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FALCONBRIDGE LIMITED EXPLORATION

GEOCHEMISTRY OF THE MANDERSTROM PROPERTY ASSESSMENT REPORT

August 29, 1993

STRATHY TOWNSHIP
SUDBURY MINING DIVISION
NTS 31M/5

2.15363

CHELMSFORD OFFICE

Qual. # 2.14013

JEAN-DENIS FOURNIER

SUMMARY

The accompanying report, describes the geochemical survey performed on Manderstrom property. The geology and line-cutting work were filed for assessmnet in another report earlyer this year.

The property consists of five claims numbered ~~S38943~~ S-398943 to S-398947 to S38947.

The work outlined in this report consists of lithogeochemical sampling (74 samples).

The subaqueous pillowed basaltic sequence, interbedded with felsic fragmental horizons is considered a favourable lithological setting to host volcanogenic massive sulphide deposits. This conclusion is further supported by the presence of large zones of hydrothermal alteration characterized by sodium depletion ($Na_2O < 1\%$) and silicification.

Ground magnetic and conductivity geophysical surveys followed by diamond drilling are recommended.

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MANDERSTROM PROPERTY

INTRODUCTION

Purpose of the Report

The purpose of this document is to describe the lithogeochemical survey performed by Falconbridge Limited on the Manderstrom property in 1993 and to summarize the results obtained.

Location Access and Physiography

The property is located in Strathy Township approximately one kilometre north of the townsite of Temagami (Fig. 1). Access to the property is excellent. It located one kilometre west of Highway 11 and crossed by the Sherman Mine road which is paved and joins Highway 11. The property is also cut by a gas pipeline, a power line and an unused railway line (Fig. 2).
The physiography of the property consists of gently rolling hills and ridges. The higher areas are covered with coniferous and mixed forests whereas the low lying areas are covered with cedar swamps and marshes.

Bedrock exposure is less than 5%, however the evenly scattered distribution of outcrops throughout the property provides a good overview of the geology.

Property Definition

The Manderstrom property encompasses 5 claims. All claims are owned by Falconbridge Limited. Although a significant amount of work was devoted to the locating of claim posts and property boundaries, many posts could not be found. It appears that a number of the missing posts may have been destroyed by cultural activities such as logging, housing development and pipe line construction. Posts which were found are plotted on Map.1 and property boundary data for areas where posts could not be located was obtained from the claim map issued by the Government of Ontario (Index To Land Disposition, Map G3451, Strathy Township). The following list outlines which claims are covered by the report.

Manderstrom Option (PN 6274):	S 398943
	S 398944
	S 398945
	S 398946
	S 398947

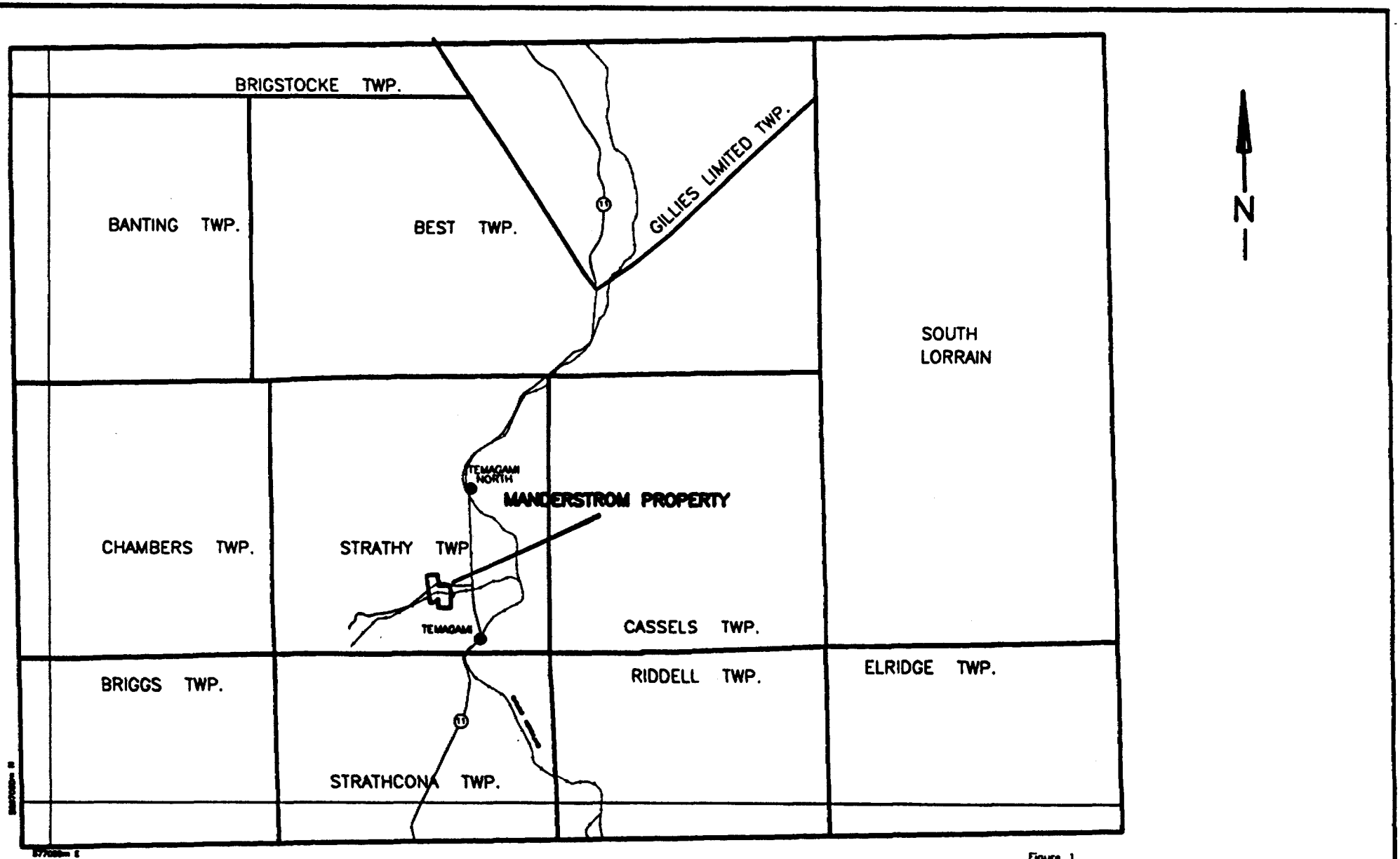

Figure 1.

FALCONBRIDGE EXPLORATION

MANDERSTROM PROPERTY

PROPERTY LOCATION MAP

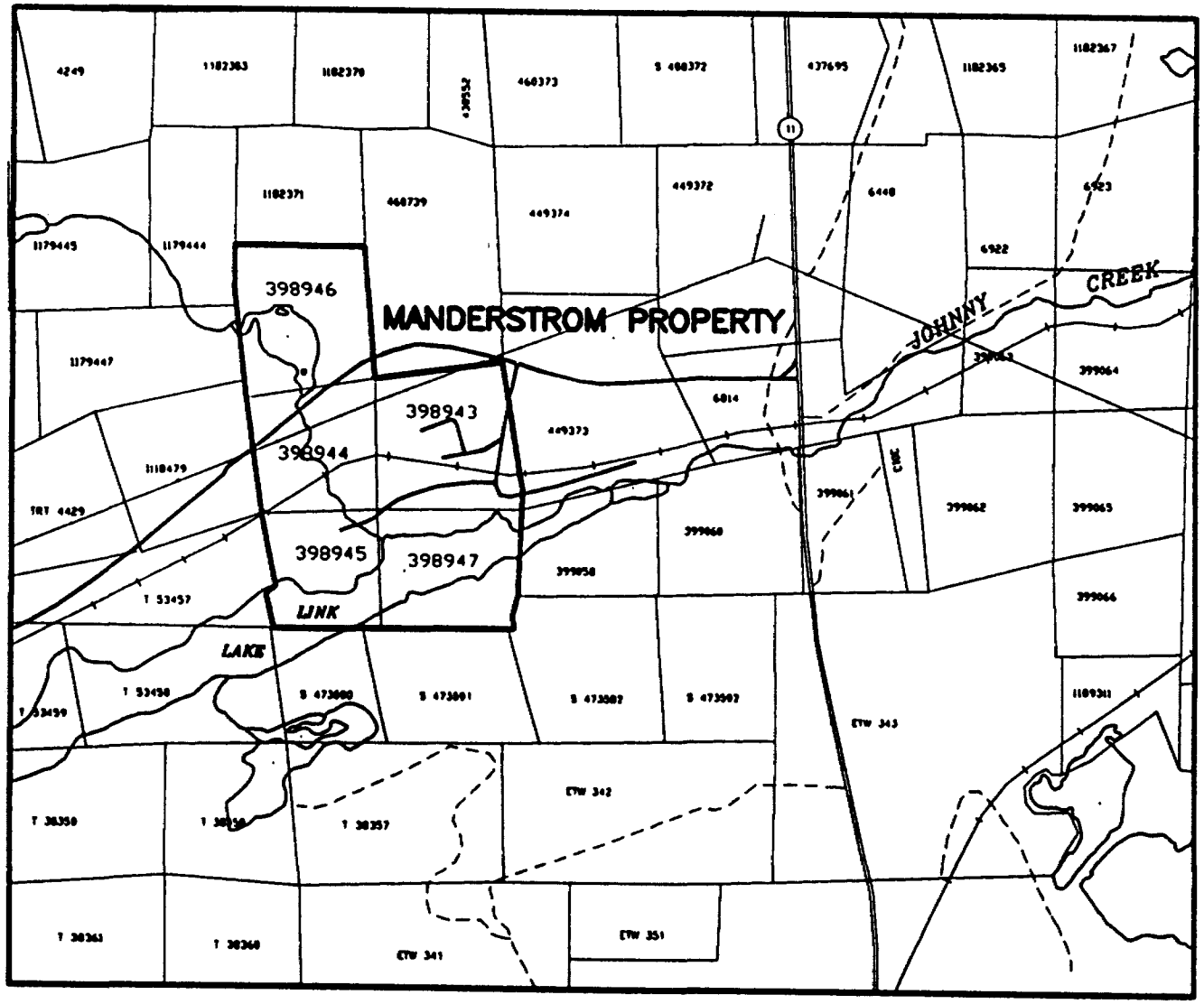

Figure 2.

FALCONBRIDGE EXPLORATION
MANDERSTROM PROPERTY
CLAIM MAP

1993 Program

In the spring an 8.93 kilometres grid was cut over the entire property. A base-line was cut along and parallel to the power line at 070 degrees azimuth. Cross lines spaced 100 metres were oriented perpendicularly to the base-line at 340 degrees. A tie line parallel to the base line was cut every 400 metres. The linecutting was contracted to N. McBride Staking and Line Cutting of Notre Dame du Nord. The entire area was mapped geologically at a scale of 1:2000 and sampled for lithogeochemistry every 50 meters along grid lines (outcrop conditions permitting). The mapping and sampling were performed by Jean-Denis Fournier, Senior Field Geologist with Falconbridge Limited, with assistance from Kevin Wells, third year geology summer student. Occasionally Pascal Lessard and Tara Sagrif, also third year geology students, helped with the sampling. All work was completed between May 5 and August 23, 1993. James K. Cecchetto, Senior Project Geologist with Falconbridge Limited, supervised the program.

History of Exploration

Regional geological studies which covered the area included the work of Moorehouse (1942), Bennett (1978) and Fyon and Crocket (1986). The documented previous exploration work performed on the property is summarized in the following table.

PREVIOUS WORK

YEAR	COMPANY	TYPE OF WORK	OPTION	GDIF#
1934	Sproat	Trenching/stripping, Assay data	All Options (up to L25W)	56
1970	Morrison, W.F. (Independent)	Geological	Price-Mackay, Manderstrom, Blake	39
1977-1978	Hollinger Mines	Geological, Drilling Ground magnetometer, Ground electromagnetic	All Options	33
1983	Prospectors Airways, B. Manderstrom	Prospector's notes	Manderstrom	64

Table 1. Summary of previous work conducted on the Manderstrom property.

GEOLOGY

Regional Geology

The geology of The Strathy Township is summarized in the work of Fyon and Crocket (1986) as follows: " The volcano-sedimentary stratigraphy of Strathy Township is informally subdivided into two terranes which are called the Older and Younger volcanic complexes. The Younger Volcanic Complex has been subdivided into four formations: 1) a lower iron-rich, tholeiitic basalt cycle; 2) a calc-alkaline cycle consisting of basalt/andesite flows and felsic pyroclastic deposits; 3) a clastic sedimentary sequence; and 4) an upper, iron rich, tholeiitic basalt cycle. Oxide facies iron formations occur at the top of both the Older and Younger Volcanic Complexes." The property is underlain by rock belonging to all four subdivisions of the Younger Volcanic Complex.

Property Geology

The property is underlain mostly by Archean metavolcanic rocks of the Younger Volcanic Complex as defined by Fyon and Crocket (1986). The property is crosscut by a wide easterly striking dioritic intrusion, a northwesterly striking diabase dike and the major east-west Link Lake shear zone. The metamorphic grade of the property is greenschist.

The general framework of the property geology consists of a package of vertically dipping mafic and felsic volcanic rocks striking at 070 to 090 degrees and consistently showing stratigraphic tops to the south. The volcanic stratigraphy is crosscut by two main geological features. The first is a semi conformable diorite dike located along the base line and the second is the Link Lake shear zone which also strikes subparallel to stratigraphy and is located at about 4+50S. The diorite dike and the shear zone can be viewed as two breaks which subdivide the volcanic stratigraphy into 3 separate blocks. Although the whole volcanic package may be continuous and these divisions may not represent time breaks or separations between different volcanic cycles, they subdivide the property into three blocks which have distinct geological characteristics. The blocks will be respectively named the North, Central and South blocks. It is convenient to structure the geological description of the property in such a way as to describe each of these blocks sequentially going up stratigraphy, i.e. from north to south.

North block

The north block, which stretches from the northern edge of the property to the diorite dike, can be described as a package of mafic volcanic rocks consisting mostly of subaqueous flows.
The mafic volcanics within the North block are dark to medium green and vary from fine grained massive to amygdaloidal to pillowed flows. The mafic sequence is typical of subaqueous flows as indicated by the presence of primary features such as pillows, pillow

breccias, hyaloclastites, amygdules and variolites. In the North block, these primary features are well preserved and display no major evidence of structural deformation. The rocks are weakly to moderately carbonatized and locally silicified. The alteration is mostly pervasive, however, it is usually stronger along primary channelways such as pillow selvages, porous clasts, hyaloclastite interstices and concentric and radial cooling fractures within pillows. The mafic volcanics are commonly crosscut by irregular, fine grained mafic dikes which probably are subvolcanic feeder dykes.

Diorite dike

The diorite dike which intrudes the volcanic sequence subparallel to stratigraphy, separates the North from the Central block. The dike is almost exactly parallel to the Base Line along which it is exposed. The width of the dike is approximately 180 metres. The unit is characterized by its high content (>40 %) of medium grained (1 to 1.5 mm) plagioclase, the presence of 3 to 5 % leucoxene and small amounts of visible quartz in the matrix. Typically, the weathered surface of the diorite is pale greenish white due to the positive weathering of the abundant plagioclase crystals. Minor shear zones parallel to and probably associated with the Link Lake shear zone crosscut the diorite. This indicates that the diorite was intruded at least prior to the latest reactivation of the Link Lake shear zone.

Central block

The central block is defined as the portion of the study area located south of the diorite dike and north of Link Lake. Exposure is generally poor except for along the railway and the Sherman Mine road.The North and Central blocks are probably part of the same volcanic stratigraphy, however the following criterions justify treating this block as a separate entity:

- Rocks within this area generally show evidence of deformation and alteration associated with the Link Lake shear zone.

- The block hosts a distinct stratigraphic unit not found in the other areas. This units is a continuous band of fragmental felsic volcanics.

As observed in the North block, the Central block is dominantly underlain by mafic volcanic rocks which are dark to medium green when fresh and vary from fine grained massive to amygdaloidal to pillowed flows. The mafic sequence formed in a subaqueous environment as indicated by the presence of pillows. Unlike the north block where the primary features are well preserved and display no major evidence of structural deformation, the primary textures observed in the central block are commonly flattened, sheared or completely obliterated due to structural overprint. The rocks vary from weak to strongly carbonatized, sericitized and to a lesser extent silicified. The alteration vary

from pervasive to strongly focused along primary channelways such as pillow selvages. The mafic volcanics are commonly crosscut by irregular fine grained mafic dikes which probably are subvolcanic feeder dykes.

One of the most characteristic feature of the volcanic stratigraphy within the Central block is the presence of a continuous band of fragmental felsic volcanics to be referred in this report as the Sawmill fragmental unit due to its proximity to the now abandonned Milne Sawmill. The Sawmill unit is a matrix supported, quartz eye bearing, fine to coarse fragmental rhyolite. The clast are elongated, oblate to subangular and their composition varies from rhyolitic to pumiceous. Clasts size ranges from from 1 to 8 centimetres. Due to the proximity of the Link Lake Shear Zone, the unit has a well developped foliation which strikes parallel to the shear zone. The clasts are flattened parallel to the foliation and a flattening ratio ranging between 3:1 and 6:1 can be estimated. The unit is generally weakly sericitized and silicified. Carbonatization is generally weak to moderate and fracture controlled. The unit has a characteristic spotted rusty appearance due to weathering of pyritized clasts. The abundance of pyritized clasts within the fragmental varies from one to three percent.

South of the fragmental unit, the stratigraphy is poorly exposed and consequently poorly understood.

Link Lake shear zone

The Link Lake shear Zone is the principal structural feature on the property. The core of the zone is not exposed and is associated with the recessive, low lying trend of Link Lake and Johnny Creek which spans from 4+00S to 5+00S and strikes parallel to the base line (070 degrees). The zone is discussed in greater details in the structural section of this report.

South block

The South block is defined as the area which lies between Link Lake and the southern edge of the grid. Due to the significant amount of topography in the area, exposure is excellent, specially along the shore of Link Lake. The relation between the South and Central block is uncertain since the amount of displacement which occurred along the Link Lake shear zone is unknown. The stratigraphy of the area consists of pillowed mafic flows which underlay most of the area.

The mafic volcanics in the South block display well preserved primary textures such as amygdules, variolites, pillows, pillow breccia and hyaloclastites. In general, the primary features are variably flattened along the edge of the Link Lake shear zone and the amount of flattening decreases towards the south as the distance from the shear zone increases. However, there are occurrences of blocks within the deformed area which have not been tectonized. Typically, the mafics along the south shore of Link Lake have been

silicified. The silicification varies from pervasive to focused along primary porosity such as infilling of amygdules and along pillow selvages. The silicified rocks, although they are undoubtedly mafic flows as indicated by the presence of pillow selvages and a high titanium content (see section on geochemical interpretation), could be mistaken for a rhyolite. The silicified mafics have a white weathered surface where the positively weathering silica filled amygdules could be mistaken for quartz eyes. Any previous map of the area where the rocks outcropping along the south shore of Link Lake are mapped as quartzphyric flows or an equivalent, should be reviewed. In the field, when characteristic primary textures such as pillow selvages or pillow breccia, cannot be exposed following stripping of at least 2 or 3 square meters of moss, the smoothly rounded, irregular shape of the amygdules has proven to be a good way to differentiate between silica filled amygdules and quartz eyes. Furthermore, it is common in the area for the mafic rocks to have amygdules infilled with carbonate or a combination of both. This criteria is also useful to differentiate quartz eyes from silica filled amygdules in a strongly silicified mafic rock.

Diabase Dike

A northwesterly striking diabase dike crosscuts the property. The diabase is coarse grained, equigranular, magnetite rich and unaltered. The dike has a typical hornfelsed halo (not exceeding 50m wide) characterized by the presence of fine biotite and a depletion of the otherwise ubiquitous calcite. The dike is probably part of the Proterozoic Sudbury Dike swarm (Fyon and Crocket, 1986).

STRUCTURE

The strike of primary layering within the studied area varies from 070 to 090 degrees. Stratigraphic tops, as indicated by pillow morphology, are consistently in a southerly direction throughout the property.

The dominant structural element which affected the Manderstrom property is the Link Lake Deformation Zone.

Folding does not appear to be an important structural element. It has principally been observed within the sedimentary unit located at the southern end of the grid.

Link Lake Shear Zone

The main structural feature on the property is the subvertical, 070 degrees trending, Link Lake deformation Zone. The core of the zone is assumed to be recessive and corresponds to the low lying areas of Link Lake and Johnny Creek which spans from 4+00S to 5+00S and strikes parallel to the base line (070). No outcrops have been found within this zone. The lack of marker horizons at the scale of the area mapped makes it impossible to establish the amount of displacement which occurred along the Link Lake Deformation Zone.

The deformation zone as such forms a wider halo which extends from the 0+00 Base Line to the southern edge of the property. Within this zone, mafic and felsic lithologies have been affected to various degrees by faulting. Although undeformed lozenges have been found within the zone, the most ubiquitous effect of the deformation zone upon the surrounding lithologies is the flattening of primary features such as pillows and clasts. The amount of flattening is quite variable, however it reaches its maximum observed value within a number of narrower minor accessory shear zones which parallel the major shear zone. The accessory shears which have been observed during field mapping of the Link Lake zone vary in width from less than one metre up to 20 metres. Since these zones are strongly sheared and altered, the primary features and original geochemical composition of the rocks affected are commonly obliterated. Under these circumstances, field recognition of rock types is challenging. However, the following field criterions have proven successful in discerning between the two most abundant rock types within the zone, i.e. mafic and felsic volcanics. Felsic volcanic rocks within the shear zones are typically weak to moderately foliated, light coloured (pale greyish white to light rusty orange brown) and usually characterized by the presence of quartz eyes. Mafic volcanics, when sheared, are intensely sericitized and bleached. The resulting rocks are strongly foliated, pale coloured rocks which are easily misinterpreted for felsics. However, the sheared mafic volcanics typically display no quartz eyes, a much stronger sericitization and a darker honey brown colour than their felsic counterparts. Very faintly preserved and deformed pillow selvages are commonly observed within the mafics. Since preserved silica infilled amygdules resulting from an earlier synvolcanic hydrothermal event are common in the area and they could be mistaken for quartz eyes, caution should be used if taking the presence of quartz eyes as the only deciding factor to discern between altered mafic and felsic volcanics.

The Link Lake deformation zone is also characterized by the presence of disseminated, 1 to 2mm, euhedral iron carbonate cubes. The presence of iron carbonate is more evident within the outer weathered halo of the rock where the iron has oxidized and acquired a typical brown colour. On the fresh surface the iron carbonate crystals are white and could easily be mistaken for calcite. The abundance of iron carbonate is variable, however, it tends to increase (up to an observed maximum of 5 to 7%) as one approaches Link Lake either form the north or the south. Rock with a high content of iron carbonates cubes generally have a typical strongly pitted weathered surface. Iron carbonates appear to be much more abundant within the mafic volcanics than the felsic volcanics.

The northwesterly striking diabase dike which crosscut the property shows no evidence of alteration or displacement related to the Link Lake Shear Zone. It is consequently assumed to postdate the shear zone and any reactivation it may have subsequently underwent.

Folding

To date, it appears that folding is not an important structural element of Manderstrom Property.

ALTERATION AND LITHOGEOCHEMISTRY

A study of the data pertaining to the nature and distribution of the alteration within the Manderstrom property shows that the area hosts a number of irregularly shaped alteration zones of variable sizes, types and intensity. Field evidence suggests that a strong synvolcanic hydrothermal system was initially active and was later locally overprinted by an alteration associated with faulting along the Link Lake shear zone as indicated mostly by carbonatization and the development of a strong sericitic foliation associated with mechanical deformation of the primary features.

Visual alteration

Field mapping of the alteration types, intensity and modes of occurrence, was an important part of the mapping program. Since key geochemical indicators of VMS alteration such as sodium depletion could also be caused by faulting, it was important to correlate geochemical data with field evidence which would provide more information regarding the nature and causes of the observed alteration. Chloritization, silicification, sericitization and carbonatization are the most commonly observed alteration styles on the property. Epidotization has been rarely observed.

Calcite is ubiquitous throughout the property. Its modes of occurrence vary from pervasive to fracture controlled to infilling primary features such as amygdules.

Since the metamorphic grade of the area is greenschist, chlorite is present in virtually all mafic volcanic rocks which have not been strongly silicified and or sericitized. However, it is common to see stronger chloritization along pillow selvages and fractures. Chloritization of felsic rocks is not common.

Silicification was more predominant along the north and south shores of Link Lake. The silicification is either pervasive or focused along primary porosity. Silicification focused along primary porosity is considered typical of VMS type hydrothermal systems. This type of silicification is mainly observed in mafic volcanics. The most commonly observed examples of silicified primary porosity are pillow selvages, rims of clasts in fragmental and pillow breccia units, radial and concentric cooling fractures in pillows, amygdules and variolites. Silicification is discussed further in the chapter dealing with lithogeochemistry.

The strongest sericitization mapped on the property was related to the Link Lake shear zone and its minor splays. The strong sericitization which affected both mafic and felsic rocks, is characterized by the development of a strong foliation oriented parallel to the Link Lake shear zone. Except for small non tectonized windows, virtually all outcrops located in the central block are sericitized to some degree.

Lithogeochemistry

In order to establish chemically the nature and intensity of the alteration as well as to try to characterize the various rock types, the entire property was systematically sampled for lithogeochemistry. The target sampling density was approximately every 50 meters along grid lines spaced 100 metres apart . A total of 74 samples were taken, sample locations are shown on Map 2 All samples were processed by XRAL in Toronto. The sample analysis consisted of whole rock (SiO_2, Al_2O_3, CaO, MgO, Na_2O, K_2O, Fe_2O_3, MnO, Cr_2O_3, P_2O_5, TiO_2, LOI) plus the following economic or trace elements (Ba, Rb, Y, Zr, Cu, Zn, Ni, Co, Ag, Au). All results are included in appendix V. For the cases where strongly mineralized zones were sampled, the rock were assayed for Cu, Zn, Ni, Pb, Ag, Au. All results and detailed analytical procedures are also included in Appendix V.

Sodium Depletion

The study area is characterized by the presence of large sodium depleted areas. The majority of felsic rocks sampled on the property were sodium depleted. Within the North block, sodium depleted mafic rocks were most abundant along the northern edge of the property. Mafics rocks within the Centre block are virtually all sodium depleted. Except for a few samples located near the edge of Link Lake, mafic rocks from the South block were not sodium depleted.

In an effort to correlate sodium depletion data with visually recognizable characteristics in mafic hand specimens, it was determined that although sodium depletion is generally associated with a variable amount of discoloration in the rocks, this criteria is not definitive since a number of seemingly unaltered hand specimens were also found to be sodium depleted.

Copper and Zinc Distribution

The distribution of copper and zinc throughout the property is variable. Clustered and isolated anomalous copper (>60ppm) and zinc (>150ppm) values are both present throughout the property. The correlation between the two elements is poor. There appears to be a negative correlation between elevated copper values and sodium depletion. Areas which are sodium depleted areas tend to have a lower copper background whereas less altered zones have a higher copper content. The South block represents an exception to this trend since the consistently low copper background is associated with a trend of relatively elevated sodium values.Most areas with elevated zinc tend to be within sodium depleted zones. The best combined copper and zinc anomaly on the property is located west of the Milne Townsite, between the railway and the Sherman Mine Road.

Lithogeochemical mapping of mafic units

Stratigraphically, the mafic rocks within the property have been subdivided into three main units which are named the North block, Centre block and South block. A review of the geochemical data shows that each unit has distinctive geochemical characteristics. The following discussion and Table 3 outline the geochemical characteristics of the various units.

North and Centre blocks mafics:

The mafic volcanic rocks in these two blocks appear to be fundamentally similar as far as the major elements are concerned. The main difference between the two units is that the distribution of geochemical values for most elements within the centre block cover similar but broader range than for the North block. . The broader range of values observed in the centre block is probably due to the fact that the rocks within this block are generally more pervasively altered than the rocks of the North block. In part, this increase in alteration is due the effect of the Link Lake shear zone upon the surrounding rocks.

The North block also has a slightly higher Co and Cr2O3 content than the other two blocks.

South block:
This unit is geochemically distinct from the two other mafic units. The unit is characterized by higher SiO2 and Zr and lower TiO2 and Fe2O3 (Table 3). Furthermore, this unit also has higher Ba and Al2O3 and lower MgO and MnO content.

Other elements:

Nickel, was slightly lower in the South block, however, it did not show any trends which allowed to discriminate sub-units within any of the three main mafic blocks.

Y, Ag, Rb, CaO and Au did not show any trends in relation to stratigraphy.

MAFIC UNIT	SiO2 %	TiO2 %	Zr ppm	Fe2O3 %	MgO %
North Block	45-50	1.1-1.4	50-120	10-17	3-6
Centre Block	45-55	0.5-2.0	100-120	5-12	3-6
South Block	55-65	0.6-1.1	150-200	5-8	1-4

Table 3. Comparison of the abundance of SiO2, TiO2, Zr, Fe2O3 and MgO between the three major mafic units.

MINERALIZATION

The types of mineralization which have been mapped on the Manderstrom property can be grouped into two categories. These categories are pyritization focused along primary porosity and disseminated and fracture controlled pyritization.

Pyritization focused along primary porosity, as is the case with silicification and chloritization, is considered typical of VMS hydrothermal systems. The most commonly observed examples of such pyritization in the study area are along pillow selvages, as replacement of clasts in fragmental units and along lithological contacts.

Pyritized pillow selvages have been mapped in numerous locations on the property. Generally they are associated with the more altered areas of the grid. The most spectacular examples of pyritized pillow selvages have been mapped on the south shore of Link Lake. Typically the rocks in this area are silicified without being sodium depleted.

Pyrite replacement clasts are typical of the Sawmill felsic fragmental unit.

Pyritization along lithological contacts has been observed at various locations within the more strongly altered areas of the property.

Pyrite which occurs as dissemination and fracture coating is common throughout the property in both fresh and altered rocks.

CONCLUSION

The purpose of this study was to establish wether or not the Manderstrom Property had the potential to host an economic VMS type deposit. With this purpose in mind, the property was mapped and sampled. The following is a summary of the results obtained, which are considered typical for a property with VMS potential.

LITHOLOGY:

Favourable horizons:

-Rhyolite / mafic contacts.

-Flow / fragmental contacts.

Presence of synvolcanic felsic and mafic dikes.

ALTERATION:

Large sodium depleted zones ($Na_2O < 1\%$).

Alteration focused along primary channelways:
- -Silicified or chloritized pillow selvages.
- -Amygdules variably infilled with silica and or calcite.
- -Silicification along fragment rims.
- -Silicification along radial and/or concentric cooling fractures within pillows.

Pervasive silification, chloritization and sericitization.

MINERALIZATION:

Cu and Zn anomalies:
- -Clustered Cu and Zn anomalies.
- -Scattered elevated Cu and Zn values.

Favourable mineralization style:
- -Pyritized pillow selvages.
- -Pyrite along lithological contacts.
- -Pyrite replacement clasts.
- -Common disseminated and fracture controlled pyrite.

INFRASTRUCTURE:

The property which is located 275 kilometres from the Kidd Creek Metallurgical Complex, is crosscut by Highway 11, a railway line, a power line capable of supporting a large mining operation and a natural gas pipe line.

Based on the above conclusions, the 1993 field work performed on the Manderstrom Property demonstrated that the studied area has the potential to host an economic Volcanic Hosted Massive Sulphide Deposit.

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Fyon, A.J., Crocket, J.H., Exploration Potential for Base and Precious Metal Mineralization in Part of Strathy Township, Temagami Area; Ontario Geological Survey, Open File Report 5991, 1986.

Moorhouse, W.M., The Northeastern portion of the Timagami Lake Area; Ontario department of Mines, Volume 51, 1942.

APPENDIX I

ANALYTICAL RESULTS

SAMPLE NO	UTM E	UTM N	SIO2 %	AL2O3	CAO %	MGO %	NA2O	K2O %	FE2O3%	TIO2 %	P2O5 %	MNO %	CR2O3
SA[redacted]5	590124	5214163	54.5	14.0	6.80	2.61	.59	2.90	6.68	.730	.10	.34	.02
SA26839	590105	5214246	52.4	16.0	3.77	5.26	3.56	.68	9.65	.990	.15	.10	.02
SA26838	590080	5214314	55.4	17.6	4.11	3.65	2.96	2.12	7.14	.628	.10	.10	.02
SA26840	590244	5214461	55.1	14.1	.92	10.7	2.11	.03	9.87	.557	.10	.12	.05
SA26841	590280	5214408	52.5	16.9	7.33	3.10	2.55	1.40	6.90	.410	.08	.14	.01
SA26842	590276	5214335	53.7	14.8	4.20	5.15	3.08	.50	10.3	.982	.15	.13	<.01
SA26843	590332	5214281	48.9	12.1	5.59	5.14	.15	1.32	14.9	1.56	.52	.24	.01
SA26844	590150	5214215	44.7	13.1	7.47	6.12	.62	1.28	11.9	1.25	.27	.23	.02
SA26845	590198	5214237	76.1	12.6	.31	.35	.56	2.93	3.00	.229	.05	.14	.02
SA28067	590321	5214530	76.9	13.6	.61	.64	.19	3.77	1.28	.095	.04	.03	<.01
SA27918	590346	5214406	61.8	14.8	3.15	3.13	.59	2.49	6.63	.717	.13	.12	.01
SA27919	590345	5214417	55.8	17.1	5.03	3.66	.92	2.21	7.07	.522	.11	.10	.01
SA27920	590342	5214429	65.9	13.4	2.54	2.96	.43	2.04	6.24	.933	.22	.10	<.01
SA27921	590252	5214345	73.3	11.6	.01	.72	.22	2.75	6.41	.293	.06	.03	.02
SA27922	590327	5214495	57.2	11.7	4.26	8.55	1.60	.04	8.69	.463	.09	.15	.04
SA27937	590350	5214272	39.4	10.7	11.6	6.94	.38	1.76	9.83	.547	.25	.21	.09
SA27938	590329	5214268	73.0	8.93	3.86	1.52	.34	2.08	2.96	.137	.04	.14	.01
SA27939	590316	5214268	49.9	13.1	4.54	4.50	1.77	1.04	12.2	2.46	.47	.16	<.01
SA27940	590330	5214200	49.8	14.0	9.06	2.50	.92	2.46	8.14	.685	.13	.31	<.01
SA27941	590351	5214210	75.4	13.1	.95	.67	.49	3.19	1.45	.098	.03	.08	.01
SA27946	590233	5214238	52.8	13.2	7.15	3.66	.58	2.58	7.02	.611	.09	.20	<.01
SA27947	590266	5214247	74.5	12.1	.56	1.24	.39	2.35	5.18	.089	.03	.12	.02
SA27948	590259	5214205	50.9	13.8	8.04	3.15	.55	3.22	5.99	.671	.12	.34	<.01
SA27949	590286	5214213	48.6	11.9	8.27	2.72	.69	1.22	12.6	2.02	.45	.31	.01
SA27950	590167	5214170	45.0	11.7	8.66	4.35	.48	1.26	12.3	1.82	.42	.33	.01
SA27386	590028	5214480	49.1	12.4	6.02	6.10	1.93	.02	14.4	1.21	.10	.38	.02
SA27387	590055	5214437	57.2	15.6	4.03	4.48	3.53	1.66	6.22	.574	.11	.10	.02
SA27388	590069	5214361	55.6	20.2	2.79	3.71	.43	4.25	5.85	.495	.10	.12	<.01
SA28059	590294	5214655	54.4	14.7	5.16	4.23	3.02	1.67	11.6	1.34	.32	.21	.02
SA28064	590301	5214928	46.4	12.9	3.26	6.30	<.01	<.01	21.9	1.35	.09	.44	.03
SA28065	590320	5214859	41.6	10.9	11.2	6.09	<.01	.02	17.2	.975	.10	.38	.02
SA28066	590308	5214784	54.1	15.1	5.48	3.92	3.01	.79	9.60	1.18	.10	.25	.04
SA28070	590399	5214930	48.6	8.70	11.9	4.60	<.01	.38	11.4	.866	.08	.38	.02
SA28078	590066	5214548	45.5	11.5	6.79	6.22	.77	.02	17.0	1.09	.10	.38	.02
SA28060	590241	5214762	49.0	15.9	4.81	4.96	2.68	.74	13.1	1.22	.11	.29	.03
SA26836	590115	5214870	49.2	13.7	5.80	4.50	.71	1.56	13.9	1.35	.12	.37	.02
SA26837	590152	5214812	49.8	13.7	5.69	6.27	1.99	.03	14.0	1.31	.13	.29	.03
SA28061	590213	5214831	50.3	14.9	2.16	5.93	2.57	.10	15.5	1.51	.14	.30	.03
SA26845	590670	5214555	58.0	17.1	2.75	4.26	.24	3.37	7.41	.664	.13	.09	<.01
SA26847	590656	5214528	73.3	14.0	.89	.75	3.13	2.56	1.98	.206	.06	.03	.01
SA26848	590632	5214541	52.7	16.3	5.06	3.97	3.71	1.31	8.36	.881	.13	.11	.01
SA26849	590503	5214458	49.0	13.7	5.13	10.8	.36	.73	13.9	.774	.17	.23	.04
SA26850	590470	5214478	63.7	13.8	2.07	3.88	3.36	.92	6.41	.872	.15	.10	.02
SA27914	590455	5214458	63.1	14.4	3.52	3.12	1.34	1.94	5.78	.683	.11	.08	.02
SA27923	590470	5214384	45.1	12.6	2.41	12.2	<.01	<.01	16.0	1.43	.22	.11	.07
SA27924	590657	5214418	60.3	16.1	3.05	2.58	.66	5.36	6.52	.803	.11	.35	<.01
SA27925	590574	5214403	51.2	15.3	5.48	5.61	4.97	.07	9.59	1.17	.21	.15	.03
SA27926	590665	5214500	70.2	15.1	1.22	.92	3.27	2.71	2.78	.308	.09	.04	.03
SA27927	590665	5214458	46.6	12.4	5.18	11.6	2.31	.76	13.7	1.23	.20	.17	.07
SA27928	590705	5214367	67.3	13.5	3.48	2.35	1.28	3.02	5.49	.317	.09	.15	.02
SA27929	590745	5214297	50.6	14.0	6.18	3.19	.95	1.26	12.3	.882	.15	.32	.02
SA27930	590769	5214249	64.9	12.9	4.67	.87	1.58	.99	6.57	.706	.11	.15	.03
SA27933	590770	5214480	49.5	13.2	5.23	4.17	1.54	1.14	13.3	1.95	.24	.19	.02
SA27934	590737	5214529	51.0	14.8	3.69	8.16	2.32	.35	10.7	.764	.13	.15	.04
SA27943	590420	5214249	78.4	12.2	.05	.23	.60	2.75	3.16	.133	.04	.03	.01
SA27944	590385	5214218	62.5	4.16	8.97	3.40	.21	.81	6.32	.078	.02	.40	.04
SA27915	590401	5214451	74.1	12.6	1.33	1.20	1.38	2.38	2.57	.249	.07	.04	.04
SA27916	590398	5214432	54.3	15.5	6.60	3.79	2.68	1.56	6.74	.610	.10	.10	<.01
SA27917	590396	5214417	56.0	15.2	6.04	3.21	3.14	1.66	6.10	.577	.12	.12	<.01
SA27935	590408	5214306	53.8	14.2	5.63	3.99	1.80	2.12	7.60	.743	.10	.15	<.01
SA27936	590415	5214273	43.4	12.7	8.37	5.73	.61	1.43	11.3	1.59	.25	.27	<.01
SA27942	590403	5214253	46.3	14.2	6.76	3.75	.47	2.25	11.5	1.77	.30	.30	<.01
SA27400	590759	5213994	56.6	15.4	6.32	2.38	3.07	1.18	6.65	1.01	.23	.12	.03
SA23850	590455	5213876	59.4	16.6	5.01	1.55	1.36	2.38	6.29	1.20	.23	.12	<.01
SA27890	590544	5213891	59.1	14.8	4.73	2.08	1.87	2.25	7.37	1.01	.21	.13	<.01

SAMPLE NO	UTM E	UTM N	SIO2 %	AL2O3	CAO %	MGO %	NA2O	K2O %	FE2O3%	TIO2 %	P2O5 %	MNO %	CR2O3
SA2[redacted]	590555	5214110	67.5	16.6	.60	1.46	1.37	4.07	4.05	.511	.11	.06	.01
SA27899	590754	5213953	63.6	15.8	3.72	1.01	1.84	3.09	4.55	.749	.15	.11	.01
SA27878	590692	5213966	59.5	16.9	2.36	2.76	5.95	.68	5.92	.964	.17	.10	.03
SA27879	590650	5213899	59.6	16.5	4.03	2.60	3.62	1.40	7.52	.996	.25	.12	.01
SA27891	590553	5213918	59.2	16.3	3.48	1.92	1.83	2.23	8.01	1.26	.23	.13	.01
SA49083	590197	5214124	68.88	13.70	2.28	0.98	0.86	2.74	4.49	0.38	0.12	0.12	0.09
SA49094	590349	5214439	61.72	16.10	2.46	4.09	2.22	2.44	6.11	0.54	0.14	0.06	0.04
SA49095	590222	5214340	56.31	11.61	4.21	9.97	1.55	0.06	8.42	0.44	0.08	0.12	0.06
SA49096	590173	5214362	70.52	11.69	5.19	1.53	0.42	2.40	2.69	0.34	0.10	0.07	0.09

SAMPLE NO	UTM E	UTM N	LOI %	SUM %	Y PPM	ZR PPM	BA PPM	CU PPM	ZN PPM	PB PPM	NI PPM	AU PPB	AG PPM
SA27[illegible]75	590124	5214163	11.1	100.5	16	165	450	30.3	114.	-	40	<5	.6
SA2[illegible]	590105	5214246	6.75	99.4	26	120	261	15.5	139.		84	<5	.6
SA26838	590080	5214314	5.90	99.8	10	103	648	3.8	64.2		59	<5	<.5
SA26840	590244	5214461	6.20	99.9	15	107	115	26.1	96.4		311	<5	<.5
SA26841	590280	5214408	8.95	100.3	<10	99	298	3.9	513.		101	<5	<.5
SA26842	590276	5214335	6.80	99.8	<10	122	212	3.1	139.		69	<5	<.5
SA26843	590332	5214281	9.60	100.1	58	320	338	18.7	182.		7	9	<.5
SA26844	590150	5214215	13.3	100.3	13	110	323	453.	225.		245	14	2.5
SA26845	590198	5214237	2.80	99.2	29	201	602	5.6	72.0		8	<5	<.5
SA28067	590321	5214530	2.55	99.8	<10	55	475	6.1	25.5		6	<5	<.5
SA27918	590346	5214406	6.35	100.0	20	187	575	87.0	284.	-	47	<5	<.5
SA27919	590345	5214417	7.90	100.5	20	99	438	5.9	358.	-	82	<5	<.5
SA27920	590342	5214429	5.00	99.9	52	342	429	55.7	328.	-	26	16	.8
SA27921	590252	5214345	3.70	99.2	25	229	619	46.3	544.	-	8	<5	1.3
SA27922	590327	5214495	7.55	100.4	15	92	85	71.9	217.	-	255	<5	.6
SA27937	590350	5214272	18.5	100.2	<10	68	270	4.8	132.	-	102	<5	.6
SA27938	590329	5214268	6.30	99.4	37	77	405	5.7	29.9	-	16	<5	<.5
SA27939	590316	5214268	8.85	99.1	41	211	277	64.0	189.	-	13	<5	<.5
SA27940	590330	5214200	12.3	100.4	13	137	416	50.7	119.	-	60	8	1.0
SA27941	590351	5214210	2.95	98.5	70	123	609	7.9	639.	-	6	7	1.1
SA27946	590233	5214238	12.1	100.1	15	141	308	5.5	176.	-	39	<5	.6
SA27947	590266	5214247	2.90	99.6	31	93	429	551.	210.	-	44	<5	6.6
SA27948	590259	5214205	11.7	98.6	<10	141	437	105.	416.	-	80	26	2.0
SA27949	590286	5214213	11.4	100.3	24	232	278	82.4	229.	-	78	5	.8
SA27950	590167	5214170	13.4	99.8	62	223	223	22.2	289.	-	74	<5	.7
SA27386	590028	5214480	8.65	100.4	16	69	86	45.2	130.	-	61	<5	<.5
SA27387	590055	5214437	6.15	99.7	<10	127	374	90.0	73.7	-	89	<5	<.5
SA27388	590069	5214361	6.45	100.1	22	89	679	16.2	68.6	-	96	<5	<.5
SA28059	590294	5214655	2.60	99.4	18	186	515	25.5	49.8		56	<5	.7
SA28064	590301	5214928	7.85	100.5	17	101	110	61.8	190.		80	<5	<.5
SA28065	590320	5214859	11.8	100.3	21	68	63	90.0	164.		74	<5	.7
SA28066	590308	5214784	5.70	99.3	18	80	281	81.1	110.		102	<5	.8
SA28070	590399	5214930	12.7	99.6	25	57	65	84.0	125.		56	<5	<.5
SA28078	590066	5214548	9.65	99.1	<10	64	58	101.	173.		80	<5	<.5
SA28060	590241	5214762	6.10	99.0	25	81	302	111.	135.		125	<5	.8
SA26836	590115	5214870	8.30	99.6	28	88	287	61.8	151.		85	<5	.6
SA26837	590152	5214812	7.20	100.5	20	105	90	25.2	142.		74	<5	1.0
SA28061	590213	5214831	4.85	98.3	21	113	147	26.6	150.		95	<5	.7
SA26846	590670	5214555	6.15	100.3	11	149	696	3.9	100.		62	<5	<.5
SA26847	590656	5214528	2.45	99.5	<10	169	621	3.5	26.9		5	<5	<.5
SA26848	590632	5214541	6.85	99.5	24	121	412	5.4	99.7		70	<5	<.5
SA26849	590503	5214458	5.25	100.1	18	94	295	3.1	158.		365	<5	<.5
SA26850	590470	5214478	3.90	99.2	<10	188	308	4.1	116.		30	12	<.5
SA27914	590455	5214458	5.25	99.4	24	270	423	349.	162.	-	56	5	.7
SA27923	590470	5214384	8.55	98.7	13	139	96	4.6	191.	-	412	<5	<.5
SA27924	590657	5214418	2.75	98.7	<10	159	843	46.5	339.	-	48	7	1.2
SA27925	590574	5214403	6.75	100.6	31	141	81	70.1	106.	-	145	<5	1.1
SA27926	590665	5214500	2.80	99.6	<10	151	562	5.5	56.0	-	9	<5	<.5
SA27927	590685	5214458	3.90	98.2	23	134	269	3.1	56.0	-	352	<5	<.5
SA27928	590705	5214367	2.85	100.0	37	197	592	9.6	41.9	-	9	<5	<.5
SA27929	590745	5214297	10.7	100.6	20	123	280	35.5	208.	-	121	<5	.8
SA27930	590769	5214249	6.85	100.4	22	82	294	41.2	167.	-	91	<5	.7
SA27933	590770	5214480	9.05	99.6	34	164	197	17.7	230.	-	96	<5	.7
SA27934	590737	5214529	8.20	100.3	35	96	152	4.8	114.	-	230	<5	.6
SA27943	590420	5214249	2.60	100.3	52	90	692	13.0	98.8	-	6	24	.8
SA27944	590385	5214218	13.1	100.0	<10	24	132	9.9	65.7	-	12	6	.6
SA27915	590401	5214451	3.10	99.1	17	109	416	50.2	51.5	-	12	<5	<.5
SA27916	590398	5214432	8.00	100.0	20	112	364	83.6	294.	-	59	<5	<.5
SA27917	590396	5214417	7.35	99.6	24	124	372	32.1	285.	-	55	<5	<.5
SA27935	590408	5214306	9.95	100.2	<10	163	384	12.2	99.7	-	43	<5	<.5
SA27936	590415	5214273	14.3	100.0	28	162	256	10.3	160.	-	47	<5	.6
SA27942	590403	5214253	11.8	99.5	34	191	320	10.5	425.	-	30	<5	.6
SA27400	590759	5213994	7.15	100.2	<10	126	301	34.7	104.	-	157	6	.7
SA23850	590455	5213876	8.25	100.5	58	188	515	31.2	81.6		42	<5	<.5
SA27890	590544	5213891	5.95	99.6	23	163	494	39.3	97.8	-	38	<5	<.5

SAMPLE_NO	UTM_E	UTM_N	LOI_%	SUM_%	Y_PPM	ZR_PPM	BA_PPM	CU_PPM	ZN_PPM	PB_PPM	NI_PPM	AU_PPB	AG_PPM
SA27[redacted]	590555	5214110	3.10	99.6	35	324	939	22.9	108.	-	13	<5	1.0
SA27[redacted]	590754	5213953	5.35	100.1	22	148	547	57.0	52.7	-	28	<5	<.5
SA27878	590692	5213966	4.10	99.5	<10	134	227	26.0	106.	-	111	<5	<.5
SA27879	590650	5213899	3.70	100.4	29	184	361	22.0	105.	-	47	<5	.7
SA27891	590553	5213918	5.70	100.4	17	198	496	20.5	114.	-	57	<5	<.5
SA49083	590197	5214124	3.49	98.14	38	130	454		80		15	40	30
SA49094	590349	5214439	4.75	100.67	14	112	350		56		115	85	90
SA49095	590222	5214340	6.79	99.60	10	82	30		156		<5	45	280
SA49096	590173	5214362	5.68	100.72	16	134	370		94		85	35	60

SAMPLE NO	UTM E	UTM N	CR PPM	ROCK TYPE	RB PPM	SR PPM	CO PPM
SA27[redacted]	590124	5214163		4qb	73		22
SA26[redacted]	590105	5214246		2ma	14		34
SA26838	590080	5214314		7mb	67		23
SA26840	590244	5214461		2ma	<10		47
SA26841	590280	5214408		7mc	33		18
SA26842	590276	5214335		7mb	17		34
SA26843	590332	5214281		7mb	49		24
SA26844	590150	5214215		2mb	44		48
SA26845	590198	5214237		4qb	89		5
SA28067	590321	5214530		4q	128		3
SA27918	590346	5214406		4qb	80		20
SA27919	590345	5214417		4fqb	74		21
SA27920	590342	5214429		4qb	60		9
SA27921	590252	5214345		4q	70		8
SA27922	590327	5214495		2ma	<10		41
SA27937	590350	5214272		7b	32		34
SA27938	590329	5214268		4fma	63		5
SA27939	590316	5214268		7mb	32		40
SA27940	590330	5214200		2ma	77		22
SA27941	590351	5214210		4fc	108		3
SA27946	590233	5214238		4qa	66		18
SA27947	590266	5214247		4fq	71		17
SA27948	590259	5214205		2pa	95		31
SA27949	590286	5214213		2pa	33		41
SA27950	590167	5214170		2p	36		29
SA27386	590028	5214480		2pa	<10		47
SA27387	590055	5214437		7mb	60		24
SA27388	590069	5214361		7mc	114		26
SA28059	590294	5214655		2m	57		33
SA28064	590301	5214928		2p	11		58
SA28065	590320	5214859		2pa	<10		47
SA28066	590308	5214784		2m	13		54
SA28070	590399	5214930		2ma	10		47
SA28078	590066	5214548		2pa	<10		65
SA28060	590241	5214762		2m	24		55
SA26836	590115	5214870		2p	46		57
SA26837	590152	5214812		2pbx	<10		49
SA28061	590213	5214831		2p	<10		65
SA26846	590670	5214555		7mb	129		23
SA26847	590656	5214528		4qmb	85		4
SA26848	590632	5214541		7mb	48		28
SA26849	590503	5214458		2mb	25		52
SA26850	590470	5214478		3mc	29		21
SA27914	590455	5214458		4fqc	60		20
SA27923	590470	5214384		2ma	<10		78
SA27924	590657	5214418		10a	124		25
SA27925	590574	5214403		2mb	12		43
SA27926	590665	5214500		4qc	102		6
SA27927	590665	5214458		2ma	<10		43
SA27928	590705	5214367		2ma	81		6
SA27929	590745	5214297		2mb	40		30
SA27930	590769	5214249		2peb	18		22
SA27933	590770	5214480		2ma	16		38
SA27934	590737	5214529		7ma	13		46
SA27943	590420	5214249		4fc	116		4
SA27944	590385	5214218		4fc	27		5
SA27915	590401	5214451		4qc	66		6
SA27916	590398	5214432		4qc	48		24
SA27917	590396	5214417		3ub	54		25
SA27935	590408	5214306		2mae	74		23
SA27936	590415	5214273		2ma	37		30
SA27942	590403	5214253		2ma	72		24
SA27400	590759	5213994		2pa	53		35
SA23850	590455	5213876		2e	70		17
SA27890	590544	5213891		2pe	73		21

SAMPLE_NO	UTM_E	UTM_N	CR_PPM	ROCK_TYPE	RB_PPM	SR_PPM	CO_PPM
SA27[redacted]	590555	5214110		4mq	101		8
SA27[redacted]	590754	5213953		2pa	91		8
SA27878	590692	5213966		2m	28		29
SA27879	590650	5213899		2pbx	32		26
SA27891	590553	5213918		2le	84		23
SA49083	590197	5214124		3			
SA49094	590349	5214439		9			
SA49095	590222	5214340		2b			
SA49096	590173	5214362		5F			

APPENDIX II

SUMMARY OF EXPENDITURES

SUMMARY OF EXPENDITURES

Analysis

74 Samples @ $21.00 / Sample $1554.00

TOTAL $1554.00

APPENDIX III

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Jean-Denis Fournier, of Winnipeg, Manitoba hereby certify that:

1. I graduated from the university of Alberta in 1987 with Bachelor of Science Degree, Specialization in Geology.

2. I am a geologist, permanent employee of Falconbridge Limited.

3. Since graduation I have been practising my profession in Canada and overseas.

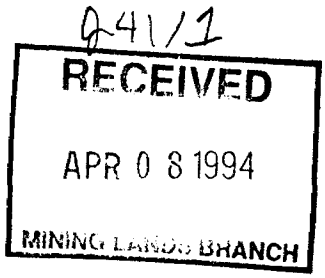
4. I have no financial interests in the Manderstrom property.

5. I personally conducted or supervised the work described in this report.

Dated at CHELMSFORD this 29TH day of AUGUST 1993

Jean-Denis Fournier

FALCONBRIDGE



April 6, 1994

Mr. Dale Messinger
Mines and Minerals Research Centre
933 Ramsey Lake Road
Sudbury, Ontario
P3E 6B5

Dear Mr. Messinger,

Enclosed you will find four copies of the laboratory assay sheets to add to the following reports:

- Blake Property
- Price-Mackay Property (West Half)
- ~~Percy Property~~
- Manderstrom Property

RE: File 2-15367

If you have any questions do not hesitate to contact me.

Sincerely,

Maria Gabriel
Senior Field Geologist

FALCONBRIDGE LIMITED Exploration
General Delivery, 1977 McKenzie Road, RR#2, Chelmsford, Ontario P0M 1L0 Fax 705/855-0333 Telephone 705/855-0311

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA19872	26	35.0	<.1	24	14	73.3	--
SA19873	57	33.8	<.1	25	16	76.6	--
SA19874	50	21.2	<.1	38	14	95.8	--
SA19875	64	2.5	<.1	24	12	104	--
SA19878	59	65.9	.1	36	11	58.3	--
SA19879	51	163	.1	39	14	68.5	--
SA19880	55	46.7	<.1	39	12	130	--
SA19881	64	39.3	<.1	39	13	34.3	--
SA19882	55	10.2	<.1	40	14	70.3	--
SA19883	40	60.0	<.1	25	12	50.8	--
SA19884	25	6.8	<.1	15	10	32.5	--
SA19885	20	40.9	<.1	15	12	41.4	--
SA19886	54	129	<.1	25	13	53.3	--
SA19887	45	87.0	<.1	25	12	44.0	--
SA19888	119	21.4	<.1	35	12	112	--
SA19889	69	7.0	<.1	20	10	83.0	--
SA19890	46	3.4	<.1	20	12	80.8	--
SA19891	26	66.9	<.1	18	15	34.8	--
SA19892	56	110	<.1	14	17	43.0	--
SA19893	51	5.4	<.1	19	14	67.3	--
SA21864	63	401	.5	--	15	117	3
SA21865	102	33.3	<.1	24	12	85.0	--
SA21866	110	46.9	<.1	42	13	146	--
SA21867	98	12.6	<.1	34	13	142	--
SA21868	67	5.4	<.1	48	14	87.8	--
SA21869	45	81.9	<.1	27	11	83.3	--
SA21870	46	7.0	<.1	30	13	62.2	--
SA21871	27	102	.5	61	14	52.8	--
SA21872	37	29.3	<.1	26	12	73.4	--
SA21873	64	6.7	<.1	30	10	148	--
SA21874	117	9.5	<.1	33	10	92.5	--
SA21875	126	70.6	<.1	31	14	116	--
SA21876	32	60.8	<.1	16	12	38.4	--
SA21877	22	95.9	<.1	12	14	41.5	--
SA21878	40	155	<.1	25	11	46.5	--
SA21879	53	114	<.1	32	9	54.3	--
SA21880	83	131	<.1	40	14	79.3	--
SA21881	72	65.6	<.1	30	14	69.8	--
SA21882	81	230	<.1	52	15	195	--
SA21883	82	5.9	<.1	34	14	81.5	--
SA21884	93	46.8	<.1	24	16	56.6	--
SA21885	133	3.3	<.1	28	15	108	--
SA21886	51	14.5	<.1	42	14	58.8	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA21887	43	65.4	.2	43	16	98.7	--
SA21888	42	86.1	<.1	31	17	76.2	--
SA21889	19	13.8	<.1	16	12	79.5	--
SA21890	21	4.1	<.1	19	18	93.0	--
SA21891	35	58.3	<.1	30	17	126	--
SA21892	86	2.2	<.1	36	15	114	--
SA21893	42	228	<.1	23	15	37.8	--
SA21894	25	99.2	<.1	13	16	25.3	--
SA21895	26	8.6	<.1	22	12	37.5	--
SA21896	59	3.0	<.1	29	14	64.5	--
SA21897	45	47.6	.2	28	16	77.4	--
SA21898	42	1.9	<.1	21	14	66.8	--
SA21899	40	40.6	<.1	25	16	26.0	--
SA21900	52	116	<.1	36	17	204	--
SA44048	33	7.0	<.1	20	15	65.2	--
SA44049	39	7.7	<.1	21	14	48.5	--
SA44050	35	161	<.1	34	16	42.9	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA19872	53.5	13.3	7.14	5.28	3.30	.10	11.4	.27	1.29	.11	.02	2.60	98.3
SA19873	49.9	12.9	7.61	8.50	3.40	.32	10.4	.27	.701	.26	.06	3.90	98.2
SA19874	52.9	14.9	4.76	5.28	2.67	.07	11.8	.28	1.24	.10	.02	5.15	99.2
SA19875	62.0	13.6	1.73	3.64	.26	2.10	8.69	.07	1.02	.15	<.01	5.05	98.4
[illegible]	57.5	14.7	7.81	3.56	3.63	.36	7.39	.18	1.24	.10	.04	2.15	98.7
SA19879	50.3	15.0	9.44	5.29	1.90	.16	11.8	.26	1.11	.09	.02	3.55	98.9
SA19880	52.1	14.7	4.59	6.88	3.29	.08	10.9	.27	.710	.30	.05	6.30	100.2
SA19881	49.8	15.8	10.9	3.73	2.57	.32	11.4	.28	1.19	.10	.04	2.60	98.8
SA19882	50.1	14.7	9.12	4.25	2.26	.55	13.6	.30	1.46	.12	.03	3.05	99.6
SA19883	57.1	16.4	6.17	2.63	3.69	.36	8.58	.16	1.13	.11	.02	3.10	99.5
SA19884	50.4	15.0	9.45	5.20	2.61	.65	11.1	.29	1.30	.16	.02	1.95	98.2
SA19885	51.9	13.9	9.76	5.06	2.94	.34	12.9	.27	1.30	.15	.03	1.50	100.1
SA19886	48.5	15.0	11.2	4.20	1.91	.33	14.9	.37	1.14	.09	.03	1.70	99.4
SA19887	50.4	15.0	9.61	5.77	2.40	.73	12.3	.28	1.20	.11	.02	2.20	100.1
SA19888	54.3	15.9	3.57	4.91	1.54	1.91	8.97	.18	.995	.19	.02	7.10	99.7
SA19889	59.5	17.9	1.49	1.87	2.79	1.59	7.83	.13	1.18	.21	.03	5.00	99.6
SA19890	56.4	16.3	2.39	3.59	1.32	4.15	8.02	.09	.927	.18	<.01	5.10	98.6
SA19891	61.4	15.6	1.88	2.40	6.59	1.21	6.63	.06	.952	.19	<.01	2.50	99.5
SA19892	60.8	15.7	4.24	2.66	5.20	1.59	5.87	.09	.766	.17	<.01	2.90	100.1
SA19893	58.6	15.2	7.02	3.50	2.20	.78	7.88	.12	.877	.17	<.01	3.60	100.0
SA21865	52.5	13.8	6.08	6.60	2.78	.62	10.7	.20	1.21	.21	.03	3.60	98.4
SA21866	48.0	16.2	7.76	4.66	2.19	.32	11.6	.27	1.28	.11	.03	5.80	98.2
SA21867	54.9	17.8	6.13	3.89	5.03	.66	5.27	.14	1.18	.09	.04	4.20	99.4
SA21868	49.5	14.4	9.09	3.71	1.08	2.35	6.86	.16	1.23	.10	.03	11.0	99.6
SA21869	54.8	16.5	6.07	2.37	1.64	3.19	4.45	.12	1.41	.11	.03	7.90	98.7
SA21870	55.2	16.0	6.06	4.86	3.90	.55	7.46	.18	1.32	.10	.04	3.85	99.6
SA21871	40.6	12.5	12.5	6.32	.43	.18	21.9	.54	1.09	.08	.03	3.50	99.7
SA21872	52.0	14.3	9.61	4.96	2.25	.28	9.90	.24	1.18	.10	.02	3.75	98.6
SA21873	55.2	14.0	2.73	6.75	2.35	.16	11.1	.18	.968	.33	.05	5.20	99.1
SA21874	53.6	15.9	4.68	6.01	3.06	.06	10.3	.12	1.04	.18	.02	4.05	99.1
SA21875	57.7	14.5	3.58	3.59	3.36	.58	10.3	.12	.794	.11	.01	5.40	100.1
SA21876	51.4	14.5	8.69	4.99	3.24	.42	10.8	.22	1.37	.16	.02	2.40	98.2
SA21877	50.7	13.7	10.5	5.56	2.01	.57	13.6	.31	1.27	.14	.03	1.80	100.2
SA21878	50.7	13.2	9.96	5.46	2.27	.23	14.6	.37	1.27	.10	.04	1.60	99.8
SA21879	46.0	12.6	11.1	5.73	.97	.49	19.4	.45	1.14	.10	.03	2.05	100.1
SA21880	49.0	15.2	8.98	6.13	1.80	.21	13.3	.32	1.09	.10	.03	3.65	99.8
SA21881	50.4	16.2	9.49	5.68	2.84	.26	10.2	.23	1.19	.11	.04	2.60	99.3
SA21882	44.9	14.7	8.17	8.03	1.40	.26	15.7	.32	1.10	.08	.04	4.05	98.8
SA21883	46.7	15.0	7.46	7.56	2.46	.41	12.3	.24	.969	.08	.03	6.90	100.1
SA21884	53.8	14.2	8.20	5.35	2.61	.14	10.5	.22	1.18	.24	.04	3.40	99.9
SA21885	53.0	14.5	4.61	5.98	2.92	.31	11.2	.25	1.25	.25	.04	4.50	98.8
SA21886	55.8	15.1	4.57	6.58	3.23	.82	8.64	.20	1.22	.09	.04	3.30	99.6
SA21887	54.8	14.9	8.94	3.53	1.42	.27	11.0	.22	1.22	.10	.04	3.70	100.2

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL203	CAO	MGO	NA2O	K2O	FE203	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA21888	53.0	13.4	7.47	3.95	1.32	1.74	8.90	.18	1.15	.09	.02	8.70	100.0
SA21889	59.0	15.4	3.91	2.69	3.54	1.57	7.52	.11	.951	.23	.01	4.40	99.4
SA21890	63.0	14.7	2.21	2.73	4.74	.35	7.96	.11	.993	.26	<.01	2.90	100.0
SA21891	58.7	15.0	2.94	3.96	2.16	1.03	10.1	.12	1.02	.27	<.01	3.90	99.3
SA21892	46.1	11.8	7.33	9.41	.15	.05	12.9	.14	.806	.23	.10	10.5	99.5
SA21893	48.6	14.1	7.70	6.97	2.73	.65	14.6	.30	1.17	.10	.02	3.20	100.2
SA21894	50.6	14.8	9.44	4.75	3.74	.33	12.4	.28	1.18	.11	.02	2.20	99.9
SA21895	51.7	13.5	8.84	5.13	2.91	.63	12.1	.28	1.36	.16	.02	2.85	99.5
SA21896	57.0	16.2	6.92	3.08	2.91	.57	8.99	.25	1.48	.13	.03	3.05	100.7
SA21897	43.3	14.3	8.91	5.87	.73	.11	20.6	.64	1.05	.08	.03	4.35	100.0
SA21898	58.9	15.9	2.70	4.12	2.16	2.33	7.74	.15	1.35	.10	.03	4.50	100.0
SA21899	59.7	15.0	7.28	3.74	3.92	.29	6.22	.18	1.23	.10	.04	2.20	99.9
SA21900	53.1	15.0	10.7	4.31	.89	.03	10.1	.21	1.17	.10	.03	4.10	99.8
SA44048	53.2	15.0	9.04	4.63	.82	1.05	11.3	.30	1.33	.12	.02	3.10	100.0
SA44049	56.0	16.1	8.72	3.24	3.08	.86	7.59	.21	1.46	.14	.03	2.75	100.2
SA44050	51.3	13.6	9.55	5.30	2.30	.35	12.9	.28	1.40	.13	.02	2.30	99.5

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA19872	<10	22	64	94
SA19873	<10	26	61	175
SA19874	<10	24	60	133
SA19875	57	25	105	638
SA19878	18	12	59	150
SA19879	<10	14	51	99
SA19880	23	14	89	103
SA19881	<10	30	61	103
SA19882	24	20	85	221
SA19883	<10	15	112	188
SA19884	27	29	75	199
SA19885	<10	28	134	141
SA19886	16	12	75	98
SA19887	27	16	78	236
SA19888	75	14	140	405
SA19889	29	19	152	425
SA19890	150	19	187	807
SA19891	26	17	168	340
SA19892	55	19	173	532
SA19893	18	14	160	238
SA21865	12	24	164	248
SA21866	<10	19	74	106
SA21867	13	22	46	185
SA21868	90	<10	50	359
SA21869	131	<10	69	341
SA21870	17	36	74	178
SA21871	<10	19	52	76
SA21872	15	15	60	85
SA21873	<10	14	136	154
SA21874	<10	21	95	117
SA21875	26	<10	151	206
SA21876	18	30	133	155
SA21877	22	30	122	167
SA21878	13	<10	82	143
SA21879	17	24	82	183
SA21880	<10	28	55	95
SA21881	<10	22	75	104
SA21882	<10	11	55	194
SA21883	20	22	42	145
SA21884	22	26	156	86
SA21885	25	24	172	122
SA21886	20	18	53	297
SA21887	16	14	67	124

SAMPLE \ PPM	RB	Y	ZR	BA
SA21888	75	26	65	223
SA21889	58	29	175	698
SA21890	<10	30	169	189
SA21891	18	25	152	484
SA21892	<10	24	61	69
SA21893	15	15	64	204
SA21894	19	<10	87	116
SA21895	<10	34	137	230
SA21896	12	13	98	300
SA21897	<10	<10	76	78
SA21898	90	28	78	329
SA21899	<10	23	65	159
SA21900	<10	15	63	59
SA44048	46	25	70	353
SA44049	47	12	111	217
SA44050	<10	50	86	131

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA15367	35	25.2	.2	14	6	54.6	--
SA15368	118	50.1	.2	40	7	96.2	--
SA15369	44	7.0	.3	19	13	63.7	--
SA15370	65	26.2	.5	24	10	82.1	--
SA15371	152	147	2.3	--	232	160	61
SA15372	167	5.6	.8	30	26	110	--
SA15373	456	17.3	.5	49	6	115	--
SA15374	68	34.3	<.1	19	19	86.3	--
SA15375	49	35.1	.1	21	9	76.5	--
SA15376	29	29.5	.5	13	10	53.7	--
SA15377	80	52.0	<.1	37	12	114	--
SA15378	46	42.8	<.1	12	10	69.5	--
SA15379	81	33.5	.2	21	11	90.5	--
SA15380	58	101	.5	33	15	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	10	15	47.2	--
SA15384	7	5.4	.4	3	8	28.4	--
SA15385	68	6.3	.5	18	11	60.6	--
SA15386	52	25.1	.1	22	10	81.7	--
SA15387	50	36.3	1.9	--	39	39.2	38
SA15388	78	10.5	.4	12	8	50.4	--
SA15393	38	70.1	<.1	32	14	64.7	--
SA15394	57	110	.3	21	18	36.2	--
SA15395	61	20.8	.3	19	13	44.3	--
SA15396	508	2.8	<.1	43	8	100	--
SA15397	51	61.8	<.1	21	10	76.0	--
SA15398	44	7.5	<.1	17	11	66.9	--
SA15399	48	13.0	<.1	20	12	67.1	--
SA15400	120	86.5	<.1	32	15	140	--
SA19817	43	9.2	.2	16	15	75.5	--
SA19818	57	24.1	<.1	22	18	86.1	--
SA19823	63	122	.6	44	12	85.9	--
SA19824	75	24.2	.3	44	18	131	--
SA19825	19	9.2	.1	2	10	93.5	--
SA19826	2	5.1	.2	1	9	20.1	--
SA19894	45	10.5	.4	10	11	48.4	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA19897	64	22.2	.3	20	9	32.2	--
SA19898	54	133	<.1	23	6	77.0	--
SA19899	65	29.5	.4	24	9	58.7	--
SA19900	89	21.5	.1	17	7	47.8	--
SA19998	47	67.1	.3	30	11	91.1	--
SA19999	43	28.3	.7	18	6	85.2	--
SA20000	18	10.0	<.1	9	10	53.2	--
SA32014	23	18.1	<.1	10	9	56.4	--
SA32015	6	25.8	.7	--	13	8.9	13
SA32016	42	3.8	.6	14	9	56.5	--
SA32017	49	13.4	.4	23	8	41.4	--
SA32018	46	12.0	<.1	14	15	38.9	--
SA32019	21	24.0	.2	11	15	29.2	--
SA32020	45	20.3	<.1	14	8	37.7	--
SA32021	45	21.1	<.1	21	24	58.6	--
SA32022	27	74.4	.4	26	19	64.7	--
SA32023	56	53.3	.1	19	11	67.4	--
SA32024	39	14.6	.3	13	18	40.9	--
SA32025	85	10.1	.2	32	10	115	--
SA32026	107	5.8	.6	21	12	58.8	--
SA32027	77	16.5	.4	22	27	84.0	--
SA32028	39	15.5	<.1	18	26	37.0	--
SA32029	176	15.1	<.1	30	14	60.2	--
SA32030	294	91.3	.4	30	9	47.3	--
SA32031	522	28.3	.3	47	6	55.2	--
SA32032	72	5.2	.3	18	7	75.0	--
SA32033	25	38.0	<.1	33	10	97.7	--
SA32034	82	89.6	.4	20	14	42.2	--
SA32035	39	417	.7	--	15	35.8	7
SA32036	23	20.9	.2	10	10	27.6	--
SA32037	51	15.2	.3	19	6	83.6	--
SA32038	53	15.9	<.1	18	70	85.0	--
SA32039	62	30.9	.4	20	8	105	--
SA32040	45	37.8	.4	14	14	66.1	--
SA32041	32	50.6	<.1	19	36	86.2	--
SA32042	63	19.2	<.1	22	8	98.4	--
SA32045	119	25.4	<.1	23	14	79.8	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA32046	53	35.9	.2	16	7	75.8	--
SA32047	55	70.3	<.1	23	9	89.4	--
SA32048	60	34.6	.3	22	5	102	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA15367	65.7	16.9	1.24	1.83	2.35	3.13	5.22	.07	.640	.12	.01	3.15	100.5
SA15368	57.1	16.1	3.77	4.43	3.58	.81	8.68	.11	.932	.22	.02	4.00	99.8
SA15369	57.8	15.6	5.46	3.00	4.11	.80	6.68	.10	.761	.13	.01	4.45	98.9
SA15370	54.7	15.4	5.64	3.65	4.09	.59	8.82	.14	.893	.23	.02	5.45	99.7
SA15372	47.9	14.0	5.97	7.00	2.48	.35	9.49	.18	.881	.16	.04	11.6	100.1
SA15373	45.4	9.98	9.11	6.09	1.32	.93	10.7	.47	.641	.26	.18	15.2	100.3
SA15374	65.8	14.7	.47	2.72	2.45	2.56	6.88	.07	.873	.17	.03	3.60	100.4
SA15375	58.5	17.0	2.39	4.00	3.51	1.71	7.39	.08	.815	.13	.01	4.45	100.1
SA15376	60.3	17.0	4.53	1.27	4.19	2.14	5.11	.12	.793	.14	.01	4.75	100.4
SA15377	56.0	15.8	5.12	4.63	3.00	.73	9.29	.13	.901	.23	.02	4.35	100.3
SA15378	57.6	17.5	2.49	3.74	5.47	.93	7.32	.08	.781	.18	.02	4.50	100.7
SA15379	64.1	14.4	1.36	2.99	3.33	1.63	6.42	.11	.608	.15	.04	3.95	99.2
SA15382	50.3	12.4	9.81	5.21	1.44	.11	16.3	.22	1.65	.22	.02	2.75	100.5
SA15383	55.1	17.3	5.39	2.41	3.96	1.26	4.22	.20	.803	.17	.01	8.55	99.4
SA15384	72.5	12.1	2.58	1.33	1.47	1.37	2.98	.12	.293	.04	.02	5.35	100.2
SA15385	71.2	11.1	2.31	1.77	.60	2.01	5.22	.17	.213	.04	.02	5.40	100.1
SA15386	55.7	15.8	3.92	2.59	1.38	2.78	8.46	.17	.755	.15	<.01	8.70	100.5
SA15388	71.1	13.3	1.81	.87	2.99	1.86	3.71	.04	.753	.05	.03	3.70	100.3
SA15393	47.0	13.6	7.59	6.21	3.24	.16	15.9	.21	1.64	.15	.01	3.15	98.9
SA15394	57.4	18.0	2.56	3.33	2.43	3.57	6.60	.06	.990	.15	<.01	4.20	99.4
SA15395	58.3	18.7	1.49	3.00	2.65	4.47	5.55	.05	1.03	.16	<.01	4.30	99.8
SA15396	54.1	11.2	.92	14.1	.17	.06	10.0	.11	.695	.33	.17	7.18	99.1
SA15397	56.2	16.6	4.84	3.58	2.92	2.46	7.17	.10	.769	.14	<.01	5.25	100.1
SA15398	55.1	16.0	5.81	3.38	2.83	2.36	6.95	.12	.729	.13	<.01	6.85	100.4
SA15399	57.5	15.9	5.42	3.70	3.60	.91	7.22	.11	.733	.13	<.01	4.30	99.6
SA15400	58.6	15.9	2.88	2.92	1.38	3.11	8.88	.07	.897	.14	.03	4.95	99.8
SA19817	57.1	16.2	5.32	3.72	3.08	2.24	5.76	.14	.747	.15	<.01	6.05	100.6
SA19818	60.8	17.7	.78	2.95	2.20	2.60	7.58	.09	.859	.14	.01	3.80	99.6
SA19823	50.9	15.6	7.11	3.93	1.76	2.03	8.95	.23	1.51	.12	.03	8.10	100.3
SA19824	48.4	14.3	6.44	5.79	.18	1.50	12.4	.24	1.26	.08	.03	8.45	99.1
SA19825	71.2	12.3	1.66	1.66	.24	2.64	6.02	.12	.153	.02	.02	3.60	99.7
SA19826	77.4	11.6	1.52	.51	.27	3.37	1.23	.07	.121	.02	<.01	3.25	99.4
SA19894	58.7	16.8	3.19	3.36	3.98	2.28	6.55	.10	.819	.16	.01	3.05	99.1

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA19897	60.0	15.6	1.33	3.75	5.84	1.11	6.79	.06	.743	.13	.02	3.05	98.5
SA19898	57.8	16.0	5.43	3.44	3.88	1.04	7.74	.12	.761	.15	.01	4.10	100.5
SA19899	60.3	18.6	.30	2.69	2.79	3.14	6.98	.06	1.25	.23	.03	4.05	100.5
SA19900	62.1	15.0	5.37	2.90	4.20	1.03	4.75	.10	.859	.17	.03	3.00	99.6
SA19998	61.7	17.0	.84	2.01	2.93	2.91	7.19	.12	.916	.15	.02	4.15	100.0
SA19999	64.2	17.0	1.16	2.02	4.71	1.63	5.62	.07	.722	.14	.02	2.85	100.2
SA20000	65.4	17.3	.71	1.96	4.53	1.25	5.28	.08	.568	.09	.01	3.30	100.5
SA32014	62.9	14.5	3.52	1.95	5.15	1.56	6.92	.11	.834	.20	.01	2.50	100.2
SA32016	57.9	16.4	1.68	3.83	1.57	4.38	8.76	.09	.894	.19	<.01	4.05	99.9
SA32017	62.5	14.5	3.31	3.12	4.58	1.03	7.57	.10	.793	.16	.02	2.50	100.2
SA32018	60.0	15.9	5.92	3.36	3.96	1.03	6.42	.11	.735	.14	.02	2.60	100.3
SA32019	67.5	14.6	3.12	1.50	4.86	1.19	4.60	.08	.660	.13	.03	1.70	100.0
SA32020	58.0	16.5	6.00	3.90	3.46	2.48	6.67	.10	.704	.13	.01	2.55	100.6
SA32021	58.6	17.1	5.47	3.38	4.63	.64	7.09	.11	.794	.15	.01	2.50	100.5
SA32022	57.3	16.9	3.27	3.22	3.24	2.84	7.38	.10	.873	.14	<.01	4.10	99.5
SA32023	56.8	14.8	4.82	3.70	2.57	2.54	8.31	.13	.805	.21	.02	5.75	100.6
SA32024	57.6	15.7	6.77	3.02	3.50	2.06	7.08	.11	.714	.14	.01	3.20	100.0
SA32025	49.1	13.1	6.02	8.53	2.04	1.27	10.4	.21	.652	.24	.07	8.50	100.2
SA32026	56.8	15.0	6.93	2.05	3.14	1.95	6.09	.16	.914	.19	.03	6.80	100.1
SA32027	53.6	16.5	6.41	2.68	2.87	.46	12.6	.22	1.12	.21	.03	3.25	100.0
SA32028	59.9	15.4	3.62	3.01	4.70	1.75	7.33	.09	.919	.23	.02	3.10	100.2
SA32029	53.9	15.1	9.72	3.27	1.51	.33	11.0	.19	.910	.16	.06	3.90	100.1
SA32030	48.9	5.41	9.86	16.7	.43	.17	13.0	.22	.979	.11	.16	4.35	100.3
SA32031	46.6	6.02	8.96	17.8	.44	.27	13.6	.20	1.04	.13	.16	4.55	99.8
SA32032	58.4	16.4	2.51	3.55	2.18	3.53	7.67	.13	.777	.16	<.01	4.90	100.3
SA32033	45.5	13.1	6.97	4.29	2.73	2.66	17.8	.25	3.66	1.22	<.01	1.15	99.5
SA32034	61.5	19.5	1.56	1.23	3.81	3.15	3.84	.04	1.06	.19	.03	3.75	99.7
SA32036	64.3	15.0	3.11	1.50	2.63	3.31	4.85	.07	.866	.16	.02	4.40	100.3
SA32037	59.0	15.2	4.42	3.98	1.86	2.11	9.08	.13	.832	.18	.03	3.45	100.4
SA32038	58.1	16.6	1.67	3.92	1.34	4.24	8.71	.11	.880	.19	.01	4.65	100.5
SA32039	57.4	16.1	3.32	3.45	4.68	.89	9.00	.17	.738	.15	.02	3.15	99.1
SA32040	63.8	13.2	4.47	2.23	2.90	2.01	5.70	.11	.651	.14	.01	4.95	100.3
SA32041	60.8	14.1	2.33	3.15	4.33	1.37	8.55	.13	.953	.13	<.01	3.50	99.4
SA32042	54.7	16.7	3.70	4.20	1.94	2.84	10.1	.17	.944	.23	.01	4.80	100.4
SA32045	57.4	14.2	3.58	5.41	4.15	1.08	7.78	.15	.728	.13	.03	5.30	100.0
SA32046	66.6	14.3	1.85	2.33	2.73	2.36	5.81	.09	.746	.15	.01	3.30	100.4
SA32047	54.3	16.5	3.57	4.05	3.15	2.12	8.64	.13	.788	.15	.01	5.20	98.7
SA32048	54.6	17.5	3.91	4.31	2.89	1.85	9.82	.14	.995	.21	.01	3.90	100.2

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA15367	92	26	176	609
SA15368	19	41	216	292
SA15369	20	16	142	216
SA15370	27	28	199	199
SA15372	15	25	122	143
SA15373	28	12	66	191
SA15374	79	32	228	616
SA15375	46	27	155	430
SA15376	62	23	135	459
SA15377	30	33	198	318
SA15378	35	<10	109	267
SA15379	52	20	132	433
SA15380	<10	22	91	<50
SA15383	19	12	136	293
SA15384	40	37	256	368
SA15385	56	27	196	294
SA15386	62	21	141	411
SA15388	46	16	97	326
SA15393	<10	24	98	59
SA15394	132	18	179	666
SA15395	153	16	182	839
SA15396	<10	<10	115	124
SA15397	85	<10	149	510
SA15398	58	16	142	665
SA15399	31	16	143	242
SA15400	93	<10	168	490
SA19817	68	17	133	409
SA19818	90	29	165	598
SA19823	79	20	96	366
SA19824	49	20	89	481
SA19825	98	52	164	240
SA19826	128	38	134	263
SA19894	60	12	155	461

SAMPLE \ PPM	RB	Y	ZR	BA
SA19897	39	11	146	252
SA19898	27	13	147	316
SA19899	93	35	155	562
SA19900	26	13	130	284
SA199				
SA199				
SA199				
SA199				
SA19998	93	30	166	485
SA19999	55	<10	194	305
SA20000	39	12	129	326
SA32014	50	18	177	573
SA32016	184	18	185	1110
SA32017	23	13	165	316
SA32018	45	<10	136	300
SA32019	43	29	173	374
SA32020	75	<10	132	507
SA32021	<10	27	156	272
SA32022	104	<10	161	683
SA32023	95	30	164	560
SA32024	34	16	126	509
SA32025	<10	18	65	276
SA32026	67	<10	123	212
SA32027	11	21	150	127
SA32028	35	30	185	767
SA32029	<10	16	115	93
SA32030	19	<10	83	54
SA32031	20	<10	102	64
SA32032	133	<10	166	659
SA32033	95	39	390	1060
SA32034	100	11	161	539
SA32036	101	<10	163	467
SA32037	73	16	158	546
SA32038	143	<10	195	752
SA32039	48	14	155	288
SA32040	59	19	167	455
SA32041	<10	23	139	407
SA32042	100	16	224	569
SA32045	13	21	138	412
SA32046	78	24	183	537
SA32047	71	<10	162	532
SA32048	66	23	222	537

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA05734	42	157	.4	42	11	163	--
SA05735	93	7.3	<.1	19	8	90.2	--
SA05736	91	19.4	<.1	18	6	68.9	--
SA05737	76	29.0	<.1	20	22	57.4	--
SA05738	69	24.3	.1	--	30	44.7	<2
SA05739	51	32.4	.2	--	118	41.0	<2
SA05740	45	9.7	<.1	20	9	74.9	--
SA05741	37	33.2	<.1	14	8	68.8	--
SA05742	13	21.9	<.1	--	57	7.6	7
SA05743	43	5.6	<.1	16	24	57.1	--
SA05744	46	5.3	<.1	16	9	65.7	--
SA05745	35	18.0	<.1	12	20	55.7	--
SA05746	17	22.9	<.1	--	21	13.0	5
SA05747	45	55.3	<.1	23	14	62.7	--
SA05748	11	18.2	.2	--	53	19.3	<2
SA05749	10	9.9	<.1	4	11	27.6	--
SA05750	35	50.3	.3	21	7	90.3	--
SA16890	45	43.8	.5	21	14	53.8	--
SA16891	41	49.1	.3	18	11	45.1	--
SA16892	48	26.9	<.1	18	8	75.8	--
SA16893	12	11.4	<.1	--	5	15.7	<2
SA16894	24	52.9	.3	--	36	48.7	5
SA16895	30	4.6	.2	--	6	25.2	4
SA16896	128	77.9	.2	--	9	73.7	<2
SA16897	90	48.2	.2	23	10	76.6	--
SA16898	167	3.9	<.1	27	9	93.4	--
SA16899	20	10.7	<.1	14	12	11.0	--
SA16900	112	77.3	<.1	22	7	82.5	--
SA17850	47	45.7	.2	17	25	70.1	--
SA32049	25	1820	4.1	--	56	515	<2
SA32050	92	641	2.6	--	22	1070	<2
SA32335	103	57.3	.3	46	28	123	--
SA32336	38	44.9	<.1	--	130	49.9	<2

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA32337	43	44.6	.3	19	22	69.0	--
SA32346	38	59.2	<.1	30	31	83.6	--
SA32347	20	107	<.1	--	30	260	<2
SA32348	43	9.7	<.1	11	17	79.1	--
SA32349	80	70.0	.1	47	22	137	--
SA32350	216	18.5	.3	28	21	164	--
SA48177	29	39.3	.2	9	26	50.5	--
SA48178	49	32.0	<.1	20	18	68.3	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA05734	44.4	14.5	6.74	5.10	1.68	.05	20.8	.66	1.15	.10	.04	4.90	100.1
SA05735	54.3	15.4	4.60	4.79	2.50	1.79	9.15	.20	.836	.17	.03	6.25	100.1
SA05736	58.3	15.5	4.14	4.75	2.88	1.92	5.11	.11	.787	.16	.03	5.65	99.4
SA05737	60.7	16.7	1.78	2.89	5.33	1.65	5.60	.06	.848	.17	.04	3.70	99.5
SA05740	60.7	15.0	2.95	3.19	3.18	1.62	7.51	.10	.784	.17	.03	4.10	99.4
SA05741	62.9	13.9	2.89	2.72	5.43	.38	5.88	.11	.713	.16	.02	3.45	98.6
SA05743	54.8	14.9	5.13	2.98	4.55	1.58	7.70	.12	.768	.17	.02	6.15	98.9
SA05744	57.5	17.0	1.13	3.84	.81	4.66	8.27	.09	.793	.15	.02	4.70	99.1
SA05745	65.2	14.4	1.87	2.02	2.98	2.35	6.16	.10	.729	.15	.02	3.75	99.8
SA05747	65.7	13.4	2.20	2.41	3.16	1.93	5.86	.09	.686	.14	.02	3.55	99.2
SA05749	62.3	19.8	.89	1.36	8.89	1.26	2.18	.04	.297	.07	.02	2.25	99.4
SA05750	51.2	13.5	7.45	5.20	3.60	.12	9.05	.17	.794	.45	.02	7.50	99.1
SA16890	65.4	14.6	.97	2.45	2.66	2.71	6.25	.07	.753	.15	.02	3.30	99.4
SA16891	68.9	12.4	2.50	1.64	2.15	2.47	4.91	.09	.645	.14	.03	3.40	99.4
SA16892	59.6	15.8	4.34	3.44	4.21	.51	7.94	.12	.812	.18	.02	3.05	100.1
SA16897	55.6	16.9	3.63	4.75	4.82	.72	6.98	.14	.920	.19	.04	4.45	99.2
SA16898	53.0	12.9	6.08	7.59	2.89	.21	7.52	.18	.693	.21	.07	8.10	99.5
SA16899	63.1	16.9	2.79	1.50	3.20	4.31	3.33	.05	.451	.15	.02	3.70	99.7
SA16900	56.7	14.9	4.21	5.39	4.55	.78	6.31	.13	.792	.15	.04	5.65	99.7
SA17850	64.7	13.8	2.16	2.56	2.33	2.65	5.95	.09	.671	.14	.02	4.25	99.4
SA32335	43.9	14.0	7.63	7.49	1.46	.26	14.6	.23	1.15	.09	.03	7.55	98.4
SA32337	56.9	14.9	4.71	3.81	3.78	1.39	7.89	.15	.705	.14	.02	5.95	100.4
SA32338	65.3	13.0	1.90	2.75	3.26	1.56	6.40	.10	.653	.12	.03	4.15	99.3
SA32339	42.9	14.0	6.68	5.96	1.90	.14	17.4	.23	2.05	.22	.03	6.70	98.2
SA32340	48.0	13.5	9.33	5.64	2.01	.27	16.0	.22	1.65	.16	.03	3.35	100.2
SA32341	46.7	13.3	7.84	6.00	1.81	.23	17.7	.23	1.95	.23	.02	3.55	99.6
SA32342	46.3	13.4	7.32	6.61	2.71	.25	16.0	.21	1.71	.23	.03	3.70	98.5
SA32343	47.0	13.0	6.31	4.66	1.70	.16	19.0	.31	2.19	.21	.02	5.55	100.1
SA32344	46.2	13.2	8.48	6.80	2.03	.25	17.1	.23	1.70	.16	.02	3.25	99.4
SA32345	48.0	12.5	7.57	7.33	2.29	.27	15.1	.20	1.66	.16	.01	3.55	98.7
SA32346	47.8	13.0	5.84	5.89	3.03	.82	17.8	.22	1.87	.26	.02	2.70	99.3
SA32348	61.1	15.6	1.59	3.31	4.07	4.01	5.57	.09	.591	.19	.04	3.20	99.5
SA32349	48.9	14.8	8.76	4.44	1.71	.21	13.8	.24	1.31	.11	.03	4.35	98.7
SA32350	47.9	10.6	10.2	8.30	1.28	.04	8.61	.21	.645	.40	.08	11.3	99.6

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA48177	63.1	15.0	3.29	1.96	3.10	2.66	5.51	.09	.377	.09	.01	4.68	99.9
SA48178	61.4	14.8	1.73	4.04	4.00	1.20	7.63	.10	.826	.18	.02	4.00	100.0

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA05734	<10	18	63	99
SA05735	68	12	136	570
SA05736	47	13	128	549
SA05737	57	<10	133	415
SA05740	44	14	162	456
SA05741	26	<10	153	161
SA05743	62	<10	166	341
SA05744	133	<10	143	998
SA05745	58	15	167	570
SA05747	43	26	183	502
SA05749	35	<10	106	340
SA05750	<10	35	200	108
SA16890	92	28	207	600
SA16891	90	27	158	538
SA16892	23	16	172	184
SA16897	17	13	155	253
SA16898	<10	<10	95	104
SA16899	156	<10	156	1080
SA16900	33	<10	130	249
SA17850	80	<10	200	562
SA32335	<10	25	54	101
SA32337	49	17	149	351
SA32338	46	20	156	386
SA32339	<10	28	153	93
SA32340	<10	23	117	115
SA32341	<10	41	158	103
SA32342	<10	42	153	114
SA32343	<10	29	150	95
SA32344	<10	30	88	90
SA32345	<10	31	99	104
SA32346	13	29	122	271
SA32348	84	12	158	1270
SA32349	23	15	64	101
SA32350	<10	19	118	59

SAMPLE \ PPM	RB	Y	ZR	BA
SA48177	100	18	104	485
SA48178	34	22	166	312

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA19830	107	91.5	.3	71	<5	109
SA19831	50	63.5	.1	39	<5	114
SA19832	11	24.0	.1	5	<5	116
SA19833	3	5.6	.4	2	<5	16.3
SA19834	35	35.6	.3	11	5	45.7
SA19835	67	60.7	<.1	21	5	197
SA19836	70	3.2	.2	20	13	60.5
SA19837	68	48.4	.3	33	12	94.1
SA19838	44	9.1	<.1	25	11	77.9
SA19839	3	18.0	<.1	7	<5	64.0
SA19840	28	51.1	<.1	23	<5	118

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA19830	51.2	16.4	6.46	4.65	1.24	1.37	8.92	.21	1.22	.11	.03	8.20	100.1
SA19831	47.8	13.7	7.23	7.57	1.87	.03	10.9	.20	1.12	.10	.03	9.20	99.8
SA19832	71.6	13.1	.88	1.73	.20	2.81	6.32	.08	.133	.03	.01	3.25	100.2
SA19833	78.1	10.5	1.51	.91	.20	2.97	1.67	.08	.086	.02	.01	3.25	99.4
SA19834	64.7	17.2	1.04	.90	.38	4.35	5.92	.07	.520	.06	<.01	4.10	99.3
SA19835	57.0	15.6	3.69	3.98	2.54	1.65	7.98	.12	.993	.35	.02	5.70	99.7
SA19836	56.7	16.9	3.37	4.36	3.20	1.76	6.59	.08	.585	.11	<.01	5.30	99.0
SA19837	54.0	13.3	6.39	3.08	.12	2.42	9.70	.15	2.82	.40	<.01	6.55	99.1
SA19838	52.5	14.5	4.20	5.36	2.99	.19	12.0	.13	1.84	.34	.01	5.60	99.7
SA19839	65.8	13.2	3.33	1.92	.93	2.56	5.53	.12	.592	.14	<.01	6.10	100.3
SA19840	55.1	14.9	3.49	3.70	1.78	2.00	9.81	.12	1.10	.26	<.01	7.05	99.4

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA19830	58	10	87	288
SA19831	<10	15	58	69
SA19832	111	41	157	327
SA19833	120	31	131	305
SA19834	157	17	143	464
SA19835	48	<10	157	409
SA19836	53	29	135	439
SA19837	81	43	234	660
SA19838	<10	27	235	156
SA19839	61	47	311	421
SA19840	41	14	197	518

D - QUALITY CONTROL DUPLICATE

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	AG PPM	PB PPM
SA18039	12	42	68	33.9	113	<.1	--
SA18040	<5	7	8	6.6	21.9	<.1	--
SA18041	<5	62	89	121	166	<.1	--
SA18042	7920	77	73	<.5	815	43.0	--
SA18043	10	30	120	133	51.1	<.1	--
SA18044	14	43	79	21.3	220	<.1	--
SA18045	110	--	28	3700	135	49.0	60
SA18046	22	--	47	687	135	12.2	14
SA18047	6	--	315	113	286	<.1	<2
SA18048	10	--	44	15.5	91.2	<.1	<2
SA18049	10	--	130	14.7	133	<.1	<2
SA19840	198	--	73	222	120	6.2	74
SA19841	6	--	90	10.8	78.6	<.1	4
SA19842	14	--	57	1.9	96.0	<.1	<2
SA27791	<5	9	45	18.6	82.8	<.1	--
SA27792	<5	--	35	9.5	77.9	<.1	56
SA27793	8	16	46	17.8	81.7	<.1	--
SA27794	8	20	47	14.9	94.1	<.1	--
SA27797	<5	29	46	72.5	76.9	<.1	--
							--
SA27799	22	33	69	105	58.5	<.1	--
SA48179	8	19	54	24.5	101	<.1	--
SA48180	6	24	58	23.4	94.2	<.1	--
SA48181	6	48	64	97.6	92.3	<.1	--
SA48182	<5	35	60	50.4	112	<.1	--
SA48192	<5	7	<1	4.4	16.3	<.1	--
SA48193	6	22	52	24.2	59.7	<.1	--
SA48194	<5	17	48	10.3	83.8	<.1	--
SA48195	6	15	47	21.1	75.2	<.1	--
SA48196	6	21	78	15.2	117	<.1	--

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	AG PPM	PB PPM
SA48197	<5	15	32	27.3	66.4	<.1	--
SA48198	8	18	40	124	86.2	<.1	--
SA48199	<5	17	88	17.1	82.5	<.1	--
SA48200	<5	17	41	20.7	77.9	<.1	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA18039	49.4	14.5	7.91	4.89	1.94	.16	13.5	.33	1.28	.11	.03	5.40	99.5
SA18040	67.5	14.4	3.21	.90	4.22	2.16	3.03	.07	.353	.10	<.01	3.45	99.5
SA18041	44.6	13.7	8.71	4.59	2.92	.17	13.9	.29	1.20	.10	.02	8.85	99.1
SA18042	44.5	8.44	2.14	2.50	.11	1.48	24.9	.16	.768	.07	.02	10.5	95.7
SA18043	49.9	11.6	9.24	7.83	2.06	1.38	13.8	.30	.888	.08	.02	2.20	99.3
SA18044	42.9	14.4	3.34	6.41	.21	.72	22.7	.49	1.24	.11	.02	7.40	100.0
SA27791	61.2	18.3	1.04	2.22	2.61	2.88	5.70	.08	.983	.15	<.01	3.50	98.8
SA27793	63.0	16.7	1.82	2.49	4.96	1.17	5.34	.08	.696	.13	<.01	2.45	98.9
SA27794	62.5	15.4	2.50	2.85	4.51	.66	6.31	.08	.779	.16	<.01	2.50	98.3
SA27797	48.0	15.4	11.1	4.66	1.83	.47	15.2	.47	1.33	.12	.03	1.40	100.0
SA27799	47.8	13.9	11.9	4.00	1.43	.18	15.8	.38	1.26	.11	.03	2.30	99.1
SA48179	61.3	16.4	1.80	2.69	2.52	2.32	6.94	.07	.663	.13	<.01	3.70	98.6
SA48180	58.6	17.4	1.43	2.58	2.01	3.51	8.26	.09	.944	.15	<.01	3.35	98.4
SA48181	45.8	15.0	12.2	4.38	2.03	.48	15.0	.24	1.33	.11	.02	2.90	99.5
SA48182	48.3	12.8	8.31	6.13	1.83	.44	16.0	.22	1.63	.23	<.01	3.50	99.4
SA48192	64.6	15.3	2.10	1.23	5.12	2.49	5.17	.05	.622	.20	<.01	2.05	99.0
SA48193	60.5	18.1	1.54	2.23	3.01	3.63	6.02	.07	.947	.15	<.01	2.90	99.2
SA48194	63.6	16.9	.90	2.51	3.96	2.57	4.92	.05	.654	.12	<.01	2.90	99.2
SA48195	60.9	16.9	2.20	2.67	4.08	2.39	5.36	.07	.600	.13	<.01	3.15	98.5
SA48196	59.5	16.6	2.09	3.15	2.64	2.50	7.25	.09	.852	.20	.01	4.55	99.5
SA48197	62.8	16.7	2.46	2.04	4.97	1.74	4.52	.08	.551	.11	<.01	3.15	99.2
SA48198	60.0	13.6	5.41	2.82	3.97	.79	6.38	.14	.803	.20	<.01	6.15	100.3
SA48199	52.7	14.2	7.53	4.91	4.29	.31	6.45	.14	.750	.15	.02	7.90	99.4
SA48200	62.0	18.4	1.05	2.09	3.61	2.75	4.97	.07	.716	.13	<.01	3.10	99.0

SAMPLE \ PPM	RB	Y	ZR	BA
SA18039	18	21	84	108
SA18040	75	<10	171	403
SA18041	<10	14	82	81
SA18042	26	<10	24	601
SA18043	43	<10	68	359
SA18044	13	<10	82	234
SA27791	86	28	199	571
SA27793	32	15	161	350
SA27794	<10	24	182	256
SA27797	15	20	76	114
SA27799	<10	13	79	80
SA48179	93	<10	152	391
SA48180	139	<10	179	769
SA48181	<10	27	60	115
SA48182	13	26	107	124
SA48192	121	30	194	455
SA48193	123	29	184	804
SA48194	81	13	161	512
SA48195	77	<10	149	512
SA48196	67	19	164	453
SA48197	54	<10	144	488
SA48198	12	33	154	235
SA48199	<10	22	114	102
SA48200	69	<10	159	644

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	AG PPM	PB PPM
06094	8	47	50	122	134	<.1	--
06095	6	40	62	95.1	96.7	.1	--
06096	8	35	44	63.5	90.9	<.1	--
06097	9	60	88	151	114	<.1	--
06098	51	5	10	14.1	8.6	<.1	--
06099	<5	19	40	34.6	65.5	<.1	--
16100	8	20	48	21.7	83.8	<.1	--
19843	<5	33	83	126	129	<.1	--
19844	8	5	6	1.4	62.1	<.1	--
19845	7	5	5	1.4	57.3	<.1	--
19846	<5	31	45	103	194	<.1	--
19847	<5	18	47	41.5	193	<.1	--
21349	5280	--	25	6120	3280	86.6	319
21350	3980	--	72	2800	6560	34.6	90
30922	52	34	67	80.9	209	1.1	--
30923	18	44	48	44.3	107	.2	--
30924	10	28	93	185	137	<.1	--
30925	68	86	100	3380	<.5	9.2	--
30926	6	33	128	129	353	.2	--
30927	<5	19	66	26.5	421	.2	--
30928	<5	12	10	5.6	123	<.1	--
30929	7	31	42	8.3	196	<.1	--
30930	12	54	50	50.5	138	.8	--
30931	33	--	63	131	205	1.7	74
32276	5	60	87	131	114	<.1	--
32277	<5	33	53	67.3	94.2	<.1	--
32278	5	34	34	45.8	91.8	.1	--
32279	10	40	51	56.6	108	<.1	--
32280	7	40	49	97.3	87.1	<.1	--
32281	14	46	76	110	97.7	<.1	--
32282	<5	35	62	112	74.0	.1	--
32283	<5	39	41	50.7	110	<.1	--
32284	<5	30	47	40.4	89.6	.2	--
32285	<5	57	82	96.0	130	<.1	--
32286	5	34	275	<.5	175	<.1	--
32287	25	--	25	21.6	113	<.1	<2
32288	<5	37	440	26.4	161	.3	--

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	AG PPM	PB PPM
40448	23	--	132	437	1550	.4	11
40449	11	--	246	240	298	.1	<2
44141	11	7	6	6.1	17.1	.2	--
44142	8	23	191	2.2	136	<.1	--
44143	6	30	112	18.7	135	<.1	--
44144	5	32	25	18.0	154	<.1	--
44145	<5	34	287	<.5	68.2	.1	--
44146	<5	2	5	.9	20.5	<.1	--
44147	8	26	59	90.8	73.3	<.1	--
44148	6	7	5	18.0	16.5	<.1	--
44149	9	13	10	34.3	31.9	<.1	--
44150	7	33	41	101	61.8	.1	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
06094	47.8	13.4	7.67	5.82	2.00	.24	17.0	.26	1.61	.16	<.01	4.35	100.3
06095	51.5	13.5	6.66	4.94	3.87	.17	13.8	.20	1.48	.15	.02	3.15	99.5
06096	49.5	12.9	8.14	5.58	2.80	.19	16.2	.23	1.57	.19	.02	2.50	99.8
06097	48.4	14.9	6.28	4.63	2.75	.65	16.9	.27	1.21	.11	.03	4.00	100.2
06098	69.6	16.0	1.15	.56	7.25	1.48	2.15	.04	.218	.07	<.01	1.30	99.9
06099	64.5	17.3	1.42	2.08	4.40	2.74	4.44	.06	.505	.12	<.01	2.80	100.5
16100	58.8	15.3	4.54	3.64	2.55	2.14	6.79	.10	.622	.13	<.01	5.25	99.9
19843	56.5	15.3	5.51	3.08	2.36	1.66	7.92	.19	.932	.09	.02	6.60	100.2
19844	69.5	15.0	2.07	1.07	3.35	2.32	2.56	.06	.312	.10	<.01	3.30	99.7
19845	69.8	14.8	2.10	1.21	2.64	2.45	3.71	.05	.318	.10	<.01	3.05	100.3
19846	48.7	13.1	6.82	7.10	1.30	.09	12.8	.18	.955	.09	.01	8.85	100.0
19847	47.1	13.0	7.77	6.69	.88	.59	12.5	.20	.953	.10	.01	9.30	99.1
30922	51.5	16.2	2.32	5.10	2.74	.78	14.8	.35	1.25	.13	.02	4.15	99.4
30923	61.0	15.2	7.42	2.19	4.13	.31	6.58	.24	1.26	.13	.04	1.65	100.2
30924	49.0	15.4	6.26	4.97	.51	1.32	12.2	.28	1.04	.11	.03	8.90	100.1
30925	19.4	16.4	6.68	3.74	1.24	2.69	17.4	.32	1.30	.26	<.01	8.60	78.1
30926	56.7	17.0	5.11	3.41	3.20	1.32	7.94	.16	.932	.09	.04	4.60	100.5
30927	61.9	19.2	.52	2.91	1.37	2.56	6.64	.04	.712	.18	<.01	3.90	100.0
30928	68.5	14.4	1.16	2.08	.49	2.77	6.24	.05	.673	.17	<.01	3.70	100.4
30929	51.5	14.0	6.23	6.37	2.36	.26	10.8	.22	.671	.30	.04	7.45	100.2
30930	60.3	12.5	2.44	5.17	2.62	.12	9.98	.15	1.03	.12	.01	3.70	98.2
32276	51.3	14.9	9.48	4.50	1.22	.22	13.0	.24	1.20	.11	.03	3.85	100.1
32277	48.8	13.1	10.3	5.46	1.64	.15	16.4	.23	1.45	.16	.02	2.35	100.1
32278	48.0	11.6	9.78	5.47	1.73	.24	17.1	.26	1.37	.14	<.01	4.15	99.9
32279	51.7	12.6	8.68	4.55	1.58	.62	14.3	.18	1.31	.13	.01	4.05	99.7
32280	47.5	13.2	9.13	6.00	1.65	.33	16.8	.24	1.41	.14	<.01	3.10	99.5
32281	50.1	14.8	5.82	5.24	3.85	.19	14.3	.23	1.34	.11	.02	3.20	99.2
32282	45.3	14.3	10.4	6.88	2.10	.29	16.1	.23	1.22	.12	.02	2.35	99.3
32283	50.0	12.3	7.69	6.08	2.08	.17	16.6	.22	1.51	.15	<.01	3.60	100.4
32284	48.5	13.0	9.14	6.33	2.03	.30	16.1	.22	1.47	.15	.02	2.60	99.9
32285	51.3	14.6	6.63	3.71	2.90	.13	14.6	.21	1.32	.12	.02	4.10	99.7
32286	43.5	10.1	12.0	8.99	.88	.02	8.87	.23	.509	.36	.08	14.0	99.6
32288	39.8	7.15	10.5	13.4	.13	.04	8.68	.25	.382	.25	.19	18.9	99.7
44141	73.3	14.3	.50	.71	3.18	3.10	2.24	.04	.203	.07	.02	1.95	99.7
44142	51.5	11.0	6.81	7.19	2.47	.55	7.88	.23	.421	.17	.12	11.8	100.2
44143	53.5	14.0	5.53	5.01	1.01	1.42	9.40	.14	.695	.13	.01	8.40	99.3
44144	52.2	13.1	5.12	4.17	2.60	.10	14.3	.16	1.94	.37	<.01	6.45	100.6

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
44145	45.8	7.96	4.07	19.8	.09	.05	9.80	.12	.415	.28	.27	11.5	100.2
44146	70.3	14.8	.23	1.08	.23	4.83	2.52	.03	.216	.07	<.01	2.85	97.3
44147	61.5	16.9	2.32	2.76	1.99	3.26	6.70	.09	.719	.14	.02	3.80	100.3
44148	68.6	15.0	2.02	.71	4.10	2.83	4.16	.05	.575	.18	<.01	1.80	100.2
44149	64.4	16.8	3.04	1.21	2.83	3.80	3.35	.07	.344	.10	<.01	4.05	100.1
44150	50.7	12.5	8.91	7.22	2.85	.13	13.7	.21	1.11	.10	.06	2.35	99.9

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
06094	<10	29	113	140
06095	<10	25	105	125
06096	<10	36	131	112
06097	30	21	79	364
06098	62	<10	125	390
06099	89	15	158	819
16100	76	16	146	438
19843	43	27	60	245
19844	71	<10	144	355
19845	76	23	158	521
19846	<10	16	69	101
19847	<10	<10	59	155
19848	51	20	42	598
19849	43	<10	43	340
30922	20	26	99	273
30923	<10	26	100	142
30924	51	26	75	176
30925	61	13	123	367
30926	53	21	66	248
30927	89	<10	189	571
30928	84	31	287	593
30929	<10	14	100	143
30930	<10	18	79	109
32276	<10	26	80	120
32277	<10	24	108	89
32278	<10	24	92	106
32279	<10	19	93	163
32280	10	14	95	105
32281	<10	25	93	111
32282	<10	25	70	111
32283	<10	34	102	113
32284	<10	33	94	110
32285	<10	25	66	134
32286	<10	17	76	57
32288	<10	<10	42	<50
44141	97	<10	146	981
44142	14	<10	92	310
44143	43	12	112	295
44144	<10	33	206	138

SAMPLE \ PPM	RB	Y	ZR	BA
44145	23	<10	75	190
44146	120	<10	147	943
44147	97	13	153	833
44148	92	50	250	732
44149	112	12	115	756
44150	<10	20	57	99

D - QUALITY CONTROL DUPLICATE

SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	RB PPM
SA-32272	6	23	114	54.8	85.7	63
SA-32273	<5	3	2	36.3	19.9	114
SA-32274	<5	46	105	97.1	222	52
SA-32275	<5	4	13	18.2	112	103
SA-39701	<5	<1	3	5.0	29.7	106
SA-39702	<5	4	8	14.0	33.7	78
SA-39703	<5	2	6	1.8	21.1	84
SA-39704	83	48	193	1860	278	4
SA-39705	<5	1	7	11.4	34.0	85
SA-39706	<5	29	55	86.7	248	12
SA-39707	<5	16	45	13.5	85.0	60
SA-39708	<5	35	76	71.8	315	9
SA-39709	<5	21	59	38.0	112	52
SA-39710	97	--	31	50.5	67.3	--
SA-39711	348	--	48	80.9	98.3	--
SA-39712	15	--	22	20.4	48.7	--
SA-39713	<5	20	35	102	70.5	63
SA-39714	<5	10	31	19.6	22.1	106
SA-39715	<5	1	6	<.5	48.1	125
SA-39716	<5	8	28	19.2	142	88
SA-39717	<5	<1	3	.9	15.7	116
SA-39718	<5	<1	2	1.7	17.5	129
SA-39719	<5	<1	4	1.6	21.6	120
SA-39720	<5	1	3	14.7	31.5	116
SA-39721	<5	8	14	26.3	34.7	91
SA-39722	<5	12	34	14.3	60.8	111
SA-39723	<5	36	106	24.6	60.0	144
SA-39724	<5	21	36	45.0	63.2	57
SA-39725	<5	1	6	4.8	107	97
SA-39726	<5	<1	3	<.5	46.9	116
SA-39727	<5	<1	1	1.6	11.8	110
SA-39728	<5	2	9	2.8	22.4	110
SA-39729	6	2	4	7.9	6.8	127
SA-39730	8	--	2	5.3	21.2	--
SA-39731	6	--	7	65.8	52.1	--
SA-39732	8	--	36	45.2	46.3	--

SAMPLE	Y PPM	ZR PPM	AG PPM	BA PPM	PB PPM
SA-32272	13	94	.6	426	--
SA-32273	21	175	.3	399	--
SA-32274	20	69	.3	310	--
SA-32275	48	166	.4	295	--
SA-39701	43	133	.3	445	--
SA-39702	31	101	<.1	270	--
SA-39703	52	122	.2	269	--
SA-39704	16	73	13.6	128	--
SA-39705	13	139	.2	341	--
SA-39706	49	225	.6	250	--
SA-39707	15	94	.3	345	--
SA-39708	43	242	.5	229	--
SA-39709	18	129	.1	322	--
SA-39710	--	--	8.9	--	113
SA-39711	--	--	10.7	--	111
SA-39712	--	--	.7	--	7
SA-39713	25	78	.7	325	--
SA-39714	27	130	.4	228	--
SA-39715	41	161	<.1	170	--
SA-39716	34	121	.3	185	--
SA-39717	34	150	<.1	167	--
SA-39718	37	166	<.1	168	--
SA-39719	37	158	.1	186	--
SA-39720	42	149	<.1	193	--
SA-39721	17	120	<.1	194	--
SA-39722	28	158	<.1	279	--
SA-39723	23	81	<.1	361	--
SA-39724	33	122	.4	196	--
SA-39725	36	139	.1	173	--
SA-39726	39	158	<.1	214	--
SA-39727	37	139	<.1	235	--
SA-39728	39	158	<.1	213	--
SA-39729	33	162	.1	195	--
SA-39730	--	--	<.1	--	5
SA-39731	--	--	.2	--	2
SA-39732	--	--	<.1	--	<2
D SA-32272	13	92	.5	412	--

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA-32272	51.3	14.2	6.26	5.53	2.14	2.43	6.40	.16	.417	.10	.02	11.2	100.2
SA-32273	74.7	14.0	.96	.90	.67	3.80	2.17	.03	.176	.06	<.01	2.50	100.0
SA-32274	51.0	15.5	7.30	3.91	.97	1.57	9.38	.28	.967	.08	.04	9.25	100.2
SA-32275	76.7	11.7	1.02	.60	.44	3.20	3.61	.16	.074	.03	<.01	2.55	100.1
SA-39701	76.4	12.3	1.64	.53	.86	3.29	1.84	.05	.092	.04	<.01	3.05	100.1
SA-39702	77.7	10.0	1.17	1.14	.30	2.50	4.55	.08	.050	.03	<.01	2.70	100.2
SA-39703	75.5	9.20	3.21	1.51	.33	2.64	2.32	.11	.031	.03	.02	5.25	100.2
SA-39704	60.7	9.98	.32	4.35	.15	.13	18.2	.06	.551	.08	.04	4.95	99.5
SA-39705	75.6	11.3	2.31	.79	.35	2.95	2.62	.12	.129	.05	.01	3.75	100.0
SA-39706	50.3	13.7	3.88	5.04	2.45	.38	15.1	.14	2.08	.47	<.01	6.80	100.3
SA-39707	62.0	11.5	5.23	2.92	1.77	2.04	6.25	.19	.391	.12	.01	7.90	100.3
SA-39708	46.1	15.0	3.14	5.81	2.70	.10	17.6	.16	2.30	.45	.01	7.05	100.4
SA-39709	61.8	15.2	2.35	2.72	3.98	1.67	6.84	.14	.567	.13	.01	5.05	100.5
SA-39713	45.0	12.4	8.04	5.13	.69	2.37	11.6	.46	1.12	.10	.02	13.4	100.3
SA-39714	55.3	11.1	8.13	2.51	.29	3.45	6.31	.35	.268	.37	<.01	11.0	99.1
SA-39715	76.9	12.5	.98	.79	.31	3.71	1.98	.06	.049	.03	<.01	3.05	100.4
SA-39716	60.3	9.70	6.87	3.06	.24	2.94	5.31	.25	.193	.05	<.01	10.3	99.2
SA-39717	79.9	11.3	.61	.47	.29	3.36	1.36	.04	.054	.04	<.01	1.95	99.4
SA-39718	77.4	13.3	.34	.54	.32	4.08	.98	.04	.074	.03	<.01	2.55	99.7
SA-39719	77.5	12.3	.96	.90	.31	3.72	1.58	.05	.073	.03	.01	2.85	100.3
SA-39720	75.9	11.8	.88	.90	.26	3.60	2.16	.08	.076	.03	<.01	2.55	98.2
SA-39721	76.2	10.6	.24	1.84	.23	2.80	5.15	.03	.452	.07	.01	2.60	100.2
SA-39722	66.5	14.2	1.26	3.26	.22	3.60	5.91	.10	.597	.14	<.01	4.25	100.0
SA-39723	58.2	19.5	.30	3.00	.28	4.95	7.31	.07	1.25	.10	.05	4.30	99.3
SA-39724	60.6	10.9	4.27	4.05	.20	1.89	11.6	.23	.303	.04	<.01	6.20	100.3
SA-39725	76.5	10.6	.92	1.47	.21	3.04	2.52	.06	.038	.03	<.01	2.70	98.[illegible]
SA-39726	76.5	12.2	.88	1.39	.23	3.62	2.03	.07	.049	.02	<.01	2.80	99.[illegible]
SA-39727	77.3	11.2	1.88	.84	.26	3.47	1.82	.05	.068	.02	<.01	2.35	99.[illegible]
SA-39728	77.3	12.4	.20	1.50	.27	3.55	2.41	.04	.112	.03	<.01	2.25	100.[illegible]
SA-39729	80.2	12.7	.19	.54	.27	3.84	.69	.03	.062	.03	<.01	1.90	100.[illegible]

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA09485	122	22.4	.2	33	17	38.4	--
SA09486	83	29.8	.2	29	19	65.4	--
SA09487	39	31.8	<.1	17	26	72.1	--
SA09490	65	16.2	.4	30	23	123	--
SA09491	39	48.5	.1	16	28	90.2	--
SA19970	28	16.9	.8	12	22	298	--
SA19971	1	3.9	.4	1	20	13.1	--
SA19972	50	163	.5	33	28	99.2	--
SA19973	50	72.8	<.1	34	26	76.6	--
SA19974	84	39.4	3.5	--	248	110	109
SA19975	52	261	8.5	--	312	353	3290
SA19976	185	33.2	<.1	32	29	769	--
SA19977	48	1.8	<.1	19	26	59.2	--
SA19978	69	3.7	<.1	41	18	124	--
SA19979	30	3.2	<.1	21	20	112	--
SA19980	55	58.7	.1	29	17	146	--
SA19981	50	34.5	<.1	29	19	86.4	--
SA19982	51	1.5	<.1	19	24	63.1	--
SA19983	<1	9.9	.2	<1	19	8.5	--
SA19984	29	34.1	.5	25	22	108	--
SA19985	29	80.9	.2	58	47	122	--
SA19986	57	15.3	<.1	22	15	99.2	--
SA19987	48	16.3	.3	21	13	96.3	--
SA19988	49	131	.2	38	32	99.0	--
SA19989	51	112	.6	34	16	133	--
SA19990	98	56.9	.4	69	14	117	--
SA19991	62	27.4	.2	42	14	190	--
SA23537	130	24.5	1.1	31	<5	138	--
SA23538	76	14.7	.3	24	7	40.2	--
SA23539	37	17.6	<.1	17	7	31.0	--
SA23548	50	10.8	<.1	16	8	71.5	--
SA23549	69	7.1	.4	24	7	91.4	--
SA23550	48	6.3	<.1	23	12	61.1	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA29564	24	29.6	<.1	22	17	39.6	--
SA29565	34	19.1	.2	12	9	77.3	--
SA29566	30	29.5	<.1	10	10	59.2	--
SA29567	6	4.4	<.1	5	12	19.5	--
SA29568	58	9.1	<.1	19	9	74.5	--
SA29569	39	40.4	.3	17	16	48.4	--
SA29578	2	3.0	.1	--	265	32.1	6
SA29579	<1	3.3	.3	3	66	30.3	--
SA29580	11	36.4	.1	5	6	15.1	--
SA29587	48	20.8	<.1	14	14	79.6	--
SA29588	54	3.8	<.1	19	15	89.9	--
SA29589	46	34.5	<.1	14	16	55.3	--
SA29590	49	38.4	.3	21	10	68.6	--
SA29591	70	33.1	.2	19	11	79.8	--
SA29592	42	2.5	.6	18	12	67.2	--
SA29593	122	90.0	<.1	31	14	59.1	--
SA29594	97	1.1	.1	30	15	73.5	--
SA29595	206	85.3	.3	45	12	79.1	--
SA29596	14	24.5	.2	10	15	18.4	--
SA29597	187	15.8	<.1	43	13	73.5	--
SA29598	90	5.8	<.1	32	16	216	--
SA34387	26	7.2	.5	16	17	64.9	--
SA34388	50	23.8	.3	23	18	71.8	--
SA34389	27	11.9	.2	12	28	25.6	--

SAMPLE \ %	SIO2	AL203	CAO	MGO	NA20	K20	FE203	MNO	TIO2	P205	CR203	LOI	SUM
SA09485	63.4	15.2	5.66	1.07	2.04	1.13	3.40	.08	.919	.18	.02	7.20	100.4
SA09486	60.5	15.0	4.33	3.05	4.31	.93	5.68	.11	.821	.15	.02	5.05	100.0
SA09487	63.5	14.3	5.46	2.68	3.88	.19	6.63	.10	.731	.16	.01	2.70	100.4
SA09490	51.0	18.9	3.93	4.95	3.48	1.20	10.5	.14	1.06	.23	.01	3.95	99.4
SA09491	58.8	15.9	4.46	3.19	4.19	1.02	7.96	.12	.991	.26	<.01	3.00	100.0
SA19970	39.5	15.1	8.51	5.18	.28	2.75	13.5	.41	1.24	.32	<.01	13.8	100.7
SA19971	73.7	13.3	1.71	.82	.23	3.72	1.43	.09	.085	.03	<.01	4.45	99.7
SA19972	57.9	15.6	3.85	3.55	.52	2.28	8.15	.15	1.34	.11	.01	6.25	99.8
SA19973	49.0	14.0	7.91	5.89	2.91	.05	10.4	.22	1.17	.09	.03	8.40	100.1
SA19976	51.6	13.6	6.31	5.00	.20	1.90	10.7	.19	1.12	.23	.04	9.15	100.1
SA19977	60.3	17.0	1.74	3.81	4.31	1.24	6.75	.07	.658	.12	<.01	3.50	99.6
SA19978	47.2	13.1	4.94	6.03	1.04	.06	17.0	.17	2.81	.30	<.01	7.60	100.3
SA19979	54.3	14.6	4.55	3.53	2.06	1.50	9.84	.15	1.08	.28	<.01	8.20	100.2
SA19980	53.6	11.6	6.42	3.18	.44	1.80	10.3	.19	1.79	.50	<.01	10.6	100.5
SA19981	50.3	15.8	6.59	6.75	2.22	.05	11.9	.16	1.37	.22	.03	4.50	99.9
SA19982	58.0	17.1	3.01	3.80	4.00	1.48	6.78	.08	.658	.13	<.01	5.00	100.1
SA19983	72.0	17.5	.02	.38	.34	5.06	1.24	.02	.099	.02	<.01	2.80	99.6
SA19984	45.4	13.2	8.31	5.60	2.09	1.55	8.82	.19	.768	.31	.02	13.8	100.1
SA19985	51.8	15.2	2.39	4.48	3.43	.57	13.0	.13	3.09	.42	<.01	5.05	99.6
SA19986	58.0	13.3	5.44	3.01	1.98	1.22	9.22	.11	.697	.20	<.01	7.05	100.3
SA19987	57.5	17.0	2.78	4.13	1.69	2.51	7.31	.07	.671	.13	<.01	6.00	99.9
SA19988	47.2	14.9	9.71	5.48	1.48	.71	11.1	.23	1.05	.09	.02	8.15	100.1
SA19989	47.0	13.4	6.70	7.70	1.64	.06	12.1	.25	1.09	.10	.03	9.75	99.8
SA19990	53.7	15.7	4.61	3.97	.78	1.74	9.95	.21	1.17	.11	.03	8.05	100.1
SA19991	39.3	12.7	11.8	5.31	.16	.70	15.2	.34	1.16	.12	.02	13.5	100.3
SA23537	59.0	16.9	4.76	2.83	3.35	1.49	6.20	.18	1.05	.20	.03	4.25	100.3
SA23538	60.0	15.7	7.14	1.62	1.43	2.33	3.85	.09	.988	.18	.02	6.55	100.0
SA23539	60.9	15.2	3.56	2.99	3.09	1.94	7.25	.12	.908	.21	<.01	2.70	98.9
SA23548	60.7	18.5	.47	2.99	2.62	2.18	7.75	.09	1.00	.16	.02	3.50	100.1
SA23549	55.0	17.0	3.36	4.45	4.22	1.18	8.89	.18	.837	.17	<.01	4.75	100.1
SA23550	56.1	15.8	5.71	3.57	2.99	2.39	5.77	.15	.703	.14	<.01	6.95	100.4
SA29564	46.6	13.5	7.63	5.81	3.62	.12	15.5	.20	1.72	.15	<.01	3.60	98.5
SA29565	64.6	15.4	2.10	2.17	5.28	1.20	5.02	.09	.606	.12	.01	3.25	99.9

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA29566	65.0	16.9	1.30	1.97	4.26	2.13	4.62	.05	.668	.13	<.01	3.10	100.2
SA29567	70.2	14.8	1.53	.86	3.95	1.92	1.55	.04	.326	.09	<.01	4.75	100.1
SA29568	56.1	16.9	3.01	3.98	1.36	3.25	7.88	.13	.816	.15	<.01	6.30	100.0
SA29569	64.6	13.6	3.25	2.40	2.70	2.25	5.72	.09	.681	.14	<.01	4.60	100.1
SA29570	59.6	17.0	3.99	2.68	2.89	2.51	5.16	.09	.457	.12	<.01	5.45	100.0
SA29571	61.2	16.1	2.32	2.60	3.45	1.15	7.52	.11	.721	.13	<.01	4.80	100.2
SA29572	51.8	15.5	1.92	6.20	3.41	.04	14.5	.20	1.47	.18	<.01	4.90	100.2
SA29573	46.9	13.3	9.22	6.30	2.83	.21	15.9	.27	1.43	.15	.01	3.65	100.2
SA29574	49.4	12.4	8.68	5.73	2.45	.19	16.1	.23	1.49	.15	<.01	2.90	99.7
SA29575	49.2	14.1	7.56	5.60	3.03	.70	12.4	.24	1.12	.10	<.01	4.50	98.6
SA29576	44.6	12.1	7.95	5.74	.72	.03	18.6	.27	1.69	.18	.01	7.90	99.8
SA29577	61.9	17.2	1.08	3.01	3.52	1.83	7.09	.08	.990	.16	.01	3.45	100.4
SA29579	74.1	13.5	.62	.45	5.73	1.20	2.46	.04	.230	.06	<.01	1.85	100.3
SA29580	66.8	17.0	1.51	1.01	3.22	3.85	2.96	.04	.337	.09	<.01	2.95	99.9
SA29587	64.5	15.1	1.58	2.55	2.71	2.55	6.23	.08	.759	.15	<.01	4.10	100.4
SA29588	63.1	16.0	1.29	2.73	2.02	2.94	7.18	.08	.815	.16	<.01	4.10	100.5
SA29589	70.2	14.0	.74	1.61	.64	3.47	5.04	.06	.728	.14	.02	3.30	100.1
SA29590	66.9	14.0	.95	2.48	2.47	2.42	6.57	.07	.778	.15	<.01	3.10	100.0
SA29591	56.8	16.7	3.42	4.11	4.19	1.46	7.30	.13	.811	.16	.03	4.85	100.0
SA29592	60.2	17.3	1.96	3.04	4.72	1.84	5.12	.12	.787	.14	<.01	3.45	98.8
SA29593	57.8	18.4	.25	4.13	.43	3.45	9.28	.04	1.10	.17	.01	4.85	100.0
SA29594	55.2	16.9	2.14	5.15	3.95	.76	9.26	.07	.977	.14	<.01	5.15	99.7
SA29595	46.6	15.6	4.17	9.13	3.06	.11	12.7	.18	.996	.16	.04	7.80	100.6
SA29596	71.5	14.5	.59	1.54	7.92	.04	2.63	.04	.372	.10	<.01	.75	100.0
SA29597	47.2	16.1	4.23	8.90	3.35	.05	12.6	.16	1.02	.17	.03	6.35	100.2
SA29598	54.3	15.6	3.08	5.36	2.44	1.34	11.1	.13	1.08	.39	<.01	5.60	100.5
SA34387	61.5	16.2	2.42	2.26	1.52	3.32	7.03	.07	.965	.23	<.01	4.45	100.1
SA34388	60.7	18.2	.37	2.63	2.71	2.27	7.38	.09	.965	.15	<.01	3.40	99.0
SA34389	65.3	15.6	2.17	2.00	5.76	1.38	4.34	.07	.628	.13	<.01	2.30	99.7
SA34390	64.6	17.3	1.39	1.89	4.45	2.99	4.38	.06	.579	.15	<.01	2.40	100.3

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA09485	32	13	125	321
SA09486	60	10	129	287
SA09487	<10	21	160	120
SA09490	42	46	240	420
SA09491	37	42	195	397
SA19970	96	27	183	214
SA19971	145	65	161	469
SA19972	100	29	87	406
SA19973	14	17	38	107
SA19976	43	22	162	415
SA19977	38	<10	160	440
SA19978	<10	35	206	113
SA19979	41	21	192	488
SA19980	57	28	190	349
SA19981	<10	28	145	98
SA19982	66	<10	121	512
SA19983	210	33	186	313
SA19984	49	26	89	459
SA19985	14	32	235	304
SA19986	41	27	153	327
SA19987	101	<10	161	613
SA19988	22	15	88	107
SA19989	<10	<10	52	97
SA19990	73	11	84	290
SA19991	21	15	86	164
SA23537	48	26	134	425
SA23538	74	<10	128	455
SA23539	63	17	137	493
SA23540	<10	37	76	85
SA23541	10	22	103	124
SA23542	11	22	85	133
SA23543	26	31	66	367
SA23544	14	24	99	132
SA23545	<10	28	70	50
SA23546	<10	<10	65	73
SA23547	73	<10	137	431
SA23548	70	15	194	462
SA23549	58	17	177	428
SA23550	79	19	129	498
SA29564	<10	23	96	76
SA29565	32	<10	163	332

SAMPLE \ PPM	RB	Y	ZR	BA
SA29566	73	13	178	612
SA29567	66	<10	162	512
SA29568	107	<10	168	700
SA29569	80	12	175	565
SA29570	68	<10	95	479
SA29571	36	<10	125	290
SA29572	<10	18	155	145
SA29573	<10	17	71	117
SA29574	<10	18	87	128
SA29575	<10	13	55	244
SA29576	<10	24	96	92
SA29577	66	21	190	568
SA29579	36	33	210	323
SA29580	131	<10	102	670
SA29587	79	12	196	557
SA29588	87	26	217	619
SA29589	116	31	205	563
SA29590	82	25	201	575
SA29591	64	21	177	336
SA29592	69	16	153	523
SA29593	117	<10	156	681
SA29594	<10	<10	131	247
SA29595	<10	12	120	84
SA29596	<10	<10	176	119
SA29597	<10	<10	97	68
SA29598	49	23	190	447
SA34387	105	30	176	797
SA34388	75	23	190	526
SA34389	33	<10	157	417
SA34390	79	<10	174	534

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA09480	41	23.0	.3	17	22	76.6
SA09481	32	20.2	.2	18	22	78.4
SA09482	124	11.4	<.1	27	21	67.6
SA09483	47	15.4	.4	14	12	25.3
SA09484	66	19.3	<.1	25	18	32.5
SA35517	88	83.1	<.1	30	18	95.3
SA35518	106	26.4	.1	48	16	134
SA35519	57	34.7	.7	42	15	114
SA35520	<1	2.1	.3	1	9	6.1
SA35521	19	28.8	.3	30	6	170
SA35522	4	1.8	<.1	5	7	30.3
SA35523	62	32.1	.2	26	9	110
SA35524	132	3.4	.4	32	11	176
SA35525	<1	4.1	.3	1	10	26.7
SA35526	81	9.9	.4	28	14	113
SA35527	94	5.9	.2	34	16	128
SA35528	99	1.5	.8	28	11	68.0
SA35529	26	34.2	1.0	14	32	51.2
SA35530	120	4.0	1.1	28	21	102
SA35531	80	56.9	.7	9	26	64.7
SA35532	44	61.9	1.0	30	10	188
SA35533	4	17.6	.9	<1	11	11.9
SA35534	8	34.0	1.0	15	36	60.5
SA35535	86	76.7	1.0	30	15	68.1
SA35536	41	7.8	.9	17	13	80.7
SA35537	63	56.5	.9	27	16	123
SA35538	[illegible]	[illegible]	[illegible]	[illegible]	11	59.9
SA35541	48	92.3	.8	42	29	120
SA35542	63	78.6	.3	47	12	404
SA35543	50	130	.5	35	9	108
SA35544	39	20.4	.7	22	8	119
SA35545	8	2.4	.3	2	12	38.7
SA35546	101	8.7	.7	25	<5	54.7
SA35547	98	11.5	.4	23	8	60.4
SA35548	34	26.8	.2	16	11	77.6
SA35549	69	34.9	.2	19	11	76.2
SA35550	56	58.6	?	16	10	87.5
SA35581	45	38.1	.4	36	11	374
SA35582	44	11.6	.6	11	17	40.5
SA35583	17	14.6	.3	6	14	66.9
SA35584	20	80.1	.5	8	14	105

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA35585	21	3.1	<.1	18	12	103
SA35586	413	8.8	.6	69	11	132
SA35587	56	91.7	.9	37	19	312
SA35588	19	43.0	.5	29	10	277
SA35589	88	85.7	.5	56	16	135
SA35590	118	36.6	.4	54	12	122
SA35600	64	110	.6	42	12	97.7
SA44187	3	1.8	1.3	1	10	9.3
SA44188	25	32.5	.7	29	12	163
SA44189	13	3.1	1.1	11	11	78.3
SA44190	64	55.3	2.2	33	38	142
SA44191	2	1.1	.8	1	12	82.9
SA44192	68	204	1.0	37	10	144
SA44193	46	70.4	.6	43	12	149
SA44194	66	53.7	.9	48	10	100
SA44195	34	181	1.5	31	45	139

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA09480	58.2	13.8	5.83	2.83	2.18	2.34	6.59	.13	.735	.16	.02	7.25	100.1
SA09481	63.5	14.5	2.21	2.74	2.44	2.20	7.13	.12	.896	.23	.02	4.00	100.1
SA09482	56.6	17.0	5.22	2.79	.43	3.31	6.25	.14	1.11	.20	.04	7.10	100.3
SA09483	60.8	16.9	6.03	.90	3.48	1.64	2.07	.10	1.09	.17	.03	6.70	100.0
SA09484	63.8	17.4	3.91	.84	3.46	2.18	2.03	.07	1.07	.22	.02	5.05	100.1
SA35517	51.7	15.2	6.83	4.63	2.91	.39	10.2	.23	1.15	.10	.05	7.05	100.5
SA35518	46.8	14.7	6.38	5.73	2.41	.05	13.9	.36	.957	.07	.04	8.75	100.2
SA35519	48.4	14.1	6.30	5.40	.15	1.45	13.5	.30	1.16	.09	.04	9.60	100.5
SA35520	78.8	11.7	.10	.30	.16	3.31	1.86	.04	.158	.03	.97	2.15	99.7
SA35521	50.3	13.1	4.88	4.26	2.07	.02	15.6	.15	2.50	.53	<.01	6.75	100.2
SA35522	70.9	15.6	.80	1.09	2.92	2.37	3.07	.04	.360	.10	<.01	2.70	100.0
SA35523	54.7	15.7	4.01	3.89	5.06	.08	9.01	.10	.978	.15	.04	6.00	99.7
SA35524	48.1	14.2	6.12	5.99	.04	1.22	13.7	.14	1.19	.24	.03	9.35	100.4
SA35525	79.5	11.7	.68	.38	.11	3.47	.88	.03	.078	.02	.01	2.50	99.4
SA35526	56.3	16.1	1.88	4.92	.03	2.61	11.8	.11	.951	.17	.02	5.35	100.4
SA35527	48.2	13.8	6.58	6.08	1.99	.08	13.2	.16	1.62	.30	.03	8.20	100.3
SA35528	52.9	15.3	4.46	6.13	3.45	.31	9.04	.12	.858	.12	.02	7.20	99.9
SA35529	60.7	14.1	4.76	2.73	1.45	2.35	5.77	.11	.722	.10	.01	7.30	100.2
SA35530	54.3	14.6	4.86	4.63	2.25	.95	8.72	.14	.782	.11	.02	9.05	100.5
SA35531	55.5	12.2	6.87	3.71	.81	1.60	6.96	.12	.636	.09	.02	11.9	100.5
SA35532	45.6	11.6	7.74	4.46	.02	1.05	15.4	.19	2.58	.29	.01	10.5	99.5
SA35533	81.6	11.1	.31	.41	.11	3.17	.71	.02	.090	.02	.01	2.30	99.9
SA35534	56.2	13.9	7.21	2.27	.33	2.53	7.81	.21	.856	.11	<.01	8.70	100.2
SA35535	52.2	15.8	8.28	2.16	3.05	1.69	6.40	.18	1.12	.10	.05	9.05	100.1
SA35536	56.8	14.0	5.49	3.38	2.80	1.15	8.98	.16	1.10	.22	<.01	6.20	100.4
SA35537	50.5	15.0	4.58	5.72	1.84	.04	15.2	.36	1.48	.13	.04	5.00	99.9
SA35538	59.6	14.9	4.85	3.05	3.76	.48	7.48	.17	1.39	.13	.03	3.10	99.0
SA35541	48.5	13.2	7.52	4.99	1.77	.31	14.0	.38	1.29	.13	.03	8.15	100.1
SA35542	44.9	13.8	9.44	4.74	.03	1.88	12.5	.37	1.33	.13	.03	11.1	100.3
SA35543	46.4	13.0	8.66	5.53	.05	1.18	12.7	.33	1.05	.08	.04	11.0	100.1
SA35544	55.6	15.6	3.77	3.12	.08	2.93	10.7	.28	.993	.09	.02	5.90	99.1
SA35545	75.0	9.90	3.57	.83	.11	2.52	2.98	.11	.077	.02	<.01	4.95	100.1
SA35546	55.0	14.6	8.56	2.07	4.61	.73	4.70	.14	.913	.18	.02	8.45	100.0
SA35547	53.9	13.4	8.81	3.24	4.34	.32	5.37	.21	.845	.17	.02	9.85	100.5
SA35548	59.2	15.4	4.05	2.57	1.99	2.79	7.02	.14	.894	.21	<.01	5.75	100.1
SA35549	60.7	15.8	4.13	3.73	3.68	.61	6.84	.13	.740	.15	.02	3.65	100.2
SA35550	54.2	15.5	6.80	2.58	3.96	1.42	7.33	.15	.790	.18	.02	7.15	100.1
SA35581	45.6	11.7	8.34	4.88	<.01	.44	16.9	.40	1.17	.10	.02	10.7	100.3
SA35582	74.0	8.07	3.08	2.17	.74	.59	5.41	.12	.084	.02	<.01	5.70	100.0
SA35583	73.7	14.8	.24	.81	.65	2.91	3.26	.03	.662	.14	.01	3.00	100.3
SA35584	68.2	12.9	2.28	1.91	.46	2.57	4.77	.08	.432	.09	.54	5.35	99.7

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA35585	54.5	14.0	4.68	3.29	3.12	.86	10.2	.17	2.05	.42	.02	7.15	100.5
SA35586	42.1	11.7	3.61	14.7	<.01	.01	16.7	.19	.909	.07	.11	10.0	100.1
SA35587	45.2	12.8	4.12	6.34	.77	.07	18.3	.14	3.24	.33	.13	7.35	98.8
SA35588	50.5	13.0	5.62	4.14	2.14	.09	14.2	.21	2.40	.41	<.01	7.75	100.5
SA35589	46.9	14.6	9.72	3.80	.48	1.90	10.7	.38	.991	.10	.04	10.5	100.2
SA35590	53.0	17.0	2.71	5.34	3.41	.84	10.6	.19	1.45	.13	.04	5.15	99.9
SA35600	50.7	13.6	9.08	4.52	2.46	.03	11.0	.27	1.35	.12	.03	7.00	100.2
SA44187	76.2	12.5	1.46	.63	1.23	3.18	1.50	.05	.078	.02	.01	3.15	100.1
SA44188	53.2	13.7	4.27	3.48	1.88	.80	13.2	.12	2.24	.41	.01	6.45	99.8
SA44189	57.5	11.1	6.40	3.69	.13	2.55	7.12	.25	.484	.12	<.01	11.0	100.4
SA44190	63.3	15.6	1.58	1.99	.15	3.52	8.92	.10	.865	.19	.01	4.00	100.3
SA44191	79.9	10.8	1.20	.64	.14	3.16	1.11	.06	.102	.02	.01	2.95	100.2
SA44192	50.4	14.5	6.16	3.58	2.85	.81	11.5	.20	1.03	.08	.03	9.15	100.3
SA44193	49.6	13.0	7.24	4.04	2.22	.24	13.1	.20	1.30	.11	.02	9.15	100.2
SA44194	54.7	15.1	7.22	3.26	.46	2.70	5.86	.22	1.24	.11	.04	8.70	99.7
SA44195	44.7	8.63	12.9	4.66	<.01	<.01	15.7	.62	.628	.08	.02	10.2	98.2

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA09480	91	26	156	440
SA09481	85	12	173	451
SA09482	100	44	147	819
SA09483	64	<10	141	449
SA09484	73	15	146	528
SA35517	31	18	78	117
SA35518	<10	<10	49	84
SA35519	85	10	76	317
SA35520	123	36	122	354
SA35521	<10	54	301	84
SA35522	82	<10	165	387
SA35523	27	23	107	71
SA35524	39	25	151	299
SA35525	152	53	148	479
SA35526	101	26	143	802
SA35527	12	13	169	66
SA35528	13	<10	117	174
SA35529	100	15	162	516
SA35530	38	11	135	349
SA35531	69	15	117	346
SA35532	41	31	185	180
SA35533	121	20	138	313
SA35534	110	38	150	447
SA35535	63	12	76	295
SA35536	46	23	191	338
SA35537	13	28	103	93
SA35538	47	<10	97	159
SA35541	26	26	95	128
SA35542	54	32	95	343
SA35543	64	17	59	297
SA35544	122	20	66	329
SA35545	110	49	125	241
SA35546	17	<10	107	196
SA35547	14	<10	104	117
SA35548	89	16	174	654
SA35549	13	34	162	193
SA35550	49	13	169	273
SA35581	22	24	71	115
SA35582	32	27	90	175
SA35583	101	45	323	476
SA35584	86	29	256	601

SAMPLE \ PPM	RB	Y	ZR	BA
SA35585	29	36	282	235
SA35586	26	<10	89	96
SA35587	17	21	205	106
SA35588	16	51	329	101
SA35589	87	19	48	276
SA35590	56	<10	94	263
SA35600	<10	30	89	63
SA44187	116	42	91	758
SA44188	35	38	281	178
SA44189	99	<10	127	306
SA44190	148	16	197	423
SA44191	124	45	133	322
SA44192	37	10	50	192
SA44193	<10	28	72	146
SA44194	95	<10	78	337
SA44195	<10	12	47	<50

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA28483	28	23.7	<.1	15	10	79.2	--
SA28484	46	43.9	.3	32	8	132	--
SA28485	32	147	<.1	20	10	46.4	--
SA28486	58	7.2	<.1	42	9	101	--
SA28487	51	35.7	<.1	35	5	321	--
SA28488	3	5.8	<.1	--	21	183	9
SA28489	43	2180	7.7	--	76	7100	8
SA28490	57	26.9	<.1	39	8	263	--
SA28491	6	19.9	.2	8	9	130	--
SA28493	69	17.0	.2	24	11	209	--
SA28494	32	56.4	<.1	18	8	50.7	--
SA28495	23	54.8	<.1	14	6	40.1	--
SA28496	44	46.2	<.1	24	7	55.2	--
SA28497	22	27.1	<.1	18	6	89.0	--
SA28498	24	240	<.1	23	<5	92.4	--
SA28499	39	443	.6	21	26	81.1	--
SA28500	121	61.0	<.1	25	<5	70.4	--
SA30269	32	40.0	<.1	19	6	50.8	--
SA30270	16	128	.3	13	<5	128	--
SA30271	25	125	<.1	12	7	71.2	--
SA30272	23	3.3	<.1	15	7	49.5	--
SA30273	11	87.7	<.1	29	10	82.1	--
SA30274	27	23.0	<.1	20	<5	80.4	--
SA30275	2	1.7	<.1	<1	<5	9.9	--
SA30276	26	27.9	<.1	19	6	67.4	--
SA30277	30	65.3	<.1	16	6	55.0	--
SA30278	25	75.9	<.1	17	<5	42.1	--
SA30279	19	60.4	<.1	12	8	37.3	--
SA30280	29	36.3	<.1	18	6	34.3	--
SA30281	19	28.3	<.1	13	<5	37.5	--
SA30282	14	16.2	<.1	23	6	27.9	--
SA30283	29	8.9	<.1	14	6	439	--
SA30284	28	72.2	<.1	14	9	146	--
SA30285	35	344	.3	25	14	25.3	--
SA30286	20	18.5	<.1	12	10	40.6	--
SA30287	29	111	<.1	18	7	31.6	--
SA30288	16	14.9	<.1	10	13	23.2	--
SA30289	12	45.7	<.1	13	28	80.7	--
SA30290	11	49.2	<.1	9	13	50.9	--
SA30291	24	66.2	<.1	18	7	65.7	--
SA30292	33	128	<.1	23	21	45.9	--
SA30293	35	22.0	<.1	19	24	59.4	--
SA30294	22	91.0	<.1	13	<5	79.6	--
SA30295	26	94.7	<.1	17	16	63.8	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA30296	21	12.3	.2	15	13	33.9	--
SA30297	33	127	<.1	26	18	28.8	--
SA30298	36	9.4	<.1	21	7	75.2	--
SA30299	30	5.2	<.1	16	12	59.8	--
SA30300	17	8.1	<.1	11	18	46.8	--
SA44027	20	7.8	<.1	14	16	34.7	--
SA44028	30	48.8	<.1	19	20	68.7	--
SA44029	81	1720	2.2	--	16	116	2
SA44030	50	28.1	<.1	11	24	45.0	--
SA44031	42	154	<.1	22	24	44.2	--
SA44032	3	6.8	.1	<1	10	11.5	--
SA44033	3	37.2	<.1	5	9	17.0	--
SA44034	75	94.8	2.7	--	97	18.7	129
SA44035	59	10.1	.2	22	8	42.7	--
SA44036	28	28.5	<.1	13	27	28.2	--
SA44037	8	73.9	<.1	4	15	22.5	--
SA44038	30	15.9	<.1	12	16	75.6	--
SA44039	56	47.4	<.1	37	7	112	--
SA44040	18	13.8	.2	6	8	30.9	--
SA44041	63	82.9	<.1	49	17	120	--
SA44042	87	10.3	<.1	23	13	85.0	--
SA44043	27	86.9	<.1	26	17	66.5	--
SA44044	43	96.4	.3	24	8	47.7	--
SA44045	38	58.4	<.1	27	9	72.8	--
SA44046	52	58.2	<.1	25	9	73.6	--
SA44047	181	307	3.0	--	29	68.5	34

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA28483	50.9	14.2	9.36	5.55	1.92	.99	13.1	.31	1.26	.12	.04	2.20	100.0
SA28484	46.6	15.1	6.69	6.34	1.26	.05	16.6	.35	1.52	.12	.04	4.35	99.1
SA28485	50.5	14.4	9.32	5.30	1.99	.58	13.8	.29	1.27	.13	.04	1.80	99.5
SA28486	51.2	15.8	2.96	5.14	4.32	.11	11.9	.28	1.60	.14	.03	5.15	98.7
SA28487	47.7	13.4	7.82	4.85	2.27	.45	13.1	.30	1.30	.12	.02	8.35	99.7
SA28490	51.5	14.6	5.84	4.40	1.93	1.65	12.5	.28	1.41	.13	.02	5.35	99.7
SA28491	64.4	14.8	1.14	2.15	.34	5.57	5.71	.11	.716	.20	<.01	3.35	98.6
SA28493	56.1	15.2	3.36	4.25	.37	3.23	9.31	.20	.964	.16	.01	6.70	99.9
SA28494	50.9	14.5	9.64	4.92	2.33	.34	12.2	.30	1.24	.12	.02	2.55	99.1
SA28495	51.7	13.9	10.4	5.02	2.01	.60	11.8	.28	1.43	.13	.04	1.65	99.0
SA28496	50.1	14.7	12.1	4.15	1.87	.39	12.6	.34	1.10	.09	.04	2.10	99.6
SA28497	57.8	15.9	4.18	2.98	4.09	.99	8.75	.13	1.10	.23	.01	3.10	99.3
SA28498	57.9	16.8	1.62	3.30	3.99	1.30	9.87	.12	1.16	.25	<.01	3.40	99.8
SA28499	54.0	14.5	10.7	4.14	1.85	.49	10.1	.27	1.22	.11	.04	1.90	99.3
SA28500	52.0	14.2	4.12	6.84	3.04	1.32	11.6	.28	1.16	.24	.03	4.30	99.2
SA30269	49.9	14.3	8.54	6.32	2.66	.34	12.6	.26	1.27	.11	.03	2.65	99.0
SA30270	50.6	13.2	8.89	5.26	1.93	1.10	14.6	.29	1.42	.13	.02	2.20	99.7
SA30271	49.5	13.5	10.5	5.40	2.13	.71	13.8	.23	1.18	.11	.02	2.40	99.5
SA30272	56.0	15.1	6.71	3.25	3.72	1.17	8.27	.13	.670	.11	<.01	5.40	100.6
SA30273	53.6	13.3	3.94	4.12	.22	1.44	16.4	.25	1.26	.22	<.01	4.45	99.3
SA30274	57.2	15.8	4.39	2.61	5.02	.77	7.66	.16	1.25	.15	.01	4.05	99.1
SA30275	76.5	12.4	.39	.33	4.24	3.81	1.18	.02	.130	.02	.02	1.15	100.3
SA30276	50.2	14.0	8.87	4.85	2.56	.98	13.5	.27	1.31	.12	.01	2.80	99.5
SA30277	49.7	13.7	9.56	5.46	2.03	.88	14.3	.23	1.23	.11	.01	2.30	99.6
SA30278	49.9	13.1	8.58	6.15	1.84	1.23	15.0	.26	1.28	.12	.01	2.15	99.7
SA30279	51.7	13.6	10.4	4.51	1.90	.49	13.3	.36	1.35	.14	.01	2.10	99.9
SA30280	53.3	14.5	8.30	4.03	2.45	.98	12.0	.25	1.36	.12	.02	2.10	99.5
SA30281	49.2	13.4	10.1	4.95	2.08	.49	14.8	.28	1.25	.11	.02	2.15	98.9
SA30282	52.4	12.9	6.22	4.90	4.54	.77	12.5	.29	1.50	.15	.01	2.20	98.4
SA30283	49.9	14.7	8.04	5.26	3.18	1.24	12.0	.30	1.29	.12	.03	2.70	98.8
SA30284	51.6	15.0	8.64	5.77	3.23	.72	10.7	.27	1.31	.12	.03	2.10	99.5
SA30285	53.3	14.2	9.55	4.45	2.50	.39	12.3	.26	1.16	.10	.03	1.65	99.9
SA30286	51.3	14.9	10.1	4.16	2.35	.67	12.3	.31	1.25	.12	.03	1.90	99.4
SA30287	48.9	14.1	9.66	6.06	1.95	.55	14.0	.36	1.26	.12	.03	2.05	99.1
SA30288	54.7	16.9	8.76	3.37	2.88	1.08	8.07	.21	1.42	.12	.03	1.85	99.4
SA30289	54.2	13.3	7.59	4.37	2.95	1.11	12.8	.23	1.51	.15	<.01	1.75	100.0
SA30290	52.9	13.1	7.49	5.30	4.04	.58	12.4	.31	1.40	.13	.02	1.90	99.8
SA30291	48.2	13.1	8.47	6.89	1.94	.69	15.5	.23	1.38	.13	.02	2.55	99.1
SA30292	49.6	14.3	9.70	4.49	2.49	.62	13.2	.26	1.32	.12	.02	2.30	98.5
SA30293	54.6	14.8	6.51	3.70	2.87	.56	11.3	.15	1.45	.27	.01	3.30	99.6
SA30294	48.8	13.5	9.00	5.99	1.78	1.19	14.4	.23	1.24	.11	.01	2.45	98.8
SA30295	53.9	14.3	8.04	5.03	2.75	.40	11.2	.19	1.38	.12	.03	2.25	99.6
SA30296	51.3	14.1	9.18	4.32	2.33	.59	13.7	.30	1.34	.12	.03	2.30	99.7
SA30297	56.1	15.7	5.62	3.72	3.74	1.06	9.58	.27	1.46	.14	.03	1.80	99.3

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA30298	48.0	15.1	10.8	4.78	1.53	.71	13.0	.35	1.17	.11	.02	3.30	98.9
SA30299	49.8	13.9	8.03	6.42	2.71	.92	13.4	.33	1.24	.12	.02	2.25	99.2
SA30300	49.4	14.3	9.93	5.71	2.31	.80	13.1	.35	1.19	.11	.03	1.80	99.1
SA44027	52.9	14.5	8.97	4.15	2.71	1.14	11.9	.25	1.33	.15	.03	1.85	100.0
SA44028	50.5	15.8	11.8	4.64	1.76	.60	11.2	.30	1.29	.11	.04	1.90	100.0
SA44030	59.6	14.6	6.68	1.61	3.69	1.80	4.04	.13	.783	.15	.02	6.85	100.0
SA44031	56.9	14.6	5.75	3.35	4.70	.88	7.16	.12	.688	.14	.03	4.05	98.4
SA44032	73.2	13.5	1.42	1.21	2.34	3.55	2.07	.04	.239	.05	<.01	2.70	100.4
SA44033	70.4	12.9	1.66	1.26	4.78	1.42	4.25	.06	.242	.05	<.01	1.70	98.8
SA44035	56.1	15.3	4.28	4.06	3.07	2.09	7.26	.08	.721	.13	<.01	6.10	99.3
SA44036	62.5	14.7	3.94	1.85	2.70	3.29	4.35	.07	.524	.13	.02	5.20	99.4
SA44037	70.6	15.6	1.40	.63	7.35	1.05	1.54	.05	.240	.07	<.01	2.00	100.6
SA44038	60.9	17.4	1.92	2.25	3.33	3.44	5.06	.06	.624	.13	.02	4.25	99.5
SA44039	46.8	12.9	7.36	3.49	4.31	.30	14.5	.27	1.90	.19	.02	6.60	98.7
SA44040	66.2	15.0	2.09	1.64	5.38	1.46	3.86	.07	.540	.15	<.01	2.90	99.4
SA44041	46.0	13.5	6.55	5.10	2.19	.09	17.5	.25	2.05	.20	.02	4.90	98.4
SA44042	56.3	15.8	1.87	4.99	4.42	2.14	8.34	.12	.775	.31	.07	3.50	98.8
SA44043	48.8	12.6	8.58	5.60	2.18	.22	16.3	.22	1.75	.16	.02	3.00	99.5
SA44044	48.3	12.7	9.92	6.61	2.08	.21	14.2	.20	1.33	.12	.03	3.00	98.7
SA44045	47.3	12.7	8.33	6.39	2.11	.26	16.1	.25	1.66	.15	.02	3.70	99.0
SA44046	46.8	13.7	7.64	6.41	2.33	.28	16.1	.24	1.41	.11	.02	3.85	98.9

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA28483	41	24	78	313
SA28484	<10	20	132	83
SA28485	<10	27	93	197
SA28486	<10	25	109	130
SA28487	18	21	100	180
SA28490	42	37	94	407
SA28491	211	20	191	941
SA28493	132	10	139	507
SA28494	10	22	82	129
SA28495	<10	27	102	186
SA28496	<10	21	65	129
SA28497	17	23	170	549
SA28498	43	20	186	524
SA28499	20	38	78	124
SA28500	59	26	139	530
SA30269	<10	26	85	143
SA30270	41	<10	110	399
SA30271	31	17	89	198
SA30272	<10	16	112	361
SA30273	37	92	461	512
SA30274	23	<10	131	358
SA30275	117	72	122	737
SA30276	42	21	83	219
SA30277	26	22	85	220
SA30278	48	16	77	314
SA30279	17	30	122	158
SA30280	32	20	97	328
SA30281	17	27	79	145
SA30282	<10	23	146	267
SA30283	54	22	77	572
SA30284	25	18	71	253
SA30285	12	20	67	138
SA30286	24	28	83	190
SA30287	30	<10	81	183
SA30288	45	38	88	248
SA30289	41	41	152	394
SA30290	15	24	111	185
SA30291	25	27	98	183
SA30292	20	20	91	230
SA30293	13	23	195	220
SA30294	50	21	97	317
SA30295	11	11	110	180
SA30296	23	16	95	203
SA30297	50	28	112	278

SAMPLE \ PPM	RB	Y	ZR	BA
SA30298	20	<10	83	223
SA30299	26	15	86	257
SA30300	15	43	79	384
SA44027	61	36	138	410
SA44028	<10	29	78	192
SA44030	52	<10	116	376
SA44031	<10	17	144	380
SA44032	127	<10	204	694
SA44033	43	23	203	394
SA44035	84	<10	142	638
SA44036	102	19	146	672
SA44037	29	<10	115	342
SA44038	106	19	155	804
SA44039	18	14	104	193
SA44040	39	<10	138	445
SA44041	<10	33	133	125
SA44042	34	20	159	1050
SA44043	<10	16	101	115
SA44044	<10	<10	74	98
SA44045	<10	29	96	113
SA44046	15	14	71	419

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA36487	4	5.2	.5	2	25	20.5	--
SA36488	28	59.9	1.1	28	6	310	--
SA36489	6	7.2	.5	2	27	37.4	--
SA36490	216	216	5.9	90	25	85.7	--
SA36491	67	6.8	.8	26	13	158	--
SA36498	159	7.3	<.1	29	<5	107	--
SA36499	106	40.7	.4	31	16	188	--
SA36500	9	18.8	.9	3	9	28.6	--
SA38522	92	56.5	1.6	25	23	86.9	--
SA38530	12	3.4	.3	7	<5	29.2	--
SA38531	11	16.3	.3	12	8	42.5	--
SA51337	239	578	1.9	73	6	215	--
SA51339	7	7.0	.7	4	10	36.7	--
SA51340	85	151	3.8	58	9	67.4	--
SA51341	61	93.8	24.5	27	598	48.1	--
SA51342	208	4.3	.6	30	42	79.8	--
SA51343	104	48.1	.7	23	27	224	--
SA51344	61	233	47.0	--	<5	130	332
SA51345	55	26.8	.7	21	24	255	--
SA51346	71	5.1	.2	35	27	157	--
SA51347	82	5.9	.6	18	19	71.1	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA51350	50	2.2	.3	24	21	57.7	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA36487	79.4	13.0	.25	.24	.63	3.04	1.00	.05	.103	.03	<.01	2.55	100.4
SA36488	44.8	13.3	7.96	4.96	.33	2.32	11.1	.21	1.67	.29	<.01	11.9	98.9
SA36489	80.7	11.3	.74	.53	.41	2.82	1.07	.08	.099	.03	<.01	2.40	100.3
SA36490	56.6	14.4	1.09	.70	.68	3.44	13.9	.20	1.14	.19	.01	7.85	100.3
SA36491	46.0	13.5	6.11	5.87	2.32	.69	12.3	.19	1.59	.28	.02	10.9	99.8
SA36498	48.2	13.0	8.03	4.39	1.16	1.13	9.20	.16	.827	.14	.02	13.3	99.6
SA36499	50.9	12.5	6.89	3.38	1.05	1.14	10.0	.15	1.77	.39	<.01	11.0	99.2
SA36500	80.5	11.3	.80	.36	.36	2.96	.82	.03	.091	.03	<.01	2.30	99.6
SA38522	63.8	12.3	4.04	2.32	.67	1.41	7.21	.15	.535	.12	.03	6.95	99.6
SA38530	65.9	14.5	3.48	2.07	3.98	1.23	3.47	.07	.906	.18	<.01	3.65	99.5
SA38531	62.9	14.2	4.69	1.68	1.66	2.61	6.00	.08	.849	.15	<.01	5.25	100.2
SA51337	42.0	14.9	7.24	4.91	.76	.59	16.2	.15	.912	.14	<.01	11.6	99.4
SA51339	73.0	11.0	2.51	1.25	.28	3.05	2.88	.18	.099	.03	<.01	4.00	98.4
SA51340	43.7	15.1	5.89	2.61	.41	3.92	12.9	.26	1.77	.32	.01	8.20	95.2
SA51341	56.8	7.09	1.89	.97	.13	2.00	19.0	.16	.083	.03	<.01	10.8	99.0
SA51342	49.2	10.9	7.58	6.36	1.94	.73	9.82	.31	.655	.33	.05	10.7	98.6
SA51343	50.6	12.1	7.10	3.62	.52	1.33	11.6	.17	1.72	.40	<.01	10.0	99.2
SA51345	54.1	13.5	5.75	3.59	.23	2.85	7.99	.20	1.02	.20	<.01	8.65	98.2
SA51346	46.6	15.0	4.61	5.32	2.90	.29	13.4	.11	1.81	.30	.01	8.30	98.7

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA36487	77	53	120	523
SA36488	61	35	183	306
SA36489	91	53	87	518
SA36490	88	34	176	610
SA36491	21	49	169	206
SA36498	22	<10	102	307
SA36499	34	21	214	231
SA36500	76	48	105	420
SA38522	47	19	111	308
SA38530	43	14	216	291
SA38531	81	20	189	555
SA51337	22	12	121	202
SA51339	96	42	80	486
SA51340	115	35	199	459
SA51341	54	25	50	378
SA51342	18	11	105	191
SA51343	35	33	209	265
SA51345	74	26	143	353
SA51346	<10	28	171	177
SA51347	42	13	89	261
SA51350	18	14	120	207
D SA36487	80	51	117	536

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA21215	54	5.0	<.1	33	12	99.3
SA21216	104	58.3	<.1	22	<5	123
SA21217	50	132	.4	42	<5	306
SA21218	88	77.4	.2	34	7	70.2
SA21219	84	212	<.1	54	<5	80.3
SA21220	22	130	<.1	39	11	117
SA21228	76	33.4	<.1	28	19	82.7
SA21229	73	45.8	<.1	31	15	112
SA21230	87	159	.3	46	25	179
SA21231	106	10.4	<.1	52	14	180
SA21232	96	142	.4	50	17	147
SA21233	10	19.8	.6	8	391	29.9
SA21234	56	87.6	<.1	24	19	36.8
SA21235	59	128	<.1	33	12	37.5
SA21236	40	139	<.1	27	15	245
SA21237	39	18.6	<.1	26	15	76.8
SA21238	28	22.6	<.1	27	18	49.1
SA21239	45	278	.5	41	23	332
SA21240	37	19.7	<.1	19	<5	27.9
SA21241	54	106	.4	30	<5	123
SA21242	38	1.9	.2	23	11	51.5
SA21243	80	8.9	.6	30	8	112
SA21244	58	1.6	<.1	19	19	63.9
SA21245	100	148	<.1	40	22	49.8
SA21246	110	210	.2	40	11	53.8
SA21247	27	16.2	<.1	24	6	93.8
SA21248	42	96.6	<.1	32	10	83.6
SA21249	425	45.5	.2	48	23	104
SA21250	370	217	.3	35	21	78.8
SA38756	44	13.7	<.1	20	18	83.9
SA38757	54	222	.5	33	20	56.5
SA38758	41	4.2	<.1	16	16	38.1
SA38759	54	60.9	.3	53	26	93.9
SA38760	26	92.5	<.1	26	10	31.2
SA38761	45	95.9	<.1	41	12	113
SA38762	115	10.5	.2	30	15	48.9
SA38763	69	14.1	<.1	43	10	122
SA38764	31	6.4	<.1	20	16	69.2

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA38765	5	3.1	<.1	13	15	43.2
SA38766	38	9.9	.3	25	<5	70.5
SA38767	26	5.2	<.1	20	6	43.4
SA38768	50	63.8	<.1	29	5	48.3
SA38769	40	79.3	.7	33	<5	85.5
SA38770	104	87.8	.7	36	<5	242
SA38771	67	184	.3	55	<5	213
SA38772	47	104	<.1	37	9	139
SA38773	77	123	<.1	49	5	97.4
SA38774	35	104	1.5	9	17	269
SA38775	65	86.6	<.1	40	<5	140
SA38776	58	254	3.8	34	251	507
SA38777	15	28.9	<.1	10	11	73.9
SA38778	92	73.6	.2	37	12	135
SA38779	66	40.6	<.1	40	9	173

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA21215	49.1	16.5	2.97	6.34	3.74	.14	12.9	.12	1.66	.24	.04	5.65	99.4
SA21216	54.0	16.0	6.73	3.28	.91	2.29	8.12	.15	.838	.12	.02	8.30	100.8
SA21217	48.0	12.1	9.16	5.89	1.45	.49	10.6	.24	.990	.09	.04	10.3	99.4
SA21218	54.9	16.0	6.11	3.50	3.96	.29	9.31	.20	1.21	.10	.04	4.15	99.8
SA21219	48.6	15.7	8.04	3.44	2.35	1.93	9.15	.23	1.31	.13	.03	9.25	100.2
SA21220	49.4	11.8	6.34	4.57	.81	.68	15.8	.32	1.60	.16	.01	8.05	99.6
SA21228	57.6	16.3	2.50	3.24	1.34	2.87	9.65	.21	1.51	.13	.04	5.10	100.6
SA21229	50.8	14.4	7.11	3.80	2.23	.51	13.2	.33	1.41	.13	.04	5.15	99.2
SA21230	51.1	14.3	5.94	5.55	1.52	.27	13.7	.31	1.26	.09	.04	5.45	99.6
SA21231	62.2	14.4	2.39	3.51	.22	2.44	8.28	.20	.924	.07	.05	5.60	100.3
SA21232	54.6	16.3	4.36	3.43	2.48	1.84	8.10	.18	1.13	.09	.04	6.75	99.3
SA21233	62.3	14.5	6.55	.90	2.10	2.93	3.29	.08	.353	.23	.03	6.60	100.0
SA21234	49.8	15.1	9.55	4.66	3.06	.50	13.2	.26	1.20	.11	.03	2.50	100.0
SA21235	51.6	14.5	9.42	4.50	2.57	.27	12.8	.22	1.22	.10	.04	3.25	100.5
SA21236	52.8	14.7	10.0	3.35	2.47	.54	12.7	.30	1.33	.11	.02	1.45	99.8
SA21237	51.5	15.0	7.99	4.79	3.15	.56	13.3	.35	1.28	.11	.02	2.35	100.4
SA21238	57.6	15.9	5.86	3.10	4.19	.66	7.78	.30	1.71	.15	.05	2.65	100.0
SA21239	49.4	13.6	9.11	4.75	2.07	.46	14.9	.38	1.36	.11	.03	2.65	98.9
SA21240	53.4	15.0	9.15	3.97	4.13	.67	10.3	.29	1.30	.13	.02	1.70	100.1
SA21241	51.4	14.3	9.62	4.02	2.44	.79	12.7	.32	1.22	.11	.03	2.85	99.8
SA21242	57.1	17.5	8.15	3.23	.80	1.45	7.78	.17	.751	.11	<.01	3.55	100.7
SA21243	52.9	15.7	1.64	9.57	4.26	.17	8.46	.13	.761	.16	<.01	5.30	99.1
SA21244	59.7	17.0	2.82	3.66	4.63	1.46	6.54	.09	.659	.14	<.01	3.55	100.3
SA21245	51.5	11.6	9.64	7.59	2.55	.13	12.6	.18	.975	.09	.01	2.20	99.1
SA21246	52.0	11.8	8.62	7.69	2.72	.16	12.9	.18	.957	.09	.01	2.25	99.4
SA21247	58.5	16.5	2.39	3.28	4.14	1.18	8.89	.11	1.16	.24	<.01	3.45	99.9
SA21248	53.5	14.1	7.98	4.53	1.59	.12	11.5	.24	1.21	.10	.02	5.40	100.3
SA21249	45.1	7.39	8.75	16.4	.16	.45	14.6	.31	1.09	.14	.16	4.20	98.8
SA21250	46.6	5.61	9.79	17.1	.16	.09	14.0	.32	.957	.10	.13	3.70	98.6
SA38756	50.3	15.0	8.50	5.35	3.63	.73	11.5	.26	1.20	.12	.03	2.50	99.2
SA38757	49.9	13.9	10.7	5.11	2.32	.40	12.7	.32	1.16	.11	.02	2.85	99.5
SA38758	56.4	14.5	7.83	3.62	3.46	.37	10.3	.30	1.35	.12	.04	1.85	100.2
SA38759	56.0	17.1	1.75	3.74	.03	3.67	10.5	.24	1.68	.14	.03	4.60	99.6
SA38760	56.7	13.7	6.92	5.28	5.47	.47	8.95	.16	1.12	.10	.02	1.55	100.5
SA38761	51.0	13.5	8.08	6.34	1.86	.11	12.3	.29	1.17	.10	.02	5.10	99.9
SA38762	51.9	11.3	7.85	7.56	2.86	1.70	11.9	.23	.917	.09	.02	2.45	98.9
SA38763	52.0	16.3	4.40	4.08	.05	3.18	10.4	.19	1.46	.13	.03	7.35	99.6
SA38764	56.1	15.1	9.08	2.89	2.54	.81	9.58	.28	1.46	.13	.04	1.75	99.8

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA38765	61.6	15.5	3.89	1.77	2.97	2.56	6.11	.14	.752	.14	<.01	4.90	100.4
SA38766	46.9	13.9	9.95	5.23	1.29	.92	16.7	.51	1.29	.13	.02	2.55	99.4
SA38767	51.0	13.9	9.93	6.12	2.14	.40	12.7	.23	1.15	.11	.03	2.05	99.8
SA38768	49.3	13.7	11.1	5.14	1.69	.29	14.2	.26	1.32	.12	.02	1.80	99.0
SA38769	43.6	12.2	11.1	5.73	.33	.13	21.8	.52	1.19	.11	.02	2.65	99.4
SA38770	50.2	15.7	6.21	4.41	3.57	.34	11.5	.30	1.17	.10	.03	6.35	99.9
SA38771	42.2	16.4	9.85	7.09	.09	.06	15.4	.34	1.34	.10	.04	6.50	99.4
SA38772	48.0	13.3	8.75	5.82	1.41	.82	10.2	.19	1.15	.10	.01	10.2	100.0
SA38773	56.8	16.0	3.18	5.00	5.29	.14	7.52	.16	1.30	.10	.04	4.05	99.6
SA38774	51.3	14.3	.15	3.53	.05	1.76	20.6	.21	1.51	.14	.03	6.40	100.1
SA38775	47.9	14.3	9.47	4.58	1.50	.17	13.1	.30	1.36	.13	.02	6.70	99.6
SA38776	55.1	11.0	.12	3.90	.05	.99	20.6	.19	1.15	.11	.03	7.30	100.6
SA38777	68.3	11.8	3.01	1.78	1.32	2.31	5.34	.11	.382	.04	.01	3.70	98.2
SA38778	50.2	15.1	7.71	4.15	.06	3.05	8.83	.21	1.13	.10	.03	8.95	99.6
SA38779	47.8	13.0	7.70	6.62	1.68	.16	12.7	.27	.970	.33	.06	8.60	99.9

SAMPLE \ PPM	RB	Y	ZR	BA
SA21215	11	34	148	100
SA21216	72	<10	144	482
SA21217	16	19	44	101
SA21218	11	18	76	156
SA21219	62	21	92	325
SA21220	20	14	119	230
SA21228	98	15	101	504
SA21229	20	16	99	294
SA21230	<10	18	79	156
SA21231	83	<10	55	383
SA21232	65	<10	67	302
SA21233	103	<10	176	542
SA21234	15	33	77	179
SA21235	<10	28	80	69
SA21236	14	29	93	190
SA21237	15	18	78	293
SA21238	19	38	125	186
SA21239	23	17	99	288
SA21240	<10	12	83	219
SA21241	17	17	77	324
SA21242	46	22	116	422
SA21243	<10	20	149	108
SA21244	39	18	148	422
SA21245	<10	<10	86	76
SA21246	<10	<10	88	220
SA21247	44	26	187	637
SA21248	15	30	64	91
SA21249	17	17	109	267
SA21250	<10	<10	71	80
SA38756	18	28	68	297
SA38757	15	20	79	233
SA38758	<10	25	94	149
SA38759	125	<10	107	478
SA38760	19	19	47	347
SA38761	<10	16	71	80
SA38762	13	14	102	778
SA38763	118	18	111	334
SA38764	20	27	83	279

SAMPLE \ PPM	RB	Y	ZR	BA
SA38765	76	20	168	512
SA38766	20	23	78	376
SA38767	19	20	102	108
SA38768	<10	23	99	152
SA38769	<10	13	82	77
SA38770	12	27	69	115
SA38771	<10	<10	71	70
SA38772	32	14	67	159
SA38773	<10	37	79	120
SA38774	35	38	106	438
SA38775	<10	19	83	60
SA38776	<10	<10	76	389
SA38777	116	23	130	463
SA38778	86	<10	66	595
SA38779	<10	21	103	87

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA30263	48	74.9	.2	26	12	68.5	--
SA30264	31	39.1	<.1	26	11	73.0	--
SA30265	37	103	<.1	25	7	54.7	--
SA30266	25	61.8	<.1	19	7	76.1	--
SA30267	17	15.5	<.1	13	<5	42.3	--
SA30268	13	137	.2	14	26	79.2	--
SA38535	71	55.7	.6	58	6	185	--
SA38536	50	57.5	.2	32	17	101	--
SA38537	90	79.1	<.1	45	21	161	--
SA38540	35	3.6	<.1	16	22	88.0	--
SA38541	73	47.1	.2	24	17	105	--
SA38542	165	2.8	<.1	28	8	129	--
SA38543	64	83.9	.1	33	7	98.9	--
SA38544	46	43.8	<.1	40	22	183	--
SA38546	17	17.5	<.1	18	5	188	--
SA38547	115	47.0	.5	50	<5	288	--
SA38548	4	4.9	<.1	1	<5	39.9	--
SA38549	14	57.7	.4	10	8	103	--
SA38550	7	30.8	1.1	5	18	69.1	--
SA38780	<1	244	1.4	4	74	104	--
SA38781	35	483	2.9	22	32	262	--
SA38782	63	840	3.0	30	36	247	--
SA38783	58	119	.2	38	16	129	--
SA38784	57	13.0	<.1	29	17	150	--
SA38785	22	43.9	.4	6	14	135	--
SA38786	29	52.0	.2	20	20	117	--
SA38787	58	5.9	<.1	28	33	175	--
SA38788	78	7.2	<.1	67	22	42.7	--
SA38789	44	54.0	<.1	23	11	93.2	--
SA38790	55	94.9	<.1	35	26	65.9	--
SA38791	42	19.0	<.1	19	22	55.0	--
SA38792	55	350	<.1	58	13	77.0	--
SA38793	110	1620	2.3	132	13	264	--
SA38794	67	2450	2.3	117	13	131	--
SA38795	41	75.5	.2	33	10	150	--
SA38796	33	99.4	<.1	25	14	63.8	--
SA38797	36	37.5	<.1	23	13	89.5	--
SA38800	57	258	1.3	41	10	1020	--
SA44180	4	33.6	13.2	3	622	39.1	--
SA44181	46	5830	4.0	--	12	156	<2

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA44182	2	59.2	.2	3	21	88.2	--
SA44183	63	92.6	.6	34	<5	284	--
SA44184	214	47.2	<.1	39	<5	161	--
SA44185	220	48.8	.3	36	18	165	--
SA44186	5	28.0	.1	5	26	83.4	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA30263	49.9	12.8	8.10	6.67	1.86	1.09	14.3	.25	1.17	.11	.03	2.70	99.0
SA30264	49.4	13.4	7.06	6.95	1.64	.85	15.3	.21	1.33	.12	.03	3.55	99.9
SA30265	49.6	13.6	8.56	6.62	2.04	.61	14.6	.20	1.29	.12	.02	2.15	99.4
SA30266	49.6	13.8	8.85	6.07	2.55	.76	13.7	.30	1.31	.12	.03	2.40	99.5
SA30267	50.6	13.7	9.69	5.11	2.29	.57	13.6	.29	1.46	.12	.04	2.05	99.6
SA30268	56.6	14.8	1.61	3.05	.25	3.29	13.3	.15	1.79	.45	.01	5.05	100.5
SA38535	38.3	13.0	3.93	7.00	.25	.13	23.0	.68	1.57	.15	<.01	10.0	98.0
SA38536	49.9	13.4	6.70	4.43	3.54	.09	11.9	.33	1.12	.10	.02	7.95	99.5
SA38537	42.7	12.7	9.67	6.98	1.70	.95	12.8	.31	.975	.44	.08	10.3	99.7
SA38540	58.5	15.4	4.73	2.89	3.20	1.64	5.97	.09	.658	.14	.02	6.30	99.6
SA38541	53.8	15.8	4.69	3.24	.29	3.13	9.20	.14	.966	.16	.02	8.35	99.9
SA38542	52.2	13.2	5.61	6.49	1.85	1.67	6.97	.16	.478	.09	.04	11.2	100.0
SA38543	47.7	15.2	7.53	5.35	.56	2.55	11.3	.25	1.20	.10	.03	8.00	99.8
SA38544	51.0	12.5	3.05	6.05	.02	1.22	16.8	.33	1.31	.13	.02	6.55	99.0
SA38546	55.7	14.5	6.25	3.02	1.30	1.95	7.92	.20	.804	.12	.02	7.30	99.2
SA38547	45.9	16.0	7.73	4.50	.37	2.12	10.9	.27	.955	.07	.04	10.1	99.0
SA38548	79.4	11.3	1.48	.28	.88	2.89	1.13	.06	.090	.02	.02	2.70	100.3
SA38549	62.8	9.02	4.63	2.15	.08	1.70	10.5	.40	.165	.02	.01	5.75	97.3
SA38550	68.9	11.1	2.21	1.41	.19	2.32	7.40	.18	.370	.05	.01	4.35	98.6
SA38780	77.3	11.2	.09	.42	.05	3.50	3.94	.02	.139	.03	.02	2.90	99.7
SA38781	48.0	13.2	.89	5.36	.02	.88	23.3	.32	1.25	.10	.04	6.40	99.8
SA38782	41.5	10.1	.29	3.94	<.01	.24	35.9	.32	1.03	.09	.03	6.85	100.3
SA38783	48.3	14.1	7.84	6.30	1.89	.36	14.6	.38	1.16	.10	.04	3.25	98.3
SA38784	53.5	14.4	6.60	5.64	1.70	.44	12.6	.27	1.07	.11	.06	3.65	100.1
SA38785	60.7	12.7	.95	3.75	<.01	2.20	13.3	.23	1.04	.11	.05	4.45	99.5
SA38786	51.5	14.1	8.47	4.51	2.65	1.25	12.4	.27	1.34	.13	.04	2.25	99.0
SA38787	48.8	14.7	10.3	4.00	3.88	.40	8.19	.27	1.10	.10	.04	8.30	100.1
SA38788	59.0	15.3	4.66	3.42	4.47	1.17	6.72	.19	1.63	.15	.05	2.10	98.9
SA38789	55.4	15.3	9.14	2.84	1.92	.61	10.7	.26	1.37	.26	.04	1.75	99.7
SA38790	41.9	11.9	12.4	6.08	.48	.30	22.5	.60	1.06	.10	.03	1.65	99.0
SA38791	48.8	13.9	8.91	5.86	2.67	1.15	14.2	.33	1.24	.11	.04	1.55	98.8
SA38792	50.0	13.3	9.79	4.15	1.39	.27	16.2	.40	1.24	.12	.04	1.95	98.9
SA38793	55.3	14.5	8.46	2.34	2.64	.27	10.6	.20	1.36	.12	.05	1.65	97.5
SA38794	41.4	10.7	9.15	6.13	.94	.40	24.2	.43	.931	.10	.01	2.50	96.9
SA38795	50.6	14.3	7.96	4.81	2.56	.51	13.0	.33	1.38	.13	.03	3.25	98.9
SA38796	52.1	14.4	9.22	4.54	2.55	.43	13.0	.28	1.35	.12	.02	1.70	99.7
SA38797	49.0	14.0	8.70	5.96	2.05	.78	13.9	.26	1.22	.11	.03	2.35	98.4
SA44180	78.7	8.31	.09	.25	.13	2.19	6.69	.02	.461	.04	.04	3.65	100.6
SA44182	76.6	11.6	1.32	.59	.22	3.10	1.72	.06	.221	.05	.02	3.05	98.6

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA44183	48.4	13.9	3.84	4.75	2.56	.55	14.1	.18	2.07	.41	.02	8.00	98.8
SA44184	57.8	11.1	3.18	8.60	.07	.82	9.30	.10	.443	.08	.05	8.60	100.2
SA44185	45.0	9.91	8.80	9.03	.22	.69	9.86	.16	.693	.32	.15	15.2	100.1
SA44186	70.7	13.2	1.67	.84	.70	2.49	4.82	.15	.642	.15	.02	3.95	99.4

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA30263	42	14	76	375
SA30264	38	14	103	302
SA30265	38	<10	88	167
SA30266	27	28	93	267
SA30267	<10	21	106	207
SA30268	105	36	331	749
SA38535	<10	35	111	130
SA38536	<10	29	88	81
SA38537	18	<10	119	303
SA38540	49	39	143	404
SA38541	100	33	142	573
SA38542	54	<10	94	374
SA38543	157	27	69	383
SA38544	62	44	85	300
SA38546	54	32	137	324
SA38547	50	15	49	387
SA38548	102	33	133	431
SA38549	65	33	117	230
SA38550	77	22	146	284
SA38780	107	21	143	675
SA38781	26	<10	75	282
SA38782	<10	<10	73	171
SA38783	<10	28	72	150
SA38784	20	14	95	176
SA38785	61	27	95	366
SA38786	11	32	106	364
SA38787	13	12	65	130
SA38788	31	35	121	323
SA38789	26	36	173	249
SA38790	<10	15	93	103
SA38791	26	25	85	680
SA38792	12	22	118	121
SA38793	<10	35	86	159
SA38794	<10	23	61	197
SA38795	<10	21	96	284
SA38796	<10	23	95	197
SA38797	17	22	82	239
SA38800	<10	<10	92	69
SA44180	60	26	194	259
SA44182	113	18	150	437

SAMPLE \ PPM	RB	Y	ZR	BA
SA44183	18	40	267	140
SA44184	25	<10	76	405
SA44185	56	<10	74	511
SA44186	61	49	274	539

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA36471	55	71.0	.5	36	13	127
SA36472	60	101	.3	41	21	94.6
SA36473	45	41.8	.1	30	20	121
SA36474	51	29.6	.4	31	13	87.4
SA36475	71	40.4	.3	38	12	126
SA36476	87	326	.5	62	18	139
SA36477	54	64.9	<.1	41	24	110
SA36478	62	89.4	.4	33	14	82.9
SA36479	79	68.4	.7	45	11	129
SA36480	52	29.9	.4	45	15	129
SA36481	46	19.0	.1	43	14	137
SA36482	40	89.6	<.1	27	21	76.8
SA36483	52	91.0	.6	40	16	103
SA36484	61	44.6	<.1	31	19	90.4
SA36485	33	86.9	.2	37	23	107
SA36486	61	71.2	<.1	31	27	70.3
SA37964	50	71.2	.3	54	17	93.1
SA37965	31	39.6	.4	24	17	63.9
SA37966	49	55.9	.3	27	14	56.5
SA37967	73	15.4	.4	22	16	88.3
SA37968	41	140	.5	33	18	89.6
SA37969	69	89.8	.6	47	32	101
SA37978	51	70.0	.1	36	27	82.5
SA37979	45	41.8	<.1	39	10	140
SA37980	536	138	.5	57	13	77.1
SA37981	44	3.3	.4	69	20	116
SA37982	74	54.4	.2	55	24	106
SA37983	57	53.0	.2	37	15	93.5
SA37984	65	84.6	.5	59	15	143
SA37985	56	96.3	.2	43	18	121
SA37986	104	80.6	<.1	40	20	87.1
SA37987	66	78.0	.2	46	16	99.7
SA37988	78	54.1	.8	52	25	133
SA37989	77	47.7	.6	58	23	136
SA37990	112	87.9	.2	54	16	118
SA37991	40	56.9	.4	33	15	96.5

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA37996	70	148	.4	67	30	121
SA37997	9	6.1	.3	5	15	35.8
SA37998	74	78.8	.1	44	14	122
SA37999	73	163	.5	52	15	92.8
SA38000	52	79.1	.3	30	14	69.8
SA47379	53	112	.8	45	22	114
SA47380	68	67.0	.9	33	18	27.0
SA47381	5	1.9	<.1	2	20	15.5
SA47382	45	46.0	.7	31	16	80.2
SA47383	38	52.1	.3	31	17	100
SA47384	70	139	.5	53	20	102
SA47385	116	75.7	.3	52	14	102
SA47386	112	55.2	.1	47	11	86.5
SA47387	5	1.4	.2	3	16	17.1
SA47388	5	10.5	.3	1	22	9.5
SA47396	89	3.6	.5	39	16	118
SA47397	87	183	.1	59	15	140
SA47398	106	118	.5	53	16	75.9
SA47399	33	29.8	.5	18	7	45.8
SA47400	36	33.3	.4	23	9	70.7

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA36471	41.9	11.7	8.63	5.12	.21	1.04	18.7	.55	1.15	.10	.03	10.8	100.0
SA36472	49.4	14.0	7.37	4.23	3.07	.11	12.4	.31	1.38	.14	.03	7.20	99.7
SA36473	48.4	13.5	4.89	4.58	2.08	.68	15.8	.35	1.33	.13	.03	7.50	99.3
SA36474	48.6	13.2	6.51	3.96	.02	2.04	14.2	.49	1.22	.12	.03	9.25	99.7
SA36475	46.8	13.6	6.54	5.01	2.05	.46	15.7	.36	1.26	.10	.03	8.55	100.5
SA36476	47.9	12.1	5.84	5.94	1.60	.73	17.4	.41	1.06	.09	.03	5.40	98.5
SA36477	51.2	14.4	4.92	5.32	2.01	1.49	11.3	.23	1.28	.12	.02	7.30	99.7
SA36478	45.0	13.6	8.87	4.89	2.48	.70	11.8	.33	1.17	.11	.01	10.7	99.7
SA36479	43.3	15.5	4.20	6.85	.10	2.12	17.0	.30	1.46	.13	.03	8.85	99.9
SA36480	42.8	11.1	4.10	4.70	1.03	.59	27.7	.37	1.20	.11	.03	6.25	100.0
SA36481	52.0	14.6	3.98	4.65	3.00	.77	12.5	.20	1.57	.16	.02	5.85	99.4
SA36482	54.7	15.6	4.77	2.93	4.20	1.52	7.45	.20	1.54	.13	.04	6.85	100.0
SA36483	44.4	12.9	9.33	4.75	1.93	.66	13.9	.40	1.28	.14	.02	10.4	100.2
SA36484	50.5	14.2	5.64	4.43	2.15	1.54	12.2	.24	1.68	.29	.02	7.40	100.4
SA36485	54.0	15.1	3.46	5.39	4.04	.53	10.7	.18	1.34	.13	.03	4.55	99.5
SA36486	48.9	15.3	8.79	5.86	2.00	.22	13.7	.20	1.23	.11	.04	3.75	100.1
SA37965	46.9	12.9	8.07	4.58	2.82	.04	13.3	.34	1.25	.14	.02	8.95	99.3
SA37966	42.4	14.6	9.98	4.31	1.87	1.29	12.1	.48	1.18	.11	.04	11.9	100.3
SA37967	47.9	15.1	4.70	4.07	1.44	1.04	16.9	.40	.984	.08	.04	7.80	100.5
SA37968	47.0	12.4	9.57	4.36	.61	1.34	12.1	.43	1.14	.09	.02	11.4	100.5
SA37969	52.1	12.1	5.47	4.21	<.01	1.71	14.4	.36	1.13	.13	.02	7.80	99.5
SA37978	49.4	13.4	6.15	4.42	3.02	.09	14.0	.38	1.12	.10	.04	8.10	100.2
SA37979	50.1	13.1	7.09	5.48	1.74	.07	13.6	.22	1.27	.13	.03	6.65	99.5
SA37980	41.6	5.88	12.2	15.2	.15	.03	13.2	.32	.937	.11	.25	8.80	98.7
SA37981	51.1	11.0	1.37	13.7	<.01	<.01	13.6	.23	1.21	.11	.02	7.20	99.6
SA37982	54.8	15.9	1.98	4.90	.02	3.16	11.5	.19	1.54	.14	.03	5.95	100.3
SA37983	49.5	13.9	6.78	4.32	1.65	1.25	13.3	.30	1.29	.13	.02	7.95	100.5
SA37986	47.0	15.6	8.55	7.13	1.90	.23	12.9	.20	.980	.11	.03	4.45	99.1
SA37987	54.4	15.0	3.66	3.97	4.93	.16	10.7	.20	1.52	.14	.03	4.75	99.5
SA37988	44.7	12.1	5.89	7.32	.61	.07	18.8	.42	1.21	.10	.03	8.95	100.2
SA37989	35.1	10.0	11.1	5.42	.05	.24	24.5	.41	.923	.09	.02	12.4	100.3
SA37990	46.0	16.3	7.19	5.45	1.15	1.35	11.3	.24	1.08	.09	.04	10.1	100.3
SA37991	47.3	13.5	8.18	4.25	.50	1.69	11.9	.24	1.23	.10	.02	10.3	99.3

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA37996	44.0	13.4	6.97	4.60	1.77	.38	16.1	.46	1.25	.12	.05	8.25	97.4
SA37997	73.1	12.8	.83	1.65	.25	3.36	3.27	.06	.226	.04	.03	3.35	99.0
SA37998	44.1	12.3	7.77	5.96	1.64	.04	16.0	.35	1.13	.11	.03	10.2	99.7
SA37999	45.2	14.1	8.39	4.66	2.56	.95	11.2	.31	1.33	.13	.03	9.85	98.8
SA38000	50.8	13.6	8.15	6.28	2.08	.17	13.6	.21	1.18	.11	.04	3.00	99.3
SA47379	38.0	12.1	8.75	6.67	.07	1.43	16.4	.45	1.12	.10	.02	14.4	99.5
SA47380	50.7	7.92	10.0	4.48	.10	1.96	9.18	.33	.772	.07	.01	12.2	97.8
SA47381	77.1	12.2	.67	.67	.09	3.55	1.84	.07	.126	.02	<.01	2.70	99.1
SA47382	50.4	14.7	5.95	4.17	.08	3.37	8.92	.31	1.33	.11	.02	10.6	100.0
SA47383	46.5	12.4	9.55	4.72	.86	.94	12.6	.32	1.11	.09	.01	11.0	100.1
SA47384	51.6	13.3	6.57	4.82	2.13	.65	11.2	.20	1.26	.10	.01	8.30	100.2
SA47385	46.0	15.1	8.20	3.60	1.18	1.66	13.0	.34	.938	.08	.03	9.95	100.1
SA47386	49.9	16.5	5.75	4.13	4.02	.56	10.6	.26	1.02	.09	.04	7.65	100.5
SA47387	71.7	11.3	4.49	.85	.04	3.39	1.97	.11	.114	.02	<.01	5.30	99.3
SA47388	82.9	10.2	.04	.69	.04	2.99	1.28	.02	.128	.02	<.01	1.95	100.3
SA47396	48.7	15.4	2.68	4.85	1.08	.76	18.5	.34	.952	.08	.03	6.80	100.2
SA47397	35.2	17.5	6.82	7.12	2.01	.84	16.8	.35	1.63	.14	.03	10.4	98.9
SA47398	47.6	15.7	6.94	4.28	3.37	.69	10.4	.32	.993	.08	.04	8.70	99.2
SA47399	52.0	13.5	5.95	5.63	3.68	.33	13.1	.45	1.29	.16	.02	2.70	98.8
SA47400	51.0	13.3	6.29	5.40	2.72	.42	14.9	.45	1.30	.14	.01	3.85	99.8

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA36471	32	15	90	372
SA36472	<10	24	118	84
SA36473	<10	19	141	192
SA36474	42	12	100	372
SA36475	17	25	93	270
SA36476	37	19	91	183
SA36477	43	46	105	326
SA36478	<10	21	87	188
SA36479	34	21	119	583
SA36480	19	<10	102	400
SA36481	42	<10	145	334
SA36482	44	38	140	337
SA36483	<10	29	83	234
SA36484	57	31	187	436
SA36485	12	22	134	303
SA36486	<10	18	95	155
SA37965	<10	13	105	70
SA37966	31	<10	68	344
SA37967	33	<10	65	356
SA37968	45	13	63	358
SA37969	48	29	97	458
SA37978	<10	22	70	101
SA37979	<10	15	109	105
SA37980	<10	<10	92	<50
SA37981	<10	25	87	121
SA37982	121	12	110	1260
SA37983	60	18	121	442
SA37986	<10	17	99	192
SA37987	<10	33	150	150
SA37988	<10	28	79	96
SA37989	<10	12	64	165
SA37990	33	20	56	209
SA37991	34	28	72	262
SA37992	<10	15	163	169

SAMPLE \ PPM	RB	Y	ZR	BA
SA37993	110	34	126	628
SA37994	<10	33	215	182
SA37995	<10	37	191	142
SA37996	18	20	106	139
SA37997	96	20	220	292
SA37998	<10	25	96	62
SA37999	13	43	123	251
SA38000	<10	18	98	131
SA47379	40	13	67	160
SA47380	62	<10	38	224
SA47381	112	46	153	321
SA47382	107	16	79	288
SA47383	24	10	63	149
SA47384	14	13	76	134
SA47385	53	14	56	209
SA47386	14	22	49	154
SA47387	122	32	136	300
SA47388	133	38	126	486
SA47396	27	13	63	264
SA47397	22	37	111	185
SA47398	16	24	69	192
SA47399	21	14	100	165
SA47400	<10	29	108	143

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA21201	32	10.0	.3	24	27	49.5	--
SA21202	55	100	<.1	45	6	110	--
SA21203	<1	17.2	<.1	10	12	82.2	--
SA21204	58	90.4	<.1	36	8	90.9	--
SA21205	34	85.1	.2	23	<5	44.0	--
SA21206	41	82.0	.1	30	7	64.6	--
SA21207	48	51.7	.1	34	<5	95.2	--
SA21208	29	75.6	.2	31	5	67.3	--
SA21211	66	8.2	<.1	32	6	85.6	--
SA21212	56	92.5	<.1	30	<5	125	--
SA21213	116	104	.4	43	7	88.3	--
SA21214	129	90.8	.4	46	11	94.3	--
SA21559	53	61.7	<.1	25	11	99.8	--
SA21560	85	66.8	.3	50	9	170	--
SA21564	88	85.1	.4	45	12	117	--
SA21565	54	16.7	.3	35	10	74.8	--
SA21566	55	40.2	.2	43	6	88.6	--
SA21569	45	76.4	<.1	23	13	64.7	--
SA21570	20	3.7	<.1	18	8	40.3	--
SA21571	11	200	1.0	8	20	109	--
SA21572	40	226	2.5	--	30	3440	9
SA21573	58	108	<.1	40	<5	91.2	--
SA21574	39	215	.4	16	<5	69.0	--
SA21577	59	75.3	.2	38	5	107	--
SA21578	50	132	<.1	29	<5	78.6	--
SA21579	29	49.3	<.1	30	6	166	--
SA21580	88	36.4	<.1	27	8	90.1	--
SA21581	93	5.3	<.1	28	5	67.3	--
SA21582	49	15.4	.1	30	<5	109	--
SA21583	89	88.3	.1	48	6	97.1	--
SA21584	67	22.5	<.1	42	7	130	--
SA21585	55	75.3	.3	28	6	68.2	--
SA21587	207	114	.3	89	8	279	--
SA21588	41	64.5	.1	21	11	71.7	--
SA21589	51	6.0	<.1	21	9	50.4	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA21590	15	5.8	<.1	18	16	40.8	--
SA21591	1	16.7	<.1	30	9	120	--
SA21592	33	78.3	<.1	30	8	77.2	--
SA21593	46	78.5	.1	29	<5	69.8	--
SA21594	39	71.0	<.1	33	<5	83.8	--
SA21595	60	105	.2	39	21	80.1	--
SA21596	25	24.0	<.1	16	10	76.1	--
SA21597	4	4.8	<.1	3	10	13.2	--
SA21598	5	4.9	.2	2	11	27.5	--
SA21599	24	39.6	<.1	17	10	30.4	--
SA21600	39	119	.1	12	8	37.7	--
SA26799	3	10.6	.1	2	9	6.1	--
SA26800	58	78.4	<.1	35	<5	100	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	B2O3	LOI	SUM
SA21201	61.4	14.9	4.07	2.06	4.46	1.91	5.62	.09	.645	.16	<.01	4.40	99.8
SA21202	44.1	12.4	6.97	6.61	1.83	.10	16.4	.23	1.75	.16	.02	8.50	99.1
SA21203	62.4	15.1	1.90	1.76	6.77	.80	7.00	.09	1.02	.30	<.01	2.25	99.4
SA21204	45.1	13.2	8.10	6.84	2.13	.40	16.4	.22	1.68	.16	.02	4.30	98.6
SA21205	48.8	12.4	13.6	5.24	.66	.15	13.3	.19	1.10	.11	.02	4.20	99.8
SA21206	48.4	13.0	9.39	5.78	1.91	.16	16.2	.21	1.62	.15	.02	2.90	99.8
SA21207	46.8	12.5	8.81	5.57	2.19	.25	15.8	.22	1.49	.14	.02	6.35	100.2
SA21208	45.5	13.9	8.92	6.78	2.32	.22	16.7	.25	1.41	.12	.01	3.20	99.3
													3
													7
SA21211	62.6	15.2	1.18	2.88	2.40	2.55	8.24	.15	1.42	.12	.05	3.60	100.4
SA21212	52.0	12.4	7.80	7.70	2.54	.12	8.05	.19	.903	.61	.05	7.90	100.3
SA21213	48.7	15.3	11.4	3.45	1.98	.58	8.62	.22	.945	.09	.04	8.65	100.0
SA21214	55.1	16.9	4.96	4.20	2.75	1.11	8.54	.18	1.09	.08	.04	5.00	100.0
SA21559	46.7	11.2	9.81	10.3	2.19	.44	10.2	.28	.591	.30	.08	7.70	99.8
SA21560	52.7	15.5	5.67	3.56	1.86	.96	13.3	.29	1.44	.13	.03	4.50	100.0
SA21564	50.5	17.1	4.64	4.39	2.56	.88	12.8	.34	1.51	.14	.03	4.25	99.2
SA21565	52.1	14.6	7.39	4.52	2.93	.20	13.7	.38	1.37	.13	.03	2.65	100.0
SA21566	43.5	11.9	10.0	5.88	.63	.20	21.5	.51	1.10	.11	.03	3.35	98.7
SA21569	48.9	14.0	8.18	7.13	2.80	.31	13.5	.21	1.13	.09	.03	2.55	98.8
SA21570	58.8	15.3	5.28	3.78	5.16	.57	7.35	.19	1.48	.14	.04	2.20	100.3
SA21571	55.7	15.7	.14	2.53	.02	3.37	15.8	.17	1.02	.11	<.01	5.65	100.3
SA21573	51.2	14.7	7.15	5.48	4.03	.11	9.79	.19	1.23	.11	.05	5.40	99.5
SA21574	52.9	14.9	7.64	3.32	.79	3.23	6.70	.19	.654	.11	.02	9.25	99.8
SA21577	50.1	14.3	6.98	4.09	1.95	1.72	10.2	.26	1.27	.12	.03	7.85	98.9
SA21578	50.0	13.7	11.0	5.56	1.69	.07	10.9	.22	1.12	.09	.05	5.85	100.3
SA21579	50.7	14.5	4.83	4.38	1.49	1.15	12.6	.16	1.85	.29	.02	7.75	99.8
SA21580	49.4	14.9	6.49	4.70	1.84	1.78	8.90	.14	.865	.13	.03	11.3	100.5
SA21581	52.3	15.3	6.03	4.26	3.32	1.13	9.16	.11	.865	.13	.02	7.65	100.3
SA21582	51.5	16.2	3.74	5.84	2.81	.11	12.6	.12	1.66	.25	.03	4.95	99.8
SA21583	61.8	13.8	1.82	3.90	.62	2.53	9.52	.20	1.02	.09	.04	4.45	99.9
SA21584	57.5	14.7	1.60	4.64	2.65	.82	12.0	.23	1.46	.12	.04	4.00	99.8
SA21585	57.7	15.8	3.66	3.12	3.30	2.17	6.62	.17	1.28	.12	.03	5.25	99.3
SA21587	48.8	16.3	1.75	5.56	2.16	.37	17.3	.08	.885	.17	.03	5.30	98.8
SA21588	58.7	15.7	3.88	3.80	4.15	1.56	6.98	.10	.736	.14	.02	4.55	100.4
SA21589	57.6	16.9	5.57	3.92	2.81	1.50	7.65	.10	.790	.13	.01	3.10	100.1
SA21590	60.0	15.5	3.88	2.53	3.90	2.34	6.04	.07	.856	.15	<.01	4.80	100.1

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA21591	52.7	10.7	3.20	2.42	3.22	.28	20.3	.22	2.46	.32	.02	2.65	98.6
SA21592	48.3	12.7	8.06	5.53	2.38	.13	16.8	.22	1.73	.16	.02	2.65	98.7
SA21593	49.4	13.3	8.50	6.18	2.16	.20	15.5	.22	1.51	.14	.02	2.65	99.8
SA21594	51.2	11.6	8.71	5.30	1.52	.26	14.2	.20	1.33	.12	.03	4.85	99.3
SA21595	51.3	13.0	7.12	5.50	2.91	.23	13.7	.21	1.28	.11	.03	3.70	99.1
SA21596	64.2	15.1	2.28	1.98	.98	3.52	6.41	.07	.888	.20	.03	4.20	100.0
SA21597	61.7	12.3	9.35	.66	2.64	2.72	2.11	.20	.118	.04	.02	8.25	100.2
SA21598	64.2	11.1	12.3	.53	1.27	.20	6.81	.25	.102	.04	.05	3.25	100.1
SA21599	66.0	16.4	2.66	1.80	5.66	1.57	3.82	.07	.631	.12	.02	1.55	100.4
SA21600	59.9	15.1	4.69	3.03	4.05	1.89	5.60	.09	.691	.13	.01	5.20	100.4
SA26799	75.9	12.5	1.35	.59	3.63	2.54	1.56	.03	.156	.03	.04	1.85	100.3
SA26800	54.4	15.2	5.34	4.07	1.92	1.31	11.5	.26	1.51	.14	.04	4.40	100.2

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA21201	73	13	155	600
SA21202	14	29	115	65
SA21203	32	21	169	321
SA21204	<10	40	112	120
SA21205	<10	19	63	<50
SA21206	<10	23	100	71
SA21207	<10	10	96	85
SA21208	<10	12	78	74
SA21211	89	<10	96	507
SA21212	<10	31	156	80
SA21213	10	30	52	107
SA21214	18	24	61	301
SA21559	<10	20	61	250
SA21560	21	19	91	239
SA21564	40	23	102	267
SA21565	10	22	91	115
SA21566	<10	26	74	70
SA21567	12	11	92	166
SA21568	<10	19	89	107
SA21569	<10	10	50	95
SA21570	17	37	116	197
SA21571	88	<10	136	568
SA21573	11	12	86	52
SA21574	112	33	112	546
SA21577	39	21	90	476
SA21578	<10	14	67	50
SA21579	33	22	197	301
SA21580	59	<10	113	474
SA21581	35	<10	116	346
SA21582	<10	21	165	109
SA21583	107	10	69	642
SA21584	48	13	116	243
SA21585	94	18	96	569
SA21587	<10	25	172	165
SA21588	50	29	155	530
SA21589	48	10	167	361
SA21590	94	<10	174	384

SAMPLE \ PPM	RB	Y	ZR	BA
SA21591	10	49	281	250
SA21592	<10	25	122	81
SA21593	<10	22	99	105
SA21594	<10	20	98	103
SA21595	<10	<10	94	130
SA21596	97	<10	171	686
SA21597	70	<10	85	531
SA21598	<10	11	79	75
SA21599	59	22	171	443
SA21600	62	14	139	331
SA26799	84	45	187	651
SA26800	56	33	101	398

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA37526	73	3.8	<.1	20	5	56.0	--
SA37527	44	90.6	<.1	49	<5	162	--
SA37528	42	150	<.1	48	17	124	--
SA37529	43	132	<.1	40	17	130	--
SA37530	53	85.3	.3	46	6	186	--
SA37531	122	49.0	.4	59	9	151	--
SA37532	53	94.6	.2	47	13	98.3	--
SA37533	59	12.4	.5	49	6	139	--
SA37535	50	68.9	<.1	44	<5	112	--
SA37536	10	4.9	<.1	10	9	38.5	--
SA37537	61	16.5	<.1	19	10	52.0	--
SA37538	101	3.6	.2	22	10	55.1	--
SA37539	56	29.9	.2	20	8	55.4	--
SA37540	39	49.0	.2	31	9	50.4	--
SA37541	37	68.3	<.1	39	9	108	--
SA37542	62	48.6	.3	36	9	234	--
SA37543	49	61.7	.2	39	7	112	--
SA37544	21	28.5	.4	9	9	71.2	--
SA37545	87	91.1	.3	48	<5	98.1	--
SA37546	71	49.4	.3	33	8	88.0	--
SA37547	65	31.8	.5	53	8	89.3	--
SA37548	58	40.7	.4	28	10	65.2	--
SA37549	122	39.6	.3	47	8	98.9	--
SA37550	39	48.7	.2	51	8	172	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA44000	39	50.9	.2	40	<5	110	--
SA47377	61	7.3	.1	47	<5	136	--
SA47378	66	209	.1	53	<5	102	--
SA48054	52	77.1	<.1	39	<5	147	--
SA48055	13	22.6	<.1	13	<5	41.2	--
SA48060	9	5.0	<.1	6	8	13.4	--
SA48061	61	128	.4	48	<5	154	--
SA48062	93	75.1	.5	48	9	81.3	--
SA48063	55	75.9	.2	43	14	104	--
SA48064	74	125	.2	63	<5	66.4	--
SA48065	53	94.6	.3	42	<5	96.0	--
SA48066	92	52.6	<.1	55	<5	175	--
SA48070	45	126	.2	54	<5	135	--
SA48071	31	165	.2	23	8	89.5	--
SA48072	41	133	.1	31	10	76.9	--
SA48073	50	24.2	.4	40	<5	153	--
SA48074	116	137	.5	59	<5	87.7	--
SA48075	135	107	.8	38	8	108	--
SA48076	45	52.6	.4	29	7	89.9	--
SA48077	53	44.0	<.1	41	9	121	--
SA48078	60	30.4	.2	46	8	119	--
SA48079	62	93.3	.5	52	13	141	--
SA48080	113	3.0	.2	33	8	107	--
SA48081	81	99.1	.3	46	9	105	--
SA48082	68	82.2	.4	48	6	95.4	--
SA48083	53	45.6	.2	44	7	121	--
SA48084	43	102	.3	34	13	118	--
SA48085	10	25.0	.5	8	135	21.6	--
SA48086	48	94.0	.2	45	6	163	--
SA48087	60	559	2.3	--	108	317	60
SA48088	44	116	.4	50	<5	146	--
SA48089	74	42.2	.5	94	27	72.4	--
SA48090	29	35.2	.7	27	<5	157	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA48091	23	13.0	.2	10	6	66.0	--
SA48092	53	61.3	.3	49	<5	156	--
SA48093	34	115	.2	30	<5	56.0	--
SA48100	53	3.6	<.1	25	10	96.2	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA37526	55.3	17.6	4.75	4.26	4.57	1.03	5.68	.09	.480	.09	.02	6.05	100.0
SA37527	49.2	13.3	5.30	5.72	2.01	.27	14.0	.18	1.25	.10	.02	8.45	99.8
SA37528	46.7	12.4	9.00	5.02	2.49	.11	12.6	.24	1.18	.10	.02	10.1	100.0
SA37529	47.1	13.3	5.83	5.51	.41	2.06	13.1	.27	1.25	.10	.02	11.2	100.2
SA37530	43.3	12.1	6.91	5.51	.38	1.42	15.9	.47	1.01	.08	.03	12.9	100.0
SA37531	45.9	15.4	7.78	4.37	.34	1.87	12.8	.32	.950	.08	.03	10.3	100.2
SA37532	50.4	14.1	6.06	4.14	2.26	1.12	11.2	.29	1.39	.12	.03	8.15	99.3
SA37533	41.4	12.7	7.37	5.35	.44	.13	20.6	.50	1.32	.14	.02	10.6	100.6
$	.					...	....	---	....	-	--	- --	-- -
SA37535	55.2	14.6	3.59	4.50	3.11	.85	10.4	.18	1.39	.12	.02	6.20	100.2
SA37536	67.3	15.7	.54	2.22	1.15	2.82	4.66	.05	.975	.18	.02	3.50	99.2
SA37537	60.4	17.7	1.43	3.46	2.31	2.68	6.37	.07	.477	.09	.01	4.80	99.9
SA37538	56.6	16.6	3.20	4.54	3.66	1.50	7.40	.09	.468	.09	.03	5.90	100.2
SA37539	59.8	17.0	2.31	3.51	3.79	2.10	6.25	.06	.620	.11	.01	4.70	100.3
SA37540	58.0	14.2	3.75	2.65	3.17	2.32	6.17	.18	1.37	.11	.03	6.85	98.9
SA37541	47.9	12.4	6.58	6.03	2.20	.09	13.9	.19	1.21	.09	.02	9.05	99.7
SA37542	44.2	13.1	5.29	7.21	.51	.02	18.5	.38	1.16	.09	.04	9.70	100.2
SA37543	49.2	13.7	5.81	5.40	2.61	.09	13.5	.31	1.19	.10	.03	7.55	99.5
SA37544	58.3	12.6	4.85	2.70	1.75	.89	11.1	.29	.530	.16	<.01	6.95	100.2
SA37545	47.5	14.5	8.60	4.37	2.76	.02	13.0	.34	1.11	.10	.03	8.05	100.4
SA37546	53.4	14.8	5.27	3.34	1.99	1.52	10.7	.31	1.34	.13	.03	7.45	100.4
SA37547	54.8	14.9	2.35	4.36	.12	2.11	13.4	.29	1.33	.09	.03	6.45	100.3
SA37548	48.6	19.5	6.75	2.97	2.52	3.22	6.49	.22	.769	.07	.02	8.80	100.0
SA37549	44.7	15.3	7.27	4.15	1.85	.97	14.7	.35	.981	.08	.03	10.0	100.4
SA37550	48.0	12.8	6.36	5.34	1.94	.07	14.6	.32	1.22	.11	.01	8.85	99.7

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA44000	44.9	12.9	9.11	4.67	.05	1.38	13.4	.38	1.20	.10	.01	11.3	99.4
SA47377	48.6	13.6	5.52	6.95	1.42	.18	13.9	.19	1.21	.10	.03	8.50	100.2
SA47378	52.4	14.7	5.12	4.51	3.23	.48	11.2	.20	1.20	.09	.05	6.90	100.1
SA48054	45.8	12.5	8.86	5.54	1.46	.33	13.3	.25	1.04	.08	.04	11.0	100.2
SA48055	62.1	14.1	4.76	2.11	1.20	2.59	5.93	.09	.873	.17	.02	6.55	100.4
SA48060	78.3	11.8	.92	.44	.12	3.62	1.47	.07	.130	.02	.02	2.95	99.9
SA48061	45.9	13.0	5.96	5.94	1.33	.01	16.0	.36	1.11	.09	.03	9.20	98.9
SA48062	48.3	13.7	8.68	3.44	1.26	1.39	10.8	.31	.878	.08	.03	10.3	99.3
SA48063	54.6	15.3	3.51	4.48	1.81	1.42	10.8	.14	1.35	.11	.04	6.75	100.4
SA48064	52.2	16.7	3.82	3.53	3.90	1.47	8.73	.24	1.30	.11	.04	6.90	99.0
SA48065	44.2	12.7	10.1	4.37	2.86	.19	11.0	.42	1.29	.13	.03	11.3	98.6
SA48066	50.2	13.0	2.19	5.28	.01	.34	20.5	.27	1.27	.11	.03	6.65	99.9
SA48070	48.9	13.2	6.65	5.44	3.39	.06	11.8	.24	1.25	.10	.02	8.10	99.2
SA48071	54.0	13.1	5.03	3.84	3.88	.10	10.7	.23	1.32	.10	.04	6.35	98.7
SA48072	50.2	13.3	8.71	3.49	4.14	.12	9.43	.26	1.25	.10	.03	8.92	100.0
SA48073	46.8	12.6	6.08	5.79	1.45	.02	15.7	.36	1.08	.09	.03	9.20	99.2
SA48074	51.3	15.2	6.79	3.35	2.78	1.09	9.31	.25	.979	.08	.04	8.45	99.7
SA48075	41.2	12.2	9.15	4.90	.48	.69	16.5	.55	.763	.07	.04	12.8	99.4
SA48076	46.7	12.6	8.78	4.25	2.82	.06	12.6	.42	1.19	.13	.02	9.85	99.4
SA48077	53.3	15.2	3.43	4.10	4.39	.39	10.5	.17	1.60	.14	.04	6.10	99.4
SA48078	45.9	12.7	7.73	5.02	2.15	.04	15.5	.32	1.26	.12	.02	9.40	100.2
SA48079	41.6	12.2	8.16	5.42	<.01	.46	19.4	.33	1.23	.11	.03	11.3	100.3
SA48080	57.1	15.6	3.61	4.66	.19	2.77	8.35	.12	.738	.16	.01	7.00	100.4
SA48081	42.7	13.4	7.60	6.65	1.86	.06	15.2	.39	1.15	.12	.03	9.80	99.0
SA48082	46.2	12.6	6.34	5.90	1.69	.08	15.2	.30	1.23	.13	.03	9.40	99.1
SA48083	46.6	12.7	6.40	6.01	1.71	.08	15.7	.30	1.25	.13	.02	9.55	100.5
SA48084	52.6	14.0	4.43	3.68	.30	2.67	11.4	.25	1.34	.11	.02	9.30	100.2
SA48085	67.5	15.4	2.02	.80	8.29	.63	2.79	.08	.310	.15	.02	1.70	99.8
SA48086	48.9	12.8	7.33	5.05	1.69	.22	13.3	.18	1.20	.10	.03	9.20	100.0
SA48088	45.1	11.9	8.41	4.34	.12	2.46	11.8	.43	1.11	.09	.02	13.2	99.0
SA48089	61.8	13.6	.12	.47	.23	4.03	8.93	.02	.788	.04	.05	10.3	100.5
SA48090	47.1	10.9	5.05	4.66	.02	1.26	18.3	.68	.763	.07	.01	8.55	97.4
SA48091	70.8	11.6	1.66	1.99	.14	2.93	5.49	.13	.276	.03	.04	3.80	99.0

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA48092	53.1	12.3	5.92	4.76	1.04	.88	12.2	.19	1.11	.09	.02	8.30	99.9
SA48093	53.1	14.8	6.60	4.22	1.56	2.57	11.2	.30	1.36	.11	.02	4.55	100.5
SA48100	50.2	15.7	6.51	4.03	3.66	1.04	8.86	.12	.902	.14	.02	7.95	99.2

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA37526	35	<10	100	300
SA37527	<10	22	64	206
SA37528	<10	<10	72	110
SA37529	72	<10	73	366
SA37530	53	<10	50	188
SA37531	50	<10	63	351
SA37532	24	40	83	376
SA37533	<10	15	89	128
SA37534	<10	16	90	142
SA37535	19	30	98	359
SA37536	76	20	234	551
SA37537	76	<10	88	700
SA37538	41	<10	108	482
SA37539	69	<10	120	520
SA37540	74	40	80	413
SA37541	<10	13	86	133
SA37542	<10	11	62	126
SA37543	<10	15	71	119
SA37544	41	36	304	241
SA37545	<10	39	67	81
SA37546	44	12	93	496
SA37547	61	24	103	762
SA37548	100	<10	48	778
SA37549	37	14	59	217
SA37550	<10	21	67	143

SAMPLE \ PPM	RB	Y	ZR	BA
SA44000	31	28	69	305
SA47377	11	20	75	117
SA47378	20	<10	62	215
SA48054	17	16	55	126
SA48055	75	<10	171	639
SA48056	43	32	199	421
SA48057	57	21	156	387
SA48058	128	40	152	405
SA48059	<10	24	63	90
SA48060	114	44	122	261
SA48061	<10	12	66	111
SA48062	45	<10	62	588
SA48063	46	15	78	399
SA48064	48	24	66	354
SA48065	<10	29	79	115
SA48066	16	<10	85	195
SA48070	<10	13	80	117
SA48071	<10	26	59	170
SA48072	<10	18	57	117
SA48073	<10	26	51	103
SA48074	45	14	61	380
SA48075	13	20	35	133
SA48076	14	11	94	74
SA48077	22	45	106	224
SA48078	<10	28	79	77
SA48079	<10	16	83	160
SA48080	90	28	143	664
SA48081	14	23	81	89
SA48082	11	20	86	114
SA48083	<10	18	106	108
SA48084	61	20	73	635
SA48085	20	<10	174	384
SA48086	10	<10	73	120
SA48088	65	30	69	336
SA48089	119	39	170	499
SA48090	39	<10	79	185
SA48091	98	29	157	331

SAMPLE \ PPM	RB	Y	ZR	BA
SA48092	33	<10	73	221
SA48093	67	30	93	511
SA48094	49	35	98	254
SA48095	39	11	104	232
SA48096	65	17	120	293
SA48097	64	35	49	365
SA48098	<10	32	241	168
SA48099	96	<10	140	610
SA48100	26	<10	94	296

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA23695	40	87.5	1.5	28	<5	73.7	--
SA23696	113	283	2.5	50	<5	106	--
SA23697	158	9.8	1.4	39	<5	165	--
SA23699	34	56.6	1.0	28	<5	80.4	--
SA23700	93	9.8	1.0	37	<5	69.2	--
SA26760	73	7.7	1.1	30	<5	54.2	--
SA26761	67	29.0	1.0	26	<5	152	--
SA26762	74	119	1.6	59	<5	112	--
SA26768	92	65.9	.9	62	<5	229	--
SA26769	134	5.9	.6	45	<5	291	--
SA26770	7	8.0	<.5	3	<5	51.1	--
SA26771	86	92.3	.7	46	<5	287	--
SA26772	116	86.0	1.3	67	<5	96.4	--
SA26773	10	6.0	.6	16	<5	82.0	--
SA26774	73	16.1	<.5	11	<5	73.5	--
SA26775	54	6.6	<.5	32	<5	171	--
SA26776	65	33.2	<.5	28	<5	110	--
SA26777	79	126	1.6	39	10	6340	--
SA26778	105	56.5	.6	49	<5	157	--
SA26779	93	91.2	1.2	39	<5	188	--
SA26780	5	7.2	<.5	2	<5	137	--
SA26781	79	84.9	.9	52	<5	164	--
SA26782	5	9.1	<.5	3	<5	32.3	--
SA26783	33	22.4	.6	34	<5	150	--
SA26784	60	78.5	<.5	25	<5	101	--
SA26785	91	8.0	<.5	24	<5	86.7	--
SA26786	512	117	.6	82	6	183	--
SA26787	8	35.6	<.5	7	<5	29.0	--
SA26788	107	13.8	<.5	28	<5	78.1	--
SA26789	334	6.3	<.5	61	<5	150	--
SA26790	39	4.4	<.5	35	<5	134	--
SA26791	8	3.6	<.5	7	<5	37.9	--
SA26792	150	2.4	<.5	44	<5	155	--
SA26793	11	10.3	<.5	7	10	16.8	--
SA26794	11	14.6	<.5	7	18	54.6	--
SA26795	82	5.2	<.5	35	6	168	--
SA26796	103	34.0	<.5	47	<5	154	--
SA26797	107	337	<.5	--	<5	220	<2

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA26798	63	112	1.5	45	<5	131	--

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA23695	52.6	14.3	9.11	5.09	2.48	.72	11.8	.32	1.16	.10	.04	2.25	100.0
SA23696	52.3	14.9	4.49	4.80	2.71	1.14	11.6	.27	1.25	.25	.04	4.90	98.7
SA23697	53.8	14.3	1.83	5.39	2.17	1.72	13.6	.28	1.39	.16	.03	4.40	99.2
SA23699	49.7	14.3	10.8	6.29	2.27	.12	11.9	.30	1.17	.10	.04	2.80	99.8
SA23700	49.4	14.2	10.8	6.25	2.26	.10	11.8	.30	1.15	.10	.04	2.80	99.2
SA26760	56.3	16.0	8.93	3.81	2.86	.39	8.02	.26	1.18	.09	.05	2.30	100.2
SA26761	59.4	15.7	5.62	2.86	3.15	.78	7.95	.13	.799	.18	.04	3.25	99.9
SA26762	52.0	16.0	6.23	3.77	3.83	.37	10.5	.24	1.63	.15	.03	4.10	98.9
SA26768	43.7	12.1	7.83	5.79	.51	.05	18.6	.48	1.14	.10	.02	9.80	100.1
SA26769	50.7	13.9	2.13	5.95	1.71	.03	17.4	.36	1.13	.27	.02	5.60	99.2
SA26770	76.8	12.0	.67	.46	1.18	3.13	2.32	.04	.140	.02	.02	2.25	99.1
SA26771	50.1	15.0	6.47	3.53	1.02	2.29	10.9	.28	1.45	.13	.03	7.65	98.9
SA26772	53.7	16.1	5.46	3.67	4.77	.71	7.25	.15	1.24	.11	.04	5.55	98.8
SA26773	61.5	15.2	4.15	1.71	1.48	2.83	6.95	.13	.749	.14	.02	5.55	100.5
SA26774	75.3	10.2	.29	1.54	.15	2.37	5.44	.07	.278	.04	.04	2.90	98.7
SA26775	48.9	13.3	5.89	4.51	2.94	.13	12.6	.16	2.19	.50	.02	7.80	99.0
SA26776	56.5	13.2	7.82	3.04	.68	2.24	7.42	.13	.662	.16	<.01	8.80	100.7
SA26777	49.6	14.2	.30	5.36	.18	1.09	19.0	.23	1.16	.10	.04	6.95	98.2
SA26778	55.6	15.8	4.14	4.25	2.64	1.75	7.37	.16	1.38	.12	.04	5.80	99.1
SA26779	49.9	14.4	8.05	4.37	1.47	.08	13.4	.30	1.34	.11	.03	5.90	99.4
SA26780	78.2	12.4	.08	.41	2.89	2.65	1.45	.02	.137	.02	.03	1.95	100.3
SA26781	53.7	12.8	6.51	3.59	2.03	.94	11.1	.26	1.37	.12	.03	7.20	99.7
SA26782	74.8	13.3	.27	.82	1.99	3.35	2.67	.04	.202	.03	.02	2.05	99.7
SA26783	54.1	15.4	4.57	5.73	3.61	.19	9.16	.22	.806	.28	.03	5.35	99.5
SA26784	50.1	20.9	3.96	2.94	2.64	3.47	8.03	.22	.792	.07	.01	6.35	99.6
SA26785	59.4	16.7	.88	3.96	5.72	.56	7.19	.07	.676	.12	.01	3.35	98.7
SA26786	43.7	14.2	5.55	8.43	.30	.51	15.2	.15	1.41	.24	.08	9.35	99.2
SA26787	70.4	15.2	.69	1.20	3.28	2.44	2.93	.02	.380	.10	.02	2.65	99.4
SA26788	51.9	14.5	6.35	4.07	.74	2.77	7.39	.19	.759	.11	.01	11.2	100.1
SA26789	44.5	13.4	6.24	9.68	.92	.06	13.1	.14	1.13	.19	.06	10.5	99.9
SA26790	50.6	14.6	5.34	3.80	2.84	.48	12.2	.16	1.92	.31	<.01	7.05	99.4
SA26791	69.3	15.2	1.44	1.38	2.00	2.96	3.16	.04	.386	.10	.02	3.70	99.8
SA26792	48.7	16.7	4.23	6.20	2.63	.77	11.4	.12	1.01	.16	.02	7.45	99.5
SA26793	69.0	15.7	2.56	.56	.43	4.22	2.33	.09	.386	.11	.01	4.55	100.1
SA26794	70.5	15.7	.61	1.09	.42	3.83	3.26	.03	.420	.11	<.01	3.00	99.1
SA26795	59.0	15.0	1.12	5.77	.27	1.74	10.2	.08	.783	.18	.02	5.35	99.6
SA26796	58.3	15.7	2.44	3.51	.21	2.75	8.72	.18	1.22	.10	.02	5.65	98.9
SA26798	50.9	14.4	6.81	4.54	4.02	.06	9.72	.22	1.56	.15	<.01	6.90	99.3

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA23695	24	42	58	238
SA23696	49	12	168	401
SA23697	51	28	139	518
SA23699	<10	34	82	74
SA23700	<10	11	70	65
SA26760	<10	47	61	129
SA26761	31	11	145	366
SA26762	18	26	111	158
SA26768	<10	24	90	81
SA26769	21	18	143	141
SA26770	107	27	128	434
SA26771	76	20	96	461
SA26772	14	<10	77	296
SA26773	69	28	166	509
SA26774	96	70	128	340
SA26775	<10	38	281	128
SA26776	61	36	127	574
SA26777	<10	20	60	284
SA26778	54	17	96	379
SA26779	<10	44	87	94
SA26780	86	35	129	560
SA26781	41	23	88	277
SA26782	122	33	186	662
SA26783	<10	23	125	149
SA26784	136	10	40	784
SA26785	22	<10	152	316
SA26786	<10	21	140	158
SA26787	79	<10	165	627
SA26788	74	20	128	625
SA26789	12	15	126	105
SA26790	23	11	220	304
SA26791	80	17	170	655
SA26792	18	<10	122	423
SA26793	131	<10	173	826
SA26794	130	<10	166	807
SA26795	60	17	161	522
SA26796	88	20	62	919
SA26798	<10	22	102	90

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA27898	81	245	1.0	51	<5	55.9	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA27899	49	223	1.0	28	<5	51.6	--
SA37509	9	9.6	.9	2	2450	13.6	--
SA37510	13	8.1	1.6	7	1530	82.7	--
SA37511	83	7.6	<.5	35	6	129	--
SA37512	75	2.9	.5	19	7	47.1	--
SA37513	174	3.2	<.5	34	<5	78.1	--
SA37514	52	73.7	<.5	49	<5	178	--
SA37515	60	25.7	1.0	58	<5	197	--
SA37516	132	80.9	.7	64	8	117	--
SA37517	140	138	.6	48	<5	212	--
SA37518	80	40.6	<.5	47	<5	117	--
SA37519	87	79.0	<.5	51	<5	132	--
SA37520	77	157	.5	46	<5	105	--
SA37521	10	9.7	<.5	7	9	24.7	--
SA37522	66	81.5	<.5	45	<5	150	--
SA37523	128	30.3	<.5	61	<5	153	--
SA37524	82	90.3	<.5	48	<5	138	--
SA37525	78	109	.6	52	<5	115	--

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA27898	52.6	14.7	10.2	3.76	2.20	.76	12.4	.20	1.37	.13	.04	1.15	99.5
SA27899	51.1	14.2	10.9	5.57	2.04	.74	12.4	.27	1.23	.11	.04	1.15	99.8

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA37512	51.7	18.6	6.90	3.24	.64	3.41	5.77	.10	.457	.10	<.01	9.25	100.3
SA37513	54.8	14.2	5.74	6.23	2.30	1.08	7.12	.10	.469	.09	.03	8.20	100.4
SA37514	45.8	12.0	9.10	5.13	1.50	.25	13.9	.24	1.11	.09	.01	10.9	100.0
SA37515	47.0	12.2	5.76	6.48	1.30	.02	17.0	.39	1.19	.09	.01	8.65	100.1
SA37516	48.8	15.8	6.51	3.92	1.09	2.23	11.3	.31	1.01	.08	.04	8.60	99.7
SA37517	45.1	14.0	7.16	4.80	.12	1.35	15.0	.38	.899	.07	.04	10.3	99.3
SA37518	51.5	15.7	5.95	3.82	3.14	1.47	8.40	.19	1.17	.10	.03	7.90	99.4
SA37519	45.1	13.1	8.67	5.24	2.46	.06	13.2	.34	1.18	.11	.03	10.5	100.0
SA37520	57.5	16.3	2.61	3.74	4.78	1.08	6.75	.14	1.57	.13	.04	4.55	99.2
SA37521	70.6	12.5	3.21	.76	3.10	2.18	3.17	.11	.497	.15	.03	3.90	100.3
SA37522	42.4	11.9	11.8	4.27	.21	1.22	14.3	.47	1.07	.11	.02	12.6	100.4
SA37523	44.6	16.3	1.24	7.15	.06	1.48	20.4	.33	1.47	.15	.02	6.95	100.3
SA37524	45.7	13.3	8.20	5.18	2.63	.17	12.6	.31	1.17	.11	.02	10.3	99.7
SA37525	46.9	14.1	8.90	4.65	2.05	1.28	9.99	.27	1.24	.11	.03	10.6	100.2

SAMPLE \ PPM	RB	Y	ZR	BA
SA27898	26	16	83	152
SA27899	21	20	75	144
SA27999	73	41	209	875
SA28000	126	29	227	849

SAMPLE \ PPM	RB	Y	ZR	BA
SA37512	104	<10	106	641
SA37513	15	25	91	273
SA37514	<10	12	50	87
SA37515	<10	18	53	85
SA37516	58	<10	54	281
SA37517	40	15	35	196
SA37518	70	16	63	226
SA37519	<10	16	87	102
SA37520	30	19	100	289
SA37521	64	40	285	423
SA37522	41	19	71	206
SA37523	63	22	92	746
SA37524	11	<10	79	105
SA37525	53	20	84	248

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA26831	113	63.1	1.1	81	<5	225
SA26832	57	127	1.0	52	<5	165
SA26833	93	125	1.2	55	<5	123
SA26834	95	99.1	.6	67	<5	136
SA26835	6	13.6	.5	3	<5	18.5
SA26836	85	61.8	.6	57	<5	151
SA26837	74	25.2	1.0	49	<5	142
SA26838	59	3.8	<.5	23	<5	64.2
SA26839	84	15.5	.6	34	<5	139
SA26840	311	26.1	<.5	47	<5	96.4
SA26841	101	3.9	<.5	18	<5	513
SA26842	69	3.1	<.5	34	<5	139
SA26843	7	18.7	<.5	24	9	182
SA26844	245	453	2.5	48	14	225
SA26845	8	5.6	<.5	5	<5	72.0
SA26846	62	3.9	<.5	23	<5	100
SA26847	5	3.5	<.5	4	<5	26.9
SA26848	70	5.4	<.5	28	<5	99.7
SA26849	365	3.1	<.5	52	<5	158
SA26850	30	4.1	<.5	21	12	116
SA28057	113	8.6	2.7	31	435	58.9
SA28058	135	9.1	1.4	36	110	33.3
SA28059	56	25.5	.7	33	<5	49.8
SA28060	125	111	.8	55	<5	135
SA28061	95	26.6	.7	65	<5	150
SA28064	80	61.8	<.5	58	<5	190
SA28065	74	90.0	.7	47	<5	164
SA28066	102	81.1	.8	54	<5	110
SA28067	6	6.1	<.5	3	<5	25.5
SA28068	127	37.1	<.5	27	<5	192
SA28069	53	104	.9	52	<5	213
SA28070	56	84.0	<.5	47	<5	125
SA28074	73	118	.6	51	<5	220
SA28075	80	73.8	.9	54	<5	203
SA28076	105	86.8	1.4	59	<5	115
SA28077	71	58.4	1.1	55	6	175
SA28078	80	101	<.5	65	<5	173
SA28079	84	41.4	<.5	47	<5	192
SA28080	90	39.0	1.2	81	20	185
SA28081	79	36.3	.6	52	<5	163

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA28082	53	130	.7	39	<5	102
SA28083	54	137	.5	44	<5	91.7
SA28084	93	84.3	<.5	51	<5	84.2
SA28085	62	68.4	.5	45	<5	140
SA28086	56	85.3	.8	50	<5	139
SA28087	34	12.9	<.5	28	<5	103
SA28088	77	50.0	.5	50	<5	104
SA28089	56	94.2	<.5	31	<5	97.9
SA28090	72	63.0	.9	50	<5	54.3
SA28091	62	35.6	.8	41	<5	75.9
SA28092	81	80.0	.9	58	<5	129
SA28093	81	35.5	1.0	51	<5	143
SA28094	69	76.8	.5	50	16	136
SA28095	27	539	.8	28	7	43.7
SA28096	79	134	.5	41	<5	68.1
SA28097	88	9.5	<.5	47	<5	168
SA28098	66	74.1	.8	56	<5	151
SA28099	99	71.4	.7	57	<5	147
28100	65	223	1.0	62	5	133

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA26831	47.8	14.8	3.32	5.71	2.37	.23	17.7	.35	1.38	.10	.03	5.85	99.7
SA26832	46.3	11.6	6.80	5.84	1.46	<.01	16.7	.36	1.35	.14	<.01	8.55	99.1
SA26833	49.1	14.5	5.69	6.09	2.17	.02	13.9	.28	1.25	.11	.02	5.60	98.8
SA26834	48.6	13.4	4.82	5.03	2.13	.13	16.2	.40	1.33	.11	.02	7.50	99.7
SA26835	77.0	12.6	.33	.54	3.42	2.38	2.10	.03	.136	.03	.03	1.60	100.3
SA26836	49.2	13.7	5.80	4.50	.71	1.56	13.9	.37	1.35	.12	.02	8.30	99.6
SA26837	49.8	13.7	5.69	6.27	1.99	.03	14.0	.29	1.31	.13	.03	7.20	100.5
SA26838	55.4	17.6	4.11	3.65	2.96	2.12	7.14	.10	.628	.10	.02	5.90	99.8
SA26839	52.4	16.0	3.77	5.26	3.56	.68	9.65	.10	.990	.15	.02	6.75	99.4
SA26840	55.1	14.1	.92	10.7	2.11	.03	9.87	.12	.557	.10	.05	6.20	99.9
SA26841	52.5	16.9	7.33	3.10	2.55	1.40	6.90	.14	.410	.08	.01	8.95	100.3
SA26842	53.7	14.8	4.20	5.15	3.08	.50	10.3	.13	.982	.15	<.01	6.80	99.8
SA26843	48.9	12.1	5.59	5.14	.15	1.32	14.9	.24	1.56	.52	.01	9.60	100.1
SA26844	44.7	13.1	7.47	6.12	.62	1.28	11.9	.23	1.25	.27	.02	13.3	100.3
SA26845	76.1	12.6	.31	.35	.56	2.93	3.00	.14	.229	.05	.02	2.80	99.2
SA26846	58.0	17.1	2.75	4.26	.24	3.37	7.41	.09	.664	.13	<.01	6.15	100.3
SA26847	73.3	14.0	.89	.75	3.13	2.56	1.98	.03	.206	.06	.01	2.45	99.5
SA26848	52.7	16.3	5.06	3.97	3.71	1.31	8.36	.11	.881	.13	.01	6.85	99.5
SA26849	49.0	13.7	5.13	10.8	.36	.73	13.9	.23	.774	.17	.04	5.25	100.1
SA26850	63.7	13.8	2.07	3.88	3.36	.92	6.41	.10	.872	.15	.02	3.90	99.2
SA28057	37.8	2.13	11.5	5.09	<.01	.02	26.7	.59	.123	.04	<.01	13.4	97.4
SA28058	47.9	1.48	8.89	2.80	<.01	<.01	28.5	.65	.078	.04	.02	9.35	99.7
SA28059	54.4	14.7	5.16	4.23	3.02	1.67	11.6	.21	1.34	.32	.02	2.60	99.4
SA28060	49.0	15.9	4.81	4.96	2.68	.74	13.1	.29	1.22	.11	.03	6.10	99.0
SA28061	50.3	14.9	2.16	5.93	2.57	.10	15.5	.30	1.51	.14	.03	4.85	98.3
SA28064	46.4	12.9	3.26	6.30	<.01	<.01	21.9	.44	1.35	.09	.03	7.85	100.5
SA28065	41.6	10.9	11.2	6.09	<.01	.02	17.2	.38	.975	.10	.02	11.8	100.3
SA28066	54.1	15.1	5.48	3.92	3.01	.79	9.60	.25	1.18	.10	.04	5.70	99.3
SA28067	76.9	13.6	.61	.64	.19	3.77	1.28	.03	.095	.04	<.01	2.55	99.8
SA28068	55.1	16.6	3.90	5.81	2.98	1.58	6.23	.08	.446	.09	.02	6.95	99.9
SA28069	52.8	12.7	4.93	4.10	1.23	1.07	12.6	.24	1.44	.13	<.01	7.90	99.2
SA28070	48.6	8.70	11.9	4.60	<.01	.38	11.4	.38	.866	.08	.02	12.7	99.7
SA28074	45.9	11.8	5.17	6.22	<.01	.02	19.6	.54	1.21	.10	.02	9.00	99.6
SA28075	45.4	12.2	6.35	7.05	.16	.23	17.0	.35	1.25	.11	.02	10.0	100.1
SA28076	57.0	16.1	4.10	4.03	5.45	.61	6.53	.13	1.37	.11	.04	4.45	100.0
SA28077	45.0	11.3	8.66	6.57	.52	.12	15.2	.41	.945	.08	.02	10.7	99.5
SA28078	45.5	11.5	6.79	6.22	.77	.02	17.0	.38	1.09	.10	.02	9.65	99.1
SA28079	44.6	12.6	6.91	7.61	.59	.06	15.8	.37	1.11	.09	.03	10.5	100.3
SA28080	50.1	11.3	4.47	5.68	.43	.24	17.1	.35	1.00	.08	.03	6.50	97.3
SA28081	43.8	11.6	8.47	6.44	.12	.18	16.9	.35	1.07	.10	.02	11.0	100.1

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA28082	52.2	13.7	5.62	4.92	3.05	.39	11.2	.21	1.41	.16	.02	7.15	100.1
SA28083	53.3	14.3	6.22	3.77	2.98	1.16	8.39	.23	1.34	.16	.02	7.75	99.7
SA28084	46.4	15.3	8.67	3.91	2.37	1.72	9.95	.33	1.29	.11	.03	10.0	100.1
SA28085	49.5	14.0	6.54	4.70	2.70	.67	11.0	.22	1.26	.12	.03	8.65	99.4
SA28086	48.1	13.0	6.97	5.79	2.59	.03	13.0	.28	1.37	.14	.01	8.80	100.1
SA28087	54.3	11.3	6.50	3.26	2.79	.50	12.3	.21	1.34	.27	.02	7.55	100.4
SA28088	50.8	14.0	6.25	4.01	2.70	.81	11.8	.31	1.34	.13	.02	8.05	100.3
SA28089	53.4	11.1	9.01	3.60	.52	1.55	9.34	.33	1.02	.10	.02	10.0	100.0
SA28090	48.1	12.7	6.40	6.69	1.51	.58	17.7	.41	1.34	.11	.03	4.20	99.8
SA28091	48.7	13.3	7.86	6.82	1.25	.51	15.1	.38	1.21	.12	.03	4.60	99.9
SA28092	52.7	17.2	3.97	4.77	4.46	.41	9.61	.19	1.33	.11	.04	4.20	99.0
SA28093	50.7	13.2	5.90	5.11	1.51	.98	14.0	.35	1.30	.10	.03	7.10	100.3
SA28094	49.7	12.3	7.36	4.81	.85	.90	13.2	.39	1.22	.10	.02	9.35	100.2
SA28095	62.7	16.0	3.18	1.65	2.65	3.07	4.27	.12	.813	.16	.03	4.35	99.1
SA28096	57.0	16.6	4.14	2.83	5.06	1.40	5.68	.15	1.52	.13	.03	5.55	100.1
SA28097	44.8	12.8	7.31	5.21	.39	.76	17.1	.41	1.21	.11	.02	10.2	100.4
SA28098	44.5	12.8	5.39	5.42	1.31	.03	19.1	.44	1.32	.17	.02	8.05	98.6
SA28099	44.7	13.7	6.05	6.08	1.87	.05	17.0	.39	1.26	.11	.02	8.75	100.0
28100	47.8	9.05	7.49	5.39	.47	.04	18.4	.50	1.01	.09	.01	9.25	99.5

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA26831	25	28	90	176
SA26832	11	41	125	94
SA26833	<10	<10	103	94
SA26834	<10	27	81	135
SA26835	81	42	86	494
SA26836	46	28	88	287
SA26837	<10	20	105	90
SA26838	67	10	103	648
SA26839	14	26	120	261
SA26840	<10	15	107	115
SA26841	33	<10	99	298
SA26842	17	<10	122	212
SA26843	49	58	320	338
SA26844	44	13	110	323
SA26845	89	29	201	602
SA26846	129	11	149	696
SA26847	85	<10	169	621
SA26848	48	24	121	412
SA26849	25	18	94	295
SA26850	29	<10	188	308
SA28057	<10	22	54	64
SA28058	<10	33	51	52
SA28059	57	18	186	515
SA28060	24	25	81	302
SA28061	<10	21	113	147
SA28064	11	17	101	110
SA28065	<10	21	68	63
SA28066	13	18	80	281
SA28067	128	<10	55	475
SA28068	44	<10	93	483
SA28069	26	25	111	264
SA28070	10	25	57	65
SA28074	<10	21	78	106
SA28075	<10	19	79	124
SA28076	19	31	77	273
SA28077	<10	14	32	73
SA28078	<10	<10	64	58
SA28079	<10	29	66	112
SA28080	<10	19	65	139
SA28081	<10	15	68	215

SAMPLE \ PPM	RB	Y	ZR	BA
SA28082	16	42	169	173
SA28083	30	34	158	208
SA28084	62	18	88	388
SA28085	22	29	97	220
SA28086	<10	25	129	78
SA28087	21	55	283	152
SA28088	31	41	114	216
SA28089	48	21	77	321
SA28090	26	24	97	283
SA28091	11	12	79	206
SA28092	11	17	86	202
SA28093	25	22	101	332
SA28094	37	18	81	235
SA28095	142	21	154	522
SA28096	49	17	104	269
SA28097	35	<10	95	209
SA28098	<10	37	167	112
SA28099	<10	23	84	114
28100	<10	15	86	84

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM
SA23847	40	83.2	<.5	14	<5	54.3

D - QUALITY CONTROL DUPLICATE

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA23847	64.5	16.3	1.76	1.58	7.66	.41	4.39	.08	.904	.20	.02	1.95	99.8

D - QUALITY CONTROL DUPLICATE

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ PPM	RB	Y	ZR	BA
SA23847	14	13	198	227

D - QUALITY CONTROL DUPLICATE

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA27375	40	30.3	.6	22	<5	114	--
SA27377	136	7.7	2.7	27	35	188	--
SA27378	169	9.1	2.8	36	29	193	--
SA27379	8	34.6	.6	5	20	69.1	--
SA27380	62	158	.7	50	21	155	--
SA27381	87	98.1	.6	61	6	156	--
SA27382	88	44.9	.7	54	<5	232	--
SA27383	73	32.5	.5	44	<5	272	--
SA27384	76	168	1.1	53	<5	131	--
SA27385	74	51.8	.8	47	<5	128	--
SA27386	61	45.2	<.5	47	<5	130	--
SA27387	89	90.0	<.5	24	<5	73.7	--
SA27388	96	16.2	<.5	26	<5	68.6	--
SA27389	203	75.5	<.5	45	<5	71.5	--
SA27390	176	51.2	<.5	34	7	196	--
SA27391	33	20.1	<.5	17	<5	75.0	--
SA27392	31	38.5	<.5	15	<5	69.8	--
SA27393	63	12.3	.5	29	<5	108	--
SA27394	57	73.1	.6	18	<5	63.1	--
SA27399	28	57.0	<.5	8	<5	52.7	--
SA27400	157	34.7	.7	35	6	104	--
SA27868	141	14.9	.8	40	6	82.3	--
SA27872	43	36.8	.7	10	5	31.4	--
SA27873	54	25.9	.8	25	<5	91.6	--
SA27874	42	37.8	.8	24	<5	90.3	--
SA27875	55	18.2	.9	24	<5	80.1	--
SA27876	96	34.5	.5	21	<5	76.7	--
SA27877	158	25.1	.7	43	<5	94.9	--
SA27878	111	26.0	<.5	29	<5	106	--
SA27879	47	22.0	.7	26	<5	105	--

SAMPLE	NI PPM	CU PPM	AG PPM	CO PPM	AU PPB	ZN PPM	PB PPM
SA27891	57	20.5	<.5	23	<5	114	--
SA27914	56	349	.7	20	5	162	--
SA27915	12	50.2	<.5	6	<5	51.5	--
SA27916	59	83.6	<.5	24	<5	294	--
SA27917	55	32.1	<.5	25	<5	285	--
SA27918	47	87.0	<.5	20	<5	284	--
SA27919	82	5.9	<.5	21	<5	358	--
SA27920	26	55.7	.8	9	16	328	--
SA27921	8	46.3	1.3	8	<5	544	--
SA27922	255	71.9	.6	41	<5	217	--
SA27923	412	4.6	<.5	78	<5	191	--
SA27924	48	46.5	1.2	25	7	339	--
SA27925	145	70.1	1.1	43	<5	106	--
SA27926	9	5.5	<.5	6	<5	56.0	--
SA27927	352	3.1	<.5	43	<5	56.0	--
SA27928	9	9.6	<.5	6	<5	41.9	--
SA27929	121	35.5	.8	30	<5	208	--
SA27930	91	41.2	.7	22	<5	167	--
SA27931	24	9.6	<.5	6	10	67.6	--
SA27932	11	32.3	2.1	7	<5	160	--
SA27933	96	17.7	.7	38	<5	230	--
SA27934	230	4.8	.6	46	<5	114	--
SA27935	43	12.2	<.5	23	<5	99.7	--
SA27936	47	10.3	.6	30	<5	160	--
SA27937	102	4.8	.6	34	<5	132	--
SA27938	15	5.7	<.5	5	<5	29.9	--
SA27939	13	64.0	<.5	40	<5	189	--
SA27940	60	50.7	1.0	22	8	119	--
SA27941	6	7.9	1.1	3	7	639	--
SA27942	30	10.5	.6	24	<5	425	--
SA27943	6	13.0	.8	4	24	98.8	--
SA27944	12	9.9	.6	5	6	65.7	--
SA27945	13	22.9	1.0	8	<5	108	--
SA27946	39	5.5	.6	18	<5	176	--
SA27947	44	551	6.6	17	<5	210	--
SA27948	80	105	2.0	31	26	416	--
SA27949	78	82.4	.8	41	5	229	--
SA27950	74	22.2	.7	29	<5	289	--

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA27375	54.5	14.0	6.80	2.61	.59	2.90	6.68	.34	.730	.10	.02	11.1	100.5
SA27377	55.8	19.6	1.37	5.94	.20	3.76	7.15	.07	.558	.10	.02	5.75	100.4
SA27378	54.4	14.3	4.69	6.25	2.28	1.13	8.07	.12	.501	.10	.04	7.65	99.6
SA27379	68.4	14.4	1.35	.99	1.10	3.43	6.34	.07	.476	.11	.02	3.50	100.3
SA27380	53.6	13.7	3.94	3.77	1.24	2.18	11.6	.32	1.29	.11	.03	7.95	99.8
SA27381	46.0	14.1	5.93	5.58	1.94	.73	14.4	.33	1.19	.10	.03	8.90	99.3
SA27382	44.7	13.0	4.98	7.20	.89	.02	18.8	.41	1.12	.08	.03	8.80	100.0
SA27383	44.6	12.2	5.98	6.77	.15	.04	19.1	.52	1.07	.09	.03	9.70	100.3
SA27384	52.3	15.3	4.53	5.40	4.04	.09	10.4	.22	1.32	.10	.04	5.25	99.0
SA27385	48.3	13.1	6.20	5.67	1.15	.74	14.7	.38	1.11	.09	.03	8.70	100.2
SA27386	49.1	12.4	6.02	6.10	1.93	.02	14.4	.38	1.21	.10	.02	8.65	100.4
SA27387	57.2	15.6	4.03	4.48	3.53	1.66	6.22	.10	.574	.11	.02	6.15	99.7
SA27388	55.6	20.2	2.79	3.71	.43	4.25	5.85	.12	.495	.10	<.01	6.45	100.1
SA27389	59.6	18.1	4.10	1.52	2.00	1.59	5.45	.11	1.10	.20	.03	6.35	100.2
SA27390	51.3	14.5	2.35	5.47	.14	1.10	16.7	.24	.822	.15	.03	5.45	98.3
SA27391	58.6	16.4	5.13	2.01	2.15	2.43	6.59	.12	1.03	.24	.02	5.20	100.0
SA27392	59.0	16.1	5.22	1.85	.20	4.03	5.60	.12	.939	.23	<.01	6.90	100.3
SA27393	58.1	17.2	1.46	3.56	3.12	2.66	7.88	.10	.928	.20	.01	3.80	99.1
SA27394	63.2	17.0	1.91	1.85	4.21	3.01	3.60	.07	.947	.20	.02	3.10	99.2
SA27399	63.6	15.8	3.72	1.01	1.84	3.09	4.55	.11	.749	.15	.01	5.35	100.1
SA27400	56.6	15.4	6.32	2.38	3.07	1.18	6.65	.12	1.01	.23	.03	7.15	100.2
SA27868	64.3	15.2	3.29	1.86	2.40	1.43	5.63	.10	1.02	.25	.04	4.95	100.5
SA27872	65.7	17.6	1.38	1.16	5.01	2.96	2.67	.03	.969	.19	.02	2.05	99.8
SA27873	63.5	14.3	4.30	2.92	4.29	.20	7.00	.11	.762	.17	.02	2.55	100.2
SA27874	59.0	17.5	4.54	2.21	3.41	1.79	6.98	.10	1.06	.24	.02	3.25	100.2
SA27875	53.9	15.2	9.84	2.15	3.76	1.35	4.66	.15	1.03	.24	<.01	8.00	100.3
SA27876	60.9	15.7	3.26	2.74	4.30	1.26	6.05	.10	.825	.16	.05	4.15	99.6
SA27877	60.9	14.4	4.81	2.58	2.96	.89	6.77	.12	.927	.21	.03	5.75	100.4
SA27878	59.5	16.9	2.36	2.76	5.95	.68	5.92	.10	.964	.17	.03	4.10	99.5
SA27879	59.6	16.5	4.03	2.60	3.62	1.40	7.52	.12	.996	.25	.01	3.70	100.4

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	CR2O3	LOI	SUM
SA27891	59.2	16.3	3.48	1.92	1.83	2.23	8.01	.13	1.26	.23	.01	5.70	100.4
SA27914	63.1	14.4	3.52	3.12	1.34	1.94	5.78	.08	.683	.11	.02	5.25	99.4
SA27915	74.1	12.6	1.33	1.20	1.38	2.38	2.57	.04	.249	.07	.04	3.10	99.1
SA27916	54.3	15.5	6.60	3.79	2.68	1.56	6.74	.10	.610	.10	<.01	8.00	100.0
SA27917	56.0	15.2	6.04	3.21	3.14	1.66	6.10	.12	.577	.12	<.01	7.35	99.6
SA27918	61.8	14.8	3.15	3.13	.59	2.49	6.63	.12	.717	.13	.01	6.35	100.0
SA27919	55.8	17.1	5.03	3.66	.92	2.21	7.07	.10	.522	.11	.01	7.90	100.5
SA27920	65.9	13.4	2.54	2.96	.43	2.04	6.24	.10	.933	.22	<.01	5.00	99.9
SA27921	73.3	11.6	.01	.72	.22	2.75	6.41	.03	.293	.06	.02	3.70	99.2
SA27922	57.2	11.7	4.26	8.55	1.60	.04	8.69	.15	.463	.09	.04	7.55	100.4
SA27923	45.1	12.6	2.41	12.2	<.01	<.01	16.0	.11	1.43	.22	.07	8.55	98.7
SA27924	60.3	16.1	3.05	2.58	.66	5.36	6.52	.35	.803	.11	<.01	2.75	98.7
SA27925	51.2	15.3	5.48	5.61	4.97	.07	9.59	.15	1.17	.21	.03	6.75	100.6
SA27926	70.2	15.1	1.22	.92	3.27	2.71	2.78	.04	.308	.09	.03	2.80	99.6
SA27927	46.6	12.4	5.18	11.6	2.31	.76	13.7	.17	1.23	.20	.07	3.90	98.2
SA27928	67.3	13.5	3.48	2.35	1.28	3.02	5.49	.15	.317	.09	.02	2.85	99.9
SA27929	50.6	14.0	6.18	3.19	.95	1.26	12.3	.32	.882	.15	.02	10.7	100.6
SA27930	64.9	12.9	4.67	.87	1.58	.99	6.57	.15	.706	.11	.03	6.85	100.4
SA27931	70.0	16.4	.38	.87	1.35	2.46	4.48	.08	.514	.10	.02	3.40	100.2
SA27932	63.7	14.8	3.66	1.61	.77	3.36	3.52	.13	.270	.16	.01	6.65	98.8
SA27933	49.5	13.2	5.23	4.17	1.54	1.14	13.3	.19	1.95	.24	.02	9.05	99.6
SA27934	51.0	14.8	3.69	8.16	2.32	.35	10.7	.15	.764	.13	.04	8.20	100.3
SA27935	53.8	14.2	5.63	3.99	1.80	2.12	7.60	.15	.743	.10	<.01	9.95	100.2
SA27936	43.4	12.7	8.37	5.73	.61	1.43	11.3	.27	1.59	.25	.01	14.3	100.0
SA27937	39.4	10.7	11.6	6.94	.38	1.76	9.83	.21	.547	.25	.09	18.5	100.2
SA27938	73.0	8.93	3.86	1.52	.34	2.08	2.96	.14	.137	.04	.01	6.30	99.4
SA27939	49.9	13.1	4.54	4.50	1.77	1.04	12.2	.16	2.46	.47	<.01	8.85	99.1
SA27940	49.8	14.0	9.06	2.50	.92	2.46	8.14	.31	.685	.13	<.01	12.3	100.4
SA27941	75.4	13.1	.95	.67	.49	3.19	1.45	.08	.098	.03	.01	2.95	98.5
SA27942	46.3	14.2	6.76	3.75	.47	2.25	11.5	.30	1.77	.30	<.01	11.8	99.5
SA27943	78.4	12.2	.05	.23	.60	2.75	3.16	.03	.133	.04	.01	2.60	100.3
SA27944	62.5	4.16	8.97	3.40	.21	.81	6.32	.40	.078	.02	.04	13.1	100.0
SA27945	67.5	16.6	.60	1.46	1.37	4.07	4.05	.06	.511	.11	.01	3.10	99.6
SA27946	52.8	13.2	7.15	3.66	.58	2.58	7.02	.20	.611	.09	<.01	12.1	100.1
SA27947	74.5	12.1	.56	1.24	.39	2.35	5.18	.12	.089	.03	.02	2.90	99.6
SA27948	50.9	13.8	8.04	3.15	.55	3.22	5.99	.34	.671	.12	<.01	11.7	98.6
SA27949	48.6	11.9	8.27	2.72	.69	1.22	12.6	.31	2.02	.45	.01	11.4	100.3
SA27950	45.0	11.7	8.66	4.35	.48	1.26	12.3	.33	1.82	.42	.01	13.4	99.8

SAMPLE \ PPM	RB	Y	ZR	BA
SA27375	73	16	165	450
SA27377	96	<10	107	748
SA27378	24	<10	96	279
SA27379	112	64	542	489
SA27380	67	16	79	375
SA27381	25	30	64	206
SA27382	<10	<10	64	68
SA27383	<10	<10	63	104
SA27384	11	24	65	129
SA27385	23	14	68	186
SA27386	<10	16	69	86
SA27387	60	<10	127	374
SA27388	114	22	89	679
SA27389	54	<10	141	387
SA27390	35	10	140	322
SA27391	81	23	169	581
SA27392	126	21	173	669
SA27393	108	21	196	611
SA27394	124	<10	187	704
SA27399	91	22	148	547
SA27400	53	<10	126	301
SA27868	38	27	118	359
SA27872	115	<10	187	635
SA27873	<10	30	164	121
SA27874	56	19	185	540
SA27875	33	32	160	329
SA27876	40	<10	130	368
SA27877	38	21	109	237
SA27878	28	<10	134	227
SA27879	32	29	184	361

SAMPLE \ PPM	RB	Y	ZR	BA
SA27891	84	17	198	496
SA27914	60	24	270	423
SA27915	66	17	109	416
SA27916	48	20	112	364
SA27917	54	24	124	372
SA27918	80	20	187	575
SA27919	74	20	99	438
SA27920	60	52	342	429
SA27921	70	25	229	619
SA27922	<10	15	92	85
SA27923	<10	13	139	96
SA27924	124	<10	159	843
SA27925	12	31	141	81
SA27926	102	<10	151	562
SA27927	<10	23	134	269
SA27928	81	37	197	592
SA27929	40	20	123	280
SA27930	18	22	82	294
SA27931	89	38	335	633
SA27932	108	<10	159	1500
SA27933	16	34	164	197
SA27934	13	35	96	152
SA27935	74	<10	163	384
SA27936	37	28	162	256
SA27937	32	<10	68	270
SA27938	63	37	77	405
SA27939	32	41	211	277
SA27940	77	13	137	416
SA27941	108	70	123	609
SA27942	72	34	191	320
SA27943	116	52	90	692
SA27944	27	<10	24	132
SA27945	101	35	324	939
SA27946	66	15	141	308
SA27947	71	31	93	429
SA27948	95	<10	141	437
SA27949	33	24	232	278
SA27950	36	62	223	223
D SA27375	78	<10	171	428
D SA27387	52	19	117	381
D SA27399	97	31	151	531
D SA27878	32	25	156	229

D - QUALITY CONTROL DUPLICATE

900

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

Geoscience Approvals Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

Our File: 2.15363
Transaction #: W9470.00012

April 14, 1994

Mining Recorder
Ministry of Northern
Development and Mines
3rd Floor
933 Ramsey Lake Road
Sudbury, Ontario
P3E 6B5

Dear Sir:

RE: Approval of Assessment Work on mining claims 398946 et al. in Strathy Township.

The assessment credits for Lithogeochemistry, section 13 of the Mining Act Regulations, as listed on the original Report of Work, have been approved as of **April 14, 1994.**

Please indicate this approval on the claim record sheets.

If you have any questions please contact Dale Messenger at 670-5858.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

DEM/ls

Enclosures:

cc: Assessment Files Office
Toronto, Ontario

Resident Geologist
Cobalt, Ontario

Ministry of Northern Development and Mines

Ontario

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number: W9770.00010

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.15363

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s)		Client No.
FALCONBRIDGE Limited		130679
Address		**Telephone No.**
Suite 1200, 95 WELLINGTON St. W., TORONTO		416-956-5700
Mining Division	**Township/Area**	**M or G Plan No.**
Sudbury	STRATHY TOWNSHIP	G 3451
Dates Work Performed From: MAY 05-1993	To: MAY 17, 93	

Work Performed (Check One Work Group Only)

	Work Group	Type
✓	Geotechnical Survey	LithoGeochemistry
	Physical Work, Including Drilling	
	Rehabilitation	
	Other Authorized Work	
	Assays	
	Assignment from Reserve	

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Total Assessment Work Claimed on the Attached Statement of Costs $ 1554.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
XRAL (X-RAY ASSAY LABORATORIES)	1885 Leslie St, Don Mills, Ont., M3B 3J4

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

	Date	Recorded Holder or Agent (Signature)
I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	JAN 6th, 94	

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying

MARIA GABRIEL, 1977 McKENZIE ROAD, RR#2, CHELMSFORD, ONT. P0M 1L0

Telepone No.	Date	Certified By (Signature)
(705) 855-0311	January 6th, 94	

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Received Stamp
Recording $1,554	JANUARY 16/94		JAN 10
	Deemed Approval Date	Date Approved	
	Date Notice for Amendments Sent		

Work Report Number for Applying to Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	398946	1	~~310,80~~ 311			~~310,80~~ 311
	398944	1	~~310,80~~ 311			~~310,80~~ 311
	398943	1	~~310,80~~ 311			~~310,80~~ 311
	398945	1	~~310,80~~ 311			~~310,80~~ 311
	398947	1	310,80			310,80
	5		1554,00			1554,00
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

0241 (88/07)

Ontario

Ministry of Northern Development [illegible] Mines

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction: [illegible]

2 • 15363

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type XRAL (ASSAY LAB)	1554.00	
			1554.00
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
		Total Direct Costs Total des coûts directs	1554.00

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démobilisation			
		Sub Total of Indirect Costs Total partiel des coûts indirects	
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)	Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)		

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Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
× 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as SENIOR FIELD GEOLOGIST Maria Gabriel I am authorized
(Recorded Holder, Agent, Position in Company)

to make this certification

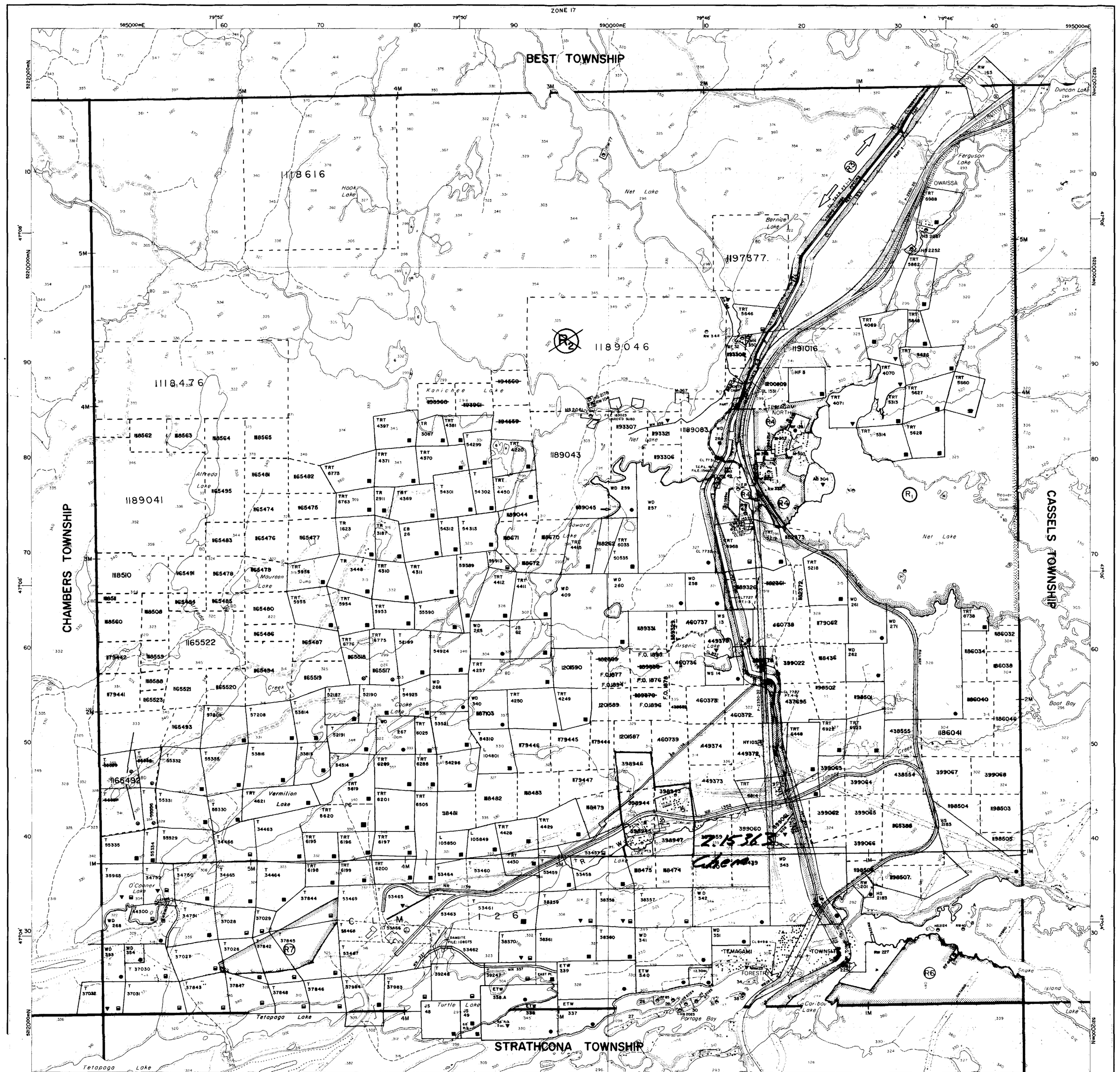
Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature	Date
Maria Gabriel	Jan 6th, 94



Ministry of Natural Resources

Ontario

Ministry of Northern Development and Mines

PUT INTO SERVICE MARCH 23 1994

INDEX TO LAND DISPOSITION

PLAN

G-3451

TOWNSHIP

STRATHY

M.N.R. ADMINISTRATIVE DISTRICT

TEMAGAMI

MINING DIVISION

SUDBURY

LAND TITLES/REGISTRY DIVISION

NIPISSING

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Scale 1:20 000

1000 0 1000 2000 Metres

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000 Feet

Contour Interval 10 Metres

SYMBOLS

Boundary
- Township, Meridian, Baseline
- Road allowance; surveyed / shoreline
- Lot/Concession; surveyed / unsurveyed
- Parcel; surveyed / unsurveyed
- Right-of-way; road / railway / utility
- Reservation
- Cliff, Pit, Pile
- Contour (20) / Interpolated / Approximate / Depression
- Control point (horizontal)
- Flooded land
- Mine head frame
- Pipeline (above ground)
- Railway; single track / double track / abandoned
- Road; highway, county, township / access / trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

DISPOSITION OF CROWN LANDS

Patent
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

Lease
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

Licence of Occupation

Order-in-Council: OC

Cancelled

Reservation

Sand & Gravel

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
SRO - Surface Rights Only
M + S - Mining and Surface Rights

	Description	Order No.	Date	Disposition	File
R3	36(e)R.S.O.1960	OC 2022/66		SRO.	3996
R6	SEC.35/80	W-01/91/ONT	16/03/94	M + S	199640
R3		W-01/91/ONT	SEP.20/91	S.R.O.	LAND ROLL
R4	SEC.36/80	W-S-02/91 NER		M & S	196180

R6 PENDING DISPOSITION UNDER THE PUBLIC LANDS ACT
LAND NOT OPEN FOR STAKING SUB-SECTION 30(8) OF THE MINING ACT R.S.O. 1990
NOTICE RECEIVED 92/JAN/06

R7 PENDING DISPOSITION UNDER THE PUBLIC LANDS ACT
LAND NOT OPEN FOR STAKING SUB-SECTION 30(8) OF THE MINING ACT R.S.O. 1990
NOTICE RECEIVED 92/JAN/06

DATE OF ISSUE
JUNE 2, 1994
SUDBURY
MINING RECORDER'S OFFICE

NOTES

ISLAND 27 BELONGS WITH STRATHCONA TWP.
ISLANDS in LAKE TEMAGAMI - NOT OPEN FOR STAKING

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

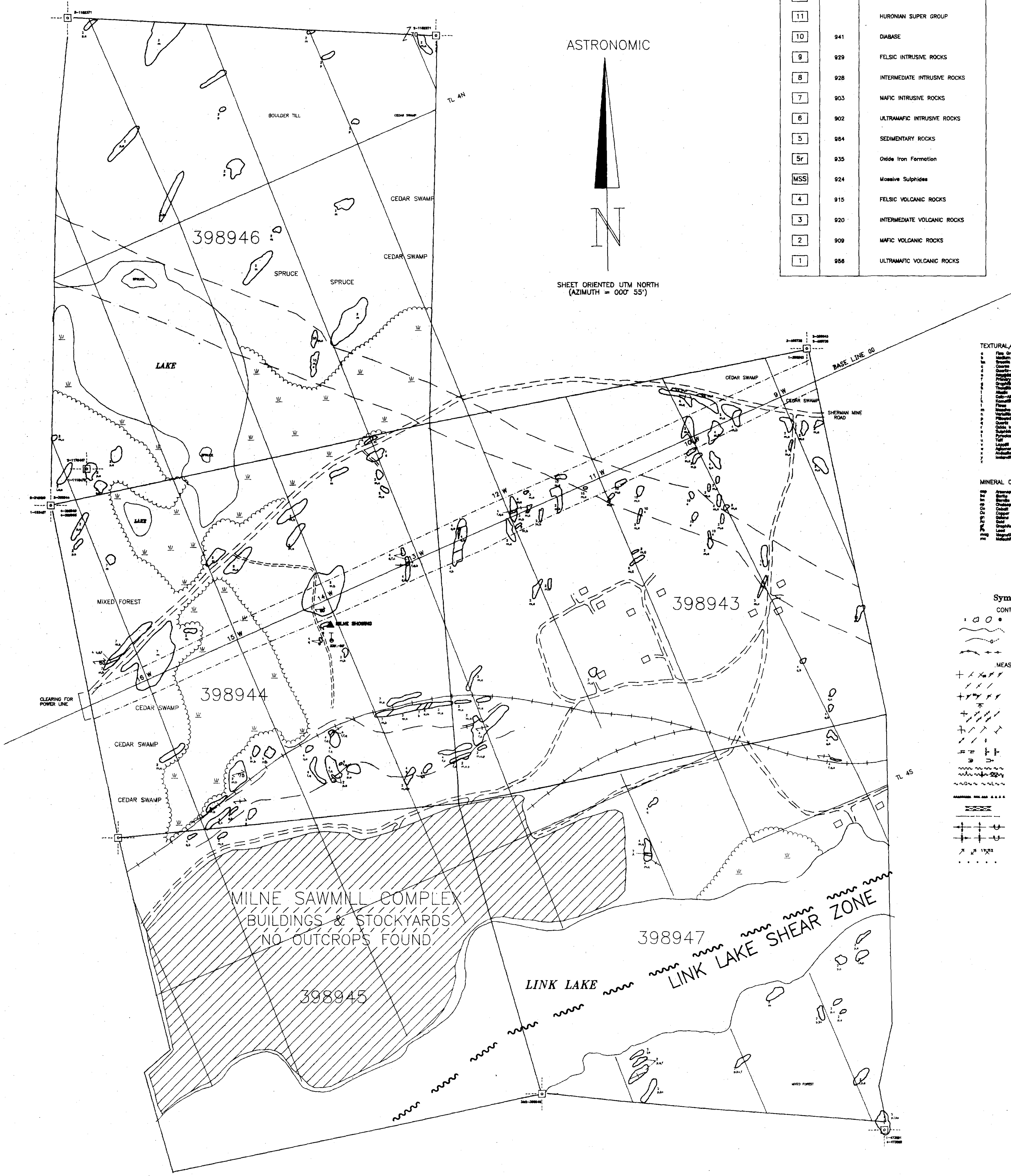
Map base and land disposition drafting by Surveys and Mapping

The disposition of land, location of lot fabric and parcel boundaries on

G-3451

STRATHY TOWNSHIP

G-3451



LEGEND

Code	Prismacolor	MAJOR ROCK DIVISIONS
12	932	NIPISSING DIABASE
11		HURONIAN SUPER GROUP
10	941	DIABASE
9	929	FELSIC INTRUSIVE ROCKS
8	928	INTERMEDIATE INTRUSIVE ROCKS
7	903	MAFIC INTRUSIVE ROCKS
6	902	ULTRAMAFIC INTRUSIVE ROCKS
5	984	SEDIMENTARY ROCKS
5r	935	Oxide Iron Formation
MSS	924	Massive Sulphides
4	915	FELSIC VOLCANIC ROCKS
3	920	INTERMEDIATE VOLCANIC ROCKS
2	909	MAFIC VOLCANIC ROCKS
1	958	ULTRAMAFIC VOLCANIC ROCKS

Code	Prismacolor	HURONIAN MODIFIERS
		COBALT GROUP
i	943	LORRAIN FORMATION
		GOWGANDA FORMATION
ii	945	Firstbrook Member
iii	947	Coleman Member
		QUIRKE LAKE GROUP
iv	934	SERPENT FORMATION
v	919	ESPANOLA FORMATION
vi	967	BRUCE FORMATION
		HOUGH LAKE GROUP
vii	938	MISSISSAGI FORMATION
viii		PECORS FORMATION
viiii		RAMSEY LAKE FORMATION
		ELLIOT LAKE GROUP
x		MCKIM FORMATION
xi		MATINENDA FORMATION

TEXTURAL/GEOCHEMICAL MODIFIERS

ALTERATION MODIFIERS

MINERAL OCCURRENCES

Symbols

CONTACTS

MEASUREMENTS

PHYSICAL WORK

CULTURAL AND PHYSIOGRAPHIC FEATURES

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FALCONBRIDGE LIMITED

Exploration Division — Chelmsford ONTARIO

31M/4
(STRATHY TWP.)

GEOLOGY MAP

MANDERSTROM PROPERTY

TRACED: D.F.	DATE: 05/93	NTS: 31M/4	PROJECT:
DRAWN:	DATE:	MAP No:	FILE: GSLMDR93.DWG
SUPERVISED: J.D.F.	DATE: 05/93	SCALE 1:2000 (0 50 100m)	
REVISED:	DATE:		

31M04SW0800 2.15363 STRATHY

210

ASTRONOMIC

N

SHEET ORIENTED UTM NORTH
(AZIMUTH = 000° 55')

398946

398944

398943

398945

398947

MILNE SAWMILL COMPLEX
BUILDINGS & STOCKYARDS
NO OUTCROPS FOUND

LINK LAKE

LAKE

BOULDER TILL

CEDAR SWAMP

SPRUCE

MIXED FOREST

CLEARING FOR POWER LINE

SHERMAN MINE ROAD

BASE LINE 00

TL 4N

TL 4S

SA28070 SA28064 SA28065 SA26836 SA28061 SA26837 SA28066 SA28060 SA28059 SA28067 SA28078 SA49074 SA27922 SA26850 SA27386 SA27387 SA26840 SA49095 SA27915 SA27914 SA26849 SA27920 SA27916 SA27919 SA27917 SA27918 SA26841 SA27923 SA27925 SA27924 SA27926 SA27927 SA26847 SA26848 SA26846 SA27934 SA27933 SA27388 SA49096 SA27921 SA26842 SA26838 SA27935 SA1992 SA27929 SA27930 SA26843 SA27938 SA27939 SA27937 SA27936 SA27943 SA27942 SA27947 SA27946 SA26839 SA26845 SA27949 SA27941 SA27944 SA26844 SA27948 SA27940 SA49082 SA27950 SA27375 SA49083 SA27945 SA49077 SA27928 SA27866 SA27400 SA27878 SA27399 SA27891 SA27879 SA27890 SA27398 SA27397

PHYSICAL WORK
- × Sample Location
- SA30898 Sample Location Number

CULTURAL AND PHYSIOGRAPHIC FEATURES
- All weather road (paved, gravel)
- 4 WD road
- Track
- Trail
- Buildings
- Campsite
- Power Line (major line, regular line)
- Telephone Line (usable, unusable)
- Pipeline
- Railroad Track
- Tower
- Bridge
- River (open, rapids)
- Intermittent Stream
- Lake
- Swamp
- Esker
- Claim Post (located, unlocated, witness, in water)
- Grids (current grid, old grid)
- Survey Pin (located, unlocated)
- Lot/Concession Corner Pin (located, government defined)

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MINING LANDS BRANCH

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FALCONBRIDGE LIMITED

Exploration Division — Chelmsford ONTARIO

31M/4
(STRATHY TWP.)

SAMPLE LOCATION MAP

MANDERSTROM PROPERTY

TRACED: D.F.	DATE: 08/93	NTS: 31M/4	PROJECT: PN 6274
DRAWN:	DATE:	MAP No:	FILE: GSLMDR93.DWG
SUPERVISED: J.D.F.	DATE: 08/93	SCALE 1:2000	
REVISED:	DATE:	0 50 100m	

31M04SW0800 2.15363 STRATHY