

LOG NO:

0518

RD.

ACTION:

FILE NO:

GEOLOGICAL AND DIAMOND DRILLING REPORT

ON THE CRYSTAL PEAK GARNET PROPERTY

OSSOYOOS MINING DIVISION
SOUTHERN B.C.

RECEIVED

MAY 15 1990

For

Gold Commissioner's Office
VANCOUVER, B.C.

Polestar Exploration Inc.
Suite 701-675 W. Hastings St.
V6B 1N2

By

H.C. Grond M.Sc., F.G.A.C.
R. Wolfe, P.Eng.

April, 1990

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,991

TABLE OF CONTENTS

	Page
1.0 Summary	1
2.0 Introduction	3
2.1 Location and Access	3
2.2 Property and Ownership	4
2.3 History and Previous Work	5
3.0 Geology	6
3.1 Regional Geology	6
3.2 Local Geology of Mt. Riordan	7
3.3 Microprobe Study	11
4.0 Grade determination	12
4.1 Surface Sampling	15
4.2 Bulk Sampling	16
5.0 Diamond Drilling	16
5.1 Reserve Calculations	18
6.0 Conclusions	19
7.0 References	21

LIST OF FIGURES

	After Page
Figure 1. Location Map	3
Figure 2. Claim Map	4
Figure 3. Regional Geology Map	6
Figure 4. Property Geology Map	pocket
Figure 5. Microprobe Analyses by Ray (1988)	8
Figure 6. Idealized Geology with High Grade Garnet Zones	9
Figure 7. Surface Samples, North Zone	pocket
Figure 8. Surface Samples, West Zone	pocket
Figure 9. Surface Samples, South Zone	pocket

LIST OF TABLES

**Table 1. Characteristics of East-West Skarn Variation
across the Hedley District.....after page 6**

LIST OF APPENDICES

- Appendix I. Results of Thin Section Analysis of Surface Samples**
- Appendix II. Microprobe Study**
- Appendix III. Drill Logs, Thin Section Analysis Results and Summary of Garnet Content in Drill Holes**
- Appendix VI. Results of Crushing of 5 Foot Sections of Drill Core**
- Appendix V. Results of Heavy Liquid Separation**
- Appendix VI. Statement of Qualifications**
- Appendix VII. Statement of Costs**

1.0 SUMMARY

During the late summer and fall of 1989, a program of geological mapping, sampling, and diamond drilling was carried out by Polestar Exploration Inc. personnel on the Crystal Peak property, Osoyoos, Mining Division.

The purpose of the program was to outline high grade garnet bodies suitable for open-pit quarrying. Garnet is an industrial mineral which has many uses particularly as an abrasive medium.

The Crystal Peak property is situated in the Hedley area of south-central British Columbia, some 30 kilometres west of Penticton, B.C. The claims are centred at north latitude 49° 24' and west longitude 119° 55' and are covered by NTS mapsheet 82E/5W.

The Crystal Peak property lies within the Intermontane Belt of the Canadian Cordillera. The major rock units in the area are members of the Late Triassic Nicola Group. Early Jurassic intrusions are fairly common, and are represented in the area by the Bromley Batholith and Cahill Creek Pluton.

Relative to other garnet-rich skarns, this deposit appears to be very large. Garnet-rich outcrop occurs intermittently over an

area 800m x 300m. Diamond drilling indicates that the garnet body has a minimum depth of 300 m.

Three high grade zones averaging almost 80% garnet have been outlined and tested with diamond drilling. Any one of these areas are suitable for quarrying.

Drill indicated reserves are approximately 40,000,000 tonnes of close to 80% garnet. An additional 60,000,000 tonnes of possible geological reserves are indicated.



POLESTAR EXPLORATION INC.
CRYSTAL PEAK GARNET DEPOSIT
LOCATION MAP
Scale 1cm = 80 Km

FIG. I.

2.0 INTRODUCTION

During the late summer and fall of 1989, a program of geological mapping, sampling, and diamond drilling was carried out by Polestar Exploration Inc. personnel on the Crystal Peak property, Osoyoos, Mining Division.

The purpose of the program was to outline high grade garnet bodies suitable for open-pit quarrying. Garnet is an industrial mineral which has many uses, particularly as an abrasive medium.

This report is based on the results of the 1989 exploration program and on the available literature pertaining to the area.

2.1 LOCATION AND ACCESS

The Crystal Peak property is situated in the Hedley area of south-central British Columbia, some 30 kilometres west of Penticton, B.C. (Figure 1). The claims are centred at north latitude $49^{\circ} 24'$ and west longitude $119^{\circ} 55'$ and are covered by NTS mapsheet 82E/5W. The claims are located 7 km east of the Nickel Plate Gold Mine and just west of Apex village.

APPROX. BOUNDARY
M.C. KE 86-74



C.G.
L. 3122 L. 3123

Billy Goat
M.C.
MT.
+
RIORDAN

Shamrock

NICKEL PLATE

LAKE

ROAD

Access is excellent by an all weather road (Hwy #3A) north from Keremeos for 10 km, then north from Hwy #3A for 12 km, and west for 8 km into Apex Village. Several kilometres of 4-wheel drive roads transect the property. Access is also available from Penticton (28 km) and from Hedley (11 km). The first three kilometres of the road from Hedley are steep and winding but passable by 2 wheel drive vehicle.

2.2 PROPERTY AND OWNERSHIP

The property is mostly covered by the Apex Recreation area. This portion of the Recreation area was opened to staking on April 17, 1989.

The property consists of 1, 24 unit 1-post claim and 2 reverted crown grants (Figure 2). In addition, 2 single unit claims, the Lake 1 and 2, have been purchased for a potential plant site.

Claim information is as follows:

<u>TYPE</u>	<u>NAME</u>	<u>NO. OF UNITS OR ACREAGE</u>	<u>RECORDING DATE</u>
Located	KE8674	24 units	April 18, 1989
Crown-Granted	Billy Goat (L3122)	34.62 acr.	Sept. 15, 1898
Crown-Granted	Shamrock (L3123)	10.54 acr.	July 13, 1899
Located	Lake 1 (797)	1 unit	July 30, 1979
Located	Lake 2 (798)	1 unit	July 30, 1979

2.3 HISTORY AND PREVIOUS WORK

The Crystal Peak property is located in the Hedley district in southern B.C. The area is well known for its gold mining history, past and present.

The majority (95%) of the gold production was from the Nickel Plate and Hedley Mascot mines, which are located approximately 7 kms southwest of the subject property. As well, a number of smaller deposits were mined in the area, including the French, Goodhope and Carty auriferous skarn deposits.

Exploration started in the area of the claims just prior to the turn of the century and continued intermittently on a small

scale for some time. A series of small gossans have been explored by trenches, pits and two short adits. There is no evidence of any exploration activity in the last 10 years and according to Ray et.al. (1988), very little work has been done since the 1950's.

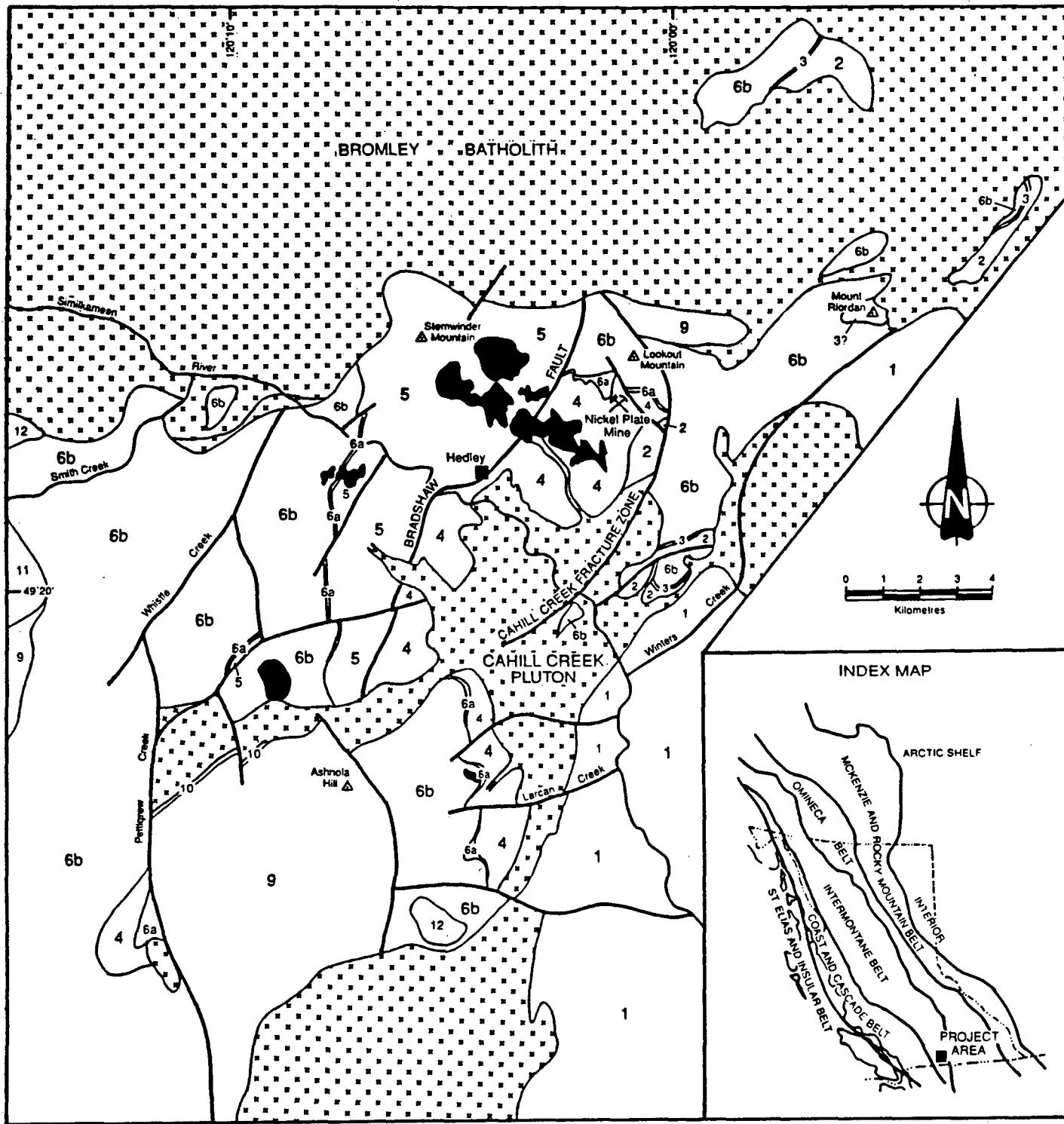
3.0 GEOLOGY

3.1 REGIONAL GEOLOGY

The Crystal Peak property lies within the Intermontane Belt of the Canadian Cordillera. The major rock units in the area are members of the Late Triassic Nicola Group. Early Jurassic intrusions are fairly common, and are represented in the area by the Bromley Batholith and Cahill Creek Pluton (Figure 3).

The area was mapped and described in detail by Dr. G.E. Ray et.al. from the B.C. Ministry of Energy, Mines and Petroleum Resources (Paper 1988-1).

The Mt. Riordan skarn deposit is the most easterly of a series of skarns which includes the presently operating Nickel Plate Mine and the old French and Goodhope mines. The composition of the skarns varies from high arsenic and gold-low garnet in the west to high garnet-low gold-no arsenic in the East (Mt. Riordan), (Table 1).



LEGEND

TERTIARY	
	Basaltic flows
EROSIONAL UNCONFORMITY	
EARLY CRETACEOUS	
VERDE CREEK INTRUSION – granite and microgranite RHYOLITE INTRUSION – quartz porphyry SPENCES BRIDGE GROUP – andesitic to dacitic pyroclastics and flows with minor sediments	
CONTACT UNCERTAIN	
BROMLEY BATHOLITH AND CAHILL CREEK PLUTON – granodiorite to quartz monzonodiorite HEDLEY INTRUSION – quartz diorite, gabbro, and gabbro	
EARLY JURASSIC	
APEX MOUNTAIN COMPLEX – ophiolite sequence of cherts, greenstones, siltstones, argillites and minor limestones	
PALAEZOIC	

NICOLA GROUP

LATE TRIASSIC

- 6b WHISTLE CREEK FORMATION – bedded to massive ash and lapilli tuff, minor tuffaceous siltstone
- 6a COPPERFIELD CONGLOMERATE – limestone boulder conglomerate
- 5 STEMWINDER MOUNTAIN FORMATION (WESTERN FACIES) – finely bedded argillite and limestone
- 4 HEDLEY FORMATION (CENTRAL FACIES) – finely bedded siltstone, thick limestone beds and minor tuffs
- 3 FRENCH MINE FORMATION (EASTERN FACIES) – limestone, limestone breccia and pebble conglomerate
- 2 PEACHLAND CREEK FORMATION – basaltic ash tuffs and flows with minor limestone and chert-pebble conglomerate

CONTACT OCCUPIED BY CAHILL CREEK PLUTON

PALAEZOIC

- 1 APEX MOUNTAIN COMPLEX – ophiolite sequence of cherts, greenstones, siltstones, argillites and minor limestones

POLESTAR EXPLORATION INC.

Crystal Peak Garnet Deposit Regional Geology

(by Ray et al)

FIGURE 3

TABLE 1
CHARACTERISTICS OF EAST-WEST SKARN VARIATION
ACROSS THE HEDLEY DISTRICT

FEATURES	WEST NICKEL PLATE MINE	FRENCH AND GOODHOPE MINES	EAST MOUNT RIORDAN
Skarn mineralogy	Banded, clinopyroxene-dominant skarn. Garnets – generally noncrystalline and brown	Locally clinopyroxene or garnet-dominant skarn. Crystalline and noncrystalline garnet	Massive, garnet-dominant skarn. Crystalline garnet with highly variable colour
Degree of skarn overprinting	Sedimentary structures often preserved in skarn	Sedimentary structures locally preserved	No sedimentary structures preserved
Skarn metallogeny	Au, As, Cu, Co, Bi, Te, Ag, Ni	Au, Cu, W, Co, Mo, Bi, As, Ag	W, Cu, Ag
Skarn-related intrusions	Associated with I-type dioritic Hedley intrusions	Associated with I-type dioritic Hedley intrusions	Associated with I-type granodiorites that do not resemble the Hedley intrusions
District hostrock geology	Siltstones and limestones of the Hedley formation	Limestone breccia and limy sediments of the French Mine formation	Probably massive limestone of the French Mine formation

3.2 LOCAL GEOLOGY OF MT. RIORDAN

Detailed geological mapping was carried out at a scale of 1:1000 over Mt. Riordan (Figure 4). The purpose of the mapping was to outline high grade garnet areas. Outcrop exposure is generally excellent, especially on the boundaries of the garnet body where cliff faces tend to predominate. The main reason for the good outcrop exposure is the resistive nature of the garnetite.

Several areas of low-lying overburden covered ground were tested by drilling as no outcrop was present. These areas tended to consist primarily of meta-diorite and sedimentary units.

The Mt. Riordan garnet skarn is most unusual in several ways. The "skarnification" or replacement of limestone to garnet is almost complete. No limestone is found on the property and none of the original sedimentary structures have been preserved. Diopside (clinopyroxene) is the most common accessory silicate. Quartz, epidote and actinolite occur in relatively low quantities. Calcite content is also relatively low, occurring in small veins near the top of the mountain and occasionally as interstitial blebs 1.3 mm across. Unlike the gold bearing skarns to the west, no mineralogical zoning or biotite hornfels rocks have been observed.

Garnet occurs either as massive garnetite or coarsely crystalline, often showing growth zonation. Red brown, green, and

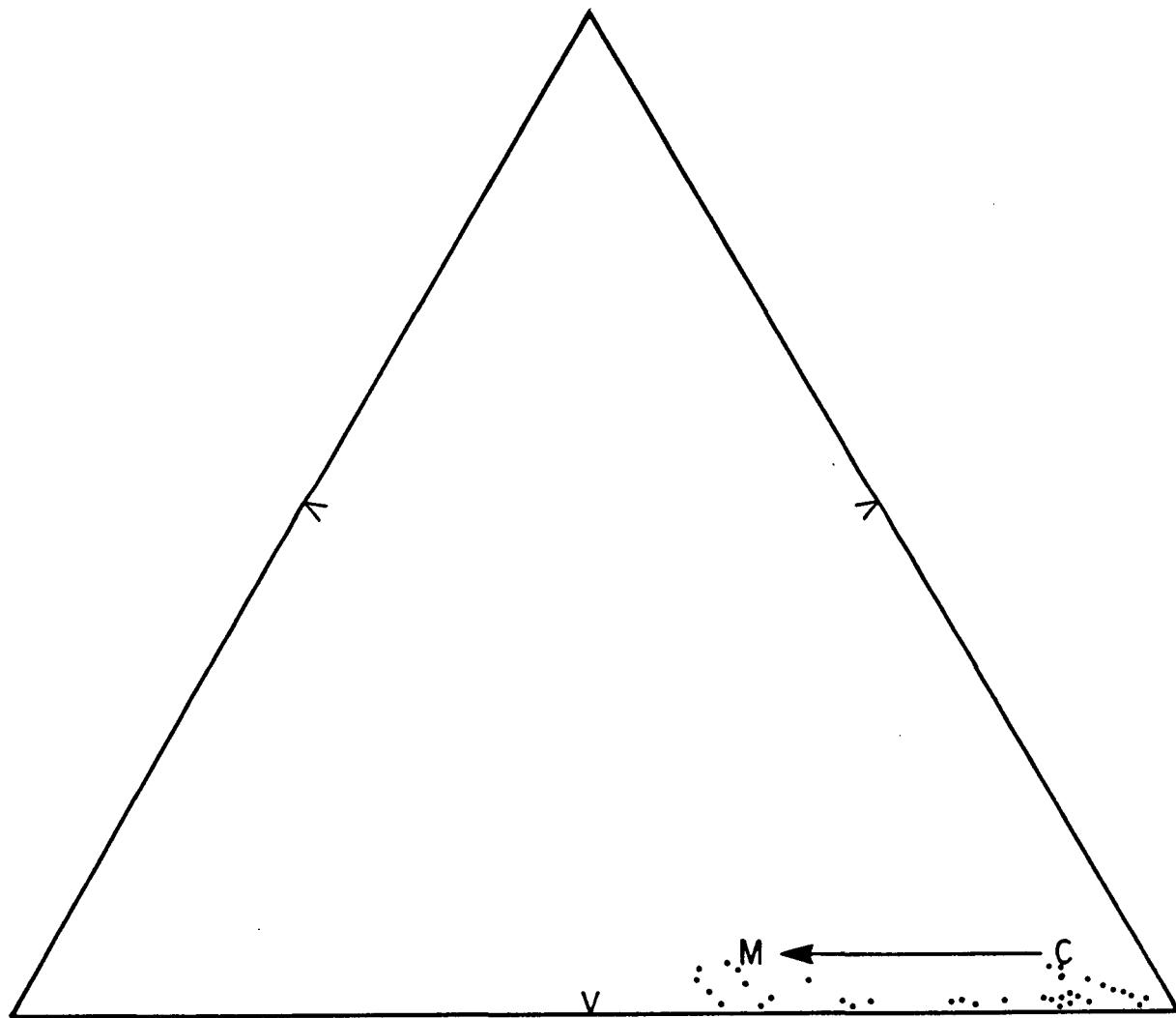
pink-orange are the most common colours although buff and black varieties have been noted.

Microprobe analyses by Ray (1988) show the garnet to be about 90% andradite ($\text{Ca}_3 \text{Fe}_2 \text{Si}_3 \text{O}_{12}$) and 10% grossularite ($\text{Ca}_3 \text{Al}_2 \text{Si}_3 \text{O}_{12}$). An interesting phenomenon is that the cores of the garnet crystals tend to be high in andradite, whereas the margins are higher in grossularite. Andradite and grossularite usually form a solid solution series with Fe And Al being inter-changeable. To a lesser extent Mg or Mn can substitute for Ca (Figure 5).

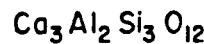
An east-west zone, distinguished by a series of gossans, occurs just north of line 1600N. A number of trenches and pits are evidence of previous exploration activities in the area, probably looking for copper and gold. The gossans contain pyrite, some scheelite, magnetite, quartz, calcite and minor pyrrhotite and chalcopyrite (now mostly altered to limonite/goethite/jarosite and malachite). Several other small gossans, two of which have short (less than 10 m) adits, have been mapped.

The granodiorite contact at the eastern edge of the skarn is well exposed. In addition, small diorite remnants are scattered in a broad zone through the centre of the skarn, but it is difficult to determine what, if any, influence they had on skarn formation. Evidence supporting Ray's theory was observed during logging of the diamond drill core. Samples of massive garnetite rock adjacent to

PYRALSPITE
 $Mg_3Al_2Si_3O_{12}$ - $Mn_3Al_2Si_3O_{12}$



GROSSULARITE



ANDRADITE



35 MICROPROBE ANALYSES BY RAY (1988).
 ARROW INDICATES CHANGE OF COMPOSITION
 FROM CRYSTAL CORES (C) TO MARGINS (M)

POLESTAR EXPLORATION INC.
 CRYSTAL PEAK GARNET DEPOSIT
 MICROPROBE ANALYSIS
 (BY RAY 1988)

FIG 5

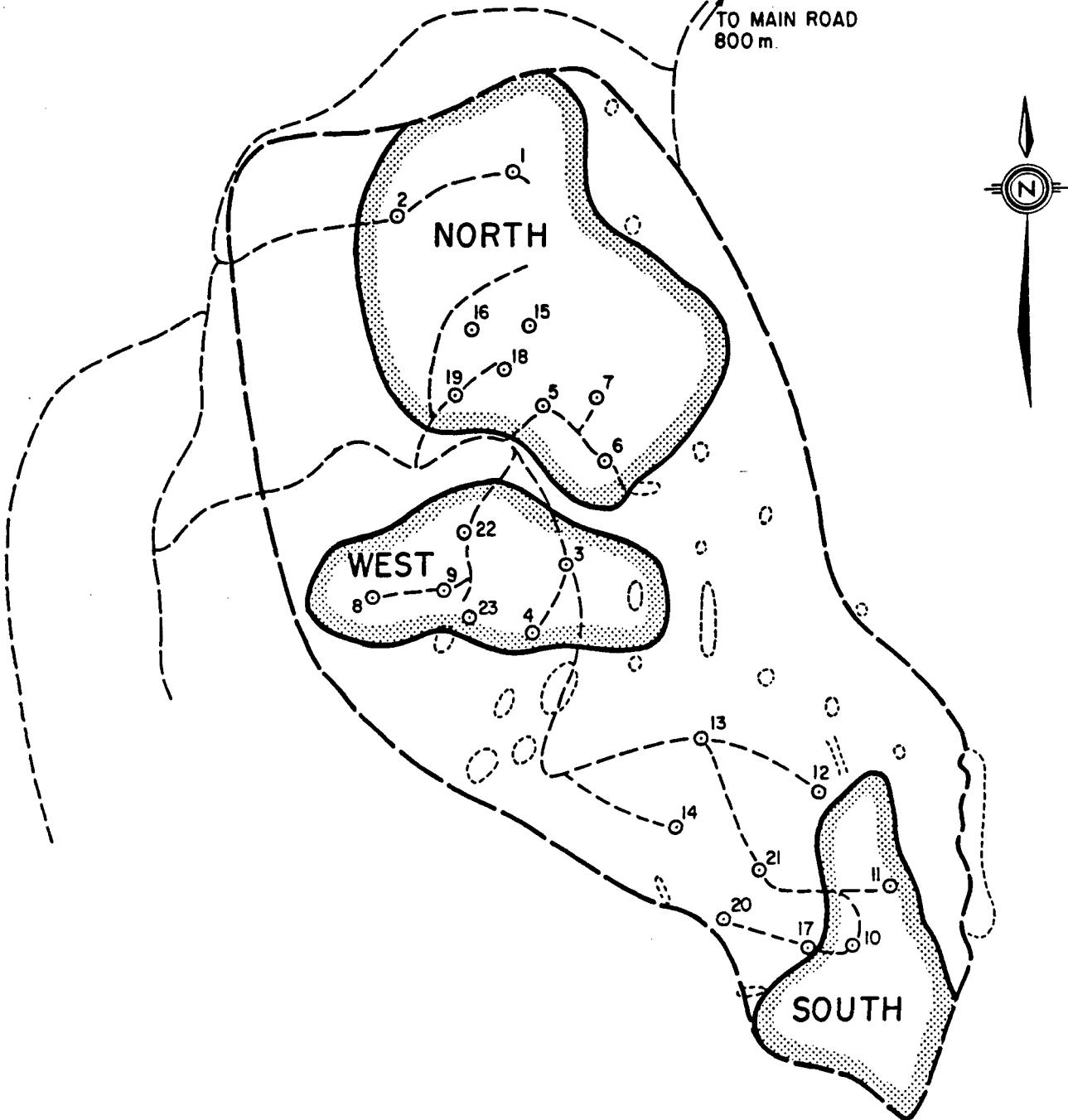
diorite were found to have distinct relict intrusive textures.

The most westerly skarn outcrop described by Ray occurs over 1 km west of the top of the mountain. The gently sloping west flank is mostly covered with till but the few outcrops indicate that garnet content diminishes to the west and various other skarn minerals such as quartz, diopside and even scapolite are on the increase. Drilling results from the Nova, Lake, and Ray claims, (1988) approximately 1 km to the west of Mt. Riordan, indicate garnet content is relatively minor.

Relative to other garnet-rich skarns, this deposit appears to be very large. Garnet-rich outcrop occurs intermittently over an area 800m x 300m. Diamond drilling indicates that the garnet body has a minimum depth of 300 m. This is based on the distance between the uppermost exposure of garnet at the peak to the lowest intersection of garnet in the deepest hole (#10).

Outcrop exposed over the area of interest is high, some 25%. In areas of almost continuous outcrop, three major high grade zones (60%-100% garnet) occur. These areas have been described as the North, South and West zones (Figure 6).

Some variation has been noted between the main zones. In particular, the South zone garnetite varies significantly from the North and West zones which are very similar. The garnet in the



LEGEND

- HIGH GRADE ZONES (80% GARNET)
- DIORITE/GANODIORITE OUTCROP
- DIAMOND DRILL HOLE
- OUTLINE OF GARNET BODY
- - ROAD

m 0 50 100 150 200 250 m

POLESTAR EXPLORATION INC.
**CRYSTAL PEAK GARNET DEPOSIT
 IDEALIZED GEOLOGY &
 DIAMOND DRILL HOLES**

FIG 6

South zone is generally coarsely crystalline (up to 1 cm) and is a distinctive pink-orange or salmon colour. The garnetite is exposed in a series of cliffs up to 300 feet high on the southern boundary of the deposit. The most common accessory mineral is coarse grained radiating actinolite crystals up to 5 cm long. A 3-5 meter wide band of massive calcite//epidote, striking roughly east-west occurs just south of Drill hole # 10.

The North and West zones consist primarily of dark green garnet which is extremely variable in grain size. Well developed zoning has been observed throughout this zone and is particularly spectacular as extremely coarse zoned crystals which range up to 5 cm in diameter. Coarse garnet is often intimately associated with very fine grained garnet giving a "blotchy effect".

The most common accessory mineral is diopside which generally occurs in patches that can grade up to 100%. The majority of the gossans that occur on the property are situated in the vicinity of the North and West zones.

3.3 MICROPROBE STUDY

An electron microprobe study was carried out by Myra Keep at the University of British Columbia. The purpose of the study was to ascertain the variation in composition of garnets from the Mt. Riordan property. The complete report is presented as Appendix III.

A total of 32 garnet samples from the Crystal Peak property were analyzed with an EMP (electron microprobe). The results from Keep's report are as follows:

"The results of the EMP analysis indicate that the garnets from Mt. Riordan can be divided into 3 main subgroups. These include: garnets with a high andradite component and little within-sample variation, garnets with a high andradite component and significant within-sample variation, and garnets with a high grossular component." "All of the garnets from the Mt. Riordan Peak property are part of the andradite-grossular transition. Of the 32 samples analyzed, 27 comprise grains with an andradite component greater than 65%. Only 5 samples have garnets with a high grossular component. The samples can be subdivided into 3 main groups including those that have a high andradite component and minimal compositional variation, those with high andradite concentrations and an expanded range of compositions, and those

that are mostly grossular-rich with a large compositional range. Compositional variation due to zoning involves both a slight increase and a slight decrease in andradite towards the rim. However, these increases and decreases in composition are small, in most cases representing less than a 10% change in the andradite component."

4.0 GRADE DETERMINATION

Since garnet content cannot be determined by conventional assay techniques, a variety of different methods were employed. These include visual estimation, thin section analysis of rock (point counting), thin section analysis of mixed crushed sample and heavy liquid separation.

The surface sample results were determined by thin-section analysis alone (point counting). In some cases two samples were taken and the results were averaged.

An integrated method of grade determination, consisting of both visual estimates and thin section analysis was used to estimate garnet content in the drill core. While core logging, sample selection for thin section analysis was made on the basis that each sample represented as closely as possible the length of core being estimated. A total of 418 thin sections were produced from the drill core.

In general, thin section results corresponded remarkably well with visual estimates. In cases where significant variation in results occurred, a number of factors were observed in order to establish which results were more accurate. Because of the inherent error involved in thin section analysis (each section only tests a very small percentage of each sample), final grade determination of the core was based on a combination of visual estimates and thin section results. The following methods were used:

-When garnet minerals were generally coarse grained, visual estimates were given more priority.

-When several thin sections were made from a uniform section of core, averaged thin section results were calculated.

-If thin section results gave high values for accessory minerals and visual estimates described low levels for these minerals (but indicated they occurred as blebs), visual estimates were adhered to.

-When garnet minerals were fine-grained and accessory minerals were homogeneously mixed with garnet, then thin section results were used.

Two additional methods of grade determination were employed to

sample core from holes within the west zone (#3, 4, 8, 9, 22, 23). These include thin section analysis of crushed mixed core and heavy liquid separation.

The first method involved taking half the core for each 5 foot interval and bagging and shipping it to Min-En Laboratories for processing. The core samples for each interval were crushed to one quarter inch in a jaw crusher. The material was then taken to about 40 mesh in a secondary core crusher. The total material was then screened with a -14 to +40 mesh sample and a -40 mesh sample produced. These coarse and fine grained samples were then weighed with the results presented as Appendix 4.

A 100 gram sample was taken from the well mixed crushed material in each size fraction and from these subsamples, a total of 330 thin sections were produced. In addition, for each 5th sample, a duplicate thin section was produced for each size fraction. These thin sections were analyzed using point counting methods. Particular care has been exercised to quantify total minerals present, mineral proportions completely liberated and mineral proportions still attached to garnet grains. Appendix 5 gives the results of this study.

A total of 32 samples in each of the two size fractions were selected for a heavy liquid test. a 200 gram subsample was subjected to floatation in two heavy liquids, one S.G.= 2.9 and one

S.G. = 3.6. The proportion of sample <2.90, >2.90, <3.60 and >3.60 were recovered and weighed. Appendix 6 gives the results of the heavy liquid separation.

Only preliminary comparisons have been made so far between the various methods of garnet determination. However, garnet determination by visual estimation is considered to be by far the most effective and appears to be accurate enough for the scope of the project. This is an ongoing project and further studies will be carried out.

4.1 SURFACE SAMPLING

Detailed surface sampling, at a 5 meter scale, was carried out over high-grade garnet zones identified by mapping. Excellent outcrop exposure in these areas aided sampling.

Sampling was generally done using a hammer and chisel or in some cases a portable rock saw. All samples were described before being sent in for thin-section analysis.

A total of 717 samples were taken and analyzed. These samples were plotted up depending on which zone they were taken from. Figures 7,8, and 9 show the various zones and garnet values.

4.2 BULK SAMPLING

Bulk samples were collected from the South and West zones of the property. Samples were collected in 5 gallon plastic pails.

In the West zone, a representative sample was collected from a total of three blasted pits. In the South zone, representative samples were collected from large talus slopes beneath the garnetiferous cliffs.

Approximately 8 tons of material were shipped to Canmet Laboratories in Ottawa for further testing.

6.0 DIAMOND DRILLING

A total of 3,317 feet was drilled over 23 holes. Drilling was generally slower than expected due to the extreme hardness of the garnet-rich core. The first phase of drilling was done using N-Q size rods. This was switched to B-Q size to expedite drilling.

Out of the 23 holes, 17 hit high grade garnet. The garnet values were particularly high in the 3 main zones where drilling was concentrated. Holes 12, 13 and 14 were drilled in a saddle where outcrop exposure was extremely poor. It was discovered that the rock types in this area consisted primarily of meta-diorite and

meta-sediments.

The highest grade garnet zone is the North zone where garnet values for 10 holes averaged 80.3%. The best hole was #16 which averaged 91.3% garnet over 120'. The West zone averaged 78.1% garnet over 2 holes. Only minor drilling was done on the South zone due to accessibility problems. The area, however, looks very promising in light of hole # 10 which returned an average of 78.8% garnet over 574'.

Core recovery was generally very good. Some zones of heavily fractured material occurred locally but massive material was most common. Only minor wash-out zones were encountered.

Red-brown hematite and buff coloured clay alteration were common in the North and West zones but not in the South. Epidote and actinolite minerals were far more abundant in the South zone than other areas on the property. Minor magnetite tends to be ubiquitous throughout the North and West zones and occurs as small blebs or stringers.

Unique textural variations were relatively uncommon. One interesting texture encountered in hole #10 was "worm burrow" texture which consisted of 50% garnet and 50% diopside in rod like shapes .5 cm in diameter.

Several crosscutting mafic dykes were observed in several drill holes. In at least one instance, the dyke was associated with copper mineralization.

DRILL HOLE SUMMARY

<u>West Zone</u>	<u>Hole #</u>	<u>Depth (feet)</u>	<u>% Garnet</u>
<u>Average garnet</u>			
Drill Core 78.1%	3	120	81.2
	4	100	82.0
	8	100	71.6
	9	100	76.2
	22	319	78.7
	23	130	77.3
<u>North Zone</u>			
<u>Average garnet</u>			
Drill Core 80.3%	1	100	77.8
	2	78	81.7
	5	247	76.7
	6	173	74.8
	7	96	70.8
	15	100	86.9
	16	120	91.3
	18	75	88.0
	19	87	84.0
<u>South Zone</u>			
<u>Average garnet</u>			
Drill Core 77.7%	10	574	78.8
	11	117	72.1

6.1 RESERVE CALCULATIONS

Simple reserve calculations have been generated based on average garnet content in drill holes. Surface dimensions were derived by results of detailed surface sampling and mapping to outline high-grade garnet-bearing rock which was exposed.

An average rock density value of 3.5 was used to determine tonnage. The following table shows a rough approximation of drill indicated reserves in the three high-grade zones:

<u>ZONE</u>	<u>APPROX. SURFACE AREA IN METRES</u>	<u>DEPTH IN METRES</u>	<u>DRILL INDICATED RESERVES (TONNES)</u>	<u>AVERAGE GRADE GARNET (D.H.)</u>
North	350 x 200	73	17,885,000	80%
West	300 x 124	91	11,848,200	78%
South	270 x 124	91	10,663,380	77%
Total			40,496,580	

Drill indicated reserves are approximately 40,000,000 tonnes of close to 80% garnet. An additional 60,000,000 tonnes of possible geological reserves are indicated. This is based principally on extended depth as drill hole data and surface information indicates that the deposit is much deeper than cut-off depths used in calculations. All holes except for 13 were stopped in garnet and the deposit is therefore open on all sides.

7.0 CONCLUSIONS

An exceptionally large, high grade garnet skarn deposit has been discovered on the Crystal Peak property near Penticton, B.C. The deposit outcrops extensively on surface and can be mapped over an area of approximately 800m x 300m. Three high grade zones averaging almost 80% garnet have been outlined and tested with

diamond drilling. Drill indicated reserves stand at approximately 40,000,000 tonnes of 80% garnet with an additional geological reserves of 60,000,000 tonnes.

The garnet deposit appears to have excellent potential for development. Road access is very good and a power line crosses within several hundred metres of the deposit. Any one of the three areas are suitable for quarrying.

Extensive testing of the garnet including processing and blasting tests are recommended to be carried out before proceeding with development.

8.0 REFERENCES

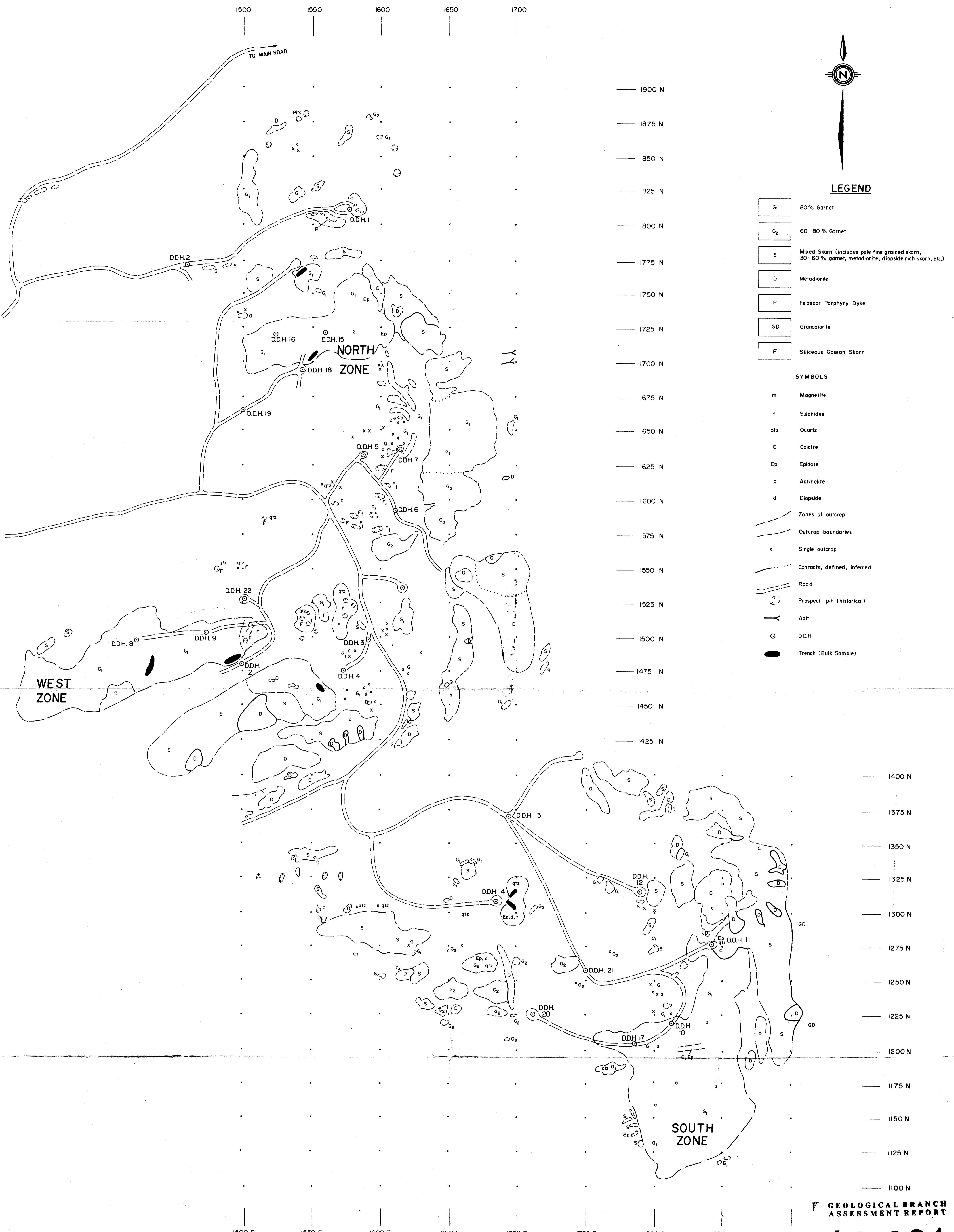
Ray, G.E., Dawson, G.L. and Simpson, R., (1988) Geology, Geochemistry and Metallogenic zoning in the Hedley Gold-skarn camp, Ministry of Energy, Mines, and Petroleum Resources.

Ray, G.E., and Dawson, G.L. (1988) Geology and Mineral Occurrences in the Hedley Gold Camp, B.C. Ministry of Energy, Mines and Petroleum Resources, Open File Map 1988-6.

Sorbara, J.H., Grond, H.C. (1988) Report on Canova's Nova, Lake and Ray Claims, Hedley area, B.C. Private report for Canova Resources Ltd.

Tennant, S.S. (1986) Diamond Drilling Program on the Nova and Lake claims, Private Report for Placer Development Ltd.

Wilmot, A.D. (1980) Report on Percussion Drilling, Lake Mineral claims, private report for Good Hope Resources Ltd.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,991

POLESTAR EXPLORATION INC.
CRYSTAL PEAK PROJECT

PROPERTY GEOLOGY

1425 1400 1375 1350 1325 1300 1275 1250 1225 1200 1175 1150 1125

1925

1900

1875

1850

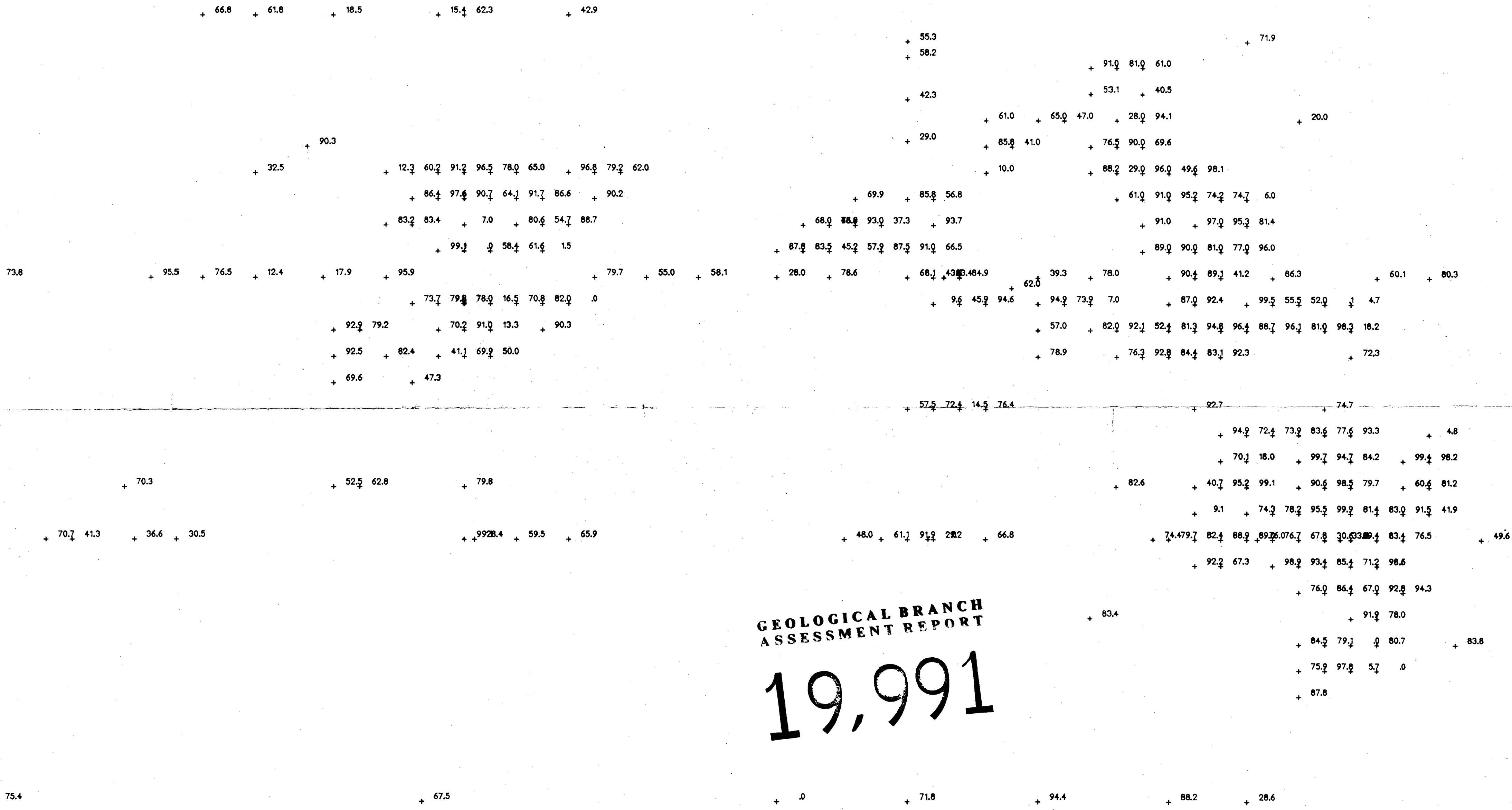
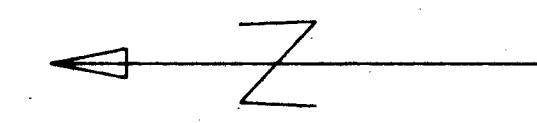
1825

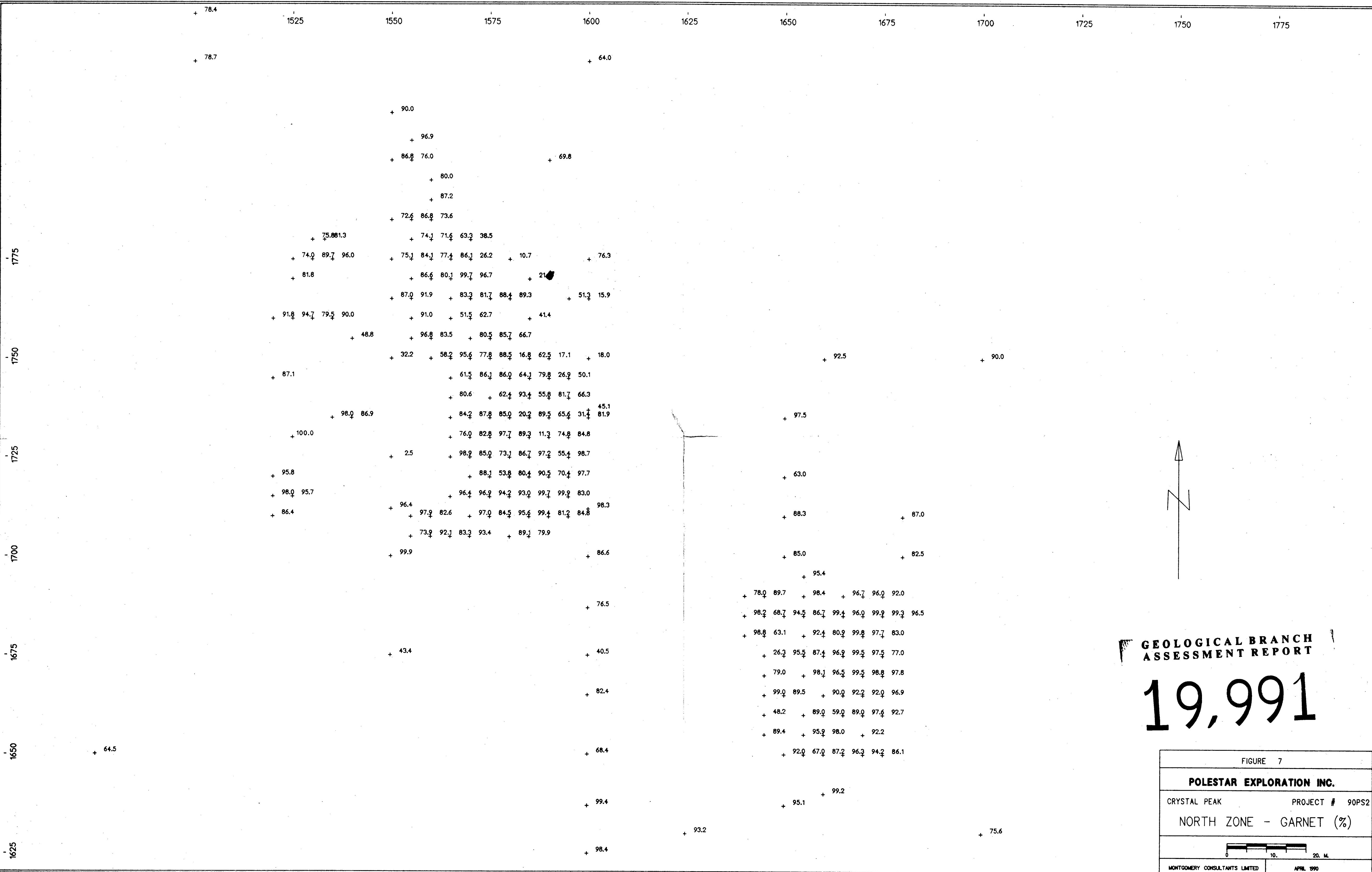
1800

1775

1750

1725



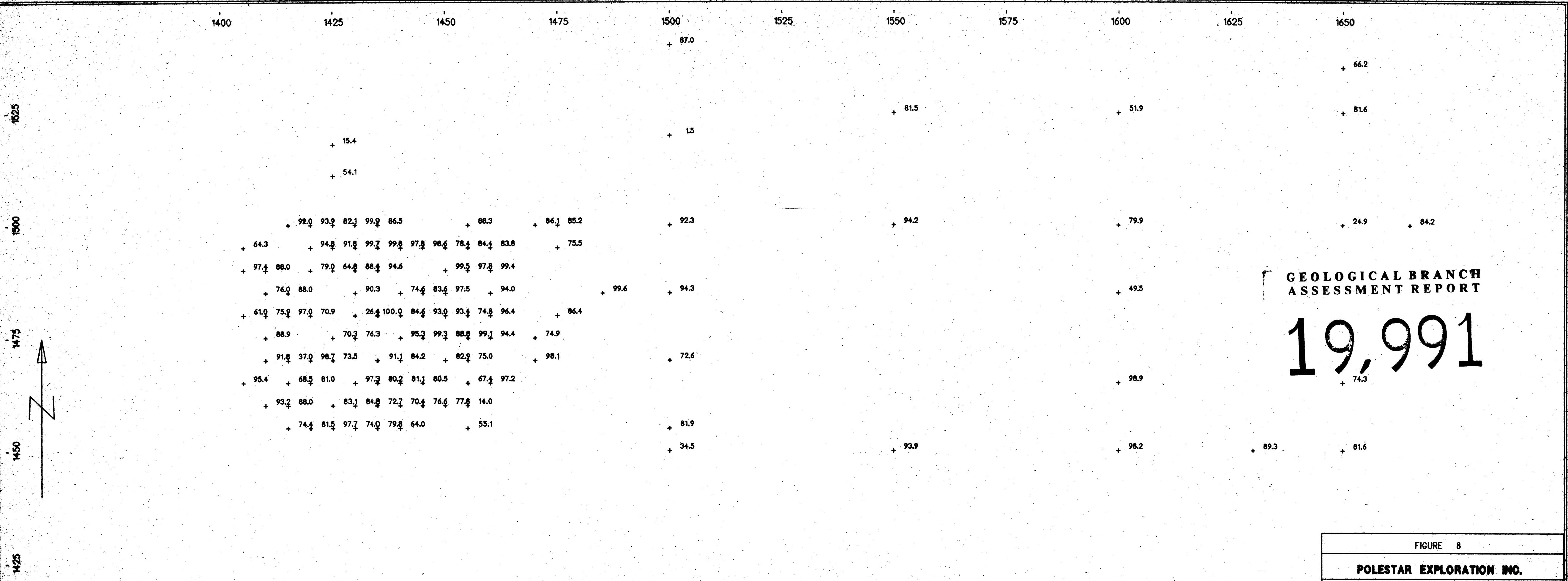


GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,991

FIGURE 7	POLESTAR EXPLORATION INC.	PROJECT # 90PS2
CRYSTAL PEAK	NORTH ZONE - GARNET (%)	

0 1 10. 20. M.
MONTGOMERY CONSULTANTS LIMITED APRIL 1990



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

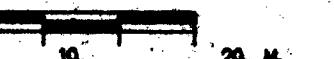
19,991

FIGURE 8

POLESTAR EXPLORATION INC.

CRYSTAL PEAK PROJECT # 90PS2

WEST ZONE - GARNET (%)



APPENDIX I

Results of Thin Section Analysis of Surface Samples

Data consists of:

B, N, garnet, diopside, quartz, calcite, tremolite/actinolite, feldspar, sphene, sericite, epidote, apatite, opaque, other

the numbers given are percentages and should total to 100%

1650.01450.0	81.6	16.0	0	0	0	0	0	0	0	0	12.9
1650.01465.0	74.3	24.5	0	1.2	0	0	0	0	0	0	0
1650.01500.0	24.9	33.7	0	4.6	0	0.9	0.2	34.8	0	0	0
1650.01525.0	81.6	18.4	0	0	0	0	0	0	0	0	0
1650.01535.0	66.2	31.9	0	1.2	0	0	0	0	0	0	0
1650.01560.0	65.0	12.5	3.0	1.1	0	2.5	0	0	0	1.0	0.3
1650.01575.0	56.5	3.4	0	0.6	0.8	1.4	0	0	0	26.3	0.2
1650.01585.0	69.1	6.5	0	0.8	3.2	0	0.1	0	0	20.4	0.0
1650.01600.0	67.8	31.8	0	0.1	0	0	0	0	0	0.1	0.0
1650.01637.0	55.1	2.3	0	0	1.5	0	1.1	0	0	0	0
1650.01650.0	92.6	1.5	0	0.3	0.8	0	0	0	0	4.5	0.5
1650.01665.0	89.5	0.3	2.2	1.0	1.5	0	0	0	0	4.0	1.3
1650.01675.0	95.5	0.3	0	0.5	0.5	1.5	0	0	0	1.5	0.3
1650.01695.0	94.5	0.0	1.5	0	2.5	0	0	0	0	0.3	0.8
1650.01700.0	85.0	0.8	3.5	0.5	0.8	0	0	0	0	3.0	6.5
1650.01710.0	88.3	4.2	2.0	1.6	0	3.9	0	0	0	0	0
1650.01720.0	63.0	10.0	0	0.3	1.0	0	0	0	0	5.5	0.3
1650.01735.0	97.5	0.0	0	0.5	1.3	0	0	0	0	0.8	0.0
1650.01875.0	0.0	0.0	61.5	0	2.0	34.5	0	0	0	0	1.0
1655.01650.0	67.0	10.0	0	0.0	0.0	0.0	0	0	0	23.0	0.0
1655.01655.0	95.9	0.0	0.4	0.2	1.6	0	0	0	0	0.0	1.9
1655.01660.0	89.0	0.0	8.0	0.0	2.0	0	0	0	0	0.0	0.0
1655.01670.0	99.1	0.2	0.1	0.6	0.7	0	0	0	0	0.0	0.0
1655.01675.0	87.4	12.1	0	0	0.0	0	0	0	0	0.0	0.0
1655.01680.0	92.4	6.8	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1655.01685.0	98.7	12.0	0.1	0.2	0.3	0	0	0	0	0.0	0.2
1655.01690.0	92.4	0.0	0.2	0.6	0.4	0	0	0	0	0.0	0.0
1655.01695.0	95.4	0.0	0.2	0.8	3.0	0	0	0	0	0.0	0.0
1660.01640.0	99.2	0.0	0.1	0.0	0.0	0	0	0	0	0.0	0.0
1660.01650.0	87.2	1.4	1.2	7.3	2.0	0	0	0	0	0.1	0.5
1660.01655.0	93.1	2.0	0.2	0.6	0.6	0	0	0	0	0.2	0.0
1660.01660.0	53.0	1.7	31.0	0.1	7.2	0	0	0	0	0.1	0.4
1660.01665.0	90.0	1.0	3.7	0.0	5.1	0	0.1	0	0	0.0	0.1
1660.01670.0	93.5	1.2	0.0	0.1	0.2	0	0	0	0	0.1	0.0
1660.01675.0	86.8	0.0	0.1	0.7	2.2	0	0	0	0	0.1	0.0
1660.01680.0	80.9	13.0	0.0	0.1	0.1	0	0	0	0	2.0	0.0
1660.01685.0	92.4	0.5	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1660.01690.0	89.5	5.0	0	0	0.5	0	0	0	0	1.0	0.0
1665.01600.0	93.7	0.0	0.1	0.1	0.1	0	0	0	0	0.0	0.0
1665.01605.0	84.2	18.0	0	0.3	0.3	0	0	0	0	0.5	0.1
1665.01650.0	88.8	0.6	0.5	1.3	0.2	0	0	0	0	0.0	0.1
1665.01660.0	89.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1665.01665.0	86.8	6.7	0.2	0.7	0.3	0	0	0	0	0.0	0.2
1665.01668.0	97.5	2.0	0.0	0.1	0.1	0	0	0	0	0.0	0.2
1665.01670.0	99.5	0.2	0.0	0.0	0.3	0	0	0	0	0.0	0.0
1665.01675.0	99.5	0.0	0.1	0.0	0.3	0	0	0	0	0.0	0.1
1665.01680.0	99.8	0.1	0.1	0.0	0.0	0	0	0	0	0.0	0.0
1665.01685.0	96.0	0.0	0.0	0.0	3.0	0	0	0	0	0.0	1.0
1665.01690.0	96.7	0.4	2.1	0.7	0.0	0	0	0	0	0.0	0.1
1670.01650.0	94.2	5.6	0.0	0.1	0.1	0	0	0	0	0.0	0.0
1670.01655.0	92.2	0.0	1.5	2.1	2.4	0	0	0	0	0.0	1.8
1670.01660.0	97.6	1.4	0.3	0.4	0.2	0	0	0	0	0.0	0.1
1670.01665.0	92.0	0.0	4.0	1.0	2.0	0	0	0	0	1.0	0.0
1670.01670.0	95.8	0.0	0.2	0.1	0.8	0	0	0	0	0.0	0.0
1670.01675.0	97.7	2.2	0.0	0.1	0.0	0	0	0	0	0.0	0.2
1670.01680.0	97.0	1.8	0.0	0.1	0.0	0	0	0	0	0.0	0.0
1670.01685.0	99.0	0.0	0.0	0.0	0.1	0	0	0	0	0.0	0.0
1670.01690.0	98.0	0.0	0.0	0.0	0.1	0	0	0	0	0.0	0.0
1670.01695.0	97.7	1.1	0.1	0.7	0.0	0	0	0	0	0.0	0.0
1670.01698.0	92.7	5.9	0.0	1.2	0.4	0	0	0	0	0.0	0.0
1670.01700.0	93.6	2.5	0.0	0.5	0.0	0	0	0	0	0.0	0.0
1670.01702.0	97.7	0.0	0.1	0.0	0.1	0	0	0	0	0.0	0.0
1670.01704.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01706.0	95.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01708.0	95.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01710.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01712.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01714.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01716.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01718.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01720.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01722.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01724.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01726.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01728.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01730.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01732.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01734.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01736.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01738.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01740.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01742.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01744.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01746.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01748.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01750.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01752.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01754.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01756.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01758.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01760.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01762.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01764.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01766.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01768.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01770.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01772.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01774.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01776.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01778.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01780.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01782.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01784.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01786.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01788.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01790.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01792.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0
1670.01794.0	97.9	1.0	0	0.2	0.2	0	0	0	0	0.0	0.0
1670.01796.0	97.9	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0

1825.01210.0	76.4	12.2	1.9	4.2	0.0	0.7	0.0	0.0	4.1	0.4	0.0	0.1
1825.01215.0	14.5	64.0	0.9	9.0	4.6	0.0	0.7	6.1	0.0	0.0	0.2	0.0
1825.01220.0	72.4	13.2	0.1	0.7	0.2	6.6	0.0	0.0	6.8	0.0	0.0	0.0
1825.01225.0	57.5	7.0	2.1	4.6	1.4	0.0	0.0	0.0	24.9	1.9	0.5	0.1
1830.01320.0	47.3	44.0	0.0	0.1	0.2	7.8	0.0	0.0	0.6	0.0	0.0	0.0
1830.01335.0	69.6	26.1	0.0	0.1	0.0	2.8	0.0	0.0	0.9	0.5	0.0	0.0
1830.01475.0	71.5	15.7	0.	0.1	0.4	3.4	0.	8.8	0.1	0.1	0.0	
1835.01140.0	72.3	18.6	2.9	0.0	0.2	0.0	0.0	0.0	5.9	0.0	0.1	0.0
1835.01165.0	92.3	6.1	0.0	1.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
1835.01170.0	83.1	16.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1835.01175.0	84.4	0.0	0.0	0.8	0.0	1.4	0.0	0.0	13.4	0.0	0.0	0.0
1835.01180.0	92.8	0.0	1.3	2.6	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0
1835.01185.0	76.3	11.4	0.0	2.9	0.0	1.7	0.0	0.0	7.7	0.0	0.0	0.0
1835.01200.0	78.9	16.0	0.7	1.5	0.	0.	0.	0.	2.8	0.	0.	0.
1835.01305.0	50.0	1.3	1.6	3.9	0.0	0.3	0.0	0.0	42.6	0.0	0.1	0.2
1835.01310.0	61.9	36.5	1.6	0.	0.	0.	0.	0.	0.	0.	0.	
1835.01310.0	77.9	1.4	0.2	0.6	0.0	1.0	0.0	0.0	18.9	0.0	0.0	0.0
1835.01315.0	41.1	55.2	0.0	0.0	0.0	3.5	0.2	0.0	0.0	0.0	0.0	0.0
1835.01325.0	82.4	14.2	0.1	0.6	0.0	0.0	0.0	0.0	0.6	2.1	0.0	0.0
1835.01335.0	92.5	6.9	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
1840.01140.0	15.8	0.5	18.9	16.4	0.0	0.0	0.0	0.0	0.0	48.4	0.0	0.0
1840.01140.0	20.5	47.2	13.0	15.2	0.	0.	0.	0.	0.	4.1	0.	0.
1840.01145.0	98.3	1.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1840.01150.0	81.0	16.9	0.0	0.1	0.0	0.1	0.0	0.0	0.0	1.9	0.0	0.0
1840.01155.0	96.1	0.0	0.0	0.1	0.0	0.2	0.0	0.0	3.6	0.0	0.0	0.0
1840.01160.0	86.7	5.5	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1840.01161.0	98.4	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	3.4	0.0	0.0
1840.01170.0	94.8	1.3	0.1	2.5	0.0	1.2	0.0	0.0	0.1	0.0	0.0	0.0
1840.01173.0	81.2	12.5	0.2	1.8	0.0	1.7	0.0	0.0	1.1	0.0	0.0	0.0
1840.01180.0	52.4	8.7	0.1	2.5	0.9	1.4	0.0	0.0	35.5	0.8	0.0	0.0
1840.01185.0	91.1	6.0	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.1	0.4	0.0
1840.01190.0	92.0	3.0	3.0	8.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0
1840.01200.0	57.0	38.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1840.01205.0	90.3	0.0	2.1	1.8	2.1	0.4	0.0	0.0	3.4	0.0	0.1	0.0
1840.01205.0	18.3	0.0	17.5	6.5	2.0	0.3	0.0	0.0	82.1	0.0	0.0	0.0
1840.01210.0	90.9	2.9	0.	6.2	0.	0.	0.	0.	0.	0.	0.	
1840.01210.0	91.1	8.0	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1840.01215.0	70.2	6.1	0.2	4.2	0.0	0.4	0.0	0.0	10.7	0.2	0.1	0.0
1840.01220.0	79.2	12.0	0.0	0.9	0.0	0.1	0.0	0.0	1.6	0.2	0.0	0.0
1840.01225.0	92.3	2.0	0.0	2.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
1845.01140.0	4.7	9.3	0.1	0.0	0.0	0.5	56.9	0.2	0.0	28.3	0.0	0.0
1845.01145.0	0.1	0.0	2.8	8.3	22.0	26.9	0.5	0.0	39.7	0.3	0.0	0.2
1845.01150.0	52.0	47.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1845.01155.0	55.5	41.1	0.5	0.9	0.0	0.0	0.0	0.0	1.7	0.3	0.0	0.0
1845.01160.0	99.5	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
1845.01170.0	92.4	2.6	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1845.01175.0	52.2	12.7	0.0	1.1	1.2	0.0	0.0	0.0	2.8	0.0	0.0	0.0
1845.01175.0	91.8	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.7	0.0	0.0
1845.01180.0	7.0	82.0	4.1	5.3	0.1	0.0	0.1	0.0	0.4	0.0	0.0	0.0
1845.01185.0	70.9	2.6	1.2	13.3	0.0	0.0	0.0	0.0	4.9	0.2	0.0	3.5
1845.01200.0	94.9	0.1	0.9	2.9	0.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0
1845.01210.0	94.6	0.0	0.0	1.0	0.0	3.4	0.0	0.0	1.0	0.0	0.0	0.0
1845.01215.0	45.9	0.0	6.8	9.7	0.0	0.0	0.0	0.0	37.1	0.0	0.5	0.0
1845.01220.0	9.6	0.0	14.5	28.6	0.0	0.0	0.3	0.0	46.6	0.0	0.3	0.1
1845.01225.0	0.0	20.8	20.4	1.1	0.0	0.2	0.0	0.0	49.3	0.0	0.0	2.0
1845.01230.0	58.7	2.7	3.4	2.8	0.0	0.0	0.0	0.0	4.1	0.0	0.1	0.1
1845.01235.0	70.6	0.0	1.2	0.5	1.9	0.0	0.0	0.0	23.7	0.0	0.0	0.0
1845.01240.0	10.3	0.0	20.3	18.7	19.1	0.0	0.0	0.0	35.2	0.0	0.2	0.0
1845.01310.0	76.0	11.8	0.1	4.2	1.1	0.0	0.0	0.0	4.8	0.1	0.0	0.1
1845.01315.0	76.8	15.8	0.2	1.2	0.4	0.0	0.0	0.0	8.6	0.0	0.0	0.1
1845.01320.0	76.7	4.7	3.8	6.8	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0
1845.01325.0	80.3	0.0	2.2	0.4	0.2	0.0	0.0	0.0	4.8	0.1	0.0	0.0
1845.01330.0	55.0	25.6	0.1	1.5	0.0	0.7	0.0	0.0	0.0	0.1	0.0	0.0
1850.01073.0	44.4	47.1	0.2	0.0	0.2	7.8	0.0	0.0	0.2	0.0	0.1	0.0

1850.01135.0	60.1	24.6	.1	5.2	2.7	.1	.0	7.2	.0	.0	.0
1850.01155.0	82.6	12.8	.0	.0	.6	.0	4.1	.1	.0	.0	.0
1850.01155.0	89.9	7.2	0.0	2.1	0.0	0.0	0.0	0.0	0.8	0.0	0.0
1850.01165.0	41.2	29.0	13.0	.6	.0	1.5	.2	14.4	.1	.2	.0
1850.01170.0	89.1	0.4	0.0	0.1	0.0	0.2	0.0	0.0	10.2	0.0	0.0
1850.01175.0	90.4	8.3	.1	.6	.0	.4	.0	.1	.1	.0	.1
1850.01190.0	78.0	19.0	.1	.3	.1	.1	.0	1.5	1.5	.0	.0
1850.01200.0	69.8	15.8	8.3	1.3	.0	1.4	.0	4.1	.7	.0	.0
1850.01200.0	10.0	83.0	1.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
1850.01215.0	84.9	.0	.5	6.4	.6	.9	.0	6.8	.0	.0	.0
1850.01218.0	83.4	12.9	.5	1.9	.0	.2	.0	1.1	.0	.0	.0
1850.01220.0	43.6	37.8	1.4	.9	.0	1.6	.0	14.3	.2	.1	.0
1850.01225.0	46.7	15.0	1.3	3.8	.5	.0	.0	30.4	.0	.0	.0
1850.01225.0	69.5	3.8	0.0	1.1	0.0	0.0	0.0	0.0	4.5	1.1	0.0
1850.01240.0	78.6	8.9	.0	2.0	.3	8.6	.0	1.5	.0	.0	.0
1850.01250.0	22.0	38.3	.4	2.5	.0	1.4	.0	27.1	2.0	.2	.0
1850.01265.0	58.1	21.6	3.5	.8	6.6	.0	.0	5.7	1.8	.9	.9
1850.01275.0	55.0	38.5	1.4	.0	.0	2.0	.0	.4	6.9	.0	.0
1850.01285.0	79.7	9.1	2.8	.5	.1	.0	.0	5.8	1.5	.5	.0
1850.01295.0	95.9	2.3	0.0	0.3	0.0	1.2	0.0	0.0	0.2	0.0	0.1
1850.01337.0	17.9	5.7	.0	4.4	.0	.0	.0	87.2	2.0	1.5	5.3
1850.01350.0	12.4	35.3	.0	7.4	.0	.0	9.0	10.4	.0	1.0	10.1
1850.01360.0	76.5	18.8	1.2	3.5	.0	.0	.0	.0	.0	.0	5.5
1850.01370.0	95.5	1.0	.5	.5	.5	.0	.0	.0	.8	.3	.0
1850.01401.0	73.5	26.0	.0	.1	.0	.0	.0	.0	.2	.1	.0
1850.01415.0	81.6	3.0	.0	1.3	.0	.0	.0	14.2	.1	.0	.0
1850.01460.0	98.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1855.01105.0	77.0	4.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1855.01170.0	81.0	0.0	1.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1855.01175.0	98.0	5.0	0.0	0.0	1.0	0.0	0.0	0.0	4.0	0.0	0.0
1855.01180.0	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0
1855.01220.0	68.5	5.4	4.3	1.7	0.0	0.0	0.0	0.0	22.0	0.0	0.1
1855.01225.0	91.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
1855.01230.0	87.5	11.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
1855.01235.0	87.9	21.7	1.0	0.7	0.0	0.0	0.0	0.0	18.7	0.0	0.2
1855.01240.0	76.9	0.0	0.5	1.0	0.1	0.0	0.0	0.0	21.0	0.0	0.2
1855.01240.0	18.4	25.3	11.3	8.1	0.0	0.0	0.0	0.0	41.0	0.0	0.0
1855.01245.0	83.5	0.0	0.0	1.2	0.0	0.0	0.0	0.0	12.0	0.0	0.0
1855.01250.0	87.8	8.1	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1855.01285.0	1.5	0.0	11.5	9.4	8.5	0.0	0.0	0.0	88.0	0.0	0.1
1855.01300.0	81.0	2.0	0.0	4.4	0.0	0.0	0.0	0.0	25.0	0.1	0.0
1855.01305.0	83.4	0.7	0.5	1.4	0.0	2.0	0.0	0.0	30.0	0.0	0.1
1855.01310.0	81.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	87.0	0.0	0.0
1855.01315.0	99.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1860.01160.0	81.4	16.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	2.0	0.0
1860.01165.0	95.3	2.7	.0	.4	.5	.0	.0	.0	1.1	.0	.0
1860.01170.0	97.0	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1860.01180.0	91.0	1.0	0.0	2.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
1860.01220.0	93.7	0.5	0.0	0.1	0.3	0.1	0.0	0.0	5.2	0.0	0.1
1860.01230.0	37.3	5.1	3.5	0.0	0.0	0.2	0.0	0.0	53.0	0.0	0.0
1860.01235.0	92.0	5.0	0.2	0.5	0.4	0.0	0.0	0.0	0.7	0.0	0.2
1860.01240.0	75.8	21.4	0.0	1.3	0.0	1.0	0.0	0.0	0.4	0.0	0.0
1860.01240.0	75.8	21.4	0.0	1.3	0.0	1.0	0.0	0.0	0.4	0.0	0.1
1860.01240.0	68.9	27.2	0.1	0.8	0.0	0.7	0.0	0.0	1.4	0.9	0.0
1860.01245.0	95.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0
1860.01250.0	93.7	0.7	0.8	5.3	0.0	2.9	0.0	0.0	1.2	0.0	0.4
1860.01255.0	86.7	24.7	0.0	1.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
1860.01260.0	86.6	8.2	0.1	4.7	0.0	1.1	0.0	0.0	5.1	0.0	0.1
1860.01260.0	7.0	21.0	0.0	15.0	7.0	0.0	0.0	0.0	41.0	0.0	0.0
1860.01260.0	80.4	16.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
1860.01265.0	80.2	14.9	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0
1860.01270.0	80.0	27.0	.0	1.1	.0	.7	.0	1.0	.2	.1	.0
1860.01280.0	80.0	0.7	1.0	2.0	0.0	0.0	0.0	0.0	31.0	0.0	0.0
1860.01285.0	80.2	17.1	.0	1.1	.0	.0	.0	0.0	5.0	0.0	0.0
1860.01290.0	74.2	16.0	.0	1.0	.0	.0	.0	0.0	5.0	0.0	0.0

APPENDIX II
Microprobe Study

**GARNET ELECTRON MICROPROBE ANALYSES FROM THE MT. RIORDAN
PROPERTY, APEX ALPINE, BRITISH COLUMBIA.**

Myra Keep

INTRODUCTION

Garnets from 32 samples from the Mt. Riordan property were analyzed with an electron microprobe (EMP) at the University of British Columbia. The purpose of the analysis was to ascertain the variation in composition of garnets from the Mt. Riordan property. The analysis was performed over 4 days. Each day the EMP was checked for alignment and calibration. Total probe time was 46 hours. This report contains details of preparatory and analytical procedure; a review of the garnet group of minerals; diagrammatic representation of results, and an appendix containing all of the analyses obtained.

THE EMP

The EMP at UBC is a fully automated Cameca SX-50. The machine has been fully operational for approximately 2 years. Analyses are obtained by bombarding the sample with electrons. The impact of the electrons with the sample causes electrons from inner orbitals of the sample to be dislodged. Electrons from outer orbitals move to fill the sites of the displaced inner orbitals, causing the emission of X-rays. These X-rays are detected by 4 spectrometers. Each element generates X-rays of a characteristic wavelength. The number of X-rays emitted are proportional to the concentration of the element that produced them. In order to detect the X-rays the spectrometers are set to the characteristic wavelengths for each element and count the number of X-rays emitted. The unknown compositions are determined by comparison with standards of known concentration.. These concentrations are converted to weight per cent oxides to produce analyses such as those in Appendix A.

PREPARATION

The EMP samples are in the form of 1 inch round polished thin sections, made by Vancouver Petrographics. Preparation of the samples involves several steps. Firstly the samples have to be checked to ensure the polish is adequate and that they will fit snugly into the EMP sample holder. All the samples have to be cleaned in methanol and immersed in a sonic bath to dislodge any remaining particles of polishing paste. Prior to analysis the samples have to be examined under a transmitted light microscope to ensure cleanliness and to mark any relevant grains. Finally all the samples have to be carbon coated. When a good carbon coat is in place, the samples are ready for analysis.

PROCEDURE

In order to analyze for garnets, the EMP must be calibrated to detect the common elements present in garnets. This is achieved by running "standards" of known compositions and setting the spectrometers to detect the necessary elements. Garnets are commonly analyzed for the "major" elements Si, Ti, Al, Fe, Mn, Mg, Ca and the trace elements Cr and V. For the Mt. Riordan analyses, V was not analyzed as it is a relatively unimportant constituent of grossular and andradite garnet. Mineral composition may vary within grains, between grains in a single sample, and between samples. To ascertain the full range of compositional variation it is standard procedure to select a number of grains from each sample and probe several spots on each grain. For the Mt. Riordan rocks, the analytical procedure was as follows. Five grains were selected in each sample. Each of these grains was analyzed approximately 5 times, from the core of the grain towards the rim. The resulting 25 analyses from each of the samples describe the compositional range and zoning for that sample. The large total number of analyses ensures some degree of statistical accuracy when reporting representative and extreme compositions.

GARNETS

Minerals of the garnet group are most commonly associated with metamorphic rocks. Several end-member "species" of garnet are recognized, including pyrope, almandine, spessartine, grossular, andradite and uvarovite. All have the general formula:



Pure end-member compositions are rare, and more commonly a name is assigned according to the dominant molecular type present. In the Mt. Riordan samples the two common garnet types recognized in thin section are andradite ($Ca_3[Fe^{3+}, Ti]_2Si_3O_{12}$) and grossular ($Ca_3Al_2Si_3O_{12}$). These two garnet types are part of a series which also includes uvarovite. Fairly complete and continuous variation in composition occurs within this series. In the following discussion, garnet compositions from each sample are shown graphically on triangular diagrams representing the grossular-andradite-uvarovite series.

RESULTS

The results of the EMP analysis indicate that the garnets from Mt. Riordan can be divided into 3 main subgroups. These include garnets with a high andradite component and little within-sample variation, garnets with a high andradite component and significant within-sample variation, and garnets with a high grossular component. These groups will be discussed in the following paragraphs. Representative analyses from each of these groups can be seen in Table 1. Appendix A contains all of the analyses obtained. The analyses are grouped by geographic area. Each analysis has a label of the form:

001-01-C.

The first 3 numbers of the prefix indicate the number given to the sample during probing (samples were relabelled as 1 to 32, in no particular order, as opposed to the complex grid number labels). The second 2 numbers indicate the number of the grain being probed, and

range from 1 to 5 in most samples. The final suffix is one of; C (core); M (middle of grain), and R (rim). In all samples analyses were taken from the core to the rim, so successive "M" labels indicate a position further towards the rim than the previous "M" label.

Ideally all analyses should total 100%. Totals between 99% and 101% are acceptable as being within analytical uncertainty. Totals lower than 99% probably indicate the presence of elements not analyzed for. H₂O cannot be analyzed for and is the probable cause of low totals in grossular.

Compositional variation is shown graphically in the following figures. The quadrilateral on which the data are plotted represents half of a triangular diagram with the apices GROSSULAR-UVAROVITE-ANDRADITE. It is not possible to plot concentrations of the other garnet end-members (spessartine, almandine, pyrope) on such a diagram. However, concentrations of these components generally range from 5% to 0% in all of the samples, and are therefore considered to be unimportant. From the diagrams it can be seen that all of the garnets in all of the samples are part of the grossular-andradite solid solution series. The maximum uvarovite component is less than 1%. Most of the samples comprise garnets with compositions greater than An65, and 3 main subgroups can be defined.

The samples: 1430E, 1495N; 1445E, 1495N; 1435E, 1480N; 1420E, 1495N; 1450E, 1490N, 1585E, 1725N; 1640E, 1680N; 1645E, 1665N; 1565E, 1150N, and 1805E, 1145N define a group in which the garnets are all extremely andradite-rich (>80%), and which also have very little compositional variation.

Alternately, the samples: 1430E, 1465N; 1475E, 1500N, 1425E, 1455N; 1455E, 1475N; 1470E, 1475N; 1460E, 1490N; 1445E, 1475N; 1565E, 1770N; 1665E, 1680N; 1660E, 1685N; 1775E, 1145N; 1480E, 1170N, and 1840E, 1145N all have a large andradite component but the range of compositions is expanded. Some of these samples, for example 1445E, 1475N, show small compositional jumps. In the case of the above-mentioned sample the jump is so small as to be attributable to sampling error (ie., if more spots had

been analyzed the jump would disappear). However, such jumps in composition, especially when they are of greater magnitude, may be indicative of separate populations. This is demonstrated by sample 1445E, 1485N, where the break in compositions is extreme and is indicative of two populations of garnet composition in the sample.

The final group of samples are those with an expanded range of high grossular content. This group includes samples 1845E, 1210N; 1850E, 1325N; 1815E, 1150N; 1840E, 1175N, and 1820E, 1165N. These samples represent the most grossular-rich garnets identified during analysis.

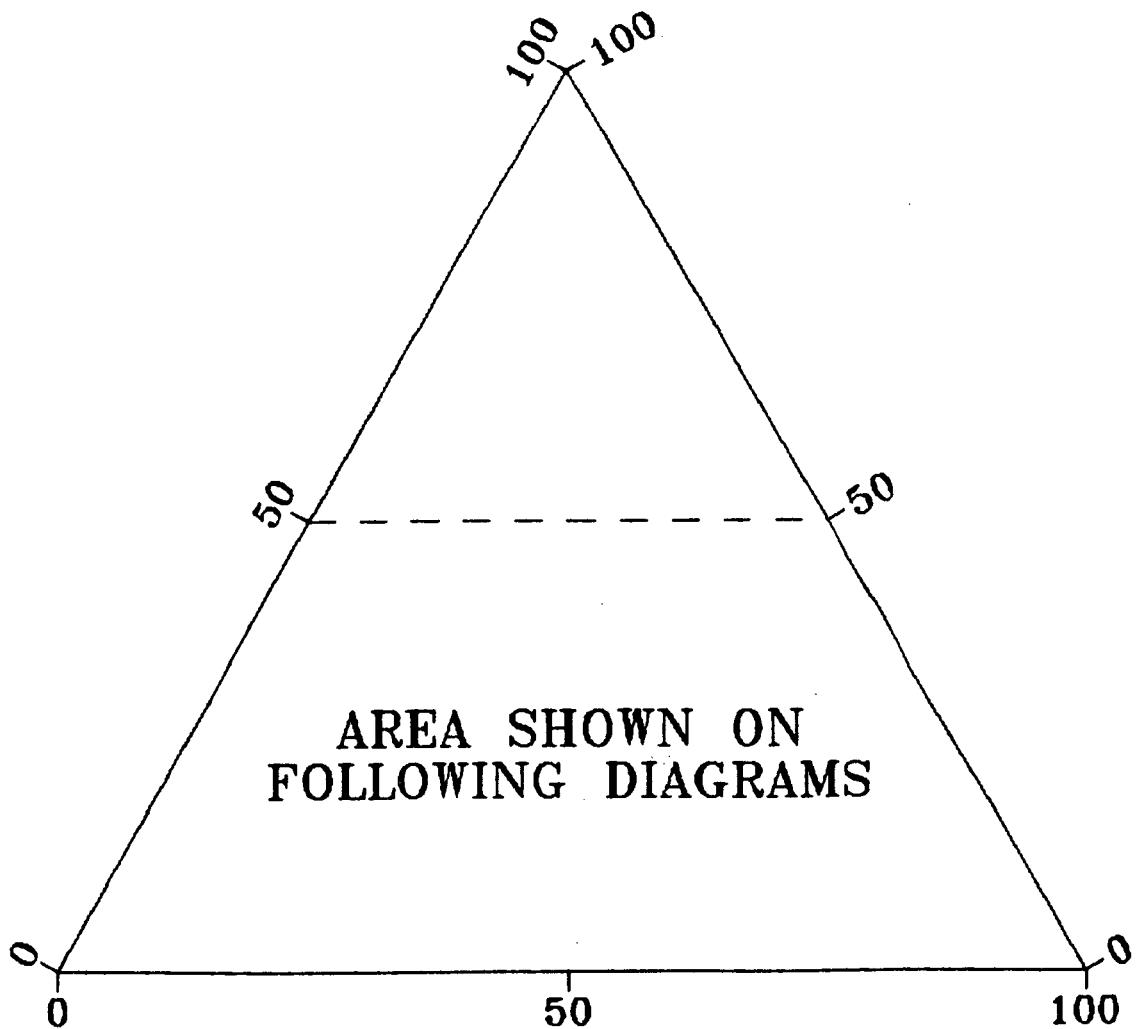
Zoning is present in a number of the samples. However, where zoning is present the compositional range was found to be small. Some of the samples show a slight increase in andradite concentration from the cores to the rims, while others show a slight decrease. The nature of the zoning depends on the composition of the crystallizing fluid at the time of garnet formation, and will likely vary throughout a body as large as Mt. Riordan. Consequently there will be changes in the nature of the zoning throughout the deposit. In both zoning scenarios (ie andradite- "rich" to andradite- "poor" zoning, and its converse) the total variation in composition represents less than 10% of the andradite component. Furthermore, all of the zoned samples have a very high andradite component initially, and the presence of zoning only marginally decreases the andradite component.

CONCLUSIONS

All of the garnets from the Mt. Riordan Peak property are part of the andradite-grossular transition. Of the 32 samples analyzed, 27 comprise grains with an andradite component greater than 65%. Only 5 samples have garnets with a high grossular component. The samples can be subdivided into 3 main groups including those that have a high andradite component and minimal compositional variation, those with high andradite concentrations and an expanded range of compositions, and those that are mostly grossular-rich with a large compositional range. Compositional variation due to zoning

involves both a slight increase and a slight decrease in andradite towards the rim. However, these increases and decreases in composition are small, in most cases representing less than a 10% change in the andradite component.

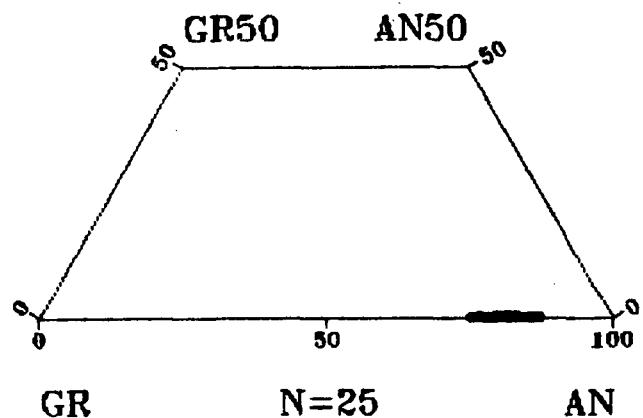
UVAROVITE



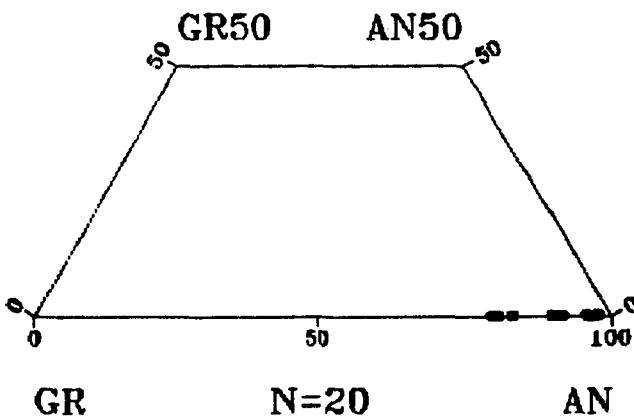
GROSSULAR

ANDRADITE

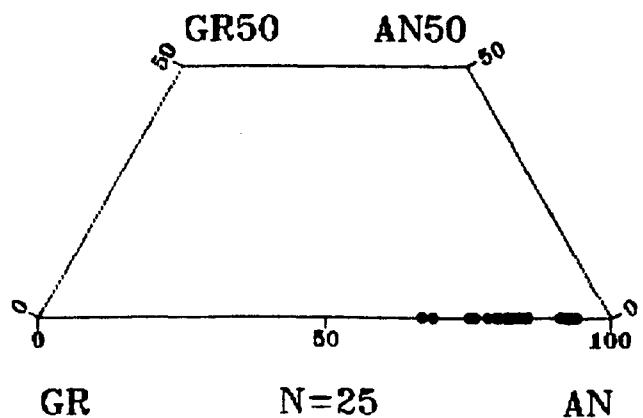
1430 E, 1465 N



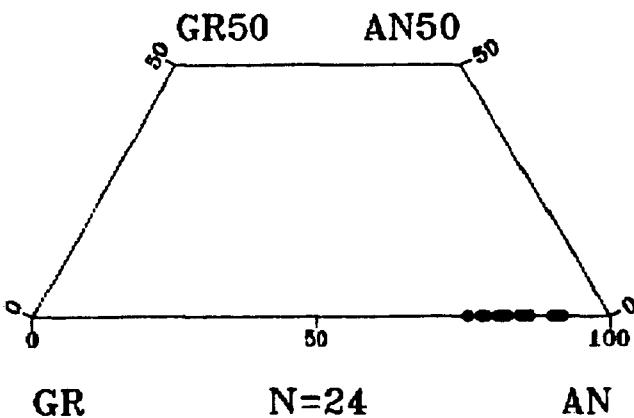
1475 E, 1500 N



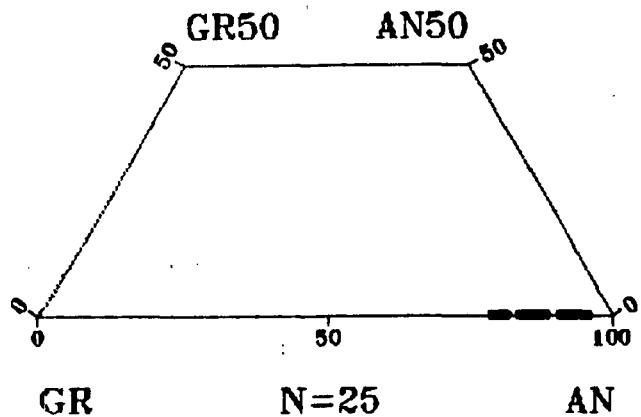
1425 E, 1455 N



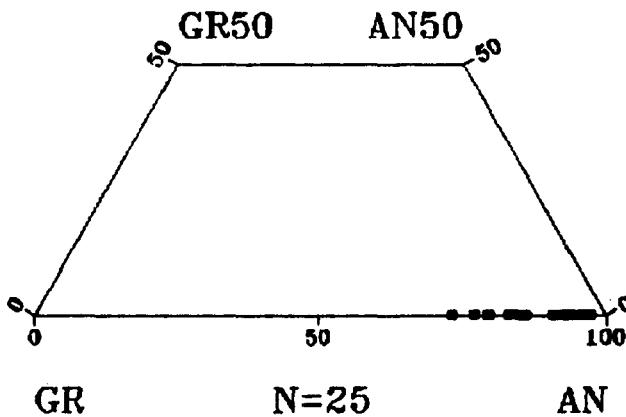
1455 E, 1475 N



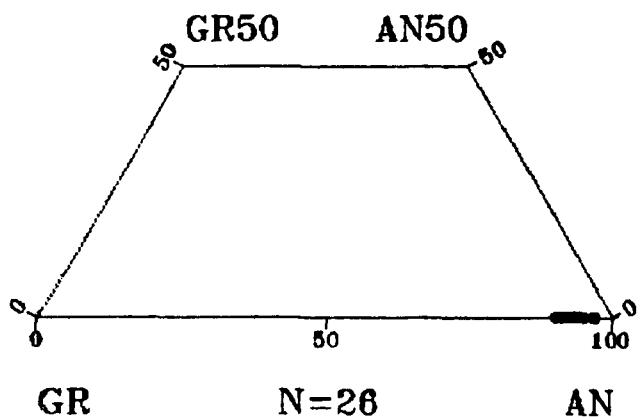
1415 E, 1485 N



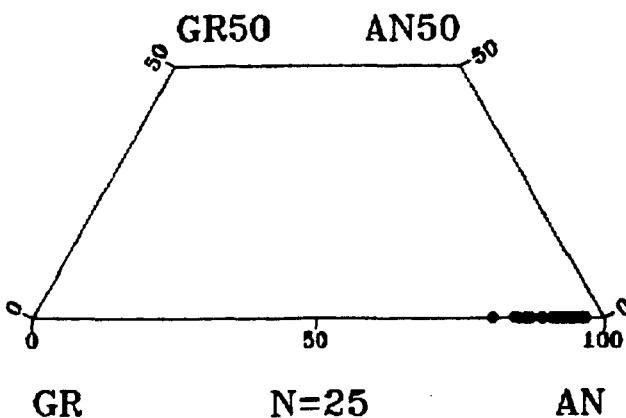
1470 E, 1475 N



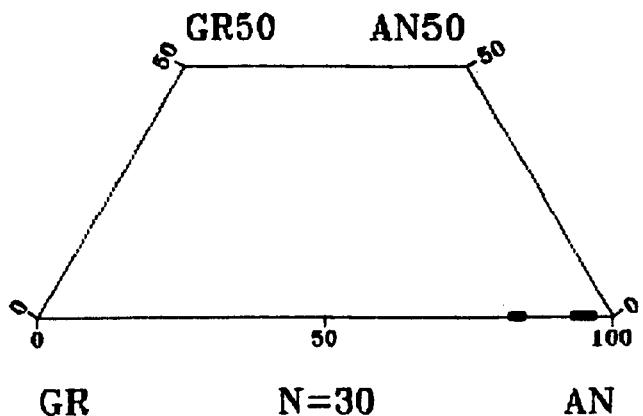
1430 E, 1495 N



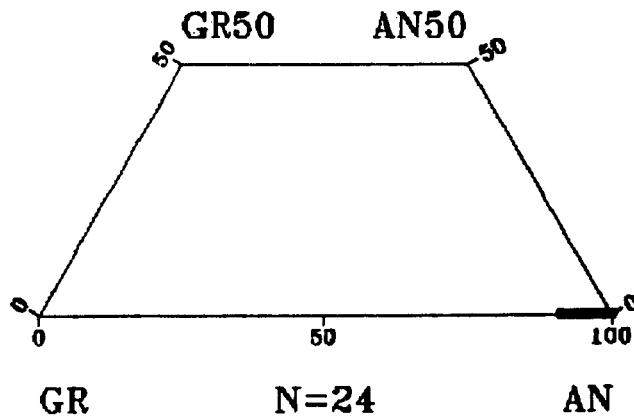
1460 E, 1490 N



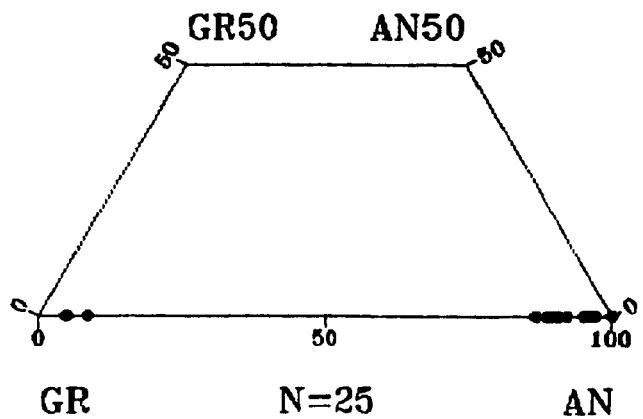
1445 E, 1475 N



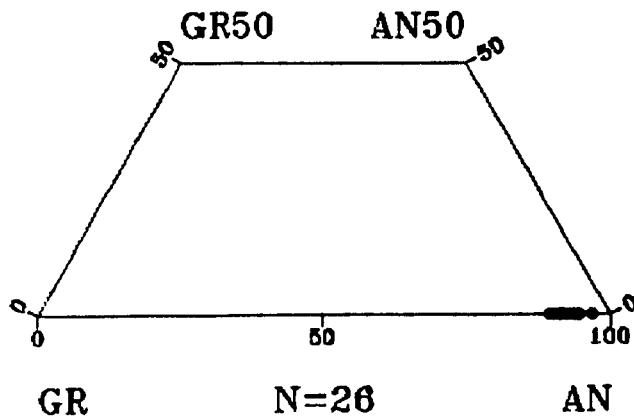
1445 E, 1495 N



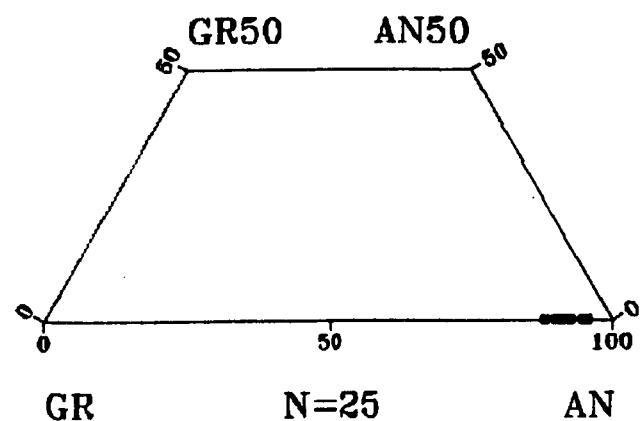
1445 E, 1485 N



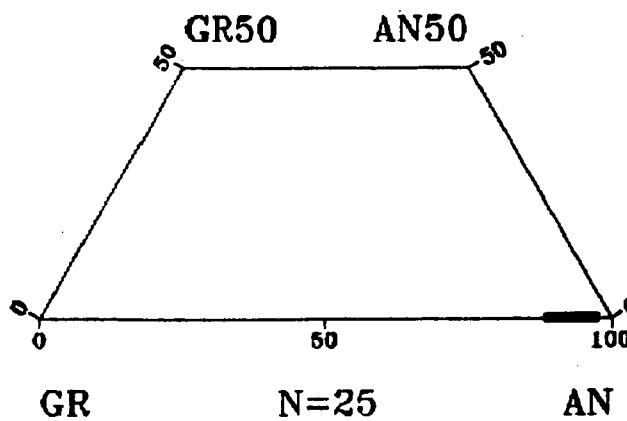
1435 E, 1480 N



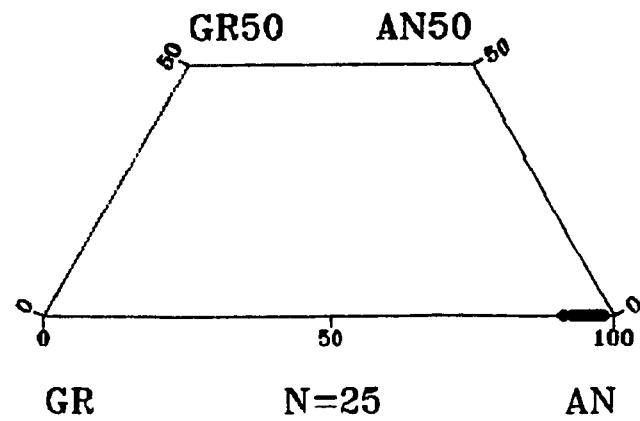
1420 E, 1495 N



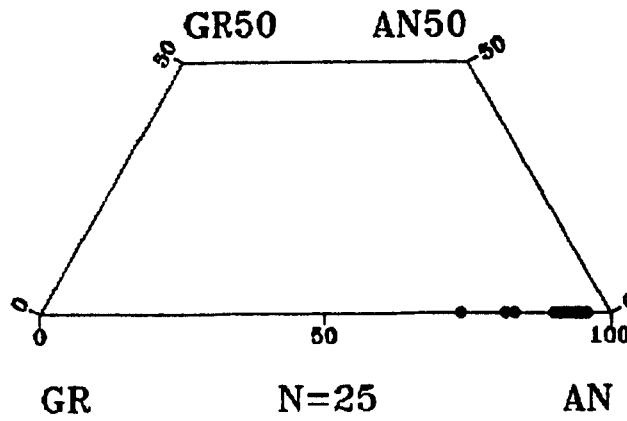
1450 E, 1490 N



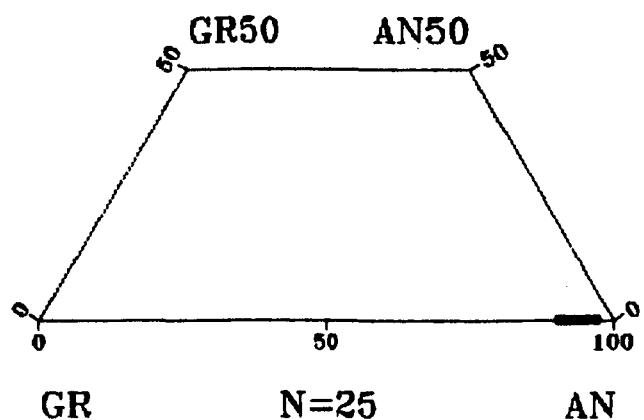
1585 E, 1725 N



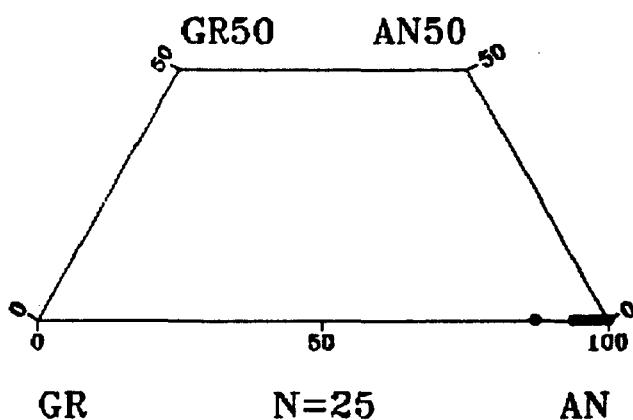
1565 E, 1770 N



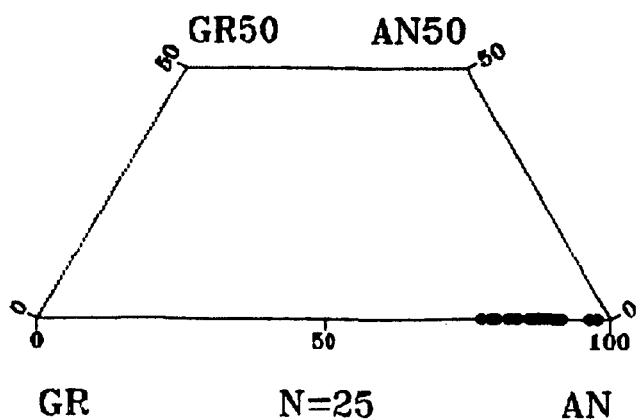
1640 E, 1680 N



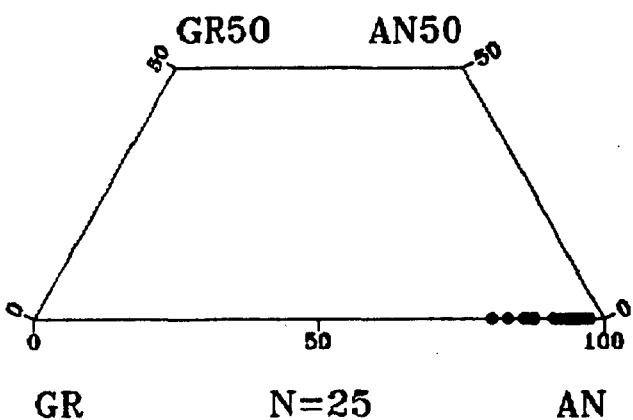
1645 E, 1665 N



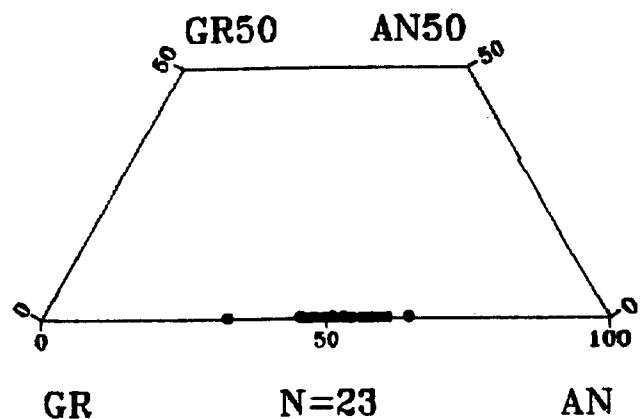
1665 E, 1680 N



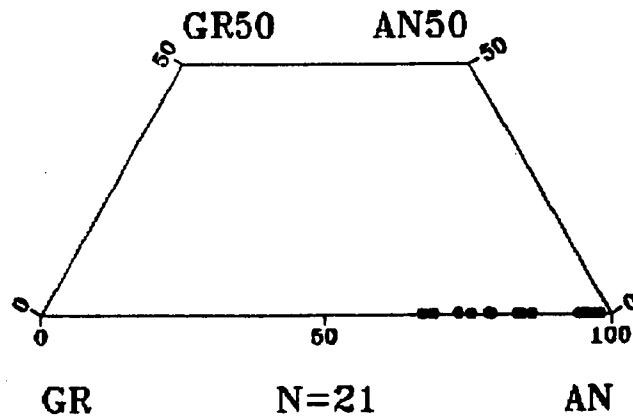
1660 E, 1685 N



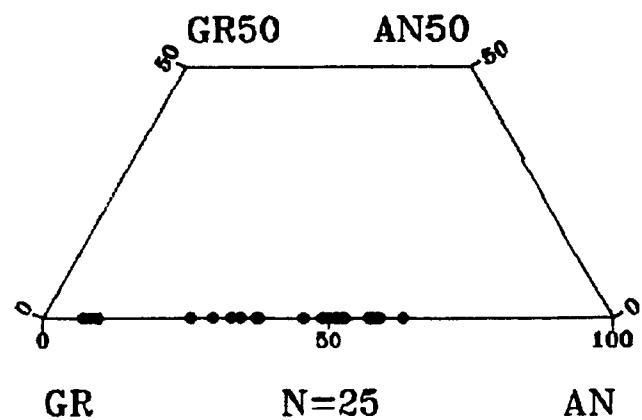
1845 E, 1210 N



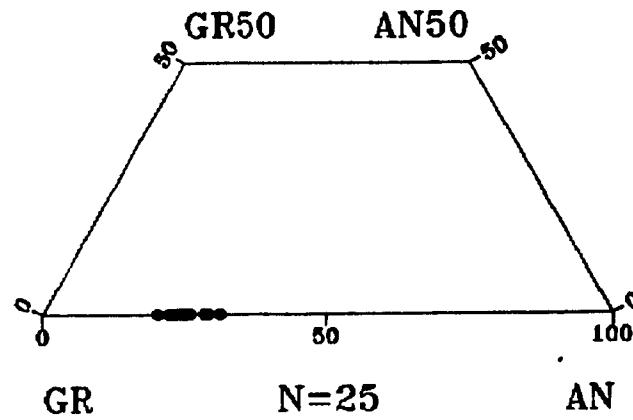
1775 E, 1145 N



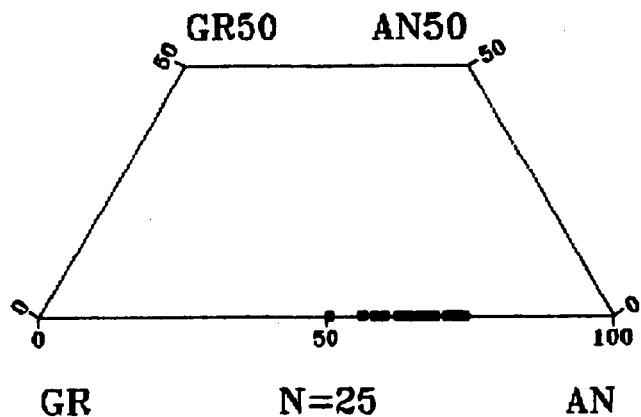
1850 E, 1325N



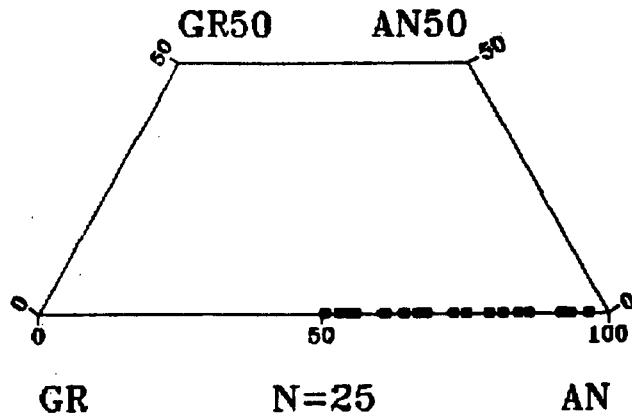
1815 E, 1150 N



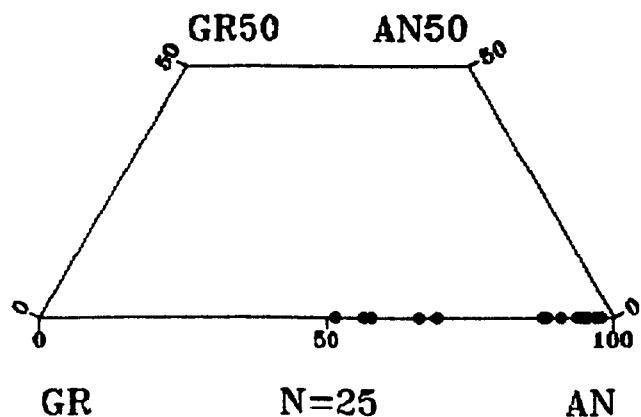
1815 E, 1125 N



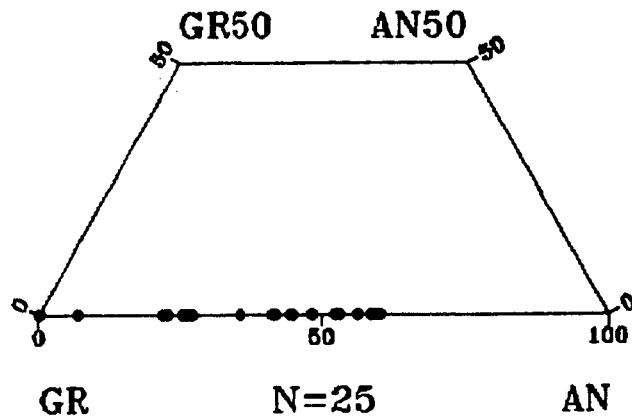
1480 E, 1170 N



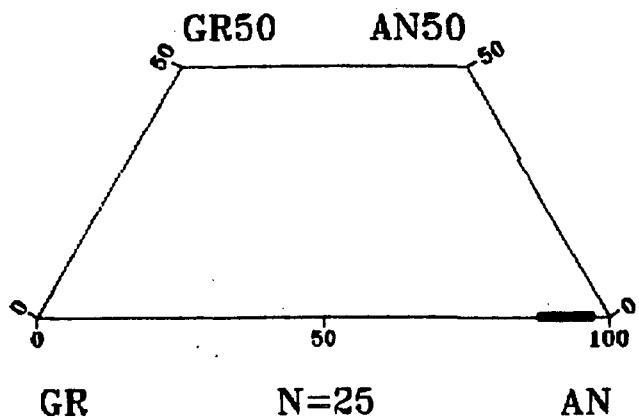
1840 E, 1145 N



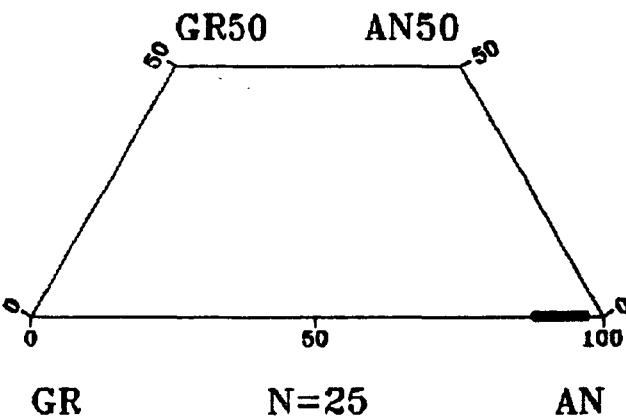
1840 E, 1175 N



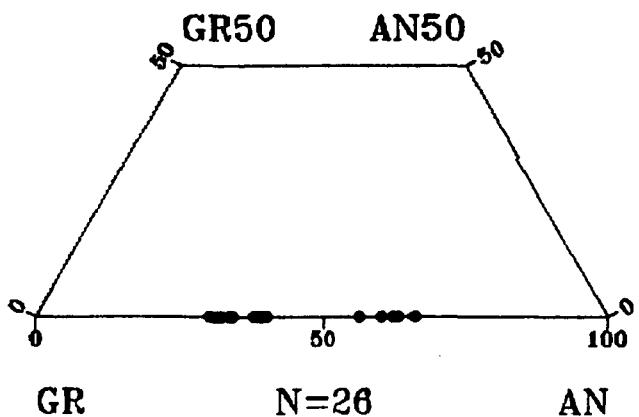
1565 E, 1150 N



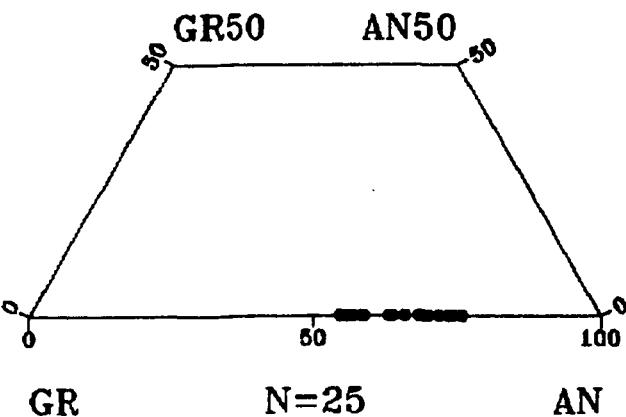
1805 E, 1145 N



1820 E, 1165 N



1795 E, 1170 N



APPENDIX III

**Drill Logs, Thin Section Analysis Results and
Summary of Garnet Content in Drill Holes**

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

FOOTAGE	% Garnet	HOLE # 1	DEPTH 100'	Grade in hole is $\bar{x} = 89.3\%$
		DESCRIPTION	SCALE	
0			0 5 10 15	
5	Overburden			
10	<10%			
15	60%			
20				
25				
30				
35				
40	70-75%			
45				
50				
55				
60	(79.7)			
65				
70				
75				
80				
85				
90	90'			
92	Nil			
95				
100	70-75%			
	E.O.H.			

Hole 1

Page 1 of 3

N: E: ELEV: AZ: DIP: -90 LENGTH: 100' DATES: HOLE: 1

FROM	TO	NOTES	EPI	Ac	D	S	Q	Ca	G	COLOR
0	4'	Casing								
4	6'3"	Broken weathered material including diorite and skarn. Material is strongly epidotised.								
6'3"	8'2"	>60% garnet (up to 80% in sections). Core is buff coloured and massive. There is strong epidotisation and is also present. Qtz is present as interstitial grains. Although the core is >60% garnet, it is strongly altered, possibly causing the buff colouration.	✓	✓	✓		✓			>60% Buff
				Sample	1-1 @ 7'					
8'2"	12'9"	60% garnet, greenish coloured with no crystalline garnet visible, although finely crystalline garnet comprises >40% of the core. Green colouration derives from strong presence of diopside and epidote! alteration. Calcite occurs in hairline veins and occasional interstitial qtz. Veins occur.	✓	✓	✓		✓	✓	✓	pale green
				Sample	1-2 @ 10'					
12'9"	90'	70-75% garnet. Patches of coarsely crystalline green and red/brown garnet are punctuated by occasional zones of "massive" diopside and epidote.	✓	✓	✓	<1%	<1%	<1%	✓	70-75%
			5-10	up to 20%	5-10					

Hole 1

Page 2 of 3

N:

E:

ELEV:

AZ:

DIP: -90° LENGTH: 100' DATES:

HOLE: 1

FROM	TO	NOTES		Ac	D	S	Q	Ca	G	COLOR
con't.		Presence of these two minerals imparts dk. green colour to areas of core. Qtz. occurs as interstitial grains. Red veins of Fe-rich(hematite) alteration occur locally associated @ actinolite/epidote rich areas.		Sample	1-3 @ 21'					
				Sample	1-4 @ 28'					
				Sample	1-5 @ 39'					
		Finely dendritic black mineral also occurs in these zones. Alteration (diopside, actinolite, Fe) varies from 15-25%)		Sample	1-6 @ 45'					
		0' 24' - garnet becomes more uniformly red/brown in colour		Sample	1-7 @ 55'					
		39'-40'6" - strongly altered zone of fine grained diopside-rich zone		Sample	1-8 @ 65'					
		Garnets become noticeably zoned in the latter part of this zone		Sample	1-9 @ 86'					
		71'-74' - zone of green coloured garnet and strong epidote alteration.								
90'	92'6"	Basaltic dyke. Black, v. finely crystalline Acicular hornblende and hematite visible.		Sample	1-10 @ 91'					

Hole 1

Page 3 of 3

E:

ELEV:

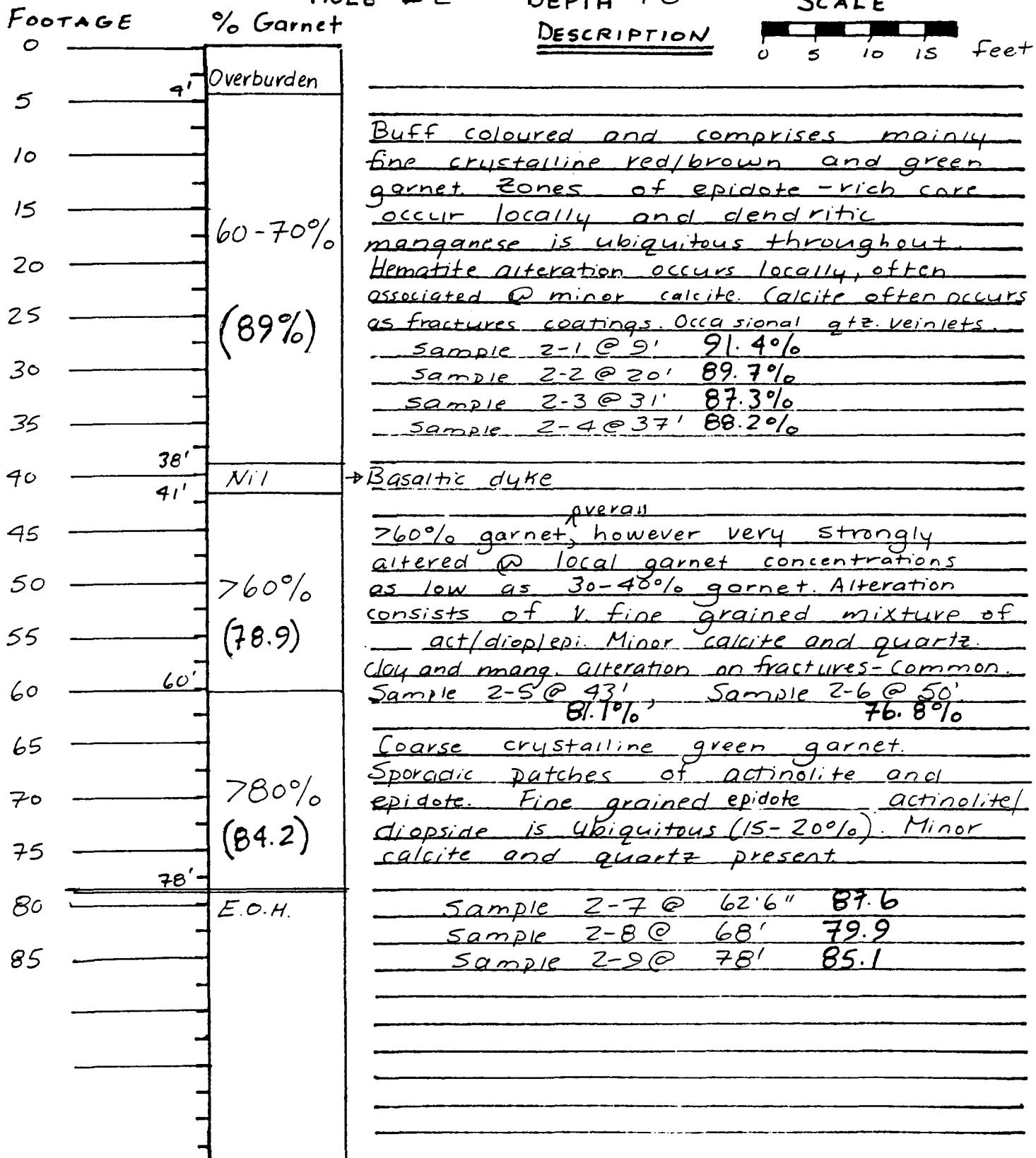
Az:

DIP:-90° LENGTH: 100' DATES:

HOLE: 1

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

HOLE #2 DEPTH 78' SCALE 81.67%
DESCRIPTION  feet



Hole 2, Boxes 1,2,3,

Page 1 of 2
ELEV:

AZ:

DIP: -90° LENGTH: 78'

DATES:

HOLE: 2

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
0	4'	Casing	✓	✓	✓		✓	✓	60-70%	Buff.
4'	38'	60-70% Garnet - buff coloured and comprises mainly fine crystalline red/brown and green garnet. Zones of epidote-rich core occur locally, and dendritic manganese is ubiquitous throughout. Hematite alteration occurs locally, often associated with minor calcite. Calcite often occurs as fracture coatings. Occasional qtz veinlets. - Core is generally broken up.		Sample	2-1	©	9'			
				Sample	2-2	©	20'			
				Sample	2-3	©	31'			
				Sample	2-4	©	37'			
38'	41'	v. fine grained black material (basaltic dyke). In this instance the dyke is more crystalline @ obvious acicular hornblende and other mafic minerals.								Nil
41'	60'	>60% garnet, but very strongly altered @ local garnet concentrations as low as 30-40% garnet. Alteration consists of a v. fine grained mixture of actinolite/diopside, epidote. Minor calcite and quartz. - Clay and manganese alteration occurs of numerous	✓	✓	✓		✓	✓	60%	
				sample	2-5	@	43'			
				sample	2-6	©	50'			
				sample	2-7	©	62'6"			

Hole Z Boxes 5, 6 Page 2 of 2

N: E: ELEV: AZ: DIP: -90° LENGTH: 78' DATES: HOLE: 2

FROM	TO	NOTES	E	Ac	D	S	Q	Ca	G	COLOR
60'	78'	>80% coarse crystalline green garnet. Sporadic patches of actinolite and epidote. Fine grained actinolite / diopside is ubiquitous (15-20%) Minor calcite and quartz present.	5%	5-10%	5-10%	✓ trace	—	✓	✓ 80%	Green

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY 81.2°

FOOTAGE	% Garnet	HOLE # 3	DEPTH 120'	SCALE
			DESCRIPTION	0 10 20
0		Overburden		
4			Medium to DK green crystalline garnet @ pink/brown garnet occurring in varying patches throughout. Main accessory minerals diopside, actinolite, and calcite. Manganese, epidote, and pyrite also occur in minor amounts	
10			Sample 3-1 @ 13' 90.1%	
20		(90)		
27'				
30	40%		Mixed skarn @ actinolite, epidote, diopside and up to 1% pyrite. Sample 3-2 @ 29' 40.4%	
40	>80% (96)		Fine-medium grained pink/brown and green garnet. Minor rusty patches and manganese staining on fractures. Sample 3-3 @ 33' 96.2%	
50			Very broken up core. Abundant clay minerals of fractures as well as interstitial to garnet grains. Dendritic manganese occurs on fractures. Most common accessory mineral is diopside.	
60	60-90% (75% average)		Sample 3-4 @ 48' 93.7%	
70	(85%)		Sample 3-5 @ 71'	
80			Sample 3-6 @ 86' 84.1%	
90				
100	780% (94)		Crystalline garnet → more competent core. 1-2% calcite occurs as blebs up to .5" in diameter	
104'			Sample 3-7 @ 104' 99.4%	
110	60-80% (78)		Increasing alteration (manganese and FeOz) Diopside to 20% sample 3-8 @ 110' 78.0%	
112'	no core			
120	<20%		Very altered rusty material	
	E.O.H.		Sample 3-9 @ 119'	

N: E: 3 ELEV: AZ: DIP: 90° LENGTH: 120' DATES: HOLE: 3

FROM	TO	NOTES	EPid	Ac	D	S	Q	Ca	G	COLOR
0'	4'	casing	✓	✓	✓	✓	✓	✓	✓	medium + dk green
4'	27'	>80% Garnet primarily medium to dk green with occasional patches of epidote rich dirty skarn. (at 5 ft for .6"). From 5'6" to 7" rusty alteration is present in addition to boxwork textures. Calcite patches up to .6" in diameter are common (1-3%). Small rare grains of pyrite occasionally occur with the calcite. Pink/brown garnet occurs in varying degrees throughout. Small Diopside patches (difficult to identify) occur. Dendritic manganese occurs on fracture surfaces.			trace	trace	2-3%	780%	dk green @ some pink/brown	
27'	30'	Mixed skarn zone, ~40% fine grained garnet. Remainder a mixture of actinolite, epidote and diopside which occurs as random streaks and patches. Sulphides occur in patches up to .5" in diameter.	✓	✓	✓	✓	10%		✓ ~40% ed.	multicolour
30'	41'	>80% Garnet fine medium grained pink/brown and green garnet, minor rusty patches and manganese staining on fractures		✓ trace				✓	✓	
			SAMPLE	3-1	@ 13'					
			SAMPLE	3-2	@ 29'					
			SAMPLE	3-3	@ 33'					

130 Hinge DT

N:	E:	ELEV:	AZ:	DIP: -90°	LENGTH: 120'	DATES:	HOLE: 3				
FROM	TO	NOTES		EPI	AC	D	S	Q	Ca	G	COLOR
41'	91'	60-90% garnet. Very broken up core. Abundant clay minerals on fractured surfaces as well as interstitial to garnet grains. (Sawn core has the appearance of being pock-marked). Dendritic manganese occurs on fractured surfaces. Rusty staining is also common throughout. (In general core looks oxidized). In some sections, garnet tends to disappear altogether. material consists of extremely altered clay-rich rock. Diopside levels are generally quite high(?) Wet surface often has a garnet/Diopside/clay mottled appearance.		✓	✓	✓	high	✓			rusty and pale clay
							Sample 3-4 @ 98'				washed core tends to be pink or pink and green mottled
							Sample 3-5 @ 71' (grunge)				
							Sample 3-6 @ 86' (grungy garnet)				
91'	104'	780% crystalline garnet not as broken up, calcite blebs up to .5 inch in diameter (1-2%) minor iron staining.		✓	✓	✓		✓	✓	>80%	dk-green to black @ lesser pink/brown zones
							Sample 3-7 @ 104'				
104'	112"	60-80% garnet. alteration is increasing, diopside up to 20%, manganese and iron staining increasing also.		✓	✓	✓		✓	✓		rusty-manganese staining
							Sample 3-8 @ 110'				

Note 5

Forge - o -

N: E: ELEV: Az: DIP: -90° LENGTH: 120' DATES: HOLE: 3

CRYSTAL PEAK GARNET CORP

DRILL HOLE SUMMARY

Grade in hole = 82%

FOOTAGE	% Garnet	HOLE # 4 DEPTH 100'	SCALE
		<u>DESCRIPTION</u>	0 5 10 15 feet
0			
5	s' Overburden		
10	>70%		
15			
15 Altered Diorite	n'		
20	(85%)		
25			
30	>70%		
35			
40	40'		
45			
50	>80-85%		
55			
60			
65			
70	60'		
75	>80% (89%)		
80			
85			
90	>80%		
95			
100	100' E.O.H.		

Fine grained crystalline garnet, ranging in colour from dk green to black to varying shades of red-brown. Some zoning in garnet.
Main accessory minerals are diopside/actinolite. Minor epidote, calcite and quartz.

Sample 4-1 @ 13.5' 96.8%
Sample 4-2 @ 33' 73.5%

Fine grained crystalline garnet, red/green in colour. Main accessory mineral is diopside. Minor clay and manganese diopside on Fracture surfaces.
Patches of Epidote occur locally.

Sample 4-3 @ 50' 81.3%

medium+coarse grained vitreous garnet. An increase of clay alteration on fractures
Sample 4-4 @ 70' 89.3%

Fine grained pale pink/gray/green garnet.
Fine grained dk bluel/green on fractures.
Occasional calcite blebs throughout
Manganese and clay alteration on some fractures.
Sample 4-5 @ 95' 61.3%

Hole 4

Boxes 1, 2, 3, 4
N: E?

Page 1 of 2

ELEV:

AZ:

DIP: -90° LENGTH: 100' DATES:

HOLE: 4

FROM	TO	NOTES	EPI	AC	D	S	Q	Ca	G	COLOR
0	5'	Casing								
5'	40'	>70% crystalline fine grained garnet ranging in colour from dk. green to black to varying shades of red-brown. Diopside-rich patches as well as accessory diopside occur throughout. Patches of blue-green actinolite occur locally.	✓	✓	✓ up to 20%		✓	✓ 1-2%		green → black + red/brown
16'	-17'	Zoning evident in some garnet. Small zone of what appears to be highly altered diorite with indeterminate boundaries.		Sample 4-1 @ 13.5'						
40'	68'	>80-85% Fine grained crystalline garnet green/red colour. 5-10% diopside in patches throughout (diopside is pale green-blue in colour) Minor clay and manganese diopside on fracture surfaces. Certain zones of very high in	✓ up to 15%	✓	✓	✓	✓	✓	✓	-3% calcite
68'	75'	Secondary epidote → coarser grained black + red garnet very vitreous. An increase in clay alteration on fractured surfaces. → becoming increasingly finer grained towards 75'	✓	✓	✓				✓	780%
				Sample 4-4 @ 70'						

Home 4

rage cote

Box 4

N: E: ELEV: AZ: DIP: -90° LENGTH: 100' DATES: HOLE: 4

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

76.7%

Page 1
FOOTAGE

% Garnet

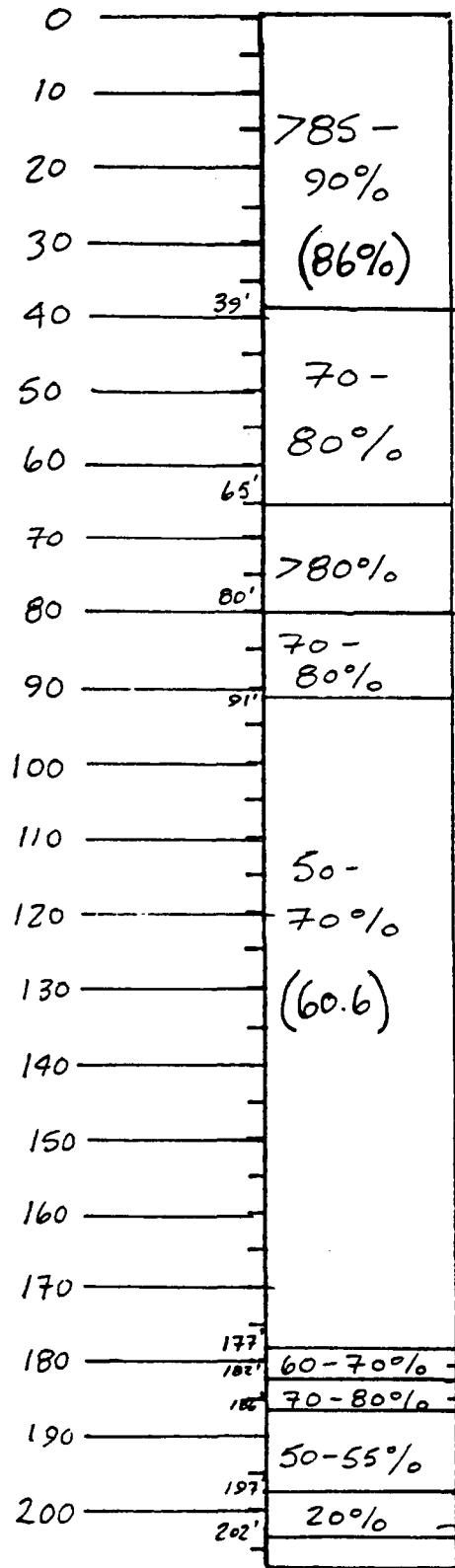
HOLE #5

DEPTH 297'

SCALE Grade

DESCRIPTION

0 10 20 30 feet



Coarse grained dark green garnet with well developed zoning. Main accessory minerals include actinolite and diopside.
Sample 5-1 @ 9' 75.2%
Sample 5-2 @ 34' 96.4%

Medium to fine grained garnet. Main accessory is fine grained actinolite 10-15%. Alteration minerals include iron oxide and dendritic manganese.
Sample 5-3 @ 44' 83.0%
Sample 5-4 @ 52' 93.3%
Sample 5-5 @ 65' 72.8%
Sample 5-6 @ 78' 39.9% DK green/red garnet
sample 5-7 @ 88' 93.8%

Garnet is medium grained and red/brown in colour. Some garnet is equigranular and black.
Main accessory minerals are and diopside.
Sample 5-8 @ 95' 62.2%
Sample 5-9 @ 107' 37.7%
Sample 5-10 @ 119' 1
Sample 5-11 @ 131.8' 75.9%
Sample 5-12 @ 142' 38.9%
Sample 5-13 @ 157' 78.5%
Sample 5-14 @ 173' 70.8%
Diopside commonly occurs up to 50%.

Very fine grained sample 5-15 @ 179' 92.1%
Becomes very coarse grained. Sample 5-16 @ 184' 87.4%
Garnet occurs primarily as secondary growth structures. Main accessory minerals are diopside and epi. Sample 5-17 @ 192.4' 92.3%
Mainly dk blue-green fine grained actinolite ± diopside

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

Page 2

FOOTAGE

200

210

220

230

240

250

% Garnet

70-
80%
(91.4%)

HOLE # 5

DEPTH 247'

SCALE

0 10 20 30 feet

Medium grained crystalline Garnet
green + brown in colour

Main accessory minerals are
epidote, actinolite, diopside and
minor calcite.

Sample 5-18 @ 211' 91.3%
Sample 5-19 @ 221' 95.3%
Sample 5-20 @ 233' 91.5%
Sample 5-21 @ 247' 90.0%

Hole 5 Page 1 of 1

Boxes 1, 2, 3, 4

N: E: ELEV: AZ: DIP: -90° LENGTH: 247' DATES: HOLE: 5

FROM	TO	NOTES		AC	D	S	Q	Ca	G	COLOR
0'	39'	>85-90% coarse grained ^{dk} green garnet. Zoning common. (High grade) Patches actinolite and diopside throughout <5%. Occasional zones of up to 75% diopside occur over 3 inch sections. (Probably doesn't average >5% over garnet zone).	sample	✓	✓	✓	✓	✓	80-95%	dk green @ almost black patches
39'	65'	>70-80% medium to fine grained garnet. 10-15% fine grained actinolite. (calcite 1-3%, fine grained diopside? Sporadic rusty and manganese staining on fractures. Sugary interstitial quartz up to 5% → Fine grained actinolite @ pyrite along Fractures. In addition, minor pyrite disseminated locally.	10-15%	✓	✓	✓	✓	✓	1-3%	
59'	61'		Sample 5-3 @ 44' - garnet Sample 5-4 @ 52' - garnet							80% 60-70%
65'	80'	>80% Garnet medium to coarse grained dk green/red blotchy garnet. Sugary fine grained quartz interstitial throughout. trace sulphides. 74'-75' Diorite rich section, pale blue-green fine grained patches	Sample 5-5 @ 65'	✓	✓	✓	✓			✓
			Sample 5-6 @ 78'							

N:	E:	ELEV:	AZ:	DIP: -90° LENGTH: 247'	DATES:	HOLE: 5					
FROM	TO	NOTES		EPI	AC	D	S	Q	Ca	G	COLOR
91' ton't.	177'	High Diopside up to 50%		Epi Sample	✓	✓			✓	50- 60%	green/ brown
	177'	At 177' feet rock becomes very fine grained. It's possible that garnet content increases.		✓ Sample	✓	✓	minor		✓	60- 70%	
182'	186'	Material becomes very coarse (70-80% G) grained abruptly. Well developed garnet zoning is evident. Large calcite crystals occur locally.		✓ Sample		✓	minor	✓	70- 80%		multi- coloured
186'	197'	Garnet content drops to \approx 50% and diop., act., and epidote increase. Obscure breccia textures occur locally. Fragments of diopside? are ^(appear to be) surrounded by garnet growth structures		✓ Sample	✓	✓			✓	40- 50%	brightly multi- coloured
197'	202'	Extremely fine grained section of 70-80% dk. blue green actinolite \pm diopside garnet up to 20%								20%	blue green
202'	247'	back to medium grained crystalline garnet 70-80% This section is extremely massive and homogeneous.		✓ Sample	✓	✓			✓	70- 80%	green/ brown

N: E: ELEV: AZ: DIP: -90° LENGTH: 247 DATES: HOLE: 5

FROM	TO	NOTES	Ac	D	S	Q	Ca	G	COLOR
202'	247'	234'-235' Section of 80% Fine grained blue-green actinolite/Diopside Patches of coarser grained actinolite/Diopside occur throughout. Minor hematitic staining as well as rare magnetite	Sample S-19 @ 221	Sample S-20 @ 233	Sample S-21 @ 247				For 80%

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

74.8%

grade

Page 1

FOOTAGE

% Garnet

HOLE # 6 DEPTH 173'

DESCRIPTION

SCALE



0	Overburden	
5	>85%	
10	75-	
15	80%	
20		
25	>80%	
30		
35		
40		
45		
50		
55		
60	Nil	
65		
70	780% (75)	
75		
80	70% (95)	
85		
90		
95	780-85% (86) cont.	
100		

DETAILED DESCRIPTIONS:

- 0 - 15': Coarse equigranular garnet (2-3 mm). Manganese Fe oxide + clay alteration on fractures. Sample 6-1 @ 6' 95.4%.
- 15' - 31': Large equant garnet grains @ well developed growth rings (up to 25% combined act., epi, diop?). Sample 6-2 @ 10' 70.2%.
- 31' - 55': Medium-coarse crystalline garnet with patches of black manganese staining on some fractures. Diopside common, locally moderate clay alteration @ some iron stain. Sample 6-3 @ 21' 90.3%.
- 55' - 60': Garnet content varies dramatically throughout this section from 85% to <20%. Clay alteration on fractures ubiquitous throughout. Qtz veinlets occur locally.
- 60' - 65': Sample 6-4 @ 36' 44.2%.
- 65' - 72': Massive grey quartz. Highly altered rock w/ minor sulphides (cystain), abundant manganese & FeOz staining.
- 72' - 87': Green red crystalline garnet. Green diopside 10-20%, minor epidote alteration. Sample 6-5 @ 65' 75.1%.
- 87' - 100': Garnet zone contains high levels of diopside (up to 30%). In addition, high levels of clay, manganese and FeOz staining. Garnet is pale brown and v. fine grained. It also occurs as secondary growth structures.
- 89' - 107': Sample 6-6 @ 75' 94.7%.
- 89' - 107': Dark green-black crystalline garnet. Low clay, mang. FeOz. 5% actinolite, moderate epidote (10%). Sample 6-7 @ 89' 99.3%.
- 107': Sample 6-8 @ 107' 73.3%.

Page 2

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

FOOTAGE	HOLE # 6	DEPTH 173'	SCALE
	% Garnet	<u>DESCRIPTION</u>	0 5 10 15
100	cont		
105	109' 780-85%		
110	109' 70-75%		
115	115' 50-70%		
120	>80%		
125	125' 60%		
130			
135	>85%		
140			
145	143'		
150	70-80%		
155	(67)		
160	162'		
165	>80%		
170	168' 170' 20-30%		
175	175' >80%		
	E.O.H.		
180			
185			
190			
195			

Hole 6, Box 1,
N:

Page 1 of 4

E:

ELEV:

AZ:

DIP: -90° LENGTH: 173' DATES:

HOLE: 6

ROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
0	5'	Casing			<5%				785%	
5'	7'	>85% Garnet, equigranular garnet grains 2-3 mm in diameter, appears as speckled texture on sawn surfaces. Dendritic manganese staining on most fractured surfaces as well as minor iron oxide staining. Some clay alteration present on fracture surfaces.		Sample	6-1	from 6'				pale-brown/ pink @ minor green
7'	14'	75-80% Garnet - consists of large (.5 cm) ^{equant} grains of dk red/black garnet with pale garnet growth rings almost doubling the original grain size. Fine grained green material between grains appears to be a combination of actinolite, epidote and possibly diopside (up to 25% combined total). Minor manganese staining on fractures.	✓	✓	✓				75- 80%	Pale green/ yellow.
14'		>80% medium-coarse garnet (crystalline). @ patches of black manganese staining on some fractures. At 14' a small piece of core consists on 90% manganese. Diopside occurs locally up to 10%. 19-20' - locally - moderate clay alteration @ some iron staining.		Sample	6-2	@ 10'			780%	Pale pink/ brown/green
					10%					
				Sample	6-3	@ 21'				

N:	E:	ELEV:	AZ:	DIP: 90°	LENGTH: 173'	DATES:	HOLE:			
ROM	TO	NOTES		AC	D	S	Q	Ca	G	COLOR
14' on't.	31'		Epi							
31'	57.7"	Garnet content varies dramatically throughout from 85% to <20%. Average is probably about 50-55%. Clay alteration on fractured surfaces ubiquitous throughout. Quartz veinlets occur locally. High grade garnet sections >85% are broken up by very poor grade garnet (mainly clay zones), bringing overall garnet content to ~50%.	✓	✓	✓	10-15%	40 to 60%	21%	ave. 50%	multicoloured (grungy)
				sample 6-4 @ 36'						
57.7"	58.4"	massive grey quartz.				No sample taken as it is not possible to take a representative sample				same as above.
58.4"	59.2"	+ grungy altered rock with minor sulphides (pyrite + chalcopyrite), copper staining. Abundant manganese + iron oxide - staining garnet <10%.	✓		✓			✓	<10%	green/ yellow rusty staining.
59.2"	72'	>80% greenish red crystalline garnet. Green diopside 10-20% - vitreous, minor ^{pervasive} epidote alteration.	-	10-20%			✓ minor		780%	
			sample 6-5 @ 65'							
72' on't.		70% garnet, high levels of diopside (up to 30% pale blue green) - Also higher levels of clay, manganese and iron oxide staining.		30%						>70%

N: E: ELEV: AZ: DIP: -90° LENGTH: 173° DATES: HOLE:

FROM	TO	NOTES	EPI	AC	D	S	Q	Ca	G	COLOR
72'	87'	Garnet is generally pale brown and very fine grained. It also occurs as secondary growth structures which occur as stringers.		10%	10%			—	70%	grungy
87'	107'	 alternating Light and dark garnet growth rings.	Sample 6-6 @	75'						
107'	109'	Clay, manganese and iron oxide staining decrease dramatically. Garnet 780-85% crystalline, vitreous, green red in colour. Epidote alteration = moderate minor interstitial calcite crystals. 5% fine grained blue-green actinolite crystals.	10% Sample 6-7 @	5% 89'	5% trace	✓ 80- 85%				Dark green- black.
109'	115'	DK blue-green in colour with higher levels of diopside, actinolite and epidote (up to 30% combined) garnet-brown red crystalline 70-75%.	5% Sample 6-9 @	5% 108.5'	10- 15% trace	✓ 70- 75%				Fine-grained Blue-green
115'	121'	Crystalline garnet with diopside /actinolite up to 40% combined. quartz present as silicified areas. 780% crystalline brown/pink garnet	5% Sample 6-10 @	10- 20% 10%	10- 20% 10%					50- 70%
			2%	5- 10%	5- 10%					80%

Hole 6, Boxes 7,

N: E:

Page 4 of 4

ELEV:

AZ:

DIP: -90° LENGTH: 173' DATES:

HOLE:

FROM	TO	NOTES	EPI	AC	D	S	Q	Ca	G	COLOR
121'	125'	Garnet content diminishes slightly (\approx 60%) throughout this section. Fine grained blue-green actinolite and pale blue-green diopside occur throughout (combined up to 40%). Some sections contain clay alteration and manganese on fracture surface.	5-10%	15-20%	20-28%	sample	6-11	1-2% @	\approx 60%	125'
125'	143'	garnet > 85%. Medium to fine grained garnet, pink/brown @ patches of diopside disseminated throughout and usually concentrated in zones or seams 1-2% large (1-2 cm) patches of calcite occur locally. Localized patches of actinolite/diopside/epidote up to combined 90% (4-5%).	1-2%	2-3%	10-15%	✓ trace	6-12	1-2% @	785%	Pink/ brown/ green
143'	162'	garnet 70-80%. Mainly fine grained pink/brown garnet, @ fairly high levels of epi/act/diop. (up to 30% combined)	5-20%	5-10%	10-20%	✓ minor	6-13	✓ @	70- 80% Lo	Pink/ brown/ green
162'	173'	168'-170' (low garnet high epi/act/diop) E.O.H. remainder is > 80% fine grained pink brown garnet.	✓	✓	✓	✓	6-14	✓ @	80%	152' 161' 173'
						Sample	6-15	✓ @		

CRYSTAL PEAK GARNET CORP 70.76%

DRILL HOLE SUMMARY

FOOTAGE	HOLE # 7	DEPTH 96'	SCALE
	% Garnet	DESCRIPTION	0 5 10 15
0	2' overburden	Coarse grained dark red/brown vitreous garnet. DK bluelgreen diopside common Sample 7-1 @ 4'	
5	7.5' >80%		
10			
15			
20	>80%	Fine grained crystalline pale pink & green garnet. Interstitial diopside occurs in varying degrees from nil to 20% sample 7-2 @ 9' 82.7%	
25	(88.9%)	sample 7-3 @ 14' 95.1%	
30	10 - 50%	Fine grained skarn with highly variable garnet content. High diopside, low actinolite and Ca. sample 7-4 @ 29' 49.2%	
35	34.5'	sample 7-5 @ 33' 84.2%	
40	60 -	Red brown crystalline garnet 20-40% diopside & actinolite 44-45% garnet 30% sample 7-6 @ 35' 91.3% sample 7-7 @ 41' 95.9%	
45	75% (85.4%)	sample 7-8 @ 44.5' 67.1% sample 7-9 @ 47' 87.5%	
50	48		
55	50%	Coarse grained garnet/Diopside skarn. Generally garnet-Diopside ratio is 50%-50% but varies locally. sample 7-10 @ 53' 38.1%	
60		sample 7-11 @ 64.5' 91.7%	
65	64' 90% 65'	Mixed skarn @ abundant diopside	
70	72 <20%	sample 7-12 @ 70' 59.2%	
75		Mixed skarn @ abundant actinolite /Diopside 100% large quartz blebs 10% pyrite, 5% epidote sample 7-13 @ 75.8' 64.9%	
80	87.5 <20% (61.6)	sample 7-14 @ 81' 58.4%	
85			
90	90.5' (97%) >85%	Crystalline red-brown garnet @ 15-20% diopside. garnet content varies widely. sample 7-15 @ 86' 66.2% sample 7-16 @ 90' 97.7%	
95	96' E.O.H.	Fine-grained crystalline red-brown garnet, minor diopside, actinolite sample 7-17 @ 92' 98.5%	
100		sample 7-18 @ 96' 96.0%	

HOLE 7, Boxes 1, 2, 3 Page 1 of 3

N: E: ELEV: Az:

DIP: -90° LENGTH: 96' DATES:

HOLE: 7

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
0	2'	Casing		tremo.			✓	✓		dk red/brown
2'	7.5'	Coarse grained dark red/brown vitreous garnet >80%. Dk. blue-green diopside most common accessory mineral, occurs as small (1cm) patches Calcite disseminated as coarse crystals throughout.		5-7%			Minor	2-5%	>80%	
				Sample	7-1	@	4'			
7.5'	26'	Fine grained crystalline pale pink garnet. Interstitial diopside occurs in varying amounts, from nil to 20%. Garnet 780%		up to 20%			trace	trace	780%	pale green to pale pink
				Sample	7-2	@ 9'				
				Sample	7-3	@ 14'				
26'	34.5'	Fine grained Skarn, garnet content varies from <10% to ≈50% High diopside, actinolite and up to 10% calcite.	minor	30-35%	60-70%		5-10%	10-50%		Dark green
				Sample	7-4	@ 29'				
				Sample	7-5	@ 33'				
34.5'	48'	60-75% Red brown crystalline garnet. 20-90% diopside and actinolite 44'-45' + garnet content drops to 30% Diopside up to 70% Generally fine grained although grain size becomes coarse towards 48'		15-25%	15-25%		5%	60-75%		Red/green
				Sample	7-6	@ 35'				
				Sample	7-7	@ 41'				
				Sample	7-8	@ 44.5'				
				Sample	7-9	@ 47'				

N: Hole 7 E: ELEV: AZ: DIP: -90° LENGTH: 96' DATES: HOLE: 7

FROM	TO	NOTES	EPI	AC	D	S	Q	Ca	G	COLOR
48'	64'	Coarse grained garnet / Diopside skarn Generally, garnet-Diopside ratio is about 50%/50% but varies locally.	5%	up to 50%	✓				up to 50%	green @ minor red garnet
64'	65'	> 80% coarse grained red brown garnet.	Sample	7-10	@ 53'					red/brown
65'	72'	< 20% garnet overall - remainder is 50-70% diopside, 10-20% small 3-4cm section of > 80% garnet occur rarely	10-20%	50-70%	✓ trace			minor ✓	< 20%	green
72'	82.5'	Mixed Skarn zone with < 20% garnet (red brown) with abundant green actinolite /diopside (difficult to distinguish) Large quartz blebs up to 10% occur throughout this section. minor pyrite < 1% throughout. Up to 5% epidote associated primarily with quartz.	5%	30-35%	40-20%	✓ trace	up to 10%	1%	up to 20%	mainly green
82.5' con't.	70-80% red brown garnet with up to 15-20% diopside. Garnet content varies widely.	Sample 7-13 @ 75.8'								
	72'-73.5' up to 5% disseminated sulphides on fractures	Sample 7-14 @ 81'								
		Sample 7-15 @ 86'	up to 10%	15-	✓	✓	✓	1%	70-80%	red/brown @ green
		Sample 7-16 @ 90'	20%	up to 5%						

N: Hole 7 Boxes 6, ELEV: Page 3 of 3
E: AZ:

N: E:

ELEV:

Page 3 of 3

AZ:

DIP: 90° LENGTH: 96'

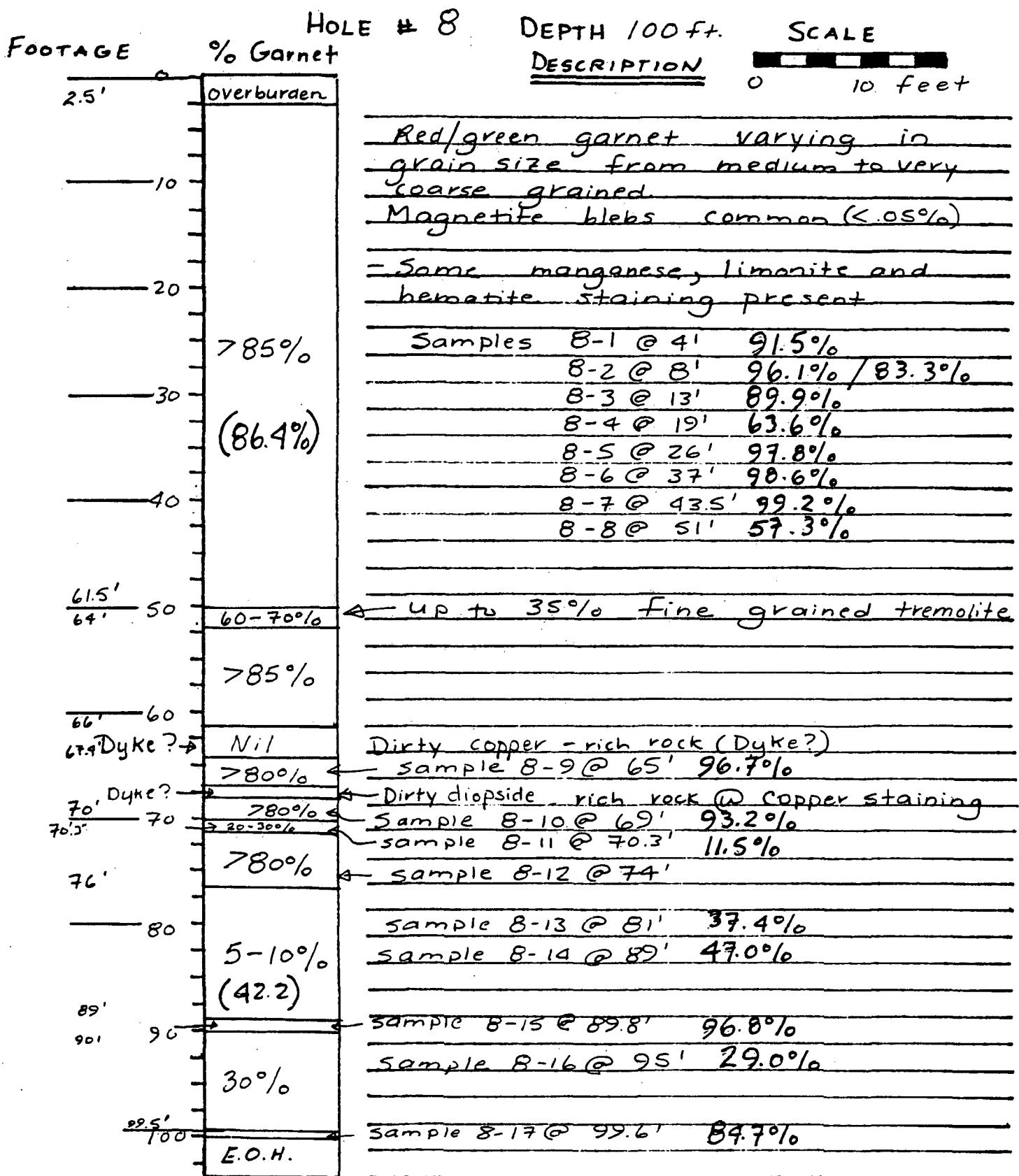
DATES:

HOLE: 7

FROM	TO	NOTES		Ac	D	S	Q	Ca	G	COLOR
32.5' onlt.	90.5'			5%	5%		✓	✓	>85%	red / brown
90.5' E.O.H.	96'	>85% red brown fine grained garnet, minor diopside, actinolite. <10%		sample	7-17 @	92'				

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

Grade 71.6%



Hole 8, Boxes 1,2,3 Page 1 of 2
N: E: ELEV: AZ: DIP: -90° LENGTH: 100' DATES: HOLE: 8

Hole 8, Boxes 4, 5, 6 Page 2 of 2
 N: E: ELEV: AZ: DIP: -90° LENGTH: 100' DATES: HOLE: 8

FROM	TO	NOTES		AC	D	S	Q	Ca	G	COLOR
67.4'	70'	>80% pale green fine grained garnet. Iron oxide stained clay alteration w/ dendritic manganese on fracture surface.				sample 8-10 @ 69'				pale green
70'	70.3'	mixed skarn, mainly actinolite + diopside < 20-30% garnet				sample 8-11 @ 70.3'				
70.3'	76'	pale green high grade garnet, >80% up to 20%. Sections of extremely fine grained diopside/actinolite skarn.		100%	100%		✓	✓		up to 80%
						sample 8-12 @ 74'	trace	trace		
76'	89'	Medium green, extremely fine grained mixed skarn. Almost a chert-like texture. @ concoidal fractures. Too fine-grained to be certain, would guess high diopside (up to 85%). Garnet < 5-10%. Minor pyrite on some fracture surfaces.		✓	up to 85%	1% on fractures.				5-10% medium green
						sample 8-13 @ 81'				
						sample 8-14 @ 89'				
89'	90'	-1 ft section of > 75% red/brown garnet.				sample 8-15 @ 89.8'				
90'	99.5	medium green, fine grained mixed skarn. chert like texture @ up to 30% coarse grained red brown garnet.				sample 8-16 @ 95'				
99.5'	100'	>80% crystalline red/brown garnet				sample 8-17 @ 99.6'				

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY Grade is 76.2%

FOOTAGE	% Garnet	HOLE # 9	DEPTH 100'	SCALE
			<u>DESCRIPTION</u>	0 5 10 15 feet
0	2' overburden 40-50%		Mixed skarn - poor core recovery, lots quartz.	
5				
10			Medium-coarse crystalline red-brown garnet. Fine grained bluegreen diopside occurs as patches. Accessory pyrite, calcite and quartz.	
15	70% (64)		Sample 9-1 @ 6' 62.5% sample 9-2 @ 11' 61.3%	
20	(90.5)		Sample 9-3 @ 15' 69.3%	
25	>85%		Coarse crystalline red/brown & green garnet sample 9-4 @ 19' 93.2% sample 9-5 @ 24' 87.8%	
30			Highly variable garnet zone (red/brown crystalline) varies in content from 15-98% diopside (up to 70%) pyrite-8%, quartz-5%.	
35	40-50% (68.35)		Sample 9-6 @ 25' 66.7% sample 9-7 @ 34' 70.0%	
40	40' 41.9" >85%		coarse crystalline green garnet sample 9-8 @ 41' 85.1%	
45	30-35% (60)		coarse crystalline brown-red/green garnet as seams and patches within fine grained diopside sample 9-9 @ 47' 84.1%	
50	50.0"			
55				
60				
65	>85%		Coarse crystalline brown red/green garnet. Minor actinolite, diopside, calcite, quartz. Some small patches of >70% diopside occur locally.	
70			In addition, sections of garnet have increased iron oxide, and clay alteration on fractures	
75	(87.7%)		Sample 9-10 @ 52' 97.7% sample 9-11 @ 56' 91.5% sample 9-12 @ 60' 60.1% sample 9-13 @ 65' 88.0% sample 9-14 @ 75' 95.5% sample 9-15 @ 77' 95.5% sample 9-16 @ 85' 98.4% sample 9-17 @ 90' 65.7% sample 9-18 @ 95' 92.4% sample 9-19 @ 100' 92.4%	
80				
85				
90				
95				
100	100' E.O.H.			

100' E.O.H.

Hole 9, Boxes 1,

Page 1 of 2

N : E :

ELEV:

Az:

DIP: -90° LENGTH: 100' DATES:

HOLE: 9

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
0'	2'	Casing	✓	✓	✓	✓	✓	✓	✓	multi-coloured
2'	4'	Mixed skarn - poor recovery quartz 40-50% coarse crystalline garnet	10%	10%	10%		30%		40-50%	
4'	18'	~70% medium-coarse crystalline red-brown garnet. Fine grained bluelgreen diopside occurs as patches interstitial to the garnet. Large blebs of calcite @ coarse crystalline secondary garnet + sulphides (pyrite @ minor chalcopyrite) occur sporadically throughout this zone. Quartz occurs as blebs locally. Patches of pyrite (up to 1.5cm diameter) occur independently as well.		up to 30%	2-5%	1-3%	1-3%	70%	red/green fremolite	
18'	24.5"	>85% coarse crystalline red/brown and green garnet (up to 28%) minor calcite, quartz and pyrite occur disseminated throughout		1%	1%	1%	1%	785%		
24.5"		Highly variable garnet zone (red/brown crystalline). Varies in content from 15% - 98% average 40-50%. remainder consists of diopside (up to 70%) pyrite up to 8%, quartz-5% calcite 2-3%	✓ 70% (up to)	✓ 8%	✓ 5%	✓ 2-3%	✓ 15-98%	✓ green @ brown (ave 40-50%)		
			Sample 9-1 @ 6'	Sample 9-2 @ 11'	Sample 9-3 @ 15'					
			✓	✓	✓					
			Sample 9-4 @ 19'	Sample 9-5 @ 24'						
			Sample 9-6 @ 25'	Sample 9-7 @ 34'						

N: E: ELEV: AZ: DIP: -90° LENGTH: 100° DATES: HOLE: 9

FROM	TO	NOTES		Ac	D	S	Q	Ca	G	COLOR
24' 5"	40									
cont.										
40	41' 9"	>85% coarse crystalline green garnet	Sample	9-8	@	41'				
41' 9"	50' 4"	30-35% coarse crystalline brown/red garnet as seams and patches within fine grained blue-green diopside Some coarse blebs of calcite	up to 70%				1-2%	30- 35%	green @ brown/ red.	
50' 4"	100'	F.O.H. 785% coarse crystalline brown-red/green garnet. Minor actinolite, diopside calcite and quartz (diopside rich) Some small patches (4-5") occur locally. In addition, sections of garnet have increased levels iron oxide and clay alteration of fractures. Garnet is usually red-brown in colour but can be green also.	Sample	9-10	@	52'				
			Sample	9-11	@	56'				
			Sample	9-12	@	60'				Red/ brown
			Sample	9-13	@	65'				
			Sample	9-14	@	75'				
			Sample	9-15	@	77'				
			Sample	9-16	@	85'				
			Sample	9-17	@	90'				
			Sample	9-18	@	95'				
			Sample	9-19	@	100'				

CRYSTAL PEAK GARNET CORP 78.8%

DRILL HOLE SUMMARY

Page 1

FOOTAGE	% Garnet	HOLE # 10	DEPTH 574'	SCALE
			DESCRIPTION	10 20 30 feet
0				
10	7%	Overburden	Coarse grained, crystalline pink/brown garnet Main accessory minerals - epidote/diopside	
20	>85%		Pale yellow-green patches of actinolite occur locally. Sample 10-1 @ 15' 83%	
30	30'		Sample 10-2 @ 22' 91.9%	
40	70-80%			
50			Coarse crystalline pink/brown @ sections of >40% combined epidote/diopside. Calcite and hematite occur in low levels throughout.	
57'			Sample 10-3 @ 31' 29.9%	
60			Sample 10-4 @ 51' 91.8%	
70	785%		Crystalline pink/brown @ epidote/diopside and actinolite. Samples 10-5 @ 59' 10-6 @ 64' 10-7 @ 69' 95.0%	82.7% 80.9%
80	70-75%		epi, lacq up to 30% calcite, epidote, (80%) samples 10-8 @ 71' 10-9 @ 74' 73.4% 34.8%	
87	Nil		>90% Macro-crystalline calcite	
89.5'	30-50%		>80% Garnet sample 10-10 @ 88' 62.6%	
94'			Sample 10-11 @ 91' 5.3%	
100	780%		Red/brown garnet @ well developed zoning. act./epi up to 20%, sample 10-12 @ 96' 89.2	
110	60-80%?		Sample 10-13 @ 99', sample 10-14 @ 104' (22.3, 82.8)	
117	60-80%? (90%)		Sample 10-15 @ 108', sample 10-16 @ 111' (91.1, 53.9)	
120			{ Fine grained multi-coloured skarn. Samples 10-17 @ 114' 66.9 sample 10-18 @ 116'	
130			Pink brown crystalline garnet @ epi/act/hematite sample 10-19 @ 119', sample 10-20 @ 123' (93.9, 87.0)	
139			sample 10-21 @ 130' sample 10-22 @ 138' (95.2, 87.6)	
146.5	10-20%		Mixed skarn zone, high calcite, act., diop., magnet., pyrite (up to 50%)	
151'	>80%		V pale rosy-beige, V fine grained garnet sample 10-23	
156'	50%		@ 148', sample 10-24 @ 153' (82.8, 17.9)	
163'	>80%		{ E grained pink/brown garnet. Sample 10-25 @ 156'	
166	100%		60-70% Garnet - transition zone	
173	50%		Mixed skarn - sample 10-26 @ 164'	
183	70-80%		Mixed skarn - sample 10-27 @ 167'	
			Crystalline brown garnet samples 10-28 @ 174' 94.8	
			10-29 @ 180' Garnet content varies dramatically in this zone 76.7	
			Massive brown garnet @ minor patches of V coarse grained radiating bright green actinolite. DK blue-green diopside patches occur locally up to 20%. Minor quartz	
			con't.	

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

Page 2

FOOTAGE	% Garnet	HOLE # 10	DEPTH 574'	DESCRIPTION	SCALE
200				occurs as interstitial grains usually <1% or rarely as narrow seams or veins	10 20 30 40 feet
210				Sample 10-30 @ 184, 10-31 @ 189', 10-32 @ 195',	
220				10-33 @ 200', 10-34 @ 206', 10-35 @ 210',	
230	>90%			10-36 @ 215', 10-37 @ 221', 10-38 @ 226',	
240	(91%)			10-39 @ 231', 10-40 @ 236', 10-41 @ 241',	
250	255'			10-42 @ 246', 10-43 @ 251', 10-44 @ 253.5',	
260				*30, 86.4, 31, 32, 94.9, 33, #34, 77, #35, 92,	
270				*36, 91.9, *37, 95.2, #38, 92.4, *39, 88.8, #40, 91.8,	
280	>80%			#41, 85.4, #42, 96.2, #43, 92.8, #44, 93.9	
290	(74%)				
300	302' 305' 70%			Pink/brown crystalline garnet @ increased levels of epi/act/diop. averaging 10-20%	
310				Combined Hematite common, Sample 10-45 @ 258', Sample 10-46 @ 261', Sample 10-47 @ 266', Sample 10-48 @ 270', Sample 10-49 @ 278', Sample 10-50 @ 282', Sample 10-51 @ 289', #46, 99.3, #47, 75.9, #48, 63.4, #49, 41.7%, #50, 91.3%	
320				Fine grained pink/brown garnet + higher percentage of fine grained acc. mins. Sample 10-52 @ 299' 6" 69.3%	
330	>80%				
340	(82%)			Fine-medium grained pink/brown garnet @ actinolite, epidote and abundant clinozoisite. Many sections will produce over 50% garnet. Samples 10-53 (306'), 10-54 (312' 6"), 10-55 (318'), 10-56 (325'), 10-57 (331')	
350	351' 8"			10-58 (337' 6"), 10-59 (343'), 10-60 (350'), #53, 61.7%, 87.9%, 85.7%, 86.1%, 92.0%, 77.4%, 86.3%, 76.4%	
360	355' 356' >95% 50-70%			Red/brown garnet, Sample 10-61 @ 353' 74.3%	
370	363' 369' 70-80%			Red brown garnet, Sample 10-62 @ 355' 8" 97.9%	
380	370' 380' 780%			Garnet @ diopsidite/actinolite/calc. /epi Sample 10-63 @ 362' 67.0%	
390	390' 780%			Mixed red/green garnet @ diopside/act. /epi. Sample 10-64 @ 368' 81.7%	
400	397' 400' Con't.			Red/brown + dk green garnet, Samples 10-65 (372'), 10-66 (377') 45-50% Red/brown garnet. (98.5%, 72.1%)	
				Highly variable coloured/grain sized garnet	
				Sample 10-67 @ 381' 8", Sample 10-68 @ 386'	
				Sample 10-69 @ 395' #67, #68-96.3, 96.0,	
				Worm burrow texture - 50% garnet, 50% combined diopsidite, minor epidote /	
				Sample 10-70 @ 399' 54.6%	

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

Page 3

FOOTAGE	HOLE # 10	DEPTH 574'	SCALE
	% Garnet	DESCRIPTION	10 20 30 40 feet
400	400	Red/brown crystalline garnet @ accessory epidote/actinolite. Mainly fine grained Sample 10-71 @ 406' sample 10-72 @ 411'	
410		Sample 10-73 @ 416' Sample 10-74 @ 421'	
420	>80% (87%)	Sample 10-75 @ 426' Sample 10-76 @ 433' Sample 10-77 @ 438'	
430		*71, 86.9, 67.5, 95.8, 94.1, 82.9, 88.8, 92.7%	
440	442'; 449'	→ 30-40% garnet @ a 6" section of up to 50% Rhodonite (pale rose pink)	
450	456'	Dirty mixed skarn - grey/black/green v.f.grained Sample 10-78 @ 448' (Nil)	
460	460'	→ Mixed skarn, up to 75% garnet Sample 10-79 @ 458' 90%	
470	466'; 468'	Sample 10-80 @ 467' (Nil)	
480	482'	Mainly dk green crystalline garnet, minor red garnet. occasional large qtz. blebs Samples 10-81 @ 476' + 10-82 @ 482' #81, 97, 91, 79.9,	
490	487'	10-83 @ 485'	
500		Crystalline red/brown garnet, patches (up to 5") of >60% bright green epidote. Hematite common Sample 10-84 @ 491' 77.9 Sample 10-85 @ 496' 81.4	
510	513'	Sample 10-86 @ 501' 84.6 sample - 87 @ 508' 98.2	
520		V. fine grained green-blue rock, appears to be high garnet, but will need thin section verification, Samples 10-88 @ 516' 66.4	
530	535.5'; 538'	10-89 @ 526' 91.30-90 @ 530' 82.8 10-91 @ 534' 79.1	
540		→ Mixed skarn - very fine grained green-blue Sample 10-92 @ 536' (Nil)	
550		- Mixture of extremely fine grained garnet & coarser grained growth rings Samples 10-93 @ 542' 10-94 @ 548' 10-95 @ 552' 10-96 @ 556' #93, 79.4, 91.0, 76.6, 90.4%	
560	558'	Same as above, somewhat less garnet. Several clay and hematite rich zones	
570	574'	Sample 10-97 @ 561' 91.1 %	
580	E.O.H.	Sample 10-98 @ 563' 90.8 %	
		Sample 10-99 @ 568' 94.3 %	
		Sample 10-100 @ 573' 90.4 %	

HOLE 10 Boxes, 1,2,3,4, Page 1 of 9
 N: E: SP. ELEV: AZ: 180° DIP: -60° LENGTH: 574' DATES: HOLE: 10

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
0'	7'	Casing	✓	✓	✓	✓		✓	78%	pinky brown
7'	30'	>85% coarse grained, crystalline pink/brown garnet. 13'-14' - up to 25% epidote). difficult to determine how much diopside is present. Epidote is generally closely associated with diopside.	up to 25%	up to 1% Sample	10%	trace			-85%	with bright green patches.
30'	57'	Pale yellow-green prismatic actinolite patches occur locally (overall ~2%). Actinolite can be readily differentiated from epidote. >70-80% garnet (coarse crystalline pink/brown) Some sections of >90% combined epidote/diopside/actinolite. 39-40' has ~10% calcite blebs (disseminated) hematite patches (1-2 cm in diameter) occur sporadically throughout.	10	10 Sample	15% trace		10-1 @ 15' 10-2 @ 22'	2-5%	70-80% @ bright green patches.	
57'	70'	>85% garnet - crystalline pinky-brown @ patches of green epidote/diopside and actinolite (radiating yellow-green crystals).	5-10%	2-3% Sample	5-10% trace		10-3 @ 31' 10-4 @ 51'	2-3%	785%	
70'	76'	>70-75% garnet - crystalline Pink-brown epidote/actinolite/diopside up to 30%. Combined	5-10% Sample	10	10% trace		10-5 @ 59' 10-6 @ 64' 10-7 @ 69' 10-8 @ 71'	1-2%	pink/brown @ green patches	

FROM	TO	NOTES	Epi.	AC	D	S	Q	Ca	G	COLOR				
76'	77'	primarily calcite/epidote and This 1' section represent a transitional zone between high grade garnet and massive calcite.	30-90%	30		trace		20-30%	<20%	green-blue (at)				
77'	87'	Massive macro-crystalline calcite @ grains up to 9 cm in diameter. The grains often have angular fragments of green/brown material (coloured fragments of calcite) which gives the rock a brecciated appearance						70%	Nil	white				
87'	88'	Transition zone between calcite and garnet rich zone. It consists mainly of green diopside/epidote and white calcite.	40-60%					20%	<20%	green/white speckled.				
88'	89.5'	>80% garnet @ up to 20% /epidote/ actinolite/diopside		Sample 10-10	@ 88'									
89.5'	94'	30-50% pink-brown garnet. remainder consists of large patches and streaks of epidote/diopside /calcite/ garnet. minor hematite staining.	✓ 20-90%	✓ 20-90%	Sample 10-11	@ 91'	✓ 5-15%	✓ 30-50%	✓ minor white + brown patches.	Varying shades of green @ minor white + brown patches.				
94'	111'	>80% red/brown garnet (average throughout) well developed zoning of garnet crystals patches of actinolite/diopside/epidote throughout, not averaging more than 20% of overall content.		Sample 10-12	@ 96'	Sample 10-13	@ 99'	Sample 10-14	@ 104'	Sample 10-15	@ 108'	Sample 10-16	@ 111'	780%

N: E: ELEV: AZ: 180° DIP: -60° LENGTH: 574' DATES: HOLE: 10

ROM	TO	NOTES	EPI.	AC	D	S	Q	Ca	G	COLOR
111'	117'	60-80% - Fine grained multi-coloured skarn. Garnet content varies. High Diopside, actinolite, epidote in places.	1-2%	10% sample	10% 10-17	trace	✓	2-3% @ 114'	60-80%	
			2-3%	5% sample	10% 10-18	trace	✓	2-3% @ 116'		
	139'	>80% garnet (pink brown crystalline) minor epidote/actinolite accessory mineral in patches. minor hematite (disseminated throughout) staining. May be some diopside, difficult to be sure.		sample	10-19	trace	✓	2-3% @ 119'		pink/brown garnet.
				sample	10-20	trace	✓	2-3% @ 123'		
				sample	10-21	trace	✓	2-3% @ 130'		
				sample	10-22	trace	✓	2-3% @ 138'		
39'	146.5'	Mixed skarn zone - High calcite, actinolite, Diopside, magnetite (upto 5%). Up to 5% pyrite in blebs 2cm in diameter.	10-15%	3 - 20% 4 %	5% 10%	✓	30-40%	10-20%	White/ green splotchy.	
146.5'	154'	garnet >80% Very pale beige-pink, extremely fine grained garnet @ 5-8% actinolite and 3-5% very fine grained pyrite in blebs - 1-2 cm in diameter. → pyrite decreases towards 154'.		5-8% sample	10-23	3-5% @ 148'	✓	1% 780%		
				sample	10-24	3-5% @ 153'	✓			
154'	156'	50% Garnet, 25% calcite, 25% epidote - SKARN. Coarse grained calcite @ medium/fine grained epidote and garnet.	25%					25% 50%	white/ green/ pink/brown.	
156'	162'	>80% Fine grained pink/brown garnet @ epidote, actinolite, diopside. minor clay, iron oxide and manganese staining on Fracture Surfaces	✓ 5%	✓ 5-10%	trace 10%	✓	✓	780%		
	162'	Lunneville - diopside		sample	10-25	trace 10%	✓	780%		
								60-70%		

Hole 10, Boxes 9, 10, 11, 12, 13. Page 4 of 9
 N: E: ELEV: AZ: 180° DIP: -60° LENGTH: 574' DATES: HOLE: 10

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
163'	166'	Mixed skarn - diopside, actinolite, epidote, garnet. - V. fine grained massive, brown garnet occurs in patches or wide zoned seams.	30%	30%	30%	✓ trace	✓ trace	10%	dk green.	
166'	173'	Mixed skarn - same as above but up to 50% garnet	10-15%	10-15%	10-15%	Sample	10-26 @ 164'	✓ 2%	50%	
173'	183'	70-80% brown garnet @ local concentrations of ^{fine grained} unknown material up to 40% - some sections will produce >95% garnet, while others will produce ~60%.	1%	5%	5%	✓	3-5% (sample 10-28 should be 795% garnet)	70-80%	average. red-brown	
183'		- 790% massive brown garnet with minor patches of very coarse grained radiating bright green actinolite. Possibly some minor diopside. Dark blue-green patches occur locally up to 20%. Minor quartz occurs throughout as interstitial grains, usually in concentrations far less than 1%, thus is usually described as trace. Quartz also occurs very rarely as narrow seams or veins.	1-2% 3-5% up to 20%	✓	trace	1-2%	790%	red-brown		
			Sample	10-30 @ 184'				"		
			Sample	10-31 @ 189'				"		
			Sample	10-32 @ 195'						
			Sample	10-33 @ 200'						
			Sample	10-34 @ 206'						
			Sample	10-36 @ 210'						
			Sample	10-36 @ 215'						
			Sample	10-37 @ 221'						
			Sample	10-38 @ 226'						
			Sample	10-39 @ 231'					790% garnet.	
			Sample	10-40 @ 236'						

Cont.

N: E: ELEV: AZ: 180° DIP: -60° LENGTH: 574' DATES: HOLE: 10

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
183'	255'	continued pink-brown garnet > 85-90%. Locally, patches of either actinolite or diopside occur, however, rarely above 10-15%.	3-5%	S-10%	5-10%	✓ trace	✓ minor	785-90%	Pink-brown	
255'	302'	> 80% pink-brown garnet @ increased levels of epidote, actinolite and diopside averaging 10-20% combined. hematite stain common from 255'-258'. Quartz blebs occur more commonly. A black mineral (unidentified, non-magnetic) occurs sporadically. Patches of diopside and actinolite occur locally over 2-4" intervals. Minor hematite staining occurs throughout.	3%	Act. 5-10%	✓ sample 5-10%	1-2% up to 5%	10-41 @ 241' 10-42 @ 246' 10-43 @ 251' 10-44 @ 253.5'	241' 246' 251' 253.5')	> 85% garnet.	
302'	305'	> 70% → Fine grained pink/brown garnet. Higher percentage of fine grained accessory minerals.					Sample 10-45 @ 258' Sample 10-46 @ 261' Sample 10-47 @ 266' Sample 10-48 @ 270' Sample 10-49 @ 278' Sample 10-50 @ 282' Sample 10-51 @ 289'	258' 261' 266' 270' 278' 282' 289'	Pink/brown @ green patches 80%	
305'		> 80% → Fine medium grained pink/brown garnet (@ actinolite/epidote and possible diopside). Many sections will produce over 95% garnet.	✓	✓	✓	✓	✓ minor	780%		
							Sample 10-52 @ 299.6"	306'		
							Sample 10-53 @ 306'			
							Sample 10-54 @ 312.6"			

Hole: 10, Boxes: 18, 19 Page 6 of 9
N: E: 18, 19 Page 6 of 9
E: 20, 21, ELEV?

AZ: 180° DIP: -60° LENGTH: 574' DATES:

HOLE: 10

N:

Hole 10, Boxes 22, 23, 24, 25

E: ELEV:

Page 7 of 9
AZ: 180°

DIP: -60° LENGTH: 574' DATES:

HOLE: 10

FROM	TO	NOTES	Epi.	Ac	D	S	Q	Ca	G	COLOR
378'	380	45-50% red/brown garnet.								
con't.										
380'	397'6"	multi-coloured / multigrain sized zone → >80% mostly red brown garnet with some green garnet. Some patches (green) of distinctly fine grained actinolite / Diop. / epidote.	✓	up to 15%	✓	✓	✓		>80%	
				Sample	10-67 @	381'8"	multi-coloured			
				Sample	10-68 @	386'				
				Sample	10-69 @	395'				
397'6"	400'	worm burrow texture. 50% red/brown garnet, 50% mostly diopside, some minor epidote and actinolite	5%	5%	40%	✓		50%		red/brown + pale blue/green
				Sample	10-70 @	399'				
400'	442'	>80% red brown garnet with accessory epidote, diopside, and actinolite. Mainly fine grained. 438'6" - 440 - 70% garnet.	3%	5-10%	5-10%	✓	✓		780%	
				Sample	10-71 @	406'				
				Sample	10-72 @	411'				
				Sample	10-73 @	416'				
				Sample	10-74 @	421'				
				Sample	10-75 @	426'				
				Sample	10-76 @	433'				
				Sample	10-77 @	438'				
442'	444'	At 442' for a 6" section - up to 5% Rose pink rhodonite Garnet - 30-40%, Diopside upto 50% actinolites	✓	✓	✓	✓	✓			blue/green red/brown
			5%	5%	50%					30-40%
444'		→ Dirty mixed skarn, garnet - nil Grey-black-green v. fine grained silicified → clay section with pyrite		Sample	10-78 @	448'				

Hole 10, Boxes 26, 27, Page 8 of 9
 N: E: 28, 29, ELEV: 1000' AZ: 180° DIP: -60° LENGTH: 574' DATES:

AZ: 180° DIP: -60° LENGTH: 574' DATES:

HOLE: 10

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
444'	456'									
Con't.										
456'	466'	Garnet content up to 75% however, probably averages 60%. remainder diopside, actinolite, etc.	✓	✓	✓	✓	—	—	60%	Brown/ Blue-green
466'	468'6"	Mixed skarn + very high epidote + 80% Also garnet, calcite, actinolite and diopside	80%	✓	✓	3%	5%	✓	10%	
468'6"	482'	> 80%, mainly dk green crystalline garnet. Some red garnet also Occasional large quartz blebs.	✓	—	✓	✓	1%	✓	780%	
482'	487'	75% red/brown garnet. Up to 25% mainly diopside @ actinolite etc.	✓	✓	42 to 25%	✓	✓	✓	75%	
487'	513'	> 80% crystalline red/brown garnet. Patches (up to 5') of > 60% bright green epidote. minor actinolite / diopside Some very large growth rings (up to 1.5") Blatches of hematite common (1-2%)	15%			✓ 2%	✓ 2%	→	491'	mainly pink- brown
513'	535'5"	V. fine grained green-blue rock may be high garnet 80% but too fine grained to be certain				Sample 10-88	→	516'	80%	

N: Hole 10 E: Boxes 30, ELEV: Page 9 of 9 Az: 180° DIP: -60° LENGTH: 574' DATES: HOLE: 10

FROM	TO	NOTES	Ac	D	S	Q	Ca	G	COLOR
535'	538'	material gradually becomes darker/red-brown and consists of very intricate growth rings. Patches of >90% Blue/green skarn occur occasionally. <5% red/brown garnet 25% very fine grained blue green skarn, probably a mixture of actinolite /diopside	Sample Sample Sample 90%	10-89 → 10-90 → 10-91 → →	526' 530' 534'				
538'	558'	780% → Mixture of extremely fine grained garnet (assumed) and coarse grained growth rings. Its a little difficult to be certain of the content of the very fine grained rock.	✓	✓	5%				Pink/ brown + blue/ green
558'	574'	70-75% same as above, somewhat less garnet rich. Several clay-rich and hematite rich zones	Sample sample sample sample	10-93 @ 10-94 @ 10-95 @ 10-96 @	542' 548' 552' 556'				
E.O.H.			Sample sample sample sample	10-97 @ 10-98 @ 10-99 @ 10-100 @	561' 563' 568' 573'				

CRYSTAL PEAK GARNET CORP
 DRILL HOLE SUMMARY

72.14%

FOOTAGE	% Garnet	HOLE # 11	DEPTH 117'	SCALE
			<u>DESCRIPTION</u>	0 5 10 15 Feet
0				
5	Overburden			
10				
15	<80%			
20				
25	(86%)			
30	30'			
35	Mafic Dyke.	//////		
40	Nil			
45	47'			
50				
55	780%			
60				
65	(93)			
70	69'			
75	70%			
80	(83)			
85	84'			
90	90'	785%		
92'	20%			
95				
100	>80%			
105	(85)			
110				
115	"2"	E.O.H.		

Hole # 11

Page 1 of 2

•N:

E:

ELEV:

Az: 190°

DIP:- 6

,0° LEN

49TH

DATES

HOLE: 11

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
0	7'	Casing	5-10%	5-10%	5-10%	✓	-	<80%		
7'	30'	<80% fine-medium grained, buff coloured garnet. Clay and iron oxide staining is common on fracture surfaces.		Sample 11-1 @		tr	tr			Buff
				Sample 11-2 @			11'			
				Sample 11-3 @			174'			
30'	47'	Mixed skarn zone including a 5 ft section (35'-40') of sulphides rich material (up to 50%) → Fine grained green material consisting of a mixture of actinolite diopside/epidote. Up to 20% quartz in this section. Sulphides consists of pyrite, pyrrhotite and minor chalcopyrite. 32-34' → very mafic fine grained section, could by an extremley fine-grained diorite or could be a dark skarn zone (lots of magnetic). Section is quite magnetitic.	(Up to 80% generally fine-grained.)		upto 50%	upto 20%	1-2%	upto nil	dk green	
				Sample 11-4 @			32'			
				Sample 11-5 @			46'			
47'	69'	>80% pink/buff coloured fine grained garnet. Hematite staining in the form of veinlets and patches is common. Diopside-rich patches (up to 40%) occur locally.	✓	✓	✓	✓	✓	✓	Buff/ >80% pink	
			5%	5-10%	tr.	<1%	tr			
			Sample 11-6 @				48'			
			Sample 11-7 @				56'			
			Sample 11-8 @				63'			

N: E: ELEV: AZ: 190° DIP: -60° LENGTH: 117' DATES: HOLE: 11

FROM	TO	NOTES	EPI	AC	D	S	Q	Ca	G	COLOR
69'	84'	x 70% Garnet → mixed variable garnet zone. garnet ranges from red/brown to green to black. Some sections 10-11" - high diopside (up to 60%)	✓	✓	✓	✓	✓	✓	✓	multi-coloured
			5-10%	10-15%	10-15%	+/-	+/-	+/-	70%	
			Sample	11-9 @ 71'						
			Sample	11-10 @ 76'						
			Sample	11-11 @ 83'						
84'	90'	785% - pink/brown fine grained garnet @ relatively minor impurities minor hematite staining... Epidote calcite blebs occur locally.	✓	✓	✓	✓	✓	✓	✓	pink/brown
			<5%	<5%	<5%	+/-	+/-	+/-	>85%	
			Sample	11-12 @ 85'S"						
90	92'6"	- Mixed SKarn zone @ high epidote/calcite/quartz. Rusty-lined empty vugs are common. Zone gradually (transition) becomes garnet rich.	up to 80%	✓ Minor	✓ Minor				10-15%	5-10% 20% yellow-green
92'6"	117'	>80% Pink/brown fine grained E.O.H. garnet. Blebs of epidote and actinolite / Diopside occur throughout. Core recovery (massive) = excellent	5%	5-10%	10-20%			✓	✓	80% pink/brown
						+/-	+/-			
			Sample	11-13 @ 95'						
			Sample	11-14 @ 104'						
			Sample	11-15 @ 109'						
			Sample	11-16 @ 114'						
			Sample	11-17 @ 117'						

CRYSTAL PEAK GARNET CORP 45.9%
DRILL HOLE SUMMARY

FOOTAGE	HOLE # 12	DEPTH 125'	SCALE
		<u>DESCRIPTION</u>	0 5 10 15
0	2' overburden		
5		Mixed skarn zone @ garnet rich areas (up to 12" long). Others range from garnet poor to Nil (averages ~ 50%). Large areas of diopside rich rock predominate.	
10	50%	Some areas of moderately siliceous areas	
15		Sample 12-1 @ 7' (Nil)	
18 ^{7"}		Sample 12-2 @ 14' 55.4%	
20			
25		Unusual looking pink "felsite-like" rock. Extremely fine grained. Dendritic manganese, common throughout. Iron oxide staining also common	
30	Pink felsite	Sample 12-3 @ 35' Dacite Dyke (Nil)	
35	Nil		
40	42'		
45	(85)	Fine grained pink garnet w minor diopside / actinolite (< 15% combined)	
50	> 80%	Sample 12-4 @ 46' 84.9	
51 ^{5"}	Nil	Sample 12-5 @ 50' 84.8	
55	53 ^{5"}	Meta-Diorite	
57'		Pink Felsite - same as above.	
60	780%	Fine grained pink garnet	
61"		Sample 12-6 @ 60' 67.2%	
65	65 ^{5"}	Meta-diorite	
70		Mixed skarn @ 50-60% red/brown garnet. Remnant diorite texture	
75	50-60% (55)	Sample 12-7 @ 74' 53.7%	
80	Nil	Meta-diorite @ minor skarn alteration	
85	83'	Diopside-garnet skarn which retains original diorite textures for 1st. several feet. Diopside is generally medium-coarse grained and quite fresh. Garnet content varies widely from 0 to 98%. Overall content averages ~ 30%	
90		Sample 12-8 @ 92' 77.2	
95	30%	Sample 12-11 @ 120' 90.0	
100	(72)	Sample 12-9 @ 100' 3" 33.0	
	cont'd to 125'	Sample 12-10 @ 110' 9.1	

Hole 12

N: E:

Page 1 of 2.

ELEV:

AZ:

DIP: -90° LENGTH: 125' DATES:

HOLE: 12

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
0	2'	Casing	✓		10- 85%		up to 10%		0- 80%	Mixed -
2'	18'7"	Mixed skarn zone @ garnet rich areas (up to 12" long). Others range from garnet poor to Nil. Large areas of diopside rich rocks predominate. Some areas of moderately siliceous material (Quartz blebs common)		sample	z-1	@	7'			
18'7"	42'	-Wierd pink felsite rock, extremely fine grained. Dendritic manganese, common throughout. Iron oxide staining also common.		sample	12-3	@	35'	N.I.	Pink	
42'	51'5"	>80% fine grained pink garnet @ minor diopside (less than 15% combined)	5-10% Sample	5-10% 12-4	2% @	46'		80% pink/ brown		
51'5"	53'5"	Diorite (metadiorite)		sample	12-5	@	50'			
53'5"	57"	wierd pink felsite								
57'	61'	>80% fine grained pink garnet		sample	12-6	@	60'			
61'	65'5"	Diorite								
65'5"	77'	Mixed skarn 50-60% garnet remnant diorite texture		sample	12-7	@	74'			

N: Hole 12 E: Page 2 of 2 ELEV: Az: DIP: -90° LENGTH: 125' DATES: HOLE:

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

8%

FOOTAGE	HOLE # 13 % Garnet	DEPTH 61'	SCALE
		DESCRIPTION	0 5 10 15 feet.
0			
5			
10			
15			
20			
25	24.5' 26.0'	Metadibrite → 5% red/brown crystalline garnet in mixed green skarn. Sample 13-1 @ 25'	
30			
35	Nil	Metadiorite	
40			
45	43'	Mixed green skarn @ 20-30% coarse-grained crystalline red/brown garnet. Garnet content appears to be increasing with depth	
50	20 - 30%		
55		Sample 13-2 @ 51'	
60	61'		
65	E.O.H.		

:N: Hole 13 E: Page 101 ELE

Ni

E:

Page 101
ELEV.

ELEV:

Az:

DIP

LENGTH

DATES:

HOLE:

CRYSTAL PEAK GARNET CORP 55.8%
DRILL HOLE SUMMARY

FOOTAGE	HOLE # 14	DEPTH 97	SCALE
	% Garnet	<u>DESCRIPTION</u>	
0			0 5 10 15
5	Overburden		
10	9'		
15	10%		
20	(15)		
22'	60-70%		
25	24'		
27'	>85%		
30			
35	50-60%		
40	(33)		
45	44'		
50	50.2"	Nil	
55	55'		
59'	785%		
60			
65			
70			
75	780%		
80	(80.7%)		
85			
90			
95	97'		
100	E.O.H.		

Hole 14

Page 1 of 3

N:

E:

ELEV:

AZ:

DIP: -90°

LENGTH: 97'

DATES:

HOLE: 14

FROM	TO	NOTES		Ac	D	S	Q	Ca	G	COLOR
0'	9'	casing								
9'	22'	Mixed skarn (w. some possibly highly altered dyke rock or diorite?) (There appears to be remnant phenocrysts in one section) Rock is generally fine-grained and consisting of a combination of Act., Diop., Epi. (Percentages unknown). Large well-developed actinolite crystals occur locally. Rock goes through a short transition zone and becomes garnet rich. (21'-22'). Minor garniferous zones (small sections of 20%) consists of coarse grained red/brown garnet.		v	v	v				Green. up to 10%
22'	24'6"	60-70% red/brown garnet in a mixed skarn zone. Bright yellow green actinolite occurs throughout (up to 20%). Diopsidic concentrated locally.	up to 5%	20%	10%			v	v	60-70% red/brown & bright green
24'6"	27'	785% fine grained red/brown garnet up to 20% combined actinolite/Epi./diopsidic 26-27' - transition zone + more impurities including sulphides.	Sample 14-2 @ 24'							40-50% Garnet)
			Sample 14-3 @ 26'							785% Pink/ brown

N: Hole 14 E:

Page 2 of 3

Page 2 of 3
ELEV:

AZ:

DIP: -90° LENGTH: 97'

DATEST

HOLE: 14

FROM	TO	NOTES	Ac	D	S	Q	Ca	G	COLOR
27'	44'	Mixed skarn zone with 50%-60% medium-coarse grained crystalline red/brown garnet disseminated through zone. Accessory minerals are blue-green assemblage. Very interesting textures at 36'. Large blebs of coarse red/brown garnet surrounded by a pale beige fine-grained mineral (probably garnet). Large well-developed actinolite occurs locally.	up to 40%	<1%	<1%	<1%	<1%	50-60%	Blue-green red/brown
			Sample	14-4	②	32'			
			sample	14-5	②	35'5"			
			sample	4-6	②	41'			
44'	50'2"	Resembles altered dyke zone due to "melted" looking phenocrysts, probably feldspar. Matrix is darkgreen-black. Epidote alteration is common.	✓ up to 20%	✓ up to 20%	sample	14-7	②	48'6"	Nil dk-green to black
50'2"	59'	>85% fine-medium grained pinkish brown garnet. Occasional blebs of actinolite/diopside/quartz. Rare clumps of pyrite occur locally & consists of pyrite grains up to 5 cm in diameter.	✓ <5%	✓ <5%	✓ <5%	✓ tr.	✓ tr.	✓ tr.	785% pink/ brown
			sample	14-8	②	51'0"			
			sample	14-9	②	56'			
59'		>80% Medium-grained - deep red garnet. (This particular shade of red garnet has not previously been observed). Minor amounts of actinolite/diopside occur throughout, however,	✓ 5-10	✓ 10-20	✓ <1%	✓ tr	✓ tr	✓ tr	780% Dark red
			sample	14-10	②	63'			
			sample	14-11	②	71'			

N: Hole 14, Page 3 of 3
ELEV?

Az:

DIP: -90° LENGTH: 9F' DATES:

HOLE: 14

86.9%

CRYSTAL PEAK GARNET CORP
DRILL HOLE SUMMARY

FOOTAGE	% Garnet	HOLE #15	DEPTH 100'	SCALE
			<u>DESCRIPTION</u>	
0				0 5 10 15
5		9'	Overburden	
10				
15			>85% (91.3%)	
20				
25				
30		30' 32'	200% (50)	
35		37'	785% (95)	
40		40'	>70% (60)	
45				
50				
55				
60			>85%	
65				
70			(89.6%)	
75				
80				
85				
90		88'		
95			>80% (75)	
100		100'		
			E.O.H.	

>85%, mainly coarse grained green crystalline garnet. Occasional crystals of very brilliant red garnet. Patches of altered silver/green/blue coarse grained Hematite staining occurs locally on fracture surfaces. Other accessory minerals include diop/calc./garnet.
 Sample 15-1 @ 5' 90.6
 Sample 15-2 @ 12' 86.2
 Sample 15-3 @ 20' 97.3
 Sample 15-4 @ 26' 91.1

V. Fined grained mixed skarn. Sample 15-5 @ 31' 54.3%. Coarse crystalline mainly red/brown garnet @ idop. Sample 15-6 @ 35' 94.8%. Green crystalline garnet @ 30% medium fine grained diopside. Sample 15-7 @ 39' 84.2%.

Coarse crystalline green garnet @ minor act/trem/diop. occurs in patches - most common accessory mineral. Calcite crystals becoming slightly more common, in form of blebs @ quartz, magnetite + possibly chlorite.

Sample 15-8 @ 45' 97.7
 Sample 15-9 @ 50' 92.7
 Sample 15-10 @ 57' 98.4
 Sample 15-11 @ 67' 69.2
 Sample 15-12 @ 73' 88.3
 Sample 15-13 @ 78' 96.5
 Sample 15-14 @ 85' 84.4

Coarse crystalline green garnet @ higher amounts of diopside and actinolite than above section. Last 5' are fine grained + buff coloured. Still high Garnet. Sample 15-15 @ 92' 76.6%
 Sample 15-16 @ 98' 74.2%

... ELEV: AN: DIP: -90° LENGTH: 100' DATES: HOLE: 15

Hole #15 Page 1 of 2

N:

E:

ELEV:

AZ:

DIP: -90° LENGTH: 100'

DATES:

HOLE: 15

FROM	TO	NOTES	Epi	Ac	D	S	Q	Ca	G	COLOR
0	4'	Casing	v ~5%	v ~5%	v ~5%	v tr.	v tr.	v tr.	v 785%	Dark-medium green vitreous.
4'	30'	>85% mainly coarse grained green crystalline garnet. Occasional crystals of very brilliant red garnet scattered locally. Patches of altered silver/green/blue coarse grained actinolite. Hematite staining occurs locally on fracture surfaces. Patches of v. fine grained diopside-epi occur locally. Fine grained diopside-rich patches occur locally. Calcite and quartz occurs locally.	Sample 15-1 @ 5'	Sample 15-2 @ 12'	Sample 15-3 @ 20'	Sample 15-4 @ 26'				
30'	32'	v. fine grained mixed skarn (diopside / epidote / actinolite). Impossible to differentiate in hand specimen). Approximately 20% fine grained green garnet.	10% v	10% v	60% v	20% v	Sample 15-5 @ 31'			
32'	37'	>85% coarse crystalline mainly red/brown garnet <15% combined actinolite / diopside.	Sample 15-6 @ 35'							785%

CRYSTAL PEAK GARNET CORP 91.34%
DRILL HOLE SUMMARY

FOOTAGE	% Garnet	HOLE #16	DEPTH 120'	SCALE
			<u>DESCRIPTION</u>	0 5 10 15 Feet
0				
5	41'	Overburden		
10			Coarse crystalline green garnet.	
15			Main accessory mineral is coarse-grained silvery green-blue diopside.	
20			Occasional patches of coarse grained calcite, usually accompanied by large equant, usually dark coloured garnet crystals. Hematite staining,	
25	>85%		Locally abundant, usually associated with quartz-filled veinlets.	
30			Sample 16-1 @ 10' 89.7	
35	(94.2)		Sample 16-2 @ 15' 97.9	
40			Sample 16-3 @ 20' 97.6	
45			Sample 16-4 @ 25' 93.4	
50	50'		Sample 16-5 @ 30' 95.0	
55			Sample 16-6 @ 35' 94.1	
60	70-80%		Sample 16-7 @ 40' 94.1	
65	(92)		Sample 16-8 @ 45' 91.6	
70	65'			
75			Light green to buff coloured.	
80			Grungy garnet - v. fine grained (1) abundant accessory minerals. Percentage of garnet is difficult to estimate from hand specimen. Hematite staining is common as are patches of actinolite.	
85	>80%		Sample 16-9 @ 51' 8" 85.4	
90	(90.6)		Sample 16-10 @ 56', Sample 16-11 @ 64' 98.8 Sample 16-12 @ 69' 91.8	
95	93'			
100	70-80%		Medium grained green garnet.	
105	(87%)		Becomes significantly darker & heavier than previous section. Diopside is the most common accessory mineral, and occurs both as patches and disseminated specks.	
110			Sample 16-13 @ 79' 92.7%	
115			Sample 16-14 @ 85' 91.9%	
120	120'	F.O.H.	Sample 16-15 @ 93' 87.4%	
			Extremely fine grained buff coloured garnet. Sample 16-16 @ 100' 75.5%	
			Sample 16-17 @ 110' Sample 16-18 @ 120'	
			94.6%	91.0%

N: Hole #16 E:

Page 1 of 1

FLEX

Az:

DIP: -90° LENGTH: 12

DATES

HOLE: 16

Hole # 16

Page 2 of

E: ELEV: AZ: DIP: -90° LENGTH: 120° DATES: HOLE: 16

37% over
88.6 over bottom
31'

CRYSTAL PEAK GARNET CORP

DRILL HOLE SUMMARY

FOOTAGE	% Garnet	HOLE # 17'	DEPTH 98'	SCALE
			<u>DESCRIPTION</u>	0 5 10 15
0	2' overburden			
5				
10				
15				
20	10-20%			
25	(10%)			
30				
35				
40				
45				
50	50'			
55				
60	50-60'			
65	(19%)			
67				
70				
75				
80	80%			
85				
90	(88.6%)			
95				
100	98'	E.O.H.		

Mixed coarse-grained SKarn zone.
Heavily epidotized with large calcite crystals. Red/brown crystalline garnet occurs disseminated throughout.
In addition, up to 2% magnetite blebs occur locally

Sample 17-1 @ 9'
Sample 17-2 @ 27' 8.7
Sample 17-3 @ 45' 0.4

50-60% red/brown crystalline garnet in mixed SKarn zone. This zone essentially represents a transition from the above SKarn zone to a garnet rich zone 24.9% 24.0%
Sample 17-4 @ 52', Sample 17-5 @ 59'
Sample 17-6 @ 66' 8.9%

80% fine grained pink/brown garnet. Accessory minerals include actinolite, epidote & diopside. Hematite staining common throughout.

Sample 17-7 @ 75' 77.1
Sample 17-8 @ 84' 92.4
Sample 17-9 @ 93' 91.8
Sample 17-10 @ 98' 93.1

19- 1	0.0	0.0	9.0	61.2	37.5	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.9	0.0	0.0
19- 3	0.0	0.0	30.0	87.8	11.7	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19- 4	0.0	0.0	37.0	93.6	6.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
19- 5	0.0	0.0	45.0	65.6	34.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19- 6	0.0	0.0	50.0	74.9	6.8	13.6	3.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19- 7	0.0	0.0	57.0	95.1	4.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19- 8	0.0	0.0	66.0	91.0	8.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
19- 9	0.0	0.0	75.0	94.9	1.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-10	0.0	0.0	80.0	86.1	6.5	6.5	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-11	0.0	0.0	82.0	96.2	3.2	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20- 1	0.0	0.0	18.0	1.8	29.9	0.6	13.3	0.0	5.9	0.0	0.0	48.4	0.1	0.0	0.0
20- 2	0.0	0.0	23.0	89.9	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
20- 3	0.0	0.0	28.0	89.4	9.9	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.0
20- 4	0.0	0.0	35.0	60.6	39.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
20- 5	0.0	0.0	40.0	81.9	9.4	0.1	3.4	0.0	0.2	0.0	0.0	7.9	0.1	0.0	0.0
20- 6	0.0	0.0	47.0	58.9	20.0	0.0	1.3	0.0	0.7	0.1	0.0	18.9	0.0	0.1	0.0
20- 7	0.0	0.0	52.0	89.3	9.1	0.0	0.5	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0
20- 8	0.0	0.0	55.0	0.0	7.0	0.0	0.0	13.8	74.9	0.1	0.0	4.1	0.0	0.0	0.1
20- 9	0.0	0.0	59.0	80.4	17.6	0.0	0.2	0.0	1.7	0.0	0.0	0.0	0.1	0.0	0.0
20-10	0.0	0.0	70.0	58.7	10.9	0.0	4.1	0.0	15.8	0.1	0.0	10.4	0.0	0.0	0.0
20-11	0.0	0.0	78.0	89.4	10.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
20-12	0.0	0.0	87.0	0.0	16.3	4.1	0.2	0.0	10.4	0.5	0.0	60.9	0.0	0.0	0.0
20-13	0.0	0.0	89.0	73.4	26.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
20-14	0.0	0.0	97.0	73.5	26.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-15	0.0	0.0	102.0	0.0	39.4	13.8	4.3	0.0	0.0	0.0	0.0	42.5	0.0	0.0	0.0
21- 1	0.0	0.0	16.0	0.0	11.0	38.2	40.1	0.0	0.0	0.0	0.0	0.0	0.4	10.3	0.0
21- 2	0.0	0.0	20.0	36.2	4.6	57.4	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
21- 4	0.0	0.0	27.0	60.4	17.7	2.5	13.4	0.4	0.0	0.0	0.0	5.3	0.0	0.3	0.0
21- 5	0.0	0.0	32.0	35.8	3.6	7.7	42.5	0.0	0.0	0.0	0.0	9.5	0.0	0.9	0.0
21- 7	0.0	0.0	50.0	94.0	5.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21- 8	0.0	0.0	56.0	88.2	5.3	0.0	0.7	0.0	1.3	0.0	0.0	4.5	0.0	0.0	0.0
21- 9	0.0	0.0	67.0	79.1	0.8	1.4	8.5	0.0	0.0	0.0	0.0	9.6	0.4	0.0	0.2
21-10	0.0	0.0	77.0	43.0	13.7	1.2	16.3	0.0	0.0	0.0	0.0	25.5	0.0	0.3	0.0
21-11	0.0	0.0	83.0	83.1	13.3	0.0	2.6	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
21-12	0.0	0.0	87.0	82.6	1.4	0.1	1.9	0.0	6.9	0.0	0.0	7.1	0.0	0.0	0.0
21-13	0.0	0.0	96.0	75.9	22.2	0.0	1.6	0.0	0.3	0.0	0.0	0.9	0.1	0.0	0.0
21-14	0.0	0.0	102.0	51.8	40.5	0.4	2.6	0.0	3.7	0.0	0.0	0.9	0.1	0.0	0.0
21-15	0.0	0.0	112.0	7.5	59.5	5.7	7.7	0.0	0.0	0.5	0.0	19.1	0.0	0.0	0.0
21-16	0.0	0.0	119.0	51.3	0.0	0.1	6.1	0.0	18.0	0.0	0.0	23.8	0.7	0.0	0.0
22- 2	0.0	0.0	17.0	66.7	30.8	0.6	0.7	0.4	0.0	0.0	0.0	0.0	0.4	0.4	0.0
22- 3	0.0	0.0	27.0	97.6	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.0
22- 4	0.0	0.0	30.0	67.3	30.6	0.5	0.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22- 5	0.0	0.0	38.0	88.4	0.5	6.2	4.3	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0
22- 6	0.0	0.0	45.0	87.8	6.4	1.2	2.5	0.3	0.0	0.0	0.0	0.0	0.5	1.3	0.0
22- 7	0.0	0.0	51.0	76.4	0.0	3.2	9.1	9.7	0.0	0.0	0.0	0.0	0.4	1.2	0.0
22- 8	0.0	0.0	60.0	97.0	2.8	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22- 9	0.0	0.0	69.0	43.2	28.0	2.8	11.1	1.5	0.0	0.0	0.0	0.0	0.0	10.0	3.4
22-10	0.0	0.0	77.0	93.8	5.3	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-11	0.0	0.0	85.0	40.8	31.0	0.0	23.2	4.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0
22-12	0.0	0.0	96.0	74.0	7.5	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-13	0.0	0.0	103.0	98.3	0.6	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-14	0.0	0.0	110.0	95.1	1.3	1.0	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.8	0.0
22-15	0.0	0.0	118.0	80.1	18.3	0.9	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
22-16	0.0	0.0	125.0	98.5	0.3	0.4	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
22-17	0.0	0.0	134.0	85.4	4.3	8.3	0.3	0.9	0.0	0.0	0.0	0.0	0.1	0.7	0.0
22-18	0.0	0.0	140.0	95.6	1.9	0.8	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
22-19	0.0	0.0	148.0	47.0	27.4	0.0	25.2	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0
22-1a	0.0	0.0	10.0	96.7	2.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-20	0.0	0.0	155.0	75.2	24.4	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-22	0.0	0.0	166.0	87.8	4.7	0.1	6.4	0.3	0.0	0.0	0.0	0.0	0.5	0.1	0.1
22-23	0.0	0.0	175.0	83.8	15.2	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
22-24	0.0	0.0	180.0	79.1	20.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.4	0.1	0.0
22-25	0.0	0.0	186.0	89.5	9.1	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
22-26	0.0	0.0	189.0	57.0	42.3	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
22-27	0.0	0.0	195.0	79.3	18.6	0.1	1.2	0.5	0.0	0.0	0.0	0.0	0.3	0.0	0.0

22-29	0.0	0.0	220.0	85.8	12.3	0.3	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.0
22-30	0.0	0.0	230.0	90.4	7.3	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
22-31	0.0	0.0	240.0	94.0	4.2	0.1	1.1	0.4	0.0	0.0	0.0	0.0	0.1	0.1	0.1
22-32	0.0	0.0	250.0	77.2	3.1	5.0	7.2	4.6	0.0	0.0	0.0	0.2	0.0	2.7	0.0
22-33	0.0	0.0	255.0	70.2	0.6	5.0	9.4	12.9	0.0	0.0	0.0	0.7	0.0	1.2	0.0
22-34	0.0	0.0	261.0	79.1	20.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.4	0.1	0.0
22-35	0.0	0.0	277.0	57.0	42.3	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
22-37	0.0	0.0	284.0	79.3	18.6	0.1	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.3	0.0
22-38	0.0	0.0	290.0	70.1	17.5	0.1	0.7	0.0	0.0	0.0	0.0	11.6	0.0	0.0	0.0
22-39	0.0	0.0	296.0	85.8	12.3	0.3	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.0
22-40	0.0	0.0	305.0	90.4	7.3	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
22-41	0.0	0.0	318.0	94.0	4.2	0.1	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1
23- 1	0.0	0.0	24.0	61.8	33.5	0.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23- 2	0.0	0.0	27.0	7.8	0.0	12.3	67.2	10.2	0.0	0.0	0.0	0.0	0.1	1.3	1.1
23- 3	0.0	0.0	30.0	60.8	33.4	1.8	2.8	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0
23- 4	0.0	0.0	35.5	78.3	10.0	0.9	10.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
23- 5	0.0	0.0	40.0	75.7	17.7	0.3	5.7	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
23- 6	0.0	0.0	45.0	69.5	29.2	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
23- 7	0.0	0.0	50.0	77.9	16.1	0.2	4.7	0.2	0.0	0.0	0.0	0.0	0.4	0.6	0.0
23- 8	0.0	0.0	60.0	90.0	7.7	1.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
23- 9	0.0	0.0	65.0	92.3	5.8	0.1	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.8	0.0
23-10	0.0	0.0	71.0	96.2	1.5	0.1	2.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
23-11	0.0	0.0	78.0	94.3	3.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
23-12	0.0	0.0	86.0	81.4	17.7	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-13	0.0	0.0	95.0	61.7	14.2	0.0	0.2	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
23-14	0.0	0.0	100.0	84.7	13.2	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-15	0.0	0.0	105.0	90.4	8.0	0.0	1.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.0
23-16	0.0	0.0	110.0	70.7	19.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-17	0.0	0.0	115.0	79.9	18.9	0.0	0.9	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0
23-18	0.0	0.0	124.0	69.6	22.6	0.7	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-19	0.0	0.0	130.0	88.5	9.1	0.0	0.4	0.0	1.5	0.0	0.0	0.4	0.1	0.0	0.0

	<i>E</i>	<i>N</i>	<i>Elevation</i>	<i>Length of hole</i>	Az.	Dip
--	----------	----------	------------------	---------------------------	-----	-----

DDH 89-1 7289.0 5329.0 2039.0 100.0 0.0 -90.0
 FROM 0.00 TO 4.00 0.0 }
 4.00 6.25 10.0 }
 6.25 8.17 65.0 }
 8.17 12.75 60.0 }
 12.75 90.00 79.7 }
 90.00 92.50 0.0 }
 92.50 100.00 73.0 }
 -1.00 }

% Garnet Content

DDH 89-2 7197.0 5288.0 2038.0 78.0 0.0 -90.0
 0.00 4.00 0.0 }
 4.00 38.00 89.0 }
 38.00 41.00 0.0 }
 41.00 60.00 78.9 }
 60.00 78.00 84.2 }
 -1.00 }

DDH 89-3 7372.0 4997.0 2085.0 120.0 0.0 -90.0
 0.00 4.00 0.0 }
 4.00 27.00 90.0 }
 27.00 30.00 40.0 }
 30.00 41.00 96.0 }
 41.00 91.00 85.0 }
 91.00 104.00 94.0 }
 104.00 112.00 78.0 }
 112.00 116.00 0.0 }
 116.00 120.00 19.0 }
 -1.00 }

DDH 89-4 7334.0 4966.0 2094.0 100.0 0.0 -90.0
 0.00 5.00 0.0 }
 5.00 16.00 70.0 }
 16.00 17.00 0.0 }
 17.00 40.00 85.0 }
 40.00 68.00 85.0 }
 68.00 75.00 89.0 }
 75.00 100.00 80.0 }
 -1.00 }

DDH 89-5 7335.0 5144.0 2085.0 247.0 0.0 -90.0
 0.00 39.00 86.0 }
 39.00 65.00 80.0 }
 65.00 80.00 80.0 }
 80.00 91.00 75.0 }
 91.00 177.00 60.6 }
 177.00 182.00 92.1 }
 182.00 186.00 87.4 }
 186.00 197.00 52.0 }
 197.00 202.00 20.0 }
 202.00 247.00 91.4 }
 -1.00 }

DDH 89-6 7377.0 5100.0 2075.0 173.0 0.0 -90.0
 0.00 5.00 0.0 }
 5.00 7.00 90.0 }
 7.00 14.00 75.0 }
 14.00 31.00 85.0 }
 31.00 57.60 50.0 }
 57.60 59.20 0.0 }
 59.20 72.00 75.0 }
 72.00 87.00 95.0 }
 87.00 107.00 86.0 }

107.00 109.00 73.0
109.00 115.00 60.0
115.00 121.00 80.0
121.00 125.00 60.0
125.00 143.00 90.0
143.00 162.00 67.0
162.00 168.00 80.0
168.00 170.00 25.0
170.00 173.00 80.0
-1.00

DDH 89-7 7373.0 5147.0 2072.0 96.0 0.0 -90.0

0.00 2.00 0.0
2.00 7.50 80.0
7.50 26.00 88.9
26.00 34.50 50.0
34.50 48.00 85.4
48.00 64.00 50.0
64.00 65.00 90.0
65.00 72.00 20.0
72.00 87.50 61.6
87.50 90.50 75.0
90.50 96.00 97.0
-1.00

DDH 89-8 7204.0 4994.0 2112.0 100.0 0.0 -90.0

0.00 2.50 0.0
2.50 61.50 86.4
61.50 64.00 65.0
64.00 66.00 85.0
66.00 67.40 0.0
67.40 70.00 80.0
70.00 70.30 25.0
70.30 76.00 80.0
76.00 89.00 42.2
89.00 90.00 96.8
90.00 99.50 30.0
99.50 100.00 84.7
-1.00

DDH 89-9 7254.0 4998.0 2113.0 100.0 0.0 -90.0

0.00 2.00 0.0
2.00 4.00 45.0
4.00 18.00 64.0
18.00 24.50 90.5
24.50 40.00 68.4
40.00 41.90 85.0
41.90 50.40 60.0
50.40 100.00 87.7
-1.00

DDH 89-10 7589.0 4728.0 2011.0 574.0 180.0 -60.0

0.00 7.00 0.0
7.00 30.00 85.0
30.00 57.00 75.0
57.00 70.00 85.0
70.00 76.00 70.0
76.00 77.00 80.0
77.00 87.00 0.0
87.00 88.00 15.0
88.00 89.50 80.0
89.50 94.00 40.0

94.00	111.00	80.0
111.00	117.00	70.0
117.00	139.00	90.0
139.00	146.50	15.0
146.50	154.00	82.0
154.00	156.00	50.0
156.00	162.00	80.0
162.00	163.00	65.0
163.00	166.00	10.0
166.00	173.00	50.0
173.00	183.00	75.0
183.00	255.00	91.0
255.00	302.00	74.0
302.00	305.00	70.0
305.00	351.75	82.0
351.75	355.00	70.0
355.00	356.00	95.0
356.00	363.00	60.0
363.00	369.00	75.0
369.00	378.00	80.0
378.00	380.00	47.0
380.00	397.50	80.0
397.50	400.00	55.0
400.00	442.00	87.0
442.00	444.00	35.0
444.00	456.00	0.0
456.00	466.00	60.0
466.00	468.50	0.0
468.50	482.00	80.0
482.00	487.00	75.0
487.00	513.00	86.0
513.00	535.50	80.0
535.50	538.00	0.0
538.00	558.00	84.0
558.00	574.00	92.0
-1.00		

DDH 89-11 7616.0 4792.0 2020.0 117.0 190.0 -60.0

0.00	7.00	0.0
7.00	30.00	86.0
30.00	47.00	0.0
47.00	69.00	93.0
69.00	84.00	83.0
84.00	90.00	85.0
90.00	92.60	20.0
92.60	117.00	85.0
-1.00		

DDH 89-12 7564.0 4849.0 2047.0 125.0 0.0 -90.0

0.00	2.00	0.0
2.00	18.60	50.0
18.60	42.00	0.0
42.00	51.50	85.0
51.50	53.50	0.0
53.50	57.00	0.0
57.00	61.00	80.0
61.00	65.50	0.0
65.50	77.00	55.0
77.00	83.00	0.0
83.00	125.00	72.0

		-1.00					
DDH	89-13	7469.0	4897.0	2044.0	61.0	0.0	-90.0
		0.00	4.00	0.0			
		4.00	24.50	0.0			
		24.50	26.00	5.0			
		26.00	43.00	0.0			
		43.00	61.00	25.0			
		-1.00					
DDH	89-14	7447.0	4806.0	2061.0	97.0	0.0	-90.0
		0.00	9.00	0.0			
		9.00	22.00	15.0			
		22.00	24.50	65.0			
		24.50	27.00	85.0			
		27.00	44.00	33.0			
		44.00	50.20	0.0			
		50.20	59.00	85.0			
		59.00	97.00	80.7			
		-1.00					
DDH	89-15	7327.0	5190.0	2065.0	100.0	0.0	-90.0
		0.00	4.00	0.0			
		4.00	30.00	91.3			
		30.00	32.00	50.0			
		32.00	37.00	95.0			
		37.00	40.00	80.0			
		40.00	88.00	89.6			
		88.00	100.00	75.0			
		-1.00					
DDH	89-16	7290.0	5205.0	2075.0	120.0	0.0	-90.0
		0.00	4.00	0.0			
		4.00	50.00	94.2			
		50.00	69.00	92.0			
		69.00	93.50	90.6			
		93.50	120.00	87.0			
		-1.00					
DDH	89-17	7550.0	4724.0	2020.0	98.0	0.0	-90.0
		0.00	2.00	0.0			
		2.00	50.00	10.0			
		50.00	67.00	19.0			
		67.00	98.00	88.6			
		-1.00					
DDH	89-18	7308.0	5119.0	2075.0	75.0	0.0	-90.0
		0.00	5.00	0.0			
		5.00	9.00	0.0			
		9.00	50.00	87.7			
		50.00	75.00	88.4			
		-1.00					
DDH	89-19	7272.0	5145.0	2079.0	87.0	0.0	-90.0
		0.00	8.00	0.0			
		8.00	35.00	80.0			
		35.00	87.00	86.0			
		-1.00					
DDH	89-20	7498.0	4737.0	2025.0	102.0	0.0	-90.0
		0.00	12.00	0.0			
		12.00	22.50	20.0			
		22.50	31.00	89.7			
		31.00	53.00	72.7			
		53.00	57.60	10.0			
		57.60	79.00	76.0			

	79.00	87.00	20.0				
	87.00	102.00	45.0				
	-1.00						
DDH	89-21	7548.0	4774.0	2034.0	196.0	0.0	-90.0
	0.00	9.00	0.0				
	9.00	20.00	35.0				
	20.00	34.00	50.0				
	34.00	43.00	10.0				
	43.00	98.00	80.0				
	-1.00						
DDH	89-22	7270.0	5120.0	2108.0	319.0	0.0	-90.0
	0.00	5.00	0.0				
	5.00	27.00	87.0				
	27.00	105.00	76.7				
	105.00	167.00	83.4				
	167.00	195.00	57.0				
	195.00	260.00	81.3				
	260.00	294.00	74.0				
	294.00	319.00	90.1				
	-1.00						
DDH	89-23	7276.0	4980.0	2105.0	130.0	0.0	-90.0
	0.00	22.00	0.0				
	22.00	26.00	65.0				
	26.00	39.00	50.0				
	39.00	91.00	85.0				
	91.00	130.00	78.0				
	-1.00						

APPENDIX IV

Results of Crushing of 5 Foot Sections of Drill Core

RESULTS FROM THIN SECTION ANALYSIS OF CRUSHED FRACTIONS

WHERE

TOTAL CONTENT - is self explanatory - these are total values for each mineral present.

LIBERATED BY CRUSHING - these figures are the percentages of total garnet etc. that have been totally liberated by crushing.

INTERGROWN WITH GARNET - these figures are the percentages of each mineral still joined to garnet grains. These figures when combined with liberated by crushing percentages should equal total content. Figures for garnet>calcite, garnet=calcite and garnet<calcite are percentages of garnet grains with calcite intergrowths divided into three relative proportions. The figures for calcite>garnet etc. are the percentages of calcite in these three categories.

WEST ZONE MT. RIOEDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION -- TOTAL CONTENT

SAMPLE DRILL # HOLE	FROM	TO	GARNET	DIOPSIDE	EPIDOTE	CALCITE	OPAQUE	QUARTZ	ACTINOLITE	APATITE	OTHER
366 89-22	95.0	100.0	77.1	0.4	0.2	2.7	0.2	14.2	5.2	0.0	0.0
367 89-22	100.0	105.0	84.4	6.5	2.2	1.8	0.2	1.6	3.1	0.2	0.0
368 89-22	105.0	110.0	94.2	0.2	0.0	2.1	0.5	0.9	2.1	0.0	0.0
369 89-22	110.0	115.0	92.2	2.1	0.0	2.5	1.1	0.7	1.4	0.0	0.0
370 89-22	115.0	120.0	89.5	3.5	0.0	2.0	0.6	1.3	3.1	0.0	0.0
371 89-22	120.0	125.0	88.6	6.9	0.0	1.1	0.7	0.9	1.4	0.2	0.2
372 89-22	125.0	130.0	86.5	7.4	0.0	2.9	0.6	0.9	1.6	0.1	0.0
373 89-22	130.0	135.0	82.7	9.9	0.0	4.2	0.1	0.8	2.0	0.3	0.0
374 89-22	135.0	140.0	81.8	16.4	0.0	1.1	0.0	0.0	0.0	0.0	0.0
375 89-22	140.0	145.0	79.4	16.4	0.0	4.4	1.1	0.4	1.0	0.2	0.1
376 89-22	145.0	150.0	77.3	19.8	0.0	1.1	0.2	0.2	1.3	0.0	0.0
377 89-22	150.0	155.0	61.0	85.3	0.0	0.6	0.0	0.1	0.1	0.0	0.0
378 89-22	155.0	160.0	86.3	9.8	0.0	1.1	0.0	0.2	0.2	0.0	0.0
379 89-22	160.0	165.0	79.1	14.3	0.0	4.8	0.5	0.4	1.4	0.0	0.0
380 89-22	165.0	170.0	91.5	12.9	0.0	0.9	0.2	0.4	1.0	0.1	0.0
381 89-22	170.0	175.0	71.8	29.4	0.0	1.8	0.0	0.2	0.2	0.1	0.0
382 89-22	175.0	180.0	80.1	17.1	0.0	1.3	0.1	0.0	0.8	0.0	0.0
383 89-22	180.0	185.0	76.5	19.1	0.0	1.6	0.8	0.6	2.4	0.0	0.0
384 89-22	185.0	190.0	92.7	16.0	0.0	0.8	0.1	0.2	0.2	0.0	0.0
385 89-22	190.0	195.0	88.8	16.8	0.0	1.6	0.8	0.7	0.8	0.1	0.0
386 89-22	195.0	200.0	85.8	9.8	0.0	1.4	0.1	0.1	1.0	0.1	0.0
387 89-22	200.0	215.0	91.3	8.0	0.0	1.7	0.3	0.3	0.1	0.0	0.0
388 89-22	205.0	210.0	85.4	8.9	0.4	2.0	0.0	0.2	4.9	0.1	0.1
389 89-22	210.0	215.0	76.9	16.5	0.1	0.7	0.5	1.8	2.4	0.0	0.0
390 89-22	215.0	220.0	85.2	9.0	0.0	0.9	0.1	0.1	2.7	0.0	0.1
391 89-22	220.0	225.0	86.6	1.5	0.0	1.1	0.8	0.2	0.0	0.0	0.0
392 89-22	225.0	230.0	94.1	3.2	0.0	0.7	0.1	0.8	1.0	0.0	0.0
393 89-22	230.0	235.0	85.4	8.1	0.0	1.6	0.0	1.1	0.0	0.0	0.0
394 89-22	235.0	240.0	87.7	7.2	0.0	2.2	0.0	0.1	0.1	0.0	0.0
395 89-22	240.0	245.0	87.9	8.4	0.0	1.0	0.1	0.0	2.8	0.0	0.0

Page No. 1
02/09/90
06/02/90

WEST ZONE MT. RICORD
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FEATURING -- INTERGROWTH WITH GARNET

SAMPLE DRILL FROM TO GARNET>CALC GARNET=CALC GARNET>CALC CALCO>GARNET CALC=GARNET>CALC>GARNET GARNET EPIDOTE ACTINOLITE QUARTZ DIOPSIDE APATITE OPAQUE

		366	89-22	95.0	100.0	1.0	0.2	0.3	0.2	0.2	0.0	24.1	0.2
2.0	13.2	367	89-22	100.0	105.0	1.3	0.2	0.2	0.3	0.2	0.4	11.1	2.2
1.4	1.1	368	89-22	105.0	110.0	3.0	0.6	0.0	0.5	0.4	0.1	4.7	0.0
1.2	0.8	369	89-22	110.0	115.0	4.2	0.2	0.1	0.7	0.1	0.3	6.2	0.0
0.6	0.5	370	89-22	115.0	120.0	4.1	0.4	0.0	0.8	0.3	0.0	2.0	0.0
0.9	0.8	371	89-22	120.0	125.0	0.8	0.1	0.0	0.2	0.0	0.0	0.1	0.0
0.1	0.8	372	89-22	125.0	130.0	1.9	0.1	0.0	0.4	0.2	0.0	6.0	0.0
0.3	0.8	373	89-22	130.0	135.0	1.2	0.1	0.0	0.3	0.1	0.0	18.0	0.0
1.6	0.7	374	89-22	135.0	140.0	1.4	0.3	0.0	0.3	0.2	0.0	10.0	0.0
0.2	0.9	375	89-22	140.0	145.0	0.7	0.5	0.1	0.1	0.4	0.2	8.2	0.0
0.3	0.2	376	89-22	145.0	150.0	0.9	0.2	0.1	0.0	0.2	0.1	11.1	0.0
0.4	0.2	377	89-22	150.0	155.0	0.3	0.1	0.0	0.1	0.1	0.0	14.4	0.0
0.1	0.0	378	89-22	155.0	160.0	0.7	0.1	0.1	0.2	0.1	0.2	8.0	0.0
0.3	0.2	379	89-22	160.0	165.0	0.9	0.9	0.0	0.1	0.6	0.0	8.0	0.0
0.3	0.1	380	89-22	165.0	170.0	2.5	1.1	0.0	0.0	1.0	0.2	18.0	0.0
0.3	0.3	381	89-22	170.0	175.0	1.6	0.2	0.0	0.5	0.2	0.1	14.4	0.0
0.0	0.1	382	89-22	175.0	180.0	2.2	0.2	0.0	0.5	0.1	0.0	9.0	0.0
0.1	0.0	383	89-22	180.0	185.0	0.9	0.3	0.0	0.0	0.2	0.2	9.0	0.0
0.4	0.4	384	89-22	185.0	190.0	1.1	0.0	0.0	0.3	0.0	0.0	9.0	0.0
0.2	0.2	385	89-22	190.0	195.0	1.8	0.0	0.0	0.3	0.0	0.0	7.0	0.0
0.6	0.4	386	89-22	195.0	200.0	1.2	0.0	0.0	0.3	0.0	0.0	6.0	0.0
0.2	0.1	387	89-22	200.0	205.0	0.8	0.2	0.0	0.2	0.0	0.0	8.0	0.0
2.2	0.1	388	89-22	205.0	210.0	2.3	0.1	0.0	0.4	0.0	0.1	10.0	0.0
1.0	0.5	389	89-22	210.0	215.0	2.1	0.0	0.2	0.6	0.0	0.1	14.0	0.0
0.8	0.1	390	89-22	215.0	220.0	1.7	0.0	0.0	0.3	0.0	0.0	8.0	0.0
0.7	0.0	391	89-22	220.0	225.0	1.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0

		392	89-22	225.0	230.0	1.1	0.3	0.1	0.2	0.2	5.3
0.7	0.5		1.5	0.0	0.0						0.0
		393	89-22	230.0	235.0	5.5	0.2	0.1	0.7	0.2	0.3
0.0	0.7		5.1	0.0	0.0						15.3
		394	89-22	235.0	240.0	1.5	0.2	0.1	0.3	0.1	7.2
1.4	0.2		2.3	0.0	0.0						0.0
		395	89-22	240.0	245.0	0.4	0.6	0.0	0.1	0.6	4.5
0.3	0.0		2.7	0.0	0.0						0.0

Page No. 1
02/09/90

WEST ZONE MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION -- TOTAL CONTENT

SAMPLE DRILL # HOLE	FROM	TO	GARNET	DIOPSIDE	EPIDOTE	CALCITE	OPAQUE	QUARTZ	ACTINOLITE	APATITE	OTHER
366 89-22	95.0	100.0	83.0	0.1	0.0	2.2	0.8	11.0	2.9	0.0	0.0
367 89-22	100.0	105.0	93.7	2.2	0.0	2.8	0.3	1.9	0.0	0.0	0.1
368 89-22	105.0	110.0	87.7	0.7	0.0	5.7	0.2	3.6	2.1	0.0	0.0
369 89-22	110.0	115.0	91.2	0.1	0.0	4.2	2.0	1.2	1.3	0.0	0.0
370 89-22	115.0	120.0	90.6	1.0	0.0	4.1	0.4	1.7	2.1	0.1	0.0
371 89-22	120.0	125.0	89.2	4.0	0.1	2.9	0.6	0.7	2.4	0.1	0.0
372 89-22	125.0	130.0	87.1	7.7	0.4	3.3	0.2	0.3	0.9	0.1	0.0
373 89-22	130.0	135.0	84.8	7.8	0.0	4.8	0.2	0.5	2.3	0.4	0.0
374 89-22	135.0	140.0	82.0	16.0	0.0	1.0	0.2	0.5	0.3	0.0	0.0
375 89-22	140.0	145.0	79.5	13.7	0.0	4.4	0.5	0.8	1.1	0.2	0.0
376 89-22	145.0	150.0	77.5	19.5	0.0	2.0	0.2	0.2	0.4	0.1	0.0
377 89-22	150.0	155.0	82.5	38.1	0.0	0.8	0.2	0.2	0.0	0.0	0.0
378 89-22	155.0	160.0	88.4	11.5	0.0	1.4	0.2	0.2	0.2	0.0	0.0
379 89-22	160.0	165.0	82.1	31.8	0.0	4.0	0.7	0.4	0.8	0.1	0.0
380 89-22	165.0	170.0	99.0	7.0	0.0	2.8	0.5	0.6	0.2	0.5	0.0
381 89-22	170.0	175.0	88.0	12.5	0.0	1.8	0.1	0.8	0.1	0.1	0.0
382 89-22	175.0	180.0	90.1	8.0	0.0	1.0	0.1	0.1	0.7	0.0	0.0
383 89-22	180.0	185.0	83.9	12.8	0.0	1.3	1.1	0.4	0.2	0.1	0.0
384 89-22	185.0	190.0	82.9	15.2	0.0	1.2	0.2	0.1	0.3	0.1	0.0
385 89-22	190.0	195.0	77.8	19.7	0.1	1.4	0.2	0.2	0.7	0.1	0.0
386 89-22	195.0	200.0	85.7	10.8	0.0	2.8	0.1	0.2	0.4	0.0	0.0
387 89-22	200.0	205.0	89.9	5.5	0.0	3.2	0.2	0.3	1.0	0.0	0.0
388 89-22	205.0	210.0	99.3	5.0	0.0	2.5	0.4	0.4	2.1	0.0	0.0
389 89-22	210.0	215.0	78.8	34.1	0.0	3.2	0.8	1.0	1.1	0.1	0.0
390 89-22	215.0	220.0	81.8	5.5	0.1	1.5	0.2	0.5	0.7	0.1	0.0
391 89-22	220.0	225.0	98.1	1.8	0.0	1.2	0.1	0.1	0.2	0.0	0.0
392 89-22	225.0	230.0	94.3	3.6	0.0	1.5	0.2	0.2	0.2	0.0	0.0
393 89-22	230.0	235.0	88.2	2.5	0.0	1.0	0.1	0.1	0.1	0.5	0.0
394 89-22	235.0	240.0	89.8	6.1	0.1	1.8	0.3	0.3	1.1	0.1	0.0
395 89-22	240.0	245.0	91.2	5.6	0.1	1.0	0.0	0.7	1.1	0.1	0.0

WEST ZONE MT. BIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION -- LIBERATED BY CRUSHING

SAMPLE DRILL # HOLE	FROM	TO	GARNET	DIOPSIDE	EPIDOTE	CALCITE	OPAQUE	QUARTZ	ACTINOLITE	APATITE	OTHER
366 89-22	95.0	100.0	76.6	0.1	0.0	2.1	0.8	6.4	2.6	0.0	0.0
367 89-22	100.0	105.0	93.3	2.2	0.0	2.8	0.3	1.7	0.0	0.0	0.1
368 89-22	105.0	110.0	87.2	0.7	0.0	5.6	0.2	3.4	2.1	0.0	0.0
369 89-22	110.0	115.0	90.1	0.1	0.0	3.9	2.0	0.9	1.2	0.0	0.0
370 89-22	115.0	120.0	88.9	0.9	0.1	4.0	0.4	1.5	1.4	0.0	0.0
371 89-22	120.0	125.0	86.4	3.2	0.0	2.4	0.6	0.5	1.9	0.0	0.0
372 89-22	125.0	130.0	85.4	6.6	0.3	3.2	0.2	0.2	0.8	0.0	0.0
373 89-22	130.0	135.0	80.8	6.6	0.0	3.8	0.2	0.0	1.9	0.2	0.0
374 89-22	135.0	140.0	81.7	15.9	0.0	1.0	0.2	0.4	0.3	0.0	0.0
375 89-22	140.0	145.0	77.7	12.1	0.0	4.2	0.3	0.5	1.0	0.2	0.0
376 89-22	145.0	150.0	75.7	18.3	0.0	1.9	0.2	0.2	0.3	0.1	0.0
377 89-22	150.0	155.0	61.8	35.8	0.0	0.7	0.2	0.2	0.1	0.0	0.0
378 89-22	155.0	160.0	84.4	10.2	0.0	1.2	0.2	0.0	0.3	0.0	0.0
379 89-22	160.0	165.0	80.9	10.8	0.0	3.7	0.5	0.2	0.7	0.1	0.0
380 89-22	165.0	170.0	80.1	6.7	0.0	2.8	0.5	0.5	0.8	0.1	0.0
381 89-22	170.0	175.0	84.3	11.8	0.0	1.2	0.1	0.3	0.1	0.1	0.0
382 89-22	175.0	180.0	87.0	6.4	0.0	0.8	0.1	0.1	0.4	0.0	0.0
383 89-22	180.0	185.0	81.7	11.2	0.0	1.2	0.1	0.2	0.5	0.1	0.0
384 89-22	185.0	190.0	60.3	14.3	0.0	1.2	0.2	0.1	0.3	0.1	0.0
385 89-22	190.0	195.0	70.4	18.4	0.0	1.0	0.2	0.1	0.1	0.1	0.0
386 89-22	195.0	200.0	85.1	10.5	0.0	2.9	0.1	0.2	0.1	0.0	0.0
387 89-22	200.0	205.0	86.0	4.5	0.0	2.7	0.2	0.1	0.8	0.0	0.0
388 89-22	205.0	210.0	87.4	4.7	0.0	2.4	0.4	0.3	1.8	0.0	0.0
389 89-22	210.0	215.0	86.6	10.6	0.0	0.1	0.0	0.0	1.0	0.1	0.0
390 89-22	215.0	220.0	90.8	5.0	0.0	1.4	0.2	0.4	0.2	0.1	0.0
391 89-22	220.0	225.0	95.5	1.8	0.0	1.0	0.0	0.0	0.5	0.2	0.0
392 89-22	225.0	230.0	90.9	3.4	0.0	1.5	0.2	0.2	0.2	0.0	0.0
393 89-22	230.0	235.0	85.0	6.0	0.0	1.1	0.2	0.1	0.4	0.0	0.0
394 89-22	235.0	240.0	87.1	6.1	0.0	1.7	0.3	0.4	0.4	0.0	0.0
395 89-22	240.0	245.0	86.5	5.7	0.0	1.0	0.0	0.4	1.0	0.0	0.0

WEST ZONE MT. RIOBDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION -- INTERGROWN WITH GARNET

	SAMPLE DRILL	FROM	TO GARNET>CALC	GARNET>CALC	GARNET>CALC	GARNET>CALC	GARNET>CALC	GARNET>CALC	GARNET	EPIDOTE ACTIV
	OLITE QUARTZ DIOPSID	DIOPSID	APATITE OPAQUE							
	#	HOLE								

		366 89-22	95.0	100.0	0.0	0.1	0.0	0.0	0.1	0.0	6.3	0.0
0.3	4.8	367 89-22	0.0	0.0	100.0	105.0	0.1	0.0	0.0	0.0	0.0	0.0
0.1	0.2	368 89-22	0.0	0.0	105.0	110.0	0.2	0.1	0.0	0.0	0.0	0.0
0.0	0.2	369 89-22	0.0	0.0	110.0	115.0	0.2	0.2	0.0	0.0	0.0	0.0
0.1	0.2	370 89-22	0.0	0.0	115.0	120.0	0.4	0.0	0.0	0.0	0.0	0.0
0.7	0.2	371 89-22	0.1	0.1	120.0	125.0	0.5	0.0	0.1	0.0	0.1	0.0
0.2	0.2	372 89-22	0.1	0.1	125.0	130.0	0.1	0.0	0.0	0.0	0.0	0.0
0.1	0.1	373 89-22	0.1	0.1	130.0	135.0	0.1	0.0	0.0	0.0	0.0	0.0
0.4	0.5	374 89-22	0.1	0.1	135.0	140.0	0.1	0.0	0.0	0.0	0.0	0.0
0.1	0.1	375 89-22	0.1	0.1	140.0	145.0	0.2	0.1	0.0	0.0	0.1	0.0
0.1	0.1	376 89-22	0.1	0.1	145.0	150.0	0.2	0.1	0.0	0.0	0.1	0.0
0.1	0.1	377 89-22	0.1	0.1	150.0	155.0	0.2	0.1	0.0	0.0	0.1	0.0
0.0	0.1	378 89-22	0.1	0.1	155.0	160.0	0.2	0.0	0.0	0.0	0.0	0.0
0.3	0.2	379 89-22	0.3	0.3	160.0	165.0	0.3	0.0	0.0	0.0	0.0	0.0
0.2	0.2	380 89-22	0.4	0.4	165.0	170.0	0.3	0.0	0.0	0.0	0.0	0.0
0.0	0.1	381 89-22	0.1	0.1	170.0	175.0	0.0	0.1	0.0	0.1	0.0	0.0
0.0	0.0	382 89-22	0.0	0.0	175.0	180.0	0.0	0.2	0.0	0.0	0.1	0.0
0.0	0.0	383 89-22	0.0	0.0	180.0	185.0	0.0	0.1	0.0	0.0	0.0	0.0
0.1	0.2	384 89-22	0.0	0.0	185.0	190.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.4	385 89-22	0.0	0.0	190.0	195.0	0.0	0.1	0.0	0.0	0.1	0.0
0.0	0.1	386 89-22	0.0	0.0	195.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0
0.1	0.2	387 89-22	0.0	0.0	200.0	205.0	0.0	0.2	0.0	0.0	0.0	0.0
0.1	0.1	388 89-22	0.0	0.0	205.0	210.0	0.0	0.1	0.0	0.0	0.0	0.0
0.1	0.1	389 89-22	0.0	0.0	210.0	215.0	0.0	0.0	0.0	0.0	0.0	0.0
0.1	0.2	390 89-22	0.1	0.1	215.0	220.0	0.1	0.0	0.0	0.0	0.0	0.0

		392	89-22	225.0	230.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	
	0.0	0.0	0.2	0.0	0.0								
		393	89-22	230.0	235.0	0.2	0.1	0.0	0.1	0.1	0.0	2.9	0.0
	0.1	0.2	1.0	0.0	0.0								
		394	89-22	235.0	240.0	0.2	0.0	0.0	0.0	0.1	0.0	2.5	0.1
	0.6	0.1	1.0	0.0	0.0								
		395	89-22	240.0	245.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
	0.2	0.3	0.1	0.0	0.0								

Page No. 1
04/30/90

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - TOTAL CONTENT

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
256	89- 3	4.0	9.0	90.6	7.1	0.2	0.5	0.2	0.7	0.7	0.1	0.0
257	89- 3	9.0	14.0	95.4	1.9	0.0	1.2	0.5	0.5	0.5	0.0	0.0
258	89- 3	14.0	19.0	93.7	1.3	0.0	3.6	0.2	0.4	0.8	0.0	0.0
259	89- 3	19.0	24.0	88.8	9.4	0.0	1.0	0.2	0.4	0.2	0.0	0.0
260	89- 3	24.0	29.0	73.1	18.5	3.5	2.7	0.5	0.6	1.1	0.0	0.0
261	89- 3	29.0	34.0	82.0	11.8	2.4	2.3	0.7	0.5	0.3	0.0	0.0
262	89- 3	34.0	39.0	90.5	5.8	1.5	1.3	0.1	0.5	0.3	0.0	0.0
263	89- 3	39.0	44.0	94.5	3.4	0.6	0.9	0.1	0.3	0.2	0.0	0.0
264	89- 3	44.0	49.0	96.6	1.7	0.6	0.0	0.0	0.9	0.2	0.0	0.0
265	89- 3	49.0	54.0	97.1	1.5	0.2	0.1	0.1	0.7	0.3	0.0	0.0
266	89- 3	54.0	59.0	93.5	3.5	1.0	0.1	0.4	1.3	0.2	0.0	0.0
267	89- 3	59.0	64.0	95.4	3.6	0.0	0.0	0.0	0.5	0.0	0.1	0.0
268	89- 3	64.0	69.0	81.2	15.4	2.6	0.1	0.1	0.3	0.0	0.3	0.0
269	89- 3	69.0	74.0	89.6	8.9	1.0	0.0	0.2	0.1	0.0	0.2	0.0
270	89- 3	74.0	79.0	88.7	9.2	0.9	0.6	0.3	0.2	0.1	0.1	0.0
271	89- 3	79.0	84.0	88.0	9.9	1.0	0.0	0.2	0.5	0.1	0.3	0.0
272	89- 3	84.0	89.0	87.0	10.0	2.1	0.2	0.1	0.2	0.2	0.2	0.0
273	89- 3	89.0	94.0	92.2	6.6	0.3	0.7	0.1	0.1	0.0	0.1	0.0
274	89- 3	94.0	99.0	88.1	7.8	1.7	1.9	0.0	0.3	0.1	0.1	0.0
275	89- 3	99.0	103.0	88.1	3.2	0.8	3.9	0.4	0.8	2.6	0.2	0.0
276	89- 3	103.0	108.0	86.8	0.8	0.2	5.1	0.3	1.6	5.2	0.0	0.0
277	89- 3	108.0	112.0	87.7	5.3	0.8	1.8	0.6	0.9	2.6	0.3	0.0
278	89- 3	116.0	120.0	39.6	0.6	0.0	3.4	1.9	3.0	48.3	3.2	0.0
279	89- 4	5.0	10.0	88.2	6.1	0.0	2.0	0.3	0.9	2.3	0.2	0.0
280	89- 4	10.0	15.0	92.1	5.0	0.0	1.3	0.3	0.5	0.7	0.1	0.0
281	89- 4	15.0	20.0	86.0	10.4	0.0	1.9	0.0	0.3	0.9	0.5	0.0
282	89- 4	20.0	25.0	91.6	6.4	0.0	0.7	0.1	0.5	0.7	0.1	0.0
283	89- 4	25.0	30.0	92.3	6.3	0.1	0.6	0.2	0.1	0.4	0.0	0.0
284	89- 4	30.0	35.0	78.0	18.5	2.0	1.3	0.1	0.1	0.0	0.0	0.0
285	89- 4	35.0	40.0	88.3	10.1	1.0	0.5	0.1	0.1	0.0	0.0	0.0
286	89- 4	40.0	45.0	88.5	9.6	0.0	1.9	0.0	0.0	0.0	0.0	0.0
287	89- 4	45.0	50.0	94.4	5.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0
288	89- 4	50.0	55.0	91.8	6.7	0.3	1.2	0.0	0.0	0.0	0.0	0.0
289	89- 4	55.0	60.0	92.8	5.9	0.8	0.0	0.0	0.0	0.5	0.0	0.0
290	89- 4	60.0	65.0	89.4	9.1	0.9	0.6	0.0	0.0	0.0	0.0	0.0
291	89- 4	65.0	70.0	94.1	5.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0
292	89- 4	70.0	75.0	93.2	3.8	0.0	2.6	0.3	0.0	0.0	0.0	0.0
293	89- 4	75.0	80.0	90.6	8.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0
294	89- 4	80.0	85.0	94.1	5.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
295	89- 4	85.0	90.0	95.6	3.5	0.6	0.3	0.0	0.0	0.0	0.0	0.0
296	89- 4	90.0	95.0	94.1	4.7	0.0	1.2	0.0	0.0	0.0	0.0	0.0
297	89- 4	95.0	100.0	85.8	12.7	0.0	1.5	0.0	0.0	0.0	0.0	0.0
298	89-22	5.0	10.0	40.0	49.4	0.0	0.8	3.6	6.1	0.0	0.0	0.0
299	89-22	10.0	15.0	58.4	8.4	0.0	14.0	9.9	9.3	0.0	0.0	0.0
300	89-22	15.0	20.0	79.8	3.6	1.2	7.1	0.0	6.5	1.8	0.0	0.0
351	89-22	20.0	25.0	84.7	5.9	0.0	5.6	0.6	0.6	2.5	0.0	0.0
352	89-22	25.0	30.0	88.2	6.5	0.6	3.4	1.1	0.0	0.3	0.0	0.0
353	89-22	30.0	35.0	84.2	4.0	0.0	4.0	2.1	0.3	5.5	0.0	0.0
354	89-22	35.0	40.0	93.5	2.4	0.0	3.5	0.6	0.0	0.0	0.0	0.0

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - TOTAL CONTENT

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
355	89-22	40.0	45.0	74.1	8.7	0.6	11.7	3.5	0.0	1.5	0.0	0.0
356	89-22	45.0	50.0	87.4	3.5	0.3	4.7	2.1	0.0	2.1	0.0	0.0
357	89-22	50.0	55.0	89.0	1.8	0.6	4.5	2.7	0.3	1.2	0.0	0.0
358	89-22	55.0	60.0	89.0	3.4	0.3	4.0	1.8	0.0	1.5	0.0	0.0
359	89-22	60.0	65.0	93.7	1.3	0.0	3.5	0.9	0.0	0.6	0.0	0.0
360	89-22	65.0	70.0	92.4	2.4	0.0	1.2	2.9	0.0	1.2	0.0	0.0
361	89-22	70.0	75.0	86.6	4.0	0.0	1.1	4.3	1.7	2.3	0.0	0.0
362	89-22	75.0	80.0	81.4	4.0	0.0	7.1	4.0	2.3	1.1	0.0	0.0
363	89-22	80.0	85.0	70.9	8.6	0.0	13.2	2.5	1.2	3.7	0.0	0.0
364	89-22	85.0	90.0	94.1	1.3	0.0	2.2	2.5	0.0	0.0	0.0	0.0
365	89-22	90.0	95.0	96.6	0.0	0.9	0.6	1.6	0.3	0.0	0.0	0.0
366	89-22	95.0	100.0	83.0	0.1	0.0	2.2	0.8	11.0	2.9	0.0	0.0
367	89-22	100.0	105.0	93.7	2.2	0.0	2.8	0.3	1.9	0.0	0.0	0.1
368	89-22	105.0	110.0	87.7	0.7	0.0	5.7	0.2	3.6	2.1	0.0	0.0
369	89-22	110.0	115.0	91.2	0.1	0.0	4.2	2.0	1.2	1.3	0.0	0.0
370	89-22	115.0	120.0	90.6	1.0	0.0	4.1	0.4	1.7	2.1	0.1	0.0
371	89-22	120.0	125.0	89.2	4.0	0.1	2.9	0.6	0.7	2.4	0.1	0.0
372	89-22	125.0	130.0	87.1	7.7	0.4	3.3	0.2	0.3	0.9	0.1	0.0
373	89-22	130.0	135.0	84.8	7.8	0.0	4.0	0.2	0.5	2.3	0.4	0.0
374	89-22	135.0	140.0	82.0	16.0	0.0	1.0	0.2	0.5	0.3	0.0	0.0
375	89-22	140.0	148.0	79.5	13.7	0.0	4.4	0.5	0.6	1.1	0.2	0.0
376	89-22	148.0	150.0	77.5	19.5	0.0	2.0	0.2	0.3	0.4	0.1	0.0
377	89-22	150.0	155.0	62.5	36.3	0.0	0.8	0.2	0.2	0.0	0.0	0.0
378	89-22	155.0	160.0	86.4	11.5	0.0	1.4	0.2	0.2	0.3	0.0	0.0
379	89-22	160.0	165.0	82.1	11.8	0.0	4.0	0.7	0.4	0.9	0.1	0.0
380	89-22	165.0	170.0	88.0	7.0	0.0	2.8	0.5	0.6	0.6	0.5	0.0
381	89-22	170.0	175.0	85.6	12.5	0.0	1.3	0.1	0.3	0.1	0.1	0.0
382	89-22	175.0	180.0	90.1	8.0	0.0	1.0	0.1	0.1	0.7	0.0	0.0
383	89-22	180.0	185.0	83.9	12.6	0.0	1.3	1.1	0.4	0.6	0.1	0.0
384	89-22	185.0	190.0	82.9	15.2	0.0	1.2	0.2	0.1	0.3	0.1	0.0
385	89-22	190.0	195.0	77.8	19.7	0.0	1.4	0.2	0.2	0.7	0.1	0.0
386	89-22	195.0	200.0	85.7	10.8	0.0	2.8	0.1	0.2	0.4	0.0	0.0
387	89-22	200.0	205.0	89.9	5.5	0.0	3.2	0.2	0.3	1.0	0.0	0.0
388	89-22	205.0	210.0	89.3	5.3	0.0	2.5	0.4	0.4	2.1	0.0	0.0
389	89-22	210.0	215.0	79.8	14.1	0.0	3.3	0.6	1.0	1.1	0.1	0.0
390	89-22	215.0	220.0	91.6	5.5	0.0	1.5	0.2	0.5	0.7	0.0	0.0
391	89-22	220.0	225.0	96.0	1.8	0.0	1.2	0.1	0.7	0.2	0.0	0.0
392	89-22	225.0	230.0	94.3	3.6	0.0	1.5	0.2	0.2	0.2	0.0	0.0
393	89-22	230.0	235.0	88.2	9.5	0.0	1.3	0.2	0.3	0.5	0.0	0.0
394	89-22	235.0	240.0	89.8	6.1	0.1	1.8	0.3	0.5	1.4	0.0	0.0
395	89-22	240.0	245.0	91.2	5.6	0.0	1.3	0.0	0.7	1.2	0.0	0.0
396	89-22	245.0	250.0	95.8	1.1	0.3	1.9	0.3	0.0	0.6	0.0	0.0
397	89-22	250.0	255.0	92.7	3.1	0.0	2.1	0.8	0.0	1.3	0.0	0.0
398	89-22	255.0	260.0	94.5	4.7	0.0	0.0	0.6	0.0	0.3	0.0	0.0
399	89-22	260.0	265.0	96.9	2.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0
400	89-22	265.0	270.0	91.4	3.9	0.6	3.1	0.8	0.0	0.3	0.0	0.0
3153	89-22	270.0	275.0	85.4	9.1	1.2	2.4	0.6	0.6	0.6	0.0	0.0
3154	89-22	275.0	280.0	81.7	12.4	0.3	3.5	0.0	2.1	0.0	0.0	0.0
3155	89-22	280.0	285.0	84.7	7.1	1.2	0.6	2.4	2.7	1.5	0.0	0.0

WEST ZONE - MT. RIOERAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - TOTAL CONTENT

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
3156	89-22	285.0	290.0	91.5	4.9	1.6	0.7	0.7	0.3	0.3	0.0	0.0
3157	89-22	290.0	295.0	86.1	10.3	0.0	2.4	0.0	1.2	0.0	0.0	0.0
3158	89-22	295.0	300.0	92.3	3.5	1.8	1.8	0.0	0.0	0.6	0.0	0.0
3159	89-22	300.0	305.0	96.2	2.3	0.6	0.3	0.3	0.3	0.0	0.0	0.0
3199	89-22	305.0	310.0	80.6	17.0	0.1	1.1	0.2	0.2	0.8	0.0	0.0
3200	89-22	310.0	315.0	86.2	11.1	0.0	1.2	0.2	0.3	0.9	0.1	0.0
11115	89-22	315.0	319.0	84.9	1.6	0.0	8.2	1.1	1.8	2.4	0.0	0.0
3160	89- 8	2.5	5.0	94.8	4.0	0.6	0.0	0.0	0.3	0.3	0.0	0.0
3161	89- 8	5.0	10.0	93.4	3.7	0.0	0.5	0.3	2.1	0.0	0.0	0.0
3162	89- 8	10.0	15.0	91.4	5.0	0.0	0.8	0.6	2.2	0.0	0.0	0.0
3163	89- 8	15.0	20.0	98.5	1.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0
3164	89- 8	20.0	25.0	93.9	3.3	0.6	0.0	0.3	1.9	0.0	0.0	0.0
3165	89- 8	25.0	30.0	96.7	0.3	0.0	0.0	0.6	1.7	0.8	0.0	0.0
3166	89- 8	30.0	35.0	95.8	0.8	0.0	0.3	2.4	0.8	0.0	0.0	0.0
3167	89- 8	35.0	40.0	97.6	0.3	0.0	0.0	1.1	0.8	0.3	0.0	0.0
3168	89- 8	40.0	45.0	97.1	1.1	0.0	0.0	0.3	1.4	0.0	0.0	0.0
3169	89- 8	45.0	50.0	96.1	2.5	0.3	0.0	0.3	0.0	0.8	0.0	0.0
3170	89- 8	50.0	55.0	91.8	3.6	0.3	1.5	2.1	0.0	0.6	0.0	0.0
3171	89- 8	55.0	60.0	95.3	2.8	0.0	0.3	1.4	0.0	0.3	0.0	0.0
3172	89- 8	60.0	65.0	90.9	2.9	0.0	0.0	2.3	0.9	2.9	0.0	0.0
3173	89- 8	65.0	70.0	87.1	7.4	0.6	0.6	2.9	0.0	1.5	0.0	0.0
3174	89- 8	70.0	75.0	74.0	12.7	1.4	6.4	1.7	0.3	3.6	0.0	0.0
3175	89- 8	75.0	80.0	28.7	67.2	0.9	1.5	0.6	0.3	0.9	0.0	0.0
3177	89- 8	85.0	90.0	51.7	46.3	0.0	0.8	0.0	0.8	0.4	0.0	0.0
3178	89- 8	90.0	95.0	42.9	36.0	7.3	4.6	0.7	5.9	2.6	0.0	0.0
3179	89- 8	95.0	100.0	65.0	24.8	2.0	0.0	3.5	0.9	3.8	0.0	0.0
3180	89- 9	2.0	10.0	55.3	10.0	3.7	11.5	4.9	10.6	4.0	0.0	0.0
3181	89- 9	10.0	15.0	60.6	13.4	1.0	7.2	3.3	5.9	8.8	0.0	0.0
3182	89- 9	15.0	20.0	64.2	9.9	4.8	3.9	4.5	6.3	6.6	0.0	0.0
3183	89- 9	20.0	25.0	61.0	6.4	2.9	12.1	4.5	5.4	7.7	0.0	0.0
3184	89- 9	25.0	30.0	61.1	12.8	2.8	6.1	6.7	4.4	6.1	0.0	0.0
3185	89- 9	30.0	35.0	62.5	10.9	2.4	3.8	9.6	4.1	6.8	0.0	0.0
3186	89- 9	35.0	40.0	62.7	9.7	0.5	8.7	5.8	5.5	7.1	0.0	0.0
3187	89- 9	40.0	45.0	68.0	5.9	2.1	6.2	2.7	8.3	6.8	0.0	0.0
3188	89- 9	45.0	50.0	67.8	17.3	1.3	3.7	1.7	6.3	2.0	0.0	0.0
3189	89- 9	50.0	55.0	88.3	5.4	0.6	0.6	0.9	2.5	1.6	0.0	0.0
3190	89- 9	55.0	60.0	70.9	16.7	0.6	2.1	0.3	9.1	0.3	0.0	0.0
3191	89- 9	60.0	65.0	78.8	10.9	0.0	4.1	0.9	2.4	2.9	0.0	0.0
3192	89- 9	65.0	70.0	81.2	7.3	0.0	3.5	1.2	3.2	3.5	0.0	0.0
3193	89- 9	70.0	75.0	90.9	1.5	0.0	3.2	1.2	2.6	0.6	0.0	0.0
3194	89- 9	75.0	80.0	93.1	2.8	0.0	3.0	0.6	0.6	0.0	0.0	0.0
3195	89- 9	80.0	85.0	88.6	3.3	1.1	3.6	0.8	1.9	0.6	0.0	0.0
3196	89- 9	85.0	90.0	85.1	8.9	0.0	2.2	0.6	2.9	0.3	0.0	0.0
3197	89- 9	90.0	95.0	84.4	11.8	0.0	0.9	0.0	2.1	0.9	0.0	0.0
3198	89- 9	95.0	100.0	90.8	3.8	0.0	1.6	0.9	1.3	1.6	0.0	0.0
11116	89-23	22.0	25.0	59.5	23.8	0.0	2.6	0.1	0.6	3.3	0.1	0.0
11117	89-23	25.0	30.0	63.3	14.8	0.0	8.0	1.3	2.2	10.4	0.0	0.0
11118	89-23	30.0	35.0	66.9	12.4	0.0	9.4	0.7	5.7	4.9	0.0	0.0
11119	89-23	35.0	40.0	81.6	9.3	0.0	4.9	0.5	0.5	3.0	0.2	0.0

Page No. 4
04/30/90

WEST ZONE - MT. BIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - TOTAL CONTENT

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
11120	89-23	40.0	45.0	76.8	13.4	0.0	5.4	0.9	2.0	1.4	0.0	0.1
11121	89-23	45.0	50.0	76.5	15.6	0.0	3.8	0.4	1.6	2.0	0.0	0.1
11122	89-23	50.0	55.0	72.3	18.6	0.0	3.6	1.0	1.5	3.0	0.0	0.0
11123	89-23	55.0	60.0	82.2	12.6	0.0	2.6	0.5	0.5	1.6	0.1	0.1
11124	89-23	60.0	65.0	82.8	12.4	0.0	2.3	0.4	1.7	0.4	0.0	0.0
11125	89-23	65.0	70.0	91.6	6.6	0.0	1.0	0.2	0.2	0.6	0.0	0.0
11126	89-23	70.0	75.0	96.7	1.6	0.0	0.3	0.5	0.8	0.1	0.0	0.0
11127	89-23	75.0	80.0	92.4	0.3	0.0	0.2	0.5	5.1	1.5	0.0	0.0
11128	89-23	80.0	85.0	91.5	0.3	0.0	0.4	0.5	5.8	1.5	0.0	0.0
11129	89-23	85.0	90.0	80.6	10.3	4.9	3.0	0.1	0.4	0.7	0.0	0.1
11130	89-23	90.0	95.0	70.5	5.6	13.5	7.7	0.2	1.1	1.4	0.0	0.0
11131	89-23	95.0	100.0	83.1	12.1	1.3	2.7	0.0	0.3	0.5	0.0	0.0
11132	89-23	100.0	105.0	83.3	13.6	0.8	1.9	0.1	0.2	0.7	0.0	0.0
11133	89-23	105.0	110.0	72.6	20.0	3.3	3.0	0.1	0.7	0.3	0.0	0.0
11134	89-23	110.0	115.0	72.2	20.2	2.9	3.0	0.1	0.9	0.5	0.1	0.1
11135	89-23	115.0	120.0	83.9	13.1	0.4	1.6	0.1	0.3	0.6	0.0	0.0
11136	89-23	120.0	130.0	79.9	17.6	0.4	1.7	0.0	0.5	0.7	0.0	0.2

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - LIBERATED BY CRUSHING

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
256	89- 3	4.0	9.0	89.8	6.7	0.2	0.4	0.2	0.5	0.6	0.1	0.0
257	89- 3	9.0	14.0	94.6	1.7	0.0	1.0	0.5	0.2	0.5	0.0	0.0
258	89- 3	14.0	19.0	93.2	1.2	0.0	3.5	0.2	0.3	0.8	0.0	0.0
259	89- 3	19.0	24.0	87.8	8.8	0.0	0.9	0.2	0.2	0.2	0.0	0.0
260	89- 3	24.0	29.0	61.5	11.7	2.1	2.3	0.5	0.2	0.8	0.0	0.0
261	89- 3	29.0	34.0	80.5	11.3	2.1	2.0	0.7	0.4	0.3	0.0	0.0
262	89- 3	34.0	39.0	87.6	4.4	1.1	1.1	0.1	0.3	0.2	0.0	0.0
263	89- 3	39.0	44.0	93.1	2.8	0.4	0.7	0.1	0.1	0.0	0.0	0.0
264	89- 3	44.0	49.0	96.1	1.6	0.6	0.0	0.0	0.6	0.2	0.0	0.0
265	89- 3	49.0	54.0	96.4	1.5	0.2	0.1	0.1	0.4	0.3	0.0	0.0
266	89- 3	54.0	59.0	93.0	3.5	1.0	0.1	0.3	0.8	0.2	0.0	0.0
267	89- 3	59.0	64.0	94.9	3.5	0.2	0.4	0.0	0.0	0.0	0.1	0.0
268	89- 3	64.0	69.0	79.9	15.0	2.4	0.1	0.1	0.0	0.0	0.3	0.0
269	89- 3	69.0	74.0	89.2	8.8	1.0	0.0	0.1	0.0	0.0	0.2	0.0
270	89- 3	74.0	79.0	87.6	8.6	0.9	0.4	0.3	0.1	0.1	0.1	0.0
271	89- 3	79.0	84.0	87.2	9.7	0.9	0.0	0.1	0.1	0.1	0.2	0.0
272	89- 3	84.0	89.0	85.9	9.5	2.0	0.2	0.1	0.1	0.1	0.2	0.0
273	89- 3	89.0	94.0	92.1	6.6	0.2	0.6	0.1	0.1	0.0	0.1	0.0
274	89- 3	94.0	99.0	87.3	7.5	1.6	1.8	0.0	0.1	0.1	0.1	0.0
275	89- 3	99.0	103.0	86.9	3.1	0.8	3.7	0.2	0.3	2.4	0.1	0.0
276	89- 3	103.0	108.0	85.6	0.7	0.2	5.0	0.3	1.2	5.0	0.0	0.0
277	89- 3	108.0	112.0	87.4	5.3	0.8	1.7	0.6	0.6	2.6	0.3	0.0
278	89- 3	116.0	120.0	37.5	0.6	0.0	3.2	1.8	2.8	46.8	3.2	0.0
279	89- 4	5.0	10.0	86.6	5.8	0.0	1.7	0.3	0.5	2.1	0.2	0.0
280	89- 4	10.0	15.0	91.6	4.8	0.0	1.3	0.3	0.3	0.7	0.1	0.0
281	89- 4	15.0	20.0	85.0	10.1	0.0	1.7	0.0	0.2	0.8	0.5	0.0
282	89- 4	20.0	25.0	90.2	5.6	0.0	0.6	0.1	0.2	0.7	0.1	0.0
283	89- 4	25.0	30.0	91.7	5.9	0.1	0.5	0.2	0.1	0.2	0.0	0.0
284	89- 4	30.0	35.0	76.6	17.2	1.7	1.3	0.1	0.0	0.0	0.0	0.0
285	89- 4	35.0	40.0	87.4	9.7	0.7	0.4	0.1	0.1	0.0	0.0	0.0
286	89- 4	40.0	45.0	88.5	9.6	0.0	1.9	0.0	0.0	0.0	0.0	0.0
287	89- 4	45.0	50.0	94.1	4.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0
288	89- 4	50.0	55.0	91.8	6.7	0.3	1.2	0.0	0.0	0.0	0.0	0.0
289	89- 4	55.0	60.0	92.8	5.9	0.8	0.0	0.0	0.0	0.5	0.0	0.0
290	89- 4	60.0	65.0	89.4	9.1	0.9	0.6	0.0	0.0	0.0	0.0	0.0
291	89- 4	65.0	70.0	94.1	5.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0
292	89- 4	70.0	75.0	93.2	3.8	0.0	2.6	0.3	0.0	0.0	0.0	0.0
293	89- 4	75.0	80.0	90.6	8.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0
294	89- 4	80.0	85.0	94.1	5.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
295	89- 4	85.0	90.0	95.0	3.2	0.6	0.3	0.0	0.0	0.0	0.0	0.0
296	89- 4	90.0	95.0	94.1	4.7	0.0	1.2	0.0	0.0	0.0	0.0	0.0
297	89- 4	95.0	100.0	85.8	12.7	0.0	1.5	0.0	0.0	0.0	0.0	0.0
298	89-22	5.0	10.0	40.0	49.4	0.0	0.8	3.6	6.1	0.0	0.0	0.0
299	89-22	10.0	15.0	57.1	7.5	0.0	14.0	9.9	9.3	0.0	0.0	0.0
300	89-22	15.0	20.0	79.8	3.6	1.2	7.1	0.0	6.5	1.8	0.0	0.0
351	89-22	20.0	25.0	84.7	5.9	0.0	5.6	0.6	0.6	2.5	0.0	0.0
352	89-22	25.0	30.0	87.6	5.9	0.6	3.4	1.1	0.0	0.3	0.0	0.0
353	89-22	30.0	35.0	82.1	3.6	0.0	4.0	2.1	0.0	5.5	0.0	0.0
354	89-22	35.0	40.0	93.5	2.4	0.0	3.5	0.6	0.0	0.0	0.0	0.0

Page No. 2
04/30/90

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - LIBERATED BY CRUSHING

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
355	89-22	40.0	45.0	74.1	8.7	0.6	11.7	3.5	0.0	1.5	0.0	0.0
356	89-22	45.0	50.0	87.4	3.5	0.3	4.7	2.1	0.0	2.1	0.0	0.0
357	89-22	50.0	55.0	87.8	1.8	0.0	3.9	2.7	0.0	1.2	0.0	0.0
358	89-22	55.0	60.0	88.0	3.1	0.3	4.0	1.8	0.0	1.5	0.0	0.0
359	89-22	60.0	65.0	93.7	1.3	0.0	1.3	0.9	0.0	0.6	0.0	0.0
360	89-22	65.0	70.0	90.3	1.5	0.0	0.9	2.9	0.0	1.2	0.0	0.0
361	89-22	70.0	75.0	84.7	3.4	0.0	1.1	4.3	1.7	2.3	0.0	0.0
362	89-22	75.0	80.0	80.0	3.1	0.0	5.4	4.0	2.3	1.1	0.0	0.0
363	89-22	80.0	85.0	70.9	8.6	0.0	13.2	2.5	1.2	3.7	0.0	0.0
364	89-22	85.0	90.0	94.1	1.3	0.0	2.2	2.5	0.0	0.0	0.0	0.0
365	89-22	90.0	95.0	96.6	0.0	0.0	0.9	0.6	1.6	0.3	0.0	0.0
366	89-22	95.0	100.0	76.6	0.1	0.0	2.1	0.8	6.4	2.6	0.0	0.0
367	89-22	100.0	105.0	93.3	2.2	0.0	2.8	0.3	1.7	0.0	0.0	0.1
368	89-22	105.0	110.0	87.2	0.7	0.0	5.6	0.2	3.4	2.1	0.0	0.0
369	89-22	110.0	115.0	90.1	0.1	0.0	3.9	2.0	0.9	1.2	0.0	0.0
370	89-22	115.0	120.0	88.9	0.9	0.1	4.0	0.4	1.5	1.4	0.0	0.0
371	89-22	120.0	125.0	86.4	3.2	0.0	2.4	0.6	0.5	1.9	0.0	0.0
372	89-22	125.0	130.0	85.4	6.6	0.3	3.2	0.2	0.2	0.8	0.0	0.0
373	89-22	130.0	135.0	80.6	6.6	0.0	3.6	0.2	0.0	1.9	0.3	0.0
374	89-22	135.0	140.0	81.7	15.9	0.0	1.0	0.2	0.4	0.3	0.0	0.0
375	89-22	140.0	148.0	77.7	13.1	0.0	4.2	0.5	0.5	1.0	0.2	0.0
376	89-22	148.0	150.0	75.7	18.3	0.0	1.9	0.2	0.2	0.3	0.1	0.0
377	89-22	150.0	155.0	61.5	35.6	0.0	0.7	0.2	0.2	0.0	0.0	0.0
378	89-22	155.0	160.0	84.4	10.2	0.0	1.3	0.2	0.0	0.3	0.0	0.0
379	89-22	160.0	165.0	80.0	10.6	0.0	3.7	0.7	0.2	0.7	0.1	0.0
380	89-22	165.0	170.0	87.1	6.7	0.0	2.8	0.5	0.5	0.6	0.4	0.0
381	89-22	170.0	175.0	84.0	11.3	0.0	1.2	0.1	0.3	0.1	0.1	0.0
382	89-22	175.0	180.0	87.0	6.4	0.0	0.8	0.1	0.1	0.4	0.0	0.0
383	89-22	180.0	185.0	81.7	11.2	0.0	1.2	1.1	0.2	0.5	0.1	0.0
384	89-22	185.0	190.0	82.3	14.8	0.0	1.2	0.2	0.1	0.3	0.1	0.0
385	89-22	190.0	195.0	76.4	18.4	0.0	1.3	0.2	0.1	0.7	0.1	0.0
386	89-22	195.0	200.0	85.1	10.5	0.0	2.7	0.1	0.2	0.4	0.0	0.0
387	89-22	200.0	205.0	88.0	4.5	0.0	2.7	0.2	0.1	0.8	0.0	0.0
388	89-22	205.0	210.0	87.4	4.7	0.0	2.4	0.4	0.3	1.6	0.0	0.0
389	89-22	210.0	215.0	78.6	13.6	0.0	3.1	0.6	0.8	1.0	0.1	0.0
390	89-22	215.0	220.0	90.6	5.0	0.0	1.4	0.2	0.4	0.6	0.0	0.0
391	89-22	220.0	225.0	95.5	1.6	0.0	1.1	0.1	0.5	0.2	0.0	0.0
392	89-22	225.0	230.0	93.9	3.4	0.0	1.5	0.2	0.2	0.2	0.0	0.0
393	89-22	230.0	235.0	85.0	8.5	0.0	1.1	0.2	0.1	0.4	0.0	0.0
394	89-22	235.0	240.0	87.1	5.1	0.0	1.7	0.3	0.4	0.8	0.0	0.0
395	89-22	240.0	245.0	90.5	5.5	0.0	1.3	0.0	0.4	1.0	0.0	0.0
396	89-22	245.0	250.0	95.8	1.1	0.3	1.9	0.3	0.0	0.6	0.0	0.0
397	89-22	250.0	255.0	92.7	3.1	0.0	2.1	0.8	0.0	1.3	0.0	0.0
398	89-22	255.0	260.0	94.5	4.7	0.0	0.0	0.6	0.0	0.3	0.0	0.0
399	89-22	260.0	265.0	96.9	2.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0
400	89-22	265.0	270.0	91.4	3.9	0.6	3.1	0.8	0.0	0.3	0.0	0.0
3153	89-22	270.0	275.0	85.4	9.1	1.2	2.4	0.6	0.6	0.6	0.0	0.0
3154	89-22	275.0	280.0	80.5	12.1	0.3	3.5	0.0	2.1	0.0	0.0	0.0
3155	89-22	280.0	285.0	84.7	7.1	1.2	0.6	2.4	2.7	1.5	0.0	0.0

Page No. 3
04/30/90

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - LIBERATED BY CRUSHING

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
3156	89-22	285.0	290.0	91.5	4.9	1.6	0.7	0.7	0.3	0.3	0.0	0.0
3157	89-22	290.0	295.0	85.2	9.7	0.0	1.5	0.0	0.9	0.0	0.0	0.0
3158	89-22	295.0	300.0	92.3	3.5	1.8	1.8	0.0	0.0	0.6	0.0	0.0
3159	89-22	300.0	305.0	96.2	2.3	0.6	0.3	0.3	0.3	0.0	0.0	0.0
3199	89-22	305.0	310.0	78.7	15.6	0.1	0.9	0.1	0.1	0.7	0.0	0.0
3200	89-22	310.0	315.0	84.5	10.5	0.0	1.1	0.1	0.2	0.5	0.1	0.0
11115	89-22	315.0	319.0	82.9	1.4	0.0	7.7	1.1	1.3	2.0	0.0	0.0
3160	89-8	2.5	5.0	94.8	4.0	0.6	0.0	0.0	0.3	0.3	0.0	0.0
3161	89-8	5.0	10.0	93.4	3.7	0.0	0.5	0.3	2.1	0.0	0.0	0.0
3162	89-8	10.0	15.0	91.4	5.0	0.0	0.8	0.6	2.2	0.0	0.0	0.0
3163	89-8	15.0	20.0	98.5	1.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0
3164	89-8	20.0	25.0	93.9	3.3	0.6	0.0	0.3	1.9	0.0	0.0	0.0
3165	89-8	25.0	30.0	96.7	0.3	0.0	0.0	0.6	1.7	0.8	0.0	0.0
3166	89-8	30.0	35.0	95.8	0.8	0.0	0.3	2.4	0.8	0.0	0.0	0.0
3167	89-8	35.0	40.0	97.6	0.3	0.0	0.0	1.1	0.8	0.3	0.0	0.0
3168	89-8	40.0	45.0	96.9	0.9	0.0	0.0	0.3	1.1	0.0	0.0	0.0
3169	89-8	45.0	50.0	96.1	2.5	0.3	0.0	0.3	0.0	0.8	0.0	0.0
3170	89-8	50.0	55.0	91.8	3.6	0.3	1.5	2.1	0.0	0.6	0.0	0.0
3171	89-8	55.0	60.0	95.3	2.8	0.0	0.3	1.4	0.0	0.3	0.0	0.0
3172	89-8	60.0	65.0	90.9	2.9	0.0	0.0	2.3	0.9	2.9	0.0	0.0
3173	89-8	65.0	70.0	87.1	7.4	0.6	0.6	2.9	0.0	1.5	0.0	0.0
3174	89-8	70.0	75.0	71.3	11.6	1.4	6.4	1.7	0.3	3.6	0.0	0.0
3175	89-8	75.0	80.0	28.7	67.2	0.9	1.5	0.6	0.3	0.9	0.0	0.0
3177	89-8	85.0	90.0	51.7	46.3	0.0	0.8	0.8	0.0	0.4	0.0	0.0
3178	89-8	90.0	95.0	38.9	33.7	6.9	3.0	0.7	5.6	2.6	0.0	0.0
3179	89-8	95.0	100.0	61.4	22.0	2.0	0.0	3.5	0.9	3.8	0.0	0.0
3180	89-9	2.0	10.0	51.3	8.6	3.4	11.2	4.9	10.3	4.0	0.0	0.0
3181	89-9	10.0	15.0	57.0	12.1	1.0	6.5	3.3	5.9	8.8	0.0	0.0
3182	89-9	15.0	20.0	60.3	7.8	3.6	3.9	4.5	6.3	6.6	0.0	0.0
3183	89-9	20.0	25.0	57.8	6.1	2.6	11.5	4.5	4.2	7.7	0.0	0.0
3184	89-9	25.0	30.0	58.3	12.5	2.5	5.6	6.7	3.6	6.1	0.0	0.0
3185	89-9	30.0	35.0	53.6	6.1	1.4	2.7	9.6	3.4	6.8	0.0	0.0
3186	89-9	35.0	40.0	60.6	9.4	0.5	8.1	5.8	4.5	7.1	0.0	0.0
3187	89-9	40.0	45.0	67.1	5.9	2.1	6.2	2.7	8.0	6.8	0.0	0.0
3188	89-9	45.0	50.0	65.8	16.3	1.3	3.3	1.7	6.3	2.0	0.0	0.0
3189	89-9	50.0	55.0	88.3	5.4	0.6	0.6	0.9	2.5	1.6	0.0	0.0
3190	89-9	55.0	60.0	61.5	13.9	0.6	0.6	0.3	4.5	0.3	0.0	0.0
3191	89-9	60.0	65.0	76.8	10.6	0.0	3.5	0.9	1.8	2.9	0.0	0.0
3192	89-9	65.0	70.0	80.6	7.3	0.0	2.6	1.2	2.9	3.5	0.0	0.0
3193	89-9	70.0	75.0	90.9	1.5	0.0	3.2	1.2	2.6	0.6	0.0	0.0
3194	89-9	75.0	80.0	93.1	2.8	0.0	3.0	0.6	0.6	0.0	0.0	0.0
3195	89-9	80.0	85.0	88.6	3.3	1.1	3.1	0.8	1.9	0.6	0.0	0.0
3196	89-9	85.0	90.0	81.6	7.6	0.0	1.3	0.6	2.5	0.3	0.0	0.0
3197	89-9	90.0	95.0	81.5	9.4	0.0	0.9	0.0	2.1	0.9	0.0	0.0
3198	89-9	95.0	100.0	90.8	3.8	0.0	1.6	0.9	1.3	1.6	0.0	0.0
11116	89-23	22.0	25.0	59.5	23.8	0.0	2.5	0.1	0.2	3.2	0.1	0.0
11117	89-23	25.0	30.0	61.1	14.4	0.0	7.3	1.3	1.8	10.1	0.0	0.0
11118	89-23	30.0	35.0	66.3	12.1	0.0	9.3	0.7	5.5	4.7	0.0	0.0
11119	89-23	35.0	40.0	80.7	8.9	0.0	4.5	0.5	0.2	2.9	0.2	0.0

Page No. 4
04/30/90

WEST ZONE - MT. RIO RDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - LIBERATED BY CRUSHING

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
11120	89-23	40.0	45.0	76.3	13.2	0.0	5.2	0.9	1.7	1.4	0.0	0.1
11121	89-23	45.0	50.0	75.1	15.2	0.0	3.6	0.4	1.4	1.7	0.0	0.1
11122	89-23	50.0	55.0	70.7	17.8	0.0	3.6	1.0	1.2	2.9	0.0	0.0
11123	89-23	55.0	60.0	80.6	12.1	0.0	2.3	0.5	0.1	1.2	0.1	0.1
11124	89-23	60.0	65.0	82.5	12.3	0.0	2.3	0.4	1.3	0.4	0.0	0.0
11125	89-23	65.0	70.0	91.1	6.5	0.0	0.9	0.2	0.1	0.5	0.0	0.0
11126	89-23	70.0	75.0	96.2	1.6	0.0	0.2	0.4	0.4	0.1	0.0	0.0
11127	89-23	75.0	80.0	91.2	0.3	0.0	0.2	0.4	3.5	1.3	0.0	0.0
11128	89-23	80.0	85.0	89.7	0.3	0.0	0.4	0.5	3.7	1.2	0.0	0.0
11129	89-23	85.0	90.0	79.1	9.5	4.6	2.9	0.1	0.2	0.5	0.0	0.1
11130	89-23	90.0	95.0	68.8	5.0	13.3	7.6	0.1	0.9	1.4	0.0	0.0
11131	89-23	95.0	100.0	80.1	11.2	1.1	2.2	0.0	0.1	0.4	0.0	0.0
11132	89-23	100.0	105.0	82.1	13.1	0.7	1.8	0.1	0.1	0.5	0.0	0.0
11133	89-23	105.0	110.0	70.4	19.0	3.0	2.7	0.1	0.5	0.3	0.0	0.0
11134	89-23	110.0	115.0	69.5	18.8	2.5	2.8	0.1	0.4	0.5	0.1	0.1
11135	89-23	115.0	120.0	83.7	13.1	0.4	1.5	0.1	0.2	0.6	0.0	0.0
11136	89-23	120.0	130.0	77.5	16.2	0.4	1.6	0.0	0.3	0.6	0.0	0.2

WEST ZONE - MT. BIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - INTERGROWN WITH GARNET

WEST ZONE - MT. BIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - INTERGROWTH WITH GARNET

Page No. 3
04/30/90

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - INTERGROWN WITH GARNET

SAMPLE	DRILL	FROM	TO	GAB>CAL	GAB=CAL	GAB<CAL	CAL>GAB	CAL=GAB	CAL<GAB	GARNET	EPIDOTE	ACTIN.	QUARTZ	DIOP.	APATITE	OPAQUE
#	HOLE	(ft)	(ft)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
3156	89-22	285.0	290.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3157	89-22	290.0	295.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.0	0.3	0.6	0.0	0.0	0.0
3158	89-22	295.0	300.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3159	89-22	300.0	305.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3199	89-22	305.0	310.0	0.0	0.0	0.0	0.0	0.0	0.2	1.9	0.0	0.1	0.0	1.4	0.0	0.0
3200	89-22	310.0	315.0	0.2	0.1	0.0	0.0	0.1	0.1	1.4	0.0	0.4	0.1	0.6	0.0	0.0
11115	89-22	315.0	319.0	0.4	0.2	0.0	0.2	0.3	0.2	1.4	0.0	0.4	0.5	0.2	0.0	0.0
3160	89- 8	2.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3161	89- 8	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3162	89- 8	10.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3163	89- 8	15.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3164	89- 8	20.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3165	89- 8	25.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3166	89- 8	30.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3167	89- 8	35.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3168	89- 8	40.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0
3169	89- 8	45.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3170	89- 8	50.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3171	89- 8	55.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3172	89- 8	60.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3173	89- 8	65.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3174	89- 8	70.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	1.1	0.0	0.0	0.0
3175	89- 8	75.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3177	89- 8	85.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3178	89- 8	90.0	95.0	0.0	0.0	0.0	1.7	0.0	0.0	4.0	0.3	0.3	2.3	0.0	0.0	0.0
3179	89- 8	95.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	2.9	0.0	0.0	0.0
3180	89- 9	2.0	10.0	0.0	0.0	0.0	0.3	0.0	0.0	4.0	0.3	0.3	1.4	0.0	0.0	0.0
3181	89- 9	10.0	15.0	0.0	0.0	0.0	0.7	0.3	0.0	3.3	0.0	0.0	1.3	0.0	0.0	0.0
3182	89- 9	15.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	1.2	0.0	2.1	0.0	0.0	0.0
3183	89- 9	20.0	25.0	0.0	0.0	0.0	0.0	0.6	0.0	3.2	0.3	1.3	0.3	0.0	0.0	0.0
3184	89- 9	25.0	30.0	0.0	0.0	0.0	0.0	0.6	0.0	2.8	0.3	0.8	0.3	0.0	0.0	0.0
3185	89- 9	30.0	35.0	0.0	0.0	0.0	1.0	0.0	0.0	8.9	1.0	0.7	4.8	0.0	0.0	0.0
3186	89- 9	35.0	40.0	0.0	0.0	0.0	0.5	0.0	0.0	2.1	0.0	1.0	0.3	0.0	0.0	0.0
3187	89- 9	40.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.3	0.3	0.0	0.0	0.0
3188	89- 9	45.0	50.0	0.0	0.0	0.0	0.3	0.0	0.0	2.0	0.0	0.0	1.0	0.0	0.0	0.0
3189	89- 9	50.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3190	89- 9	55.0	60.0	0.0	0.0	0.0	1.5	0.0	0.0	9.4	0.0	4.5	2.7	0.0	0.0	0.0
3191	89- 9	60.0	65.0	0.0	0.0	0.0	0.0	0.0	0.6	2.1	0.0	0.6	0.3	0.0	0.0	0.0
3192	89- 9	65.0	70.0	0.0	0.0	0.0	0.9	0.0	0.0	0.6	0.0	0.3	0.0	0.0	0.0	0.0
3193	89- 9	70.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3194	89- 9	75.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3195	89- 9	80.0	85.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3196	89- 9	85.0	90.0	0.0	0.0	0.0	1.0	0.0	0.0	3.5	0.0	0.3	1.3	0.0	0.0	0.0
3197	89- 9	90.0	95.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.4	0.0	0.0	0.0
3198	89- 9	95.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11116	89-23	22.0	25.0	0.0	0.2	0.0	0.0	0.1	0.0	1.1	0.0	0.1	0.4	0.7	0.0	0.0
11117	89-23	25.0	30.0	0.3	0.4	0.1	0.1	0.3	0.3	1.4	0.0	0.3	0.4	0.4	0.0	0.0
11118	89-23	30.0	35.0	0.0	0.1	0.0	0.0	0.1	0.0	0.5	0.0	0.2	0.2	0.3	0.0	0.0
11119	89-23	35.0	40.0	0.0	0.1	0.1	0.0	0.1	0.3	0.7	0.0	0.1	0.3	0.4	0.0	0.0

Page No. 4
04/30/90

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
FINE FRACTION (-40 MESH) - INTEGRATED WITH GARNET

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GAR>CAL (%)	GAR=CAL (%)	GAR<CAL (%)	GAR>GAR (%)	CAL>GAR (%)	CAL=GAR (%)	GARNET (%)	EPIDOTE (%)	ACTIN. (%)	QUARTZ (%)	DIOP. (%)	APATITE (%)	OPAQUE (%)
11120	89-23	40.0	45.0	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.3	0.2	0.0	0.0	0.0
11121	89-23	45.0	50.0	0.2	0.1	0.0	0.1	0.1	0.0	1.1	0.0	0.3	0.2	0.4	0.0	0.0
11122	89-23	50.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.1	0.3	0.8	0.0	0.0
11123	89-23	55.0	60.0	0.1	0.3	0.0	0.0	0.3	0.0	1.2	0.0	0.4	0.3	0.5	0.0	0.0
11124	89-23	60.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.4	0.1	0.0	0.0
11125	89-23	65.0	70.0	0.1	0.1	0.0	0.0	0.1	0.0	0.3	0.0	0.1	0.1	0.1	0.0	0.0
11126	89-23	70.0	75.0	0.0	0.1	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.1
11127	89-23	75.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.2	1.6	0.0	0.0	0.1
11128	89-23	80.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.3	2.1	0.0	0.0	0.0
11129	89-23	85.0	90.0	0.0	0.0	0.0	0.0	0.1	0.0	1.5	0.3	0.2	0.2	0.8	0.0	0.0
11130	89-23	90.0	95.0	0.3	0.1	0.0	0.1	0.1	0.0	1.3	0.2	0.0	0.2	0.6	0.0	0.1
11131	89-23	95.0	100.0	0.6	0.2	0.0	0.2	0.2	0.1	2.2	0.2	0.1	0.2	0.9	0.0	0.0
11132	89-23	100.0	105.0	0.2	0.0	0.0	0.1	0.0	0.0	1.0	0.1	0.2	0.1	0.5	0.0	0.0
11133	89-23	105.0	110.0	0.3	0.1	0.0	0.1	0.1	0.1	1.8	0.3	0.0	0.2	1.0	0.0	0.0
11134	89-23	110.0	115.0	0.2	0.2	0.0	0.1	0.1	0.0	2.3	0.4	0.0	0.5	1.4	0.0	0.0
11135	89-23	115.0	120.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
11136	89-23	120.0	130.0	0.1	0.0	0.0	0.0	0.0	0.1	2.3	0.0	0.1	0.2	1.4	0.0	0.0

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - TOTAL CONTENT

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
256	89- 3	4.0	9.0	86.7	11.8	0.0	0.2	0.0	1.2	0.0	0.0	0.0
257	89- 3	9.0	14.0	92.8	3.1	0.0	0.3	0.0	1.1	1.5	0.0	1.2
258	89- 3	14.0	19.0	92.7	4.5	0.0	1.4	0.3	0.8	0.3	0.0	0.0
259	89- 3	19.0	24.0	85.8	10.6	0.0	2.1	0.0	1.2	0.3	0.0	0.0
260	89- 3	24.0	29.0	79.7	16.5	0.4	2.1	0.0	0.6	0.7	0.0	0.0
261	89- 3	29.0	34.0	80.1	10.6	6.5	1.2	0.0	0.6	1.0	0.0	0.0
262	89- 3	34.0	39.0	94.0	4.9	0.0	0.5	0.0	0.4	0.0	0.0	0.2
263	89- 3	39.0	44.0	95.7	2.5	0.0	1.0	0.3	0.5	0.0	0.0	0.0
264	89- 3	44.0	49.0	98.2	0.5	0.5	0.0	0.4	0.4	0.0	0.0	0.0
265	89- 3	49.0	54.0	96.9	2.2	0.0	0.0	0.3	0.6	0.0	0.0	0.0
266	89- 3	54.0	59.0	97.3	0.4	0.4	0.0	0.0	1.1	0.8	0.0	0.0
267	89- 3	59.0	64.0	96.6	2.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0
268	89- 3	64.0	69.0	91.7	5.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0
269	89- 3	69.0	74.0	90.5	6.6	2.5	0.0	0.0	0.4	0.0	0.0	0.0
270	89- 3	74.0	79.0	89.9	8.9	0.9	0.3	0.3	0.6	0.0	0.0	0.0
271	89- 3	79.0	84.0	91.4	5.0	2.2	0.0	0.6	0.8	0.0	0.0	0.0
272	89- 3	84.0	89.0	92.8	3.7	2.9	0.0	0.2	0.4	0.0	0.0	0.0
273	89- 3	89.0	94.0	91.2	6.6	0.6	0.7	0.0	0.9	0.0	0.0	0.0
274	89- 3	94.0	99.0	86.4	8.1	1.9	2.2	0.4	0.5	0.5	0.0	0.0
275	89- 3	99.0	103.0	85.1	4.9	0.0	4.6	0.3	3.2	1.9	0.0	0.0
276	89- 3	103.0	108.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
277	89- 3	108.0	112.0	76.1	10.7	0.5	3.5	1.4	2.3	4.8	0.7	0.0
278	89- 3	116.0	120.0	37.1	0.0	0.0	2.6	1.4	1.5	57.4	0.0	0.0
279	89- 4	5.0	10.0	87.5	5.4	0.3	2.1	0.0	1.2	3.2	0.3	0.0
280	89- 4	10.0	15.0	86.8	8.5	0.0	1.1	0.5	0.7	1.9	0.5	0.0
281	89- 4	15.0	20.0	80.6	11.6	0.0	3.1	0.4	0.7	3.3	0.0	0.3
282	89- 4	20.0	25.0	89.7	6.6	0.0	1.4	0.0	0.2	1.7	0.4	0.0
283	89- 4	25.0	30.0	87.9	7.6	1.3	1.7	0.0	0.6	0.9	0.0	0.0
284	89- 4	30.0	35.0	82.9	13.6	2.4	0.8	0.0	0.3	0.0	0.0	0.0
285	89- 4	35.0	40.0	83.3	15.2	1.3	0.2	0.0	0.0	0.0	0.0	0.0
286	89- 4	40.0	45.0	92.6	5.8	0.0	0.6	0.9	0.0	0.0	0.0	0.0
287	89- 4	45.0	50.0	93.8	4.9	0.3	0.9	0.0	0.0	0.0	0.0	0.0
288	89- 4	50.0	55.0	92.6	5.9	0.6	0.9	0.0	0.0	0.0	0.0	0.0
289	89- 4	55.0	60.0	92.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	89- 4	60.0	65.0	85.4	11.6	1.2	0.3	0.0	0.0	1.5	0.0	0.0
291	89- 4	65.0	70.0	88.4	7.6	1.7	1.7	0.6	0.0	0.0	0.0	0.0
292	89- 4	70.0	75.0	94.7	0.9	0.0	3.5	0.9	0.0	0.0	0.0	0.0
293	89- 4	75.0	80.0	95.7	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
294	89- 4	80.0	85.0	92.7	6.7	0.0	0.6	0.0	0.0	0.0	0.0	0.0
295	89- 4	85.0	90.0	96.9	2.8	0.0	0.3	0.0	0.0	0.0	0.0	0.0
296	89- 4	90.0	95.0	97.2	1.3	0.0	0.9	0.3	0.0	0.3	0.0	0.0
297	89- 4	95.0	100.0	95.9	3.8	0.0	0.3	0.0	0.0	0.0	0.0	0.0
298	89-22	5.0	10.0	20.2	69.6	0.0	1.9	3.8	4.5	0.0	0.0	0.0
299	89-22	10.0	15.0	53.7	11.6	0.0	11.0	1.2	10.1	12.2	0.0	0.0
300	89-22	15.0	20.0	72.6	8.5	0.0	9.8	0.0	5.5	3.7	0.0	0.0
351	89-22	20.0	25.0	79.5	8.2	0.3	4.4	0.6	2.6	4.4	0.0	0.0
352	89-22	25.0	30.0	91.7	2.8	0.0	1.5	1.2	1.8	0.9	0.0	0.0
353	89-22	30.0	35.0	92.0	5.3	0.0	1.7	0.0	0.8	0.3	0.0	0.0
354	89-22	35.0	40.0	87.0	6.2	0.0	3.2	0.3	1.5	1.8	0.0	0.0

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - TOTAL CONTENT

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
355	89-22	40.0	45.0	82.9	8.2	0.0	4.4	0.6	2.1	1.8	0.0	0.0
356	89-22	45.0	50.0	81.4	3.8	0.3	7.4	2.4	0.3	4.4	0.0	0.0
357	89-22	50.0	55.0	84.3	5.6	0.0	5.9	0.9	0.6	2.7	0.0	0.0
358	89-22	55.0	60.0	82.5	1.6	0.0	6.6	1.3	1.6	6.6	0.0	0.0
359	89-22	60.0	65.0	93.4	2.5	0.0	1.9	1.3	0.0	0.9	0.0	0.0
360	89-22	65.0	70.0	96.0	1.8	0.0	0.3	0.6	0.0	1.2	0.0	0.0
361	89-22	70.0	75.0	86.6	3.9	0.0	1.7	2.2	2.2	3.4	0.0	0.0
362	89-22	75.0	80.0	91.0	0.3	0.0	4.3	2.6	0.9	0.9	0.0	0.0
363	89-22	80.0	85.0	72.8	4.6	0.0	16.1	0.9	2.3	3.2	0.0	0.0
364	89-22	85.0	90.0	96.3	0.0	0.0	0.3	1.9	1.6	0.0	0.0	0.0
365	89-22	90.0	95.0	96.1	1.9	0.0	0.0	0.3	1.3	0.3	0.0	0.0
366	89-22	95.0	100.0	77.1	0.4	0.2	2.7	0.2	14.2	5.2	0.0	0.0
367	89-22	100.0	105.0	84.4	6.5	2.2	1.8	0.2	1.6	3.1	0.2	0.0
368	89-22	105.0	110.0	94.2	0.2	0.0	2.1	0.5	0.9	2.1	0.0	0.0
369	89-22	110.0	115.0	92.2	2.1	0.0	2.5	1.1	0.7	1.4	0.0	0.0
370	89-22	115.0	120.0	89.5	3.5	0.0	2.0	0.6	1.3	3.1	0.0	0.0
371	89-22	120.0	125.0	88.6	6.9	0.0	1.1	0.7	0.9	1.4	0.2	0.2
372	89-22	125.0	130.0	86.5	7.4	0.0	2.9	0.6	0.9	1.6	0.1	0.0
373	89-22	130.0	135.0	82.7	9.9	0.0	4.2	0.1	0.8	2.0	0.3	0.0
374	89-22	135.0	140.0	81.6	16.4	0.0	1.1	0.0	0.0	0.9	0.0	0.0
375	89-22	140.0	148.0	79.4	13.4	0.0	4.4	1.1	0.4	1.0	0.2	0.1
376	89-22	148.0	150.0	77.3	19.8	0.0	1.1	0.2	0.3	1.3	0.0	0.0
377	89-22	150.0	155.0	61.0	38.3	0.0	0.6	0.0	0.0	0.1	0.0	0.0
378	89-22	155.0	160.0	88.3	9.6	0.0	1.7	0.0	0.2	0.2	0.0	0.0
379	89-22	160.0	165.0	79.1	14.3	0.0	4.3	0.5	0.4	1.4	0.0	0.0
380	89-22	165.0	170.0	81.5	12.9	0.0	3.9	0.2	0.4	1.0	0.1	0.0
381	89-22	170.0	175.0	71.5	26.2	0.0	1.8	0.0	0.2	0.2	0.1	0.0
382	89-22	175.0	180.0	80.1	17.1	0.0	1.9	0.1	0.0	0.8	0.0	0.0
383	89-22	180.0	185.0	76.5	18.1	0.0	1.6	0.8	0.6	2.4	0.0	0.0
384	89-22	185.0	190.0	82.7	16.0	0.0	0.8	0.1	0.2	0.2	0.0	0.0
385	89-22	190.0	195.0	77.9	18.5	0.0	1.6	0.3	0.7	0.9	0.1	0.0
386	89-22	195.0	200.0	87.8	9.6	0.0	1.4	0.1	0.1	1.0	0.0	0.0
387	89-22	200.0	205.0	91.3	3.3	0.0	1.7	0.3	0.3	3.1	0.0	0.0
388	89-22	205.0	210.0	85.4	6.9	0.4	2.0	0.0	0.3	4.9	0.1	0.0
389	89-22	210.0	215.0	74.9	14.5	0.1	5.7	0.5	1.9	2.4	0.0	0.0
390	89-22	215.0	220.0	88.2	8.0	0.0	0.9	0.1	0.1	2.7	0.0	0.0
391	89-22	220.0	225.0	95.6	1.5	0.0	1.1	0.0	0.9	0.9	0.0	0.0
392	89-22	225.0	230.0	94.1	3.2	0.0	0.7	0.1	0.9	1.0	0.0	0.0
393	89-22	230.0	235.0	90.4	6.1	0.0	1.8	0.0	1.1	0.6	0.0	0.0
394	89-22	235.0	240.0	87.7	7.2	0.0	2.2	0.0	0.4	2.5	0.0	0.0
395	89-22	240.0	245.0	87.9	8.4	0.0	1.0	0.1	0.0	2.6	0.0	0.0
396	89-22	245.0	250.0	89.4	4.2	0.0	5.0	0.0	0.0	1.4	0.0	0.0
397	89-22	250.0	255.0	87.9	3.2	0.0	4.3	2.0	0.9	1.7	0.0	0.0
398	89-22	255.0	260.0	92.4	4.1	0.0	1.8	0.6	0.0	1.2	0.0	0.0
399	89-22	260.0	265.0	96.1	3.4	0.0	0.0	0.0	0.5	0.0	0.0	0.0
400	89-22	265.0	270.0	93.7	1.9	0.6	2.2	0.6	0.8	0.3	0.0	0.0
3153	89-22	270.0	275.0	83.9	8.2	1.2	3.0	0.0	2.7	0.9	0.0	0.0
3154	89-22	275.0	280.0	85.2	8.5	0.6	2.2	0.3	2.8	0.3	0.0	0.0
3155	89-22	280.0	285.0	88.1	8.4	0.0	1.3	1.3	0.9	0.0	0.0	0.0

WEST ZONE - MT. BIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - TOTAL CONTENT

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
3156	89-22	285.0	290.0	76.8	11.8	0.0	5.1	0.8	5.5	0.0	0.0	0.0
3157	89-22	290.0	295.0	89.7	6.3	0.0	2.8	0.0	0.9	0.3	0.0	0.0
3158	89-22	295.0	300.0	95.2	4.2	0.0	0.6	0.0	0.0	0.0	0.0	0.0
3159	89-22	300.0	305.0	94.1	3.6	0.0	2.1	0.0	0.0	0.3	0.0	0.0
3199	89-22	305.0	310.0	82.7	14.5	0.2	1.6	0.1	0.2	0.7	0.0	0.0
3200	89-22	310.0	315.0	87.9	9.3	0.0	0.6	0.0	0.3	1.9	0.0	0.0
11115	89-22	315.0	319.0	89.6	2.3	0.0	5.8	0.7	3.5	1.1	0.0	0.0
3160	89- 8	2.5	5.0	95.9	3.3	0.0	0.3	0.0	0.3	0.3	0.0	0.0
3161	89- 8	5.0	10.0	96.3	0.5	0.0	0.3	0.0	2.9	0.0	0.0	0.0
3162	89- 8	10.0	15.0	93.8	2.1	0.0	0.0	0.0	3.8	0.3	0.0	0.0
3163	89- 8	15.0	20.0	95.0	4.1	0.0	0.3	0.0	0.6	0.0	0.0	0.0
3164	89- 8	20.0	25.0	95.3	1.5	0.0	0.0	0.3	2.3	0.6	0.0	0.0
3165	89- 8	25.0	30.0	97.9	1.5	0.0	0.0	0.0	0.6	0.0	0.0	0.0
3166	89- 8	30.0	35.0	98.6	0.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0
3167	89- 8	35.0	40.0	97.0	0.3	0.0	0.0	1.4	1.4	0.0	0.0	0.0
3168	89- 8	40.0	45.0	97.6	0.6	0.0	0.0	0.0	1.8	0.0	0.0	0.0
3169	89- 8	45.0	50.0	97.8	1.2	0.0	0.0	0.0	0.3	0.6	0.0	0.0
3170	89- 8	50.0	55.0	89.8	8.6	0.0	0.0	0.3	0.0	1.2	0.0	0.0
3171	89- 8	55.0	60.0	93.8	4.7	0.0	0.6	0.0	0.6	0.3	0.0	0.0
3172	89- 8	60.0	65.0	95.5	1.8	0.0	0.0	0.3	1.6	0.8	0.0	0.0
3173	89- 8	65.0	70.0	87.5	5.8	0.3	1.2	2.3	0.9	2.0	0.0	0.0
3174	89- 8	70.0	75.0	77.9	17.8	0.0	0.9	0.6	0.3	2.5	0.0	0.0
3175	89- 8	75.0	80.0	40.6	57.5	0.6	0.0	0.0	0.3	1.0	0.0	0.0
3178	89- 8	90.0	95.0	53.8	21.8	13.3	6.0	0.6	1.9	2.5	0.0	0.0
3179	89- 8	95.0	100.0	63.9	23.9	7.2	1.0	2.0	0.7	1.3	0.0	0.0
3180	89- 9	2.0	10.0	54.5	15.2	3.8	6.7	1.5	11.4	6.7	0.0	0.0
3181	89- 9	10.0	15.0	64.0	12.9	0.0	1.6	4.1	5.5	11.8	0.0	0.0
3182	89- 9	15.0	20.0	62.8	8.5	3.5	8.5	2.5	8.8	5.4	0.0	0.0
3183	89- 9	20.0	25.0	61.0	7.1	0.3	12.5	1.1	9.7	8.3	0.0	0.0
3184	89- 9	25.0	30.0	60.9	11.9	0.6	9.1	2.2	9.4	5.9	0.0	0.0
3185	89- 9	30.0	35.0	51.6	25.8	0.8	3.0	3.8	6.3	8.5	0.0	0.0
3186	89- 9	35.0	40.0	63.8	15.6	0.0	6.9	1.8	5.1	6.9	0.0	0.0
3187	89- 9	40.0	45.0	69.8	9.2	0.0	3.6	2.0	10.5	4.9	0.0	0.0
3188	89- 9	45.0	50.0	69.1	21.7	0.6	1.9	0.0	5.4	1.3	0.0	0.0
3189	89- 9	50.0	55.0	86.8	5.3	0.6	0.6	0.0	6.8	0.0	0.0	0.0
3190	89- 9	55.0	60.0	70.9	16.7	0.6	2.1	0.3	9.1	0.3	0.0	0.0
3191	89- 9	60.0	65.0	79.7	10.3	0.0	3.3	0.3	5.0	1.4	0.0	0.0
3192	89- 9	65.0	70.0	88.6	7.4	0.3	1.4	0.0	0.9	1.4	0.0	0.0
3193	89- 9	70.0	75.0	89.4	3.2	0.0	5.9	0.3	0.6	0.6	0.0	0.0
3194	89- 9	75.0	80.0	94.4	2.1	0.0	2.1	0.3	0.9	0.3	0.0	0.0
3195	89- 9	80.0	85.0	88.6	3.6	0.6	3.0	0.3	3.6	0.3	0.0	0.0
3196	89- 9	85.0	90.0	76.5	13.6	0.6	2.8	1.2	5.0	0.3	0.0	0.0
3197	89- 9	90.0	95.0	84.5	8.5	0.0	2.4	0.9	2.7	0.9	0.0	0.0
3198	89- 9	95.0	100.0	88.1	6.6	0.3	1.3	0.3	3.1	0.3	0.0	0.0
11116	89-23	22.0	25.0	64.4	23.4	0.0	6.7	0.8	2.3	2.4	0.0	0.0
11117	89-23	25.0	30.0	57.1	13.2	0.0	15.0	1.8	5.2	7.7	0.0	0.0
11118	89-23	30.0	35.0	66.4	10.3	0.0	11.8	0.9	6.0	10.6	0.0	0.0
11119	89-23	35.0	40.0	74.2	8.9	0.0	5.2	0.3	1.6	9.8	0.0	0.0
11120	89-23	40.0	45.0	71.1	17.3	0.0	5.6	0.2	2.3	3.5	0.0	0.0

Page No. 4
04/30/90

WEST ZONE - MT. RIOERAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - TOTAL CONTENT

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
11121	89-23	45.0	50.0	65.2	19.9	0.0	5.9	0.4	4.2	4.2	0.2	0.0
11122	89-23	50.0	55.0	72.1	15.7	0.5	2.7	0.0	3.9	5.1	0.0	0.0
11123	89-23	55.0	60.0	73.5	9.6	0.0	2.3	1.2	1.8	11.6	0.0	0.0
11124	89-23	60.0	65.0	75.0	12.3	0.0	3.2	0.7	3.6	5.2	0.0	0.0
11125	89-23	65.0	70.0	92.7	0.5	0.0	1.8	0.0	2.0	3.0	0.0	0.0
11126	89-23	70.0	75.0	90.2	0.3	0.0	0.0	1.2	6.2	2.1	0.0	0.0
11127	89-23	75.0	80.0	88.4	0.0	0.0	0.4	2.0	8.0	1.2	0.0	0.0
11128	89-23	80.0	85.0	81.3	0.2	0.0	0.5	2.1	12.3	3.6	0.0	0.0
11129	89-23	85.0	90.0	74.0	6.6	12.9	5.2	0.0	0.3	1.0	0.0	0.0
11130	89-23	90.0	95.0	66.2	2.5	13.0	9.3	1.5	2.0	5.5	0.0	0.0
11131	89-23	95.0	100.0	85.3	10.9	0.0	2.4	0.0	1.2	1.0	0.2	0.0
11132	89-23	100.0	105.0	85.3	10.4	0.0	2.5	0.0	0.7	1.1	0.0	0.0
11133	89-23	105.0	110.0	80.4	11.3	3.9	2.8	0.0	1.2	0.2	0.0	0.0
11134	89-23	110.0	115.0	71.6	16.3	4.1	5.1	0.3	1.6	1.0	0.0	0.0
11135	89-23	115.0	120.0	76.3	16.3	0.9	2.5	0.3	1.0	2.7	0.0	0.0
11136	89-23	120.0	130.0	83.2	8.2	4.6	0.7	0.0	0.7	2.6	0.0	0.0

Page No. 1
04/30/90

WEST ZONE - MT. RIOERAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - LIBERATED BY CRUSHING

SAMPLE	DRILL	FROM	TO	GARNET	DIOPSIDE	EPIDOTE	CALCITE	OPAQUE	QUARTZ	ACTINOLITE	APATITE	OTHER
#	HOLE	(ft)	(ft)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
256	89- 3	4.0	9.0	81.2	8.7	0.0	0.2	0.0	0.2	0.0	0.0	0.0
257	89- 3	9.0	14.0	84.7	1.1	0.0	0.0	0.0	0.0	0.6	0.0	0.6
258	89- 3	14.0	19.0	83.0	0.3	0.0	1.0	0.1	0.0	0.3	0.0	0.0
259	89- 3	19.0	24.0	70.7	4.7	0.0	0.6	0.0	0.0	0.0	0.0	0.0
260	89- 3	24.0	29.0	55.1	5.9	0.4	0.7	0.0	0.0	0.2	0.0	0.0
261	89- 3	29.0	34.0	69.7	7.2	5.8	0.7	0.0	0.3	0.3	0.0	0.3
262	89- 3	34.0	39.0	85.3	1.4	0.0	0.2	0.0	0.2	0.0	0.0	0.2
263	89- 3	39.0	44.0	88.1	0.5	0.0	0.3	0.3	0.0	0.0	0.0	0.0
264	89- 3	44.0	49.0	95.9	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
265	89- 3	49.0	54.0	94.0	1.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0
266	89- 3	54.0	59.0	94.1	0.4	0.4	0.0	0.0	0.4	0.4	0.0	0.0
267	89- 3	59.0	64.0	94.9	1.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0
268	89- 3	64.0	69.0	84.8	1.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0
269	89- 3	69.0	74.0	85.8	4.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0
270	89- 3	74.0	79.0	79.8	4.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0
271	89- 3	79.0	84.0	82.9	2.5	1.4	0.0	0.3	0.3	0.0	0.0	0.0
272	89- 3	84.0	89.0	87.9	1.4	2.5	0.0	0.0	0.2	0.0	0.0	0.0
273	89- 3	89.0	94.0	82.4	2.9	0.4	0.2	0.0	0.2	0.0	0.0	0.0
274	89- 3	94.0	99.0	76.8	4.1	1.6	1.6	0.4	0.0	0.5	0.0	0.0
275	89- 3	99.0	103.0	77.5	3.5	0.0	3.8	0.0	0.8	1.1	0.0	0.0
276	89- 3	103.0	108.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
277	89- 3	108.0	112.0	62.7	5.7	0.5	2.4	1.2	0.9	3.1	0.2	0.0
278	89- 3	116.0	120.0	28.1	0.0	0.0	1.0	1.4	1.0	52.9	0.0	0.0
279	89- 4	5.0	10.0	75.2	2.7	0.3	0.8	0.0	0.1	2.1	0.0	0.0
280	89- 4	10.0	15.0	72.0	4.6	0.0	0.2	0.5	0.0	0.7	0.0	0.0
281	89- 4	15.0	20.0	63.9	5.3	0.0	1.5	0.3	0.0	0.9	0.0	0.0
282	89- 4	20.0	25.0	82.8	3.6	0.0	0.4	0.0	0.0	1.5	0.0	0.0
283	89- 4	25.0	30.0	80.9	3.2	1.1	0.7	0.0	0.2	0.2	0.0	0.0
284	89- 4	30.0	35.0	66.8	5.3	0.9	0.6	0.0	0.1	0.0	0.0	0.0
285	89- 4	35.0	40.0	70.7	6.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0
286	89- 4	40.0	45.0	85.0	3.1	0.0	0.6	0.9	0.0	0.0	0.0	0.0
287	89- 4	45.0	50.0	89.8	3.4	0.3	0.3	0.0	0.0	0.0	0.0	0.0
288	89- 4	50.0	55.0	87.9	3.5	0.6	0.9	0.0	0.0	0.0	0.0	0.0
289	89- 4	55.0	60.0	81.7	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	89- 4	60.0	65.0	79.2	8.0	1.2	0.3	0.0	0.0	1.5	0.0	0.0
291	89- 4	65.0	70.0	84.9	6.4	1.7	0.9	0.6	0.0	0.0	0.0	0.0
292	89- 4	70.0	75.0	94.7	0.9	0.0	2.9	0.9	0.0	0.0	0.0	0.0
293	89- 4	75.0	80.0	92.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
294	89- 4	80.0	85.0	82.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	89- 4	85.0	90.0	92.8	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0
296	89- 4	90.0	95.0	94.1	0.0	0.0	0.9	0.3	0.0	0.3	0.0	0.0
297	89- 4	95.0	100.0	91.8	1.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0
298	89-22	5.0	10.0	18.3	68.3	0.0	1.9	3.8	3.2	0.0	0.0	0.0
299	89-22	10.0	15.0	50.7	9.9	0.0	8.4	1.2	10.1	12.2	0.0	0.0
300	89-22	15.0	20.0	60.4	5.5	0.0	9.8	0.0	0.9	3.7	0.0	0.0
351	89-22	20.0	25.0	72.5	5.3	0.3	4.4	0.6	2.3	4.4	0.0	0.0
352	89-22	25.0	30.0	85.3	1.2	0.0	1.5	1.2	0.0	0.9	0.0	0.0
353	89-22	30.0	35.0	89.5	4.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0
354	89-22	35.0	40.0	85.0	5.3	0.0	3.2	0.3	0.6	1.8	0.0	0.0

Page No. 2
04/30/90

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - LIBERATED BY CRUSHING

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
355	89-22	40.0	45.0	77.6	6.8	0.0	0.9	0.6	0.6	1.8	0.0	0.0
356	89-22	45.0	50.0	78.5	2.9	0.3	5.9	2.4	0.3	4.4	0.0	0.0
357	89-22	50.0	55.0	81.4	4.4	0.0	4.4	0.9	0.3	2.7	0.0	0.0
358	89-22	55.0	60.0	78.4	0.3	0.0	4.7	1.3	0.6	6.6	0.0	0.0
359	89-22	60.0	65.0	91.9	1.6	0.0	0.0	1.3	0.0	0.9	0.0	0.0
360	89-22	65.0	70.0	94.8	1.2	0.0	0.3	0.6	0.0	1.2	0.0	0.0
361	89-22	70.0	75.0	82.4	1.7	0.0	1.7	2.2	2.2	3.4	0.0	0.0
362	89-22	75.0	80.0	89.0	0.0	0.0	3.2	2.6	0.3	0.9	0.0	0.0
363	89-22	80.0	85.0	72.8	4.6	0.0	16.1	0.9	2.3	3.2	0.0	0.0
364	89-22	85.0	90.0	96.3	0.0	0.0	0.3	1.9	1.6	0.0	0.0	0.0
365	89-22	90.0	95.0	93.5	1.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0
366	89-22	95.0	100.0	51.5	0.1	0.0	1.7	0.0	1.0	3.2	0.0	0.0
367	89-22	100.0	105.0	71.6	4.5	0.0	0.9	0.1	0.5	1.7	0.0	0.0
368	89-22	105.0	110.0	85.9	0.1	0.0	1.1	0.3	0.1	0.9	0.0	0.0
369	89-22	110.0	115.0	81.5	0.4	0.0	1.4	0.9	0.2	0.9	0.0	0.0
370	89-22	115.0	120.0	79.0	1.2	0.0	1.1	0.6	0.5	2.2	0.0	0.0
371	89-22	120.0	125.0	80.9	2.5	0.0	0.9	0.7	0.3	1.3	0.0	0.2
372	89-22	125.0	130.0	78.5	3.7	0.0	2.3	0.6	0.1	0.8	0.0	0.0
373	89-22	130.0	135.0	64.8	2.9	0.0	3.8	0.0	0.1	0.4	0.1	0.0
374	89-22	135.0	140.0	69.1	9.3	0.0	0.6	0.0	0.0	0.6	0.0	0.0
375	89-22	140.0	148.0	69.9	7.5	0.0	3.5	1.1	0.2	0.7	0.2	0.1
376	89-22	148.0	150.0	65.0	11.5	0.0	0.5	0.1	0.1	0.9	0.0	0.0
377	89-22	150.0	155.0	46.2	25.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0
378	89-22	155.0	160.0	81.2	6.1	0.0	1.2	0.0	0.0	0.2	0.0	0.0
379	89-22	160.0	165.0	68.8	8.2	0.0	3.5	0.5	0.3	1.1	0.0	0.0
380	89-22	165.0	170.0	62.3	4.6	0.0	1.8	0.1	0.1	0.7	0.0	0.0
381	89-22	170.0	175.0	55.3	13.6	0.0	1.0	0.0	0.1	0.2	0.0	0.0
382	89-22	175.0	180.0	58.5	10.9	0.0	1.3	0.1	0.0	0.7	0.0	0.0
383	89-22	180.0	185.0	65.9	11.3	0.0	0.9	0.6	0.2	2.0	0.0	0.0
384	89-22	185.0	190.0	72.1	9.5	0.0	0.5	0.1	0.2	0.2	0.0	0.0
385	89-22	190.0	195.0	69.2	15.3	0.0	1.3	0.3	0.3	0.3	0.1	0.0
386	89-22	195.0	200.0	79.7	6.1	0.0	1.1	0.1	0.0	0.8	0.0	0.0
387	89-22	200.0	205.0	82.3	0.9	0.0	1.3	0.3	0.2	0.9	0.0	0.0
388	89-22	205.0	210.0	72.8	2.4	0.0	1.5	0.0	0.0	3.0	0.0	0.0
389	89-22	210.0	215.0	57.3	3.0	0.0	4.4	0.5	1.8	1.6	0.0	0.0
390	89-22	215.0	220.0	80.9	5.5	0.0	0.4	0.0	0.1	2.0	0.0	0.0
391	89-22	220.0	225.0	89.7	0.7	0.0	0.6	0.0	0.7	0.2	0.0	0.0
392	89-22	225.0	230.0	87.3	1.7	0.0	0.1	0.1	0.4	0.3	0.0	0.0
393	89-22	230.0	235.0	71.2	1.0	0.0	0.6	0.0	0.4	0.6	0.0	0.0
394	89-22	235.0	240.0	78.7	4.9	0.0	1.7	0.0	0.2	1.1	0.0	0.0
395	89-22	240.0	245.0	82.4	5.7	0.0	0.3	0.1	0.0	2.3	0.0	0.0
396	89-22	245.0	250.0	88.6	3.1	0.0	1.7	0.0	0.0	1.4	0.0	0.0
397	89-22	250.0	255.0	84.2	1.4	0.0	2.0	2.0	0.0	1.7	0.0	0.0
398	89-22	255.0	260.0	90.9	3.5	0.0	0.9	0.6	0.0	1.2	0.0	0.0
399	89-22	260.0	265.0	95.6	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
400	89-22	265.0	270.0	90.9	0.8	0.6	1.7	0.6	0.0	0.3	0.0	0.0
3153	89-22	270.0	275.0	73.9	3.6	1.2	0.0	0.0	1.8	0.9	0.0	0.0
3154	89-22	275.0	280.0	70.0	0.3	0.6	2.2	0.3	1.6	0.3	0.0	0.0
3155	89-22	280.0	285.0	79.7	3.8	0.0	1.3	1.3	0.6	0.0	0.0	0.0

WEST ZONE - MT. BIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - LIBERATED BY CRUSHING

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
3156	89-22	285.0	290.0	65.8	10.1	0.0	2.5	0.8	0.4	0.0	0.0	0.0
3157	89-22	290.0	295.0	82.4	2.5	0.0	1.3	0.0	0.3	0.3	0.0	0.0
3158	89-22	295.0	300.0	89.1	1.8	0.0	0.6	0.0	0.0	0.0	0.0	0.0
3159	89-22	300.0	305.0	86.7	0.6	0.0	1.5	0.0	0.0	0.3	0.0	0.0
3199	89-22	305.0	310.0	63.0	4.0	0.0	0.7	0.1	0.0	0.0	0.0	0.0
3200	89-22	310.0	315.0	76.6	4.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0
11115	89-22	315.0	319.0	70.1	0.2	0.0	3.2	0.7	1.2	0.7	0.0	0.0
3160	89- 8	2.5	5.0	92.6	1.9	0.0	0.3	0.0	0.0	0.3	0.0	0.0
3161	89- 8	5.0	10.0	91.8	0.0	0.3	0.0	0.8	0.0	0.0	0.0	0.0
3162	89- 8	10.0	15.0	87.4	0.9	0.0	0.0	0.0	0.9	0.3	0.0	0.0
3163	89- 8	15.0	20.0	92.4	3.2	0.0	0.3	0.0	0.6	0.0	0.0	0.0
3164	89- 8	20.0	25.0	90.9	0.9	0.0	0.0	0.3	0.9	0.6	0.0	0.0
3165	89- 8	25.0	30.0	95.9	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0
3166	89- 8	30.0	35.0	98.6	0.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0
3167	89- 8	35.0	40.0	96.4	0.3	0.0	0.0	1.4	1.1	0.0	0.0	0.0
3168	89- 8	40.0	45.0	95.8	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0
3169	89- 8	45.0	50.0	97.5	0.9	0.0	0.0	0.0	0.3	0.6	0.0	0.0
3170	89- 8	50.0	55.0	85.8	4.3	0.0	0.0	0.3	0.0	1.2	0.0	0.0
3171	89- 8	55.0	60.0	86.9	1.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0
3172	89- 8	60.0	65.0	94.2	1.3	0.0	0.0	0.3	1.6	0.8	0.0	0.0
3173	89- 8	65.0	70.0	83.1	3.2	0.3	1.2	2.3	0.3	2.0	0.0	0.0
3174	89- 8	70.0	75.0	52.1	8.9	0.0	0.0	0.6	0.0	2.5	0.0	0.0
3175	89- 8	75.0	80.0	16.2	16.5	0.6	0.0	0.0	0.0	1.0	0.0	0.0
3178	89- 8	90.0	95.0	37.3	15.5	11.7	5.1	0.6	1.9	2.5	0.0	0.0
3179	89- 8	95.0	100.0	52.5	18.0	6.6	1.0	2.0	0.7	1.3	0.0	0.0
3180	89- 9	2.0	10.0	39.9	12.3	3.5	5.6	1.5	9.7	6.7	0.0	0.0
3181	89- 9	10.0	15.0	50.3	9.9	0.0	1.6	4.1	4.9	10.7	0.0	0.0
3182	89- 9	15.0	20.0	48.3	3.8	2.2	5.4	2.5	4.7	5.4	0.0	0.0
3183	89- 9	20.0	25.0	49.6	4.3	0.3	9.1	1.1	4.8	8.3	0.0	0.0
3184	89- 9	25.0	30.0	49.7	7.2	0.6	9.1	2.2	4.7	5.9	0.0	0.0
3185	89- 9	30.0	35.0	43.7	20.3	0.8	3.0	3.8	5.8	8.5	0.0	0.0
3186	89- 9	35.0	40.0	52.7	8.4	0.0	1.2	1.8	2.7	6.9	0.0	0.0
3187	89- 9	40.0	45.0	61.6	6.6	0.0	3.6	2.0	8.5	4.9	0.0	0.0
3188	89- 9	45.0	50.0	56.4	15.3	0.6	1.9	0.0	4.1	1.3	0.0	0.0
3189	89- 9	50.0	55.0	82.9	4.4	0.6	0.3	0.0	5.0	0.0	0.0	0.0
3190	89- 9	55.0	60.0	61.5	13.9	0.6	0.6	0.3	4.5	0.3	0.0	0.0
3191	89- 9	60.0	65.0	68.9	6.1	0.0	3.3	0.3	0.8	1.4	0.0	0.0
3192	89- 9	65.0	70.0	82.4	5.4	0.3	0.9	0.0	0.0	1.4	0.0	0.0
3193	89- 9	70.0	75.0	86.2	2.3	0.0	0.3	0.3	0.6	0.6	0.0	0.0
3194	89- 9	75.0	80.0	93.2	1.5	0.0	2.1	0.3	0.6	0.3	0.0	0.0
3195	89- 9	80.0	85.0	87.3	3.0	0.6	3.0	0.3	2.8	0.3	0.0	0.0
3196	89- 9	85.0	90.0	66.6	9.0	0.6	0.9	1.2	0.9	0.3	0.0	0.0
3197	89- 9	90.0	95.0	78.1	6.4	0.0	1.8	0.9	0.0	0.9	0.0	0.0
3198	89- 9	95.0	100.0	83.7	5.3	0.0	0.9	0.3	1.9	0.3	0.0	0.0
11116	89-23	22.0	25.0	40.1	14.0	0.0	4.3	0.4	0.2	2.0	0.0	0.0
11117	89-23	25.0	30.0	36.6	7.4	0.0	13.6	1.6	3.1	5.6	0.0	0.0
11118	89-23	30.0	35.0	51.6	8.0	0.0	9.8	0.3	4.2	7.0	0.0	0.0
11119	89-23	35.0	40.0	56.7	3.5	0.0	2.2	0.3	0.8	7.9	0.0	0.0
11120	89-23	40.0	45.0	49.9	7.8	0.0	2.8	0.2	0.9	1.6	0.0	0.0

WEST ZONE - MT. RIOBAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - LIBERATED BY CRUSHING

SAMPLE #	DRILL HOLE	FROM (ft)	TO (ft)	GARNET (%)	DIOPSIDE (%)	EPIDOTE (%)	CALCITE (%)	OPAQUE (%)	QUARTZ (%)	ACTINOLITE (%)	APATITE (%)	OTHER (%)
11121	89-23	45.0	50.0	44.8	9.7	0.0	4.5	0.3	3.0	3.1	0.1	0.0
11122	89-23	50.0	55.0	57.9	9.7	0.5	1.6	0.0	1.4	3.5	0.0	0.0
11123	89-23	55.0	60.0	57.5	7.0	0.0	1.5	1.2	0.3	9.6	0.0	0.0
11124	89-23	60.0	65.0	53.4	6.5	0.0	2.2	0.7	0.2	2.6	0.0	0.0
11125	89-23	65.0	70.0	88.0	0.5	0.0	1.0	0.0	0.5	1.0	0.0	0.0
11126	89-23	70.0	75.0	85.5	0.3	0.0	0.0	0.6	4.1	0.9	0.0	0.0
11127	89-23	75.0	80.0	84.9	0.0	0.0	0.4	0.8	6.5	0.8	0.0	0.0
11128	89-23	80.0	85.0	72.3	0.2	0.0	0.5	1.4	8.2	2.9	0.0	0.0
11129	89-23	85.0	90.0	64.6	4.3	10.2	2.7	0.0	0.3	0.7	0.0	0.0
11130	89-23	90.0	95.0	56.9	1.5	11.5	8.0	0.5	2.0	3.0	0.0	0.0
11131	89-23	95.0	100.0	70.9	4.5	0.0	1.4	0.0	0.5	0.0	0.0	0.0
11132	89-23	100.0	105.0	69.9	4.9	0.0	1.9	0.0	0.0	0.2	0.0	0.0
11133	89-23	105.0	110.0	64.6	6.5	3.4	1.9	0.0	0.0	0.0	0.0	0.0
11134	89-23	110.0	115.0	56.3	11.2	3.1	2.0	0.3	0.3	0.7	0.0	0.0
11135	89-23	115.0	120.0	59.1	8.7	0.7	1.6	0.3	0.5	1.5	0.0	0.0
11136	89-23	120.0	130.0	73.5	4.3	3.2	0.7	0.0	0.0	0.4	0.0	0.0

Page No. 1
04/30/90

WEST ZONE - MT. BIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - INTERGROWN WITH GARNET

SAMPLE	DRILL	FROM	TO	GAR>CAL	GAR=CAL	GAR<CAL	CAL>GAB	CAL=GAB	CAL<GAB	GARNET	EPIDOTE	ACTIN.	QUARTZ	DIOP.	APATITE	OPAQUE
#	HOLE	(ft)	(ft)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
256	89- 3	4.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	1.0	3.1	0.0	0.0
257	89- 3	9.0	14.0	0.5	0.4	0.0	0.1	0.2	0.0	7.2	0.0	0.9	1.1	2.0	0.0	0.6
258	89- 3	14.0	19.0	1.1	0.3	0.0	0.2	0.2	0.0	8.3	0.0	0.0	0.8	4.2	0.0	0.2
259	89- 3	19.0	24.0	0.8	0.6	0.3	0.2	0.6	0.7	13.4	0.0	0.3	1.2	5.9	0.0	0.0
260	89- 3	24.0	29.0	0.7	1.0	0.1	0.2	1.1	0.1	22.8	0.0	0.5	0.6	10.6	0.0	0.0
261	89- 3	29.0	34.0	1.4	0.0	0.1	0.3	0.0	0.2	8.9	0.7	0.7	0.3	3.4	0.0	0.0
262	89- 3	34.0	39.0	0.3	0.2	0.0	0.1	0.2	0.0	8.2	0.0	0.0	0.2	3.5	0.0	0.0
263	89- 3	39.0	44.0	1.1	0.4	0.0	0.3	0.4	0.0	6.1	0.0	0.0	0.5	2.0	0.0	0.0
264	89- 3	44.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.3	0.1	0.0	0.0
265	89- 3	49.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.6	0.6	0.0	0.0
266	89- 3	54.0	59.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.4	0.7	0.0	0.0	0.0
267	89- 3	59.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.4	1.3	0.0	0.0
268	89- 3	64.0	69.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.3	0.0	0.0	3.9	0.0	0.0
269	89- 3	69.0	74.0	0.2	0.0	0.0	0.2	0.0	0.0	4.5	0.0	0.0	0.4	2.5	0.0	0.0
270	89- 3	74.0	79.0	0.7	0.2	0.0	0.2	0.1	0.0	9.2	0.0	0.0	0.6	4.3	0.0	0.3
271	89- 3	79.0	84.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.8	0.0	0.5	2.5	0.0	0.3
272	89- 3	84.0	89.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.4	0.0	0.2	2.3	0.0	0.2
273	89- 3	89.0	94.0	0.2	0.3	0.0	0.1	0.3	0.1	8.3	0.2	0.0	0.7	3.7	0.0	0.0
274	89- 3	94.0	99.0	1.5	0.3	0.0	0.4	0.2	0.0	7.8	0.3	0.0	0.5	4.0	0.0	0.0
275	89- 3	99.0	103.0	1.8	0.4	0.0	0.4	0.4	0.0	5.4	0.0	0.8	2.4	1.4	0.0	0.3
276	89- 3	103.0	108.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
277	89- 3	108.0	112.0	1.3	0.7	0.0	0.4	0.5	0.2	11.4	0.0	1.7	1.4	5.0	0.5	0.2
278	89- 3	116.0	120.0	2.0	1.2	0.0	0.4	1.2	0.0	5.8	0.0	4.5	0.5	0.0	0.0	0.0
279	89- 4	5.0	10.0	3.0	0.6	0.0	0.8	0.5	0.0	8.7	0.0	1.1	1.1	2.7	0.3	0.0
280	89- 4	10.0	15.0	3.1	0.1	0.0	0.8	0.1	0.0	11.6	0.0	1.2	0.7	3.9	0.5	0.0
281	89- 4	15.0	20.0	1.9	0.9	0.1	0.4	0.9	0.3	13.8	0.0	2.4	0.7	6.3	0.3	0.0
282	89- 4	20.0	25.0	0.9	0.3	0.1	0.2	0.3	0.5	5.6	0.0	0.2	0.2	3.0	0.4	0.0
283	89- 4	25.0	30.0	0.8	0.6	0.1	0.2	0.5	0.3	5.5	0.2	0.7	0.4	4.4	0.0	0.0
284	89- 4	30.0	35.0	0.5	0.2	0.0	0.1	0.1	0.0	15.4	1.5	0.0	0.2	8.3	0.0	0.0
285	89- 4	35.0	40.0	0.6	0.0	0.0	0.2	0.0	0.0	12.0	0.0	0.4	0.0	9.1	0.0	0.0
286	89- 4	40.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	2.8	0.0	0.0	0.0
287	89- 4	45.0	50.0	0.0	0.0	0.0	0.0	0.6	0.0	4.0	0.0	0.0	1.5	0.0	0.0	0.0
288	89- 4	50.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	2.4	0.0	0.0	0.0
289	89- 4	55.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0	0.0	4.4	0.0	0.0	0.0
290	89- 4	60.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	3.6	0.0	0.0
291	89- 4	65.0	70.0	0.0	0.0	0.0	0.3	0.0	0.6	3.5	0.0	0.0	1.2	0.0	0.0	0.0
292	89- 4	70.0	75.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
293	89- 4	75.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	1.5	0.0	0.0	0.0
294	89- 4	80.0	85.0	0.0	0.0	0.0	0.0	0.0	0.6	10.6	0.0	0.0	5.3	0.0	0.0	0.0
295	89- 4	85.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	2.5	0.0	0.0	0.0
296	89- 4	90.0	95.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	1.3	0.0	0.0	0.0
297	89- 4	95.0	100.0	0.0	0.0	0.0	0.0	0.6	0.0	4.1	0.0	0.0	2.5	0.0	0.0	0.0
298	89-22	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.3	1.3	0.0	0.0	0.0
299	89-22	10.0	15.0	0.0	0.0	0.0	0.0	1.2	1.5	3.0	0.0	0.0	1.8	0.0	0.0	0.0
300	89-22	15.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	4.6	3.0	0.0	0.0	0.0
351	89-22	20.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.3	2.9	0.0	0.0	0.0
352	89-22	25.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	1.8	1.5	0.0	0.0	0.0
353	89-22	30.0	35.0	0.0	0.0	0.0	0.8	0.3	0.6	2.5	0.0	0.8	1.1	0.0	0.0	0.0
354	89-22	35.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.9	0.9	0.0	0.0	0.0

WEST ZONE - MT. RIORIAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - INTERGROWN WITH GARNET

SAMPLE DRILL	FROM	TO	GAE>CAL	GAB=CAL	GAB<CAL	CAL>GAB	CAL=GAB	CAL<GAB	GARNET	EPIDOTE	ACTIN.	QUARTZ	DIOP.	APATITE	OPAQUE
#	HOLE	(ft)	(ft)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
355	89-22	40.0	45.0	0.0	0.0	1.5	1.5	0.6	4.7	0.0	1.5	1.5	0.0	0.0	0.0
356	89-22	45.0	50.0	0.0	0.0	0.6	0.9	0.0	2.9	0.0	0.0	0.9	0.0	0.0	0.0
357	89-22	50.0	55.0	0.0	0.0	0.6	0.6	0.3	3.0	0.0	0.3	1.2	0.0	0.0	0.0
358	89-22	55.0	60.0	0.0	0.0	0.0	0.6	1.3	4.1	0.0	0.9	1.3	0.0	0.0	0.0
359	89-22	60.0	65.0	0.0	0.0	1.3	0.6	0.0	1.6	0.0	0.0	0.9	0.0	0.0	0.0
360	89-22	65.0	70.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.6	0.0	0.0	0.0
361	89-22	70.0	75.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	2.2	0.0	0.0	0.0
362	89-22	75.0	80.0	0.0	0.0	0.3	0.9	0.0	2.0	0.0	0.6	0.3	0.0	0.0	0.0
363	89-22	80.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
364	89-22	85.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
365	89-22	90.0	95.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	1.0	1.0	0.0	0.0	0.0
366	89-22	95.0	100.0	1.0	0.2	0.3	0.2	0.2	24.1	0.2	2.0	13.2	0.3	0.0	0.2
367	89-22	100.0	105.0	1.3	0.2	0.2	0.3	0.2	0.4	11.1	2.2	1.4	1.1	2.0	0.2
368	89-22	105.0	110.0	3.0	0.6	0.0	0.5	0.4	0.1	4.7	0.0	1.2	0.8	0.1	0.0
369	89-22	110.0	115.0	4.2	0.2	0.1	0.7	0.1	0.3	6.2	0.0	0.5	0.5	1.7	0.0
370	89-22	115.0	120.0	4.1	0.4	0.0	0.6	0.3	0.0	6.0	0.0	0.9	0.8	2.3	0.0
371	89-22	120.0	125.0	0.8	0.1	0.0	0.2	0.0	0.0	6.8	0.0	0.1	0.6	4.4	0.2
372	89-22	125.0	130.0	1.9	0.1	0.0	0.4	0.2	0.0	6.0	0.0	0.8	0.8	3.7	0.1
373	89-22	130.0	135.0	1.2	0.1	0.0	0.3	0.1	0.0	16.5	0.0	1.6	0.7	7.2	0.2
374	89-22	135.0	140.0	1.4	0.3	0.0	0.3	0.2	0.0	10.8	0.0	0.3	0.0	7.1	0.0
375	89-22	140.0	148.0	0.7	0.5	0.1	0.1	0.4	0.3	8.2	0.0	0.3	0.2	5.9	0.0
376	89-22	148.0	150.0	0.9	0.3	0.0	0.3	0.2	0.1	11.1	0.0	0.4	0.2	8.3	0.1
377	89-22	150.0	155.0	0.3	0.1	0.0	0.1	0.1	0.0	14.4	0.0	0.1	0.0	13.1	0.0
378	89-22	155.0	160.0	0.7	0.1	0.1	0.2	0.1	0.2	6.2	0.0	0.0	0.2	3.5	0.0
379	89-22	160.0	165.0	0.9	0.8	0.0	0.2	0.6	0.0	8.6	0.0	0.3	0.1	6.1	0.0
380	89-22	165.0	170.0	2.5	1.1	0.0	0.9	1.0	0.2	15.6	0.0	0.3	0.3	8.3	0.1
381	89-22	170.0	175.0	1.6	0.2	0.0	0.5	0.2	0.1	14.4	0.0	0.0	0.1	12.6	0.1
382	89-22	175.0	180.0	2.2	0.2	0.0	0.5	0.1	0.0	9.2	0.0	0.1	0.0	6.2	0.0
383	89-22	180.0	185.0	0.9	0.3	0.0	0.3	0.2	0.2	9.4	0.0	0.4	0.4	6.8	0.2
384	89-22	185.0	190.0	1.1	0.0	0.0	0.3	0.0	0.0	9.5	0.0	0.2	0.2	6.5	0.0
385	89-22	190.0	195.0	1.6	0.0	0.0	0.3	0.0	0.0	7.1	0.0	0.6	0.4	3.2	0.0
386	89-22	195.0	200.0	1.2	0.0	0.0	0.3	0.0	0.0	6.9	0.0	0.2	0.1	3.5	0.0
387	89-22	200.0	205.0	0.8	0.2	0.0	0.2	0.2	0.0	8.0	0.0	2.2	0.1	2.4	0.0
388	89-22	205.0	210.0	2.3	0.1	0.0	0.4	0.0	0.1	10.2	0.4	1.9	0.3	4.5	0.1
389	89-22	210.0	215.0	2.1	0.6	0.2	0.4	0.5	0.4	14.7	0.1	0.8	0.1	11.5	0.0
390	89-22	215.0	220.0	1.7	0.3	0.0	0.3	0.2	0.0	5.3	0.0	0.7	0.0	2.5	0.0
391	89-22	220.0	225.0	0.8	0.2	0.0	0.3	0.2	0.0	4.9	0.0	0.7	0.2	0.8	0.0
392	89-22	225.0	230.0	1.1	0.3	0.1	0.2	0.2	0.2	5.3	0.0	0.7	0.5	1.5	0.0
393	89-22	230.0	235.0	5.5	0.2	0.1	0.7	0.2	0.3	15.3	0.0	0.0	0.7	5.1	0.0
394	89-22	235.0	240.0	1.5	0.2	0.1	0.3	0.1	0.1	7.2	0.0	1.4	0.2	2.3	0.0
395	89-22	240.0	245.0	0.4	0.6	0.0	0.1	0.6	0.0	4.5	0.0	0.3	0.0	2.7	0.0
396	89-22	245.0	250.0	0.0	0.0	0.0	1.1	2.2	0.0	0.8	0.0	0.0	1.1	0.0	0.0
397	89-22	250.0	255.0	0.0	0.0	0.0	0.6	1.7	0.0	3.7	0.0	0.9	2.0	0.0	0.0
398	89-22	255.0	260.0	0.0	0.0	0.0	0.9	0.0	1.5	0.0	0.0	0.6	0.0	0.0	0.0
399	89-22	260.0	265.0	0.0	0.0	0.0	0.5	0.0	2.0	0.0	0.5	1.0	0.0	0.0	0.0
400	89-22	265.0	270.0	0.0	0.0	0.0	0.0	0.6	2.8	0.0	0.8	1.1	0.0	0.0	0.0
3153	89-22	270.0	275.0	0.0	0.0	0.0	3.0	0.0	0.0	10.0	0.0	0.9	4.5	0.0	0.0
3154	89-22	275.0	280.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1	0.0	1.3	8.2	0.0	0.0
3155	89-22	280.0	285.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.3	4.7	0.0	0.0

WEST ZONE - MT. RIOERAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - INTERGROWN WITH GARNET

SAMPLE	DRILL	FROM	TO	GAR>CAL	GAR=CAL	GAR<CAL	CAL>GAR	CAL=GAR	CAL<GAR	GARNET	EPIDOTE	ACTIN.	QUARTZ	DIOP.	APATITE	OPAQUE
#	HOLE	(ft)	(ft)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
3156	89-22	285.0	290.0	0.0	0.0	0.0	0.0	2.5	0.0	11.0	0.0	5.1	1.7	0.0	0.0	0.0
3157	89-22	290.0	295.0	0.0	0.0	0.0	0.3	1.3	0.0	7.2	0.0	0.6	3.8	0.0	0.0	0.0
3158	89-22	295.0	300.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	2.4	0.0	0.0	0.0
3159	89-22	300.0	305.0	0.0	0.0	0.0	0.0	0.6	0.0	7.4	0.0	0.0	3.0	0.0	0.0	0.0
3199	89-22	305.0	310.0	0.9	0.6	0.0	0.3	0.6	0.0	18.2	0.2	0.7	0.2	10.5	0.0	0.0
3200	89-22	310.0	315.0	1.0	0.3	0.0	0.3	0.3	0.0	10.0	0.0	1.6	0.3	5.1	0.0	0.0
11115	89-22	315.0	319.0	6.6	2.0	0.0	0.6	1.9	0.1	10.9	0.0	0.4	2.3	2.1	0.0	0.0
3160	89- 8	2.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.3	1.4	0.0	0.0	0.0
3161	89- 8	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	2.1	0.5	0.0	0.0	0.0
3162	89- 8	10.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	2.9	1.2	0.0	0.0	0.0
3163	89- 8	15.0	20.0	0.0	0.0	0.0	0.3	0.0	0.0	2.6	0.0	0.0	0.9	0.0	0.0	0.0
3164	89- 8	20.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	1.5	0.6	0.0	0.0	0.0
3165	89- 8	25.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.9	0.0	0.0	0.0
3166	89- 8	30.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3167	89- 8	35.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.3	0.0	0.0	0.0	0.0
3168	89- 8	40.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.6	0.6	0.0	0.0	0.0
3169	89- 8	45.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0
3170	89- 8	50.0	55.0	0.0	0.0	0.0	0.0	0.6	0.0	4.0	0.0	0.0	4.3	0.0	0.0	0.0
3171	89- 8	55.0	60.0	0.0	0.0	0.0	0.6	0.0	0.0	6.9	0.0	0.6	3.4	0.0	0.0	0.0
3172	89- 8	60.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.5	0.0	0.0	0.0
3173	89- 8	65.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.6	2.6	0.0	0.0	0.0
3174	89- 8	70.0	75.0	0.0	0.0	0.0	0.0	0.9	0.0	25.8	0.0	0.3	10.4	0.0	0.0	0.0
3175	89- 8	75.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	24.4	0.0	0.3	41.0	0.0	0.0	0.0
3178	89- 8	90.0	95.0	0.0	0.0	0.0	0.9	0.0	0.0	16.5	1.6	0.0	6.3	0.0	0.0	0.0
3179	89- 8	95.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	0.7	0.0	5.9	0.0	0.0	0.0
3180	89- 9	2.0	10.0	0.0	0.0	0.0	1.2	0.0	0.0	14.7	0.3	1.8	2.9	0.0	0.0	0.0
3181	89- 9	10.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	0.0	0.5	3.0	0.0	0.0	0.0
3182	89- 9	15.0	20.0	0.0	0.0	0.0	2.5	0.6	0.0	14.5	1.3	4.1	4.7	0.0	0.0	0.0
3183	89- 9	20.0	25.0	0.0	0.0	0.0	1.1	0.9	1.4	11.4	0.0	4.8	2.8	0.0	0.0	0.0
3184	89- 9	25.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	0.0	4.7	4.7	0.0	0.0	0.0
3185	89- 9	30.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.5	5.5	0.0	0.0	0.0
3186	89- 9	35.0	40.0	0.0	0.0	0.0	1.5	0.0	0.3	11.1	0.0	2.4	7.2	0.0	0.0	0.0
3187	89- 9	40.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	2.0	2.6	0.0	0.0	0.0
3188	89- 9	45.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	1.3	6.4	0.0	0.0	0.0
3189	89- 9	50.0	55.0	0.0	0.0	0.0	0.3	0.0	0.0	3.8	0.0	1.8	0.9	0.0	0.0	0.0
3190	89- 9	55.0	60.0	0.0	0.0	0.0	1.5	0.0	0.0	9.4	0.0	4.5	2.7	0.0	0.0	0.0
3191	89- 9	60.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8	0.0	1.4	4.2	0.0	0.0	0.0
3192	89- 9	65.0	70.0	0.0	0.0	0.0	0.6	0.0	0.0	6.3	0.0	0.9	2.0	0.0	0.0	0.0
3193	89- 9	70.0	75.0	0.0	0.0	0.0	3.5	2.1	0.0	3.2	0.0	0.0	0.9	0.0	0.0	0.0
3194	89- 9	75.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.3	0.6	0.0	0.0	0.0
3195	89- 9	80.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.8	0.6	0.0	0.0	0.0
3196	89- 9	85.0	90.0	0.0	0.0	0.0	0.6	1.2	0.0	9.9	0.0	4.0	4.6	0.0	0.0	0.0
3197	89- 9	90.0	95.0	0.0	0.0	0.0	0.6	0.0	0.0	6.4	0.0	2.7	2.1	0.0	0.0	0.0
3198	89- 9	95.0	100.0	0.0	0.0	0.0	0.0	0.0	0.3	4.4	0.3	0.3	1.3	0.0	0.0	0.0
11116	89-23	22.0	25.0	4.8	2.0	0.0	0.5	1.9	0.0	17.5	0.0	0.4	2.1	9.4	0.0	0.0
11117	89-23	25.0	30.0	4.7	0.6	0.1	0.5	0.6	0.3	15.1	0.0	2.1	2.1	5.8	0.0	0.0
11118	89-23	30.0	35.0	2.7	0.9	0.5	0.5	0.8	0.7	10.7	0.0	3.6	1.8	2.3	0.0	0.0
11119	89-23	35.0	40.0	1.3	1.9	0.3	0.3	1.9	0.8	14.0	0.0	1.9	0.8	5.4	0.0	0.0
11120	89-23	40.0	45.0	2.1	1.5	0.3	0.4	1.5	0.9	17.3	0.0	1.9	1.4	9.5	0.0	0.0

Page No. 4
04/30/90

WEST ZONE - MT. RIORDAN
DIAMOND DRILL HOLE SAMPLING PROGRAM
COARSE FRACTION (-14 TO +40 MESH) - INTERGROWN WITH GARNET

SAMPLE	DRILL	FROM	TO	GAR>CAL	GAB=CAL	GAR<CAL	CAL>GAB	CAL=GAB	CAL<GAR	GARNET	EPIDOTE	ACTIN.	QUARTZ	DIOP.	APATITE	OPAQUE
#	HOLE	(ft)	(ft)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
11121	89-23	45.0	50.0	0.1	1.0	0.2	0.0	1.0	0.4	19.1	0.0	1.1	1.2	10.2	0.1	0.1
11122	89-23	50.0	55.0	0.4	1.1	0.0	0.1	1.0	0.0	12.7	0.0	1.6	2.5	6.0	0.0	0.0
11123	89-23	55.0	60.0	1.4	0.6	0.0	0.3	0.5	0.0	14.0	0.0	2.0	1.5	2.6	0.0	0.0
11124	89-23	60.0	65.0	2.2	0.3	0.1	0.4	0.2	0.4	19.0	0.0	2.6	3.4	5.8	0.0	0.0
11125	89-23	65.0	70.0	0.4	0.8	0.0	0.1	0.7	0.0	4.5	0.0	2.0	1.5	0.0	0.0	0.0
11126	89-23	70.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	1.2	2.1	0.0	0.0	0.6
11127	89-23	75.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.4	1.5	0.0	0.0	1.2
11128	89-23	80.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.7	4.1	0.0	0.0	0.7
11129	89-23	85.0	90.0	0.5	0.8	0.5	0.2	0.8	1.5	7.6	0.3	2.7	0.0	2.3	0.0	0.0
11130	89-23	90.0	95.0	1.6	0.8	0.0	0.4	0.7	0.2	6.9	1.5	2.5	0.0	1.0	0.0	1.0
11131	89-23	95.0	100.0	3.0	0.5	0.0	0.6	0.4	0.0	10.9	0.0	1.0	0.7	6.4	0.2	0.0
11132	89-23	100.0	105.0	1.9	0.3	0.0	0.4	0.2	0.0	13.2	0.0	0.9	0.7	5.5	0.0	0.0
11133	89-23	105.0	110.0	0.2	0.6	0.2	0.0	0.6	0.3	14.8	0.5	0.2	0.2	5.0	0.0	0.0
11134	89-23	110.0	115.0	1.4	1.2	0.8	0.3	1.2	1.6	11.9	1.0	0.3	1.3	5.1	0.0	0.0
11135	89-23	115.0	120.0	1.6	0.6	0.0	0.4	0.5	0.0	15.0	0.2	1.2	0.5	8.6	0.0	0.0
11136	89-23	120.0	130.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	1.4	2.2	0.7	3.9	0.0	0.0

APPENDIX V

Results of Heavy Liquid Separation

SAMPLE HOLE	FROM	TO	CRYSTAL PEAK GARNET - RESULTS OF HEAVY LIQUID SEPARATION															
			COARSE FRACTION -14 +40 MESH						FINE FRACTION -40 MESH									
			SG>2.9	2.9<SG<3.6	SG>3.6	MAG	NON MAG	NON MAG	SG	CACO3	SG>2.9	2.9<SG<3.6	SG>3.6	MAG	NON MAG	NON MAG	SG	CACO3
			%	%	%	%	%	%			%	%	%	%	%	%	%	%
256 89- 3	4.0	9.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
257 89- 3	9.0	14.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
258 89- 3	14.0	19.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
259 89- 3	19.0	24.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
260 89- 3	24.0	29.0	98.55	17.35	81.20						46.88		8.72	38.16	0.00	0.00	0.00	0.00
261 89- 3	29.0	34.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
262 89- 3	34.0	39.0	99.64	44.2	55.44	0.00	100.00	0.01	3.61	1.10	93.27		18.56	74.71	2.00	99.98	4.00	3.66
263 89- 3	39.0	44.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
264 89- 3	44.0	49.0	98.52	2.76	95.76						79.81		5.27	74.54	0.00	0.00	0.00	0.00
265 89- 3	49.0	54.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
266 89- 3	54.0	59.0	93.47	2.99	90.48	0.00	0.00	0.00	3.85	0.55	51.74		6.93	44.81	0.00	0.00	0.00	3.73
267 89- 3	59.0	64.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
268 89- 3	64.0	69.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
269 89- 3	69.0	74.0	98.31	39.19	59.12	0.00	100.00	0.01	3.98	0.05	93.49		15.29	78.20	0.10	99.90	0.03	3.70
270 89- 3	74.0	79.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
271 89- 3	79.0	84.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
272 89- 3	84.0	89.0	92.72	6.3	86.42						62.86		8.42	54.44	0.00	0.00	0.00	0.00
273 89- 3	89.0	94.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
274 89- 3	94.0	99.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
275 89- 3	99.0	103.0	98.29	14.15	84.14	1.52	98.48	0.02	3.70	1.10	90.76		9.78	80.98	1.34	98.66	0.05	3.85
276 89- 3	103.0	108.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
277 89- 3	108.0	112.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
278 89- 3	116.0	120.0	28.01	11.04	16.97						23.79		9.71	14.08	0.00	0.00	0.00	0.00
279 89- 4	5.0	10.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
280 89- 4	10.0	15.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
281 89- 4	15.0	20.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
282 89- 4	20.0	25.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
283 89- 4	25.0	30.0	98.80	4.14	94.66						59.58		9.06	50.52	0.00	0.00	0.00	0.00
284 89- 4	30.0	35.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
285 89- 4	35.0	40.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
286 89- 4	40.0	45.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
287 89- 4	45.0	50.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
288 89- 4	50.0	55.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
289 89- 4	55.0	60.0	99.32	19.47	79.85	0.00	0.00	0.00	3.61	1.10	74.70		25.55	49.15	0.00	0.00	0.00	3.63
290 89- 4	60.0	65.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
291 89- 4	65.0	70.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
292 89- 4	70.0	75.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
293 89- 4	75.0	80.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
294 89- 4	80.0	85.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
295 89- 4	85.0	90.0	98.62	5.13	93.49						83.34		22.35	60.99	0.00	0.00	0.00	0.00
296 89- 4	90.0	95.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
297 89- 4	95.0	100.0	98.96	6.14	92.82						87.07		21.25	65.82	0.00	0.00	0.00	0.00
298 89-22	5.0	10.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
299 89-22	10.0	15.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00
300 89-22	15.0	20.0	0.00		0	0.00					0.00		0	0.00	0.00	0.00	0.00	0.00

APPENDIX VI
Statement of Qualifications

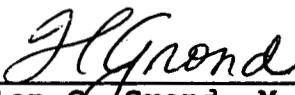
STATEMENT OF QUALIFICATIONS

I, Helen C. Grond of the City of Vancouver, Province of British Columbia, hereby certify that:

1. I am a geologist residing at 2729 Yale Street, in the City of Vancouver, Province of British Columbia.
2. I obtained a Bachelor of Science degree in Geology from the University of British Columbia in 1980, and A Master of Science degree in Geology from the same University in 1982.
3. I am a Fellow, in good standing, of the Geological Association of Canada.
4. I have been practising my profession as a geologist in Canada and the United States seasonally since 1978 and permanently since 1982.
5. I am currently employed by Polestar Exploration Inc.

Dated in Vancouver, British Columbia, this 31 day of April, 1990.

SIGNED:



Helen C. Grond, M.Sc., F.G.A.C.

STATEMENT OF QUALIFICATIONS

I Robert Wolfe, of Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer with an office at 2326 West 21 Avenue, Vancouver, B.C.
2. I am a graduate of the University of Alberta with a B.Sc. degree in Physics and Geology. I also took an extra year of Geology at the University of British Columbia.
3. I have practised my profession since 1964, while being employed by such companies as Kennco (Western) Exploration, Meridian Exploration Syndicate, (Canex Aerial Exploration Ltd., Noranda Mines Ltd., Home Oil Co.), Orequest Syndicate (Granby Mining Co., Home Oil Co., Homestake Silver Mines). I have been in private independent practice since 1968.
4. I have been a member in good standing of the Association of Professional Engineers of the Province of British Columbia since 1967 and the Association of Professional Engineers of Yukon Territory since 1972.
5. I am a director and officer of Polestar Exploration Inc.



Robert Wolfe, P. Eng.
April, 1990

APPENDIX VII
Statement of Costs

STATEMENT OF COSTS

**Polestar Exploration Inc.
Crystal Peak Property**

Field Work Period: Aug. 1 - Nov. 15, 1989

Field Salaries

R. Wolfe, Project Manager, 90 days @ \$400/day	\$ 36,000
H. Grond, Geologist 90 days @ \$200/day	\$ 18,000

Project Expenses

Diamond Drilling	\$111,000
Thin Section Analysis	\$ 75,000
	<hr/> \$240,000