	< 0.01	0.66	100.6
32: 619 B248	0.02	< 0.01	< 0.01	0.01	< 0.01	0.60	100.6

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LR Report : CA03060-JUL07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %
33: 619 B249	48.7	32.5	0.43	< 0.01	15.9	2.53	0.02
34: 619 B250	49.1	32.9	0.36	< 0.01	16.0	2.55	0.02
35: 620 B255	48.4	32.3	0.43	0.01	15.8	2.52	0.02
36: 621 B260	48.6	32.5	0.40	0.01	15.9	2.51	0.02
37: 621 B265	48.5	32.4	0.43	0.02	15.9	2.52	0.02
38: 628 B270	48.5	32.3	0.43	< 0.01	15.9	2.52	0.02
39: 628 B275	48.5	32.5	0.40	0.02	15.7	2.52	0.02
40: 703 B285	47.6	32.0	0.56	0.04	15.5	2.47	0.03
41: 703 B290	48.1	32.2	0.52	0.04	15.8	2.49	0.02
42: Unidentified Sample	48.3	32.1	0.48	0.02	15.7	2.49	0.03
43: 704 B300	48.8	32.3	0.53	0.05	15.8	2.49	0.05
44: 705 B305	48.7	32.5	0.48	0.01	15.9	2.53	0.02
45: 705 B310	48.2	32.4	0.47	0.02	15.8	2.51	0.02
46: 706 B315	48.5	32.3	0.53	< 0.01	15.9	2.51	0.02
47-DUP: 615 B236	48.9	32.5	0.51	0.02	16.0	2.53	0.02
48-DUP: 703 B285	48.0	31.9	0.53	0.05	15.7	2.47	0.02
49-REP: 619 B247	48.7	32.7	0.42	< 0.01	15.9	2.52	0.02

Sample ID	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
33: 619 B249	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	100.8
34: 619 B250	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.53	101.5
35: 620 B255	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.61	100.2
36: 621 B260	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.62	100.6
37: 621 B265	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.97	100.8
38: 628 B270	0.01	< 0.01	< 0.01	0.02	< 0.01	0.74	100.4
39: 628 B275	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.73	100.4
40: 703 B285	0.01	< 0.01	< 0.01	0.02	< 0.01	0.68	98.9
41: 703 B290	0.02	< 0.01	0.01	0.02	< 0.01	0.67	99.9
42: Unidentified Sample	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.58	99.8
43: 704 B300	0.02	< 0.01	0.01	0.02	< 0.01	0.80	100.9
44: 705 B305	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.68	100.9
45: 705 B310	0.01	< 0.01	< 0.01	0.01	< 0.01	0.67	100.1
46: 706 B315	0.02	< 0.01	0.03	0.02	< 0.01	0.67	100.5
47-DUP: 615 B236	0.01	< 0.01	< 0.01	0.02	< 0.01	0.68	101.2
48-DUP: 703 B285	0.02	< 0.01	0.01	0.02	< 0.01	0.68	99.5
49-REP: 619 B247	0.01	< 0.01	< 0.01	0.04	< 0.01	0.66	101.0

Please note:

Sample in position #42 logged in as unidentified sample as it was unable to be clearly identified. Sample #704-B295 listed on client sample submittal form was not accounted for and could be sample #42

  
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Monday, July 30, 2007

Date Rec. : 17 July 2007  
 LR Report : CA03169-JUL07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: 706 B320	48.1	32.7	0.67	0.07	15.5	2.31	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.48	99.9
2: 709 B320G	48.2	32.4	0.43	0.13	15.7	2.38	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.45	99.8
3: 709 B283G	48.3	32.5	0.38	0.12	15.7	2.31	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.35	99.8
4: 709 B282G	49.0	32.9	0.41	0.10	15.8	2.41	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.43	101.1
5: 709 B275G	49.2	32.7	0.35	0.10	15.9	2.42	0.02	0.02	< 0.01	0.02	< 0.01	< 0.01	0.44	101.2
6: 709 B274G	48.3	32.4	0.32	0.09	15.6	2.43	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.38	99.6
7: 709 B273G	49.0	32.7	0.32	0.09	15.7	2.46	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.45	100.8
8: 709 B257	48.9	32.4	0.36	0.08	15.8	2.32	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.72	100.6
9: 710 B256G	48.8	32.6	0.35	0.09	15.8	2.34	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.68	100.6
10: 710 B255G	48.8	32.5	0.48	0.09	15.8	2.34	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.69	100.7
11: 710 B254G	49.2	32.7	0.37	0.11	15.9	2.40	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.59	101.3
12: 710 B253G	48.9	32.6	0.36	0.06	15.9	2.38	0.02	0.01	< 0.01	0.01	< 0.01	< 0.01	0.61	100.9
13: 710 B252G	48.3	32.7	0.36	0.10	15.6	2.37	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.50	100.0
14: 710 B281G	48.2	32.7	0.44	0.12	15.5	2.35	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.46	99.7
15: 710 B280G	48.3	32.7	0.42	0.07	15.7	2.30	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.42	100.0
16: 710 B279G	48.2	32.2	0.42	0.12	15.7	2.36	0.04	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.45	99.6
17: 710 B278G	49.3	32.8	0.41	0.09	15.9	2.36	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.40	101.3

Page 1 of 3

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 Test method information available upon request.



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LR Report : CA03169-JUL07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
18: 710 B242G	48.5	32.7	0.39	0.08	15.6	2.39	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.34	100.0
19: 710 B241G	49.1	32.5	0.40	0.05	15.8	2.37	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.40	100.7
20: 710 B240G	48.3	32.9	0.38	0.10	15.7	2.37	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.45	100.2
21: 710 B276G	48.9	32.8	0.39	0.05	15.9	2.40	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.41	100.9
22: 711 B277G	47.6	32.1	0.39	0.06	15.6	2.42	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.41	98.7
23: 711 B272G	47.7	32.2	0.37	0.07	15.5	2.32	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.40	98.7
24: 711 B270G	49.0	32.7	0.36	0.08	15.9	2.39	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.40	100.9
25: 711 B269G	48.8	32.7	0.41	0.09	15.8	2.38	0.03	< 0.01	0.01	< 0.01	< 0.01	< 0.01	0.38	100.7
26: 711 B268G	48.3	32.7	0.40	0.09	15.7	2.29	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.35	99.8
27: 711 B267G	48.6	32.5	0.40	0.09	15.8	2.37	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.38	100.1
28: 711 B266G	49.0	32.6	0.39	0.10	15.9	2.30	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.47	100.8
29: 711 B265G	48.1	32.0	0.39	0.09	15.5	2.21	0.03	0.01	0.02	< 0.01	< 0.01	< 0.01	0.57	98.9
30: 711 B264G	47.9	31.9	0.34	0.09	15.8	2.33	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	99.0
31: 711 B251G	48.8	32.9	0.35	0.09	15.7	2.39	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.9
32: 711 B250G	48.8	32.6	0.36	0.05	15.8	2.39	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.48	100.5
33: 711 B249G	48.9	32.8	0.35	0.08	15.9	2.39	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	101.0
34: 712 B239G	48.0	32.1	0.35	0.07	15.6	2.30	0.04	0.01	< 0.01	< 0.01	< 0.01	< 0.01	1.39	100.0
35: 712 B238G	48.6	32.7	0.38	0.11	15.8	2.36	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.40	100.5
36: 712 B237G	48.6	32.3	0.39	0.09	15.8	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.32	99.9
37: 712 B230G	48.6	32.8	0.38	0.09	15.9	2.43	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.6
38: 712 B229G	49.0	32.4	0.36	0.07	15.8	2.37	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.4
39: 712 B228G	49.2	32.6	0.36	0.08	15.9	2.39	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.38	101.0
40: 712 B263G	48.4	32.6	0.39	0.05	15.7	2.33	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.39	99.8
41: 712 B262G	48.3	32.4	0.36	0.11	15.6	2.40	0.03	< 0.01	0.01	< 0.01	< 0.01	< 0.01	0.37	99.6
42: 712 B261G	48.5	32.8	0.39	0.09	15.7	2.37	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.39	100.3
43: 712 B260G	48.5	32.7	0.37	0.08	15.7	2.38	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.33	100.2
44: 712 B259G	48.7	32.7	0.37	0.12	15.7	2.40	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.40	100.5
45: 712 B258G	48.5	32.7	0.40	0.13	15.7	2.38	0.03	0.02	0.01	< 0.01	< 0.01	< 0.01	0.47	100.4
46: 712 B245G	48.2	32.8	0.37	0.09	15.7	2.42	0.02	< 0.01	0.01	< 0.01	< 0.01	< 0.01	0.30	99.8
47: 713 B244G	47.9	32.0	0.47	0.05	15.5	2.38	0.03	0.01	< 0.01	0.01	< 0.01	< 0.01	0.44	98.7



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LR Report : CA03169-JUL07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
48: 713 B243G	48.7	32.8	0.43	0.08	15.6	2.45	0.03	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.7
49: 713 B311G	48.8	32.8	0.38	0.09	15.7	2.42	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.46	100.7
50: 713 B299G	48.1	32.6	0.39	0.07	15.4	2.37	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	99.5
51: 713 B246G	48.7	32.3	0.37	0.08	15.7	2.40	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.44	100.1
52: 713 B247G	48.5	32.8	0.40	0.10	15.7	2.41	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.49	100.5
53: 713 B248G	48.5	32.8	0.37	0.10	15.8	2.46	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.38	100.4
54-DUP: 710 B240G	48.8	32.5	0.39	0.09	15.8	2.32	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.5
55-DUP: 712 B263G	48.9	32.9	0.40	0.06	15.8	2.38	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.37	100.9

Received 713 B246G, 713 B247G, 713 B248G not on paperwork

Debbie Waldon  
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Friday, August 10, 2007

Date Rec. : 27 July 2007  
 LR Report : CA03273-JUL07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: 716 B236G	48.4	32.6	0.43	0.04	16.2	2.40	0.02	0.01	< 0.01	0.01	< 0.01	< .01	0.61	100.7
2: 716 B235G	48.0	32.4	0.44	0.04	16.1	2.40	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.0
3: 717 B234G	48.5	32.9	0.44	0.04	16.3	2.42	0.02	0.01	< 0.01	0.01	< 0.01	< 0.01	0.64	101.4
4: 717 B227G	48.4	32.7	0.35	0.03	16.2	2.41	0.02	< 0.01	< 0.01	0.01	0.01	< 0.01	0.60	100.8
5: 717 B225G	48.5	32.8	0.36	0.02	16.2	2.45	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.62	101.1
6: 717 B222G	48.5	32.7	0.40	0.03	16.3	2.44	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.9
7: 717 B319G	48.5	32.6	0.51	0.04	16.2	2.42	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.68	101.1
8: 717 B318G	48.6	32.8	0.51	0.04	16.3	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.63	101.4
9: 717 B317G	48.6	32.7	0.43	0.05	16.3	2.42	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.50	101.0
10: 717 B233G	48.7	33.0	0.40	0.04	16.2	2.43	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.49	101.3
11: 717 B232G	48.2	32.6	0.39	0.03	16.1	2.40	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.3
12: 718 B231G	48.6	32.8	0.41	0.05	16.3	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.55	101.2
13: 718 B226G	48.4	32.9	0.38	0.03	16.2	2.43	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.50	100.8
14: 718 B223G	48.5	32.6	0.59	0.04	16.3	2.44	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.69	101.2
15: 718 B310G	48.9	32.9	0.40	0.04	16.3	2.41	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.50	101.5
16: 718 B309G	48.5	32.6	0.38	0.04	16.2	2.44	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.8
17: 718 B316G	48.3	32.6	0.43	0.05	16.2	2.41	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.63	100.7



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LR Report : CA03273-JUL07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
18: 718 B315G	48.4	32.7	0.56	0.06	16.2	2.41	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.57	101.0	
19: 718 B314G	48.6	32.8	0.44	0.05	16.1	2.45	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.47	100.9	
20: 718 B312G	48.2	32.7	0.47	0.06	16.2	2.55	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.60	100.9	
21: 719 B308G	48.3	32.6	0.43	0.06	16.1	2.39	0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.60	100.6	
22: 719 B307G	48.1	32.4	0.41	0.04	16.1	2.42	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100.1	
23: 719 B306G	48.6	32.6	0.45	0.05	16.3	2.42	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.60	101.1	
24: 719 B313G	48.3	32.5	0.58	0.04	16.2	2.41	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.50	100.6	
25: 719 B305G	47.9	32.5	0.43	0.06	16.2	2.40	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.0	
26: 719 B304G	48.5	32.7	0.46	0.07	16.3	2.43	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.61	101.1	
27: 719 B303G	48.8	32.7	0.45	0.06	16.3	2.43	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.57	101.4	
28: 719 B301G	48.7	32.6	0.47	0.07	16.3	2.42	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	101.1	
29: 719 B300G	48.6	32.4	0.39	0.03	16.1	2.41	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.50	100.5	
30: 719 B298G	48.5	32.4	0.43	0.06	16.2	2.41	0.04	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.78	100.8	
31: 719 B297G	48.6	32.4	0.41	0.04	16.2	2.41	0.04	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	100.8	
32: 720 B296G	48.5	32.5	0.46	0.06	16.2	2.40	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.79	101.0	
33: 720 B293G	48.4	32.5	0.43	0.06	16.3	2.42	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.65	100.7	
34: 720 B295G	48.3	32.6	0.42	0.04	16.1	2.43	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.73	100.7	
35: 720 B287G	48.5	32.6	0.57	0.07	16.3	2.41	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.81	101.4	
36: 720 B285G	48.2	32.6	0.49	0.07	16.1	2.40	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.73	100.7	
37: 720 B286G	48.7	32.7	0.51	0.06	16.4	2.41	0.02	0.01	< 0.01	0.01	< 0.01	< 0.01	0.67	101.5	
38: 723 B288G	48.5	32.5	0.49	0.06	16.3	2.42	0.02	< 0.01	< 0.01	0.01	< 0.01	< 0.01	0.78	101.1	
39: 723 B271G	48.8	32.7	0.40	0.02	16.2	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.80	101.4	
40: 723 B289G	48.1	32.5	0.47	0.06	16.2	2.41	0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.70	100.6	
41: 723 B290G	48.1	32.5	0.46	0.06	16.1	2.41	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.60	100.3	
42: 723 B292G	47.9	32.4	0.44	0.06	16.1	2.40	0.02	0.01	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.72	100.1
43: 723 B294G	48.7	32.8	0.42	0.04	16.4	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	101.5	
44: 718 BXG	48.5	32.6	0.42	0.04	16.3	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.63	101.0	
45-DUP: 718 B312G	48.6	33.0	0.46	0.05	16.3	2.45	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	101.4	
46-DUP: 723 B271G	48.2	32.7	0.40	0.04	16.1	2.43	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.80	100.8	

REP No. CA03193-AUG07

Customer Avalon Ventures Ltd

Attention Ian London

Reference

Project

ChargeId OTHER

Batch 0319-AUG07

Samples 6

Chemist debbie

Title Final Report

Date 23-Aug-07 14:39

Type	Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI %	Sum %
SMP	815 B397G	48.6	32.7	0.52	0.1	15.9	2.52	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.63	101
SMP	816 B392G	47.2	32	0.56	0.16	15.5	2.46	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.65	98.6
SMP	821 B391G	48.6	32.8	0.55	0.09	16	2.54	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.55	101.2
SMP	816 B389G	48.2	32.5	0.64	0.12	15.8	2.51	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.79	100.5
SMP	817 B385G	48.3	32.4	0.62	0.13	15.9	2.51	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.81	100.7
SMP	820 B381G	47.9	32.3	0.53	0.09	15.7	2.48	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.56	99.6



**SGS**  
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Phone: 705-652-2000 FAX: 705-652-6365

**Avalon Ventures Ltd**

Attn : Ian London

605 Royal York Rd, Suite 206, Toronto  
Canada, M8Y 4G5  
Phone: (416) 971-9783, Fax:(416) 971-9812

Friday, September 07, 2007

Date Rec. : 20 August 2007  
LR Report : CA03156-AUG07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: 801 B353G	47.1	31.8	0.55	0.08	15.6	2.37	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.83	98.3
2: 801 B363G	47.3	32.1	0.51	0.05	15.6	2.27	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.70	98.6
3: 801 B360G	47.9	32.5	0.48	0.05	15.8	2.33	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.76	99.9
4: 801 B362G	47.8	32.4	0.46	0.06	15.8	2.31	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.68	99.6
5: 801 B357G	47.8	32.6	0.54	0.07	15.8	2.43	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.74	100.1
6: 801 B354G	47.9	32.3	0.48	0.07	15.8	2.28	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.73	99.6
7: 801 B347G	47.4	32.2	0.50	0.06	15.7	2.27	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	98.7
8: 801 B345G	47.8	32.2	0.49	0.05	15.8	2.35	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.63	99.4
9: 801 B358G	47.9	32.3	0.46	0.03	15.8	2.35	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.65	99.6
10: 802 B355G	48.0	32.5	0.51	0.07	15.9	2.31	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.66	100.0
11: 802 B346G	47.9	32.5	0.46	0.05	15.8	2.30	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.56	99.7
12: 802 B344G	47.9	32.4	0.47	0.07	15.8	2.48	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.58	99.7
13: 802 B343G	47.6	32.2	0.46	0.07	15.7	2.30	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.57	98.9
14: 802 B342G	48.0	32.5	0.46	0.05	15.9	2.31	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.49	99.8
15: 802 B351G	47.4	32.2	0.50	0.06	15.7	2.36	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.86	99.2



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LR Report : CA03156-AUG07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
16: 802 B331G	48.3	32.6	0.46	0.06	15.9	2.34	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.3
17: 802 B332G	47.9	32.5	0.44	0.06	15.8	2.21	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.62	99.6
18: 802 B349G	48.0	32.4	0.47	0.05	15.9	2.19	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.67	99.8
19: 802 B341G	47.7	32.2	0.44	0.07	15.7	2.30	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.60	99.0
20: 802 B330G	47.5	32.3	0.41	0.05	15.7	2.30	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.58	99.0
21: 802 B340G	47.7	32.2	0.42	0.06	15.8	2.22	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	99.0
22: 802 B328G	47.9	32.3	0.41	0.04	15.8	2.34	0.02	0.02	< 0.01	< 0.01	0.02	< 0.01	0.52	99.4
23: 803 B329G	48.5	32.8	0.37	0.02	15.9	2.27	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.50	100.4
24: 803 B324G	48.2	32.5	0.52	0.08	15.8	2.24	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.81	100.3
25: 803 B350G	47.5	32.2	0.45	0.05	15.6	2.24	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	98.8
26: 803 B339G	48.0	32.4	0.46	0.05	15.9	2.33	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	99.8
27: 803 B327G	47.8	32.5	0.43	0.04	15.8	2.45	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.62	99.8
28: 803 B338G	47.6	32.2	0.41	0.07	15.7	2.41	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.65	99.1
29: 803 B335G	47.6	32.3	0.50	0.04	15.8	2.31	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.68	99.2
30: 803 B337G	48.2	32.7	0.48	0.05	16.0	2.26	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.72	100.5
31: 803 B325G	47.9	32.4	0.37	0.04	15.7	2.31	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.68	99.4
32: 803 B326G	47.5	32.2	0.41	0.05	15.6	2.33	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.66	98.8
33: 804 B334G	47.5	32.2	0.43	0.07	15.7	2.27	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.70	99.0
34: 803 B336G	47.3	32.0	0.47	0.04	15.7	2.35	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.69	98.6
35: 807 B333	48.2	32.6	0.46	0.05	15.9	2.37	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.84	100.4
36: 807 B321G	48.1	32.6	0.38	0.02	15.9	2.43	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.88	100.4
37: 807 B324G	48.0	32.6	0.38	0.05	15.8	2.25	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.73	99.9
38: 807 B323G	47.8	32.4	0.37	0.04	15.7	2.31	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.63	99.2
39: 810 B381	47.2	31.8	0.77	0.08	15.5	2.34	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.83	98.6
40: 810 B385	47.3	31.9	0.63	0.09	15.5	2.32	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.84	98.7
41: 813 B391	47.7	32.3	0.77	0.07	15.8	2.21	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.89	99.8
42: 814B396	47.9	32.6	0.64	0.09	15.9	2.26	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.86	100.3
43-DUP: 802 B330G	47.6	32.2	0.40	0.05	15.8	2.40	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.57	99.0
44-DUP: 810 B385	47.3	31.9	0.62	0.09	15.6	2.33	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	0.84	98.7

REP No. CA03032-SEP07  
Customer Avalon Ventures Ltd.  
Attention D.S.Bubar  
Reference  
Project  
Chargeld OTHER  
Batch 0038-SEP07  
Samples 14  
Chemist debbie

Title  
Date 05-Sep-07 15:47

Type	Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI %	Sum %
SMP	815 B398G	48.6	32.8	0.5	0.17	16.1	2.38	0.02	0.02	< 0.01	0.02	< 0.01	< 0.01	0.62	101.3
SMP	815 B394G	48.2	32.6	0.57	0.17	15.9	2.3	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.81	100.6
SMP	821 B377G	47.9	32.7	0.53	0.18	15.9	2.32	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.62	100.2
SMP	821 B390G	48	32.6	0.51	0.13	16	2.35	0.02	0.02	< 0.01	0.02	< 0.01	< 0.01	0.62	100.2
SMP	817 B388G	48.2	32.7	0.55	0.18	16	2.38	0.03	< 0.01	< 0.01	0.01	< 0.01	< 0.01	0.65	100.6
SMP	817 B384G	48.3	32.7	0.55	0.17	16	2.37	0.02	0.01	< 0.01	0.02	< 0.01	< 0.01	0.68	100.8
SMP	815 B396G	48.3	32.8	0.51	0.18	16.1	2.29	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.67	100.9
SMP	815 B395G	48.1	32.6	0.58	0.21	16	2.35	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.76	100.7
SMP	821 B376G	47.6	32.6	0.54	0.16	15.7	2.31	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.7	99.6
SMP	821 B386G	47.3	32.5	0.52	0.15	15.7	2.43	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.66	99.3
SMP	816 B393G	48.3	32.5	0.6	0.18	16	2.35	0.03	0.02	0.01	< 0.01	< 0.01	< 0.01	0.62	100.6
SMP	821 B380G	48.7	32.8	0.52	0.17	16	2.33	0.02	0.02	< 0.01	0.01	0.01	< 0.01	0.61	101.2
SMP	816 B383G	48.4	32.7	0.55	0.18	16	2.33	0.02	0.02	< 0.01	0.02	< 0.01	< 0.01	0.46	100.7
SMP	820 B365G	48	32.8	0.53	0.16	15.9	2.34	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.3



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 Fax:(416) 971-9812

Monday, September 10, 2007

Date Rec. : 05 September 2007  
 LR Report : CA03034-SEP07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: 827 B401	48.0	32.3	0.65	0.13	16.3	2.51	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.87	100.7
2: 827 B407	47.9	32.4	0.59	0.12	16.2	2.49	0.03	0.02	< 0.01	< 0.01	0.02	< 0.01	0.96	100.7
3: 827 B413	48.1	32.4	0.60	0.10	16.4	2.49	0.03	0.01	< 0.01	0.01	< 0.01	< 0.01	0.80	100.9
4: 828 B418	47.7	32.0	0.62	0.11	16.2	2.46	0.03	0.01	< 0.01	0.01	0.01	< 0.01	0.81	100.1
5: 828 B423	48.1	32.6	0.66	0.12	16.3	2.51	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.93	101.4
6: 828 B428	48.2	32.5	0.61	0.09	16.5	2.46	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.72	101.1
7: 828 B432	48.3	32.4	0.61	0.10	16.4	2.44	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.77	101.1
8: 829 B438	48.0	32.3	0.63	0.10	16.4	2.48	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.78	100.7
9: 829 B443	47.9	32.1	0.60	0.12	16.3	2.46	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.86	100.5
10: 830 B449	48.0	32.2	0.60	0.11	16.3	2.47	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.82	100.5
11: 830 B454	48.0	32.1	0.63	0.12	16.5	2.48	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.79	100.7
12: 830 B459	48.3	32.2	0.65	0.11	16.5	2.46	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.78	101.0
13: 831 B465	48.1	32.3	0.63	0.11	16.4	2.47	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.78	100.9
14: 831 B470	47.7	32.0	0.60	0.09	16.2	2.46	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.75	99.9
15: 831 B475	47.8	32.0	0.72	0.14	16.4	2.44	0.03	0.03	< 0.01	0.01	0.01	< 0.01	0.81	100.3
16: 831 B480	48.4	32.4	0.58	0.09	16.5	2.49	0.03	0.01	< 0.01	0.01	< 0.01	< 0.01	0.78	101.2

Debbie Waldon  
 Project Coordinator,  
 Minerals Services, Analytical

Email: hainstech@on.aibn.com; ianlondon@rogers.com'

Page 1 of 1

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 Test method information available upon request.



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**Avalon Ventures Ltd**

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Wednesday, September 12, 2007

Date Rec. : 11 September 2007  
LR Report : CA03106-SEP07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %
1: Train 1B	47.8	32.2	0.51	0.11	15.7	2.43	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.62	99.4
2: Train 2B	48.1	32.4	0.53	0.10	15.9	2.49	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.64	100.2
3: Train 3B	47.9	32.1	0.52	0.12	15.8	2.46	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.81	99.7
4: Train 4B	47.7	32.2	0.55	0.10	15.7	2.45	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.65	99.3
5: Train 5B	47.6	32.0	0.53	0.11	15.7	2.44	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.46	98.9
6: Train 1BC	46.5	31.1	0.62	0.16	17.0	2.36	0.04	0.03	< 0.01	0.01	< 0.01	< 0.01	1.44	99.2
7: Train 2BC	47.9	32.1	0.55	0.11	15.8	2.47	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.70	99.7
8: Train 3BC	48.2	32.3	0.56	0.11	15.9	2.49	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.66	100.2
9: Train 4BC	47.5	32.0	0.52	0.11	15.7	2.48	0.02	0.03	< 0.01	< 0.01	< 0.01	< 0.01	0.47	98.9
10: Train 5BC	47.7	31.9	0.54	0.11	15.7	2.44	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.60	99.0

Debbie Waldon  
Project Coordinator,  
Minerals Services, Analytical

REP No. CA03154-SEP07  
 Customer Avalon Ventures Ltd  
 Attention Ian London  
 Reference  
 Project  
 ChargeId OTHER  
 Batch 0198-SEP07  
 Samples 35  
 Chemist debbie

Title  
 Date 14-Sep-07 13:19

Type	Sample ID	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	V2O5	LOI	Sum
SMP	B447G	48.6	32.4	0.51	0.11	15.9	2.49	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.53	100.6
SMP	B436G	48.4	32.2	0.54	0.12	15.8	2.49	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.62	100.3
SMP	B437G	48.6	32.4	0.52	0.09	15.9	2.48	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.55	100.6
SMP	B434G	48.8	32.4	0.53	0.09	15.9	2.49	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.8
SMP	B435G	48.4	32.5	0.52	0.1	15.8	2.49	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.4
SMP	B402G	48.8	32.5	0.51	0.09	15.9	2.53	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.65	101
SMP	B480G	48.3	32.3	0.5	0.11	15.8	2.47	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.2
SMP	B455G	48.5	32.3	0.53	0.1	15.9	2.49	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	0.57	100.5
SMP	B446G	48.4	32.2	0.57	0.1	15.9	2.48	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.61	100.3
SMP	B456G	48.4	32.3	0.58	0.12	15.8	2.47	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.72	100.5
SMP	B445G	48.6	32.5	0.49	0.09	15.8	2.48	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.62	100.7
SMP	B417G	48.4	32.4	0.47	0.09	15.8	2.48	0.03	0.01	< 0.01	0.01	< 0.01	< 0.01	0.7	100.3
SMP	B408G	48.4	32.3	0.51	0.08	15.8	2.46	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.63	100.2
SMP	B421G	48.1	32.2	0.52	0.11	15.8	2.51	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.62	99.9
SMP	B433G	48.3	32.4	0.55	0.09	15.9	2.5	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.3
SMP	B444G	48.4	32.2	0.51	0.11	15.8	2.45	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100
SMP	B473G	48.9	32.3	0.52	0.08	16.1	2.48	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.6	101
SMP	B432G	48.4	32.4	0.52	0.09	15.9	2.52	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.52	100.5
SMP	B423G A	48.4	32.3	0.52	0.1	15.8	2.46	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.56	100.2
SMP	B472G	48.1	31.8	0.51	0.09	15.9	2.41	0.03	0.03	< 0.01	< 0.01	< 0.01	< 0.01	0.62	99.6
SMP	B483G	48.3	32.3	0.54	0.11	15.8	2.43	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.41	99.8
SMP	B431G	48.6	32.5	0.51	0.09	15.9	2.49	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.53	100.7
SMP	B424G	48.3	32.2	0.54	0.1	15.9	2.47	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.51	100.1
SMP	B474G	48.6	32.2	0.53	0.09	15.9	2.47	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.4
SMP	B422G	48.1	32	0.52	0.08	15.8	2.46	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.58	99.6
SMP	B412G	48.2	32.2	0.5	0.1	15.7	2.46	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.51	99.7
SMP	B415G A	48	32	0.52	0.09	15.8	2.45	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.48	99.4
SMP	B471G	47.8	31.9	0.55	0.11	15.7	2.51	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.63	99.3
SMP	B405G	48.1	32	0.55	0.1	15.8	2.46	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	99.7
SMP	B441G	48.6	32.4	0.52	0.07	16	2.46	0.02	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.44	100.6
SMP	B426G	48	32.1	0.5	0.09	15.7	2.47	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.44	99.5
SMP	B414G	48.1	32.1	0.53	0.1	15.7	2.48	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.57	99.7
SMP	B425G	48	32	0.51	0.07	15.7	2.44	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	99.4
SMP	B409G	48.3	32.2	0.48	0.07	15.9	2.45	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.46	99.9
SMP	B410G	48.3	32.3	0.48	0.07	15.9	2.46	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.54	100.2
DUP	B472G	48.3	32	0.51	0.1	15.8	2.46	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.63	99.9



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Wednesday, October 10, 2007

Date Rec. : 25 September 2007  
 LR Report : CA03258-SEP07

## CERTIFICATE OF ANALYSIS

### Final Report

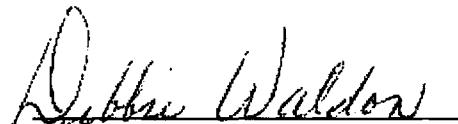
Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: B24	48.2	32.3	0.56	0.11	15.9	2.51	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.93	100.5	
2: B25	48.8	32.7	0.47	0.07	16.0	2.54	0.03	0.02	< 0.01	0.01	< 0.01	< 0.01	0.87	101.5	
3: B26	48.4	32.5	0.47	0.06	15.9	2.52	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.90	100.8	
4: B27	48.4	32.6	0.52	0.10	16.1	2.50	0.02	0.01	< 0.01	< 0.01	0.02	< 0.01	0.87	101.1	
5: B28	48.2	32.5	0.47	0.07	15.9	2.50	0.02	0.01	< 0.01	< 0.01	0.02	< 0.01	0.96	100.7	
6: B29	48.4	32.4	0.43	0.06	15.9	2.51	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.75	100.6	
7: B30	47.8	32.2	0.49	0.10	15.8	2.48	0.03	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.89	99.8
8: B31	48.6	32.7	0.48	0.07	16.0	2.51	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.83	101.2	
9: B32	48.3	32.5	0.49	0.08	16.0	2.51	0.03	0.01	< 0.01	< 0.01	0.02	< 0.01	0.80	100.7	
10: B33	48.3	32.6	0.50	0.07	16.0	2.49	0.03	< 0.01	< 0.01	< 0.01	0.01	< 0.01	0.91	100.9	
11: B34	48.8	32.6	0.43	0.05	16.1	2.51	0.03	< 0.01	< 0.01	0.01	0.01	< 0.01	0.67	101.2	
12: B35	47.8	32.1	0.45	0.06	15.9	2.55	0.03	0.01	< 0.01	0.01	0.01	< 0.01	0.88	99.8	
13: B36	48.6	32.7	0.47	0.07	16.1	2.52	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.96	101.4	
14: B37	48.5	32.4	0.47	0.06	16.0	2.52	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.90	101.0	
15: B38	48.6	32.6	0.58	0.09	16.1	2.47	0.03	0.02	< 0.01	< 0.01	0.01	< 0.01	0.92	101.4	
16: B39	48.5	32.5	0.49	0.07	16.1	2.50	0.03	0.02	< 0.01	< 0.01	0.02	< 0.01	0.75	101.0	
17: B40	48.7	32.6	0.46	0.05	16.2	2.52	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.86	101.5	



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LR Report : CA03258-SEP07

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
18: B41	48.1	32.3	0.47	0.08	15.9	2.48	0.02	0.02	< 0.01	< 0.01	0.01	< 0.01	1.06	100.5	
19: B42	48.5	32.6	0.44	0.07	15.9	2.51	0.02	0.01	< 0.01	0.01	0.02	< 0.01	0.79	100.9	
20: B43	48.4	32.7	0.49	0.07	16.0	2.55	0.03	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.93	101.2	
21: B44	48.4	32.5	0.52	0.08	16.0	2.52	0.03	0.01	< 0.01	< 0.01	0.02	< 0.01	0.82	100.9	
22: B45	47.9	32.5	0.41	0.09	15.7	2.51	0.03	0.01	< 0.01	0.01	0.02	< 0.01	0.90	100.1	
23: B46	48.1	32.2	0.44	0.05	15.9	2.50	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.96	100.1
24: B47	48.5	32.6	0.50	0.06	16.0	2.51	0.03	0.02	< 0.01	< 0.01	0.02	< 0.01	0.87	101.1	
25: B48	48.5	32.6	0.50	0.05	16.0	2.52	0.04	0.01	< 0.01	< 0.01	0.02	< 0.01	0.75	101.1	
26: B49	48.6	32.6	0.49	0.06	16.1	2.54	0.02	0.01	< 0.01	< 0.01	0.02	< 0.01	0.95	101.5	
27: B50	48.4	32.3	0.51	0.05	16.0	2.53	0.03	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.89	100.7	
28: B51	48.4	32.5	0.55	0.07	15.9	2.53	0.03	0.02	< 0.01	< 0.01	0.03	< 0.01	0.78	100.8	
29: B52	48.6	32.6	0.55	0.08	16.1	2.54	0.03	0.01	< 0.01	< 0.01	0.01	< 0.01	0.96	101.4	
30: B53	48.2	32.6	0.54	0.08	15.9	2.52	0.03	0.02	< 0.01	0.01	0.02	< 0.01	1.00	100.9	
31-DUP: B43	48.4	32.7	0.55	0.08	15.9	2.53	0.03	0.01	0.01	< 0.01	0.02	< 0.01	0.95	101.2	



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Tuesday, October 09, 2007

Date Rec. : 25 September 2007  
LR Report : CA03261-SEP07

## CERTIFICATE OF ANALYSIS

### Final Report

Sample ID	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO %	CaO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	TiO <sub>2</sub> %	P <sub>2</sub> O <sub>5</sub> %	MnO %	Cr <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	LOI %	Sum %	
1: B 416G	47.7	32.4	0.51	0.10	15.8	2.42	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.64	99.5
2: B 423G-A	48.2	32.8	0.53	0.10	15.9	2.49	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.59	100.6
3: B 423G-B	47.6	32.2	0.52	0.10	15.7	2.34	0.02	0.02	< 0.01	0.01	< 0.01	< 0.01	< 0.01	0.62	99.1
4: B 456G	47.7	32.4	0.51	0.09	15.7	2.52	0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.61	99.5
5: B 482G	47.9	32.6	0.51	0.09	15.8	2.39	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.61	99.9

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Company

SGS

CA 03032-Sep07

## Size Distribution Analysis

Sample: B376G

Test No.: 821

Mesh	Size µm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.5	1.7	1.7	98.3
Pan	-75	84.8	98.3	100.0	0.0
Total	-	86.3	100.0	-	-

Sample: B377G

Test No.: 821

Mesh	Size µm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.6	1.5	1.5	98.5
Pan	-75	103.3	98.5	100.0	0.0
Total	-	104.9	100.0	-	-

Sample: B380G

Test No.: 821

Mesh	Size µm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.0	1.3	1.3	98.7
Pan	-75	78.2	98.7	100.0	0.0
Total	-	79.2	100.0	-	-

Sample: B386G

Test No.: 821

Mesh	Size µm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.5	1.8	1.8	98.2
Pan	-75	83.5	98.2	100.0	0.0
Total	-	85.0	100.0	-	-

Sample: B390G

Test No.: 821

Mesh	Size µm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.1	0.1	0.1	99.9
200	75	0.4	0.4	0.5	99.5
Pan	-75	104.2	99.5	100.0	0.0
Total	-	104.7	100.0	-	-

**Company****SGS****CA 03032-Sep07****Size Distribution Analysis****Sample:** B394G**Test No.:** 815

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	μm	μm		Individual	Cumulative	
100	150	-75	0.0	0.0	0.0	100.0
200	75	-	0.3	0.3	0.3	99.7
Pan	-75	-	104.3	99.7	100.0	0.0
<b>Total</b>	-	-	<b>104.6</b>	<b>100.0</b>	-	-

**Sample:** B395G**Test No.:** 815

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	μm	μm		Individual	Cumulative	
100	150	-75	0.1	0.1	0.1	99.9
200	75	-	0.4	0.5	0.6	99.4
Pan	-75	-	78.8	99.4	100.0	0.0
<b>Total</b>	-	-	<b>79.3</b>	<b>100.0</b>	-	-

**Sample:** B396G**Test No.:** 815

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	μm	μm		Individual	Cumulative	
100	150	-75	0.1	0.1	0.1	99.9
200	75	-	0.7	0.7	0.8	99.2
Pan	-75	-	97.0	99.2	100.0	0.0
<b>Total</b>	-	-	<b>97.8</b>	<b>100.0</b>	-	-

**Sample:** B398G**Test No.:** 815

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	μm	μm		Individual	Cumulative	
100	150	-75	0.1	0.1	0.1	99.9
200	75	-	1.3	1.3	1.3	98.7
Pan	-75	-	102.6	98.7	100.0	0.0
<b>Total</b>	-	-	<b>104.0</b>	<b>100.0</b>	-	-

**Company****SGS****CA 03032-Sep07****Size Distribution Analysis****Sample:** B383G**Test No.:** 816

Mesh	Size		Weight grams	% Retained	
	µm	µm		Individual	Cumulative
100	150	150	0.1	0.1	0.1
200	75	75	1.0	1.2	1.3
Pan	-75	-75	84.4	98.7	100.0
<b>Total</b>	-	-	<b>85.5</b>	<b>100.0</b>	-

**Sample:** B393G**Test No.:** 816

Mesh	Size		Weight grams	% Retained	
	µm	µm		Individual	Cumulative
100	150	150	0.0	0.0	0.0
200	75	75	0.1	0.1	0.1
Pan	-75	-75	81.0	99.9	100.0
<b>Total</b>	-	-	<b>81.1</b>	<b>100.0</b>	-

**Sample:** B384G**Test No.:** 817

Mesh	Size		Weight grams	% Retained	
	µm	µm		Individual	Cumulative
100	150	150	0.1	0.1	0.1
200	75	75	0.2	0.2	0.3
Pan	-75	-75	100.0	99.7	100.0
<b>Total</b>	-	-	<b>100.3</b>	<b>100.0</b>	-

**Sample:** B388G**Test No.:** 817

Mesh	Size		Weight grams	% Retained	
	µm	µm		Individual	Cumulative
100	150	150	0.1	0.1	0.1
200	75	75	0.3	0.3	0.4
Pan	-75	-75	106.1	99.6	100.0
<b>Total</b>	-	-	<b>106.5</b>	<b>100.0</b>	-

**Company**

**SGS**

**CA 03032-Sep07**

**Size Distribution Analysis**

**Sample:** B365G

**Test No.:** 820

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.1	0.1	0.1	99.9
200	75	1.0	1.2	1.3	98.7
Pan	-75	84.4	98.7	100.0	0.0
<b>Total</b>	-	<b>85.5</b>	<b>100.0</b>	-	-

**Company**

**SGS**

**CA 03033-Sep07**

**Size Distribution Analysis**

**Sample:** BxxxG

**Test No.:** 821

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.1	0.1	0.1	99.9
200	75	1.1	1.0	1.1	98.9
Pan	-75	104.1	98.9	100.0	0.0
<b>Total</b>	-	<b>105.3</b>	<b>100.0</b>	-	-

**Company****SGS****CA 03261-Sep07****Size Distribution Analysis****Sample: B423G-B****Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.0	0.0	0.0	100.0
200	75	0.9	2.0	2.0	98.0
Pan	-75	43.1	98.0	100.0	0.0
<b>Total</b>	-	<b>44.0</b>	<b>100.0</b>	-	-

**Sample: B456G****Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.1	0.1	0.1	99.9
200	75	1.9	2.1	2.2	97.8
Pan	-75	89.0	97.8	100.0	0.0
<b>Total</b>	-	<b>91.0</b>	<b>100.0</b>	-	-

**Sample: B482G****Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.1	0.2	0.2	99.8
200	75	0.7	1.3	1.5	98.5
Pan	-75	51.2	98.5	100.0	0.0
<b>Total</b>	-	<b>52.0</b>	<b>100.0</b>	-	-

**Sample: B423G-A****Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.0	0.0	0.0	100.0
200	75	1.4	1.8	1.8	98.2
Pan	-75	78.0	98.2	100.0	0.0
<b>Total</b>	-	<b>79.4</b>	<b>100.0</b>	-	-

**Sample: B416G****Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.0	0.0	0.0	100.0
200	75	0.8	0.9	0.9	99.1
Pan	-75	92.4	99.1	100.0	0.0
<b>Total</b>	-	<b>93.2</b>	<b>100.0</b>	-	-

**Company****SGS****CA 03262-Sep07****Size Distribution Analysis****Sample:** B421G**Test No.:**

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	μm	μm		Individual	Cumulative	
100	150	75	0.0	0.0	0.0	100.0
200		75	2.4	2.7	2.7	97.3
Pan		-75	85.0	97.3	100.0	0.0
<b>Total</b>		-	<b>87.4</b>	<b>100.0</b>	-	-

**Sample:** B410G**Test No.:**

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	μm	μm		Individual	Cumulative	
100	150	75	0.0	0.0	0.0	100.0
200		75	1.4	1.9	1.9	98.1
Pan		-75	71.8	98.1	100.0	0.0
<b>Total</b>		-	<b>73.2</b>	<b>100.0</b>	-	-

**Sample:** B444G**Test No.:**

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	μm	μm		Individual	Cumulative	
100	150	75	0.0	0.0	0.0	100.0
200		75	0.8	1.9	1.9	98.1
Pan		-75	42.1	98.1	100.0	0.0
<b>Total</b>		-	<b>42.9</b>	<b>100.0</b>	-	-

**Sample:** B480G**Test No.:**

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	μm	μm		Individual	Cumulative	
100	150	75	0.0	0.0	0.0	100.0
200		75	1.9	1.8	1.8	98.2
Pan		-75	101.9	98.2	100.0	0.0
<b>Total</b>		-	<b>103.8</b>	<b>100.0</b>	-	-

**Company**

**SGS**

**CA 03262-Sep07**

**Size Distribution Analysis**

**Sample:** B422G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.6	2.6	2.6	97.4
Pan	-75	59.4	97.4	100.0	0.0
<b>Total</b>	<b>-</b>	<b>61.0</b>	<b>100.0</b>	<b>-</b>	<b>-</b>

**Sample:** B417G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	0.8	1.4	1.4	98.6
Pan	-75	55.2	98.6	100.0	0.0
<b>Total</b>	<b>-</b>	<b>56.0</b>	<b>100.0</b>	<b>-</b>	<b>-</b>

**Sample:** B447G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	0.6	2.2	2.2	97.8
Pan	-75	26.8	97.8	100.0	0.0
<b>Total</b>	<b>-</b>	<b>27.4</b>	<b>100.0</b>	<b>-</b>	<b>-</b>

**Sample:** B437G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.1	1.7	1.7	98.3
Pan	-75	62.0	98.3	100.0	0.0
<b>Total</b>	<b>-</b>	<b>63.1</b>	<b>100.0</b>	<b>-</b>	<b>-</b>

**Company**

**SGS**

**CA 03262-Sep07**

**Size Distribution Analysis**

**Sample:** B431G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.1	0.1	0.1	99.9
200	75	2.4	2.4	2.5	97.5
Pan	-75	97.0	97.5	100.0	0.0
<b>Total</b>	-	<b>99.5</b>	<b>100.0</b>	-	-

**Sample:** B433G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.1	0.1	0.1	99.9
200	75	0.4	0.3	0.4	99.6
Pan	-75	137.2	99.6	100.0	0.0
<b>Total</b>	-	<b>137.7</b>	<b>100.0</b>	-	-

**Sample:** B471G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.0	0.0	0.0	100.0
200	75	1.6	2.3	2.3	97.7
Pan	-75	68.9	97.7	100.0	0.0
<b>Total</b>	-	<b>70.5</b>	<b>100.0</b>	-	-

**Sample:** B472G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.1	0.1	0.1	99.9
200	75	2.3	1.6	1.7	98.3
Pan	-75	142.0	98.3	100.0	0.0
<b>Total</b>	-	<b>144.4</b>	<b>100.0</b>	-	-

**Company**

**SGS**

**CA 03262-Sep07**

**Size Distribution Analysis**

**Sample:** B432G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.9	1.9	1.9	98.1
Pan	-75	95.8	98.1	100.0	0.0
<b>Total</b>	<b>-</b>	<b>97.7</b>	<b>100.0</b>	<b>-</b>	<b>-</b>

**Sample:** B409G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.4	1.4	1.4	98.6
Pan	-75	96.6	98.6	100.0	0.0
<b>Total</b>	<b>-</b>	<b>98.0</b>	<b>100.0</b>	<b>-</b>	<b>-</b>

**Sample:** B425G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.1	2.4	2.4	97.6
Pan	-75	44.5	97.6	100.0	0.0
<b>Total</b>	<b>-</b>	<b>45.6</b>	<b>100.0</b>	<b>-</b>	<b>-</b>

**Sample:** B424G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained Individual	% Retained Cumulative	% Passing Cumulative
100	150	0.0	0.0	0.0	100.0
200	75	1.9	2.7	2.7	97.3
Pan	-75	68.9	97.3	100.0	0.0
<b>Total</b>	<b>-</b>	<b>70.8</b>	<b>100.0</b>	<b>-</b>	<b>-</b>

**Company**

**SGS  
Size Distribution Analysis**

**CA 03262-Sep07**

**Sample:** B441G

**Test No.:**

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	µm			Individual	Cumulative	
100	150		0.0	0.0	0.0	100.0
200	75		1.6	3.0	3.0	97.0
Pan	-75		51.4	97.0	100.0	0.0
<b>Total</b>	-		<b>53.0</b>	<b>100.0</b>	-	-

**Sample:** B402G

**Test No.:**

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	µm			Individual	Cumulative	
100	150		0.0	0.0	0.0	100.0
200	75		0.6	0.9	0.9	99.1
Pan	-75		69.8	99.1	100.0	0.0
<b>Total</b>	-		<b>70.4</b>	<b>100.0</b>	-	-

**Sample:** B446G

**Test No.:**

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	µm			Individual	Cumulative	
100	150		0.0	0.0	0.0	100.0
200	75		1.8	2.2	2.2	97.8
Pan	-75		80.9	97.8	100.0	0.0
<b>Total</b>	-		<b>82.7</b>	<b>100.0</b>	-	-

**Sample:** B412G

**Test No.:**

Mesh	Size		Weight grams	% Retained		% Passing Cumulative
	µm			Individual	Cumulative	
100	150		0.0	0.0	0.0	100.0
200	75		1.2	1.8	1.8	98.2
Pan	-75		66.6	98.2	100.0	0.0
<b>Total</b>	-		<b>67.8</b>	<b>100.0</b>	-	-

**Company**

**SGS**

**CA 03262-Sep07**

**Size Distribution Analysis**

**Sample:** B445G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.0	0.0	0.0	100.0
200	75	1.0	1.4	1.4	98.6
Pan	-75	68.2	98.6	100.0	0.0
<b>Total</b>	-	<b>69.2</b>	<b>100.0</b>	-	-

**Sample:** B455G

**Test No.:**

Mesh	Size μm	Weight grams	% Retained		% Passing Cumulative
			Individual	Cumulative	
100	150	0.0	0.0	0.0	100.0
200	75	1.4	1.8	1.8	98.2
Pan	-75	74.4	98.2	100.0	0.0
<b>Total</b>	-	<b>75.8</b>	<b>100.0</b>	-	-

# Loring Laboratories Ltd.

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 loringlabs@telus.net

TO AVALON VENTURES  
 Suite 1901, 130 Adelaide St. W.  
 Toronto, Ontario  
 M5H 3P5

FILE: 49508

DATE: March 16, 2007

Attn: Don Hains

## WHOLE ROCK ANALYSIS BY ICP

Sample No.	Al <sub>2</sub> O <sub>3</sub> %	Ba ppm	CaO %	Cr ppm	Fe <sub>2</sub> O <sub>3</sub> %	K <sub>2</sub> O %	MgO %	MnO %	Na <sub>2</sub> O %	Ni ppm	P <sub>2</sub> O <sub>5</sub> %	SO <sub>3</sub> %	SiO <sub>2</sub> %	Sr ppm	TiO <sub>2</sub> %	V ppm	LOI %	SUM %
MAG-1	28.62	63	14.74	311	2.26	0.07	0.69	0.02	2.12	111	<0.01	0.13	48.99	189	0.12	<2	0.47	98.23
MAG-2	30.27	<50	16.18	295	1.02	0.04	0.28	0.01	2.28	227	<0.01	0.07	47.86	233	0.02	<2	0.39	98.41
+28 4th Pass	29.06	77	16.71	254	0.28	0.06	0.11	<0.01	2.26	74	<0.01	0.13	49.37	209	0.01	<2	0.65	98.63
+100 4th Pass	29.45	<50	16.87	246	0.43	0.08	0.12	<0.01	2.24	96	<0.01	0.11	49.48	237	0.01	<2	0.75	99.54
TEST-1	27.65	<50	16.93	426	0.96	0.04	0.19	0.01	2.08	371	<0.01	0.14	49.45	231	0.01	<2	0.27	97.73
TEST-2	29.48	<50	17.88	500	0.93	0.03	0.14	0.01	2.17	291	<0.01	0.05	48.07	216	0.01	<2	0.13	98.91
-200 Mill Comp.	28.55	<50	18.19	131	0.51	0.03	0.16	0.01	2.09	26	<0.01	0.08	48.19	205	0.02	<2	0.36	98.19
-270 Non-Mag.	29.81	<50	20.57	123	0.42	0.03	0.09	<0.01	1.96	26	<0.01	0.10	45.46	239	0.01	<2	0.15	98.60
-28 x +42m	29.70	<50	20.74	188	1.38	0.06	0.27	0.01	2.06	20	<0.01	0.08	43.36	215	0.05	<2	0.36	98.08
-42 x +100m	29.13	<50	20.95	180	1.36	0.06	0.29	0.01	2.05	41	<0.01	0.11	43.70	227	0.05	<2	0.45	98.18
-100 x +140m	29.41	<50	21.13	131	1.87	0.07	0.39	0.02	2.01	72	<0.01	0.13	43.53	222	0.07	9	0.52	99.15
-140 x -200m	29.16	88	21.23	82	1.72	0.06	0.35	0.02	2.01	113	<0.01	0.10	43.60	234	0.05	<2	0.54	98.84
-200 x +325m	29.41	161	19.41	90	2.47	0.08	0.46	0.04	2.05	2308	<0.01	0.13	43.66	235	0.07	5	0.50	98.24
-325m	27.41	121	18.22	270	4.71	0.18	0.71	0.05	2.04	231	<0.01	0.16	44.49	226	0.12	14	1.32	99.41

0.2g Sample fused with 1.5g BCO and dissolved in 50% HNO<sub>3</sub>

Certified by \_\_\_\_\_