

GM 59139

ELECTRON MICROPROBE RESULTS, HEAVY MINERAL ANALYSES, TORNGAT PROJECT

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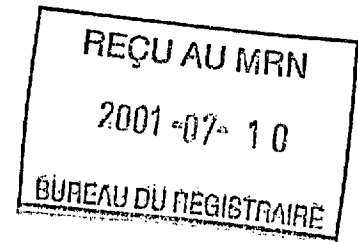
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Énergie et Ressources
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Québec 

MRN-GÉOINFORMATION 2002

GM 59139



**ELECTRON MICROPROBE RESULTS
HEAVY MINERAL ANALYSES
TORNGAT PROJECT
QUEBEC, CANADA
DIAMOND DISCOVERIES INTERNATIONAL**

01191-026

**PETROLOGY: R.J. DILLMAN
8901 REILY DRIVE
MOUNT BRYDGES, ONTARIO**

**MICROPROBE: R.L. BARNETT
LAMBETH, ONTARIO**

MAY, 2001

01191-026

RESULT OF MICROPROBE ANALYSES ON SELECTED MINERAL GRAINS TORNGAT PROJECT DIAMOND DISCOVERIES INTERNATIONAL

SUMMARY

582 mineral grains were analyzed by an electron microprobe. Traces of minerals from kimberlite, lamprophyre and minette sources are present in nine heavy mineral concentrates. Indicator mineral suites found in five concentrates are similar to the mineral suite derived from the diamond bearing dike discovered by Diamond Discoveries International. Four additional heavy mineral concentrates contain grains of chromite. Chromite grain chemistries in one concentrate are comparable to (extremely rare) chromite inclusions in diamond. Chromite has not been detected in the diamond bearing dike indicating other potential diamond bearing rocks occur in the region.

The electron microprobe detected zinc and nickel bearing mineral grains in several heavy mineral concentrates signifying there is good base metal and possibly, platinum-palladium potential in the survey area.

LOGISTICS

122 heavy mineral concentrates were examined for kimberlite indicator minerals and related minerals. The heavy mineral concentrates were based at a minimum specific gravity of 3.0. Grain sizes of the concentrates range between 0.14 mm (millimeters) to 1.0 mm. The concentrates weigh between 4.2 g (grams) to 678.0 g, averaging approximately 45 g in weight. A total of 4,007 g were visually examined under 20X magnification using a binocular microscope.

Processing of the heavy mineral concentrates consisted of screening and gravity concentrating minerals by mechanical jig and refinement to a specific gravity of 3.0 using a density separation liquid: Lithium Metatungstate.

Magnetic minerals were removed from each heavy mineral concentrate using a series of hand magnets. On occasion, a Franz Magnetic Separator was used in an effort to reduce the volume of several extremely large mineral concentrates. Magnetic and paramagnetic concentrates have been stored for future reference.

Processing and examination of the heavy mineral concentrates was performed by: Robert Dillman of Arjadee Prospecting located at Mount Brydges, Ontario.

Mineral grains selected for electron microprobe analyses were submitted to: Robert Barnett of R.L. Barnett Geological located at Lambeth, Ontario.

582 mineral grains were analyzed by an electron microprobe.

RESULTS

The electron microprobe identified various kimberlite and related minerals in nine heavy mineral concentrates. Base metal indicator minerals were detected in two separate heavy mineral concentrates. Results are summarized in the accompanying table.

Diamond

Previous heavy mineral sampling in the vicinity of the "H2SS-11" diamond bearing dike defined an indicator mineral suite for the dike to include: fosteritic olivine (Fo 81- 93), perovskite, biotite-phlogopite mica, magnetite, melanite garnet and chrome diopside. The current program identified five heavy mineral concentrates with one or more mineral types believed to indicate H2SS-11 type dikes. The five samples include: **DK-3, H2SS-7, H2SS-10, H2SS-110 and H6SS-3.**

Concentrations of chromite and chrome magnetite were detected in four heavy mineral concentrates. High magnesium chromite, typical of kimberlite occurs in three samples: **H2SS-17, H2SS-19 and H1SS-100.** A grain of chromite with chemistry akin to chromite inclusions in diamond occurs in sample **H1SS-100.** Chrome magnetite, potentially a kimberlite or related indicator mineral occurs in sample: **H6SS-10.**

Base Metals

A grain of pentlandite-pyrrhotite and two chrome amphiboles were detected in the heavy mineral concentrate: **CRATOR-1.** Results suggest nickel mineralization occurs in the vicinity to the sample site. Several P-series samples (**P-2, P-3**), believed to have been collected in the same area, contain olivine and diopside with chemistries equivalent to an upper-mantle mafic or ultra mafic source such as gabbro or peridotite. Several malachite-coated silicate grains were noted in P-2 heavy mineral concentrate.

A single grain of gahnite was detected in sample: **RV-15.** Gahnite is rare and considered an excellent indicator of potential metamorphosed magmatic/ massive sulphide mineralization. Gahnite has also been recognized in some rare earth bearing pegmatite.

DISCUSSION

Olivine

Previous analyses of fosteritic olivine from the "H2SS-11" diamond bearing dike indicated a high MgO content ranging Fo81 to Fo93. Heavy mineral concentrates: **DK-3, H2SS-7, H2SS-10, H2SS-110 and H6SS-3**, contain olivine with MgO oxide contents comparable to the H2SS-11 dike.

Olivine found in the P-series samples has greater iron content (Fo64-75) and is typical of a mafic or ultramafic, upper mantle source.

Olivine is very susceptible to erosion and disintegrates rapidly during transport from source. The presence of olivine in any mineral concentrate should be regarded as important and can be used as a distance indicator and suggests an immediate source.

Perovskite

Perovskite and olivine are major components of the "H2SS-11" diamond bearing dike. Perovskite occurs with olivine in samples: **DK-3 and H2SS-7**.

Perovskite-olivine heavy mineral concentrates should be considered as first priority targets for "H2SS-11" dike detection and probably indicate an immediate source.

Chrome Diopside and Clinopyroxene

Chrome diopside typical of nodule chrome diopside from kimberlite occurs as small rare pellet-shaped grains in the "H2SS-11" diamond bearing dike. A single grain of chrome diopside was identified in sample **H2SS-10**. Fosteritic olivine also occurs in the sample.

Kimberlitic chrome diopside, like olivine, is very easily broken-down by erosion during transport from source. The presence of chrome diopside at a sample location should be considered as a distance indicator and suggests an immediate source.

Chrome diopside from kimberlite and related sources typically has a chrome-sodium ratio of approximately 1:1. Chrome diopside found in sample H2SS-10 and in the "H2SS-11" diamond bearing dike follows this trend. Chrome-sodium ratios are sometimes used to distinguish clinopyroxene from upper mantle sources.

It is questionable if the low chrome clinopyroxene grains found in H2SS-10 and H1SS-108 concentrates are from kimberlite or a related source.

Garnet

Dark brown or black, well-shaped crystals of melanite garnet (andradite with 1-5% TiO₂) occur in good quantities in the "H2SS-11" diamond bearing dike. Melanite or pyrope garnets were not observed in other samples.

Potential eclogite garnets were detected in fifteen heavy mineral concentrates. Microprobe analyses indicates the potential eclogite garnets have Ca-Mg almandine compositions. Similar garnets are a major component in some kimberlite of the Lac De Gras field although discretion should be exercised on interpretation for exploration since identical garnet compositions can be a product of regional metamorphism.

Eclogite garnets found in the survey region having a possible association with kimberlite or related sources are light purplish-pink in colour and on this basis, can be visually identified in the general garnet population. Analyses indicates the garnets have calcium in access of 5% CaO.

Chromite

Chromite and chrome magnetite, found in samples: H2SS-17, H2SS-19, H1SS-100 and H6SS-10, have compositions comparable to typical kimberlite or related rocks and at least one grain in sample H1SS-100 could be considered as 'diamond-inclusion chromite'. Some consider chromite approaching 61% Cr₂O₃ as an important diamond indicator mineral and rarer in occurrence than 'G10' pyrope garnet. On this basis, sample H1SS-100 should be considered as a first priority target for further diamond exploration.

Previous analysis performed on the H2SS-11 dike indicated chromite is not part of the composition. Chromite found within the survey area could indicate other potential diamond bearing rocks are present which are different to the H2SS-11 dike. It should be noted that Twin Gold Mining reports chromite in diamond bearing dikes. (Twin Gold's dikes are visually and mineralogically different to the H2SS-11 dike.)

Biotite-Phlogopite

Biotite-phlogopite mica is a major component of the H2SS-11 diamond bearing dike. Similar mica occurs in some heavy mineral concentrates of the B-series and RV-series samples. Mica analyses suggests an association with minette type rocks.

Mica from diamond bearing sources in the Torngat region are usually zoned and of different colours. The colours range between silvery-black, brownish-green and silvery-red. In the field, favorable mica could be visually distinguished from regional sources by colour and by an increase of mica in the light fraction of a heavy mineral concentrate.

Chrome Amphibole

A single chrome amphibole grain was identified in sample: H6SS-1. Analyses suggests the composition of the grain coincides with riebeckite. Riebeckite is a rare amphibole and sometimes associated with kimberlite or similar source.

Sulphide, Oxides and Magnetite Grains

Pyrite grains were detected in heavy mineral concentrates: **H1SS-104** and **H6SS-8**. Pyrite was also observed but not analyzed in: **H1SS-103** and in all the **KGV-series** of samples. Pyrite occurs with flakes of graphite in: **H2SS-12**, **H2SS-13**, **H2SS-15**, **H2SS-18**, **H2SS-19** and in all the **B-series** of heavy mineral concentrates. Pyrite and graphite zones have been reported by field personnel to occur in the survey area.

A composite mineral grain of pentlandite-pyrrhotite was analyzed in sample: **CRATOR-1**. Pentlandite is an important ore mineral in nickel deposits. Malachite-azurite coated grains were noted in sample: **P-2**, which is believed to have been collected in the same area. Additional minerals found within concentrates from this area include olivine and diopside and suggest samples have been collected in the vicinity to a peridotite body. The potential for nickel-copper mineralization to occur in this area is very strong and due to association, the potential for platinum-palladium mineralization is also favorable.


A single grain of gahnite detected in sample: **RV-15** suggests the potential for zinc bearing metamorphosed magmatic/ massive sulphide mineralization is possible. Background mineralogy of the concentrate indicates the sample was collected in a metamorphic environment. Dull green, iron rich clinopyroxene (augite) detected in a number of concentrates from the area suggest the presence of volcanic flows or mafic intrusive bodies in the vicinity of the sample site.

Magnetite is a main component of the H2SS-11 diamond bearing dike. There appears to be slight to moderate increase of magnetite in concentrates containing olivine. It may be possible to locate sources (dikes) by a ground magnetometer survey.

CONCLUSIONS AND RECOMMENDATIONS

The heavy mineral sampling program has resulted in the detection of nine potential diamond targets and two base metal targets. Results are favorable and warrant further investigation. Additional heavy mineral sampling performed in conjunction with prospecting and ground magnetometer surveys is recommended over potential areas.

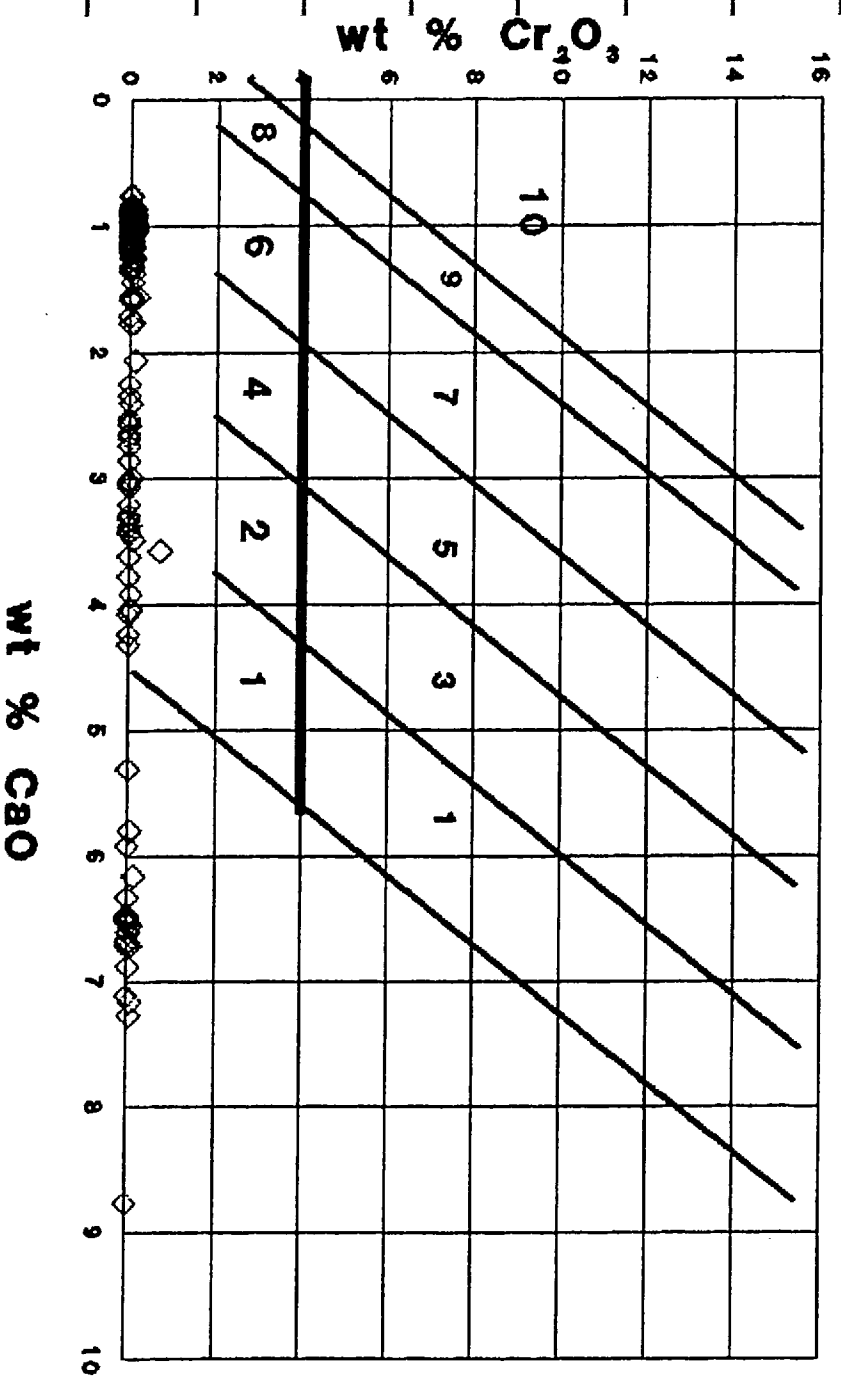
Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. J. Dillman', written in a cursive style.

Robert J. Dillman B.Sc.
Geologist
Arjadee Prospecting

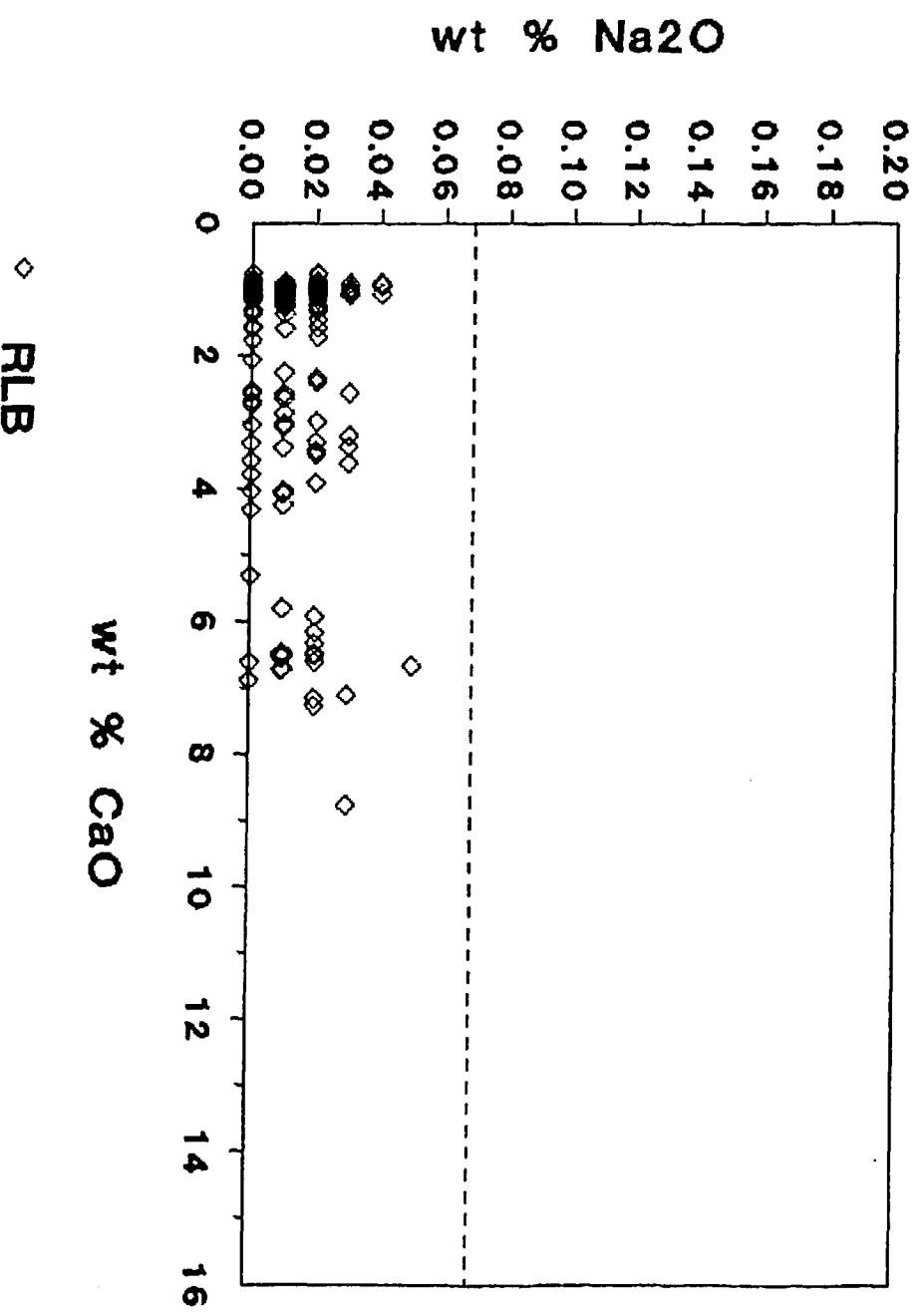
May 12, 2001

GARNET - DIAMOND DISCOVERIES INT

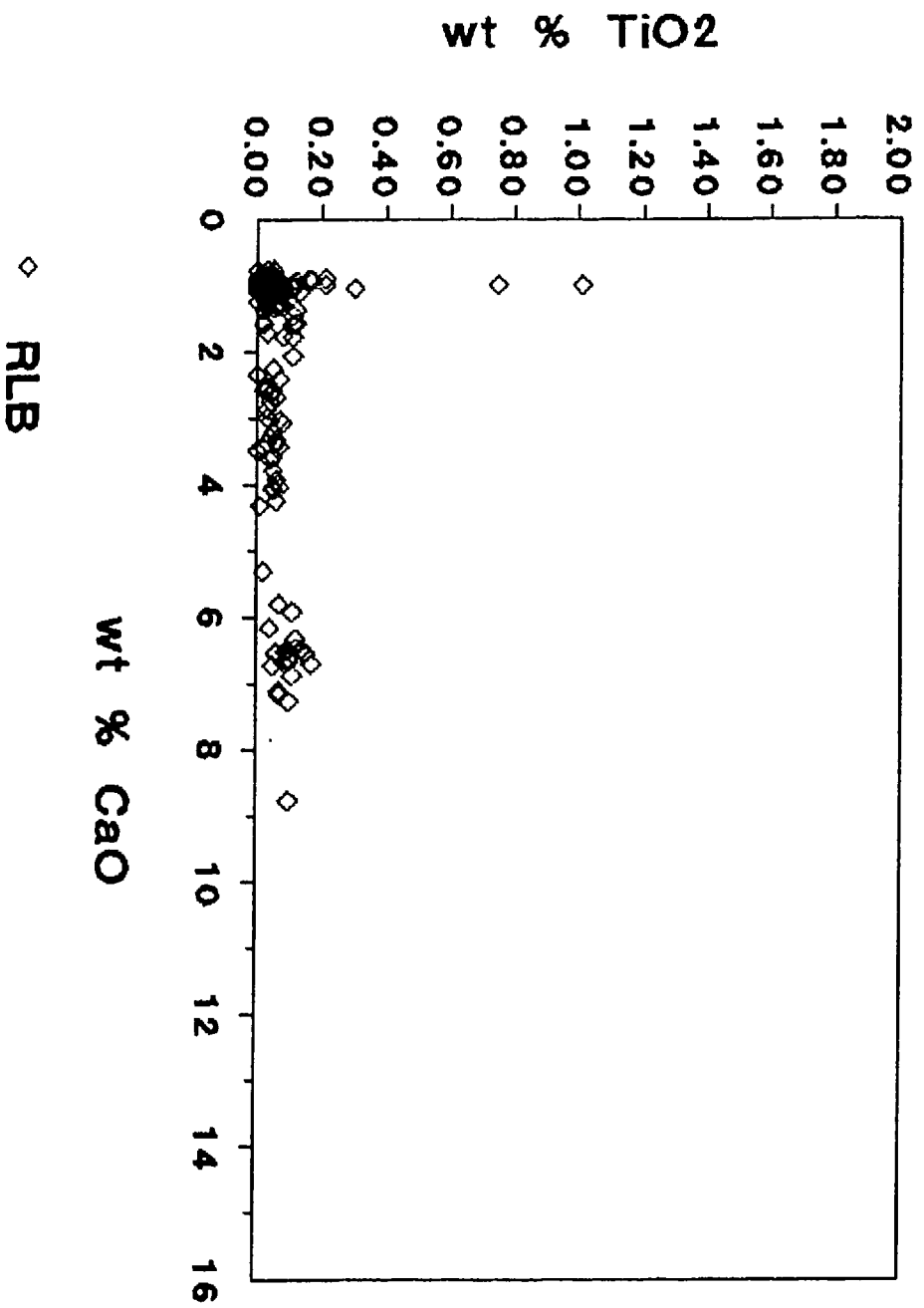


◇ RLB

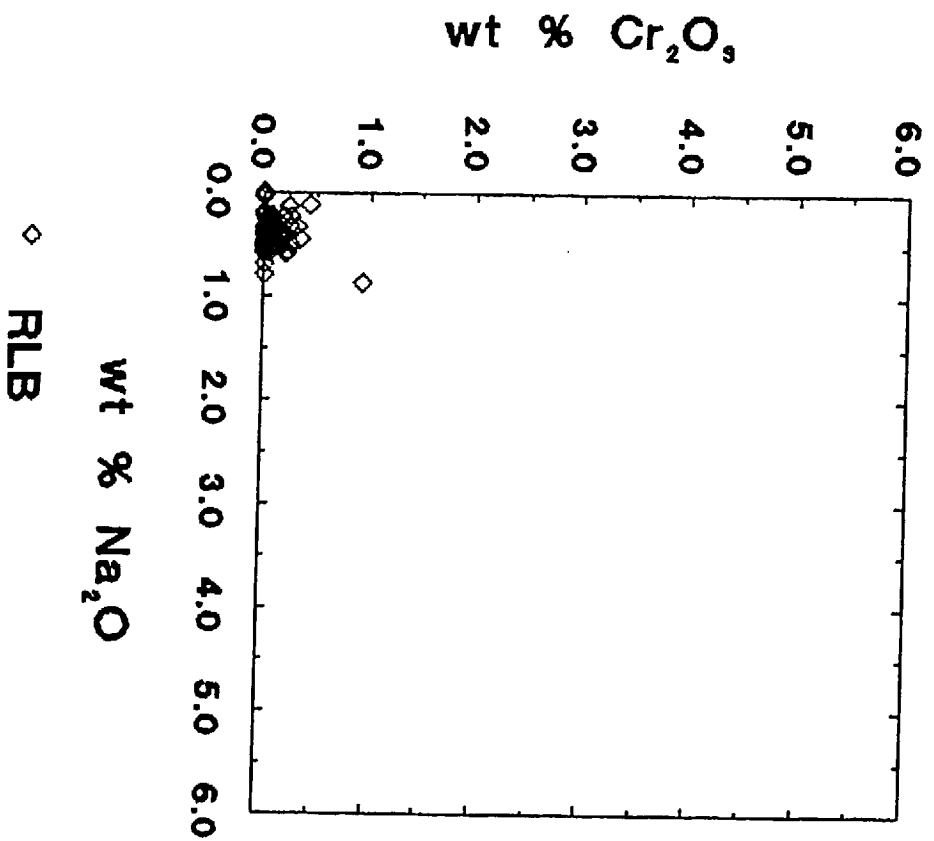
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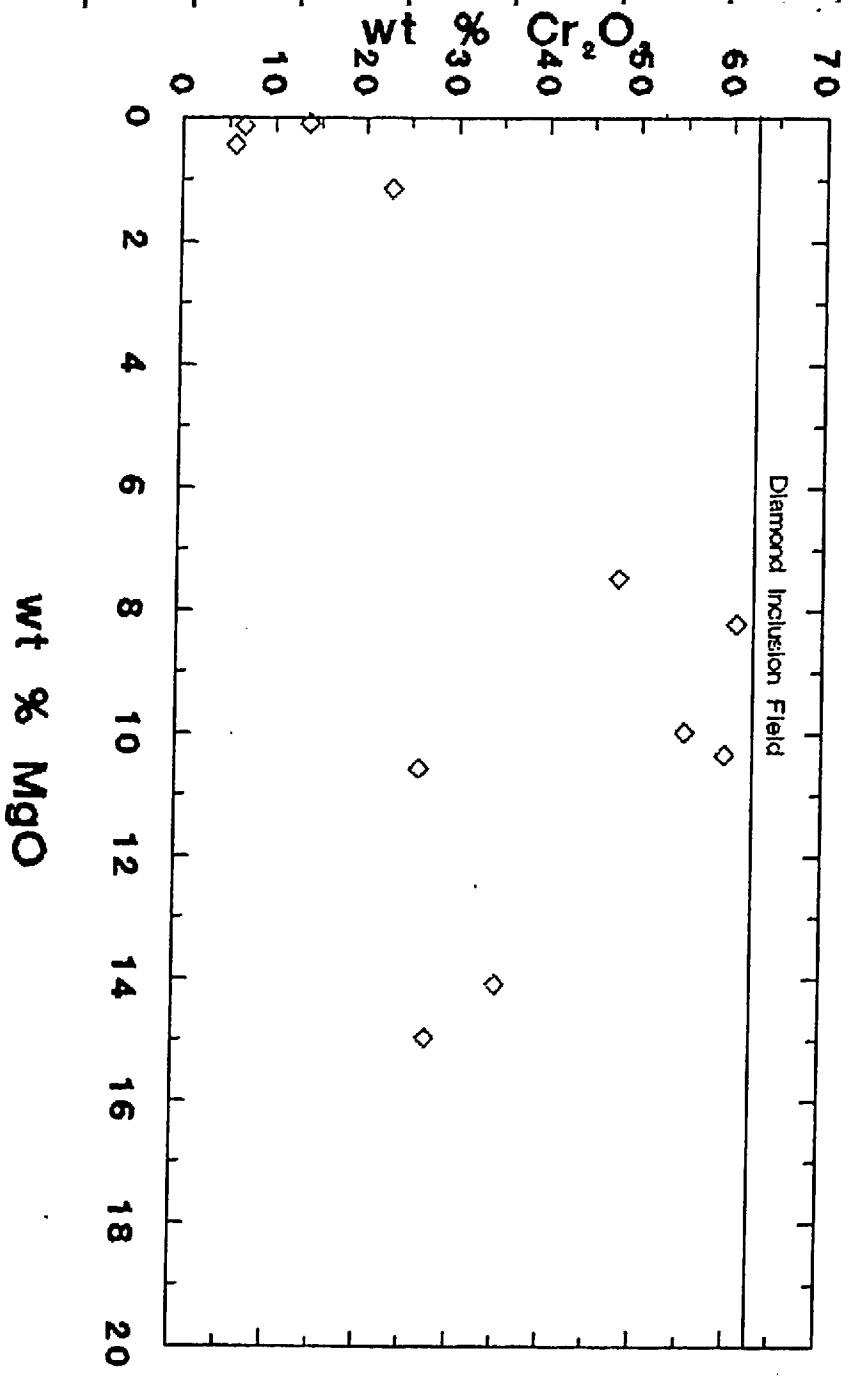
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**CLINOPYROXENE
DIAMOND DISCOVERIES INTERNATIONAL**

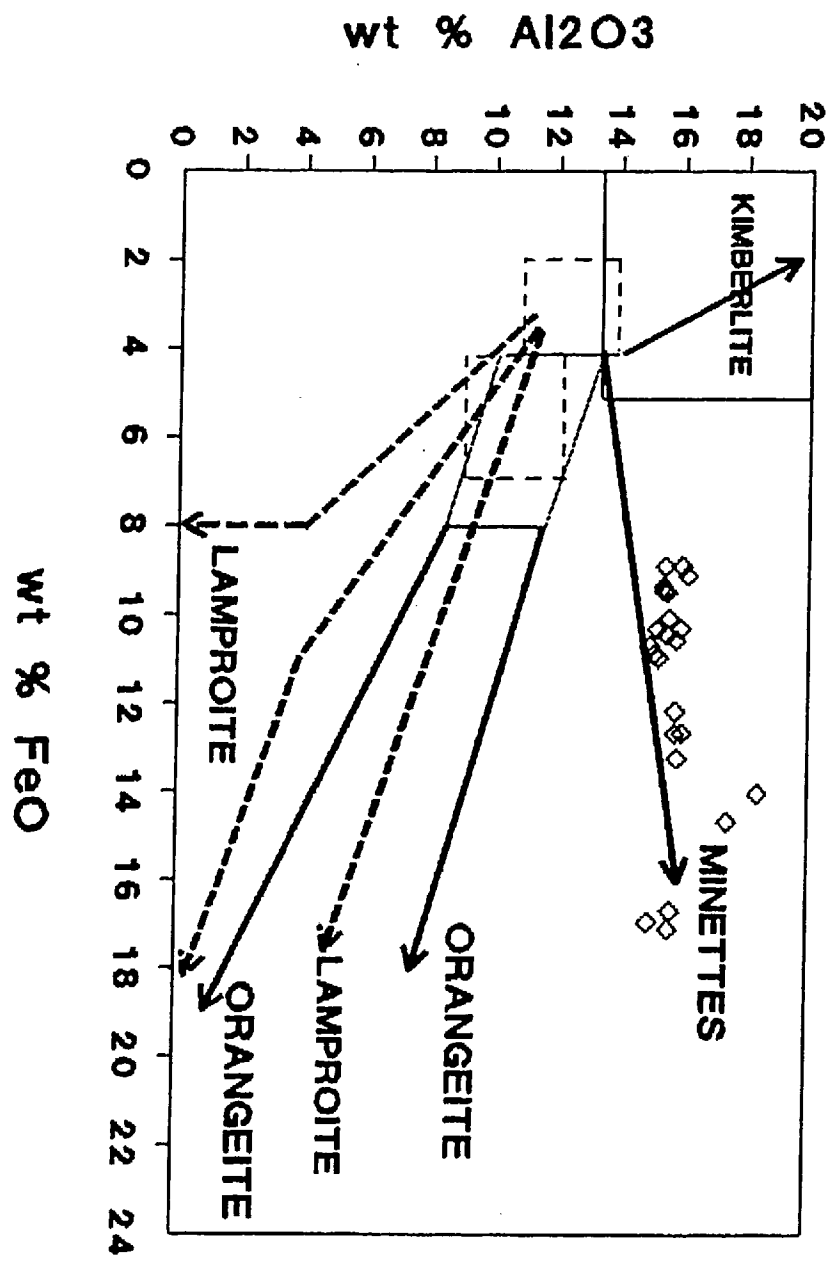


CHROMITE DIAMOND DISCOVERIES INTERNATIONAL

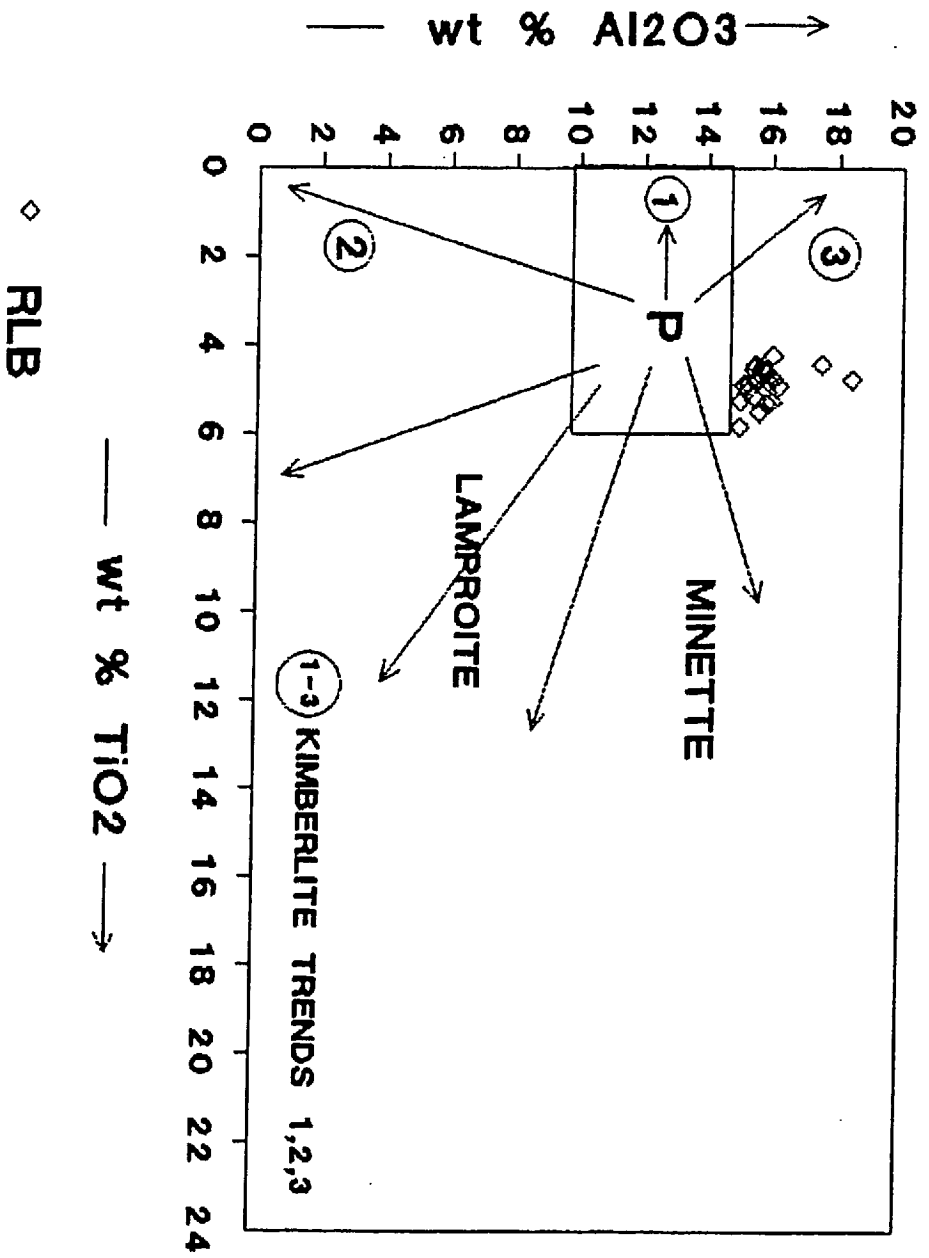


◇ RLB

**PHLOGOPITE - BIOTITE SS.
DIAMOND DISCOVERIES INTERNATIONAL**



PHLOGOPITE - BIOTITE SS.
 DIAMOND DISCOVERIES INTERNATIONAL



Mr. Robert Dillman,

May 1, 2001

For
Mr. Graem Scott and Mr. Peter Ferderber,
Diamond Discoveries International,
114, Rue Villeneuve,
Val-D'Or, Quebec,
J9P 3L7

R. L. Barnett Geological Consulting Inc.,
9684 Longwoods Road,
RR 32, London,
Ontario,
N6P 1P2
Ph. 1-519-653-1498
Fax 1-519-653-1475

Dear Bob,

For your records, the identity of the "non-indicator" minerals
in the batch of grains provided to me February 6, 2001, is:

5237 - grain 2 - Fe clinopyroxene
grain 3 - kyanite
grains 5-9,11 - rutile
grain 10 - ilmenite; 12 - quartz

B-6(2) - grain 1 - quartz

B-7(2) - grains 1,2 - ilmenite; 3-4 - rutile

B-13 - grain 7 - grossular-almandine ss.
grain 8 - Fe clinopyroxene
grains 11,12 - in plastic; 14 - plagioclase

B-14 - grains 1-3 - quartz
grains 9-12 - ilmenite

B-15 - grain 1 - kyanite; 4 - rutile
grains 5,6 - ilmenite

B-16A - grains 1-4, mica - in plastic

B-16B - grain 3 - quartz; 5 - rutile

BGV-1 - grains 5-8 - Fe clinopyroxene
grain 9 - ilmenite

CRA-1 - grains 2-9 - Fe clinopyroxene
grain 11 - pentlandite-pyrrhotite

D-1 - grains 1-3 - rutile
grain 4 - ilmenite
grains 5,6 - Fe clinopyroxene

D-4 - grains 2,3,5,7-9 - grossular-almandine ss.
grain 4 - almandine; grain 6 - spessartine
grain 10 - rutile

D-7 - grain 2 - grossular-almandine ss.
grains 3-5 - almandine
grain 6 - zircon
grains 8,9 - Fe clinopyroxene

D-12 - grain 4 - grossular-almandine ss.

D-14 - grains 1,2,4-7,10 - grossular-almandine ss.
grains 3,19 - almandine
grains 8,10 - spessartine-almandine ss.
grain 16 - zircon
grains 18,20 - ilmenite

DK-3 - grains 9,12 - perovskite
grains 10,11 - amphibole; 13 - epidote
grains 16,17 - Fe clinopyroxene

H1SS-1 - grain 1 - amphibole
grains 2,3 - spessartine-almandine ss.

H1SS-4 - grain 4 - epidote
grains - 5,6,8,9,12 - spessartine-almandine ss
grains - 7,10,11 - grossular-almandine ss.
grain 15 - zircon
grains 16-19,21-25 - rutile
grains 20 - ilmenite

H1SS-6 - grain 4 - spessartine-almandine ss.
grains 5,6 - grossular-almandine ss.

H1SS-100 - grain 4 - amphibole
grains 6,10,11 - grossular-almandine ss.
grain 7 - spessartine-almandine ss
grain 8 - monazite
grains 20,22 - ilmenite
grain 24 - rutile

- H1SS-101 - grain 1 - amphibole
 grains 4-6,9 - grossular-almandine ss.
 grain 12 - ilmenite
 grains 13,14 - mica in plastic
- H1SS-103 - grains 4,5 - epidote; 6 - almandine
 grains 7-9 - Fe clinopyroxene
- H1SS-104 - grains 4,5,6,8-10 - spessartine-almandine ss.
 grain 7 - grossular-almandine ss.
 grain 11 - amphibole
 grain 12,14 - kyanite
 grains 13,15 - epidote
 grains 16,20,22,25,26,28-31 - magnetite
 grains 17,18,19,21,23 - ilmenite
 grains 24,32 - pyrite
 grain 27 - rutile
- H1SS-105A - grains 1-5 grossular-almandine ss.
- H1SS-105B - grains 2-4 - Fe-clinopyroxene
 grain 5 - grossular-almandine ss.
 grain 7 - grossular-andradite ss.
 grain 12 - ilmenite
- H1SS-106 - grains 1-5,7-11 - grossular-almandine ss.
 grains 6,12 - spessartine-almandine ss.
 grain 15 - spinel; grain 16 - kyanite
 grains 17,19,21,22,24,27,31 - magnetite
 grains 18,20,23,25,26,28-30,32-35 - ilmenite
- H1SS-108 - grains 1-4,11 - almandine
 grain 7 - grossular-almandine ss.
 grains 5,8 - spessartine-almandine ss.
 grain 16 - quartz
- H1SS-109A - grains 1,4,5 - spessartine-almandine ss.
 grains 2,3 - grossular-almandine ss.
- H1SS-109B - grains 3,4,26,28 - Fe clinopyroxene
 grains 6,8,16 - spessartine-almandine ss.
 grains 7,9-14 - grossular-almandine ss.
 grain 27 - rutile; 21 - kyanite
- H1SS-110 - grains 6,8 - Fe clinopyroxene
 grains 10,11,12,14 - grossular-almandine ss.

grain 13 - spessartine-almandine ss.
grain 26 - plagioclase
grains 24,25,28 - epidote
grains 30,31,32 - magnetite
grain 33 - ilmenite

- H2SS-3 - grains 1,2 - epidote; 5- amphibole
grains 8-15 - grossular-almandine ss.
- H2SS-7 - grain 3 - spinel; 6,7 - grossular-almandine ss
grains 8,12,15,16,22,30,31 - rutile
grains 13,14,17-21,23-26,29,32,34 - perovskite
grain 11 - zircon
grains 27,33 - ilmenite
grain 28 - magnetite
- H2SS-8 - grains 1,2,3 - monazite; grain 4 - zircon
grains 5,9,10 11 - rutile
grains 6,7,8 - in plastic
grain 12 - magnetite
grains 13,14 - rutile + ilmenite
grain 15 - ilmenite
- H2SS-10 - grain 8 - zircon; 10,14 - quartz
grain 13 - Fe clinopyroxene
grains 15,17 - rutile; 16,18,19 - ilmenite
- H2SS-11 - grains 2-6 - melanite garnet
- H2SS-13 - grains 1-6 - phlogopite-biotite ss, (altered)
- H2SS-17 - grains 2,5,8,11 - rutile
grains 3,4,9 - magnetite
- H2SS-19 - grain 3 - kyanite; 7 - monazite,8 - in plastic
grain 10 - rutile
- H2SS-20A - grains 1-4 - grossular-almandine ss
- H2SS-20B - grains 3,5 - grossular-almandine ss
grain 7 - almandine
grain 9 - lost; grain 10 - rutile
- H2SS-22 - grains 2,3,10,14,16 - grossular-almandine ss.
grains 4,6,11 - almandine
grain 7 lost
grain 15 - zircon; grain 21 - quartz

- grains 17-21 - monazite
- grains 23-26 - rutile

- H2SS-23A - grains 1,2 - grossular-almandine ss.
 grains 5,7 - rutile; grains 6,8 - ilmenite
 grain 9 - magnetite
 grain 10 - plagioclase

- H2SS-23B - grains 1-4 - grossular-almandine ss

- H2SS-24 - grain 1 - grossular-almandine ss
 grain 2 - lost
 grains 3,4,6,8,9 - rutile
 grains 5,7 - ilmenite; grain 10 - quartz
 grain 11 - kspar

- H6SS-1 - grain 1 - amphibole; 7 - plagioclase
 grains 3,4,6 - epidote
 grain 5 - apatite

- H6SS-2 - grains 1-7 - epidote
 grains 5 - apatite; 7 - plagioclase
 grains 9-11 - Fe clinopyroxene

- H6SS-3 - grains 1,8,9,10 - grossular-almandine
 grain 3 - kyanite
 grain 8 - spessartine-almandine ss.
 grains 5 - almandine; 7 - Fe clinopyroxene
 grains 11,13 - rutile
 grains 12,14,25 - ilmenite

- H6SS-5 - grains 2-5 - epidote
 grains 6,8,9,11-14 - spessartine-almandine ss.
 grains 7,10 - grossular-almandine ss.
 grains 15,20,22 - amphibole
 grain 17 - Fe clinopyroxene
 grains 18,19,21,23,24 - ilmenite

- H6SS-8 - grains 1,2,4,5,27,32 - spessartine-almandine ss
 grain 3 - zircon
 grains 28-32 - grossular-almandine ss.
 grains 7,8,11-15,17,24,33 - Fe clinopyroxene
 grains 9,16,19,22,25 - amphibole
 grain 18 - magnetite; grains 20,21 - pyrite
 grain 23 plagioclase
 grain 34 - in plastic

- H6SS-10 - grains 10,12,13,14 - grossular-almandine ss.
grains 15-20,22,23,25,26,28,29 - magnetite
grain 30 - pyrite
- KGV-1A - grains 1,3,6,9,11 - spessartine-almandine ss.
grains 2,7 - almandine
grains 4,5,8,10 - grossular-almandine ss.
grain 12 - lost; grains 13,14 - amphibole
grain 15 - Fe clinopyroxene
grains 16-21 - ilmenite
- P-2 - grain 3 - quartz
- P-3 - grains 9-11 - ilmenite
- RV-1 - grains 1-4 - monazite
grain 5 - magnetite; grain 6 - Ti-magnetite
- RV-2 - grains 4-6,15 - almandine; 8 - monazite
grains 9,10 Fe clinopyroxene
grains 12,13 - ilmenite
- RV-5 - grains 5,6,8,12,20,21 - monazite
grains 7,11 - grossular almandine ss.
grains 9,10 - almandine
grains 13-15 - quartz
grains 18,19 - Fe clinopyroxene
- RV-8 - grains 2,3 - almandine
grain 4 - grossular-almandine ss.
grains 5,6,8 - ilmenite
grain 7 - rutile
- RV-9 - grains 4,9,10,11,13,15,16 - almandine
grains 6-8 - grossular-almandine ss.
grains 17,18 - zircon
grains 12,23-28 - rutile
grains 31,32 - Fe clinopyroxene
- RV-14 - grains 3-6 - grossular-almandine ss.
grains 7,16,17 - rutile
grains 9,13,14 monazite
grain 15 - ilmenite
- RV-15 - grains 2,5,10 - almandine
grains 9,11 - grossular-almandine ss.
grains 14,15 - Fe clinopyroxene

grain 16 - gahnite
grains 17-20 - monazite

- T-5 - grains 6-9 - quartz
- T-6 - grain 1 - grossular-almandine ss.
grains 5,10 - monazite
grain 13 - ilmenite; 14,15 - rutile
- T-9 - grain 1 - almandine; grains 5,7,13 - rutile
grains 3,4,6,9-12,14 - ilmenite
grains 15-17 Fe clinopyroxene
grains 19,20 - monazite
- T-11 - grains 3,7 - grossular-almandine ss.

Samples H2RX-1, H6RX-1, 1A, 2, 3 and 4 were not investigated at the request of Graem Scott.

The sample list provided included sample H6SL-1. I do not believe that I received this sample.

Sincerely,

R. L. Barnett

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	1	2	3	4	5	6	7	8
SI02	39.30	38.77	38.82	38.88	39.37	39.87	39.76	39.72
LI02	.02	.14	.10	.03	.02	.02	.04	.00
203	23.13	21.61	21.30	22.57	22.83	22.78	22.88	22.55
203	.11	.02	.04	.00	.04	.01	.01	.00
FEO	27.04	27.93	28.82	27.95	27.90	26.75	26.05	26.66
30	9.23	3.73	3.26	7.27	8.81	9.67	10.06	9.39
VO	.31	1.25	1.17	.65	.38	.35	.27	.41
CAO	.93	6.48	6.51	2.56	.95	.91	.88	1.10
920	.00	.02	.02	.03	.00	.03	.02	.00
JM	100.07	99.95	100.04	99.94	100.30	100.39	99.97	99.83
SI	5.997 *	6.085 *	6.112 *	6.011 *	6.019 *	6.051 *	6.039 *	6.067 *
AL	.003 6.000	.000 6.085	.000 6.112	.000 6.011	.000 6.019	.000 6.051	.000 6.039	.000 6.067
AL	4.155 *	3.996 *	3.951 *	4.112 *	4.113 *	4.074 *	4.095 *	4.059 *
TI	.002 *	.017 *	.012 *	.003 *	.002 *	.002 *	.005 *	.000 *
CR	.013 *	.002 *	.005 *	.000 *	.005 *	.001 *	.001 *	.000 *
FE	3.450 *	3.666 *	3.794 *	3.614 *	3.567 *	3.395 *	3.309 *	3.405 *
MN	.040 *	.166 *	.156 *	.085 *	.049 *	.045 *	.035 *	.053 *
MG	2.099 *	.873 *	.765 *	1.675 *	2.007 *	2.187 *	2.277 *	2.138 *
CA	.152 *	1.090 *	1.098 *	.424 *	.156 *	.148 *	.143 *	.180 *
NA	.000 9.913	.006 9.816	.006 9.788	.009 9.922	.000 9.899	.009 9.861	.006 9.871	.000 9.835
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.663	4.392	5.164	2.208	1.801	1.573	1.468	1.618
F/FM	.624	.815	.838	.688	.643	.611	.595	.618

- 1 5237 4
- 2 B6(2) 2
- 3 B6(2) 3
- 4 B6(2) 4
- 5 B6(2) 5
- 6 B6(2) 6
- 7 B6(2) 7
- 8 B-13 1

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	9	10	11	12	13	14	15	16
SI02	39.93	39.65	38.39	38.49	38.86	38.27	38.43	38.88
TI02	.00	.04	.10	.14	.11	.12	.10	.04
A203	22.75	22.37	21.25	21.74	21.52	21.81	21.46	21.85
C203	.00	.03	.02	.02	.04	.01	.06	.16
FEO	26.88	27.84	29.10	28.06	28.64	28.16	28.85	26.21
IGO	8.98	8.85	2.93	3.63	3.41	3.93	3.86	4.46
MNO	.31	.29	1.26	1.23	.99	1.23	1.15	2.14
CAO	1.00	.98	6.67	6.49	6.88	6.47	6.61	6.16
NA20	.02	.01	.05	.01	.00	.01	.02	.02
SUM	99.87	100.06	99.77	99.81	100.45	100.01	100.54	99.92
SI	6.092 *	6.072 *	6.082 *	6.056 *	6.087 *	6.015 *	6.029 *	6.073 *
AL	.000 6.092	.000 6.072	.000 6.082	.000 6.056	.000 6.087	.000 6.015	.000 6.029	.000 6.073
AL	4.090 *	4.037 *	3.967 *	4.031 *	3.972 *	4.040 *	3.967 *	4.022 *
TI	.000 *	.005 *	.012 *	.017 *	.013 *	.014 *	.012 *	.005 *
CR	.000 *	.004 *	.003 *	.002 *	.005 *	.001 *	.007 *	.020 *
FE	3.430 *	3.565 *	3.855 *	3.692 *	3.751 *	3.702 *	3.785 *	3.424 *
MN	.040 *	.038 *	.169 *	.164 *	.131 *	.164 *	.153 *	.283 *
MG	2.042 *	2.020 *	.692 *	.851 *	.796 *	.921 *	.903 *	1.038 *
CA	.163 *	.161 *	1.132 *	1.094 *	1.155 *	1.090 *	1.111 *	1.031 *
NA	.006 9.771	.003 9.831	.015 9.845	.003 9.854	.000 9.823	.003 9.934	.006 9.944	.006 9.829
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.699	1.784	5.817	4.530	4.877	4.198	4.363	3.570
F/FM	.630	.641	.853	.819	.830	.808	.814	.781

- 9 B-13 2
- 10 B-13 3
- 11 B-13 4
- 12 B-13 5
- 13 B-13 6
- 14 B-14 4
- 15 B-14 5
- 16 B-14 6

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	17	18	19	20	21	22	23	24
SI02	38.43	38.98	39.92	39.73	39.65	40.18	38.26	38.96
TI02	.10	.09	.03	.01	.03	.03	.07	.08
A203	21.49	21.66	23.01	22.72	22.92	22.84	21.52	21.89
C203	.03	.00	.01	.00	.00	.04	.00	.00
FEO	28.48	27.34	26.92	26.66	26.60	24.40	29.04	29.14
MGO	3.49	4.20	9.20	9.83	9.14	10.86	3.30	6.35
MNO	1.18	1.37	.23	.35	.59	.47	.85	1.05
CAO	6.61	6.51	1.04	1.00	1.20	1.04	7.11	3.07
NA20	.00	.01	.01	.02	.01	.02	.03	.01
SUM	99.81	100.16	100.37	100.32	100.14	99.88	100.18	100.55
SI	6.062 *	6.088 *	6.059 *	6.036 *	6.041 *	6.066 *	6.031 *	6.042 *
AL	.000 6.062	.000 6.088	.000 6.059	.000 6.036	.000 6.041	.000 6.066	.000 6.031	.000 6.042
AL	3.995 *	3.986 *	4.115 *	4.067 *	4.115 *	4.063 *	3.997 *	4.000 *
TI	.012 *	.011 *	.003 *	.001 *	.003 *	.003 *	.008 *	.009 *
CR	.004 *	.000 *	.001 *	.000 *	.000 *	.005 *	.000 *	.000 *
FE	3.757 *	3.571 *	3.417 *	3.387 *	3.389 *	3.081 *	3.828 *	3.779 *
MN	.158 *	.181 *	.030 *	.045 *	.076 *	.060 *	.113 *	.138 *
MG	.821 *	.978 *	2.081 *	2.226 *	2.075 *	2.444 *	.775 *	1.468 *
CA	1.117 *	1.089 *	.169 *	.163 *	.196 *	.168 *	1.201 *	.510 *
NA	.000 9.863	.003 9.819	.003 9.820	.006 9.895	.003 9.857	.006 9.831	.009 9.933	.003 9.907
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	4.771	3.838	1.656	1.542	1.670	1.285	5.084	2.669
F/FM	.827	.793	.623	.607	.625	.562	.836	.727

- 17 B-14 7
- 18 B-14 8
- 19 B-15 2
- 20 B-15 3
- 21 B-16B 1
- 22 B-16B 2
- 23 BGV-1 1
- 24 BGV-1 2

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	25	26	27	28	29	30	31	32
SI02	39.28	39.65	39.27	39.58	39.33	39.33	38.32	39.80
TI02	.04	.04	.04	.06	.03	.02	.05	.02
A203	22.80	22.57	22.89	22.63	22.73	22.62	21.52	22.49
C203	.02	.00	.02	.05	.00	.00	.73	.04
FEO	27.26	26.97	27.05	27.14	27.66	26.99	29.12	27.03
IGD	9.55	9.58	9.52	9.14	9.28	9.39	5.09	9.66
MND	.32	.38	.31	.39	.34	.37	1.38	.31
CAO	.99	.93	1.08	1.01	.96	1.18	3.58	1.02
VA20	.01	.02	.00	.00	.02	.01	.00	.01
SUM	100.27	100.14	100.18	100.00	100.35	99.91	99.79	100.38
SI	5.992 *	6.044 *	5.991 *	6.048 *	6.005 *	6.018 *	6.028 *	6.053 *
AL	.008 6.000	.000 6.044	.009 6.000	.000 6.048	.000 6.005	.000 6.018	.000 6.028	.000 6.053
AL	4.090 *	4.054 *	4.105 *	4.075 *	4.089 *	4.079 *	3.989 *	4.030 *
TI	.005 *	.005 *	.005 *	.007 *	.003 *	.002 *	.006 *	.002 *
CR	.002 *	.000 *	.002 *	.006 *	.000 *	.000 *	.091 *	.005 *
FE	3.478 *	3.438 *	3.451 *	3.468 *	3.532 *	3.454 *	3.831 *	3.438 *
MN	.041 *	.049 *	.040 *	.050 *	.044 *	.048 *	.184 *	.040 *
MG	2.171 *	2.177 *	2.165 *	2.082 *	2.112 *	2.142 *	1.193 *	2.190 *
CA	.162 *	.152 *	.177 *	.165 *	.157 *	.193 *	.603 *	.166 *
NA	.003 9.952	.006 9.881	.000 9.944	.000 9.854	.006 9.943	.003 9.921	.000 9.897	.003 9.874
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.621	1.602	1.613	1.690	1.693	1.635	3.364	1.588
F/FM	.618	.616	.617	.628	.629	.621	.771	.614

- 25 BGV-1 3
- 26 BGV-1 4
- 27 D-1 7
- 28 D-2 1
- 29 D-2 2
- 30 D-4 1
- 31 D-7 1
- 32 D-12 1

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	33	34	35	36	37	38	39	40
SI02	38.99	38.40	38.96	39.38	38.96	39.16	38.89	39.16
TI02	.06	.05	.04	.01	.00	.04	.02	.09
Q203	21.90	21.93	22.47	22.80	22.79	22.83	21.91	21.87
C203	.05	.07	.04	.10	.09	.06	.01	.02
FEO	28.48	28.52	27.76	27.18	27.00	26.15	27.79	26.56
IGO	6.02	6.22	9.02	9.43	9.43	10.28	5.62	4.57
MND	.65	.84	.39	.44	.38	.33	1.02	1.02
CAO	3.92	4.04	1.04	1.05	1.06	1.17	5.31	6.70
YA20	.02	.01	.00	.00	.03	.01	.00	.01
SUM	100.09	100.08	99.72	100.39	99.74	100.03	100.57	100.00
SI	6.060 *	5.988 *	5.999 *	6.001 *	5.977 *	5.965 *	6.032 *	6.094 *
AL	.000 6.060	.012 6.000	.001 6.000	.000 6.001	.023 6.000	.035 6.000	.000 6.032	.000 6.094
AL	4.011 *	4.018 *	4.076 *	4.094 *	4.097 *	4.063 *	4.005 *	4.010 *
TI	.007 *	.006 *	.005 *	.001 *	.000 *	.005 *	.002 *	.011 *
CR	.006 *	.009 *	.005 *	.012 *	.011 *	.007 *	.001 *	.002 *
FE	3.702 *	3.719 *	3.575 *	3.464 *	3.464 *	3.331 *	3.605 *	3.457 *
MN	.086 *	.111 *	.051 *	.057 *	.049 *	.043 *	.134 *	.134 *
MG	1.395 *	1.446 *	2.070 *	2.142 *	2.156 *	2.334 *	1.299 *	1.060 *
CA	.653 *	.675 *	.172 *	.171 *	.174 *	.191 *	.882 *	1.117 *
NA	.006 9.865	.003 9.986	.000 9.953	.000 9.941	.009 9.960	.003 9.977	.000 9.929	.003 9.794
D	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	2.716	2.649	1.751	1.644	1.629	1.445	2.878	3.388
F/FM	.731	.726	.637	.622	.620	.591	.742	.772

- 33 D-12 2
- 34 D-12 3
- 35 D-12 5
- 36 D-12 6
- 37 D-12 7
- 38 D-12 8
- 39 D-14 9
- 40 D-14 11

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	41	42	43	44	45	46	47	48
SI02	39.36	39.83	39.43	39.74	39.61	39.67	39.14	38.14
TI02	.03	.05	.02	.04	.07	.10	.02	.16
3203	22.49	22.84	22.84	22.67	21.99	21.32	22.77	22.63
3203	.02	.02	.01	.00	.09	.00	.07	.09
FED	26.51	26.67	26.69	26.54	25.05	24.91	28.48	27.29
160	9.99	9.66	9.51	9.86	5.64	4.79	8.20	10.21
1ND	.30	.28	.48	.54	.90	.39	.61	.44
CA0	1.06	1.07	1.16	1.15	7.16	8.77	.99	.90
NA20	.02	.01	.01	.02	.02	.03	.00	.00
SUM	99.78	100.43	100.15	100.56	100.53	99.98	100.28	99.86
SI	6.016 *	6.041 *	6.011 *	6.028 *	6.089 *	6.146 *	6.011 *	5.867 *
AL	.000 6.016	.000 6.041	.000 6.011	.000 6.028	.000 6.089	.000 6.146	.000 6.011	.133 6.000
AL	4.051 *	4.082 *	4.103 *	4.052 *	3.983 *	3.892 *	4.121 *	3.969 *
TI	.003 *	.006 *	.002 *	.005 *	.008 *	.012 *	.002 *	.019 *
CR	.002 *	.002 *	.001 *	.000 *	.011 *	.000 *	.008 *	.011 *
FE	3.389 *	3.383 *	3.402 *	3.367 *	3.220 *	3.227 *	3.658 *	3.511 *
MN	.039 *	.036 *	.062 *	.069 *	.117 *	.051 *	.079 *	.057 *
MG	2.276 *	2.184 *	2.161 *	2.229 *	1.292 *	1.106 *	1.877 *	2.341 *
CA	.174 *	.174 *	.189 *	.187 *	1.179 *	1.456 *	.163 *	.148 *
NA	.006 9.939	.003 9.869	.003 9.924	.006 9.915	.006 9.818	.009 9.753	.000 9.909	.000 10.056
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.506	1.566	1.603	1.541	2.583	2.964	1.991	1.524
F/FM	.601	.610	.616	.607	.721	.748	.666	.604

- 41 D-14 12
- 42 D-14 13
- 43 D-14 14
- 44 D-14 15
- 45 DK-3 14
- 46 DK-3 15
- 47 HISS-4 13
- 48 HISS-4 14

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	49	50	51	52	53	54	55	56
SI02	39.25	38.79	38.46	38.46	38.84	39.67	39.25	38.42
TI02	.05	.05	.05	.12	.12	.06	.06	.03
A203	22.69	22.86	22.53	21.50	22.24	23.20	22.70	22.37
C203	.17	.06	.12	.01	.09	.01	.06	.06
FEO	26.58	26.61	29.99	27.36	28.30	25.54	26.92	29.62
MGO	10.32	10.26	7.22	4.12	7.99	10.41	9.68	7.99
MND	.40	.34	.87	2.06	.91	.29	.34	.27
CAO	1.03	1.08	.86	6.33	1.37	1.07	1.09	1.01
NA20	.01	.01	.02	.02	.00	.03	.03	.00
SUM	100.50	100.06	100.12	99.98	99.86	100.28	100.13	99.77
SI	5.964 *	5.924 *	5.975 *	6.045 *	6.010 *	5.997 *	5.991 *	5.968 *
AL	.036 6.000	.076 6.000	.025 6.000	.000 6.045	.000 6.010	.003 6.000	.009 6.000	.032 6.000
AL	4.026 *	4.038 *	4.099 *	3.982 *	4.055 *	4.130 *	4.075 *	4.063 *
TI	.006 *	.006 *	.006 *	.014 *	.014 *	.007 *	.007 *	.004 *
CR	.020 *	.007 *	.015 *	.001 *	.011 *	.001 *	.007 *	.007 *
FE	3.377 *	3.399 *	3.896 *	3.596 *	3.662 *	3.229 *	3.437 *	3.848 *
MN	.051 *	.044 *	.114 *	.274 *	.119 *	.037 *	.044 *	.036 *
MG	2.337 *	2.336 *	1.672 *	.965 *	1.843 *	2.346 *	2.202 *	1.850 *
CA	.168 *	.177 *	.143 *	1.066 *	.227 *	.173 *	.178 *	.168 *
NA	.003 9.989	.003 10.009	.006 9.951	.006 9.905	.000 9.931	.009 9.931	.009 9.959	.000 9.975
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.467	1.474	2.399	4.010	2.052	1.392	1.580	2.099
F/FM	.595	.596	.706	.800	.672	.582	.612	.677

- 49 HISS-6 2
- 50 HISS-6 3
- 51 HISS-6 7
- 52 HISS-100 9
- 53 HISS-100 12
- 54 HISS-100 13
- 55 HISS-100 14
- 56 HISS-100 15

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	57	58	59	60	61	62	63	64
SI02	38.75	38.96	38.86	37.96	38.20	37.65	39.38	39.00
TI02	.11	.05	.05	.06	.17	.11	.06	.07
9203	22.57	22.81	22.61	22.13	21.71	21.79	23.00	22.98
3203	.04	.01	.04	.01	.11	.14	.07	.04
FEO	27.83	26.48	28.14	32.84	27.81	33.24	27.12	26.28
160	9.05	10.23	8.15	4.85	4.13	3.53	9.51	10.47
4ND	.43	.35	.55	.85	.97	1.34	.26	.45
CAO	1.05	1.14	1.33	1.06	6.71	2.06	1.07	1.07
NA20	.02	.01	.00	.04	.01	.00	.00	.01
SUM	99.85	100.04	99.73	99.80	99.82	99.86	100.47	100.37
SI	5.966 *	5.946 *	6.002 *	6.004 *	6.008 *	6.002 *	5.988 *	5.928 *
AL	.034 6.000	.054 6.000	.000 6.002	.000 6.004	.000 6.008	.000 6.002	.012 6.000	.072 6.000
AL	4.060 *	4.048 *	4.115 *	4.125 *	4.023 *	4.093 *	4.110 *	4.043 *
TI	.013 *	.006 *	.006 *	.007 *	.020 *	.013 *	.007 *	.008 *
CR	.005 *	.001 *	.005 *	.001 *	.014 *	.018 *	.008 *	.005 *
FE	3.583 *	3.380 *	3.635 *	4.344 *	3.658 *	4.431 *	3.449 *	3.340 *
MN	.056 *	.045 *	.072 *	.114 *	.129 *	.181 *	.033 *	.058 *
MG	2.077 *	2.327 *	1.876 *	1.143 *	.968 *	.839 *	2.156 *	2.372 *
CA	.173 *	.186 *	.220 *	.180 *	1.131 *	.352 *	.174 *	.174 *
NA	.006 9.973	.003 9.996	.000 9.928	.012 9.926	.003 9.946	.000 9.926	.000 9.938	.003 10.003
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.752	1.472	1.976	3.899	3.912	5.499	1.616	1.433
F/FM	.637	.595	.664	.796	.796	.846	.618	.589

- 57 HISS-100 16
- 58 HISS-100 17
- 59 HISS-100 18
- 60 HISS-100 19
- 61 HISS-101 7
- 62 HISS-101 8
- 63 HISS-101 10
- 64 HISS-101 11

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	65	66	67	68	69	70	71	72
SI02	39.12	39.63	39.02	39.14	38.90	39.60	38.83	39.39
TI02	.02	.03	.05	.03	.03	.08	.05	.11
A203	22.21	22.98	23.23	23.02	23.35	23.01	23.10	22.74
C203	.00	.00	.05	.03	.00	.06	.06	.06
FEO	30.15	26.82	27.31	28.30	28.56	25.35	27.05	26.54
IGO	6.59	9.30	9.08	7.93	8.11	10.78	9.49	10.07
MND	.79	.31	.56	.45	.33	.29	.38	.28
CAO	1.58	.89	.76	.99	.96	1.12	.98	.96
HA20	.01	.01	.02	.01	.01	.00	.02	.02
SUM	100.47	99.97	100.08	99.90	100.25	100.29	99.96	100.17
SI	6.059 *	6.041 *	5.967 *	6.021 *	5.968 *	5.985 *	5.943 *	5.994 *
AL	.000 6.059	.000 6.041	.033 6.000	.000 6.021	.032 6.000	.015 6.000	.057 6.000	.006 6.000
AL	4.054 *	4.128 *	4.154 *	4.173 *	4.190 *	4.083 *	4.109 *	4.072 *
TI	.002 *	.003 *	.006 *	.003 *	.003 *	.009 *	.006 *	.013 *
CR	.000 *	.000 *	.006 *	.004 *	.000 *	.007 *	.007 *	.007 *
FE	3.905 *	3.419 *	3.493 *	3.641 *	3.665 *	3.204 *	3.462 *	3.378 *
MN	.104 *	.040 *	.073 *	.059 *	.043 *	.037 *	.049 *	.036 *
MG	1.521 *	2.113 *	2.070 *	1.818 *	1.855 *	2.429 *	2.165 *	2.284 *
CA	.262 *	.145 *	.125 *	.163 *	.158 *	.181 *	.161 *	.157 *
NA	.003 9.852	.003 9.851	.006 9.931	.003 9.865	.003 9.917	.000 9.951	.006 9.965	.006 9.952
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	2.635	1.637	1.723	2.035	1.999	1.335	1.622	1.495
F/FM	.725	.621	.633	.670	.667	.572	.619	.599

- 65 HISS 103 1
- 66 HISS 103 2
- 67 HISS 103 3
- 68 HISS-105A 6
- 69 HISS-105A 7
- 70 HISS-105A 8
- 71 HISS-105B 8
- 72 HISS-105B 9

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	73	74	75	76	77	78	79	80
SI02	39.16	39.78	38.27	38.93	39.02	38.38	39.49	39.28
TI02	.07	.07	.07	.07	.01	.03	.05	.17
A203	23.00	22.87	22.86	22.60	23.29	22.74	23.00	23.28
C203	.05	.13	.10	.09	.02	.06	.00	.00
FEO	26.76	26.29	28.08	30.09	27.83	32.69	25.32	27.02
MGO	9.79	9.98	8.44	6.34	8.71	5.01	10.39	9.38
MNO	.32	.29	1.25	1.01	.28	.60	.39	.26
CAO	1.30	.91	1.16	1.26	1.07	1.05	1.12	.92
NA2O	.02	.01	.00	.01	.02	.02	.00	.01
SUM	100.47	100.33	100.23	100.40	100.25	100.58	99.76	100.32
SI	5.956 *	6.029 *	5.905 *	6.033 *	5.968 *	5.999 *	6.002 *	5.975 *
AL	.044 6.000	.000 6.029	.095 6.000	.000 6.033	.032 6.000	.001 6.000	.000 6.002	.025 6.000
AL	4.077 *	4.085 *	4.061 *	4.127 *	4.165 *	4.188 *	4.119 *	4.148 *
TI	.008 *	.008 *	.008 *	.008 *	.001 *	.004 *	.006 *	.019 *
CR	.006 *	.016 *	.012 *	.011 *	.002 *	.007 *	.000 *	.000 *
FE	3.404 *	3.332 *	3.623 *	3.900 *	3.560 *	4.273 *	3.218 *	3.437 *
MN	.041 *	.037 *	.163 *	.133 *	.036 *	.079 *	.050 *	.033 *
MG	2.219 *	2.255 *	1.941 *	1.465 *	1.986 *	1.167 *	2.354 *	2.127 *
CA	.212 *	.148 *	.192 *	.209 *	.175 *	.176 *	.182 *	.150 *
NA	.006 9.973	.003 9.883	.000 10.001	.003 9.856	.006 9.932	.006 9.900	.000 9.929	.003 9.918
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.552	1.495	1.951	2.753	1.811	3.729	1.389	1.632
F/FM	.608	.599	.661	.734	.644	.789	.581	.620

- 73 HISS-105B 10
- 74 HISS-105B 11
- 75 HISS-106 13
- 76 HISS-106 14
- 77 HISS-109A 6
- 78 HISS-109A 7
- 79 HISS-109A 8
- 80 HISS-109A 9

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	81	82	83	84	85	86	87	88
SI02	39.61	39.31	38.98	39.07	38.74	40.08	39.01	39.45
TI02	.01	.03	.02	.13	.06	.07	.30	.06
A203	23.39	23.36	22.81	23.24	23.17	22.98	22.96	23.00
203	.03	.02	.04	.05	.06	.04	.09	.14
FEO	26.10	26.81	28.14	26.06	27.49	26.41	26.69	26.64
MGO	9.47	9.72	8.43	10.39	9.14	9.49	9.77	9.45
INO	.32	.18	.27	.38	.30	.39	.35	.37
CAO	.94	.97	1.06	1.10	1.02	1.07	1.04	.98
NA2O	.00	.01	.02	.01	.02	.01	.00	.01
TUM	99.87	100.41	99.77	100.43	100.00	100.54	100.21	100.10
SI	6.022 *	5.967 *	6.003 *	5.924 *	5.938 *	6.063 *	5.946 *	6.009 *
AL	.000 6.022	.033 6.000	.000 6.003	.076 6.000	.062 6.000	.000 6.063	.054 6.000	.000 6.009
AL	4.191 *	4.146 *	4.139 *	4.077 *	4.122 *	4.096 *	4.069 *	4.128 *
TI	.001 *	.003 *	.002 *	.015 *	.007 *	.008 *	.034 *	.007 *
CR	.004 *	.002 *	.005 *	.006 *	.007 *	.005 *	.011 *	.017 *
FE	3.319 *	3.403 *	3.624 *	3.305 *	3.524 *	3.341 *	3.402 *	3.394 *
MN	.041 *	.023 *	.035 *	.049 *	.039 *	.050 *	.045 *	.048 *
MG	2.146 *	2.199 *	1.935 *	2.348 *	2.088 *	2.140 *	2.219 *	2.145 *
CA	.153 *	.158 *	.175 *	.179 *	.167 *	.173 *	.170 *	.160 *
NA	.000 9.855	.003 9.938	.006 9.921	.003 9.981	.006 9.960	.003 9.816	.000 9.951	.003 9.902
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.566	1.558	1.891	1.428	1.706	1.585	1.553	1.604
F/FM	.610	.609	.654	.588	.630	.613	.608	.616

- 81 HISS-109A 10
- 82 HISS-109A 11
- 83 HISS-109A 12
- 84 HISS-109A 13
- 85 HISS-109A 14
- 86 HISS-109B 15
- 87 HISS-109B 17
- 88 HISS-109B 18

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	89	90	91	92	93	94	95	96
SI02	39.20	39.09	39.43	40.10	39.60	38.33	38.45	39.36
TI02	.05	.08	.21	.07	.06	.07	.04	.04
Q203	23.08	22.78	22.97	22.83	23.09	22.03	22.94	22.35
C203	.05	.06	.06	.06	.03	.00	.12	.00
FEO	26.50	27.74	26.15	26.14	25.60	29.40	29.06	27.09
IGO	9.76	8.73	10.00	9.88	10.39	5.44	8.09	9.77
MNO	.35	.37	.48	.28	.46	1.54	.50	.47
CAO	1.03	1.07	.98	1.07	.99	3.42	.90	.97
YA20	.01	.01	.01	.01	.03	.02	.02	.00
SUM	100.03	99.93	100.29	100.44	100.25	100.25	100.12	100.05
SI	5.975 *	6.001 *	5.985 *	6.063 *	5.995 *	5.997 *	5.937 *	6.019 *
AL	.025 6.000	.000 6.001	.015 6.000	.000 6.063	.005 6.000	.003 6.000	.063 6.000	.000 6.019
AL	4.120 *	4.121 *	4.094 *	4.068 *	4.114 *	4.058 *	4.111 *	4.027 *
TI	.006 *	.009 *	.024 *	.008 *	.007 *	.008 *	.005 *	.005 *
CR	.006 *	.007 *	.007 *	.007 *	.004 *	.000 *	.015 *	.000 *
FE	3.378 *	3.561 *	3.320 *	3.305 *	3.241 *	3.847 *	3.753 *	3.464 *
MN	.045 *	.048 *	.062 *	.036 *	.059 *	.204 *	.065 *	.061 *
MG	2.217 *	1.998 *	2.263 *	2.227 *	2.345 *	1.269 *	1.862 *	2.227 *
CA	.168 *	.176 *	.159 *	.173 *	.161 *	.573 *	.149 *	.159 *
NA	.003 9.943	.003 9.924	.003 9.932	.003 9.827	.009 9.939	.006 9.965	.006 9.965	.000 9.943
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.544	1.807	1.494	1.501	1.408	3.193	2.051	1.583
F/FM	.607	.644	.599	.600	.585	.762	.672	.613
89	HISS-109B 19							
90	HISS-109B 20							
91	HISS-109B 21							
92	HISS-109B 22							
93	HISS-109B 23							
94	HISS-110 9							
95	HISS-110 15							
96	HISS-110 16							

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	97	98	99	100	101	102	103	104
SI02	39.24	39.34	39.76	38.89	37.98	39.45	38.64	39.37
TIO2	.03	.01	.01	.04	.06	.08	.06	.07
203	22.33	22.53	22.49	22.59	21.25	22.90	22.88	22.91
203	.00	.04	.05	.00	.00	.08	.11	.00
FEO	28.82	27.87	26.59	28.65	29.62	26.97	27.92	26.53
YGO	8.40	8.95	9.93	9.03	2.87	9.61	9.14	9.56
MNO	.36	.32	.26	.27	4.92	.37	.39	.24
CAD	1.01	1.04	.99	.87	3.38	.97	.95	1.15
HA20	.01	.00	.01	.00	.01	.00	.01	.00
SUM	100.20	100.10	100.09	100.34	100.09	100.43	100.10	99.83
SI	6.036 *	6.029 *	6.051 *	5.969 *	6.058 *	5.999 *	5.934 *	6.010 *
AL	.000 6.036	.000 6.029	.000 6.051	.031 6.000	.000 6.058	.001 6.000	.066 6.000	.000 6.010
AL	4.047 *	4.068 *	4.033 *	4.055 *	3.994 *	4.102 *	4.074 *	4.121 *
TI	.003 *	.001 *	.001 *	.005 *	.007 *	.009 *	.007 *	.008 *
CR	.000 *	.005 *	.006 *	.000 *	.000 *	.010 *	.013 *	.000 *
FE	3.707 *	3.572 *	3.384 *	3.678 *	3.951 *	3.430 *	3.586 *	3.387 *
MN	.047 *	.042 *	.034 *	.035 *	.665 *	.048 *	.051 *	.031 *
MG	1.926 *	2.044 *	2.253 *	2.066 *	.682 *	2.178 *	2.092 *	2.175 *
CA	.166 *	.171 *	.161 *	.143 *	.578 *	.158 *	.156 *	.188 *
NA	.003 9.900	.000 9.903	.003 9.876	.000 9.981	.003 9.880	.000 9.934	.003 9.982	.000 9.910
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.949	1.767	1.517	1.797	6.765	1.597	1.738	1.571
F/FM	.661	.639	.603	.642	.871	.615	.635	.611

- 97 HISS-110 17
- 98 HISS-110 19
- 99 HISS-110 20
- 100 HISS-110 29
- 01 H2SS-3 7
- 02 H2SS-3 16
- 103 H2SS-3 17
- 04 H2SS-3 18

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	105	106	107	108	109	110	111	112
SI02	39.18	39.18	39.37	39.30	39.26	39.17	38.92	39.46
TI02	.07	.12	.03	.08	.00	.04	.00	.00
A203	22.71	22.75	22.90	23.00	22.70	22.78	22.74	22.84
C203	.03	.00	.07	.05	.00	.00	.01	.03
FEO	27.22	27.66	27.15	25.71	27.93	27.13	27.54	27.23
MGO	9.67	9.42	9.31	10.37	8.72	9.39	9.47	9.51
MNO	.61	.15	.43	.53	.34	.30	.28	.27
CAO	.94	.93	.90	1.30	.88	.98	.92	.92
NA2O	.02	.00	.00	.00	.00	.03	.00	.02
SUM	100.45	100.21	100.16	100.34	99.83	99.82	99.88	100.28
SI	5.975 *	5.987 *	6.008 *	5.960 *	6.031 *	5.999 *	5.971 *	6.012 *
AL	.025 6.000	.013 6.000	.000 6.008	.040 6.000	.000 6.031	.001 6.000	.029 6.000	.000 6.012
AL	4.056 *	4.083 *	4.118 *	4.071 *	4.109 *	4.111 *	4.082 *	4.101 *
TI	.008 *	.014 *	.003 *	.009 *	.000 *	.005 *	.000 *	.000 *
CR	.004 *	.000 *	.008 *	.006 *	.000 *	.000 *	.001 *	.004 *
FE	3.471 *	3.535 *	3.465 *	3.261 *	3.588 *	3.475 *	3.534 *	3.470 *
MN	.079 *	.019 *	.056 *	.068 *	.044 *	.039 *	.036 *	.035 *
MG	2.198 *	2.145 *	2.118 *	2.344 *	1.996 *	2.144 *	2.166 *	2.160 *
CA	.154 *	.152 *	.147 *	.211 *	.145 *	.161 *	.151 *	.150 *
NA	.006 9.975	.000 9.949	.000 9.915	.000 9.970	.000 9.882	.009 9.943	.000 9.970	.006 9.924
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.615	1.657	1.662	1.420	1.819	1.639	1.648	1.623
F/FM	.618	.624	.624	.587	.645	.621	.622	.619
105 H2SS-3	19							
106 H2SS-7	5							
107 H2SS-7	9							
108 H2SS-7	10							
109 H2SS-10	1							
110 H2SS-10	2							
111 H2SS-10	3							
112 H2SS-10	4							

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	113	114	115	116	117	118	119	120
SI02	38.46	39.02	38.37	39.31	39.15	39.15	38.81	39.41
TI02	.11	.03	.01	.05	.07	.06	.03	.03
A203	22.26	23.08	21.60	22.67	22.90	22.78	23.13	23.36
C203	.02	.00	.00	.12	.06	.09	.02	.00
FEO	29.38	27.00	29.49	27.35	26.87	27.39	27.27	26.05
MGO	6.82	9.12	3.77	9.00	9.48	9.07	9.58	10.06
MNO	1.20	.51	2.96	.45	.57	.29	.34	.40
CAO	1.77	1.00	4.32	.94	1.23	1.03	.96	1.25
NA20	.00	.01	.00	.01	.02	.02	.00	.02
SUM	100.02	99.77	100.52	99.90	100.35	99.88	100.14	100.58
SI	5.989 *	5.981 *	6.044 *	6.024 *	5.970 *	6.001 *	5.933 *	5.962 *
AL	.011 6.000	.019 6.000	.000 6.044	.000 6.024	.030 6.000	.000 6.001	.067 6.000	.038 6.000
AL	4.074 *	4.149 *	4.009 *	4.094 *	4.085 *	4.115 *	4.100 *	4.126 *
TI	.013 *	.003 *	.001 *	.006 *	.008 *	.007 *	.003 *	.003 *
CR	.002 *	.000 *	.000 *	.015 *	.007 *	.011 *	.002 *	.000 *
FE	3.826 *	3.461 *	3.885 *	3.505 *	3.427 *	3.511 *	3.486 *	3.296 *
MN	.158 *	.066 *	.395 *	.058 *	.074 *	.038 *	.044 *	.051 *
NG	1.583 *	2.084 *	.885 *	2.056 *	2.155 *	2.072 *	2.183 *	2.268 *
CA	.295 *	.164 *	.729 *	.154 *	.201 *	.169 *	.157 *	.203 *
NA	.000 9.952	.003 9.931	.000 9.904	.003 9.891	.006 9.962	.006 9.929	.000 9.977	.006 9.953
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	2.517	1.693	4.835	1.733	1.624	1.713	1.617	1.475
F/FM	.716	.629	.829	.634	.619	.631	.618	.596

- 113 H2SS-10 5
- 114 H2SS-10 6
- 115 H2SS-10 7
- 116 H2SS-11 1
- 117 H2SS-17 1
- 118 H2SS-19 6
- 119 H2SS-20A 5
- 120 H2SS-20A 6

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	121	122	123	124	125	126	127	128
SI02	39.43	39.54	39.39	39.57	39.51	39.22	39.39	40.18
TI02	.06	.00	.05	.00	.21	.03	.01	.00
A203	23.01	22.97	23.11	23.12	22.85	22.89	22.69	22.98
C203	.00	.03	.00	.01	.02	.00	.01	.10
FEO	26.76	26.25	26.85	27.17	27.91	27.38	27.91	25.19
MGO	9.30	10.00	9.94	9.56	8.69	9.54	8.68	10.46
MNO	.33	.26	.21	.27	.19	.33	.41	.35
CAO	.93	.88	.97	.77	.89	.92	1.05	1.24
NA2O	.00	.02	.00	.02	.00	.01	.02	.01
SUM	99.82	99.95	100.52	100.49	100.27	100.32	100.17	100.51
SI	6.022 *	6.015 *	5.976 *	6.008 *	6.033 *	5.982 *	6.033 *	6.050 *
AL	.000 6.022	.000 6.015	.024 6.000	.000 6.008	.000 6.033	.018 6.000	.000 6.033	.000 6.050
AL	4.141 *	4.117 *	4.107 *	4.136 *	4.112 *	4.096 *	4.095 *	4.077 *
TI	.007 *	.000 *	.006 *	.000 *	.024 *	.003 *	.001 *	.000 *
CR	.000 *	.004 *	.000 *	.001 *	.002 *	.000 *	.001 *	.012 *
FE	3.418 *	3.339 *	3.406 *	3.450 *	3.564 *	3.492 *	3.575 *	3.172 *
MN	.043 *	.033 *	.027 *	.035 *	.025 *	.043 *	.053 *	.045 *
HG	2.117 *	2.267 *	2.248 *	2.163 *	1.978 *	2.169 *	1.982 *	2.347 *
CA	.152 *	.143 *	.158 *	.125 *	.146 *	.150 *	.172 *	.200 *
NA	.000 9.877	.006 9.911	.000 9.951	.006 9.917	.000 9.850	.003 9.957	.006 9.885	.003 9.856
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.635	1.488	1.528	1.611	1.814	1.630	1.831	1.370
F/FM	.620	.598	.604	.617	.645	.620	.647	.578

- 121 H2SS-20A 7
- 122 H2SS-20A 8
- 123 H2SS-20A 9
- 124 H2SS-20A 10
- 125 H2SS-20A 11
- 126 H2SS-20A 12
- 127 H2SS-20A 13
- 128 H2SS-20A 14

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	129	130	131	132	133	134	135	136
SI02	39.47	39.00	39.26	39.45	39.38	39.22	39.22	38.83
TI02	.00	.05	.01	.02	.05	.11	.11	.11
A203	22.86	22.67	22.71	23.32	22.96	22.77	22.54	22.57
C203	.00	.00	.01	.00	.05	.08	.08	.07
FEO	28.25	27.72	27.52	27.06	27.10	27.10	27.09	27.47
MGO	8.17	9.72	9.68	9.46	9.40	9.37	9.63	9.10
MNO	.18	.38	.38	.33	.27	.38	.37	.50
CAO	.94	.93	.85	.90	.99	1.04	1.01	1.58
NA2O	.04	.02	.00	.01	.00	.03	.01	.00
SUM	99.91	100.49	100.42	100.55	100.20	100.10	100.06	100.23
SI	6.058 *	5.955 *	5.987 *	5.987 *	6.002 *	5.993 *	5.997 *	5.956 *
AL	.000 6.058	.045 6.000	.013 6.000	.013 6.000	.000 6.002	.007 6.000	.003 6.000	.044 6.000
AL	4.135 *	4.035 *	4.068 *	4.157 *	4.124 *	4.093 *	4.058 *	4.035 *
TI	.000 *	.006 *	.001 *	.002 *	.006 *	.013 *	.013 *	.013 *
CR	.000 *	.000 *	.001 *	.000 *	.006 *	.010 *	.010 *	.008 *
FE	3.626 *	3.540 *	3.510 *	3.434 *	3.454 *	3.463 *	3.464 *	3.524 *
MN	.023 *	.049 *	.049 *	.042 *	.035 *	.049 *	.048 *	.065 *
MG	1.869 *	2.212 *	2.200 *	2.140 *	2.136 *	2.134 *	2.195 *	2.080 *
CA	.155 *	.152 *	.139 *	.146 *	.162 *	.170 *	.165 *	.260 *
NA	.012 9.820	.006 10.000	.000 9.968	.003 9.925	.000 9.922	.009 9.941	.003 9.955	.000 9.985
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.953	1.622	1.617	1.625	1.634	1.646	1.600	1.725
F/FM	.661	.619	.618	.619	.620	.622	.615	.633

- 129 H2SS-20A 15
- 130 H2SS-20A 16
- 131 H2SS-20A 17
- 132 H2SS-20A 18
- 133 H2SS-20A 19
- 134 H2SS-20A 20
- 135 H2SS-20B 1
- 136 H2SS-20B 2

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	137	138	139	140	141	142	143	144
SI02	39.36	38.43	38.65	39.41	38.37	38.72	38.90	39.32
TI02	.12	.15	.08	.11	.75	.00	.02	.00
A203	22.77	21.78	22.61	23.05	22.85	23.10	23.24	23.25
C203	.19	.11	.10	.07	.07	.04	.03	.02
FEO	24.88	28.32	27.01	25.74	27.48	28.25	26.95	26.28
MGO	10.67	3.47	7.64	9.69	9.47	8.32	9.37	9.70
MNO	.51	1.16	2.63	.69	.28	.39	.27	.31
CAO	1.56	6.55	1.76	1.44	.99	.90	1.00	1.02
NA2O	.02	.01	.00	.02	.00	.01	.03	.01
SUM	100.08	99.98	100.48	100.22	100.26	99.73	99.81	99.91
SI	5.970 *	6.044 *	5.961 *	5.989 *	5.875 *	5.970 *	5.954 *	5.989 *
AL	.030 6.000	.000 6.044	.039 6.000	.011 6.000	.125 6.000	.030 6.000	.046 6.000	.011 6.000
AL	4.040 *	4.037 *	4.070 *	4.116 *	3.998 *	4.167 *	4.146 *	4.162 *
TI	.014 *	.018 *	.009 *	.013 *	.086 *	.000 *	.002 *	.000 *
CR	.023 *	.014 *	.012 *	.008 *	.008 *	.005 *	.004 *	.002 *
FE	3.156 *	3.725 *	3.484 *	3.271 *	3.519 *	3.643 *	3.450 *	3.347 *
MN	.066 *	.155 *	.344 *	.089 *	.036 *	.051 *	.035 *	.040 *
MG	2.412 *	.813 *	1.756 *	2.195 *	2.161 *	1.912 *	2.138 *	2.202 *
CA	.254 *	1.104 *	.291 *	.234 *	.162 *	.149 *	.164 *	.166 *
NA	.006 9.970	.003 9.868	.000 9.967	.006 9.932	.000 9.971	.003 9.929	.009 9.948	.003 9.923
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/N	1.335	4.769	2.179	1.531	1.645	1.932	1.630	1.538
F/FM	.572	.827	.685	.605	.622	.659	.620	.606

- 137 H2SS-208 4
- 138 H2SS-208 6
- 139 H2SS-208 11
- 140 H2SS-208 12
- 141 H2SS-21A 1
- 142 H2SS-21A 2
- 143 H2SS-21B 1
- 144 H2SS-21B 2

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	145	146	147	148	149	150	151	152
SI02	38.30	39.33	38.90	39.42	38.80	40.29	39.67	39.46
TI02	1.01	.02	.03	.04	.06	.02	.03	.00
A203	23.01	23.40	23.26	23.03	21.56	22.90	22.41	23.34
C203	.00	.00	.02	.00	.03	.06	.00	.04
FEO	26.66	26.22	28.10	26.24	28.17	24.33	27.61	26.61
MGO	9.41	10.15	8.99	9.63	3.35	11.32	9.21	9.68
MNO	.31	.37	.33	.34	1.53	.31	.47	.31
CAO	.99	.91	.84	1.09	6.54	1.16	.76	.90
NA20	.02	.02	.00	.00	.01	.00	.00	.04
SUM	99.71	100.42	100.47	99.79	100.05	100.39	100.16	100.38
SI	5.875 *	5.958 *	5.944 *	6.012 *	6.098 *	6.047 *	6.063 *	5.987 *
AL	.125 6.000	.042 6.000	.056 6.000	.000 6.012	.000 6.098	.000 6.047	.000 6.063	.013 6.000
AL	4.034 *	4.135 *	4.132 *	4.139 *	3.993 *	4.050 *	4.036 *	4.160 *
TI	.117 *	.002 *	.003 *	.005 *	.007 *	.002 *	.003 *	.000 *
CR	.000 *	.000 *	.002 *	.000 *	.004 *	.007 *	.000 *	.005 *
FE	3.420 *	3.322 *	3.591 *	3.347 *	3.702 *	3.054 *	3.529 *	3.376 *
MN	.040 *	.047 *	.043 *	.044 *	.204 *	.039 *	.061 *	.040 *
MG	2.151 *	2.292 *	2.047 *	2.189 *	.785 *	2.533 *	2.098 *	2.189 *
CA	.163 *	.148 *	.138 *	.178 *	1.101 *	.187 *	.124 *	.146 *
NA	.006 9.930	.006 9.952	.000 9.956	.000 9.901	.003 9.799	.000 9.872	.000 9.851	.012 9.928
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.608	1.470	1.775	1.549	4.978	1.221	1.711	1.561
F/FM	.617	.595	.640	.608	.833	.550	.631	.609

- 145 H2SS-21B 3
- 146 H2SS-21B 4
- 147 H2SS-21B 5
- 148 H2SS-21B 6
- 149 H2SS-22 1
- 150 H2SS-22 5
- 151 H2SS-22 8
- 152 H2SS-22 9

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	153	154	155	156	157	158	159	160
SI02	39.33	39.54	40.12	39.15	37.91	38.75	39.14	39.25
TI02	.05	.02	.02	.04	.10	.03	.03	.05
A203	22.46	22.58	22.61	22.75	21.47	23.24	23.26	22.93
C203	.07	.03	.04	.04	.07	.03	.00	.00
FEO	27.34	27.05	26.98	27.06	29.95	27.86	26.89	26.35
MGO	9.42	9.62	8.97	9.47	2.37	9.07	9.55	10.27
MNO	.31	.21	.36	.28	1.18	.36	.38	.26
CAO	.84	.92	.93	1.05	7.27	1.08	.99	1.10
NA20	.00	.00	.00	.02	.02	.00	.01	.01
SUM	99.82	99.97	100.03	99.86	100.34	100.42	100.25	100.22
SI	6.028 *	6.037 *	6.112 *	5.994 *	6.009 *	5.925 *	5.962 *	5.967 *
AL	.000 6.028	.000 6.037	.000 6.112	.006 6.000	.000 6.009	.075 6.000	.038 6.000	.033 6.000
AL	4.056 *	4.062 *	4.059 *	4.098 *	4.010 *	4.113 *	4.136 *	4.075 *
TI	.006 *	.002 *	.002 *	.005 *	.012 *	.003 *	.003 *	.006 *
CR	.008 *	.004 *	.005 *	.005 *	.009 *	.004 *	.000 *	.000 *
FE	3.504 *	3.454 *	3.438 *	3.465 *	3.970 *	3.563 *	3.425 *	3.350 *
MN	.040 *	.027 *	.046 *	.036 *	.158 *	.047 *	.049 *	.033 *
MG	2.152 *	2.189 *	2.037 *	2.161 *	.560 *	2.067 *	2.168 *	2.327 *
CA	.138 *	.150 *	.152 *	.172 *	1.235 *	.177 *	.162 *	.179 *
NA	.000 9.905	.000 9.889	.000 9.739	.006 9.948	.006 9.961	.000 9.973	.003 9.947	.003 9.973
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.647	1.590	1.710	1.620	7.373	1.746	1.602	1.454
F/FM	.622	.614	.631	.618	.881	.636	.616	.592

- 153 H2SS-22 12
- 154 H2SS-22 13
- 155 H2SS-23A 3
- 156 H2SS-23A 4
- 157 H2SS-23B 5
- 158 H2SS-23B 6
- 159 H2SS-23B 7
- 160 H2SS-23B 8

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	161	162	163	164	165	166	167	168
SI02	39.39	38.58	38.46	38.97	38.42	38.75	38.43	38.88
TI02	.00	.03	.02	.05	.06	.04	.02	.02
A203	22.47	21.98	21.71	21.67	21.60	21.61	21.39	22.50
C203	.06	.00	.00	.00	.00	.00	.01	.03
FEO	27.12	30.50	30.08	29.31	31.09	31.49	31.76	29.75
MGO	9.34	6.71	6.13	3.87	3.40	4.59	4.22	5.93
MNO	.33	1.22	2.20	2.43	1.83	1.22	1.31	1.06
CAO	1.01	1.00	1.36	4.08	3.32	2.74	2.57	1.55
NA2O	.01	.01	.01	.01	.00	.00	.00	.00
SUM	99.73	100.03	99.97	100.39	99.72	100.44	99.71	99.72
SI	6.039 *	6.025 *	6.035 *	6.111 *	6.094 *	6.082 *	6.090 *	6.064 *
AL	.000 6.039	.000 6.025	.000 6.035	.000 6.111	.000 6.094	.000 6.082	.000 6.090	.000 6.064
AL	4.059 *	4.045 *	4.014 *	4.004 *	4.038 *	3.997 *	3.995 *	4.135 *
TI	.000 *	.004 *	.002 *	.006 *	.007 *	.005 *	.002 *	.002 *
CR	.007 *	.000 *	.000 *	.000 *	.000 *	.000 *	.001 *	.004 *
FE	3.477 *	3.983 *	3.947 *	3.844 *	4.124 *	4.133 *	4.209 *	3.880 *
MN	.043 *	.161 *	.292 *	.323 *	.246 *	.162 *	.176 *	.140 *
MG	2.134 *	1.562 *	1.434 *	.905 *	.804 *	1.074 *	.997 *	1.378 *
CA	.166 *	.167 *	.229 *	.685 *	.564 *	.461 *	.436 *	.259 *
NA	.003 9.889	.003 9.925	.003 9.921	.003 9.770	.000 9.783	.000 9.831	.000 9.817	.000 9.799
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.649	2.654	2.957	4.606	5.436	4.000	4.399	2.916
F/FM	.623	.726	.747	.822	.845	.800	.815	.745

- 161 H6SS-5 1
- 162 H6SS-10 11
- 163 H6SS-10 32
- 164 RV-2 1
- 165 RV-2 2
- 166 RV-2 3
- 167 RV-2 7
- 168 RV-2 16

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	169	170	171	172	173	174	175	176
SI02	39.10	38.73	38.33	39.00	38.65	39.84	39.13	39.24
TI02	.02	.00	.06	.05	.03	.00	.03	.00
A203	21.92	22.26	21.75	22.06	21.74	22.77	22.55	22.60
C203	.02	.00	.00	.04	.00	.00	.02	.02
FEO	27.66	30.09	28.42	24.97	30.82	26.98	28.75	27.82
MGO	5.92	5.37	5.05	5.20	5.46	9.15	7.97	8.75
MNO	2.13	1.55	2.22	2.22	1.23	.37	.53	.41
CAO	3.44	2.34	4.24	6.73	2.52	.96	1.32	1.04
HA20	.02	.02	.01	.01	.00	.00	.02	.01
SUM	100.23	100.36	100.08	100.28	100.45	100.07	100.32	99.89
SI	6.075 *	6.043 *	6.015 *	6.044 *	6.045 *	6.071 *	6.020 *	6.028 *
AL	.000 6.075	.000 6.043	.000 6.015	.000 6.044	.000 6.045	.000 6.071	.000 6.020	.000 6.028
AL	4.013 *	4.092 *	4.022 *	4.029 *	4.007 *	4.089 *	4.088 *	4.091 *
TI	.002 *	.000 *	.007 *	.006 *	.004 *	.000 *	.003 *	.000 *
CR	.002 *	.000 *	.000 *	.005 *	.000 *	.000 *	.002 *	.002 *
FE	3.594 *	3.926 *	3.730 *	3.236 *	4.031 *	3.439 *	3.699 *	3.574 *
MN	.280 *	.205 *	.295 *	.291 *	.163 *	.048 *	.069 *	.053 *
MG	1.371 *	1.249 *	1.181 *	1.201 *	1.273 *	2.078 *	1.828 *	2.003 *
CA	.573 *	.391 *	.713 *	1.117 *	.422 *	.157 *	.218 *	.171 *
NA	.006 9.841	.006 9.869	.003 9.951	.003 9.889	.000 9.900	.000 9.810	.006 9.913	.003 9.898
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	2.826	3.308	3.407	2.937	3.295	1.677	2.062	1.811
F/FM	.739	.768	.773	.746	.767	.627	.673	.644

- 169 RV-5 1
- 170 RV-5 2
- 171 RV-5 3
- 172 RV-5 4
- 173 RV-8 1
- 174 RV-9 1
- 175 RV-9 2
- 176 RV-9 3

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	177	178	179	180	181	182	183	184
SI02	38.28	38.91	39.29	39.27	39.70	38.44	38.76	39.86
TI02	.03	.04	.06	.07	.04	.05	.07	.01
A203	21.81	21.87	22.38	22.48	22.31	21.51	21.61	22.58
C203	.06	.00	.06	.05	.06	.00	.00	.00
FEO	30.22	29.70	28.46	29.59	28.29	30.78	30.74	27.91
MGD	4.75	5.50	8.40	7.37	8.50	3.49	4.75	8.55
MNO	1.59	1.41	.38	.44	.56	2.31	1.19	.30
CAD	2.99	3.04	.94	1.02	1.03	3.78	3.02	1.03
NA20	.02	.00	.01	.00	.01	.00	.01	.00
SUM	99.75	100.47	99.98	100.29	100.50	100.36	100.15	100.24
SI	6.038 *	6.062 *	6.046 *	6.055 *	6.073 *	6.072 *	6.085 *	6.089 *
AL	.000 6.038	.000 6.062	.000 6.046	.000 6.055	.000 6.073	.000 6.072	.000 6.085	.000 6.089
AL	4.054 *	4.015 *	4.058 *	4.085 *	4.021 *	4.004 *	3.998 *	4.065 *
TI	.004 *	.005 *	.007 *	.008 *	.005 *	.006 *	.008 *	.001 *
CR	.007 *	.000 *	.007 *	.006 *	.007 *	.000 *	.000 *	.000 *
FE	3.986 *	3.870 *	3.662 *	3.816 *	3.619 *	4.066 *	4.036 *	3.566 *
MN	.212 *	.186 *	.050 *	.057 *	.073 *	.309 *	.158 *	.039 *
MG	1.117 *	1.277 *	1.927 *	1.694 *	1.938 *	.822 *	1.111 *	1.947 *
CA	.505 *	.507 *	.155 *	.169 *	.169 *	.640 *	.508 *	.169 *
NA	.006 9.891	.000 9.861	.003 9.868	.000 9.834	.003 9.835	.000 9.846	.003 9.822	.000 9.786
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	3.760	3.175	1.927	2.287	1.905	5.325	3.773	1.851
F/FM	.790	.761	.658	.696	.656	.842	.791	.649

- 177 RV-9 5
- 178 RV-9 14
- 179 RV-9 19
- 180 RV-9 20
- 181 RV-14 1
- 182 RV-14 2
- 183 RV-14 8
- 184 RV-14 10

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	185	186	187	188	189	190	191	192
SI02	38.63	38.69	39.59	38.83	38.30	38.83	39.19	39.46
TI02	.06	.04	.01	.05	.07	.05	.03	.02
A203	22.41	22.00	22.45	21.60	21.69	21.50	22.48	23.12
C203	.00	.00	.00	.00	.06	.00	.02	.00
FEO	30.29	30.03	28.45	30.86	28.20	31.69	27.26	26.76
MGO	5.51	4.83	7.96	5.04	4.13	4.39	9.26	9.39
MNO	.88	1.48	.41	.88	2.22	1.16	.41	.33
CAD	2.68	2.64	1.04	3.21	5.80	2.57	1.13	1.08
NA20	.00	.01	.02	.03	.01	.01	.01	.01
SUM	100.46	99.72	99.93	100.50	100.48	100.20	99.79	100.17
SI	6.015 *	6.079 *	6.090 *	6.073 *	6.009 *	6.109 *	6.015 *	6.007 *
AL	.000 6.015	.000 6.079	.000 6.090	.000 6.073	.000 6.009	.000 6.109	.000 6.015	.000 6.007
AL	4.112 *	4.073 *	4.069 *	3.981 *	4.010 *	3.986 *	4.066 *	4.147 *
TI	.007 *	.005 *	.001 *	.006 *	.008 *	.006 *	.003 *	.002 *
CR	.000 *	.000 *	.000 *	.000 *	.007 *	.000 *	.002 *	.000 *
FE	3.944 *	3.946 *	3.660 *	4.036 *	3.700 *	4.170 *	3.499 *	3.407 *
MN	.116 *	.197 *	.053 *	.117 *	.295 *	.155 *	.053 *	.043 *
MG	1.279 *	1.131 *	1.825 *	1.175 *	.966 *	1.029 *	2.118 *	2.131 *
CA	.447 *	.444 *	.171 *	.538 *	.975 *	.433 *	.186 *	.176 *
NA	.000 9.905	.003 9.800	.006 9.786	.009 9.861	.003 9.965	.003 9.782	.003 9.931	.003 9.909
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	3.175	3.663	2.035	3.535	4.137	4.200	1.677	1.619
F/PM	.760	.786	.670	.779	.805	.808	.626	.618

- 185 RV-15 1
- 186 RV-15 3
- 187 RV-15 4
- 188 RV-15 6
- 189 RV-15 7
- 190 RV-15 8
- 191 T-5 1
- 192 T-5 2

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	193	194	195	196	197	198	199	200
SI02	39.56	39.47	38.66	38.92	39.35	39.58	39.07	38.92
TI02	.03	.03	.03	.04	.03	.01	.02	.04
A203	22.91	22.85	22.04	22.11	22.50	22.77	22.32	22.93
C203	.00	.00	.03	.00	.00	.00	.00	.03
FED	27.84	28.26	30.33	30.03	28.78	27.63	30.31	27.56
MGD	8.64	8.06	4.91	5.23	7.46	8.51	7.13	8.99
MNO	.29	.40	1.08	.84	.44	.35	.47	.44
CAO	1.08	1.17	3.37	3.29	1.71	1.10	1.21	1.11
NA20	.03	.00	.03	.02	.02	.02	.01	.01
SUM	100.38	100.24	100.48	100.48	100.29	99.97	100.54	100.03
SI	6.037 *	6.048 *	6.040 *	6.059 *	6.056 *	6.061 *	6.037 *	5.969 *
AL	.000 6.037	.000 6.048	.000 6.040	.000 6.059	.000 6.056	.000 6.061	.000 6.037	.031 6.000
AL	4.120 *	4.126 *	4.058 *	4.056 *	4.081 *	4.109 *	4.064 *	4.112 *
TI	.003 *	.003 *	.004 *	.005 *	.003 *	.001 *	.002 *	.005 *
CR	.000 *	.000 *	.004 *	.000 *	.000 *	.000 *	.000 *	.004 *
FE	3.553 *	3.621 *	3.963 *	3.910 *	3.704 *	3.538 *	3.917 *	3.535 *
MN	.037 *	.052 *	.143 *	.111 *	.057 *	.045 *	.062 *	.057 *
MG	1.965 *	1.841 *	1.143 *	1.214 *	1.711 *	1.942 *	1.642 *	2.055 *
CA	.177 *	.192 *	.564 *	.549 *	.282 *	.180 *	.200 *	.182 *
NA	.009 9.865	.000 9.835	.009 9.888	.006 9.850	.006 9.845	.006 9.823	.003 9.890	.003 9.952
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	1.827	1.995	3.591	3.313	2.198	1.845	2.423	1.748
F/FM	.646	.666	.782	.768	.687	.649	.708	.636

- 193 T-5 3
- 194 T-5 4
- 195 T-5 5
- 196 T-6 2
- 197 T-6 3
- 198 T-6 4
- 199 T-6 6
- 200 T-6 7

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	201	202	203	204	205	206	207	208
SI02	38.69	38.69	37.87	38.95	39.15	39.20	39.51	37.47
TI02	.07	.04	.11	.04	.02	.06	.03	.00
A203	22.29	22.53	21.58	23.13	23.12	22.85	23.08	22.11
C203	.04	.07	.00	.00	.08	.07	.02	.12
FE0	28.13	28.64	28.89	27.59	26.35	28.31	27.30	30.13
MGO	5.70	8.55	3.87	9.00	10.11	7.99	8.96	5.50
MNO	1.05	.43	1.69	.35	.32	.68	.31	1.15
CA0	4.04	1.07	5.92	1.14	1.06	1.32	1.13	3.49
NA20	.00	.00	.02	.00	.02	.00	.00	.02
SUM	100.01	100.02	99.95	100.20	100.23	100.48	100.34	99.99
SI	6.022 *	5.969 *	5.988 *	5.959 *	5.953 *	6.010 *	6.018 *	5.904 *
AL	.000 6.022	.031 6.000	.012 6.000	.041 6.000	.047 6.000	.000 6.010	.000 6.018	.096 6.000
AL	4.089 *	4.065 *	4.009 *	4.129 *	4.096 *	4.128 *	4.143 *	4.010 *
TI	.008 *	.005 *	.013 *	.005 *	.002 *	.007 *	.003 *	.000 *
CR	.005 *	.009 *	.000 *	.000 *	.010 *	.008 *	.002 *	.015 *
FE	3.662 *	3.695 *	3.820 *	3.530 *	3.351 *	3.630 *	3.478 *	3.971 *
MN	.138 *	.056 *	.226 *	.045 *	.041 *	.088 *	.040 *	.153 *
MG	1.322 *	1.966 *	.912 *	2.052 *	2.291 *	1.826 *	2.034 *	1.292 *
CA	.674 *	.177 *	1.003 *	.187 *	.173 *	.217 *	.184 *	.589 *
NA	.000 9.898	.000 9.972	.006 9.989	.000 9.949	.006 9.969	.000 9.904	.000 9.885	.006 10.036
O	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *	24.000 *
F/M	2.874	1.908	4.437	1.742	1.480	2.036	1.729	3.192
F/FM	.742	.656	.816	.635	.597	.671	.634	.761

- 201 T-6 8
- 202 T-6 9
- 203 T-9 2
- 204 T-11 1
- 205 T-11 2
- 206 T-11 4
- 207 T-11 5
- 208 T-11 6

ECLOGITIC GARNET, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	209	210	211	212
SI02	38.82	38.75	38.82	38.44
TI02	.07	.04	.03	.05
A203	22.35	22.21	21.76	22.32
C203	.04	.02	.00	.00
FEO	28.35	29.26	30.52	29.89
NGO	7.04	5.21	5.18	5.88
MNO	.77	.95	1.11	1.47
CAO	2.40	3.62	2.86	2.25
HA20	.02	.03	.01	.01
SUM	99.86	100.09	100.29	100.31

SI	6.020	*	6.047	*	6.073	*	5.997	*
AL	.000	6.020	.000	6.047	.000	6.073	.003	6.000
AL	4.084	*	4.084	*	4.011	*	4.100	*
TI	.008	*	.005	*	.004	*	.006	*
CR	.005	*	.002	*	.000	*	.000	*
FE	3.677	*	3.818	*	3.993	*	3.899	*
MN	.101	*	.126	*	.147	*	.194	*
MG	1.627	*	1.212	*	1.208	*	1.367	*
CA	.399	*	.605	*	.479	*	.376	*
NA	.006	9.907	.009	9.861	.003	9.845	.003	9.945
O	24.000	*	24.000	*	24.000	*	24.000	*
F/M	2.322		3.255		3.428		2.994	
F/FM	.699		.765		.774		.750	

209 T-11 8
 210 T-11 9
 211 T-11 10
 212 T-11 12

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001. R.L.8.

	1	2	3	4	5	6	7	8
SI02	54.09	52.76	51.28	53.13	54.14	53.11	54.15	53.99
TI02	.04	.19	.04	.07	.03	.05	.08	.10
A203	1.60	1.82	1.96	.88	.57	.73	1.15	1.16
C203	.02	.00	.08	.00	.03	.12	.19	.05
FEO	8.11	10.76	11.33	10.03	6.83	10.05	4.90	6.98
MGO	13.03	12.11	12.39	12.65	13.41	11.61	16.07	13.30
MND	.29	.16	.41	.42	.36	.56	.08	.26
CAO	22.45	22.10	21.85	22.64	24.21	23.20	23.48	24.09
K20	.01	.00	.01	.00	.00	.00	.00	.00
NA20	.46	.52	.48	.33	.24	.36	.23	.37
SUM	100.10	100.42	99.83	100.15	99.82	99.79	100.33	100.30
SI	2.003 *	1.974 *	1.943 *	1.991 *	2.011 *	2.003 *	1.979 *	1.996 *
AL	.000 2.003	.026 2.000	.057 2.000	.009 2.000	.000 2.011	.000 2.003	.021 2.000	.004 2.000
AL	.070 *	.054 *	.031 *	.030 *	.025 *	.032 *	.028 *	.047 *
TI	.001 *	.005 *	.001 *	.002 *	.001 *	.001 *	.002 *	.003 *
CR	.001 *	.000 *	.002 *	.000 *	.001 *	.004 *	.005 *	.001 *
FE	.251 *	.337 *	.359 *	.314 *	.212 *	.317 *	.150 *	.216 *
MG	.719 *	.675 *	.700 *	.707 *	.742 *	.653 *	.875 *	.733 *
MX	.009 *	.005 *	.013 *	.013 *	.011 *	.018 *	.002 *	.008 *
CA	.891 *	.886 *	.887 *	.909 *	.963 *	.937 *	.919 *	.954 *
NA	.033 *	.038 *	.035 *	.024 *	.017 *	.026 *	.016 *	.027 *
K	.000 1.975	.000 2.000	.000 2.029	.000 1.999	.000 1.973	.000 1.988	.000 1.999	.000 1.988
O	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.362	.506	.532	.464	.301	.513	.174	.306
F/FM	.266	.336	.347	.317	.231	.339	.148	.234

- 1 5237 1
- 2 D-7 7
- 3 D-14 17
- 4 HISS-4 1
- 5 HISS-4 2
- 6 HISS-4 3
- 7 HISS-6 1
- 8 HISS-100 1

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	9	10	11	12	13	14	15	16
ST02	52.94	53.50	53.26	53.88	53.04	53.23	53.96	53.02
TI02	.06	.14	.12	.09	.06	.10	.12	.11
A203	1.67	1.11	1.37	1.65	1.83	1.65	1.68	1.71
C203	.06	.07	.17	.15	.01	.10	.10	.04
FEO	7.27	6.92	6.57	5.77	7.05	7.69	7.18	7.36
MGO	14.07	14.29	14.10	14.31	14.01	12.58	13.39	13.26
MNO	.23	.17	.15	.17	.14	.43	.25	.24
CAO	23.28	23.36	23.72	24.06	23.66	23.40	23.45	23.77
K2O	.00	.00	.01	.00	.00	.00	.00	.00
NA2O	.41	.46	.51	.50	.58	.51	.37	.41
SUM	99.99	100.02	99.98	100.58	100.38	99.69	100.50	99.92

SI	1.966 *	1.982 *	1.974 *	1.977 *	1.962 *	1.987 *	1.988 *	1.973 *
AL	.034 2.000	.018 2.000	.026 2.000	.023 2.000	.038 2.000	.013 2.000	.012 2.000	.027 2.000
AL	.039 *	.030 *	.034 *	.048 *	.041 *	.059 *	.061 *	.048 *
TI	.002 *	.004 *	.003 *	.002 *	.002 *	.003 *	.003 *	.003 *
CR	.002 *	.002 *	.005 *	.004 *	.000 *	.003 *	.003 *	.001 *
FE	.226 *	.214 *	.204 *	.177 *	.218 *	.240 *	.221 *	.229 *
MG	.779 *	.789 *	.779 *	.782 *	.772 *	.700 *	.735 *	.735 *
MN	.007 *	.005 *	.005 *	.005 *	.004 *	.014 *	.008 *	.008 *
CA	.926 *	.927 *	.942 *	.946 *	.938 *	.936 *	.926 *	.948 *
NA	.030 *	.033 *	.037 *	.036 *	.042 *	.037 *	.026 *	.030 *
K	.000 2.010	.000 2.005	.000 2.009	.000 2.001	.000 2.017	.000 1.991	.000 1.984	.000 2.001
O	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.299	.278	.267	.233	.288	.362	.311	.322
F/FM	.230	.218	.211	.189	.224	.266	.237	.243

- 9 HISS-100 2
- 10 HISS-100 3
- 11 HISS-100 5
- 12 HISS-101 2
- 13 HISS-101 3
- 14 HISS-104 1
- 15 HISS-104 2
- 16 HISS-104 3

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	17	18	19	20	21	22	23	24
SI02	53.55	54.22	54.03	54.98	54.06	54.77	54.41	54.78
TI02	.10	.10	.00	.02	.06	.05	.05	.04
A203	1.29	1.47	1.14	.93	1.50	1.22	1.19	1.24
C203	.03	.25	.12	.02	.31	.07	.08	.18
FEO	7.41	7.08	5.56	5.39	4.90	5.73	5.49	5.53
NGO	13.81	14.82	15.54	14.92	15.41	14.84	15.23	14.98
MNO	.26	.12	.12	.09	.08	.09	.10	.11
CAO	23.57	22.03	23.58	23.68	23.40	23.46	23.65	23.19
K20	.01	.00	.01	.01	.00	.02	.00	.00
NA20	.43	.32	.32	.26	.33	.22	.25	.24
SUM	100.46	100.41	100.42	100.30	100.05	100.47	100.45	100.29
SI	1.980 *	1.990 *	1.980 *	2.010 *	1.981 *	2.001 *	1.990 *	2.002 *
AL	.020 2.000	.010 2.000	.020 2.000	.000 2.010	.019 2.000	.000 2.001	.010 2.000	.000 2.002
AL	.037 *	.053 *	.029 *	.040 *	.046 *	.053 *	.041 *	.053 *
TI	.003 *	.003 *	.000 *	.001 *	.002 *	.001 *	.001 *	.001 *
CR	.001 *	.007 *	.003 *	.001 *	.009 *	.002 *	.002 *	.005 *
FE	.229 *	.217 *	.170 *	.165 *	.150 *	.175 *	.168 *	.169 *
MG	.761 *	.811 *	.849 *	.813 *	.842 *	.808 *	.830 *	.816 *
MN	.008 *	.004 *	.004 *	.003 *	.002 *	.003 *	.003 *	.003 *
CA	.934 *	.866 *	.926 *	.928 *	.919 *	.918 *	.927 *	.908 *
NA	.031 *	.023 *	.023 *	.018 *	.023 *	.016 *	.018 *	.017 *
K	.000 2.004	.000 1.984	.000 2.005	.000 1.968	.000 1.992	.001 1.977	.000 1.991	.000 1.973
O	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.312	.273	.205	.206	.181	.220	.206	.211
F/FM	.238	.214	.170	.171	.154	.180	.171	.174

- 17 HISS-105 1
- 18 HISS-108 9
- 19 HISS-108 10
- 20 HISS-108 12
- 21 HISS-108 13
- 22 HISS-108 14
- 23 HISS-108 15
- 24 HISS-108 17

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	25	26	27	28	29	30	31	32
SI02	53.83	52.02	53.22	54.01	54.11	53.11	53.17	53.23
TI02	.13	.05	.06	.05	.07	.09	.09	.09
A203	1.44	.85	1.64	1.13	1.46	1.55	1.14	1.42
C203	.21	.07	.04	.06	.16	.06	.08	.00
FEO	6.10	13.57	7.71	6.28	5.49	7.49	10.60	6.62
MGO	15.04	9.34	13.05	14.39	14.91	13.39	10.46	13.80
MNO	.07	.18	.27	.21	.21	.18	.33	.25
CAO	22.83	24.18	23.52	23.61	23.60	23.80	24.00	24.03
K2O	.00	.00	.03	.00	.03	.02	.00	.00
NA2O	.58	.30	.45	.37	.39	.48	.51	.39
SUM	100.23	100.56	99.99	100.11	100.43	100.17	100.38	99.83
SI	1.978 *	1.984 *	1.980 *	1.992 *	1.982 *	1.973 *	2.000 *	1.977 *
AL	.022 2.000	.016 2.000	.020 2.000	.008 2.000	.018 2.000	.027 2.000	.000 2.000	.023 2.000
AL	.041 *	.022 *	.052 *	.041 *	.045 *	.041 *	.050 *	.039 *
TI	.004 *	.001 *	.002 *	.001 *	.002 *	.003 *	.003 *	.003 *
CR	.006 *	.002 *	.001 *	.002 *	.005 *	.002 *	.002 *	.000 *
FE	.187 *	.433 *	.240 *	.194 *	.168 *	.233 *	.333 *	.206 *
MG	.824 *	.531 *	.724 *	.791 *	.814 *	.741 *	.586 *	.764 *
MN	.002 *	.006 *	.009 *	.007 *	.007 *	.006 *	.011 *	.008 *
CA	.899 *	.988 *	.938 *	.933 *	.926 *	.947 *	.967 *	.956 *
NA	.041 *	.022 *	.032 *	.026 *	.028 *	.035 *	.037 *	.028 *
K	.000 2.004	.000 2.006	.001 1.999	.000 1.995	.001 1.996	.001 2.008	.000 1.990	.000 2.003
O	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.230	.826	.343	.253	.215	.321	.587	.279
F/FM	.187	.452	.256	.202	.177	.243	.370	.218

- 25 HISS-109 1
- 26 HISS-109 2
- 27 HISS-109 5
- 28 HISS-109 25
- 29 HISS-110 1
- 30 HISS-110 2
- 31 HISS-110 3
- 32 HISS-110 4

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	33	34	35	36	37	38	39	40
SI02	53.92	52.65	54.50	55.08	53.17	51.67	54.16	51.78
TI02	.12	.15	.02	.01	.07	.09	.05	.16
A203	1.51	1.91	.97	.95	.59	.79	1.29	2.58
C203	.07	.05	.06	.26	.00	.08	.01	.43
FEO	6.44	8.99	4.49	5.15	10.36	17.36	6.56	8.30
MGO	13.76	12.16	15.40	15.28	12.04	6.81	13.59	11.58
MNO	.24	.23	.15	.14	.61	.41	.36	.15
CAO	23.51	23.20	23.93	23.34	23.37	23.00	23.55	24.97
K20	.00	.03	.00	.00	.00	.01	.00	.00
HA20	.46	.51	.29	.23	.19	.23	.46	.12
SUM	100.03	99.88	99.81	100.44	100.40	100.45	100.03	100.07
SI	1.991 *	1.972 *	1.999 *	2.008 *	1.996 *	2.002 *	2.001 *	1.941 *
AL	.009 2.000	.028 2.000	.001 2.000	.000 2.008	.004 2.000	.000 2.002	.000 2.001	.059 2.000
AL	.057 *	.057 *	.041 *	.041 *	.022 *	.036 *	.056 *	.055 *
TI	.003 *	.004 *	.001 *	.000 *	.002 *	.003 *	.001 *	.005 *
CR	.002 *	.001 *	.002 *	.007 *	.000 *	.002 *	.000 *	.013 *
FE	.199 *	.282 *	.138 *	.157 *	.325 *	.563 *	.203 *	.260 *
MG	.757 *	.679 *	.842 *	.830 *	.674 *	.393 *	.748 *	.647 *
MN	.008 *	.007 *	.005 *	.004 *	.019 *	.013 *	.011 *	.005 *
CA	.930 *	.931 *	.940 *	.912 *	.940 *	.955 *	.932 *	1.003 *
NA	.033 *	.037 *	.021 *	.016 *	.014 *	.017 *	.033 *	.009 *
K	.000 1.988	.001 2.000	.000 1.989	.000 1.968	.000 1.996	.000 1.983	.000 1.985	.000 1.996
O	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.273	.426	.169	.194	.512	1.465	.286	.410
F/FM	.214	.299	.145	.163	.338	.594	.222	.291

- 33 H1SS-110 5
- 34 H1SS-110 7
- 35 H1SS-110 23
- 36 H1SS-110 27
- 37 H2SS-3 3
- 38 H2SS-3 4
- 39 H2SS-3 6
- 40 H2SS-7 1

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	41	42	43	44	45	46	47	48
SI02	53.30	52.72	52.85	52.19	51.88	51.99	52.90	51.64
TI02	.10	.05	.00	.07	.19	.40	.15	.18
A203	1.39	2.33	.94	2.98	3.23	2.25	2.59	1.95
C203	.17	.93	.09	.26	.01	.00	.23	.05
FEO	9.41	6.60	10.71	9.89	7.51	11.70	7.75	11.73
MGO	12.84	13.99	12.34	14.91	13.69	11.14	13.92	11.98
MNO	.28	.12	.35	.26	.06	.18	.18	.37
CAO	22.04	22.61	22.40	19.27	22.38	22.24	21.82	21.40
K2O	.00	.01	.00	.01	.00	.01	.00	.00
NA2O	.42	.87	.31	.50	.79	.40	.57	.58
SUM	99.95	100.23	99.99	100.34	99.74	100.31	100.11	99.88
SI	1.990 *	1.949 *	1.989 *	1.934 *	1.930 *	1.958 *	1.957 *	1.954 *
AL	.010 2.000	.051 2.000	.011 2.000	.066 2.000	.070 2.000	.042 2.000	.043 2.000	.046 2.000
AL	.052 *	.051 *	.031 *	.064 *	.072 *	.058 *	.070 *	.041 *
TI	.003 *	.001 *	.000 *	.002 *	.005 *	.011 *	.004 *	.005 *
CR	.005 *	.027 *	.003 *	.008 *	.000 *	.000 *	.007 *	.001 *
FE	.294 *	.204 *	.337 *	.306 *	.234 *	.368 *	.240 *	.371 *
MG	.715 *	.771 *	.692 *	.824 *	.759 *	.625 *	.768 *	.676 *
MN	.009 *	.004 *	.011 *	.008 *	.002 *	.006 *	.006 *	.012 *
CA	.882 *	.896 *	.903 *	.765 *	.892 *	.897 *	.865 *	.868 *
NA	.030 *	.062 *	.023 *	.036 *	.057 *	.029 *	.041 *	.043 *
K	.000 1.989	.000 2.016	.000 2.000	.000 2.013	.000 2.022	.000 1.996	.000 1.999	.000 2.017
D	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.424	.270	.503	.382	.310	.598	.320	.567
F/FM	.298	.212	.335	.276	.237	.374	.242	.362

- 41 H2SS-7 2
- 42 H2SS-10 11
- 43 H2SS-10 12
- 44 H2SS-19 1
- 45 H2SS-19 2
- 46 H2SS-19 4
- 47 H2SS-19 5
- 48 H2SS-20 8

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	49	50	51	52	53	54	55	56
SI02	55.30	54.99	53.10	53.03	51.90	53.48	55.65	55.55
TI02	.05	.03	.09	.10	.10	.06	.00	.08
A203	1.07	1.31	1.30	1.52	1.88	.98	.23	.67
C203	.01	.20	.00	.02	.01	.00	.00	.00
FEO	6.45	6.34	11.75	9.09	11.25	10.33	3.35	3.67
MGO	13.10	13.50	10.28	12.01	10.20	11.11	16.11	15.94
MNO	.25	.17	.43	.26	.48	.33	.01	.08
CAD	23.41	23.64	23.05	23.82	23.80	23.98	24.73	24.47
K20	.01	.00	.01	.00	.00	.00	.00	.00
NA20	.69	.41	.53	.32	.49	.22	.00	.00
SUM	100.34	100.59	100.54	100.17	100.11	100.49	100.08	100.46
SI	2.030 *	2.013 *	1.999 *	1.983 *	1.967 *	2.003 *	2.023 *	2.014 *
AL	.000 2.030	.000 2.013	.001 2.000	.017 2.000	.033 2.000	.000 2.003	.000 2.023	.000 2.014
AL	.046 *	.057 *	.057 *	.050 *	.051 *	.043 *	.010 *	.029 *
TI	.001 *	.001 *	.003 *	.003 *	.003 *	.002 *	.000 *	.002 *
CR	.000 *	.006 *	.000 *	.001 *	.000 *	.000 *	.000 *	.000 *
FE	.198 *	.194 *	.370 *	.284 *	.357 *	.324 *	.102 *	.111 *
MG	.717 *	.737 *	.577 *	.669 *	.576 *	.620 *	.873 *	.861 *
MN	.008 *	.005 *	.014 *	.008 *	.015 *	.010 *	.000 *	.002 *
CA	.921 *	.927 *	.930 *	.954 *	.967 *	.962 *	.963 *	.950 *
NA	.049 *	.029 *	.039 *	.023 *	.036 *	.016 *	.000 *	.000 *
K	.000 1.941	.000 1.956	.000 1.989	.000 1.992	.000 2.006	.000 1.978	.000 1.948	.000 1.956
O	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.287	.271	.665	.437	.646	.539	.117	.132
F/FM	.223	.213	.399	.304	.392	.350	.105	.117

- 49 H6SS-2 8
- 50 H6SS-3 6
- 51 H6SS-5 16
- 52 H6SS-8 6
- 53 H6SS-8 10
- 54 H6SS-8 26
- 55 P-3 1
- 56 P-3 2

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	57	58	59	60	61	62	63	64
SI02	56.28	55.27	54.64	55.48	55.96	51.53	52.85	53.29
TI02	.01	.11	.19	.09	.03	.08	.13	.03
A203	.31	1.22	1.29	.89	.49	1.57	2.12	1.79
C203	.00	.00	.00	.00	.00	.24	.00	.00
FEO	3.42	3.64	3.72	3.28	3.46	14.28	10.01	8.56
MGO	15.65	15.73	15.60	16.19	15.69	8.35	12.34	12.79
MNO	.03	.02	.01	.00	.12	.14	.31	.26
CAO	24.32	23.98	24.37	24.10	24.34	23.71	22.01	22.68
K2O	.00	.01	.00	.00	.00	.00	.01	.00
NA2O	.02	.04	.00	.01	.00	.13	.58	.49
SUM	100.04	100.02	99.82	100.04	100.09	100.03	100.36	99.89
SI	2.041 *	2.009 *	1.995 *	2.013 *	2.031 *	1.978 *	1.972 *	1.986 *
AL	.000 2.041	.000 2.009	.005 2.000	.000 2.013	.000 2.031	.022 2.000	.028 2.000	.014 2.000
AL	.013 *	.052 *	.051 *	.038 *	.021 *	.049 *	.065 *	.064 *
TI	.000 *	.003 *	.005 *	.002 *	.001 *	.002 *	.004 *	.001 *
CR	.000 *	.000 *	.000 *	.000 *	.000 *	.007 *	.000 *	.000 *
FE	.104 *	.111 *	.114 *	.100 *	.105 *	.459 *	.312 *	.267 *
HG	.846 *	.852 *	.849 *	.876 *	.849 *	.478 *	.686 *	.710 *
MN	.001 *	.001 *	.000 *	.000 *	.004 *	.005 *	.010 *	.008 *
CA	.945 *	.934 *	.953 *	.937 *	.947 *	.975 *	.880 *	.906 *
NA	.001 *	.003 *	.000 *	.001 *	.000 *	.010 *	.042 *	.035 *
K	.000 1.911	.000 1.955	.000 1.972	.000 1.953	.000 1.926	.000 1.985	.000 1.999	.000 1.992
D	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.124	.131	.134	.114	.128	.969	.469	.387
F/FM	.110	.115	.118	.102	.114	.492	.319	.279

- 57 P-3 3
- 58 P-3 4
- 59 P-3 5
- 60 P-3 6
- 61 P-3 7 INCL OLIV
- 62 RV-2 11
- 63 RV-5 16
- 64 RV-5 17

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.8.

	65	66	67	68	69	70	71	72
SI02	54.40	53.34	53.20	53.12	53.30	52.67	52.27	53.52
TI02	.11	.15	.20	.13	.10	.13	.17	.11
A203	1.69	1.83	1.82	1.84	1.56	1.88	1.79	1.90
C203	.00	.00	.10	.00	.05	.02	.03	.34
FEO	7.24	8.67	8.04	9.96	10.35	10.09	14.37	7.96
MGO	13.53	12.89	13.56	11.89	11.98	12.29	11.41	13.37
MNO	.28	.28	.17	.26	.22	.20	.27	.07
CAO	22.48	22.51	22.96	22.09	22.16	22.30	19.47	22.73
K2O	.00	.00	.00	.01	.00	.00	.01	.00
NA2O	.56	.47	.38	.57	.44	.48	.33	.45
SUM	100.29	100.14	100.43	99.87	100.16	100.06	100.12	100.45
SI	2.002 *	1.983 *	1.969 *	1.990 *	1.993 *	1.973 *	1.979 *	1.977 *
AL	.000 2.002	.017 2.000	.031 2.000	.010 2.000	.007 2.000	.027 2.000	.021 2.000	.023 2.000
AL	.073 *	.063 *	.049 *	.071 *	.062 *	.056 *	.059 *	.060 *
TI	.003 *	.004 *	.006 *	.004 *	.003 *	.004 *	.005 *	.003 *
CR	.000 *	.000 *	.003 *	.000 *	.001 *	.001 *	.001 *	.010 *
FE	.223 *	.270 *	.249 *	.312 *	.324 *	.316 *	.455 *	.246 *
MG	.742 *	.714 *	.748 *	.664 *	.668 *	.686 *	.644 *	.736 *
MN	.009 *	.009 *	.005 *	.008 *	.007 *	.006 *	.009 *	.002 *
CA	.886 *	.896 *	.911 *	.886 *	.888 *	.895 *	.790 *	.900 *
NA	.040 *	.034 *	.027 *	.041 *	.032 *	.035 *	.024 *	.032 *
K	.000 1.976	.000 1.990	.000 1.998	.000 1.987	.000 1.985	.000 1.999	.000 1.988	.000 1.989
O	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *	6.000 *
F/M	.312	.390	.340	.482	.495	.470	.720	.337
F/FM	.238	.280	.254	.325	.331	.320	.419	.252

- 65 RV-8 9
- 66 RV-8 10
- 67 RV-8 11
- 68 RV-9 29
- 69 RV-9 30
- 70 RV-9 33
- 71 RV-14 11
- 72 RV-14 12

CLINOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	73	74	75	76	77
SI02	53.68	53.51	55.10	54.32	53.86
TI02	.04	.04	.06	.08	.09
A203	1.74	1.54	1.77	1.81	1.43
C203	.01	.08	.06	.06	.00
FEO	6.94	8.09	6.10	8.04	10.33
MGO	14.05	13.43	13.45	13.83	11.29
MNO	.08	.25	.11	.17	.23
CAO	22.77	22.85	23.30	21.24	22.56
K2O	.00	.00	.00	.01	.00
NA2O	.42	.48	.51	.37	.47
SUM	99.73	100.27	100.46	99.93	100.26

AL203

SI	1.987	*	1.984	*	2.014	*	2.004	*	2.011	*
AL	.013	2.000	.016	2.000	.000	2.014	.000	2.004	.000	2.011
AL	.062	*	.051	*	.076	*	.079	*	.063	*
TI	.001	*	.001	*	.002	*	.002	*	.003	*
CR	.000	*	.002	*	.002	*	.002	*	.000	*
FE	.215	*	.251	*	.186	*	.248	*	.323	*
MG	.775	*	.742	*	.733	*	.760	*	.628	*
MN	.003	*	.008	*	.003	*	.005	*	.007	*
CA	.903	*	.908	*	.912	*	.840	*	.903	*
NA	.030	*	.035	*	.036	*	.026	*	.034	*
K	.000	1.989	.000	1.997	.000	1.950	.000	1.963	.000	1.960
O	6.000	*	6.000	*	6.000	*	6.000	*	6.000	*
F/M	.280		.349		.259		.333		.525	
F/FM	.219		.258		.206		.250		.344	

- 73 RV-15 12
- 74 RV-15 13
- 75 T-6 11
- 76 T-6 12
- 77 T-9-18

ORTHOPYROXENE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	1	2
SI02	54.61	54.89
TI02	.08	.05
A203	2.82	2.33
C203	.00	.12
FEO	14.27	14.52
MGO	27.42	27.73
MNO	.23	.22
CAO	.44	.35
K2O	.00	.00
HA2O	.01	.01
NIO	.07	.00
SUM	99.95	100.22

SI	1.952	*	1.958	*
AL	.048	2.000	.042	2.000
AL	.071	*	.056	*
TI	.002	*	.001	*
CR	.000	*	.003	*
FE	.427	*	.433	*
MN	.007	*	.007	*
MG	1.461	*	1.475	*
CA	.017	*	.013	*
K	.000	*	.000	*
HA	.001	*	.001	*
NI	.002	1.987	.000	1.990
O	6.000	*	6.000	*
ENST	77.40		77.29	
FERR	22.60		22.71	
F/M	.297		.298	
F/FM	.229		.230	

1 CRA-1 1
2 CRA-1 10

OLIVINE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	1	2	3	4	5	6	7	8
SI02	41.33	41.72	41.52	41.36	41.31	41.01	41.45	41.83
TI02	.00	.00	.00	.00	.00	.01	.00	.00
A203	.00	.00	.00	.00	.00	.00	.00	.01
C203	.00	.00	.00	.00	.00	.00	.00	.00
FEO	8.08	7.69	8.20	8.94	9.83	10.21	8.74	8.88
MGO	50.19	50.23	50.13	49.22	48.28	48.64	49.58	49.23
MNO	.03	.00	.00	.06	.09	.12	.03	.08
CAO	.01	.00	.00	.00	.01	.00	.00	.01
K2O	.00	.00	.00	.01	.00	.00	.00	.00
NA2O	.00	.00	.01	.02	.02	.00	.00	.02
HIO	.27	.29	.29	.35	.35	.30	.37	.36
SUM	99.91	99.93	100.15	99.96	99.89	100.29	100.17	100.42
SI	1.005 *	1.012 *	1.007 *	1.009 *	1.013 *	1.004 *	1.008 *	1.015 *
AL	.000 1.005	.000 1.012	.000 1.007	.000 1.009	.000 1.013	.000 1.004	.000 1.008	.000 1.015
AL	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
TI	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
CR	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
FE	.164 *	.156 *	.166 *	.182 *	.202 *	.209 *	.178 *	.180 *
MN	.001 *	.000 *	.000 *	.001 *	.002 *	.002 *	.001 *	.002 *
MG	1.819 *	1.815 *	1.813 *	1.790 *	1.764 *	1.775 *	1.798 *	1.780 *
CA	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
K	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
NA	.000 *	.000 *	.000 *	.001 *	.001 *	.000 *	.000 *	.001 *
NI	.005 1.990	.006 1.977	.006 1.985	.007 1.982	.007 1.975	.006 1.992	.007 1.983	.007 1.970
O	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *
FO	91.72	92.09	91.59	90.75	89.75	89.46	91.00	90.81
FA	8.28	7.91	8.41	9.25	10.25	10.54	9.00	9.19
F/M	.091	.086	.092	.103	.115	.119	.099	.102
F/FM	.083	.079	.084	.093	.103	.106	.090	.093

- 1 DK-3 1
- 2 DK-3 2
- 3 DK-3 3
- 4 DK-3 4
- 5 DK-3 5
- 6 DK-3 6
- 7 DK-3 7
- 8 DK-3 8

OLIVINE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	9	10	11	12	13	14	15	16
SI02	41.17	40.13	39.72	40.24	39.61	40.25	40.31	40.32
TI02	.00	.00	.04	.00	.00	.00	.00	.00
A203	.00	.00	.00	.00	.00	.00	.00	.00
C203	.08	.00	.00	.00	.01	.00	.00	.00
FEO	8.45	15.68	16.10	18.03	17.28	17.05	16.32	16.88
MGO	50.29	43.99	44.02	41.49	43.02	42.77	42.85	42.68
MNO	.05	.15	.19	.19	.08	.19	.20	.09
CAO	.07	.01	.01	.00	.00	.00	.01	.00
K2O	.00	.00	.00	.00	.00	.00	.00	.00
NA2O	.02	.00	.02	.00	.00	.00	.00	.00
NIO	.33	.21	.06	.16	.24	.14	.23	.19
SUM	100.46	100.17	100.16	100.11	100.24	100.40	99.92	100.16
SI	.999 *	1.008 *	1.000 *	1.021 *	1.002 *	1.014 *	1.017 *	1.017 *
AL	.000 .999	.000 1.008	.000 1.000	.000 1.021	.000 1.002	.000 1.014	.000 1.017	.000 1.017
AL	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
TI	.000 *	.000 *	.001 *	.000 *	.000 *	.000 *	.000 *	.000 *
CR	.002 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
FE	.171 *	.329 *	.339 *	.382 *	.366 *	.359 *	.344 *	.356 *
MN	.001 *	.003 *	.004 *	.004 *	.002 *	.004 *	.004 *	.002 *
MG	1.819 *	1.647 *	1.653 *	1.569 *	1.623 *	1.606 *	1.612 *	1.604 *
CA	.002 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
K	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
NA	.001 *	.000 *	.001 *	.000 *	.000 *	.000 *	.000 *	.000 *
NI	.006 2.002	.004 1.984	.001 1.999	.003 1.959	.005 1.995	.003 1.972	.005 1.965	.004 1.966
O	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *
FO	91.38	83.33	82.97	80.40	81.61	81.72	82.39	81.84
FA	8.62	16.67	17.03	19.60	18.39	18.28	17.61	18.16
F/M	.095	.202	.208	.246	.226	.226	.216	.223
F/FM	.087	.168	.172	.198	.185	.184	.178	.182

- 9 H1SS-110 21
- 10 H1SS-110 22
- 11 H2SS-7 4
- 12 H6SS-3 2
- 13 H6SS-3 4
- 14 H6SS-10 1
- 15 H6SS-10 2
- 16 H6SS-10 3

OLIVINE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	17	18	19	20	21	22	23	24
SI02	39.72	40.39	39.71	40.24	40.61	39.81	38.91	39.15
TI02	.00	.00	.00	.00	.00	.03	.00	.00
A203	.00	.00	.00	.00	.00	.00	.00	.00
C203	.00	.00	.00	.00	.00	.00	.00	.03
FEO	19.83	16.79	19.02	16.68	16.84	19.20	21.97	22.77
MGO	39.94	42.83	41.13	43.08	42.12	41.18	38.78	37.75
MNO	.30	.20	.25	.15	.16	.23	.24	.25
CAO	.00	.00	.00	.00	.00	.00	.00	.01
K2O	.00	.00	.00	.00	.00	.00	.00	.00
NA2O	.02	.01	.00	.00	.01	.00	.00	.01
NIO	.12	.23	.16	.20	.15	.12	.35	.22
SUM	99.93	100.45	100.27	100.35	99.89	100.57	100.25	100.19
SI	1.019 *	1.016 *	1.012 *	1.013 *	1.026 *	1.012 *	1.008 *	1.017 *
AL	.000 1.019	.000 1.016	.000 1.012	.000 1.013	.000 1.026	.000 1.012	.000 1.008	.000 1.017
AL	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
TI	.000 *	.000 *	.000 *	.000 *	.000 *	.001 *	.000 *	.000 *
CR	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.001 *
FE	.425 *	.353 *	.405 *	.351 *	.356 *	.408 *	.476 *	.494 *
MN	.007 *	.004 *	.005 *	.003 *	.003 *	.005 *	.005 *	.005 *
MG	1.527 *	1.606 *	1.562 *	1.616 *	1.586 *	1.560 *	1.497 *	1.461 *
CA	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
K	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *
NA	.001 *	.000 *	.000 *	.000 *	.000 *	.000 *	.000 *	.001 *
NI	.002 1.963	.005 1.968	.003 1.976	.004 1.974	.003 1.949	.002 1.976	.007 1.985	.005 1.967
O	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *	4.000 *
FO	78.21	81.97	79.40	82.15	81.68	79.26	75.88	74.71
FA	21.79	18.03	20.60	17.85	18.32	20.74	24.12	25.29
F/M	.283	.223	.263	.219	.226	.265	.321	.342
F/FM	.220	.182	.208	.180	.185	.209	.243	.255

- 17 H6SS-10 4
- 18 H6SS-10 5
- 19 H6SS-10 6
- 20 H6SS-10 7
- 21 H6SS-10 8
- 22 H6SS-10 9
- 23 P-2 1
- 24 P-2 2

OLIVINE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

	25	26	27	28
SI02	39.03	38.79	38.18	37.76
TI02	.00	.00	.00	.00
A203	.00	.00	.01	.00
C203	.01	.00	.00	.05
FEO	23.08	23.66	28.17	30.62
MGO	37.82	37.20	33.35	30.74
MNO	.24	.28	.47	.36
CAO	.00	.00	.10	.03
K20	.00	.00	.01	.00
NA20	.01	.00	.03	.01
NIO	.34	.27	.21	.29
SUM	100.53	100.20	100.53	99.86
SI	1.012 *	1.012 *	1.016 *	1.023 *
AL	.000 1.012	.000 1.012	.000 1.016	.000 1.023
AL	.000 *	.000 *	.000 *	.000 *
TI	.000 *	.000 *	.000 *	.000 *
CR	.000 *	.000 *	.000 *	.001 *
FE	.501 *	.516 *	.627 *	.694 *
MN	.005 *	.006 *	.011 *	.008 *
MG	1.462 *	1.447 *	1.322 *	1.242 *
CA	.000 *	.000 *	.003 *	.001 *
K	.000 *	.000 *	.000 *	.000 *
NA	.001 *	.000 *	.002 *	.001 *
NI	.007 1.976	.006 1.975	.004 1.969	.006 1.953
O	4.000 *	4.000 *	4.000 *	4.000 *
FO	74.49	73.70	67.85	64.15
FA	25.51	26.30	32.15	35.85
F/M	.346	.361	.482	.566
F/FM	.257	.265	.325	.361

25 P-2 4
 26 P-2 5
 27 P-3 7 INCL IN CPX
 28 P-3 8

AMPHIBOLE, DIAMOND DISCOVERIES INT., FEB. 6, 2001, R.L.B.

1

SI02	53.11
TI02	.16
A2O3	6.11
C2O3	.99
FE0	5.90
MGO	18.78
MNO	.10
CA0	11.77
K2O	.11
NA2O	.96
F	.18
CL	.00
SUM	98.17
-O= F+CL	.08
SUM	98.09

SI	7.388	*
AL	.612	8.000
AL	.389	*
TI	.017	*
CR	.109	*
FE	.686	*
MG	3.894	*
MN	.012	5.107
CA	1.754	*
K	.020	*
NA	.259	2.033
F	.079	*
CL	.000	*
O	23.000	*
FE	14.99	
MG	85.01	
F/M	.179	
F/FM	.152	

1 H6SS-1 2 CR-AMPH

PHLOGOPITE-BIOTITE, DIAMOND DISCOVERIES INT., FEB. 6 2001, R.L.B.

	1	2	3	4	5	6	7	8
SI02	36.55	37.66	37.69	37.12	37.65	37.56	36.62	36.43
TI02	4.43	4.77	5.16	4.85	4.88	4.80	5.03	4.44
A203	17.48	18.43	15.44	15.29	15.13	15.54	15.23	15.49
C203	.14	.26	.10	.04	.09	.08	.11	.03
FEO	14.68	14.05	9.47	10.98	10.91	10.46	10.34	8.92
MGO	12.67	11.98	17.17	16.35	16.90	16.67	15.65	17.62
MNO	.00	.00	.00	.00	.00	.03	.00	.00
CAO	.00	.08	.01	.00	.00	.00	.01	.00
BAO	.17	.16	.16	.17	.23	.26	.25	.03
K2O	8.93	4.90	9.42	9.39	9.41	9.54	9.72	9.55
NA2O	.01	.05	.06	.05	.02	.02	.03	.08
F	.83	.75	1.74	2.26	2.28	2.30	2.01	1.70
CL	.03	.04	.00	.02	.02	.02	.04	.01
SUM	95.92	93.13	96.42	96.52	97.52	97.28	95.04	94.30
-O= F+CL	.36	.32	.73	.96	.96	.97	.86	.72
SUM	95.56	92.81	95.69	95.56	96.56	96.31	94.18	93.58
SI	5.393 *	5.540 *	5.421 *	5.377 *	5.394 *	5.387 *	5.393 *	5.359 *
AL	2.607 8.000	2.460 8.000	2.579 8.000	2.610 7.987	2.554 7.949	2.613 8.000	2.607 8.000	2.641 8.000
AL	.432 *	.735 *	.037 *	.000 *	.000 *	.013 *	.036 *	.043 *
TI	.492 *	.528 *	.558 *	.528 *	.526 *	.518 *	.557 *	.491 *
CR	.016 *	.030 *	.011 *	.005 *	.010 *	.009 *	.013 *	.003 *
FE	1.811 *	1.729 *	1.139 *	1.330 *	1.307 *	1.255 *	1.273 *	1.097 *
MG	2.786 *	2.627 *	3.681 *	3.530 *	3.609 *	3.564 *	3.435 *	3.863 *
MN	.000 5.537	.000 5.649	.000 5.427	.000 5.393	.000 5.452	.004 5.362	.000 5.314	.000 5.498
CA	.000 *	.013 *	.002 *	.000 *	.000 *	.000 *	.002 *	.000 *
BA	.010 *	.009 *	.009 *	.010 *	.013 *	.015 *	.014 *	.002 *
K	1.680 *	.919 *	1.728 *	1.735 *	1.720 *	1.745 *	1.826 *	1.792 *
NA	.003 1.693	.014 .956	.017 1.755	.014 1.759	.006 1.738	.006 1.765	.009 1.850	.023 1.816
F	.387 *	.349 *	.791 *	1.035 *	1.033 *	1.043 *	.936 *	.791 *
CL	.008 *	.010 *	.000 *	.005 *	.005 *	.005 *	.010 *	.002 *
O	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *
FE	39.40	39.69	23.63	27.37	26.59	26.04	27.04	22.12
MG	60.60	60.31	76.37	72.63	73.41	73.96	72.96	77.88
F/M	.650	.658	.309	.377	.362	.353	.371	.284
F/FM	.394	.397	.236	.274	.266	.261	.270	.221

- 1 HISS-108 6
- 2 H2SS-13 1 (ALTERED)
- 3 H2SS-10B 9 INCL RUT
- 4 B-13 9 CENTRAL
- 5 B-13 9 INT BRIGHT DOMAIN
- 6 B-13 9 ANOTHER BRIGHT DOMAIN
- 7 B-13 9 AT MARGIN
- 8 B-13 10 CENTRAL

PHLOGOPITE-BIOTITE, DIAMOND DISCOVERIES INT., FEB. 6 2001, R.L.B.

	9	10	11	12	13	14	15	16
SI02	36.67	36.60	35.74	36.69	36.84	35.97	37.43	37.27
TI02	4.52	4.76	4.53	4.58	4.64	5.51	5.31	5.27
A203	15.43	15.56	15.66	15.72	15.81	15.61	15.83	15.99
C203	.05	.10	.04	.09	.15	.08	.14	.13
FEO	9.38	9.50	17.11	16.70	12.19	10.09	10.58	10.32
MGO	17.88	17.63	12.32	12.44	15.17	16.32	15.85	16.34
MNO	.00	.00	.03	.00	.00	.00	.00	.00
CAO	.00	.01	.00	.01	.01	.00	.00	.01
BAO	.02	.06	.16	.15	.20	.17	.13	.24
K2O	9.32	9.35	9.04	9.14	9.55	9.31	9.43	9.76
NA2O	.10	.07	.07	.03	.01	.12	.11	.10
F	1.76	1.87	1.68	1.74	1.39	1.56	1.55	1.62
CL	.01	.01	.47	.48	.04	.03	.05	.05
SUM	95.14	95.52	96.85	97.77	96.00	94.77	96.41	97.10
-O= F+CL	.74	.79	.81	.84	.59	.66	.66	.69
SUM	94.40	94.73	96.04	96.93	95.41	94.11	95.75	96.41
SI	5.349 *	5.324 *	5.324 *	5.390 *	5.402 *	5.300 *	5.412 *	5.362 *
AL	2.651 8.000	2.667 7.991	2.676 8.000	2.610 8.000	2.598 8.000	2.700 8.000	2.588 8.000	2.638 8.000
AL	.001 *	.000 *	.073 *	.111 *	.134 *	.011 *	.110 *	.073 *
TI	.496 *	.521 *	.507 *	.506 *	.512 *	.611 *	.577 *	.570 *
CR	.006 *	.012 *	.005 *	.010 *	.017 *	.009 *	.016 *	.015 *
FE	1.144 *	1.156 *	2.132 *	2.052 *	1.495 *	1.243 *	1.279 *	1.242 *
MG	3.887 *	3.822 *	2.736 *	2.724 *	3.316 *	3.584 *	3.416 *	3.504 *
MN	.000 5.535	.000 5.510	.004 5.456	.000 5.402	.000 5.474	.000 5.458	.000 5.399	.000 5.404
CA	.000 *	.002 *	.000 *	.002 *	.002 *	.000 *	.000 *	.002 *
BA	.001 *	.003 *	.009 *	.009 *	.011 *	.010 *	.007 *	.014 *
K	1.734 *	1.735 *	1.718 *	1.712 *	1.786 *	1.750 *	1.739 *	1.791 *
NA	.028 1.763	.020 1.759	.020 1.747	.009 1.731	.003 1.802	.034 1.794	.031 1.777	.028 1.834
F	.812 *	.860 *	.792 *	.808 *	.645 *	.727 *	.709 *	.737 *
CL	.002 *	.002 *	.119 *	.119 *	.010 *	.007 *	.012 *	.012 *
O	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *
FE	22.74	23.22	43.80	42.96	31.08	25.75	27.25	26.16
MG	77.26	76.78	56.20	57.04	68.92	74.25	72.75	73.84
F/M	.294	.302	.781	.753	.451	.347	.375	.354
F/FM	.227	.232	.438	.430	.311	.258	.272	.262

9 B-13 10 REL BRIGHT DOMAIN

10 B-13 10 AT MARGIN

11 B-13 13 CENTRAL

12 B-13 13 AT MARGIN

13 B-16A 4

14 B-16B 4 CENTRAL

15 B-16B 4 INT BRIGHT

16 B-16B 4 AT MARGIN

PHLOGOPITE-BIOTITE, DIAMOND DISCOVERIES INT., FEB. 6 2001, R.L.B.

	17	18	19	20	21	22	23
SI02	37.09	37.14	36.77	36.62	36.87	37.09	36.76
TI02	4.91	4.23	5.25	4.82	4.76	4.59	5.83
A203	16.20	16.01	15.01	15.88	16.03	15.80	15.00
C203	.15	.11	.21	.11	.11	.15	.20
FEO	9.12	8.91	10.71	13.25	12.67	12.69	16.95
MGO	16.69	17.57	15.96	13.89	14.40	13.93	11.68
MNO	.00	.02	.00	.02	.02	.00	.01
CAO	.01	.00	.00	.01	.00	.00	.01
BAO	.18	.16	.19	.39	.13	.20	.38
K2O	9.64	9.69	9.69	8.67	8.52	8.70	8.56
NA2O	.12	.09	.05	.03	.07	.06	.01
F	1.60	1.75	1.51	1.21	1.24	1.41	.61
CL	.04	.03	.02	.09	.09	.08	.09
SUM	95.75	95.71	95.37	94.99	94.91	94.70	96.09
-O= F+CL	.68	.74	.64	.53	.54	.61	.28
SUM	95.07	94.97	94.73	94.46	94.37	94.09	95.81
SI	5.375 *	5.380 *	5.404 *	5.436 *	5.442 *	5.493 *	5.490 *
AL	2.625 8.000	2.620 8.000	2.596 8.000	2.564 8.000	2.558 8.000	2.507 8.000	2.510 8.000
AL	.142 *	.113 *	.004 *	.213 *	.231 *	.250 *	.129 *
TI	.535 *	.461 *	.580 *	.538 *	.528 *	.511 *	.655 *
CR	.017 *	.013 *	.024 *	.013 *	.013 *	.018 *	.024 *
FE	1.105 *	1.079 *	1.316 *	1.645 *	1.564 *	1.572 *	2.117 *
MG	3.605 *	3.794 *	3.496 *	3.073 *	3.168 *	3.075 *	2.600 *
MN	.000 5.405	.002 5.462	.000 5.422	.003 5.484	.003 5.506	.000 5.425	.001 5.526
CA	.002 *	.000 *	.000 *	.002 *	.000 *	.000 *	.002 *
BA	.010 *	.009 *	.011 *	.023 *	.008 *	.012 *	.022 *
K	1.782 *	1.790 *	1.817 *	1.641 *	1.604 *	1.643 *	1.631 *
NA	.034 1.827	.025 1.825	.014 1.842	.009 1.674	.020 1.632	.017 1.672	.003 1.657
F	.733 *	.802 *	.702 *	.568 *	.579 *	.660 *	.288 *
CL	.010 *	.007 *	.005 *	.023 *	.023 *	.020 *	.023 *
O	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *	22.000 *
FE	23.46	22.15	27.35	34.86	33.05	33.82	44.88
MG	76.54	77.85	72.65	65.14	66.95	66.18	55.12
F/M	.307	.285	.377	.536	.494	.511	.815
F/FM	.235	.222	.274	.349	.331	.338	.449

- 17 8-168 6 CENTRAL
- 18 8-168 6 AT MARGIN
- 19 8-168 7
- 20 RV-9 21 CENTRAL
- 21 RV-9 21 BRIGHT DOMAIN
- 22 RV-9 21 DARK MARGINAL ZONE
- 23 RV-9 22

CHROMITE-MAGNETITE, DIAMOND DISCOVERIES INT., April 1, 2001, R.L.B.

	1	2	3	4	5	6	7	8
SI02	.00	.01	.05	.00	.00	.00	.00	.04
TI02	.08	.17	.09	.48	.58	.05	.13	1.21
A203	9.93	14.37	8.76	37.32	30.50	15.55	34.06	1.51
C203	59.61	48.05	60.79	27.46	35.07	55.32	26.50	22.92
FEO	19.29	29.56	21.30	19.12	19.57	18.40	27.62	68.80
MNO	.30	.37	.45	.16	.23	.35	.22	.66
MGO	10.35	7.48	8.23	14.98	14.09	9.99	10.58	1.16
ZNO	.00	.02	.00	.00	.00	.00	.14	.15
NIO	.08	.12	.10	.23	.24	.07	.23	.23
SUM	99.64	100.15	99.77	99.75	100.28	99.73	99.48	96.68
SI	.000 *	.003 *	.014 *	.000 *	.000 *	.000 *	.000 *	.014 *
TI	.016 *	.034 *	.018 *	.084 *	.104 *	.010 *	.024 *	.317 *
AL	3.114 *	4.555 *	2.791 *	10.204 *	8.573 *	4.736 *	9.790 *	.620 *
CR	12.541 *	10.218 *	12.994 *	5.037 *	6.614 *	11.304 *	5.110 *	6.312 *
FE	4.293 *	6.649 *	4.816 *	3.710 *	3.904 *	3.977 *	5.634 *	20.040 *
MN	.068 *	.084 *	.103 *	.031 *	.046 *	.077 *	.045 *	.195 *
MG	4.105 *	2.999 *	3.316 *	5.181 *	5.010 *	3.849 *	3.846 *	.602 *
ZN	.000 *	.004 *	.000 *	.000 *	.000 *	.000 *	.025 *	.039 *
NI	.017 24.154	.026 24.573	.022 24.073	.043 24.290	.046 24.297	.015 23.967	.045 24.520	.064 28.203
O	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *	32.000 *
F/M	1.062	2.245	1.483	.722	.789	1.053	1.477	33.601
F/FM	.515	.692	.597	.419	.441	.513	.596	.971

- 1 HISS-100 21
- 2 HISS-100 23
- 3 HISS-100 25
- 4 H2SS-17 6
- 5 H2SS-17 7
- 6 H2SS-17 10
- 7 H2SS-19 9
- 8 H6SS-10 21

CHROMITE-MAGNETITE, DIAMOND DISCOVERIES INT., April 1, 2001, R.L.B.

	9	10	11
SI02	.03	.05	.04
TI02	.16	.45	.32
A203	.31	.78	.68
C203	6.58	5.67	13.66
FEO	87.85	87.60	79.11
MNO	.31	.20	.41
MGO	.13	.44	.09
ZNO	.07	.10	.27
NIO	.19	.19	.17
SUM	95.63	95.48	94.75
SI	.012 *	.019 *	.015 *
TI	.047 *	.130 *	.091 *
AL	.141 *	.354 *	.302 *
CR	2.011 *	1.724 *	4.069 *
FE	28.400 *	28.179 *	24.924 *
MN	.101 *	.065 *	.131 *
MG	.075 *	.252 *	.051 *
ZN	.020 *	.028 *	.075 *
NI	.059 30.866	.059 30.811	.052 29.708
O	32.000 *	32.000 *	32.000 *
F/M	380.512	111.963	495.774
F/FM	.997	.991	.998

9 H6SS-10 24
 10 H6SS-10 27
 11 H6SS-10 31